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Fifteenth Annual Review 1978

A Time for Reason

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ECONOMIC COUNCIL OF CANADA

Fifteenth Annual Review

A Time for Reason

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A Time for Reason

Introduction

While Canada's economy has undergone widespread adjustment in this decade, it faces additional challenges in the years ahead. Internationally, the multilateral trade negotiations now taking place within the framework of the General Agreement on Tariffs and Trade (GATT) will open new markets and encourage competition, providing opportunities and new problems for Canadian industries and consumers. Changing technologies, altered aspirations, and the industrialization and internationalization of Third World countries will inevitably affect the future evolution of the Canadian economy. Domestically, the issue of structural change comes up frequently in discussions about the Canadian economy. Increasingly, various individuals and organizations are emphasizing the necessity of new approaches and new policies.

In this Fifteenth Annual Review, as in the past, the Economic Council examines Canada's medium-term prospects, and comments on current measures to improve the functioning of the economy. In addition, a significant portion of this Review focuses on developments in the goods-and services-producing sectors, with the objective of determining whether some of the basic structural changes that have occurred may have hurt Canada's industrial competitiveness at home and abroad and resulted in a lower potential growth path than foreseen earlier.

Another important source of structural change over the years has been the development of better educational and health care services and the enrichment of a number of social security programs. They are important programs that affect the lives of virtually all Canadians. The production of these programs and the sharing of their costs have been major factors in the rise of government spending. But, in an increasingly competitive world, priorities are changing. In the years ahead, major private and public investments must be made to keep Canadian industries competitive and to build new ones. The progressive aging of the population will create added social responsibilities. A major reallocation of expenditures will be required to create opportunities, to reward initiative, and to protect and enhance the incomes and well-being of Canadians throughout all regions of the country. At the same time, Canadians must acknowledge the new

2 Introduction

realities. They must seek to understand, and to deal with, the constraints imposed by their past, by the current situation, and by the problems of the future. It is a time for realism but, most of all, a time for reason.

1 An Overview of Recent Economic Developments

During the three decades from the end of the Second World War to the mid-1970s, Canada achieved fairly high rates of economic growth, despite cyclical intervals of business slowdown. Real gross national product (GNP) rose an average of almost 5 per cent annually, with the result that Canadians became accustomed to steady and rapid improvements in their standard of living. Since 1973, however, this trend has been broken by a cycle of recession, inflation, and high unemployment; and the economy has been marked by uncertain growth. Some observers argue that this unsatisfactory performance represents merely a temporary disruption of the normal growth pattern, caused by the unexpected rise in oil prices and the emergence of inflationary expectations. Others see it as the prelude to a slower growth path that is bound to prevail in western countries, including Canada, in the years ahead.

There is some validity to both of these interpretations of current events. On the one hand, it can hardly be denied that the Canadian economy has been operating well below capacity and that a much improved performance is possible. On the other hand, the growth potential of the economy is expected to be lower as we move into the 1980s,² principally as the result of the projected deceleration in labour force expansion. There is also concern that productivity growth may remain low, reflecting factors such as the depletion of natural resources, the loss of comparative advantage in low-priced energy, and an increasing demand for labour-intensive services.

Few observers believe that Canada will easily return to the standards of low unemployment and relative price stability achieved in the 1960s. The 1976 economic recovery was short-lived, and the pace of business

¹ Organisation for Economic Co-operation and Development, "Prospects and Policies for Economic Growth in the Medium Term," Working Party No. 2, Paris, 1978.

² See Economic Council of Canada, Twelfth Annual Review: Options for Growth (Ottawa: Supply and Services Canada, 1975), p. 60.

4 Recent Economic Developments

activity since then has been disappointing. This year, both the inflation and the unemployment rates increased – a result of occurrences in both the external and domestic spheres.

The External Environment

In an open economy like Canada's, where export sales account for some 25 per cent of gross national expenditure (GNE), the achievement of a reasonably good domestic performance depends crucially on developments abroad: for every increase of 1 percentage point in the industrial growth rate of OECD countries, Canadian exports tend to grow by 1.5 percentage points.³ While Europe and Japan play a significant role here, the United States, where more than two-thirds of Canadian exports are sold, is obviously of prime importance.

Like Canada, most other industrialized countries have had difficulty in getting their economies back on a more satisfactory and sustained path of development after the setbacks triggered by oil price increases. After a fairly brief recovery in 1976, real growth has since decelerated in almost all of these countries. The slowdown was particularly pronounced in the four major European nations - West Germany, the United Kingdom, France, and Italy - where combined real output increased by less than 3 per cent in 1977 and 1978, compared with 4.8 per cent in 1976 (Table A-1). The weakening of expansion in these countries reflected mainly the generalized slower growth in consumer spending, although other components of private demand, particularly business fixed investment, were also hesitant. With the slower growth in overall activity, unemployment worsened considerably throughout the year; total employment actually declined in Germany, and only marginal increases were recorded in the three other nations. The pace of inflation decelerated significantly in the second half of the year, in part because of the easing of non-oil commodity prices. Slow growth has continued in most of western Europe in 1978, and gains in real output have remained in line with those recorded in 1977.4

In Japan, there was some decline in the growth rate in the latter half of 1977, mainly because of weak consumer spending and private investment. But, led by expansionary fiscal measures and a temporary surge in exports, activity rebounded in early 1978, with real GNP expanding at an annual rate of 10 per cent. The rise in Japanese consumer prices continued to decelerate – to less than 5 per cent in the first half of the year from close to 8 per cent for all of 1977 – as the beneficial effects of

4 OECD, Economic Outlook (Paris: OECD, July 1978).

³ Economic Council of Canada, Thirteenth Annual Review: The Inflation Dilemma (Ottawa: Supply and Services Canada, 1976), p. 103, footnote.

the exchange rate appreciation began to be felt. With the private sector regaining confidence and public investment acting as a stimulant, internal demand is expected to remain strong well into 1979. Net external demand is likely to be restrained, however - one of the negative effects of the rising value of the yen and the commitment by Japanese authorities to curb the expansion of exports. Overall, the increase in Japan's real GNP in 1978 will probably be somewhat higher than last year's rise but still substantially below past performance.

In the United States, economic growth in 1977 exceeded the long-term rate of expansion, though it was slightly slower than in 1976. Unemployment declined steadily, averaging 7 per cent for the whole year compared with 7.7 per cent in 1976. There was some acceleration in price increases after a marked slowdown in the preceding year. Abnormally high fuel imports, induced by the severe winter of 1976-77, combined with a decline in the traditional trade surplus in manufactured products, created a trade deficit of over \$30 billion for the year. Heightened consumer expenditures contributed to this deficit, since many consumer goods are imported. Faltering foreign demand for U.S. equipment also contributed to the deficit. As a result, the U.S. dollar fell sharply in relation to most other currencies.

In the first quarter of 1978, the U.S. economy paused, as the adverse effects of the coal strike and poor weather conditions were felt. Since then, industrial growth has resumed; unemployment has declined; and consumer price increases have stabilized around 7 per cent. The underlying growth trends appear to be weakening, however. As the U.S. recovery enters its fourth year, the boom in residential construction seems to have reached its peak and may subside in the coming months. Recent surveys indicate only modest growth for business fixed investment in 1979. If, as some expect, consumer spending eases as purchases of durable goods level off, some deceleration in the rate of real growth in the United States may well occur.

Within the context of this relatively weak recovery in Europe, Japan, and North America, widening external payment imbalances in several countries, erratic fluctuations in currency exchange markets, and the risk of stronger protectionist reactions, the leaders of seven major industrial countries met in Bonn last July. The participants agreed on the need to adopt a strategy designed to ensure steady and minimal inflationary growth, emphasizing that "a program of different actions by countries that face different conditions is needed.... In countries whose balance-ofpayments situation and inflation rate do not impose special restrictions, this requires a faster rise in domestic demand. In countries where rising prices and costs are creating strong pressures, this means taking new measures against inflation." The leaders of West Germany, the United Kingdom, Japan, France, Italy, and Canada therefore announced a commitment to stimulate growth and employment within the limits

permitted by the need to contain inflation. The declaration also stated that the reduction of inflation was to become the top priority of U.S. economic policy. The participants regarded the implementation of these programs as a necessity "to bring about a better pattern of world payments balances and ... greater stability in international exchange markets."

Domestic Developments

In retrospect, the 1976 revival in Canada's economic growth, in the aftermath of the 1974-75 slowdown, now appears to have been merely a temporary upsurge during a period of generalized weakness (Table 1-1). Since the end of 1976, the growth of domestic demand has been restrained. Consumer spending grew by only 2.8 per cent in 1977, as the expansion of real disposable income dropped substantially. This in turn was largely due to the continued lowering of the wage rate increases allowed by the Anti-Inflation Board and an acceleration of inflation as

Table 1-1
Major Economic Indicators, 1975-78

		Year-over-	year chang	ge
	1975	1976	1977	1978
		(Per	cent)	
GNE	1.3	5.5	2.7	3.3
Real disposable income per capita	4.9	4.8	1.3	3.9
Productivity ²	-1.2	2.9	1.1	-0.3
Employment	1.9	2.2	1.9	2.9
Labour force	3.7	2.5	3.0	3.5
Unemployment rate (as a proportion of				
the labour force)	6.9	7.2	8.1	8.5

First half of 1978 over the first half of 1977.

the year progressed. Final government expenditures increased at a rate below that of GNP, as all levels of government sought to curb spending and budget deficits. Despite a marked improvement in profits, business fixed investment continued to grow slowly; corporations showed a general reluctance to invest in the face of economic uncertainties and low industrial capacity-utilization rates. The presence of large inventories of unsold new housing units led to a decline in the volume of private

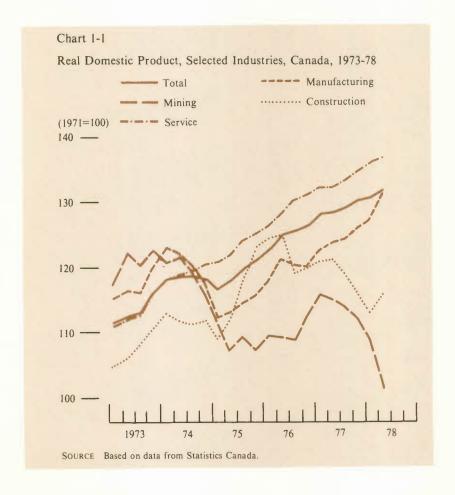
² RDP per person employed.

SOURCE Based on data from Statistics Canada.

^{5 &}quot;Final Communiqué Issued at the Conclusion of the Bonn Summit – July 16-17, 1978," pp. 2 and 9.

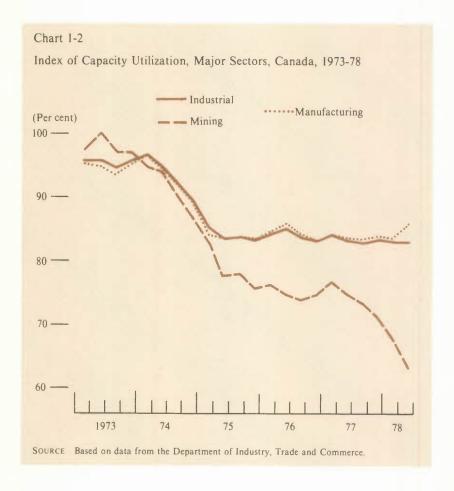
residential construction. The sole source of strength in the Canadian economy in 1977 was the high external demand associated with the relative buoyancy of the U.S. economy. The volume of exports was 7.4 per cent above that of 1976; and, with the volume of imports growing by only 2.4 per cent, net external demand contributed more than 1 percentage point to the 2.7 per cent increase in real GNE. Recently, with domestic consumer spending and business investment showing some strength, economic growth has been picking up.

Operating in such a climate, the growth in Canadian production has been erratic. Output in the coal, petroleum, and natural gas industries enjoyed an upward swing in early 1977, when emergency deliveries of energy products to the United States provided a temporary boost (Chart 1-1); but, on the whole, the minerals industry, which includes fossil fuels, has remained sluggish. Housing starts, which in 1977 had declined by more than 25,000 units from their 1976 levels, have shown



some signs of recovery in 1978, but the growth is scattered and still uncertain. Led by sustained export demands, strength has developed in selected areas of manufacturing, such as the automobile and chemical industries; but, by historical standards, output gains in both the manufacturing and service sectors have been rather modest, with increases slightly above 3 per cent in 1977-78. Only recently has there been an improvement in the level of industrial capacity utilization, after a year of increasing idle capacity (Chart 1-2).

Although roughly half a million new jobs have been created since the beginning of 1977, the unemployment rate has continued to drift upward – averaging 8.5 per cent in August 1978 – as labour force growth has outstripped the increase in employment by a sizable margin. In the space of only 20 months, for example, there was a 3-percentage-point increase in the participation rate of women, who accounted for two-thirds of all new job seekers in that period. All age and sex groups have shared



in the increased unemployment, with the August 1978 rates registering 5.5 and 7.7 per cent, respectively, for men and women 25 years of age, and well over 14 per cent for younger people.

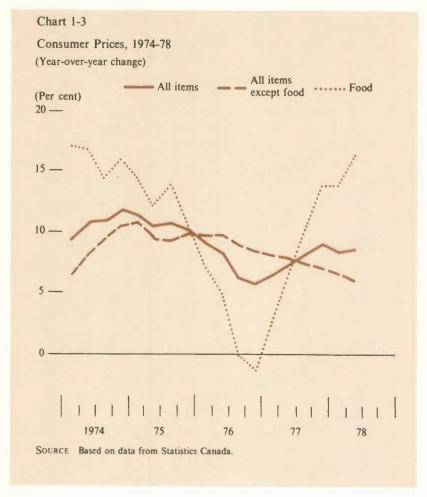
The relatively rapid employment growth, combined with weak advances in real output, implies a marked slowdown in labour productivity; indeed, there was an absolute decline in the first half of 1978. This is partly because the bulk of new jobs has been concentrated in the service sector, where productivity is generally lower than in the goods industries. In addition, despite a significant deceleration in unit costs, the relative sluggishness of industrial output and construction has undoubtedly contributed to Canada's poor productivity performance over all.6

Wage, Price, and Cost Developments

In recent years, Canadians have experienced a difficult period of adjustment in prices and in consumer and business expectations. Under the pressure of strong domestic demand and a general surge in world commodity prices in 1973, the rate of increase of the consumer price index (CPI) in Canada accelerated markedly; and, with the change in energy prices and high catch-up wage demands, it bordered on a high of 11 per cent in both 1974 and 1975. The implementation of the antiinflation program and the subsequent easing of food prices helped to lower the inflation rate in 1976. In 1977, however, though there was a pronounced decline in average wage gains and a low rate of economic growth, increases in consumer prices reaccelerated. Two factors were mainly responsible for this: the depreciation of the Canadian dollar, which brought about a substantial advance in import prices; and poor weather conditions, which damaged crops in the United States and Canada and caused a sharp rise in food prices (Chart 1-3). Despite the exchange rate adjustment and regular increases in food and energy prices, however, the trend of the nonfood component of the consumer price index has continued to moderate since the beginning of 1977, falling from an average rate of increase of 9.4 per cent in 1976 to about 6 per cent in August 1978. For most industrial goods and services produced and consumed in Canada, therefore, the rate of price advance has slowed more than recent trends in the aggregate consumer price index would

Submissions to the Anti-Inflation Board provide another indication that price trends for the nonfood components fell considerably in 1977. Price increases requested in 1977 were markedly lower than in 1976, and the proposals received by the Board for wage increases moved progres-

⁶ OECD, Economic Survey of Canada (Paris: OECD, 1978), pp. 27-28.



sively closer to the arithmetic guidelines originally outlined in the legislation (Table 1-2). Although the federal government, in announcing in February 1978 the phased termination of controls, eased the applicable guidelines slightly for the balance of the year, the rate of wage increases in major collective agreements has dropped gradually, averaging about 6.5 per cent for the first half of 1978, compared with 17.1 per cent in 1975.

The high wage settlements concluded during the period immediately preceding the beginning of the controls program resulted in a strong advance of unit labour costs in Canada, at a time when corresponding costs in the United States were falling. As a result, a pronounced disparity emerged between the two countries in the overall measured

Table 1-2

Approval by the Anti-Inflation Board of
Salary Increases Submitted above the Arithmetic Guidelines,
by Program Year, to September 1, 1978

			Average	
	Number of employees	Increases submitted	Arithmetic guideline	Increases allowed
			(Per cent)	
Pre-program				
Before Oct. 14, 1975	188,888	17.1	10.4	14.6
Program Year I				
Oct. 14, 1975 to				
Oct. 13, 1976	1,463,929	12.1	9.1	10.1
Program Year II				
Oct. 14, 1976 to				
Oct. 13, 1977	1,343,398	8.6	7.1	7.5
Program Year III				
Oct. 14, 1977 to				
Oct. 13, 1978	538,080	6.3	5.5	5.7

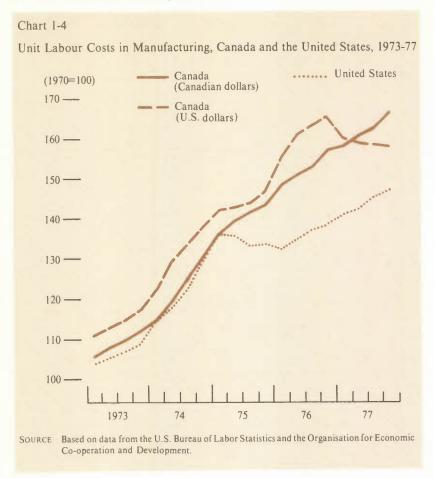
Source Data supplied by the Anti-Inflation Board.

trends of unit labour costs in the manufacturing sector (Chart 1-4).⁷ Since then, the combination of enforced wage restraints in Canada and renewed upward costs in the United States has contributed to a narrowing of the gap. Moreover, the decline in the exchange rate of the Canadian dollar during 1977 and 1978 has helped considerably to restore the relative competitiveness of Canadian manufacturing.

In rendering exports more competitive on foreign markets and imports more expensive on domestic markets, depreciation has contributed to the increase in the ratio of export-to-import volumes and brought about some improvement in Canada's external trade balance. But, since a sizable portion of imports is composed of parts and equipment that enter into Canadian production costs, upward pressures on domestic costs will inevitably emerge, particularly if import prices continue to increase and if this leads to higher domestic prices, wage settlements, and profits. If they are strong enough, these pressures could partially or totally offset the initial positive impact on the external trade balance. A recent empirical study concluded that any analysis that ignored these indirect effects "would grossly overstate the impact of a devaluation on the current account" and thus the beneficial effects in general of a downward exchange rate adjustment.⁸

⁷ But see Chapter 2, footnote 1, where we discuss the danger of using wage levels and unit costs as a measure of comparability in the two countries, as statistical comparisons are imperfect.

⁸ L. de Bever, U. Kohli, and T. Maxwell, "An Analysis of the Major Dynamic Properties of RDX2," Technical Report 13 (Ottawa: Bank of Canada, 1978), pp. 33-49.



These pressures are of special concern now, as Canada's wage and price controls are in the process of being gradually phased out. All income earners and companies will be free of controls by the end of this year. At the end of the meeting of the federal and provincial First Ministers last February, it was announced that the Anti-Inflation Board would cease to function in 1979, and the Economic Council of Canada was requested to accept the task of analysing price and cost developments in the post-control period. In response to this request, the Council established the Centre for the Study of Inflation and Productivity to carry out this surveillance function. The Centre will rely on publicly available information and use voluntary suasion to fulfil its mandate, since it has no enforcement powers. It can, however, recommend that a special commission of inquiry be set up when its analysis of a specific price or wage development gives cause for alarm.

The removal of controls raises the question of the possible acceleration of price and wage increases in the post-control period. On the price side, the immediate prospects are for only modest increases, since the economy has already absorbed the first-round effects of depreciation and of higher prices for beef and produce. Although further increases in energy prices are expected, there is still sufficient slack in both domestic demand and existing industrial capacity to allay fears of increased price mark-ups or costly bottlenecks. The pressures on labour costs resulting from settlements above the federal government's recommended 6 per cent wage ceiling are not likely to be very pronounced this year, since the bargaining

Table 1-3 Annual Change in Real Average Weekly Earnings, by Sector, 1975-78

	1975	1976	1977	19782
Mining	5.9	5.2	1.7	-0.8
Forestry	2.6	7.1	0.8	-1.8
Manufacturing	3.8	5.1	2.1	-1.1
Construction	4.9	5.8	3.5	-2.2
Transportation and communications	3.3	4.2	2.9	-1.9
Wholesale trade	2.7	3.3	1.4	-1.0^{3}
Retail trade	2.6	3.3	-0.7	-2.43
Finance, insurance, and real estate	1.2	2.9	-0.5	-1.2
Services	2.8	3.9	-1.2	-3.0
Industrial composite	3.0	4.3	1.5	-1.9

¹ Average weekly wages and salaries.

calendar remains relatively light. But next year, with its heavy schedule of contract negotiations, will be crucial in this respect, particularly since many union affiliates have expressed strongly their determination to protect and improve the real wage levels of their members. Indeed, the widespread decline in real weekly earnings observed in the first half of 1978 provides an indication that pressures for a catch-up of real income may reoccur (Table 1-3). Clearly the federal government, as well as the provinces and business and organized labour, will need to show firm resolve and prudence if the common objective of containing inflation is to be met.

Economic Policies

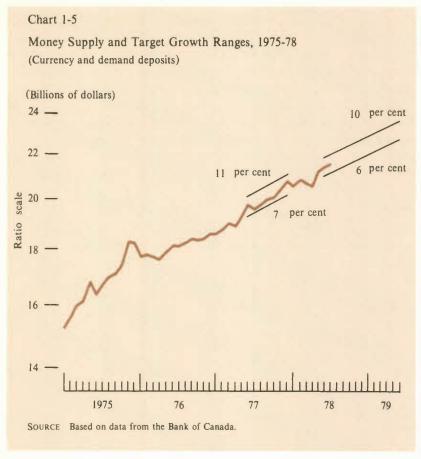
Over the last three years, the Bank of Canada's monetary policy has placed increasing emphasis on slowing the growth of the money supply. The annual growth targets adopted by the Bank have all included upper and lower bounds in the trend of narrowly defined money supply (M1)

First half of 1978.

³ First five months of 1978.

SOURCE Based on data from Statistics Canada.

14 Recent Economic Developments



from a base period. For instance, the initial target for monetary expansion, announced in the fall of 1975, was an annual rate of increase in M1 of not less than 10 per cent and not more than 15 per cent from the average level observed in the second quarter of 1975. The target was then lowered in August 1976 to a range of 8 to 12 per cent. Another downward adjustment was announced in October 1977, bringing the target limits to a range of 7 to 11 per cent from a base beginning in June 1977 (Chart 1-5). A further reduction of 1 percentage point in the limits of the target range was announced by the Bank in September. Except for a period extending from the end of 1976 to the spring of 1977, the evolution of M1 has remained largely within the limits adopted by the Bank. 10

9 For an explanation of the difference in meaning between the monetary aggregates M1, M2, high-powered money, etc., see Economic Council of Canada, Fourteenth Annual Review: Into the 1980s (Ottawa: Supply and Services Canada, 1977), p. 21.

The Bank rate was reduced in four steps amounting to 2 percentage points during a six-month period ending in May 1977, in order to bring M1 back within the targeted range. See Bank of Canada, Annual Report of the Governor, 1977 (Ottawa: Bank of Canada, 1978), pp. 19-20.

Despite this relative success in reaching the targeted rates of expansion in the money supply, the combination of federal monetary and fiscal policies applied since the implementation of the anti-inflation program has not fully achieved the desired results in terms of either price deceleration or economic growth. The consumer price index has continued to exceed the price targets announced in the fall of 1975 by at least 2 percentage points; GNP growth has faltered; and unemployment has increased. Nevertheless, some progress has been achieved: the rate of increase in the nonfood component of the CPI has decelerated; the external trade balance has improved; the cash position of many Canadian firms has become stronger; and Canadian equity prices have risen.

Since the beginning of 1978, the formulation of monetary policy has been strongly influenced by foreign exchange constraints. The successive increases in the Bank rate announced in the spring and summer were chiefly motivated by the weakening of the dollar on foreign exchange markets and the inflationary consequences of a further fall in its value. Appearing before the House of Commons Standing Committee on Finance, Trade and Economic Affairs, Governor Bouey stated that "the increases in the Bank rate ... were undertaken with a degree of reluctance because neither the present state of the domestic economy nor the recent pace of monetary expansion would, in the normal course of events, have seemed to call for any marked upward adjustment of short-term interest rates in Canada."11 The basic objective in raising the domestic interest rate structure was to restore the Canada-U.S. rate differential (which had shrunk because of rising U.S. rates) so as to encourage capital inflows and strengthen the external value of the Canadian dollar. Until now, the successive increases in the Bank rate have not altered substantially the trend in the Canada-U.S. long-term interest rate differential. And the growth trend in the narrowly defined money supply has continued to stand in the middle of the target range.

In addition to raising the Bank rate, the monetary authorities have directly intervened in the foreign exchange market by making massive purchases of Canadian dollars. This has been done to hold up the value of the Canadian currency or at least to prevent it from falling too abruptly. The action has cost the Exchange Fund Account some \$4 billion (U.S.) since the beginning of 1978. The federal government has also been borrowing abroad and establishing revolving stand-by credit facilities to defend the dollar. A credit facility of \$1.5 billion arranged in October 1977 with Canadian chartered banks was expanded by another \$1 billion in April of this year. Furthermore, a revolving credit line of \$3 billion was negotiated in April with a consortium of U.S. banks. Although the federal government rarely goes abroad to secure its financing require-

¹¹ A statement by G. K. Bouey before the House of Commons Standing Committee on Finance, Trade and Economic Affairs, May 16, 1978, p. 4.

ments, it floated a debt issue on the New York market last March in a move to offset the falling-off of Canadian borrowing on foreign markets. One month later, in a further step aimed at bolstering the Canadian dollar, a private placement of 1.5 billion German marks was arranged through the Deutsche Bank.

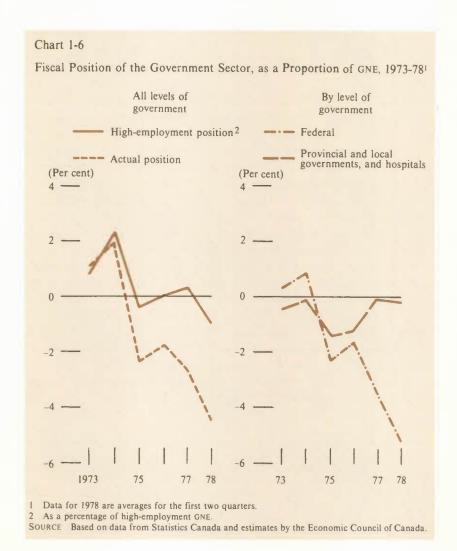
Some observers believe that the Bank of Canada's action in increasing the domestic interest rates in order to protect the exchange rate may impede the process and pace of economic recovery, since higher borrowing rates will tend to choke off investment spending. According to this view, the Canadian dollar should be allowed to find its own way in the exchange market. For others, however, there is equal concern that the inflationary impact of further depreciation of the Canadian dollar could cause another round of price and cost increases of the type that led the government to adopt controls in 1975. In this context, any further weakening of the Canadian currency should therefore be resisted. The choice is obviously a difficult one. It will be considered more extensively in Chapter 8.

On the fiscal side, the growth in spending by all levels of government has continued to moderate. Total government expenditure (net of intergovernmental transfers) grew by 12 per cent in 1977, compared with an average of 20 per cent in each of the previous three years. A pronounced slowdown also occurred on the revenue side; total government revenue increased by 10 per cent last year, compared with an annual average rate of 17 per cent from 1974 to 1977. But the growth in revenues diverged considerably among the various levels of government. Provincial and local revenues rose at relatively high rates, and the overall provincial deficit declined markedly from the level recorded in 1975-76. By contrast, federal revenues increased only marginally, and the federal deficit grew appreciably to \$7.4 billion. The deficit of all levels of government moved from \$3.5 billion (1.8 per cent of GNE) in 1976 to \$5.4 billion (2.6 per cent of GNE) in 1977. A further deterioration occurred in the first half of

At first glance, a deficit of this magnitude would appear to be highly expansionary; but, in fact, a large proportion reflects the state of the economy. At the federal level, expenditures are automatically increased in times of slow economic growth by programs such as unemployment insurance, while revenue growth is reduced because personal and corporate incomes and expenditures are advancing more slowly.¹² The federal deficit, however, should be viewed in the context of the government sector as a whole, as part of it reflected a transfer of fiscal resources from the federal to the provincial governments that enabled them to lower their collective deficit between 1976 and 1977.

¹² Moreover, following a period of high price increases, the indexation of the personal income tax system also tends to slow down the growth in government revenues.

This perspective is borne out by an examination of the trends in the estimated high-employment budget position of the government sector. This measure provides estimates of the revenues that would be generated in a situation of sustained high-employment growth and thus attempts to show what the fiscal position of the government sector would be if the economy had operated at, or reasonably close to, its full potential. According to this indicator, the much larger actual deficit recorded in 1977 was primarily a reflection of the state of the economy (Chart 1-6). A similar but more disaggregated indicator developed by the Department of Finance shows that, after exerting a strong stimulus on the economy in



1975, the combined fiscal position of the government sector became progressively more restrictive. 13 The expansionary impact of federal fiscal policies on the economy in 1977 was largely offset by the policies of the other levels of government, with the net result that the government sector as a whole provided less impetus to the economy in 1977 than in the two previous years.14

The federal measures announced in October 1977 and the provisions contained in the April 1978 budget were designed to achieve the dual objective of modestly stimulating the economy in 1978 and, by lowering retail sales taxes, of minimizing the risk of inflation. Tentative estimates of the impact of the tax cuts suggest that they may have added about half a percentage point to the increase of real GNP and temporarily eased the rise of the CPI by as much as 1.5 percentage points. At the provincial level, some budgets also contained stimulative measures in the form of tax reductions. Both levels of government, however, have maintained the commitment to restrain spending that they made at the February 1978 First Ministers' Conference, thus tacitly acknowledging the widespread public sentiment that the trend of government expenditure growth should be held, on average, to less than the corresponding growth in the value of total output.

Among the achievements of the Conference was an agreement by the First Ministers to work jointly towards the development of a more concerted approach to economic issues. The areas in which the need for further co-operation was agreed upon include the exchange of information between the two levels of government on compensation in the public sector, the creation of working groups to formulate plans for improving the performance of various industrial sectors, a larger degree of federalprovincial consultation in the elaboration of a strategy for the multilateral trade negotiations (GATT), an earlier start for some energy-related investment projects, and improvements in the formulation and application of manpower policies. The First Ministers also referred the whole question of government regulation to the Economic Council for study and recommendation. The progress achieved since that meeting will be reviewed at the next First Ministers' Conference in November.

The notion of "concerted action" is also gaining ground at the international level, as exemplified by the strategy agreed upon at the Bonn

13 Called the "cyclically adjusted government balance," this indicator measures the budget balance that would have prevailed had the economy been operating at an "average" level of economic activity. See Department of Finance, Economic Review, April 1978 (Ottawa: Supply and Services Canada, 1978), pp. 85-88.

14 The deficit reduction at the nonfederal level was facilitated by the transfer of resources from the federal government to the provinces - resulting from the new system of federal-provincial fiscal arrangements that came into effect in April 1977 - as well as by the continued increases in oil and gas revenues and in the surplus position of Alberta.

summit meeting of last July. Shortly after that meeting, the Prime Minister announced a series of economic measures that included a \$2.5-billion cut in federal spending and the reallocation of an additional \$1 billion, so as to encourage industrial expansion and job creation and free more income for the genuinely poor. The thrust of the package indicates that the federal government will look primarily to the private sector of the economy to achieve improved economic performance throughout 1978 and 1979.

Conclusion

Net external demand was by far the outstanding contributor to Canada's growth in 1977. The performance of the rest of the economy was far less impressive. The slow growth in domestic demand continued to reflect consumer uncertainty, restraint in government spending, business reluctance to invest in the face of economic and perhaps constitutional uncertainties, and low capacity-utilization rates. It also reflected lower levels of residential construction, resulting from large housing inventories. The overall growth rate improved during the first half of 1978, but there was some deterioration on the unemployment and inflation fronts. It is to be hoped that efforts now being made by both levels of government to harmonize and improve the Canadian economy, both in the public and private sectors, may put within reach at least some of their mutual objectives.

2 Trade and Foreign Investment

Traditionally, increases in the Canadian standard of living and in domestic expenditures have been closely related to growth in the productivity of the labour force. A significant feature of the 1970s, however, has been the continued strong growth in real income and expenditures in the face of a slowdown in productivity growth. The divergence was particularly marked from 1972 to 1976, when the rate of productivity increases dropped but real domestic expenditure per employee continued to rise rapidly. Expenditure was largely sustained during this period by important developments in Canada's foreign trade sector. Initially, the terms of trade improved as the prices of exports rose much faster than those of imports. This boosted Canadian purchasing power substantially in the rest of the world. The favourable international price movements helped to raise Canadian real income and, in combination with heightened borrowings abroad, enabled Canadians to increase their consumption by much more than would have been possible on the basis of productivity growth alone.

As it turned out, these developments were rather short-lived. With the end of the boom in commodity prices and the rise in oil prices, Canada's favourable terms of trade began to deteriorate, offsetting some of the fortuitous income gains of previous years. Slackening growth throughout the western world led to a decline in Canadian exports, and the relative size of Canada's external deficit on goods and services increased as Canadians bought more foreign-made goods and travelled abroad in greater numbers than ever before. The widening current-account deficit was financed by massive public borrowing abroad. Subsequently, the exchange value of the Canadian dollar dropped. Canada's trade position has now improved to the point where the merchandise account is showing a healthy surplus. Notwithstanding these adjustments, Canadian industry must continue to increase its efficiency and its overall competitive strength. This prerequisite is becoming especially clear in the context of

Table 2-1

Trade Performance Indicators, 1971-77

Nolume Volume 94 89 78 76	Export/import ratios Prices (1971 = 100) 100 101 101 115 115	Value 100 95 96 96 984	Canada's share of world exports! 5.33 5.10 4.66 4.08 3.84	Canadian imports as a proportion of spending on goods! (Per cent) 26.1 27.8 29.2 32.6 31.6
98	107	92	3.91	31.6

1 Calculations based on data expressed in current dollars.

SOURCE. Based on data from Statistics Canada; United Nations, Bulletin of Monthly Statistics; Bank of Canada Review; and CANDIDE Data Bank.

the questions raised by Canada's relatively high level of capital imports, the GATT negotiations, and the important changes emerging internationally.

Trade

The growth of export volume outpaced that of import volume, both in 1976 – when the Canadian dollar appreciated in relation to the U.S. dollar – and in 1977. Initially, this growth was fostered by the strong recovery of the U.S. economy from its 1975 recession. Later, the process was reinforced by the depreciation of the Canadian dollar in December 1976 and throughout 1977. Largely as a result of the depreciation, import prices in 1977 rose by 11.9 per cent, whereas export prices rose by only 6.3 per cent during the year. In 1978, import prices have been about 13 per cent higher than last year's, and export prices have risen by approximately 8 per cent.

Sectoral trade balances have, by and large, followed traditional patterns. As usual, primary resource products – farm, fish, mineral, and forest products – exhibited a large surplus. Manufactured goods continued to be in substantial deficit (Table A-2), most of which was with the United States. But, within the manufacturing sector, resource-oriented industries generated a surplus in 1977, topping a consistent rise in nominal-dollar terms since the mid-1960s. A major element of manufacturing trade is, of course, automobiles and automotive parts, which generate a substantial source of both export earnings and import expenditures. In the late 1960s, following the signing of the Canada-U.S. Automotive Agreement, Canada enjoyed a trade advantage in this sector, which has since given way to a net deficit. The bulk of the trade deficit in manufactured goods is, however, accounted for by other items.

A comparison of the volume and value of exports and imports shows the extent of the trade deterioration from which Canada is only now beginning to recover (Table 2-1). In aggregate terms, Canada's share of world exports of goods declined from 1971 to 1975, gained somewhat in 1976, and dropped again in 1977. Merchandise imports as a proportion of spending on goods rose considerably in the early 1970s, leveled off, and now show signs of increasing again.

During the two decades from 1951 to 1971, Canadian costs, measured in either Canadian or U.S. dollars, increased less rapidly than U.S. costs. Although wages rose faster in Canada than in the United States, the productivity gains achieved by Canadian primary and secondary industries outweighed the wage increases, making Canadian unit costs lower than those in U.S. industries and enabling Canadian goods to compete more vigorously in world markets. Canada's relatively favourable cost

performance peaked around 1971, however. While productivity gains in manufacturing continued to be somewhat higher in Canada than in the United States, they were insufficient to cover the gap between Canadian wage increases, which averaged 11.7 per cent between 1972 and 1977, and those south of the border, which averaged 8.5 per cent. In the space of a little more than five years, Canada lost most of the relative cost advantage over the United States that had been gained during the two preceding decades.¹

Though its role is crucial, it would be wrong to saddle Canada's goods sector with the entire burden of improving cost performance. The service sector also plays a role in shaping Canada's international competitiveness, as the rising travel-account deficit reveals. Real expenditures by Canadians travelling abroad have increased about 10 per cent annually since 1971, while the volume of spending by nonresident travellers in Canada has not risen at all. Nonetheless, to the extent that higher costs slowed the creation of jobs in Canada, there was a loss not only of potential income but also, for the young in particular, of work experience and the opportunity to acquire marketable skills on the job. Undoubtedly, too, poor cost performance had a negative effect on investors' confidence and thus on investment decisions. In the meantime, Canada has absorbed a large increase in net foreign indebtedness that will have to be paid for out of future income flows.

Long-Term Capital Flows

Traditionally, Canada's deficits on current account have been largely financed by long-term borrowing abroad. Throughout the 1950s, much of the inflow of long-term capital was in the form of direct investment, as owners of foreign-controlled corporations increased their loans to, and established or extended their equity share in, Canadian-based companies. Since the late 1960s, portfolio investment has become a much more important source of long-term capital (Table A-3). The main element of

2 Movements of portfolio capital result from transactions in new and outstanding issues of bonds and in equities that do not involve the transfer of Canadian control to foreigners.

¹ For example, since the 1950s, Germany and Japan have displayed the highest rates of increase in unit labour costs; yet they have been among the most competitive of nations. We are aware, of course, that even when expressed in a common currency, there is some danger in using only unit costs as a measure of "comparative competitiveness." Nonetheless, when considering trends, Canadian and U.S. cost data are generally comparable not only because of the interrelationship of Canada's trade with the United States, but also because practices are very similar in the two countries. In addition, many of Canada's larger firms are subsidiaries of U.S.-owned corporations, so that the composition of manufacturing tends to be similar. Within each country, the continuing competitive adjustment process that leads to the rise or decline of different firms or industries makes rigid statistical comparisons between the countries somewhat imperfect.

growth has been new issues of Canadian securities, whose value rose from an annual average of \$842 million, or 1.8 per cent of GNP, in the first half of the 1960s to \$3.4 billion, or 2.2 per cent of GNP, in the 1970-77

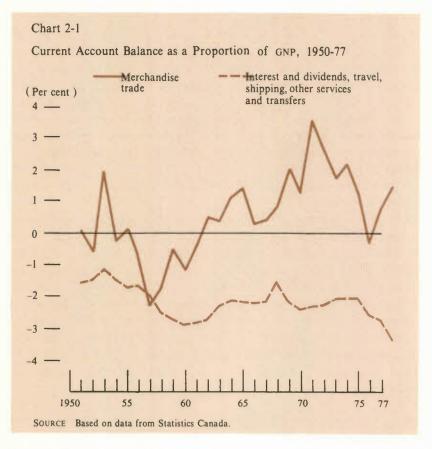
Since 1973, capital outflows associated with the purchase of equities abroad or with the repatriation of foreign-owned assets in Canada have consistently exceeded the inflows of direct investment in Canada. Included in these movements were some large purchases by Canadian public agencies of foreign holdings in the Canadian oil, potash, and aircraft industries.3 In addition, over the last few years, a number of major investments have been undertaken in the United States and abroad by Canadian firms such as Inco, Falconbridge, Olympic and York, Northern Telecom, and B.C. Forest Products. At the same time, foreign purchases of new securities issued by provinces, municipalities, and corporations reached unusually high levels. In 1976, corporations and provincial and municipal governments raised an unprecedented 73 per cent of their bond capital in foreign markets. While there was somewhat less reliance on foreign bond markets in 1977, the value of new securities issued outside Canada remained high.

This dramatic increase in new security issues can be attributed to two factors. The first is the appearance of sizable budgetary deficits at both the federal and provincial levels, resulting from the slump in business activity. These deficits emerged in 1975, persisted through 1976, and worsened at the federal level throughout 1977 and 1978. The second reason springs from the government's attempt to reduce inflation and to restrain expansion of the money supply. Its efforts resulted in higher domestic interest rates and a widening of the differential between Canadian and U.S. rates from the third quarter of 1975 through 1976 and, to a somewhat lesser extent, in 1977. The differential encouraged Canadians to borrow outside the country and nonresident lenders to invest in Canada. In the process, the increased demand for Canadian dollars buoyed the exchange rate, despite the substantial deterioration in the current account sector, and intensified the difficulties faced by export and import-competing firms. External developments thus amplified the effects of monetary policy and thereby made policy choices both sharper and more difficult.4 Heavy long-term foreign borrowings delayed the depreciation of the Canadian dollar and the adjustment processes neces-

³ The more notable examples are the purchase by the Canadian government of DeHavilland in 1974 and Canadair in 1976, the purchase by the Canada Development Corporation of most of the Canadian oil and gas interests of Tenneco Inc. in 1975, and PetroCanada's purchase of the Alberta government's assets of Atlantic Richfield in 1976.

⁴ Simulations from the Bank of Canada RDX2 model suggest that these developments and particularly the increased interest rate differential in 1976 - would be likely to slow down the growth in real output significantly.

sary in Canada's domestic activity and trade flows, and they contributed to the steady deterioration of Canada's current-account balance of payments (Chart 2-1). Interest and dividend payments to nonresidents rose rapidly to reach \$4.3 billion in 1977. Over two-thirds of this amount comprised interest payments on portfolio borrowings.



Dividend payments on foreign-owned holdings normally vary with the state of business activity in Canada and are now mostly retained and reinvested in this country. In the early 1960s, subsidiaries sent back to their foreign owners over half of all net earnings as interest and dividend payments; today, the proportion is less than a third. Payments on direct investment, which once were the equivalent of over 1 per cent of Canada's GNP, have fallen to almost half that proportion, whereas the interest payable on portfolio borrowings has grown from less than 1 per cent to 1.5 per cent of GNP. High interest rates, by historical standards, have aggravated Canada's position because, unlike dividends, interest on portfolio debt must be paid year in and year out until maturity. Overall,

the current-account nontrade deficit, composed mainly of debt service payments and net tourist expenditures, will likely be around \$8 billion in 1978, or about 31/2 per cent of GNP.

The Issue of Foreign Ownership

These developments, and particularly the most recent federal borrowings to shore up the Canadian dollar, have revived concerns about this country's relatively high level of long-term portfolio and direct investment indebtedness. The latter especially is a worry to some Canadians, although it represents less than half of Canada's gross liabilities to foreigners.

Table 2-2 Factors Contributing to Change in Book Value of Foreign Direct Investments, 1965-77

	Average, 1965-69	Average, 1970-74	1975	1976	1977
		((\$ Million)		
Book value at year end		,	39,838	42,0001	45,2001
Net increase in book value	1,693	2,335	3,737	2,1621	3,2001
Capital inflow	666	785	670	-295	410
Increase in undistributed earnings	815	1,751	2,595		
Other factors	212	-201	472		

^{...} figures not applicable.

SOURCE Based on data from Statistics Canada

Broadly interpreted, direct investment refers to a process that covers the movement not only of capital but also of management know-how, marketing assets, technology, and other tangible and intangible products that can be transferred from parent to subsidiary within a corporate structure. As a package with a complex bundle of components, it brings to the host country both opportunities and problems.⁵ The book value of direct investment in Canada is currently in excess of \$45 billion, about four-fifths of which is owned by residents of the United States. Growth in the early 1970s was attributable mainly to increases in the undistributed earnings of foreign-controlled firms (Table 2-2) rather than to net capital inflows.

The proportion of the plant and equipment employed in Canadian industry that is owned or controlled by nonresidents has declined margin-

^{..} figures not available.

¹ Estimates.

⁵ Many of these issues were highlighted in two earlier reports: (The Gray Report), Foreign Direct Investment in Canada (Ottawa: Information Canada, 1972); (The Watkins Report), Foreign Ownership and the Structure of Canadian Industry (Ottawa: Queen's Printer, 1968).

ally during the 1970s. Similarly, the percentage of industrial assets and equity accounted for by nonresident-controlled corporations is somewhat lower (Table 2-3). While these figures must be treated cautiously, since most of the declines are relatively small and the figures are not unambiguous, the data nevertheless suggest that nonresident control in the Canadian economy has leveled off. The main issue now is not so much the number of subsidiaries as their mode of operation. A subsidiary may, for instance, be totally owned by its foreign parent, but it may operate virtually independently and in a way comparable to a domestically controlled firm. Of prime importance is not control, in itself, but its implications for the performance of Canadian enterprise and, more broadly, for the achievement of Canada's economic and social objectives.

Table 2-3
Financial Characteristics of Foreign-Controlled Corporations, 1968-75

	Assets	Equity	Sales	Profits
		(Per	cent)	
1968	35.3	41.5	35.5	44.8
1970	36.5	43.9	37.0	46.6
1973	34.4	42.2	36.5	43.7
1975	32.9	40.6	36.6	45.7

¹ As a proportion of total for all Canadian corporations. The data cover foreign-controlled firms with growth revenue of over \$500,000 or assets in excess of \$250,000 in nonfinancial industries.
SOURCE Corporations and Labour Unions Returns Act, Annual Report, Part 1, various years.

Because of the limited size of Canada's domestic market, the influence of domestic and foreign tariffs, and the pattern of relative costs, prices, taxes, and regulations, foreign- and Canadian-owned firms share some common features. The plants of foreign-controlled manufacturing firms, for example, tend to produce a highly diversified range of products; indeed, they may be much more diversified than U.S. plants of comparable size. And, like Canadian firms, they have short production runs and relatively high production costs. Subsidiaries also tend to export relatively less than their parents and to devote relatively less money (as a percentage of sales) to research and development activities in Canada. But, at the same time, they may behave very differently from domestically controlled firms. Subsidiaries, for example, tend to purchase

⁶ Caves has noted that, while the plants of both subsidiaries and domestic firms are substantially more diversified than comparable-sized U.S. plants, subsidiary plants are also more diversified than domestic plants. He attributes the difference between domestic firms and subsidiaries to the potential advantages held by the latter when entering a new product line, as a result of their access to the parent's knowledge and experience. Richard E. Caves, Diversification, Foreign Investment and Scale in North American Manufacturing Industries, Economic Council of Canada (Ottawa: Information Canada, 1975).

a significantly higher proportion of materials outside Canada than do domestically controlled firms. This procedure may largely reflect corporate cost savings, since the additional operating costs borne by multinationals producing to their affiliates' specifications frequently allow their prices to their affiliates to be below the market prices of Canadian and other suppliers.

Recent studies of the factors influencing the pattern of U.S. direct investment in Canada highlight the importance of intangible capital assets made available by U.S. parent firms to their subsidiaries through their own research and development advertising, marketing, and salespromotion efforts.7 Such assets go beyond a particular technology or brand name - both of which could probably be acquired through licensing arrangements - and, in industries characterized by rapid technological change and frequent product or brand changes, the availability of relatively inexpensive services from their parent often gives subsidiaries in Canada substantial advantages over their domestic rivals. This explains in part why U.S. direct investment is usually higher in manufacturing industries that, by international standards, are the most researchintensive - transportation equipment, electrical products, chemical and allied products, machinery, petroleum, and coal. It also helps explain why U.S.-owned subsidiaries occupy a large share of the enterprises characterized by heavy advertising and marketing expenditures - soaps and cleaning compounds, toilet preparations, tobacco products, breakfast cereals, pharmaceuticals, and medicines.

Comparisons between domestic and foreign-owned firms are heavily influenced by the high proportion of very small Canadian-owned firms and plants. Even after adjusting for this, however, it would appear that foreign-owned plants are somewhat larger and somewhat more capitalintensive than their Canadian-owned counterparts. In addition, labour productivity in foreign-owned firms is higher in virtually every manufacturing industry. As a result, foreign-owned corporations tend to earn higher profits. In 1975, for instance, among the medium-sized and large corporations in Canada, foreign-controlled firms took over 46 per cent of all profits on 37 per cent of total sales.8

Foreign control is still concentrated in much the same areas as it was a decade ago, although the change of Alcan from foreign to domestic

8 Profit comparisons between Canadian and foreign-owned firms must be treated cautiously because of differences in the procedures used for valuing equities, in the treat-

ment accorded intercorporate transactions, and in product mix.

⁷ Richard E. Caves, "Causes of Direct Investment: Foreign Firms' Shares in Canadian and United Kingdom Manufacturing Industries," Review of Economics and Statistics 56 (August 1974), pp. 279-93; Dale Orr, "Foreign Control and Foreign Penetration in Canadian Manufacturing Industries," unpublished paper, July 1973; Robert F. Owen, "Inter-Industry Determinants of Foreign Direct Investments: A Perspective Emphasizing the Canadian Experience," unpublished paper, 1978.

control and the repatriation of Inco reduced foreign control in the metal-fabrication and metal-mining industries in 1972. Foreign-controlled firms account for over 55 per cent of the assets and equity in manufacturing, over 55 per cent in the mining sector, and over 70 per cent in the mineral fuels area. In 1975, 280 of the top 500 enterprises in Canada, based on sales, were foreign-controlled.9 Even though foreign ownership may be declining overall, there are indications that it may be increasing where industry concentration in Canada is highest. While the arrival of foreign-owned firms may lead to welcome innovation and create employment in an industry, once established they may also act in ways that discourage competition. Indeed, part of their superior profit performance may result not from real economies but from the market power they exercise.

The increased market power arising from horizontal mergers holds a major attraction for foreign-controlled no less than Canadian-controlled firms. This does not, however, single out direct foreign investment as a significant cause of Canada's relatively high degree of industrial concentration. Indeed, the line of causation probably runs in the reverse direction, as foreign investors are attracted to industries that feature high concentration and moderately high barriers to entry.

In general, direct investment increases Canada's exposure to the international environment and thereby makes available some of the benefits of increased competition and the more efficient international allocation of resources. At the same time, though, it increases Canada's vulnerability to decisions and initiatives that are characteristic of the global market but that may not accord fully with Canadian interests and priorities.

Nonetheless, as noted earlier, Canada is no longer a net recipient but rather a net exporter of direct equity capital. Over the 1973-77 period, outflows of direct investment capital from Canada exceeded inflows by about \$1.5 billion, though it must be remembered that data on net capital flows tell only part of the story, in that they exclude reinvested earnings. This partly reflects some retrenchment in the foreign investment strategies of U.S.-based multinational corporations and partly a number of large foreign undertakings by Canadian-based corporations in the real estate, mining, and manufacturing fields. It has been suggested that these trends indicate a less favourable investment climate in Canada than elsewhere — a view that undoubtedly had some validity when Canadian unit cost increases were outpacing those in the United States and the Canadian dollar was at or above parity with the U.S. dollar. The more

⁹ Corporations and Labour Unions Returns Act, Annual Report, 1975.

¹⁰ Richard E. Caves, Michael E. Porter, A. Michael Spence, John T. Scott, and André Lemelin, Studies in Canadian Industrial Organization, Royal Commission on Corporate Concentration, Study No. 26 (Ottawa: Supply and Services Canada, 1978).

likely explanation now is that, given the recent investment pause in Canada, foreign-owned firms have been content to finance principally by means of their retained earnings, whereas the net outflow of Canadian equity funds probably is an indication of the growing maturity of domestic corporations, which are increasingly exploiting their market advantages and know-how through subsidiary enterprises in the United States and elsewhere.

GATT and the Multilateral Trade Negotiations

At the Bonn summit meeting in July 1978, Canada joined with the six other major western industrial nations present in urging GATT member nations to complete their negotiations by mid-December 1978. More nations are participating in this round than were involved in the Kennedy Round in 1967. They have been faced with considerably worsened world economic conditions, stagflation, extraordinarily high unemployment, and heightened protectionist pressures in most of the industrialized western world. As an added difficulty, exchange rates have been allowed to fluctuate widely during the 1970s, without resort to widespread exchange controls as in the 1950s.11

In addition, the industrial countries have conceded a system of "general preferences" (GSP) intended to assist developing countries to export their products. The policy implies, of course, that developing countries should benefit at the expense of exporters in other industrial countries. In practice, the results of the GSP have been somewhat disappointing. While each industrial country intended to help the developing countries, clearly this was not to have uncomfortably negative effects on its own producers. Each member has therefore interpreted its GSP in its own way - in general, excluding "sensitive" import items from the benefits of the tariff preference. To the extent that the current GATT negotiations succeed in reducing tariffs, however, the scope for applying general preferences will be eroded.¹² In the meantime, the practice of granting general preferences exists concomitantly with the application of specific nontariff barriers (NTBs) against imports from developing countries. These obstacles are likely to be retained to varying degrees, especially against textiles and agricultural products.

The working hypothesis for the present tariff negotiations sets a goal of a weighted average reduction of 40 per cent of existing customs duties.

12 See Economic Council of Canada, For A Common Future (Ottawa: Supply and

Services Canada, 1978).

¹¹ See Ambassador J. H. Warren, "Canada and the Multilateral Trade Negotiations," speech to the Conference on Canada in the World Economy, Montreal, The Conference Board in Canada, April 1978, pp. 6-7.

The European Economic Community, in line with its position during the Kennedy Round, has generally pressed for the average cuts to occur in high-tariff areas; this is referred to as "harmonizing" the tariff levels of the industrial countries. Canada's approach is a markedly different one. Canadian industries that are under pressure from low-cost imports, such as textiles and garments, are protected by very high tariffs and by NTBs. The Canadian government has clearly been unwilling to reduce this protection very much and, from time to time, has increased it for some producers, at least temporarily. On the other hand, a basic Canadian aim has been to secure the reduction, or even elimination, of low nominal foreign tariffs on a whole range of semiprocessed and processed raw materials in which Canada enjoys a natural advantage. The view is that Canada, with a large capacity to process domestic raw materials, could enhance the amount of industrial content, employment, and value added before exportation. Low nominal foreign tariffs, which effectively confer adequate protection on processing operations, frustrate the expansion of such activities in Canada. Moreover, given the short production runs peculiar to Canadian secondary manufacturing operating for the domestic market, even low foreign tariffs can impede any reorganization required to achieve the longer, lower-cost production runs necessary to compete in the larger international market.

The United States, in its negotiating offer, indicated it was prepared to put a large number of low-tariff items on the table. To illustrate the importance of this possibility, about 65 per cent of Canada's dutiable exports to the United States, or about 20 per cent of total exports to that country, enter at duties of 5 per cent or less.¹³ The total of these exports is substantially higher than the sum of all of Canada's exports to Japan, the second largest export market. The Canadian position calls for greaterthan-average tariff and NTB cuts for two selected trade groups in particular – forest products and nonferrous metals.

Clearly, if GATT members can agree on a substantial reduction of existing tariffs, the result will be a general regime of very low tariffs, by historical standards; thereafter, additional trade liberalization will depend more than ever on the effective application of international rules to govern the use of quotas, special surtaxes, public purchasing, industrial and health standards, subsidies, and other nontariff barriers. The countries negotiating at Geneva are aiming at establishing a number of Codes of Conduct that will provide guidelines for the use of NTBs. It is hoped that, through the application of these rules, a more comprehensive body of international jurisprudence governing international trading relations

¹³ Nearly 70 per cent of existing Canadian exports to the United States - products such as lumber pulp, newsprint, a number of crude materials, farm machinery, and auto products and parts - enter free of duty.

will be established. Impetus in this direction could also help to revive long-ignored provisions of the GATT treaty designed to maintain equity under the Agreement.14

The process by which constructive rules to govern the use of NTBs becomes established is complex. The rules should not be a cover for blatant protectionism; yet they must allow enough flexibility to enable individual nations to implement adequate regional, security, health, and safety policies, as well as temporary safeguards when import penetration becomes critical. The process is more difficult than tariff-cutting, itself no easy matter. The success or failure of international efforts to control NTBs will depend not only on the outcome of the current negotiations but also on the subsequent follow-up and, inevitably, on future negotiations.

The changes in tariff and nontariff barriers already agreed upon are to be phased in over a period of at least eight years, probably starting in 1980, with a review of the pace of application of the tariff cuts likely to occur around 1984 or 1985.15 This will also be a critical time in the development of international surveillance and policing of the use of NTBs. In addition to the tariff and NTB negotiations on semiprocessed and processed materials and manufactured items, special consideration is being given to trade in grains, dairy products, and meats. Traditionally, most western countries - and EEC members in particular - have adhered to agricultural trade policies designed principally to protect the incomes of their farmers. The regulation of NTBs in the face of these policies is especially difficult.

During the current negotiations, the developing countries have been exerting progressively more political weight in seeking to increase industrialization and raise their level of exports relative to that of the rich countries. In the past, export expansion from countries such as Taiwan and South Korea has been led by light industrial products, food, textiles. shoes, sporting goods, and toys. Trade patterns are changing quickly, however, and some of the more rapidly developing countries have focused their ambitions on heavy industry, chemicals, machinery, electrical and transportation equipment, and construction services. During the next decade or two, not a few of the developing countries will emulate the Japanese experience of the 1950s and 1960s. 16 They expect, and indeed have been assured, that the new GATT agreements will facilitate fulfilment of their aspirations. These countries represent both a competitive threat to, and a promising export market for, Canadian enterprise.

¹⁴ T. M. Burns, President, Canadian Exports Association, "Are Tariff Reductions Enough? The Non-Tariff Barrier Problem," speech to the Conference on Canada in the World Economy, Montreal, The Conference Board in Canada, April 1978.

¹⁵ See Warren, "Canada and the Multilateral Trade Negotiations."

¹⁶ These developments are elaborated in the Economic Council, For a Common Future.

That the move towards more open world trade is integral to the resumption of stronger growth in the industrial countries was a theme stressed at the Bonn meeting in July. The co-ordination of growth was also stressed, with Japan and Germany being encouraged to provide stronger economic and import stimulants. Given the existence of the present levels of excess capacity, such a strategy of co-ordinated growth for the seven largest industrial countries could be achieved, in our view, with minimal inflationary consequences and with a healthier distribution of current account imbalances.

This suggests that, despite the genuine threat to Canadian manufacturers of labour-intensive goods, which the opening-up of trade to developing countries entails, there could be more than offsetting export opportunities for the foodstuffs and raw materials (primary or processed) in which Canada now enjoys a natural advantage. There will, however, have to be structural adjustments. Not all of Canada's primary industries are well placed competitively, and not all manufacturing will be affected.

3 The Primary Industries

In Canada, the resource-based sector has long played a fundamental role in the development and growth of the economy. Today, close to a fifth of Canada's domestic production is derived directly from resource-related activities. About half of the value added by this sector originates in resource extraction and harvesting industries, while the other half stems from the initial stages of processing. Its share of total output varies from province to province, exceeding 20 per cent in all of the Atlantic provinces except Nova Scotia and 30 per cent in Alberta and Saskatchewan (Table 3-1). Natural resources comprise about 60 per cent of total Canadian exports – 33 per cent in crude form and 27 per cent in some processed form. Such sales have traditionally provided an important source of foreign exchange, helping to offset the deficits in Canada's trade on finished products and services.

Although the primary sector is vulnerable to broad fluctuations in activity, the value of Canada's primary production and exports has grown rapidly during the 1970s, except for a brief slowdown in 1974-75 (Chart 3-1). The gains achieved in the volume of trade have, however, been far less impressive. The situation differs, of course, among commodities. The value of Canada's energy products has risen dramatically, pulled up by the surge in energy prices and the federal decision to allow oil and gas prices to move towards world levels. More recently, there has been a marked upturn in the fortunes of the forest products. The fishing industry has also come to enjoy much improved conditions. The agricultural situation has been more hesitant. Wheat prices fell in 1976 and 1977, and only in the past year has there been significant improvement in farm income. Activity has also been sluggish in the mining industries, where the slow economic recovery of the OECD nations and the surpluses of world stocks of copper, nickel and, to a lesser extent, other nonferrous metals have contributed to a continuing weakness in market conditions.

36

Table 3-1

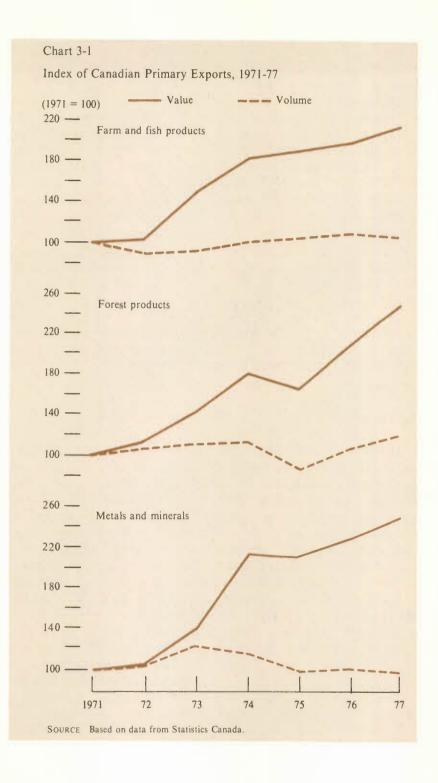
Relative Importance of the Primary and Manufacturing Sectors in Provincial Gross Domestic Product, 1970-74

	New- found- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Canada
					(F	(Per cent)					
All primary industries	17.3	16.3	7.1	8.1	4.5	4.6	13.3	35.1	29.9	9.5	9.3
Agriculture		12.4	1.6	2.4	6.1	2.1	œ .3	24.7	8.0	1.3	3.6
Fishing	2.9	4.0	2.5	1.0				Water the Control of		0.7	0.2
Forestry	1.9	-	0.5	2.3	0.7	0.3	0.1	0.2	0.2	3.6	8.0
Mining	12.6		2.5	2.5	1.9	2.2	4.8	10.2	21.7	3.9	4.7
Total manufacturing	12.3	9.2	15.2	18.9	27.3	31.9	14.7	6.7	8.6	18.9	24.8
Resource-related manufacturing ¹	4.0	6.7	8.7	13.9	11.3	10.2	0.9	3.2	5.6	13.8	10.3

amount too small to be expressed.

Resource-related manufacturing covers the early stages of resource processing: food and beverages, wood products, paper and allied products, primary metals, nonmetallic mineral products, and petroleum and coal products. The percentages shown for this sector are only approximate. They are understated for Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, and Saskatchewan, as some of the data are secure and they apply to 1974.

Based on data from Statistics Canada; and Lawrence W. Copithorne, "Natural Resources and Regional Disparities: A Skeptical View." Economic Council of Canada Discussion Paper 106, February 1978. SOURCE



Some of the difficulties of Canada's resource-based industries would undoubtedly resolve themselves, as they have in the past, were overall rates of growth more vigorous in the United States and other major industrial countries. There are indications, however, of rising competition within some primary commodity markets because of increased output in Eastern Europe and several of the developing countries. There is evidence, as well, that the significant shifts in consumption – specifically, the growing demand for thinner, lighter materials such as aluminum and plastics – could have some implications for the long-term rate of increase in the demand for primary products used in the construction industry.

Still, increases in productivity within Canada's primary sector will be much more difficult to obtain in the years to come. Continuously rising capital costs in the development of resources are a frequently cited source of concern to those in the energy, mining, and forestry industries. The recent sharp increases in Canadian energy prices and the substantial costs related to pollution control are posing additional burdens on some firms. In the case of Canada's renewable resources, there are still the issues of resource management and conservation. Notwithstanding these issues, Canada's endowment is such that primary-based industries will continue to be a major source of export earnings for the economy.

Agriculture

Agriculture is an integral part of rural Canada's way of life, though it contributes less than 4 per cent to total national output and employs only 5 per cent of the work force. For several decades now, Canadian farmers have been adopting many technical and biological advances. The increasing use of fertilizers, higher-yielding crop varieties, better feed for livestock, and new and improved machinery have increased farm output relative to labour input. Productivity gains have allowed workers to move out of agriculture and have helped to contain farm product prices; in addition, consumers have been able to reduce the proportion of their income spent on food. On the cost side, however, the retreat of workers from agriculture and the move to larger and fewer farms has placed economic and social strains on rural producers.

One of the results of these trends has been increased farm concentration, with a greater proportion of agricultural sales now being derived from a smaller proportion of farms. Farmers have become more specialized, particularly in animal production, and by reducing the number of varieties of livestock, they are able to take fuller advantage of technological

¹ Farm enterprises can be considered as two distinct groups - high-volume, full-time farmers and low-volume, part-time farmers.

advances. Yields per acre have picked up strongly in the 1970s, and the pace of investment in farm capital has accelerated (Table 3-2). And, while there is still a gap between the availability and the adoption of new technology, the steady introduction of improved methods and machinery will continue to enhance productivity. The effect on productivity is clear. During the 1950s and 1960s, the annual increases in real farm output per worker were quite remarkable, averaging 4.2 per cent in the 1950s and 5.0 in the 1960s. During the 1970s, the increments have eased to about 2.8 per cent annually, indicating that opportunities for raising productivity are not inexhaustible and that the exodus of families from farming has generally drawn to a close.

Table 3-2 Grain Yields and Investment Growth in the Agricultural Sector, 1950-77

	Yield p	per acre	Rate of real growth investm	0
	Wheat	Barley	Machinery and equipment	Building construction
	(Bus	hels)	(Per	cent)
1950-59	20.5	27.6	-6.5	0.0
1960-69	21.9	32.9	4.2	1.2
1970-77	26.6	41.2	14.9	5.2

SOURCE Based on data from Statistics Canada

Because of the nature of their produce and the lag between production decisions and actual harvesting, the income of farmers frequently varies widely from year to year. Unfavourable weather and diseases can severely damage crops; and, while compensating changes in farm market prices or government price supports help to stabilize incomes somewhat, they are of little or no benefit to the individual farmer who loses all or part of a crop. During the 1970s, there has been substantial relative improvement in farm incomes, but there is greater instability than in the 1960s, mainly as a result of international market fluctuations.2

Like the other resource industries, the agricultural sector contributes positively to the balance of payments. During the 1970s, the annual trade

² In an opening statement to the OECD Agriculture Ministers, February 1978, E. van Lennep noted the sharp fluctuations in prices in international agricultural markets since 1973, which resulted from rather modest changes in overall supply and demand conditions, and enumerated the factors responsible for these sharp fluctuations: improvement in animal feeding practices, causing demand for protein-rich animal feed to rise rapidly and to become rather inelastic; difficulties in forecasting the appearance on the market of large buyers such as the Soviet Union; the run-down of stocks and inadequate stock-holding policies.

surplus on the agriculture account has ranged between \$500 million and \$1 billion. A major contribution to the surplus has been made by Canadian wheat exports, which amount to about 20 per cent of the world's wheat trade. Sales to China and the Soviet Union have become increasingly important. In future, China will likely become a more important market; and, depending on the success of its own crop, the Soviet Union will continue to be a periodic importer. In recent years, however, there has been a notable increase in the volume of agricultural imports of items that compete with domestic production, as well as commodities not produced domestically, such as tea and coffee. Indeed, the worsening trade position for fruits and vegetables is of mounting concern. Of some worry also is the fact that, while the traditional markets of Western Europe and Japan are still important commercial outlets for Canada, they have been eroded in recent years by the adoption of protective measures in the European Economic Community and of export incentives in other nations. On a more positive note, exports to the OPEC and other developing countries have been rising, and sales to less-developed countries now amount to almost one-quarter of Canada's agricultural exports. In the face of these changes in trade patterns, agriculture is a particularly sensitive area in international negotiations.

Within international circles, serious consideration is being given to establishing an internationally co-ordinated system of nationally held reserve grain stocks, financed by both producing and consuming nations. Improvements in animal feeding practices have created such strong demand for protein-rich animal feed, such as rapeseed and fishmeal, and for some coarse grains and oilseeds that there has been a worldwide run-down of stocks and inadequate stock-holding policies. A new international wheat agreement would attempt to control prices through stock adjustment measures. While the last international wheat agreement foundered over surpluses and the inevitable clashing of producer-nation and consumer-nation interests, the ministers of agriculture of the OECD countries have formally agreed on the need for grain reserves as a means of stabilizing the international grain market.³

The major issues facing Canadian agriculture include the future costs of energy and fertilizer, and machinery and equipment; transportation difficulties; and – in the case of western farmers particularly – prospective freight rates. The freight rate issue is complex and, of course, longstanding. But many observers, while acknowledging the relatively low cost of grain transportation, argue that apparent producer gains are lost in obsolete rail, and grain handling and storage, facilities. The obsolescence is attributed to an unwillingness on the part of the railways to maintain, or invest in, a system that is not profitable. Indeed, there seems to be

widespread agreement that higher freight rates and a rationalization of the rail system would reduce much of the transportation problem. Admittedly, such action would increase the costs of exporting grain, but it would also provide much needed incentives to encourage livestock production and other forms of further food processing in western Canada.

Looking ahead, anticipated market requirements suggest that there is potential for expanded production of red meats, grains, oilseeds and, to a lesser extent, poultry and eggs. Horticultural products, where competitive, may provide some opportunity for growth in the agricultural sector.⁴

Fishing

The fishing industry contributes only a very small share to national output; but, in the Atlantic region and, to a lesser extent, British Columbia, the commercial fisheries form a significant component of the respective provincial economies. Total fish landings in 1977 amounted to

Table 3-3
Landings in the Commercial Fisheries, by Province, 1977

	Average price per metric ton	Va	lue
	(Dollars)	(\$ Million)	(Per cent)
Sea fisheries	378	456.2	94.0
Newfoundland	218	85.5	17.6
Nova Scotia	327	133.2	27.5
Prince Edward Island	768	15.2	3.1
New Brunswick	263	34.0	7.0
Quebec	376	20.4	4.2
British Columbia	820	167.9	34.6
Fresh-water fisheries	619	29.1	6.0
Total, all fisheries	387	485.3	100.0

SOURCE Fisheries and Environment Canada.

about 1½ million metric tons, with a market value of about \$500 million (Table 3-3). Some 80,000 people work in this sector, with 20,000 of them employed in the handling and processing industries. Exports of fish and fish products were valued at \$790 million in 1977, placing Canada third, behind Japan and Norway, in the international fish trade.

The combination of the relatively easy entry into fishing and the relatively open access to Canada's fishing resources has led to serious

⁴ Federal-Provincial Conference of First Ministers, "An Agriculture Development Strategy for Canada," November 1977.

consequences for both the returns to the industry and the size of the fish stocks. Some depletion of the Pacific herring and the Gulf of St. Lawrence groundfish stocks has resulted from overfishing by the domestic fleet. Far more serious, however, has been the damage resulting from the activity of foreign fleets operating off the Atlantic coast. Since the mid-1960s, both the total groundfish landings on the east coast fishing grounds and Canada's share of these landings have been declining. The landings of Canada's east coast fishing industry declined particularly sharply in the seventies; and, in 1974, the combination of a drastically reduced catch, sharply higher costs, and a cyclical drop in product prices in the important U.S. market threatened dissolution of major segments of the Atlantic fisheries. A massive injection of government aid was required to deal with the crisis.

This was the background to the federal government's decision to extend Canada's fishery-management jurisdiction over a zone extending 200 nautical miles seaward off the Atlantic and Pacific coasts, as of January 1, 1977. The Pacific zone extends far beyond the continental margin, and the Atlantic zone encompasses a part of George's Bank to the south and the greater part of the Grand Bank, as well as the whole of the Scotian Shelf, the Hamilton Bank, and adjacent northern grounds. Under this regime, Canada has established total allowable catches within the zones and allocated quotas to all participating fleets. Foreign fleets are permitted to operate, subject to Canadian regulation and under certain conditions. These measures are designed to allow a replenishment of stocks in the shortest time feasible. Future development prospects depend upon the success of this regime on the Atlantic coast and upon the achievement of a twofold increase in Pacific salmon production over a 10-year period. In the early years, however, much of the effort is directed towards stabilizing the annual catch, hitherto subject to extremely wide annual variations.

These conservation efforts are expected to have only a modest influence on fishing stocks in the immediate future,⁵ though they have increased opportunities for Canadian fleets and given a boost to the domestic industry. The real output of the fishing industry increased substantially in 1976 as a result of the new quota program and the termination of the strike that had paralysed the Newfoundland trawler fleets for part of 1975 and 1976. In 1977, the volume of landings increased markedly on both coasts, and prices also strengthened, with the result that the value of sea fish landings was up some 25 per cent over the previous year. Landings have been somewhat lower during the first half

⁵ One possible exception exists in the case of the northern cod stock, which, it appears, may be capable, by 1985 and perhaps earlier, of providing a catch four times as large as at present.

of 1978, but prices for most species remain strong, and the overall prospects for the industry continue to be favourable.

Of the total catch, 60 per cent is exported, and slightly more than 50 per cent of Canada's fish exports go to the United States. Ongoing disputes over fishing rights on George's Bank and subsidies to Canadian fishermen could, however, raise problems there in the coming years. Meanwhile, markets in Japan and the EEC countries are becoming increasingly important, partly because of the extended jurisdiction established by most coastal states and the reduced access for distant-water fleets to traditional fishing grounds. Tariffs have in the past been a significant impediment to exports of Canada's processed fish products. but the increase in demand is also opening up new market opportunities for this segment of the industry.

A variety of government programs have recently been put in place to upgrade and modernize the industry, so that it will be better able to take advantage of the opportunities provided by the 200-mile fishing limit. These programs and related resource management activities will not result in immediate employment increases, as there is considerable surplus capacity in Canada's fishing industry. The effort, however, should help to put the industry on a sounder footing and contribute to improved productivity and higher and more stable earnings.

Forest-Based Industries

Based on any measure of size and significance, the forest products industries together stand out as one of Canada's major industrial sectors. Logging and related forest activities employ some 50,000 workers, and about 250,000 workers are employed at the manufacturing stage. Forest products comprise about one-seventh of total Canadian manufacturing shipments. In 1977 close to \$8 billion of forest products were exported. Forest products are significant in all regions of the country, but they are of particular importance to the economies of British Columbia and the Atlantic provinces - especially New Brunswick.6

Canadian production is largely export-oriented. Softwood lumber, as well as pulp and newsprint, constitute the major share of industry shipments and exports (Table 3-4). These three products - lumber, pulp, and newsprint - face minimum trade restrictions in most world markets.

⁶ British Columbia produces about two-thirds of Canada's softwood lumber and is also becoming an increasingly important producer of the type and grade of pulp that Canada traditionally exports. The forestry industry in Ontario and Quebec produces about two-thirds of Canada's newsprint and about one-half of the output of paperboard and other paper.

Conversely, the more highly processed paper and wood products, such as particle board, fine papers, box board, tissues, and converted paper products, not only have higher costs than similar products from many foreign producers, but they also face significant tariff barriers in the United States and other potential markets.

Table 3-4
Regional Significance of Forestry Products, 1976

	Wood	industries	Paper and	allied industries
	Value of shipments	Proportion of shipments	Value of shipments	Proportion of shipments!
	(\$ Million)	(Per cent)	(\$ Million)	(Per cent)
Atlantic region	221.5	4.4	704.4	8.6
Quebec	953.6	19.1	2,603.8	31.6
Ontario	734.3	14.7	2,459.7	29.9
Prairie region	445.1	8.9	354.4	4.3
British Columbia	2,642.9	52.9	1,855.7	22.6

¹ Data on shipments from Newfoundland and Saskatchewan are not publicly available; hence percentage distribution does not total 100.

Source Based on data from Statistics Canada.

About 70 per cent of Canada's forest exports go to the United States, and the recent increased strength of the U.S. economy has provided a major boost to the industry. Canadian lumber mills are benefitting from the high rate of U.S. residential construction, and newsprint producers are profiting from the sharply increased demand of U.S. publishers. Even pulp producers, who have had to contend with a worldwide oversupply, are seeing their inventories decline to more normal levels. Producers of further processed products, such as fine paper and tissues, are also enjoying more buoyant sales.

Notwithstanding these developments, some of which reflect gains on export sales resulting from the decline in the Canadian dollar, most assessments of the short-term prospects in this highly cyclical industry are restrained. Canadian companies are residual suppliers to the U.S. market and hence are particularly vulnerable to business fluctuations there. There is also concern that the recent increases in U.S. mortgage rates will slow down housing starts and weaken the demand for Canadian lumber. A deceleration of growth in the United States, generally expected in 1979, would hurt the sales of Canadian pulp and newsprint and other wood and paper products.

The long-term prospects for the forest products sector are equally uncertain. Most forecasts consider that, with the slowing population and real growth trends, the world demand for forest products will grow more slowly in the 1980s and that Canada will face increasing competition

from the United States, Scandinavia, and some of the developing countries where production capacity has been increasing. Among the strengths of the Canadian industry is its sizable resource base, which includes 13 per cent of the world's supply of softwood.7 In addition, British Columbia's interior softwood mills are fully cost-competitive with other major producing countries. Thus much will depend on the ability of eastern Canadian firms to improve their competitive strength. Eastern suppliers of pulp and newsprint, however, operate under a number of cost disadvantages vis-à-vis their competitors in southern United States. In particular, in southern U.S. newsprint and kraft mills, the wood cost component of every sales dollar is fully one-third less than that in eastern Canadian mills; and the transportation cost component for the U.S. mills is about half.8

Some encouragement can be drawn from the high level of efficiency attained by the plywood sheathing mills in the interior of British Columbia. Modernization and restructuring may be needed, however, if Canadian producers of highly processed paper and wood products are to take advantage of any widening of market opportunities following the current round of trade negotiations. The slow rate of productivity improvement in this sector generally reflects the low volume and relative lack of specialization common to firms whose sales have been limited principally to the Canadian market.

The Nonfuel Mineral Industry

Historically subject to development booms, activity in the nonfuel mineral industry has leveled off in recent years. The value of mineral production increased quite dramatically in the early 1970s, but this represented a price, rather than a resource, boom. Rates of growth in the volume of output have decelerated continuously in every five-year period since 1950 - from an average annual rate of 9.8 per cent in 1950-55 to 5.2 per cent in 1960-65 and 3.3 per cent in 1970-75. Accompanying this decline has been a gradual substitution of capital for labour. Nonetheless, productivity in terms of real domestic product per person employed is little

8 These approximations are based on data assembled by the Department of Industry, Trade and Commerce and published by them in the "Sector Task Force Report on the

Canadian Forest Products Industry," p. 7.

⁷ While Canada has about 13 per cent of the world's supply of softwoods, it cuts only about 11 per cent of the annual world harvest. This contrasts with the situation in the United States, which has 11 per cent of the world's supply and cuts 22 per cent of the world harvest, and in western Europe, which has 6 per cent and cuts 14 per cent. The relatively low level of Canadian production can be mostly attributed to poor growing conditions, difficult accessibility, and differences in forest-management practices. Though it would not be economical to harvest all of Canada's apparent surplus at existing price levels, these figures suggest that there is scope for increasing Canadian softwood production.

higher today than it was in 1971 (Table A-4). The industry, when taken to include both mining and primary mineral processing, employs about 300,000 workers; it contributes about 5.5 per cent to GNP; and, along with the forest products industry, it is a particularly important source of export earnings. Iron ore, nickel, and the base metals - copper, zinc, and lead - together account for about two-thirds of the value of Canada's mineral output (Table 3-5). About 25 per cent of merchandise exports are in crude or semifabricated form. The annual trade surplus averaged close to \$4 billion over the 1975-77 period.

Table 3-5 Production and Exports of Major Canadian Metal and Nonmetal Minerals, 1977

	Prod	uction	Exports as a
	Millions of dollars	Percentage of total	proportion of production
			(Per cent)
Iron ore	1,360	19	781
Nickel	1,197	17	82
Copper	1,196	17	75
Zinc	814	12	81
Asbestos	564	8	93
Potash	421	6	891
Gold	268	4	-
Silver	210	3	1142
Lead	195	3	93
Molybdenum	147	2	99
Other metals and nonmetals	596	9	
Total	6,968	100	

SOURCE Based on data from Statistics Canada and the Department of Energy, Mines and Resources.

With more than 60 per cent of Canada's crude and semifabricated mineral output destined for export, international market prospects are crucial to the industry. Most observers foresee lower growth rates in the 1980s than in the past. Conservation measures, improvements in recovery techniques, developments in deep-sea mining technology, substitution in mineral sources and end uses, and the increasing use of recycled secondary minerals will all combine to reduce overall demand for the products of Canadian-mining industries. Canada's producers are also being confronted with increasing pressures from producers in developing countries, who enjoy a number of tax advantages and preferential tariffs as well as lower labour costs.

Canada has another disadvantage in that the proportion of crude relative to semiprocessed mineral exports is very large, resulting in the Canadian position being closer to that of a developing country than a

^{..} not available.

1 Applies to the year 1976.

² By drawing on stockpiles, exports exceeded production in 1977.

developed one. Government mineral policy clearly encourages processing and downstream manufacturing where economically feasible, and this is evidently the basis for Canada's efforts in the GATT negotiations to improve access to world markets for fabricated and manufactured mineral-based products. Better trade arrangements may, or may not be, obtained; but other avenues may exist to encourage more mineral processing in Canada for subsequent sale abroad. In particular, the government has undertaken to re-examine the level of taxation in the mineral industry.

Further serious consideration must be given to the projection in the Mineral Area Planning Study of the Department of Energy, Mines and Resources that Canada's currently outlined reserves plus "mineral deposits that are estimated to be discoverable and mineable profitably" will be adequate to cover Canada's share of the world's forecast requirements to the year 2000.9 Given that mineral demand forecasts have been revised downward since this project was completed in 1975, limitations on the physical availability of metals does not appear to present an obstacle to the industry. What is a problem is the qualification. Profit levels in the industry are currently at low ebb, and recent indications are that Canadian mining companies are not spending sufficient funds to ensure that new reserves and additional production capabilities will sustain the desired future production levels. The strong continuous growth in metal reserves of the 1960s has ceased since 1974, except in the case of molybdenum.¹⁰

Energy

In conjunction with the provinces, the Canadian government adopted an energy strategy in 1976 whose main objective is increased energy self-reliance. Using the price system to scale down demand, the target is to reduce the average growth rate of energy consumption to less than 3.5 per cent per annum by 1986. In fact, that rate was reached in 1977 – a year of slow economic growth.

Oil has been the preferred fuel and has supplied close to half of Canada's total needs for most of the postwar period. Ontario and Quebec are, of course, traditionally the largest energy consumers, and the completion in 1976 of the extension of the Interprovincial Pipeline system from Sarnia' to Montreal enabled Quebec to cut its reliance on imports by about one-half. But, as oil prices rise, a shift is expected to other energy

⁹ Department of Energy, Mines and Resources, Metal Mining in Canada 1976-2000, Mineral Bulletin MR167 (Ottawa, 1976).

¹⁰ D. A. Cranstone, "Canadian Reserves of Seven Metals," Canadian Mining Journal (February 1978).

¹¹ Market shares for other fuels during 1976 were as follows: natural gas, 19 per cent; coal and coke, 8 per cent; hydro-electricity, 25 per cent; and nuclear electricity, 2 per cent.

¹² Department of Energy, Mines and Resources, Energy Update 1977 (Ottawa, 1978).

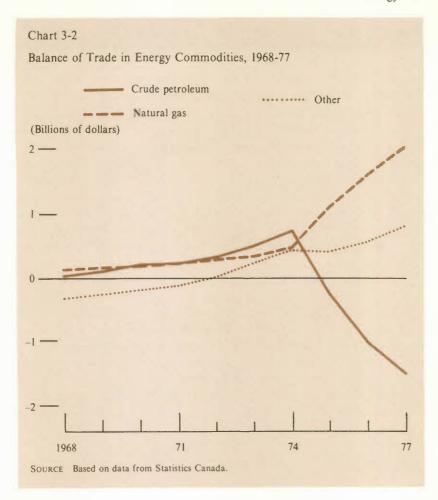
sources – initially electricity and, to the extent permitted by the federal pricing and pipeline strategy, natural gas.¹³ Over the longer run, nuclear electricity, coal, and possibly solar and biomass energy will furnish the requirements.

Higher prices and the phasing-out of oil exports have had a dramatic effect on the Canadian balance of payments. Trade in crude petroleum moved from a surplus of \$800 million in 1974 to a deficit of \$1.5 billion in 1977 (Chart 3-2). Because of natural gas, and, to a lesser degree, electricity exports, however, the overall energy trade balance remains positive at well over \$1 billion. For the future, the National Energy Board recommended in September 1978 that the level of oil exports be held constant at the 1978 level for three years and that, except in a few cases, crude oil exports cease after 1981. The federal government's objective is to reduce the use of imported oil in 1985 to one-third of Canada's total oil demand.

Higher wellhead prices and additional provincial drilling incentives have led to increased exploration for oil in conventional areas. A highlight of 1977 was the discovery of a potentially important oil field in the West Pembina area of Alberta – the first major oil discovery in Canada since 1965. As well as encouraging exploration activity, higher prices have increased the economic feasibility of further exploitation of existing reserves. And legislation permitting output from the oilsands to be marketed at the prevailing international price, as well as preferential tax arrangements, have improved the economics of oilsands development considerably. Two plants are currently in operation, and there are relatively firm plans for another one similar to Syncrude in the Athabaska region and for a project in Alberta's Cold Lake area.

Increased prices have also led to successful exploration in the conventional gas fields of western Canada, have significantly expanded gas reserves, and have created a "gas bubble" in Alberta - that is, a surplus, at present prices, in relation to present Canadian demand. As a result, the federal government has come under some pressure to allow larger exports of gas to the United States. Its policy has been to honour only existing gas export contracts. The petroleum and gas industry and the Alberta government have called for enlarged export sales on the grounds that the higher revenues thus generated would enable the industry to continue with the massive exploration and development program needed to meet future requirements. The option to negotiate exports on a swap basis, with the gas being repaid later from Alaskan gas if it is required, is now being considered by the National Energy Board. In making the decision, the Board will no doubt weigh the long-term benefits entailed in extending gas markets to eastern Canada against the more immediate gains from the additional earnings of exported gas.

¹³ Department of Energy, Mines and Resources, An Energy Strategy for Canada (Ottawa, 1976).



If the federal decision is to make the natural gas available to Quebec and the Atlantic provinces, this will require substantial investment in a pipeline east from Montreal and in plant structure and equipment. Even then, gas cannot be fully substituted for oil in all end uses. Moreover, on the supply side, the continued refining of oil produces large quantities of heavy fuel oil — a by-product that competes directly with natural gas in the industrial market. Because heavy fuel oil must be used shortly after production, refineries are usually prepared to sell at whatever price is necessary to clear stocks. This could limit the rate at which consumption of higher-priced natural gas expands in the industrial market.

Looking ahead, federal estimates suggest that total energy investment over the 1976-90 period could total over \$200 billion in today's dollars. This estimate may be high, 14 but the fact remains that new energy

¹⁴ This may be an overestimation: frontier pipelines are being delayed; electric utilities face excess capacity until the mid-1980s; and exploration and development spending is being redirected from frontier areas to conventional areas.

investment will be very large, by historical standards. As a proportion of GNP, annual capital investment in new energy sources will move from a past average of 3.4 to over 5 per cent. While this is well within the capabilities of the Canadian economy, there will need to be alterations to the regulations and the present funding and institutional arrangements governing the industry, in order that funds will be available.

There is a danger that the current energy surpluses in Canada and abroad could lull the general public into a sense of complacency. Admittedly, growth in energy demand has moderated; the NEB, for instance, has scaled down its estimate of Canadian energy consumption increases to less than 3 per cent annually in the 1980-85 period. Alternative energy sources are being studied; new oil and gas are coming on stream; and oil prices have in fact declined in real terms. However, although they have been massive, the recent world oil discoveries will satisfy demands only for a limited time. For instance, the additions to proven reserves from the discoveries of the past 15 years in North Africa, West Africa, the North Sea, and the North Slope will fill the world's present requirements for only six years. The International Energy Agency has stated that the consequence of a failure by its member nations to hold oil consumption to target levels could be insufficient world oil supplies by as early as the mid-1980s. 15 Thus determined efforts are necessary to conserve energy, to use and produce it more efficiently, and to develop alternative nuclear, solar, and less conventional energy forms. The federal government moved in this direction in July 1978, with its package of programs to encourage a domestic solar industry and the increased use of biomass energy.

Conclusion

Over the years, Canada's primary-based industries have shaped much of this nation's development. As the major source of export earnings, they have enabled Canadians to enjoy a rich and diverse life style. They provide employment and incomes for Canadians in many regions and reaches of the country that would otherwise remain barren. In the decade ahead, as in the past, some resource industries will grow rapidly; others may lose momentum. In the process, because the resource endowments of Canada's major regions are so different, the pace of economic growth may differ from region to region. What is clear, however, is that massive investments are required in the energy, the forest products and, to a lesser degree, the mineral sectors. Since most of this investment will be made by the private sector, there must be ample assurance that these efforts will not go unrewarded. This, in turn, presupposes an economic environment in which the investing enterprises will enjoy satisfactory cash flow positions and have access to appropriate institutional funding over the long term.

¹⁵ Financial Post, July 8, 1978.

4 The Manufacturing Sector in Canada

Over the past quarter of a century, growth in output in Canada's manufacturing sector, which normally accounts for somewhat over 20 per cent of the total real output of goods and services produced in this country, has generally kept pace with the overall national level of economic activity. Employment in the manufacturing industries grew from 1.3 million to approximately 2 million during the same period. While the proportion of total employment accounted for by the manufacturing sector has declined from 25 to 20 per cent over the past 29 years, this sector has remained an important source of new job opportunities in Canada. Furthermore, the productivity gains realized in the manufacturing sector have been a prime contributor to the real income gains that have been achieved by almost all Canadians.

Current performance has, however, raised questions about the viability of important components of Canada's manufacturing sector and the overall potential of manufacturing as an employer and as a generator of future growth. There are, of course, extraordinarily wide variations in the productivity, profits, and prospects of individual firms and industries.¹ But it is important to assess whether much of the current malaise within certain parts of the manufacturing sector is cyclical in nature or whether there are more fundamental structural factors underlying the difficulties faced by many manufacturing firms. To examine this question, it is necessary to consider the current state of the manufacturing sector in light of the business cycles in the 1950s and the 1960s.

Cyclical Developments

While each business cycle is unique, all have certain similar characteristics that occur at about the same phase of each cycle. In the early phase

¹ Economic Council of Canada, Towards More Stable Growth in Construction (Ottawa: Information Canada, 1974), Chapter 5.

of a business recovery, most industries feature low levels of capacity utilization. An increase in demand caused by any one of a number of factors is usually met by more intensive use of existing factors of production, and it is only after the expansion is well under way that there is significant growth in employment. Eventually, however, the forces that led to the recovery lose their momentum, and the expansion phase is followed by a period of decline. From 1950 to the end of 1977, the manufacturing sector went through four major phases of expansion and relative contraction. The expansion phases lasted from nine to twenty quarters, while the contraction periods lasted from six to nineteen quarters (Table 4-1). More precisely, the contraction periods encompassed years of slow growth as well as actual declines.

Table 4-1
Manufacturing Business Cycles, Canada, 1950-78

		Ave	rage annual rate	of growth
	Duration	Real output	Productivity ¹	Employment
	(Quarters)		(Per cent)	
Periods of growth				
1950 Q1 to 1953 Q1	12	6.3	2.1	4.2
1954 Q3 to 1956 Q4	9	10.2	5.1	5.1
1961 Q1 to 1966 Q1	20	8.4	4.2	4.1
1970 Q4 to 1974 Q1	13	7.9	4.7	3.2
Periods of contraction or slow growth				
1953 Q1 to 1954 Q3	6	-2.3	1.4	-3.6
1956 Q4 to 1961 Q1	17	2.0	3.8	-1.8
1966 Q1 to 1970 Q4	19	4.2	4.1	1.0
1974 Q1 to 1975 Q1	4	-9.2	-4.5	-4.9
1975 O1 to 1978 O1	12	4.0	4.4	-0.3

l Output per employed worker.

Source Based on data from Statistics Canada.

In comparison with the 1950s, the 1960s were a much more stable period for manufacturing. The recovery phase got under way in the first quarter of 1961 and lasted for five years, and real output grew at an average rate of 8.4 per cent during this period. The subsequent four-year contraction, which began in early 1966, proved to be mild, by historical standards; indeed, quite vigorous growth occurred in 1968. Over this period, the annual growth rate of manufacturing output averaged 4.2 per cent.

The impressive performance of the manufacturing sector throughout the sixties was partly attributable to particularly favourable outside and domestic forces. The devaluation of the Canadian dollar, the Canada-U.S. Automotive Agreement, the strength of the U.S. economy, and the

increased demand brought about by the Vietnam War, the Defence Production Sharing Arrangement, and the large Canadian grain sales combined to stimulate the manufacturing sector and the economy as a whole.

During the early 1970s, the sector maintained, and indeed improved upon, its earlier performance. A new expansion phase, which began late in 1970 and lasted until early 1974, coincided with the generally buoyant economic conditions in most western industrialized countries. Real output in manufacturing grew close to 8 per cent annually. The boom was fairly well spread throughout the various manufacturing sectors in Canada. By the end of 1974, however, it had lost its momentum, and manufacturing entered once again into a period of slow growth - indeed, the most severe contraction in the postwar years. By as late as the third quarter of 1977, growth in manufacturing remained below its long-term trend, and the level of output was only marginally higher than that of the fourth quarter of 1974. Real growth in manufacturing has, however, picked up considerably in 1978.

The manufacturing sector encompasses a vast array of goods and enterprises. There are in all about 30,000 manufacturing establishments in Canada. A large majority (almost 90 per cent) employ fewer than 100 persons. Only about 1.5 per cent of these establishments employ 500 or more workers. Manufacturing industries are normally divided into two major classifications – durable and nondurable – with these two groups generally being divided into 20 major subsectors. As may be expected, given the diversity of these subsectors, the output, employment, and productivity performance of these industries varies widely (Table A-5). Generally, the nondurable goods industries display lower rates of growth in expansion periods, and their output tends not to fall as rapidly as that of the durable goods sector during the contraction phases. In the current phase, beginning in the first quarter of 1974, real output declined in five of the eight durable-goods industries but in only two of the twelve nondurable-goods industries. In the durable goods sector, the greatest cyclical movements occurred in the high-technology and more sophisticated transportation and electrical goods industries. Overall, from 1974 to well into 1978, employment in manufacturing fell at an average annual rate of 1.5 per cent. This has been particularly evident in the electrical products, furniture and fixtures, textiles, knitting, wood products, and miscellaneous industries.

In last year's Review, it was suggested that structural problems within certain parts of the manufacturing sector were hurting the overall competitiveness of Canadian manufactured goods.² Over the course of the

² Economic Council of Canada, Fourteenth Annual Review: Into the 1980s (Ottawa: Supply and Services Canada, 1977), p. 42.

Average Annual Growth Rate of Gross Fixed Capital Formation, Canada, 1960-77 (In 1971 dollars)

	Ave	Average					
	02-0961	1970-77	1973	1974	1975	9261	1977
				(Per cent)			
Total (excluding housing)	5.6	4.8	11.1	8.2	6.1	-2.3	0.5
Manufacturing	7.5	2.3	16.5	16.0	2.6	9.8	2.9
Primary and construction	5.1	8.4	10.3	7.5	80.00	15.6	1.0
Trade, finance, and services	5.9	8.6	22.1	11.9	9.4	5.4	-9.5
Government	3.1	2.9	6.0	5.1	4.4	7.0	3.8
Institutions	5.6	-6.1	-13.3	3.7	4.	6.7	5.7
Utilities	8.0	7.6	17.1	2.1	9.61	6.1-	17.5

SOURCE Based on data from Statistics Canada,

past two years, however, the depreciation of the Canadian dollar has provided the equivalent of a 15 per cent tariff on imports and a corresponding impetus to exporters, and the rate of increase of Canadian unit costs has fallen substantially. Will these factors alone enable Canadian manufacturing enterprises to compete vigorously once again in both the domestic and foreign markets? The key to success will be the productivity performance of these firms and their level of investment activity.

Investment in Manufacturing

As indicated in Chapter 1, part of the sluggish performance of the Canadian economy is associated with the weakness of business investment. On average, the rate of growth in new manufacturing investment has slowed considerably more than the other components of business investment, with the exception of institutional investment. Real capital spending in the manufacturing sector exerted a strong upward pull on real GNP in 1973 and 1974 and a substantial downward tug in 1975 and 1976 (Table 4-2). It improved modestly in 1977 but, despite a rally in the second quarter of this year, there has been no major impetus in new manufacturing investment in 1978.3

A number of factors have dampened business expectations of prospective returns on new investments. A striking feature has been the low level of capacity utilization since 1975, though in the second quarter of 1978 there were promising improvements throughout the durable and nondurable sectors. The gap between potential and actual output has been particularly evident in many of the capital-goods industries (machinery, metal fabricating, primary metals, nonmetallic minerals), although several consumer durable-goods industries (wood products, furniture and fixtures, electrical products) have been at an equally low ebb (Table 4-3). Clearly, however, some of this "excess" capacity is accounted for by equipment that, because of its high energy consumption and its negative effects on the environment, can no longer function economically.4 While exports to the very important U.S. market have picked up, the demand for heavy goods is only now approaching the peak levels reached in 1973. Firms in some of the durable-goods industries (furniture, appliances,

3 Statistics Canada's mid-year review of investment intentions forecasts an increase of 8.3 per cent for 1978 in current-dollar manufacturing capital expenditures. This suggests little or no increase in real capital spending.

4 A recent study estimates that unexpected increases in energy costs may have lowered economic capacity in the United States by as much as 4.5 per cent. See Denis Karnovsky, "The Link Between Money and Prices, 1971-76," Federal Reserve Bank of St. Louis Review (June 1976).

machinery, and automobiles) are facing increasing import competition in the domestic market. Utilization rates have also been affected by substantial capacity expansion in the plastics and chemical industries.

Table 4-3
Capacity Utilization in the Manufacturing Industry, 1973-78

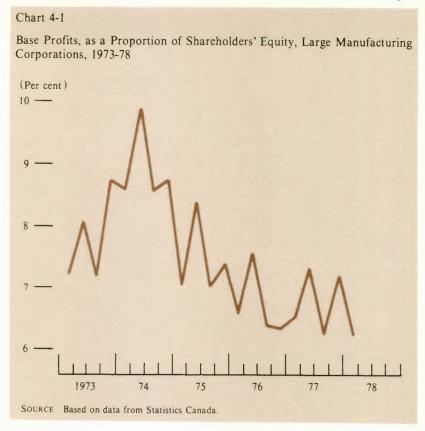
	Most recent peak	1978 Q2	Most recent trough
Food and beverages	94.2	86.3	85.8
Tobacco products	95.6	85.8	85.8
Rubber and plastics	84.3	84.3	56.0
Leather	87.6	76.7	68.1
Textiles	100.0	95.4	84.2
Knitting mills	100.0	100.0	82.2
Clothing	100.0	99.3	90.6
Wood	84.4	78.5	60.1
Furniture and fixtures	90.3	80.6	68.0
Paper and allied industries	96.6	91.6	61.5
Printing, publishing, and allied industries	100.0	99.2	92.9
Primary metals	91.6	79.7	68.7
Metal fabricating	93.4	79.7	76.7
Machinery	0.001	84.0	77.7
Transportation equipment	100.0	94.6	79.7
Electrical products	97.3	80.9	77.4
Nonmetallic mineral products	92.9	81.0	77.2
Petroleum and coal products	100.0	75.1	75.1
Chemicals and chemical products	100.0	76.6	73.7
Miscellaneous manufacturing	100.0	100.0	85.0

SOURCE Based on data from Statistics Canada.

Corporate profit levels are still showing the effects of inflation and weak market conditions. Following the record levels of 1974, the base profits⁵ of large Canadian manufacturing corporations, as a proportion of sales and shareholders' equity, have declined substantially (Chart 4-1); but, again, the most recent figures show signs of improvement. Some manufacturing industries (rubber and plastics, metal fabricating, electrical products, nonmetallic minerals, and chemicals) have experienced particularly severe declines in profitability in recent years.

These factors, which are by no means unique to Canada, have contributed to the unfavourable investment climate. Political uncertainty and worry among some businessmen about the relatively high degree of government intervention in the Canadian economy have not helped the situation. Nonetheless, a modest improvement in manufacturing performance over the past year is cause for some optimism. The strong growth in

⁵ Base profits reflect net income of a corporation before income taxes and extraordinary items, and before recording transactions that, to a greater or lesser extent, can be altered at the discretion of corporate management.



export sales has contributed to higher rates of capacity utilization in some industries - most notably paper products - and to sharply improved profitability in the wood products and primary metals sectors. There has also been a significant increase in the availability of funds to finance business capital investment.6 The increased ability of firms to finance investment from internal sources is indicated by the growth in total business savings, relative to total business investment (including inventory investment), from 59.2 per cent in 1974 to 70.4 per cent in 1977 – an increase resulting in part from the federal government's liberalization of capital cost allowances. While these developments are all encouraging, there must nevertheless be a substantial improvement in business confidence about economic prospects and, within each industry, about the longterm potential for growth and profitability. This, in turn, will depend critically on the performance of the U.S. economy and on the pattern of labour-management contract negotiations in the coming months.

6 The Conference Board in Canada's Survey of Business Attitudes for the second quarter of 1978 found external financing to be "abundant"; only 5 per cent of the senior business executives surveyed indicated some difficulty in obtaining external financing, compared with 10 per cent in the second quarter of 1977.

Canada's investment climate will also be influenced by the activities of both the federal and provincial governments, who have developed a variety of loan and subsidy programs to encourage investment in particular industries, to support certain important industrial activities, and to foster the growth of various regions. At the federal level, in the fiscal year ending March 31, 1977, direct transfers to firms involved in trade and industry totalled around \$250 million. This figure excludes subsidies implicit in several federal loan programs and in certain procurement activities. The federal government has also introduced various incentives on the corporate taxation side aimed at encouraging additional investment and relieving some of the corporate tax burden that, in combination with inflation, has dampened post-tax real rates of return on investment. (In the Thirteenth Annual Review, for instance, we cited figures indicating that as a result of inflation, the manufacturing sector alone lost \$1 billion in extra taxes in 1974 because of the corporate requirement that plant and equipment and inventories be costed at historical rather than replacement cost.)

The increase in the deficit in Canada's trade in manufactured products that occurred in the 1970s was observed in Chapter 2. The gap between imports and exports widened, particularly for those manufactured goods that are not resource-related. Import penetration has increased substantially for a range of products, including rubber and plastics, leather and knitted goods, wood products, furniture, machinery, transportation equipment, electrical products, and miscellaneous manufactured goods (Table 4-4). In industries such as machinery and rubber products, this has been accompanied by a strong rise in exports, suggesting that a process of rationalization and specialization is perhaps under way.7 However, for many industries - especially leather and knitted products, clothing, and furniture and fixtures - import competition has been intense, and changes in production have been made in response to the dictates of market forces.

Thus, while much of the slowdown in manufacturing growth and the adverse movement in the trade balance can be explained by cyclical factors, some industries within the manufacturing sector are beset by a number of longer-term and more fundamental problems. It is not clear whether these structural difficulties have become substantially more pronounced in the recent period; but, in the context of the less buoyant economic environment of the seventies, they are more worrisome. In view of the questions that have been raised about Canada's prospects in the

⁷ A recent study has noted the increase in intra-industry trade and the apparent process of rationalization that occurred during the sixties in a number of manufacturing industries, including machinery and chemicals, as well as automobiles. George Lermer, "Evidence from Trade Data Regarding the Rationalization of Canadian Industry," Canadian Journal of Economics 6, no. 2 (May 1973).

more competitive trading environment of the 1980s, it is of interest to examine some of the factors influencing the efficiency and competitive strength of Canada's manufacturing industries.

Table 4-4 Trade Orientation of Canadian Manufacturing Industries, 1965-77

	Expo	ort orientat	ion	Impo	rt penetra	ion
	1965-70	1971-76	1977	1965-70	1971-76	1977
			(Per	cent)	-	
Food and beverages	9.4	9.5	11.0	6.7	8.6	10.2
Tobacco products	0.6	0.5	0.5	1.1	1.4	1.3
Rubber products	4.3	6.9	9.0	16.1	22.8	23.4
Leather goods	5.2	6.4	8.5	17.8	29.2	36.0
Textiles	4.2	5.1	5.7	23.1	26.3	26.3
Knitting mills	2.0	2.1	1.4	15.6	30.3	30.5
Clothing	3.0	5.2	4.3	6.0	9.9	11.6
Wood products	40.4	44.0	49.3	8.5	12.2	11.4
Furniture	2.7	4.7	5.6	5.4	9.6	13.0
Paper and allied industries	50.7	53.1	56.0	7.7	8.6	9.9
Printing and publishing	1.2	2.4	2.6	13.5	14.0	14.7
Primary metals	45.9	43.0	44.2	24.8	25.9	22.5
Metal fabricating	3.0	5.1	6.3	12.3	15.4	15.8
Machinery	32.7	41.7	51.1	65.1	70.4	75.2
Transportation equipment	45.4	65.3	73.1	51.2	68.2	75.1
Electrical products	11.7	13.7	13.7	23.8	32.1	35.6
Nonmetallic mineral products	6.0	7.5	8.3	15.3	15.9	16.4
Petroleum and coal products	1.6	5.5	2.4	11.1	6.7	3.6
Chemicals	14.8	16.2	20.4	25.1	28.9	31.3
Miscellaneous manufacturing	22.1	19.4	16.6	49.7	52.9	54.0

SOURCE Based on data from the Department of Industry, Trade and Commerce.

Productivity in Manufacturing

Over the longer term, productivity growth is the major determinant of the upward trend in per capita income.8 In previous reports, the Council has noted that Canada's productivity performance leaves much to be desired. This country's average annual rate of productivity increase – as

- 8 Over the 1962-72 period there was a very close correspondence between the growth in labour productivity and the growth in real income per person employed. During the 1972-76 period, however, some temporary developments - in particular, an improvement in Canada's international terms of trade - allowed per capita income to increase at an exceptionally rapid rate, despite a sharp drop in productivity growth. See Charles Freedman, "Recent Growth in Productivity, Real Expenditure per Capita and Real Income per Capita: Accounting for the Differences," Bank of Canada Review (August
- 9 See Economic Council of Canada, Looking Outward: A New Trade Strategy for Canada (Ottawa: Information Canada, 1975), Chapter 2; Fifth Annual Review: The Challenge of Growth and Change (Ottawa: Queen's Printer, 1968), Chapter 2; and the Sixth Annual Review: Perspective 1975 (Ottawa: Queen's Printer, 1969), Chapter 2.

expressed by the rate of growth of output per man-hour in manufacturing - is among the lowest of all industrialized nations, though it was slightly higher from 1961 to 1977 than the rate attained in the United States during the same period.

Another perspective can be gained by comparing actual levels of productivity in Canada with those of other countries. Of particular interest in this regard is the size of the gap between productivity levels in Canadian and U.S. manufacturing industries. A report of the Senate Committee on Canada-U.S. relations suggested that there is often a significant divergence in productivity between the Canadian and U.S. operations of the same company.10 The Senate report reinforces the conclusions of an earlier study in which the author took explicit account of price differences between the two countries and attempted to measure the gap in output per man-hour. For the 33 manufacturing industries examined, productivity in Canada in 1974 was found to be about 80 per cent of that in the United States. There were, however, important differences. Value added per man-hour in the Canadian durable-goods sector was approximately 95 per cent as high as that in the United States, while this measure of labour productivity in nondurable goods was only about 70 per cent of that achieved in the United States. Not surprisingly, Canadian productivity compared most favourably in the large-scale, export-oriented wood products, iron and steel, and motor vehicles and parts industries. The productivity of firms in the food-processing industries, petroleum refining, and the miscellaneous nondurable-goods sector tended to be far lower in Canada.

These findings raise a number of questions: Has productivity growth in the Canadian manufacturing sector slowed during the seventies? Why has long-term productivity growth in this country lagged so far behind the pace achieved by many other industrial countries? Why is there still a very substantial gap in productivity between many comparable Canadian and U.S. manufacturing industries? These questions require more complete answers than can be given within the confines of this Review; nonetheless, a number of the more important considerations can be briefly examined.

Productivity is influenced by a wide range of factors, including entrepreneurial talent, the attitude and skills of the work force, the amount of capital per worker, and the rate of technical progress. It varies from industry to industry and over the business cycle, decreasing in the initial stages of a downturn as production facilities become less fully utilized

¹⁰ The Standing Senate Committee on Foreign Affairs, Canada-U.S. Relations, Canada's Trade Relations with the United States, vol. II (Ottawa: Supply and Services Canada,

¹¹ James Frank, Assessing Trends in Canada's Competitive Position: The Case of Canada and the United States (Ottawa: The Conference Board in Canada, November

and increasing as recovery gets under way (see Table 4-1). With respect to recent performance in the manufacturing sector as a whole, it is significant that the average rate of productivity growth has not departed substantially from its long-term trend. Leaving aside the cyclical slump in 1974, the manufacturing sector has sustained a 4.4 per cent rate of growth in output per employed worker since 1975 - or roughly the equivalent of the average growth rate achieved throughout the 1960s and the expansion years to 1974.

It is worth noting, however, that the sustained productivity performance from 1975 to 1978 was achieved with only half the rate of increase in real manufacturing output from 1970 to 1973. In the earlier period, annual real output and employment increased by 8 per cent and 3.2 per cent, respectively, whereas in the later period a 4 per cent increase in real output was accompanied by a 0.3 per cent decline in employment. Moreover, within some industries, there has been actual disinvestment in plant and equipment per worker. Some other recent developments may also be having a negative influence on productivity growth that is not yet apparent. Pollution regulations and related developments, for example, have in some cases forced firms to invest quite heavily without adding to their measured output. Also, rising energy prices may have eroded a relative advantage that some Canadian firms held over their competitors.

A number of factors determine the rate of growth in manufacturing labour productivity. Those that can be measured include growth in the amount of capital per worker, which has made a substantial contribution; shifts in the industrial structure - that is, changes in the relative importance of industries with different productivity levels and growth rates - which have been relatively unimportant; and cyclical factors, which have been significant and which, because of their destabilizing effects, tend to be counterproductive. Most of the long-term productivity growth in manufacturing, however, is accounted for by "other factors" that are not easily measured, such as changes in the skill and quality of the work force, technical progress, increases in plant size, and improvement in the organization of production. Within each industry, these factors are continuously interacting, and it is difficult numerically to separate their net impact. Still, some estimates have been developed for the 1957-74 period. They indicate that if a 10 per cent increase in productivity occurred in the whole manufacturing sector, roughly 3 percentage points would be derived from increases in plant and equipment. This would be offset partly by a decrease of 1.7 percentage points attributable to counterproductive cyclical factors and interindustry shifts. The balance of 8.7 percentage points would come from other factors. This suggests to us the importance of efforts to raise not only the skill level of Canadian labour but, perhaps more important, the level of managerial training and know-how. In addition, of course, there is wide scope for the

Table 4-5 Productivity Growth, by Industry, Canada, 1957-74

Estimated annual growth rate of productivity (Per cent) 1.88 1.09 2.11 8.45 2.67 3.37 3.36 3.36 3.36 3.37 3.36 3.37 3.36 3.37 3.36 3.37 3.36 3.37 3.36 3.36			Perce	Percentage points attributable to:	able to:
Per cent 1.88 1.09 1.88 1.09 2.11 .65 3.37 .93 3.36 .84 2.67 .52 3.44 .37 3.84 .37 4.59 .1.16 4.59 .1.16 4.50 .1.16 5.67 .1.13 6.04 .1.23 7.1 8.5 .2.3 8.6 .2.07 9.8 .2.1 9.8 .2.1 9.8 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.1 9.9 .2.2 9.		Estimated annual growth rate of productivity	Capital	Cyclical factors	Other factors
g electrical machinery) g electrical machinery) g electrical machinery) auding parts and accessories) and accessories products g electrical machinery) 3.34 2.67 3.34 3.37 4.84 3.7 -13 4.59 1.16 4.31 5.67 13 -1.16 4.31 5.67 13 -1.16 4.31 5.67 13 -1.16 4.31 5.67 13 13 13 13 10 and allied industries 2.56 1.28 2.07 6.04 1.28 1.28 2.07 6.04 1.28 1.09 and allied industries 5.02 1.75 1.75 1.75		(Per cent)			
1.88 1.09 2.11 .65 3.37 .93 3.36 .84 2.67 .52 2.67 .52 2.82 .60 2.82 .60 2.82 .60 4.59 .1.16 4.31 .56 4.31 .56 4.31 .56 5.67 .1.23 6.04 .2.3 6.04 .2.3 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 6.04 .2.8 7.05 .2.8 7.06 .2.8 8.06 .2.8 9.06 .2.8 9.06 .2.8 9.06 .2.8 9.07 .2.8 9.08 .2.8 9.09 .2.8 9.00	Durable goods				
g electrical machinery) g electrical machinery) g electrical machinery) 3.36 3.37 3.36 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.84 3.7 3.87 3.10 5.67 4.10 5.67 4.11 5.60 5.67 4.11 5.60 6.04 1.28 1.28 1.28 2.07 6.04 1.28 1.28 2.08 2.08 2.09 6.04 1.28 2.09 6.04 1.28 2.09 6.04 1.28 2.00 2.68 2.00 2.68 2.00 2.68 2.00 2.68 2.00 2.68 2.00 2.78 2.78 3.10 3.37 4.30 5.20 5.20 6.04 1.75 6.04 1.75 6.04 1.75	Mood	1.88	1.09	-,44	1.23
3.3793 3.3684 2.6784 2.6784 2.6784 3.8437 auding parts and accessories) 5.6713 and accessories 5.6716 products 2.8716 and allied industries 5.07 broducts 5.0223 and allied industries 5.0217 broducts 5.02175 and products 5.03175 and products 5.03175 and products 5.03175 and products 5.03175	Furniture and fixtures	2.11	.65	77	2.23
3.36 .84 2.67 .52 2.67 .52 3.84 .37 3.84 .37 3.84 .37 3.84 .37 3.84 .37 3.84 .37 3.84 .37 3.84 .37 3.84 .37 4.85 .60 1.85 .20 5.07 .43 6.04 1.28 7.05 7.06 8.06 1.70 9.06 9.06 9.06 9.07 9.08 9.09 9.00 9.	Iron and steel	3.37	.93	13	2.57
g electrical machinery) g electrical machinery) 3.84 3.75 4.91 5.67 13 -1 and accessories products 2.87 2.56 1.23 4.86 2.07 6.04 1.28 2.68 2.08 2.68 2.08 2.08 2.18 2.09 2.68 2.09 2.68 2.09 2.68 2.09 2.68 2.09 2.68 2.09 2.68 2.09 2.68 2.09 2.68 2.00 2.68 2.00 2.68 2.00 2.68 2.00 2.68 2.00 2.68 2.00 2.68 2.10 2.17 2.18 2.17 2.18 2.1	Nonferrous metal	3.36	.84	99.	1.86
g electrical machinery) g electrical machinery) 2.82 2.82 .60 .60 4.59 1.16 4.31 2.87 .116 .107 .116 .117 .116 .117 .117 .118 .119 .119 .119 .119 .119 .119 .123 .123 .124 .125 .128 .129 .200 .219 .220 .230 .240 .250 .250 .250 .278	Metal fabricating	2.67	.52	27	2.42
quipment 2.8260 uding parts and accessories) 5.671313 and accessories 4.59 1.16 products28771 2.56 1.23 4.86 2.07 6.04 1.28 1.8523 and allied industries 5.02 products20 2.6820 2.6820 2.78 1.03 products20 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.75	Machinery (excluding electrical machinery)	3.84	.37	19	3.66
broducts uding parts and accessories) and accessories and accessories products 2.67 1.16 4.59 1.16 4.31 2.87 7.1 7.1 7.1 7.2 4.86 2.07 6.04 1.28 1.28 1.85 2.07 6.04 1.28 1.85 2.07 6.04 1.28 1.69 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.75 1.75	Nonauto transport equipment	2.82	09.	74	2.69
and accessories 4.59 1.16 products 5.6 products 2.87 7.1 2.87 7.1 2.87 7.1 2.87 7.1 2.87 7.1 2.87 7.1 2.87 7.1 2.87 7.1 2.88 2.07 6.04 1.28 1.85 2.28 2.08 2.08 2.08 2.08 2.09 2.68 2.0 2.69 2.78 1.03 2.78 1.03 2.78 1.75 2.78 1.75	Motor vehicles (excluding parts and accessories)	5.67	13	-1.84	7.64
products 4.31 .56 2.87 .71 2.87 .71 2.87 .71 2.87 .71 2.87 .71 2.87 .71 2.87 .71 2.87 .71 2.84 .86 .207 6.04 .1.28 1.85 .2.3 2.88 .20 2.68 .20 2.68 .20 2.68 .20 2.68 .20 2.68 .20 2.68 .20 2.68 .20 2.68 .20 2.68 .20 2.78 .1.75	Motor vehicle parts and accessories	4.59	1.16	.17	3.26
products 2.87 .71 products 2.87 .71 2.56 1.23 4.86 2.07 6.04 1.28 1.85 2.07 5.28 2.00 2.68 2.00 2.68 2.00 2.78 1.03 products 5.02 1.75	Electrical products	4.31	.56	66	2.76
2.56 1.23 4.86 2.07 6.04 1.28 6.04 1.28 1.85 2.3 2.8 5.0 and allied industries 1.03 5.02 1.75 6.04 1.28 6.	Nonmetallic mineral products	2.87	.71	.11	2.05
2.56 1.23 4.86 2.07 6.04 1.28 6.04 1.28 1.8523 3.2850 2.6820 2.6820 2.6820 2.6920 2.6920 2.6920 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03 2.78 1.03	Nondurable goods				
4.86 2.07 6.04 1.28 6.04 1	Food and beverages	2.56	1.23	35	1.68
and plastics 6.04 1.28 and clothing 5.28 5.0 and clothing and allied industries 1.69 6.1 In and coal products 5.02 1.75 In and chemical products 5.02 1.75	Tobacco products	4.86	2.07	90"	2.73
and clothing 5.28 5.28 5.08 5.09 and allied industries 2.78 1.03 m and coal products 5.02 1.75 Is and chemical products 5.02 1.75	Rubber and plastics	6.04	1.28	.48	4.28
5.28 .50 .20 .20 .20 .278 .1.03 .51 .50 .20 .20 .278 .20 .20 .51 .51 .50 .51 .50 .51 .50 .50 .50 .50 .50 .50 .50 .50 .50 .50	Leather	1.85	.23	21	1.83
2.68 .20 .20 .278 lied industries 1.03 .5.02 .5.10 .51 .500 .51 .75 .500 .500 .500 .500 .500 .500 .500	Textiles	5.28	.50	27	5.05
ied industries 1.03 1.69 1.61 1.75 1.75	Knitting and clothing	2.68	.20	23	2.71
ied industries 1.69 .61 ts 5.02 1.70 6.02 1.75	Paper and allied industries	2.78	1.03	04	1.79
5.02 1.70 5.21 1.75	Printing, publishing and allied industries	1.69	19.	61	1.27
lucts 5.21 1.75	Petroleum and coal products	5.02	1.70	03	3.35
271	Chemicals and chemical products	5.21	1.75	30	3.76
79. /9:1	Miscellaneous manufacturing	1.67	.62	.02	1.03

SOURCE P. S. Rao, "An Econometric Analysis of Labour Productivity in Canadian Industries," Economic Council of Canada Discussion Paper (forthcoming)

improvement of industrial relations in many industries, particularly at the shop level where many of the productivity improvements may be made.

Major differences in long-term productivity growth have been achieved by various industries within the manufacturing sector. For some industries (wood, leather, and miscellaneous manufacturing), the annual cyclically adjusted rate of increase in labour productivity¹² between 1957 and 1974 averaged under 2 per cent, while for others (motor vehicles, rubber and plastics, textiles, petroleum and coal products, chemicals) the average growth rate exceeded 5 per cent (Table 4-5).13 Increases in capital intensity have been particularly important – accounting for over one-third of the adjusted rate of productivity growth - in wood products, food and beverages, tobacco products, paper and allied industries, and petroleum and coal products. Other factors, including technical progress and improvements in the organization of production, have been significant in all industries, though they have made a particularly important contribution to the high rates of productivity growth in motor vehicles, rubber and plastics, and textiles. It is interesting that in the automobile industry, the huge expansion in plant and equipment that took place had little effect on productivity growth; rather, the increased specialization made possible by the Canada-U.S. Auto Agreement was the key factor in raising productivity in this industry towards the U.S. level.

A particular set of difficulties confront manufacturing firms engaged in labour-intensive, standard-technology activities that are subject to intense competitive pressure from manufacturers in some Third World countries. Such firms are at present largely concentrated within six industries - leather goods, textiles, knitting mills, clothing, electrical and electronic equipment, and sporting goods and toys14 - which are located mainly in Quebec and Eastern Ontario. There is also real concern that some of the advanced developing countries are improving their capacity to manufacture a greater range of products and thus pose a competitive threat to a greater segment of Canadian industry. The competitive difficulties of the labour-intensive industries are often discussed in terms of the relatively higher wages in Canada than in developing countries, but the problem could perhaps be more accurately perceived in terms of productivity comparisons. Difficulties arise because the level of productivity within Canadian firms does not exceed that in the developing

14 Economic Council of Canada, For a Common Future (Ottawa: Supply and Services Canada, 1978), Chapter 4.

¹² These findings are based on P. Someshwar Rao, "An Econometric Analysis of Labour Productivity in Canadian Industries," Economic Council of Canada Discussion Paper (forthcoming).

¹³ The industry productivity estimates cited in Table 4-5 are somewhat lower than those in Table A-5, partly because they are based on output per man-hour rather than per employed worker and partly because of the estimating techniques used.

countries by a margin sufficient to offset the gap in wage rates. Indeed, in some activities, productivity is higher in the developing countries than in Canada, and the gap in real wages between Canada and these countries is narrowing slowly. Certain segments of Canada's vulnerable industries may be well able to meet the competitive threat from Third World countries, but it is clear that most can expect to face mounting pressures for rationalization and adjustment to the realities of international competition.

Cyclical factors have had a significant influence on the productivity growth of the group of export-oriented industries dominated by firms with relatively large-scale, capital-intensive operations. This group produces mainly basic material goods and durables, including motor vehicles, iron and steel, cement, softwood lumber, pulp and newsprint, and smelted and refined nonferrous metals. Major firms in all of these industries generally employ modern technology¹⁵ and have attained a level of efficiency that enables them to compete in international markets to varying degrees. For example, the competitive strength of integrated iron and steel plants in Ontario or in British Columbia's softwood lumber mills contrasts with the relatively high costs and unfavourable competitive position of eastern Canada's pulp and newsprint producers. Leading firms may also combine the processing function with the harvesting or extraction of the natural resource, so that their competitive position as a manufacturer is related to Canada's natural advantage as a resource supplier. However, the sharp fluctuations in demand and in world prices often deny firms in this group the internal cash flow needed for contemplated investments and make the estimation of price-cost margins for these investments particularly difficult. The impact of fluctuations in demand within the North American economy is accentuated where, as is sometimes the case, Canadian firms are residual suppliers to the U.S. markets - a problem particularly in the newsprint industry. These factors have contributed to the recent decline in investment and to the slowing-down of productivity growth in some of these industries.

Most of the industries within Canada's manufacturing sector fall into a third category of firms that produce mainly for the domestic market and enjoy some tariff protection, though to a generally lesser extent than the labour-intensive industries. This group embraces a large portion of the food-processing, appliances, plastics, soaps and detergents, and furniture industries, and most highly processed paper and wood products firms, as well as several other sectors. While there have been some important

¹⁵ In the steel industry, for example, the larger Canadian companies have tended to adopt new technology faster than their U.S. counterparts. See H. Baumann, "The Diffusion of the Basic Oxygen Process in the U.S. and Canadian Steel Industries: 1955-69," Research Report 7303, University of Western Ontario, London, 1976.

examples of restructuring and rationalization within these industries, and the tariff protection afforded this group has tended to decline over time. substantial productivity differences remain between these Canadian firms and their major U.S. competitors. Moreover, as comparisons between the two countries are generally made on the basis of labour productivity, and the amount of capital available per worker tends to be higher in Canada than in the United States, the total factor productivity gap between Canadian and U.S. industries is even larger than generally acknowledged.16

Specialization, Scale, and Efficiency

A number of studies have explored the variation in efficiency within Canadian and U.S. manufacturing industries, emphasizing the problems associated with the scale - and, more important, the degree of specialization.¹⁷ While the diseconomies of small-scale plants are significant in a few Canadian industries, greater emphasis has recently been given to the problem of overdiversification and lack of specialization. When the very smallest plants are excluded, the other Canadian plants are generally not very much smaller than those in the United States. Moreover, small plants are much less common in those industries in which there are large cost penalties associated with inefficient smallscale operations. The problems of small scale and overdiversification are related, however, in that both are, to a considerable extent, responses to the constraint of small market size. The alternative to making plants more diversified is to make them smaller, but Canadian firms have often chosen the former course. 18

In heavily diversified plants, the volume of each particular item produced tends to be smaller; production rates may be lower; and production runs are often shorter. Plants of this type are generally unable to make use of the most specialized machinery, and they tend to operate at lower rates of capacity and to require frequent down-time for changes

16 Canada's relatively greater capital intensity is indicated in E. C. West, Canada-United States Price and Productivity Differences in Manufacturing Industries, 1963, Economic Council of Canada Staff Study 32 (Ottawa: Information Canada, 1971); and in Frank, Assessing Trends.

17 See, for example, West, Price and Productivity Differences; and D. J. Daly, B. A. Keys, and E. J. Spence, Scale of Specialization in Canadian Manufacturing, Economic Council of Canada Staff Study 21 (Ottawa: Queen's Printer, 1968). More recent findings are presented in Richard E. Caves et al., Studies in Canadian Industrial Organization, Royal Commission on Corporate Concentration, Study 26 (Ottawa: Supply and Services Canada, 1978).

18 See Caves et al., Industrial Organization.

between products using the same machinery.¹⁹ A recent study has shown that diversification in production patterns – as measured by the number of secondary products and activities per establishment – tends to increase with plant size. But, in virtually all size classes, both Canadian and foreign-owned plants in this country are significantly more diversified than U.S. plants, and foreign-owned plants in Canada are generally much more diversified than domestically owned plants.²⁰

The lack of specialization within Canadian plants can be partly attributed to the limited size and wide distribution of Canada's population. But it is also associated with the relatively high degree of foreign ownership and substantial tariff protection, as well as some general weakness in competitive forces in important areas of the economy. While the problems of scale and specialization have received most of the attention of economists, the work of industrial engineers and others in the field of production management indicates that there is considerable scope for firms to increase efficiency, notwithstanding the limitations that may be posed by the size of the market.²¹ As suggested by the quantitative evidence on the factors contributing to productivity performance, improvements in plant organization and routine can yield substantial productivity gains. Yet there is evidence that firms in Canada do not adapt to already-existing organizational and other innovations as rapidly as their counterparts in the United States and that this is related in part to their protected market situation.²²

It is not clear to what extent the relatively high tariffs that protect many Canadian manufacturing firms have impeded the processes of innovation and industrial adjustment and rationalization. Indeed, the relationship between tariff protection and cost inefficiencies is ambiguous. On the whole, tariffs on Canadian manufactured products are substantially higher than the tariffs on similar goods produced in the United States. It has been estimated, for instance, that the average

19 A recent report by the Tariff Board on the production of pleasure craft provides a concrete illustration of the gains that are available through increased specialization. The Board commented that a study by one of the manufacturers, comparing costs prior to and after rationalization, "demonstrates rather strikingly the extensive savings in labour and other costs per unit made possible by longer runs." In this particular case, substantial improvements in efficiency were achieved as workers became more familiar with, and more proficient at, the fairly complex construction of large craft.

20 Richard E. Caves, Diversification, Foreign Investment and Scale in North American Manufacturing Industries, Economic Council of Canada (Ottawa: Information

Canada, 1975).

21 See, for example, R. H. Hayes and R. W. Schmenner, "What's the "Right" Manufacturing Organization," Working Paper, Harvard University, Graduate School of Business Administration, 1977; and Wickham Skinner, "The Focussed Factory," Harvard Business Review, May-June 1974.

22 D. Daly and S. Globerman, Tariff and Science Policies: Applications of a Model of Nationalism, Ontario Economic Council Research Study 4 (Toronto: University of

Toronto Press, 1976).

Canadian manufacturing firm marks up prices by 0.5 percentage point for every percentage point of tariff protection, that the markup increases or decreases depending on the degree of industry concentration, and that particular costs rise with the level of protection. On the other hand, there is evidence for the 1961-72 period that Canadian industries that initially enjoyed high protection showed a faster rate of cost reduction than less protected Canadian industries.²³ And, since the early 1960s, Canadian manufacturing has enjoyed somewhat faster productivity growth overall than U.S. manufacturing.²⁴ What this implies to us is that the interrelationship of international competition, domestic tariff and nontariff barriers, and the elements that generate lower costs and higher productivity is very complex and warrants much more intensive study than has been possible here. The Council will be intensifying its research in this area over the next few years.

Conclusion

In previous reports, the Council has elaborated on the important role of market forces in generating productivity improvement and stimulating increased industrial efficiency. Governments can promote these objectives by ensuring that their policies help shape an environment that is favourable to the interplay of market forces and consistent with the social aspirations of Canadians.

Governments exert their influence on industrial growth and development through a broad range of general policies. But, in addition, there has been, and will continue to be, an important role for policies directed at some of the problems confronting Canada's manufacturing industries. These include policies to promote specific industrial activities – such as the major program of incentives to promote research and development recently announced by the Minister of State for Science and Technology – and schemes to support certain sectors where market failures are creating unemployment and impeding growth. Canada's manufacturing sector – and most particularly the more labour-intensive industries – faces a major challenge in adjusting to pressures of increasing international competition. In the years to come, government efforts to encourage adjustment and alleviate hardship will be important. Industrial adjustment and incentives programs, including manpower training, mobility, and job-creation incentives, will continue to require a significant share of government resources.

24 Department of Finance, Economic Review, April 1978 (Ottawa: Supply and Services Canada, 1978), p. 75.

²³ Tim Hazledine, "Protection; and Prices, Profits and Productivity in Thirty-three Canadian Manufacturing Industries," Economic Council of Canada Discussion Paper 110 (April 1978).

In pointing to the significance of industrial policies, however, we would not wish to convey the view that existing or proposed policies in this area should be accepted uncritically. On the contrary, government grants and subsidies, procurement policies, export assistance, and programs to promote research and to encourage regional development involve substantial public expenditures. In the present period of government restraint, we think it most appropriate that these programs be subjected to rigorous and systematic cost-impact analysis.

Immense difficulties are inherent in any government attempt to direct or alter the course of market-determined industrial development. At the First Ministers' Conference last February, discussions took place about the general problems facing Canada's manufacturing industries. There has been some attempt to come to terms with various problems in the more recent reports issued by the Consultative Task Forces set up by the federal Department of Industry, Trade and Commerce. 25 The Council is encouraged by this consultative process, which is broadly in keeping with its recommendation one year ago. The Task Force reports have already contributed to a more complete understanding of many of the problems now facing individual Canadian industries. Nonetheless, many difficulties must be overcome before governments, and departments within governments, can co-ordinate their industrial policies more closely. Moreover, the Task Force reports - useful as they may be - represent the views of particular groups, and governments have a responsibility to balance these positions against the interests of consumers and others who were unrepresented in the discussions. Indeed, the competing, and sometimes conflicting, recommendations for specific measures of assistance in the Task Force reports highlight the need for a careful examination of the criteria that underlie the industrial support initiatives undertaken by each level of government.

It should also be recognized that in most cases where firms or industries are encountering competitive difficulties, the market is successfully carrying out its function; market signals are working as they should, and resources are being directed to where they can be employed most efficiently. Industrial measures introduced under these circumstances can impede the market adjustments, with evident consequences for Canada's overall industrial efficiency.

There are, of course, perceptible shortcomings in the market system that provide a legitimate focus for government intervention. No government can remain aloof to major industrial dislocations or to severe regional disparities and the attendant human concerns. Policy decisions become particularly difficult in periods of relatively sluggish economic growth, such as the present.

²⁵ Industry task forces were established for twenty-three sectors. Their reports are available from the Department of Industry, Trade and Commerce.

5 The Service Industries

In the preceding chapters, we examined Canada's primary and manufacturing sectors, which together account for most of Canada's economic growth. Yet this country has proportionately more persons working in civilian service-sector jobs than any other western nation, and there has been a proliferation of new service activities in response to the choices and changing life styles of Canadians.

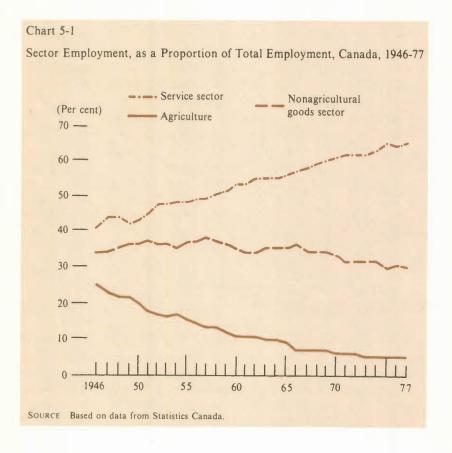
Most service activities are interrelated with, and indeed contribute in a major way to, the vitality of the primary and secondary industries. For example, transportation, distribution, wholesaling, and retailing link producers and consumers. Research has led to the development of new, hardier strains of wheat and coarse grains, better-managed fisheries, modernized forestry and mining equipment, efficient factories, and safer processed food and household goods. Medical clinics, hospitals, and social service workers help persons who are ill or in distress; teachers impart knowledge; and public servants administer laws and regulations that enable an urban, culturally heterogeneous society to function. In considering how best to allocate future resources to improve this nation's economy, the question is basically how to arrive at the most advantageous combination of final goods and services.

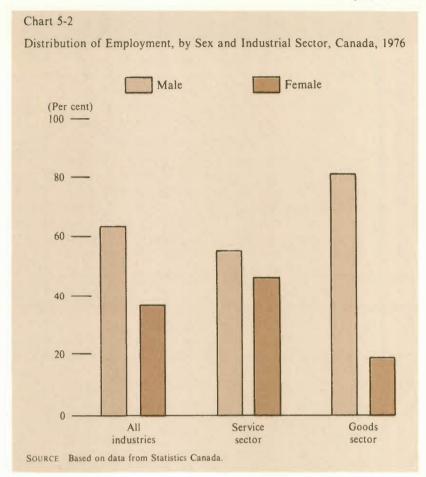
Employment in the Service Sector

Over the last three decades, the number of working men and women in Canada has risen by 5 million. Most of this net growth has occurred in the service industries, where about 4.5 million additional workers are now employed. By comparison, employment in secondary industries has grown by 1.3 million workers and has actually declined by 660 thousand workers in the primary industries (Table A-6).

Today, the service sector – including transportation, trade, and government-provided services – accounts for about 61 per cent of Canada's gross domestic product, and two out of three employed Canadians work in service-sector jobs (Chart 5-1). With the growing affluence of the population, employment in travel, outdoor recreation, hotels, restaurants, and fast-food franchises has doubled since the mid-1960s, rising at more than twice the average rate for all industries. Employment in noncommercial service activities – public administration, education, and hospitals – has also risen significantly, although this has begun to level off in more recent years. In the space of a generation, the number of workers employed in government administration has increased by close to 450 thousand and, in the last decade alone, about half a million additional jobs have been created in the education and hospital fields. Taken together, government administration, education, and hospitals now provide employment for one out of every five Canadians.

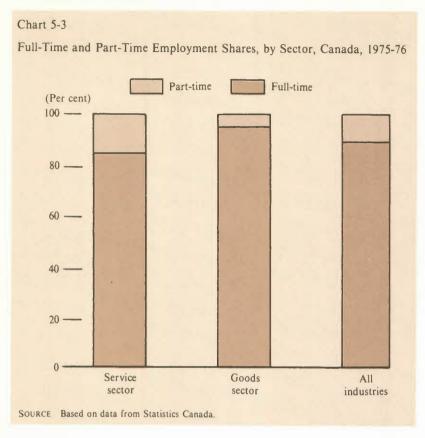
The growth of service activities has been particularly conducive to female employment. Nearly half of all service-sector jobs are filled by women, as opposed to about 20 per cent in the goods-producing industries





(Chart 5-2); in absolute terms, four times as many women work in the service sector as in the goods sector. The ratio of part-time workers to full-time workers is also significantly higher; one employee in seven in the service industries works part-time, compared with one in twenty-five in the goods industries (Chart 5-3). The majority of part-time workers are women; indeed, almost one-quarter of all working women hold part-time rather than full-time jobs. The service sector also provides most of the jobs for massive numbers of wives, students, and youth who are second or third earners in their households and who want to work only part of the year.

Because of this higher labour turnover, it is probable that the growth of service activities has contributed somewhat to increased frictional unemployment. Moreover, some services, such as are found in the tourist and recreational industries, are highly seasonal. On the other hand, since most



public services are not subject to the same cyclical fluctuations that affect the goods-producing sectors, that part of the services boom may have moderated the cyclical character of unemployment somewhat.

The question that needs to be answered is why the growth in service-sector employment has been so substantial and so rapid. Is it entirely due to heightened consumer or producer demand? Does it reflect a shift in spending preferences away from material goods?

The Demand for Services

The demand for services, as for goods, is determined by many influences, such as rising per capita incomes, changes in relative prices, urbanization, altering tastes, trends in family composition, and alterations in the distribution of income. Since these factors work simultaneously, albeit with different intensities, it is not easy to measure precisely how each factor affects demand. Moreover, consumers frequently use

services and material goods together. Parks and recreational services presuppose boats, cars, trailers, swimming gear, and barbecues; restaurants and hotel services presuppose automobiles and aeroplanes; and even bureaucrats have their automatic calculators and coffee cups. Moreover, the demand for government administration or police, health, and education services, which consumers purchase indirectly through taxes, is not necessarily determined by changes in real incomes, or even by consumer choice, but rather by political decisions.

Table 5-1 Gross Domestic Product, by Sector, Canada, Selected Years, 1951-76 (In 1971 dollars)

	1951	1962	1976	Annual rate of growth of real output, 1950-74
			(Per cent)	
Goods sector	39.9	41.2	38.8	4.6
Primary goods sector	10.4	9.1	6.9	3.4
Secondary goods sector	29.5	32.1	31.8	5.1
Service sector	60.1	58.8	61.2	4.7
Total	100.0	100.0	100.0	

SOURCE Based on data from Statistics Canada.

But are the consumption preferences of Canadians tilting increasingly towards services, thereby causing service-sector employment to grow so rapidly? If so, there would be a significant shift in the composition of real output from goods to services. Yet the service and the goods-producing sectors' shares of real output have remained almost the same since 1951, and the annual rate of growth of real output in both sectors has been almost identical (Table 5-1). Moreover, final expenditures on services as a share of total expenditures have remained almost stable, the government's somewhat increased share being offset by the slight decline in the consumer's share of expenditures.2 It has also been suggested that part of the growth of service-sector employment in Canada is attributable to the

1 The statistics on real output for some of the service industries, particularly for the rapidly growing noncommercial industries (public administration, education, hospital care), are questionable. Because there are difficulties in identifying that output, employment is used as an indicator for a number of noncommercial services. Since this method assumes zero productivity growth, the resulting output measures tend to be underestimated. This downward bias would, therefore, have resulted in the stability of service output shares.

2 It may, however, be noted that there are important differences between the "service output" of the service sector, based upon the industrial classification, and the "service expenditure" in the final-demand classification. They are not equivalent in concept or definition. For example, the trade and transportation service output related to consumption of durable, semidurable, and nondurable goods is embodied in the demand for goods

rather than in the demand for services.

fact that the goods industries are now more specialized and therefore purchase service inputs from the service industries rather than generate them in-house. While there is a slight trend in this direction, it would not alone explain the employment phenomenon.

There is strong evidence to suggest that increases in real household incomes tend to lead to even larger increases in the volume of services demanded. This is what is meant by a positive income effect in the demand for services. On the other hand, because the price of services has increased more than that of goods, households have economized in their use of services. Overall, after taking account of changes in relative prices, a 10 per cent increase in per capita real disposable income has increased consumption of services by about 10.2 per cent and of goods by 9.7 per cent. If there had been no negative price effect, even more rapid growth in the household use of services would have occurred.

The impact of income and price changes differs among various kinds of services. The increase in demand for a number of services in response to increases in income has been very strong for medical and hospital care, as well as recreation, hotel, restaurant, and transportation and communication services (Table 5-2). For health services, the possible offsetting restraint that higher relative prices would have exerted has been blunted by the fact that these are now almost entirely government-financed. The income effects on demand are also positive and strong in the recreation and the restaurant and hotel service industries, but they have been offset to some extent by rapid increases in relative prices. The result has been a somewhat less rapid growth in demand than in the health care field. The demand for dry-cleaning and laundry services has declined for reasons that appear to be associated with income but in fact reflect changes in life styles and the introduction of easy-care fabrics and automatic washers and drvers. Domestic services have almost disappeared, with costs increasing and fewer people willing to undertake such employment.

The influence of rising per capita income on the demand for durable goods is also positive, although not as strong as for some services. But, since the purchase of durables is strongly affected by price and the relative prices of durables have been declining over time, there has been pronounced growth in the demand for them. Expenditure growth for nondurables has been slower.

In sum, the positive income effect for most services has often been offset by a negative response to relatively higher prices, whereas in the case of durables and, to a lesser extent, semi- and nondurables, a weaker income effect has been reinforced by a positive response to lower relative prices.

Income and Price Elasticities, by Selected Personal Expenditure Category, Services and Goods, Canada, 1947-76 Table 5-2

	Income elasticity	Price elasticity	Observed annual rate of change in expenditures
			(Per cent)
Medical care - public and private	1.3	*	4.3
Hospital care - public and private	1.6	*	6.8
Recreational services	2.1	6.0	3.2
Restaurant and hotel services	1.5	1.5	2.1
Communications	1.5	1.5	5.7
Domestic services	-0.5	*	1.8
Laundry and dry cleaning services	-0.1	0.1	0.1
Personal care	0.8	*	0.7
Financial, legal and other services	1.0	*	2.0
Purchased transportation services	3.0	0.4	1.6
Durable goods1	-	1.9	5.4
Semidurable goods ²	9.0	1.2	1.7
Nondurable goods ³	9.0	6.0	2.1

*The relative price variable is not significant, or its sign is positive.

1 Includes recreation, sport, and camping equipment; furniture and carpets; household appliances; automobiles; and repair and parts.

Includes clothing; footwear; books, newspapers and magazines; semidurable household furnishings; and jewellery, watches, and repairs. Includes food; beverages; tobacco; drugs and sundries, toilet articles and cosmetics; and electricity, gas, fuels and gasoline.

SOURCE Based on data from Statistics Canada and estimates by the Economic Council of Canada.

Productivity Trends in the Service Sector

The difficulty of measuring productivity trends in the service sector precisely is well known. Ideally, real output should be measured by deducting the quantity of input used from the quantity of output produced. For most service activities, however, the output is either qualitatively heterogeneous or it is difficult to identify or quantify separately from the input. For most noncommercial public service activities, labour input is employed to measure output change³ – an approach that virtually rules out any likelihood of being able to measure productivity growth.

Despite these difficulties, it is possible to get some idea, at least in relative terms, of the differences in productivity growth between the various sectors (Table 5-3). The "commercial service" subsector includes those service industries whose real output measures are based on other than labour inputs: wholesale and retail trade; transportation and communications; and finance, insurance and real estate. It excludes health and education, as well as some commercially sold business and professional services. While output per employed worker has been clearly growing much more rapidly in the goods sector than in the service sector, the productivity differential narrows when the commercial service subsector is considered. Indeed, productivity growth in this sector has not been insignificant, amounting to more than half that in the goods-producing sector. Part of this growth undoubtedly springs from the competition that leads to innovative managerial initiatives and increased efficiency.

There are, however, wide variations in productivity growth. Output per worker in transportation and communications has grown rapidly – the industry being a heavy beneficiary of advanced technology – outpacing the manufacturing average by about 0.8 percentage point per year since 1950. Trade follows, with the increase in output per worker averaging 2.1 per cent per annum – a rate only slightly lower than the national average during the same period. The finance, insurance, and real estate sector has also shown signs of productivity improvement. Recent studies using revised measures for the finance and insurance sector indicate that output per employee has been growing at an average rate of 2.3 per cent in savings and credit institutions and 2.8 per cent in life insurance firms.⁴

³ This is done by using either wages and salaries, deflated by average earnings per worker, or numbers of workers employed, multiplied by base-year average earnings – with additions in most cases for capital consumption in constant dollars.

⁴ See R. Hirshhorn and R. Geehan, "Measuring the Real Output of the Life Insurance Industry, "Review of Economics and Statistics LIV, no. 2 (May 1977); and R. Geehan and L. Allen, "Measuring the Real Output and Productivity of Savings and Credit Institutions," Canadian Journal of Economics (forthcoming).

Table 5-3

Change in Real Output, Employment, Man-hours, Output per worker and per Man-hour, and Capital/Labour Ratio, by Sector, Canada, 1950-77

			Av	Average annual rates	es	
	Real	Employment	Output per worker	Man-hours	Output per man-hour	Net capital per employed worker
All industries ¹	4.7	2.5	2.2	1.8	2.9	3.1
Goods sector	4.5	8.0	3.7	0.2	4.3	4.6
Service sector	4.9	4.0	6.0	3.1	1.8	2.0
Commercial service sector ²	5.1	2.8	2.3	2.2	2.9	2.3

¹ Total output for all industries excludes owner-occupied dwelling rents.
2 The commercial service sector includes wholesale and retail trade; finance, insurance, and real estate; and transportation and communications. SOURCE Economic Council of Canada, CANDIDE 2.0. Data Bank.

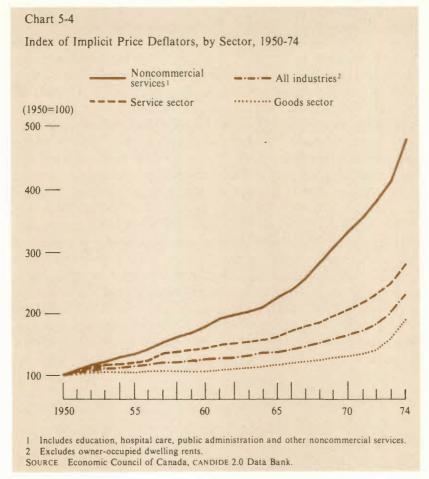
Several factors account for the differences in the growth of output per worker between the goods sector and most of the service industries. The latter feature a slower rate of increase in capital employed per worker and in the quality of labour, and a faster rate of decline in hours of work per employee. Over the 1950-77 period, the amount of plant and equipment put in place increased at about the same pace in both the service and goods-producing sectors. But, because employment in the service sector has grown relatively faster, the annual rate of increase in capital per worker has been less than half that in the goods-producing sector. In 1977, the service sector had about 37 per cent less capital in plant, machinery, and equipment per worker than the goods sector.

There is also a qualitative dimension contributing to the productivity differential. While public-sector activities – particularly in health, education, welfare, and legal services – employ many professionals and other highly trained people, they also have a large number of clerical and secretarial staff. Indeed, a large segment of service-sector manpower is still only modestly skilled, whereas the proportion of unskilled workers in the goods-producing sector has been shrinking rapidly. In commercial services – such as wholesale and retail trade, and banking – there are many who are secondary earners in a household and who receive lower pay and have less permanent tenure than the average worker in the goods sector. In addition, service-sector workers have higher rates of unemployment, and their average work experience is generally shorter.

Although productivity gains have been lower, through the combination of heightened and skilful collective bargaining, workers in the service sector have enjoyed wage increases of almost the same percentage as workers in the goods-producing sector, with the result that the relative price of services has increased roughly twice as fast as that of goods. In particular, there has been a very rapid growth in prices (i.e., costs) in non-commercial services, especially in education and hospital care (Chart 5-4).

⁵ A. Bower, C. West, and R. Crozier, "Change in Industrial Structure: A Long-Term View," Economic Council of Canada Staff Paper (unpublished), January 1967; David A. Worton, "The Service Industries in Canada, 1941-1966," in Production and Productivity in the Service Industries, ed. Victor R. Fuchs, National Bureau of Economic Research, Studies on Income and Wealth, 32 (New York: NBER, 1966), pp. 260-79. Canadian studies have followed the methodology developed by Fuchs in his two basic papers: Productivity Trends in the Goods and Service Sector, 1929-1961: A Preliminary Survey, Occasional Paper 89 (New York: NBER, 1964); and The Growing Importance of the Service Industries, Occasional Paper 96 (New York: NBER, 1965). See also Fuchs' later work, The Service Economy (New York: NBER, 1968).

⁶ In 1977, the service sector had about \$52,000 in gross capital per worker, while the comparable figure for the goods sector was around \$83,000. The inclusion of transportation and communication industries in the service sector results in considerably higher estimates for capital per worker. These figures are based on Statistics Canada mid-year estimates of gross capital stock in current dollars.



One important consequence of the rise in service prices has been the substitution of self-service for marketed services - in restaurants and gasoline stations and do-it-yourself household repairs. While many personal services are vanishing partly or even fully from the market, the need for the service does not normally disappear. Consumers meet their demands through their own efforts, and a whole industry has developed to provide the tools and materials to do the job. In addition, more and more durable goods are being designed to facilitate home repairs. The rediscovery of arts and crafts means many are fulfilling their own needs, and the immense popularity of evening courses in home and automotive care attests to the desire to substitute one's own effort for services otherwise purchased.

It is not just at home that a substitution process is taking place. Although the industrialization of services is still in its adolescence, the number of productivity-enhancing technological developments is growing rapidly. Computers do much of the routine office work of billing, preparing payrolls, and related chores. The credit card system has substituted a single credit transaction for the numerous bank services. Automatic cheque-cashing systems, coffee-vending machines, and self-operated travel-insurance machines provide services without the need for an employee. Other technological developments have enhanced the productivity of the service worker rather than replaced him, as in the case of hand calculators, electric hand tools, and electronic diagnostic car equipment. Similarly, the use of brain scanners has aided the work of neurosurgeons; and laser technology will soon increase efficiency in many functions.

Moreover, within many of the traditional service activities, an industrializing process to capture economies of scale and efficiency is in progress. Preplanned organizational systems involving custom-made equipment, division of labour, and specialization improve service and efficiency in individual service establishments. For example, fast-food franchises and restaurant chains with limited preset menus are designed to produce and deliver prepared foods with speed and cleanliness at relatively low cost. Other examples of preplanned service systems include prepackaged vacation tours.

Conclusion

Future technological developments in the service as well as the goodsproducing industries, involving innovations, capital accumulation, and economies of large scale, are expected to lead to a cumulative rise in output per man and per man-hour. The prospects, however, vary immensely, depending on the type of service activity. As taxpayers, Canadians are re-examining the growth requirements of the public services, such as education, health care, and public administration. The big push to expand these services, arising in part from the effects of the postwar baby boom, is about to end. The trend now is towards a decline in some public services. It is still not clear how long the commercial service sector will provide the employment opportunities required to absorb a growing labour force. The electronic and organizational innovations that have been described have so far not led to a significant displacement of clerical and other semiskilled workers, although the type of work performed has changed in many cases. But, with increases in the relative price of services outstripping those of most of the new electronic equipment, the automation of offices and business procedures may be close at hand. At issue is whether this capital/labour substitution process will aggravate the unemployment situation or whether Canadians will be able to direct their efforts to as-yet-unforeseen activities.

Moreover, as consumers, Canadians will continue to be influenced by both income and price motivations. With rising incomes, they will seek more customized services to serve their specialized tastes; but, as price-conscious buyers, they will also seek competitive and efficient sources of supply. As workers, Canadians employed in service activities will continue to be faced with uncertainty about the permanency of their work, the wages they can expect, and the career prospects that lie ahead.

6 Perspectives on the Unemployment Rate

Fundamental changes have taken place in the structure and characteristics of the Canadian labour market since the Second World War. Indeed. with the recognizable demographic, institutional, and social changes, the Canadian work place is very different from what it was even a decade ago. A consequence of these changes is that the traditional measure of the state of the labour market - the national unemployment rate - no longer adequately reflects the complex forces that mark the contemporary scene. That rate was a very good proxy for the tightness of the economy and the hardship that befell families when the labour market was almost entirely composed of heads of households who were the sole income earners in their families. Their need for employment and income was undeniable. Today it is quite clear that the situation has changed. Value judgments aside, the fact is that the unemployment rate, which includes large numbers of additional earners whose membership in the labour force is intermittent, does not portray the same economically, socially, or politically trying conditions that prevailed when a family's sole income earner was out of work in the 1930s.

It is therefore increasingly apparent that the unemployment rate is only one of a variety of measures that should be examined in any interpretation of the overall labour market situation. Taken alone as "the" indicator of the state of the labour market, it is likely to provide an inadequate – and, indeed, misleading – basis for the formulation of macroeconomic policy. In the development of social and income-related policies, it is also very clear that the unemployment rate is a poor proxy for financial hardship and that more direct and incisive measures are needed.

It cannot be emphasized too strongly, however, that whatever measure or perspective is adopted, none can minimize the severity and urgency of Canada's present unemployment problem. While it is true that, for most out-of-work Canadians, the availability of unemployment insurance or

the surety of a spouse's income offsets much of the financial privation that characterized the Depression years, it is equally true that unemployment imposes severe personal costs in terms of forgone work experience, lowered status, eroded self-confidence, and reduced family well-being. In addition to the output lost to the economy, unemployment sometimes leads to crime, alcohol and drug abuse, suicide, and even political polarization and violence. Indeed, we regard the aggregate unemployment rate, by itself, as only a starting point in measuring the hardship and sometimes brutal and tragic social consequences of an economy that is performing poorly.

The Unemployment Rate as a Cyclical Indicator

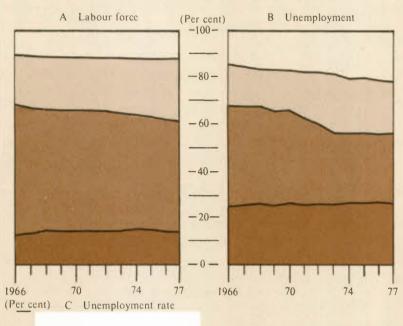
In its 1976 report on the Canadian labour market, the Economic Council identified several factors that contribute to the persistence of high unemployment rates, even in years of considerable economic growth.' Among them were included the seasonality of many production and service activities, the high rate of labour force growth associated with the changing demographic structure, and the increased inclination and opportunities for married women to work, as well as several far-reaching institutional changes. The report suggested that the economy was generating not only more income security for individuals and families and more employment opportunities for family members but also more likelihood of unemployment, particularly among women and young people. The aggregate unemployment rate seemed to have shifted to persistently higher levels, quite apart from the tightness, cyclical phase, or inflationary potential of the economy.

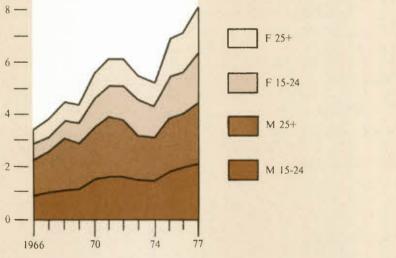
Essentially, the Council argued that the minimum achievable unemployment rate at full capacity may now be several percentage points higher than in earlier years. It cited a number of reasons for this, but perhaps the main one was that a growing part of the work force is composed of persons other than the head of the household who take part-time or occasional jobs. In addition, the increase in the participation rate of women and their rising joblessness have done much to change the characteristics of the overall unemployment profile (Chart 6-1).

Correspondingly, the proportion of males in the labour force has diminished over the last decade and a half. While the relative number of young males has actually increased, this has been more than offset by the relative decline in the number of older men. These changes have also altered the profile of the unemployed. While adult males accounted for 43 per cent of all unemployment in 1966, their share has now dropped

¹ Economic Council of Canada, People and Jobs: A Study of the Canadian Labour Market (Ottawa: Supply and Services Canada, 1976).

Chart 6-1 Age-Sex Components of the Labour Force, Unemployment, and the Unemployment Rate, Canada, 1966-77





NOTE In Panels A and B, the graphs add up vertically to 100 per cent. In Panel C, the graphed lines add up vertically to the aggregate unemployment rate in any year.

Source Based on data from Statistics Canada.

to 29 per cent. Women in the same age group, who constituted only 15 per cent of the unemployed at that time, now account for 21 per cent. The share of jobless young people continues to be disproportionately high, and the problem appears to be worsening for young women.

Many observers have also pointed to attitudinal and institutional changes, such as the increasing inclination of young people – now more educated – to "shop around" for jobs, as well as the relatively easier access to unemployment insurance (UI). No doubt these are contributory factors; and some, adopting a high moral tone, have stressed the "voluntariness" of a portion of current unemployment. The critical point is, however, that whatever the original motivations of those without work, the lack of appropriate jobs is a serious problem. Moreover, by enabling persons to search longer and more widely for jobs, unemployment insurance may actually improve the qualitative matching of jobs and workers.²

Other analysts have emphasized the fact that there is accumulating evidence that recent unemployment figures contain a larger proportion of frictional and structural unemployment than in the past.³ Needless to say, for someone without a job such labels are less than impressive. But they indicate the problem of inadequate matching of the skills and location of workers and jobs, and thus reflect a condition that cannot be easily resolved by conventional aggregate demand policies.⁴

While there is little doubt that the sluggish performance of the economy has contributed considerably to the magnitude of Canada's unemployment today – when almost one million people are out of work – it should be noted that a considerable number of jobs have been created since the peak of economic activity in 1974; indeed, employment has grown by about 950 thousand jobs since 1975. At the same time, however, the labour force has grown by more than 1.2 million individuals, adding several thousand to the ranks of the unemployed.

Still another reason for the need to view the national unemployment rate in the context of other measures of labour market performance is that the aggregate figure does not portray the dynamics of the labour market – the absolute numbers of people who flow in and out of the labour market, who quit or lose their jobs and become unemployed, or

² This question is examined in Abrar Hasan, "Search Behaviour in Canadian Labour Markets," Economic Council of Canada Discussion Paper (forthcoming).

³ See, for example, Frank Reid and Noah Meltz, "Causes of Shifts in the Unemployment-Vacancy Relationship: An Empirical Analysis for Canada, 1953-75," Review of Economics and Statistics (forthcoming).

⁴ The policy dilemma is further aggravated by the volatility of the effects of changes in aggregate demand on participation rates. A recent Council study suggests that fiscal stimulus may increase the labour force participation of some age-sex groups to such an extent that employment-creating effects are offset and unemployment in those groups actually increases. See T. Siedule, N. Skoulas, and K. Newton, The Impact of Economy-Wide Changes on the Labour Force: An Econometric Analysis, Economic Council of Canada (Ottawa: Supply and Services Canada, 1976).

who, previously without work, find a job. It has been estimated that there are over 5 million job departures or terminations in Canada annually and an even greater number of hirings. During the summer, well over 2 million students - most of whom return to school - find work. The enormous amount of turnover in the labour market is indicative of important qualitative elements that are not captured by aggregate unemployment measures. For instance, even the high unemployment rate in recent years does not predominantly reflect job loss. Fewer than half of those unemployed in 1977 had actually lost their jobs, while almost a quarter had quit, and more than a quarter were persons who, because of school, household responsibilities, or other factors, had not previously been looking for work (Table 6-1). Contributing to this considerable turnover are the often unfulfilled expectations of school-leavers, the less-than-equal treatment of some labour force groups, and the poor working conditions in some jobs.

Table 6-1 Unemployed Persons, by Flows into Unemployment and by Age and Sex, 19771

	Job losers	Job leavers	Entrants	Re-entrants
		(P	er cent)	
Men				
15-24	51.7	19.9	6.8	20.3
25-65	67.1	23.2	_	4.1
Women				
15-24	30.3	24.7	12.4	31.5
25-65	39.1	24.8		31.2

¹ See also Table A-7 for additional characteristics of the unemployed.

SOURCE Bruce MacDonald, "Flows into Unemployment," Statistics Canada, Labour Force Survey Division, Research Paper No. 17 (May 1978).

The concept of alternative unemployment measures is, of course, contentious. And, indeed, a number of valid questions can be posed. Is it appropriate, for example, that workers with intermittent labour force attachment who are not the principal earners in their households and who may have voluntarily left their jobs be given the same weight as family heads who are involuntarily laid off? Should persons who want only part-time work be counted among the unemployed on a par with those seeking full-time work? Conversely, should not the unemployment measure include an estimate of the underemployment of persons working part-time only because they cannot find a full-time job? And how should we register the not inconsiderable numbers of people who, discouraged

and disillusioned by an unsuccessful job search, have given up the effort altogether and abandoned the labour force?⁵

To contend with some of these questions, which are currently the subject of a government-initiated study in the United States by the National Commission on Employment and Unemployment Statistics, the U.S. Bureau of Labor Statistics now publishes six other measures in addition to the official aggregate unemployment rate. The rates are labeled U1 through U7 and are defined as follows: U1 counts those who have been unemployed fifteen weeks or longer; U2 is composed of those who have lost their jobs; U3 measures the number of unemployed heads of households; U4 counts unemployed people seeking full-time jobs; U5 is the official aggregate rate; U6 is a weighted measure that includes U4 plus unemployed people looking for part-time work and also part-time workers seeking full-time jobs; U7 adds to U6 an estimate of the number of discouraged workers who have left the labour force. Statistics Canada produces similar figures for Canada (Table 6-2).6

Table 6-2
Estimates of U1 through U7, Canada, 1976 and 1977

	Ul	U2	U3	U4	U5*	U6	U7
1976	2.4	3.7	4.7	6.1	7.1	6.9	7.2
1977	2.8	4.5	5.3	7.2	8.1	8.1	8.5

*Official aggregate rate.

SOURCE Based on data from Statistics Canada.

One labour market indicator of the economy's relative tightness or slackness that is quite widely watched by analysts is the unemployment rate for males aged 25 to 54 years. The reason for isolating this group is not male chauvinism; it is that, unlike other groups, almost all males in the 25-54 age group have a permanent attachment to the labour force. Other analysts, in an effort to be more comprehensive, have attempted to design measures that better express the severity of unemployment. One such indicator simply combines the aggregate unemployment rate and the consumer price index. Other measures add or subtract certain categories of unemployed or underemployed individuals. And some try to take account of the earnings forgone.

⁵ Estimates of the numbers of discouraged workers are notoriously difficult to obtain. The Labour Force Survey shows a 1977 monthly average of 29,000 persons who had looked for work sometime during the previous six months but who were no longer seeking work because they felt no suitable work was available.

⁶ The Labour Force (Statistics Canada Catalogue 71-001) contains only a small part of the total monthly volume of information generated by the Survey.

⁷ A variety of alternative unemployment measures were advanced in the Economic Council's *People and Jobs*. See also Douglas Smith, "Alternative Measures of Unemployment," Carleton University Economic Paper 77-11 (June 1977).

One of the measures of the labour market that has recently received a good deal of attention is the "employment ratio," which is, quite simply, the ratio of the total number of persons employed to the total workingage population.8 This measure is widely used in the United States and has been published regularly by Statistics Canada since January 1978. This ratio has certain advantages over the aggregate unemployment rate. Because it is based on working-age population, which grows rather steadily from month to month and from year to year, it is not affected by the volatility of labour force participation rates as is the traditional rate. The use of the population base means that the percentages employed are less likely to fluctuate merely because the base varies. Also, it clearly draws attention to the employment side of the labour market, without neglecting those who are seeking work or not working.9

Table 6-3 Persons Employed, Unemployed, and Not in the Labour Force as Percentages of Working-Age Population, 1966-69 and March 1978

	March 1978	Average of four "full-employment" years 1966-69
Working-age population		
Employed ¹	57.0	55.3
Unemployed	5.4	2.3
Not in labour force	37.6	42.4
Total	100.0	100.0

I This is, of course, the employment/population ratio.

SOURCE Based on data from Statistics Canada.

The employment ratio lends an interesting perspective to the interpretation of labour market information. For example, we know that, despite high rates of unemployment, Canada's job-creation record has been extraordinarily impressive by international standards. In comparing the August 1978 unemployment rate of 8.5 per cent with the figures that prevailed during the years of relatively full employment in the late 1960s, people often lose sight of the fact that the Canadian economy is employing proportionately more persons of working age now than in the four years from 1966 to 1969, when the unemployment rate was below 5 per cent (Table 6-3). In other words, if jobs per capita were the criterion, Canada would have fuller employment today than it did then. 10 The ratio

⁸ This is what Statistics Canada calls the employment/population ratio (see also Table A-8).

⁹ Furthermore, according to Statistics Canada, the criteria for identifying employed persons are more straightforward than those for identifying the unemployed, and the large sample size means that employment data contain relatively smaller estimation

¹⁰ Note that "per capita" refers to the working-age population and excludes children and persons over the age of 65.

further indicates that the potential labour reserve of working-age persons who are not in the labour market is shrinking. With so many persons shifting readily in and out of the labour market, the magnitude of this reservoir should not be overlooked.

Unemployment and Financial Hardship

Ouite apart from its use as a measure of tight or slack economic conditions in Canada, the unemployment rate has long been viewed as an indicator of social distress in Canadian society. Since the days of the Depression, unemployment has been seen as financially and psychologically impoverishing, requiring extensive remedial action to keep individuals and families from becoming forced to rely on other social assistance measures. It is well known that, with some major exceptions (e.g., construction workers), layoffs and unemployment tend to hit those whose wages are already low and that, once unemployed, it may take them a long time to find alternative work. Unemployment insurance was originally designed to spread the burden of guaranteeing income to job losers over a broad working population. But, of course, it provides benefits only to those people who have worked and contributed and become unemployed. It offers no protection to those who, because of age, disability, or parental responsibilities, are not members of the labour force, among whom a more-than-proportionate number of the very poor are found. Hence, while the unemployment rate is often used to convey a sense of the financial hardship and inequity among Canadians, our research has indicated that, once again, the aggregate rate is an unreliable proxy. Many fully employed people exist on incomes that border on the poverty threshold, and many among the unemployed have no really severe financial problems at all.

To set some light upon these issues, the Council has undertaken a closer analysis of financial hardship among individuals and families with different demographic characteristics and labour force experience. This investigation sought to resolve the following questions. To what extent are those family units¹¹ experiencing financial hardship also experiencing unemployment? Has the relationship between financial hardship and unemployment changed over time? What is the incidence of financial hardship among family units experiencing unemployment compared with that among families not in the labour force? What role have government transfers in general, and unemployment insurance in particular, played in this evolution?

¹¹ A family unit here refers to both unattached individuals and economic families, defined as persons sharing a common dwelling unit and related by blood, marriage, or adoption.

The definition of financial hardship is always difficult and, in the end, arbitrary. We are under no illusion that the criterion adopted here adequately reflects all the individual or family situations in which there is genuine financial need. Nonetheless, we elected to accept the revised low-income cutoffs published by Statistics Canada (Table 6-4)12 and assume that all families whose incomes fell below the cutoffs were indeed experiencing financial hardship and poverty. We selected the year 1975 for analysis, since that is the latest period for which detailed data linking the employment and earnings experience of Canadians are available (Table A-9). Some comparisons are drawn with 1971, the last year in which the old Unemployment Insurance Act was in force. For the purposes of relating financial hardship to unemployment, family units in Canada were separated into three basic groups: those with no member in the labour force during the year; those with at least one member in the labour force with no unemployment; and those with at least one member experiencing some unemployment.

Table 6-4 Cutoffs in the Definition of Low Income for Family Units, by Size of Family, Canada, 1971 and 1975

	Cutofi	values
	1971	1975
Number of persons in	(Do	llars)
family units		
1	2,512	3,481
2	3,642	5,046
3	4,647	6,437
4	5,526	7,655
5	6,178	8,558
6	6.782	9,396
7+	7,435	10,301

Source Based on data from Statistics Canada.

The results of our work show that the proportion of Canadian families and unattached individuals experiencing at least some unemployment during the year was higher in 1975 than in 1971, though somewhat fewer were faced with financial hardship. In 1975, of all family units, only about one in thirty - or 3.4 per cent - experienced both unemployment

¹² The low-income cutoffs used by Statistics Canada allow for the extra dimension of size of area of residence. Our cutoffs correspond to Statistics Canada cutoffs for cities with a population of 30,000 to 99,999. We feel that these provide a reasonable "average" for Canada as a whole. Because of this approximation, the estimates quoted throughout this chapter differ marginally from the data published by Statistics Canada.

and financial hardship, whereas the comparable figure in 1971 was 5.7 per cent. When only the unattached individuals and families experiencing unemployment in 1975 were considered, only about one in seven had incomes that fell below the hardship cutoffs. Clearly, broad social security schemes and growing numbers of multiple-earner families have altered the relationship between employment, unemployment, and financial hardship. In addition to unemployment insurance, a foremost defence against the financial hardship caused by unemployment is the complementary earnings of other family members.13

Of those individuals and families confronting poverty in 1975, over one-half were neither working nor looking for work, and about two-thirds of these were 65 years of age or over; about one-fifth were unattached individuals or families headed by females who had been in the labour force some or all of the year and who, for the most part, had not experienced unemployment. Basically, then, the real problem of financial hardship tends to be concentrated among those family units that are not part of the labour force. Nonetheless, among working families headed by males - by far the largest group of family units - the incidence of hardship was notably higher in 1975 among those families with unemployment (10.9 per cent) than those with none (5.7 per cent).

Among unattached breadwinners, the likelihood of being poor is notably greater than it is for families of two or more in each age-of-head category, despite the fact that the incidence of unemployment was lower among unattached individuals than among families. Among the working men and women living alone who experienced no unemployment in 1975, about one out of seven males and one out of five females had incomes below the hardship line; of those who experienced unemployment, about one in four males and one in three females were below the hardship line. Among working women responsible for their family's support, one in five experienced hardship but no unemployment, while one in three of those experiencing unemployment had family incomes below the hardship line.

The difficulties confronting women, particularly those who are the sole supporters of their families, are manifest. They constitute a growing proportion of the poor. Not only do they lack a complementary source of income, but in most cases they earn substantially less than men. This in turn means that, when unemployed, they usually draw proportionately lower overall insurance benefits even though they face longer periods of unemployment than males. In 1975, unattached males in the labour force

¹³ Of those who reported being unemployed at any time in 1975, 88 per cent were members of families of two or more persons. Those who were members of families and who experienced unemployment were, in roughly three out of five cases, other than the head of the family. Further, among those families experiencing unemployment, there was at least one other member employed at the time in two-thirds of the cases.

received about one-third more total income than did their female counterparts. Among the male-headed families who experienced unemployment. the average family income in 1975 was nearly \$5,000 higher than the income of female-headed families with no unemployment.

Social Security Transfers

Apart from the difficulties that confront the growing number of women who support a family on their own, the increase in the number of multiple-earner families and the more generous provisions of the social security system - including unemployment insurance - clearly helped to reduce the occurrence of financial hardship for most Canadians during the first half of the 1970s. Two major pieces of legislation directed towards families in their prime years - the revisions to the Unemployment Insurance Act and the changes in the Family and Youth Allowances - were adopted during that period. The combined effect of these and other changes was to increase the share of transfer payments going to members of the labour force and their families from 58 to 63 per cent, and the share going to those with some unemployment from 23 to over 30 per cent. The result has been a reinforcement of the incomes of the non-poor. Overall, the percentage of total government transfers directed towards family units with incomes below the poverty line dropped from 45 per cent to about 29 per cent (Table 6-5).

It has been suggested that the 1971 revisions to the Unemployment Insurance Act "provided virtually no fiscal benefits for the poorest families, although they did redistribute benefits from the upper income families and the highest income families towards lower-middle income families."14 A comparison of the distribution of total costs and before-tax unemployment insurance benefits between 1971 - when the old Act was still in force - and 1975 indeed shows some distributional change in favour of higher-income family units (Table 6-6). It is evident that, while there was little change in the redistributive pattern of costs (i.e., contributions plus the calculated share of general revenue) between the two years, there was a considerable shift of benefits towards higher-income family units. Undoubtedly, this shift reflects, at least in part, growing unemployment among members of multiple-earner families and somewhat easier accessibility to benefits under the new Act. Moreover, since a rising

¹⁴ W. Irwin Gillespie, In Search of Robin Hood: The Effect of Federal Budgetary Policies during the 1970s on the Distribution of Income in Canada (Montreal: C. D. Howe Research Institute, 1978).

Table 6-5

Total Government Transfers Paid to Family Units below the Low-Income Cutoff, Relative to All Family Units, Canada, 1971 and 1975

Linear		Family units below	ramily units below the low-income cutoff	
	Proportion of a family units	Proportion of all family units	Proportion of total government transfers received	otal government received
	1761	1975	1791	1975
Family units				
With no members in the labour force	11.5	10.9	30.2	20.5
With at least one member in the labour force: no unemployment	8.5	5.4	9.9	3.5
With at least one member in the labour force: some				
unemployment	5.7	3.4	8.2	4.7
Total	25.7	19.7	45.0	28.7

Table 6-6 Distribution of Unemployment Insurance Before-Tax Benefits and Costs among All Family Units, by After-Tax Income Quintile, Canada, 1971 and 1975

		1971		1975
	Before-tax benefits	Contributions, including taxes from general revenues	Before-tax benefits	Contributions, including taxes from general revenues
		(Per cent)		
Quintile				
First	9.8	1.6	8.1	2.1
Second	24.5	11.3	22.0	11.4
Third	27.8	20.3	25.0	20.8
Fourth	22.0	26.9	22.6	27.0
Fifth	15.9	39.9	22.3	38.7
Total	100.0	100.0	0.001	100.0

SOURCE J. E. Cloutier, "The Distribution of Benefits and Costs of Social Security in Canada," Economic Council of Canada Discussion Paper 108, February 1978; and data from Statistics Canada (Survey of Consumer Finances).

share of the lower-income family units were not in the labour force, their overall share of the benefits remained disproportionately small.¹⁵

While much of the enriched benefits ultimately reached the pockets of the relatively well-to-do, defined in family terms, much also reached the poor and non-poor members of the work force. Not only did the proportion of family units in the labour force that experienced financial hardship drop significantly from 17 per cent in 1971 to less than 11 per cent in 1975, but a great many persons and families were also kept out of the poverty ranks by unemployment insurance benefits. Our estimates indicate that without UI benefits another 6.6 per cent of the unemployed

¹⁵ In the former unemployment insurance system, the benefit structure was defined in relation to contributions. During the early years of the program an individual's benefit rate would be 34 times his average contribution rate if he had no dependants and 40 times if he had some dependants. These multipliers changed over the years; in 1952, for example, they were 36 and 52, respectively. Despite revisions and extensions over the years, the old unemployment insurance program protected mainly the middle- and low-income workers, who constituted about 80 per cent of the labour force. Just before the new plan came into effect, unemployment insurance was available to persons earning less than \$7,800 a year and, regardless of annual income, to those with wages calculated hourly or daily, as well as to pieceworkers. The new provisions, which took effect in 1972, allowed for benefits of two-thirds the previous wage (or three-quarters, in the case of beneficiaries with dependants during the extended benefit periods prior to the passage of Bill C-69, which took effect January 1, 1976) up to a maximum insurable earnings level of \$9,620 in 1975, under broader conditions of eligibility. They included, as well, maternity and sickness benefits and retirement benefits not earlier available. Total benefits paid out were \$890.6 million in 1971 and \$3,144.0 million in 1975. In the 1971-72 fiscal year, roughly 45.6 per cent of the costs were borne by employer and employee contributions; in 1975, 57.9 per cent. Effective January 1, 1979, the benefit rate will fall to 60 per cent of the previous insurable earnings.

- or over 100 thousand family units – would have had incomes below the poverty levels (Table 6-7), and many more would have been among the nearly poor. In short, for low-income family units confronted with unemployment and severe financial insecurity, a smaller proportion of a substantially enriched scheme may be preferable to a larger portion of a less generous plan. Nonetheless, with high unemployment, the necessity of larger government expenditures on benefits and the favourable economic status of many receiving those benefits continue to be matters of concern.

Table 6-7
Unemployment Insurance and the Incidence of Low Income among the Unemployed, 1975

	Proportion	of unemployed	
	Below the low-income cutoff	Below the low-income cutoff, without unemployment insurance	
	(Per cent)		
Unattached males	23.4	33.8	
Unattached females	33.9	45.0	
Male-headed families	10.9	16.2	
Female-headed families	35.7	45.5	
All family units	15.6	22.2	

SOURCE Based on data from Statistics Canada (Survey of Consumer Finances), and estimates by the Economic Council of Canada.

Conclusion

Two principal characteristics of the labour market are heterogeneity and flux. In devising employment strategies, therefore, there is need for selective, targeted policy instruments. In this way, the particular problems of women and the young, as well as of certain provinces, industries, and occupations, may be recognized specifically. Overemphasis on the aggregate unemployment rate tends to obscure these more pressing issues.

In addition, the all-important dynamic and micro-level characteristics of the labour market clearly call for the development, utilization, and popularization of labour market measures that supplement the message of the traditional – and familiar – aggregate unemployment rate. Further analysis based on such information is a prerequisite for policy-makers facing the challenge of Canada's changing labour force.

Further, while it is apparent that the aggregate unemployment rate serves less than faithfully in all the many roles to which it is assigned – as an indicator of cyclical phase, tightness, inflationary potential, and

hardship – it is in the latter role that its inadequacy is most glaringly obvious. The overlap between the individuals and families who experience unemployment and those who are poor is relatively weak. This is partly because the majority of the poor are not attached to the labour force. And, while a significant number of family units in the labour force experience financial hardship, many - indeed, perhaps the majority - are poor not so much because of unemployment but rather because of low-paying employment and their family circumstances.

Unemployment insurance is only one of a battery of legislative instruments designed to reduce the nightmare of income insecurity and poverty. But the high costs of the program, which are clearly related to Canada's high unemployment rate, are worrisome. While classified in the National Accounts as a transfer payment, the system is inherently wage-related insurance to which virtually every employed Canadian contributes. About one-half of the unemployment insurance costs are paid directly by employers and employees, and this proportion is increasing. 16 The rest is financed out of general revenues.

Since most Canadians are neither poor nor nearly poor, it is not surprising that unemployment insurance benefits flow to middle- and upper-income groups; nor is it surprising that these same groups bear their costs. Although less so than under the old Act, the program does distribute from richer to poorer, as do other social security programs. The question is: Should it do so more effectively and at less cost? The federal government has recently taken steps to limit the accessibility of unemployment insurance and lower the benefit rate. It remains to be seen whether these steps will achieve their purpose without materially hurting those least able to bear the potential loss of benefits, and to what extent they might affect the universality of the program. Perhaps additional measures are in order. In any event, it is evident that the most efficient method of reducing the costs of unemployment insurance to the taxpayer is to reduce the incidence of unemployment itself. This, obviously, presupposes measures to re-energize the economy.

¹⁶ Under current regulations, employer/employee contributions render the fund selfsufficient only if the unemployment rate is approximately 6.5 per cent. At this unemployment rate, these contributions would represent close to three-quarters of the costs of the program; however, when the tax deductibility of the contributions for both labour and management and the taxability of benefits are taken into account, the proportion funded by federal general revenue then increases.

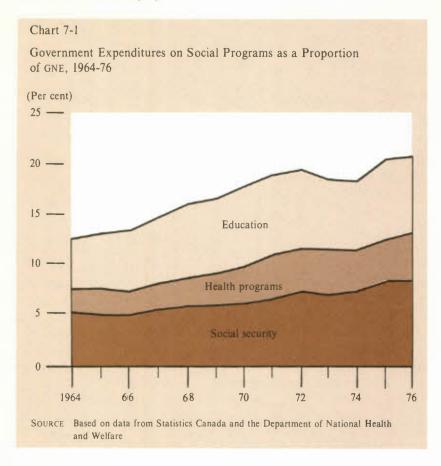
7 Governments and the Search for Equity

In the preceding chapters, we examined how Canadian enterprise has fared in the 1970s, and we took note of employment developments and the altered unemployment profile. But a further major change from a generation ago is the increasing presence of all levels of government in the lives of Canadians. Some of the largest spending programs have been in areas that intimately affect the social well-being of Canadians, both young and old, and their sense of equity and security. We have also observed that much of the employment growth since the 1960s has been in public sector jobs. This source of growth is now diminishing, as a sense of public sector restraint takes hold, and ways and means are being considered to render public spending more efficient.

General Observations

Government expenditures in the 1966-76 period rose rapidly, largely as a result of the development and enrichment of programs in the fields of health, education, and social security. Building on initiatives undertaken in the mid-1960s, the federal government's social policy was directed towards the establishment of a coherent set of measures that would provide Canadians with virtually cradle-to-grave security against extreme deprivation caused by age, illness, or loss of employment. Additional initiatives were undertaken in postsecondary education and manpower and regional incentives programs. The programs ranged widely. Some fell wholly within the federal government's jurisdiction, while others that involved provincial responsibilities were generally developed on a cost-sharing basis through intergovernmental agreements.

Two phases can be identified – one associated with the 1960s, the other with the 1970s – as programs were put into place (Chart 7-1). During the earlier period, the Canada and Quebec Pension Plans were established; major amendments were made to the Old Age Security Act; the Medical



Care Act received Royal Assent, and almost all provinces joined the program; the Canada Assistance Plan was started; the federal grants policy for postsecondary education was changed; the Adult Occupational Training Act replaced earlier legislation; and the Department of Regional Economic Expansion commenced its incentive schemes. Most of the increase in the government share of gross national expenditure occurred from 1966 to 1970, rising from 30.9 to 36.4 per cent. In the space of these four years, Canada's GNE increased by \$24 billion, half of which came from government, particularly provincial government, spending.

With the provincial infrastructure in the health and educational fields generally in hand, government spending expanded after 1970 at a slower rate. The overall population growth was slowing, and the effects could already be seen in the diminution of the numbers of primary and secondary school children. But unemployment and inflation were on the rise, and much of the thrust of the new federal initiatives was aimed at alleviating these and their associated problems. Hence coverage and

enrichment of the Unemployment Insurance system was broadened; the Local Initiatives Program and Opportunities for Youth experiments were undertaken; and the Registered Home Ownership Savings Program was introduced. In addition, individual and child-care exemptions were increased; personal income taxes were indexed; and the Family Allowances were raised to bring the proportionate expenditures for that program back into line with the levels of the early 1960s. In the process, government expenditures as a proportion of GNE moved to 40.2 per cent in 1976.

Implementation of all of these measures was made easier by the general economic buoyancy and the rapid growth in federal revenues - a result of the effects of inflation and the progressivity of both the personal and corporate income tax systems. But subsequently, when faced with the combination of sustained inflation, sluggish economic activity, rising unemployment, and a slower growth in tax revenues, the federal government found its fiscal stance undermined and its room to manoeuvre limited.

It is not the Council's intention in this Review to assay the respective merits and shortcomings of each of the measures that have been cited. In some cases that has been done elsewhere; in others, we have already commented or will be doing so. In general, we believe that Canadians are relatively satisfied with, and have been well served by, these programs. Nonetheless, for all their tangible benefits, there seems now to be a growing belief that at least some of the committed resources could be better used to activate the economy, create jobs, and assist the poor directly. And, indeed, the federal government's latest pronouncements can be interpreted as indicating support for this view. It should be recognized, however, that for some Canadians any breach of the principle of universality, especially in contributory schemes, would be ideologically unacceptable.

While maintenance of these programs may be difficult in a slowergrowing economy because of their large size and propensity to expand, there is yet another reason for singling them out for discussion. Slower growth in GNP means slower increases in real income per capita, on average, but in fact much of the burden of adjustment is likely to be borne by those at the lower end of the income scale who are least able to bear it. In the scramble for a larger share of a diminishing rate of economic gain, people whose bargaining position is weak, such as the aged or unskilled, are likely to lose out. Social programs that redistribute income from rich to poor take on greater importance in such times.

¹ See, for example, Economic Council of Canada, People and Jobs: A Study of the Canadian Labour Market (Ottawa: Supply and Services Canada, 1976). In the spring of 1979, the Council will publish a report dealing with income support for older Canadians.

Every social program serves a variety of functions, but they were all intended to improve the real income position or opportunities of those who are, or might be, experiencing financial hardship. Certainly, family units with low income depend very much on government transfers; and many programs, even when they do not involve an income means test, are specifically structured to benefit groups with low incomes. Hospital and medical care and old age security programs provide a disproportionate share of total benefits to the elderly, an expanding group with large financial needs. The importance of transfers to the elderly is underlined in a period of rapidly rising prices, when the real value of their past savings and their fixed pensions is being eroded.

The effectiveness of a social program in helping low-income family units depends upon the "progressiveness" of the distribution of benefits and costs - that is, the degree to which low-income families pay less than their share of contributions but receive more than their share of benefits, and the reverse for high-income families.2 This includes, of course, the costs that individuals and families pay through taxes as well as through direct contributions or premiums. It also includes benefits in services as well as in cash. Such calculations have been made for the largest social security programs for the 1971-75 period and for the hospital and medical insurance programs for 1974.3 There is, of course, no simple relationship between the size of government expenditures and assistance to low-income families or between growth in spending on social programs and the degree of their progressivity. Indeed, usually the expansion of programs to make them more accessible makes them less progressive.4 Hence, if public concern about the large expenditures on social security precludes additional expansion in programs, this does not mean that more of their net benefits could not be directed to low-income families.

Health Care Programs

The introduction of public medicare throughout Canada meant the rapid growth of government expenditures on health as a percentage of GNE. Though much of this expansion was simply a transfer to the public

2 Of course, low money income is not a perfect means of identifying the poor. There are other factors that influence the material well-being of a family unit. Nonetheless, the extent to which programs benefit family units at the lower end of the income scale provides a useful indicator of the support extended to Canadians in need.

3 The distribution of costs and benefits is discussed in more detail in Appendix B. See also J. E. Cloutier, "The Distribution of Benefits and Costs of Social Security in Canada, 1971-1975," Economic Council of Canada Discussion Paper 108, February 1978; and J.-A. Boulet and D. W. Henderson, "Distributional and Redistributional Aspects of Health Insurance Programs in Canada," Economic Council of Canada Discussion Paper (forthcoming).

4 Morgan Reynolds and Eugene Smolensky, "The Fading Effect of Government on Inequality," Challenge, July-August 1978.

		practitioners pecialists	Av	erage earnings	
	Total number (1)	Number per 100,000 population (2)	Per physician (3)	Per employed member of the labour force (4)	Ratio of Col. 3 to Col. 4 (5)
			(D	Pollars)	
1968	18,244	88	28,615	5,064	5.65
1969	19,260	92	30,861	5,497	5.61
1970	19,906	93	34,360	5,897	5.83
1971	21,411	99	39,203	6,357	6.17
1972	22,642	104	39,977	6,885	5.81
1973	23,363	106	41,221	7,587	5.43
1974	24,680	110	42,289	8,719	4.85
1975	25,884	114	45,360	9,997	4.54

¹ Figures in Col. 1 represent estimates of the number of self-employed physicians. Thus interns, residents, and other salaried physicians are excluded. Figures in Col. 3 represent average net professional earnings.

SOURCE Based on data from Health and Welfare Canada, and estimates by the Economic Council of Canada.

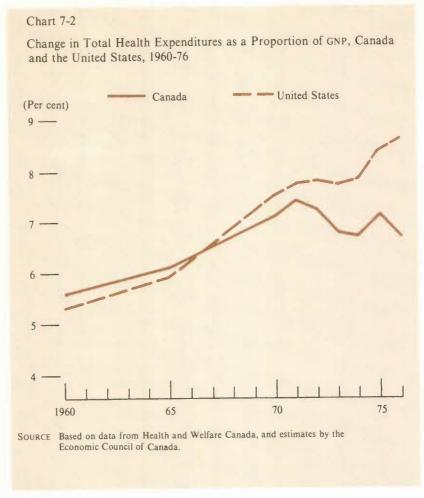
sector of costs formerly borne privately, Health and Welfare Canada tabulations reveal that combined public and private health care costs relative to GNE also rose during the late 1960s but at a slower rate than in the early 1960s.⁵ And, too, the amount and accessibility of medical services has grown in response to increases in real per capita income. The Ontario government, for example, recently reported that the average number of health insurance claims per user rose from over 4 in 1972 to about 7 in 1978,⁶ and the number of doctors per capita has steadily increased (Table 7-1). But the fact that physicians' average earnings have risen more slowly than average earnings in the economy during the 1970s has helped to keep medicare costs in line with GNE growth.

Hospital, rather than medical, care accounts for most of the growth in health expenditures. Many factors have contributed to this increase. Modern health care equipment is expensive to acquire and to operate. Nurses' salaries have improved measurably relative to average earnings,

⁵ Overall, expenditures by the public sector on health care constituted about 76 per cent of the total health care expenditures in Canada in 1974.

⁶ Globe and Mail, July 10, 1978. Part of this increase can be explained by the changing age composition of the population and particularly the growing size of the group that is over 65 years of age.

⁷ In 1975, hospitals accounted for 3.3 per cent of GNE compared with 2.2 per cent in 1960.



and the total number of hours worked by hospital nursing staff has grown, reflecting increases in the number of patient days and in services per patient day in hospital.

Overall, government policies in the health care field have led to improvements in both coverage and intensity without imposing an inordinate burden on the economy. Indeed, a comparison of Canadian and U.S. health care costs indicates that, since the adoption of comprehensive medical and hospital care programs in Canada in the late 1960s and early 1970s, total health care expenditures as a proportion of GNE have remained stable, whereas in the United States these expenditures have continued to increase more rapidly than GNE (Chart 7-2). The major reasons for these real cost differences between the two countries seem to be the higher administrative costs in the United States (undoubtedly reflecting the fragmentation of various public and private schemes there)

and the fact that U.S. residents appear to visit their physicians an average of about 10 per cent more frequently than do Canadians.⁸ The growth rate of Canada's public expenditures on health care has been slower than that of all other major OECD countries with the exception of the United Kingdom; among the OECD countries, Canada's health care expenditures measured as a proportion of GNE rank about midway.

Table 7-2
Family Contributions¹ to, and Consumption of, Health Care, by Family Income Quintile, Canada, 1974

			Quintiles	2		
	First	Second	Third	Fourth	Fifth	Total
Medical care program						
Contributions ³	1.6	9.8	19.7	27.5	41.4	100.0
Consumption	15.8	17.2	20.1	23.2	23.6	100.0
Hospital insurance prog	ram					
Contributions4	0.3	5.2	14.1	24.1	56.3	100.0
Consumption	21.7	22.7	20.7	18.2	16.8	100.0
Both programs						
Contributions	1.0	7.9	17.4	26.1	47.6	100.0
Consumption	19.8	20.9	20.5	19.8	19.0	100.0

1 Contributions are estimated from income tax and premium information based on family-unit income and other characteristics.

2 Each quintile contains 20 per cent of all family units. The first quintile comprises family units with the lowest total incomes, and the fifth quintile comprises family units with the highest incomes.

3 Through premiums and/or federal and provincial income taxes on individuals, depending on the province.

province.

4 Through federal and provincial income taxes on individuals.

SOURCE Based on data from Statistics Canada (Survey of Consumer Finances) and estimates by Economic Council of Canada.

Both the jointly funded hospital insurance program and the medical care programs administered by the provinces combine universal health care coverage with equitable income redistribution. Canadian families with higher-than-average incomes pay over two-thirds of the medical costs and over four-fifths of the hospital costs, either through direct premiums or federal and provincial income taxes. At the same time, wealthier families consume slightly more medical care services and marginally fewer hospital insurance services than family units in lower income brackets (Table 7-2). Transfers under the hospital insurance program are more progressive than those under the medical care program. This is principally because hospital care is funded mostly from general revenues, whereas medical care is financed largely through

⁸ Canada and the United States have approximately the same physician per capita ratio, but Canada has substantially more hospital beds per person than the United States.

premiums, which are a less progressive source of funding than personal income taxes.

Governments have, in our view, done an admirable job of developing cost-conscious universally available hospital/medical programs, and we are aware that many further efforts to increase effectiveness and efficiency and reduce costs are under study. In this connection, however, we are disappointed by the federal government's recent decision to eliminate completely the annual health survey carried out by Statistics Canada. In order to measure the efficacy of the health care system, information on what it is producing as well as the resources employed is necessary. Even though we recognize the need for government economies, we would have thought that alternative arrangements could have been made to collect relevant information, at least on a partial basis, every few years.

Yet it is equally important that individuals from lower-income family units not be denied access, for financial reasons, to what is available to them now. Such was the view, too, of the Ontario Economic Council when it urged the Government of Ontario to refrain from the introduction of user fees or similar devices in its search to contain health care costs. We recognize, of course, that the primary objective of medical care and hospitalization programs is to ensure that services are available to people in times of need. The positive redistributive effect of benefits is a secondary consideration. Nonetheless, we believe that some relief can be given to individuals and families who find the premiums and attendant costs of obtaining medical care onerous, and we endorse systems, such as Ontario's, that provide rebates in full or in part to older persons and those with limited income.

Looking to the longer term, however, some problems in containing health costs can be anticipated simply because our population is aging. Persons aged 65 years or over visit physicians considerably more frequently, and they require hospitalization almost one and a half times as often and stay in hospital almost twice as long as younger adults. Estimates of the impact of expected population changes on medical and hospital insurance costs have been developed using several demographic alternatives covering a range of life expectancy and related assumptions. Our findings indicate that demographic factors alone will not push up health expenditures faster than the rate of growth expected in GNE per capita.9 However, they will leave less scope for improving the level of

⁹ Persons aged 65 years or over accounted for 14 per cent of medicare costs in 1976 and are projected to account for 17 to 18 per cent of costs in 2001. They accounted for 37 per cent of hospital costs in 1976. By 2001, 42 to 44 per cent of hospital costs are projected to be attributable to the elderly. See J. E. Grenier and J.-A. Boulet, "Health Expenditures in Canada and the Impact of Demographic Changes on Future Government Health Insurance Program Expenditures," Economic Council of Canada Discussion Paper (forthcoming).

health care or reallocating resources elsewhere and could exert considerable pressure on hospital facilities. Hence we urge that provincial governments continue their examination of medical and hospital care services with the view to encouraging the use of multidisciplinary clinics on an out-patient basis, thereby reducing the necessity for expensive hospitalization in cases where such care is not required.

Education

Canada has proportionately more of its young people in postsecondary educational institutions than does any other OECD country except the United States. Moreover, a much greater proportion of education costs in Canada are borne from general revenue rather than student fees; as a result, postsecondary education in Canada is probably more accessible to students from lower-income families than it is in most other countries. Although access to education at all levels is quite broad, there remain a number of areas that should be substantially improved, such as secondary education opportunities for recent immigrants to large cities, as well as others where state support might be made more selective. The combination of the relative youthfulness of the population and the commitment to the universality of educational opportunity has meant that public expenditures on education are proportionately higher in Canada than in almost any other OECD nation.

Expenditure on elementary and secondary education as a share of GNE is now considerably higher than it was in the mid-1960s, despite the recent decline in enrolment rates. Part of the increase can be explained by the drop in the student-teacher ratio from roughly 26 to 21 students in elementary schools and 20 to 18 students in secondary schools - a phenomenon largely related to the widened variety of courses being offered and to the assignment of counselling and other nonteaching tasks to teachers. Expenditures on postsecondary education as a share of GNE doubled between 1961 and 1976, with proportionately two and one-half times more students enrolled today than at the beginning of the 1960s.

While the relative price of education on all fronts has risen, in fact educational expenditures as a proportion of GNE peaked in 1971 and have modestly declined since then. With virtually all of the educational infrastructure now in place, the annual growth in expenditures per student has leveled off to the same growth rate as GNE per capita.

The growth in enrolment has shifted from the lower-cost elementary to higher-cost secondary and postsecondary institutions. Indeed, the number of children of high school age peaked in 1976 and will continue to fall until the late 1980s. Within the universities, undergraduate full-time enrolment as a percentage of persons aged 18 to 21 years climbed from 12 per cent in 1961 to 18.5 per cent in 1971, where it seems to have

leveled off. Graduate enrolment also increased from 1.1 per cent of persons aged 22 to 24 years to 3.2 per cent in 1971, where it has stabilized. The number of full-time postsecondary students is expected to remain more or less stable between 1977 and 1982 and then to decline absolutely for about a decade. However, major readjustments are occurring in response to altered perceptions of the role of education and the needs of the job market. In recent years, part-time enrolment in post-secondary institutions has risen faster than full-time enrolment. There has also been a shift in course selection away from arts and science, letters, and philosophy to more occupationally oriented fields of study. This change in emphasis is also evident in the growth in postsecondary, nonuniversity enrolment. Between 1970 and 1976, enrolment in community colleges and related institutions grew by 37 per cent compared with 22 per cent for university enrolment.

One educational area that has grown rapidly is adult education, and with the changing age composition of the population it is likely to become even more important. Continuing education is already a large element in universities, but community colleges, public school boards, and provincial departments of education are also involved. The major source of enrolment growth has been in noncredit evening courses whose popularity has, as we observed in Chapter 5, increased remarkably.¹²

It is clear that to meet the educational needs of Canadians in the future, there will likely have to be more discriminating funding priorities and shifts in resource allocation among programs, teaching specialties, and locations. At the elementary and secondary levels, for example, there have been some calls for still lower student-teacher ratios, argued principally on "quality of education" grounds. But findings here and in the United States suggest that, up to a certain point, larger classes do not necessarily hurt the cognitive development of students, and we would want to see evidence to support the view that a significant reduction in the average size of classes will produce a corresponding increase in the quality of learning among students. Thus we urge that in dealing with funding arrangements, governments assess the question of class size in the light of its relationship to the improvement in the cognitive and affective skill development of students. At the same time, however, we

¹⁰ In September 1975, the number of students enrolled in graduate and undergraduate programs on a part-time basis was 185,254 compared with a full-time enrolment of 370,416. Counting all sessions, the number of students taking a credit course(s) part-time at a university rose to 334,231. Statistics Canada, Education in Canada, 1977, pp. 30-35.

Statistics Canada, Education in Canada, 1973, p. 138. The federal government used these institutions to make available manpower training under the Adult and Occupational Training Act of 1967.

¹² Enrolment in non-credit courses (many of which are job-oriented) increased by 85 per cent from 1971-72 to 1975-76.

applaud the efforts of educational institutes – through more flexible teaching arrangements, television, and other media – to bring educational opportunities and diversified courses to a broader cross-section of Canadians.

Social Security

There are now so many social security programs – each with complex and changeable eligibility conditions, benefit rates, and funding provisions – that we can only attempt here to review their growth and redistributive effects in the broadest sense. Expenditures on these programs as a proportion of GNE increased from less than 5 per cent in 1966 to 8.5 per cent in 1976. Two factors that may have contributed to this growth in expenditures on particular programs have been identified. First, the number of beneficiaries relative to the total population may have increased because changes in the eligibility rules or the demographic composition of the population made a larger group eligible. Second, the generosity of benefits – defined here as the average benefit per recipient as a percentage of GNE per capita – may have been altered by policy changes or by some form of indexing.

Old Age Security

A level of income security in old age is ensured in Canada through the Old Age Security Program (OAS), the contributory Canada and Quebec Pension Plans (CPP/QPP), and the Guaranteed Income Supplement (GIS) for those in need. Beginning in 1966, the qualifying age for the Old Age Security pension was gradually reduced from 70 years of age, ¹⁴ so that today all persons aged 65 years or over receive the basic pension. Benefits have not kept pace with economic growth, even though they are now adjusted quarterly at the full rate of increase in the consumer price index. However, the recent increase in the basic pension announced by the federal government will help to improve the income position of pensioners.

In the initial years of the contributory Canada and Quebec Pension programs, the number of recipients was relatively small, and the sum of contributions markedly exceeded the amount of benefits paid out. The balance is changing rapidly, however. The proportion of the population

¹³ Obviously this involves some oversimplification because, for some programs, the composition of benefits taken up can change, as can the persons who become eligible.

¹⁴ The federal-provincial cost-shared Old Age Assistance program covered persons aged 60 and over. It started in 1952 and was gradually phased out between 1965 and 1970.

aged 65 years and over receiving benefits under the two programs increased from just over 12 per cent in 1971 to almost 35 per cent in 1977. The rapid growth in payments means that the plans do not generate sufficient funds from contributions and interest to cover liabilities established by present benefit provisions.¹⁵

Because it is financed from general revenue and because many in the target population have no other source of income, the OAS program, reinforced by the GIS, is highly progressive, concentrating its benefits on the lowest income quintiles and its costs on the highest (Table 7-3).¹⁶ Even with the pension, almost half of all family units in which the head was aged 65 years or over had an income of less than \$5,000 in 1975 – very much above the level of the low-income cutoff defined in Chapter 6 for a one-member, and below the level for a two-member, family unit. Of course, because of the universality of OAS, some recipients have relatively high incomes. Their numbers are not very large, however, as only 5.6 per cent of older family units received incomes of over \$20,000 in 1975.

Hence, while a few observers have taken issue with the nonselectivity of the flat OAS pension, any savings from moving away from the universality of the program would be relatively modest. A stronger case might be made for removing the special income tax exemption for taxpayers aged 65 years and over, since the tax saving for high income earners is now greater than for poorer families; the accruing tax revenues might then be redirected to augment the existing GIS or the OAS pension. Alternatively, with more of the total public old age benefits being paid out of the contributory CPP/QPP schemes, another possibility for achieving greater selectivity in the overall transfer of income to the aged would be to reduce the flat universal OAS grant and increase the GIS.

Both these approaches imply that the costs of raising the needs-tested GIS component of pension income should fall on the more well-to-do among the elderly, rather than the population at large. This strategy may not be palatable to some Canadians, but it is currently under study by the Council, along with the related question of the indexation of all private and public pensions.

Family and Youth Allowances

Another social security program that has become increasingly expensive for government in recent years is the Family and Youth Allowance. After a lengthy period of decline, payments relative to GNE began to climb when the new Family Allowance Act went into effect in January

¹⁵ See S. Rea, "Redistributive Effects of Canada's Public Pension Programs," prepared for the Economic Council of Canada (mimeo), 1978, Table 2.

¹⁶ Cloutier, "The Distribution of Benefits and Costs," pp. 14, 23, and 27.

Benefits from, and Contributions¹ to, Selected Social Security Programs, by Family After-Tax Income Quintile,² Canada, 1971 and 1975

		1971		1975
Quintile	Total before-tax benefits	Contributions	Total before-tax benefits	Contributions
	·	(Per o	ent)	
Family and Youth Allow	vances			
First	6.8	0.5	5.7	0.1
Second	15.0	5.9	12.6	5.1
Third	23.7	14.4	21.9	17.0
Fourth	26.4	24.0	27.6	27.6
Fifth	28.1	55.2	32.2	50.2
Total	100.0	100.0	100.0	100.0
Unauplant transmit				
Unemployment Insurance	9.8	1.6	8.1	2.1
First	24.5	11.3	22.0	11.4
Second				
Third	27.8	20.3	25.0	20.8
Fourth	22.0	26.9	22.6	27.0
Fifth	15.9	39.9	22.3	38.7
Total	100.0	100.0	100.0	0.001
Old Age Security Pensic				
First	34.0	1.6	38.0	0.2
Second	32.6	8.7	31.3	6.2
Third	12.9	15.3	13.6	15.5
Fourth	9.5	23.0	8.2	24.3
Fifth	11.0	51.4	8.9	53.8
Total	100.0	100.0	100.0	100.0
Guaranteed Income Supplement				
First	43.6	0.5	47.4	0.2
Second	34.4	5.9	33.1	4.8
Third	8.2	14.4	7.1	13.9
Fourth	6.6	24.0	5.6	24.8
Fifth	7.2	55.2	6.8	56.3
Total	100.0	100.0	100.0	100.0
Canada and Quebec Pensions Plans				
First	20.2	2.5	26.8	2.4
Second	30.2	13.9	30.8	13.6
Third	18.8	22.3	18.4	21.6
Fourth	11.7	27.1	12.7	27.2
Fifth	19.1	34.2	11.3	35.2
Total	100.0	100.0	100.0	100.0

¹ Only the personal income tax segment of general revenues is included in the contributions calculations, Excluded elements of general revenue—for example, sales and excise taxes, and corporate income taxes—are distributed less progressively than personal income tax. Hence the contributions, as presented, display too progressive an incidence.

² Each quintile contains 20 per cent of all family units. The first quintile comprises family units with the lowest total incomes, and the fifth quintile comprises family units with the highest incomes.

SOURCE J. E. Cloutier, "The Distribution of Benefits and Costs of Social Security in Canada, 1971-1975,"
Economic Council of Canada Discussion Paper 108, February 1978; and Statistics Canada (Survey of Consumer Finances).

1974. The allowance was raised substantially and indexed to increase annually by the full increment in the consumer price index. This automatic indexation was subsequently suspended for a year, restored, and then amended by the most recent federal announcements.

The program is universally available to all parents of children under 18 years of age, though the rates differ from province to province. Since the new Act requires that the parent claiming the tax exemption for a child also declare the family allowance as income, the program is progressive in terms of net benefits. Nonetheless, it is still the least progressive of the five social security schemes examined here. And, if the personal income tax exemption for young dependants is considered in conjunction with the program itself, the effect on income redistribution is regressive, with the highest income quintile receiving the largest proportion of net benefits (Table 7-3).

The federal government recently announced reductions in family allowance payments coupled with the introduction of income-related supplements paid out as a negative income tax for families in need. It might have gone further or adopted the alternative of removing completely the child-related personal income tax exemption, which favours the higher income earner, and used the funds to enrich the allowance payable to poor families. Nonetheless, we consider the federal initiatives in this area to be in the right direction, though we recognize that there may be severe administrative problems in channeling tax refunds to mothers.

Social Welfare

Under the financing umbrella of the Canada Assistance Plan (CAP), social assistance is the final fallback source of income and support for individuals and families in need. It is directed to the financially impoverished, a growing number of whom are single parents. CAP was designed as a federal-provincial cost-sharing program that would provide general welfare assistance. In the legislation there is no stipulated age of eligibility, no specific residence requirements, and no maximum level of allowable income or rate of assistance. CAP provides assistance to needy adults and their dependants and to guardians of children without parents, as well as "welfare services to persons who are in need or likely to become so if they do not receive such services."

The federal government provides 50 per cent of the funds for provincial and municipal assistance programs. Eligibility conditions and rates of assistance are set by the provinces and, to some extent, by the municipalities. Sharable costs include the expenses of general assistance, maintenance for persons in need who are living in homes for special care, child

welfare programs, health care services (excluding hospital and medical care covered under health insurance plans), welfare services, work activity projects, and comfort allowances for certain institutionalized persons. Welfare services include, among a host of things, day-care services. Since 1974 two sets of federal-provincial agreements (effective 1973-74) have been signed, providing additional federal funding for certain costs that cannot be shared under CAP. One provides for supplementary nursing home care benefits in Ontario, Manitoba, and Alberta. The other embraces a number of agreements with Ontario and New Brunswick, under which the federal government contributes to the cost of services to young offenders.17

The availability and level of payments is generally in line with what Canadians feel to be reasonably minimal, and for the most part the provincial programs are administered in a flexible way so as to meet local and individual circumstances. Each year, between 1.3 and 1.6 million Canadians, or between 6 and 8 per cent of the population, are assisted under CAP, with the highest percentages to be found in the Atlantic region, the Yukon and Northwest Territories, and Quebec (Table 7-4). There is, of course, a relationship between the availability of unemployment insurance (UI) and the need for social assistance, and it is significant that since the UI revisions of 1971, the number of persons assisted annually under CAP has dropped by between 100 and 230 thousand. The recently announced measures to limit the access of "repeaters" to UI benefits may now result in a rise in social assistance cases. At any rate, CAP is not a program that, in our opinion, should be reduced in order to generate expenditure savings.

Other tangible supplements are available in the form of day-care and housing subsidies. For the year 1973-74, the total CAP expenditures on day care were estimated by the Canadian Council on Social Development to be \$26 million. Many of the children whose care is subsidized come from single-parent families. Despite major government subsidies under CAP, it has been estimated that fewer than 3 per cent of all children 14 years of age and under, whose mothers work, are in day-care centres and fully 90 per cent of all estimated day-care expenditures are paid mainly to sitters rather than to formal centres. 18 Many of these informal arrangements are more convenient for parents and for the sitters who need a source of supplementary income.

Since the early 1970s and in some cases before that, the Central Mortgage and Housing Corporation has engaged in a variety of subsidized housing programs. Operating subsidies from governments, reduced

¹⁷ Statistics Canada, Social Security - National Programs, 1978 (Ottawa: Statistics Canada, 1978), pp. 297-300.

¹⁸ Economic Council, People and Jobs, pp. 163-64.

Table 7-4

Number of Persons Assisted under CAP, as a Proportion of Total Population, Canada, by Region, 1971-76

	Number of persons assisted	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Yukon and Northwest Territories	Canada
	(Thousands)				(Per cent)	(1		
1971	1,6221	11.2	0.6	5.3	7.5		1.3	7.5
1972	1,5331	10.9	8.6	8.4	7.5		3.6	7.0
1973	1,370	7.6	7.4	4.4	6.7		2.2	6.2
1974	1,347	8.7	7.2	4.4	5.8	6.3	5.6	0.9
1975	1,4362	9.2	7.4	4.7	5.6	7.3	8.6	6.3
9261	1,5003	9.1	7.7	5.1	5.5	7.3	14.9	6.5

Exclusive of Northwest Territories.
 Figures on children in day care and adults in institutions are not available for Northwest Territories.
 Includes figures for all provinces and territories. Figures on children in day care and adults in institutions are estimated for Quebec.

SOURCE Based on data from Statistics Canada.

interest rates, and capital contributions have become important for certain other housing programs. While little information is available on the families benefitting from these housing schemes, low-income elderly family units are well represented. In Ontario, for example, about one-third of public housing units were occupied by senior citizens (those 60 years or over) in 1976, 19 and in Manitoba and British Columbia over one-half of public housing was occupied by the elderly. Our tentative estimates for 1975, based on very sketchy information, suggest that of the low-income family units about 11 per cent of those 65 years or older and almost 20 per cent of those headed by a female were receiving annual federal/provincial rental subsidies amounting to about \$1,000 per unit. What is especially noteworthy about day care and the various forms of housing subsidies is that they are not equally available in all parts of Canada; the rural poor, in particular, are not likely to be helped.

Conclusion

We have looked in this chapter at the various health, education, and social welfare elements in government expenditures, and we have seen that for many reasons these expenditures represent a much larger slice of GNE than, say, a decade ago. There is, in our view, relatively little room for expenditure savings other than those that may occur as a result of changes in the composition of the population – in the areas of education and family allowances, for example. Limited savings might be found by moving away from universal to more selective programs, but selectivity has its own costs in terms of an increased bureaucracy, regulations, and enforcement procedures. Moreover, for programs that involve contributions, participants build up a strong sense of entitlement, quite apart from the level of their income. Very modest savings might be achieved by eliminating special tax exemptions that favour the well-to-do, but on the matter of taxes we would urge much more extensive study than has been possible in this Review.

We have said very little on the question of equity except in connection with income distribution. But considerations of equity go much beyond that, involving effort and opportunity no less than income. It is our view that Canadians are more likely to focus their concern about fairness on the circumstances in which incomes are generated and distributed rather than on the differences in financial income alone. In a democratic plural society such as Canada's, the kinds of social policies that are initiated will generally mirror the consensus of voter desires collectively expressed. And the majority of voters are middle-income earners.

116 The Search for Equity

Most social programs are categorical, in the sense that they are intended to benefit a particular group – the aged, the young, the sick, the unemployed, and the mothers with children – rather than a particular income level. Initially there may be some congruity between the target groups and the poor. But, as programs expand and become more universally accessible, inevitably they embrace more and more middle- and upper-income families. As a consequence, it is probably inevitable, as several American economists have reported for the United States, that "most redistribution goes back and forth within middle income groups." ²⁰

There are a few aspects of Chapters 6 and 7 which I find troubling. Three of these warrant, in my view, particular notice.

The first is the proposition underlying Chapters 6 and 7 that the principle of universality in social security programs such as Unemployment Insurance, the Canada Pension Plan and Old Age Security and Family Allowance, could be abandoned in favour of greater selectivity in eligibility. This is considered in the interests of channeling a larger share of the income supplements within these programs to those most in need, and perhaps, of realizing some saving in their total cost.

The Review acknowledges "that for some Canadians any breach of the principle of universality, especially in contributory schemes, would be ideologically unacceptable". There are sound reasons for this point of view. The universal social security schemes now in place have been evolved painstakingly over a long time. That they are now as universal as they have become derives from the belief, well tested in experience, that universality is the way best to minimize arbitrariness of any kind in the delivery of these programs, and, accordingly, the way best to safeguard the dignity of each and every individual who comes into contact with them.

It is true, as the Review makes clear, that we still find that the way we distribute income in our society leaves some Canadians in poverty.

I remain convinced that the proper approach to this problem, is through our primary instrument of income redistribution, the progressive tax system, rather than through a sacrifice of universality.

The second difference I have is with the suggestion in Chapter 7 that it may be appropriate to consider increasing the effective rate of taxation on the elderly by removing some of the special tax exemption they now enjoy. This again is being advanced in the interests of effecting some further redistribution of income in favour of those most in need. Here the idea is that the redistribution should take place among the elderly, from those with more income to those with less.

The Council in its Thirteenth Review explained to Canadians that inflation is accompanied by significant shifts in income and wealth from one part of the economic society to another. The most important of these shifts is from savers, among whom are the elderly who have built up savings in CPP and in private pension schemes, to borrowers among whom are younger members of society. Savers see the present and future purchasing power of their savings being eroded. Correspondingly, borrowers benefit from a decline in the real value of their debt.

At a time when inflation is having a major effect of this sort on the elderly, it seems to me only just to consider matters of equity in their distribution of incomes in the light of the broader distribution of incomes

among all age groups in society. Pending such broader consideration by the Council, the suggestion on the tax exemptions for the elderly is, in my view, not a priority.

My third difference is with the proposition implicit in Chapter 6 that unemployment insurance might appropriately look to the income of the family rather than the income of the individual in deciding on the proper level of insurance benefits.

The problem of providing jobs for all those who wish to work is the pre-eminent one confronting us. In addressing that problem, however, I do not believe we should dilute the principle that every Canadian has a right to work, and a corresponding right to unemployment insurance. We should not be postulating, in effect, that some, by reason of the status of the families of which they are members, have a lesser right to employment and to unemployment insurance than others.

K. Kaplansky October 6, 1978

8 The Bounds of Economic Management

We discussed in Chapter 7 some of the ways in which Canadian governments have responded to structural changes within the economy and to demands by society for new and more comprehensive social programs. The ability of governments to ease structural adjustments and to respond to particular social and economic problems, however, is often tied in with their success at demand management. This in turn reflects the skill with which policy-makers have manipulated the main stabilizing levers of monetary and fiscal policy, and attended to Canada's international and financial affairs. In the period ahead, perhaps even more so than in the past, governments will have to weigh their objectives carefully and take circumspect reading of the underlying direction of economic forces.

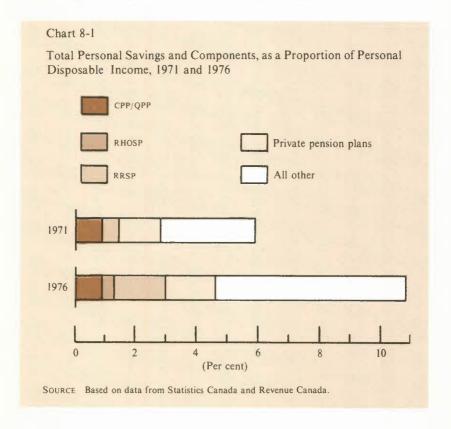
The Economic Issues

The more immediate outlook is mixed. The international and domestic competitiveness of a range of Canadian goods is stronger, as a result of the depreciated Canadian dollar and the slowing of increases in production costs in Canada. Overall, the rate of productivity growth in the manufacturing sector continues to be relatively satisfactory, although there are evident weak spots. On the export side, more Canadian goods than ever before are processed before being sold abroad. Idle manufacturing capacity has diminished, although there are unused reservoirs in some durable goods sectors; and the mining industry is relatively depressed. Notwithstanding its shortcomings as a measure of hardship, the aggregate unemployment rate is still intolerably high. So, too, is the inflation rate. Investors continue to be quite cautious, conscious of the slower growth path that almost all OECD countries are treading. Despite a

¹ The Conference Board in Canada, Canada's Manufacturing Sector: Performance in the 1970s (Ottawa: September 1978).

modest merchandise trade surplus, the current account deficit remains too large. And, even with government expenditure restraint, the prospects are for sizable, though diminishing, federal budgetary deficits for at least a few more years. Added to these factors, of course, is the worry over national unity and some serious federal-provincial differences on constitutional issues.

With inflation, too, has come a remarkable increase in personal savings as a percentage of personal disposable income. It is not entirely evident why this has occurred, although, clearly, families are taking advantage of tax breaks, trying to hedge against a future in which inflation will erode the purchasing power of their income. One indication of this phenomenon has been the remarkable growth in registered retirement savings plans; indeed, the annual flow of funds into RRSPs now exceeds that into trusteed private pension plans. Housing also appears to have been a repository of savings, both through the equity payments made each year and the investments directed to Registered Home Ownership Savings Plans (see Chart 8-1). In the long run, the rise in the personal savings rate is desirable in that it makes funds available for Canadian-controlled investments; in the short run, however, it has weakened aggregate demand by lowering the rate of consumer spending.



On the basis of the Canadian and foreign analyses at mid-year, the immediate expectations were for rather modest, and somewhat uneven, growth through the first half of 1979 for the main OECD countries and Canada; risk of a reacceleration of inflationary trends; and reduction in the international payments imbalances.² No clear signs were perceived that private business and household demand would be sufficiently strong to reduce unemployment or substantially improve capacity utilization. The medium-term prospects for most leading OECD countries were deemed to be similar to those for Canada, and it was because of their common anxieties that the heads of governments met in Bonn in July 1978.

At the Bonn Summit, the seven largest OECD countries each agreed to certain steps that, taken individually or collectively, promised improved world economic performance. Germany undertook to provide some additional expansionary thrust in its domestic economic policy. Japan acceded to a similar effort, as well as to an attempt to increase its imports of goods and services. The United States contracted to try to implement steps to slow inflation, reduce energy imports, and sustain output levels in the years ahead. The other participating countries promised to make their contribution towards more growth, less inflation, and reduced payments imbalances. The need for concerted action was recognized, as was the fact that the domestic situations and ability to manoeuvre differed among the various countries. While agreeing that stimulative action was needed to achieve more satisfactory growth in 1979 and beyond, specific growth pledges were not undertaken at the Bonn Summit. There was, however, increasing recognition that many of the problems resulted from structural elements shared more or less in common by all countries - elements not easily or quickly corrected by any single monetary, exchange rate, or fiscal, strategy.

The Bonn Summit and its follow-up have not yet improved by much the rather unsatisfactory world economic prospects that lie immediately ahead; in all fairness, though, it is simply too soon to expect much to have happened. If most of the undertakings are indeed delivered by the individual countries, the odds will be better than before the Summit for at least modest growth in the OECD countries next year.

For Canada, the Summit has sharpened several issues for consideration in this Review. For example, what will be the effects of reduced government expenditures with, or without, parallel reductions in government revenues? What are the prospects of these and related changes stimulating the recovery of private business and household expenditures? How might recovery itself ease the government fiscal position? Are there Canadian initiatives that could reduce the proportionate size of our current account deficit? And, more generally, what are the medium-term prospects and problems for Canada and the strategic policy options?

² OECD, Economic Outlook, July 1978.

The main intention of this Review has been to attempt to determine whether there have been basic structural developments that have hurt Canada's industrial competitiveness at home and abroad and resulted in a lower potential growth path than earlier foreseen. This has not been an easy task, since each industry – and, indeed, each enterprise – is unique, with its own strengths and shortcomings. Nonetheless, apart from the higher relative costs associated with the rise in energy prices in Canada, our analysis does not show that there has been a discernible serious structural breakdown in the competitive performance of most of Canada's industrial and service enterprises.

Looking back over the past decade, we found that the vigour of the primary sector is determined almost entirely by world demand, which has been sluggish and, as far as can be seen, will progress more slowly over the next few years than in the 1960s or early 1970s. While depreciation of the Canadian dollar and the recovery of the U.S. economy have helped, the gains have been almost entirely due to recovery in international commodity prices rather than increased output. On the energy front, there may be serious shortfalls of crude petroleum by the mid-90s, but revenues from surplus natural gas should offset the growing oil deficits until the end of the century. The manufacturing sector is still in the process of recovering from the severe slump of a few years ago. Traditionally labour-intensive industries and firms - textiles, clothing, footwear, and furniture - continue to be weak in Canada and in other OECD countries in the face of Third World competition; and some other industries are encountering competitive difficulties as well. Still, in 1977, the rate of growth in the value of Canadian manufacturing exports outpaced that of imports and may do so again this year. Thus, while there is a chronic deficit in total manufacturing, and specifically in automotive and other finished products, the overall manufacturing situation is showing signs of improving competitive strength. Provided that increases in unit costs remain modest, there are reasonably favourable sales prospects ahead for many manufacturing enterprises; for others, however, there will be continuing pressure from imports.

In its discussions with the provinces last winter, the federal government set its real, medium-term economic growth target at about 5 per cent for 1978 and 1979. Our perception is, however, that unless there are unforeseen and fortuitous changes in world markets or domestic expenditure patterns, the likelihood of achieving that magnitude of growth in 1978 or 1979 is very slim indeed. In our view, the more probable outcome is that real growth in both years will be in the 3.5 or 4 per cent range. Next year's growth performance, and that of subsequent years, could improve if there were substantial expenditures to stimulate the economy. Almost surely that would require a new fiscal initiative at the federal level, presumably through tax cuts to complement the expenditure restraints that have been announced. But the federal government is still faced with a very

large deficit, and tax cuts would only add to it. The question to be answered is whether the deficit is so serious that no federal stimulus should be considered at this time

Fiscal Policy

Through the recent period of relatively sluggish economic growth, the Canadian government has made frequent use of fiscal initiatives in an attempt to renew the economy's vigour. Have these policy initiatives been as effective as expected or hoped? Has the impact of fiscal policy been reduced by the size and persistence of government deficits, the increase in the degree and rigidity of the government's control of the national output, the changed structure of federal-provincial fiscal arrangements, or some combination of these? We have not attempted in this Review to provide definitive answers to these questions, since our examination has been directed towards sectoral issues and to the medium-term future. Nonetheless, we can provide a few reflections that may be immediately applicable and lay the groundwork for more intensive study in subsequent Reviews.

Central to the stabilization objectives of most modern economic systems is the notion that the government's fiscal stance should be countercyclical. When private business and consumer expenditures, and export demand, are low or declining, and an economy is operating at unsatisfactorily low levels of employment and plant and equipment utilization, fiscal policy should attempt to offset this condition by buttressing or increasing demand. When private demands are excessive, the government's fiscal position should limit or reduce the growth of public expenditures.

A second aspect of the economic stabilization objectives is that much of the process should occur automatically rather than require discretionary decisions. When private demand falls below that necessary to keep jobs and output up to certain levels, the fiscal system should automatically bring about slower growth in revenue and a quickening of expenditures, so that any fiscal surpluses will be reduced or deficits increased. Governments may, however, choose to take additional discretionary steps if business confidence, and output and employment levels, are considered to be so low that the automatic deficit is an insufficient stimulus to recovery. Generally, such discretionary steps would likely add to the government deficit; but, if they were at all successful, the added deficit would soon be partially offset by the additional government revenues that an expanding economy should yield.

A third aspect of most modern fiscal systems is that, even under noninflationary circumstances, an increasingly larger share of the nation's income flows into government revenue, unless tax rates are cut or exemptions are increased from time to time. This occurs essentially because of the combination of tax progressivity and rising money incomes. In times of high or increasing inflation, this process is aggravated unless there is extensive use of indexation in the tax system, as in Canada, or substantial discretionary tax cuts. Inflation, of course, increases government costs, though not necessarily apace with the increases in government revenue; hence the process does not necessarily lead to increased government surpluses or reduced deficits, especially if governments increase expenditures.

Canada's fiscal system differs substantially from that of most other nations. More than half of all government expenditures are made by provincial and local governments and hospitals. Thus the potential for fiscal stabilization arrangements by provincial and local governments is large, though co-ordination with federal government policies is difficult. Also, many provincial and municipal expenditures are recurrent and relatively incompressible, and thus they do not lend themselves to discretionary decisions.

With these generalities in mind, what has Canada's fiscal experience been in recent years? In the first half of the 1970s, with rapid growth and accelerating inflation, government revenues and expenditures increased more rapidly than national income. Both the federal and provincial governments in all parts of Canada used these "windfalls" not to create surpluses, but to increase expenditure. Eventually, too, a massive transfer of generously indexed tax points was made to the provinces.

When all the industrial countries entered into an extended period of recession after 1973, government deficits increased. The severity and prolongation of the recession added to Canada's difficulties, with most of the record, or near-record, deficits being attributable to the automatic features of the Canadian fiscal system rather than to discretionary fiscal stimuli. The federal government did, however, undertake several discretionary tax cuts coming into effect particularly in 1975 and, on a more modest scale, in 1977 and 1978. Provincial governments added to these stimuli in 1975 and 1976, but less so in more recent years. These discretionary fiscal actions added to the net accumulation of government deficits.

As it turned out, the Canadian economy did not perform up to the expectations of the Minister of Finance during the period from 1975 through to 1978. The domestic and external private forces of recovery were less strong than expected. And, while the built-in elements of fiscal support helped to sustain demand and the growth of employment above what they might otherwise have been, they did not contribute to economic expansion. Despite the various elements of the government's anti-inflation program, Canada's inflation performance was somewhat worse than expected. This, too, inhibited a strong fiscal stimulus. Given the

persistent lack of business and consumer spending, the federal deficit has turned out to be significantly larger than expected.

The large-scale public borrowings abroad, described in Chapter 2, and the cumulative increase of public debt relative to national income or to the tax base have raised questions - at least in some minds - about the ability of governments to play as large a discretionary role now and in the future. Whereas the federal government's deficit position continues to be strongly contracyclical, provincial governments and their emanations have become notably less expansionist than they were earlier. Of course, the fiscal position of the provinces varies widely, with Alberta enjoying sizable surpluses and most other provinces sustaining modest debts.

It is, perhaps, instructive to observe the fiscal positon of other governments. In comparison with other major OECD countries, and particularly Germany and Japan, Canada's overall fiscal performance has not been too unfavourable (Table 8-1). Indeed, the figures suggest that in combination with expected improvements in the federal budgetary position as a result of the modest growth anticipated next year, there is room for new fiscal stimuli, should the government choose this course. Allowance must, however, be made for the generous indexing of federal and provincial transfers under the phase-in arrangements of the Established Program Financing agreement, and for the gradual removal of the subsidized interest on, or availability of, capital funds provided to the provinces under the CPP/QPP programs.

Table 8-1 General Government Deficit or Surplus, as a Proportion of Nominal GNE or GDP, Major OECD Countries, 1975-78

	1975	1976	1977	1978
		(Per	cent)	
West Germany	-5.8	-3.7	-2.7	-4.0
France	-2.2	-0.8	-1.2	-2.0
Italy	=14.5	-9.8	-9.8	-11.5
United Kingdom	-4.8	-4.9	-3.3	3.8
Japan	4.0	-3.7	-4.2	5.5
United States	-4.2	-2.1	-1.1	0.8
Canada	2.3	-1.8	-2.7	-3.0

SOURCE OFCD, Economic Outlook.

Monetary and Exchange Rate Policies

Monetary and exchange rate policies also directly affect economic performance. At the time of writing, the Canadian dollar was at, or below, 85 cents (U.S.) on the foreign exchange market for the first time since 1933. This development reflected the continuing internal inflationary situation, a weakening of Canada's exports in the summer of 1978, and a falling-off of Canadian borrowing in foreign markets. The Bank of Canada has responded to this dollar depreciation in two ways: it has intervened directly on foreign exchange markets by buying Canadian dollars; and it has raised the Bank rate four times since the beginning of the year.

There are reasons for believing that a further fall in the dollar will only have a transitory effect on Canada's inflation rate and that the exchange value will go back up on its own. The Canadian dollar is caught in the backwash of strong speculative pressures against the U.S. dollar, and the current rate is substantially below the level that most analysts think is appropriate to Canada's international position. Both the Canadian and the U.S. dollars have declined relative to European currencies, and notwithstanding the difficult economic conditions in both countries, the value of both currencies has fallen below their intrinsic worth.

The policy choices are, of course, difficult. Should priority be granted to the fight against inflation by adopting a restrictive fiscal stance and a contractionary monetary policy, thus raising interest rates and discouraging domestic investment? Or should the government's primary objective be to promote a higher rate of real growth in order to fight against unemployment, while letting the Canadian dollar find its own way on the exchange markets? The authorities seem to be following the former course. With this year's rise of more than 2 percentage points in interest rates and the recently announced reduction in the cash deficit, the fiscal and monetary policies adopted by the federal government will most certainly restrain the Canadian economy next year. While contained inflation and a stronger dollar are no doubt desirable, there have been optimistic signs higher capacity utilization, and increased profits and private investment – that the Canadian economy is beginning to show some strength, and it will require a fine balancing act to avoid a monetary policy so tight as to abort the long-awaited recovery.

Conclusion

Looking ahead, the choice of policies will be determined largely by the urgency that Canadians attach to different objectives. They will not be easy choices, since no single objective can be achieved without cost. A vigorous pursuit of growth and high employment would require measures that could aggravate inflation and worsen the current account deficit. A further tightening of monetary policy to combat inflation would jeopardize growth and increase unemployment. A reduction in the balance-of-payments deficit would require policy-makers either to allow the exchange rate to sink to a level that would encourage a large trade surplus but could aggravate inflation, or to adopt a tight monetary policy that would

encourage capital inflows but discourage investment and slow domestic growth. We indicated in last year's Review that

"...the outlook for the next five years, as we perceive it, is for relatively modest growth, persistent inflation, high unemployment, and very large current account deficits. Our examination of alternative fiscal and monetary policy options...suggest that it may not be possible to improve the performance of the economy on all these fronts simultaneously. To achieve reasonably sustainable economic growth will require a balancing of objectives. The room for manoeuvre by the federal and most provincial governments is limited by financing constraints, and policymakers will continue to be faced with restricted options in selecting a policy mix that, hopefully, will propel the economy along a more desirable growth path."

The events of the past year and the prospects for the future have, if anything, added confirmation to this perspective.

³ Economic Council of Canada, Fourteenth Annual Review: Into the 1980s (Ottawa: Supply and Services Canada, 1977), pp. 83-84.

9 Conclusions and Recommendations

The moods of Canadians are changing. The sense of optimism of the early 1960s, the youthful confrontation and experimentation of the early 1970s, the ebullient expectations of only a few years ago, are all past history. One way or another, the fervour that seemed on occasion to divide the generations has been diffused. Solutions to issues have been found – not satisfactorily to everyone, perhaps, but to most. Yet some issues, as we have seen, have defied solution; and so institutional palliatives have been developed to ease the indignation and distress. Unemployment is cushioned by unemployment insurance; inflation, by indexation. Today, retrenchment seems to be in vogue. Many of the old virtues – work, thrift, efficiency – are being clarioned anew. Governments are no longer considered uncritically as the instruments of social change. Most of the issues are complex; tomorrow they will be more so.

The Longer Term

The prospects for Canada, both domestically and internationally, call for recognition of the current hard realities along with a sense of optimism about the future. Domestically, there is ample scope for ingenuity and resolution, as this country adjusts to the progressive aging of population, modifies and replaces manufacturing and household equipment by more energy-efficient-facilities, and resolves the national unity issue. The rate of growth of the Canadian population over the next two or three decades will return to the slower pace that preceded the postwar baby boom – or about half the growth rate that marked the 1950s and 1960s – and affect the structure of both demand and supply. Indeed, already the population is becoming increasingly middle-aged, and the

rate of household formation is declining. The demand for housing and schools is declining as well, and consumer demand for durable goods may also be slowing. Unless immigration expands, the labour force growth rate will fall because of a slowdown in the rise of female participation rates and, particularly after 1985, slower growth in the size of the source population. Increases in per capita real income are not expected to be as rapid as they have been in recent years.

Internationally, the changes in the world economy and world trade will create both problems and opportunities. In the postwar period, economic recovery in Europe, the United States industrial expansion, and the reduction of trade barriers stimulated Canada's economic growth. Trade links were forged with those developed countries, and Canada's economy grew apace. Today, however, a number of developing nations are burgeoning, and the composition of the trade flows is altering, as they expand their sales and purchases in world markets. The increased competitive pressure on labour-intensive industries, such as textiles and clothing, shoes, and many electrical and rubber products, has been evident for some years. Now the role of developing countries is expanding very quickly in steel and other industries with capital-intensive and standard-technology facilities. The population of these countries is growing faster than Canada's, and the rates of increase in per capita real incomes among the leading nations are impressive. Hence they will be seeking markets for a growing number of exports, many of which will compete directly with Canadian supplies, but they will also represent an expanding market for foodstuffs and for processed forest, metal, and mineral products.

As the world's population continues to expand, pressure will undoubtedly be exerted on the global supplies of food, raw materials, and energy. Though few observers predict that permanent physical scarcity will impair world growth, relatively high prices are expected for many raw materials over the next 10 to 20 years. This could lead to a shift in the terms of trade that will favour Canada, which is relatively well-endowed

¹ Population has been projected to grow at the following average annual rates: 1.1 per cent from 1976 to 1995 by the Department of Finance, Canada's Economy: Medium-Term Projections and Targets (Ottawa: 1978), p. 25; 0.9 per cent for the low, and 1.4 per cent for the high, estimates from 1976 to 2000 by B. L. Eyford and B. Cain, "Simulations with CANDIDE to the Year 2000," Economic Council of Canada Discussion Paper 89, p. 22; 1.6 per cent, 1.1 per cent, and 0.5 per cent from 1976 to 1996 by M. J. Drouin and B. Bruce-Briggs, Canada Has a Future, prepared for the Hudson Institute of Canada (Toronto: McClelland and Stewart Ltd., 1978), p. 254; 0.9 to 1.1 per cent by H. H. Postner, "Canada and the Future of the International Economy: A Global Modeling Analysis," Economic Council of Canada (in preparation).

² Increases in the number of youngsters during the 1990s - a faint reflection of the postwar baby boom - should revive consumer investment.

with natural resources, in contrast with advanced, but relatively resourcepoor, countries such as the United Kingdom and Japan.

Canada's future in the extremely competitive high-technology industries is uncertain. New enterprises will be built where investment will be best rewarded, where complementary research and development is under way, and where local markets and relative costs of capital and labour are favourable. Some observers believe that without corrective action, insufficient research and development will be undertaken in Canada to support these high-growth industries. The Council shares these concerns. Recent actions by the federal government to stimulate research and development indicate that it too recognizes the problem. The Council urges that the government act with business and the provinces to stimulate and harmonize Canadian initiatives in these areas.

Adaptation to new high-priced energy will also generate profound changes in the economy and in the living patterns of Canadians. Indeed, the need to develop domestic energy supplies could create such a large demand for investment that the capabilities of Canada's capital-goodsproducing and financial sectors will be seriously stretched. While investment in the traditional areas of housing, education, and health may not grow as fast as in the past, extensive investments in other non-energy sectors, such as transportation, resource development, and water conservation, will be made. Canada will, therefore, likely continue to depend rather heavily on foreign investment to supplement domestic savings.

It may well be, too, that as these investments are made and the 1980s progress, Canada will experience more rapid productivity improvement than appears likely in the shorter run. Slower labour force growth by itself will reduce the potential for overall GNP growth, but it will also encourage the introduction of new labour-saving modes of production, which will raise productivity levels. These, in turn, could enable Canadians to look forward to significant gains both in real income and leisure time.

The Council has developed very tentative projections of how the Canadian economy is expected to perform from now until the year 2000. Using the "energy conservation" projection of the U.N. model, a tolerable long-term real growth trend of 3.6 per cent annually is charted for Canada. This presupposes a relatively high rate of business capital formation each year and alterations in the structure of the economy along the lines suggested in Table 9-1.

Clearly, the longer-term future, no less than the past, will offer opportunities to countless Canadians. As a nation, Canada should continue to prosper materially. The rising margin of prosperity could open up choices and free resources for alternative uses, offering broad opportuni-

³ Postner, "Canada and the Future of the International Economy."

Table 9-1

High-, Medium-, and Low-Growth Industries in Canada under the Energy Conservation Scenario, 1970-2000

High ¹ (4 per cent or more)	Medium ¹ (3 to 4 per cent)	Low ¹ (3 per cent or less)
Coal		Industrial chemicals
Paper products Communications	Transportation equipment Petr Construction Nat	Petroleum refining Natural gas
Residual mining		Other manufactures
Aircraft	Metal products	JC
Iron ore		Lead
Wood products	Furniture, fixtures Tex	Textiles, clothing
Fertilizers		Livestock
Utilities	roducts	Food processing
Nonmetallic mineral products	Machinery Rut	Rubber products
Scientific instruments	Services	Vickel
Cement	Grains	Petroleum
Motor vehicles	Residual agriculture ²	
	Printing, publishing	
	Primary metals processing	

1 Includes uranium, asbestos, gold, gypsum, sulphur, stone, and gravel. 2 Includes forestry, and fishing.

SOURCE H. H. Postner, "Canada and the Future of the International Economy: A Global Modeling Analysis," Economic Council of Canada (in preparation).

ties for genuine human betterment. We are reasonably hopeful about the longer term - which is a sequence of medium terms embodying short terms - because we believe in the collective good sense of Canadians and in their ability to adapt and to find common solutions to difficult issues. And, in the years ahead, difficult issues shall doubtless abound.

The Economic Projections

It is the practice of the Economic Council to examine annually Canada's medium-term economic prospects with a view to setting forth projections for key performance indicators such as the rates of growth of real GNE, prices and unemployment, and the state of the current-account balance of payments. The simulations described in the following pages are intended to assist decision-makers in forming judgments on the problems. prospects, and policy choices that lie ahead.

The Fifteenth Annual Review has been written this autumn in the midst of a series of federal government announcements about new economic policy initiatives. At the time of writing, not all of the government plans have been revealed, nor have the details of the plans enunciated by the Prime Minister in his post-Bonn speech and in the Throne Speech been fully articulated. In general, the "new economics" seems to entail transferring resources back to the private sector by constraining federal expenditure growth to less than the growth of GNE and encouraging the provinces to do likewise, by reducing spending for some programs and expanding others with a more immediate or larger job-creation potential, and by introducing more selective unemployment insurance benefits and family allowances. So far, the response of provincial governments to the federal measures or to the altered prospects for economic activity have not been spelled out. They will likely be more fully expressed at the Federal-Provincial Conference of First Ministers in November.

In a sense, then, in advancing our perspectives about the medium term, we feel that we are on shifting sands. Therefore, the scenarios that have been developed using the Council's CANDIDE econometric model must be very tentative. They are nonetheless based upon the most recent National Accounts information and also the most up-to-date forecast of U.S. and world economic and trade prospects derived from the Wharton Economic Forecasting Agency model.

Nine complete simulations were run to take account of the various possible changes in international and domestic market prospects that might occur and the alternative monetary and fiscal strategies that might be pursued. The federal government's budgetary pronouncements of August and September 1978 were taken into account and underlie all the solutions with the exception of the pre-austerity case. This brings up an important point. In other years, we singled out a reference solution that, in our view, coincided with a business-as-usual federal and provincial response to economic conditions. In the absence of major subsequent policy pronouncements, we considered the reference solution to be our best projection of the likely economic developments over the medium term. This year, however, it is somewhat unclear whether all provincial governments will follow the federal lead and curb their expenditure growth with equal resolve. Were they to choose this course, the solution among our simulations that would best correspond to the reference solution of previous years would be that entitled "extreme austerity." We have gone on the expectation, however, that most of the provinces will pursue their own priorities in a sound and fairly business-as-usual fashion. The simulation called "mixed austerity" is consistent with this expectation, and it represents, in our view, the projection of the medium term that best coincides with the former reference solution. Accordingly, all the other prospective solutions, except the "extreme austerity" and "pre-austerity" ones, are built on the assumptions that are inherent in the mixed austerity case.

Pre-Austerity

This scenario assumes that federal expenditures, unemployment insurance, and family allowances remain as announced in the budget last spring. It is also assumed that the economy responds to monetary and fiscal initiatives and external economic stimuli largely as it has done in the past, and public employee salaries are held in line with those of private sector workers. Had these conditions held, the real GNE growth would have averaged over 4 per cent over the next three years, led by strong private investment in 1980 and 1981. The overall government deficit would have fallen to less than 2 per cent of GNE. However, unemployment rates would have remained above the 8 per cent level until 1981; prices, as measured by the GNE deflator, would continue to increase annually at about 7 per cent or more; and the current account deficit, as a percentage of GNE, would remain large.

Extreme Austerity

This scenario presupposes that all governments combined keep expenditures 1 per cent below the increase in money GNE. There are no major changes in federal or provincial revenue policies, in private sector investment, or in consumer spending intentions from the pre-austerity solution,

despite the relative sluggishness of the Canadian economy. The adverse effects of this scenario are evident. Real growth drops to about 3.5 per cent over the next three years, and below 3 per cent thereafter. Private investment is discouraged, and unemployment moves progressively higher into the 9 per cent range. The overall government deficit is sharply reduced, and there is some improvement in the current-account balance of payments.

Mixed Austerity

This scenario uses the same assumptions as the extreme austerity case, except that government expenditures here are kept roughly 0.5 per cent below the growth of money GNE, to correspond to an austere federal and a business-as-usual provincial stance. While better than the extreme austerity outcome, the mixed austerity projections indicate that real growth of GNE next year will be under 4 per cent and that, over the medium term, it will exceed 4 per cent only in 1981. Private investment is still quite strong in 1980 and 1981, though somewhat reduced from the pre-austerity case; prices stay in the 7 per cent range, and unemployment rates persist at about 8.5 per cent. The all-government deficit is measurably reduced from the pre-austerity solution, but it persists. Indeed, none of the nine solutions report an all-government budgetary surplus in any of the next five years.

Full-Steam Private Spending

Many of those who have supported the recent austerity measures have argued that public taxes have displaced savings, crowded out potential private investment, and thereby slowed growth. "Shrink the public sector," so the "new economics" says, "and the private sector will do its bit." To examine what would be implied in terms of real activity, we developed a simulation designed to achieve a real growth rate of 4.5 per cent in 1979 and 5 per cent in 1981 through domestic private initiative alone. To achieve those rates of growth - while still maintaining the mixed austerity stance with no new public stimuli - a burst of business and consumer confidence would be required such as to promote rates of growth in private sector demand unprecedented in the last 50 years in Canada, both as to size and duration. The simulation calls for 50 per cent higher investment levels in 1983 than in 1978 and anticipates a drop in private savings, as a percentage of personal disposable income, from their present 11 per cent level to 7 per cent. Given the investment knowledge at hand and the present consumer spending and savings patterns, it is highly

improbable that this outcome will be achieved; hence this full-steam scenario is mainly – though perhaps not entirely – speculative. Even if it were possible to achieve the buoyancy we set for the solution, there would still be economic difficulties. Real growth, of course, would gain strength, although by less than 0.5 per cent of the pre-austerity situation, and with rising revenues the all-government deficit would almost be eliminated. Unemployment would drop, but not below the 7 per cent level. There would be no reduction in inflation, and the current-account balance-of-payments deficit, as a percentage of GNE, would soar. Massive foreign borrowings would be necessary.

Income Tax Cut

This scenario assumes that mixed austerity prevails but that the federal government introduces a permanent cut in personal income tax rates equal in the first round to \$2 billion, to take effect commencing in 1979. This solution imparts a significant stimulus in the first year, raising real growth to 4.5 per cent. Private investment is encouraged, and the impetus is carried forward in lessening amounts in subsequent years. Nonetheless, even with a tax cut of this magnitude, unemployment remains above 8 per cent, and both the government budget and the current-account balance of payments deteriorate somewhat.

Federal Sales Tax Cuts

Several leading economic organizations and commentators have urged a reduction in federal sales taxes as a means to stimulate the economy and, by reducing the prices of manufactured goods, to ease inflation. This scenario starts from the mixed austerity simulation but assumes that the federal government cuts its indirect sales taxes almost in half - roughly the equivalent of a \$2 billion sales tax reduction - effective January 1, 1979. It is also assumed that these reductions are passed on directly to the consumer. Not surprisingly, the results of this stimulus are quite similar to those derived in the preceding income tax cut simulation. The real growth of GNP is up by 0.5 percentage point in 1979, and by more modest levels thereafter. Compared with the income tax cut scenario, private nonresidential investment is strengthened, the government deficit as a percentage of GNE rises in 1979 but declines thereafter, the balance-of-payments deficit as a percentage of GNE remains high, and the unemployment rate is persistently above 8 per cent. The most notable impact is on inflation. A federal sales tax cut equivalent to \$2 billion would, according to the simulation, reduce the inflation rate by a full percentage point in the first year and by diminishing margins thereafter.

Combined Tax Cuts

If each of the tax cut scenarios stimulates the real growth of GNE and modestly helps to reduce unemployment, would there be merit in combining them into a major fiscal thrust corresponding to a \$4 billion tax cut? Predictably, real growth accelerates, exceeding 5 per cent in 1979 and continuing in subsequent years to be stronger than the mixed austerity solution by about half a percentage point. With lower prices resulting from the federal sales tax reduction, inflation in the first year drops to slightly below 6 per cent; private investment is strengthened; and, in the 1980s, unemployment drops by almost a percentage point. But the government deficit as a percentage of GNE soars to record heights, and the current-account balance-of-payments deficit as a percentage of GNE also becomes much larger.

Extra Exports

The foregoing simulations were based on expectations about Canadian trade and travel that are consistent with the OECD and most other projections on U.S. and world growth rates. They also assumed a modest strengthening of the Canadian dollar from its present unusually low levels. The "extra exports" scenario starts from the mixed austerity solution and assumes no special federal fiscal tax stimuli and no special surge of business and consumer spending akin to the "full-steam private spending" scenario.

It does, however, take account of possible improvements in Canada's trade position through federal initiatives in some areas, such as energy, tourism, and automotive vehicles and parts, and through appropriate changes in present trade arrangements and patterns of activity. On the energy front, in Chapter 3 we mentioned the prospects for "swaps" with the United States. The travel and tourism account is more uncertain, but it is possible that the initiatives already undertaken or planned, including reduced airfares and more varied packaged tours in Canada, together with the depreciated Canadian dollar, might spark a major increase in foreign travel into Canada4 and convince some of the Canadians who are now travelling abroad to remain here. On the automotive front, now that the decision has been made to build major new plant facilities in the Windsor area, it is not at all unlikely that federal initiatives to ease Canada's large automotive trade deficit could lead to more automotive exports to the United States.

⁴ The recent easing of U.S. customs laws should also help.

Should all these developments occur on a significantly larger scale than now projected, they would result in an increase in the real growth of GNE of about the same magnitude as that yielded by each of the tax cut scenarios taken separately. There would be little change in the unemployment or inflation prospects, but there would be a marked improvement in both the government deficit situation and the current-account balance of payments.

Tight Monetary Policy

A final simulation assumed that the Bank of Canada limited increases in the money supply to about 5 per cent per year. This would be consistent with the view advanced by many Canadians that the main objective of government policy in Canada today should be to reduce inflation and that the appropriate technique would be to reduce the rate of growth in the money supply, as advocated by the monetarists. The conditions of the mixed austerity solution were maintained, with no tax cuts or unusual surge of domestic investment or spending, or foreign purchases of Canadian goods. This scenario projects steadily decelerating real growth in GNE, rising interest rates, and higher unemployment. Private investment is discouraged. There is a measurable improvement in the balance of payments; but, in the medium term, the government deficit is enlarged because of slow growth and reduced revenues. The inflation rate is hardly affected at all. In fact, over the full medium term, the overall price increases measured by the GNE deflator move more slowly with the federal sales tax cut than with the tight monetary policy solution.

Conclusions and Recommendations

What can be deduced from a study of these simulations? The projections of the main indicators flowing from them are presented in summary form for the 1978-83 period in Table 9-2. A brief examination reveals several worrisome facts. First, if governments maintain their commitment to keep public spending below the growth rate of GNE – or even if they hold it to a level roughly equal to the growth rate of GNE, and there is no startling resurgence of domestic and foreign demand – Canadians can expect to live with persistently high unemployment rates for quite a few years yet. A corollary is that without the type of fortuitous and unforeseen developments described in several of the simulations, it is most unlikely that the Canadian economy can reach and sustain a 5 per cent real annual growth rate in GNE in the next few years. If all governments adhere to an austere fiscal stance, and this is combined with tight monetary policy at the Bank of Canada, the medium-term real

	1979	1980	1981	1982	1983
		(Perc	entage in	crease)	
Real gross national expenditure					
Pre-austerity solution	4.2	3.9	4.6	2.8	3.0
Extreme austerity	3.5	3.2	3.8	1.9	2.1
Mixed austerity	3.9	3.5	4.2	2.3	2.5
Full-steam private spending	4.5	4.2	5.0	3.2	3.3
Income tax cut	4.5	3.7	4.5	2.6	2.6
Federal sales tax cut	4.4	3.7	4.5	2.4	2.4
Extra exports	4.4	3.7	4.3	2.4	2.5
Combined tax cuts	5.1	3.8	4.8	2.8	2.5
Tight monetary policy	3.7	3.2	3.6	1.7	1.8
					1.0
Gross national expenditure deflator					
Pre-austerity solution	7.2	7.6	6.8	7.3	6.6
Extreme austerity	7.3	7.5	6.7	7.0	6.3
Mixed austerity	7.2	7.5	6.7	7.1	6.4
Full-steam private spending	7.2	7.6	6.8	7.4	6.8
Income tax cut	7.0	7.6	6.8	7.2	6.6
Federal sales tax cut	6.1	7.2	6.5	7.0	6.4
Extra exports	7.1	7.7	6.8	7.2	6.5
Combined tax cuts	5.9	7.3	6.5	7.1	6.6
Tight monetary policy	7.2	7.5	6.8	7.1	6.3
		(Real per	rcentage i	ncrease)	
rivate nonresidential investment					
Pre-austerity	4.7	8.5	7.2	1.8	1.9
Extreme austerity	4.0	7.6	6.3	0.9	1.0
Mixed austerity	4.4	8.1	6.8	1.3	1.5
Full-steam private spending	9.2	12.8	10.6	5.2	5.0
Income tax cut	4.9	8.5	7.1	1.6	1.6
Federal sales tax cut	5.1	8.8	7.5	1.5	1.2
Extra exports	4.8	8.5	7.1	1.4	1.4
Combined tax cuts	5.6	9.2	7.7	1.7	1.3
Tight monetary policy	4.0	7.3	5.2	0.6	-0.5
		(Perc	entage of	GNI)	
Government deficit					
Pre-austerity solution	2.4	1.8	1.8	2.2	2.7
Extreme austerity	2.1	1.2	0.8	1.0	1.1
Mixed austerity	2.3	1.5	1.3	1.6	1.8
Full-steam private spending	2.0	1.0	0.5	0.5	
Income tax cut	2.9	2.2	2.0	2.2	0.6
Federal sales tax cut	3.1	2.1	1.9	2.1	2.5
Extra exports	2.0	1.1	0.9		2.5
Combined tax cuts	3.7	2.8		1.1	1.3
Tight monetary policy	2.3	1.6	2.5	2.8	3.2

Table 9-2 (concl'd.)

	1979	1980	1981	1982	1983
		(Pero	entage o	f GNE)	
Balance of payments					
Pre-austerity solution	-2.4	-2.8	-2.8	-2.6	-2.7
Extreme austerity	-2.2	-2.3	-2.1	-1.7	-1.5
Mixed austerity	-2.3	-2.6	-2.4	-2.1	-2.1
Full-steam private spending	-2.6	-3.3	-3.5	-3.6	-3.8
Income tax cut	-2.6	-2.9	-2.8	-2.6	-2.6
Federal sales tax cut	-2.6	-2.9	-2.8	-2.5	-2.4
Extra exports	-2.1	-2.1	-1.9	-1.7	-1.7
Combined tax cuts	-2.9	-3.2	-3.2	-3.0	-2.9
Tight monetary policy	-2.3	-2.4	-2.0	-1.5	-1.2
		(Percenta	ge of lab	our force)
Unemployment rate					
Pre-austerity solution	8.3	8.0	7.5	7.6	7.6
Extreme austerity	8.7	8.9	8.8	9.3	9.9
Mixed austerity	8.5	8.5	8.3	8.6	9.0
Full-steam private spending	8.2	7.9	7.3	7.3	7.3
Income tax cut	8.3	8.2	7.8	8.0	8.3
Federal sales tax cut	8.4	8.3	7.9	8.2	8.5
Extra exports	8.3	8.2	7.9	8.2	8.5
Combined tax cuts	8.2	7.9	7.4	7.5	7.9
Tight monetary policy	8.6	8.7	8.7	9.3	9.9

SOURCE For a more complete discussion of the assumptions of each of the simulations, together with more detailed indicators, see R. S. Preston, T.T. Schweitzer, and J. Fortin, "Fifteenth Annual Review Statistical Documentation," Economic Council of Canada Background Paper, 1978.

growth prospects beyond 1981 fall dismally to levels in the 2 per cent range. Unemployment rates rise to almost double-digit levels, with the only bright spot being the reduced government and current account deficits as a percentage of GNE. Inflation, as measured by the GNE deflator, will continue at annual rates of between 6 and 8 per cent.

There are no easy ways to alleviate the difficulties. The government is faced with objectives that are not symmetrical and that, indeed, are often conflicting. Fiscal initiatives in one direction may prove to be counterproductive in another. There are choices to be made even about mediumterm objectives and the relative importance of economic growth, the unemployment rate, the government deficit, the current account balance, and equity. In earlier years, it was generally assumed that strong sustained economic growth was consistent with full employment, but this is by no means clear today. If government expenditures are to be restrained, the principal sources of the stimulus must come from investment and consumer expenditures – that is, from a reduction in private and corporate savings rates. But private savings rates remain high and are not likely to diminish measurably as long as inflation persists. Moreover, in the longer run, if Canadians wish to recapture more control over the economy, they must reduce their traditional reliance on foreign

borrowings and save more domestically, as suggested in the Fourteenth Annual Review.5

Finally, the question remains whether the present large federal deficit is so genuinely serious as to inhibit additional federal tax or expenditure stimuli? Our perception is that it is a worrisome, but not a terminal, case; that legitimate concern over fiscal responsibility does not rule out room for manoeuvre. Crucial to the success of the "new economic strategy" is the restoration of business confidence, sustained consumer spending, and optimism about export markets. While we would like to believe that Canada is on the threshold of such an economic renewal, we see no signs of an early new dawn. We observe underlying strengths in the economy, particularly in the market sector. But we also perceive a continuation of difficult choices and a delicate balancing of strategies so as to encourage efficiency and reward effort and initiative while preserving the elements of equity and security that render Canada a fundamentally decent place to live.

The ultimate resolution of Canada's economic malaise lies clearly in more vigorous growth. Our simulations indicate that the federal expenditure restraint program alone, however much it is intended to encourage business initiative and employment creation, will depress the economy unless it is accompanied by stimulative measures that will encourage business and consumer spending. Accordingly,

We recommend that the federal government introduce measures to stimulate the economy, with a view to achieving a 4.5 per cent rate of real output growth in 1979 and to gaining momentum towards sustaining growth at this pace or a little better in the next few years.

We believe that a modest fiscal stimulus to improve our chances for such a growth rate can be undertaken without reaccelerating inflation. Even if the private sector increases investment and spending in response to government expenditure restraint programs, it will take time for the effects to filter through the economy. As a minimum, the dampening effect on the economy from the lapsing of the temporary reductions in provincial sales taxes should be offset. Indeed, particularly in view of the expenditure restraints, something more than such a minimum is required. Of course, in choosing the size of the discretionary fiscal stimulus, account must be taken of the comparatively large reduction of tax revenues that will result from the indexation of the federal and of most provincial personal income taxes.

We recognize that such a stimulus might be imparted in a number of ways, and we leave it to federal authorities to determine what instruments will best serve this purpose. In our view, the choice lies between a marked reduction of the federal sales tax, either on a selective or across-

⁵ Economic Council of Canada, Fourteenth Annual Review: Into the 1980s (Ottawa: Supply and Services, 1977).

the-board basis; and major reductions in the personal income tax, preferably on a selective basis that will quickly bolster consumer confidence. A third option would be to renew the federal-provincial arrangements that provided the reductions in provincial sales taxes. Any one, or some combination, of all three approaches – which would, of course, call for provincial as well as federal participation – would seem appropriate. If joint participation cannot be agreed upon, we would urge at least as much consultation and fiscal harmonization as possible in the interests of stimulating growth. In any case, some federal government fiscal stimulus is required.

We are concerned too that a cycle of intensified, and then too little, investment may lie ahead for Canada. Sooner or later – perhaps as investment in new energy projects approaches its peak – a broad general increase in private investment in Canada will take place. And, even with restraint on government activities, major public investments lie ahead. The danger is that public and private investment could rise concurrently and, if accompanied by strong consumption spending, set off a new inflationary spiral. Then, as growth in energy investment recedes, there could follow a slump in both the public and private sectors. Almost all of our simulations, for instance, projected a pronounced slowing of investment by 1982.

The Council's study of the construction industry⁶ made recommendations to reduce the traditional Canadian pattern of swings from depressed conditions to overheating of that industry. But Canada's public and private institutional arrangements do not yet appear to be adequately concerted to smooth and offset investment cycles. This is an important issue, not only for investment in itself, but for the ensuing variations in inflation, employment, and productivity. There is danger, too, that periods of great strain, and then slump, in financial markets will interact with, and reinforce, instabilities in the economy. Initially, therefore, there is the need to reduce the uncertainties and to restore business confidence among private investors. Thereafter, it is a matter of timing the public investments so as to ensure steady growth. Mindful then of the immediate expenditure restraints and long-run investment requirements, and of the need to anticipate and counter a possible recession in the medium term,

We recommend that the federal government, in co-operation with the provinces and with the business and financial community, make a renewed effort to plan and develop a medium-term strategy of phased spending on major capital works designed to contribute to the efficient operation of Canada's industrial structure.

⁶ Economic Council of Canada, Towards More Stable Growth in Construction (Ottawa: Information Canada, 1974).

In this Review, we have identified many problems that cannot be solved overnight or by spectacular changes in a single policy. The reduction of unemployment and inflation, the improvement of productivity, the advance of technology, the adaptation to changes in markets and competition, the changes in the structure of the work force and of the young and aged population, the shifts in the role of government, the strengthening of the country's balance-of-payments position - all of these pose problems that can only be dealt with by persistent private and public effort over several years. But, in this Review, we have also identified many of the strengths and opportunities that Canadians have at hand for use in tackling these problems. We are confident that they will respond with their usual resolve, imagination, compromise, and reason.

Statistical Tables A

Table A-1 Major Economic Indicators for Selected OECD Countries, 1964-78

		Real GN	Р		P	roducti	vity	
	Average 1964-65 to 1974-75	1976	1977	1978	Average 1967-77	1976	1977	1978
			(Pe	rcentage	e change)			
West Germany	3.6	5.7	2.4	2.5	4.1	6.7	2.9	3.0
France	5.0	4.6	3.0	3.2		4.4	2.9	3.2
Italy	4.5	5.7	1.7	2.0		5.0	1.6	1.5
United Kingdom	2.3	2.3	0.7	2.8	2.3	2.8	0.3	2.2
Japan	8.6	6.0	5.1	5.5	6.9	5.1	3.8	4.5
United States	3.0	6.0	4.9	3.8	0.9	2.7	1.4	0.0
Canada	5.1	5.5	2.7	4.0	1.8	2.6	0.7	1.0

.. not available.

1 GNP or GDP per person employed.

SOURCE Organisation for Economic Co-operation and Development, Economic Outlook.

Table A-2
Trade Balances, Canadian Manufacturing Industries, 1965, 1971, and 1977

	1965	1971	1977
	(Bil	lions of doll	ars)
Total goods			
Manufactured goods	1.43	0.87	4.18
Mainly resource-oriented ²	2.43	3.84	9.20
Motor vehicles and parts	-0.78	0.08	=1.15
Other secondary ³	3.08	4.62	12.22
Other goods	1.32	2.65	5.44
Re-exports	0.24	0.42	0.87
Merchandise balance	0.13	2.20	2.13
		(Per cent)	
Balance as a proportion of GNP			
Manufactured goods	2.6	0.9	2.0
Mainly resource-oriented ²	4.4	4.1	4.4
Motor vehicles and parts	1.4	=0.1	0.6
Other secondary ³	5.6	4.9	-5.9
Other goods	2.4	2.8	2.6
Re-exports	0.4	0.4	0.4
Merchandise balance	0.2	2.3	1.0

1 Manufactured and other goods are calculated as domestic exports less imports. Re-exports are not distributed by manufactured category in the statistics.

2 Food and beverages, primary metals, nonmetallic minerals, petroleum and coal products, wood products, paper and allied products.

3 Transport other than automotive, metal fabrication, machinery, industrial chemicals, electrical products, printing, textiles, clothing, rubber and plastics, and miscellaneous.

Source Based on data from the Department of Industry, Trade and Commerce.

Canada's Balance of International Indebtedness, Selected Years, 1945-77 Table A-3

Long-term liabilities Direct investment Portfolio investment Short-term liabilities Gross liabilities Long-term assets Direct investment 0.9 2.0 0.7 Portfolio investment 0.9	33.7 19.0 10.9 4.2			3		0	0161	.//61
ies nt ment ies nt nt ment	33.7 19.0 10.9 4.2		(Bil.	lions of dollars)	ars)			
nt ment ies nt nt ment	19.0	49.5	53.1	58.2	63.9	72.9	84.0	94.0
ment ies nt ment	10.9	27.9	29.5	32.7	36.1	39.8	42.01	45.21
ies nt ment	4.2	15.2	17.3	18.7	20.8	25.2	34.31	40.01
nt ment		5.6	5.9	9.9	8.9	6.6	12.0	12.0
nt ment	37.9	55.1	59.0	8.49	72.8	82.8	0.96	0.901
nt ment	8.3	12.8	13.9	16.0	18.8	21.6	23.5	27.0
ment	3.7	6.5	6.7	7.8	9.3	10.7	:	:
	2.2	3.0	3.3	3.7	3.9	4.3	:	:
Short-term assets 2.0	5.6	13.8	15.5	17.1	18.7	18.9	24.0	25.5
	13.9	26.6	29.4	33.1	37.5	40.5	47.5	52.5
Net indebtedness 4.2	24.0	28.5	29.6	31.7	35.3	42.3	48.5	53.5

p preliminary.
.. not available.
1 Estimates.
SOURCE Based on data from Statistics Canada.

Productivity Performance in Canada's Primary Sector, 1971-77

		RDP per person employed	on employed			Rate of change	change	
	Total				Total			
	economy	Agriculture	Forestry	Mining	economy	Agriculture	Forestry	Mining
		= 1791)	= 100)			(Per cent)	cent)	
176	100.0	100.0	100.0	100.0	3.5	12.1	-3.2	-1.1
172	102.5	93.7	103.9	111.7	2.5	-6.3	3.9	11.7
173	104.5	97.9	111.4	126.5	2.0	4.5	7.3	13.2
1974	104.4	88.7	103.2	121.1	0.1	4.6-	7.4	4.2
375	103.3	7.76	97.6	106.4	-1.0	10.1	-5.5	-12.2
920	106.3	113.8	92.3	103.3	2.9	16.5	-5.4	-2.9
77	107.5	112.0	103.2	102.2		-1.5	11.8	-1.0

SOURCE Based on data from Statistics Canada.

Table A-5

Real Output, Productivity, and Employment, by Manufacturing Industry, Canada, 1960-78

		Average	annual rate	of growth	
	1960 Q1	1966 Q1	1970 Q4	1974 Q1	1975 Q1
	to 1966 Q1	to 1970 Q4	to 1974 Q1	to 1975 Q1	to 1978 Q1
			(Per cent)		
Real output					
Nondurable goods	6.2	4.3	6.7	7.1	4.8
Food and beverages	4.9	3.6	3.3	2.7	2.6
Tobacco products	3.9	2.5	3.3	0.3	2.8
Rubber	9.2	1.3	12.9	16.8	13.5
Leather	2.2	0.1	2.3	7.9	4.1
Textiles	8.1	6.6	9.0	16.3	2.5
Knitting	7.6	8.3	7.4	-14.0	3.3
Clothing	4.4	1.2	5.3	0.9	2.2
Paper	6.7	4.2	7.0	-13.2	8.2
Printing and publishing	3.4	2.9	6.6	0.8	3.3
Petroleum and coal	4.5	4.8	10.3	4.8	2.4
Chemicals	9.9	5.8	8.9	6.2	7.1
Miscellaneous	1.8	7.9	8.9	9.6	4.0
Durable goods	11.0	4.0	9.7	9.7	3.7
Wood	6.3	2.0	9.4	-25.1	12.6
Furniture and fixtures	9.0	1.5	10.3	13.4	3.4
Primary metals	9.3	3.7	6.5	-6.3	3.4
Metal fabricating	10.6	2.5	7.3	8.2	1.2
Machinery	12.5	4.4	11.2	0.1	1.5
Transportation equipment	15.7	7.1	12.5	8.6	6.0
Electrical	11.5	2.9	9.4	-12.1	0.3
Nonmetallic mineral	8.6	1.1	10.8	-14.0	4.8
Productivity ¹					
Nondurable goods	3.7	4.2	4.5	3.7	4.6
Food and beverages	3.3	4.1	2.4	1.9	1.0
Tobacco products	4.2	3.4	3.9	1.1	-2.7
Rubber	5.3	2.9	7.0	-20.2	13.0
Leather	1.7	2.1	1.9	1.3	2.8
Textiles	3.7	7.3	4.0	0.8	5.0
Knitting	4.9	8.6	4.8	0.2	10.9
Clothing	1.3	2.3	3.5	5.9	4.3
Paper	3.8	3.2	5.2	-15.7	5.3
Printing and publishing	2.0	1.9	5.1	2.3	3.3
Petroleum and coal	5.5	3.6	9.9	4.8	0.2
Chemicals	6.7	5.0	7.7	-11.3	5.3
Miscellaneous	3.3	3.6	3.5	2.9	5.6
Durable goods	4.9	4.0	4.8	5.2	4.2
Wood	2.9	2.1	2.0	6.5	7.7
Furniture and fixtures	3.8	2.0	2.8	0.8	8.9
Primary metals	4.5	2.6	5.1	9.6	4.2
Metal fabricating	4.5	2.7	3.2	-5.8	2.3
Machinery	4.3	4.1	5.3	=7.6	0.9
Transportation equipment	6.7	7.8	6.0	=1.1	2.8
Electrical	5.6	2.3	6.8	6.5	5.6
Nonmetallic mineral	3.3	3.7	5.0	9.6	6.5

Table A-5 (concl'd.)

		Average	annual rate	of growth	
	1960 Q1 to 1966 Q1	1966 Q1 to 1970 Q4	1970 Q4 to 1974 Q1	1974 Q1 to 1975 Q1	1975 Q1 to 1978 Q1
Employment					
Nondurable goods	2.5	0.4	1.9	-3.8	0.2
Food and beverages	1.6	0.2	.8	-5.2	1.2
Tobacco products	-0.4	-1.0	-0.6	-2.2	5.8
Rubber	4.2	-1.7	5.2	4.2	1.0
Leather	0.4	-2.4	0.3	-8.7	-6.8
Textiles	4.5	-0.6	4.9	-15.0	-2.3
Knitting	2.9	=0.2	2.8	-12.6	-6.6
Clothing	3.1	-1.2	2.0	-5.2	-1.7
Paper	2.8	1.0	1.3	0.9	3.0
Printing and publishing	1.3	1.2	0.9	3.6	0.1
Petroleum and coal	-0.8	1.4	0.6	1.6	2.5
Chemicals	2.8	0.7	0.7	2.3	1.3
Miscellaneous	4.8	4.3	5.7	-9.5	-1.2
Durable goods	5.9	-0.1	4.5	-5.7	-0.8
Wood	3.1	-0.4	7.4	-22.7	4.5
Furniture and fixtures	5.2	0.2	7.6	-12.5	-4.8
Primary metals	4.6	0.8	1.4	1.0	-1.4
Metal fabricating	5.8	-0.1	3.8	-3.6	-1.7
Machinery	8.0	0.3	5.3	4.2	-2.9
Transportation equipment	8.5	-1.1	6.1	-9.0	2.7
Electrical	5.9	0.8	2.7	-2.4	-4.5
Nonmetallic mineral	4.8	-1.5	4.7	-5.4	-2.0

 $¹⁻Measured as the ratio of the real domestic product in each industry to the number of workers employed. \\ Source-Estimates by the Economic Council of Canada.$

Table A-6 Distribution of the Employed Labour Force, by Industry, Canada, 1946 and 1977

	Average annual rate of growth of employment	(Per cent)	4.0	3.0	1.8	4.6		5.2	9.0	-2.1	2.1	2.4
7.	Proportion of total, all industries	(Per cent)	65	17	7	9		35	35	7	27	100
1977	Number	(Thousands of persons)	6,379	1,695	720	537		3,427	3,376	712	2,664	9,754
16	Proportion of total, all industries	(Per cent)	41	13	00	3		17	59	29	30	100
1946	Number	(Thousands of persons)	1,906	619	382	124		781	2,760	1,372	1,388	4,666
			Service sector	Trade - wholesale and retail	Transportation, storage, and communications	Finance, insurance, and real estate	Community, recreation, business and personal services; and public	administration	Goods sector	Primary	Secondary	All industries

SOURCE Statistics Canada (Labour Force Survey).

Table A-7
Unemployed Persons, by Flows into Unemployment, 1977

	Job	Job		
	losers	leavers	Entrants ¹	Re-entrants
		(P	er cent)	
Men				
Single	52.2	21.5	6.8	19.5
Married	68.9	22.0		8.7
0-8 years of schooling	70.8	17.5		10.0
Secondary schooling	58:1	21.5	5.6	14.8
Postsecondary schooling	48.9	27.2		8.7
Women				
Single	32.3	23.2	14.4	30.2
Married	37.2	25.5	2.7	34.6
0-8 years of schooling	45.6	19.3	7.0	28.0
Secondary schooling	35.1	23.8	9.1	32.1
Postsecondary schooling	28.6	29.7	_	31.4
Occupation				
White-collar	40.1	29.9	_	29.9
Blue-collar	68.0	19.8	_	12.2
Industry				
Primary	75.6	24.4		-
Manufacturing	58.8	22.4		18.8
Construction	75.9	15.7		8.3
Services ²	45.1	29.2		25.7

¹ Entrants, by occupation and industry, are excluded from this sample.

² Includes transportation, communications and other utilities; trade; finance, insurance, and real estate; community, business, and personal services; and public administration.

SOURCE Bruce MacDonald, "Flows into Unemployment," Statistics Canada, Labour Force Survey Division, Research Paper No. 17 (May 1978).

Employment, Unemployment, and the Labour Force, as a Proportion of the Working-Age Population, Canada, 1966-77 Table A-8

		Employment			Unemployment	ţ		Labour force	
	Male	Female	Total	Male	Female	Total	Male	Female	Total
					(Per cent)				
99	77.1	34.2	55.4	2.7	1.2	1.9	79.8	35.4	57.3
7.	76.2	35.1	55.4	3.1	1.3	2.2	79.3	36.5	57.6
8	75.0	35.4	55.0	3.6	1.6	2.6	78.6	37.1	87.6
6	74.9	36.2	55.3	3.4	1.8	2.6	78.3	38.0	57.9
0,	73.5	36.1	54.5	4.4	2.2	3.3	77.8	38.3	57.8
	72.7	36.8	54.5	4.6	2.6	3.6	77.3	39.4	58.1
.2	73.0	37.4	54.9	4.5	2.8	3.6	77.5	40.2	58.6
3	74.3	39.0	56.4	3.8	2.8	3.3	78.2	41.8	59.7
4	74.9	40.2	57.3	3.8	2.7	3.2	78.7	42.9	60.5
5	73.5	40.7	56.9	4.9	3.6	4.2	78.4	44.2	61.1
9261	72.7	41.2	56.7	5.0	3.8	4.4	77.7	45.0	61.1
7	72.1	41.6	56.5	5.7	4.3	5.0	7.77	45.9	61.5

SOURCE Based on data from Statistics Canada and estimates by the Economic Council of Canada.

Distribution of Family Units, by Selected Employment and Income Characteristics, 1975

Table A-9

	All family units	Distribution	As a proportion of all family units	Incidence
	(Per cent)		(Per cent)	
All family units	100.0	100.0	19.7	19.7
I mattached males	12.8	19.7	3.9	30.3
Families headed by males	65.8	33.0	6.5	6.6
Subtotal	78.6	52.7	10.4	13.2
Unattached females	15.3	35.2	6.9	45.3
Families headed by females	6.1	12.1	2.4	39.3
Subtotal	21.4	47.3	9.3	43.6
Family units with no member in the labour force	17.6	55.3	10.9	61.9
Inattached males	3.1	11.4	2.2	72.3
Families headed by males	5.8	11.4	2.2	38.6
Subtotal	6.8	22.8	4.5	50.3
Unattached females	7.1	26.1	5.1	72.4
Families headed by females	1.6	6.5	1.3	79.3
Subtotal	8.7	32.6	6.4	73.7
Family units with at least one member in the				
labour force but no unemployment	6.09	27.6	5.4	8.9
Unattached males	7.1	5.2	1.0	14.5
Families headed by males	44.0	12.7	2.5	5.7
Subtotal	51.1	17.9	3.5	6.9
Unattached females	8.9	6.7	1.3	19.4
Families headed by females	3.0	3.0	9.0	19.5
Subtotal	8.6	7.6	1.9	19.5
Family units with at least one member				
in the labour force and some unemployment	21.5	17.0	3.4	15.6
Unattached males	2.6	3.1	9.0	23.4
Families headed by males	16.1	8.9	1.7	10.9
Subtotal	18.7	12.0	2.4	12.6
Unattached females	1.4	2.4	0.5	33.9
Families headed by females	1.4	2.6	0.5	35.7
	30	1 8	1.0	3 P Z

¹ Low-income family units having a given set of characteristics (see table stubs) as a proportion of all family units having the same characteristics. SOURCE Based on data from Statistics Canada (Survey of Consumer Finances) and estimates by the Economic Council of Canada.

B Distribution of the Costs and Benefits of Social Security Programs¹

Estimates of the distribution of costs and benefits are based on information from the Survey of Consumer Finances carried out by Statistics Canada. Calculation of total benefits to families is straightforward for programs involving cash transfers. Benefits from health programs are delivered in kind, however, and have to be valued at the cost of the services consumed. Only part of the funding of program expenditures can be linked to family units. This is known as the "direct costs." In the contributory schemes - Unemployment Insurance, Canada and Quebec Pension Plans, and (in some provinces) Medicare – the premiums paid by family members help to cover program costs. If the assumption is made that the employer's contribution is ultimately paid for by the employee, this can also be regarded as a contribution to the costs of the program by family units. To the extent that a program is funded from the general revenues of the provincial or the federal government, a portion of the income tax paid by family units can be treated as a cost of that program to families. Since premium contributions are tax deductible, thereby reducing income tax obligations, however, this must be taken into account when calculating costs of a particular program. Similarly, benefits under some programs are taxable, and this extra tax should be considered a program cost to families.

The net benefit received, therefore, is the difference between total benefits (before tax) and the costs attributable to the families in question. The progressivity of a program depends on the amount of the benefits that family units in the lowest income quintiles receive, on average, compared with those in the highest income quintiles.

In calculating the distribution of net benefits, the usual procedure compares the distribution of the gross benefits of a program with the distribution of the costs, as if the latter were borne by raising income taxes. This is a manageable calculation. In fact, it is likely that the costs would be borne by raising a variety of taxes, including indirect taxes. The calculations would then be very difficult, if not impossible, with available information. One should bear in mind, therefore, that the usual calculation overstates the progressivity of the net benefits somewhat, as the income tax is more progressive than the average for the tax system.

¹ This Appendix is based on J. E. Cloutier, "The Distribution of Benefits and Costs of Social Security in Canada, 1971-1975," Economic Council of Canada Discussion Paper 108, February 1978; and J.-A. Boulet and D. W. Henderson, "Distributional and Redistributional Aspects of Health Insurance Programs in Canada," Economic Council of Canada Discussion Paper (forthcoming).

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