QUEBEC

ECONOMIC CIRCUMSTANCES AND OPPORTUNITIES

One of a series of staff papers prepared by the federal
Department of Regional Economic Expansion
as a contribution to federal-provincial consultations
on regional development policy in Canada

April, 1973

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INTRODUCTION

The Department of Regional Economic Expansion was established in 1969 to consolidate and strengthen the efforts of the federal government to combat regional disparities and support regional development. The Department carried forward the work of the Prairie Farm Rehabilitation Administration, and the administration of agreements signed under the Agricultural and Rural Development Act and the Fund for Rural Economic Development. The program of the Area Development Agency, which was designed to encourage industrial decentralization, formed the basis for introduction by the Department of a similar but more broadly based program under the Regional Development Incentives Act. Commitments made by the Atlantic Development Board were carried out and a new program of infrastructure assistance was introduced under the "special area" provisions of the Department Act.

In 1972, an internal policy review was undertaken to assess the progress being achieved and, particularly, to provide a basis upon which to meet the challenges of regional development in the mid 1970's. This paper is one of a series prepared as a result of that policy review. Separate papers have been prepared for each province (except for Prince Edward Island), the Atlantic Region, the Western Region, and a region defined for analytical purposes as the Western Northlands. For Prince Edward Island, the Development Plan currently in operation provides the framework and mechanism for joint development of priorities and initiatives and in consequence a separate federal paper is not appropriate. Each paper contains a summary of economic and social circumstances and a discussion of possible areas of opportunity for economic and related social development. Together, they are designed to serve as working papers for consultations with each of the provincial governments which, it is hoped, will result in new and improved approaches to regional economic development.

Regional economic development poses complex problems that vary from period to period and from place to place in Canada. No simple nor single solution is likely to be found. New and more flexible approaches are considered necessary and it is hoped that the discussions with the provincial governments will lead to greater and increasingly more effective federal-provincial action to overcome regional disparities and to encourage economic and social development in the slow-growth parts of Canada.

This paper is meant to be read in the context of observations and suggestions contained in a statement made on April 10, 1973, by the Honourable Don Jamieson, Minister of Regional Economic Expansion, to the Standing Committee on Regional Development of the House of Commons.

Some relevant excerpts from this statement are set out at the end of each paper as an indication of the approach to regional development being suggested.

ECONOMIC CIRCUMSTANCES

THE RECENT PAST

General

Quebec displays a number of economic contrasts. Like Ontario it is highly industrialized and urbanized, but in other respects such as the level of per capita income or the rate of unemployment it more closely resembles the Atlantic Provinces. Various indicators of economic development for the various regions of Canada are compared in Table 1.

TABLE 1

SELECTED ECONOMIC INDICATORS - 1971

Geographic Area	Degree of Industrial-ization[1] (%)	Degree of Urbanization[2] (%)	Personal Income Per Capita ($)	Unemployment Rate %	(1972)
Atlantic	15.5	56.4	2,443	8.6	(9.0)
Quebec	26.3	81.2	3,026	8.2	(8.3)
Ontario	27.3	84.2	3,967	5.2	(4.8)
Prairies	9.8	67.3	3,185	4.5	(4.5)
British Columbia	17.7	74.6	3,718	7.0	(7.6)
Canada	22.2	76.8	3,405	6.4	(6.3)

Source: The Labour Force, D.B.S., 71-001.
National Income and Expenditure Accounts, Historical Revision 1926-1971.

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1 Based on number of workers in manufacturing as percentage of total employment in the region.

2 Based on number of people living in cities with populations of 1,000 or more as a percentage of total population for region.

In terms of industrialization and urbanization, Quebec is surpassed only by Ontario. Yet its level of personal income per capita in 1971 exceeded only that of the Atlantic region (24 per cent lower than for Ontario) and only the Atlantic provinces recorded higher unemployment in that year.

During the twenty years following World War II, i.e., to the mid-1960's, Quebec generally kept pace with the Canadian economy as a whole and in a number of areas did rather better. The trend of capital outlays was as strong, the growth of production and productivity were as rapid, and the shortfall in per capita incomes narrowed. Employment advanced in line with national averages during the 1950's, and grew more rapidly during the first half of the 1960's. Yet the unemployment rate remained relatively high because Quebec's labour force was increasing more rapidly than elsewhere in the country.

During the last half of the 1960's, however, the upward trend of economic activity in Quebec was not as rapid as that which occurred in Ontario or in Canada generally, so that production, productivity, employment, investment and personal income tended to fall in relative terms. In part this situation undoubtedly reflected a process of economic adjustment as the temporary stimuli associated with preparations for EXPO 1967 came to an end. The weakening was particularly severe during the cyclical downturn at the end of the decade.

Available information on investment, incomes and employment indicate that a recovery movement got underway during 1971 and is continuing. This upturn has been particularly strong for manufacturing investment, a sector that is of critical importance to the Quebec economy. The recent improvement provides cause for optimism that investor confidence is regaining strength and that federal and provincial initiatives aimed at stimulating investment in manufacturing are proving successful and worthwhile.

Although Quebec rates of growth, with the exception of the last half of the 1960's, have compared favourably with those in other parts of Canada, in absolute terms the province's achievement still falls short of Ontario and Canada as a whole in a number of important areas. An attempt to clarify the nature of the issues facing the Quebec economy is made in subsequent sections, which consider the performance of a number of economic indicators over the period 1961-71. The analysis relates Quebec indicators to those of Ontario and Canada as a whole. It is suggested that comparison with Ontario is especially relevant, given that the two provinces display similar degrees of urbanization and comparable levels of employment and production in manufacturing industries.

For analytical purposes, the census years - 1961, 1966 and 1971 - are used as basic dates for comparison. It should be noted, however, that most indicators reached their relative low points in 1970, with 1971 figures reflecting the beginning of the recovery referred to above.

Personal Income

One of the most meaningful measures of economic activity is the level of personal income both in total and per capita. Total personal incomes in the province rose by 347 per cent between 1951 and 1971 to reach $18.2 billion. This represented 24.8 per cent of the comparable figure for all of Canada. As Quebec's population in 1971 was nearly 28 per cent of Canada's, income per capita stood at 89 per cent of the Canadian average. Changes in personal income and personal income per capita for Quebec, Ontario and the rest of Canada are shown in Table 2. Care should be taken in comparing increases over different time periods because of variations over time in the rate of inflation. (Data prepared by the Quebec Department of Industry and Commerce indicate that personal income in that province advanced by 11.5 per cent during 1972, versus a rise of 11.6 per cent for Canada. On a per capita basis the provincial advance was 10.9 per cent as against 10.3 per cent for Canada).

TABLE 2

CHANGES IN PERSONAL INCOME: TOTAL AND PER CAPITA

(per cent increase)

	Total			Per Capita		
Period	Quebec	Ontario	Canada	Quebec	Ontario	Canada
1951-56	42.9	42.9	40.1	25.3	21.6	22.0
1956-61	34.0	30.8	27.9	17.9	13.3	12.9
1961-66	51.8	53.1	53.1	38.1	37.2	39.5
1966-71	53.6	63.8	59.3	47.3	48.0	47.9
1951-61	91.6	86.9	79.3	47.8	37.8	37.7
1961-71	133.1	150.8	144.0	103.4	103.0	106.2
1951-71	346.6	368.6	337.4	200.6	179.8	184.0

Source: Derived from National Income and Expenditure Accounts, Historical Revision 1926-1971.

The data indicate that Quebec has done well in income growth over the last twenty years. But the table does not reflect the significant gap which existed at the beginning of the period between incomes in Quebec and incomes elsewhere in Canada.

The comparisons with Ontario shown in Table 3 would be less favourable for Quebec if government transfer payments were excluded from personal income, but the percentages relative to Canada would increase slightly. Such transfers in 1971 made up 12.4 per cent of personal income in Quebec as against 9.6 per cent in Ontario and 12.6 per cent in other parts of Canada outside Quebec and Ontario.

TABLE 3

PERSONAL INCOME IN QUEBEC

	Total Income as Per Cent of		Per Capita Income as Per Cent of	
Year	Ontario	Canada	Ontario	Canada
1951	62.6	24.3	71.0	84.0
1956	62.7	24.8	73.2	86.2
1961	64.2	26.0	76.2	90.2
1966	63.7	25.8	76.7	89.2
1967	64.1	26.0	77.9	90.5
1968	62.1	25.5	76.1	89.0
1969	60.7	25.2	74.9	88.3
1970	60.0	25.2	75.4	89.1
1971	59.7	24.8	76.3	88.9

Source: Derived from National Income and Expenditure Accounts, Historical Revision 1926-1971.

In absolute terms, per capita personal and earned income excluding government transfers were below national averages in 1971, but higher than any Atlantic province or Saskatchewan. In Quebec, personal income per capita was $3,027 in 1971, well above $2,443 for the Atlantic region and $2,778 for Saskatchewan, but significantly less than Ontario's level of $3,967. While the growth rate since 1950 in Quebec has exceeded the national average, the shortfall has widened in actual dollar values, particularly within the last five years. In 1967 Quebec's personal income per head was $235 short of the national average; in 1971 it was $378 less.

Population

Quebec's population, which in 1946 was 3.6 million, rose by 66 per cent during the next 25 years to reach 6,050 thousand in 1971. The rate of expansion was not uniform, however, but accelerated during the first ten years and moderated thereafter. The slowing after 1956 is attributable to a lower level of births (which in 1971 were just half of their level ten years earlier), and to declining net inward migration. (Sizeable net outflows occurred in 1970, 1971, and, as recently revealed, in 1972).

The increase of 66 per cent over 1946-71 compared favourably with that experienced in the rest of Canada, excluding Ontario which gained 89 per cent. The same pattern of acceleration to 1956 followed by slower growth during the next fifteen years was evident in Ontario and the rest of Canada, but there were important differences of degree as compared with Quebec, as demonstrated in Table 4.

TABLE 4

POPULATION CHANGE

(per cent increase for period indicated)

Period	Quebec	Ontario	Total Canada
1946-51	11.8	12.3	11.0*
1951-56	14.1	17.6	14.8
1956-61	13.6	15.4	13.4
1961-66	9.9	11.6	9.7
1966-71	4.3	10.7	7.8
1971-72	0.4	1.7	1.2

* excludes Newfoundland

Source: Estimated Population by Sex and Age Groups, Canada and Provinces, D.B.S., 91-202.

A striking feature of Table 4 is Quebec's very low rate of population growth after 1966. The province's population reached 6,050,000 persons in 1972, or 27.7 per cent of Canada. Earlier ratios were 29.5 per cent in 1946 and 28.9 per cent in 1966. The slowing of growth is particularly marked compared to Ontario. Relative to that province, Quebec's population fell to 77 per cent in 1972 from 89 per cent in 1946 and 83 per cent in 1966.

Quebec has a somewhat larger proportion of its population in the younger age groups (under age 40), and a smaller proportion in the older groups (over 40) than has the remainder of the country (Table 5).

TABLE 5

AGE DISTRIBUTION OF THE POPULATION - 1972

(per cent of total)

Age Group	Quebec	Ontario	Total Canada
0 - 14	28.5	28.2	28.8
15 - 24	19.8	18.2	18.9
25 - 39	20.6	19.9	19.6
40 - 64	24.1	25.3	24.7
65 and over	7.0	8.4	8.0

Source: Estimated Population by Sex and Age Groups, Canada and Provinces, D.B.S., 91-202.

Throughout the post-war period, a relative preponderance of young people characterized Quebec in comparison with Ontario and Canada. The difference is becoming less marked because of the steeper decline in Quebec's birth rate. One fifth higher than Ontario's in 1950, it fell below the latter province in 1968, and at 15.2 per thousand in 1971 was 2.6 per thousand lower. This difference applied to Quebec in 1971 represents nearly 16,000 births, or 17 per cent of the total. Quebec's lower death rate is not sufficiently below Ontario's to offset the shortfall of births.

The other major element in population change is the level of inward or outward migration. Since 1950, migration into Quebec has never exceeded 7.6 per thousand of population (achieved in 1957), and for most of the period has ranged between 1.5 - 3.0 per thousand. In contrast, the rate in Ontario was above 10.0 per thousand in twelve of the twenty-two years between 1950 and 1972, and fell below 7.0 per thousand on only four occasions (1960-63 inclusive). Moreover, Quebec had net outflows totalling 21,500 persons in 1970, 36,500 in 1971 and 22,500 in 1972. In the five year period 1967-71 inclusive net immigration added 382,000 persons to Ontario's population and deducted 34,000 from Quebec.

Labour Force, Employment and Unemployment

Quebec's labour force was 2.4 million in 1972, an increase of 33 per cent from 1961. This was larger than the increase in adult population aged 14 years and over (29 per cent), as a rise in the female participation rate more than offset a drop in the male. Comparable increases during 1961-72 were 35 per cent for Ontario and 36 per cent for Canada. Quebec's share of Canadian employment (26.7 per cent) in 1972 was about 94.7 per cent of its Canadian share of population of working age (28.2 per cent). Ontario, on the other hand had 39.8 per cent of Canadian employment and only 36.4 per cent of Canadian population of working age or 109.3 per cent of the Canadian average. This 14.6 point spread indicates Quebec's employment difficulties.

Between 1961 and 1971 the total number of people employed increased 573,000 representing a rise of 35 per cent compared with advances of 948,000 (42 per cent) for Ontario and 2,274,000 (38 per cent) for Canada. Employment in Quebec rose more rapidly between 1961 and 1966 than in Ontario and elsewhere, but this was reversed during the final six years of the period.

The province's share of total Canadian employment in 1972 (26.9 per cent) was below the proportion that would be indicated on the basis of labour force or population relationships. This reflects the fact that Quebec unemployment was more severe than the Canadian average. Quebec experienced proportionately more unemployment than either Ontario or Canada as a whole throughout the period since 1961 (Table 6).

The two right hand columns in Table 6 show the relationship between unemployment in Quebec, in Ontario and in Canada as a whole. Quebec's unemployment rate during 1961-71 was almost 90 per cent higher than that of Ontario and 34 per cent higher than the average for Canada.

TABLE 6

UNEMPLOYMENT IN QUEBEC

Year	Actual (Per Cent)	Quebec as a Percentage of Ontario	Quebec as a Percentage of Canada
1961	9.2	167	130
1962	7.5	174	127
1963	7.5	197	136
1964	6.4	200	136
1965	5.4	216	138
1966	4.7	188	130
1967	5.3	171	129
1968	6.5	186	135
1969	6.9	223	147
1970	7.9	184	134
1971	8.2	158	128
1972	8.3	173	134
Average		187	134

Source: Derived from The Labour Force, D.B.S., 71-001.

Two other aspects of the labour force have implications for economic developments in the future: the participation rate (the proportion of the adult population that is actually employed or seeking work) and the activity rate (the proportion of the adult population that is actually working).

For Canada, the participation rate in 1972 was 56.5 per cent, 2.4 percentage points higher than ten years earlier. This increase represents an additional 378,000 potential workers, or 16 per cent of the rise of 2,370,000 in the labour force over the ten year period. The change in the participation rate was the result of two divergent trends. These, previously noted as also being true of Quebec, were a marked advance in the proportion of working women and a less than offsetting decline in the ratio of adult males who were employed or seeking work.

The participation rate in Quebec from 1961 to 1972 was usually 1.2 to 1.5 percentage points below the national average, although the difference fell to less than one point in 1966 and 1967. While the lower rate for Quebec may partly reflect the younger age of the province's population, another factor is the poorer unemployment situation which tends to discourage some people from entering the job market.

The activity rate measures the combined impact of differences in participation and unemployment on productive manpower, a basic determinant of potential output. Quebec's activity rate in 1972-- the proportion of the adult population over 14 years of age who were actually working--was 50.1 per cent. The comparable rate for Ontario was 56.2 per cent. Given Quebec's adult population of 4,438,000 in 1972, there would have been 269,000 more employed than was actually the case had the province's activity rate been equal to Ontario's.

Activity rates for all Canada, Quebec and Ontario during 1961-72 are presented in Table 7, together with the change in employment (compared with actual) that Quebec would have experienced if the activity rates for each of the other areas had prevailed in the province.

Because the number of people at work is an integral component of total output and thus total income generation, the shortfalls disclosed above go a long way towards explaining the lower levels of personal income in Quebec. It will be useful, therefore, to recapitulate the conclusions which can be drawn from the analysis of population and labour force.

Quebec's population has expanded throughout the post-war period (albeit not so rapidly as Ontario), but the rate of expansion has slowed markedly, especially during the last five or six years. Relative to other parts of Canada, the province has experienced a sharper decline in its birth rate superimposed, during the last three years, upon outward migration. Because of slower population growth, the labour force has also expanded less rapidly than elsewhere, and its size also reflects relatively low participation rates for the province. Employment is low relative to other parts of Canada because the unemployment rate in Quebec typically exceeds the average for Canada by one third, and that of Ontario alone by almost 90 per cent. Together with low participation rates, high unemployment means that the utilization of human resources is significantly less in Quebec than in Ontario or in Canada as a whole.

TABLE 7

ACTIVITY RATES AND THE IMPACT ON EMPLOYMENT

(per cent)

Year	Activity Rates			Quebec's Potential Employment Rise Based on Rate For (in %)	
	Total Canada	Quebec	Ontario	Total Canada	Ontario
1961	50.2	47.9	53.6	4.8	11.9
1962	50.7	48.6	53.9	4.3	10.9
1963	50.8	48.7	54.4	4.3	11.7
1964	51.6	49.2	55.2	4.9	11.6
1965	51.2	50.3	55.3	1.8	9.9
1966	52.0	51.7	55.8	.6	7.9
1967	53.2	52.0	55.8	2.3	7.3
1968	52.8	50.8	55.7	3.9	9.7
1969	53.2	50.7	56.2	4.9	10.8
1970	52.5	50.0	55.5	5.0	11.0
1971	52.5	50.4	55.3	4.2	9.7
1972	52.8	50.1	56.2	5.3	12.1

Source: Derived from The Labour Force, D.B.S., 71-001.

New Capital Investment

In addition to manpower, the other major determinant of production capability is the quantity and quality of capital equipment and technology available. Insight into the role of capital investment in Quebec's economic development can be gained from an examination of expenditures on new capital equipment.

Outlays for new capital facilities (housing, non-residential construction and machinery and equipment) totalled $4.7 billion in Quebec in 1972, or 21 per cent of Canadian expenditures.

A breakdown of Quebec's investment outlays in 1972, together with the relative shares of Canadian totals accounted for by various sub-groups in 1966 and 1972, is presented in Table 8. During the six year period covered by the table only primary industries and construction and institutions and government departments displayed growth rates above the comparable rates for Canada as a whole.

TABLE 8

CAPITAL OUTLAYS IN QUEBEC

Investment Sector	1972 $ Million	1972 % of Provincial Total	1972 % of Can. Sector 1972	1966 % of Can. Sector 1966
Primary and Construction	558	12	18	16
Manufacturing	654	14	22	27
Utilities	850	18	20	28
Trade and Services	538	12	21	31
Sub-total-business	2,600	56	20	25
Housing	951	20	20	26
Institution & Governments	1,114	24	26	21
Total	4,665	100	21	24

Source: Private and Public Investment, D.B.S., 61-205, 1972 preliminary actual.

Capital investment per worker in Quebec during 1961-72 is compared with similar data for Ontario and Canada in Tables 9a and 9b. These exhibits also bring out the relatively slow growth of the manufacturing, utilities and trade components sectors. It is noted, however, that for all sub-groups outlays in 1972 represent a significant strengthening over the situation in 1970.

TABLE 9A

QUEBEC INVESTMENT PER WORKER AS A PERCENTAGE OF CANADA

Year	Primary & Construction	Manufac-turing	Utilities	Trade & Services	Institution & Government	All Sectors (ex. housing)
1961	67.4	79.7	104.3	118.5	92.4	88.7
1962	62.5	75.8	105.1	120.5	93.5	86.8
1963	59.2	81.8	103.5	102.3	95.3	85.2
1964	64.4	77.0	113.0	100.3	110.6	92.5
1965	46.6	74.2	108.2	111.4	106.8	88.3
1966	43.4	73.4	95.7	119.8	82.3	79.7
1967	42.1	74.8	76.7	95.3	79.0	72.3
1968	46.0	86.8	67.9	91.0	83.6	71.2
1969	51.1	74.3	67.2	73.4	99.2	72.7
1970	49.8	60.4	64.8	72.9	98.8	68.7
1971	70.3	56.6	70.6	73.8	108.0	74.8
1972	83.8	70.6	75.2	80.9	101.0	81.1

Source: Private and Public Investment, Statistics Canada, 61-205,1972 preliminary figures.

TABLE 9B

QUEBEC INVESTMENT PER WORKER AS A PERCENTAGE OF ONTARIO

Year	Primary & Construction	Manufacturing	Utilities	Trade & Services	Institution & Government	All Sectors (ex. Housing)
1961	97.8	75.6	114.9	120.8	107.1	99.0
1962	94.0	68.3	106.4	118.6	106.0	92.4
1963	89.9	78.3	105.4	104.5	97.2	91.1
1964	105.0	73.6	125.1	96.0	123.0	103.8
1965	73.8	71.0	117.8	110.8	121.2	98.4
1966	59.4	71.3	104.3	119.0	88.7	86.7
1967	56.2	74.6	82.3	85.8	81.9	78.7
1968	66.0	91.2	66.5	82.0	83.2	79.7
1969	76.0	72.8	61.8	63.2	101.8	76.1
1970	68.4	56.4	57.6	57.9	103.3	67.9
1971	112.1	59.6	59.6	58.5	121.6	79.2
1972	134.8	72.7	65.2	70.3	111.4	86.5

Source: Private and Public Investment, Statistics Canada, 61-205, 1972 preliminary figures.

Despite the recent improvement, however, capital outlays per worker in the key business sectors of manufacturing, utilities and trade and finance and commercial services are still substantially low relative to Ontario and Canada as a whole and have tended to decline relatively throughout the past decade. This situation is particularly significant in that current levels of investment are directly related to future levels of production.

Productivity

Major factors in productivity levels are capital equipment employed per worker and the mix of industrial and other activities. These two play the determining role in worker output. Output per worker has consistently been lower in Quebec than Canada, about 9 per cent less than the national average in 1971.

In keeping with reasonable capital outlays and improvements in educational standards, Quebec's productivity during 1950-65 improved somewhat relative to other parts of the country, rising at 2.8 per cent per annum as against 2.6 per cent elsewhere. Production per employee reached 94 per cent of the national average in 1964. Between 1964 and 1971, however, productivity gains averaged 1.7 per cent in the province compared with 2.1 per cent for Canada, Quebec's productivity declining to 90 per cent of Canada's in 1971.

Structural Characteristics

A breakdown of gross domestic product by major sector is presented in Table 10 and shows:

- the output share of the goods producing and service producing sectors are essentially the same in Quebec as in Canada.

- except for forestry, primary industries account for a smaller proportion of Quebec production than nationally.

- the relative weight of manufacturing is greater in Quebec than in Canada.

- within the service sector, activities related to industrial processes, such as transport, storage, communication and utilities, are relatively more important in Quebec than in Canada.

TABLE 10

GROSS DOMESTIC PRODUCT BY INDUSTRY - 1967-69

(per cent of total average for 1962-69)

	Quebec	Canada
Agriculture	2.1	4.1
Forestry	1.1	0.9
Fishing and trapping	-	0.2
Mining, quarrying and oil wells	2.3	3.9
Manufacturing	27.5	24.6
Construction	5.5	6.3
Goods producing industries	38.5	40.0
Transport, storage, communications and public utilities	13.0	11.6
Wholesale and retail trade	12.4	12.4
Finance, insurance, real estate	11.0	11.1
Social, personal and business service	19.4	17.7
Public administration	5.7	7.2
Service producing industries	61.5	60.0
All Industries	100.0	100.0

Source: Tableaux types des Comptes Economiques du Québec, Revenus et Dépenses, 1946-1970, Ministère de l'Industrie et du Commerce, Québec 1972.

Regional breakdowns of gross domestic product are a fairly recent development and care must be used in inter-regional comparisons. Quebec data indicate that growth in the service sector during 1949-69 was about half as fast again as that for the goods producing sector which, in turn, was less rapid than in Canada generally.

The slower growth in commodity production embraced all sub-divisions, but was especially marked in agriculture and manufacturing. Most of the decline in agriculture occurred in the 1950's, but the lag in manufacturing was three times more severe in the 1960's than the 1950's.

The main reason for the slow growth in Quebec, especially in relation to Ontario, lies in differences in the industrial mix. Ontario has about 60 per cent of its manufacturing labour force in durable goods production; Quebec with 60 per cent in non-durable manufacturing, is geared to basic consumer needs, and displays a less rapid (although more stable) pattern of expansion. Moreover, the textile and leather industries, major elements in Quebec manufacturing, have had to contend with competitive difficulties. The province has difficulty in offsetting this as less than a quarter of its manufacturing work force (as opposed to 40 per cent in Ontario) is employed in such high-growth durable-goods industries as metal working, transportation equipment, electrical products and machinery.

Trade Relationships

While basic data have been collected, they are unavailable in a form that will permit the shares of total Quebec production serving all markets to be determined. It is known that Canadian export ladings in Quebec in 1971 amounted to $3,565 million or 20.1 per cent of the national total. In 1970, this percentage was 22.3. Table 11 compares principal export markets in 1971. Quebec is more heavily oriented towards Europe than is Canada, but accounts for a smaller share of shipments to the United States.

TABLE 11

EXPORTS - QUEBEC AND CANADA - 1971

Destination	Quebec Million Dollars	Quebec % of Total	Canada Million Dollars	Canada % of Total
U.S.A.	2,319	65.0	12,006	67.7
U.K.	373	10.5	1,361	7.7
E.E.C.	291	8.2	1,102	6.2
Japan	50	1.4	831	4.6
Other	532	14.9	2,444	13.8
Total	3,565	100.0	17,744	100.0

Source: Based on data from Statistics Canada and Estimates by Department of Regional Economic Expansion.

Major Quebec export commodities include: printing paper, iron ore and concentrates, aluminum, copper, highway vehicles, aircraft and parts, asbestos and wood pulp. These seven groups accounted for 63 per cent ($2.4 billion) of exports in 1970 or 30 per cent of all Canadian exports of the same items, 50 per cent if highway vehicles are excluded. Quebec also supplies, on the basis of lading, more than half of Canada's foreign sales of commercial communications equipment, wearing apparel, primary iron and steel, fabricated base metal products, firearms and ammunition, dairy products, railway rolling stock and paperboard.

Imports cleared through Quebec customs ports totalled $3,866 million in 1971. Food, feeds, beverages and tobacco were $404 million, crude materials $606 million, fabricated materials $1,028 million and inedible end-products $1,782 million. This represented 24.8 per cent of total Canadian imports.

Statistics Canada data for 1967 show that 54 per cent of Quebec's manufactures are sold within the province, 20 per cent in Ontario, 11 per cent in other parts of Canada and 15 per cent in other countries. The same study indicates that Quebec had a deficit of $546 million with Ontario and a surplus of $822 million with the rest of the country in manufactured goods.

Table 12 compares the geographic distribution of markets for the manufactures of Quebec and Ontario. It also highlights the much smaller magnitude of the manufacturing sector in Quebec and the fact that Quebec manufactures have only half the market in their own province that Ontario manufactures have in their own.

TABLE 12

DESTINATION OF MANUFACTURED GOODS - 1967

	Quebec		Ontario	
Destination	Million Dollars	Per Cent	Million Dollars	Per Cent
Quebec	5,865	54.2	2,644	13.2
Ontario	2,098	19.5	11,579	57.8
Other provinces	1,190	11.0	2,905	14.5
Other countries	1,659	15.3	2,901	14.5
Total	10,812	100.0	20,029	100.0

Source: Destination of Shipments of Manufactures, D.B.S., 31-504.

Provincial Fiscal Capacity and Its Utilization

Because of the lower levels of income and output in the province, coupled with structural differences, Quebec's fiscal capacity (the potential yield of various revenue sources) is less than the average for Canada. An estimate of the shortfall, and a measure of capacity utilization, is presented in Table 13 with similar data for other provinces.

TABLE 13

FISCAL CAPACITY AND ITS UTILIZATION - 1971-72

	Revenue Capacity		Actual Revenue	
	Canada = 100	$ per Capita	$ per Capita	Index of Revenue Utilization (Actual Revenue/Capacity)
Newfoundland	53.9	245	279	113.8
P.E.I.	58.6	267	283	106.7
N.S.	73.0	332	305	91.9
N.B.	67.2	304	376	123.6
Quebec	83.8	381	436	114.2
Ontario	111.1	504	497	98.5
Manitoba	88.9	404	397	98.4
Saskatchewan	87.0	396	384	97.0
Alberta	137.5	624	495	79.2
B.C.	120.0	547	508	93.2
Provincial Average	100.0	453	453	100.0

Source: Based on data from the Department of Finance and estimates by Department of Regional Economic Expansion.

The table shows that only the Atlantic Provinces have less revenue potential per capita than Quebec. It also indicates that revenues to Quebec exceed fiscal capacity to a greater degree than in any other province except for New Brunswick. This illustrates the fiscal strain under which Quebec is labouring.

The Primary Sector

Having examined, in previous sections, the main macro-economic indicators of the provincial economy such as population, labour force characteristics, investment, etc., the paper will now deal with the structure and evolution of the various sectors of Quebec's economic structure. This section will touch on the primary sector while following sections will deal with the secondary and tertiary sectors, important social factors, the province's infrastructure and the role of Montreal.

Agriculture. Sales of Quebec's agricultural products advanced by 10 per cent in real terms between 1961 and 1971, compared to 75 per cent for the provincial economy as a whole. Net revenue per farm worker rose by 56 per cent, but the gain in real terms was only 23 per cent because of inflation. The number of agricultural workers at 105,000 in 1972 was 24 per cent lower than in 1961.

Since 1961, the largest absolute gain was achieved in poultry production, gross revenues rising 125 per cent in current dollars. Other comparable advances were 81 per cent for livestock and 69 per cent for fruit. Corn production more than doubled between 1966 and 1970.

Despite the relatively strong performance, the province still produces only 61 per cent of its own food requirements (24 per cent for fruit, 20 per cent for beef and 14 per cent for mutton).

Based on census value added, Quebec agriculture is about half as large as Ontario's and accounted for 13 per cent of the Canadian total in 1969. Gross farm income (in constant dollars) rose by 19 per cent and 49 per cent from 1961 to 1971 in Ontario and Canada respectively, compared to 10 per cent for Quebec. Employment fell more rapidly in Quebec between 1961-72. Quebec has specialized in the production of dairy products with 82 per cent of its farm cash income obtained from this source, compared to 67 per cent for Ontario and 57 per cent for Canada. In 1971, average farm income was $5,900. (Ontario $9,000, Canada $9,000)

Projections indicate a moderate growth in Quebec's agricultural output, with gross farm income reaching $990 million in 1980 from $573 million for 1971. Agricultural prices will advance 2.3 per cent a year, compared with 2.9 per cent between 1961 and 1971. Gross production in real terms will rise 0.7 per cent annually. Assuming an increase in beef and corn output, employment will fall from a current 105,000 to 85-90,000 during the next few years, stabilizing in that range after that.

Forestry and Forest Products. Total value added in logging operations in Canada was $747 million in 1969, but fell to $694 million in the subsequent year. Quebec accounted for $167 million (22 per cent) in 1969 and $161 million (23 per cent) in 1970. The provincial output in 1969 was 36.5 per cent higher than 1963, compared to 60 per cent for Canada.

Employment trends in logging have been sharply downward in recent years. Employment in 1970 (Quebec 14,815, Canada 52,230) was below 1963 by 34 per cent in Quebec and 13 per cent in Canada[1]. Since 1968, total wage and salary payments have not kept pace in Quebec, and in 1970 were 9 per cent below their level three years earlier. Nationally, wages and salaries in 1970 were 12 per cent higher than in 1967.

Quebec has 25 per cent of Canada's productive forest area (vs 24 per cent for B.C. and 19 per cent for Ontario), but only 15 per cent of its merchantable timber (B.C. 52 per cent, Ontario 15 per cent). In 1970, Canada cut 3.9 billion cubic feet of softwood against an estimated allowable cut of 8.2 billion. It would be possible to increase softwood harvesting by 4.3 billion cubic feet or by 110 per cent if markets justified such action. About 23 per cent of the difference is located in Quebec, giving a potential approximately double the current level of output.

Primary forest products are largely consumed as inputs into other wood based Canadian manufacturing industries. During the 1960's primary forest production increased about 3.5 per cent annually, but employment declined. Output is forecast to grow 2.2 per cent annually during the 1970's, with a further reduction in employment. The slower growth in production is based on increased use of wood residues.

Exports of wood in primary form are low because of low value to weight. Production is therefore related to prospects for wood-using industries in Canada. These include wood products (lumber, veneer and plywood, and millwork), furniture, and pulp, paper and allied products. Although these are usually classified to the manufacturing sector, it may be helpful at this point to indicate their place within the Quebec economy.

The forest products industries (excluding logging), in 1970, accounted for 15.6 per cent of manufacturing jobs in Quebec, compared with 10.1 per cent in Ontario and 45.9 per cent for British Columbia. Comparisons with Canada for employment and value added are presented in Table 14.

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1 These data based on the Census Industry differ from the Labour Force Survey presented in the section on projections, partly because of differences in treatment of seasonal workers. Trends in the two series, however, are similar.

TABLE 14

WOOD PROCESSING INDUSTRIES IN QUEBEC - 1970

	Employment		Value Added	
	Employment	% of Canada	$ Million	% of Canada
Logging	14,815	28	161.1	23
Wood industries	19,483	22	158.4	20
Furniture & fixtures	16,777	40	145.4	37
Paper and allied	43,743	36	618.0	34

Source: Manufacturing Industries of Canada, D.B.S., 31-205.

Increased mechanization was largely responsible for the sharp decline of employment in Quebec woodlands during the 1960's. It appears that this may moderate during the 1970's as some industry officials have said that shortages of woods labour have resulted in mechanization being carried to uneconomic limits. Pulp and paper, particularly newsprint, has experienced declining profitability in recent years, in part because of a preponderance of old, relatively small mills which make inefficient use of labour. Jobs in the wood industries, on the other hand, expanded by about 11 per cent between 1961-70, compared to 7 per cent for Canada, and the future for this sector and furniture appears promising.

Fishing and Fish Processing. These two activities made up 0.2 per cent of Quebec's value added in commodity production and 3 per cent of the labour force in 1969. About 10 per cent of the volume of Canadian fish landings were in the province in 1971 (6 per cent in terms of value).

During the 1960's employment in Quebec fisheries rose by 41 per cent to 6,632: 5,092 fishermen and 1,540 in fish processing plants, 35 per cent and 64 per cent respectively. Nationally, fisheries employment fell by 12 per cent between 1961 and 1970 despite a rise of 30 per cent in the number engaged in processing. There are no full-time fishermen (employed more than ten months a year) in Quebec, with "occasionals" employed for less than five months a year making up 61 per cent of the work force. It is not clear whether these people engage in other occupations of a seasonal nature or are merely unemployed when not fishing.

The Quebec industry is not expected to grow significantly in the immediate future, although an increase of 20 per cent in catches could occur by 1978. The impact on jobs will be reduced by advances in productivity, but higher output will help stabilize employment and improve opportunities in the processing sector. Research is being carried out on diversifying the catch which, if successful, could further strengthen this sector in the province.

Mining. With its diversified mining industry, Quebec ranks third in Canada behind Alberta and Ontario in the value of mineral production. It is first in non-metallics, second in metallics and structural materials, but produces almost no fuels. It accounted for $799 million or 13.9 per cent of total mineral production in 1970. Major minerals were copper, asbestos, iron ore and zinc which made up 70 per cent of provincial output. Cement, stone, titanium dioxide and gold accounted for an additional 17 per cent of production.

Employment rose gradually between 1961 and 1966 to over 25,000, but has declined since then. Among the pressures on mining jobs are the trend to open pit operations, increased size of individual units, the closure of many small mines, greater use of capital equipment, and the rapid decline of gold mining in the late 1960s.

In Quebec, the industry incurs higher wage and fuel costs than in Canadian mining generally, but this is more than offset by relatively lower costs of materials such as cement, sand and gravel, timber, drill bits and explosives.

Employment prospects vary widely depending on the region and mineral. One area of good potential is the Ungava Peninsula where known ore reserves are expected to be opened up during the 1970's. Development depends on the establishment of community infrastructure including port facilities, and will require sizeable geographical transfers of workers. New properties, coupled with expanded iron ore production in the region, could create 950 direct jobs.

Increased job opportunities are foreseen in the North and Middle Belt at Chibougamau and Gagnon, based on copper, asbestos and iron ore. The net addition is estimated at about 2,000 jobs after allowance for a number of operations that will be phased out. Areas expected to be adversely affected include Normetal (complete shutdown) and Joutel.

Employment in the Eastern Townships and Central regions may advance marginally, but these gains are apt to be offset by a drop of about 10 per cent in the Gaspé. The problem in these areas is the depletion of reserves. Some new mines will open up, notably in asbestos in the Eastern Townships and columbium near Chicoutimi, but these only offset other closures unless significant new ore bodies are found.

The area of greatest concern is the Abitibi Region, where mining employment of 4,000 could fall by 2,000 jobs during the 1970's, most of the drop taking place by 1976. The Region which embraces Noranda, Malartic and Val d'Or, has been a major mining centre for many years, but long standing operations are running out of ore. There are possibilities for a new asbestos mine and an open pit nickel mine, plus the chance that some new ore finds will prolong the life of existing mines. If these prospects materialize they will soften, but not eliminate, the substantial drop in mining employment in the Abitibi Region.

The Secondary Sector

Manufacturing. Shipments by Quebec manufacturers were $13.1 billion in 1970 or 28 per cent of Canada. This was equivalent to 54 per cent of Ontario shipments. In 1961, Quebec's shipments were 30 per cent of Canada's and 61 per cent of Ontario's, indicating a marked decline in its share of manufacturing activity.

In 1972, Quebec's manufacturing employment was 582,000, 31.3 per cent of Canadian employment. This represents a decline from 33.8 per cent in 1961. In Ontario, the share of Canadian manufacturing employment, between 1961 and 1972, rose slightly, from 46.7 per cent to 47.6 per cent.

In examining the structure of Quebec manufacturing, comparisons with Ontario are more relevant than with Canada even though Quebec is much more oriented towards non-durable goods production than Ontario. This is brought out in Table 15 which compares the relative size of various sectors based on the number of hourly paid workers.

In order to provide a clearer understanding of the Quebec manufacturing sector, various components have been regrouped according to production or market characteristics and compared with Ontario and Canada in terms of employment

TABLE 15

TOTAL EMPLOYEES IN MANUFACTURING - 1970

(per cent of total in province)

Major groups in which Quebec proportion is higher	Quebec	Ontario
Foods and beverages	11.9	10.5
Tobacco	1.2	0.4
Leather	2.7	1.6
Textiles	7.2	3.5
Knitting mills	2.8	0.9
Clothing	12.2	2.9
Wood products	3.8	2.1
Furniture	3.3	2.5
Paper and allied products	8.5	5.6
Chemical products	5.4	5.3
Major groups in which Quebec proportion is lower		
Rubber	2.4	3.6
Printing and publishing	4.3	5.4
Primary metals	5.1	8.9
Metal fabricating	7.0	10.1
Machinery	2.9	6.8
Transportation equipment	6.6	11.4
Electrical products	6.6	9.8
Non-metallic minerals	2.5	3.1
Petroleum & coal products	0.6	1.1
Miscellaneous	3.0	4.4

Source: Manufacturing Industries of Canada, D.B.S., 31-205.

changes during 1961-70. The main conclusions are summarized below:

Industries based on agriculture (food, beverages, tobacco. - 13.1 per cent of manufacturing labour force in 1970)	Employment declined relatively in Quebec, but less rapidly than in Ontario or Canada.
Industries based on forest resources (wood products, furniture, paper. - 15.6 per cent of manufacturing labour force).	Employment rose relatively within the Quebec manufacturing sector, as against declining proportions in Ontario and Canada.
Industries serving wearing apparel needs (leather, primary textiles, knitting mills, clothing. - 24.9 per cent of manufacturing labour force).	Employment declined in relative importance in Quebec, Ontario and Canada as a whole, but the drop in Quebec was less marked than in the other areas.
Industries serving, for the most part, local markets (printing and publishing, non-metallic mineral products.- 6.8 per cent of manufacturing labour force).	Employment declined in relative importance in Quebec. As these industries provide a good indication of levels of regional activity, it is of interest to note that the share of total manufacturing employment at 6.8 per cent compares with a ratio of 8.5 per cent in Ontario.
Engineering industries (primary metals, metal fabricating electrical appliances, machinery. - 28.2 per cent of manufacturing employment)	Employment has been rising gradually relative to total manufacturing in Canada, but less rapidly in Quebec because of its low base there.
Other industries (rubber, petroleum and chemical products. 3.0 per cent of manufacturing employment)	Employment accounted for a rising share of the total for manufacturing in the province, but declined in relation to the levels in the three branches for Canada as a whole.

Structural changes occurring in Quebec manufacturing are in the same direction as those for Canada, except for forest products. The rates of change, however, are not the same. Quebec is moving less rapidly out of declining activities and into growing ones.

In general, output per worker in Quebec tends to be lower on a sectoral basis than in Ontario. A comparison of productivity in the five manufacturing categories of most importance to each province is shown in Table 16.

TABLE 16

VALUE ADDED PER PRODUCTION WORKER IN SELECTED INDUSTRIES - 1970

(dollars)

	Quebec	Ontario
Foods and beverages	21,417	24,233
Textiles	12,043	13,521
Clothing	7,523	7,685
Wood products	9,243	10,855
Paper	18,391*	17,670
Primary metals	24,311*	19,444
Metal fabricating	14,776	16,760
Machinery	17,560	19,436
Transportation equipment	17,329	20,430
Electrical products	17,965*	16,461

* Quebec productivity higher than Ontario.

Source: 1970 Annual Census of Manufactures, Statistics Canada,31-201P

A further insight into manufacturing structural differences in Quebec and Ontario is seen in the results of an analysis of various sectors in terms of production and productivity growth. Industries were grouped into four categories depending on whether their rate of increase in output and level of output per manhour were above or below the average for Canadian manufacturing. The findings are summarized in Table 17.

TABLE 17

MANUFACTURING PRODUCTIVITY AND GROWTH RATES

Growth Rate	Productivity	% of Total Value Added in Manufacturing		Output Per Man-hour in 1970 (dollars)	
		Quebec	Ontario	Quebec	Ontario
High	High	16	30	11.70	10.80
High	Low	28	25	6.10	6.90
Low	High	33	30	11.80	12.20
Low	Low	23	15	4.80	6.30

Source: Statistics Canada: Manufacturing Industries of Canada, 31-205, and special tabulations.

Quebec achieved higher productivity than Ontario in the high-growth, high-productivity sector. Unfortunately, this sector is much smaller in Quebec. Quebec has 56 per cent of its manufacturing production concentrated in low growth areas (45 per cent for Ontario) and 51 per cent in industries with below average productivity (40 per cent in Ontario).

Manufacturing production in Quebec on a constant dollar basis rose 5.9 per cent a year between 1961 and 1969. On the basis of CANDIDE[1] simulations it is expected to grow at an average annual rate of 4.4 per cent between 1969-80. This is less than the 5.3 per cent foreseen for Canada. In part, the reason is the heavy importance in Quebec of non-durable and semi durable goods, which typically advance less rapidly than durables.

The projections for manufacturing employment in Quebec based on CANDIDE results, which are of course based on a variety of assumptions, are 0.5 per cent annually during 1970-75 and -0.7 per cent per year in the subsequent five years, suggesting a possible loss of nearly 50,000 manufacturing jobs between 1970 and 1980.

[1] CANDIDE is an econometric model of the Canadian economy developed by the Economic Council of Canada and several departments including DREE.

The Tertiary Sector

For purposes of this report, the tertiary sector of the economy embraces all those activities not classified as primary or secondary. The main sectors are given by employment in Table 18.

TABLE 18

EMPLOYMENT IN THE TERTIARY SECTOR IN QUEBEC - 1971

	Thousands	% of Total Quebec Employees	% of Same Canadian Sector
Construction	119	5.4	24.0
Transport	186	8.5	26.5
Commerce	339	15.4	25.5
Finance	101	4.6	26.2
Services	599	27.3	28.3
Public Administration	133	6.1	25.6
Total	1,477	67.3	26.6

Source: Labour Force Survey, Special tabulation, Statistics Canada.

Employment in the tertiary sector grew at an annual rate of 4.3 per cent in Quebec between 1961 and 1971, as against rates of 4.0 per cent in Ontario and Canada. The value of tertiary production also rose more rapidly in Quebec. Capital investment, however, declined sharply in the late 1960's compared to Canada.

Within the sector, there was considerable variation in growth during the 1961-71 period. This is shown in Table 19 which covers production, employment and productivity.

TABLE 19

QUEBEC TERTIARY SECTOR - AVERAGE ANNUAL RATES OF CHANGE
(% per year)

	Production* 1961-69	Employment 1961-70	Productivity 1961-69
Construction	1.6	0.9	0.7
Transport, storage communications	6.6	2.3	3.6
Commerce	6.0	3.0	3.0
Finance, insurance, real estate	3.4	4.3	-1.4
Services	7.9	7.0	0.5
Public Administration	3.8	4.2	-0.7
Tertiary Sector	6.0	4.6	0.7

* based on gross domestic product in constant 1961 dollars.

Source: Estimates of Employees by Province and Industry, D.B.S., 72-008.

In 1961, about 59 per cent of Quebec's labour force worked in the tertiary sector, rising to 67 per cent by 1971. In 1961 important sub-sectors were relatively under-developed. The process of catching up, superimposed upon the rapid general expansion of tertiary activities, imparted a dynamic character to this sector of the Quebec economy. Industries providing personal services did well, achieving growth rates in employment and production in excess of business services. Transportation and finance, long areas of special importance in Quebec, grew more slowly than in Ontario.

The employment growth rate moderated after the middle of the 1960's for all components, particularly in the services sector. Employment declined 25,000 in construction between 1966 and 1971. While this decline reflected a reaction to high levels of construction prior to EXPO 67, its magnitude is nonetheless a cause for concern. Compared to the mid-1960's, capital outlays in the tertiary sector have weakened relative to the importance of the sector in the Quebec economy.

Forecasts of tertiary employment and production in Quebec based on CANDIDE results are presented later in this report. These show increases of 48 per cent between 1971 and 1980 for employment and 81 per cent for the constant dollar value of production or 4.1 per cent annually for employment and 5.4 per cent for output.

In summary, it can be said that this sector, in the past decade, was a major contributor to job creation in the province and should continue to play a similar role in the future. The upward impetus has been waning, however, as deficiencies in earlier development are rectified. Investment outlays have weakened and do not appear to be consistent with the CANDIDE projections for rapid national growth in employment and production in this sector.

Social Factors

Urbanization: Although 81 per cent of Quebec's population was urbanized in 1971, the geographical distribution was much less balanced than in Ontario. About 50 per cent of the population was concentrated in Montreal. Quebec has only three cities with more than 100,000 inhabitants, against nine for Ontario. Except for Montreal, Quebec and Sherbrooke, population in other urban areas has shown little or no growth.

Montreal is the hub of Quebec acting as a link between it and other regions and countries. If current patterns continue, it is expected that the urbanization will rise to 90-95 per cent in the next twenty years, with most of the movement from rural areas and small towns accruing to Montreal. While there may be economic advantages from this, there are risks to the quality of life if urbanization is unplanned.

Housing: The major problems of housing in Quebec are quality and economic availability, rather than quantity. Housing quality has shown steady improvement. Nevertheless, both Montreal and Quebec have twice as much over-crowding as do Toronto and Ontario. In Montreal, there were over 24,000 units without running water (6,000 in Toronto) and more than 16,000 without bath or shower in 1971.

Low income families (who numbered 248,000 in Quebec in 1967) frequently have to allocate too much of their income for shelter, at the expense of other essentials, or live in over-crowded or rundown premises. The problem is particularly acute for the elderly, while 35,000 native people in Quebec are the most poorly housed in the province.

Housing stock in Montreal rose by 47 per cent between 1961 and 1971, compared to 60 per cent in Toronto. While the construction of single-family units is growing less rapidly than that of apartments in other parts of Canada, the reverse is true in Quebec where renting has traditionally been popular. There has been a trend towards home ownership at the expense of renting in Quebec. Housing starts in Quebec were below the Canadian average during 1961-71.

Household formation in Quebec is lower than in Ontario and Canada. The number of household formation rose only 10 per cent faster during 1966-71 compared to 1961-66 as against 68 per cent in Ontario.

Given current trends, new household formation in Quebec would remain constant at 52,000 per year between now and 1986. In Ontario, on the basis of current trends, they will rise from 92,000 per year during 1971-76 to 119,000 yearly during 1981-86, and from 40,000 to 61,000 per year in Toronto alone. Within Quebec current trends would indicate a continued shift towards Montreal, which should account for 54 per cent of the population in 1981 and 56 per cent in 1986, compared to 50 per cent in 1971.

The Family and Its Behaviour Patterns. The sharp decline in Quebec's birth rate is changing family behaviour patterns. Smaller families and individual autonomy are characteristics of the present day in Quebec. This is reflected in increased numbers of working wives, more leisure and changing housing demand. It also has affected family income and expenditure patterns. Rising family income coupled with more leisure and women working will increase the demand for luxuries (furniture, household appliances, etc.) convenience goods and leisure activities (travel, cottages, sports equipment, etc.).

Education. During the 1960's a major change took place in Quebec's educational system, based on making it more generally available and improving its quality. School consolidations cut the number of elementary and secondary schools from 7,284 in 1960-61 to 4,100 in 1968-69 and the establishment of the

CEGEP system in 1967 provided increased post-secondary education opportunities. The university system has also been greatly expanded.

These changes were accomplished despite large increases in the number of students, teaching staff and costs. The number of university students has more than doubled since 1961, after allowance for the effect of the CEGEPs. While the proportion of students in school is similar to that in Ontario, there are differences at the university level. For example, in 1969-70 the number of degrees granted was 85 per cent of Ontario at the bachelor level but only 44 per cent at the Master and Doctorate levels.

Adult education concentrates more on professional training than does Ontario, and less on apprenticeships and industrial courses. However, this may reflect manpower retraining courses that are less formal and academic than is usually associated with the term "professional training".

Provincial Infrastructure

The Road System: The evolution of Quebec's road system has been directed toward certain objectives. Major priorities in the system have been the opening up of tourist regions, the rapid movement of people between large centres by the shortest and most convenient route, and the improvement of access to mineral and hydro-electric resources in distant parts of the province. The role of an efficient road system as a generating force in industrial development has not developed as it might have. Development that has followed road construction has tended to be accidental and marginal in nature.

As a result, Quebec's road system, although modern, is incomplete as it is a mixture of modern, four-lane highways between the principal urban centres, and a large number of antiquated two lane highways that have to serve the needs of the rest of the province. Montreal itself has a good system of arterial roads, and its connections with Quebec City and Sherbrooke are excellent. The Montreal Metropolitan region plays a primary role in the province's industrial development, and its recent growth is pushing new enterprise away from the centre. This creates a need to ensure that road facilities within the region are capable, not only of moving the increasing numbers of people, but also of handling the much larger volume of intra-regional truck movement which industrial expansion entails.

Outside Montreal, other industrial areas have poor links between each other and with Montreal and Quebec. Highway construction has by-passed Western Quebec, large parts of the

Eastern Townships and the southern stretch of the St. Lawrence between Montreal and Sorel. The manufacturing centres of Trois-Rivières and Shawinigan, although less than a hundred miles from Montreal, are linked to it by a relatively expensive toll road for part of the distance and an obsolete highway for the remainder. The out-of-date link through Quebec from Montreal to Hull may be abdicating industrial and tourist development in this large area of the province in favour of Ontario.

The Contrecour, Sorel-Tracy area, which is experiencing heavy industrial development, is linked to Montreal markets by a very poor two lane road and a new autoroute is badly needed. Interregional flows between industrial towns in the Eastern Townships are also hampered by a poor road system.

Water, Air and Rail Transportation: Generally speaking, Quebec is reasonably well served, so far as its current needs are concerned, by the services available in water, air and rail transportation. An exception is that the road system may not take advantage of resources possessed by the province in these other transportation modes. A positive feature for Quebec is that the head offices of the major Canadian railways and airlines are located there.

In water transportation, which assumes great importance because of two coastlines, a major river and a number of other navigable waterways, the main problems are the low productivity of dockworkers and the continued possibility of labour unrest. During a recent strike, shippers who had been using Quebec ports sought alternative routings, and many of these have been maintained.

The opening of the St. Lawrence Seaway resulted in considerable loss of trans-shipment business at Montreal with cutbacks largely confined to general cargoes. A development that helped to partially offset the impact of the Seaway on Montreal was the use of ice breakers in the St. Lawrence, which has made the city virtually a year-round port.

The development of Quebec's ports has had to contend with the establishment of container ports and the development of deep water harbours in the Atlantic Provinces. Quebec has the physical capabilities for the latter, but they have not yet been developed.

Rail and air services in the province appear to present few problems in so far as the movement of cargoes within and without the province is concerned. There is legitimate worry that Montreal's key transportation role as an off-loading point for international flights will be adversely affected by the increasing tendency of carriers to seek and gain landing rights in Ontario.

It is important that the province be able to counter competition from other airports in North America for industrial warehousing. The success of the new international airport at Mirabel is crucial to Quebec's transportation role.

Power and Fuel. As Quebec produces neither coal nor petroleum and very little natural gas, these must be imported. Hydroelectricity is the only form of primary energy produced in the province, in 1969 accounting for 34 per cent of total energy available in that year. Some electricity is produced thermally using oil.

Oil imports in 1969 were 195 million barrels or 62 per cent of the energy supply. Purchases of natural gas were 53 billion cubic feet (3.0 per cent of supply).

Industrial uses account for 35 per cent of consumption with 42 per cent supplied by oil and 39 per cent by electricity.

Quebec refining capacity rose from 297,000 barrels per day in 1961 to 459,000 barrels at the beginning of 1971. The Golden Eagle refinery added an additional 100,000 barrels in 1972.

Oil imports enter Quebec by the 237 mile pipeline from Portland, Maine to Montreal or by boat to Quebec City in the case of Golden Eagle. There is interest in the province in the possibility of establishing a port in Quebec to receive oil directly from overseas sources with a view to reducing dependence on an international pipeline which is reaching capacity.

The Role of Montreal

The Montreal Administrative Region is the economic heart of the province of Quebec, accounting for 56 per cent of its population, 71 per cent of its manufacturing employment, and 65 per cent of its gross provincial product. While at one time the proposition was made in some quarters that Montreal gained its predominant position at the expense of development in other parts of the province, such a view has now been subjected to severe challenge and it is increasingly recognized that the vitality of the metropolis is crucial to the vitality of the entire province. Thus there is a growing awareness of a need to build on the Montreal area's strengths and to overcome its weaknesses as a prerequisite to the achievement of more dynamic growth in the province as a whole.

Recent trends in population, manufacturing, transportation, finance and a number of other areas indicate that Montreal's role as an initiator of provincial economic growth has waned. Its population, for example, rose by only 6.7 per cent between 1966 and 1971, as against an advance of 7.8 per cent for Canada as a whole. Montreal's labour force during the last five or six years grew at 77 per cent of the comparable growth in the province generally. Montreal's share of cargo loading in Canada declined from 12 per cent in 1961 to 6 per cent in 1971. The number of employees in Montreal financial institutions increased by 26 per cent between 1960 and 1965 as compared with only 17 per cent during the last half of the decade.

In view of the Montreal area's importance to the economic health of the province, an urgent need is to arrest and reverse these evidences of a weakening status. Vigorous federal and provincial efforts in this direction now show signs of payoff. The downward trend of investment in Montreal manufacturing facilities was arrested in 1972 and preliminary intentions indicate a sharp increase is in prospect for 1973.

There is an opportunity to reinforce these tentative signs of renewed momentum. In this connection, it must be recognized that Montreal presents an excellent focus for stimulative action because, despite recent slackening, it already possesses a well rounded base in both the industrial and tertiary sectors. The objective, of course, would not be growth for its own sake. There is no question that Montreal will remain the hub of the provincial economy, and selective strengthening of its performance will be reflected in improvements through Quebec generally.

PROJECTIONS

This section attempts to forecast some of the current trends in the Quebec economy. These projections are what are usually termed "neutral projections" in the sense that they are predicated on the assumption that most economic forces will not change dramatically, existing federal and provincial policy mixes will remain broadly the same, and that no major new factors will appear in the near future except those assumed in the Economic Council's forecast. This section does not describe what could be made to happen--that is the subject of some of the following parts of this paper. This section merely attempts to project what might happen if existing trends and policies remain essentially unaltered. Of course, the basic approach to development inherent in subsequent parts is to shift the trends so that the negative aspects of what might happen will not, in fact, occur.

Macro Indicators. Except for population, all projections are derived from those presented by the Economic Council of Canada in their *Ninth Annual Review*, Chapter 4. Among the various development profiles given, the one which implies a strong growth in the Canadian economy was chosen. The approach consisted of calculating the consequences for Quebec of these national projections using the historical relations between Canadian and Quebec variables. The projections for Quebec are conditional on the Council's projections and the continuation of the trend relationships between Quebec and Canada.

Canadian Profile. The projections presented by the Council in Chapter 4 are based on a satisfactory development of the world economy and major policy moves by the Federal Government to stimulate the Canadian economy. These hypotheses produce a rapid rate of growth in production, employment and productivity during the 1970's. Canadian production, measured in terms of real domestic product, will grow 5.5 per cent per year. The rate of growth of employment will reach 3.1 per cent annually and that of productivity, 2.4 per cent. The Council projects an important increase in both investment in the private sector and in the stock of capital per worker. The rate of growth in the labour force will be considerably less than during the last 5 years, 2.8 per cent per year. Because of the rapid increase in employment growth, the unemployment rate will diminish reaching 4.8 per cent in 1975 and 3.9 per cent in 1980.

Population - Quebec. Population projections for Quebec during the 1970's, are based on two hypotheses:

- Fertility rate, having declined considerably during the 1960's, will remain stable at present levels to 1980.

- On a net basis, there will be zero out-migration during the 1970's. According to this hypothesis, the strong net out-migration of the last few years will be reversed.

TABLE 20

THE EVOLUTION OF CANADIAN AND QUEBEC POPULATION, 1960-80

	Number of People (1,000's)		Quebec Share of The Canadian Population in Percent	Annual Rate of Growth by Period In Percent	
	Quebec	Canada		Quebec	Canada
1960	5,142	17,870	28.8		
1965	5,685	19,644	28.9	2.0	2.0
1970	6,013	21,376	28.1	1.1	1.7
1975	6,300	23,077	27.3	0.9	1.5
1980	6,715	25,001	26.8	1.3	1.6

Source: Based on Data from Economic Council of Canada and Estimates by Department of Regional Economic Expansion.

During the 1970's the increase in Quebec's population will be less than 70 per cent of the national average. There are two reasons for this: the Canadian birthrate is projected to be somewhat higher and net migration into Canada is assumed at 100,000 per annum. Quebec's share of Canadian population will decline from 28.1 per cent in 1970 to 26.8 per cent in 1980.

The structure of Quebec's population will change during the 1970's. This is presented in Table 21.

TABLE 21

POPULATION BY AGE GROUP, 1961-80

	0 -14 Years	15-24 Years	25-34 Years	35-64 Years	15-64 Years	Over 65 Years	Total
1961	35.4	15.9	14.0	28.8	58.8	5.8	100.0
1970	30.2	19.4	13.9	30.0	63.2	6.6	100.0
1980	24.4	19.5	17.2	31.1	68.0	7.6	100.0

Source: Based on Data from Economic Council of Canada and Estimates by Department of Regional Economic Expansion.

The importance of the age group 25 to 34 years will increase, rising from 13.9 per cent in 1970 to 17.2 per cent in 1980. Its rapid growth is the result of the post-war baby-boom. This change will result in a rise in the number of births and marriages, an increased rate of family formation and a growing demand for housing and durable goods.

The Labour Force. The evolution of the labour force depends on changes in the population of working age and its participation rate. The annual growth of working age population will slow compared to the last decade, diminishing from 2.5 per cent during the 1960's to 1.8 per cent in the 1970's. This slow-down is attributable to stabilization of the share of the age group 15 to 24 years resulting from the decline in the birth rate since 1958.

The projection of the participation rate consists of tying the Quebec rate to the Canadian. It is estimated that the average gap between the two during 1966 to 1971 would be maintained to 1980. Thus, the participation rate for women would rise from 32.2 per cent in 1970 to 39.1 per cent in 1980. Among men, it would fall from 76.0 per cent in 1970 to 75.8 per cent in 1980. Consequently, the proportion of women in the labour force would rise from 30.9 per cent in 1970 to 34.7 per cent in 1980.

The Quebec labour force is estimated to grow 2.4 per cent per year to 1980, an important slow-down from the last decade and less than that of Canada. These projections are presented in Table 22.

TABLE 22

THE EVOLUTION OF THE CANADIAN AND QUEBEC LABOUR FORCE 1960-1980

	Number of Workers ('000s)		Quebec Share of the Canadian Work Force	The Annual Rate of Growth by Period %	
	Quebec	Canada	%	Quebec	Canada
1960	1,803	6,411	28.1		
1965	2,022	7,141	28.3	2.3	2.2
1970	2,328	8,374	27.8	2.9	3.2
1975	2,589	9,488	27.3	2.2	2.5
1980	2,942	10,906	27.0	2.6	2.8

Source: Based on data from Economic Council of Canada and estimates by Department of Regional Economic Expansion.

Employment. Employment in Quebec is projected to grow at an annual rate of 2.6 per cent during the 1970's. This is less than the 2.9 per cent of the 1960's but greater than in the last few years. From 1966 to 1971, employment grew only 1.7 per cent annually and in 1972, only 1.3 per cent. These projections appear in Table 23. Employment creation in the province will be slower than in the rest of Canada.

TABLE 23

EVOLUTION OF CANADIAN AND QUEBEC EMPLOYMENT, 1960-1980

	Number Employed (1,000's)		Quebec Share of Canadian Employment	Annual Rate of Growth by Period %	
	Quebec	Canada	%	Quebec	Canada
1960	1,639	5,965	27.5		
1965	1,912	6,862	27.9	3.1	2.9
1970	2,144	7,879	27.2	2.4	2.8
1975	2,413	9,028	26.7	2.4	2.8
1980	2,757	10,479	26.3	2.7	3.0

Source: Based on data from Economic Council of Canada and estimates by Department of Regional Economic Expansion.

Unemployment. Table 24 presents the evolution of unemployment, actual and projected, from 1961 to 1980.

The Quebec unemployment rate is projected to remain high during the 1970's, well above the national average. More importantly, the gap is expected to widen given present trends in the economic performance of the province. It must not be forgotten that the 3.9 per cent unemployment rate for Canada is based on assumed heavy government intervention to foster rapid growth in the economy. In a similar manner, it may be assumed that the government intervention would be directed in such a manner as to offset underlying trends that would otherwise result in Quebec's unemployment rate remaining above 6 per cent until 1980.

Table 24 presents a projection of unemployment rates for Canada and Quebec which would result if current trends continued within a national growth rate sufficient to achieve a national unemployment rate of 3.9 per cent by 1980.

TABLE 24

UNEMPLOYMENT RATE - CANADA AND QUEBEC, 1961-1980

	Quebec	Canada
1961-65	7.2	5.4
1966-70	6.3	4.6
1971	8.2	6.4
1972	8.3	6.3
1975	6.8	4.8
1980	6.3	3.9

Source: Based on data from Economic Council of Canada and estimates of Department of Regional Economic Expansion.

Micro-Indicators. Using simulations from CANDIDE, the Quebec share of Canadian production was projected to 1980. The levels of productivity in each sector are forecast from the relationships between Quebec and Canada observed in the past.

Production. Projections of the trends in Quebec output are shown in Table 25. Output will grow at a rate of 5.1 per cent from 1969-1980. The Canadian increase will be 5.3 per cent. Improvement in the growth of output is expected in the construction sector. Between 1966 and 1970, stagnation of investment led to a reduction in activity. The increase in construction is closely tied to the completion of the work at Mirabel, the construction of the installations for the Olympic Games and activities in the James Bay area.

In the fishing and forestry sectors, the forecasts indicate a slight increase in Quebec's share of national output.

For the Quebec agricultural and manufacturing sectors, output will increase at a lower rate than in the 1960's. The province will see a decrease in its share of Canadian production, as is also the case for mining.

The decrease in output growth in manufacturing is attributable, in part, to the provincial industrial structure. According to the Council, the annual rate of growth in consumer demand will be 2.4 per cent for semi-durables, 3.7 per cent for non-durables and 4.7 per cent for durables. Quebec manufacturing is largely concentrated in those industries which produce slower growing non-durable or semi-durable goods.

Output in the tertiary sector will increase more quickly. Nevertheless, growth will be lower than in the 1960's. During the last decade, the rapid increase of Quebec output in service industries was largely attributable to a "catching up" in certain areas: education, health and commercial services. During the 1970's, Quebec output in the tertiary sector will increase at a rate slightly greater than nationally. In 1961, by real domestic product, services were 3.7 per cent less important in Quebec than in Canada. In 1969 they were about equal and in 1980 will be about 5 per cent greater.

Productivity: Table 26 shows changes in output per worker (productivity) from 1961 to 1980. Growth in output per employee is forecast to be stronger during the 1970's than in the 1960's. Increases in productivity are projected in: mining, manufacturing, transportation, construction and finance, insurance and real estate. The last two showed low increases in productivity in the 1960's because of a slow-down in output. Above average gains in productivity in Quebec will be realized in: forestry, mining, fisheries and construction. In other sectors, growth will be the same or less than Canada.

Employment: The projected changes in Quebec employment are shown in Table 27. Employment should increase at a rate of 2.6 per cent between 1970 and 1980. This corresponds to 2.9 per cent for Canada and is less than the Quebec average during the 1960's, but superior to that of the last few years.

Employment in the service industries will continue to grow rapidly and their share of employment will rise from 60.7 per cent in 1970 to 70.4 per cent in 1980. Nevertheless, their rate of growth will be less than during the 1960's because of a slow-down in output growth. In the goods producing sector, only construction will show important increases in employment. Employment will diminish in agriculture and increase slightly in mining, forestry and fisheries. A net decrease of 28,000 jobs in the primary sector is forecast for 1970 and 1980. Manufacturing is projected to lose 50,000 jobs. This is the result of a national decline in the growth of manufacturing, a reduction of Quebec's share of national production and an increase in productivity. This decline in the manufacturing sector during the 1970's follows a marginal employment increase since the middle 1960's.

TABLE 25

TRENDS OBSERVED (1961-69) AND PROJECTIONS (1969-80)
OUTPUT BY SECTOR FOR THE QUEBEC ECONOMY

	Value of production in millions in 1961				Share production in %				Quebec production as a % of that of Canada				Average annual rate of growth in %			
	1961	1969	1975	1980	1961	1969	1975	1980	1961	1969	1975	1980	1961 -69	1969 -75	1975 -80	1969 -80
agriculture	226	268	220	239	2.5	1.9	1.2	1.0	14.3	10.7	9.6	9.2	2.1	-3.2	1.7	-1.0
forestry	109	158	224	291	1.2	1.2	1.2	1.2	25.3	25.8	28.8	29.6	4.7	6.0	5.4	5.7
fishery	5	6	8	9	0.1	x	x	x	5.5	5.8	6.1	6.4	2.3	4.9	2.4	3.8
mining	237	328	424	508	2.6	2.4	2.3	2.1	14.8	13.6	12.3	11.1	4.1	4.4	3.7	4.1
sub total: primary sector	574	760	876	1047	6.4	6.5	4.7	4.4	15.5	14.3	13.0	12.4	3.6	2.4	3.6	3.0
manufacturing	2756	4358	5628	6972	30.8	31.6	30.1	29.3	31.6	29.2	27.6	26.3	5.9	4.4	4.4	4.4
construction	564	640	1086	1420	6.3	4.6	5.8	6.0	27.8	20.5	24.3	24.5	1.6	9.2	5.5	7.5
sub total: secondary sector	3320	4998	6714	8392	37.1	36.2	35.9	35.2	30.9	27.7	26.0	25.6	5.2	5.0	4.6	4.8
transportation, storage, communication	1218	2033	2782	3655	13.6	14.7	14.9	15.3	27.2	27.5	26.8	26.6	6.6	5.4	5.6	5.5
trade	1111	1772	2485	3234	12.4	12.8	13.3	13.6	24.5	24.8	26.0	26.5	6.0	5.8	5.4	5.6
finance, insurance, real estate	1038	1353	1975	2536	11.6	9.8	10.6	10.6	25.1	23.3	24.2	24.0	3.4	6.5	5.1	5.9
services	1224	2256	3128	4106	13.7	16.3	16.7	17.2	25.3	27.9	27.0	26.5	7.9	5.6	5.6	5.6
public administration	466	630	728	854	5.2	4.6	3.9	3.6	18.4	20.1	20.2	20.7	3.8	2.4	3.2	2.8
sub total: tertiary sector	5057	8044	11098	14385	56.5	57.3	59.4	60.4	24.6	25.5	25.7	25.6	6.0	5.5	5.3	5.4
total all sectors	8954	13802	18687	23821	100.0	100.0	100.0	100.0	26.1	25.4	25.3	24.9	5.6	5.2	5.0	5.1

* Less than 0.1 per cent

Source: Based on data from Economic Council of Canada and Estimates by Department of Regional Economic Expansion

TABLE 26

GROWTH IN PRODUCTIVITY PER WORKER BY ECONOMIC SECTOR IN QUEBEC

	Value of Productivity In 1961 Dollars ($000)				Quebec Productivity As A % Of That Of Canada				The Average Annual Rate Of Growth In %			
	1961	1969	1975	1980	1961	1969	1975	1980	1961-69	1969-75	1975-80	1969-80
Agriculture	1.64	2.50	2.70	3.25	70.7	61.0	56.0	54.0	5.4	1.3	3.8	2.4
Forestry	2.99	5.33	8.05	11.02	56.9	69.7	79.7	90.7	7.5	7.1	6.5	6.8
Fishing	4.62	4.17	5.39	5.99	90.0	84.1	153.4	177.0	-1.3	4.4	2.1	3.3
Mining	18.59	12.12	14.99	20.14	91.3	58.0	68.0	70.0	-5.2	3.6	6.1	4.7
Sub-Totals: Primary Sector	3.05	4.91	6.30	8.27	70.8	69.4	70.6	70.4	6.1	4.2	5.6	4.9
Manufacturing	5.60	7.48	10.37	13.33	93.3	91.3	90.5	90.0	3.7	5.6	5.2	5.4
Construction	5.35	5.63	7.56	8.53	99.8	87.0	95.0	96.5	0.7	5.0	2.4	3.8
Sub-Totals: Secondary Sector	5.55	7.17	9.78	12.17	95.2	91.4	92.2	92.9	3.3	5.3	4.5	4.9
Transportation, Warehousing & Communication	8.05	10.72	13.13	16.53	100.6	100.4	100.0	100.0	3.6	3.4	4.7	4.0
Trade	4.27	5.39	6.28	7.10	96.0	97.3	98.1	100.6	3.0	2.6	2.5	2.5
Finance, Insurance & Real Estate	15.67	14.08	16.96	17.71	90.6	84.8	88.0	87.0	-1.4	3.1	0.9	2.1
Services	4.01	4.18	4.35	4.34	97.9	99.2	100.0	100.0	0.5	0.7	-0.1	0.3
Public Administration	5.64	5.33	5.04	4.86	79.9	80.8	80.0	80.0	-0.7	-0.9	-0.7	-0.8
Sub-Total Tertiary Sector	5.84	6.18	6.99	7.41	95.6	92.5	96.3	96.6	0.7	2.1	1.2	1.7
Total For All Sectors	5.42	6.44	7.74	8.64	93.9	93.5	93.5	93.7	2.2	3.1	2.2	2.7

Source: Based on data from Economic Council of Canada and Estimates by Department of Regional Economic Expansion

TABLE 27

TRENDS (1961-70) AND PROJECTIONS (1970-80) IN EMPLOYMENT
BY ECONOMIC SECTOR IN QUEBEC

	Number of People Employed (1,000's)				Share by Sector in %				Annual Average Growth Rate in %			
	1961	1970	1975	1980	1961	1970	1975	1980	1961-70	1970-75	1975-80	1970-80
Agriculture	137.8	104.9	81.4	73.4	8.3	4.9	3.4	2.7	-3.1	-5.2	-2.1	-3.6
Forestry	36.5	25.5	27.8	26.4	2.2	1.2	1.2	1.0	-4.1	1.8	-1.1	0.3
Fishery	1.1	0.7	1.4	1.5	0.1	x	x	0.1	-5.2	14.9	1.4	7.9
Mining	12.8	23.7	28.3	25.2	0.8	1.1	1.2	0.9	7.1	3.6	-2.3	0.6
Sub Total Primary Sector	188.2	154.8	138.9	126.5	11.4	7.2	5.8	4.6	-2.2	-2.2	-1.9	-2.0
Manufacturing	492.5	572.6	542.7	523.0	29.8	26.7	22.5	19.0	1.7	-1.1	-0.8	-0.9
Construction	105.3	114.4	143.7	166.4	6.4	5.3	6.0	6.0	0.9	4.7	3.0	3.8
Sub Total: Secondary Sector	597.8	687.0	686.4	689.4	36.2	32.0	28.5	25.0	1.6	-0.1	0.1	0.1
Transportation, Storage, Communication	151.3	185.6	211.9	221.1	9.2	8.7	8.8	8.0	2.3	2.7	0.9	1.8
Trade	260.4	340.5	395.7	455.4	15.8	15.9	16.4	16.5	3.0	3.0	2.8	3.0
Finance, Insurance, Real Estate	66.2	96.9	116.4	143.2	4.0	4.5	4.8	5.2	4.3	3.7	4.2	4.0
Services	305.0	559.4	719.0	946.0	18.5	26.1	29.8	34.3	7.0	5.1	5.6	5.4
Public Administration	82.7	120.2	144.4	175.7	5.0	5.6	6.0	6.4	4.2	3.7	4.0	3.9
Sub Total: Tertiary Sector	865.6	1302.6	1587.4	1941.4	52.4	60.7	65.8	70.4	4.6	4.0	4.1	4.1
TOTAL	1651.6	2144.4	2412.7	2757.3	100.0	100.0	100.0	100.0	2.9	2.4	2.7	2.6

Source: Based on data from Economic Council of Canada and Estimates by Department of Regional Economic Expansion

Employment Growth 1970-72

Based on interpolation, the employment projections in the preceding section imply total employment in the province of 2,245,000 in 1972. Actual employment, however, was only 2,225,000, for a shortfall of 20,000 jobs. By sector, primary was down 11,000, secondary up 11,000, and tertiary down 20,000 from the projected values. It is believed that the recent strengthening of new investment, which in turn suggests a resurgence of investor confidence and a positive response to federal and provincial stimulants, will reduce the shortfall and perhaps cause the projections to be exceeded within a short time. Nevertheless, the lag to 1972 clearly indicates the desirability of maintaining and strengthening the momentum now beginning to be evident.

Summary

This section of the report has attempted to provide a comprehensive picture of Quebec's economic environment as well as an indication of where current trends are likely to lead through the 1970's.

The main theme is that with few exceptions, Quebec's economic performance during recent years has not been satisfactory, not only in comparison to other parts of the country, but as a generator of income and employment for the people within its borders.

Especially in relation to Ontario, which has many of the same physical and economic characteristics, Quebec suffers disproportionately low levels of employment, production, capital outlays, productivity and trade. Some gaps can be traced to historical factors, as is the case for the heavy concentration on less productive non-durable goods industries. Others cannot, and the reasons must lie in other types of weaknesses in the provincial economic environment.

On the basis of present trends, Quebec's population is expected to grow by 12 per cent during this decade to reach 6,715 thousand by 1980. This compares with an advance of 17 per cent foreseen for Canada as a whole. There will be a marked increase in the number of people aged 25-34 years which, together with a higher proportion of working women, will lead to a rise of 26 per cent in the size of the labour force to 2,942 thousand. The comparable labour force increase for Canada is 30 per cent.

Although smaller in relative terms than for Canada generally, the labour force increase for Quebec represents 614,000 additional persons who will be seeking work in 1980 if the projection materializes. Assuming the continuation of trends and relationships which prevailed during the 1960's, total employment is projected to advance by 613,000 workers or by 22 per cent between 1970 and 1980. (The projection for Canada as a whole is 33 per cent.) On this basis, the number of unemployed would increase by 1,000 over the decade, although the rate of unemployment expressed as a percentage of the labour force would decline to 6.3 per cent in 1980 from 7.9 per cent in 1970.

A sectoral breakdown of the employment projections shows less jobs in 1980 than in 1970 in the primary sector and a fall of 49,300 in the secondary sector. Part of these declines would be offset by a rise of 52,000 workers in construction. Thus the projected total employment increase of 613,000 implies an advance of 638,900 in tertiary sector employment.

The projections are based on the experience of the 15 year period to 1969, and thus give relatively little weight to federal and provincial initiatives to stimulate development undertaken after 1969. These are now being reflected in the improving tone of business conditions that has been previously noted. As mentioned at the beginning of this section, the aim of regional development is to alter these "neutral" projections that have been presented on the assumption of past trends continuing into the future. The opportunities presented in the rest of this paper indicate the possibilities for a more balanced regional growth of the national economy--possibilities which, if realized, would help to avoid the consequences of a continuation of past experiences.

OPPORTUNITIES

This section of the report outlines and discusses certain opportunities for development in the province. These opportunities are meant neither to be all-inclusive nor even necessarily those which might ultimately prove to be the most feasible. They are presented, rather, as an example of an approach which could be taken, arising from an analysis of the province's past performance and likely future requirements, and which could provide a basis for orienting future regional development. Because of the length of this section of the report, a brief outline is in order.

At the primary sector level, a series of opportunities is mentioned, touching on agriculture, forestry, mining and fishing. For the agricultural sector a program of upgrading farm land through more extensive drainage is suggested, with a view to increasing the output of corn and barley. This could provide the base for a greatly increased effort in beef production, a product for which rapidly expanding markets exist. Forestry opportunities appear to be centered around steps to provide a better allocation of the forest resource and to deal with an apparent scarcity of forest workers. Suggested opportunities for mining are broadly based: among other things, they call for steps to deal with possible closures in certain highly vulnerable areas and two further processing options, increased pelletizing of iron ore output and a very considerable expansion of asbestos products manufacture in the province. In the fishing sector, an intensification of the rationalization of processing activities and diversification of the catch are mentioned.

For the secondary sector, wide-ranging opportunities are suggested based on two general goals: a general restructuring leading to much greater participation in a range of high-growth durable goods industries and the modernization and consolidation of the "traditional" labour-intensive or resource-based industries. In the first case, establishment of a steel-using complex of industries based on a tripling of steel production is suggested. Priority would be given to metal fabricating, machinery, transport equipment and electric products industry development. In the second instance, the suggested opportunities would come from the modernization and rationalization of the wood-using industries, particularly furniture, which has a very bright future, and the textile and food industries. Attention is given to the petro-chemical industry complex in the Montreal area, which is treated separately from the two main groups.

At this point, it is worthwhile mentioning briefly the development opportunity mentioned for the tertiary sector. Emphasis is put on the desirability of revitalizing the Montreal economy by concentrating on the high technology end of manufacturing and finding a new thrust for the city in its traditional role as a major North American centre for transport, communication, financial and sophisticated business services. The development of both the secondary manufacturing sector and the tertiary sector in the province is heavily dependent on a revitalization of Montreal.

The Primary Sector

Agriculture. There are several development opportunities that could make a strong contribution towards the attainment of increased farm income and a better utilization of agricultural land resources in Quebec. Output of beef has a strong future in the region south of Montreal and in the Eastern Townships, based on buoyant local demand and excellent export opportunities in the north-eastern United States. Greater beef production could lead to an increase in the output of feeds in the area, with an increased emphasis on corn and barley. There is an opportunity to increase corn production in particular if an effort is made to provide improved land drainage.

Both opportunities--an increase in the production of beef and regional drainage programs--would require a certain amount of assistance: in the first case, to help farmers upgrade their stock-raising activities and get into feedlot operations; and, in the second, to assist in the capital investment required for drainage.

The improvement of soil drainage would cost at least $160 million. The need for such a large sum derives from the fact that only a small area of the province has adequate land drainage at present. If Quebec were to produce 65 per cent of its grain consumption by 1980, it would have to have about two million acres under cultivation. The figure of $160 million is based on an estimated cost for drainage of $80 an acre.

In order to increase the production of beef to its potential level, the number of beef cattle in the province would have to rise to at least 280,000 by 1980 from approximately 80,000 head in 1971. This would entail expenditures in the order of $18 million for buildings, land and equipment and $32 million for cattle.

To provide feeds at lower prices, it would be desirable to reduce by at least 75 per cent the number of grain mills in the province. In 1970, there were 428 such operations, whereas it is estimated that a much larger volume of output could be handled by 90 efficient mills. The relocation of grain mills, assuming the construction of 50 new ones (out of the 90 required), and the related installation of facilities for bulk shipment, would involve about $35 million. The cost of a 40,000 ton per year mill is approximately $700,000. The Quebec government has already participated in some studies in this area.

The potential benefits have been roughly estimated. Higher sales of grains should produce $42 million and higher sales of beef cattle,$32 million of additional farm revenue annually. Moreover, higher milling productivity would reduce costs in this area by $59 million as against the estimated relocation expenses of $35 million. Taken together for the sector as a whole, estimated outlays could reach $245 million in total and yield an increase of $133 million annually in net farm incomes.

Forestry. If the use of the forest resource in the province is to be optimized, two sets of measures are probably required. The first set relates to a rationalization of the system of tenure, with a view to providing all wood-using industries with reasonable access to the resource and achieving greater integration of the various forest operations. The second relates to a stabilization of the diminishing availability of woods labour.

Employment in Quebec's forestry sector has declined more than 25 per cent since 1961. The decline was accompanied by the introduction of mechanized operations but, as noted in an earlier part of the report, there is evidence that any economies in the substitution of capital for labour are reaching their limits.

The problem of inadequate labour supply results primarily from the fact that forestry operations are generally located at a considerable distance from large centres of population. The outlying towns and camps usually offer a limited range of amenities, and the work usually offers little security of employment or chance for advancement. Thus, labour shortages tend to result from a mixture of unsatisfactory infrastructure for workers (isolated camps, distance from centres offering attractive living conditions, lack of living facilities reasonably close to operations for wives and children) and a structure of operations that offers limited career opportunities.

An associated problem is the single-industry nature of many of the relatively distant outposts, despite the fact that it is not uncommon to see forestry and mining towns in northern areas only a few miles apart. Efforts to integrate and/or locate other resource industries within the areas served by existing or new forest-based communities, by widening the economic base, would increase the attractiveness to private investors of investment in transportation and service facilities and make more efficient use of the infrastructure developed by public outlays.

It is difficult to calculate the quantities of public and private investment required to make social conditions more attractive as the means of stabilizing the labour supply. The concentration of community locations, however, should not result in any significant increase in public expenditure over the longer term. Costs involved in improving these communities might well be offset by savings in expenditures for mechanization, which have not proved as effective as expected in Eastern Canada.

This review of forestry opportunities has not touched on forest tenure, a provincial responsibility. This question primarily affects the kinds of forest operations that can be carried on, and will be dealt with in a later section when manufacturing opportunities are being examined.

Fisheries. There is a need in the fisheries sector for further modernization. Employment in fishing is small, and is a part-time occupation for many who participate. According to projections, employment is expected to grow over the current decade. It appears that the current FRED agreement is adequate to meet the need for a greater concentration of fishing infrastructure in a few well-equipped centres.

Mining. Three major aims were suggested earlier for Quebec's mining sector: to achieve increased scale and effectiveness in exploration activity, to achieve a higher degree of domestic processing for Quebec mineral production, to minimize the social costs and dislocations of unavoidable mine closures.

The ratio of exploration expenditures to the value of production is lower in Quebec than in Canada as a whole. Part of the reason lies in the greater importance of iron ore and asbestos in this province. Reserves are so relatively abundant as to make a search for new reserves less critical. In contrast, there is a real need to look for copper and other base metals because of the relatively small size of individual deposits. Increased exploration activity is particularly desirable in the Abitibi and James Bay areas.

If Quebec were to increase exploration activity government support would probably be needed. Mineral exploration costs are very high and subject to a high degree of risk, and are therefore unattractive in the short term to companies adversely affected by world market conditions.

Activity in the mining industry is affected by swings in world economic conditions. There are now difficulties associated with some metals because exports have been curtailed by the appreciation of the Canadian dollar. The mining sector is closely related to manufacturing activity, and changes in demand for fabricated goods often lead to large increases in mineral inventories and cuts in mineral production. In view of current financial stringencies (hopefully temporary), it would be desirable to find ways of stimulating mineral exploration to prevent a gradual decay of the sector over the longer term.

In the immediate future, priority could be given to the expansion of exploration for copper, zinc, gold and silver as a means of maintaining production and safeguarding jobs.

Most mining company head offices are situated in Toronto, and they operate important properties in other provinces as well as Quebec. Capital is mobile between various alternatives. Governments have little control over where the companies put their money, but might offer incentives designed to foster exploration in designated or other slow-growth regions.

The following steps might be considered as a means of stimulating mineral exploration in the province, not overlooking the considerable work already carried out by the provincial government through SOQUEM:

-- The construction of an access road to Fort George as part of the hydro-electric development in the James Bay project would open up vast areas to mineral exploration. This geologically-favoured part of the province is situated to the north of the Abitibi region, which already possesses considerable mineral capacity, notably a copper smelter and a mining work force.

-- The acceleration and expansion of joint programs already provided by the Federal Department of Energy, Mines and Resources and the Quebec Ministry of Natural Resources in the area of large-scale, geo-physical surveys. In particular, the acceleration of air survey and mapping programs in the Abitibi and James Bay regions would provide a basis for a better orientation of exploration activity.

-- The provision of financial assistance to encourage increased exploration in areas facing serious problems of ore depletion.

-- The establishment of a system to provide current data on known and potential reserves and on forecast rates of consumption in order to highlight potential shortages and divert exploration into the most promising channels.

In the area of mineral processing, opportunities lie in the encouragement of iron ore producers in the province to increase the upgrading of iron ore by pelletizing, thereby minimizing the quantity of ore shipped in concentrate form. In 1970, about 35 per cent of Quebec shipments were pellets, 50 per cent concentrates and 15 per cent raw ore. Pellets had an average value of $15.00 per ton, other forms $9.50. It appears that unless the underlying situation is changed, a smaller percentage of future exports (which are expanding rapidly) will be shipped as pellets. Because of the much greater value added in pelletizing, an opportunity exists to ensure that new output be pelletized to the greatest extent possible. An investment of $150 to $200 million would be required over the next few years if this were undertaken and would result in 3,000 man-years of construction employment and 1,000 direct new jobs of a permanent nature.

Another opportunity for increased domestic manufacture lies in the area of asbestos products. Canada accounts for 70 per cent of the free world's international trade in asbestos, exporting in 1970 1.56 of the 1.65 million tons it produces. But it exported only $6.4 million in manufactured form, against imports of $10.3 million. High tariffs in consuming countries, and the high degree of foreign ownership, limit export opportunities, although product diversification by foreign parents may be reducing the incentive to manufacture in their home territory.

The development of export markets for manufactured forms of asbestos would be gradual, but it is thought that as much as 20 per cent of primary output might be processed by 1980, up from 5 per cent in 1970. The increments to Quebec (and Canadian) value added would be sizeable. Conversion of one ton of raw asbestos to pipe, pipe fittings and brake linings adds value of $300, $1800 and $9800 respectively to Canadian production. Processing to the packaged fibre stage adds only $140 per ton.

Considerable effort would be required to achieve this aim. However, Canada has a virtual monopoly in the product for world export and the product is in high demand. A reasonable amount of further processing in Canada would seem to be justified. Full processing of 20 per cent of Quebec's output would result in 6,000 new direct jobs.

Secondary Sector - Manufacturing

It has been noted that the manufacturing sector in Quebec faces problems of slow growth and a decline in the number of people it employs. The industrial structure is heavily concentrated in less dynamic labour-intensive industries and is not participating fully in the kinds of durable goods production that are characterized by strong productivity and market growth. In order to permit the industrial base to improve its contribution to employment and incomes, wide-ranging changes are desirable.

The industrial restructuring suggests a need for two main thrusts. The first would be aimed at strengthening and modernizing those traditional activities which are encountering strong outside competition. Suggestions in this area concentrate on foods and beverages, textiles and clothing, and forest-based products, industries which appear to present the best possibility for successful remedial action. The second set of suggestions would involve intensive efforts to increase the tempo and expand the range of activity in rapidly-growing, highly-productive branches of manufacturing. This set is concerned with the expansion of steel production, the establishment of major steel-using industries and further development of the petrochemical industry. The employment characteristics of the groups under discussion are shown in Table 28.

The Traditional Sector

Food and Beverage Industry. About 13.5 per cent of the manufacturing labour force in Canada, and nearly 12 per cent in Quebec, were employed in this industry in 1970. Quebec's participation in the national industry was virtually identical to its share of the country's population. Although a relatively slow-growth industry, the upward trend of employment in Quebec during 1961-70 was about half again as fast as the average for food and beverages nationally. These size and growth characteristics make the Quebec industry worthy of considerable attention.

TABLE 28

MANUFACTURING EMPLOYMENT IN QUEBEC - 1970

	Number of Employees	Percent of Total	Percent of Canada	Growth Rate (1)
Food and beverage	61,080	11.9	27.5	1.44
Textiles, knitting mills and clothing	115,646	22.5	59.7	0.73*
Forest-based manufacturing industries	80,464	15.6	31.9	2.19*
Sub-total	257,190	50.0	57.7	1.36*
Primary metals	26,184	5.1	22.5	3.79
Metal fabricating	35,554	6.9	25.5	3.29
Machinery	14,873	2.9	18.7	4.53
Transportation equipment	34,042	6.6	23.2	4.85
Electrical products	33,724	6.6	28.1	4.73
Sub-total	144,377	28.1	23.9	4.21*
Chemicals	27,854	5.4	28.0	3.17
Total of above industries	429,421	83.5	38.0	2.44*
Other manufacturing industries	84,729	16.5	19.1	1.34
All manufacturing	514,150	100.0	31.4	2.06

(1) Logarithmic trend fitted to 1961-70 data.

* Rate shown is an average of several components weighted by 1970 employment.

Source: Statistics Canada, Census of Manufacturers.

A particular area of promise is the slaughtering segment, based on the prospect of expanded beef production. Some sort of mechanism could be set up to ensure that plants were of adequate size and equipment to keep prices competitive so as to maximize local processing and discourage the export of live animals. Encouragement could also be given to the expansion of specialty and high quality meat products.

To ensure continued progress in this group of industries, Quebec would maintain the large food processing firms now in the province who are prime innovators in product development and marketing. It could also work to attract European firms to set up branches or enter into licensing agreements as a means of product development for smaller enterprises. Central research facilities may be required to assist small and medium size manufacturers.

Textile Industries. This group of industries, textile mills, knitting mills and clothing factories, accounted for 12 per cent of total manufacturing employment in Canada, and 22.5 per cent in Quebec, in 1970. The share of total Canadian textile activity in the province is more than double the comparable ratios for population and labour force. Growth in textile employment has been slow, averaging less than 1 per cent a year in Quebec between 1961 and 1970.

The textile industry in Canada is encountering strong competition from imports, despite relatively high tariff protection. Many plants are old and inefficient. Even those relatively modern ones engaged in the production of man-made fibres are below world scale. This has resulted in a large volume of imports, particularly in recent years. Purchases of knitted goods and sewn clothing are also heavy from countries having a labour cost advantage over Canada.

Although its growth and employment prospects are moderate in size, the textile industry is so important in Quebec's economy that it cannot be ignored. In the long run it is reasonable to expect the industry to rationalize itself, dropping marginal activities to achieve a smaller, more competitive structure. Reaction to the results of such a solution would depend on whether there were other expanding industries to take up the employment slack. The industrial restructuring towards durable goods production, which is suggested elsewhere in this report, would be an integral part of a policy to strengthen and reduce dependence on the textile group of industries.

This reorientation away from textiles would take a long time to evolve. During this time, continuing support for the existing industry would be required, coupled with policies to minimize the social impact of employment curtailments, especially as a considerable portion of the industry is located in semi-rural areas where alternative opportunities are poor.

Forest-Based Industries. Quebec's wood-using industries draw from a resource that ranges in quality from fair to excellent. The province's forest area is similar to that of Ontario. Because the limited geographic distribution of quality hardwoods in Canada favours Quebec, the province has some significant competitive advantages over Ontario and other eastern parts of the country.

Nevertheless, there are a number of obstacles that stand in the way of optimum forest resource utilization. Some of these apply to particular sub-sectors and will be discussed at a later stage of analysis. An overriding difficulty is the present system of forest tenure, a provincial responsibility and a factor which was examined in a provincial white paper. Pulp and paper companies hold long term leases on large tracts of forest land. The terms of the agreements grant the companies exclusive rights to the timber growing on their limits. Although the firms could in theory allow sawmillers access to their leaseholds for purposes of cutting timber, they have been reluctant to do so, partly on the ground of forest protection. This means that sawmills and plywood producers may be denied economic supplies of raw materials. There is also concern that pulp and paper producers are cutting species and qualities of timber that would yield larger economic returns if employed in other types of production.

Although the overall rate of growth of the forest-based industries is not particularly robust, their operations are typically carried on in such outlying parts of the province as the Gaspé, Lac St-Jean and the Abitibi. From a regional development point of view, this fact gives the group a special significance in the formulation of industrial opportunities.

Wood Industries. Quebec is second only to British Columbia in the percentage of its merchantable growing stock which is relatively large in diameter. This suggests the province has the potential to increase its share of both softwood and hardwood lumber, veneer and plywood production. Preliminary investigation indicates that market growth and the resource base, assuming changes in tenure to allow a more rational allocation, could permit the following projects to be realized by 1980.

Type of Plant	Potential Number Required	Capacity per Plant	Total Capital Costs	Total In-Plant Employment Created
Softwood saw and planing mills	12	50 million board feet	$60 million	1,600
Hardwood saw and planing mills	5	15 million board feet	$14 million	425
Softwood plywood mills	5	60 million sq. feet	$23.5 million	900
Hardwood veneer and/ or plywood mills	5	15 million sq. feet	$18 million	570
Hardboard plants*	2	160 million sq. feet	$14.4 million	260
TOTAL			$129.9 million	3,755

* Probably not feasible until near the end of the decade.

The total capital costs involved for all projects would be about $130 million, with a direct job creation of 3,755. Projection of the 1961-70 employment trend to 1980 results in an estimated increase of only 2,500 in the number of jobs. It will be seen that the projects outlined above represent a significant gain over the projected figure, and do not include increases in other industry components, such as sash and door manufacturers, wooden box-makers and so forth, who compromise about 40 per cent of the sub-sector's output. In addition, the creation of 3,755 direct jobs in the various proposed manufacturing operations would stimulate employment in other sectors. An additional 3,000 jobs might be expected in woods operations plus a multiplier effect of 1 to 2 in the rest of the province's economy.

Furniture Industries. Furniture manufacturing is one of the few durable goods industries in which Quebec's employment growth out-stripped the average for Canada as a whole during 1961-70. Furniture employment in Quebec increased its share of the national industry total from 35.8 per cent in 1961 to 37.0 per cent in 1970.

Based on the demonstrated strength of shipments during recent years, coupled with large increases in consumer demand, the outlook for employment and market growth is promising. Quebec furniture-makers could be the most competitive in Canada, as they have not only a long-established tradition but also an adequate pool of skilled labour and a first-class supply of hardwoods.

A serious structural fault that inhibits attainment of the industry's full potential is the typically small-scale nature of its producing units. In 1971, there were over 800 furniture firms in Quebec, only 150 of which employed more than 25 persons. The vast majority of the establishments were family-managed, undercapitalized and traditional in outlook.

There are a number of opportunities available to the industry which could help it to achieve its growth potential:

-- A better knowledge is required of the inventory of hardwoods in the province, so that there can be proper planning for the optimal allocation of the valuable and relatively limited resource among various users.

-- While it is a matter within provincial jurisdiction, federal encouragement to bring about changes in the tenure system to achieve better forest access for sawmillers and other wood users would be helpful.

-- Consideration should be given to ways and means of encouraging consolidation of the furniture industry into a smaller number of larger units which could acquire and support higher levels of administrative, marketing and design skills. Such a reorganization would probably require considerable governmental assistance of one kind or another.

Pulp, Paper and Allied Industries. The pulp and paper segment is the largest of the forest-based manufacturing industries in Quebec, accounting in 1970 for 55 per cent of employment in the sub-sector and for 8.6 per cent of total manufacturing employment in the province. The growth rate of employment during 1961-70 was above the average for all Quebec manufacturing, although slightly below that for pulp, paper and allied products in Canada as a whole, The Canadian average was influenced by the very large increases which occurred in British Columbia over the period. Nevertheless, the Quebec total has held up well, accounting for 36 per cent of national paper industry employment in 1961 and for 35 per cent in 1970. Some fairly extensive cutbacks did, however, occur in 1971.

It was mentioned earlier that the industry in Quebec has experienced low profitability during the last few years. Part of the problem is that some mills have been in operation for many decades. Not only are their costs high when compared with large-scale, modern automated mills, but their pollution control systems are incapable of meeting present day environmental requirements. This combination of factors has led to a number of plant shutdowns. In addition, the establishment of new facilities in other parts of Canada and elsewhere has inhibited action to replace in the province facilities withdrawn from production.

Keeping in mind the severe social dislocation that comes from mill closures, particularly when in many cases the mill is the sole base of community employment, it is considered that three goals should probably be kept in mind in considering the opportunities to revitalize the paper and allied industries: (a) a preference for modernization of existing plants, which can be achieved at lower capital cost over the construction of entirely new units in other areas; (b) a reduction in the concentration on newsprint production; (c) a relative expansion of "industrial" paper production.

The nature of plant modernization is such that it may result in larger production capacity and lower employment than existed before changes were made. The latter effect in particular is in some ways hard to accept, given the existence of relatively high unemployment in the province as a whole, but probably necessary to the maintenance of a strong competitive position against large-scale plants located in other countries. On this basis, plans for modernization should include provision, where possible, for conversions to other product lines and the adoption of new technologies. The attainment of these objectives for the paper and allied industries would be facilitated if it were possible to negotiate improved access to Western European markets for Canadian paperboard and other industrial papers.

The High Growth Sector

The Role of Steel-Using Industries. There is a large cluster of activities in the primary metals, metal fabricating, machinery, transportation equipment and electrical products industries that are both closely inter-related and highly dependent on a reliable source of inexpensive steel. During the period, 1961-70, this group of durable goods industries in Canada experienced rates of growth ranging from 38 per cent to 151 per cent above the average for manufacturing as a whole. They accounted for 58 per cent of net industrial job creation over the period. It is expected that these dynamic characteristics will continue during the current decade.

Provincial employment in the same group of steel-using industries represented 24 per cent of the comparable total for Canada in 1970, down from 25 per cent in 1961. Stimulation of these activities is desirable in order to achieve the industrial restructuring needed to impart a new dynamism to the economy of the province.

Steel-Using Industrial Complexes. During 1972, a major study was undertaken in the Department of Regional Economic Expansion to develop a method of identifying and defining a series of industrial complexes using the 1961 input-output tables for Canada. This work is sufficiently advanced to pinpoint two major complexes based on finished steel.

A complex may be defined as a group of industries that are inter-dependent, in that they buy and/or sell a substantial amount of their inputs and outputs among themselves. There is, therefore, a tendency for the firms to locate in the same area. In the case of the two complexes referred to, steel mills are the important supplier to the other industries in each group, while the other members of each have commercial links between themselves as well.

The current situation and outlook for individual members of the steel complexes will be analyzed in detail in subsequent sections. Before proceeding to this stage, however, it would be useful to look first at steel production itself.

Steel. Shipments of steel from Canadian mills rose from 4.4 million tons in 1961 to 9.1 million tons in 1971. Apparent consumption in the latter year was 9.5 million tons. About 80 per cent of Canadian production originated in Ontario and about 8 per cent in Quebec, up from 5 per cent in 1968. These shares are approximate because of the difficulty of tracing the considerable tonnage of steel ingots and billets produced in other provinces which are finished in Quebec.

Quebec accounts for about 16 per cent of the steel used by Canada in manufacturing or construction. The quantity involved is about twice as much as that produced in the province. On the basis of population or personal income, one would expect Quebec to use about 25 per cent of the Canadian total in end-product form. On this basis, the province produces only about a third of its overall steel consumption.

Increased steel production is one of the key factors in efforts to broaden the industrial structure of the province. Quebec is well situated to obtain a substantial share of the large increase expected in Canadian steel-making capacity by 1980. As noted, steel is a basic input to a number of high-growth industries, and Quebec's heavy deficit in steel production puts these industries at a disadvantage in the province.

Canadian raw steel production in 1971 was just over 12 million tons and shipments of finished steel products slightly more than 9 million tons. Prospects are for these levels to rise 60 per cent by 1980, to 19-20 million tons and 14-15 million tons respectively. Assuming reasonable success in restructuring, Quebec might capture 25 per cent of this growth, namely, 1.75-2.0 million tons of new steel capacity. In such an event, Quebec would have a raw steel output of about three million tons in 1980, or about 15 per cent of projected Canadian production in that year. It would still be a heavy net importer of steel products, principally from Ontario, and would have achieved its growth, not at the expense of existing production elsewhere, but from participation in the expansion of the domestic industry.

Estimates of the costs and employment involved in the suggested expansion vary widely, depending on the processes and the degree of vertical integration assumed. Using a capital cost figure of $300 per ton of installed capacity, and a per-worker output of 300 tons per year (including non-production employees), capital expenditures for a two million ton plant would be $600 million. The potential direct employment would be 6,700 workers.

In Montreal, and north-east along the south shore of the St. Lawrence (Contrecoeur, Tracy, Sorel, etc.), Quebec has conditions favourable to this expansion based on the steel-making and fabricating facilities already operating in the area. The necessary transportation facilities (water, rail and road) are either available or potentially so, the area is endowed with most of the raw materials required such as iron ore, electric power and limestone, and the Montreal area has a large skilled labour force upon which to draw. The province has no coal for coking, but neither does Ontario, which relies on the United States. Given the rapidly rising price of U.S. coal, however, Alberta could eventually become a major coal supplier to both Ontario and Quebec.

There is a choice between several processing techniques. Of these, one, using the electric reduction of scrap and enriched ore, allows capacity to be expanded in small increments as demand builds up, and is an essentially conservative approach. It has the advantage of spreading the capital investment over a longer period, and may be somewhat less capital-intensive. It would perhaps have higher costs per ton at a two million ton scale, however, than an alternative which involves use of the best blast furnace technology. In the long-run, the most viable opportunity may lie in a blast furnace operation because of possibly lower operating costs for outputs of two million tons. Exports of finished steel products are expected to rise from 1.6 million tons in 1971 to 5.0 million tons in 1980, and could provide an additional market.

The First Complex of Steel-Using Industries. The first complex indentified in the Departmental investigations is typified by its heavy reliance on steel as the major material input. Some major characteristics of the activities included in the complex are shown in Table 29.

TABLE 29

SELECTED CHARACTERISTICS OF THE FIRST COMPLEX OF STEEL-USING INDUSTRIES

	EMPLOYMENT - QUEBEC 1970				
	Number	% Of Can.	Growth*** Rate % 1961-70	Can. 1961-70 Growth Rate %	Steel Use (Can. 1968) (Thousand Tons)
Construction activities	114,000	24.2	0.90	12.50	556.4
Metal stamping, pressing and coating	7,634	25.7	3.84	3.90	1,006.0
Wire and wire products	4,620	27.8	1.42	3.42	949.7
Steel pipe and tube mills*	270	5.0	-1.50	5.13	830.2
Boiler and plate works	2,791	36.4	10.42	6.10	123.9
TOTAL	15,315***	25.8	4.21	4.16	3,466.2

* Quebec data estimated.
** Excluding construction activities.
*** All growth rates in this and subsequent tables are annual growth rates from regressions fitted to a time series.

Source: Statistics Canada, Census of Manufacturers.

Although there is some double counting because of interindustry sales that it was impossible to eliminate, it appears that this group consumes 3.5 million tons of steel or between 35 per cent and 40 per cent of the nation's total. As such, this complex is one of the keys to a successful steel industry.

Metal-Stamping. This segment is growing rapidly both nationally and in Quebec. Over the period 1961-70, the province held its share of Canadian employment but lost ground slightly in terms of shipments. In contrast to Quebec's share of 26 per cent in 1970, Ontario accounted for 62 per cent of national employment in this industry, and, because of its much larger base in metal-using industries, provided the major market.

Wire Products. The second most important industry in the group, wire products, is also growing rapidly in employment nationally. Employment for Canada was 16,598 in 1970. Quebec's share of the total, however, fell from over 32 per cent in 1961 to 28 per cent in 1970; the industry's rate of employment growth in the province has been only 42 per cent of the national average. As with the metal-stamping segment, the market is in metal-using industries and construction, both of which show considerable weakness in Quebec.

Steel Pipe and Tube Mills. Steel pipe and tube mills have shown remarkable growth nationally with employment rising from 3,407 in 1961 to 5,314 in 1970 or by 56 per cent. Although Statistics Canada data are confidential for Quebec, it is estimated that employment has declined in that province, with it having no more than 5 per cent of national employment in the industry in 1970. This segment, on a tonnage basis, is heavily involved in oil and gas pipelines. Nevertheless, Ontario has over 60 per cent of total Canadian employment. Because of its close tie (in ownership) to the steel industry, expansion of the latter in Quebec would doubtless help to develop pipe and tube production there.

Boiler and Plate Works. Although boiler and plate works are the smallest user of steel in the first complex, employment growth has been rapid both nationally and in Quebec. The province's share of the industry's employment rose from 27 per cent to 36 per cent between 1961 and 1970. The industry is doing well in the province and should be encouraged as it would seem to be nationally competitive.

Construction. The construction industry is a large user of steel particularly in commercial, industrial and governmental fields. The Quebec industry has recently gone through a difficult period, its share of national construction employment falling from 27.8 per cent to 24.2 per cent between 1961-70. Measures to stimulate construction activity in the province would have a direct positive impact on steel consumption.

The Second Complex of Steel-Using Industries. The second steel complex identified differs from the one just discussed in that, while it is still a large user of steel, it also has extensive need for other raw materials. The manufacturing segments included are shown in Table 30.

TABLE 30

SECOND COMPLEX OF STEEL-USING INDUSTRIES

EMPLOYMENT-QUEBEC 1970

	Number	% of Can.	Growth Rate % 1961-70	1961-70 Can. Growth Rate %	Steel Use in Canada 1969 (thousand tons)
Motor vehicle parts	801	2.1	16.37	7.81	870.2
Iron foundries	1,783	16.7	0.88	3.77	713.5
Misc. metal fabricating	3,461	16.9	1.61	3.69	409.5
Misc. machinery & equipment	11,555	22.3	4.13	6.10	302.4
Ornamental & architectural metal	3,710	29.9	1.98	1.41	221.2
Railroad rolling stock*	1,400	23.6	-1.00	5.10	284.4
Heating equipment	1,565	33.5	-0.98	-1.23	194.3
Agricultural implements	604	6.2	8.41	1.25	173.5
Major appliances*	3,000	28.0	1.20	-0.06	145.1
Shipbuilding and repair	5,621	40.8	-1.12	-1.32	109.0
Hardware, tools and cutlery	2,998	20.6	2.81	4.89	68.2
TOTAL	36,498	18.74	2.36	4.22	3,491.3

* Quebec data estimated.

Source: Statistics Canada, Census of Manufacturers.

Most indirect purchases of steel from other partial fabricators have been removed, and the total of 3.5 million tons therefore corresponds closely to actual purchases from steel mills. The complex represents between 35-40 per cent of Canadian steel use and, in conjunction with the first complex, constitutes the major portion of steel consumption in Canada.

In general, Quebec is poorly represented in the industries forming the complex and is losing its share to other areas in Canada. Where its participation is high, the industries are those in the complex which are growing less rapidly.

Since, for statistical purposes, the members of the second steel-using complex are themselves components of larger metal-using industries, it is proposed to discuss them with the groups of which they form a part. These are: primary metals, metal fabricating, machinery, transportation equipment and electrical products.

Primary Metals Industries. The primary metals industries are the first group of "durable" product industries on which a large part of the opportunity for provincial industrial restructuring is based. The segment had a rate of employment growth between 1961 and 1970 of 33 per cent nationally. This was well above the comparable average of 24 per cent for the industrial sector as a whole. In Quebec, employment rose more rapidly (by over 39 per cent during 1961-70) putting the group third among the twenty major industrial groups in the province. Table 31 outlines certain characteristics of the group in Quebec.

As can be seen, the province is basically weak in the three iron and steel industries, and has shown a decline in activity relative to the rest of Canada in aluminum and copper alloy rolling, casting and extruding.

Iron Foundries. Before examining opportunities in the non-ferrous industries, the iron foundry industry deserves comment. Quebec's share of Canadian employment in this industry declined by nearly a third between 1961 and 1970, while its share of shipments fell from 21 per cent to 17 per cent. The Quebec industry suffers from several disadvantages. First, somewhat less than half its output is shipped to Ontario and the Western Provinces and it has to contend with a freight disadvantage compared to Ontario foundries. Second, a substantial proportion of foundry production goes into automobile parts production, which Quebec lacks. Third, Quebec generally is weak in the steel-using industries which consume a large part of foundry output. A systematic approach to take advantage of the opportunities for increased steel production and consumption in the province would assist this industry significantly.

TABLE 31

PRIMARY METALS INDUSTRIES IN QUEBEC - 1970

	Employment - Quebec		Growth Rate 1961-70	
	Number	% of Can.	Quebec	Canada
Iron and steel mills	5,408	11.01	7.40	3.18
Steel pipe and tube mills*	270	5.10	-1.50	5.13
Iron foundries	1,783	16.71	0.88	3.77
Smelting and refining	15,575	41.81	3.67	2.66
Aluminum rolling, casting and extruding*	1,300	20.61	1.30	2.30
Copper and alloy rolling, casting and extruding	1,050	28.01	1.00	1.30
Metal rolling, casting and extruding n.e.s.	652	16.16	6.64	6.28
TOTAL	26,184**	22.47	4.03	3.15

* Quebec data estimated.
** Data does not sum to total as estimates have not been adjusted to this end.

Source: Statistics Canada, Census of Manufacturers.

Non-ferrous Smelting and Refining. Smelting and refining in Quebec grew more quickly than in Canada as a whole during the 1960's, primarily due to relatively rapid increases in the smelting and refining of zinc and copper. Aluminum smelting, which is centered in Quebec, performed less well and faces, in the long run, a rather bleak future as the major ore-producing countries overseas insist on smelter location at home. But the province has some excellent development opportunities in other parts of this industry.

Copper, Zinc and Lead. With regard to copper, there have been considerable additions to capacity in the province. Quebec smelts more copper than it mines. In 1971, 307,000 tons of refined copper were smelted, and 342,000 tons of refined copper produced, as opposed to mine production of 184,823 tons. The production of refined copper in Quebec will rise to 480,000 tons per year when the present round of expansion at Canadian Copper Refiners is completed. The position of this sector of the industry is therefore strong and should remain so.

In terms of orderly development of the mineral sector, there is an interesting possibility involving Quebec and New Brunswick -- a possibility of encouraging the movement of New Brunswick copper concentrates to an existing copper smelter in the Gaspé and the movement of lead and zinc concentrates from the Gaspé and Eastern Townships to New Brunswick smelters.

Non-ferrous Metal Rolling, Casting and Extruding. In 1970, employment in these three industries was 14,101 in Canada and about 3,000 in Quebec. As Canada's main customers have tariff structures that impose little or no duty on the raw material, export of more highly finished goods is difficult. Quebec is at a further disadvantage in that the main Canadian consumers are located in Ontario. As the control of the majority of non-ferrous metal smelters is in a few hands, and Quebec represents a considerable percentage of the refined output in Canada, discussions with the major refiners in the province might be undertaken concerning the possibility of further processing in Quebec of the refinery output.

Metal-Fabricating Industries. Nationally, metal-fabricating industries had the fifth highest rate of employment growth among the twenty major industrial groups during 1961-70 and have an excellent potential for further growth. Table 32 outlines certain characteristics of this group of industries.

The metal-fabricating industries could play a major role in the restructuring of Quebec's industrial sector. They are high-growth durable goods industries with significant forward links to other buoyant durable goods industries, and backward links to primary iron and steel and other metals.

Quebec's performance in the 1960's was disappointing with its share of national employment, 27 per cent in 1961 falling to 25.5 per cent in 1970. This group of industries is the major user of steel in Canada accounting for 44 per cent of domestic consumption in 1970.

Quebec's performance at the individual component level has been spotty. With the exception of boiler and plate works, a rapidly growing industry and one in which Quebec is increasing its share, and machine shops, Quebec has been losing out in the higher-growth industries in the group.

TABLE 32

METAL-FABRICATING INDUSTRIES IN QUEBEC - 1970

	Employment in Que.		Growth Rate 1961-70	
	Number	% of Can.	Quebec	Canada
Boiler and plate works	2,791	36.4	10.42	6.10
Fabricated structural metal industry	4,609	24.1	0.62	3.58
Ornamental and architectural metal industry	3,710	29.8	1.98	1.41
Metal stamping, pressing and coating industry	7,634	25.7	3.84	3.90
Wire and wire products manufacture	4,620	27.8	1.42	3.42
Hardware, tool and cutlery manufacturers	2,998	20.6	3.81	4.89
Heating equipment manufacturers	1,565	33.5	-0.98	-1.23
Machine shops	4,166	29.3	8.62	7.33
Miscellaneous metal-fabricating industries	3,461	16.9	1.61	3.69
TOTAL	35,554	25.5	3.29	3.82

Source: Statistics Canada, Census of Manufacturers.

Reduced provincial construction activity since 1967 might have been expected to have had an adverse effect on industries tied closely to construction, such as fabricated structural metal, ornamental and architectural metal, heating equipment and boiler and plate works, but this has been only partially the case. Fabricated structural steel relies heavily on provincial construction activity and has been hurt, as has heating equipment. On the other hand, boiler and plate works, represented by some excellent firms, have been able to penetrate out-of-province markets. Ornamental and architectural metal industries have held their own, possibly for the same reason. A resurgence of construction activity would provide the stimulus which these industries need to prevent a deterioration of their competitive positions.

The rest of the group, with the exception of machine shops which serve local markets, depends heavily on other metal-using industries for their demand. Many of their products are components used in the machinery, transportation equipment and electrical products industries. The opportunities for growth foreseen in these branches of metal fabrication, in which Quebec has a relatively small share of national activity and is slowly losing that which it does have, lie in the stimulation of the industries which they serve coupled with appropriate assistance to help firms take advantage of the resulting increased demands.

Machinery Industries. This group of industries displayed the most rapid growth among the twenty major groups of industries in Canada between 1961 and 1970. Employment increased more than 60 per cent, rising from 49,719 to 79,725 over the period. Quebec's share of this industry fell from 19.9 per cent to 18.7 per cent on the basis of employment. This group has very considerable growth potential during the 1970's.

TABLE 33

MACHINERY INDUSTRIES IN QUEBEC - 1970

	Employment in Que.		Growth Rate 1961-70	
	Number	% of Can.	Quebec	Canada
Agricultural machinery	604	6.2	8.41	1.25
Miscellaneous machinery and equipment	11,555	22.3	4.13	6.10
Commercial refrigeration and air conditioning equipment*	500	16.0	13.00	7.95
Office and store machinery*	2,100	14.0	4.50	7.47
TOTAL	14,873**	18.7	4.53	5.59

* Quebec data estimated.
** Column does not sum as estimates not adjusted.

Source: Statistics Canada, Census of Manufacturers.

Quebec's participation has been increasing in two industries (agricultural equipment and commercial refrigeration), but from very low levels to levels that still must be termed insignificant. In the other two branches, miscellaneous machinery and equipment and office and store machinery, both of which are large and growing rapidly, the province's employment share declined sharply from 1961 to 1970.

Agricultural Implements. Both Canada and the province face serious, if different, problems in this industry. At the national level the industry is suffering from the effect of duty free trade in agricultural implements between Canada and the United States. Over the past decade there has been a fairly rapid displacement of the industry's activity from Ontario to the Midwest of the United States, a move based on market location and transportation costs. The benefits of large economies of scale and the lack of any tariff barriers between the two countries has made a centralization of production in very large plants in the United States a logical step for the manufacturers.

Quebec's position, is somewhat different. It has a small agricultural implement industry, and is not likely to attract any major manufacturers, given the free trade arrangement. The industry that exists in the province makes equipment to serve local markets. A more flourishing agricultural sector in the province, especially one that is more capital-intensive, would present certain opportunities for expansion, although employment creation would not be great.

Commercial Refrigeration. The province made some progress in commercial refrigeration, a fast-growing but small industry both nationally and in Quebec. There seem to be no economic constraints on Quebec's obtaining a much larger share of this industry. The commercial sector (food retailing and office and industrial buildings), which takes much of this industry's output, is well developed in the province, and any shift to beef raising would increase the demand for cold storage equipment. The major companies are established in Ontario but opportunities could arise from encouraging firms wishing to locate new facilities in Quebec.

Miscellaneous Equipment. The miscellaneous equipment industry is a large and important industry nationally; it is of considerable significance in Quebec. The industry in the province is much less diversified in its product line than in Ontario, and is closely tied to supplying capital equipment to primary industries, many of which are themselves under strong pressure from international competition or adverse market conditions. The industry is highly dependent on pulp and paper, mining and other specialized industrial activities.

The industry is extremely dependent on technological excellence and new product development to meet changing and demanding markets. A very large proportion of the machinery used in Canada is imported, and one of the industry's main targets is to meet foreign excellence in those areas where volumes are sufficiently high to warrant production in Canada.

The opportunities open in the restructuring and revitalization of the industrial sector in the province would require large capital investments, creating a strong demand for machinery. Strong demands would also arise in other areas of the country if efforts to increase further processing of resources were successful and if transportation activities, particularly in the western provinces (gas and oil) and eastern Canada (rail and shipping), were to increase. Finally, the opportunity to establish Montreal as a centre of excellence in areas of research and development and sophisticated services could assist in providing both the manpower and impetus for technological advances in many sectors.

With improvements in demand and environment, and an appropriate mix of government policies, the Quebec machinery industry should be able to grow and prosper.

Office and Store Equipment. The office and store equipment industry is one of the most interesting and potentially exciting of all industries. A major segment is involved in the manufacture of computer and data handling equipment, as well as other business machines both mechanical and electronic. Because the computer field is dominated by a small number of companies whose Canadian production facilities are concentrated in Ontario, Quebec is unlikely to have any major role in computer manufacture in the near future.

There are very real opportunities opening up, however, in mini-computers, computer peripheral equipment and electronic process control equipment. The extent to which some of these opportunities are realized in Quebec may depend in a significant degree on government policies.

Were Montreal to become, to a greater extent than at present, a centre of sophisticated services and excellence in such fields as communications, business services and research, the makers of peripheral computer equipment, mini-computers, and various digital and analog electronic devices might find an attractive environment for location. The centering of government research, particularly communications research, in Ottawa may have led to some isolation of this segment of business and communications equipment manufacturing.

TABLE 34

TRANSPORTATION EQUIPMENT INDUSTRY IN QUEBEC--1970

	Employment in Quebec		Growth Rate 1961-70	
	Number	% of Can.	Quebec%	Canada%
Aircraft and parts	14,643	47.08	1.61	2.80
Motor vehicles*	3,400	8.85	17.00	4.99
Truck bodies and trailers	1,756	17.37	18.82	12.69
Motor vehicle parts and accessories	801	2.06	16.37	7.81
Railroad rolling stock*	1,350	23.00	-1.00	5.10
Shipbuilding and repair	5,621	40.76	-1.12	-1.32
Boatbuilding and misc. vehicles	6,371	70.50	33.29	18.43
TOTAL	34,042**	23.16	4.85	5.17

* Quebec data estimated.
** Column does not sum as estimates not adjusted.

Source: Statistics Canada, Census of Manufacturers.

Transportation Equipment Industries. Of the twenty major industry groups, this group of industries was the second fastest-growing in terms of employment between 1961 and 1970, and second in terms of size with 146,979 employees in Canada in 1970. Although the group contains eight industries ranging from aircraft and parts manufacturers to shipbuilding, over 50 per cent of its labour force is employed in the motor vehicle and parts industry. This group has grown more slowly in Quebec than nationally, and Quebec's share of employment fell from 26.1 per cent in 1961 to 23.2 per cent in 1970. The industry group fulfills many of the criteria for industrial opportunities: it is large, fast-growing and produces durable goods.

As mentioned, over 50 per cent of the employment in this group of industries occurs in the motor vehicle and motor vehicle parts industries, which had over 77,000 workers nationally in 1970, almost all of whom were located in Ontario. Quebec has a relatively small share of the motor vehicle and motor vehicle parts industry. Motor vehicle manufacturing employment was 8.4 per cent of the national total in 1970 and had probably fallen to about 6 per cent by 1972.

Motor Vehicle and Parts Manufacturing. Because of its size and rapid growth since 1961, motor vehicle and motor vehicle parts manufacturing played a significant part in the rapid growth of all manufacturing during the 1960's. In 1969, the industry consumed almost 14 per cent of the nation's steel, over 6.5 million tires, $70 million worth of glass, and countless other products from a variety of industries. The industry is not only large in itself but has strong links to a number of other important industries that are dependent on the level of vehicle production for their own expansion.

However, there seems little likelihood of any major new investment in Canada for the manufacture of North American-type automobiles or light trucks in the near term, and although it has been suggested from several sources that Quebec may have some significant opportunities in automobile parts manufacture, the progress of the industry in the province seems to belie this In 1961, the province had 1 per cent of the industry on the basis of employment. This had risen to 2 per cent by 1970 (801 employees). The North American automobile assemblers carry small inventories of parts. Suppliers are expected to make frequent deliveries (often daily) to the assembly plants and this requires a location in fairly close proximity. This means that Quebec manufacturers would have to forget, in most instances, the original equipment market and serve the aftermarket. This is possible for some items, but difficult in general without the original equipment market to give the manufacturer the economies of large-scale operation.

Buses, Trucks and Heavy Off-Road Vehicles. There may well be opportunities for further production in Quebec of various types of buses, heavy and specialized trucks and heavy off-road vehicles. Although much of the existing market for buses and heavy trucks is dominated by the "big three", which are in a position to serve the market from their facilities in Ontario or the United States, there are established operations in both areas in Quebec. There are, therefore, possibilities for expansion and growth. Perhaps the best opportunities lie in the growing requirement for heavy off-road vehicles used in resource exploration and development and electric line service. Job creation would not be great but the development of advanced technology would be worthwhile. There are also interesting possibilities in the production of large off-highway trucks for open-pit mining operations.

Aircraft and Parts. Quebec has a substantial share of national employment in this industry. The Quebec share declined during the 1960's, however, from 54 per cent in 1961 to 47 per cent in 1970. One of the two companies in the Quebec portion of the industry saw its employment drop from 8,900 in 1968 to about 2,300 at the present time. There is an established base on which to build in the province, however--a fact to which further attention should be given in view of the need in Quebec for a structural shift into industries such as transportation equipment.

Railroad Rolling Stock. Although only a medium sized-industry in terms of employment, this industry grew rapidly in the period 1961-70 and is a very large user of steel. Quebec's share based on employment was halved, falling from 49 per cent to 23 per cent during the period while national employment in the industry rose from 4,100 to 5,900. The Maritimes held their share of this industry (about 25 per cent) while Ontario's rose from about 25 per cent to 50 per cent.

Rapidly changing technology in rail transport, such as the introduction of unit trains, together with the opportunity to develop a major transportation role for the Maritimes, could lead to greatly increased demands for railroad equipment. There is a well established base in this area in the province and substantial opportunities could well arise for increased activity in this industry over the next few years.

Shipbuilding. Quebec's share of shipbuilding is larger than that of any other province with 41 per cent of the workers in 1970 and, on the basis of some recent estimates, as much as 50 per cent in 1972. Nevertheless, the industry could benefit from rationalization and the following of world-wide trends towards specialization in order to effect the economies inherent in producing larger numbers of ships having the same design. Further opportunities for shipbuilding may exist in the increasing emphasis on Arctic sea transportation. Canada has a technological lead and a substantial requirement may be indigenous. Depending on the technology adopted for the transport of Arctic gas, Canada may also have an opportunity in the ocean transport of liquified natural gas.

Other Transportation Industries. The remaining components of the transportation equipment industry fall into this group; truck body and trailer, boatbuilding and repairs and miscellaneous vehicles. Quebec's share of boatbuilding and repair, a minor industry nationally (2,696 employees in 1969), is about 15 per cent, and no special opportunity is seen.

Quebec's share of the truck body and trailer industry rose rapidly from 9.5 per cent to 17.4 per cent during the 1960's, primarily as a result of the rapid increase in the popularity of camping trailers and mobile homes. This segment of the industry is growing rapidly and tends to locate in rural areas where adequate supplies of low cost labour exist. The province has a continuing opportunity in this area.

The miscellaneous vehicle industry, of which, on the basis of employment, Quebec accounts for about 90 per cent, is essentially the snowmobile industry. The industry originated in the province and achieved phenomenal growth during the 1960's, rising from a few hundred employees in 1961 to about 6,000 in 1970. The rapid growth has now run its course, as the market, particularly in eastern Canada, is nearing saturation, and a period of consolidation is underway. Employment fell somewhat in 1971. The largest manufacturer in the world is located in the province. Quebec would seem to have a competitive advantage over North American producing areas, although Japanese imports, now about 40,000 units per year, are beginning to worry the industry.

The miscellaneous vehicles industry faces two major problems, that of improving its product to conform with ever more strict safety and environmental requirements, and that of finding product lines for the summer trade that will level out the very seasonal nature of production. The industry is coming under increasing governmental pressure in the areas of safety and environment standards. While the automobile industry is under the same pressures, Canadian requirements are no stricter than American ones and, hence, the Canadian auto firms can easily adopt technology developed in the U.S. This is not the case with snowmobile manufacturers. Opportunities lie in continued assistance to the industry to help it in diversifying its product line and in developing the new technology required to meet governmental standards.

Electric Products Industries. This major group of industries showed the third highest growth rate in terms of employment during 1961-70 among the twenty major groups of industries in Canada. As a group, it has the desirable characteristics for the opportunity presented in restructuring the province's economy: high employment growth, both past and projected, a large number of employees and a producer of durable goods, Quebec's position in this industry remained about constant during the 1960's, its share of employment falling slightly from over 29 per cent of the industry total to 28 per cent. The group consists of eight industries as outlined in Table 35.

Communications Equipment. Quebec's share of total employment in this industry fell from 43 per cent in 1961 to 39 per cent in 1970. There are a number of reasons for the decline, the most important of which are:

-- The decline of Montreal as a major communications centre.

-- The departure of certain communication activities from the province.

-- The lack of some key R & D and communications activities in the province.

-- The decline of user industries such as radio and television manufacturers, airplane manufacturers, etc.

Success in realizing the opportunity to upgrade the role of Montreal as a key financial, communications and transportation centre would improve the prospects for communications equipment industries in the province. The banking system, with a growing volume of transactions and rising costs for manual processing, is expressing great interest in teleprocessing and automated systems. The rapid increase in computer size and speed is placing much less emphasis on the acquisition of individual computers, and much greater emphasis on peripheral equipment that provides fast and efficient access to very large central computers. It is probable that in this area the most promising opportunities lie for the province.

TABLE 35

ELECTRIC PRODUCTS INDUSTRY IN QUEBEC--1970

	Employment--Quebec		Growth Rate 1961-70	
	Number	% of Can.	Quebec	Canada
Small electrical appliances*	570	10.71	2.00	4.23
Major appliances*	2,950	27.51	1.20	0.06
Household radio and TV receivers*	1,000	12.61	10.00	0.68
Communications equipment	16,981	39.11	6.94	7.47
Electrical industrial equipment	3,368	12.41	9.35	4.89
Battery manufacturers	224	8.41	0.71	3.22
Electrical wire and cable	3,539	40.61	2.27	3.61
Miscellaneous electrical products	5,205	36.71	6.06	4.64
TOTAL	33,919**	28.01	4.73	4.69

* Quebec data estimated.
** Column does not total as estimates have not been adjusted.

Source: Statistics Canada, Census of Manufacturers.

Consumer Goods--Electrical. The group of industries that produces small and large electrical appliances and radio and television receivers can generally be treated as one group as they produce consumer durables. With rising family formation and increasing family income, the demand for their products looks bright after some rather lean years in the 1960's. In almost all cases, manufacturers in these three industries are subsidiaries of American or European firms which have chosen to locate in Ontario for the most part, for reasons that are not altogether clear. The Montreal area, particularly, has a more than adequate pool of skilled and semi-skilled labour. The industry in Ontario has shown little locational preference, being moderately-heavily represented in Toronto but having a considerable portion of its activities spread throughout the province. With brighter prospects ahead for the industry, the possibility of new entrants from Europe and Japan arises. Opportunities exist in attracting them to the province.

Industrial Goods--Electrical. The welfare of the industries in this group within the province (with the exception of battery manufacturers whose output is closely related to the automobile industry and hence have few prospects in the province) is highly dependent on the level of industrial and construction activity. Miscellaneous electrical equipment manufacturers in Quebec have a significant share of total Canadian activity in this field and will do better if the tempo of the Quebec economy can be quickened.

Quebec has a substantial share of the electric wire and cable industry, although its employment share decreased somewhat over the period. Growth of the industry is tied closely to construction activity and the incidence of major electric power projects. The James Bay development and increased activity in construction generally will stimulate the growth of the industry in Quebec. Wire and cable, in many cases, is fairly freight cost-sensitive, and there is a tendency towards regional production of the product. A healthy demand in Quebec for the product is a prerequisite of a growing domestic industry.

Electrical industrial equipment is a fast-growing and quite large industry nationally. In Quebec its growth performance has been good, but the industry is small, representing on a labour force basis less than 14 per cent of the national total. The Quebec portion is heavily linked to the pulp and paper industry and mining. Opportunities lie in expanding the product base but this would require a broader, more buoyant durable goods industry in the province. If the Quebec manufacturing base could be successfully restructured, this industry group could be expected to expand in the province.

Chemical and Chemical Products Industries. During the period 1961 to 1970, this group of industries grew almost 32 per cent nationally and over 34 per cent in the province in terms of employment. Output rose much faster, 96 per cent in Canada as a whole and 103 per cent in Quebec. The industry is the second most rapidly-growing non-durable goods sector, and has considerable further growth potential. In 1961 Quebec had 34.5 per cent of the employment in this sector, and by 1970 this has risen to 35.2 per cent.

Rather than discuss the various components of the industry in detail, it is intended to present only a general statement of opportunities in the petro-chemical segment. The bulk of the industry's growth is accounted for by petro-chemicals.

There are three main centres of petro-chemical production in Canada. In order of size these are Sarnia, Montreal and Edmonton. The Sarnia and Montreal industries run on refinery feeds (heavy oils), while the Edmonton complex uses natural gas. Both in Sarnia and Montreal there is, therefore, a very close link between the refining industry and chemical industries.

The petro-chemical industry is one of technological complexity and rapid change. R & D expenditures are high, workers generally well paid and the processes capital-intensive. In the last 10-15 years optimum scales of output have been changing, with minimum plant size rising rapidly. For example, fifteen years ago, a 50 million pound nylon plant was world scale; but today 200 million pounds is considered an optimal installation.

Each of the three centres in Canada have certain advantages and disadvantages which affect their competitive position. The Sarnia complex is the largest in Canada and benefits from its proximity to the major industrial centre of Canada in Southern Ontario. The Montreal complex is smaller in size and somewhat more remote from Ontario markets. It offsets this disadvantage by having at its disposal feedstocks made from foreign crude in Montreal refineries which are less expensive than those in Sarnia. The Edmonton industry has the least expensive feedstocks, but is at a disadvantage because of smallness and distance from markets.

Although crude oil prices have been rising rapidly in the last several years, it is believed that prices at Montreal are still about 10 per cent lower than Sarnia. This, coupled with a very large refinery capacity (the largest concentration of refinery capacity in one place in Canada--about 480,000 barrels per day , has made the Montreal area a very viable petro-chemical producer.

The Quebec Government is committed to increasing the pace of this activity in Montreal. It would seem that there is considerable opportunity here for economic development in the province and a desirable goal would be to pursue those opportunities that present themselves in this rapidly growing industry.

The Role of the Montreal Area in the Secondary and Tertiary Sectors

In a large developed urban area such as Montreal which has gone through a period of relatively poor economic performance because of forces eroding its past functions and strengths, major opportunities for increasing economic activity may lie in a systematic development approach in certain strategic sectors. These would have as their aim the strengthening of the dynamism of the area by building on the potential for further development inherent in its structure. The realization of these opportunities is foreseen in strengthening the area's role in manufacturing, transportation, communications, finance and sophisticated business services.

Manufacturing in the Montreal Area. As Montreal and its surrounding area already accounts for well over half the manufacturing activity in the province, a successful realization of opportunities for growth in Quebec would have a strong impact on the Montreal area, most particularly in the following areas:

- the more sophisticated and urban-oriented of the high-growth, steel-using durable goods industries which require an abundant skilled labour force and proximity to a major urban agglomeration.
- those sectors of "traditional" industries that are already firmly established in the city area.
- those industries that are closely linked to the supplying of equipment to the tertiary activities of transportation, communication, finance and sophisticated business services.

The major manufacturing opportunities for the Montreal area are seen in the following groups of industries.

Steel and Steel-Using Industries. The present steel industry in the province is based on a Montreal-Contrecoeur axis. Much of the basic steel production takes place down river from Montreal at Contrecoeur and much of the steel finishing in or near the city. The 2 million ton steel mill discussed earlier could be logically located in this axis away from Montreal with certain finishing operations taking place near Montreal. Many of the intermediate products such as steel stampings, wire products and structural steel are ideal candidates for satellite towns and Montreal's outskirts.

The more sophisticated manufactures such as machinery and transportation equipment are likely to be situated close to Montreal because of the availability of a large trained pool of manpower, agglomeration effects and the fact that the basic structure of these industries is already largely found in or around Montreal.

Electric Products and Transportation Equipment. Because of the increased opportunity for Montreal in transport and communications, there could be new markets opened up in the supply of equipment from the communications equipment and transportation equipment industries which are already located in the metropolitan area. It is here that they would find the expertise and the high quality manpower they require.

Chemical Products. The refinery and petro-chemical base of the province is already situated in the Montreal area. Montreal is a major market for much of their output and the goal of modernizing and restructuring the province's manufacturing economy would increase demand from the area. Many of the industrial components of this industry are highly interdependent and new arrivals tend to cluster close to existing plants. Expansion of existing plants is often the more efficient step for established companies and these are located in or near Montreal.

Textile Industries. Those manufacturers dealing in the lower-cost ends of the textile market will continue to disperse some of their operations into the less-developed areas of the province in search of lower labour costs. Montreal's role in the industry is in the higher-priced end of the market where highly skilled manpower (design, administration and marketing) is a key to success. These manufacturers can offset higher labour costs by the benefits to be derived from being in Montreal, which has something approaching an international reputation as a style and design centre. The abundance of highly skilled textile and garment workers in the metropolitan area is another key factor for high quality textile production.

Food and Furniture. Because of the large local market (3 million) and proximity to the best agricultural land, Montreal will continue its role as a major food processing centre. Most of the very large food companies are located in Montreal and are likely to keep the majority of their operations there. Some of the same factors also play a role in the manufacture of furniture in Montreal. Wooden furniture is made throughout the province but Montreal has traditionally been the centre for upholstered furniture. This is probably because of the advantage of being in a major market and the requirement for a wide range of textile products. This is likely to continue to be the case, Montreal playing a key role in upholstered furniture manufacture while areas outside the metropolitan zone specialize in wooden furniture.

Transportation in Montreal. Montreal possesses a major opportunity in sea and air transport particularly as an entry and exit point for Canada to Europe and the Eastern United States.

For sea-going transportation, the advantage of Montreal lies in its geographic location, in its past history and the importance of its infrastructure. Technological developments in the field of air transport, particularly the rapid increase in the importance of air cargo activities, may well operate to the advantage of Montreal. The realization of the major opportunity presented by the new international airport at Mirabel will be of key importance.

Given these factors, it would seem desirable to promote an improved transport system incorporating port facilities, railways, road networks and airports. The practical realization of such an opportunity would require the implementation of the following:

-- An intermodal terminal which would serve all four modes of transportation. This implies the movement of goods between the various forms of transportation and effective liaison with local and national manufacturing concerns.

-- Warehousing to be used by all manufacturers using the system and constituting an effective holding area for all goods destined for export.

-- A centre for secondary processing with the land, the plants and the support services required by companies wishing to establish themselves in the system.

The feasibility of such a complex would depend upon Montreal maintaining its major role in the air transport system of the country.

In passenger traffic, Toronto airport is already more important than Montreal, and the lead that Montreal has in terms of air freight could disappear. It is clear that much of the advantage that Montreal possesses rests with its position vis-à-vis European carriers. International passenger traffic, exclusive of U.S. traffic, makes up 20 per cent of all Montreal traffic, while the proportion at Toronto is about 8 per cent. Without a major foreign traffic flow through Montreal the proportion could swing in favour of Toronto.

Any lessening of international passenger traffic necessarily affects the air freight industry since half of air freight is carried by passenger planes. In 1970, Montreal held a slight advantage over Toronto in goods handled (208 million vs 187 million pounds). But for the period 1963-70 the annual growth rate was slightly higher in Toronto than in Montreal (27.7 vs 26.1 per cent). Air freight is more vulnerable to displacement because it is related more closely to economic activity. Because it has influence over a wider industrial zone, Toronto is more likely to generate a larger volume of freight than Montreal.

At present, Montreal receives or expedites about 41.1 per cent of international freight compared to Toronto's 9.6 per cent.

Despite the fact that the port of Quebec possesses a greater potential for development than that of Montreal, the latter can take on a role in handling container merchandise. As air transportation is beginning to move towards new technology which allows containers to be transferred from aircraft to other modes of transportation, it is important that the port of Montreal establish the goal of improving and bettering its terminal facilities to handle container traffic.

The major opportunity for transportation in Montreal lies in the establishment of an efficient interlocking transportation system. It is no longer possible to concentrate exclusively on the port but the scope must broaden in an attempt to integrate the several forms of transportation in a manner that will not only better serve the region but make transportation a driving force in its development as well.

The Financial Sector in Montreal. Until the 1950's, Montreal was the principal financial centre of Canada. Over the last two decades there has, however, been a relative shift towards Toronto which has become the principal centre of financial activity in Canada. This change is illustrated by the following:

-- From 1965 to 1970 employment in the financial sector rose 18 per cent in Montreal, 33 per cent in Toronto.

-- During the 1960's Montreal's money market activities have become less important than Toronto's. The majority of agents active in these markets are located in Toronto.

-- The majority of finance companies have their head offices in Toronto.

-- Of the fifteen brokers approved by the Bank of Canada for certain government underwritings, ten are located in Toronto, three in Montreal.

-- Certain chartered banks have transferred their money market operations from their head offices in Montreal to Toronto.

-- Stock market activity is much greater in Toronto. In 1971, the value of transactions were three times as large.

-- Among the 90 stockbrokers studied by the Bouchard Commission active in Quebec, 27 had their head offices in Ontario in 1970. These 23 brokers represented about 70 per cent of the total activity in terms of volume done in the province

-- During the last 15 years, a number of institutions in the financial sector have moved their head offices from Montreal to Toronto--6 out of 18 life insurance companies and 34 out of 112 general insurance companies.

A number of factors are at the root of this relative shift to Toronto. Since the 1950's the industrial dynamism of Toronto, brought about by the rapid growth of the Ontario economy, has had a major impact on the financial sector of Ontario. At the same time, the relative importance of Montreal as an industrial and commercial centre has declined. Yet, in spite of this, the financial infrastructure in Montreal is an important one. A large number of financial institutions still have their head offices there. As well, a revitalization of the stock market has been noted in Montreal in the last year. The growing interest on behalf of the Quebec government, the strengthening of the Securities Commission, the amalgamation of the two stock exchanges in Montreal and the tightening of standards for brokers operating in the exchange have all played a part in this.

The relative decline in the financial sector in Montreal has had several unfavourable effects for Quebec. In the case of the shift of the money market, the immediate impact has not been too important. This market does not really have a physical location but operates through a network of telephone and telex connections that tie together the various brokers all over the country. Yet, the concentration of the bulk of the principal participants in this market in Toronto has not helped the growth and development of Quebec brokers. Because of their smaller size and financial power they have had difficulty in forming large syndicates for major bond underwritings.

It is in terms of economic growth that the advantages of a dynamic financial sector appear most clearly. Financial institutions themselves produce a considerable amount of economic activity in terms of employment, construction of office space and effects on a range of supporting activities. Equally important are the efficiencies brought about by a major concentration of financial activities; the personal contacts and ease of exchange of information may exercise a certain attraction for head offices of many sorts of enterprises. The economies arising from the proximity to such a major concentration of activity are believed to be a not unimportant locational attraction for many companies.

Basically, the development of financial activities follows economic development in an area and the resulting growth in incomes and savings. But after a certain scale has been reached, these activities themselves become an attraction for the location of other activities. In the case of Montreal, there already exists a relatively strong financial sector. It would be desirable to reinforce the sector and consolidate what comparative advantage it has. In particular, in view of the possibility of considerably increased economic activity in the province, a strong financial sector is highly desirable.

Keeping in mind the major provincial responsibilities in the sector, certain opportunities present themselves in:

-- the continuation of efforts to encourage the growth of Quebec-based brokerage houses and the efforts of the stock exchange to revitalize provincial stock market activities.

-- the continuation of steps to increase investor interest in the province.

-- the further consolidation of the key role of Montreal in financial activities tied to international trade. As Montreal has had a traditional role in this area, the possibility of increased activity in international transportation could produce a strong demand for financial services linked to import-export activities.

Communications in Montreal. Activities in the communications field tend to concentrate fairly closely around large metropolitan areas. During the last few years a number of major technological changes have emerged: communications satellites, both domestic and international and tele-information (data banks and line transmission of facts through information retrieval systems). These new forms of communication have given a role of particular importance to the whole field of communication. In order for it to have an effect on the development of a region, communications development ought to be of a type which integrates the whole area of communication with other sectors.

Montreal has certain weaknesses in the area of integrated information systems and in the tele-communication of data. By way of example, the central processing system for Air Canada is situated in Toronto as is the Telex system of CN and CP.

It is not likely that Montreal will overtake Toronto in this general area of information distribution but certain general goals could be established that could strengthen developments in the field in Montreal.

Automatic data-gathering systems in the areas of health, education, and social services might mean that the federal government could take a coordinating role in the development of new data banks. These new data banks could be placed in Montreal where, among other things, they could guarantee bilingual services. Opportunities for transportation and finance could be readily integrated with development in the communications area, since any development in the former sectors would have a considerable impact on the general development of communications activities.

Research and Development Activities in Montreal. The Montreal area presently possesses an excellent private and university research base. Yet, the problems associated with the industrial sector in the province and Montreal could suggest a possible decline in these R & D activities. Whereas in Ontario 90 per cent of industrial research is related to high-technology and science-based industry, this applies to only 55 per cent of Quebec's efforts because of the weakness of this sector in the province.

It is recognized that research efforts in Canada have not been as productive as anticipated. One reason suggested is the concentration of research activity in the National Capital Region which does not have a large industrial base. From this point of view, there would appear to be some justification for greater decentralization of federal research laboratories. If this were to happen, the Montreal region could be an important candidate as it has an important industrial base.

Urban Land Supply in the Montreal Area. In light of the population density in the Montreal area, it is desirable to avoid creating a scarcity of residential and industrial land available at reasonable prices. This is particularly important as prices are now low because of the stagnation of the city over the last few years. Assuming the success of the suggested development opportunities, the renewed tempo of activity in the area will put pressure on the supply of both industrial and residential land.

A review of population growth in the metropolitan area reveals an increase of 448,000 persons between 1961 and 1972, from 2,111,000 to 2,559,000 residents, an average annual growth of 2.1 per cent. However, 75 per cent of this growth occurred between 1961 and 1966. The 1966-71 period saw a considerable slow-down in population growth combined with migration from the centre to the periphery of the urban region.

If Montreal is successful in re-establishing its growth rate, it is anticipated that the metropolitan area will have a total population of 3,431,000 residents by 1981, an increase of 872,000 for the period, 1971-81, an average annual growth of 3.4 per cent. While policies to increase development in secondary centres may be enacted which would affect manufacturing significantly, it is probable that a major strengthening of Montreal would result in some increase in its rate of population growth.

The urban zone now comprises an area of about 400,000 acres of which about 133,000 are occupied. Of the occupied area, the residential sector accounts for 51 per cent as opposed to 12.5 per cent for industry, the rest being allocated to retail, business and community services. Therefore, 267,000 acres are available with 106,000 more or less within existing municipal boundaries in comparison with 161,000 acres situated on the fringe of the urban zone.

In terms of industrial land, the urban region at present contains 14,000 acres of unoccupied space zoned to industry. It is estimated that the available land could accommodate a growth of between 1,700,000 and 2,270,000 persons. On the whole, there would appear to be no shortage of industrial land before 1981.

In view of the availability of land in the Montreal area and its reasonable price owing to economic conditions in recent years, it might be desirable in the near future to investigate the establishment of an urban land bank. With renewed economic activity in the Montreal area, there will be a rapid upswing in the demand for both industrial and residential land. A land bank could stabilize land prices at reasonable levels, preventing appreciation due to speculation.

The Provincial Road System. While it is recognized that roads are primarily a provincial responsibility, the growing dependence of industry on fast and efficient road transport presents an opportunity to assist industrial development through the assurance of an adequate road system for future growth. The Montreal - Quebec axis and parts of the Eastern Townships possess a good system of autoroutes which are particularly effective in moving traffic between Montreal and Quebec and Montreal and Sherbrooke. They have led as well to a certain amount of industrial location along these major routes. Montreal, itself, has an excellent system of expressways and autoroutes to the American and Ontario borders and north into the tourist country in the Laurentians. Nevertheless, certain links between Montreal and important industrial centres are either lacking or congested and there is an opportunity for additions to the present system as an adjunct to further industrial development. It would be desirable that the following links receive positive consideration in the expansion of the province's autoroute system in the next few years:

-- Montreal - Trois-Rivières/Shawinigan. These urban areas have strong links into the industrial system.

Trois-Rivières/Shawinigan obtains considerable primary inputs from Montreal and a large portion of its output is shipped to or through Montreal. To assist in the further expansion of the area, the completion of the autoroute from St-Viateur to Trois-Rivières and Shawinigan would be desirable.

-- Montreal - Contrecoeur and Sorel. In the region along the south shore of the St. Lawrence, Contrecoeur, Tracy and Sorel constitute a major industrial center. Contrecoeur has become an important center for smelting and steel fabrication and, because of this, is in constant contact with the Montreal region. Tracy and Sorel have major maritime shipyards as well as foundries and factories engaged in metal working, plastics, textiles and clothing. In the growth of the provincial road system, the extension of the autoroute, which now ends to the west of Varennes, to Sorel would be desirable.

-- Montreal - Sherbrooke. These two cities are well connected by a toll autoroute. Nevertheless it might be desirable to upgrade the links between Sherbrooke and Drummondville and Sherbrooke and Quebec City.

-- Montreal - Hull. It has often been mentioned that this region will be able to utilize Ontario Highway 417 for automobile and truck traffic with the construction of several bridges from this route into Quebec. Nevertheless, the provincial highway system could be enhanced by the construction of an autoroute between Montreal and the Hull region. This would open up the regions situated to the North of the Ottawa Valley to tourists, and provide Montreal with an all-Quebec route to the important Ottawa-Hull market, directing more industrial growth into Quebec.

Other Urban Centres in the Province

With the aim of reinforcing the potential of a certain number of intermediate urban centres, it would be desirable to encourage the growth resulting from development in each region into a number of development poles. These could be based on urban size (Quebec City), on the presence of abundant natural resources (Sept-Iles, Port-Cartier), on the availability of a pool of human resources and an industrial base (Sherbrooke, Trois-Rivières/Shawinigan), or proximity to Montreal and the opportunity to decentralize industrial growth away from the city.

Quebec City. With its half million inhabitants, its role in the areas of trade, finance, insurance, services, government and tourism, and its industrial potential related to the modernization of its port, Quebec has the potential for continued and increasing growth. The opportunities proposed are to assure the growth of this city by stressing its functions as a port and promoting its industrial and tourist potential.

Quebec City is the last up-stream port which is capable of receiving ships up to 100,000 tons. This makes it a potential site for industries which require servicing by ocean-going mineral carriers, grain carriers or container carriers.

Because of its double character as a river and ocean port, Quebec seems particularly well placed to serve barge traffic. As well, it has an important role as a trans-shipment point. Industries might be encouraged at Quebec that would process a certain percentage of products in transit. According to forecast traffic patterns, it would seem reasonable to consider such industries as asbestos processing and food and beverage manufacture. The growth of traffic through the port could also help increase the activity of the shipyards in the Quebec area.

It is reasonable, therefore, to suggest the development of the port of Quebec in line with its favourable factors: its quality as a river and ocean port, the depth of its access channel, the presence of a growing and important consumer market, the existence of excellent infrastructure for transport activities and its relative proximity to very large markets.

For the manufacturing sector in Quebec, the study which has been undertaken on the port of Quebec is most useful, notably the part concerning the possibility of industrial location in the city. The authors of this study have attempted to define those sectors which have the greatest chance of development:

-- It seems realistic to foresee the creation of new petroleum refining capacity at Quebec even if the province does not supply all its market or furnish all new production consumed in the province.

-- The establishment of new petroleum refineries in the province would increase the possibility of seeing such storage capacity increments being implanted near Quebec whether in the crude oil reception centres or in the industrial zone of the port. These increments of storage capacity will be most useful because it would be desirable to establish facilities to keep enough crude oil for two or three months' consumption. The industrial zone of the port of Quebec could also accept stocks of refined petroleum products. A petroleum storage capacity of 18 to 25 million barrels is therefore foreseeable.

The touristic role of Quebec City may be further developed by conservation programs, the restoration of the historic part of the city, the extension of hotel facilities and the establishment of certain recreation facilities and touristic tour circuits which will prolong the length of stay in the city. A special effort could be made to attract the convention trade by means of a convention centre, exhibition halls, etc.

Sherbrooke. Sherbrooke and its surrounding region is characterized by the decline of the primary sector (except for asbestos), an aging manufacturing structure and a tourist industry which has undergone strong growth over the last ten years. The major economic opportunity for the city and area would seem to be based on two potentials, industrial restructuring and tourism.

The industrial restructuring of the area would imply three thrusts: the stabilization of traditional industries, emphasis on growth in industries which present potential (rubber, metal products and machinery) and installation of additional infrastructure by creating an industrial park and a better road system to Quebec City. Increasing tourism activity would imply two actions: an increased effort on the part of the government in providing tourist facilities and governmental control (provincial, regional and local) of land use. Private expansion is continuing at a growing rate without regard to requirements for development or recreation.

Sept-Iles, Port-Cartier. Despite a relatively harsh climate and limited access, the North Shore has been a major growth area over the last two decades. The economy of Sept-Iles, Port-Cartier is based on the processing and shipment of natural resources, mainly to foreign countries. Given its high potential, Sept-Iles, Port-Cartier has several opportunities for growth. This suggests an effort to:

-- exploit mineral and forestry resources of the hinterland,

-- process a growing part of the resources in the area,

-- establish such services as are needed to serve the North Shore and New Quebec.

Trois-Rivières, Shawinigan. Situated between the development poles of Montreal and Quebec City, this area is characterized by an industrial structure principally concentrated in such sectors as pulp and paper, textiles, electrometallurgy and industrial chemical products. These sectors pushed forward and supported the rapid development of the area during the first half of the twentieth century but their growth has been declining for a considerable length of time. Since 1961, the demographic situation of the region has been unfavourable. It is in rapid decline compared to the rate of growth for the population of Quebec as a whole. Its contribution to the provincial product of Quebec declined from 8 per cent in 1951 to 6 per cent in 1966.

This area has continued to maintain an industrial position even though its basic structure is in a period of adaptation. To give the area the same dynamism that it had earlier, modernization and consolidation of existing sectors is suggested as well as finding new areas for development.

Given the moderate size of these two urban centres and their relative proximity to Montreal, it would not appear possible, in the medium term, to consider them as development poles. Rather their role would appear to be closely tied to Montreal.

It is believed that this area will grow because of its close ties to Montreal. Certainly, reduced travel time between Montreal and Trois-Rivières could lead to very strong competition from similar activities situated in Montreal. Nevertheless, it is realistic to assume that the positive effects would be larger than the negative ones. For example, it appears that Trois-Rivières would become more attractive if it were well connected to Montreal by an autoroute. As well, St. Maurice Park would attract more Montrealers if it were more accessible.

From the characteristics of the above region, it is possible to see the area as more than a satellite of Montreal. Trois-Rivières is an area with opportunities for industrial restructuring. This would require an important effort to be made to improve the regional roads system to tie the area to Montreal.

Cities in the Montreal Region. The opportunity to improve the prospects of Montreal as a major pole of development would promote numerous industrial activities. The existence of specialized services in the sectors of finance, transportation, communications and business services could count as important factors in industrial localization. The suggested strengthening of these activities could have a strong impact on the manufacturing sector.

It would be important, therefore, to make plans for the location of these new manufacturing activities. For a number of years, manufacturing activity in the Montreal region has had a tendency to become less physically concentrated. It would be worthwhile to direct this decentralization movement towards a certain number of urban centres in the immediate periphery of Montreal, such as Sorel, Ste-Hyacinthe, Granby, Saint-Jean, Valleyfield, Saint-Jérôme, Joliette and the region around the Mirabel International Airport.

The concentration of new manufacturing activities in satellite cities would permit the rational management of the territorial region of Montreal. In effect, in order to avoid the deterioration of the physical milieu and to maintain the quality of life, it would be desirable to plan the management of open space and recreational facilities which would be accessible to the regional population of Montreal. It would equally be worthwhile to preserve those agricultural lands on the periphery of Montreal which are among the most fertile in the province.

EXCERPTS FROM MINISTERIAL STATEMENT[1]

The economic circumstances and opportunities outlined in this paper and similar papers for other provinces and regions of Canada have been produced as part of the review of policies and programs carried out by the Department of Regional Economic Expansion over the past year. This review, and tentative policy approaches resulting from it, were discussed by the Honourable Don Jamieson, Minister of the Department of Regional Economic Expansion, in his opening statement to the Standing Committee on Regional Development of the House of Commons on April 10th. Following are excerpts from that statement:

> ....When the Department of Regional Economic Expansion was established in 1969, it was given a broad mandate to bring together a number of predecessor programs and to develop a much more comprehensive attack on regional economic disparities....The Department was quickly organized; it gave new impetus to the programs it inherited, notably those concerned with rural development; it introduced major new programs placing an increased emphasis on federal support for public investment in infrastructure as a means of developing selected urban centres and on federal financial incentives as a means of stimulating private investment in job-creating plant and equipment; it reinforced its initial momentum with subsequent initiatives, notably those providing for different kinds of development corporations in the Atlantic Region and for assistance to agricultural service centres in the Prairie Region; and it was provided by

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1 Statement prepared for delivery by the Honourable Don Jamieson, Minister of Regional Economic Expansion, to the Standing Committee on Regional Development of the House of Commons.

Parliament with authority to increase its expenditures from $240 million in its first year to over $500 million in its fourth year of operation....The bulk of its activity has been carried out under federal-provincial agreements, providing it with a unique and challenging experience with co-operative working arrangements between the two senior levels of Canadian government....

Because of new ground being broken in a complex and largely unexplored field, it was understood from the beginning, in the context of a long-term federal commitment to the basic objective, that a degree of experimentation would be required and that, with the passage of time and the accumulation of experience, modifications and even basic changes in Departmental policies and programs would have to be considered. This was reflected in a number of public statements. It was reflected also in some of the underlying law -- for example, in provisions of the Regional Development Incentives Act setting time limits on the periods during which applicant companies could bring projects into commercial production and remain eligible for payment of offered incentive grants.

Against this background, a decision was made last spring to undertake a major review of policies and programs. The provincial governments were informed of the decision and were assured that the results of the review would be the subject of consultation with them as soon as possible in 1973. I would like to make it clear that, until consultations with the provinces have been completed, no final conclusions about our findings will be drawn and no final decisions about basic changes in existing programs or major new initiatives will be made.

The review has been conducted in what I consider to be a very thorough manner. A large number of studies have been made, using staff drawn from different parts of the Department and other federal agencies and a variety of outside consultants. Quantities of valuable information have been sought and obtained from the provincial governments. And, particularly in the latter stages of the review, there has been a substantial amount of inter-departmental discussion in Ottawa.

Although a good deal of attention has been paid to existing programs, particularly RDIA, the review has been essentially forward-looking, concentrating heavily on analyses of regional economic circumstances and opportunities -- the types of analyses that, in our view, should make a valuable contribution to decision-making about ways and means of improving the effectiveness of federal-provincial efforts to reduce regional disparities and produce more balanced economic growth across Canada .....

In working with my officials, and in discussion with my colleagues, I have become increasingly impressed by the range of opportunities for economic development that exist in most parts of this country and by the large number of public policies and programs that bear, or could be brought to bear upon a concentrated effort to realize some of these opportunities. This is what has led me to speak publicly in recent weeks about the possibilities inherent in a "multi-dimensional approach" -- an approach that would call for the identification and pursuit of major developmental opportunities by means of the co-ordinated application of public policies and programs, federal and provincial, in cooperation where appropriate with elements of the private sector. I intend to explore this concept with the provincial governments and am prepared to consider its use as a basis for new federal-provincial initiatives in the field of regional development.

Application of the concept would require continuing analyses of regional and provincial economic circumstances and opportunities. As part of our own policy review, as I mentioned earlier in my statement, we have devoted most of our resources to analyses of this kind. Staff papers setting forth the results of our work have been prepared for the Atlantic Region and each of its four provinces, for Quebec and Ontario, for the Western Region, each of its four provinces and an area called the Western Northlands that was arbitrarily defined for analytical purposes.....

Although based on a fair amount of staff work, the opportunities [outlined in the papers] do not represent federal commitments or federal proposals for provincial or regional developmental strategies. They are designed simply to illustrate the potential advantages of an approach to development based on the identification and coordinated pursuit of major developmental opportunities....

Let me be very clear on one point. Consideration of possible changes and new initiatives will in no way affect the determination of the Government to continue its efforts to reduce regional economic disparities in Canada. Our commitment to the basic objective stands firm and has indeed been intensified by the results of our policy review. What we are now seeking, what we will continue to seek, are ways and means of improving the methods used to produce greater, more satisfying and more productive employment opportunities in the slow-growth regions of the country.

....The results of our review suggest that, although there is room for improvement, as there always is, the programs are producing beneficial results at a reasonable cost. Present commitments under all these programs will of course be honoured. The programs themselves will be continued unless and until there are clear indications, arising from federal-provincial consultations, that the funds involved can be redirected in such a way as to increase the effectiveness of the overall effort.

The present programs tend to focus on particular factors in economic development, each of which is important, and to provide financial assistance related to those factors. Most notable are the incentives program which is designed to stimulate private capital investment in manufacturing and processing facilities, and the special areas program, which is designed to stimulate public capital investment in defined growth and service centres. I have no doubt that federal government support for capital investment in slow-growth areas will continue to be an important element in regional development policy. But it may be that available support for this factor can be made more productive if it is made more flexible, so that it can respond to developmental opportunities that do not fall neatly into the categories of secondary manufacturing investment and special areas infrastructure investment. I will therefore be exploring with the provincial governments ways in which the staff and financial resources of my Department could be used more flexibly in a manner that would be even more responsive to variations, from region to region and province to province, in economic circumstances and opportunities.

....It is my tentative conclusion that optimum results in developing our slow-growth regions will require the coordinated application of policies and programs that bear upon specific opportunities. What I am contemplating is a continuing process whereby the federal and provincial governments could identify major developmental opportunities and pursue them together, endeavouring to use the relevant policy instruments available at both levels of government. DREE programs, marked by increased flexibility, would be among the relevant instruments.

Perhaps an example would help to illustrate the suggested approach. In parts of some slow-growth regions, the forests provide an important potential foundation for increased employment and production. At the present time, my Department can help to build on that foundation by assisting in studies of the resource base and the market possibilities and by providing incentives for private investment in wood-using processing and manufacturing facilities. But optimum results may depend on a wide variety of factors. Improved access to markets, involving trade and transportation policy, may be involved. Land tenure laws or practices may affect the situation. Special efforts in both the public and the private sector may be needed to avoid environmental damage. Existing storage and distribution facilities may represent an impediment. Community development may require support for both the planning and capital investment required to accommodate industrial facilities and provide a reasonable quality of life for workers in both woods and plant activities. Manpower training or mobility programs may be desirable or necessary. These are only some of the factors that could be involved in realizing a potential opportunity. In such circumstances, optimum results may call for concerted action by a number of organizations in the private sector and in the federal, provincial and municipal segments of the public sector.

The example may help to indicate why I am suggesting a "multi-dimensional approach". It seems to me that such an approach could be developed over time as a means of strengthening the federal-provincial attack on regional disparities by focussing, in a manner consistent with national goals, on strategic opportunities for economic development in the regions of slow-growth throughout Canada. As I have already indicated, there appear to be many opportunities to expand employment and production in these regions in a manner that could contribute to total national wealth. It seems to me that, if properly developed, the suggested approach might attract the strong support of the private sector, which has been known to complain about the lack of government coordination in matters affecting economic development.

A good deal of thought has been given to the mechanisms that might be used to apply the concept, which would call for a high degree of interdepartmental coordination at both the federal and provincial levels of government. I think that appropriate mechanisms could be developed and I also think that, if the potential benefits to the Canadian people were demonstrable, the required degree of intergovernmental and interdepartmental coordination could be achieved.

The proliferation of public programs over the last twenty-five years has made improved government coordiantion a matter of some urgency in our society. I am not naive, however. I know that experience would suggest that coordination for its own sake, in the abstract, is difficult to achieve. But I am not talking about coordination in an abstract sense. I am talking about coordination in pursuit of limited and carefully defined objectives related to major developmental opportunities that have been identified jointly by the two senior levels of government. It seems to me that this kind of coordination should be regarded, not just as possible, but as something close to essential in this country.

I might mention in passing that, in planning the reorganization of the Department required to achieve the increased decentralization referred to in the Speech from the Throne, we are endeavouring to build in elements that would enable us to play an effective role in the development of a "multi-dimensional" approach to regional development in

Canada. Planning for the reorganization is now moving ahead quickly and I hope, before too long, to announce our intentions in more specific terms.

One final point. Today I have spoken at some length about a possible new approach to regional development. I am optimistic about its potential and I believe that, if it were to be applied as a basis for new initiatives, with the full support of the provincial governments, it might in time increase rather dramatically the effectiveness of the national effort to reduce disparities. But I am very conscious of the danger of raising expectations to unrealistic levels. The suggested approach could be a means of bringing about important improvements in federal-provincial cooperation in matters affecting economic development. It could be a means of moving us more rapidly toward important national goals. But I am not offering it as a panacea. I do not believe in instant solutions.