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ECONOMIC DEVELOPMENT PROSPECTS IN **NOVA SCOTIA**

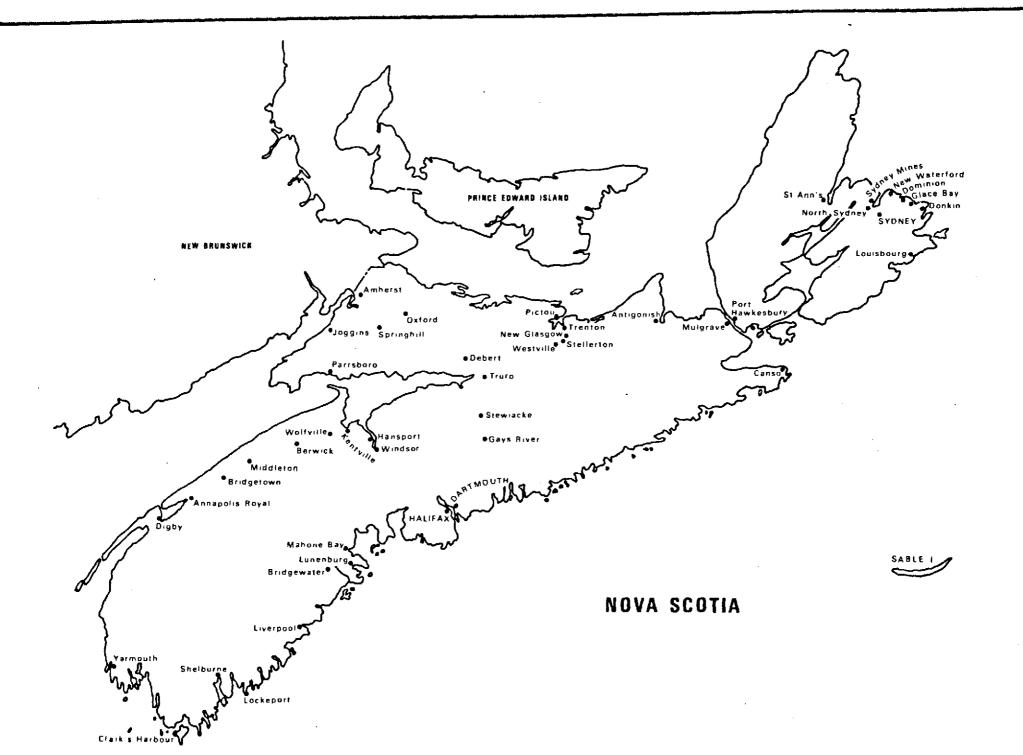
One of a series of reports on development prospects in the provinces, territories, and regions of Canada prepared by Lograde. the Department of Regional Economic Expansion



Government of Canada Gouvernement du Canada

Regional Economic Expansion Expansion Économique Régionale

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MAR 4 1980

PREFACE

In 1973, the Department of Regional Economic Expansion issued a series of reports on the economic circumstances of each of the provinces and their prospects for development. These reports were useful in discussions which led to the successful implementation of a new federal-provincial mechanism, the General Development Agreement, which was designed as a flexible tool to pursue regional development in Canada. This mechanism has as its central objective the formulation of integrated federal-provincial regional development strategies based on the identification and pursuit of development opportunities.

With the aid of hindsight, it now appears that the mid-1970s represented a watershed period in many respects, as fundamental realignments and adjustments occurred internationally and within Canada. These considerations, in conjunction with the recent public discussion concerning the appropriate roles of business, labour and governments in the economy, suggest that this is an opportune time to review, in a comprehensive fashion, some major economic issues and factors affecting regional development. This report expands upon previous DREE reviews of provincial economic circumstances and opportunities by examining the major factors affecting the provincial economy's performance. In addition, it explores the policy issues and instruments which affect development planning and which have a bearing on the potential for realizing development opportunities.

The analysis begins with a detailed description of factors relating to economic development and an assessment of the economic performance of the province. This section provides a context for the next section, which deals with specific development problems facing the province and the issues which bear on its economic development. Federal and provincial approaches to development are then discussed. The following section on development opportunities is the central focus of the report. In this section, the comparative advantages of the province are described, and potential economic development opportunities are highlighted.

It is a truism that, over time, regional economic circumstances and development opportunities will continue to change and evolve. In a similar vein, it is apparent that economic development will continue to require an evolving spirit of policy coordination within and between various orders of government. In this context, it is hoped that this report will serve as a backdrop to federal-provincial discussions on the economy and to the further formulation and implementation of integrated federal-provincial development strategies and, at a broader level, contribute a spatial dimension to economic policy-making over the medium term.

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1. OVERVIEW

This report provides a review of economic change in Nova Scotia during the 1970s and attempts to examine the direction of economic developments to 1985.

Nova Scotia's economy is highly export-oriented and the performance during the early and mid-1970s can be related directly to the low value-added nature of many sectors such as forestry and minerals, slumping world demand, supply constraints — as in the case of the fishery — and to structurally weak industries like shipbuilding and iron and steel production. These factors, combined with growth in the supply of young labour force entrants, contributed to a major unemployment problem.

The fishing industry, with the introduction of the 200-mile limit, and coal extraction in response to diminishing reliability of offshore oil supplies, are just two industries that have benefited from improved resource management, new research and technology, and attractive prices resulting from devaluation of the Canadian dollar since the mid-1970s.

The next six or seven years present a real challenge to both government and the private sector. Chapter 4 provides an overview of the 53 industrial development programs available in Nova Scotia from federal and provincial government agencies.

Because the province's traditional comparative advantages have not been sufficient to maintain a growth rate comparable to national averages, the province must attempt to develop both projects which have an impact on stability and projects which have an impact on development.

Potential stabilizing projects could be in the steel, shipbuilding and ship repair sectors. Development impact projects designed to take advantage of existing resources and the province's geographic location on the North Atlantic Rim include coal development, ocean industries sector development, further development of the Atlantic fishery, energy exploration and technology, and development of the province's ports as oil storage, transshipment, ship repair and refitting centres.

2. ECONOMIC DEVELOPMENT FACTORS

2.1 Background

Given the persistence of the regional problem, it is not surprising that initial resource endowments and the general market environment facing an open economy have a lot to do with the ability of the economy to achieve self-sustaining growth. The first section of this report will look at some aggregate supply and demand factors of the Nova Scotia economy. The second section will look at the more recent performance of the economy from about 1971 to the present. The last section presents the medium-term outlook for the Nova Scotia economy.

2.2 Factors

2.2.1 Supply Factors

The endowment of an area's natural resources and labour quality provide a framework to account for a region's degree of prosperity. The Nova Scotia economy has, for a considerable period of time, had less of a supply of these primary factors than that available to the nation as a whole.

The area's natural resource endowment has traditionally been weak. The Nova Scotia economy is not endowed with abundant amounts of high-quality agricultural land. The Canada Land Inventory records no Class I agricultural land in the province. Its traditional resource sector, fishing, has been weak for many years as stocks were over-fished, but with the implementation of the 200-mile limit, its future prospects are on the upswing. The province's other major primary resource, coal, is also on the upswing after years of decline. The energy crisis, while providing the province with the country's second highest electricity rates, promises also to revitalize the coal industry as an alternative primary energy source.

The supply of labour in Nova Scotia, when compared to that of Canada, shows less specialization in the higher skill category over the years. Table 2.1 provides the relevant statistics. Nova Scotia was consistently below the national average in the managerial occupations from 1931 to 1971. It only surpassed the Canadian figure for professional and technical skills in 1971. Conversely, Nova Scotia has had a percentage greater than the national percentage of its labour force in the "labourers" category over the years.

A similar analysis applies to the education attainment levels in Nova Scotia and Canada. In 1961, 7.4 per cent of the Nova Scotia labour force reported either some university training

TABLE 2.1
PERCENTAGE DISTRIBUTION OF LABOUR FORCE 15 YEARS & OVER -- BY OCCUPATION

CANADA:

Year	All Occupations	Managerial	Professional & Technical	Clerical	Sales	Service & Recreation	Transport and Communication
1931	100	5.66	6.21	6.96	5.33	9.21	5.19
1941	100	5.66	6.89	7.51	4.94	10.40	5.12
1951	100	7.96	7.29	11.13	5.44	9.75	6.27
1961	100	8.33	9.72	12.90	6.35	12.30	6.06
1971	100	7.90	12.52	14.76	6.13	11.62	5.01
	Farmers &	Loggers &	Fish, Trap.		Craftsmen	&	
	Farm Workers	Related	Hunters	Miners	Production	Labourers	Not Stated
1931	28.61	1.07	1.20	1.37	17.78	11.38	0.04
1951	25.69	1.88	1.23	1.66	22.38	6.36	0.27
1951	15.66	1.91	0.97	1.23	24.70	6.66	1.21
1961	10.05	1.22	0.53	0.99	23.65	5.33	2.56
1971	5.81	0.61	0.31	0.72	20.82	4.73	9.04

NOVA SCOTIA:

***	All	Nonogomi o l	Professional & Technical	Clerical	Sales	Service & Recreation	Transport and Communication
Year_	Occupations	Managerial					
1931	100	5.16	5.38	4.36	4.05	9.29	5.88
1941	100	5.10	5.82	5.46	4.62	11.49	6.24
1951	100	7.08	6.48	8.11	5.14	13.71	7.43
1961	100	7.64	9.01	10.12	6.17	18.56	6.78
1971	100	7.49	12.72	13.38	6.27	14.95	6.42

	Farmers & Farm Workers	Loggers & Related	Fish, Trap. Hunters	Miners	Craftsmen & Production	Labourers	Not Stated
1931	24.33	1.17	6.33	8.01	13.96	12.14	0.03
1941	19.64	2.81	5.61	7.38	18.35	7.29	0.20
1951	10.62	2.27	4.55	5.42	20.02	7.72	1.47
1961	5.25	1.52	3.21	3.03	20.43	6.30	1.98
1971	1.76	0.50	2.47	1.25	18.28	5.39	8.43

Source: Statistics Canada, Census

or a university degree. The corresponding figure for Canada in 1961 was 10.3 per cent. In 1976 the figure was 14.2 per cent for Nova Scotia and 14.7 per cent for Canada as a whole.

2.2.2 Demand Factors

Export demand for its goods and services represents the main determinant of Nova Scotia's economic growth. The major determinant of the province's export market is the economic health of its clients. Nova Scotia's exports¹ by order of importance are as follows: Canada, exclusive of the Atlantic Region, 48.4 per cent; foreign markets, principally the United States, 35.1 per cent and the rest of the Atlantic Region 16.5 per cent. Hence, the province does have access to good trading partners with strong growth potential, though Canadian demand will likely become increasingly less accessible over time as the economic centre of gravity moves west. It is the type of goods traded, i.e. traditional low value-added sectors such as fisheries and coal mining and structurally weak industries like shipbuilding and iron and steel production, that account for the area's inability to grow at national rates.

The province's already weak demand conditions are further exacerbated by having to share a smaller pie among greater numbers. Dependency ratios computed for the province have consistently shown a greater burden in the provincial economy vis-à-vis the Canadian economy. Table 2.2 shows that Nova Scotia has consistently had a dependency ratio that was higher than that for Canada as a whole. In 1976 Nova Scotia's dependency ratio was 58.1 while Canada's was 52.3.

See Kari Levitt, "Input-Output Study of the Atlantic Provinces", 1965, Volume II, Statistics Canada.

TABLE 2.2
DEPENDENCY RATIOS1

Year	Nova Scotia	<u>Canada</u>
1921	111.2	104.8
1931	68.0	59.1
1941 -	59.6	52.6
1951	69.6	. 61.5
1961	76.3	71.2
1971	65.9	60.4
1976	58.1	52.3

The dependency ratios have been derived by dividing population in the 0-14 age group and 65+ age group by population in the 15-64 age group. The resulting values were then multiplied by 100 to arrive at the values given in the table.

Source: Census and Statistics Canada, Catalogue No. 91-202

2.3 Overview of Economic Performance

This section will look at events and economic change during the 1970s.

From 1971 to the present, the Nova Scotia economy weathered international slowdowns in economic growth, increased competition for many of its exports, and escalating energy costs. In addition, its labour force has seen unprecedented growth from two main sources: a spurt in new job market entrants and soaring female participation rates. Finally, inflation, the devaluating dollar, and major shifts in consumer spending patterns have caused problems in some sectors, while creating interesting opportunities in others.

2.3.1 General Indicators

In 1977, Nova Scotia's real domestic product (RDP) growth rate was calculated at 2 per cent, compared to a 3.1 per cent gain nationally. The growth rate for Nova Scotia RDP, estimated at 3.4 per cent in 1978, was surpassed only by those of Alberta and Prince Edward Island, and compares favourably to the 1978 Canadian average of 2.9 per cent (estimated by the Conference Board in Canada). Significant output gains in the

province's mining, forestry, manufacturing and fishing sectors, both in terms of volume and price, led to Nova Scotia's impressive performance over a somewhat sluggish 1977. Canada's gain in 1978 RDP was, however, to a large extent adversely affected by protracted work stoppages (Inco and Iron Ore Company of Canada), weak international markets for many of the major metals, as well as the continued emphasis on reducing exports of petroleum products.

Provincial RDP estimates show that, since 1971, the primary engines for incremental growth in Nova Scotia RDP have been the manufacturing and construction industries in the goods-producing sectors; trade and community business and personal services in the service sectors (see table 2.3). However, from 1971 to 1976, RDP at factor cost for agriculture increased by only 6.1 per cent. Agricultural output declined from 1971 to 1973 and in 1976-77, while a slow increase was registered in the other years. Fishing output also declined from 1971 to 1973, before starting a gradual increase to 1976, when it was still only 94 per cent of 1971 output (in real terms). However, significant gains were realized in 1977 and again in 1978, contributing to a total RDP gain during this period.

Nova Scotia's population increased by 0.9 per cent per year from 1971 to 1978, compared to an Atlantic Region growth rate of 1 per cent and a national rate of 1.2 per cent.

During the previous decade, provincial population also increased at a slower pace than for the region or the country as a whole. Between 1961 and 1971, the average annual rate of population growth for the province was 0.7 per cent, regionally 0.8 per cent, and nationally 1.7 per cent.

The major factor influencing this comparative improvement was the (almost) consistent net in-migration during the past eight years -- following a long period of net out-migration for the province and the region generally.

The median age for Nova Scotians increased from 25.5 years in 1971 to 27.1 in 1976, compared to a change in the Canadian median age from 26.2 in 1971 to 27.8 in 1976. The proportion of those in the 15-24 and 25-34 age groups increased dramatically during the 1970s; the increase is attributable to the post-war "baby boom" generation born in the late 1940s and early 1950s.

This influx of new job entrants contributed to the recent trend of high unemployment rates. In 1971, 60.3 per cent of the population was between the age of 15 and 64; in 1976, 63.3 per cent was of labour force age. In addition,

TABLE 2.3

REAL DOMESTIC PRODUCT AT FACTOR COST BY SECTOR IN CONSTANT (1971) DOLLARS, NOVA SCOTIA, 1971-76 ACTUAL, 1977-1985 PROJECTED (\$ MILLION)

1976 1980 1981 1982 1983 1984 1985 Sector 1971 1972 1973 1974 1975 1977 1978 1979 33.9 1. Agriculture 30.9 30.4 29.6 31.2 33.6 33.5 30.8 32.8 32.9 33.1 33.0 33.2 33.4 33.7 2. Fishing & 37.2 34.7 29.6 30.7 33.9 34.8 39.1 36.0 36.9 37.8 38.7 39.7 40.6 41.6 42.6 Trapping 9.6 9.2 8.9 8.7 8.7 8.6 8.6 8.7 10.7 8.6 10.0 Forestry 10.3 9.2 10.1 12.0 57.9 60.1 47.1 43.7 37.0 · 32.7 24.7 26.0 27.8 30.9 34.4 38.1 42.3 47.0 52.2 Mining 397.2 412.0 447.1 467.8 489.2 534.5 Manufacturing 259.7 310.2 345.2 362.2 363.9 353.7 382.8 427.2 182.3 183.3 177.8 180.7 187.2 180.8 181.5 182.0 182.6 182.8 183.0 183.1 183.2 Construction 162.5 164.2 Total, Goods-Producing Sectors 547.7 592.4 629.3 649.5 654.0 637.4 668.0 688.5 707.7 727.7 752.6 779.4 807.1 836.4 863.1 7. Transportation, Communication & Other 333.3 340.7 353.4 366.3 379.7 379.2 415.3 434.1 456.3 473.9 Utilities 259.3 284.7 301.7 301.4 307.6 382.6 402.4 423.0 441.5 466.9 490.3 514.7 353.0 363.7 540.1 566.6 594.3 280.7 308.4 335.9 8. Trade 9. Finance, Insurance & 206.9 224.6 231.5 246.4 268.2 265.6 273.6 283.3 293.7 304.6 317.0 330.3 344.4 359.1 Real Estate 10. Community, Business & Personal 559.2 574.0 592.0 612.8 635.2 658.8 685.3 714.0 744.3 776.1 445.6 477.7 492.0 487.2 525.4 Services ll. Public Admin. 365.6 379.4 382.8 390.0 389.8 400.9 396.9 399.2 402.0 405.0 408.1 411.6 415.5 419.5 423.8 & Defence Total, Service 1547.2 1657.1 1737.0 1763.1 1832.9 1944.2 1980.4 2041.2 2108.9 2180.5 2259.0 2343.9 2434.0 2528.4 2627.2 Sectors 2094.9 2249.5 2366.3 2412.6 2486.9 2581.6 2698.4 2729.7 2816.6 2907.7 3011.6 3123.3 3241.1 3364.8 3490.3 TOTAL, ALL SECTORS

Source: Nova Scotia Department of Development (Actual, revised to September 1978).

participation rates, most notably the female rate, have increased, with the participation rates for both men and women moving closer to the national average.

Much of the growth in Nova Scotia population since 1971 has occurred outside the larger metropolitan areas (with the exception of Halifax CMA which grew at a faster rate than that of the province), with non-urban populations increasing from 42 per cent of total population in 1971 to 44.2 per cent in 1976.

Factors supporting such a shift include the reversal, since 1971, of substantial out-migration from the province to a net in-migration reported by Statistics Canada at an average of 1 400 persons per year. Lower property taxes and better highway access from rural residential areas to urban employment, and the growth and diversification of economic activity in smaller communities have accelerated the development of the core area --roughly Bridgewater, Halifax-Dartmouth, Truro, Amherst, and through New Brunswick to Fredericton. In this area, unemployment rates, per capita incomes, and other economic measures come close to national averages. For example, at the sub-provincial level, the rate of unemployment in December of 1978 varied from 7.8 per cent in southwestern Nova Scotia to 14.3 per cent in the Cape Breton area.

Nova Scotia was, in 1958, relatively well-off compared to the other three Atlantic provinces, and since that time their "catch-up" has been much more spectacular. Disparities in earned income indicate a similar trend of gap narrowing, with the relative position of Nova Scotia among the least affected over time, especially vis-à-vis the Atlantic Region (see Figure 1). Government transfers, as percentage additions to net provincial income, declined from a high of 43.1 per cent in 1971 to 35.1 per cent in 1976 in Nova Scotia (see Table 2.4).

Other factors which affect personal income are related to demographics. Nova Scotia and the Atlantic Region generally have lower participation rates and higher dependency ratios -- both of which affect the per capita measures.

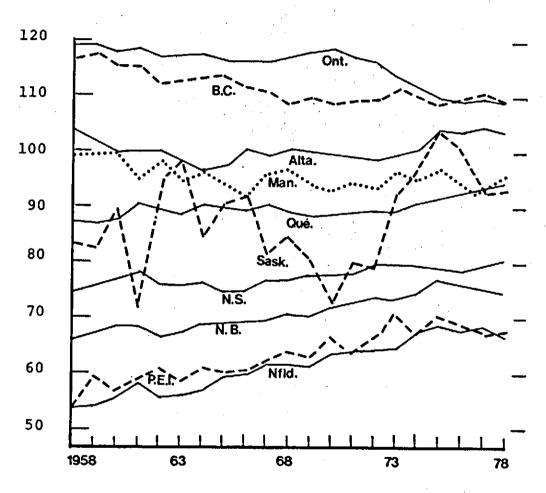
2.3.2 Labour Force

Since 1971 Nova Scotia has, like most other parts of the country, experienced substantial increases in the size of its labour force due to growth in the working age population, in-migration since 1972, and an increase in participation by women and other groups not traditionally part of the labour force (see Table 2.5). By 1978 unemployment had increased to 36 000, or 17 000 more than 1971. However, the total labour force had increased by 66 000 so the province's economy had generated 50 000 new jobs over seven years.

FIGURE 1

Personal Income Per Capita

as a percentage of Canada average



SOURCE: The Financial Post, February 10, 1978.

TABLE 2.4

PERSONAL INCOME IN NOVA SCOTIA, SELECTED INDICATORS, 1971-77

(CURRENT DOLLARS)

Year	Nova Scotia Personal Income (\$ millions)	Farm Income As % of Personal Income N.S. Can.			Payments Per Capita
1971	2 100	0.67 2.04	2 662 77	7.50 74.25	102.87
1972	2 436	0.82 2.04	3 064 79	75.94	108.13
1973	2 850	0.98 3.06	3 545 79	75.73	111.81
1974	3 375	0.62 2.87	4 156 79	75.31	110.79
1975	3 895	0.62 3.01	4 750 79	74.86	108.64
1976	4 417	0.61 2.27	5 328 78	3.40 74.44	106.12
1977	4 916	0.65 1.76	5 887 79	74.88	109.83

Source: Statistics Canada, Catalogue No. 13-201

TABLE 2.5

NOVA SCOTIA'S LABOUR MARKET, SELECTED INDICATORS, 1971-1978

YEAR	LABOUR*	EMPLOYMENT*	UNEMPLOYMENT*		PLOYMENT ATE(%) CANADA	MAI	BOUR FO	FEMA	TICIPA LE(%) ANADA		TES L (%)
											
1971	276	256	19	7.0	6.2	69.0	77.3	30 • 7	39.4	52.2	58.1
1972	280	261	20	7.0	6.2	68.4	77.5	30.6	40.2	52.1	58.6
1973	295	275	19	6.6	5.5	69.5	78.2	32.4	41.0	53.7	59.7
1974	313	292	21	6.8	5.3	- ,	78.7	-	43.0	55.8	60.5
1975	317	292	24	7.7	6.9	72.5	78.4	39.1	44.4	55.3	61.1
1976	323	292	31	9.5	7.1	71.9	77.6	39.4	45.2	55.2	61.1
1977	329	294	35	10.6	8.1	71.2	77.6	40.1	46.0	55.2	61.5
1978	342	306	36	10.6	8.4	71.6	77.9	42.0	47.8	56.4	62.6

^{*}Thousands of persons

Source: Statistics Canada, Catalogue Nos. 71-001, 71-201, 71-529

Since 1974, the economic recession has caused a levelling-off of job creation. There was no net increase in employment from 1975 to 1976, and an estimated modest net increase for 1977 of 2 000 jobs — resulting mostly from short-term government job creation efforts. This slowdown in job creation occurred while the labour force continued to grow at over 1.8 per cent per year. Consequently, the unemployment rate increased to 9.6 per cent in 1976 and to 10.8 per cent in 1977. In 1978, approximately 11 000 new jobs were created, while 12 000 new job market entrants joined the labour force.

Thus, in 1978, employment increased at a rate of 4.1 per cent, the same as the region; however, as labour force growth was marginally below the employment rate, the rate of unemployment remained at 10.6 per cent in 1978 (2 percentage points lower than that of the region), compared to the national rate of 8.4 per cent. (See Table 2.6.)

In 1979, 2.1 per cent growth is anticipated in both job creation and labour force expansion. Consequently, the provincial rate of unemployment is not expected to change from the 1978 rate.

A declining proportion of young job market entrants should, over the next five years, ease unemployment rates considerably, as will current and proposed efforts to assist and train the structurally unemployed. However, the acceleration in the rate of growth of the female participation rate, especially for the 25+ age group, is not expected to decrease appreciably. More women will respond to increasing opportunities in a wide variety of fields as a result of economic and social pressures.

The major increase in new jobs resulted from growth in the finance and service sector, where 14 000 jobs were created between 1971 and 1978.

Public sector employment, however, has not increased appreciably over the past three years. In 1975, Nova Scotia had 9 586 classified civil servants or approved positions. This had increased by only 1.3 per cent to 9 714 by the end of 1978.

Over the medium term, as shown in Table 2.7, employment is expected to grow at an annual average of 1.4 per cent, compared to the 1964 to 1974 average of 2.4. The non-goods-producing sector is expected to continue to grow at a greater rate than the goods-producing sector. This sector is expected to have 74.4 per cent of all employment in 1984, compared to 68 per cent in 1964.

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TABLE 2.6

SELECTED ECONOMIC INDICATORS: TOTAL PERCENTAGE CHANGE CANADA, ATLANTIC REGION, AND NOVA SCOTIA 1971 to 1978

	POP.	LABOUR FORCE	EMPLOYMENT	CENSUS VALUE-ADDED IN GOODS-PROD. SECT.1	VALUE OF MFG. SHIP.	PERSONAL INCOME PER CAPITA	INVESTMENT PER CAPITA	GNP/ GPP4
CANADA	8.87	26.0	23.1	105.5	159.3	115.7	127.32	126.0
ATLANTIC	8.25	28.2	20.8	103.6	229.92	124.1	69.55	120.2
N.S.	6.62	23.9	19.5	108.3	244.6	121.1	82.23	117.5

^{1 1976-71}

Sources: Statistics Canada, Population, Catalogue No. 91-201; Labour Force & Employment, Catalogue No. 71-201; Census Value Added in Goods Producing Industries, Catalogue No. 61-202; Value of Manufacturing Shipments, Catalogue No. 31-001; Personal Income per Capita, Catalogue No. 13-201; Investment per Capita, Catalogue No. 91-201, 61-206; GNP & GPP, Catalogue No. 13-213.

P.E.I. is excluded in Atlantic total, but is included in the Canadian total.

^{3 1978} figures based upon revised intentions.

⁴ 1977-71

TABLE 2.7
SECTOR EMPLOYMENT PROJECTIONS*

EMPLOYMENT 1974 1984 SECTOR 1964 용 용 용 4.6 5 200 1.8 5 000 1.5 10 600 ı. Agriculture 2 600 0.9 2 300 0.7 2. 2 300 1.0 Forestry 2.3 3.6 6 800 5 200 1.5 3. Fishing & Trapping 8 400 4 400 5 000 1.5 4. 7 500 3.2 1.5 Mining 40 400 13.7 13.4 5. Manufacturing 31 000 13.3 45 800 6. Construction 14 700 6.3 22 300 7.5 23 800 7.0 TOTAL, Goods-Producing 81 700 Sector 74 500 32.0 27.7 87 100 25.6 7. Transportation Communication & 11.0 29 900 10.1 33 300 Other Utilities 25 600 9.8 8. Trade 40 200 17.2 55 000 18.6 69 400 20.4 9. Finance, Insur., 7 400 3.2 12 300 4.2 16 700 & Real Estate 4.9 10. Community, Business & Personal Services 51 000 21.9 81 000 27.4 94 300 27.7 ll. Public Administration & Defence 34 400 14.8 35 300 12.0 39 600 11.6 TOTAL, Service-72.3 Sector 158 600 68.0 213 500 253 300 74.4

100.0

295 200

100.0

340 400

100.0

233 100

TOTAL, ALL SECTORS

Values for 1984 have been estimated by the Nova Scotia Department of Development. All data originated with Statistics Canada.

2.3.3 Investment Climate

Institutions and governments have traditionally accounted for a disproportionate share of capital investment in Nova Scotia. Except for 1973, their share has not dropped below 20 per cent since 1961. In the early 1970s, there were encouraging signs of a decrease in the dependence on these sectors. Their share dropped from the 1965-69 four-year average of 31.5 per cent of total capital investment, to 20.4 per cent over the 1970-74 period. At the same time manufacturing investment increased its share from 22.5 per cent to 24.1 per cent, and gained a full percentage point in its share of total Canadian manufacturing investment to a 1970-74 average of 4.9 per cent.

Following 1974, the climate for private investment dampened considerably. Manufacturing capital investment declined in 1975 and 1976 and only began to show signs of improvement again in 1977 when it reached \$110.5 million, or 11 per cent of total Nova Scotia capital investment (see Table 2.8). Some of the slack was taken up through major investment by the commercial sectors, with 202 000 m² of office and 41 000 m² of retail space additions in the metro Halifax area alone, but it was primarily the growth in public sector and utility investment that allowed Nova Scotia capital expenditures to increase at about the Canadian rate (with the exception of 1975 when the rate of growth in Nova Scotia reached 1.2 per cent versus 15.6 per cent for Canada). The short-term aggregate investment outlook is good, and some sectors will outperform others.

A high vacancy rate in office, retail and other commercial space in Halifax-Dartmouth will discourage any major construction activity throughout 1979. Several large commercial projects, mostly shopping centre complexes, are planned for other areas of the province. After near-record improvements to provincial housing stocks during the 1970s, apartments and single-family-unit housing markets both now exhibit excess capacity which could dampen investment in this sector over the near term. This may be offset somewhat by the government's proposed homeowner mortgage interest deductibility program.

Good markets for exports of primary and manufactured goods are putting pressure on several industries to expand and upgrade facilities -- at the same time that opportunity-hungry financial institutions are ready to deal. Investment in the manufacturing sector is expected to grow moderately, led by new investment in fish processing plants and energy-related projects.

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TABLE 2.8

INVESTMENT IN NOVA SCOTIA, SELECTED INDICATORS, 1971-78

YEAR	TOTAL	INVESTMENT % OF CANADA	TOTAL INVESTMENT PE		PRIMARY CONSTRI		SERVI	G, INSTIT.		ITIES_	FINANC COMMER SERV	E &	MANUFA TURING	
<u>\$</u>	million			-8	N.S.	CAN.	N.S.	CAN.	N.S.	CAN.	N.S.	CAN.	N.S.	CAN.
1971	627.7	3.11	85.01	100	10.10	15.42	40.54	40.50	11.98	19.76	7.15	9.49	30.22	14.83
1972	612.6	2.76	75.65	100	13.97	14.91	38.67	40.89	15.85	19.03	10.95	11.89	20.55	13.27
1973	825.1	3.10	84.95	100	16.07	14.50	36.14	39.41	12.85	19.37	12.45	12.94	22.49	13.78
1974	892.9	2.72	74.83	100	10.58	14.33	41.10	38.47	15.21	18.98	12.00	13.17	20.30	15.05
1975	921.6	2.41	66.79	100	10.59	15.24	44.87	35.65	19.95	21.02	10.79	13.65	13.80	14.45
1976	1041.3	2.39	66.22	100	13.88	16.64	47.18	39.84	18.90	18.92	12.07	12.08	7.97	12.52
1977	1023.3	2.20	61.30	100	11.88	17.18	45.18	39.01	20.92	20.14	11.65	10.75	10.37	12.92
1978	1219.5	2.44	68.15	100	13.47	16.34	44.74	37.41	19.21	22.00	11.04	11.24	11.54	13.02

Source: Statistics Canada (CANSIM); Nova Scotia Department of Development.

Governments are continuing to restrain expenditures. The province, for example, with a history of 15 to 20 per cent yearly increases in expenditures over the past five years, is forecasting a 12 per cent increase in 1978-79. Of this increase, most will be in natural resources and industry. Transportation, health, education expenditures and grants to municipalities will therefore be affected.

The combined effect of a number of major projects, primarily government initiated, will sustain the construction investment outlook into the early 1980s. Specific projects in metro Halifax include the \$285-million modernization and upgrading of facilities at HMC dockyard and the Stadacona naval base in Halifax. This work is expected to proceed over the next 10 to 12 years. The Fairview containerport facilities will require an additional \$60 million to be completed. The proposed upgrading of the Halifax shipyards will provide additional construction work. In Sydney, any assistance toward improvements to Sydney Steel facilities will impact on construction job creation.

Other government projects, if undertaken, could add to total provincial investment in the early and mid-1980s. These would include energy-related projects, coal mine expansion and transshipment, or other opportunities developed as a result of the province's position on the North Atlantic Rim.

2.3.4 Sectoral Review

Agriculture

Higher or above-average yields were reported for almost all Nova Scotia crops in 1978. Farm cash receipts are expected to reach close to \$146 million, up 14 per cent from 1977, reflecting food markets and increased production.

At the end of 1978 several commodities had record production: pork, chicken, fluid milk, blueberries and mink. Improved markets are attributable in many cases to the exchange rate and the turnaround in the beef cycle. Large supplies and low prices for beef internationally during the last four years were a restraint on both beef and other meat producers. The average price at the Truro fall feeder sale last year was \$72.23 per 50.8 kg (cwt.), compared with \$32.36 in 1977.

Hog sales are up 17 per cent in 1979 over the previous year, at 155 000 hogs. Considerable additional expansion continues through 1979. Chicken slaughter has increased 10 per cent in 1979 while turkey slaughter increased to 1.4 million kg from 1.2 million in 1978.

Egg production dropped 3 per cent from 1978 to 1979, with slightly lower prices due to lower production costs. Higher production costs during the fall of 1978 reflect higher feed costs compared to the fall of 1977.

Fluid milk sales increased 4.3 per cent to the end of August, industrial utilization was also up slightly, thus the dairy sector contributed the most to aggregate industry expansion during 1978.

The fur market has been very good, reflecting fashion trends, with mink production expected to be up by 5 per cent for 1978 over the 1977 total of 124 654 pelts, worth over \$3.4 million.

Potato production was up slightly, to 33 million kg in 1978. The price to the grower increased to \$3 per 34 kg, compared to \$1.90 to \$2.30 in 1977. Peak production of some vegetables coincided with that of competing areas and caused problems in some late-summer seasonal markets.

Greenhouse tomato production for 1978 was down, but cucumber production increased. A strong market and good prices were experienced in 1978 for bedding plants. The 1978 apple crop is estimated at 88 million L, up from 78 million in 1977. During 1975 to 1978, approximately 175 000 new fruit trees were set out. The 1978 blueberry crop of 5.4 million kg was the province's highest, earning \$6.1 million. Ideal conditions resulted in a 3-million L strawberry crop.

A renewed interest in maple products and honey, benefiting from a very high production of 202 004 kg and high world prices, and a good cranberry harvest of 135 900 kg have broadened the agricultural output base of the province and should become more important as markets are developed.

Fishery

Atlantic Region

Prior to 1976, the eastern Canadian share of total finfish catch decreased from 48 per cent in 1970 to 37 per cent in 1975 (see Table 2.9). Following imposition of the management plan and national quotas, this share increased to 63 per cent in 1979 (1 100 000 metric tons).

Between 1970 and 1975, total allowable finfish catch for the Atlantic fishery declined 17 per cent, from 2 300 000 metric tons in 1970 to 1 900 000 metric tons in 1975, and then to a low of 1 304 000 metric tons in 1977. In 1978 and 1979, this total allowable catch climbed to 1.7 million metric tons.

TABLE 2.9

TRADITIONAL FINFISH CATCH
(000 of Metric Tons)

Atlantic Coast (Labrador-East Nfld., Scotian Shelf, Gulf)

1975	1976	1977	1978	1979	1980	1985
1900	1639	1304	1700	1769	1722	1933
700	717	773	921	1100		
37	44	59	54	63		
	922	531	779	659		
63	56	41	46	37		
	Labrado	r-East N	ıfld.			
1100	1000	800	1100	1100	1000	1100
58	61	61	65	62	58	57
200	300	300	400	500		
18	30	38	36	46.		
900	700	500	700	600		
82	70	63	64	55		
	Mari	time Coa	st			
800	639	504	600	669	722	833
42	39	39	35	38	42	43
500	417	473	521	610		
63	65	94	87	91		
300	222	31	79	59		
38	35	6	13	9		
	1900 700 37 1200 63 1100 58 200 18 900 82 800 42 500 63 300	1900 1639 700 717 37 44 1200 922 63 56 Labrado 1100 1000 58 61 200 300 18 30 900 700 82 70 Mari (Scotian 800 639 42 39 500 417 63 65 300 222	1900 1639 1304 700 717 773 37 44 59 1200 922 531 63 56 41 Labrador-East N 1100 1000 800 58 61 61 200 300 300 18 30 38 900 700 500 82 70 63 Maritime Coa (Scotian Shelf 6 800 639 504 42 39 39 500 417 473 63 65 94 300 222 31	1900 1639 1304 1700 700 717 773 921 37 44 59 54 1200 922 531 779 63 56 41 46 Labrador-East Nfld. 1100 1000 800 1100 58 61 61 65 200 300 300 400 18 30 38 36 900 700 500 700 82 70 63 64 Maritime Coast (Scotian Shelf & Gulf) 800 639 504 600 42 39 39 35 500 417 473 521 63 65 94 87 300 222 31 79	1900 1639 1304 1700 1769 700 717 773 921 1100 37 44 59 54 63 1200 922 531 779 659 63 56 41 46 37 Labrador-East Nfld. 1100 1000 800 1100 1100 58 61 61 65 62 200 300 300 400 500 18 30 38 36 46 900 700 500 700 600 82 70 63 64 55 Maritime Coast (Scotian Shelf & Gulf) 800 639 504 600 669 42 39 39 35 38 500 417 473 521 610 63 65 94 87 91 300 222 31 79 59	1900 1639 1304 1700 1769 1722 700 717 773 921 1100 37 44 59 54 63 1200 922 531 779 659 63 56 41 46 37 Labrador-East Nfld. 1100 1000 800 1100 1100 1000 58 61 61 65 62 58 200 300 300 400 500 18 30 38 36 46 900 700 500 700 600 82 70 63 64 55 Maritime Coast (Scotian Shelf & Gulf) 800 639 504 600 669 722 42 39 39 35 38 42 500 417 473 521 610 63 65 94 87 91 300 222 31 79 59

Source: Resource Prospects for Canada'a Atlantic Fisheries, 1979-1985; Government of Canada, Fisheries and Oceans, 1978; and conversations with local federal officials.

Maritime Coast

The Canadian share of total finfish catch increased dramatically, from 63 per cent in 1975 to 91 per cent in 1978. This has resulted in only a modest increase in catch (22 per cent) due to a significant decrease of total allowable catch for the area. In 1975, the total allowable catch was 800 000 metric tons, 504 000 in 1977, and 670 000 in 1979.

In both the inshore and offshore sectors of the traditional groundfishery, volumes landed and dollars earned were up significantly in 1978 over 1977. The Nova Scotia fishing industry brought in close to \$200 million in landed value in 1978, or 47 per cent over 1977. Preliminary estimates indicate a 37 per cent increase in total landed value for the Nova Scotia fishery during the first half of 1979, over the same period in 1978, while the actual catch increased by only 9 per cent to 445 000 metric tons. Scallops did extremely well in 1978. They were the top species in terms of value of catch at \$63 million, despite a decline in total catch. Scallop landings decreased by 13 per cent to August 1979, however, their total value increased by 34 per cent during this period.

The depreciation of the Canadian dollar allowed the province to enhance its competitive position internationally.

During 1978, the offshore industry prepared for vessel replacement, and some of these plans may be implemented in 1979 and 1980. The inshore fishery in 1978 was actively engaged in the construction and purchase of new and replacement vessels at a rapid rate.

New plant construction was strong in 1978, and 1979 is seeing even more activity in new fish processing investment. However, processing plants could be better utilized if fish were provided in greater numbers and on a more consistent basis, for example by using cold-storage facilities.

The 1978 herring fishery did not reach its allocation, due to the absence of sufficiently large schools of fish. The management of the system of boat quotas, where the most efficient vessels catch their quotas early, while the less efficient do not, also hampers the industry. Herring fishermen have benefited from "over the rail" sales to foreign ships during periods when Canadian processing plants could not handle the total catch. Herring landings decreased by 13 per cent to August 1979, however the total value of the catch increased by 22 per cent.

Shellfish landings were up significantly in 1978. Scallop landings softened sharply in the last quarter of the year and it appears that more effort will be required in 1979 just to maintain previous catch levels. Lobster volume was up in 1978 and record prices were paid. The fishery on the eastern and southern shores of Nova Scotia was hurt by significant decreases in catch. As there are no indications of better catches coming in 1979, prices should remain strong.

A \$6-million addition to the National Sea Products plant at Lunenburg is under construction, with completion scheduled for mid-1980. A \$4- to \$6-million sardine plant at Digby is scheduled for 1980.

Forestry

The forest industry, although facing good markets throughout most of the 1970s, has been constrained by operating capacity. New investments were discouraged because of potential wood supply shortages, especially in the high-value sawn lumber industry. The forestry RDP has declined slightly over time, except during periods when especially good markets have forced extra production.

The dominant commodity in the region remains pulp and paper, and although the overall price since 1971 has been substantially above the general inflation rate, the price has now remained steady for three years. Pulp and paper production exceeded \$250 million in 1978, with over 90 per cent of the production being exported. The province's four pulp and paper mills and one hardboard mill employ over 2 500 workers directly and another 2 500 indirectly, and paid out over \$42 million in direct wages in 1978.

Over-capacity problems in total world pulp and newsprint production had a negative impact on the industry in 1977. These disappeared by mid-1978, and in the latter part of the year Nova Scotia mills were running at near-capacity levels, but the industry still has difficulty providing an adequate profit margin. No significant capital expenditures are expected in 1979 to increase newsprint production. A total capital outlay of \$25 million will be made to sustain production, and 1979 should be a good year, with all plants working at capacity. Employment will be stable, reflecting the recently concluded labour negotiations with the three larger firms to 1980.

Some companies in the pulp and paper industry are now faced with severe supply constraints resulting from budworm destruction. It is expected that the industry as a whole will experience supply shortages relative to long-term needs. Improved forest management programs aimed at rebuilding the

forest, and current efforts to protect existing healthy lumber and salvage and store damaged wood, provide optimism for the future. The success of a new bacteriological anti-budworm spray acceptable to environmentalists may also help preserve stocks.

The sawn wood industry had a record year in 1978. Favourable currency exchange rates have meant increases in U.S. demand, despite high interest rates in the U.S. which usually signal a downturn in construction demand. This may be due to a reform in United States mortgage financing methods, which have allowed savings and loan associations to offer high interest rates for depositors, thus keeping the supply of money high. The first half of 1979 was strong. There are low inventories of wood fibre throughout the industry. Current high interest rates in may begin to have an effect later this year, as would a slowdown in the United States market. Other foreign markets should remain stable. There are some indications that commodity prices for lumber peaked in late 1978. The industry is increasingly apprehensive about supply constraints from overworked forests. A decline in the quality of raw materials would necessitate extensive conversions of existing facilities in a period of high interest rates.

Mining

Total output for the Nova Scotia mining industry in terms of census value-added (current dollars) increased from \$63.5 million in 1971 to \$91.4 million in 1976, an increase of 44 per cent, compared to an increase of 195.5 per cent over the same period for Canada as a whole. This represents a 41 per cent decline in RDP for the province. Mining dropped from 8.6 per cent of total RDP for the goods-producing sector in 1971, to only 4.5 per cent in 1978.

Coal extraction accounted for approximately 25 per cent of the value of total provincial production in 1973. In 1977, coal represented 49 per cent of the total value of mineral output. Thus, even though the value of mineral production in real terms declined steadily from 1973 to 1975, mainly because of generally weak prices for much of the of other minerals and declining levels of output, coal, in terms of value and production, maintained its share of the total value of mineral production during the period from 1973 to 1975.

Mineral production rose a healthy 28 per cent last year, to \$203.7 million, compared to \$159.4 million in 1977. Coal accounted for \$113.6 million (\$77.6 million in 1977), and production rose to 2 539 600 metric tons (2 176 800 metric in 1977). Similar gains were recorded by industrial metals, \$45 million (\$40.9 million) and non-structural materials, \$45.1 million (\$40.9 million).

Coal production remains healthy. Production of gypsum and other building materials declined in 1974 and 1975, but has been rising steadily since then, in response to good demand from a strong construction sector both at home and abroad. Gypsum production exceeded 2.4 million metric tons in 1978, a 12 per cent increase over 1977. Cement used locally amounted to 181 420 metric tons, while 185 955 metric tons were shipped to the West Indies. Cement shipments to western Canada were also strong, as local demand there outstripped supply. Sand and gravel production remained at about 9 million metric tons between 1975 and 1977, but in 1978 there was a 10 per cent increase. 1979 should be a record year, though much of the industry is still plagued by under-capacity. Increased production at the Canso Strait quarry was a major contributor to the growth in both volume and sales.

Growth and diversification will characterize Nova Scotia's mining industry in 1979. Barymin Explorations Ltd.'s Yava lead mine near Sydney, which began operations mid-1979, will produce 907.1 metric tons of lead concentrates a month and employ 60 people.

Imperial Oil Ltd. will employ 145 when its Gays River lead-zinc mine, 48 km north of Halifax, starts up later in the year. Production will run at 1 360 metric tons per day. Estimates for ore reserves are 11.8 million metric tons.

The proposed new coal mine at Donkin would be a large underground mine, which would produce 1 814 000 metric tons a year. Its ore reserves are huge and Donkin could be expected to operate for decades. It would create close to 1 000 direct new jobs. Devco coal operations now employ 4 300 people.

Exploration and evaluation of potash and salt opportunities are expected to continue, with the potential to use the caves created by the extraction of salt in the Canso Strait area to store crude oil.

Last year the Nova Scotia Department of Mines issued 1 634 mineral exploitation licenses, totalling more than 71 000 claims, covering 1.2 million hectares, to 160 individual prospectors, mining and exploration companies. Expenditures related to these licenses were about \$6 million. The department has called for exploration proposals at Springhill, where indications of lead, zinc, copper and uranium were found. The current exploration interest for base metals, uranium and non-metallic minerals remains high into 1979.

Manufacturing

The value of manufacturing output, in real terms, has been increasing steadily since 1971. As in the rest of Canada,

the number of manufacturing establishments declined over the 1971 to 1975 period, but size as measured in terms of average number of employees per establishment, and average value-added have both moved closer to national averages (see Table 2.10). The costs associated with fuel and electricity have increased substantially for Nova Scotia firms. Firms in the Halifax-Dartmouth area faced an increase of 161 per cent in the cost of materials and supplies, compared to 137 per cent in the province as a whole, and 85 per cent in Canada.

Manufacturing activity in Nova Scotia generated a greater proportion of new jobs than did manufacturing generally in Canada over the period, and wages paid also increased at a faster pace. Total manufacturing employees increased by 16.9 per cent in Nova Scotia and 6.9 per cent in all of Canada during this 1971-75 period.

Manufacturing shipments from Nova Scotia during 1978 increased to \$2.8 billion. This represents a 19.7 per cent increase over 1977, and real growth in this sector of over 10 per cent, resulting in an increase in manufacturing employment.

Nova Scotia's export trade rose by 32.4 per cent in the first nine months of 1978. The export of industrial products increased in value to \$167 million, up 31 per cent from 1977. Food and beverage products exports increased 28 per cent to over \$230 million. Nova Scotia coal, gypsum and other crude materials shipments rose by 30 per cent in value, and fish products climbed by approximately \$51 million.

Provided the stimulus of the devalued dollar continues and the projected U.S. recession does not affect U.S. markets before early 1980, the outlook is promising for most of Nova Scotia's manufacturing output.

Construction

Real growth in construction activity was 3 per cent in 1978. Spending totalled \$975 million, an increase of about 8 per cent over 1977. Inflation in the industry in Nova Scotia improved dramatically, dropping to about 5 per cent from 11 per cent.

The industry is concerned that government restraints will mean cutbacks in capital spending. The industry has already suffered from public works projects being delayed. In Halifax a \$12-million expansion of the Metro Centre project, expected to get under way in 1979, has been stalled. The upgrading of the Halifax dockyard is currently being negotiated, as is \$179 million in military investments at Stadacona.

TABLE 2.10
MANUFACTURING ACTIVITY, N.S. AND CANADA, 1971 and 1975

		1971			1975	19	971 - 1975
	Hfx. Co	. N.S.	Canada	Hfx. Co.	N.S. Canad		N.S. Canada
			Manufactur	ring Segment		(Perc	centage Change)
Number of Establishments	158	795	31,908	152	689 30	,100 (3.8)	(13.3) (5.7)
Production & Related Workers Male Female M/H Paid Wage (\$000)	4 439 773 10 968 31 752		901 044 266 766 2 448 419 7 819 050	817 11 774	22 694 977 5 201 294 57 564 2 613 47 063 12 669	456 5.7 062 7.3	16.9 8.5 7.3 10.3 15.2 6.7 91.3 62.0
Cost - Fuel & Electricity	3 218	26 348	1 000 243	5 821	51 332 1 805	398 80.9	94.8 80.5
- materials & supplies used	165 189	481 528 2	7 661 379	431 527 1 1	39 514 51 177	942 161.2	136.6 85.0
Value of Shipments of Goods of Own Manufacturer Value-Added (\$000)			0 275 917 1 737 514		19 094 88 427 75 705 36 105		127.9 75.9 126.9 66.1
			Total Ac	tivity		***	
Number of Working Owners & Partners	45	321	10 286	30	177 6	977 (33.3)	(44.9) (32.2)
Employees Male Female Salaries (\$000) Total Employees Salaries & Wages (\$000)	1 603 473 16 293 7 288 48 045	31 958	344 698 115 896 4 310 847 1 628 404 2 129 897	7 860	7 506 342 1 964 127 15 188 6 487 37 365 1 741 62 252 19 156	126 11.4 451 62.4 159 7.8	21.9 (0.7) 26.8 9.7 93.2 50.5 16.9 6.9 91.9 57.9
Cost-Materials, Supplies v Goods for Resale (\$000)	186 074 5	577 942 3	3 462 590	446 924 1 30	09 148 62 384	245 140.1	134.6 86.4
Value of Shipments v Other Revenue (\$000)	287 980 8	387 23 7 57	7 479 421	635 501 2 01	14 327 102 148	633 120.7	127.0 77.7
Value-Added (\$000)	102 373 3	311 757 23	3 187 881	184 486 70	00 019 38 683	718 80.2	124.5 66.8

Source: Statistics Canada, Catalogue Nos. 31-200, 1971, 1975

During 1978, approximately 225 km of highway were constructed, 340 km paved and 658 km repaved. This year, the Department of Highways is in the final year of a three-year Canada/Nova Scotia primary highway strengthening and improvement agreement. Work done under this agreement includes grading, stabilization, final paving, and bridge construction on highways 101, 102, 103, 118 and 125, in addition to work scheduled for some secondary roads.

In total, the provincial Department of Public Works has projects valued at \$46.5 million scheduled for completion or tender in the 1979-1980 fiscal year. These also include new facilities and renovations at the Nova Scotia Agricultural College in Truro, the Nova Scotia School for Boys in Shelburne, St. Ann's Gaelic College and Keltic Lodge in Cape Breton, the Lunenburg Fisheries Museum and the Halifax Infirmary. The Maritime Museum in Halifax, a joint project of the Devonian Institute and the federal and provincial governments, will also be finished.

A \$15.3-million agricultural research centre will be constructed in Kentville. The work should be completed by March of 1981, providing offices, laboratories, greenhouses, and food processing and fruit storage areas. The Fairview Cove Container Terminal, situated at the eastern end of the Bedford Basin, about 11 km from Halifax's existing container port, is scheduled for completion in 1980. The facility, when completed, will include a 305 m x 397 m (1 000 feet x 1 300 feet) loading area, two 45-megagram (50 ton) ro-ro cranes and have a nominal capacity of 70 000 containers a year. The 13.7 m (45 foot) depth is ideal for even the largest container ships. The final phase of this project, under way since August of 1978, is worth \$13.9 million.

A total of \$1.2 million will be spent by government on upgrading services, including water, sewer, roads and fire protection at the Bridgewater Industrial Park in 1979. The park's principal occupant at present is the Michelin Tire Company.

A 168-unit senior citizens' housing project is scheduled for construction in Halifax. The project will be the first large-scale low-rise senior citizens' housing project in the province. Work on developing newly purchased land for the Windsor Industrial Park is proceeding during 1979, with \$1.2 million provided to IEL under the Canada-Nova Scotia subsidiary agreement for infrastructure improvements to the site.

Tourism

Auto visitors increased by 2 per cent last year, close to the Canadian average, and some slight gains are again expected

for 1979 despite erosion of the province's marketing efforts due to cutbacks and high costs for advertising in the U.S. The hosting of the International Gathering of the Clans in 1979 is a good example of the province's attempt to break into world markets. Winter travel, regional tourism activity, business incentive travel and organized tours are being looked at to eliminate seasonal peaks.

The CHECKINNS pilot hotel reservations system was very successful and continued in 1979, providing a valuable service to travel agents and tour operators as well as the general public. The service is operated for the province by Air Canada and the Travel Industry Association of Nova Scotia, and has some reservation connections with PEI facilities as well.

Halifax will benefit from a new 200-room hotel in the downtown area, and the recent expansion of the airport hotel. With the completion of the Metro Centre expansion, the city may well attract further interest from hotel and restaurant investors. Little new investment by the private sector is expected in other parts of the province, although the government is improving park and beach facilities.

2.4 Medium-Term Prospects

Over the medium term, the current pace of economic growth in Nova Scotia could be sustained if the province can develop the potential existing in several key sectors. High energy costs and high interest rates will continue to hamper new investment by the private sector, as will the structural disincentives stemming from the region's geographic location and small population base.

Nova Scotia's success in solving technological problems related to changing market demands, the pressing need to introduce competitive manufacturing and processing opportunities to increase the utilization of its natural resources, and the need to aggressively develop export and local demand for Nova Scotia output will be pivotal in expectations over the medium term.

The momentum of growth in Nova Scotia's forestry, manufacturing and fishing sectors is expected to diminish somewhat as the benefits of the devalued dollar for export markets erode², and as supply constraints, especially for the forest industry, become more imperative. A corresponding slowdown in output and employment growth is also expected.

Also feared is the impact of a predicted economic downturn in the U.S., especially in the first half of 1980.

After the construction "boom" of the early and mid-1970s, the medium-term prospects for the industry look bleak, aside from activity in several large, primarily government—initiated projects. The industry will have to await a demand to catch up, especially in the urban areas, which may not occur much before 1983-85.

If current trends continue, the next six years could see an even further narrowing of the income gap between Nova Scotia and the national average.

Higher than national rates of unemployment will still plague the region in the 1980s. The proportion of new job entrants in the 15-24 age group will remain high in the region to at least 1983-84, when it will begin to taper off. The levelling-out of growth in most of the service industries may mean less opportunities for the region to continue the growth in female participation.

Government transfers are not expected to increase, and may decline in real terms during the early 1980s. Many goods-producing sectors are facing constraints such as high operating costs, tough markets, and in some cases are limited by declining resources.

However, many sectors are doing well, and some, like the fishery for example, have a long way to go before reaching anything like their full potential.

Energy

The province has the capacity for energy development in a number of very important areas. It has been predicted that coal from the Sydney-Donkin area could help reduce Nova Scotia's dependence on oil-fired electricity from approximately 68 per cent today to 20 per cent by 1987.

Tidal power, while not feasible in the short term, may have profound potential. There is some interest in the construction of a 15-megawatt demonstration tidal power facility at Annapolis Royal.

Renewable energy, such as solar and wood, today heat 5 per cent of the province's homes. These methods, however, require technological improvements if they are to meet future increases in energy demand.

Exploration for oil and gas off the east coast has been encouraging and may hold long-term potential for the region. However, over the near term, the major emphasis will be placed on identifying and bringing into operation the best methods of

shipping western oil and gas to the Atlantic Region. The method chosen should offer the potential of helping the region develop its energy industry by supplying its refineries, supporting new research and technology transfer and encouraging the development of related opportunities -- such as an Arctic gas supply system, and storage facilities at Canso.

Fishery

The four Atlantic provinces' projected total allowable catches to 1985, are expected to increase moderately to a maximum of approximately 1.9 million metric tons in 1985, or 12 per cent above 1979 levels.

The three Maritime provinces' projected total allowable catch, to 1985 is expected to increase slightly, returning to the 1975 level of approximately 800 000 metric tons.

Under the new (1975) fishery management plan, the industry has been placed in a state of flux due to major restructuring involving reallocations of catch from foreign to Canadian fishermen, interprovincial negotiations of shares of catch in new harvesting areas (e.g. northern Newfoundland and Labrador waters), controlled and limited entry into the fishery and more effective bargaining strength of independent fishermen. Also of concern is the new cost-intensive, highly efficient harvesting/processing technology threatening the traditional labour-intensive technology in the traditional species fishery, as are the new markets for traditional species and onceoverlooked markets for non-traditional species. Squid and herring will gain in importance, pushing up the overall increase in landed value. Squid is becoming more valuable and, if care is taken to develop markets and to maintain stocks - about which little is currently known, the industry could grow to be worth close to \$100 million over the next five to 10 years.

The near-term future looks good for this sector, as improved fishing methods and careful control of stocks should allow the province to deliver a quality product to strong national and international markets.

In light of this state of flux in the industry, it is difficult to determine the extent of impact of this sector on employment and income in Nova Scotia. An endless list of scenarios may be imagined involving the earlier mentioned factors in various mixes and strengths. As a point of interest, however, a scenario in 1985 which would maintain 1979 status quo would show the Maritimes catching a total of 1 006 250 metric tons or 50 per cent increase over 1979 landings. One estimate suggests that employment generated in processing is one person-month employment for every 3.6 metric tons of fish, thus, in 1985 one may expect 20 964 person-years of employment (not jobs) generated

in the processing sector alone, approximately 5 500 above the 1979 level. However, existing plant utilization is roughly 40 per cent of capacity and may exert a downward bias on this multiplier.

New plant construction was strong in 1978, and 1979 will see even more activity in new fish processing investment. However, processing plants could be better utilized if fish were provided in greater numbers and on a more consistent basis, for example, by using cold-storage facilities.

Retail Sector

Consumer expenditures, as measured by retail sales, were up by 15.3 per cent during 1978 compared to 1977. The increase is partly due to the stimulative effect of the reduction in sales tax. Wages and salaries were up by 10.8 per cent.

As the proportion of total population employed continues to rise, consumer expenditures should increase. However, buying patterns, especially for durable goods, leisure and luxury items, will change.

Mining

Nova Scotia's mining industry looks promising for the next several years. International mineral markets are improving steadily as the high inventory crunch of the last several years related to sluggish demand for mineral commodities disappears.

Coal reserves, especially in the Donkin area, have a ready market in electrical generation. Exploration activity, spurred by interesting finds of various minerals throughout the province (tungsten in Cape Breton, tin in Yarmouth, uranium and zinc in central Nova Scotia) may well provide the basis for continued, if uneven, growth in this sector over the medium term.

Service Sector

The service sectors, an important ingredient of the recent growth enjoyed by the province and the Atlantic region, generally are expected to continue to grow, but at a slower pace.

The Economic Council of Canada suggests that the major reason much of the effect of fiscal stimulus is felt in the region where the stimulus is applied is that more than half the output produced in Canada is in the service sector, and the majority of services, by their nature, must be provided locally.

Performance in this sector is tied not only to government activity, but also to performance in the

goods-producing sectors. Thus, its share of GDP is projected to increase from 73.7 per cent in 1977 to 74.7 per cent in 1986, although the net value of production for the service sector declined more in comparative terms from 1971 to 1976 in Nova Scotia, than it did for Canada as a whole.

3. DEVELOPMENT PROBLEMS AND ISSUES

3.1 Introduction

The previous chapter began by emphasizing the long-term nature of the regional problem. The discussion then focused on the more recent performance of the Nova Scotia economy and the medium-term outlook. The general conclusion of the analysis was that although the regional development problem has shown some signs of redressing itself, it is unlikely that the medium term will see a full convergence of incomes and employment to the national average.

This chapter will focus in greater detail on the inherent strengths and weaknesses of the provincial economy. This more disaggregate look at the economy should reveal the development problems and issues facing the province, and an appreciation of the size of the task ahead.

3.2 Development Problems

Provincial economies are open economies, and as such their growth potential is primarily a result of the nature and extent of their export base.

Table 3.1 presents the export base of the Nova Scotia economy for the years 1960, 1965 and 1974. The table shows a continued reliance on traditional export industries. The province continues to specialize in resource-related production of coal, secondary fish production and pulp and paper production. Iron and steel production and transportation equipment also represent significant export markets to the provincial economy. Finally, petroleum products which are sold primarily to the Atlantic Region represent a significant component of the province's export market. These six sectors have accounted for about 65 per cent of Nova Scotia's export base during the last 15 years.

Evidence also exists to show that the economy has been slow to develop linkages within its manufacturing sector. Table 3.2 presents the percentage of manufacturing shipments going to satisfy interindustry demand, final domestic and public demand and export demand for the years 1960, 1965 and 1974. The table shows that interindustry demand has remained fairly constant over the years. The percentage of manufacturing shipments going to interindustry demand was 18.58 per cent in 1960 and 19 per cent in 1974.

TABLE 3.1

NOVA SCOTIA EXPORTS 1960, 1965, 1974

	19	60	19	65	19	74
Sector	Total Exports	Per cent	Total Exports	Per cent	Total Exports	Per cent
Agric. Products	5 149.5	1.63	7 775.7	1.98	16 076.5	1.09
Forestry Products	2 799.0	0.89	6 363.5	1.62	11 153.0	0.76
Primary Fish	3 036.0	0.96	5 486.0	1.40	46 365.5	3.14
Coal	24 441.4	7.74	26 000.2	6.62	44 331.2	3.01
Non-metal Quarries	11 278.4	3.57	14 156.0	3.60	27 320.3	1.85
Meat, Dairy, Fruit	5 237.2	1.66	5 694.3	1.45	39 430.3	2.67
Sec. Fish Products	52 626.7	16.67	77 001.0	19.60	114 300.0	7.75
Misc. Food Products	7 711.6	2.44	8 515.9	2.17	33 728.3	2.29
Softdrink, Dist., Brew.		0.58	1 362.0	0.35	5 650.3	0.38
Textiles, Clothing	13 713.9	4.34	19 657.6	5.00	49 907.5	3.38
Sawmill, Wood Products	7 143.8	2.26	10 509.5	2.68	21 588.0	1.46
Pulp & Paper Prod.	19 958.9	6.32	38 259.6	9.74	189 777.2	12.87
Printing	1 100.0	0.35	900.0	0.23	8 032.9	0.54
Iron-Steel Products	58 901.2	18.66	60 214.5	15.33	_	_
Fabric, Metal Products	5 597.4	1.77	4 184.2	1.07	176 622.1	11.98
Mach. & Equipment	1 286.8	0.41	1 050.0	0.27		
Transp. Equipment	11 800.6	3.74	35 853.3	9.13	120 691.8	8.19
Electrical Equipment	2 370.2	0.75	7 560.0	1.92	25 758.5	1.75
Nonmetal, Mineral Prod.		0.38	1 279.1	0.33	2 984.5	0.20
Petroleum Products	37 949.6	12.02	17 252.0	4.39	310 026.4	21.03
Xert, Paint, Soap	4 793.1	1.52	1 406.4	0.36	23 313.2	1.58
Misc. Mfg. Prod.	323.5	0.10	438.4	0.11	52 314.0	3.55
Construction	-		-	_	15 232.5	1.03
Transp., Travel, Ent.	31 047.6	9.84	23 042.9	5.87	56 472.1	3.83
Radio, Tel., Teleg.	1 573.8	0.50	-	_	35 806.1	2.43
E. Power, Water, Gas	782.0	0.25	1 198.0	0.31	23 783.3	1.61
Distribution	2 012.1	0.64	15 000.0	3.82	18 344.7	1.24
Auto Operation	-	_	_	_	_ .	-
Finance, R.E.	 ·	_	-	_	_	-
Dwelling Services	_	_	-	_	962.1	0.07
Hotels, Rest.	-	_	-	-	-	_
Personal Services	-	_	_	-	372.4	0.03
Business Services	_	_	2 618.2	0.67	2 805.8	0.19
		100.00		100.00		100.00

Source: Nova Scotia input-output models, 1960, 1965, and 1974.

Table 3.2

DESTINATION OF NOVA SCOTIA MANUFACTURING
1960, 1965, 1974

	1960		1965		1974	
	Actual \$000	-8	\$000	8	Actual \$000	€
Total inter-industry demand Total final domestic	76 997.0	18.58	99 439	17.87	365 965.8	19.0
& public demand Total export demand			165 963.4 291 137.8			20.0 61.0

Source: Derived from Nova Scotia Input-Output model

Further evidence of the province's dependence on traditional sectors is provided by comparing the top 14 employers of labour in the manufacturing industry in 1961 and their share in 1971. The results are provided in Table 3.3. The fish products industry remains the province's major employer, representing 18.6 per cent of the manufacturing labour force in 1971.

TABLE 3.3

PRINCIPAL MANUFACTURING INDUSTRIES OF NOVA SOCTIA AS PERCENTAGE OF MANUFACTURING LABOUR FORCE

Nova Scotia	1961	<u>1971</u>
Fish products	15.5	18.6
Iron and steel	11.5	8.3
Sawmills	7.4	5.1
Shipbuilding & repairing	6.5	5.9
Pulp and paper mills	4.5	6.3
Dairy products	4.5	3.3
Printing & publishing	3.8	3.3
Aircraft & parts	3.5	1.0
Bakery products	3.2	2.8
Other food processors (confectionery,		
sugar refineries, and miscellaneous)	2.9	2.7
Sash and door and planing mills	2.7	1.0
Beverage manufacturing	2.8	2.2
Knitting mills (other than hosiery mills)	2.5	2.9
Petroleum refining	1.6	1.9
Total	72.7	65.3

Source: Derived from Statistics Canada publications

With two exceptions, the top 14 employers of labour in the manufacturing industry in 1961 reappear in the top 14 in 1971. The rank changed little over this period. The two exceptions are aircraft parts, and sash and door and planing mills, which fell to about one third of the 1961 employment level. New additions are railway rolling stock (3.3 per cent) and communications equipment (2.9 per cent).

The results of the analysis show the manufacturing sector has not become the "engine of growth" for the provincial economy. The economy's growth has not achieved sufficient linkages and diversification to achieve income and employment levels equivalent to national averages.

This is not, of course, to say that there have not been successes. Indeed, the location of Michelin Tire in Nova Scotia represents a successful diversification of the area's economic base. This multinational firm initially employed 1 000 persons when it located in Nova Scotia in 1971. Michelin now employs over 3 000. However, both diversification and the establishment of additional linkages remain major challenges for the future.

3.3 Development Issues

The fishing industry is one of the major development issues facing the province. The industry is currently in a state of flux due, in part, to the fact that its major participants, the vertically integrated processing companies, the independent fishermen and their representing organizations, the provincial and federal governments, all have different perspectives.

Resource industries in general will be an issue that will require attention in the medium to long term. Increasingly, these industries are being regarded as the ones which will lead development of the provincial economy. Although these industries will provide stable employment over the medium to long term, manufacturing and services will remain as the sectors which must provide medium— and long—term increases in employment and income and hence, be the main forces behind development of the Nova Scotia economy.

Steel and related secondary industries remain a soft spot in the Nova Scotia economy. The performance of these industries in the medium and long term will have a very substantial impact on the whole future of the Nova Scotia economy and particularly on various sub-regions. Uncertainties surrounding the future of the shipbuilding and repair industry throughout the province, the fluctuating operations of the car works at Trenton, and other operations which manufacture or assemble metal products are issues for the future.

There has been an increasing concern with the extent to which the provincial economy has become dependent on federal government transfer payments to maintain growth and to what extent this dependency is counterproductive to the economic health of the province. The issue is by no means resolved, but while acknowledging a strong increase in transfer payments to the provincial economies in recent years, recent studies also point out that the province's export sector has been equally strong.

Energy options open to the province will occupy a central theme in the medium term. The best options available for provincial coal, the extent of cooperation with other Atlantic provincial governments through the Maritime Energy Corporation (or some other institutional arrangement) with joint projects such as tidal power and the New Brunswick nuclear plant, as well as competition for liquefied natural gas (LNG) terminals, will all be issues that the provincial government will be attempting to answer.

A very pressing energy issue may result from the near-commercial find of gas off Sable Island. If this gas find should be commercial, or other test wells determine that gas does exist in commercial quantities, then significant employment and income benefits may accrue to the province from this sector. The exploitation of this opportunity for Nova Scotia will involve both levels of government from a jurisdictional point of view.

4. FEDERAL AND PROVINCIAL INSTRUMENTS

4.1 Introduction

There are currently 53 industrial development programs available in Nova Scotia, involving five federal departments, five federal Crown agencies, and nine provincial departments and agencies. These programs can be used to overcome capital financing problems in starting or expanding businesses, enhance productivity, and gain access to export markets, as well as for infrastructure development and for other factors critical to industrial development.

While there may be opportunity for improving or redirecting some programs, most of the critical development factors are addressed.

- (a) Federal programs provide many avenues for obtaining capital. The province has programs with the same objectives but grants do not appear to be duplicated.
- (b) Federal and provincial institutional research and development (R & D) programs are fairly extensive and complementary.
- (c) A number of federal and provincial programs are focused on upgrading the base of labour and management resources.
- (d) The federal and provincial governments are taking steps to build supporting infrastructure.
- (e) The Maritime Freight Rates Act attempts to reduce transportation differentials.
- (f) The provincial government complements federal government assistance for export sales by providing support where the federal programs do not apply.

4.2 Capital

Fifteen different programs provide grants or loans at competitive rates for businesses that have a particular degree of risk and are unable to obtain conventional financing.

Grants are given to ventures that:

- (a) otherwise would be under-capitalized or unable to start up; and
- (b) demonstrate a need prior to receiving funding.

Loan programs generally provide:

- (a) direct loans for fixed assets; and
- (b) guarantees of working-capital loans through chartered banks (e.g. EDP, SBL,) with the bank monitoring the loan payments.

Federal loan programs show quite a volume of activity. Provincial programs appear to have objectives that complement those of the federal government and also show good activity. However, while programs may overlap in their stated objectives, they likely do not overlap in their effect.

Moreover, as may be expected, there is little duplication in the two levels of programs for financial grants, For example, the provincial Rural Industry Program, which assists in the development of small rural industries, gives grants for projects whose capital costs are less than \$25 000, and the federal RDIA program gives grants for projects whose capital costs exceed \$25 000.

4.3 Research and Development

The importance of supporting the development of an indigenous, sound, technical base cannot be over-emphasized.

Business and government are becoming more aware that industrially Canada will regress without a strong R & D effort. The structure of multinational businesses does not normally foster R&D in branch plant locations, and Nova Scotia's "remoteness" from the technological and market centres is a distinct handicap in keeping products and processes up to date.

Nova Scotia has several renowned research institutions which encourage a good deal of research in support of industrial development:

- (a) The Bedford Institute is a leader in studies in oceanography.
- (b) The Nova Scotia Research Foundation, known for its innovations in diving and marine equipment and support for local industry, helps stimulate economic development by providing technical support for regional firms. It has been able to generate benefits for industry and has product design and development programs along the lines of the federal design assistance to business program.

Together, these federal and provincial programs can help business with some of its technical, research and development needs by:

- (a) helping fund research projects through cost-sharing salaries;
 - (b) helping solve everyday technical problems through regular visits to every industry in Nova Scotia;
 - (c) developing new products for industry and transferring the technology to industry at a stage where industry can cope with any further risks; and
 - (d) helping industry improve or develop new competitive products through product design programs.

Despite these instruments and institutions, Nova Scotia private industrial R & D expenditures are particularly low:

- (a) USA 1.2 per cent of GNP
- (b) Canada 0.4 per cent of GNP
- (c) Nova Scotia 0.1 per cent of GPP

And both government and private R&D expenditures in general are below the world average:

- (a) world average 2.0 per cent of GNP
- (b) Canada 1.4 per cent of GNP
- (c) Nova Scotia 1.1 per cent of GPP

In 1971 dollars, this means an increase in the order of \$30 million per year in Nova Scotia to reach world averages for expenditures on industrial research.

4.4 Human Resources

Several federal programs -- some quite new -- are being delivered to build the base of human resources. The federal programs appear to address three important matters:

- (a) training existing manpower: financing the upgrading of worker skills to a level necessary to compete, and relocating the workforce to areas of labour need;
- (b) attracting recent graduates and scientific and technical people: financing a portion of the first years of employment of recent graduates; and

(c) improving management training: funding specific management training courses at local universities.

Provincial programs are built around those offered by the federal government, supplementing STEPX³, small business, interim program and on-the-job training programs and job creation programs.

4.5 Infrastructure

The federal programs for construction of economic infrastructure for Nova Scotia support industrial development in the province.

DREE, through its General Development Agreement with the province, helps finance roads, industrial parks, and so on that spur development.

Fisheries and the Environment help finance and maintain some marine structures.

CMHC has recently assumed a more active role in promoting infrastructure development, especially as it relates to areas such as sewage systems and other residential services. On the whole, Nova Scotia's provincial government departments offer a well-serviced industrial core through the heart of the province.

4.6 Transportation

The Maritime Freight Rates Act of 1927 attempts to mitigate the cost disadvantages of shipping goods from Nova Scotia to central Canada. The act calls for a subsidy of approximately 30 per cent, plus a selective westbound subsidy of 20 per cent introduced under the ARFAA in 1974, as well as an intra-regional subsidy for freight traffic moving westward in Transportation costs to major markets are a traditional concern and obviously influence the direction of industrial development. On many low-value, bulky, or heavy items, transportation costs could be a substantial portion of selling These items are normally most economically produced close price. to the market. On the other hand, some high-priced items that are readily transportable can be, and often are, manufactured at points remote from the market where greatest production efficiency can be obtained.

A number of particular products that otherwise make sense for Nova Scotia's development suffer from substantial transportation differentials. However, further study is needed to determine whether these can be overcome by innovative distribution techniques or whether they require rate adjustments in line with regional development concerns.

³ Scientific Technical Employment Program Extension.

4.7 Marketing

The federal programs primarily concentrate on efforts to develop and serve the international markets. Provincial marketing programs were drafted to fill gaps in the federal programs. Nova Scotia companies appeared to participate more heavily in the provincial programs during the year 1977-78, which may illustrate the difference in approach of the two levels of programs.

Together, the federal and provincial governments address a large number of important development factors, and the programs are being used. The province tended to complement and enhance efforts of the federal government. There is, thus, an overriding opportunity for the province to think through its own development requirements and take action. Specific areas where program initiatives may be required include:

- (a) service industries job creation;
 - (b) improved "domestic" marketing;
 - (c) costs of production;
 - (d) scale and organization of renewable resource operations; and
 - (e) technology transfer and increasing private R & D investment.

4.8 DREE

The Department of Regional Economic Expansion (DREE) administers the Regional Development Incentives Act (RDIA) and the General Development Agreement (GDA) with the province.

Under RDIA, during the period 1969 to 1977 the federal government spent \$74.5 million in Nova Scotia, compared with \$585.7 million for Canada as a whole. The program stimulated increased manufacturing investment and employment in slow-growth regions through new manufacturing and processing facilities, expansion, and modernization. Most manufacturing and processing industries are eligible for development incentives and loan guarantees, while some commercial facilities are eligible for loan guarantees.

The GDA, a federal-provincial cost-sharing program, is designed to assist the province in enhancing the potential for exploiting identified development opportunities or removing constraints to the exploitation of these opportunities. Since 1974, agreements have been put in place for the primary sectors, manufacturing, urban development and planning.

Under the mineral development subsidiary agreement, the Mineral Evaluation Survey documented large coal deposits off the coast of Cape Breton near Donkin and Sydney, which could lead to new mine development. This agreement should continue to add to the province's knowledge of its mineral resource base and help identify development opportunities.

The metropolitan Halifax-Dartmouth area development subsidiary agreement focused on infrastructure, industrial and waterfront development in the two cities.

The Strait of Canso area development subsidiary agreement provided for construction of roads, water systems and other facets of public infrastructure, and assisted private firms with infrastructure improvements. This program has complemented the efforts of the Strait of Canso Industrial Development Agency (SCIDA).

The agriculture development subsidiary agreement again has assisted in providing improvements to under-exploited aspects of the industry by assisting with product development for such commodities as hogs and beef, and through land improvements and technology transfer.

Under the industrial development subsidiary agreement, the infrastructure has been put in place for three industrial parks to date, and should be completed for additional parks over the next two years. Opportunity identification studies have also been an important program under this agreement. Infrastructure assistance was also granted to two mining firms.

The <u>planning subsidiary agreement</u> has attempted to improve the research and planning capability of the province by assisting with such projects as the Nova Scotia input-ouput model.

The interim Cape Breton County development subsidiary agreement also focused on infrastructure improvements on the island with assistance for highway construction and upgrading related to coal development in the Sydney area.

Under the <u>forestry subsidiary agreement</u>, extensive assistance has been given to private and Crown woodlot owners to increase and improve forest resource management, to introduce new technology, and to salvage budworm damaged wood.

The tourism development subsidiary agreement focuses on tourist attraction development, tourism facility improvement and increasing management skills.

The SYSCO assistance program subsidiary agreement interim modernization program at Sydney Steel Corporation is largely complete.

Under the energy conservation subsidiary agreement industrial retrofitting to better conserve and utilize energy is a major program. Planning and the funding of pilot or demonstration projects, as well as improving the energy distribution and demand-spread characteristics of the industry, and improving long-term planning are the major undertakings under this subsidiary agreement.

5. ECONOMIC DEVELOPMENT OPPORTUNITIES

5.1 General Discussion of Comparative Advantages

A province's comparative advantages lie at the heart of its ability to grow at a rate comparable to other regions in the economy. An area should specialize in its comparative advantage to maximize its growth potential.

Clearly, the growth potential of a less-developed region can be discussed in the context of a comparative advantage. It is acknowledged that to date Nova Scotia's traditional comparative advantages have not been sufficient to maintain a growth rate comparable to the national average. This implies that it must seek avenues to develop a comparative advantage. This can occur, for example, by locating foot-loose industries such as Michelin Tire, or developing sufficient agglomeration economies to overcome lack of initial resource endowments.

5.2 Review of Major Projects

Previous chapters have provided an overview of the medium-term outlook for the Nova Scotia economy. Some specific projects are now discussed, the success of which have a major impact on the provincial economy (see Figure 2). The projects are divided into two classes:

- (a) stabilizing-impact projects; and
- (b) development-impact projects.

5.2.1 Stabilizing-Impact Projects

There are several potential projects, the implementation of which will help stabilize deteriorating employment situations.

The Sydney Steel Corporation, since its takeover by the provincial government, has been increasingly hard-pressed to compete effectively for stable steel markets. Investigations into establishing a world-scale steel plant have resulted in no commitment from industry sources for at least five years.

The federal and provincial governments have provided, in the last two years, some \$19 million as an interim measure to stabilize the work force at 2 200 employees. However, decisions remain to be made as to the most appropriate option for the long-term future of this operation.

Another stabilizing project would be progress towards the establishment of a major ship repair facility at Halifax Shipyards. This would bring employment at the yard close to its former level.

Halifax Shipyards was taken over by Halifax Industries Ltd., a consortium comprised of CN Marine, Hall Corporation, and RSV (International) of Holland in September 1978. The marketing strategy is to capture international repair markets not now available to the yard. Acquisition of a Panamax-size dock would provide the infrastructure necessary to capture this market. The consortium has a commitment in principle from the federal government to cost-share, with the province, in the acquisition of the dock.

5.2.2 Development Impact Projects

Nova Scotia Coal Development Opportunity

Coal is Nova Scotia's most significant mineral in value and employment. It is also the most significant in terms of future development potential, particularly in relation to a new mine in the Donkin area of Cape Breton.

Offshore drilling has indicated that in the Sydney Basin there may be in excess of 2.7 billion metric tons of coal, of which 816 million metric tons is accessible with the state of technology for long-shaft, sub-marine mining. Of this, approximately 345 million metric tons should be economically mineable.

A new Donkin mine would be expected to create up to 3 000 direct and spinoff jobs in Cape Breton, and Nova Scotia's annual coal output would increase by some 70 per cent. development would have significant impact on a depressed part of The province has indicated that 453 500 metric the province. tons per year of thermal coal from the mine could support conversion of three existing thermal-power plants affecting 190 megawatts of power generation, and a further 726 000 metric tons per year of thermal coal could support construction of a proposed 300-megawatt thermal plant at Lingan, when energy demand warrants it. Both these developments would mean a significant decrease in the amount of oil which would have to be purchased for power needs in the province in the future. No decision has been made by the federal government as to the timing of bringing such a mine into production.

Ocean Industries Sector Development Opportunity

The ocean industries sector has been defined in Nova Scotia as those establishments which manufacture equipment or provide services in support of commercial and scientific activities in or on the ocean. The sector does not include the primary ocean sector, i.e. the extraction or harvesting of resources from the oceans, nor does it cover conventional service vessels. However, it does include the equipment or services which are utilized in carrying out these primary functions.

The IT&C sector profile, "Ocean Industry in Canada", and the subsequent report by the sector task force on "The Canadian Ocean Industry", both published in 1978, forecast that the industry in Canada has the potential to grow tenfold in the next decade, driven by the oil and gas sector alone. If the potential for hardware and services resulting from the fisheries, defence, ocean research and other ocean technology and exploitation industries is included, then the potential is even greater for the Atlantic Region as a whole, and Nova Scotia in particular.

The major growth of this sector will be the result of significant developments proposed or already announced. According to the Ocean Industries Task Force, offshore and Arctic oil and gas exploration will generate billions of dollars of business in capital equipment, services, design and consultant fees (estimated at \$11 billion over 10 years). Beaufort Sea development alone is estimated to require capital expenditures of \$28 billion⁴. A pilot-project proposal by Petro-Canada to bring down Arctic natural gas from Melville Island was estimated at \$1.5 billion⁵. When development of offshore Labrador natural gas occurs, opportunities to supply equipment and services will exist for Nova Scotia as well as Newfoundland. The recent commencement of significant offshore exploration along the eastern shore of the U.S. presents further service opportunities for Nova Scotia based firms.

While the Atlantic fisheries will not see major expansion of employment, it is anticipated that in the coming five years exports of fish will increase to \$1 billion⁶. The impact

Gordon R. Harrison, President, Canadian Marine Drilling (an address, November 2, 1978).

Petro-Canada, "Artic Pilot Project", 1979.

⁶ Centre for International Business Studies, "Ocean Industry in Canada and Abroad", 1979.

on the ocean industries sector would be from the considerable re-equipping of ships and plants which should take place as fishermen's incomes and companies' profits increase. A further impetus could result from modernization of the navy.

The benefits from the successful expansion of the ocean industries sector would be over 600 direct jobs in the next eight years, and over 400 jobs in the eight years after that. The present value in the province of household income benefits of expansion is estimated to be \$26 million. There is estimated to be a further \$21 million of benefits to Canada from foreign exchange earnings.

Other benefits will result from the type of jobs created which are highly skilled, and higher paying jobs. The sector, because it does not rely on cheap raw materials or labour, means that Nova Scotia and Canadian firms should be able to compete throughout the world. The sector is largely new and growing. Annual spending is presently estimated to be \$100 million per year and is expected to reach \$1 000 million per year within 10 years. Expansion of the service sector portion will not be at the expense of existing firms in Nova Scotia or Canada. Expansion will also provide a much-needed boost to the manufacturing sector which, in terms of total employment, has been declining in Canada, and in Nova Scotia represents only 15 per cent of the gross domestic product.

Canadian ocean industries presently have only an estimated 30 per cent share (or some \$30 million per year) of the total domestic spending for offshore oil and gas. Without the establishment of a nucleus of ocean firms, Canada and Nova Scotia will capture little of the expanded investment in the ocean industries in the years ahead. It was many years before the United Kingdom could raise its share of the benefits of North Sea spending on equipment and services to its present level of 57 per cent. The opportunity exists in the ocean industries sector to reach this level much sooner and not lose out to other countries.

Atlantic Rim (Gateway) Development Opportunity

The concept of the Atlantic Rim or gateway is that Nova Scotia, as the closest mainland point to Europe, can serve as a "land pier" to dock and transship cargo headed for and departing from the interior of North America and, in particular,

⁷ Ocean Industries Task Force

Chicago and the midwest. It also includes the concept of intermodal feeder service to various points.

Where the most significant impact could result is in the warehousing, re-packing or manufacturing of goods which are landed here and sent on to points in central North America. Employment potential has been estimated at 5 000 jobs, requiring investments of \$500 million.

Recent studies have shown that a great deal of complex development work is needed before steps can be taken toward exploiting the opportunity. Much of the difficulty centres around establishing threshold volumes of shipments from Halifax to individual points in order to justify special rates, investment in infrastructure or changes in existing shipping patterns.

Further study is needed to determine required investments, and threshold levels of cargo shipments must be established to justify private investment in many of the projects. Speculation on the types of activities which could require more study include land assembly (one estimate indicated a requirement of 4 848 hectares) as backup and service area for port facilities, upgrading of the rail system, modification of rate schedules, and possible further improvement of port facilities.

5.3 Comparative Advantages

Nova Scotia's comparative advantage in the ocean industry sector stems from two factors. The first is spatial. Its proximity to the Atlantic continental shelf is obvious, but it can also serve as a staging area for Arctic gas development on Melville Island and oil and gas development as far to the northwest as the Beaufort Sea. Through its normal shipping trade routes, it can also serve other areas along the eastern coast of the U.S. and areas in South America and Africa.

The other comparative advantage involves personnel and services. In the Halifax-Dartmouth area, there are a number of ocean-related research, educational and scientific establishments with total employment of approximately 1 200 people. There is also a small existing base of ocean industry manufacturing and service industries. The history of ties to the ocean and the seafaring skills which still exist are other important attributes contributing to the development opportunity.

The comparative advantage in the Atlantic Rim concept arises from the fact that Nova Scotia is approximately one to two days steaming closer to Europe than Montreal or east coast U.S. ports and that it has port facilities capable of handling

substantial increases in volume. The transportation cost differential at 1978 rate structures between shipping via Halifax and via New York to Chicago, per 6.1-metre container, is as follows:

	<u>Differential</u> [{]
Automobiles, knocked down, from U.K.	\$+ 274.5
Automobiles, knocked down, from Japan	+ 49.5
Scotch, in bulk, from U.K.	- 155.5
Scotch, in bottles, from U.K.	- 292.5
Furniture, from U.K.	+ 82.5
Furniture, from Japan	- 352.5
Electronic parts, from U.K.	+ 562.5
Furniture, to U.K.	+2 752.5
Furniture, to Japan	+ 862.5
Electronic parts, to U.K.	+ 577.5

As can be seen, many comparative advantages depend on the commodity and the origin of the product. They are also extremely sensitive to comparative shipping rates by rail and by sea. It also can be seen that, with existing rates, substantial volumes of a particular commodity would be necessary to encourage CN or the ocean shipping companies to shift their rates to be more favourable to Halifax.

5.3.1 Potential for Government Action

One development objective being proposed for the next eight years is the expansion of the ocean industries sector in Nova Scotia through:

- (a) attraction of 25 new ocean industry firms to the province;
- (b) expansion of 12 existing firms; and
- (c) creation of 12 new ocean industry small businesses.

It is felt that this should provide a nucleus of firms to allow the province to capture a significant portion of the potential ocean industries market, to begin to compete in the world markets for ocean technology and services, and to self-generate further expansion of the sector in later years.

To achieve these objectives, it has been proposed that governments contribute toward the creation of an ocean industries

A positive number is in Halifax's favour (i.e. it is that much cheaper).

industrial park in Dartmouth, and provide special incentives to ocean industries to establish in the province. A program to aid ocean firms to market their products and to cooperate in joint ventures, as well as to encourage applied research, is also proposed.

Government involvement at present in the Atlantic Rim concept is assistance in the investigation and researching stage of the concept. One of the tasks established is to prepare a Port of Halifax development plan. Other required study involves identification of the precise actions needed to get the required thresholds of container movements to a number of inland sites.

Pending the results of further studies, government involvement could entail selected port facility improvements, rail transportation system improvements or rate modifications, and incentives to get the necessary private sector involvement.

The Nova Scotia coal development opportunity is restricted to the submarine coal deposits in Sydney Basin, controlled by the Cape Breton Development Corporation. Development of the proposed Donkin mine and related facilities is projected to cost upwards of \$250 million.

The other development opportunities fall under the jurisdiction of the provincial government and their development would likely depend on private sector interest. The level of government assistance would be in line with the economic development benefits likely to occur.

6. SUMMARY AND CONCLUSIONS

Based on the analysis of the long- and medium-term trends of the Nova Scotia economy, it is not anticipated that the province will converge to national standards of income and employment in the medium term, and that federal assistance will continue to be a necessary input into the economic development process of the province. There is, however, some indication that convergence is taking place and this success is expected to continue. Education levels and occupation levels are now quite close to national averages. Incomes per capita are now some 74 per cent of the national figure, if transfer payments are excluded.

The medium-term outlook showed that some of the province's traditional export sectors show signs of improvement. A solid growth record is forecast for the fishery and coal mining sectors, and stabilization of the steel and shipbuilding industries is forecast. This, however, will not be sufficient to provide the desired growth rate in the province. The province will have to maximize the potential spinoff benefits from the renewed growth of these sectors, as exemplified by the Michelin case. Also, it is anticipated that growth of the Halifax-Dartmouth area, and the growth corridor through Amherst to Moncton, will continue to be necessary to provide the Nova Scotia economy with opportunities available only to large population concentrations.

Having identified the potential growth areas, some specific major development projects were detailed, aimed at maximizing spinoff from the province's anticipated growth sector. The list was not meant to be exhaustive. The dynamic nature of planning and policy issues requires continuing effort at both the provincial and the federal government levels. The province, with the support and assistance of DREE, is engaged in a comprehensive strategic planning exercise. The results of this exercise are expected to extend and realign the list of major development projects presented here as further opportunities are identified, evaluated and assigned priority. A review of the available government programs provided in Section 4 gives a better idea of the extent of development project planning that is currently going on in the province.

Governments were seen to have to play a vital role in ensuring that these major development projects are realized. The provincial government does not have the fiscal capacity to support the level of development required to maximize this potential, thus suggesting continued significant involvement of the federal government.

