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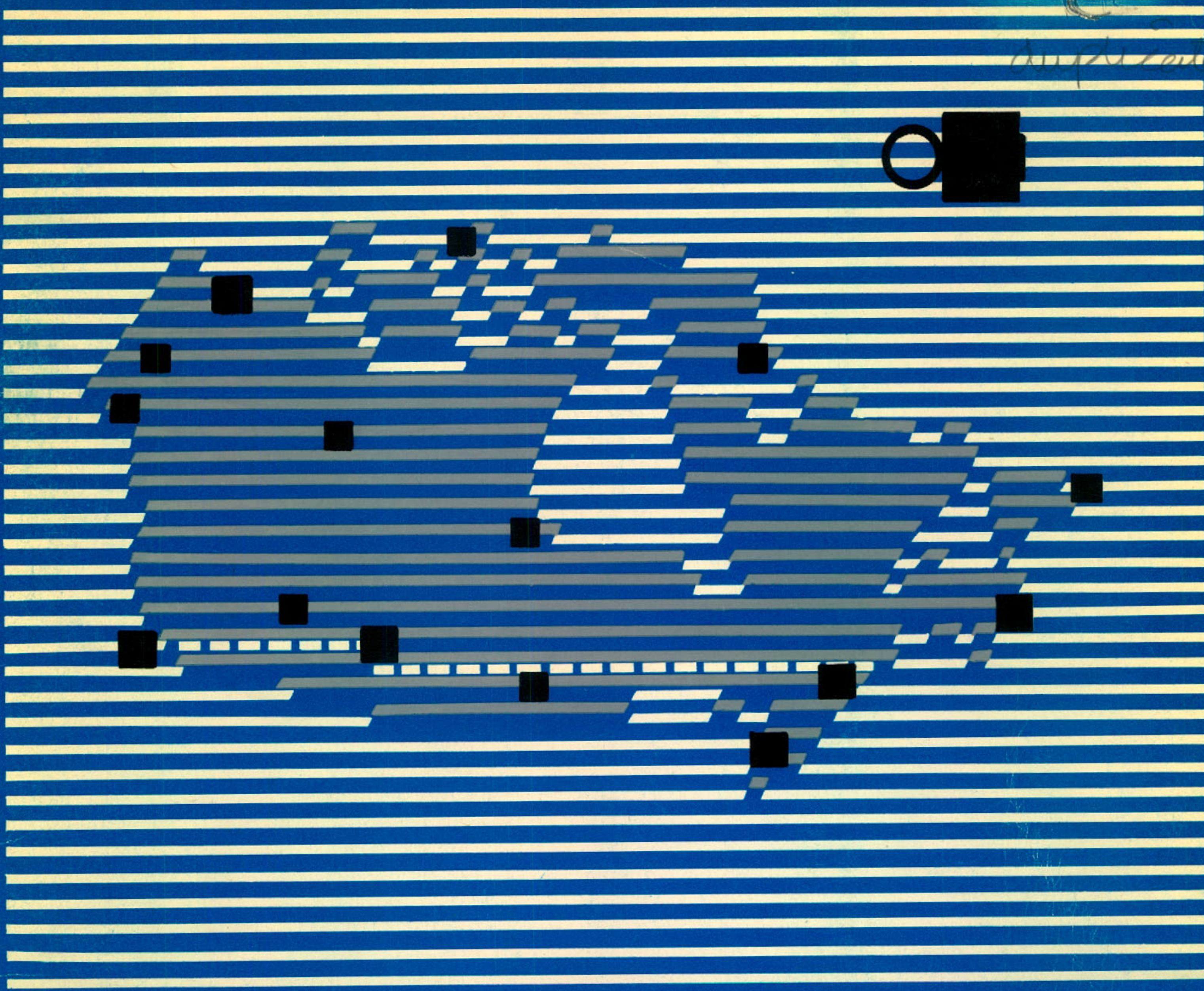
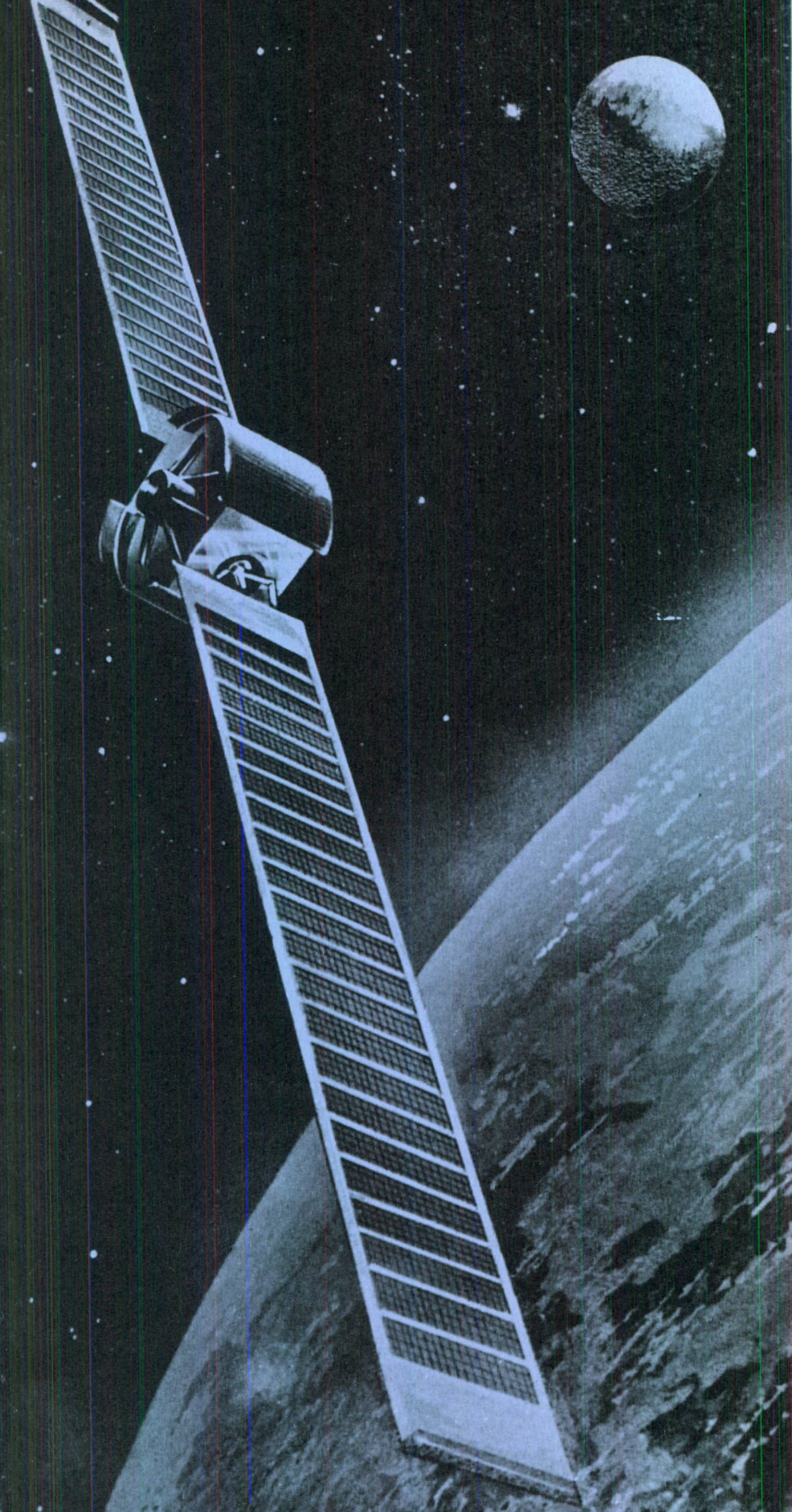


REVIEW 1972

CANADIAN ECONOMY AND EQUITY MARKET

TORONTO STOCK EXCHANGE



COVER DESIGN: Walter Ganszer

The cover design attempts to depict in graphic and symbolic terms consonant with the feature article on transportation and communications, the importance of these industries in the Canadian context. The size of the Canadian land mass, the unique unifying effect of our transportation and communications system in the light of technological change are the features highlighted.

Inside flap: Cassiar Transport Division tractor trailer units delivering asbestos on Alaska Highway to White Pass and Yukon Route.

Opposite: The Communications Technology Satellite, a joint Canadian/U.S. project in which Spar Aerospace Products Ltd. is involved.

The Toronto Stock Exchange 1972 Annual Review of the Canadian Economy and Equity Market

234 Bay St.
Toronto, Canada
M5J 1R1

February 1973

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The Canadian Economy in Action

The Canadian economy entered 1972 tracing an expansionary course. The revival of U.S. economic fortunes, the continued buoyancy of consumer expenditures and house-building activity in Canada, as well as the tentative international monetary stability emanating from the Smithsonian agreement, were the main positive factors influencing a more broadly-based recovery.

At the same time, the failure of business capital spending to return to desirable levels accompanied by the seemingly intractable problem of high unemployment were continuing negative factors. There was also the unresolved twin question of the floating Canadian dollar and future trade relations between Canada and the United States.

The anticipation of a Federal Election in Canada, and the November U.S. Presidential Election further complicated the general outlook.

Performance

Canada's economic performance in 1972 was characterised by the broader impact of the continuing recovery from the doldrums of 1970.

Preliminary estimates suggest that G.N.P. rose by some 10% at market prices and by 5.5% in volume terms. The index of Real Domestic Product, the other measure of national output, supported the trends revealed by the G.N.P. indicator and pointed to the areas of strength.

Industrial production advanced 6% over 1971, with steel and motor vehicle output achieving annual records. The electrical products' industry enjoyed significant gains while the forest products' industry showed substantial recovery. Mining production, reinforced in particular by the output of non-metallic minerals and mineral fuels, remained at high levels throughout the year. Construction activity reached new heights, reflecting another annual record for the house-building industry which embarked on some 249,914 housing starts during the year compared with 233,600 in 1971.

Yet despite this relatively impressive performance, over 6% of the labour force on a seasonally-adjusted basis were unemployed for most of the year. Indeed, the strong growth in the numbers employed has hardly matched the new additions to the labour force.

Meanwhile, personal disposable incomes have been rising at an annual rate in excess of 9% reflecting the continuing high wage and salary settlements. This, in turn, has spurred consumer spending which has been perhaps the most dynamic component of the business expansion of the last two years.

The buoyancy of consumer expenditures is seen in the level of retail sales which in 1972 exceeded the 1971 level by some 11%. The strength of consumer demand was concentrated in consumer durables and motor vehicles, but some of this increase must be attributed to the higher food prices paid in 1972. At the same time, this growth in domestic consumption has led to a rapid increase in imports.

During the year, the consumer price index rose 4.8% but much of this resulted from the volatile food index which was greatly influenced by unfavourable weather conditions. Excluding food, the index rose 3.7% while food prices were 7.6% higher than in 1971.

The moderate growth in the prices of non-food items indicate to some degree the productivity gains enjoyed during 1972. Despite the generous wage and salary settlements, unit labour costs of non-farm production rose by some 5% while profits per unit increased even more rapidly. In fact, corporate profits for the year were some 20% higher than in 1971.

With rising productivity and capacity not yet fully utilized, business capital spending though moderately higher than in 1971, remained fairly subdued throughout the year. In addition, there was little evidence of significant increases in the rate of business inventory accumulation.

Agricultural output declined in 1972 largely as a result of inclement weather. Nevertheless, farm cash receipts increased appreciably as the prices of major farm products rose significantly. The higher wheat prices and the revival of wheat exports contributed to the higher cash receipts.

Towards the year end, there was an encouraging acceleration of exports which suggested that greater stimulus may be derived from external sources in the year ahead.

The Economic Challenge and Federal Government Policy

The challenges facing the new Federal Finance Minister early in 1972 were clearly evident. An economic strategy was needed to reduce the high rate of unemployment. At the same time, some attempt had to be made to preserve reasonable price stability. Meanwhile, there was very little impetus to be derived from business capital spending and the floating Canadian dollar could not be allowed to appreciate to such levels as would be detrimental to the export-based industries. Furthermore, the degree of stimulus to be expected from external sources was highly conjectural. The increase in the labour force offered little encouragement. Indeed, the Canadian labour force was experiencing the most rapid growth of all the major industrialised countries. It was in this context that fiscal and monetary policy for 1972 was formulated.

Fiscal Policy

With business capital spending continuing as the weakest component of the revival of the last two years, most of the stimulus contained in the budget brought down in May sought to eliminate this sluggishness. Particular encouragement was given to the expansion of manufacturing and processing industry in Canada.

This budget for 1972-1973 provided for a reduction in corporate tax, from 49% to 40%, for manufacturing and processing industry effective from the 1st January 1973. In addition to take immediate effect, manufacturing and processing industry was permitted to depreciate machinery and equipment over a two-year period, while research equipment used by manufacturers was made exempt from the 12% federal sales tax. For the mining industry, earned depletion was broadened to include equipment for processing ore.

Indeed, these measures indicated the Government's concern over the weakness of business capital spending, but some of these measures must be regarded as an attempt to offset the possible negative impact of the "Domestic International Sales Corporation" (DISC) legislation enacted earlier by the United States.

The budget also provided for increased old age security pensions and widened the categories of personal tax exemptions for some individuals.

Effectively, this budget characterised fiscal policy for the year, strengthening the incentives given in the two previous fiscal years. Yet, because of the time lag between the implementation of measures and their final effect, any revival of business capital spending will be seen in 1973.

Unemployment still remains a major problem for Canada's policy-makers, and the question that may be appropriately raised is whether the measures taken, largely aimed at manufacturing industry, were the most suitable. Employment has, of course, increased rapidly, but most of the new jobs have come from the service-producing rather than the manufacturing industries.

Altogether, fiscal policy during calendar 1972 must be regarded as cautiously expansive. For most of the year, there was a net budgetary surplus. In fact, this might have been expedient in view of the strength of the monetary expansion, but the present budgetary trends give the Government some opportunity for further fiscal incentive.

Monetary Policy

Monetary policy in 1972 sought to achieve two relatively compatible objectives — to spur economic expansion for employment reasons and to inhibit the floating Canadian dollar from appreciating too far. Thus, an acceleration in the growth of the money supply would have the twin effect of stimulating economic activity at home while the resultant downward pressure on interest rates would discourage short-term capital inflows from strengthening the floating Canadian dollar.

With these broad objectives in mind, the Bank of Canada's policies for 1972 can be seen in two distinct phases. In the first half of the year as the Canadian dollar edged upwards, the broadly-defined money supply grew at a phenomenal 18% at seasonally-adjusted annual rates while the economy was growing at an annual rate of only 10%.

At this point, the Bank no doubt fearful of rekindling inflationary pressures reversed this trend by the Winnipeg Accord of the 12th June which limited interest rates that the chartered banks could pay on term deposits. Since then, bank lending has levelled off and the growth in the money supply fell back to about 6% a year, while the external value of the Canadian dollar assumed a greater degree of stability at virtual parity with the U.S. dollar.

The moderation in the growth of the money supply in the latter half of the year was also assisted by the successful distribution of the Canada Savings Bonds issued in November.

The combined impact of the Winnipeg Agreement, the rapid growth in the money supply until June and the adequacy of Federal government revenues was seen in the second half of the year in short-term interest rates. The yield on 91 day Federal Treasury bills reached a year's high of 3.73% in May, eased to 3.46% by July and edged up slowly thereafter. However, for most of the year, these rates remained lower than in the United States.

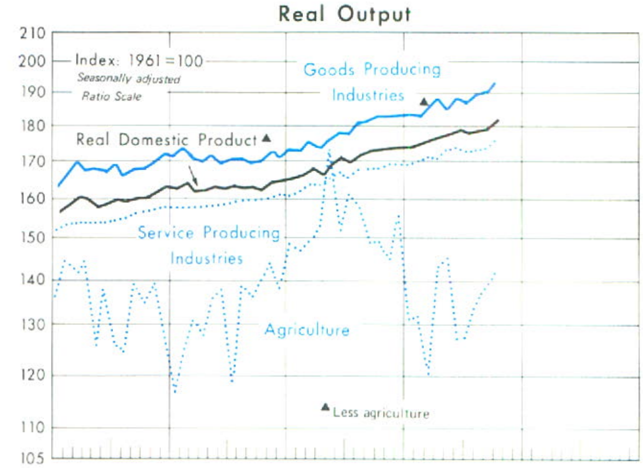
With Canadian short-term interest rates below U.S. levels, upward pressure on the Canadian dollar from capital inflows have diminished considerably. Meanwhile, the Federal Government's revenues have been rising and this has reduced the need for vigorous monetary expansion. In these circumstances, the Bank of Canada has concentrated appropriately more on price stability during the latter part of the year.

Canadian International Trade

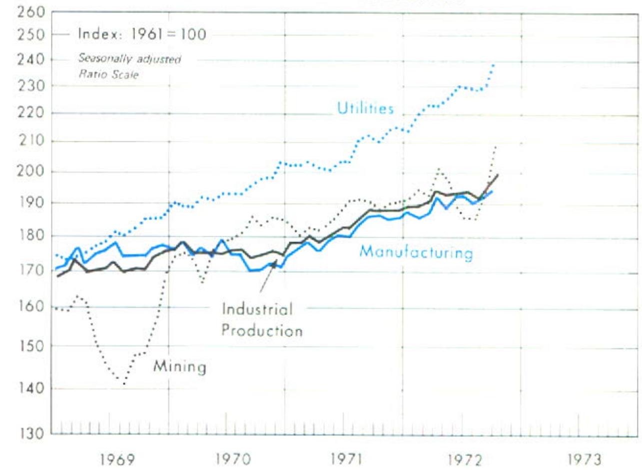
External trade in 1972 largely reflected the strength and the degree of economic recovery experienced by both Canada and its major trading partners. The relative stability of the floating Canadian dollar, the vigorous revival of the North American economies, the higher level of industrial activity in Europe and Japan apparent in the latter part of the year, stimulated both imports and exports despite the inhibiting influence of the impending trade negotiations between Canada and its most important single trading partner, the United States.

Production

Real Output

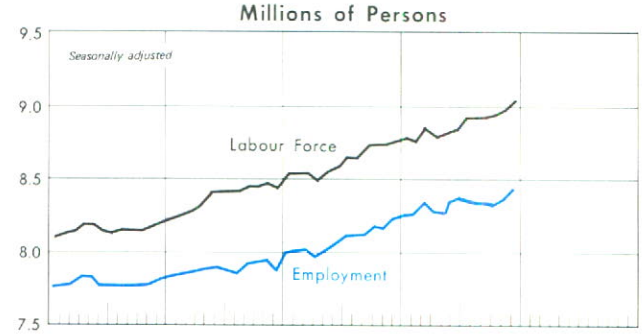


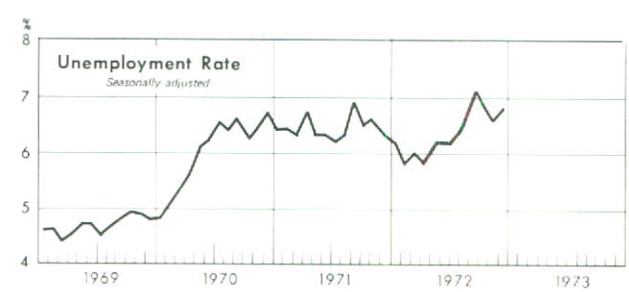
Industrial Production



Labour Force & Employment

Millions of Persons





With domestic consumption at high levels, it was hardly surprising that imports grew at a rapid rate. During 1972, merchandise imports were valued at $18.7 billion or 20% more than in the previous year, with major increases being registered in the imports of automotive products, industrial machinery, communications equipment, crude petroleum and food.

The United States continued to be the main source of Canadian imports accounting for 69% of total imports or $12.9 billion, 18% more than in 1971. Shipments from the European Economic Community countries, Japan, and the United Kingdom also reached higher levels and were worth, respectively, 23%, 37%, and 13% more than in the previous year.

Exports, unlike imports, grew at an uneven pace throughout the year. This could be partly explained by the Vancouver dock strike in the third quarter, but the belated surge in shipments to Japan and Europe might have been a more important factor. Altogether exports for 1972 were valued at $19.9 billion, an increase of 12% or $2.2 billion over 1971.

The United States whose recovery became more noticeable early in the year, remained the biggest market for Canadian exports. Shipments to the United States were valued at $13.9 billion, 16% higher than in 1971. Furthermore, exports to Japan increased by $130 million or 16%, and to Latin America by 8% or $48 million. These gains offset the declines in shipments to the United Kingdom of $49 million, and to other Commonwealth countries of $72 million. In any event, towards the end of 1972, there was a distinct strengthening, after two years of comparative sluggishness, of exports to these countries.

Significant annual gains in export sales were recorded in motor vehicle parts and engines, lumber, crude petroleum, aircraft parts, and natural gas. These compensated for declines in nickel, fabricated aluminum, industrial machinery, rapeseed and telecommunication equipment.

The recovery of export sales of forest products was particularly encouraging. Consistent with the higher level of construction activity especially in the United States, lumber shipments were worth $110 million, 61% more than in 1971. Woodpulp shipments also increased and were valued at 14% more than a year ago. Higher export demands also provided much needed stimulus to the new linerboard ventures in the Atlantic Provinces which have begun to show greater viability.

The failure of the grain crop in the Soviet Union, accompanied by poor harvests in China and India, has resulted in a world grain shortage and higher grain prices. Canadian wheat-growers have therefore benefitted from the boom in grain shipments and stocks have been run down to their lowest level in recent years.

Altogether, with imports growing at much faster rates than exports during 1972, the surplus on merchandise trade narrowed considerably resulting in an overall current account deficit of $666 million.

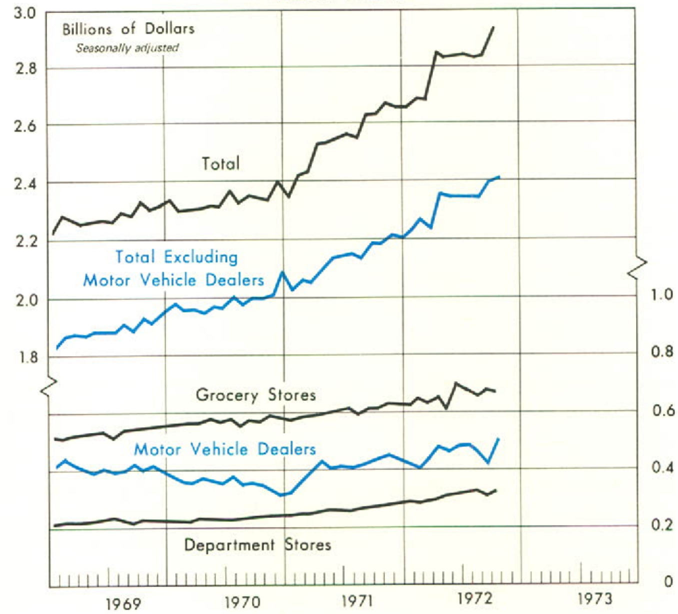
As to the future, profound changes have occurred recently in the international trading environment with direct effects on Canada's trading prospects. The importance of this is emphasised by the fact that exports make up over 20% of Canada's G.N.P.

These changes were recognised in late 1971 when the Smithsonian Agreement resulted in a major realignment of currencies. Since then, however, the questions of the appropriate external value of the Canadian dollar and future trade relations with the United States have remained unresolved. Meanwhile, the accession of the United Kingdom to membership of the European Economic Community cannot but be viewed as a negative factor for Canada's trade in the short-run.

Nevertheless, the unsettled trade differences with the United States remain a problem of paramount importance to Canada.

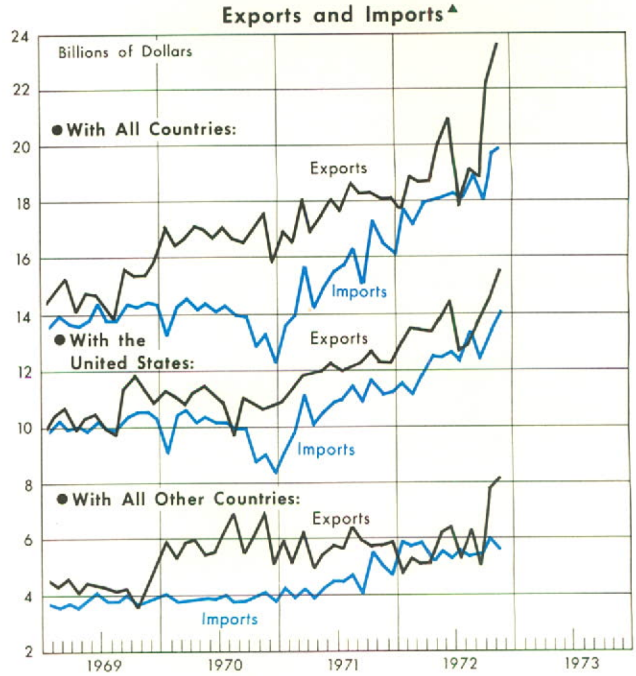
Consumer Spending

Retail Trade



Trade

Exports and Imports▲



▲Seasonally adjusted, annual rates.

The election of a minority federal government intensifies concern over the eventual outcome of these vital trade negotiations. At the same time, the upward revision of tariffs on several Canadian goods entering the United States have been suggestive of a growing protectionist attitude on the part of the United States. Effectively, in these circumstances, these unresolved questions constitute a grave source of uncertainty.

Preparing For The Next Decade

Faced with the immediate problem of high unemployment and the question of future relations with the United States, Canadian policy-makers began to prepare the economic groundwork for longer-term development. Such longer-term goals envisaged included the control of foreign investment in Canada, the development of the Canadian North, and environmental improvement.

The questions of foreign investment in Canada and the role of non-Canadian based corporations in Canadian development were raised in a Federal Government Publication entitled "Foreign Direct Investment In Canada" (the Gray Report). This was followed by the proposal in June of the Foreign Takeovers Review Bill which would have given the Federal Government the authority to forbid the take-over of Canadian-owned companies by non-residents.

The Bill was not passed in the last Parliament. Similar legislation has been introduced during the present Parliamentary session. This new Bill is somewhat wider than its predecessor in that it includes not only takeovers but the establishment of new non-resident enterprises and the diversification of existing non-resident firms.

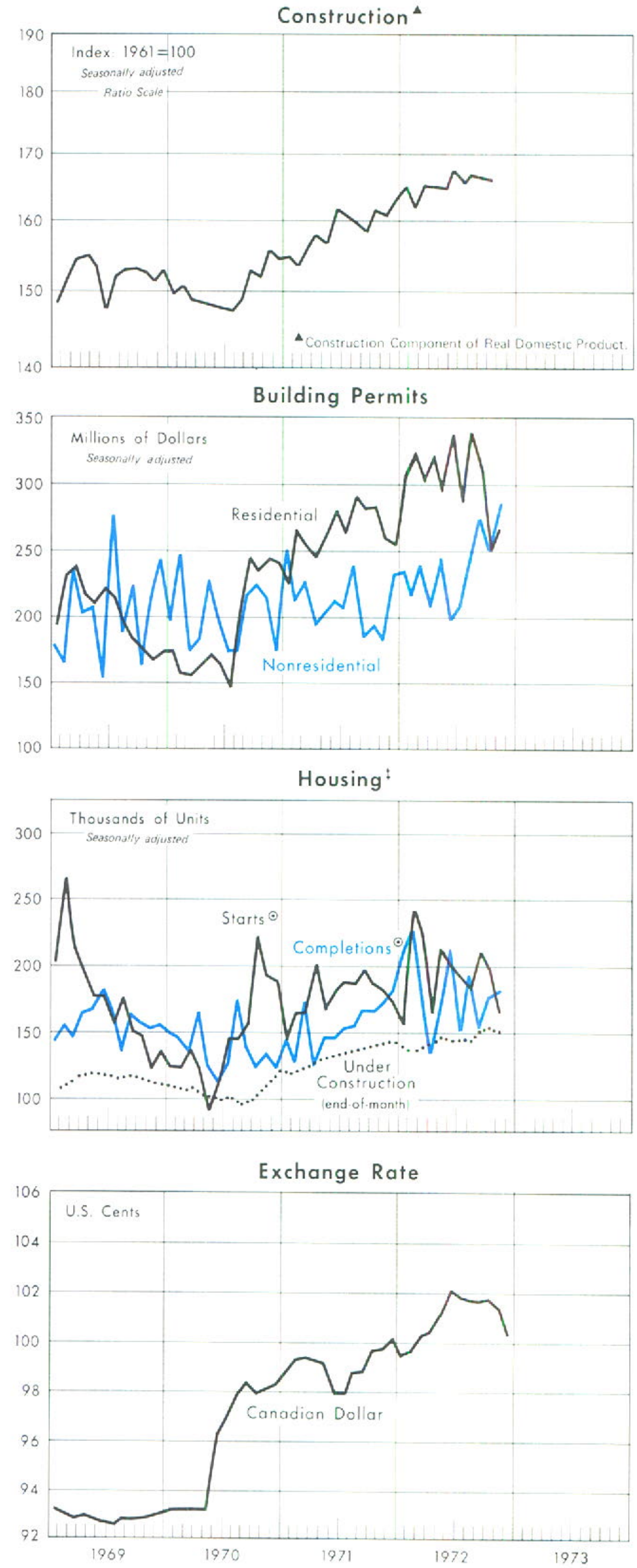
The development of the Canadian North also featured prominently in public debate during the year. For some years now investment activity in Northern Canada has been confined to general exploration for mineral resources. Spurred by fears of an energy shortage in North America and significant discoveries of oil and gas reserves on the Alaskan north slope, interest in oil and gas exploration in the adjoining Canadian North has risen dramatically over recent years. With major discoveries of oil and gas having been made, various studies and proposals on Northern Development have ensued. One research body, the Gas Arctic-Northwest Project Study Group, financed by a number of companies involved in the oil and gas industries has been working on the feasibility of a pipeline system to transport northern gas to southern markets. Related to these developments has been the proposal in 1972 by the Federal Government to spend $10 billion over the next decade on the institution of a northern transportation system. Included in these plans are a Mackenzie Valley corridor incorporating both oil and gas pipelines, an all-weather highway, as well as airport and harbour installations.

Greater concern over environmental problems continued to be shown and perhaps the most important development on this front in 1972 was the signing of an agreement in April between Canada and the United States to clear the Great Lakes of pollutants.

Regional development policies continued to be supported by generous Federal financial incentives during 1972, but the recent imposition by the United States of a tariff on the Michelin tires produced in Nova Scotia raises serious questions regarding the future of these policies. The viability of many of these industries located in the regionally depressed areas largely depends on their abilities to export to foreign markets of which the United States is the most important.

During 1972, the challenges of the next decade became more distinct and Canadians seemed more aware of the options available to them in meeting these challenges.

Investment



‡ In centres of 10,000 and over. ⊙ Annual rates.
* Percentage change from same month a year earlier.
Sources: Statistics Canada; The Conference Board in Canada.

CHARTS: Courtesy of the National Industrial Conference Board in Canada.
DATA: Statistics Canada — seasonally adjusted data.

For some years now, The Toronto Stock Exchange has been sponsoring articles on topics of general interest in the Exchange's Annual Reviews. In these papers, the authors freely express their views which are not necessarily shared by the Exchange.

The Exchange regards the publication of such papers as a public service aimed at stimulating public thinking and discussion.

In this year's feature article, Professor L. Waverman gives his own analysis of current developments as well as some critical perspective of the important transportation and communications sectors over the last hundred years.

In evaluating the experience of past regulatory policies in these two sectors, Professor Waverman feels that some lessons can be learned for future application, especially the dichotomy between political objectives, or National Policy, and economic efficiency. With this in mind, he assesses the current telecommunications revolution — both computer and satellite — as well as the Northern pipeline proposals and makes some suggestions for future policy.

Leonard Waverman received his B. Com. and M.A. degrees from the University of Toronto and his Ph.D. from the Massachussetts Institute of Technology. At present, he is assistant professor of economics at the University of Toronto and research associate at the Institute for Policy Analysis.

His teaching and research interests are in industrial organization, energy problems and public utilities. Professor Waverman is a member of the Canadian Economics Association, American Economics Association and the Econometric Society.

He has published numerous articles in the general areas of communications and energy policy. His latest work: **Natural Gas and National Policy: A Linear Programming Model of North American Natural Gas Flows** will be published by the University of Toronto Press in a few weeks.

Transportation and Communications in the Seventies

Introduction

The importance of transportation and communications is generally apparent in our day to day activities. One measure of the importance of these sectors is the real domestic product originating in transport and communications. In 1971, real domestic product originating in transportation and related activities (transportation equipment, gasoline, iron and steel) amounted to nearly 12% of GNP. In the same year the real domestic product originating in the communications sector (telephone, telegraph and cable, broadcasting and communications equipment) was over 3% of GNP. The growth rate of these two sectors is greater than the growth rate of real domestic product itself. During the 1960's, RDP grew at 7% per year while the real value of the transportation sector grew at 8.2% per year and the communications sector at 7.5% per year.

Another way of examining the importance of these sectors is to measure what proportion of their individual expenditures consumers made on transportation activities. Recent evidence indicates that individuals spend over 15% of their annual budget on transportation. In fact, if the transportation and communications content of all the products consumed by individuals were included, these two sectors would account for some 20% of consumers' budgets. These percentages are indeed impressive and they emphasise the significance of these two sectors in national economic activity.

The importance of these two industries has at times been attributed to their necessity in day to day operations. It is however difficult to conceive of transport and communications as being more "necessary" than other industries such as food, clothing or housing — industries that are not necessarily regulated in the same way as transport and communications.

The size of our country and its geography relevant to transportation and communications cannot be over-emphasised — vast size, low density of population mainly spread in a thin line of habitation within 80 miles of the United States border, climate, mountains, and the Pre-Cambrian Shield. Important though these considerations may be, government nonetheless appears overly obsessed with transportation and communications.

This is quite understandable. Transportation and communications are important ingredients in a country's development for they allow territory to be controlled; they create a hinterland; they link unsettled lands to the major cities of the day. If the importance of these factors is appreciated, the developments of the 70's, — the 1870's and 1970's — will become clearer.

There are a number of analogies and contrasts between transportation and communications in the 1870's and the 1970's. First the similarities: In the 1870's, transcontinental railroads were built in order to connect the Maritimes, the Prairies and Pacific Coast regions to the major cities on the Great Lakes. The reasons were economic (to acquire the export trade which would otherwise go to eastern American ports) and political (to build a unified country). In the 1970's many of the proposed communications and transportation projects are intended to join the north to the major cities on the Great Lakes. Again the reasons are political — to exert Federal influence (the all-weather northern highway, Telesat) and economic (the MacKenzie Delta gas and oil pipelines). Another parallel between these two periods is the extent of government control of investments and even government's direct participation. In both periods, private companies acting alone are not considered as maximizing society's interest and thus the government controls much of the development. The differences between 1970 and 1870 are however important. In the earlier period, transportation routes were the **means** of communications. One major reason for establishing canals, roads and rail was to be able to communicate easier with distant territories. Communications simply meant control. In 1872, communications and transportation were complements, communications could not take place without the building of a transportation link. Early in this century, communications and transportation became separate. The development of radio, telephones, television and a satellite meant that communications developments could take place apart from changes in the transportation network.

The logical conclusion of this process of development will no doubt be witnessed in the 1970's. Rather than being a complement to transportation (and following only when a new transportation link is built), or separable from transportation, communications will become a substitute for transportation. The notion of the wired city, a city where all activities including shopping, banking and work take place in the home, postulates the substitutability of communications for transportation. Given this technology, it would seem redundant to spend billions of dollars developing 16 lane modes designed to transport a man in a car from his home to his place of work when these modes destroy the city and its environment. More sensible, would be investment in 6-foot lanes for communications cable which transport a man's ideas from his home to his place of work with little side effects on the environment (but profound effects on society). Transportation and communications are after all, really substitutes for each other. This is not said in the trite sense of transporting a letter rather than communicating a telephone call, but in the real sense that many every day activities can take place in a fixed location by using communicating devices or by maintaining fixed communications and changing our location.

Two major forms of developments are therefore to be expected in the 1970's — integrating the north into our political and economic life by building new transportation and communications links and the beginning of a trend of substituting communications investments for transportation in our major southern urban centres. As with communications and transport developments of the past the government will play an essential role.

The prospects for communications and transportation developments in the 70's can then be viewed as attempts by developed cities (Ottawa, Toronto, Montreal) to bring areas of new and increasing importance into their hinterland. This will be true of the 1970's as it was of the 1870's. The scenario for the 1970's has to be played against a backdrop which includes western provinces attempting to capture the hinterland (British Columbia and its railway); the hunger for energy in the United States and thus the growing importance of Alberta; and the presence of multinational firms, balance of payments fears; identity crises, minority governments and the new technology. The setting for the 1970's may be very analogous to the scenario played one hundred years ago, the actors have changed as has GNP and technology, yet the story may roll on.

The purpose of this paper is to examine some of the new developments which are taking place in this decade. Transportation and communications are such broad areas that many facets of this topic which themselves could be subjects of separate papers will be ignored and rarely mentioned — radio and television, broadcasting, cable T.V., air and water transportation. Attention will be focussed on a few of the more obvious if not the more important developments — northern pipelines, satellites, and communications. If, however, the stages of development over the last hundred years are assessed, the analysis of the effects of the projects to be undertaken, will become more meaningful.

The 1870's

TRANSPORTATION

Before the construction of the Erie canal in 1825, Montreal eclipsed New York as a major port since communications and transportation were easier (less costly) through Montreal. The completion of this Erie canal ended the early dominance of Montreal. It was this control of our lands to the west that we have attempted to capture through the construction of the canals in the 1830's and 1840's, the completion of transcontinental railroads between 1870 and 1930, and the microwave networks of the recent postwar period. Likewise the satellite and the proposed northern pipelines and highways are designed to establish federal jurisdiction economically and politically over lands lying to the north.

In 1870, Canada was not a nation but a collection of independent regions. MacDonald realized that the political union necessitated a physical link from coast to coast. The complexity of constructing transcontinental railroads through unsurveyed and uninhabited territory, over mountains and around lakes frustrated prospective developers for several decades. It was not until 1880, that the Canadian Pacific railroad was granted a charter and a number of subsidies — $25,000,000 in cash, 18 million acres of land, $40,000,000, worth of government constructed and financed lines, certain tax benefits, monopoly provisions, and state-guaranteed bond financing during financial crises.

From 1886 until the early 1900's the CPR was the only transcontinental railroad in Canada. As early as 1888 however, the federal government had dropped the monopoly provisions in the CPR charter, mainly on the insistence of the Prairie Provinces. Transcontinental competition with the CPR began to arise in the second decade of this century. The Canadian Northern Railway was built on the desire to compete with the CPR for prairie grain exports. In 1914, a third transcontinental line, the Grand Trunk also began operations. Both the Canadian Northern and the Grand Trunk had been aided in their financing by various provincial and federal authorities. Canada in 1915 had three transcontinental railroads, two of which (Canadian Northern and the Grand Trunk) faced grave problems in 1916. In 1923 the Canadian government became owners of the Canadian National Railway, the merged line of these two latter companies. The CPR, too, soon found itself in financial trouble. It was at this point that the two remaining lines agreed on various means of reducing competition in 1931, as they were to do again in the 1950's.

NATIONAL POLICY AND THE RAILROADS

The railways were not constructed so as to minimize transport costs in Canada. Their construction, operation and rates were creatures of a National Policy which had different goals from efficiency in mind. To say then, that the railroads were inefficient and are inefficient and discriminate in price is only to recognize the political grounds of the lines. The railroads were designated from the beginning as common carriers. They were legally obliged to carry all customers under reasonable terms. Tariffs had also to be published. These two requirements resulted in a set of tables based on type of customer and mileage which yielded an overall profit. The tariff schedules therefore had to be easy to understand, easy to compile and could not be changed frequently because of the cost to the railroads. The rates charged centered on one characteristic which railroad managers felt no customer could complain about — the reasonableness of rates as determined by the value of the transport service to the customer. Thus high-value, low-bulk commodities travelling short distances paid the highest price per ton mile. Low-value, high-bulk commodities transported over long distances paid the lowest charge per ton mile. The discriminatory price scheme subsidizing long distance high-bulk commodities became embedded in the regulatory red tape of bureaucratic judgements.

Clearly if the railroad were a monopolist, when confronted with competition the rail firm would undercut the competitor unfairly and make up this loss in other non competitive areas. Based on this argument, regulators until 1957 normally refused to allow railroads to cut their prices. But the rates originally set way back in the 1880's had no relation to costs. To refuse to allow railroads to meet competition was the death blow to rail resulting in massive inefficiencies and redundant capital investment. National Policy (attempts to force east-west flows in the face of dominant north-south ties) became increasingly dependent on the rail to be a **political** instrument, using it to buy off dissatisfied groups.

The Crow's Nest Pass agreement, a federal Act of 1897, froze the rates at which grain would pass to the east. These same rates remained in effect until 1967 forcing the railroads to maintain their high prices to other users in an attempt to retain overall profitability. Once this Act was passed other shippers looked to the regulatory body to gain concessions against the railroads. The regulatory process became an adversary game, specific interest groups attempting to gain concessions, the regulators attempting to keep prices from increasing and the railroads increasingly hemmed in by competition on the one hand and bureaucracy on the other. In 1927, for example, the Maritimes Freight Rates Act reduced tariffs to and from the east by 20%, with the resulting loss to the railroads being offset by a federal subsidy.

COMPETITION IN TRANSPORTATION

It is difficult to envision a regulatory bureaucracy by its own actions and policies killing the railroads. The advent of competitive forces necessitated major changes in policy which a regulated industry could not quickly comprehend. The perfection of the internal combustion engine, the building of the roadbed for cars and trucks by the government, changed the monopoly railway service into a competing transportation service. Regulating railroading alone, one segment of a transportation industry, turned out to be a fruitless task.

The nature of any competitive process involves flexibility and quick decisions. These two elements nevertheless, are completely absent from any regulatory process, especially one which has developed into an adversary circus. Highway competitors could not hurt the low-value, high-bulk, long-distance traffic of the railroads for which rail is best suited.

At the same time, these very customers wielded their considerable political influence to acquire valuable concessions from the railroads long before highways became important. What highways competed for was the short-haul passenger and low-bulk freight movement. Since rail had been charging prices well above cost for these services in order to pay for National Policy, it was easy for truckers, buses and cars to compete away that "Valuable" traffic (skim the cream in utility parlance). All would be well if regulators at this point recognized that they had done their job, prevented extortionate monopoly profits, patted themselves on the back and legislated themselves out of a job.

The world is not that simple. The federal regulation of railroads neither ended nor became more flexible. Many provincial authorities began to control the movement of trucks and buses. A firm wishing to serve customers between Toronto and Ottawa for example would have to acquire a certificate of convenience and necessity. Such certificates were not normally given unless the prospective shipper could show that there was a need for his new service.

The regulation of competitive industries will normally lead to inefficiencies or some form of monopoly profits. Whichever of these two arose in the trucking and bus industry, incentives arose for customers to purchase their own trucks to make their own deliveries. The regulators could not legislate the price a firm would have to charge itself for carrying its own goods between two points. Many manufacturers therefore provide their own shipping service, carrying goods in one direction and returning empty. With a competitive unregulated transportation industry, one would not expect to see such inefficiencies.

There is no room in this paper to discuss the nature of the competitiveness of air traffic services. However, from its very inception air transportation was deemed to be important to National Policy. Firms were given monopolies in areas of the country where they could discriminate on certain high-density, high-value routes (e.g. Toronto-Montreal business trips) to compensate for the loss in carrying passengers to and from more remote spots.

PRESENT REGULATION

Today, jurisdiction over transportation is administered by varying levels of the government. Federally, railroads are regulated as are aircraft and ships. Provincial legislation governs truck and bus movements as well as providing highways, and taxing trucks, cars and buses. Local governments provide city streets and charter local transportation. It is therefore hardly surprising that with this welter of jurisdictional control, a transport system has evolved without a sense of cost consciousness. Various attempts have been made over the years by frustrated governments setting up Royal Commissions, to undertake reorganization of the transportation sector. The latest such attempt was the MacPherson Commission of 1959. The Commission reported in 1961 and made a number of insightful proposals, many of which were embodied in the National Transportation Act of 1967. The major recommendation of that report, included in the Act, was that regulation be relaxed, and that a national transportation policy (efficient allocation of resources within the transportation sector) be separated from National Policy (the political unification of Canada). One administrative body — the Canadian Transport Commission was set up to deal with all forms of transportation — rail, air, water, commodity pipeline and highway transportation. The CTC is an administrative tribunal with responsibilities under the Railway Act, Aeronautics Act and the Transport Act (1970). As with all tribunals the actions of the CTC are subject to cabinet review and appeal to the Minister of Transport.

Can National Transportation Policy be separated from National Policy merely by stating so?

Can anything be done about the morass of transportation unless there is complete deregulation?

Much discussion in the press (and in this paper) has centered on the inefficiency and resulting loss of railroad operations. In 1971, for example, a subsidy of $96 million was paid to the railroads. It is incorrect however to assume that other transport modes stand on their own feet. If total 1969 roads expenditures in Canada are examined, (construction, maintenance, administration of highways, rural roads and urban streets) and compared with the revenue raised from all vehicle licences and fuel taxes a net subsidy to road traffic of $350 million becomes apparent. In 1969, the Ministry of Transport spent some $95 million on air services net of revenues and receipts. The financial difficulties of urban transportation and the continuing losses of municipal bus and rapid transit systems are also quite well known.

It is against this history of regulation and the knowledge of continued government intervention that the prospects for northern development must be analysed. Before doing so, an examination of the industry which may well present another blow to the transportation sector, the telecommunications industry, would seem appropriate. There is, however, encouraging evidence of growing competition within the communications industry itself.

Communications

In twenty years time, the year 1969 may be regarded as significant in the development of the communications industry of Canada. In that year part of the regulation of communications was separated from transport regulation. The Ministry of Communications was created to ensure a consistent policy in national communications offerings and to act as the instrument for international ventures. The Department of Communications basically regulates entry into the industry. The approval of rates however is still a function of the Canadian Transport Commission. This division of regulatory functions is inadvisable and inefficient. Hopefully, all aspects of communications regulation will soon be vested in a single body.

The first major decision of the Ministry of Communications, to create a domestically-owned satellite communications system, angered existing carriers. This may indeed be a good indicator of future trends.

PRESENT STRUCTURE

The present structure of the communications industry as well as of the transportation sector involves a complex mixture of public and government ownership interwoven with sets of regulatory agencies on different levels of government. Three of the major telephone companies are owned by provincial governments (the Prairie Provinces), and a fourth province (British Columbia) has recently announced its intention of buying up shares in the present investor-owned British Columbia Telephone Company. The Canadian Broadcasting Corporation is a Federal Crown corporation operating a number of television and radio stations in competition with privately-owned stations. Federally incorporated telephone and telegraph companies (Bell Canada, CNR — CPR telecommunications, British Columbia Telephone Company) are regulated under federal jurisdiction. Provincially chartered firms are regulated by the respective province. Municipalities regulate municipally-owned firms (City of Edmonton Telephone

System, Thunder Bay Municipal Telephone System). All broadcasting and cable firms are regulated by Canadian Radio-Television Commission under the Broadcasting Act.

Communications services and transportation services are regulated for similar reasons — it is not felt feasible to allow competition. Therefore the government must step in to protect the public against monopoly pricing. Attention has already been given to the transportation sector in some detail, and the process by which the monopoly railroads over time became the regulated but essentially competitive system that exists today. The communications industry in terms of its organization and probable future shocks would appear to be in a similar position in its long run development to the railroads at the beginning of this century with the development of the internal combustion engine.

In any single geographic area today, competition in communications is limited. No two telephone companies compete within a locality for the right to install telephones. Similarly on local dialled calls there is but one firm and one price. For business users, several types of services are offered. Again, only one firm can offer dialled or switched voice services. However, two competing systems offer dialled message transmission services. A business firm may acquire a circuit between two points purchased from the telephone company or installed privately. The services available for data transmission are then, while not competitive, at least not under the provision of a monopoly.

Of the some 2,000 telephone systems in Canada, the eight members of the Trans Canada Telephone System (Alberta Government Telephones, Newfoundland Telephone Company Limited, Bell Canada, British Columbia Telephone Company, Manitoba Telephone System, Maritime Telegraph and Telephone Company Limited, New Brunswick Telephone Company Limited, Saskatchewan Government Telephones) control 90% of the installed telephones in Canada. TCTS is an association of these companies to provide a coast to coast dialled switched network. They plan investments together and have sharing agreements to divide the revenue from calls passing through the territory of one specific firm. Bell Canada controls nearly 75% of the installed telephones in Canada, in its territory which is most of Ontario and Quebec. Bell also owns controlling blocks of shares (50% or more) in New Brunswick Telephone Company Limited and Newfoundland Telephone Company and a minority of voting shares in Maritimes Telegraph and Telephone. Through its manufacturing subsidiary, Northern Electric, Bell produces a major share of the communications equipment purchased annually by Canadian telephone firms. In addition, nine of the major Canadian telephone companies have technical agreements with Bell.

In March of 1971, Trans Canada Telephone System announced a decision to build a digital cross-Canada telephone network. This network to be completed in 1976 is designed for data communications and will allow high speed computer to computer conversation. Bell's only present competitor CN-CP telecommunications will also be digitalizing part of its coast to coast network. The present system used by the communications firms, analogue transmission, is best suited for voice conversations, not the rapid error-free transmission of data. While data transmission services at the moment contribute only a small share of communications firms' revenues (data services and private line services accounted for 7% of Bell's revenue in 1967), they are the fastest growing (25% per year). Estimates of the future growth of data communications range from 30-100% per year.

COMPETITION IN COMMUNICATIONS

It is this data traffic which existing communications firms feel may leave them in the position of the railroads. Competitors, are arising for this data traffic — competitive switched digital systems, competitive for hire private line companies, satellites and cable T.V. Each of these issues must be briefly examined in order to determine the reasonableness of the fears of existing firms and the potential for the industry. Above all, it is the regulators who will determine the future, and it is interesting to note their feelings on this matter as well as their capacity for action.

In the U.S.A., the Federal Communications Commission has recently opted for peripheral competition in the communications industry. Decisions in the late 1960's permitted firms to construct communications systems between cities and enabled them to sell private line services in competition with communications carriers. The laws permitting attachments to be made to communications firms equipment (data sets, modems, etc.) were liberalized. Recently, Datran Inc. has been permitted to construct a nation-wide switched digital system to compete with the existing firms. In the U.S.A. it is felt (and reasonably so) that the size of the market provides room for diversified services and some competition. Not only is AT&T faced with these new competitors for business services, but AT&T itself is forbidden to offer data processing services to compete with the tele-processing offerings of new firms.

Cable T.V. provides competition for existing local T.V. stations and in the future for communications firms. While the number of voice telephone calls will continue to increase even when the number of telephone sets reaches saturation, growth potential is fairly well defined. The uses to which cable T.V. could be put parallel the uses for existing telephone wires. A telephone system connects a number of homes to a local switching point and by interconnecting switching points allows a customer to contact a distant customer. At present, cable T.V. permits the one way transmission of signals from a central point to a number of homes. It is feasible at present to incorporate limited transmission from the home to the cable centre. Thus cable T.V. may turn out to be a significant competitor of existing communications firms.

The real growth in communications services will take place in data transmission — the data transmission between firms and the increased transmission of data to and from households. Its versatility and many uses are well understood — metering, specialized news, shopping, banking, work etc. The first step in this direction is the Bank of Montreal's centralized computer system which will transmit records by wire not road. The possible uses are only limited by our imagination and of course the limiting factor - economics. The economic feasibility of the wired city is still far in the future but close enough to worry (or excite) existing communications firms.

These changes in technology are also close enough to worry the Canadian regulators. Firms have applied to construct for hire private line systems and a switched digital system. The Department of Communications has yet to act on these proposals. The Trans Canada Telephone System has already moved to eliminate these competitive pressures by constructing its own digital system.

What should Canadian policy be on these matters of competition and foreign attachments? The answer is not at all clear but the following are important considerations.

As mentioned above, in this century, railroads and regulators acted haphazardly and certainly inefficiently when faced with competitive pressures. One major problem was that the Railway Board had no long run view of the industry. Clearly the Department of Communications (D.O.C.) is different. Its first step was to sponsor the Telecommission — a large scale analysis of present and future trends in communications. Its policy on satellites (discussed below) shows that the Department is certainly not the mouthpiece of existing communications firms. However, there is little evidence, so far, that the Department recognises the difference between National Policy and efficient telecommunications.

Since communications' costs may be as important in 50 years as transportation costs are today, it is imperative to establish the most efficient communications industry possible, to enable competition, on a world basis, in all our production. One method of ensuring efficiency is some form of competition. Since there are few advantages for one firm to offer both voice and digital services, let all who wish to, construct digital systems, including of course, existing communications firms. If the advantages of size are so immense, then no firm would be so foolish as to challenge existing firms. There are no regulators on construction permits in the food industry, surely as "vital" an industry as can be, why should there be in certain areas of telecommunications? Competition, of course, could also be harmful. Uncontrolled competition may indeed, result in private firms entering only in the Montreal-Toronto corridor, where profits could be earned, building extra capacity in an area already well served. It is unlikely that open competition in providing voice circuits will be socially beneficial in Canada at this point in time given our population densities. Hopefully, competition between Bell and CN-CP would force competitive rates. The extention of the jurisdiction of the D.O.C. over private line rentals is a move to be viewed with trepidation. National Policy visions may force rates up so as to subsidize other services. This is the real dilemma of using communications or transportation for National Policy purposes. The prices to different users bear little relation to costs, creating different growth paths among firms or industries than under non discriminatory rates. The inherent subsidy to any area or industry is never voted on by Parliament and is under the jurisdiction of private firms.

There is also some concern that the D.O.C. may allow communications firms to offer data processing services. There will be no social advantages to this service, no reduction in the costs of data transmission, only the entry of a regulated monopoly into a competitive service and the ultimate unadvised extension of regulation to data processing. (See D. Cowan and L. Waverman, The Interdependence of Communications and Data Processing, **Bell Journal of Economics and Management Science, Autumn, 1971.**)

In two important areas, satellite and cable T.V., the regulators have made policy decisions which warrant some evaluation.

SATELLITE

The domestic satellite decision (Telesat) is one which most Canadians probably applaud. This and the all weather Northern highway are attempts by the Government to open up the North. Clearly, some of the statements explaining these decisions on Northern investments are misleading. A statement that the highway was necessary in order to allow possible pipeline construction and would be paid for by taxes on the line is incorrect. These taxes would, of course, be paid on the pipeline anyway. If the highway were only useful to pipeline constructors, let them build it, why use the tax dollars of private citizens? Clearly the government is spending some $200 million on road and communications infrastructure mainly to help private investors. The major argument put forward by authorities, that the satellite would bring live television to 55,000 culturally deprived people who would otherwise have to wait one day for reruns is nonsense to anyone, other than Pierre Juneau who has analyzed the cultural content of Canadian T.V.

Notwithstanding these harsh statements, Canadians could have been persuaded to give voluntarily a donation to build the satellite for three reasons. It was the only viable technology to open up the North; Canada should get in, for a change, on the developments of a technology and finally, the satellite presents a potential competitive threat to existing communications firms.

A satellite is a great broadcast medium. Rather than thinking of it as a microwave station in the sky, it should be considered as a cable network in the sky, one day capable of reaching every home. The satellite is **not** well suited for two way transmission. Because of the distance, the 6/10 of a second delay in transmission and subsequent echoes do not make the satellite the technology of the future for data transmission. Existing communications firms did realize the potential impact of the satellite and consequently attempted to:

1. Finance, own and operate the system.
2. Own and operate ground stations.
3. Have Telesat to be able to sell services only to existing communications firms or government agencies.

The government had its own way. The Telesat Corporation will finance, own, construct and operate the system as a possible competitor to existing communications firms. This should prove a significant competitive factor. However, the one-third shares owned by existing communications firms and the directors appointed by these firms may force opposite policies.

CABLE T.V.

Cable T.V. policy has not been so well handled. The Canadian Radio and Television Commission has yet to propose an all encompassing policy setting up standards for all cable firms, as has been the case in the U.S.A. In the United States, cable firms have requirements for a minimum number of channels to be installed, the number of distant stations to be imported, local origination etc.

The regulation of cable firms has important effects for the present television industry and for the future communications industry. It is important that federal jurisdiction be exercised, rather than allowing a welter of differing provincial regulations to develop. One issue has already sadly slipped past the C.R.T.C. A cable firm needs some right of way to string its wires through a city. It would not be economic to purchase a separate right of way for cable T.V. These firms must then negotiate with owners of right of ways — telephone companies, hydro firms and gas distribution utilities. In the U.S.A., the regulators forced communications firms to rent space on their poles at reasonable rates to cable firms. No such policy was made in Canada. Instead, communications utilities generally install the cable and rent channels on this cable to firms. In Canada, the communications firms can ultimately exercise far more control over cable than can carriers in the U.S.A. It is not in the public interest to allow such control.

Profound changes are sweeping the communications sector. Changes whose effects will be analogous to the impact which the internal combustion engine had on the railway industry in the earlier part of this century. Whether communication will be the subject of numerous Royal Commissions in the 2020's depends on the policy decisions which are made today. National communications policy must be divorced from National Policy as much as is feasible. The establishment of a separate firm to offer satellite services nationally is a move in the right direction. Yet it would be expedient to have some competition introduced in the industry now, not forty years after it has been regulated to near death. It would also be desirable to establish a data processing industry independent of other communications' firms.

If the government is to regulate this important sector to maximize the potential for future Canadians it must begin to do so now with foresight, and without fear of impinging on entrenched industry interests.

Northern Pipelines

At the beginning of this paper the construction of transportation and communication links was defined as attempts to control territory. This coming decade will see proposals put forward to invest upwards of $25 billion in transportation links to exploit the oil and gas reserves of the northern confines of this continent. Some $10 billion of this investment is likely to occur in Canada.

Of the $1.1 billion spent on drilling for oil and gas in Canada in the years 1969-1972, 22% was spent in the northern extremeties of our continent — mainly the Northwest Territories, and the Arctic Islands. The major effort in the Arctic Islands is undertaken by Panarctic Oils, a consortium of the Canadian federal government and private firms. Private firms hold the leases in other Arctic areas. Significant gas reserves have been found in the Islands at Drake Point on Melville Island, on King Christian Island and at Great Point. Other major gas and oil discoveries have been made at the MacKenzie Delta in the Northwest Territories and at Prudhoe Bay in Alaska. Recently, a contract was signed to deliver 12 trillion cubic feet of gas from the MacKenzie Delta area to North American gas markets, when (if) a pipeline is completed.

A number of pipeline projects are now being prepared for submission or have been submitted to the governments of Canada and the U.S.A. These projects are:

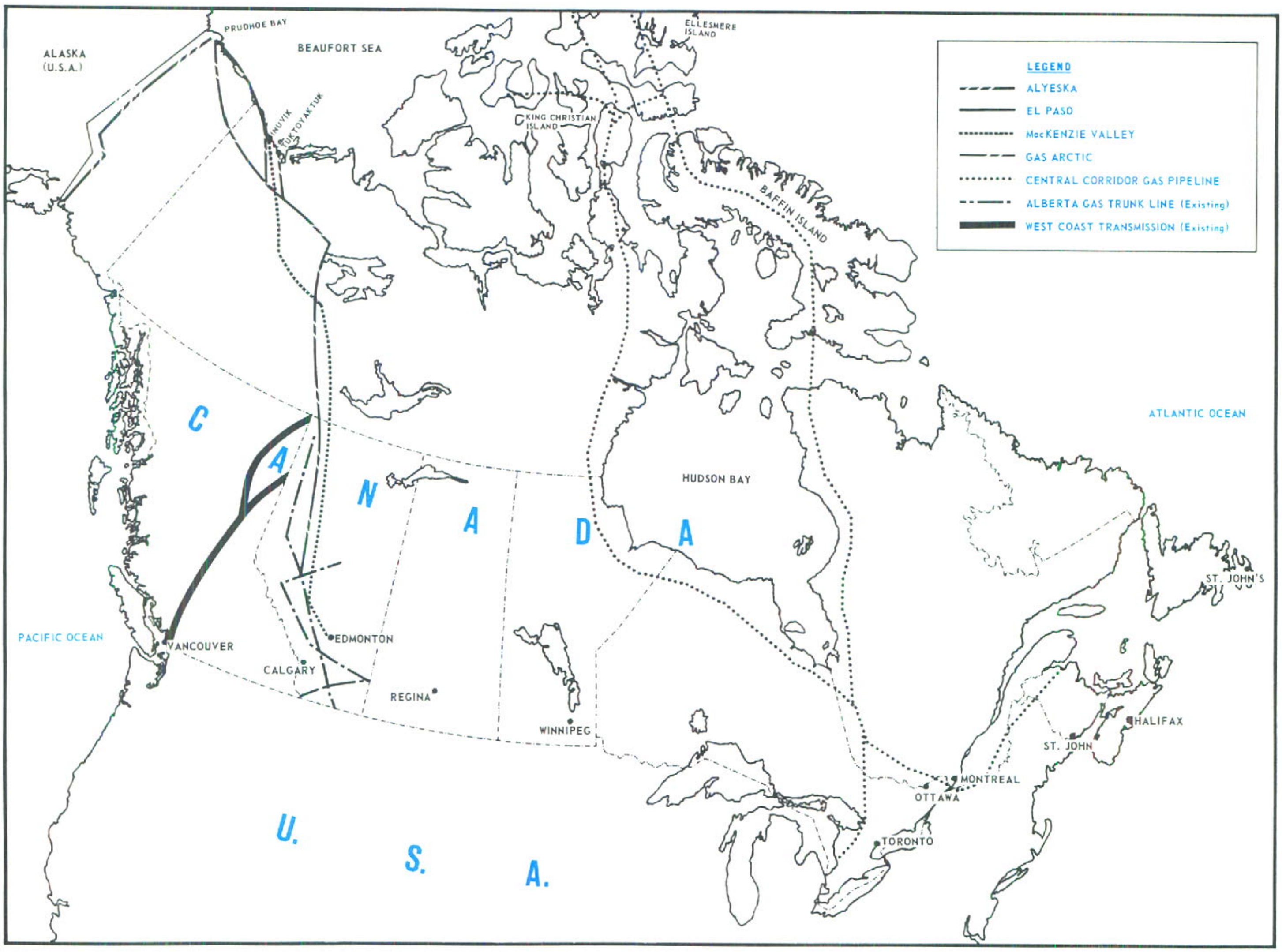
Potential Cost

	(millions)
1. Alyeska Oil pipeline project, port and tanker facilities Prudhoe Bay Alaska 700 miles to southern shore of Alaska. Tanker to markets.	$ 3,000
2. El Paso Gas Project Pipeline, liquefication plant and port, Prudhoe Bay 700 miles to south shore of Alaska. Tanker to markets.	3,000
3. MacKenzie Valley Oil Pipeline Tuktoyaktuk N.W.T. 1,700 miles to Edmonton.	3,500
4. Gas Arctic Prudhoe Bay and MacKenzie Delta to Northern Alberta.	5,500
5. Central Corridor Gas Pipeline Arctic Islands to eastern Canada and U.S.A.	7,000

CANADIAN PIPELINES

The two of interest in this discourse are the prospective gas and oil pipelines within Canada (3&4). The building of these projects is expected to begin(permits received) in 1974 and be completed by 1979. The Central Corridor Gas Pipeline is at least ten years away since construction technology is not available at present to allow bridging of the channel between the Arctic Islands and the mainland.

Much controversy has started to settle around these proposed pipelines. However, there are a number of important questions which must be considered in some kind of order by relevant political authorities. Should these northern reserves be developed, given that much of the demand for them is for export or should reliance be placed on more accessible reserves for domestic needs and maintain these northern sources as insurance against any long run depletion of more southerly reserves? This indeed is a complex question and rests on a number of issues involving equity and economics. Once having sold leases for drilling rights and inducing companies to spend billions of dollars, should they be prevented from exploiting these reserves? This is a question of equity. The economic issues include the disincentive effects on exploration and development of other potential reserves in Canada and the rate of depletion of existing stocks. Can Canadians pay the price of developing northern reserves for their own use (including the installation of pipelines) and still be efficient in energy using industries? Should it be decided to go it alone and not export any gas, then Canadians must be prepared to pay a very high price for natural gas in Eastern Canada (say two to three times existing prices). What would be the impact on residential consumers of raising prices by this amount? Are they willing to pay this price?



The issues are indeed complex and affect most Canadians. A source of grave concern is that the issue will be decided on a superficial political basis without involving the Canadian public in the debate. One of the remarkable features of Canadian government in general is its paternalistic quality — the desire to make decisions in secret and not confuse the public with the facts.

For argument's sake, assuming that it has been decided to export some gas (regardless of the exact amount to be exported), and that all Northern pipeline projects are to be built — How will Canada as a nation control these developments and what will be their potential impact on the economy?

THE QUESTION OF OWNERSHIP

From the outset, it should be stated that in my view the question of **ownership** is irrelevant in analyzing the possible economic impact of the pipeline, and that its discussion tends to obscure the real issues. Ownership is immaterial because the pipeline is a regulated common carrier — its path, method of construction and the prices it can charge are all controlled by the federal government — as are, for example, existing telecommunications firms. Moreover, the pipelines will be common carriers — they must carry at reasonable prices the gas which any producer wishes to ship. To own such a project which the government already controls in every aspect is redundant. The Canadian Government should not be concerned whether "Canadians" or "Americans" control these pipelines since all aspects of their operations will be the same regardless of ownership.

THE QUESTION OF FINANCING

The basis of these concerns therefore lies elsewhere and the fact is that many people feel that the **financing** of the projects may have a number of deleterious side effects on the Canadian economy.

In this context, it cannot be overemphasised that many of the effects on the economy, of pipeline construction, will be independent of the manner in which financing is arranged, — namely, whether financing is in Canada or in the U.S.A. Because of the magnitude of the investments and the open nature of the Canadian economy, construction whether financed here or abroad will have similar impacts.

Since this view is contrary to many of the opinions currently aired in the press, a detailed explanation is in order.

The projects will be in the order of magnitude of $10 billion. Ignoring interest costs, present values and the very important issue of cash flows when the lines are operating, assume that the projects will add $2 billion in investment annually in the five year period 1974-1979. Total private investment including residential construction, without these projects is expected to run at an annual rate of $20 billion in the period.

What are the effects on the economy of increasing private investment from $20 to $22 billion a year for five years? The effects will depend on a number of characteristics of the economy and the investment:

1. The import content of the pipeline projects.
2. Mobility of international capital.
3. Whether the exchange rate is fixed or floating.
4. Compensating government policies.

The important areas of the economy where an impact may be felt are:

a. Balance of payments.
b. Exchange Rate.
c. Interest rates.
d. Inflation.
e. Unemployment.

The issue of where the capital comes from appears to be one of the central issues to the government. At this time, they appear to be drifting towards a decision that fifty percent of the financing be domestic. To analyze this policy, it would be enlightening to look at the polar cases of zero and 100% domestic financing. In considering these polar extremities regarding financing, assume that the import content is fixed at some level less than 100% (I think the import content will be around 20%). If all men and materials and capital, were entirely imported (100% import content), no area in Canada would experience any side effect. Neither of course would there be any multiplier effects of the investment.

ZERO DOMESTIC FINANCING

The companies (read here government, as wished) decide to finance the entire construction by issuing bonds in New York. As foreigners buy the bonds, they demand Canadian dollars. Alternatively the bonds are denominated in American dollars but have to be converted to Canadian dollars for purchases in Canada. If the Canadian dollar is freely floating, the additional demand for Canadian dollars appreciates the value of Canadian dollars in terms of American dollars. I would expect a 3% to 8% increase in the exchange rate. If the investment continues for 5 years, then the exchange rate will be increased by 3-8% for this 5 year period. The actual construction within Canada has multiplier effects which will tend to increase employment (transportation, steel, iron mills, coal etc.) If the Canadian economy is running at full employment (an unlikely event) then inflation is increased. As a result of the appreciation of the Canadian dollar, the prices of imports in Canada decrease and the prices of our exports increase. The gap produced between imports and exports will be equivalent to the domestic content of the investment (the real transfer). In general, with a fluctuating exchange rate, unemployment in Canada and no offsetting government policies, the exchange rate, employment and imports will rise and exports fall.

Now consider the case where the exchange rate is fixed and not allowed to vary, then exchange rate fluctuations, the mechanism leading to equilibrium in the previous case is absent. As the demand for Canadian dollars increases, the government must accumulate American dollars to reduce upward pressure on the Canadian dollar. How can the government build up its reserves of foreign currency i.e. issue Canadian dollars? Obviously, printing Canadian dollars would be inflationary. The government could run a surplus each year of $2 billion. If the economy were at full employment before the pipeline investments, a budgetary surplus would be a wise policy since the deflationary aspects of the surplus would tend to offset the inflationary aspects of the investments.

But the government's running of a surplus of $2 billion per year for five years is equivalent to sufficiently increasing the savings of Canadians to pay for the pipeline. A surplus would be **forced** savings by taxing Canadians to pay for the pipeline. If this were the government's actual policy, we'd might as well allow the government to build the lines itself.

What if a budget surplus (a deflationary move) is not a wise fiscal policy? The Canadian economy is at excess capacity. The government must then find some **voluntary** means of increasing domestic savings in Canada. For example, Pipeline Savings Bonds may be issued at the rate of $2 billion per year. But the careful reader will note that we began this discussion, assuming **no** financing within Canada. Under fixed exchange rates, and with unemployment, the government will have to operate so as to implicitly finance part of the investment domestically. To induce individuals to increase savings by $2 billion per year, interest rates will have to rise. Here is the dilemma of governments in a fixed exchange world — how to increase savings without hurting other investments, for a rise in interest rates tends to decrease investment and thus employment.

In this entire discussion so far, world wide capital mobility has not been assumed, but it has been assumed implicitly that interest rates in Canada could be above interest rates in other countries and not induce capital movements.

Now comes the central issue which governments in open economies who are worried about foreign investment must come to face. In our present example, with zero domestic financing, the issuing of bonds to increase real savings raises interest rates. With capital mobility, the rise in interest rates induces movements of capital — foreign investment, until the interest rate is lowered again.

100% DOMESTIC FINANCING

Many of the issues important in a policy of 100% domestic financing have already been discussed.

If the exchange rate is freely fluctuating domestic Canadian issues of bonds, to finance the pipelines will raise interest rates which induce capital inflows. The external value of the Canadian dollar appreciates because of these capital inflows. This is analogous to the impact when financing was completely in foreign markets.

Under fixed exchange rates, the domestic financing of capital to construct the pipelines must increase interest rates and induce capital inflows. Without the benefit of exchange rate movements creating offsetting changes in exports and imports, one would expect higher capital inflows under fixed exchange rates.

The central point is this. With international capital mobility, it is relatively immaterial where the pipelines are financed; total foreign investment in Canada will be quite similar whether the northern lines are financed entirely within or outside Canada.

The only difference resulting from constraints on foreign borrowing for the pipeline will be the sector where foreign investment will occur.

If my analysis in the previous few pages is correct, attempts to increase Canadian investment in these northern projects will induce changes in interest rates which will force other borrowers to go to foreign capital markets.

In the case where limited foreign investment is permitted in Northern pipelines, foreign investment will increase in these other industries — manufacturing or resource development for example.

We Canadians have a choice, I feel. The choice is between foreign investment in the pipeline whose operations, I have shown, are independent of ownership, and increased foreign investment in Canadian manufacturing industries induced by government policies restricting foreign capital flows for pipeline construction.

The second major point which emerges from the discussion is that life is generally much more difficult under fixed exchange rates. The amount of compensatory actions required and the corresponding diminution of available policies to the government, make the case for flexible exchange rates very strong when a nation is considering major investment projects.

SUMMARY

From the Erie Canal of 1825 to Telesat of 1972 and proposed northern pipelines of 1980, no one can debate the variety in time periods or topics. This paper has attempted to show a unifying theme in these various projects and epochs. In earlier periods eastern Canadian cities attempted to draw their sphere of influence from east coast to west coast. A number of errors were made. But then hindsight is a harsh judge.

Can Canada as a nation have foresight? Can Canadians escape the limitations that the regulatory process has in the past meant? To do so, will require quantitative changes in the regulatory process from the arbitrators in adversary hearings to long term planning, and from National Policy to efficiency.

This paper has also presented some views on how communications and transportation should be governed. Another aim has been to help clarify thinking on the challenges to be faced in the years ahead. The object of the suggestions contained in this paper is to forewarn policy makers of compromises evolving out of political expendiency which necessitate short-run viewpoints and the trading off of regional interests and parochialism.

Transportation regulation appears to be moving in the right direction. The changes wrought by the MacPherson Commission will decrease inefficiencies generated by regulation. The Department of Communications, from early indications, is committed to welcome long run viewpoints. Yet the likelihood exists that some of their future policies will however anger many economists who are interested, after all, in efficient networks.

I must admit to serious reservation that the government will indeed accede to political pressure and introduce complex and inefficient requirements on ownership and financing of northern pipelines. Other governments have long discovered that ownership is but a label and that a range of sophisticated policies, taxes, regulations, and income sharing are available as substitutes for ownership.

The Chairman's Report

INTRODUCTION

The high level of activity in the Canadian and U.S. stock markets during 1972 reflected the strong resurgence of the North American economies. Not only did the value of trading in listed equities in Canada reach a record level; but share prices advanced substantially. At the end of 1972 The Toronto Stock Exchange Industrial Index stood 22% above the previous year end. Significantly too, the record performance of the Canadian equity market was achieved with relatively little assistance from foreign investment and despite large net redemptions by the mutual funds.

In Canada a persistent high level of unemployment detracted from an otherwise creditable economic performance while prospects were dampened by the uncertainties of Canada's future trade relations with the United States. Meanwhile, the growth in the price level compared favourably with that in most other industrialized countries suggesting the comparative success of earlier government policies aimed at reducing inflationary pressures.

Despite these immediate problems, the breadth of the economic recovery in 1972 allowed Canadians a recess during which the challenges of the years ahead could be more clearly defined and evaluated. Across the country there was much debate on government policies relating to the development and sale of energy and non-renewable resources generally; future acquisitions of Canadian industry by non-residents; the definition of longer-term objectives such as an appropriate industrial strategy; and government programs to stimulate the social and economic development of the country.

MANAGEMENT OF THE ECONOMY

The high rate of unemployment remains the greatest challenge to economic management in Canada. Policy makers rightly concentrated on devising more effective policies to combat this problem. Even in the best of times, unemployment in Canada has remained high by the standards of other advanced industrialised countries. Over the last twenty years the Canadian rate of unemployment has averaged 5.3%. It was 6.3% in 1972. In some regions of the country, the picture was even more dismal. Yet, it is ironical that despite the high rate of unemployment, there are many instances in which it is difficult to secure both skilled and unskilled labour in Canada.

As is widely recognized, a contributing factor to the current high unemployment rate is that we have one of the fastest growing labour forces in the western world. Nonetheless, given our country's vast economic potentials, it is not unreasonable to expect that effective long-term policies could be designed to produce job opportunities for those who wish to work. This expectation is given added emphasis by the many recent favourable economic developments in our country which virtually guarantee that Canada will continue to be one of the most prosperous nations in the world for many years.

In recent years, there has been a tendency to discount the importance of the business sector in the development of our country. Quality of life rather than economic growth is urged as the ultimate goal, though vaguely defined. There have been increased pressures for government to assume economic functions more properly suited to the private sector. But, extensive government programs in recent months to create job opportunities directly, have raised many questions in Canada regarding the serious inefficiencies attendant on such efforts. Many Canadians, disillusioned by these government efforts, have acknowledged that industry, including both large and small businesses, must be encouraged to expand domestically and abroad. Both the retiring Governor of the Bank of Canada, as well as the Chairman of the Economic Council of Canada have underlined the crucial importance of the private sector in economic growth particularly if sound and continuing job opportunities are to emerge in this country.

There still remain many questions as to whether government fiscal policies have been appropriate at a time of high unemployment. If government continues to feel that further relief from personal and corporation taxes is not acceptable, then Canadians must carefully examine the efficiency with which government is allocating the resources entrusted to its care. In this context, an area that requires some very critical questioning is the recent management of the Federal unemployment insurance fund. It is encouraging to note, however, the recent move by the Federal Government in the 1973-74 Budget to return some of these resources for allocation by the personal sector.

In the management of the Canadian economy, there are many aspects of the unemployment situation that warrant more careful in-depth study. During the last two decades the service-producing sector of our economy has become relatively more important. As a consequence of its growth and its labour intensive nature, the service-producing industries have been the most significant source of new employment. It seems, therefore, almost anachronistic to look directly to the capital-intensive manufacturing and resources sectors to alleviate our traditional unemployment problem.

The production of goods and the development of resources indeed does stimulate the demand for services. Nonetheless, some deeper understanding of the employment potential of the service-producing industries is warranted.

One consequence of looking more closely at the services sector in terms of creating job opportunities is to determine the relative demand for services generated by the resource and manufacturing industries. If both resource and manufacturing industries stimulate the same level of service employment, then the appropriate degree of resource and manufacturing development to be encouraged, will depend on the mobility of labour from the areas of high unemployment. Of course, since a strong relationship between resource development and manufacturing exists, then appropriate balances would have to be determined.

Some clarification of Canada's longer-term goals will assist in the evolution of more meaningful policies. At present, public debate appears to be focussed on a choice between resource and manufacturing development. It is felt that resource development and exports will entail higher exchange rates detrimental to manufacturing development. Surely, policies can be developed which will allow both aspects of development to make major contributions to the country's growth. Professor L. Waverman in his article on "Transportation and Communications in The Seventies" appearing elsewhere in this issue of the Annual Review, makes a number of penetrating comments on this question.

EXTERNAL TRADE

In regard to external trade, there is both cause for concern and satisfaction. The relative stability of the external value of the floating Canadian dollar and the recovery of important export markets -- particularly wheat and forest products -- are certainly sources of optimism. On the other hand, there still remains the crucial question of Canada's future trade relationship with the United States. Careful bargaining is essential as the results of the negotiations will have consequences lasting for many years.

At this point Canadians should have some grounds for being more confident about the outcome of these trade negotiations with the U.S.A. Canada has a critical commodity -- namely energy in the form of gas, oil and electricity. With the chronic shortfalls in energy supplies in the United States, Canada has strong bargaining positions that should contribute to trade arrangements beneficial to the future of Canada. Needless to say, there is an obvious trade-off: Canada needs easy access to markets for manufactured goods, the U.S. wants secure supplies of energy. It would be naive, however, to exaggerate the relative significance of Canada's limited surplus energy supplies when one considers the huge energy demands of the U.S.A. market. By 1985, it is estimated that the United States will be importing about half of its oil, and most of this will come from the Middle East.

THE CAPITAL MARKET

The capital demands of projects currently contemplated will put strains on both the economy and the capital markets. The capital needs of just the energy industry in Canada over the next 15 years has been estimated to exceed $100 billion. Even, apart from the Arctic pipelines now under study, there will be substantial capital demands from the Canada Development Corporation, Telesat Canada, the James Bay, Nelson River Hydro projects. Some staging-in of these projects would be helpful not only to avoid an overheating of the economy but also to ensure that to the extent borrowings are undertaken in the Canadian capital market, they are reasonably timed. The Bank of Canada or some financial authority may be able to provide some guidelines on timing.

In addition to the projects already mentioned, the present energy situation makes the hitherto high-cost extraction of petroleum from the Athabaska Tar Sands an attractive proposition, and some capital demands could also be anticipated from this source.

Appropriate personal tax concessions in Canada would stimulate demand for equities, but there must be an adequate supply of seasoned equities to meet the demand from Canadian Investors.

There are ways in which an increased supply of equities could be encouraged. For example, if dividends payable to Canadian residents were made deductible before corporation taxes, there would certainly be an incentive for companies to finance through the issuance of equities. Such a provision would also foster the Canadian ownership of corporations operating in this country.

On the foreign ownership question, Canada could learn much from the record of U.S. industrial development in the 19th century. At that time, Americans imported European capital resources but in the form of bonds, not equity-financing — takeovers or branch plants. When these bonds were retired, the debt was refinanced through equities sold to Americans. Surely, this is also possible in Canada.

It is most natural and essential that Canadians have nationalistic aspirations about their culture. However, in respect to economic nationalism it is important that logic not emotion should determine long-term policies. Pipelines, for example, are subject already to all the necessary constraints to ensure that as an industry they contribute to overall good of Canada's economy. An ownership policy requiring that the Arctic pipeline system be financed entirely in Canada, could in the long-run result in a needless concentration of Canadian capital in an area which is already adequately controlled. Other more vital areas such as secondary manufacturing, could be seriously deprived of Canadian equity because of unrealistic ownership policies regarding pipelines.

During 1972, despite the relative sluggishness of business capital spending, there was a significant increase in financing from the issue of new equities compared with the previous year. Net new issues of equities were worth some 28% more than in 1971. It was, of course, an opportune time to raise equity capital with stock prices at record levels. In any case, this augurs well for capital spending in the private sector in the year ahead.

THE CANADIAN EQUITY MARKET

During 1972, The Toronto Stock Exchange in conjunction with the other major Canadian stock exchanges worked vigorously to improve the efficiency and effectiveness of the Canadian equity market.

In recent months, the investment community in Canada has watched with mounting concern the many divisions which have developed within the investment community in the United States. A wide diversity of opinions has emerged concerning membership eligibility in stock exchanges, fixed commission rates, the fragmentation of the stock exchange system in the United States, the inadequacies of self-regulation in the exchange community, and the growing institutionalization of the marketplace. There has been some apparent loss of public confidence in the ability of the American investment industry to provide the necessary development of the marketplace to meet the new demands of the future.

There is good reason for Canada to be concerned about developments in the U.S.A. Based on past experience, Canada invariably is confronted with problems that first emerge there. Obviously, there is need in Canada, to do some careful planning to prepare for the new level of complexities in the North American equity market.

Throughout 1971, a Planning and Development Committee under the direction of the Board of Governors of The Toronto Stock Exchange studied many of the problems experienced in the United States. In May of 1972, the Board of Governors of The Toronto Stock Exchange held a week of special meetings to review the findings of the Planning and Development Committee. The meetings were attended by representatives of the other major Canadian stock exchanges, the Investment Dealers Association, and by observers from government.

The outstanding accomplishment of the special study sessions was the emergence of a determination by the investment community across Canada to ensure jointly that this country has a sound national market system which serves all Canadians effectively and equitably. Moreover, there is reason to believe that there is a better understanding within government as to the wisdom of such an approach.

A number of specific courses were agreed upon at the meeting to lay the groundwork for a more sophisticated market system for the trading and servicing of Canadian equities. While the joint meetings did not resolve all the specific problem areas that lie ahead, it is much more likely that future decisions about the equity market whether in Eastern, Central or Western Canada will be tested against the concept of a national Canadian market system. This is a realistic philosophy. A strong, nation-wide equity trading system is essential for reasons of both efficiency and equity. Such a system would allow all Canadians equal access to the market. At the same time, a nation-wide system would encourage a better allocation of Canadian investment funds.

Another significant development at The Toronto Stock Exchange during 1972 had to do with a major upgrading of the Exchange's computer plant.

The Toronto Stock Exchange has been greatly involved with communication systems ever since its present building was completed in 1937. At that time, an electric system of recording bids and offers at each trading post was successfully launched. The electric "bid and offer" system included a limited dial enquiry system by which Member Firms with offices within the immediate vicinity of the Exchange could dial for bid and offer information on a limited number of stocks. At that time, it was the most advanced market communications system in North America.

During the succeeding years the system was improved and eventually included "bid and ask" boards which displayed in brokerage offices the latest quotations from the Exchange floor.

In 1963, the Exchange purchased its first computer. With the computer the Exchange launched a nation-wide quotation enquiry system which in 1972 handled a record of 277,000 enquiries in a single day. The computer also makes direct electronic transmissions of stock tables to the newspapers across Canada and in the U.S.A., and is used by the Exchange's member settlement system.

In order to enlarge the Exchange's computer and communication system capacity, and to enable the Exchange to eventually retire the present computer system, the Exchange in 1972 purchased and installed a new $1 million computer.

The new computer could be used in connection with the proposed computer assisted trading system which has been under study by the Exchange for the past two years. In 1972, a simulated computer assisted trading system was tested and demonstrated to the investment community by utilizing an outside computer and terminals. Subject to the approval of the Exchange Board of Governors work can now begin on a more complete computer assisted trading system that will serve as a pilot run. The objective is to institute a market system that will improve liquidity by utilizing as fully as possible current computer technology provided the cost parameters are reasonable.

The purchase in 1972 of the new computer, in effect, establishes a firm foundation upon which to build, in the seventies, the Exchange's data processing and communication system in conjunction with a National Canadian market system.

The Exchange during 1972, made specific recommendations to government on a number of critical issues that affect investors. The question of public and non-resident ownership of Canadian brokerage firms is still under study by the Ontario government. The Toronto Stock Exchange supported the position that the traditional rules of the Exchange restricting ownership entirely to those active in the business should be liberalized to allow some outside capital in the business. However, it is the view of the Exchange that the majority control of Member Firms should rest with those actively engaged in the business. Representations were also made to the Federal government on proposed legislation to control the acquisition of Canadian companies by non-residents. These representations dealt with suggestions to ensure that ownership constraints are applied consistently; and, to ensure that such constraints do not needlessly interfere with the flexibility of the capital market.

Substantial work in conjunction with the other Canadian stock exchanges was done towards the development of a new national commission schedule. A new schedule is most essential in order to encourage brokerage firms to service all classes of investors.

The Exchange continued to give strong support to the Canadian Depository for Securities. The Depository has been undertaking continuing studies to devise better, more efficient systems for the transfer and custodianship of securities in Canada.

CONCLUSION

Canada is still a relatively young country. Its people have flexibility, optimism, and a zest to undertake new ventures. Our multi-culture population is a very valuable asset. Our social institutions, including government, have contributed to a high degree of social stability in the country. Given these human resources and the country's substantial economic potentials, Canada inevitably will enjoy many successes during the decade of the 70's.

The country's investment community has been imaginative and progressive. The guiding principle of The Toronto Stock Exchange has been to act rather than to react.

Against this success, there remains the continuing challenge of satisfying the public interest. In conjunction with its Members, the Exchange has worked vigorously to ensure that the Canadian equity market properly serves individual and institutional investors; that the Canadian market meets the needs of the hundreds of listed companies that utilize the Exchange for the trading of their shares; and, that the equity market serves the best interests of the Canadian capital market.

This responsibility on behalf of the public interest is not an easy one. Invariably, it necessitates taking long-term views which are not always popular nor fully accepted. The patterns of development of the various stock exchanges around the world have many similarities. Self-interest and short-term policies precipitate situations which are not only damaging to markets, but are fairly predictable. Canada's capital needs in the future, requires that there be strong leadership by the stock exchanges in Canada backed by solid industry support to ensure that capital is assembled efficiently and effectively. Strong and firm leadership committed to sound long-term projects can avoid damaging situations, foster public and investor confidence, and provide the investment industry with the opportunity to render a most valuable service to our expanding economy.

The Exchange is grateful to its Members, listed companies, the financial institutions, and government for their support of the many longer-term development programs of the Exchange.

Christopher Barron

J.C. Barron,
Chairman of the Board.

During 1972, a total of 65 newly-listed companies posted 68 issues for trading on The Toronto Stock Exchange, representing an increase over the 54 newly-listed companies in 1971. These companies included 58 industrial stocks, two mining stocks, four oil stocks and one trust unit. This brought the total number of listed issues to 1185 at year end on the TSE.

The issues of companies newly-listed represent some 403.4 million additional listed shares. Quoted market value (as at listing date) of these shares was $9.2 billion.

Among the newly-listed companies are several Canadian financial corporations: Gerin Limited, Mercantile Bank of Canada, City Savings and Trust, NW Financial Corp., MICC Investments, First City Financial Corp., Sonor Investments, Maplex Management & Holdings, Fidelity Mortgage and Savings, Markel Financial Holdings, United Canadian Shares and United Trust. In November, the first real estate investment trust was listed—TD Realty Investments, engaged in real estate financing. There were three companies listed from the media sector: CFCN Communications, Moffat Communications and Tele-Capital Ltd.

Among the nine U.S. based companies newly-listed, seven are engaged in the oil and gas industry: Banister Continental Petroleum, Zapata Corp., Pennzoil Ltd., Mesa Petroleum, Northern Natural Gas, Consolidated Natural Gas and Clark Oil. The only U.K. based company newly-listed, Ultramar Ltd., is also involved in the oil and gas industry.

Newly listed on the TSE

SOGEPET LIMITED, *Toronto, Ontario,* is involved in petroleum exploration with several major companies on-shore and off-shore in the Hudson and James Bay regions. An agreement of July 20, 1971 provides for Consumers' Gas Company to advance $2,000,000 for exploration expenditures, convertible into options on Sogepet treasury shares. *(January 3)*

C & C YACHTS LIMITED, *Port Credit, Ontario,* and its two wholly-owned subsidiaries, design, manufacture and market fiberglass sailing yachts. A plant expansion has been completed in Niagara-on-the-Lake, in order that all production boats may be manufactured under one roof. Retail sales are conducted from a showroom in Oakville adjacent to the custom boat plant. *(January 28)*

N.B. COOK CORPORATION LTD. (formerly National Nursing Homes Ltd.) *Vancouver, British Columbia,* and its wholly-owned subsidiaries are engaged in the development, construction, management and operation of nursing homes, providing skilled nursing care, and retirement residences; in mortgage financing and land development; in the production of canned, frozen and fresh fish; and selling, servicing and renting materials handling equipment. *(January 31)*

HUNTER DOUGLAS CANADA LIMITED, *Winnipeg, Manitoba,* is engaged in the production and sale of architectural, building and home improvement products throughout Canada and a large number of foreign markets. Its principal products are aluminum siding, printed decorative plywood panels, suspended linear ceiling systems, venetian blinds and awnings. *(February 21)*

THE GOLD CREST PRODUCTS LIMITED, *Toronto, Ontario,* manufactures and sells, throughout Canada, various lines of furniture commonly referred to in the furniture business as "case goods", and upholstered and wooden household furniture, and is licensed to manufacture the Futorian line of upholstered furniture in Canada. In 1972, the company acquired National Drapery, a Canadian manufacturer of custom draperies. *(February 25)*

BANISTER CONTINENTAL CORPORATION, *Minneapolis, Minnesota,* through wholly-owned subsidiaries, is involved in pipeline contracting in North America. This is the primary source of its revenues and income, but the company also leases IBM computers and related equipment. The company has announced plans to reincorporate in Canada in 1973. *(March 1)*

ZAPATA CORPORATION, *Houston, Texas,* and its approximately 70 subsidiaries are involved in five fields of operations: the offshore drilling of oil and gas wells; international bulk shipping; general construction and engineering; furnishing cargo boat services for off-shore contractors; and development of natural resources (fishing, mining and petroleum exploration). *(March 7)*

AHED MUSIC CORPORATION LIMITED, *Toronto, Ontario,* and its subsidiaries are engaged in recording, manufacturing and distributing phonograph records; manufacturing certain electronic musical amplifiers; and distributing a variety of other musical instruments. Alone, and in conjunction with other international entities, Ahed engages in music publishing and artist management on a worldwide basis. *(March 13)*

GERIN LIMITED, *Toronto, Ontario,* is wholly-owned by Gerbro Corp. and Roslyn Developments Ltd. Its assets comprise 656,200 common shares of Distillers Corporation-Seagrams Limited, 56,848 common shares of Dominion Dairies Limited, preferred shares of a number of Canadian companies and short-term bank deposits and corporate notes. *(March 13)*

NORDAIR LTD., *Dorval, Quebec,* provides scheduled air service from Montreal to Northwestern Quebec, the Eastern and High Arctic, and from Frobisher Bay to the Eastern Arctic. Its Southern route network consists of service between Montreal, Ottawa, Hamilton, Pittsburgh and Windsor. The company is also engaged in domestic and international charter operations. *(April 20)*

MESA PETROLEUM CO., *Amarillo, Texas,* is engaged in exploring for and developing oil and natural gas properties in Western Canada, the mid-Continent, Rocky Mountains and Gulf Coast, including off-shore U.S., and internationally in the North Sea and in West Africa. The company is also involved in the custom feeding of beef cattle in the Texas Panhandle. *(April 21)*

LACROIX INC., *Levis, Quebec,* and its six subsidiaries engage in the wholesale distribution of hardware, plumbing and heating supplies, building materials and electrical and architectural hardware in Eastern Quebec and Northern New Brunswick. Ninety percent of the dollar value of the company's merchandise is Canadian-made. *(April 25)*

PACIFIC WESTERN AIRLINES LTD., *Richmond, British Columbia,* provides commercial air services on a scheduled service basis to points in British Columbia, Alberta, Saskatchewan, the Northwest Territories and the State of Washington. Charter passenger and cargo services are provided across Canada and around the world by its international operations. *(April 25)*

PENNZOIL COMPANY, *Houston, Texas,* and its subsidiaries are engaged in oil and gas exploration; the production, refining and marketing of motor oil, lubricants and related products; natural gas transmission; and the mining and processing of copper, silver, gold, molybdenum, potash and sulphur. Pennzoil has developed an underground potash mine near Saskatoon, Saskatchewan. *(April 27)*

The Hunter Douglas plant in Pte. Claire, Quebec.

A Pacific Western Airlines Boeing 707.

REDSTONE MINES LIMITED, *Toronto, Ontario,* is engaged in mineral exploration, holding interests in approximately 31,835 acres of the Nahanni Mining District and a 14.7 percent interest in 20,150 acres in the Rankin Nickel area both in the N.W.T.; and an option on 250 contiguous claims near Lake Odon in Quebec. *(May 1)*

THE MERCANTILE BANK OF CANADA, *Montreal, Quebec,* provides a variety of banking services through a network of eight branches located in major urban centres across Canada. The bank's customers have access to the services of First National City Bank (Citibank) of New York which has branches and affiliates in 85 countries around the world. *(May 2)*

TRANS CANADA GLASS LTD., *New Westminister, British Columbia,* is both an operating and a holding company. The company and its 26 subsidiaries are engaged in the wholesale distribution of auto replacement glass and flat glass, the installation of auto replacement glass, the retail sale of flat glass and contract glazing for the construction industry. *(May 3)*

CFCN COMMUNICATIONS LIMITED, *Calgary, Alberta,* through its wholly-owned subsidaries, owns and operates television stations CFCN Channel 4, Calgary and CFCN Channel 13, Lethbridge, Alberta; radio stations CFCN-AM, Calgary and CFCO-AM, Chatham, Ontario; and radio stations CHYM-AM & FM, Kitchener, Ontario. Through CFCN-TV, the company owns CFCN Productions Limited which does production work for television. *(May 9)*

CITY SAVINGS AND TRUST COMPANY, *Edmonton, Alberta,* originally incorporated under The Trust Companies Act in Alberta, is now also licensed to maintain a full range of trust services under the regulation and supervision of Ontario, British Columbia, Saskatchewan, Manitoba, New Brunswick, the Yukon Territories and the Northwest Territories. In Quebec, the company is limited to making mortgage loans. *(May 10)*

NOWSCO WELL SERVICE LTD., *Calgary, Alberta,* provides services for oil and gas wells during drilling and completion of the wells and subsequently throughout their producing lives. The services include liquid nitrogen, acidizing, cementing, fracturing and endless tubing treatments. The company is a subsidiary of Big Three Industries, Inc. of Houston, Texas. *(May 12)*

NORTHERN NATURAL GAS COMPANY, *Omaha, Nebraska,* owns and operates a natural gas pipeline transmission system. The company's subsidiaries are engaged in activities interrelated with the natural gas business including retail distribution, the extraction, purchase, transportation and marketing of liquid products and the production and marketing of petrochemicals. *(May 19)*

GIBRALTAR MINES, *Vancouver, British Columbia,* has an operating open-pit mine in the Cariboo Mining Division of B.C. Milling operations and production of copper concentrate were begun in March 1972. Seventy-one percent of the issued shares of the company are held by Canex Placer Limited, a wholly-owned subsidiary of Placer Development Limited. *(May 23)*

CONN CHEM LIMITED, *Toronto, Ontario,* is engaged in the preparation, manufacturing and custom packaging of a variety of consumer products including personal care products, food products, pharmaceutical products, household products, paints and other items as well as in the operation of warehouse facilitites. The company employs approximately 566 people in addition to senior management. *(May 26)*

WHONNOCK INDUSTRIES LIMITED, *Vancouver, British Columbia,* through its six wholly-owned subsidiaries, carries on the businesses of logging, lumbering and producing shakes and shingles in British Columbia; owns and charters a lumber barge and two chip barges; and manufactures heavy duty equipment primarily for use in the forest industry. *(May 29)*

NW FINANCIAL CORPORATION LTD., *Vancouver, British Columbia,* is a holding company, whose assets are primarily issued and outstanding shares of its four subsidiaries. The subsidiaries are engaged in the Life Insurance, Mutual Fund and Investment Management fields. The company has two main subsidiaries, The North West Life Assurance Company of Canada and NW Investments Ltd. *(May 31)*

PUMA PETROLEUMS LTD., *Calgary, Alberta,* is involved in the petroleum industry, presently holding interests in 2,633,854 gross acres in Canada and off-shore the United Kingdom. The company operates 57 gross oil wells in Alberta, Saskatchewan and Manitoba which yield an average daily production of 850 gross barrels. *(May 31)*

McGRAW-HILL RYERSON, *Scarborough, Ontario,* publishes and distributes instructional materials for every level of education from preschool to adult and also publishes general books. The current list of more than 1,100 Canadian titles accounts for 47 percent of the company's sales. *(June 5)*

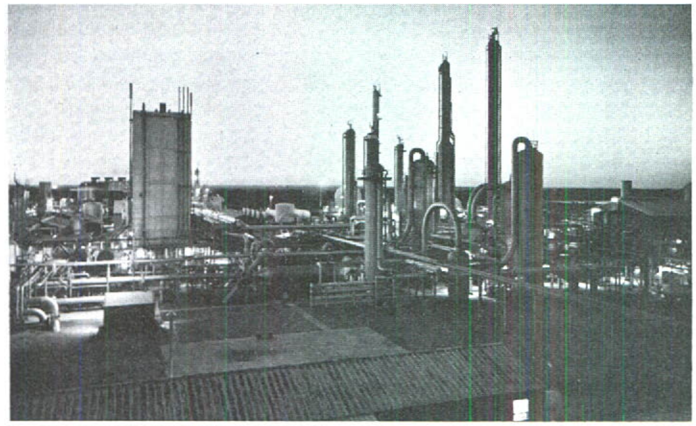
WIX CORPORATION LIMITED, *Toronto, Ontario,* designs, manufactures and distributes oil, air, gas and diesel fuel filters for cars, trucks, diesel locomotives and heavy duty equipment. Other products of the company are aircraft filters, jet fuel monitors and certain types of industrial filtration for the processing industries, including pipelines and public utilities. *(June 15)*

TURBO RESOURCES LIMITED, *Calgary, Alberta,* is an integrated petroleum company. Engaged in oil and gas exploration and production, Turbo also manufactures hydrocarbons, lubricants, chemicals and compounds, and markets gasoline and oils through 139 retail and bulk service stations in Alberta, B.C., and Saskatchewan. *(June 15)*

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION, *New York, New York,* is engaged directly and through subsidiaries, in the development, production, manufacture, sale, leasing and service of electronic and telecommunications equipment and various industrial and consumer products; in the life, fire and casualty insurance business; in telecommunications operations; and in other consumer and business services. *(June 20)*

RAM PETROLEUMS LIMITED, *Toronto, Ontario,* is involved in the production of natural gas and in exploration activities in the oil and gas, coal and mining fields. Ram has extensive permit holdings in most Canadian frontier sedimentary basins as well as substantial oil and gas lease holdings in Michigan and Ontario. *(June 23)*

Sports crew from CFCN Television Limited.



Northern Natural Gas Company.

MELTON REAL ESTATE LTD., *Edmonton, Alberta,* is engaged in real estate brokerage, land development of and investment in revenue properties and mortgages. The company's head office is in Edmonton with branch offices in Calgary, Saskatoon, Vancouver and Winnipeg. Melton is a member of Canada Wide Real Assist. *(June 27)*

MICC INVESTMENTS LIMITED, *Toronto, Ontario,* through its wholly-owned subsidiary, The Mortgage Insurance Company of Canada, is engaged in mortgage and lease guarantee insurance in Canada, and the reinsurance of mortgage insurance in the U.S. The company holds a number of assets in marketable securities and has a 50 percent interest in Charlotte Properties Limited which is developing in Bancroft, Ontario. *(July 5)*

FIRST CITY FINANCIAL CORPORATION LTD., *Vancouver, British Columbia,* offers a diversified range of financial services through subsidiary companies including trust and near banking facilities through City Savings & Trust Company; industrial and commercial equipment leasing through Pacific Leasing Corporation Ltd; and mortgage financing through a new company incorporated by First City and City Trust. *(July 7)*

UNITED TIRE AND RUBBER CO. LIMITED, *Rexdale, Ontario,* is engaged in the distribution and sale of new tires and in custom retreading services and also markets a variety of industrial rubber products including conveyor belt and hose. A wholly-owned subsidiary, United Tire & Rubber Mfg. Limited, recently started manufacturing "off the road" tires for distribution by the company. *(July 21)*

H. PAULIN & CO. LIMITED, *Scarborough, Ontario,* manufactures and distributes bolts, nuts, screws, industrial fasteners, fluid system components, metal stampings and parts for the automotive, agricultural, electronic and appliance industries; and a range of fasteners for the marine, pulp and paper, chemical and processing industries. The company has warehouses in Ontario, Alberta, British Columbia, Manitoba and Quebec. *(July 26)*

CARMA DEVELOPERS, *Calgary, Alberta,* operates on a decentralized basis, maintaining separate divisions to acquire, assemble, subdivide and service tracts of land to produce fully-serviced residential, commercial and industrial building lots. The company has entered into marketing contracts with shareholders that provide a built-in market for the sale of serviced land under its control. *(July 28)*

SONOR INVESTMENTS LIMITED, *Toronto, Ontario,* is an investment company which presently owns a portfolio of investments in a number of corporations. The officers of the company have been given authority by the Board regarding investment decisions and brokerage arrangements. *(August 1)*

BAD BOY APPLIANCES AND FURNITURE LIMITED, *Toronto, Ontario,* sells a variety of Canadian made appliances and furniture, operating 25 stores. The company's policy offers customers merchandise at discount prices supported by a 90-day guarantee which states that if a customer finds a lower price within 90 days, the company will refund the difference plus 10 percent of the difference. *(August 11)*

THE FAIRVIEW CORPORATION OF CANADA LIMITED, *Toronto, Ontario,* a subsidiary of Cemp Investments Ltd., is a real estate organization. Through subsidiaries and associates and by joint-ownership of properties, the company engages in the investment in and the development and administration of real estate in Canada. The company's principal subsidiary is the Fairview Corporation Limited. *(August 14)*

CONSOLIDATED NATURAL GAS COMPANY, *New York, New York,* was incorporated as a public utility holding company in 1942 to acquire and hold the capital stock of five natural gas companies, subsidiaries of Standard Oil Company (New Jersey). Since that time, the company has acquired other gas companies and has expanded research and development activities, including exploration in the Canadian Arctic. *(August 22)*

ANDRES WINES LTD., *Winona, Ontario,* and its subsidiaries are engaged in manufacturing and selling a variety of wines. Wines are sold by the company to Liquor Control Boards in nine provinces and through a retail outlet in downtown Toronto. The company plans to continue to introduce new brands to the market. *(August 29)*

CLARK OIL & REFINING CORPORATION, *Milwaukee, Wisconsin,* is an independent marketer-refiner in the Midwest, with more than 1800 service stations serving a 13-state area. The company also is active in crude oil and natural gas exploration, and has interests in chemical and pipeline operations. *(August 29)*

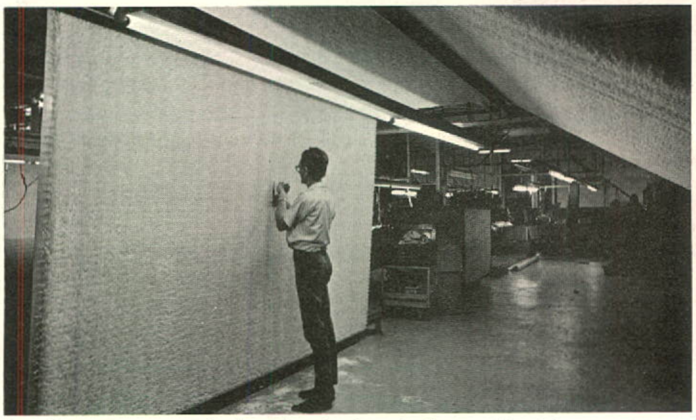
MAISLIN INDUSTRIES LTD., *Lasalle, Quebec,* is primarily involved in the business of freight transportation and distribution in and between Canada and the U.S.A. Diversification has expanded the operations to include the fields of automobile and truck leasing and rental, household goods moving and public warehousing. *(September 7)*

MAPLEX MANAGEMENT & HOLDINGS LIMITED, *Toronto, Ontario,* is a holding company for Abstainers' Insurance Company and Trans-Canada Investment Corporation Limited. AIC provides automobile insurance to drivers abstaining from the use of alcohol, and fire and other personal property insurance. TCI, established in 1933, manages the Trans-Canada Group of Mutual Funds. *(September 11)*

FIDELITY MORTGAGE AND SAVINGS CORPORATION, *Hamilton, Ontario,* is a mortgage and savings corporation which borrows money by accepting deposits from and selling debentures to the public. The company's subsidiary, The Equitable Trust Company, carries on the business of a trust company. The company and its subsidiary have five branches in Southern Ontario other than the head office in Hamilton. *(September 13)*

MARKEL FINANCIAL HOLDINGS LIMITED, *Toronto, Ontario,* owns Markel Service Canada Limited and Markel Insurance Company of Canada, serving the insurance requirements of the Canadian transportation industry for 21 years. The company expects to diversify while at the same time expanding its operations in the general insurance field during 1973. *(September 14)*

SPAR AEROSPACE PRODUCTS LTD., *Toronto, Ontario,* engages in the repair and overhaul of aircraft instruments and gearboxes and in engineering design, development and manufacture in the areas of spacecraft structures and spacecraft electrical and mechanical subsystems, helicopter and jet engine transmissions, and electro-optical detection systems. *(September 20)*



Peerless rug carpet being checked as it flows off tufting machine.

Travelways Ltd. coach leaving terminal.

UNITED TRUST COMPANY, *Toronto, Ontario,* offers a full range of savings and trust, mortgage lending and real estate brokerage services through its 13 trust and savings branches and 30 real estate offices in Ontario. Services will be expanded outside the Province in 1973. Assets under administration at September 30, 1972 were $71,853,-015. *(October 27)*

UNITED CANADIAN SHARES LIMITED, *Winnipeg, Manitoba,* is a holding company whose only asset is the capital stock of The Canadian Indemnity Company. Canadian Indemnity, a Canadian-owned general insurance company operates across Canada and in the Western United States. *(October 27)*

ALPA INDUSTRIES, *Scarborough, Ontario,* was formed by the amalgamation of five lumber companies in 1969. The company engages in the operation of lumber yards; the purchase, processing and distribution of lumber products; the wholesaling and exporting of lumber; and the manufacture of a variety of prefabricated wooden products used in the construction industry. *(October 30)*

AMERICAN METAL CLIMAX, INC., *New York, New York,* is a diversified natural resources and minerals development company with assets in excess of $1 billion (U.S.). The company mines, smelts, refines, fabricates and markets metals and minerals. Its activities include aluminum, coal, copper, lead, iron ore, molybdenum, tungsten, hafnium, potash, precious metals, zinc and zirconium. *(November 10)*

NOMA INDUSTRIES LIMITED, *Scarborough, Ontario,* and its subsidiaries design, manufacture and sell Christmas decorative electrical and non-electrical products as well as a variety of other electrical wire products including flexible insulated wire and cable, cord sets, extension cords and electrical wiring harnesses. The company manufactures and distributes in Canada and the U.S. *(November 20)*

PEERLESS RUG LIMITED, *Montreal, Quebec,* and its subsidiaries produce carpeting and associated products, including room size rugs, area rugs, bath mats and bath sets, and also manufacture blankets and bedspreads. The Peerless sales force markets to distributors, retail chains, mail-order houses and department stores across Canada. *(November 27)*

TD REALTY INVESTMENTS, *Toronto, Ontario,* is an unincorporated trust designed to operate as a mortgage and real estate financing intermediary which will enable investors to participate, through investment in its marketable securities, in a professionally managed and leveraged portfolio of diversified mortgage loans and other real estate investments. *(November 29)*

DRUMMOND, McCALL & CO. LIMITED, *Lachine, Quebec,* with branches across Canada, specializes in the processing, marketing and distribution of a variety of ferrous and non-ferrous metal products including aluminum, brass, copper, stainless steel and nickel; and acts as the Canadian agent for some producers of special alloy steel and non-ferrous products not manufactured in Canada. *(December 1)*

NEWFOUNDLAND TELEPHONE COMPANY LIMITED, *St. John's, Newfoundland,* owns and operates the principal telephone and communication system in Nfld., serving approximately 68 percent of the province's population. The company furnishes Local Exchange, Long Distance and Data Services and plans continued expansion in the telecommunications market. *(December 1)*

KEEN INDUSTRIES LIMITED, *Edmonton, Alberta,* engages in heavy construction contracting in Northwestern Canada; its activities include railway roadbed construction, oilfield and highway construction, contract oil and gas well drilling, well servicing and air, highway and water transportation services in B.C., Alberta and the Northwest Territories. *(December 4)*

TRAVELWAYS LTD., *Willowdale, Ontario,* founded in 1948, is engaged in the transportation industry as a bus and motor coach operator. The company specializes in motor coach charters, school bus transportation and package tours to many destinations in Canada and the United States. *(December 7)*

COSEKA RESOURCES, LIMITED, *Vancouver, British Columbia,* engaged principally in oil and gas exploration and development, has interests in over one million gross acres of land in Alberta, B.C., Saskatchewan and the Northwest Territories; participates ininternational exploration in the North Sea; and owns, or has under option, several mining properties in B.C., Alberta and Montana. *(December 11)*

ULTRAMAR COMPANY LIMITED, *London, England,* a holding company, engages in exploration and development of oil and gas concessions; and refining, marketing, distribution and shipping of crude and oil products. Principal exploration is carried on in the U.S., Canada, the Caribbean, Indonesia and the North Sea. Refineries in Newfoundland and Quebec supply products for Eastern Canada. *(December 12)*

MOFFAT COMMUNICATIONS LIMITED, *Winnipeg, Manitoba,* operates radio stations CKLG-AM&FM, Vancouver; CKXL-AM, Calgary; CHAB-AM, Moose Jaw/Regina; and CKY-AM&FM, Winnipeg. It has a 45 percent interest in radio station CHED-AM, owns Channel Seven Television Ltd. and has an 80 percent equity (74.5 voting) interest in Winnipeg Videon Limited, a cable television system operator in Winnipeg. *(December 13)*

UNICAN SECURITY SYSTEMS, *Montreal, Quebec,* designs, manufactures and sells a range of locks, keys, furniture and builders' hardware and security products. Employing 1900 people, its $25 million sales go to 70 countries. Unican's growth in the past five years has provided the company with a broad base in North America. *(December 20)*

PANHANDLE EASTERN PIPE LINE COMPANY, *Houston, Texas,* and its wholly-owned subsidiary, Trunkline Gas Company, engage in the transmission and sale of natural gas to investor-owned and municipal gas systems which provide local gas service in12 states and Canada. Through other subsidiaries Panhandle explores for oil and gas from the Gulf of Mexico to the Canadian Arctic Islands. *(December 27)*

Performance of the Market

The broad economic expansion that became noticeable in 1971 gained momentum in 1972. Toronto's equity market responded with a strong upward surge in all of the four major index groups early in the year.

The higher level of profits encouraged the market and corporate earnings generally showed substantial gains. After-tax profits were estimated to have risen by 22 percent over a year earlier, and pre-tax profits were up 18 percent. Capital spending rose by seven percent, and government and consumer spending were each ahead by 11 percent over the previous year. Retail sales rose 10 percent above the record-breaking 1971 level.

The Industrial Index levelled off in March, as the volume of trading declined. In August, the traditional mid-summer rally occurred and the index advanced in more active trading to a new high level of 217.36. The month of September saw the lightest trading of the year, as investor confidence was shaken by the failure of the Paris peace talks to reach any conclusion and by the uncertainty of the forthcoming Federal election. Following the elections in Canada and the United States, the market resumed its rise in heavier trading. The Industrial Index touched its highest level ever recorded, 221.64, on the final trading day of the year, and closed just below that level, at 221.57.

By the end of November, the value of trading on The Toronto Stock Exchange had exceeded any full year in its history. Trading volume for 1972 was the best since 1969, but with the price of an average share traded at $9.84, some $3.20 above that of 1969 and $1.20 above the 1971 average, the total value for the year reached an unprecendented $6.26 billion.

Leading the industrial advance was the Oil Refining group, with a gain of almost 59 percent. This was followed by an advance of 44.57 percent by the Communication Index, with Real Estate up 42.11 percent and General Manufacturing up 39.30 percent. These substantial gains were offset to some extent by the relatively static performance of the Industrial Mine and Pipeline indices, which showed gains of just over seven percent, and the Utility group, which declined by 6.46 percent.

Oil and gas production and exports from developed fields in Canada reached record levels in 1972. Production of crude oil in Alberta ran about 15 percent ahead of 1971, virtually utilizing effective capacity by December. With the diminishing North American reserves of conventional crude oil and natural gas, the attention of the oil industry turned to the Athabasca tar sands. A recent study placed recoverable synthetic oil from this source at 280 billion barrels.

The exploration activities of the integrated oil companies concentrated on the frontier areas of the Canadian Arctic and off the Eastern coast of Canada, resulting in major oil and gas discoveries. Total industry expenditures for exploring and developing these areas have been estimated as high as $30 billion for the next decade.

Refinery production rose by 13 percent in Canada, with the largest increases taking place in the Atlantic provinces, where a number of new refineries have come on stream recently.

The Oil Refining Index rose to an unprecendented level of 350.77 on December 21 and closed the year at 343.31.

Corporate advertising expenditures grew as the economy expanded. This, along with higher advertising rates, brought radio, television and print advertising revenues to a record level in the Communication group. Diversification by broadcasters and publishers added to the improved earnings. The Communication Index touched its highest level ever recorded, 507.29, on August 18, and closed the year at 468.83.

Canadian housing starts in 1972 totalled a record 249,914, up seven percent from the previous high set in 1971. Although there was an increase in commercial and industrial construction, it was less rapid than in housing. Contributing factors were the slow expansion of capital spending, as well as labour difficulties in some areas of the country.

The Real Estate Index was at its lowest level early in January and closed at 189.38, its best level of the year.

The consumer-oriented nature of 1972's economic expansion was reflected in the rise in the General Manufacturing Index. With automobile manufacturers reporting record car and truck sales, the auto parts industry experienced a buoyant year. In the past two years, shipments of radio, television and household appliances have increased by some 40 percent, compared with eight percent for the non-consumer segment of the industry. Large capital expenditure programs announced by major transmission companies were reflected in the strong performance of pipe manufacturers. Research and development programs in avionics, telecommunications, marine and land communications brought about expansion in these fields, which in turn created more highly specialized jobs and better earnings prospects.

The General Manufacturing Index was at its lowest point, 146.21, at the beginning of the year and closed at 204.22, near its highest level on record.

The lack-lustre performance of the Industrial Mine component of the Industrial Index was influenced by the over-supply of some metals. A number of expansion projects were postponed, and corporate earnings were reduced as the ample supply kept metal prices down.

Pipeline companies, which were operating at, or near capacity, failed to receive the price increases for which they applied, thus restricting some expansion programs. Nevertheless, with the imminent energy crisis in the United States, pipeline issues showed some recovery by year end.

Some utilities had problems similar to those of pipeline stocks. Because of their monopoly position, utility companies are regulated on a cost-plus basis by government-appointed boards. Bell Canada, which is heavily weighted on the Utility Index, did not obtain total approval of the rate increases for which it had applied. Without rate relief, earnings and return on capital were inadequate to carry out its capital expenditure program. Although gross revenues for telephone companies grew at an average annual rate of 11.6 percent over the past six years, earnings grew at the lower average annual rate of 5.5 percent, reflecting more rapid increases in costs of operations and debt servicing. Because telephone companies have had difficulty in raising equity capital, they have been forced to be dependent on retained earnings and debt financing to provide funds for capital expenditure.

The Utility Index touched 163.07, its best level of the year, in mid-January and closed the year at 148.59.

BASE METALS

According to preliminary estimates, mineral production in Canada in 1972 exceeded $6.3 billion for the first time. Although the greatest gains were in the mineral fuel section, metallic minerals still accounted for the largest contribution. Non-metallic mineral and structural material production also increased over 1971.

The Base Metal Index was at its lowest point on the first trading day in 1972 and rose steadily for the first three months of the year. The index levelled off until September, when a sharp decline began, continuing through November. With some recovery in the final month, Base Metals closed at 84.89.

COPPER production accounted for the largest increase among base metals, with a rise of more than 158 million pounds over 1971. Deliveries were weak throughout the summer months, but picked up toward the end of the year. Higher costs for capital, production and concentrate treatment which were not offset by higher prices, continued to limit the profits of producers. With an increase in the copper price late in the year and the prospect of new markets developing, the picture began to brighten. Political and economic difficulties in Chile and Zambia also enhanced the outlook for Canadian producers.

NICKEL production was cut back in 1972, as a balance was sought in world supply and demand. Some analysts anticipated a 5.8 percent compound annual growth rate for nickel consumption through 1975, while the growth rate for production in the same period was estimated at approximately 7.7 percent. Sales rose considerably in the third quarter of the year, mainly because of hedge-buying by customers in anticipation of forthcoming price increases which were announced in September.

IRON ORE production rose, according to preliminary estimates from Statistics Canada, although strikes in the industry held back output and delayed some large expansion programs. Canada is the second largest exporter of iron ore in the world, with almost 80 percent of production sold outside the country. In the highly competitive iron ore markets, Newfoundland, which produced more than half of Canada's iron ore in 1972, benefits from its proximity to ocean ports.

ZINC markets were firm, with production, demand and price all showing increases. In the United States, which has long been the world's largest supplier, an increasing number of zinc smelters were forced to close for a number of reasons -- among them, outmoded technology, pollution control restrictions and smelter locations which incurred high transportation costs. The closures since 1969 have reduced zinc smelting capacity in the U.S. by 45 percent. The rapid expansion of Canadian smelting capacity enabled the industry to benefit from the U.S. shortage.

LEAD production was down from 1971, as oversupply on this continent and around the world exerted downward pressure on prices. Environmental concerns resulted in legislation in the United States limiting the tetraethyl lead content in gasoline to 1.25 grams per gallon by January 1, 1977. Similar legislation has been proposed in Canada. Although the reduced level will be achieved gradually, the effects of the reduction began to be felt in the lead industry in 1972. However, exports of lead ores and concentrates grew, with Japan the main customer. The manufacture of lead-acid batteries consumed an increasing amount of lead in North American markets.

SILVER produced in Canada is derived approximately 95 percent as a by-product of base metal mining. With the rise in base metal production, silver production reached a record level, again leading non-Communist world production. Prices showed an almost uninterrupted rise from their four-year low, touched late in 1971, as stocks of silver declined. There was considerable speculation in world markets for the precious metal.

URANIUM prices continued to decline as over-production and intense competition forced prices to an all-time low, with no near-term improvement anticipated. Exploration activities were reduced. With general agreement that nuclear fuel will become a major energy source in the next decade, the long-term outlook for uranium continued to be promising, and additional reserves will be required if a world energy crisis by the end of the 1980's is to be averted.

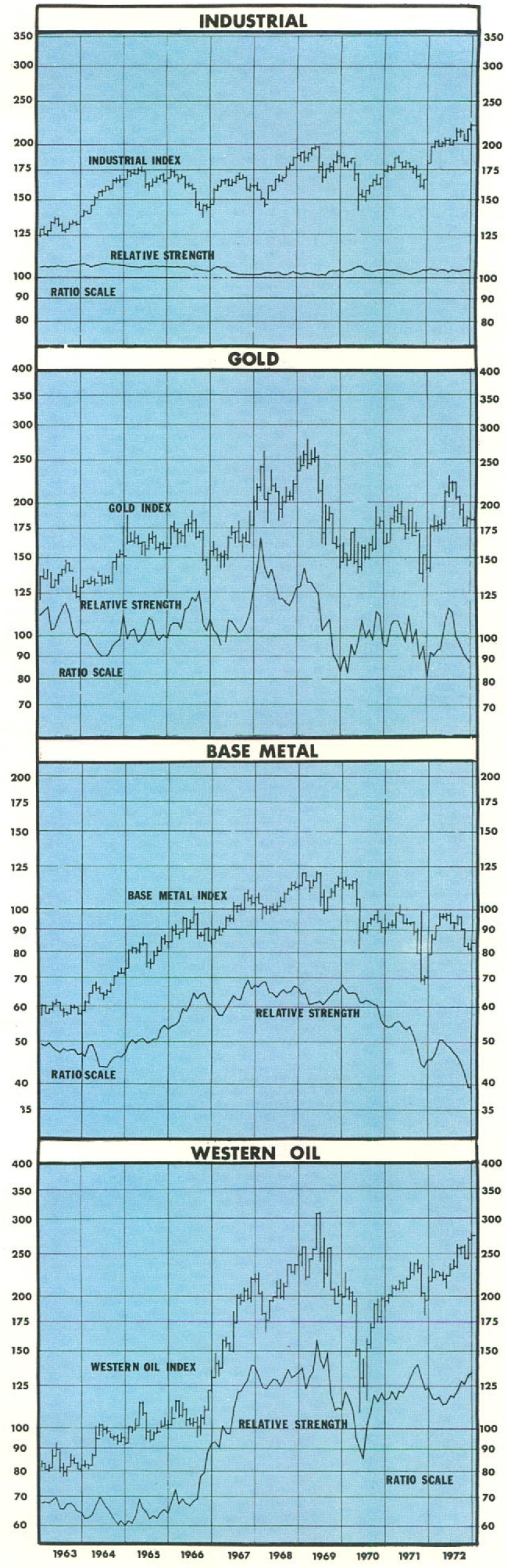
ASBESTOS production established another record, as did exports, which account for approximately 95 percent of production. The manufacture of asbestos-cement building products grew rapidly during the year, while other uses remained stable. With rising costs of material, supplies and labour, the possibility of price increases loomed as the year drew to a close.

GOLD production was slightly lower than in 1971, as some mines were unable to obtain a full complement of mine labour. Speculative demand pushed the price for gold bullion to a peak of $70.00 (U.S.) an ounce in August. This permitted gold mines to relinquish the benefits of the Emergency Gold Mining Assistance Act under which they sold gold to the Federal Government at the fixed price of $38.00 an ounce and sell their product on commodity markets abroad. The resulting improved profits permitted expanded exploration and ore reserves increased. Coincident with the record price for gold bullion in London, the Gold Index touched its best level of the year in August and fluctuated with the price of gold to close the year at 184.89, up 31.03 percent from the 1971 year end.

WESTERN OILS moved within a relatively narrow range for the first five months of the year, touching their lowest point, 209.19, on May 11. From that level the Western Oil Index rose quite steadily to December 11, when it touched its high for the year, 277.45, and closed slightly below that level, at 273.54. This constituted a rise of 26.80 percent from the 1971 close.

All of the companies making up the index have varying degrees of participation in exploration in the frontier areas and benefitted from the discoveries made.

Production of liquid hydrocarbons rose by an estimated 15 percent. Total exports were up by approximately 22 percent, Canadian crude oil imports into Eastern Canada were ahead of the year earlier by some 13 percent, domestic demand for natural gas rose 11 percent and export demand by 13 percent.



TSE Trading Highlights

The record annual value of trading in securities listed on Canada's six stock exchanges in 1972 highlights the longer term trends in the development of Canada's equity market. The total value of all trading on the Canadian exchanges last year was $9.1 billion, 34% higher than in 1971 and well ahead of the previous annual record of $8.6 billion registered in 1969.

This record trading was well enhanced by the performance of the Toronto market where trading in 1972 was worth $6.3 billion or 69% of the total value of trading in Canada.

In Toronto the annual record in the value of trading was not matched by a parallel record in the number of shares traded. This development reflects important longer term trends in the Toronto market.

The annual value of trading over the last decade has followed an underlying upward trend while the volume of shares traded has shown a tendency to decline slowly. As a consequence, with slight interruptions in 1964 and 1966, the average price of a traded share has risen steadily. These generally higher values point to the overall improved quality of shares listed on the Toronto market, economic growth in Canada, as well as some market adjustment for rising price levels. The qualitative improvement in Toronto listings also reflects the more stringent requirements for listing instituted by The Toronto Stock Exchange in the last decade.

Another conspicuous development in the Toronto equity market in recent years has been the increased participation in the market by institutional investors. This, in turn, has resulted in the growing importance of block trading. Inevitably, the average annual value of each transaction effected on the Toronto market has more than doubled over the last ten years while the number of transactions each year has remained relatively stable.

The listing of industrial issues and the trading in industrial shares continue to be crucial factors in the growth of the Toronto market. At the end of 1972, industrial issues represented 74% of the 1,185 Toronto listings, while trading in industrial shares amounted to $5.1 billion or 72% of all such trading in Canada. Over the last 10 years, the volume of trading in industrial issues on the Toronto market has increased threefold.

Despite the growth of industrial listings, mining and oil issues remain an important feature of equity trading in Toronto. Last year, trading in the mining and oil sectors of the market amounted to $1.2 billion, 30% higher than the comparable figure for 1971. Furthermore, the volume of trading in these shares rose 5% to 322 million shares.

The new listings on The Toronto Stock Exchange in 1972 reinforced the trends mentioned above. Altogether 65 newly-listed companies posted 68 issues for trading for the first time and contributed to the Toronto market an additional 403.4 million shares with a quoted market value of $9.2 billion, $9.5 billion less than the previous year when several large corporations were listed. Of the new listings in 1972, 58 were industrials, 2 mines, 4 oils and one trust unit.

The 20 Leaders in Quoted Market Value, listed below, were determined by multiplying the issued capital by the 1972 closing price.

Historic Composition of TSE Listings

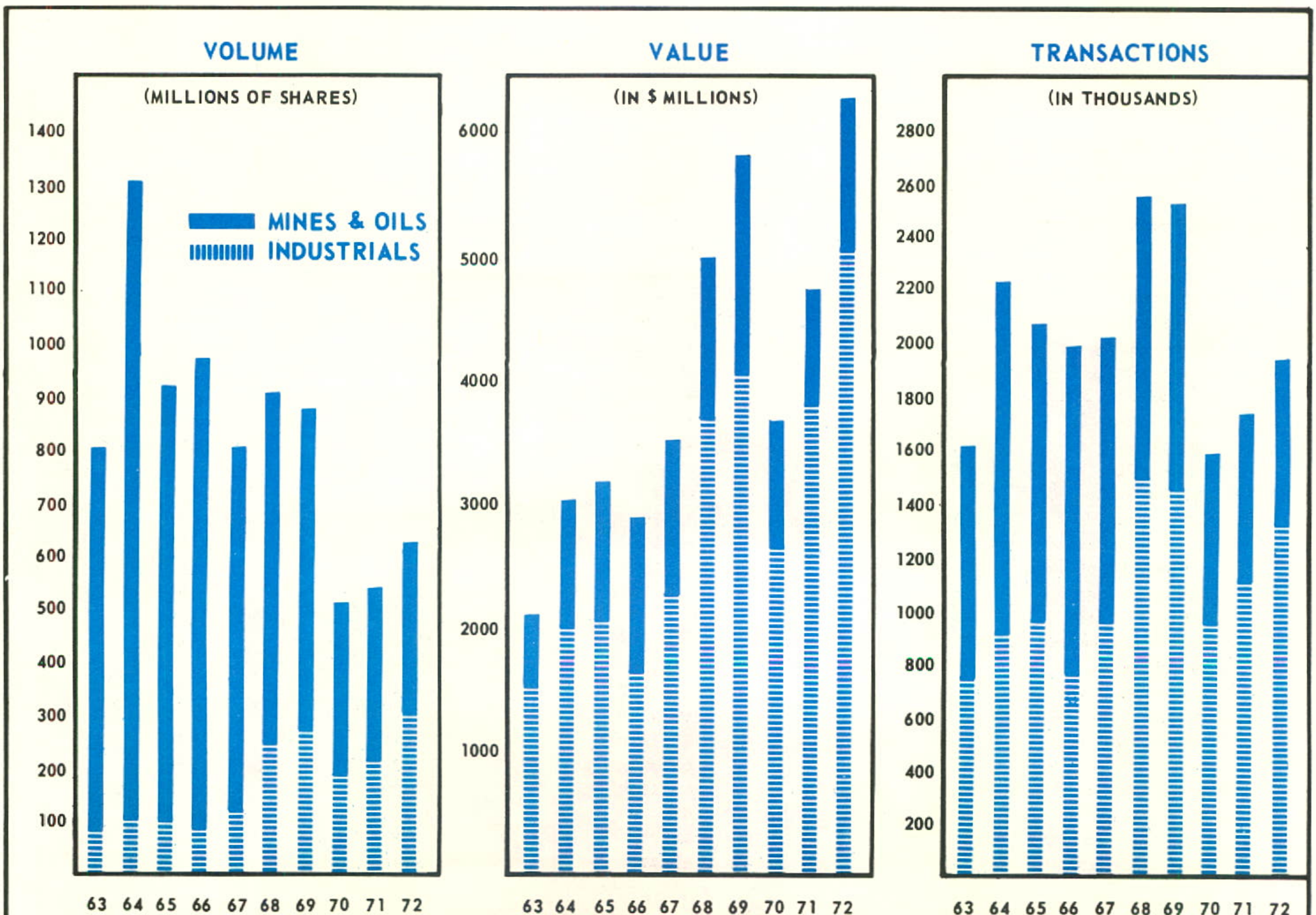
YEAR	INDUSTRIAL	MINING & OIL	TOTAL
1948	493	357	850
1949	503	364	867
1950	513	402	915
1951	517	440	957
1952	536	479	1,015
1953	532	503	1,035
1954	529	518	1,047
1955	534	536	1,070
1956	569	554	1,123
1957	597	546	1,143
1958	608	522	1,130
1959	614	517	1,131
1960	617	501	1,118
1961	620	497	1,117
1962	642	479	1,121
1963	641	457	1,098
1964	657	452	1,109
1965	673	435	1,108
1966	684	414	1,098
1967	702	377	1,079
1968	742	364	1,106
1969	794	361	1,155
1970	817	360	1,177
1971	829	343	1,172
1972	873	312	1,185

Twenty Leaders in Quoted Market Value

Canadian Incorporated Companies	Quoted Market Value
Imperial Oil Ltd.	$6,350,782,094
International Nickel Co. of Can. Ltd. (The)	2,375,744,475
Gulf Oil Canada Ltd.	1,819,276,240
Bell Canada	1,640,747,129
Distillers Corporation-Seagrams Ltd.	1,508,328,200
Moore Corporation Ltd.	1,493,654,243
Shell Canada Ltd.	1,275,988,900
Royal Bank of Canada (The)	1,234,926,000
Canadian Pacific Ltd.	1,146,596,480
Hudson's Bay Oil & Gas Co. Ltd.	1,085,637,587
Canadian Imperial Bank of Commerce	1,071,330,000
Noranda Mines Ltd.	1,017,300,991
Hiram Walker-Gooderham & Worts Ltd.	916,589,064
Steel Company of Canada Ltd. (The)	913,857,825
Pacific Petroleums Ltd.	883,363,066
Ford Motor Co. of Canada Ltd.	829,480,000
Alcan Aluminium Ltd.	749,497,704
Interprovincial Pipe Line Co.	740,102,040
Bank of Montreal	730,423,828
Thomson Newspapers Ltd.	658,518,419

DAILY AVERAGES ON THE TORONTO STOCK EXCHANGE:

Year	Value	Volume	Average Price/Share	Transactions	Average Value/Transaction
1949	$ 1,708,122	940,489	$1.82	2,458	$ 694.92
1950	3,392,713	1,904,494	1.78	4,087	830.12
1951	4,414,461	2,110,913	2.09	4,642	950.98
1952	4,259,948	2,303,087	1.85	5,169	824.13
1953	4,582,006	3,419,845	1.34	6,245	733.71
1954	5,324,249	3,062,884	1.74	6,327	841.51
1955	10,731,646	6,014,375	1.78	10,512	1,020.89
1956	10,397,947	5,376,365	1.93	10,238	1,015.62
1957	7,414,834	3,686,318	2.01	7,931	934.92
1958	5,987,487	3,294,628	1.82	6,702	893.39
1959	7,368,009	3,022,711	2.44	7,162	1,028.76
1960	4,844,873	1,860,165	2.60	4,790	1,011.46
1961	10,005,346	2,848,796	3.51	7,307	1,369.28
1962	8,189,764	3,192,453	2.57	6,607	1,239.56
1963	8,524,406	3,216,112	2.65	6,409	1,330.07
1964	12,033,840	5,186,020	2.32	8,943	1,345.62
1965	12,644,516	3,692,627	3.42	8,237	1,535.09
1966	11,394,816	3,843,333	2.96	7,979	1,428.10
1967	14,001,242	3,257,046	4.30	8,131	1,721.96
1968	19,861,523	3,610,660	5.50	10,234	1,940.73
1969	22,923,147	3,466,926	6.61	10,134	2,262.00
1970	14,470,428	2,070,925	6.99	6,341	2,282.04
1971	18,676,021	2,161,457	8.64	6,915	2,700.59
1972	24,883,307	2,528,372	9.84	7,717	3,224.60



Corporate Growth and Earnings

During the third quarter of 1972, Canadian companies' earnings were up 14 percent from the 1971 third quarter. This rise in earnings reflected the general pattern of economic recovery.

The Real Estate group's earnings were up almost 105 percent. An easing of mortgage rates contributed to their improvement.

The Paper and Forest group enjoyed an increase of more than 75 percent over 1971 third quarter earnings. The downward trend of the Canadian dollar and a revived construction industry have contributed to this profit performance.

The Construction and Material earnings rose some 40 percent above the previous year while the latest twelve months earnings stood 68 percent over 1971. Increased tax incentives and an expanding economy have encouraged this positive trend.

Out of a total of 941 companies with 1,186 listed issues on the Toronto Stock Exchange, 502 companies paid dividends on 700 issues in 1972. Of these issues on which dividends were paid, 191 declared increases in their indicated dividend rate, 18 announced decreases in their indicated annual rate and 16 omitted at least one dividend payment during the year.

The largest dollar increase came from Ford Motor of Canada. Their previous rate of $3.00 annually was increased to $4.00. Other significant rate increases were Dominion Bridge ($1.50 vs. $1.00), DuPont of Canada ($.80 vs. $.50), Electrohome ($.15 vs. $.08) and Imperial Life Assurance of Canada ($2.80 vs. $2.60). Of the 68 new issues in 1972, 37 were paying dividends by year-end. In 1972 the quoted market value of TSE industrial shares reached $216.0 billion, a 22.1 percent increase over 1971. The quoted market value of mines and oils for the year advanced 14 percent from 1971 to $7.4 billion.

The table directly below ranks the 30 largest Canadian incorporated companies listed on The Toronto Stock Exchange in order of their gross sales or operating revenue.

The table on the next page ranks the 40 most actively traded industrials listed on The Toronto Stock Exchange in order of share volume traded exclusive of shares with a closing price below $5.00 at year-end.

The 15 most actively traded mines and oils, on page 27, were selected according to the highest share volume with a closing price in excess of $1.00 as at December 31, 1972.

30 Companies with Largest Revenue

Name of Company	Sales Revenue	Total Assets	Net Income
	(Latest 12 months, in thousands of Dollars)		
Loblaw Companies Ltd.	$2,592,748	$ 547,920	$ 7,758
Imperial Oil Ltd.	1,982,000	1,648,000	141,000
Ford Motor Co. of Canada	1,717,523	987,000	96,200
Distillers Corp.-Seagrams[1]	1,611,767	1,416,327	67,899
Alcan Aluminium[1]	1,432,271	2,296,783	60,477
Massey-Ferguson Ltd.[1]	1,189,972	1,057,315	40,297
Bell Canada	1,089,948	3,726,187	160,258
George Weston Ltd.	1,089,578	456,833	17,079
Dominion Stores Ltd.	1,034,031	165,531	8,965
Canada Safeway	957,468	217,279	18,639
Royal Bank of Canada	943,128	14,767,516	51,399
Canada Packers Ltd.	937,720	188,077	10,078
Simpson-Sears Ltd.	873,612	542,919	21,536
Steinberg's Ltd.	871,828	287,848	14,972
MacMillan Bloedel Ltd.	848,490	855,686	30,772
Gulf Oil Canada	839,763	1,168,788	68,037
Cdn. Imperial Bank of Commerce	834,671	13,300,811	122,231
Int'l Nickel Co. of Canada[1]	831,562	2,094,753	89,969
Shell Canada Ltd.[2]	788,193	1,003,243	74,380
Steel Co. of Canada	773,049	921,214	69,940
Hiram Walker-Gooderham & Worts[1&3]	760,159	640,690	56,400
Bank of Montreal	734,946	11,323,389	53,157
Canadian Pacific Limited	693,516	2,356,244	75,536
Rothmans of Pall Mall[3]	656,999	429,785	12,044
Hudson's Bay Company	636,165	367,324	13,137
Imasco Ltd.[3]	601,307	243,229	20,379
Bank of Nova Scotia	558,186	8,541,820	33,474
Domtar Ltd.	550,776	509,994	16,700
Canadian General Electric	541,755	412,918	16,165
Noranda Mines Ltd.	529,772	1,022,479	56,845

1. Accounts stated in U.S. funds 2. Excise tax excluded 3. Excise tax not excluded

40 Most Actively Traded Canadian Industrials with Corporate Performance

Name of Company	Shares Traded	Latest 12 Month Net Income	Sales or Operating Revenue	1972 Closing Prices	1971 Closing Prices	Net Change	Indicated Dividend Rate	Yield %
Int'l Nickel Co. of Canada	7,403,434	89,969(1)	831,562(1)	$31 ⅞	$32.00	−$⅛	$1.00(1)	3.14
Imperial Oil Ltd.	5,231,245	141,000	1,982,000	49 ⅛	31 ⅛	+18.00	.60	1.22
Canadian Pacific Ltd.	4,738,158	75,536	693,516	16.00	13 ⅞	+2 ⅛	.66(3)	4.13
Massey-Ferguson Ltd.	4,085,095	40,296	1,189,972	19 ½	11 ½	+8.00	....	....
Bank of Montreal	3,476,028	53,157	734,946	21 ⅜	18 ¼	−3 ⅛	.88	4.12
Cdn. Industrial Gas & Oil Ltd.	3,262,321	10,317	44,916	10 ¾	9 ⅛	+1 ⅝	....	....
Alcan Aluminium Ltd.	2,956,809	60,477(1)	1,432,271(1)	22 ¾	18 ¼	+4 ½	.80(1)	3.52
Union Gas Ltd.	2,820,480	14,663	139,235	12.00	14 ¾	−2 ¾	.64	5.33
Abitibi Paper Company	2,447,539	6,288	297,382	10 ½	7 ⅛	+3 ⅜	.07(3)	.67
Steel Co. of Canada (The)	2,439,821	69,940	773,049	37 ⅛	26 ¼	+10 ⅞	1.25(2)	3.37
Consumers Gas Co. (The)	2,316,935	25,555	225,386	17 ⅝	19 ⅝	−2.00	.88	4.99
Bell Canada	2,292,096	160,258	1,089,948	44 ½	46 ½	−2.00	2.65	5.96
Brascan Ltd.	2,226,421	94,481	491,593	20 ⅞	18 ⅛	+2 ¾	1.00(1)	4.79
Power Corp.	2,203,902	10,024	13,712	13 ¾	5 ⅛	+8 ⅝	.20	1.45
Northern & Central Gas Ltd. Ltd.	2,161,014	15,624	210,312	12.00	14 ⅜	−2 ⅜	.60	5.00
Consumers Distributing Co. Ltd.	2,134,385	2,486	51,774	32.00	12.00(4)	+20.00	.10	.31
Interprov. Stl. & Pipe Corp. Ltd.	2,127,681	4,105	50,114	15 ¼	7 ⅝	+7 ⅝	.15(3)	.98
BP Canada Ltd.	2,106,455	15,288	258,688	18 ⅞	11 ½(4)	+7 ⅜	.15	.79
Canadian Breweries	2,076,361	6,063	254,117	5 ⅜	7.00	−1 ⅝	.40	7.44
Oshawa Group Ltd. "A"	2,054,321	6,859	558,774	10 ½	11 ⅛	−⅝	.30	2.86
Husky Oil Ltd.	2,035,476	12,208	195,701	18 ¾	16.00	+2 ¾	.15	.80
Peoples Dept. Stores	2,012,235	1,666	47,106	22 ¾	3.85(4)	+18.90	.10	.44
Cdn. Imperial Bank of Commerce	2,006,912	122,231	834,671	30 ¾	24 ⅜	+6 ⅜	.92	2.99
Sklar Manufacturing Ltd.	1,999,799	1,466	25,959	9 ⅜	2.20	+7.17	....	....
Gulf Canada Ltd.	1,919,178	68,037	1,168,788	39 ⅞	25.00	+14 ⅞	.60	1.50
Royal Bank of Canada	1,871,665	51,399	943,128	37 ⅛	28 ⅛	+9.00	1.00	2.69
Electrohome Ltd.	1,751,876	4,453	87,589	20.00	8.00(4)	+12.00	.15	.75
Noranda Mines Ltd.	1,714,994	56,845	529,772	41 ⅝	33.00	+8 ⅝	1.20	2.88
Dominion Textile Ltd.	1,709,373	7,296	229,712	9.00	6 ¾(4)	+2 ¼	.37(2)	4.11
TransCanada Pipelines Ltd.	1,665,962	33,854	357,435	44.00	35 ½	+8 ½	1.00	2.27
Westcoast Transmission Co. Ltd.	1,601,602	14,376	126,796	22 ¼	25 ⅝	−3 ⅜	.60	2.70
Molson Industries Ltd. "A"	1,594,465	20,449	470,007	29 ½	19 ¼	+10 ⅛	.80	2.71
Kaps Transport Ltd.	1,570,882	1,731	24,769	11 ⅜	7 ⅞	+3 ½	.15	1.32
Laidlaw Motorways	1,566,577	1,772	21,767	17 ⅞	4.90(4)	+12.97	.20	1.12
Cadillac Development Corp.	1,534,110	3,436	14,738	12 ¼	8 ¾	+3 ½	.05	.41
Bow Valley Industries Ltd.	1,504,795	1,463	48,193	44.00	27 ⅛	+16 ⅞	.10	.23
Moore Corp. Ltd.	1,503,031	44,362(1)	485,615(1)	52 ½	38.00	+14 ½	.70(1)	1.33
Federal Grain Ltd.	1,461,459	7,970	196,196	8 ½	8.00	+½	.40	4.71
Dominion Stores Ltd.	1,457,103	8,965	1,034,031	14 ⅜	14 ⅝	−¼	.72	5.01
OSF Industries Ltd.	1,443,753	2,804(5)	18,221	10 ⅛	5.00	+5 ⅛	.05 ⅜	.53

(1) U.S. Funds (2) Extra declared in latest 12 mths (3) Paid in latest 12 months (4) Adjusted for stock split (5) Net Loss

15 Most Active Mines and Oils 1972

Name of Company	Volume	1972 Close	1971 Close	Net change
Iso Mines Ltd.	8,027,543	$2.62	$1.30	+$1.32
Anglo United Development Corp.	7,174,132	1.32	.72	+ .60
Pan Ocean Oil Corp.	5,337,211	14 1/8	11 7/8	+2 1/4
Sunningdale Oils Ltd.	4,879,980	7.10	2.80	+4.30
Chemalloy Minerals Ltd.	4,706,004	2.38	2.00	+ .38
Canada Southern Petroleum Ltd.	4,625,487	7.75	5.95	+1.80
Brunswick Mining & Smelting Corp.	4,072,285	3.65	2.85	+ .80
United Canso Oil & Gas Ltd.	3,941,517	7.55	4.00	+3.55
Noble Mines Ltd.	3,766,598	1.95	1.20	+ .75
Houston Oils Ltd.	3,622,324	4.00	1.85	+2.15
Lochiel Explorations Ltd.	3,177,755	2.92	1.53	+1.39
Canadian Bonanza Petroleums Ltd.	2,679,339	2.24	1.25	+ .99
Copperfields Mining Corp. Ltd.	2,653,559	1.51	1.25	+ .26
Ulster Petroleum Ltd.	2,587,922	1.09	1.45	− .36
Canada Geothermal Oil Ltd.	2,440,353	3.25	.65	+2.60

STOCK LIST	1972	1971	1970
*Number of stocks listed	1,185	1,172	1,177
*Number of issues (Industrials)	873	829	817
*Number of issues (Mines & Oils)	312	343	360
Number of new companies listed (Industrials)	59	36	33
Number of new companies listed (Mines & Oils)	6	18	12
Number of supplementary listings	12	7	9
Number of rights issued	14	21	18
Number of warrants issued	3	9	2
Number of stock splits	44	20	16
Number of delistings (Industrials)	34	36	20
Number of delistings (Mines & Oils)	27	37	12
TRADING			
Share volume traded (thousands)	635,886	545,768	522,909
Value of shares traded ($ thousands)	$ 6,258,152	$ 4,715,695	$ 3,653,783
Transactions (thousands)	1,940	1,746	1,601
QUOTED MARKET VALUE			
*Quoted market values (Industrials)($ thousands)	$215,986,594	$177,352,540	$146,832,563
*Quoted market values (Mines & Oils)($ thousands)	$ 7,370,577	$ 6,463,223	$ 7,161,483
*Total quoted market values ($ thousands)	$223,357,171	$183,815,763	$153,994,046
OUTSTANDING SHARES			
Number of outstanding shares (Industrials)(thousands)	5,174,725	4,695,466	4,008,150
Number of outstanding shares (Mines & Oils)(thousands)	1,466,262	1,554,399	1,612,525
Total number of outstanding shares (thousands)	6,640,987	6,249,865	5,620,675
NEW FINANCING (rights, underwriting and option agreements)			
New risk capital (Industrials)($ million)	$ 167.7	$ $107.8	$ 189.1
New risk capital (Mines & Oils)($ million)	$ 154.0	$ $28.6	$ 140.8
Total new risk capital ($ million)	$ 321.7	$ $136.4	$ 329.9
SEAT SALES			
Price of TSE seats High	$ 90,000	$ 95,000	$ 132,500
Low	$ 60,000	$ 80,000	$ 115,000
Number of seat transactions	7	2	4
TOTAL VOLUME & VALUE OF TRADING ON ALL CANADIAN EXCHANGES			
Share volume traded ($ thousands)	1,883,643	1,479,720	1,337,189
Value of shares traded ($ thousands)	$ 9,105,317	$ 6,815,106	$ 5,331,067

*As at December 29, 1972 **Issue of 13 treasury seats increased number of seats N.A. = Not Available

1969	1968	1967	1966	1965	1964	1963
1,155	1,106	1,079	1,098	1,108	1,109	1,098
794	742	702	684	673	657	641
361	364	377	414	435	452	457
70	45	22	18	27	23	16
16	8	2	6	8	6	4
13	18	10	14	15	12	14
26	20	16	17	28	25	15
18	6	6	7	4	7	16
41	21	20	27	14	22	17
30	19	18	17	26	23	36
18	14	35	6	8	7	16
871,932	911,692	819,147	971,442	934,240	1,314,656	808,852
$ 5,765,171	$ 5,015,035	$ 3,521,312	$ 2,877,191	$ 3,199,063	$ 3,050,579	$ 2,143,888
2,549	2,584	2,045	2,015	2,084	2,267	1,612
$ 140,148,936	$ 134,593,500	$ 120,936,768	$ 90,091,634	$ 99,653,981	$ 92,558,413	$ 72,781,323
$ 7,425,356	$ 7,655,021	$ 6,671,186	$ 4,959,438	$ 4,779,173	$ 4,120,326	$ 7,082,221
$ 147,574,292	$ 142,248,521	$ 127,607,954	$ 95,051,072	$ 104,433,154	$ 96,678,739	$ 79,863,544
3,345,282	2,758,430	2,377,376	2,086,459	1,890,146	N.A.	N.A.
1,533,118	1,511,118	1,566,702	1,583,648	1,766,801	N.A.	N.A.
4,878,400	4,269,548	3,944,078	3,670,107	3,656,947	N.A.	N.A.
$ 219.3	$ 128.8	$ 43.0	$ 177.0	$ 326.9	$ 115.8	$ 56.8
$ 31.1	$ 21.7	$ 90.5	$ 23.6	$ 26.6	$ 40.4	$ 23.0
$ 250.4	$ 150.5	$ 133.5	$ 200.6	$ 353.5	$ 156.2	$ 79.8
$ 125,000	$ 98,000	$ 92,000	$ 105,000	$ 105,000	$ 75,000	$ 71,000
$ 125,000	$ 98,000	$ 65,000	$ 90,000	$ 90,000	$ 70,000	$ 60,000
14 **	1	7	2	3	5	2
2,015,850	1,791,871	1,487,765	1,650,243	1,699,618	1,930,103	1,100,188
$ 8,623,534	$ 7,228,984	$ 5,193,338	$ 4,236,841	$ 4,766,312	$ 4,401,840	$ 3,148,379

Canadian Business and Economic Indicators

(All figures in millions unless otherwise stated)

	1972	1971	1971-72 % change	1970	1969	1968	1967	1966	1965	1964	1963
OUTPUT											
Gross National Product											
Market Prices ($)	102,400**	93,094	+ 10.0	85,449	79,749	72,586	66,409	61,828	55,364	50,280	45,978
In Constant (1961) Dollars	71,100**	67,449	+ 5.5	63,941	62,363	59,292	56,016	54,207	50,685	47,519	44,531
Production Indices [3] (1961 = 100)											
Industrial Production	194.1[7]	183.2	+ 6.2	175.5	171.0	161.1	150.8	146.0	137.0	126.6	115.2
Goods Producing Industries (excluding agriculture)	187.3[7]	177.7	+ 5.7	170.3	166.9	157.9	148.5	144.8	135.6	124.9	113.7
Service Producing Industries	172.0[7]	165.3	+ 4.4	158.3	153.9	145.8	140.0	132.5	124.4	116.9	100.0
Mining	195.9[7]	186.8	+ 5.2	178.5	153.4	152.4	142.1	134.2	131.9	126.0	112.1
Manufacturing	190.0[7]	180.0	+ 5.8	173.0	173.5	162.5	152.3	148.7	138.8	127.4	116.2
PERSONAL SECTOR											
Total Personal Income ($)	81,025[1]	73,447	+ 11.7	66,533	61,398	55,213	50,208	45,702	40,591	36,618	34,109
Consumer Expenditure ($)	58,932[1]	53,963	+ 10.7	50,040	46,531	42,360	38,998	36,057	33,134	30,647	28,364
Consumer Credit ($)	13,480[1]	12,681	+ 14.7	11,706	11,134	9,856	8,616	7,778	7,156	6,256	5,351
INTERNATIONAL SECTOR											
Exports of goods and services ($)	24,423[1]	23,069	+ 6.7	21,876	19,357	17,393	15,303	13,600	11,648	10,887	9,416
Imports of goods and services ($)	25,368[1]	22,721	+ 14.9	20,840	20,309	17,500	15,802	14,762	12,778	11,311	9,937
Merchandise Trade Balance($)	+ 1,198	+ 2,142	− 44.1	+ 2906	+ 825	+ 1375	+ 566	+ 224	+ 118	+ 701	+ 503
Balance of International Payments($) (1972 9 mos. total)	+ 502	+ 896	+ 58.9	+ 1663	+ 65	+ 349	+ 20	−359	+ 158	+ 364	+ 145
Canadian Dollars in U.S. Funds (cents) High	102.66	100.36	+ 2.3	99.69	93.24	93.24	93.24	93.16	93.19	93.24	92.94
Low	99.07	97.53	+ 1.6	93.05	92.38	91.74	92.30	92.25	92.17	92.38	92.11
BUSINESS SECTOR											
Corporate Profits; before taxes ($)	10,353[1]	9,050	+ 18.2	7,809	8,250	7,742	6,823	6,714	6,318	5,841	4,932
Business gross fixed capital formation ($)	18,219[1]	16,437	+ 12.6	14,955	14,177	12,771	12,674	12,520	10,739	9,182	7,571
Retail Trade ($)	30,927[7]	30,646	+ 11.0	28,033	27,379	25,763	24,205	22,686	20,954	19,351	18,116
PRICES											
Consumer Price Index (1961 = 100)	139.8	133.4	+ 4.8	129.7	125.5	120.1	115.4	111.4	107.4	104.8	103.0
General Wholesale Price Index (1935–39 = 100)	310.2	289.9	+ 7.0	286.4	282.4	274.0	267.1	261.2	255.4	245.4	244.6

	1972	1971	1971-72 % change	1970	1969	1968	1967	1966	1965	1964	1963
CONSTRUCTION											
New Residential Construction ($)	5,139[1]	4,437	+ 21.3	3,608	3,845	3,253	2,809	2,605	2,634	2,382	1,959
New Non-Residential Construction ($)	6,271[1]	5,931	+ 6.4	5,385	4,772	4,543	4,548	4,664	3,840	3,298	2,760
Housing Starts[4] (actual figure)											
Single Detached Dwellings	115,570	98,058	+ 17.9	70,749	78,404	75,339	72,534	70,642	75,441	77,079	77,158
Multiple Dwelling Units	134,344	135,595	− 1.1	119,779	132,011	121,539	91,589	63,832	84,124	88,579	71,466
Total	249,914	233,653	+ 7.0	190,528	210,415	196,878	164,123	134,474	159,565	165,658	148,624
New Mortgages (NHA and Conventional) ($) (1972 8 mos. total)	2,326	3,170	+ 21.4	2,295	2,240	2,250	1,786	1,339	1,713	1,581	1,363
POPULATION											
Population (in Thousands, June 1)	21,830	21,569	+ 1.2	21,377	21,061	20,744	20,405	20,015	19,644	19,290	18,931
Labour force (in thousands)	8,891	8,631	+ 3.0	8,374	8,095	7,919	7,694	7,420	7,141	6,933	6,748
% Unemployed	6.3	6.4	——	5.9	4.7	4.8	4.1	3.6	3.9	4.7	5.5
Average Hourly Earnings[5] (1972 10 mos.) ($)	3.51	3.28	+ 7.0	3.02	2.79	2.58	2.40	2.25	2.12	2.02	1.95
MONETARY SECTOR											
Money Supply[6] (year-end total currency and chartered bank deposits) ($)	43,449	37,886	+ 14.7	32,066	29,155	27,601	24,271	21,296	19,968	17,839	16,861
Treasury Bill Yields %											
91 day bills High	3.73	4.79	− 22.2	7.78	7.81	7.01	5.95	5.20	4.56	3.90	3.94
Low	3.24	2.96	+ 9.5	4.39	6.21	5.48	3.96	4.58	3.61	3.53	3.19
182 day bills High	4.14	4.94	− 16.2	7.76	7.88	7.02	6.13	5.33	5.44	5.26	5.27
Low	3.31	3.23	+ 2.5	4.44	6.41	5.43	4.01	4.83	4.96	5.03	4.93
Bank Rate %											
High	4.75	6.00	− 20.8	8.00	8.00	7.50	6.00	5.25	4.75	4.25	4.00
Low	4.75	4.75	——	6.00	6.50	6.00	4.50	4.75	4.25	4.00	3.50
CHARTERED BANKS											
Chartered Bank Liquidity (more liquid assets as a per cent of total major assets). High	26.8	31.4	− 14.6	30.2	31.5	33.0	32.3	31.1	33.3	34.0	35.0
Low	25.5	29.1	− 12.4	24.9	25.7	28.6	30.0	28.8	29.5	32.0	34.0
Personal Savings Deposits[6] (in chartered banks at year-end) ($)	19,743	17,533	+ 12.6	16,468	14,892	13,463	11,628	10,140	9,642	8,846	8,443
Loans (year-end) ($) General	23,061[7]	19,327	+ 23.8	15,726	14,886	13,252	11,847	10,455	9,751	8,222	7,119
Business	13,304[7]	11,068	+ 27.3	8,900	8,654	7,589	6,929	6,171	5,773	4,929	4,354
Personal	7,927[7]	6,533	+ 22.1	5,278	4,792	4,337	3,594	3,056	2,870	2,323	1,896

SOURCES: STATISTICS CANADA, CANADIAN STATISTICAL REVIEW DECEMBER 1972; BANK OF CANADA REVIEW JANUARY 1973.

FOOTNOTES

* Where figures incomplete % change is based on comparable figures for 1971;

**Estimate;

1. 9 month seasonally adjusted @ annual rates;
2. September 1972;
3. STATISTICS CANADA Index of Real Domestic Product;
4. Canadian Central Mortgage and Housing Corporation, Canadian Housing Statistics;
5. Annual manufacturing wage;
6. Average of Wednesdays in December;
7. November 1972.

Review of Canadian Debt & Equity Issues

1962 - 1972 third quarter -- Millions of Dollars

CANADIAN BOND ISSUES

	FEDERAL		PROVINCIAL		MUNICIPAL		CORPORATE		OTHERS[1]		TOTALS	
	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues
1962	3442	**521**	1228	**678**	509	**244**	920	**443**	28	**10**	*6127*	*1896*
1963	3436	**752**	1331	**897**	626	**374**	1107	**691**	41	**30**	*6541*	*2744*
1964	3383	**557**	1397	**940**	704	**401**	1380	**821**	30	**11**	*6894*	*2730*
1965	2874	**−62**	1365	**759**	536	**248**	1963	**1361**	83	**39**	*6821*	*2345*
1966	4159	**410**	2082	**1566**	678	**349**	1672	**1008**	52	**33**	*8643*	*3366*
1967	3694	**615**	2742	**2049**	773	**466**	1549	**883**	81	**46**	*8839*	*4059*
1968	6597	**1175**	2623	**1946**	545	**297**	1546	**768**	101	**79**	*11412*	*4265*
1969	6440	**269**	2692	**1949**	591	**238**	1686	**885**	131	**65**	*11540*	*3406*
1970	4359	**1114**	2793	**2066**	672	**243**	2359	**1559**	145	**113**	*10328*	*5095*
1971	5028	**2342**	3283	**2571**	639	**318**	2662	**1792**	112	**73**	*11904*	*4807*
1971 (9 mos.)	1879	**355**	2549	**1791**	375	**137**	1896	**1430**	71	**41**	*6770*	*3754*
1972 (9 mos.)	1235	**−404**	2785	**2264**	445	**215**	1618	**1010**	120	**97**	*6203*	*3182*

BONDS FINANCED FROM ABROAD[2]

	FEDERAL			PROVINCIAL			MUNICIPAL		
	International Trading in Outstanding Bonds	New Issues	Retire-ments	International Trading in Outstanding Bonds	New Issues	Retire-ments	International Trading in Outstanding Bonds	New Issues	Retire-ments
1962	50	156	86	9	148	22	10	74	41
1963	42	173	76	1	343	70	1	62	77
1964	60	43	88	15	439	66	5	182	53
1965	53	28	85	12	297	31	7	84	53
1966	−77	32	203	−7	448	65	−3	177	96
1967	−41	20	95	−7	762	61	6	173	52
1968	−18	288	57	−33	852	76	−7	124	60
1969	24	40	83	−13	1063	91	−6	177	88
1970	−21	26	157	−5	527	111	−7	64	92
1971	−37	30	30	−21	724	326	−10	26	99
1971 (9 mos.)	−36	21	11	−12	526	270	−9	17	74
1972 (9 mos.)	106	27	16	82	826	168	−13	82	65

	CORPORATE			BOND TOTALS		
	International Trading in Outstanding Bonds	New Issues	Retire-ments	International Trading in Outstanding Bonds	New Issues	Retire-ments
1962	−5	331	140	*64*	*709*	*289*
1963	−5	392	101	*39*	*970*	*324*
1964	−3	414	117	*77*	*1078*	*324*
1965	−17	807	214	*55*	*1216*	*383*
1966	−17	751	131	*−104*	*1408*	*495*
1967	−15	315	148	*−57*	*1270*	*356*
1968	−12	586	233	*−70*	*1850*	*426*
1969	−3	597	176	*2*	*1877*	*438*
1970	−6	540	188	*−39*	*1157*	*548*
1971	−26	363	345	*−94*	*1143*	*800*
1971 (9 mos.)	−19	301	239	*−76*	*865*	*594*
1972 (9 mos.)	−5	237	126	*170*	*1172*	*375*

STOCK ISSUES

	CANADIAN STOCK ISSUES						STOCKS FINANCED FROM ABROAD[2]		
	COMMON		PREFERRED		TOTALS				
	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues	Gross New Issues	Net New Issues	International Trading in Outstanding Cdn. Stocks	New Issues	Retire-ments
1962	259	**257**	92	**64**	*351*	*321*	−115	20	30
1963	249	**−96**	165	**49**	*414*	*−47*	−170	14	80
1964	409	**270**	115	**38**	*524*	*308*	−98	22	58
1965	293	**289**	255	**149**	*548*	*438*	−274	24	7
1966	389	**388**	238	**177**	*627*	*565*	−136	57	4
1967	269	**268**	221	**180**	*450*	*448*	12	37	1
1968	446	**435**	147	**122**	*593*	*557*	114	67	5
1969	852	**851**	163	**143**	*1015*	*994*	53	212	2
1970	250	**250**	131	**101**	*381*	*351*	−145	70	4
1971	218	**218**	145	**126**	*363*	*344*	−144	19	4
1971 (9 mos.)	164	**164**	129	**115**	*293*	*279*	−128	16	2
1972 (9 mos.)	196	**131**	226	**226**	*422*	*357*	−71	36	—

SOURCES: Bank of Canada Review, Statistics Canada: Sale & Purchases of Securities between Canada and other Countries.

1. Consists of Canadian institutions (religious etc.) and Canadian dollar issues of foreign debtors.
2. Retirements signify an outflow.

North American Trading

	EXCHANGE	VALUE 1972	VALUE 1971	SHARES 1972	SHARES 1971
1	New York Stock Exchange	$160,177,579,947	$147,372,426,979	4,593,898,615	4,403,818,789
2	American Stock Exchange	21,379,252,734	18,506,042,200	1,188,062,120	1,137,506,530
3	Midwest Stock Exchange	8,434,018,760	7,454,738,116	230,641,870	217,778,033
4	Pacific Coast Stock Exchange	8,126,060,118	7,066,000,514	269,201,659	229,681,855
5	Toronto Stock Exchange	6,258,151,656	4,715,695,291	635,885,589	545,767,951
6	PBW Stock Exchange (formerly known as Philadelphia Baltimore Washington Stock Exchange)	5,282,478,456	4,273,935,938	144,496,426	118,543,589
7 & 8	Montreal & Canadian Stock Exchanges	2,057,293,935	1,598,353,434	330,125,289	304,829,541
9	Boston Stock Exchange	1,562,881,575	1,091,817,267	38,604,763	26,581,497
10	Vancouver Stock Exchange	782,533,421	488,440,880	904,903,794	606,552,554
11	Detroit Stock Exchange	362,790,491	350,759,659	9,843,967	9,622,589
12	National Stock Exchange	112,447,878	56,519,476*	15,911,808	14,008,320
13	Cincinnati Stock Exchange	103,445,483	93,400,183	2,353,776	2,035,794
14	Calgary Stock Exchange	6,492,516	11,827,430	12,208,365	21,255,342
15	Spokane Stock Exchange	4,498,135	2,902,242	9,257,970	6,751,553
16	Honolulu Stock Exchange	3,989,676	5,525,510	565,490	564,135
17	Intermountain Stock Exchange (formerly known as Salt Lake City Stock Exchange)	2,325,808	4,861,746	3,841,433	5,860,190
18	Winnipeg Stock Exchange	840,634	788,483	521,025	1,314,216
	Total	$214,657,081,223	$193,094,035,348	8,390,323,959	7,652,472,478

*Excludes rights and warrants

International Trading Highlights

	VALUE OF SHARE TRADING (in Can. $* millions) 1972	1971	% Change	SHARE VOLUME (million shares) 1972	1971	INDUSTRIAL INDEX RANGE 1972 High	1972 Low	1971 High	1971 Low
NEW YORK	158,656.3	148,820.6	+ 6.6	4,593.9	4,403.8	65.14	56.23	61.95	52.31
TOKYO	70,093.2	40,705.4	+ 72.2	100,357.9	60,819.0	401.70	199.93	209.00	148.05
LONDON[1]	24,878.9	16,512.0	+ 50.7	N/A	N/A	543.60	461.60	476.50	305.30
AMERICAN	21,176.3	18,687.9	+ 13.3	1,188.1	1,137.5	28.79	25.46	26.95	22.61
PARIS[1]	7,990.9	4,249.2	+ 88.1	263.0	172.3	98.30	75.00	79.20	61.60
TORONTO	6,258.1	4,715.7	+ 32.7	635.9	545.8	221.64	181.66	188.94	158.33
MILAN	2,483.9	1,650.8	+ 50.5	886.3	536.1	63.60	51.24	68.57	51.39
JOHANNESBURG	1,503.7	817.9	+ 83.8	577.2	313.8	270.00	182.00	212.00	153.00
MELBOURNE	1,226.4	784.1	+ 56.4	790.1	766.0	170.59	129.62	131.66	111.56
BRUSSELS	1,098.9	868.0	+ 26.6	48.8	35.4	100.30	77.51	87.14	74.06
STOCKHOLM	333.7	210.2	+ 58.8	8.5	6.4	369.11	308.71	307.71	244.37
HONG KONG	1.9	0.8	+137.5	628.9	252.1	843.40	323.95	406.32	201.70

*CONVERTED TO CANADIAN $ AT AVERAGE RATES 1971 & 1972 PROVIDED BY BANK OF CANADA
1 COMMON SHARES ONLY

TSE Publications and Reports

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A primary Toronto Stock Exchange reference to By-Laws, Policies and instructions to brokers' auditors, including a copy of The Toronto Stock Exchange Act (1969); a copy of the Exchange By-Laws; a list of Exchange officials including governors, officers, standing committees and department heads; a list of officers of member organizations of the Exchange; a list of securities posted on the Exchange; copies of the Exchange's policy statements; and a section of standard forms in use by the Exchange. In convenient binder form, in order that new pages or sections may be inserted to keep information current. Ten dollars basic charge, plus a five dollar annual sustaining fee which ensures receipt of all new material.

RESEARCH

MANAGEMENT OF CHANGE IN THE CANADIAN SECURITIES INDUSTRY
(Set of 8 papers, $15.00. Single copies $2.50.)

In June 1972 the Exchange published the first two in a series of eight papers entitled The Management of Change in the Canadian Securities Industry. These papers are the result of a major study of the investment industry by Professors David C. Shaw and T. Ross Archibald of the School of Business Administration, University of Western Ontario, who have spent two years examining the Canadian investment industry under the sponsorship of The Toronto Stock Exchange. To date Studies 1 through 3 have been released. The remainder of the series will be published throughout 1973.

Already released are:
1) Canada's Capital Markets
2) A Survey of the Research Operations of Brokerage Firms in Canada
3) Trust Companies in Canada: Investment Decision-Making and Relations with Capital Markets

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4) Insurance Companies in Canada: Investment Decision-Making and Relations with Capital Markets
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7) The Brokerage Firm in the Canadian Capital Market
8) What is the Future of the Brokerage Function in the Canadian Capital Market?

SCENARIO FOR GROWTH

A complete record of the international "Conference on Economic Growth" sponsored by The Toronto Stock Exchange, May 27 - 28, 1970. Ten dollars.

GENERAL INFORMATION

FILMS: *THE MARKET PLACE — The Stock Exchange*
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The Toronto Stock Exchange is governed by a thirteen-man Board of Governors, responsible for all major policy decisions and for Member discipline. The Board includes the President of the Exchange, who serves as a full voting member of the Board, two public Governors who represent a view apart from the Exchange Community and ten members elected from the membership of the Exchange. The Governors elect one of their number as Chairman of the Board.

In June, 1972, J.C. Barron was elected Chairman of the Board, succeeding D.G. Lawson, who retired from the Board following a one-year term of office as Chairman. Mr. Barron, formerly Vice-Chairman of the Board, is President of Cassels Blaikie & Co. Limited.

The two public Governors work with the Board to ensure that a voice representing the private investor participates in decision making at the Exchange. In 1972, re-elected to a one-year appointment was William R. Allen, Q.C., former Chairman of Metropolitan Toronto. Also re-elected for a one-year term, was Dr. O.M. Solandt, former Chancellor of the University of Toronto.

Two new Governors elected to the Board were W.W. Berghuis, Vice-President of Jones Heward & Company Ltd., and D.T.C. Moore, Vice-President and Ontario Sales Manager of McLeod, Young, Weir & Company Limited. Mr. Berghuis and Mr. Moore replaced Mr. Lawson of Moss, Lawson & Co. Limited, and Mr. Willis of Greenshields Ltd.

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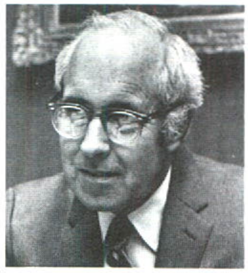

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