...'s Economy—
...-term
Projections and Targets
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Department of Finance Canada
Ministère des Finances Canada

FOREWORD

For some time governments at all levels have been aware of the need to extend the time horizon and the comprehensiveness of the framework in which policy issues should be analyzed. Efforts to provide a longer-term perspective have been made in dealing with specific policy questions such as tax reform or energy policy. As well previous Royal Commissions, the Economic Council of Canada and other non-governmental bodies have undertaken longer-term analyses. A detailed examination of the longer-run potential of the economy, its medium-term prospects and the issues which will confront us in attempting to improve economic performance in the medium and longer-term appears critical to the development of a medium-term economic strategy.

The technical analysis contained in this paper has been discussed with persons in several independent research organizations - the Economic Council of Canada, The Conference Board, The C.D. Howe Research Institute, Informetrica Ltd. and The Institute for Policy Analysis of the University of Toronto. I would like to express my appreciation for their helpful comments, criticisms and suggestions. A draft of this paper was discussed with officials of all provincial governments and with the ten provincial Ministers of Finance. As a result of these discussions, it has been substantially improved. The responsibility for the views expressed in the paper, however, rests entirely with the Federal Government.

I have authorized the publication of this document because I believe that the problems and issues of the medium-term should be fully discussed, above all, because they are critically relevant to the decisions which need to be taken in the immediate period ahead. The economic challenges which Canadians face can be successfully met only if all of us work together. This requires a clear understanding in all parts of society of the choices which must be made and the difficulties which must be overcome. It will also require a greater consensus than has existed so far as to the solutions to our problems. Such a consensus can only come about through a frank and open discussion of the issues. While it is clear that the current analysis is only at the initial stage, and that we all have a great deal yet to learn, I hope this paper will provide a useful background to the process of discussion which will begin at the meeting of First Ministers on February 13-15th.

Jean Chrétien

Minister of Finance

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1. INTRODUCTION

1.1 General

In recent years, most countries have experienced difficulties and disappointments in the pursuit of economic goals. This has been most apparent in the continued coexistence of high levels of both unemployment and inflation. It has led to renewed debate over basic issues of economic analysis and policy and a growing scepticism about the ability of governments to manage the economy with the precision which once seemed possible. In Canada this decline in confidence is aggravated by the concern about national unity. It has led to a widespread feeling that Canada's economic future is bleak.

In attempting to grapple with these problems over the last few years, the value of adopting a longer-term perspective has become apparent. This follows in the tradition both of earlier and contemporary attempts to set out medium and longer-run economic prospects for the country. This was done by the Gordon Commission. It is currently being pursued by the Economic Council of Canada, the Ontario Economic Council and by a number of non-government groups such as the Conference Board and the Institute for Policy Analysis at the University of Toronto.

Within governments, a longer-term perspective has been used in many different areas. The budget exercise is often one which looks beyond the short-run. Many departments of government develop outlooks with respect to their own sectors which extend into the medium, and indeed in the case of some groups, into the long-run. There has also been a growing sense of the need for a longer-term outlook with respect to macroeconomic policy. The Anti-Inflation Program embodies goals and policies over a multi-year horizon. With the decontrol date approaching, it is timely to take a fresh look at the economic strategy over the medium-term.

The purpose of this paper is to provide the necessary macroeconomic background to a medium-term economic strategy by describing a possible medium-term growth path which would return the Canadian economy to higher levels of output and employment over the next four to five years. Such a projection provides a useful framework within which potential problem areas or constraints can be identified and sectoral issues analyzed.

Such a medium-term view is useful because it sets current economic issues into a broader perspective. In viewing current problems there is a natural tendency to look upon them as unique. It is helpful to put them into an historical perspective in order to discern those which are indeed unique, and those which are not.

Moreover, by looking beyond short-term forecasts it is possible to follow more closely the likely longer-run impact of policies. There are usually long lags between events and policy changes and their ultimate effects. There can, as well, be important differences between the short-term and longer-term effects. Many of the current decisions which must be made are decisions whose impact will not be felt for some years. Compensation policy, exchange rate changes and energy policy questions are all examples of such decisions. It is important to develop a context in which these issues can be analyzed.

Recent experience has also taught that greater weight has to be given to the interrelationship of policy actions. It is not possible to rely exclusively upon one set of policies to deal with unemployment, another to deal with inflation, a third to deal with industrial problems, a fourth to deal with social welfare, and so on.

Further, recent experience has also shown the value of cooperation and collaboration between the federal and provincial governments. This has been evident in the Anti-Inflation Program, which was characterized by a fairly long time horizon and by the use of a wide range of policy instruments, of which control over prices and incomes was only the most novel. The need for federal-provincial cooperation has also been reflected in discussion of the general economic outlook and a wide range of structural issues.

Finally, it is equally apparent that there is a need for greater consultation and cooperation between governments and the private sector. The government has frequently stressed that responsibility for the performance of the economy is shared by all participants, and efforts have been made to develop appropriate consultative mechanisms. Increasing emphasis has come to be placed upon the role of expectations in determining economic behaviour, and the impact of public economic policies on expectations and attitudes. Consultation and collaboration between the public and private sectors may be important in the areas of prices and incomes and investment planning. As well, it is important in the areas of structural adaptation and the implementation of major projects whose impacts on the economy and society are very large.

The medium-term projections are based on assumptions about international economic developments, behaviour in the private sector and the responses of government policy. Assumptions about the international scene are based upon the view that there will be a steady but moderate recovery in the world economy. The growth rates used are lower than the current targets set by the Organization for Economic Co-operation and Development for most countries and below the targets set by most governments.

In developing projections, assumptions have had to be made about the response of the private sector in such areas as savings, investment, output, prices and wages. In general the assumption has been that no fundamental structural change has occurred in these areas. The response of the private sector would be in line with historical experience.

The one exception to this concerns the assumptions about price and wage behaviour. Recent experience has led many analysts to conclude that significant rates of income growth and a major reduction in the unemployment rate would lead to higher rates of inflation. That, in turn, would undermine Canada's competitive position, result in continued high rates of saving and low consumption growth, and prevent a sustained period of output growth. In these medium-term projections it has been assumed that prices and wages do not respond in this way, but instead that the rates of price and wage increases continue to decline. This is a critical assumption on which the rest of the projections are dependent. To obtain such a performance will require successful post-controls policies as well as responsive attitudes in the private sector. In this sense, the price/wage scenario has more clearly the character of a target than do the rest of the projections.

It has thus been necessary to make some assumptions about government policies in the prices/incomes areas, as well as in other areas. It is not very useful to develop a "no policy change" projection over the medium-term since governments will respond to changing economic circumstances. In some areas which are more familiar the appropriate assumption, and the likely effects of that assumption, are more obvious than in other areas, which involve more radical departures from the past. Since one of the purposes of the medium-term strategy exercise is to develop a better set of co-ordinated economic policies among all governments, it is particularly difficult to know precisely what assumptions should be used. In some cases more may be possible than has been assumed, while in others less may be possible.

The purpose of this document is not to set forth specific policy suggestions. These should come out of the federal-provincial consultations, the dialogue between governments and the private sector, and the normal policy formation process of individual governments. It may be useful, however, to describe in general terms the areas where policy questions arise, and the general assumptions which have been made.

For analytical purposes, government policies surrounding the medium-term strategy can be thought of as falling into four groups. The distinctions are not clear-cut, but the classification may be a useful way of illustrating the issues. These four areas are: (i) demand management policies (ii) prices and incomes policy (iii) framework policies and (iv) sector specific policies.

The broad instruments of economic policy, including fiscal and monetary policy, should continue to be employed to foster a growth of nominal demand which will accommodate the desired medium-term growth of real output at declining rates of inflation. This has been the orientation of monetary policy during the Anti-Inflation Program; its continuation would be an important element of the medium-term strategy. On the fiscal side, the continued application by all governments of a policy of overall expenditure restraint has been assumed. The assumption has also been made that governments will be able to continue to incur deficits, within the financing constraints they face, sufficient to sustain a growth in demand by the private sector consistent with the projections.

It has also been assumed that the public sector adopts policies towards prices and compensation which are consistent with the achievement of the price/wage scenario set out in the projections.

The adoption of such macroeconomic and prices/incomes policies is unlikely by itself to ensure the performance of the economy which Canadians would desire. Supporting framework policies, that is, policies directed towards improving the conditions and structures affecting many sectors in the economy (e.g. trade policy, tax policy, labour market policy etc.), and supporting sector specific policies are also critical. While the broad economic conditions are a vital factor in determining prospects, a medium-term economic performance along the lines set out in these projections would be a great deal more certain and the possibility of doing even better could be enhanced if other supporting policies were implemented which encouraged investment, improved efficiency, or helped the performance of the current account of the balance of payments.

In developing these projections it has been assumed that some progress is made to develop and implement such policies. At this stage, however, it is difficult to envisage how rapid will be the progress in integrating policy approaches in these areas, or in developing innovative policies for specific sectoral problems. The projections are based upon the assumption that some advance is made and that policies adapt in line with historical experience, but that there are not radical alterations in current policy postures.

The approach in developing the projections has been explicitly macroeconomic. It can thus be characterized as a "top down" approach as opposed to one which reflects an attempt to build upon analyses and projections in specific sectors. Such an approach provides a useful starting point, and a framework in which the situation and prospects of individual sectors and industries can be analyzed in detail. These sector studies, in turn, can enrich the analysis of the economy as a whole. It is hoped to bring the two approaches together in the future in revised and extended medium-term projections.

The paper at this stage does not contain a very extensive analysis of the regional aspects of the medium-term economic outlook. Section 7, which contains a regional perspective, is a qualitative discussion of the subject, and is not analytically integrated with the rest of the document. It will be desirable to examine in more detail the regional aspects of current economic conditions and medium-term prospects, building upon the developing sector work.

1.2 Outline of the Paper

The starting point in constructing a possible medium-term growth scenario is the identification of major long-term trends that will be operating in the economy over the next 20 years. In Section 2 of this paper a cyclically-adjusted growth track for Gross National Expenditure is presented. This provides a useful analytical device for comparing the current position of the economy relative to longer-run levels of output and employment. Section 3 contains such a comparison. This section also describes briefly the recent output performance of selected sectors in the economy, addresses the issue of a capital stock shortage, and summarizes recent trends in prices and wages, savings, the balance of payments and government revenues and expenditures. In Section 4, a medium-term growth path which would return the economy to improved levels of output and employment is set forth, along with a price and wage profile consistent with a continued deceleration of inflation. This section also outlines the individual components of aggregate demand and the forces operating on each of these components in the medium-term growth scenario. In Section 5, some of the assumptions underlying the medium-term growth scenario are altered and the effects of changing these assumptions are discussed. A brief summary of the implications of the medium-term growth scenario for different sectors of the economy is given in Section 6 and for different regions in Section 7.

2. LONG-TERM GROWTH TRENDS

A simple but revealing way to analyze long-term economic trends is to develop a projection of the growth of Gross National Expenditure adjusted to remove the impact of cyclical fluctuations. It is difficult to state with precision the nature or timing of future economic cycles. It is more useful to know broadly what the underlying trend in GNE will be over the next 10 or 20 years. In developing a projection of "cyclically-adjusted GNE" one develops a benchmark useful both for an analysis of past behaviour and for setting out medium-term prospects.

Over the long run, the rate of growth of Gross National Product will be determined by the rate of growth of employment and the rate of growth of output per worker. The growth rate of employment is, in turn, affected by historical demographic changes, changes in the level of immigration, changes in participation rates, and changes in the level of unemployment. Output per worker is affected by a variety of factors - investment levels, technological change, resource discoveries, changes in the composition of output and so on.

2.1 Population Growth

As is well known, the fertility rate[1] in Canada began to decline dramatically in the 1960s, reaching a level of about 1.88 in 1974. This fall in fertility rates paralleled similar movements in the rest of the world. (Charts 1 and 2) For the purposes of the projections a fertility rate of 1.8 was assumed.

Chart 3 shows the level of immigration and emigration for the last 30 years. Emigration has been fairly stable, fluctuating around the postwar average of 60,000 per year. (The recent pronounced decline in estimated emigration may reflect statistical problems, and could be altered when Statistics Canada revises the figures using data from the 1976 Census.)

The immigration figures are clearly related to cyclical fluctuations in the economy. The current drop, however, has been slightly less than in previous downturns. Immigration flows are also affected by immigration policy. While the new Immigration Act attempts to regulate the flow of immigrants in response to labour market conditions in Canada, the regulations are still very lenient

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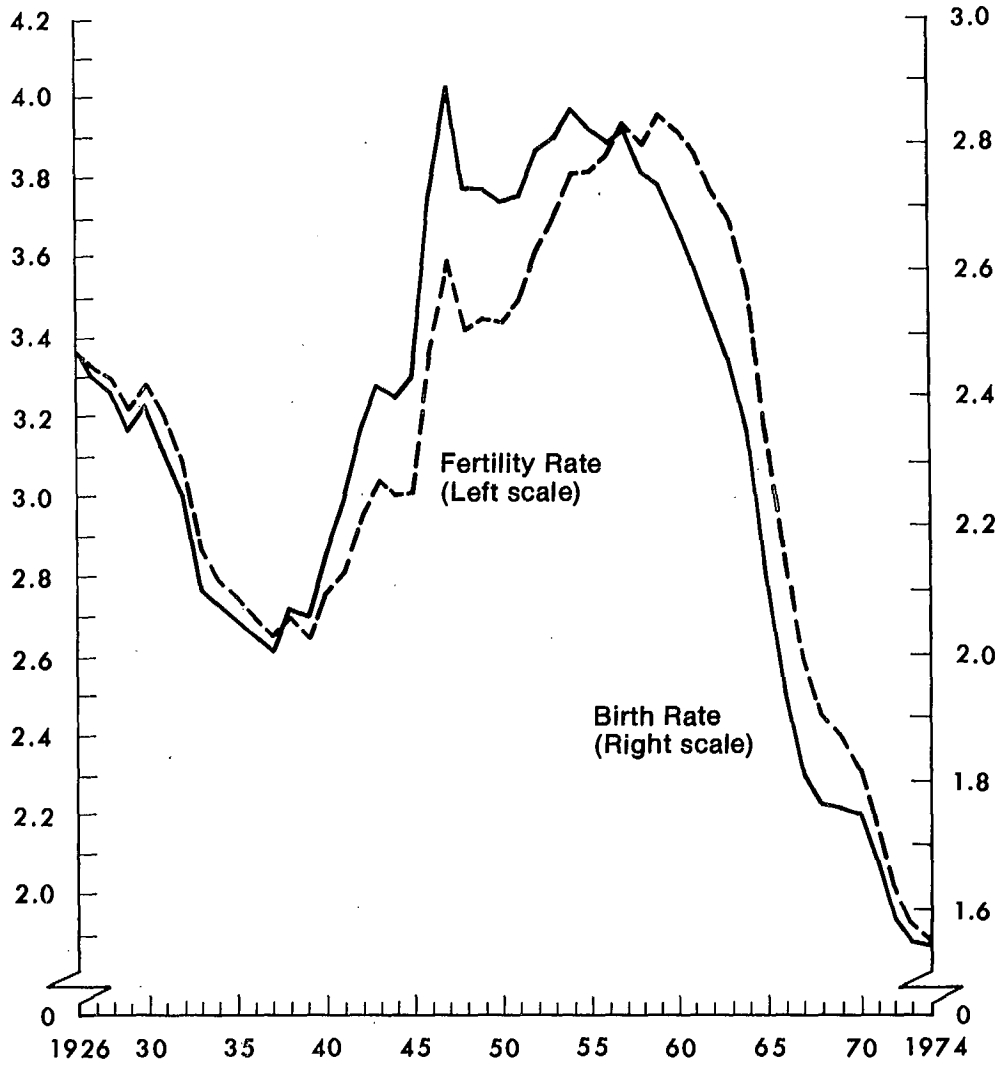
(1) See footnote to Chart 1 for definition.

Chart 1

Birth Rates* and Fertility Rates**
Canada, 1926-1974



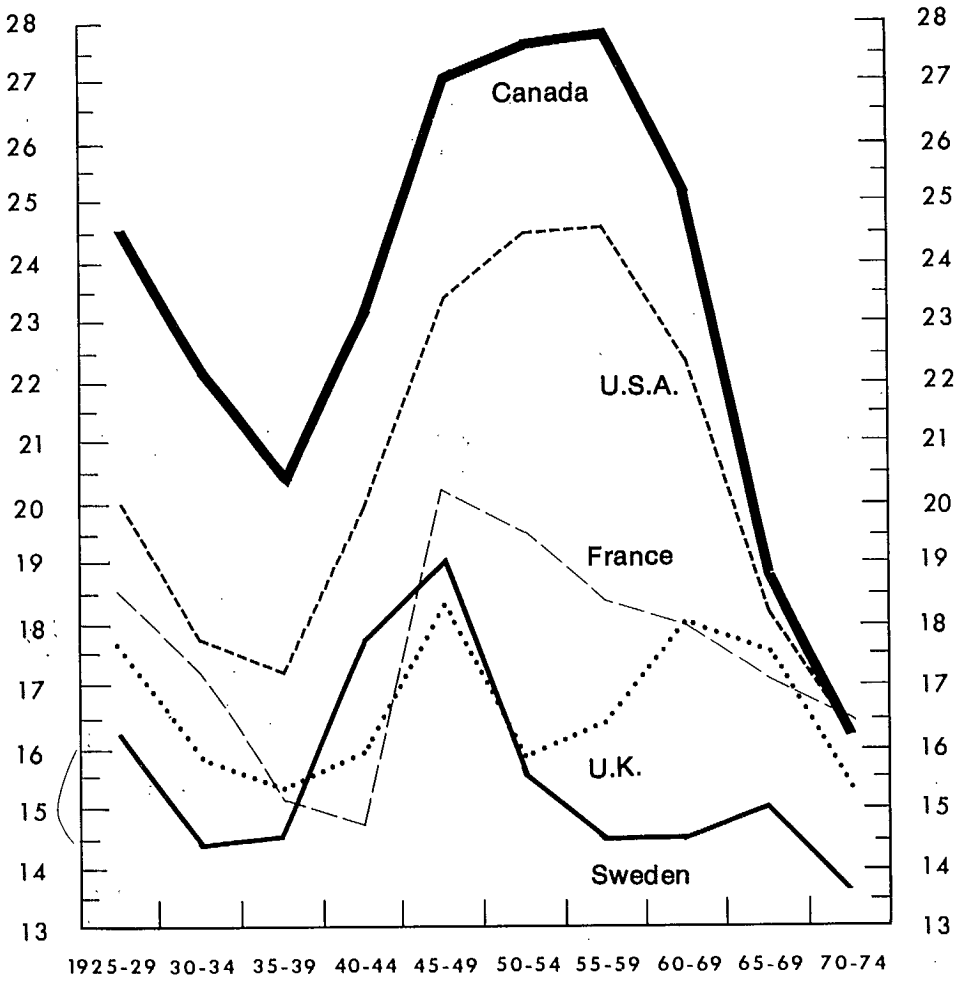
*The birth rate is defined as the number of live births per thousand population.

**An age — specific fertility rate is defined as the number of children born in a year to a particular age group of women, expressed as a proportion of the number of women in that age group. The total fertility rate is the sum of the age specific fertility rates of all age groups in the childbearing cycle.

Source: Statistics Canada, Vital Statistics, cat. 84-202, and Vital Statistics, Volume I, Births, cat. 84-204.

Chart 2

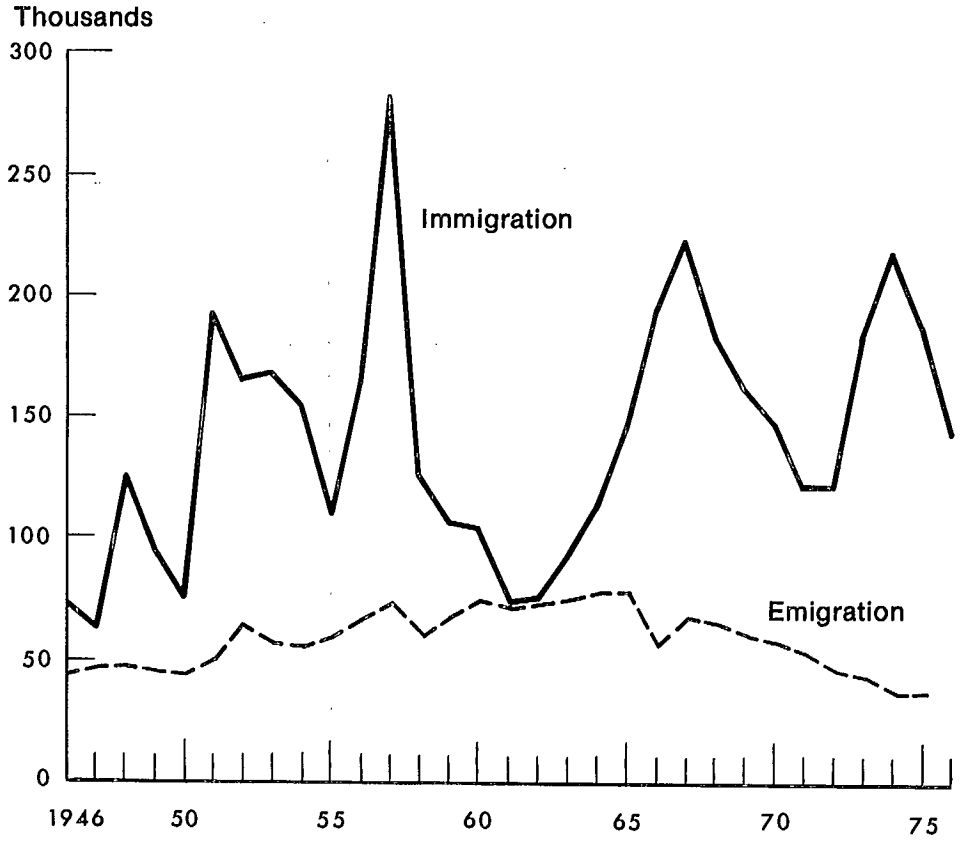
Birth Rates, Selected Countries,
1925-1974
(number of live births per thousand population)



Source: United Nations, Demographic Year Book, 1974.

Chart 3

Immigration, and Emigration from Canada 1946-1976



Source: Emigration: Statistics Canada
Immigration: Department of Manpower and Immigration, Canada Manpower and Immigration Review.

in allowing immigrants to bring relatives to Canada. There may not be, therefore, a diminution in the level of immigration. The forecast assumes net immigration of 100,000 per year, equivalent to a gross immigration of about 160,000, and gross emigration of 60,000.

The fertility rate and immigration assumptions result in a projection of total population growth which is considerably slower than in the past. The growth rate of labour force source population (that is persons of an age available for work), however, does not slow significantly until 1981 because of the effects of the 1945-60 baby boom. Table 1 presents the projected growth rates of the population and labour force source population up to 1990-1995.

Table 1

Rates of Growth of the Population
and the Labour Force Source Population:
1901-1976 and Projected

	Total Population	Source Population*
Actual		
1901-11	3.0	3.2
1911-21	2.0	1.8
1921-31	1.7	2.1
1931-41	1.0	1.6
1941-51	2.0	1.6
1951-61	2.7	2.1
1961-71	1.7	2.3
1971-76	1.4	2.1
Projected		
1976-81	1.3	2.0
1981-86	1.3	1.4
1986-90	1.1	1.2
1990-95	0.9	1.1

*Source population refers to persons 14 years of age and over prior to 1975 and persons 15 years of age and over thereafter.

Source: Statistics Canada, Estimated Population of Canada by Province, Cat. 91-201 and The Labour Force, Cat. 71-001.

2.2 Labour Force

Over the period 1954 to 1975 the labour force source population increased at an average annual rate of 2.4 per cent. For the same period the labour force grew at 2.9 per cent per annum. The

difference was accounted for by increases in the participation rate. Table 2 provides participation rates for youths (14 - 24 years), adult women (25 years and over) and adult males (25+) for selected years for the period 1954 to 1975, on the old Labour Force Survey basis.

Table 2

Participation Rate and Percentage of Population Employed; Selected Years, 1954-1975

	Participation Rate				Percentage of Pop. Employed			
	Total	Adult Males	Adult Females	Youth	Total	Adult Males	Adult Females	Youth
1955	52.9	86.3	19.4	53.0	50.6	82.8	19.0	49.5
1960	54.2	86.5	24.5	50.3	50.4	80.6	23.9	44.8
1965	54.4	85.5	28.6	48.1	52.3	82.4	28.1	45.0
1970	55.8	84.3	32.9	49.9	52.5	80.1	31.9	44.7
1975	58.8	83.0	37.8	56.4	54.7	78.6	36.2	49.3

Source: Statistics Canada, The Labour Force, Cat. 71-001

For the total labour force there was a gradual increase in the participation rate over the period 1955 to 1975. The most important contributing factor has been the significant increase in the participation rate of adult females which almost doubled over the 20-year period. The participation rate for youth declined during the late 1950s and 1960s and subsequently rose rapidly in the early 1970s. For adult males the participation rate has been gradually declining over the last 20 years.

Table 2 also provides the employment rate, that is, the percentage of the source population which is employed, for each group. The employment rate for adult females has risen dramatically, from 19 per cent of the source population in 1955 to over 36 per cent in 1975. This reflects the very rapid rise in participation rates which has occurred despite some tendency for the unemployment rate for this group to increase. The employment rate for youth dropped initially as the participation rate fell in response to the increase in post-secondary education enrolment. Since 1965, the participation rate for youth has increased, as has the employment rate. Again, however, this has been accompanied by a rising unemployment rate for this group. For the total population the employment rate has risen steadily since 1960.

To obtain an estimate of future labour force growth, it is necessary to estimate participation rates. This has been done in a manner intended to capture the effect on participation rates of the changing age structure of the population. Equations have been

estimated for 10 age/sex categories (male/female; ages 15-19, 20-24, 25-44, 45-64, 65+). The equations include non-linear time trends, a cyclical gap variable, and a number of "dummy" variables intended to capture the effects of such things as changing CPP/QPP retirement ages and the changes in the Unemployment Insurance program.

The projections indicate that the participation rate will stabilize in the period after 1986. This occurs despite a continuing rise in the female participation rate and is primarily due to demographic factors. As the population ages, the distribution of the population becomes more concentrated in the high participation rate age groups. As the aging process continues, however, a larger proportion of the population approaches the retirement age and the participation rate ceases to increase. Table 3 shows the projection of the participation rate as well as projections for males and females and for men aged 25-64 years and all other workers.

There may be less flattening in the participation rate than has been projected. The equations used included non-linear time trends which tend to contribute to the stabilizing of the participation rate. Alternative trend specifications may not result in the same degree of stabilization as has been projected.

Table 3

Cyclically-Adjusted Participation Rates

	Total	Male	Female	Males Aged 25-64	All Other Workers
1976	61.3	77.9	45.3	91.6	47.8
1981	62.2	77.7	47.4	91.4	48.9
1986	63.2	78.2	48.9	91.2	49.4
1990	63.3	77.9	49.5	90.5	49.0

2.3 Employment and Unemployment

As was noted earlier, the future growth of employment depends upon those factors (participation rates and population growth) which determine how fast the labour force grows, and also on future unemployment rates. Since the focus here is on the projection of cyclically-adjusted GNE, and hence cyclically-adjusted employment, it is necessary to project the rate of unemployment which would prevail in the absence of cyclical movements in the economy. This will be referred to as the cyclically-adjusted unemployment rate. The cyclically-adjusted unemployment rate can be defined as the rate of unemployment which will be averaged over the long-run given the existing labour market structure. One can use the cyclically-adjusted rate as an analytical tool to examine the actual behaviour of the unemployment rate. It is also a necessary input into the development of an estimate of the cyclically-adjusted GNE in the future. In deriving an estimate of the future

long-run behaviour of the unemployment rate, it will be assumed that no radical alterations develop in the present labour market other than those caused by demographic factors.

It might be thought that the cyclically-adjusted unemployment rate would be constant over time. However, this is not the case, since changes in structural features of the labour market can raise or lower the cyclically-adjusted unemployment rate. These structural factors tend to be focussed on specific groups in the labour force. Consequently, if the relative importance of a particular group in the labour force should increase, the structural factors underlying the employment behaviour of this group will become more important in determining the level of the aggregate unemployment rate.

Some of the possible structural factors underlying movements in the cyclically-adjusted unemployment rate may be examined with reference to the past behaviour of the unemployment rates for three groups in the labour market - adult males, youths and adult women.

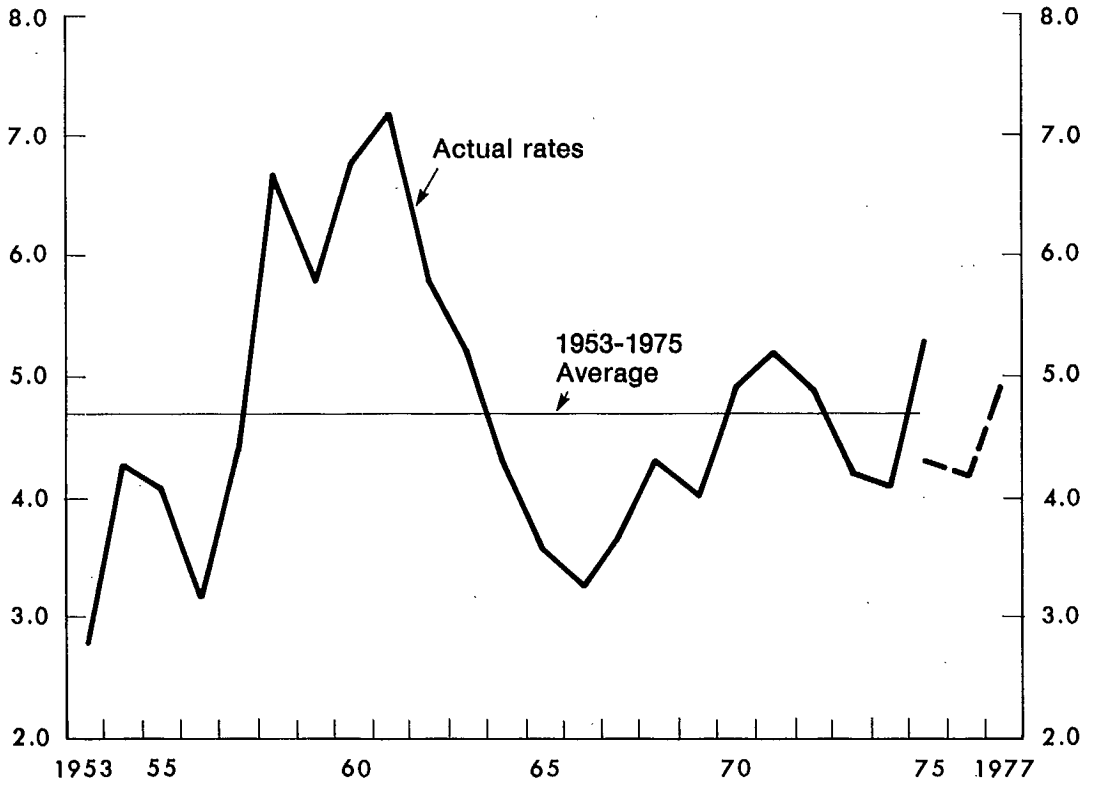
As Chart 4 shows the average adult male unemployment rate (i.e. the rate for men 25 years of age and over) has exhibited no evidence of an upward trend since 1953. (The discontinuity in the graph reflects the recent changeover to the revised Labour Force Survey.) Men in this age group have acquired job skills, experience and seniority and, therefore, enjoy a high degree of job security. Over the last 20 years, however, there has been a significant change in the relation of the youth unemployment rate to the adult male unemployment rate. This is shown clearly in Chart 5 in which the ratio of the two unemployment rates to the adult male rate is plotted. (As the chart also shows, the introduction of the revised Labour Force Survey caused a sharp break in the ratio.) Between 1953 and 1967 the youth unemployment rate ranged between 1.5 and 1.8 times the adult male unemployment rate. Beginning in 1968 the ratio began to increase reaching approximately 2.4 in 1973. It remained at about that level over the next two years.

The explanation of this increase may be closely related to the growth experience of the Canadian economy in the middle and late 1960s. The share of the labour force accounted for by young people swelled in the early 1960s. The strong growth performance of the economy between 1961 and 1966, however, was sufficient to create the number and type of jobs into which a growing share of youth in the labour force could be absorbed without youth unemployment rising relative to adult male unemployment.

Subsequently, however, growth was more modest. The result was that the economy was simply unable to provide sufficient employment opportunities for the continually rising share of the labour force made up of young persons. As well, a number of other factors may have played a part. High and rising nominal wages, together with increases in the minimum wage, may have resulted in employers

Chart 4

Adult Male Unemployment Rate*



*Ratios from 1953 to 1975 are calculated from the old labour force survey.
Ratios from 1975 to 1977 are calculated from the revised labour force survey.

Source: Statistics Canada, The Labour Force Survey, cat. 71-001.

being unwilling to hire young persons without job experience or to create employment opportunities suitable for entry level skills or involving training. A second factor which is sometimes argued as being important is the 1971 change in the Unemployment Insurance Act. The increase in the ratio of the youth unemployment rate to adult male unemployment rate began, however, three years before the Act was amended. Nevertheless, the major changes in the Act may have been a contributing factor to the continuing rise in the ratio after 1971. The amendments may have permitted younger persons to change jobs more frequently and to search for new employment opportunities for longer periods of time.

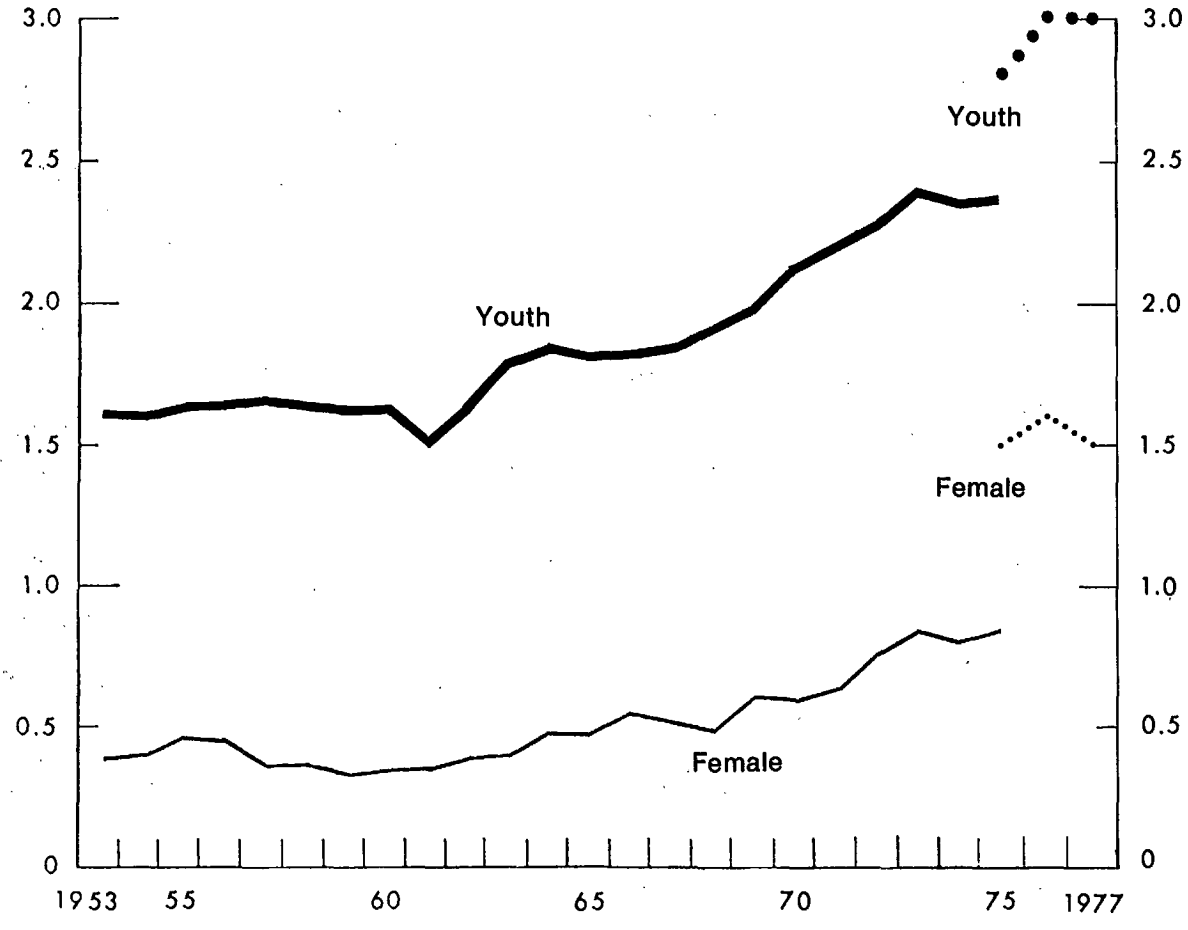
The ratio of the adult female unemployment rate to the adult male rate is also plotted on Chart 5. (Again, the discontinuity in the mid-1970s is attributable to the change in the Labour Force Survey.) The ratio rose quite slowly after the early 1960s, with the exception of 1969 when a sharp increase was recorded. After levelling off for two years, it jumped again in 1972 and 1973. The upward drift of this ratio through the middle and late 1960s is difficult to explain, since the economy had absorbed a constantly growing female labour force between 1953 and 1963 with no apparent difficulty, despite the low growth experienced in several of those years. The timing of the increase during the early 1970s in adult female unemployment rates relative to those of adult males suggests that they may have been related to some degree to the 1971 Unemployment Insurance Act changes.

The cyclically-adjusted unemployment rate will not remain constant over time because of the changes in the relation of youth and adult female unemployment rates to the adult male rate, and because of changes in the relative importance of these groups in the labour force. During the late 1950s and early 1960s, the cyclically-adjusted unemployment rate declined to slightly below 5 per cent. Subsequently, however, the rise in the average unemployment rates prevailing for youths and adult females relative to the adult male rate, together with the growing labour force shares of these two groups, caused the cyclically-adjusted unemployment rate to rise, particularly in the 1970s.

Chart 6 shows both the actual unemployment rate and the cyclically-adjusted unemployment rate for the period 1953 to 1977 on an old Labour Force Survey basis. The adjusted rate has risen from 5 per cent in 1953 to a little over 6 per cent in the current period. As is clear from this chart, the adjusted rate is different from the full-employment unemployment rate. The cyclically-adjusted unemployment rate is the rate which has prevailed when the economy operated at average levels of capacity utilization. It does not represent the rate of unemployment which would prevail at peak levels of capacity utilization. This could be described as the full-employment unemployment rate, which exists when there are no persons unemployed because of insufficient aggregate demand and the only unemployment is due to frictional and structural factors. In Chart 6 it can be seen that in 1953, 1956 and 1966 the observed

Chart 5

Ratios of Unemployment Rates:* Youth (14-24)/Male 25+, and Female (25+) Male 25+ 1953-1977

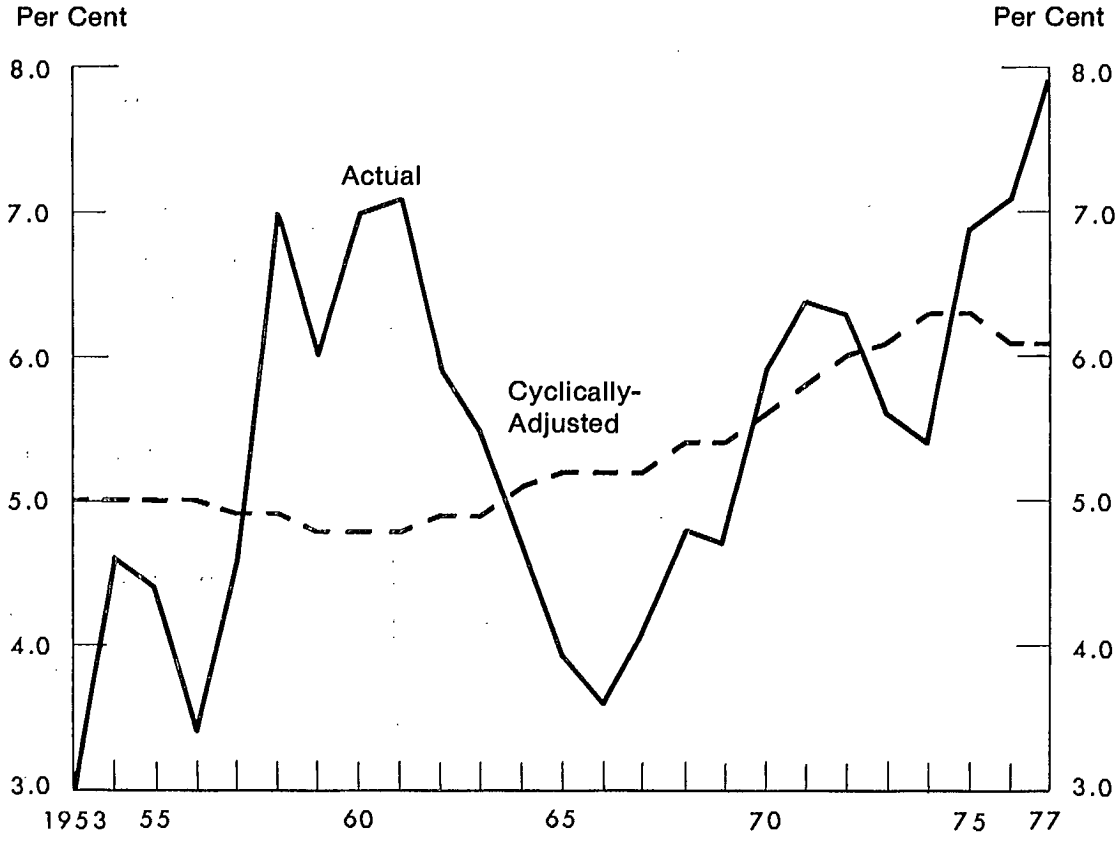


*Rates from 1953 to 1975 are calculated from the old labour force survey.
Rates from 1975 to 1977 are calculated from the revised labour force survey.

Source: Statistics Canada, The Labour Force Survey, cat. 71-001.

Chart 6

Actual and Cyclically-Adjusted Unemployment Rates 1953-1977



Source: Statistics Canada, The Labour Force Survey, cat. 71-001; and Long Range and Structural Analysis Division, Department of Finance.

unemployment rate was about 2 per cent less than the cyclically-adjusted rate. In 1973 there was about a 1 per cent difference. It should be noted that it was not possible to sustain these lower unemployment rates over long periods of time. It has also been true that such low rates of unemployment have been accompanied by significant increases in nominal wages, and rapid rises in prices. The challenge will be not just to get the unemployment rate down, but to sustain it at such lower levels and in a way which does not generate higher rates of inflation.

In projecting the cyclically-adjusted unemployment rate, assumptions must be made with respect to: 1) the average adult male unemployment rate over the projection period; 2) the relationship between youth, adult female and adult male unemployment rates; and, 3) the effectiveness of existing as well as new policy initiatives directed at narrowing the gaps between youth, adult female and adult male unemployment rates. Thus, quite apart from the difficulties in projecting the likely developments in the labour market in the absence of changes in government policy, there are questions about the assumptions which should be made about government policies and their likely impact.

Over the period 1953 to 1975 the unemployment rate for adult males averaged 4.7 per cent on the old Labour Force Survey basis. This average falls to 4.5 per cent if it is calculated on a peak to peak basis and rises to 4.8 per cent if calculated on a trough to trough basis. On the revised Labour Force Survey basis the historical average adult male unemployment rate corresponds to about 4.0 per cent. In projecting the cyclically-adjusted unemployment rate the assumption has been made that the average unemployment rate experienced by adult men remains constant at its historical average level, on the new Labour Force Survey basis.

The more difficult assumption concerns the relationships between youth, adult female and adult male unemployment rates. In this regard it has been assumed that the youth/adult male and adult female/adult male unemployment rate ratios will remain at their 1972-75 levels adjusted to a new Labour Force basis; that is that no further increase in the unemployment ratios of these two groups relative to that of adult males occurs. The youth share of the labour force is levelling off; as this share starts to fall it should relieve the competition for the entry-level jobs which most young people fill, and stabilize the youth/adult male unemployment rate ratio. Whatever impact the changes made in 1971 in the Unemployment Insurance Act have had, they should have been absorbed by now. Finally, with the adult female share of the labour force projected to grow only slowly, there is little reason to expect the adult female/adult male unemployment rate ratio to rise further.

Under the above assumptions, the cyclically-adjusted unemployment rate is estimated to fall gradually over the longer-term. This occurs because the share of the labour force accounted for by young people falls and youths have higher than average unemployment

rates. The assumption that there may be only a levelling off in these ratios may be somewhat conservative. The factors underlying the behaviour of these ratios are extremely complex and current understanding of the phenomena is not as far advanced as one would like. With a lower average adult male unemployment rate than assumed or with a possible further narrowing of the gap between youth and adult female and adult male unemployment rates, the cyclically-adjusted unemployment rate would in fact fall more than has been projected.

A further lowering of the cyclically-adjusted unemployment rate might be brought about through the successful application of labour market policies designed to improve the functioning of the labour market. Both the federal and provincial governments have made substantial commitments to labour market policies over the last 10 years. The policy initiatives necessary to have a significant impact are very difficult to devise. They may also involve very tough choices between social goals and economic objectives. The initiatives developed so far have not been sufficient to prevent the widening gap between youth, adult female and adult male unemployment rates. If these unemployment rate gaps are to be reduced over the medium and longer terms and the cyclically-adjusted unemployment rate reduced, then priority would have to be given by all levels of government to a re-examination of the labour market problems experienced by youth and women, and to the design of more effective labour market policies.

2.4 Productivity

The last component required to complete the calculation of benchmark GNE is the rate of growth of productivity. There has been considerable uncertainty over prospects for productivity increases. There are those who see in the energy crisis, the shift to the service sector, and general changes of attitude in the population, strong forces at work depressing the rate of growth of productivity. While it is difficult to be definitive in an area such as this, such pessimism about long-term growth prospects seems unwarranted. Up to this point, there is no evidence in the data of a slowdown in productivity growth.

For the purpose of this analysis a measure of labour productivity, GNE per employee, is used. As was noted earlier, growth in output per worker results from the interaction of a number of factors. Among the most important are: increases in the capital stock per worker; technological improvements; shifts in employment from low productivity to high productivity industries; large-scale exploitation of new resources; and, improvements in the education and skill levels of the labour force. Historically, all of these sources of productivity growth have contributed to the steady increase in output per worker which Canada has experienced.

Table 4 presents the year-to-year growth rates of GNE per employee for the full historical period for which data are available. The yearly data draw attention to the great amount of cyclicality in the movement of aggregate output per worker. In trough years, productivity growth has been very low, or negative (as in 1954 and 1975, for example). In the first recovery year, on the other hand, productivity growth has been very high: 7.0 per cent in 1955, 3.9 per cent in 1962, 4.2 per cent in 1971, for example. Equally striking, however, is the stability of the average growth rate of productivity across cyclically neutral periods. From the cyclical peak in 1956 to the peak of 1966, output per employee grew by 2.1 per cent; between the 1966 and the 1973 peaks, the average growth rate was slightly higher at 2.3 per cent. Over the peak-to-peak period 1956-73, the average growth rate was 2.19 per cent; over the trough-to-trough period 1954-75, the growth rate was 2.22 per cent.

Table 4

Annual Growth Rates,
GNE Per Employee
1954-1975

	Annual Growth Rates	
1954	-1.4	
1955	7.0	
1956	4.2	
1957	-0.3	
1958	2.8	
1959	0.9	
1960	1.2	2.1
1961	1.3	
1962	3.9	
1963	2.7	
1964	2.9	
1965	2.7	
1966	2.6	
1967	0.2	
1968	3.6	
1969	2.0	
1970	1.2	2.3
1971	4.2	
1972	3.0	
1973	2.3	
1974	-0.6	
1975	-0.8	

Average, 1956-1973: 2.19
Average, 1954-1975: 2.22

Source: Statistics Canada, National Income and Expenditure Accounts, Cat. 13-201 and The Labour Force, Cat. 71-001.

One argument often made is that the expected future shift in industrial structure, from the goods industries towards the service industries, will lower future rates of productivity growth, since productivity growth is lower in the services sector than in goods industries. Such an industrial shift, however, need not be accompanied by declining rates of aggregate productivity growth. From 1956 to 1973, the share of real domestic product generated by the service sector rose from less than 54 per cent of the total to over 59 per cent of total. As Table 5 shows, there was little change over this period in the growth of output per person in the commercial goods-producing industries. In the 1966-73 period, productivity growth in the commercial service-producing sector was twice as high as it was in the period 1956-66. This increasing service sector productivity growth offset the depressing effect on aggregate productivity of the industrial shift towards the service sector. There appears to be significant potential for productivity gains in the service sector. It is apparent that in other countries technologies have already been applied which can raise service sector productivity. The application of electronic technology to the financial system is one obvious example.

Table 5

Yearly Growth Rates in Output per Person, 1956-1973

	1956-66	1966-73	1956-73
Commercial Goods - Producing	4.5	4.3	4.4
Commercial Service - Producing	1.2	2.4	1.7
All Commercial Industries	3.0	3.3	3.1

Source: Statistics Canada, Aggregate Productivity Measures, 1946-1976, Cat. 14-201.

A related point concerns employment in the non-commercial sector. In this sector, which comprises public administration as well as community service industries such as schools and hospitals, there is no measured growth in labour productivity, since output is measured statistically in terms of labour input. Since GNE per employee is a productivity measure covering all employees, including those in the non-commercial sector, it increases less quickly than does labour productivity in the commercial sector alone. Comparing data taken from Tables 4 and 5, GNE per employee grew on average by

2.1 per cent per year from 1956 to 1966, while productivity in the commercial sector grew by 3.0 per cent annually, the difference between the two growth rates being 0.9 per cent. Between 1966 and 1973, annual growth rates of GNE per employee and commercial sector productivity were 2.3 per cent and 3.3 per cent respectively, with the difference between them being 1.0 per cent. The increased share of employment in the non-commercial sector in the past decade did not appear to affect these relationships significantly.

The effect of the rise in energy prices is not yet clear. There has been a variety of studies which attempt to assess the effect of the increase in energy prices without reaching a conclusion. Because of this the productivity growth figure was not reduced to reflect the possible effects of energy price increases.

There is little evidence of a major change in attitudes in the population. People continue to show a strong desire to work and to improve their material well-being.

While there is little evidence to indicate a significant reduction in productivity growth it has been assumed that productivity will grow 2.0 per cent per annum for the foreseeable future, slightly less than the average growth of 2.2 per cent for the period 1954-1975.

2.5 Cyclically-Adjusted GNE

With estimates of the growth in employment and productivity, it is possible to produce a benchmark GNE line. To establish the level of the benchmark GNE line, it is necessary first to set productivity at its benchmark level. The productivity level is established by setting benchmark productivity equal to the actual level of productivity recorded in 1964. Benchmark productivity for the other years in the historical period is derived by applying the average rate of productivity growth over the period 1954-75 to the 1964 productivity level. The year 1964 was chosen because, first, it was the middle year of a 5-year expansionary period; second, on the basis of a number of criteria, it was an average year in terms of economic performance; and finally, it was the middle year of the 23-year historical period (consequently, projection errors both backwards and forwards would tend to be minimized).

Multiplying the productivity figure calculated in this way by cyclically-adjusted employment yields the benchmark GNE line for the historical period, which is then projected forwards into the future. This GNE series is smoothed to eliminate cycles and reflects only the influence of demographic changes, trends in participation rates and the structural shifts in the adult male, adult female and youth unemployment rates discussed above. The historical and projected growth rates for cyclically-adjusted GNE and the underlying components are summarized in Table 6.

Table 6 illustrates some important aspects of recent Canadian economic growth. In the past two decades Canada experienced remarkably rapid growth in both the labour force and employment. In the period 1965-75 the labour force grew at an average annual rate of 3.4 per cent. This high labour force growth combined with a slowing down of the population growth to produce very high real GNE per capita growth. Per capita income growth on the benchmark line averaged 4.0 per cent over the period 1965-75.

Another important feature illustrated in this table is the effect demographic changes will have on future growth. With the productivity assumption, demographic changes which have already occurred virtually ensure that there will be a significant decline in the growth rates of GNE, although Canada will continue to have growth rates of GNE, labour force and employment at very high levels relative to other industrial countries. More importantly, perhaps, the demographic changes also mean that real GNE per capita will also grow less quickly than in the past. This is simply the unwinding of the process which occurred earlier. As mentioned, Canadians were able to enjoy very rapid per capita income growth rates in the past because the high growth rate of the labour force was accompanied simultaneously by a falling growth rate of the population. In the future, labour force growth is projected to decline more rapidly than population growth and the growth rate of GNE per capita will move towards the growth rate of productivity. These figures, it should be noted, refer to the benchmark line. To the extent that Canada is now below this line, growth rates over the next few years will likely be somewhat faster than indicated here.

Table 6

Growth Rates of Total Population and Cyclically-Adjusted Labour Force, Aggregate Productivity, GNE, and GNE per Capita
1954 - 1995

	Total Population	Labour Force	Aggregate Productivity	GNE[1]	GNE per Capita
Historical Period					
1954-60	2.6	2.4	2.2	4.7	2.0
1960-65	1.9	2.3	2.2	4.4	2.5
1965-70	1.6	3.3	2.2	5.4	3.7
1970-75	1.4	3.5	2.2	5.7	4.2
Forecast Period[2]					
1976-81	1.3	2.3	2.0	4.4	3.1
1981-86	1.3	1.7	2.0	3.8	2.5
1986-90	1.1	1.2	2.0	3.3	2.1
1990-95	0.9	1.1	2.0	3.1	2.1

Notes: (1) The growth rate of GNE is a multiple of, but approximately equal to the sum of the growth rates of the labour force and of aggregate productivity. The growth rate of GNE per capita is approximately equal to the growth rate of GNE, less the growth rate of total population.

(2) Forecast values reflect population growth under the assumptions of a fertility rate of 1.8, and annual net immigration of 100,000 through the forecast period.

Source: Statistics Canada, Estimated Population of Canada by Province, Cat. 91-201 and Long Range and Structural Analysis Division, Department of Finance.

3. CURRENT CYCLICAL POSITION

3.1 Position Relative to Benchmark

By superimposing on the benchmark or cyclically-adjusted GNE series the actual GNE series, one can see clearly the cycles in economic performance. Chart 7 shows the course of output in the period 1953-77 compared to the long-run growth path of GNE smoothed of cyclical fluctuations. Chart 8, which presents the GNE and unemployment rate cyclical gaps, i.e. the percentage deviation of actual GNE from its benchmark value and the difference between the actual unemployment rate and the cyclically-adjusted unemployment rate, provides a better means for comparing the severity and nature of the current cyclical downturn with that of previous recessions. As can be seen, the current depressed level of economic activity stands out clearly, as do previous downturns in 1954, 1961 and 1970. The current recession resembles most clearly, at least in terms of severity, the downturn which started in 1957 and reached its deepest point in 1961. But it is characterized by rather better unemployment performance, as measured by the gap between actual and benchmark unemployment rates, and somewhat poorer productivity performance.

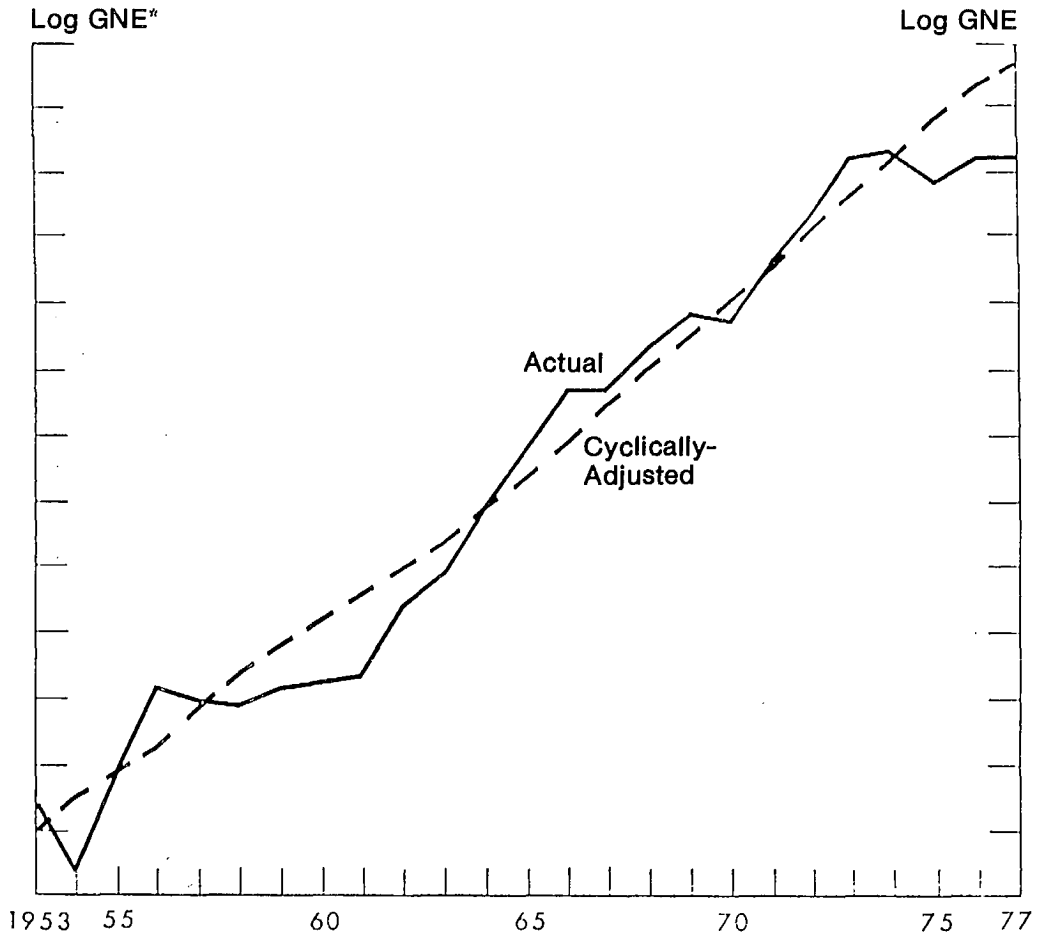
It is difficult to state precisely the position of the economy in relation to the cyclically-adjusted GNE track. In the past period, Statistics Canada has regularly revised upwards its preliminary estimates of GNE. Early estimates significantly underestimated the extent to which the economy was operating above the benchmark in 1973 and exaggerated the depth of the downturn in 1974 and 1975. Using the estimate of GNE published first in 1975 by Statistics Canada, the gap was + 0.6 per cent in 1973. Using the estimates published in 1977, the gap would be + 2.2 per cent. It may well be the case that current estimates of the GNE for 1976 exaggerate the size of the GNE gap. The unemployment rate gap may be a better indicator of the current cyclical position.

3.2 Output Performance by Sector

The comparison of actual GNE and GNE smoothed of cyclical fluctuations reveals clearly the cycles of aggregate economic activity that have occurred in the Canadian economy since the early 1950s. This aggregate measure of economic performance provides a necessary and useful starting point for constructing a medium-term growth

Chart 7

Percentage Deviations of Actual from Cyclically-Adjusted GNE 1953-1977

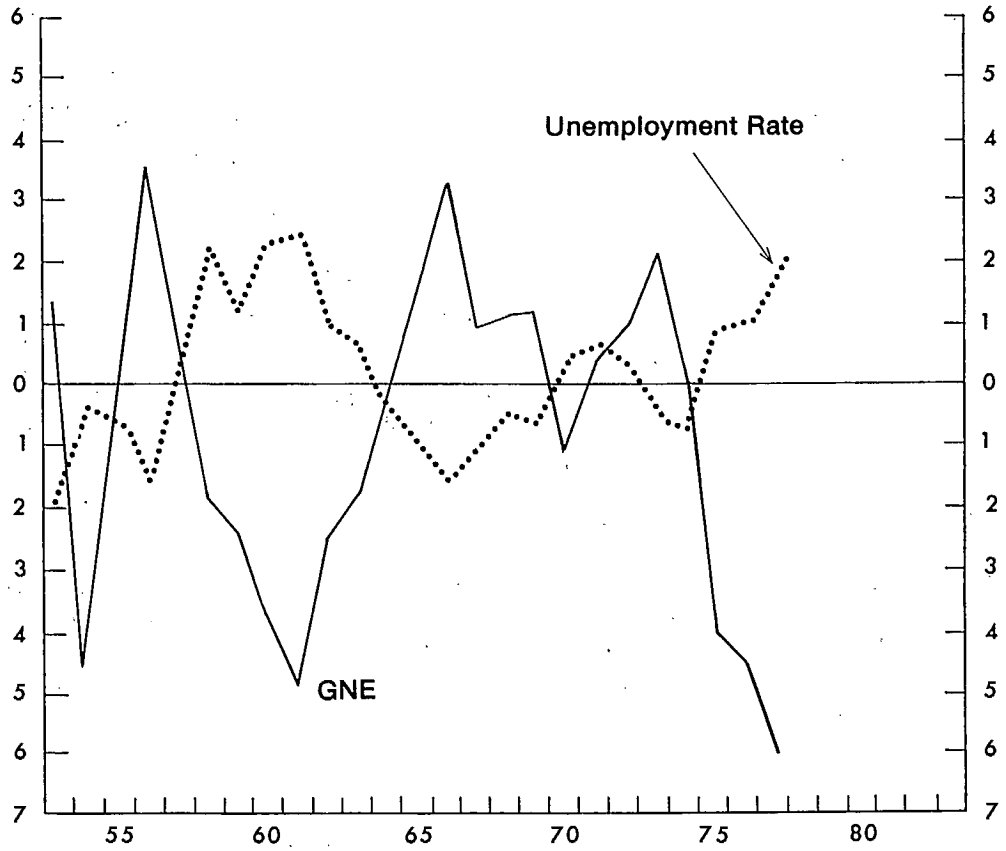


*Deviations have been amplified to illustrate the cycle.

Source: Statistics Canada, National Income and Expenditure Accounts, cat. 13-201, National Income and Expenditure Accounts, Volume I, cat. 13-531, and Long Range and Structural Analysis Division, Department of Finance.

Chart 8

GNE and Unemployment Rate Cyclical Gaps from Longer-run Benchmark



Source: Statistics Canada, National Income and Expenditure Accounts, cat. 13-201, National Income and Expenditure Accounts, Volume I, cat. 13-531, The Labour Force cat. 71-001; and Long Range and Structural Analysis Division, Department of Finance.

scenario. It is worthwhile, however, to extend this analysis where possible to an examination of the output performance of individual sectors in the economy in terms of the impact of the current lag in aggregate economic activity.

It is possible to undertake for different production sectors an analysis which is conceptually similar to the comparison of benchmark GNE and actual GNE. To do this, average output lines over the long run (i.e., sector outputs smoothed to remove cyclical fluctuations) were estimated which were then compared to actual output paths. In this way the impact of the current recession on individual sectors can be measured.

As in the case of the GNE gap, the current recession, measured in terms of an aggregate gross domestic product gap, resembles most clearly the recession which started in 1957 and reached its trough in 1961. In this downturn, however, the cyclical depression appears to be concentrated in fewer sectors. The mining, trade and transport sectors all appear to be experiencing more severe recessions than they did in 1961. The output gap measure for mining is plotted in Chart 9. The manufacturing sector, whose output gap is also plotted in Chart 9, is in about the same position as in 1961. This is also the case for the storage and construction sectors, while the agricultural, personal services and finance sectors have performed relatively better.

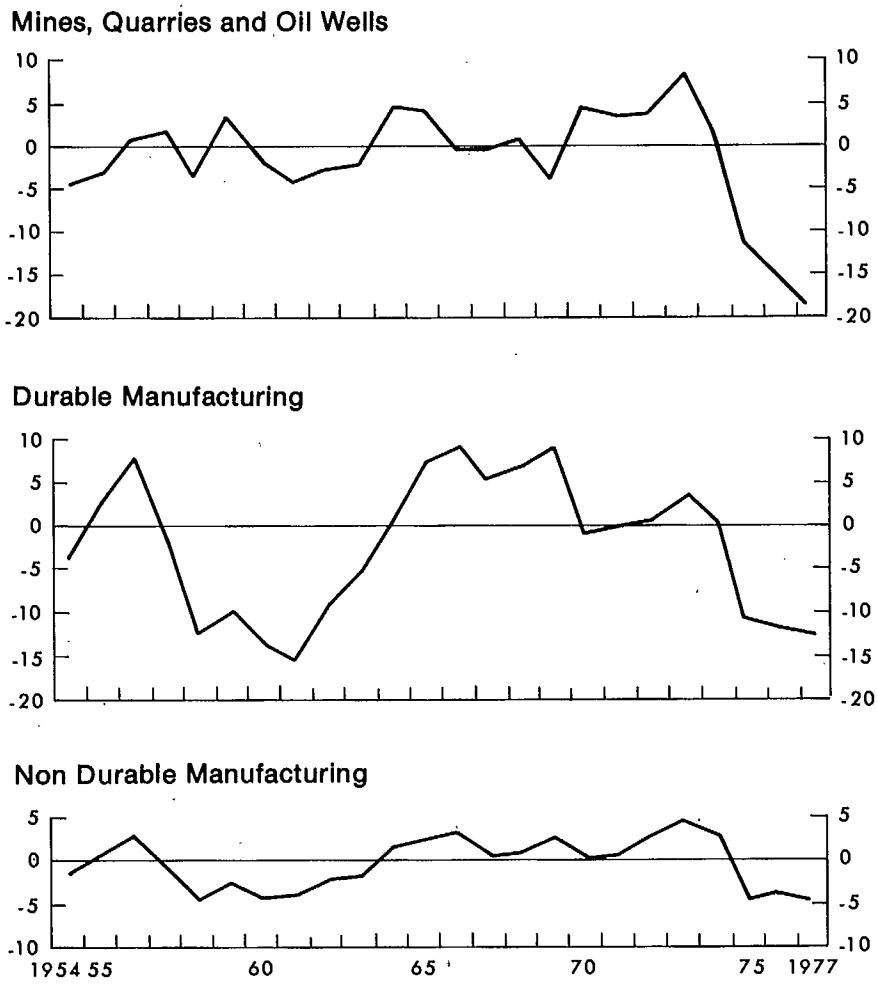
3.3 Capital Stock

At present, the rate of utilization of the capital stock as measured by the industrial composite index of the Department of Industry, Trade and Commerce is about 84 per cent, compared with an average rate of utilization of about 92 per cent over the past 15 years. This of course reflects the fact that the level of output is well below its cyclically-adjusted level. This low rate of utilization is of course a deterrent to new investment in the very short run.

In considering the amount of investment which may be needed for the medium term, however, it is useful to examine the size of the capital stock in relation to more normal levels of economic activity. The capital stock which would be needed to produce the benchmark level of output at average rates of capacity utilization was calculated. This was done by applying estimates of cyclically-adjusted capital stock ratios to cyclically-adjusted output. By comparing this cyclically-adjusted capital stock with the actual capital stock and taking into account the expected growth in the economy, a judgment can be made as to the adequacy of the capital stock for the medium term.

Chart 9

Estimated Output Gap (%)* for Selected Sectors 1954-1977



Source: Statistics Canada, Real Domestic Product by Industry, cat. 61-213, 61-506, and 61-510; and Long Range and Structural Analysis Division, Department of Finance.

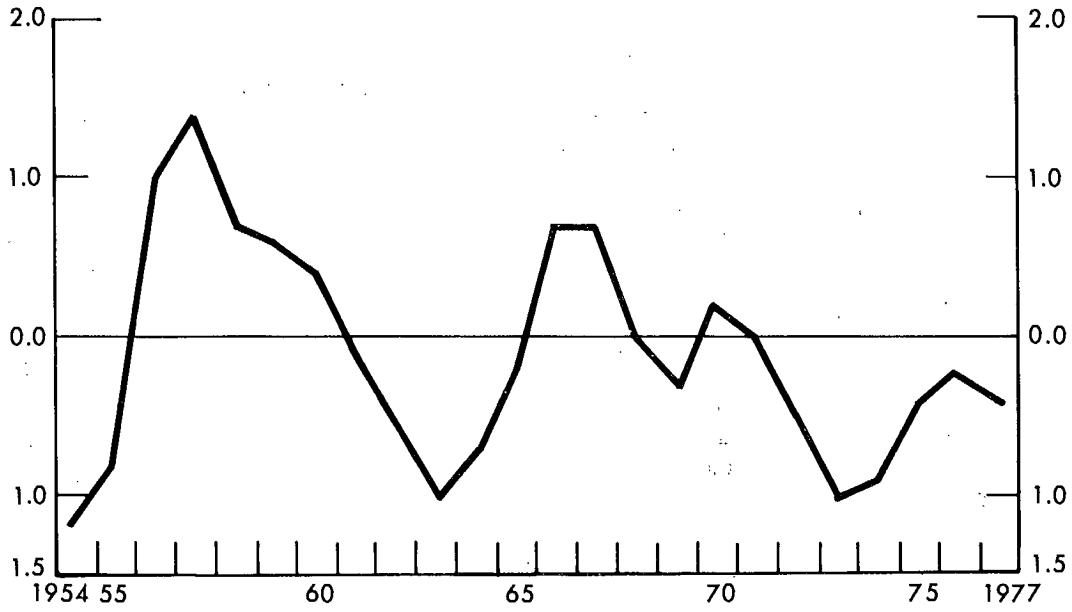
In Chart 10, the estimated capital stock gap for the period 1954-77 is plotted. It covers the private sector of the economy excluding energy and transportation. The energy sector is excluded because the forces operating there are quite different; the projections of energy investment are based on the knowledge of the various long-term projects under construction or in the planning stage. The transport sector was also excluded from Chart 10 because of the difficulties of doing this type of analysis for this sector. The capital stock gap is the percentage by which the actual capital stock exceeds or falls short of the cyclically-adjusted capital stock. At present, the actual capital stock is somewhat below the capital stock which would be required to produce the benchmark level of output at average levels of utilization. But the gap is not large. Under-utilization of capital is a more important factor than a shortage of capital. One would expect therefore that investment in the non-energy private sector may be slow in responding to an increase in demand. It is worth recalling with respect to the 1961-1966 period that investment did not grow as fast as GNE until 1964, by which time the economy had already reached its benchmark level. At the same time, it is important to recognize that investment decisions are made on the basis of the output which is expected in the future. If a sense of confidence in the medium-term prospects for the Canadian economy can be firmly established, then the needed additions to the capital stock as well as replacement of existing equipment will be put in place sooner rather than later.

3.4 Prices and Wages

In recent years Canada has experienced its most serious post-war inflation. The rate of price increase rose to a post-Korean war high in 1973 under the pressures of strong domestic aggregate demand, sharp domestic wage increases (see Table 7) and a general surge in world commodity prices. Further very large wage advances, continued commodity price pressure and the change in energy prices drove the Consumer Price Index (CPI) in Canada to a rate of increase of 10.9 per cent in 1974 (see Table 7). There was virtually no moderation in the advance of prices and wages in 1975. In 1976, the Anti-Inflation Program, reduced growth in the money supply, and a favourable food price situation were the main contributors to the significant reduction of the rate of CPI increase. Despite a more pronounced decline in the rate of average wage gains, the low rate of economic growth and the upward drift of the unemployment rate, the rate of CPI increase has not moderated in 1977. The depreciation of the Canadian dollar and the reversal of the previous year's food price situation have been important factors underlying the continued large climb in the CPI during 1977.

Chart 10

Estimated Capital Stock Gap (%)*
Total Private Sector Excluding Pipelines, Electric Power, Gas Distribution and Transport



*Percentage Deviation of Actual Capital Stock from Cyclically Adjusted Capital Stock.

Source: Statistics Canada, Fixed Capital Flows and Stocks, cat. 13-211, 13-522, 13-543; and Long Range and Structural Analysis Division, Department of Finance.

Annual rates of change in the total consumer price index and in the indices for the food and non-food components of the CPI are plotted in Chart 11 for the period since 1971. The volatility of food prices relative to non-food prices, and the influence of food prices on the aggregate CPI, stand out clearly. What is also evident in this chart, however, is the importance of distinguishing between longer-term underlying trends in the rate of price increase and short-term month-to-month changes. The prices of the non-food components of the CPI have shown a clear deceleration in their rate of increase over the last two to three years and this downward trend appears to be continuing. In any given period, however, the CPI may rise more or less quickly than the underlying trend. In 1976, for instance, the underlying rate of inflation was considerably higher than the actual rise in the CPI because of unusually favourable food price increases. In 1977, the opposite phenomenon occurred. Rapid increases in food prices resulted in an advance in the CPI faster than the underlying trend rate.

Table 7

Prices and Wages, Annual Growth Rates, 1971-1977

	CPI			Average Wages and Salaries
	Total	Food	Non-Food	
1971	2.9	1.1	3.4	7.8
1972	4.8	7.6	3.7	8.3
1973	7.5	14.6	5.1	10.2
1974	10.9	16.3	8.8	15.0
1975	10.8	12.9	10.0	14.6
1976	7.5	2.7	9.4	12.5
1977	8.0	8.4	7.9	8.0*

*Estimate for year.

Sources: Statistics Canada, Consumer Prices and Price Indexes, Cat. 62-010, Quarterly; National Income and Expenditure Accounts, Cat. 13-001, Quarterly; The Labour Force, Cat. 71-001, Monthly.

One of the features of the recent inflation which needs emphasizing is the extent to which nominal gains in wages and salaries have exceeded price increases. Table 8 compares real income gains (i.e. income gains after the adjustment for the effects of rising consumer prices) in Canada and the U.S. over the past decade and a half. The first two columns compare annual percentage increases

Chart 11

Consumer Price Index
(Monthly)
(Year-over-year percentage)

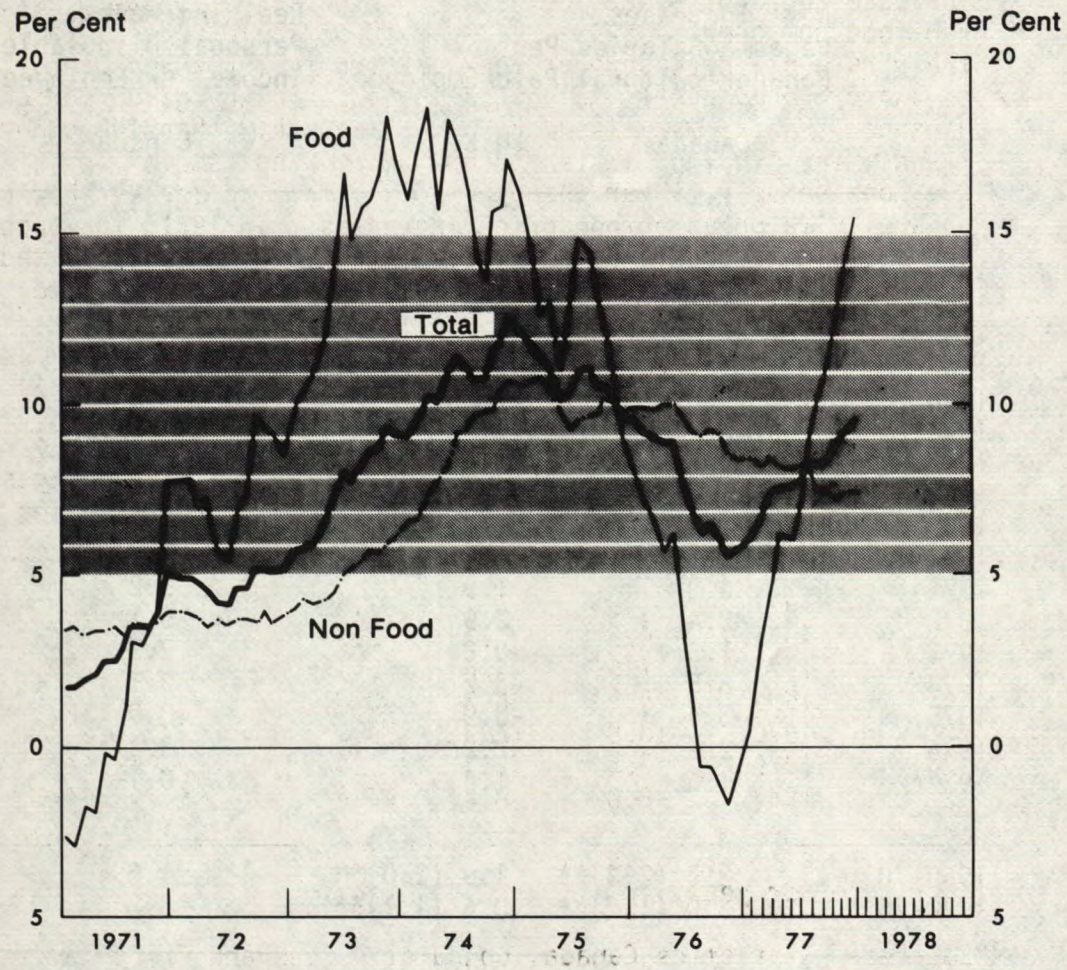


Table 8

Real Increases in Wages and Salaries per Paid Employee, and Personal Disposable Income per Employee, Canada and U.S., 1961-1977

	Real Increases, Wages & Salaries Per Non-Agricultural Paid Employee		Real Increases, Personal Disposable Income Per Employee	
	Canada	U.S.	Canada	U.S.
	(1)	(2)	(3)	(4)
1961	1.8	2.3	-1.2	2.9
1962	1.8	3.0	4.8	3.1
1963	1.6	2.2	2.0	2.0
1964	2.5	3.0	0.5	4.7
1965	3.0	1.6	3.2	3.5
1966	2.7	2.4	1.8	2.5
1967	3.3	1.4	1.1	1.6
1968	1.6	2.4	2.2	1.5
1969	3.4	0.6	0.8	-0.9
1970	3.2	0.0	1.4	1.8
1971	4.3	1.9	5.2	3.2
1972	2.4	2.9	5.1	1.1
1973	1.5	0.8	3.5	2.5
1974	3.5	-3.2	2.7	-3.4
1975	3.4	-0.9	3.9	2.3
1976	2.9	2.2	3.2	0.2
1977*	1.5	1.4	0.1	0.0
1960-70	2.5 (2.3)**	1.9 (2.0)**	1.6	2.3
1970-76	3.0 (1.7)**	0.6 (1.1)**	3.8	1.0

* First three quarters of the year.
** Bracketed figures are average annual productivity increases.

Sources: Canadian data calculated from Statistics Canada, Consumer Prices and Price Indexes, Cat. 62-010, Quarterly; National Income and Expenditure Accounts, Cat. 13-001, Quarterly; and The Labour Force, Cat. 71-001, Monthly. American data calculated from the Department of Commerce's Survey of Current Business and the Bureau of Labor Statistics' Monthly Labor Review.

in real wages and salaries per non-agricultural paid employee in the two countries.[1] Since the mid-1960s, real average wage and salary gains in Canada have tended to be higher than those in the U.S., with the differences being substantial in a number of years. The summary statistics at the bottom of the table show that between 1960-70 and 1970-76, the annual average rate of increase of real wages and salaries rose from 2.5 to 3.0 per cent in Canada, while decreasing from 1.9 to 0.6 per cent in the U.S. Over the same periods, the rate of increase of overall labour productivity declined in both countries, from 2.3 to 1.7 per cent in Canada, and from 2.0 to 1.1 per cent in the United States. From 1970 to 1976, as productivity gains fell in the U.S., real wage and salary increases dropped sharply. Reduced rates of increase in productivity in Canada, on the other hand, were accompanied by higher rates of real wage and salary increases. The Canadian situation changed markedly in the first three quarters of 1977, with the real average wage increase dropping to 1.5 per cent, the lowest such rise since 1973. For the full year 1977, there may be no increase in real wages. (See Table 7)

The same basic patterns are evident when changes in average real disposable income in the two countries are examined (columns 3 and 4, Table 8). The difference between the patterns of the 1960s and of the early 1970s in Canada is much more pronounced. Through the 1960s, real disposable income per employee in Canada grew by 1.6 per cent per year on average; in the 1970-76 period, the yearly rate of increase rose to 3.8 per cent. Again, the situation in 1977 was much different. An increase of only 0.1 per cent in average real disposable income was recorded in the first three quarters of the year, the lowest increase in 15 years.

Up to 1977 real income gains of Canadians were unprecedented despite the rapid rate of inflation. How was this possible? The main contributing factor was that Canada enjoyed in this period a very significant improvement in its terms of trade. The prices of exports rose about 12 per cent faster in the period 1971-76 than did the prices of imports. This permitted real incomes to grow faster than productivity. Indeed if all the terms of trade gains went to wages and salaries, real incomes would have been able to grow almost one per cent faster per annum during this period as a result of this process. The improved terms of trade reflected higher world prices for all goods, and the strong performance of the Canadian dollar. If the price of the Canadian dollar had been

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[1] Data on average yearly wages and salaries has been used instead of Statistics Canada's Average Weekly Earning series because this series has proved unreliable. This latter series shows a somewhat smaller increase in real incomes, especially in 1973. Statistics Canada relied on the series for its early estimate of the National Accounts but was subsequently forced to significantly revise upwards its estimates of wage and salary income.

lower, or at least declining, over this period then this would have resulted in a higher domestic rate of inflation and a rate of real wage growth more in line with productivity growth. It is worth noting in this respect that with the depreciation of the Canadian dollar in late 1976 and 1977, this real wage growth has dropped dramatically. There may also have been during this period some shift in income shares away from other sectors and to wages and salaries.

Several important aspects of the recent experience stand out as relevant for the discussion of the medium-term prospects. It now seems clear that wage gains in excess of those which can be sustained over the long run were made in recent years. The readjustment which is likely to follow such a pattern began in earnest in 1977 as wages grew substantially less in real terms in the first nine months, and real personal income per employee did not grow at all. Some further adjustment in the medium term will likely be necessary.

3.5 Consumption and Personal Savings

The strong growth in real personal disposable income over the years 1971 through 1976, which was described in the preceding section, supported high growth in personal consumption expenditures over this period. From 1971 to 1976, real personal consumption grew by an annual average rate of 6.5 per cent. The growth of consumption provided considerable support to the growth of aggregate output; GNE increases in real terms averaged 5.0 per cent annually over the same years. As disposable income growth slowed markedly in 1977, consumption gains dropped sharply, to an estimated rate of growth of 3.0 per cent for the year.

The high disposable income increases from 1971 to 1976 permitted not only strong consumption growth but also a dramatic increase in the personal savings rate. The personal savings rate (i.e., personal savings expressed as a percentage of personal disposable income) has doubled since 1970, rising from 5.3 per cent in that year to an average of 10.6 per cent over the three years 1974-76. These rates have been the highest recorded in the postwar period. The savings rate eased in 1977, falling by nearly a full percentage point to an estimated level of 9.7 per cent.

An analysis of the increases in the personal savings rate in the 1970s is hampered by major data problems associated with the computation of the savings rate. The numerator of the rate - personal savings - is calculated residually as the difference between personal disposable income and personal consumption expenditures (plus transfer payments from the personal sector to corporations and non-residents). Since personal disposable income and

consumption expenditure are large income and expenditure flows, small errors in their estimation can result in large errors in the estimation of personal savings. This point has been graphically illustrated with the major revisions to the National Accounts estimates which Statistics Canada has made in the 1970s. For example, Statistics Canada's first estimate of the 1971 personal savings rate, made in 1972, was 8.5 per cent. As a result of subsequent revisions to the National Accounts estimates, in particular the revisions made in 1976 and 1977, the 1971 personal savings rate is now estimated to have been 5.9 per cent.

It is possible to make some judgments regarding the main influences underlying the rise in the personal savings rate in the 1970s. However, because of the weaknesses in the personal savings data, such judgments must be treated as tentative.

The 1970s have not been the only period in which the savings rate has risen sharply. The path of the personal savings rate since 1970 is plotted in Chart 12. While the 1974-76 savings rates reached post-war high levels, these rates were not much higher than the rates recorded in the early 1950s.

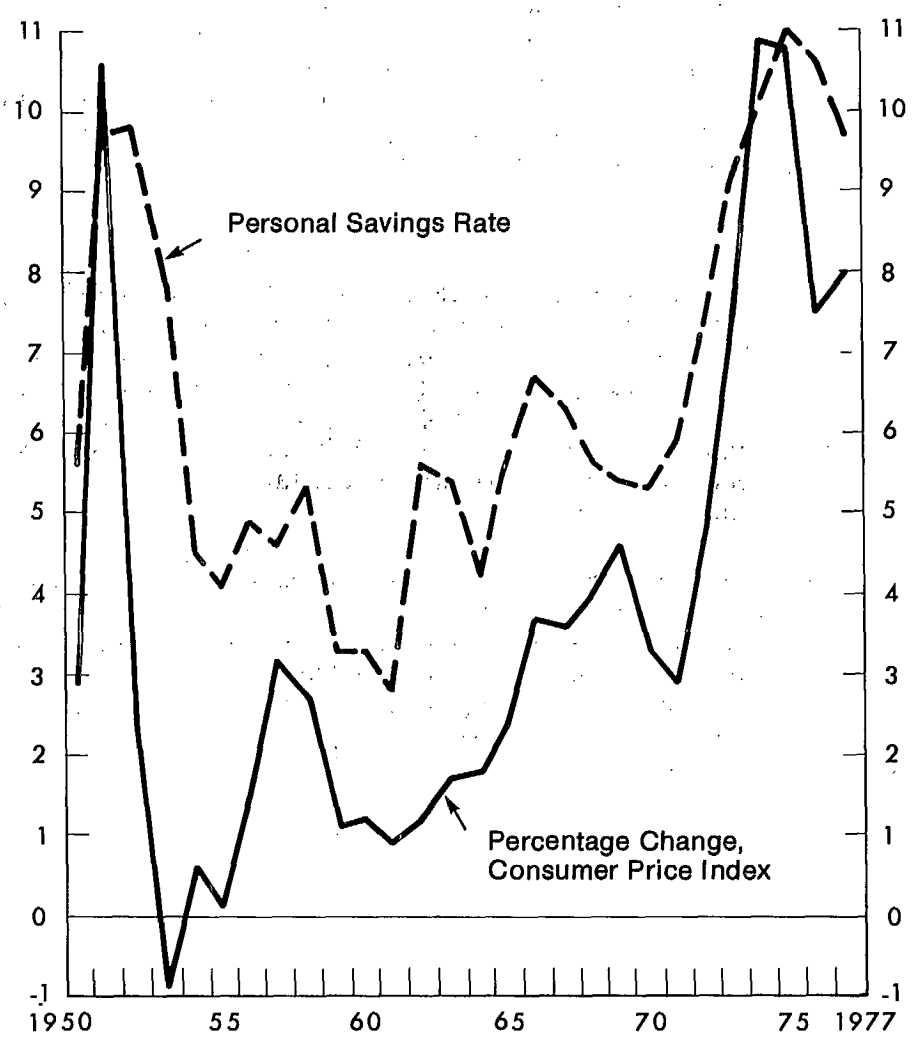
The most important factor which these two periods had in common was high rates of inflation. Percentage changes in the consumer price index are also plotted in Chart 12. A comparison of the savings rate and the rate of inflation reveals a fairly strong association between high rates of inflation and high savings rates particularly in the early 1950s at the outbreak of the Korean War, and early 1970s, although the two series tended to move together from the mid 1950s to 1970 as well.

Rapidly rising prices tend to be associated with high savings rates for two reasons. First, inflation erodes the real value of personal savings which individuals hold in the form of financial assets fixed in money value. Consequently, individuals will save a larger proportion of their income in order to maintain the real value of their financial assets. Second, high and increasing rates of inflation are likely to engender increasing uncertainty and fears about the future which further stimulates personal savings.

There have been other influences at work in the periods during which Canada has experienced high savings rates which should be noted. Consumer credit controls and the uncertainties confronting individuals as a result of Canada's participation in the Korean War contributed to the maintenance of the savings rate at high levels in 1952 and 1953, long after price increases had slowed abruptly. In the mid-1970s, a number of uncertainties other than

Chart 12

The Personal Savings Rate*, and the Percentage Change in the Consumer Price Index 1950-1977



*The 1977 personal savings rate is an estimate based on partial data.

Source: Statistics Canada, National Income and Expenditure Accounts, cat. 13-201, and Consumer Prices and Price Indexes cat. 62-010.

those accompanying high inflation have confronted Canadians: these include those associated with the upward drift of the unemployment rate, and since the November 1976 election in Quebec, fundamental questions regarding the future of Canada. These uncertainties may have reinforced the effects of inflation on personal savings. In addition, the popularization of registered retirement savings plans and the introduction of registered home ownership savings plans have probably induced more personal savings as well.

With the increase in the personal savings rate in the 1970s, the share of total savings in the economy accounted for by the personal and unincorporated business sector rose significantly. During the period 1962-66, savings in this sector comprised 31.5 per cent of total savings. This share rose to 35.9 per cent over the years 1971-73, and to 41.8 per cent during the period 1974-76.

3.6 Balance of Payments

Developments in the foreign sector are an important element in explaining Canada's current economic position and are critically important to the medium-term prospects for the economy. In recent years the current account of the balance of payments has swung from a small surplus in 1973 to deficits of over $4 billion in each of the years 1975 and 1976. In 1977 the current account deficit has probably risen somewhat in dollar terms, but remained constant as a share of GNE.

Table 9 presents a disaggregated view of the balance of payments in current dollar terms. As can be seen, there has been a steady widening deficit on the service account largely because of widening deficits in travel and interest and dividend payments. The trade balance which was in surplus moved into a deficit position in 1975. In 1976 and 1977 it returned to a surplus. Tables 10 and 11 present details on the trade and service accounts.

Table 9

Canadian Balance of Payments, 1971-77

	1971	1972	1973	1974	1975	1976	1977*
	(millions of dollars)						
Merchandise Trade							
Exports	17877	20129	25461	32591	33428	37975	44522
Imports	15314	18272	22726	30902	33962	36886	41611
Trade Balance	2563	1857	2735	1689	-534	1089	2911
Service Balance	-2398	-2527	-2971	-3765	-4635	-5798	-7667
Net Transfers	266	284	344	563	390	522	434
Current Account Balance	431	-386	108	-1513	-4779	-4187	-4322
Long Term Capital Flows							
Net Direct Investment	695	220	-35	-50	-125	-850	NA
Net Issues of Canadian Securities	1191	1722	1324	2423	5038	9090	NA
Retirements of Canadian Securities	-845	-603	-737	-626	-851	-928	NA
Other Long-Term Transactions	-377	249	-167	-876	-214	562	NA
Total Long Term Capital Flows	664	1588	385	871	3848	7874	NA
Short-Term Capital Flows	-318	-983	-960	666	526	-3165	NA
Net Official Monetary Movements	896	336	-467	24	-405	522	NA

* 1977 figures are actual for merchandise trade, and estimated for services and transfers on current account. Estimates for the capital account are not available (NA).

Source: Statistics Canada, Quarterly Estimates of the Canadian Balance of International Payments, Cat. 67-001, Third Quarter 1977.

Table 10

Canadian Merchandise Trade, 1971-1976

	1971	1972	1973	1974	1975	1976
	(millions of dollars)					
Agricultural Products						
Exports	2,108	2,366	3,211	3,930	4,143	4,253
Imports	1,157	1,400	1,981	2,516	2,682	2,871
Balance	951	966	1,230	1,414	1,461	1,382
Energy Products						
Exports	1,038	1,341	1,908	4,099	4,181	3,796
Imports	541	681	943	2,646	3,802	3,274
Balance	497	660	965	1,453	879	522
Crude and Fabricated Products						
Exports	8,022	8,843	11,416	14,575	13,675	16,507
Imports	3,921	4,438	5,356	7,908	7,728	8,029
Balance	4,101	4,405	6,060	6,667	5,947	8,478
End Products						
Exports	6,140	7,068	8,300	9,105	10,326	12,441
Imports	9,752	11,864	14,705	13,203	20,544	22,744
Balance	-3,612	-4,796	-6,405	-9,098	-10,218	-10,303
Miscellaneous Products(1)						
Balance	626	622	885	1,253	1,397	1,010

(1) Largely re-exports.

Source: Statistics Canada, Quarterly Estimates of the Canadian Balance of International Payments, Cat. 67-001, Canadian Statistical Review, Monthly, Cat. 11-003.

Table 11

Canadian Services Account Balances, 1971-1976

	1971	1972	1973	1974	1975	1976
			(millions of dollars)			
Travel	-202	-234	-296	-284	-727	-1,182
Interest and Dividends	-1,141	-1,048	-1,260	-1,555	-1,918	-2,491
Freight and Shipping	-12	-74	-66	-224	-389	-173
Other Services	-765	-884	-1,027	-1,272	-1,336	-1,435
Withholding Tax	-278	-287	-322	-430	-465	-504
Total	-2,398	-2,527	-2,971	-3,765	-4,635	-5,798

Source: Statistics Canada, Quarterly Estimates of the Canadian Balance of International Payments, Cat. 67-001

The growing current account deficit can be explained by several factors. Cyclical factors were obviously very important. The Canadian economy operated through 1974 and 1975 much closer to capacity than did the economies of its major trading partners. The recovery which occurred in 1976 in these economies was not sufficient to eliminate Canada's current account deficit.

A second major factor was the declining competitive position of the Canadian economy. In a recently published study[1] of Canada's competitive position vis-ã-vis the United States, the Conference Board in Canada observed that from the mid-60s to the mid-70s, earnings (wages per employed person) differentials between Canada and the U.S. narrowed consistently. By 1975, in a majority of the industries studied, Canadian wage earnings had come very close to or exceeded parity with those in the U.S. During the same period, Canadian labor productivity had increased relative to the U.S., but in 1974 still remained at only 80 per cent of U.S. levels. A sharp divergence was observed between durable and non-durable manufacturing industries - in 1974 the durable goods industries recorded 95 per cent of the productivity of their American counterparts, while the non-durable industries stood at 70 per cent. In both countries, labour's share of value added declined over the period, but more rapidly in the U.S. than in Canada. As a result, by 1974 Canadian firms had relatively less profit to reinvest than was the case in the U.S.

(1) The Conference Board in Canada, Assessing Trends in Canada's Competitive Position: The Case of Canada and the United States (1977).

Relative to other trading partners, Canada's wage performance was mixed, but generally better. While higher productivity gains partially offset the wage gains experienced vis-à-vis the U.S., Canadian productivity generally grew less rapidly than in the case of other trading pertners. As a result, Canadian unit labor costs grew considerably faster than did those of the U.S., while cost performance relative to the other trading partners varied.

The effect of a different labour cost performance on Canada's competitive position depends partly upon the movement in the exchange rate. Table 12 shows Canada's unit labour costs in manufacturing adjusted for currency changes. (This measure depends heavily on the data used for productivity. The data here may overstate the extent to which the rate of growth of Canadian productivity has exceeded that of the U.S., and thus may understate the degree to which Canadian costs have risen more rapidly than those in the U.S.) Comparisons are made with the U.S., with Canada's other major trading partners, and with all major trading partners combined. The deterioration in Canada's competitive position vis-à-vis the U.S. stands out clearly. By 1976 Canada's unit labour costs were 20 per cent higher than in 1970. Because of the depreciation of the Canadian dollar relative to other trading partners, there has been an improvement in Canada's competitive position with them. Given the importance of the U.S. in Canadian trade, Canada's position with all major trading partners reflects primarily her position with the U.S. Thus, the overall index shows a substantial deterioration. The recent depreciation means that Canada is in about the same competitive position when measured in this way, vis-à-vis all its trading partners, as in 1970 or 1964. But Canada is still significantly worse off vis-à-vis the U.S.

Table 12

Unit Labour Costs in Manufacturing:
Canada Versus Major Trading Partners, 1961-1976[a]

	Vis-à-Vis U.S.	Vis-à-Vis Other G-10	All G-10
		(1970=100)	
1961	107.1		
1962	100.1		
1963	102.1		
1964	102.4	94.5	100.7
1965	104.7	91.4	101.7
1966	105.4	93.6	102.8
1967	103.3	97.2	102.0
1968	100.0	101.6	100.3
1969	97.6	100.9	98.3
1970	100.0	100.0	100.0
1971	104.2	96.7	102.6
1972	109.5	87.6	104.4
1973	108.3	79.7	101.5
1974	105.5	77.9	99.0
1975	107.5	69.5	98.1
1976	120.2	84.5	111.6

(a) Each index consists of the relevant Canadian index divided by a weighted average of indices for G-10 countries converted into Canadian dollar terms. Other G-10 consists of: Belgium, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom. Country indices are weighted by 1971 bilateral trade shares.

Sources: Statistics Canada, Canadian Statistical Review; IMF, International Financial Statistics; OECD, Main Economic Indicators.

Structural problems peculiar to individual sectors were also important in influencing the overall behaviour of the foreign sector. The energy sector has ceased to be a major source of additional strength to the current account, and the favourable balance in this sector is diminishing each year. Trade in the auto sector moved from a surplus in 1971 to a deficit of $1.2 billion in 1976. There has been a rising deficit in end products, from $3.6 billion in 1971 to $10.2 billion in 1976 (exports in end products have grown faster than imports, but from a much smaller base). Cyclical and cost factors are important in explaining these later changes, but there is increasing concern that the structure of Canadian industry is not such as to fully exploit existing opportunities. Business services and travel are other areas where cyclical and price factors are also accompanied by particular structural problems.

The balance of payments includes the capital account, and changes in the value of the Canadian dollar reflect not only changes initiated in the current account, but also changes which result originally from capital flows. In recent years large financial requirements combined with persistent interest rate differentials between Canada and the rest of the world led to an upsurge in external borrowing. The large financial requirements reflected the continued strong performance of investment, especially in the energy sector, and the decline in gross provincial savings as a result of the recession (see Table 15). The large foreign borrowing helped to sustain the value of the dollar through to the end of 1976 despite the poor current account performance.

3.7 Government Expenditures and Revenues

The government sector is important in the economy in several ways. Governments are important consumers of goods and services. Governments also have an influence on the distribution of income through transfers to persons and corporations. Finally, governments have traditionally played a critical role in stabilizing cyclical activity in the economy.

Historical data on total government expenditures and various categories of government expenditure, expressed as percentages of current dollar GNE, are presented in Table 13. These data are from the National Income and Expenditure Accounts produced by Statistics Canada, and differ somewhat in coverage from the expenditure figures published in the budgets and public accounts of individual governments. The first three columns of the table, entitled expenditures on goods and services, cover salaries and wages of government employees and the cost of purchases of goods and services from the private sector. These are the expenditures involved in operating such government programs as national defence, schools and hospitals, and highway construction. Federal expenditures of this type have fallen slightly relative to GNE compared with the level at the beginning of the 1960s, a reflection of a fall in national defence expenditures as a share of GNE, which was only partially offset by some rise in other types of expenditure. Expenditures of the provincial-local-hospital sector rose rather rapidly up until 1975. The jump in expenditures from 1968 to 1970 reflects in substantial part the introduction of medicare, which resulted in the transfer of responsibility for payment of most physicians' fees from the private to public sectors. Throughout 1965-75 growth of expenditures in the health area was a primary contributor to the increasing relative levels of provincial-local-hospital expenditures on goods and services; growth of expenditures on education was also an important contributor in the first half of the period.

While expenditures on goods and services increased by about four percentage points of GNP from 1961 to 1976, total government expenditures increased by more than 10 percentage points. The

Table 13

Government Expenditures As A Percentage of Current Dollar GNE, 1961-1976

	Expenditures on Goods and Services*			Other Expenditures (excluding inter-government transfers)			Total Expenditures****			
	Federal	PLH**	Total Government Sector	Federal	PLH	Total*** Government Sector	Federal	Federal excluding Transfers to PLH	PLH	Total*** Government Sector
						(%)				
1961	7.3	12.6	19.9	8.0	2.9	10.9	18.1	15.3	15.5	30.8
1962	6.9	12.9	19.8	7.9	3.0	10.9	17.4	14.8	16.0	30.7
1963	6.2	13.3	19.5	7.8	3.0	10.8	16.6	14.0	16.3	30.3
1964	5.9	13.1	19.0	7.6	3.0	10.6	15.9	13.4	16.2	29.6
1965	5.7	13.7	19.5	7.1	3.3	10.4	15.5	12.9	17.0	29.9
1966	6.0	14.4	20.4	7.1	3.4	10.5	15.8	13.1	17.8	30.9
1967	6.1	15.2	21.3	7.5	4.0	11.6	16.6	13.6	19.3	32.9
1968	6.0	15.6	21.6	7.5	4.5	12.1	16.9	13.6	20.1	33.7
1969	5.9	15.7	21.7	7.5	4.8	12.4	16.9	13.5	20.6	34.1
1970	5.9	17.2	23.1	8.0	5.1	13.3	17.8	13.9	22.4	36.4
1971	5.8	17.6	23.4	8.0	5.7	13.9	18.4	13.8	23.2	37.3
1972	5.8	17.3	23.1	9.0	5.4	14.7	19.1	14.8	22.7	37.8
1973	5.5	16.6	22.1	8.8	5.3	14.3	18.2	14.3	21.9	36.5
1974	5.7	16.9	22.6	9.7	5.3	15.4	19.6	15.4	22.2	38.0
1975	5.7	18.4	24.1	11.1	5.7	17.3	21.4	16.8	24.1	41.4
1976	5.8	18.0	23.8	10.2	6.0	16.7	20.4	16.0	24.0	40.5

* Sum of Current Expenditures on goods and services and gross capital formation.
** Provincial, local and hospital.
*** Total Government sector includes expenditures by CPP/QPP which are not shown separately in the table.
**** Total expenditures of PLH and total government sector exclude intergovernmental transfers within these sectors.

Source: Statistics Canada, National Income and Expenditure Accounts. Cat. 13-201.

remaining expenditures include transfer payments to persons in such forms as family allowance, old age security, unemployment insurance, and welfare payments. Also included are government subsidies such as the oil import subsidy, interest on the public debt, and expenditures on foreign aid. It is this general area which accounts for the growth of federal expenditures relative to GNE over the period. Of particular importance were the increases in unemployment insurance benefits in 1972 resulting from the introduction of the new unemployment insurance system together with the further increase in 1975 and succeeding years as unemployment moved to higher levels. In addition the increase in family allowances in 1974 and the introduction of the oil import subsidy in 1974 were important. Also contributing to the growth of these other expenditures relative to GNE were the growth of benefits under the Canada and Quebec Pension Plans, and the increase in interest on the public debt which has resulted from the upward trend in interest rates over the period and, in the last few years, from above average growth in outstanding debt reflecting the relatively high levels of deficits incurred in the weaker economic conditions following 1974.

The final four columns show total federal expenditures both including and excluding federal payments to provincial and local governments, total expenditures of the provincial-local-hospital sector, and total expenditures of all governments combined. Transfers between governments are netted out in calculating expenditures of the total government sector, as are transfers between provincial and local governments and hospitals in calculating the total expenditures of the PLH sector. As can be calculated from the table, the share of PLH expenditures in total government expenditures increased rather steadily from 1961 to 1970, growing from 50 per cent to 62 per cent. It has since declined slightly to a level just under 60 per cent.

Table 14 presents data on government revenues. A comparison of the final column of this table with the final column of Table 13 shows that revenue growth basically matched expenditure growth during the period in which the latter was proceeding at relatively high rates.

A striking feature of Table 14 is the growth up to 1974 of "direct taxes - persons," which consists largely of personal income tax revenues, relative to GNE and relative to other sources of revenue up to 1974. Comparatively little of this growth was due to explicit increases in tax rates. Rather, the application of a progressive rate structure to incomes which were growing in per capita terms, reflecting both real growth and inflation, caused revenues automatically to grow much more rapidly than income. The high elasticity of this revenue source lessened the constraint on expenditure growth over this period.

Table 14

Government Revenues as a Percentage of Current Dollar GNE, 1961-1976

	Revenues* by Source				Revenues by Level of Government			
	Direct Taxes - Persons	Direct Taxes - Corporations	Indirect Taxes	All Other	Federal	PLH** "Own Source"	CPP/ QPP	Total Government Sector
				(%)				
1961	7.4	4.2	13.0	4.1	17.1	11.6		28.7
1962	7.4	4.1	13.5	4.1	16.3	12.8		29.1
1963	7.4	4.1	13.3	4.2	15.9	13.0		28.9
1964	7.8	4.2	13.7	4.2	16.6	13.2		29.8
1965	8.0	4.0	14.0	4.3	16.4	13.9		30.3
1966	9.4	3.9	14.0	4.4	16.2	14.3	1.2	31.6
1967	10.6	3.6	14.3	4.6	16.4	15.3	1.4	33.1
1968	11.4	3.9	14.2	4.9	16.8	16.1	1.4	34.4
1969	12.6	4.0	14.3	5.6	18.2	16.9	1.5	36.5
1970	13.5	3.6	14.1	6.2	18.1	17.6	1.5	37.3
1971	13.8	3.5	13.8	6.3	18.3	17.6	1.6	37.4
1972	13.9	3.7	14.0	6.2	18.6	17.7	1.6	37.8
1973	13.8	4.1	13.5	6.1	18.5	17.5	1.5	37.5
1974	14.4	4.7	14.2	6.5	20.4	17.9	1.6	39.8
1975	14.5	4.8	13.0	6.8	19.3	18.1	1.7	39.1
1976	14.9	4.2	12.9	6.8	18.9	18.1	1.7	38.7

* Total government sector includes revenues of CPP/QPP.

** PLH "Own Source" - Provincial, local and hospital revenues excluding federal transfers.

Source: Statistics Canada, National Income and Expenditure Accounts. Cat. 13-201.

The indexation of the personal income tax exemption and rate bracket structure in 1974, applicable to income taxes at the federal level and in all provinces but Quebec, has drastically lowered the elasticity of this revenue source. If per capita income were to grow at its trend rate in real terms, and if inflation were neither accelerating nor decelerating, personal income tax revenues would now be expected to grow only moderately faster than personal income. The elasticity of tax growth to income growth under these circumstances is estimated to be in the 1.2 to 1.3 range, compared with elasticities well above 1.5 which characterized the unindexed system in the late 1960s and early 1970s. If per capita income were to increase at about the same rate as the indexation factor, which can occur as inflation decelerates, the elasticity of the current system would be only marginally above 1.0.

Direct taxes on corporations and indirect taxes have been relatively stable as percentages of GNE while other government revenues, which include government interest income and national resource royalties, have increased significantly. The final columns show total federal revenues, total PLH "own source revenues" (i.e. excluding transfers from the federal government), total CPP/QPP revenues and total revenues of the consolidated government sector. The share of total revenues collected directly by the PLH sector has increased from 40 per cent in 1961 to about 47 per cent in 1976. The marked increases in the share of PLH own source revenues in 1962 and 1967 reflect the transfers of income tax points from the federal government to the provincial governments which occurred in those years. A further such transfer occurred in 1977.

As already indicated, a significant part of the rapid growth of government revenues which occurred over the past fifteen years came about without explicit tax rate increases. With the indexation of personal income taxes in 1974, such automatic growth of revenue at rates well above the rate of increase of GNE came to an end.

Governments also have important roles to play in helping to stabilize economic activity. A useful perspective on the current fiscal position of the different levels of government and of the total government sector is provided by a review of the historical record extending back to the period around 1961 when the economy was experiencing a slowdown of similar severity to that experienced in the last three years.

Table 15 presents the national accounts measure of the surplus or deficit of the federal and provincial-local-hospital levels of government, and of the Canada and Quebec Pension Plans. The budget balances are expressed as percentages of current dollar GNE for the year in question. Over the period prior to the current situation, the federal government's fiscal position displayed much more cyclical variation than did the position of the consolidated PLH sector. The federal balance ranged from -1.2 per cent of GNE in 1962 to +1.3 per cent of GNE in 1969 while the PLH balance ranged between -1.1 per cent and -0.1 per cent of GNE. In 1961

and 1962 both the federal and PLH sectors ran substantial deficits, resulting in a deficit for the total government sector which averaged about two per cent of GNE for this period.

In the current period, both levels of government initially ran substantial deficits, a result both of the impact of the recession on revenues and on certain expenditures, and of specific fiscal action taken to moderate the downturn. In 1977, there was a substantial further increase in the federal deficit which brought it to something of the order of 3.5 per cent of GNE, a record level for the post- war period. However, the PLH sector deficit appears to have fallen sharply to a level which is low by historical standards. When the continuing surplus of the CPP/QPP of just over one per cent of GNE is added in, the result for the deficit for the total government sector was probably about 2.5 per cent of GNE in 1977. While the combined deficit of the federal and PLH sectors suggests that these sectors were providing substantially more stimulus to the economy in 1977 than in 1961, the deficit of the total government sector including the CPP/QPP is not dramatically larger relative to GNE than the total government sector deficit in 1961.

Table 15

Fiscal Position of Governments
Surplus or Deficit on National Accounts Basis
as a Percentage of GNP 1961-1976

	Federal	Prov.-Local	CPP/QPP	Total excl. CPP/QPP	Total +CPP/QPP
1961	-1.0	-1.1		-2.1	
1962	-1.2	-0.5		-1.6	
1963	-0.6	-0.7		-1.4	
1964	0.7	-0.5		0.2	
1965	1.0	-0.6		0.4	
1966	0.4	-0.8	1.1	-0.5	0.7
1967	-0.1	-1.0	1.3	-1.1	0.2
1968	0.0	-0.7	1.4	-0.7	0.7
1969	1.3	-0.3	1.4	1.0	2.4
1970	0.3	-0.8	1.4	-0.5	0.9
1971	-0.2	-1.1	1.4	-1.2	0.1
1972	-0.5	-0.7	1.3	-1.2	0.1
1973	0.3	-0.5	1.2	-0.2	1.0
1974	0.7	-0.1	1.2	0.6	1.8
1975	-2.1	-1.3	1.2	-3.5	-2.3
1976	-1.5	-1.4	1.1	-2.9	-1.8

Source: Statistics Canada, National Income and Expenditure Accounts, Cat. 13-201, and National Income and Expenditure Accounts, Volume I, Cat. 13-531.

A number of factors should be kept in mind in interpreting these fiscal positions. An examination of the historical series suggests that the PLH balance showed no tendency to shift so as to offset the fiscal drag of the CPP/QPP. From a provincial point of view, borrowing from the CPP or QPP can be regarded as similar to borrowing from market sources. Both increase the future interest and repayment obligations of the province. CPP/QPP debt is included in assessments of a province's current debt position. Neither is there any clear indication in the data that the federal government balance shifted to offset the introduction of the CPP/QPP. Although the CPP is a federally-administered program, the federal government has access to only a small fraction of the funds generated.

There is a wide variation in the fiscal positions of the provincial governments, a variation which has increased over the last four years due to the surge of oil and gas revenues in some provinces. No current data are available on a provincial basis for the national accounts balances of the PLH sector. However estimates are available for a somewhat different measure of the balance - the difference between "gross general revenues" and "gross general expenditures" in the Financial Management series developed by Statistics Canada to provide government fiscal statistics on a comparable basis. Table 16 shows this measure of the government balance by province for the consolidated provincial-local sector expressed as a percentage of Gross Provincial Product. Figures for 1972-73 to 1974-75 are as published by Statistics Canada and figures for 1975-76 to 1977-78 are estimates. Also shown are data on the total borrowing requirement, including guaranteed debt of provincial and local government enterprises, again expressed as percentages of Gross Provincial Product.

The swing to larger deficits from 1973-74 to 1975-76 was common to all provinces except Alberta and Saskatchewan. There has been a significant reduction in the total provincial-local net deficit since 1975-76, which is similar in size to the shift of the PLH sector on the National Accounts Basis from 1975 to 1977. While most provinces shared in the reduction in deficit relative to GPP, the large further increase in the surplus of Alberta in fact accounted for over half the reduction in the net deficit of the provincial-local sector.

The recent large increase in borrowing on behalf of, and in guarantees of borrowing by, provincial utilities is another factor which may be influencing current provincial strategy with respect to the budgetary balance. Such borrowing to finance capital projects by provincially-owned enterprises does not enter into the calculation of the "balances" shown in Tables 14 or 15, but is included in the data on "Total Borrowing Requirements" in the later table. Over time the importance of electricity as a source of energy has been increasing and will continue to increase.

Table 16

Federal and Provincial-Local Fiscal Position (Financial Management Basis)
Balance and Borrowing Requirement as a Percentage of Gross National Product and Gross Provincial Product

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total Ten Prov.	Fed. Govt.
1972-73												
Balance	-6.0	-0.2	-0.9	-2.1	-1.3	-0.9	0.4	1.2	-1.3	0.1	-0.9	-0.5
Borrowing Requirement	-14.4	-	-5.5	-4.4	-3.3	-2.9	-6.5	0.9	-2.4	-1.8	-3.1	-1.5
1973-74												
Balance	-4.4	-1.0	-0.6	-0.4	-1.1	-0.6	-0.3	2.9	1.9	0.1	-0.3	-0.3
Borrowing Requirement	-7.7	-1.1	-3.3	-3.6	-2.9	-2.7	-5.9	2.2	0.4	-2.8	-2.5	-1.0
1974-75												
Balance	-5.5	-1.7	-1.7	-3.0	-2.4	-0.9	-0.9	3.2	5.3	-1.0	-0.6	-0.1
Borrowing Requirement	-6.7	-3.9	-5.2	-10.0	-5.5	-3.5	-5.4	1.1	3.1	-5.0	-3.6	-1.2
1975-76												
Balance	-6.4	-3.5	-2.5	-2.4	-3.9	-2.2	-2.1	2.0	2.6	-2.4	-2.0	-2.4
Borrowing Requirement	-11.0	-4.2	-6.8	-8.1	-9.6	-5.9	-9.1	-2.4	0.4	-5.8	-6.2	-3.2
1976-77												
Balance	-3.8	-1.5	-2.3	-4.8	-3.7	-1.6	-0.7	0.8	3.4	0.4	-1.3	-2.6
Borrowing Requirement	-11.3	-2.7	-6.0	-12.4	-8.2	-3.6	-8.0	-7.0	0.6	-4.7	-5.0	-2.5
1977-78												
Balance	-3.9	-3.4	-3.0	-6.5	-2.9	-1.7	-2.3	0.8	7.5	0.5	-0.7	-4.8
Borrowing Requirement	-9.0	-4.5	-6.4	-11.5	-6.4	-3.5	-6.0	-4.1	3.3	-4.3	-3.9	-4.3

Source: Jointly estimated by the provinces and the federal government. Figures may differ from published data due to universe changes such as exclusion of the revenues and expenditures of the Canada and Quebec Pension Plans. Gross Domestic Product: The Conference Board in Canada, Provincial Forecast, January 19, 1978.

Because of the dominance of provincially-owned utilities in this industry, there will have to be an increase in the proportion of energy investment coming from the public sector. This has imposed and will continue to impose additional financing burdens on the public sector. Provincial governments may be reluctant to accept rapid increases in total provincial debt even though such increases reflect the need to make large energy investments. As a result, there may be a tendency to restrict other borrowing requirements in order to accommodate such non-budgetary borrowing.

4. THE MEDIUM-TERM PROSPECTS

4.1 Medium-Term Recovery Path

It is evident from the previous section that the economy is operating well below what can be considered normal levels of output and employment. The question which arises, therefore, is how the economy can return to a more satisfactory level of performance. The historical experience would seem to suggest that Canada's current problems are not unprecedented. In the early 1960s the economy faced much the same conditions - a strong cyclical downturn, fear about the economy's international competitive position, worry that the resource boom had come to an end, a certain degree of political uncertainty and so on. Through the combined effects of fiscal stimulus, a significant depreciation, some important structural adjustments and world growth, the economy expanded quite rapidly and the unemployment rate fell.

The conditions have, of course, altered since the early 1960s. The Canadian economy has just experienced a significantly worse bout of inflation and the problem of inflationary expectations poses a real challenge. This problem is aggravated by the need for the economy to absorb even further price adjustments in the energy field. The balance of payments position is somewhat worse than in 1961, and the economy is in a somewhat worse competitive position. Moreover, the world economy is more uncertain with Canada's major trading partners somewhat more reluctant to expand their economies than they were in the 1960s.

The precise speed of the recovery, and its exact nature are, of course, impossible to specify in detail. The path to be described is one which is consistent with outside forces, and meets the constraints imposed on it by the conflicting goals of the country and the diverse pressures within the economy. In many ways the projected recovery is quite conservative. If it is possible to do better, this would clearly be desirable. Nevertheless, the recovery path must be one which simultaneously achieves the goals of reducing unemployment and the rate of inflation. Too fast a recovery would endanger the target of reduced inflation and undo the gains in employment.

In developing a feasible path which would restore the economy to a more satisfactory level of performance, it is necessary to project a rate of growth which reduces Canada's output gap and which does not at the same time reignite inflationary forces. The benchmark GNE is growing about 4.4 per cent a year during this period. A real rate

of growth higher than that is necessary to reduce the GNE gap. In the scenario presented here, an annual average growth of GNE of 5.5 per cent is projected over the next few years. This would reduce the gap by about one per cent per year. Rates of growth significantly higher than this would appear difficult to achieve and would appear to involve a risk of accelerating inflation.

Table 17 summarizes the recovery path by showing the rates of growth for GNE, labour force, employment and productivity. Productivity grows 2.6 per cent a year, faster than the long-term average, as is typical in recoveries, but somewhat slower than in past upturns. The continued rise in participation rates combines with a growing population to produce a labour force growth rate of 2.2 per cent a year. Employment grows 2.8 per cent a year. The unemployment rate would probably decline slowly at first, and then more rapidly. By the end of 1981, the unemployment rate would be dropping towards a 5.5 per cent level. If growth continued at 5.5 per cent, the unemployment rate would be close to 5 per cent by 1982. In the later stages of the recovery, rates of growth well above the benchmark rate clearly begin to pose some risks of reigniting inflationary pressures. The extent to which it is possible to sustain unemployment rates below currently projected cyclically-adjusted levels will depend upon the success achieved in implementing structural policies to improve the functioning of the labour market.

Table 17

Medium-Term Recovery Path, Annual Rates of Growth, 1978-1981

	Recovery Path 1978-81	Historical 1962-64	1962-66	1971-73
GNE	5.5	6.2	6.5	6.8
Labour Force	2.2	2.1	2.6	3.5
Employment	2.8	3.0	3.4	3.6
Productivity (GNE per employee)	2.6	3.2	3.0	3.1

Source: Historical Data, Statistics Canada, National Income and Expenditure Accounts, Cat. 13-201, and The Labour Force, Cat. 71-001.

Table 17 also presents data on the corresponding rates of growth for other periods of economic recovery. A comparison of the 1978-81 target path and the 1962-64 recovery indicates that the rates of growth required to achieve the projected recovery path are not overly ambitious. The current projections would return the economy to average levels of utilization over a slightly longer period of

time and as a consequence at more moderate rates than were achieved in the 1962-64 period. To attempt to narrow the gap over a shorter period of time, for example by 1980, would require rates of growth for GNE roughly equal to that experienced in the 1962-64 recovery but rates of growth for employment and productivity slightly higher. This may be too much to hope for in the present circumstances. On the other hand, a recovery path which embodied lower rates of growth would constitute an extremely unambitious target path even given the constraints to be discussed below.

The path set out in Table 17 is given in terms of average growth rates over a four-year period. It is not possible to predict precisely the shape of the expansion. While it would be desirable to have strong growth in the initial years, with some tapering off as the economy approaches higher levels of capacity utilization, it may well be that the economy may not reach its projected rate of growth in the first year. Naturally, failure to do so implies a somewhat stronger performance in the last three years of the recovery, or a somewhat lower average growth rate than projected here.

The issues involved in achieving the 5.5 per cent growth path can best be understood by examining the contribution to aggregate demand of the various components of GNE in the medium-term growth projection. Before doing so, however, it is necessary to establish reasonable price and wage targets to be achieved over the medium-term. It is, of course, the case that the price and wage performance required for the medium-term growth scenario is not established independently of other targets, for example, the size of the government deficit or the balance of payments deficit. Rather the price and wage targets should be regarded as those which are consistent with achieving other objectives simultaneously.

4.2 Prices and Wages

The wage-price situation is critically important to the recovery. A continued deceleration in the rate of inflation is a continuing objective of government policy and a requirement for the achievement of the real growth targets.

The price-wage scenario was developed in part on the basis of the analysis presented in sections 3.3 and 3.4. This analysis indicates that a continued deceleration in nominal wages is critical both to a reduced rate of inflation, and to a continuing strong performance in the current account. Real wages would, in the projection period, continue to increase despite lower increases in nominal wages, but it is not possible to sustain real wage increases in excess of real productivity gains. Indeed, in the initial stages of the recovery, real wages will likely have to grow less quickly than productivity because further adjustments to higher energy prices and the recent depreciation must still be made. In other words, if prices are to decline, despite higher energy and import prices, unit labour costs will have to grow less quickly than prices.

Table 18 presents the price and wage projections for the period 1978-1981, and an estimate based on the latest short-term forecast for 1977. It is difficult to specify price and wage figures with precision. These numbers indicate a qualitative picture of what is essential to achieve over the medium-term. The qualitative picture is one of decelerating rates of price and cost increases. As was pointed out in section 3.4 the actual rate of inflation incurred in any year will depend upon a number of short-term factors such as the behaviour of food prices, the timing of property tax changes and so on. The underlying trend in inflation should behave in approximately the manner set out in Table 18. Price increases are projected to decline from the estimated rate of increase of 8 per cent in 1977 to about 6 per cent in 1978 and to about 3.5 per cent in 1981. Increases in average wages, defined as wages and salaries and supplementary income per employee, fall from 8 per cent estimated for 1977 to 7.5 per cent for 1978 and to about 6 per cent in 1981. Real wages are not expected to increase at all in 1977, but rise in the projections, 1.5 per cent in 1978, 2 per cent in 1979, 2.2 per cent in 1980 and 2.5 per cent in 1981. Because productivity grows strongly in the recovery period, rates of increase for unit labour costs fall steadily to 3.4 per cent in 1981.

The Anti-Inflation Program's wage guideline is presented for 1977 and 1978, and notional numbers are projected to 1981. These represent a tentative outline of a standard increase in new wage settlements which would be consistent with the average wage profile in the recovery path. Such a standard or guideline declines steadily from 6 per cent applicable to 1978 to 4.5 per cent in 1981. It is apparent that this figure is consistently below the average wage number. It has not been possible to state with certainty the exact statistical relationship between these two figures. There are many factors combining to cause wage rates to deviate from average annual wages - changes in the composition of the labour force, the effects of overtime, changing mixes in compensation packages between wages and benefits, the decline in the hours worked, and wage drift. Many of these factors are offsetting, but the exact balance of their effect cannot be known with precision. Because there will undoubtedly be many more cases in the post-A.I.B. period of wage increases which go beyond the standard increase in new wage settlements, a realistic scenario would set average wage increases somewhat higher than this.

Table 18

Price, Wage, and Unit Labour Cost Scenario, 1977-1981

	1977	1978	1979	1980	1981
	(% change from previous year)				
Prices	8.0	6.0	5.0	4.3	3.5
Guideline	8/6(1)	6.0	5.5	5.0	4.5
Average Wages(2)	8.0	7.5	7.0	6.5	6.0
Real Wages	0.0	1.5	2.0	2.2	2.5
Unit Labour Costs	7.7	4.9	4.4	3.9	3.4

(1) 8% guideline for first nine months, 6% thereafter.
(2) Wages and Salaries and Supplementary Income per Employed Person.

Is such a price-wage profile possible? There are many who would see in Canada's recent experience evidence that high rates of price and wage inflation are an inevitable part of Canadian society. Such a view must be rejected although it is also necessary to recognize that this profile will not be easy to attain in the context of a sustained recovery. The six per cent wage guideline, to be in effect until mandatory controls begin to lift on April 14, will contribute to a reduction in inflationary forces. The major question mark concerns the period after controls are removed, and the reactions which occur over a period of sustained expansion.

Continued progress after controls will require a greater consensus than now exists in the community on acceptable wage and price behaviour. Setting out an achievable set of price and wage targets in the context of a medium-term economic strategy, and explaining the consequences of a failure to achieve these, can help to build such a consensus. Obviously governments in participating in the development of a medium-term strategy, and in agreeing to follow compensation policies consistent with the guidelines, are very important to this process. All actors in the economy will, however, have to be involved if the strategy is to succeed.

Achieving such involvement and developing such a consensus will be difficult. Moreover, past experiences would seem to indicate that it is particularly important to develop a widespread acceptance that the wage setting process itself, and the resulting increases, are fair.

The price projection outlined in this section is consistent with the assumptions on external conditions, the wage profile and the balance of payments forecast. Nevertheless, there are risks in these areas which could make the price and wage profile difficult to achieve. Energy, food, commodity, import and government prices and taxes are all factors feeding through to higher prices and these could behave differently than has been assumed. Further, the exchange rate is of critical importance in determining the behaviour of prices. The exchange rate, in turn, is a function of Canada's export and import performance and of movements in the capital account. A high degree of political uncertainty could lead to downward pressure on the dollar despite a good trade performance. Any one of these factors could lead to a worse price performance than has been projected despite a continued deceleration in wage increases. Such a poorer price performance would mean that real incomes in Canada would grow less than has been targeted. Because this poorer price performance reflects the reality of the operation of the economy, however, its effects cannot be nullified by increasing nominal wages. The result of such a move would only be higher inflation.

Implicit in the price-wage scenario is a functional distribution of income. This is presented in Table 19, along with data on the distribution in previous periods and in 1977. The share of GNP going to wages and salaries falls slightly from its 1977 level, but remains well above levels in previous periods. There has been an upward shift in this share partly reflecting movement of workers from the unincorporated business sector to paid employment. In the future this shift should slow considerably, thus reducing the upward trend in this share.

Profits rise from their 1977 level, but are only marginally higher than in previous periods. Corporate profits, excluding Inventory Valuation Adjustment, are slightly less than in 1962-64, and 1962-66, but higher than in 1971-73. Accrued net farm income stays at about its 1977 level, but is well below previous levels because of a continuing strong downward trend.

The medium-term recovery thus provides for reasonable profits and an adequate rate of return on capital. This is a critical element in the recovery. Because investment will have an important role to play both in sustaining the recovery and ensuring that bottlenecks do not develop, a good performance for profits seems essential. Such a view should not, however, be confused with a position on the question of income distribution where it is possible that some narrowing of disparities may be desirable. It is important that this distinction be clearly kept in mind and that there be improvement in the general understanding of the difference between profits and income.

Table 19

Functional Distribution of Income

	1962-64	1962-66	1971-73	1977(e)	1978-81
			(% share)		
Wages and Salaries	54.0	50.9	54.4	57.2	56.2
Military Pay	1.4	1.3	0.9	0.8	0.7
Corporate Profits	10.9	11.0	10.8	10.7	11.0
Dividends to Non-Residents	-1.5	-1.5	-1.0	-0.9	-1.0
Investment Income	3.4	3.4	4.3	5.7	5.5
Accrued Net Farm Income	3.0	3.0	1.9	1.1	1.2
Uninc. Business Income	7.7	7.3	5.8	4.5	4.6
Inv. Val. Adjust.	-0.3	-0.4	-1.3	-1.5	-0.7
Net National Income(a)	75.3	75.0	75.8	77.7	77.6
Indirect Taxes	12.6	12.8	12.9	11.1	10.8
C.C.A. & M.V.A.	12.2	12.1	10.9	10.9	11.2
Residual Error	-0.1	0.1	0.3	0.3	0.4
Total(a)	100.0	100.0	100.0	100.0	100.0

(e) - Estimate

Note: (a) Percentages may not add to totals because of rounding.

Source: Historical Data, Statistics Canada, National Income and Expenditure Accounts, Cat. 13-201, and National Income and Expenditure Accounts, Volume I, Cat. 13-531.

4.3 Components of Gross National Expenditure

In examining the feasibility of the medium-term recovery path outlined above, and the policy initiatives needed to achieve it, it is useful to discuss in a general way the forces operating on each of the components of demand in GNE. First, however, it may be useful to summarize the general nature of the recovery that is likely to take place if all the required policy initiatives are successful. The average growth rate experienced by each component of demand is set out in Table 20. The expansion is dominated by strength in business investment. Real exports grow more quickly than imports. Government expenditures on goods and services rise rather slowly. Consumption expenditures rise only slightly less than the GNE.

Table 20

Growth Rates in Constant Dollars (1971)
of Components of GNE, 1978-1981

	1978-81
Consumption	5.4
Government Expenditure on Goods and Services	3.6
Government Capital Formation	4.7
Residential Construction	1.0
Non-Residential Business Investment	7.4
Total Domestic Demand	5.3
Exports	6.4
Imports	5.5
GNE	5.5

This view of the desirable shape of the expansion is an extension of the views expressed by the Government in its last budget. Different versions could be constructed. For example, there could be a greater reliance on government and consumer expenditure and less on business investment and net exports. Such an expansion, however, would require more government spending and would leave the Canadian economy in 1981 less able to grow further in the 1980s, more heavily in debt, more exposed to external shocks, and more prone to inflation. Consequently, in order to achieve maximum potential for longer-term growth, the medium-term recovery should be dominated by investment, and exports must grow more quickly than imports. The following sections discuss some of the forces underlying the individual components of aggregate demand in the medium-term growth picture.

4.4 Consumption

Consumer expenditures are not expected to dominate the recovery, although they may have an important role to play in initiating it. In the projections, consumption grows at slightly less than the GNE in real terms. Real consumer demand is a function of personal income, prices, taxes and savings rates. In the projections a deceleration in the rate of nominal wage increases, matched by decreases in the rate of price increases, has been assumed. Real personal incomes continue to grow but at rates slightly less than has been projected for the growth in consumption. This implies that consumer demand will not grow at the projected rates unless adjustments to savings rates or taxes compensate somewhat for this shortfall.

Over the last few years the savings rate averaged about 10.5 per cent. It is extremely difficult to project with precision likely movements in the savings rate. With improved economic performance and less uncertainty the savings rate could come down to about eight per cent by 1981 (see section on savings). This decline aids the recovery by strengthening consumer demand. It is important to emphasize, however, that such a decline may be dependent upon achieving both the price scenario and lower unemployment rates. Continued high rates of inflation and unemployment would likely lead to a slower decline in savings rates. The view that the savings rate will decline is also based upon an assumption that the political uncertainty surrounding the position of Quebec will not increase. If the political crisis becomes more severe, the savings rate will likely remain high.

The other determinant of consumer demand, taxes, is a policy variable which can be adjusted to aid the recovery. If the other components of demand behave in the way projected then there is not likely to be a need for any large permanent tax reduction to spur consumer expenditure, given the assumption about the behaviour of the savings rate. If the savings rate remains high or demand from the other sectors is less than envisaged, then there will be a need to adjust taxes to ensure a continued healthy growth in consumption. While it is expected that the initial impetus to the recovery will come from the consumer sector, it would be undesirable, given the balance of payments position and the need for investment, to see consumption replace these sectors as the dominant force in the medium-term recovery.

4.5 Government Sector

Based on the view that the medium-term recovery should be led by investment and growth in net exports it has been assumed that, in current-dollar terms, total government expenditure will grow at a rate slightly lower than the rate of growth of GNE over the next four years. Expenditure on goods and services and capital formation is projected to grow less rapidly than GNE, and transfers are projected to increase at about the GNE growth rate. Because productivity growth is assumed to be zero in the government sector, the price deflator for this sector grows more rapidly than does the overall GNE deflator.

There appears to be a strong political commitment at all levels of government to expenditure restraint. Some of the underlying forces at work are making this more feasible. In the past, demographic changes plus important gaps in Canada's social welfare system put a strong upward pressure on government expenditure. In future, demographic forces may require much less rapid growth in government spending in such areas as education.

The expenditure projections may be combined with a projection of government revenues from the existing tax structure (allowing for some increase in rates for items such as property taxes, which would otherwise tend to be fixed in current dollar terms), to obtain budget balances by level of government (Table 21). The projections are quite tentative.

Table 21

"No Policy Change" Projection of Government Sector Balances as a Percentage of GNE

	1976	1977	1981
Federal Sector	-1.5	-3.5	-2.4
PLH	-1.4	-0.1	-0.2
CPP/QPP	+1.1	+1.1	+1.0
Consolidated Gov't. Sector	-1.8	-2.5	-1.6

Source: Historical Data, Statistics Canada, National Income and Expenditure Accounts, Cat. 13-201; 1977 and 1981 estimated.

On an average basis over the next few years, the growth of revenues and the moderate narrowing of the deficit which are projected to occur under existing policies appear to correspond approximately to the fiscal stance which it is estimated would be required in order to achieve the growth of demand embodied in the recovery projection. In other words, given the assumptions as to growth of exports and investment and as to the evolution of the savings rate, a consolidated government sector deficit of 1.6 per cent of GNE would appear to be consistent with the projected growth of consumption. The implications of a higher profile of savings rates are explored in section 5.6.

4.6 Investment

4.6.1 Residential Investment

Demand for residential investment has been forecast by a model built by Central Mortgage and Housing Corporation. The model produces a forecast of a significant slowing down of the rate of growth of residential investment as a result of the slower growth rate of family formations. Over the period 1978-81, residential investment grows on average 1.0 per cent in real terms. Despite this slow growth, the government's target of one million units by 1979 is met.

4.6.2 Non-Residential Investment

The outlook for non-residential investment over the medium term was developed by first determining what level of capital stock would sustain the target output level in 1981. To accomplish this it was necessary to project for 1981 the share of gross domestic product that each sector would likely have and the gross capital-output ratio of each sector (see Section 6 for details of the sectoral assumptions).

There are important trends in output shares and in some sectors strong elements of cyclical variation. Both of these have been taken into account in making the projections. These projections of output shares are important to determining investment requirements.

In projecting capital-output ratios it was necessary to allow for long-term trends evident in certain sectors and also for cyclical variation resulting from the fact that in the medium-term growth projection the economy may be operating slightly below its "average" GNE level in that year. Historical capital-output ratios and the projections to 1981 are given in Table 22. At the same time, concern has been expressed that as a result of the energy crisis and the resulting significant increases in the price of energy there may be a need to replace equipment which is too energy intensive. This possibility was allowed for by increasing the rate of depreciation on machinery and equipment in the mining and manufacturing sectors over the 1974-81 period.

Using the projected capital-output ratios and the projected output levels, the capital stock needed in each sector and for the economy as a whole in 1981 was estimated. Finally, using known scrappage rates and the current capital stock, it was then possible to estimate needed investment if the capital stock is to be reached. This procedure was used for only 10 of the 12 sectors. For pipelines, electric power and gas distribution investment, projections by the Department of Energy, Mines and Resources, adjusted to include the AlCan pipeline, were used.

The above calculations indicate that over the long run the capital-output ratios for both the total private sector and the private non-energy sector are declining moderately. For the private sector as a whole the capital-output ratio falls from 3.13 in 1963 (a comparable year in terms of GDP gap) to 3.04 in 1981. For the private non-energy sector the capital-output ratio declines from 2.71 to 2.52 (Table 23). The decline in the capital-output ratio is partly the result of the changing distribution of output towards sectors with lower ratios. Although there is a definite downward trend, the projected ratio is, nevertheless, above the average ratio experienced since 1967. This is the result of increased energy investment forecast over the medium term.

Table 22

Capital-Output Ratios by Sector, 5 Year Averages, 1947-1976

	Agr. For. & Fishing	Mines, Quar. & Oil Wells	Con.	Manufacturing Dur.	Manufacturing Non-Dur.	Sto. Comm.	Trade	Transp.	Pipe line	Elec. Pow. & Gas Dist.	Pers. Serv.	Fin/Ins. Real Est.	Total Priv.	Gov't.	Total
1947-51	4.49	3.78	.49	2.35	2.77	4.46	1.20	9.99	-	17.90	.89	.83	2.91	5.09	3.27
1952-56	4.98	3.80	.51	2.23	2.82	4.09	1.33	8.17	-	17.81	.93	.90	2.94	4.74	3.25
1957-61	5.92	4.30	.60	2.61	2.93	4.30	1.44	8.84	-	16.40	1.02	1.23	3.21	5.08	3.56
1962-66	5.30	4.96	.55	2.19	2.78	4.64	1.38	7.35	15.43	15.33	1.09	1.47	3.04	5.27	3.46
1967-71	5.70	5.77	.49	2.08	2.87	4.85	1.27	5.49	13.05	14.26	1.15	1.50	2.94	5.24	3.37
1972-76	6.62	6.52	.52	2.08	2.91	4.79	1.14	4.73	11.04	13.45	1.32	1.73	2.97	5.53	3.42
1981[(a)]	7.45	7.50	.52	2.00	2.91	5.06	1.10	4.03	(b)	(b)	1.40	1.87	3.04		

(a) Projected
(b) Investment forecasts for these sectors were not based on projections of capital-output ratios.

Source: Historical data, Constructed using: a) indices of real domestic product (1971=100), Statistics Canada, Cat. 61-213, 61-506, and 61510; and, b) capital stock data from CANSIM matrix 3487-3538.

Table 23

Capital-Output Ratios

	Total Private Sector	Private Sector Less Energy
1954	3.10	2.76
1963	3.13	2.71
1981	3.04	2.52

Source: See Table 22.

To achieve these desired levels of capital stock, investment will have to grow at about 7.4 per cent annually. (These growth rates will depend upon the level of investment in 1977. Because this cannot be known with precision the rates should be regarded as qualitative indications, rather than precise numbers.) Much of this growth will be accounted for by investment in the energy sector. Investment in pipelines, electric power and gas distribution is expected to grow on average 14.4 per cent annually and will account for almost one quarter of private non-residential business investment in 1981 compared to 17 per cent in 1976 and about 15 per cent in the early 1960s. Private non-residential investment, less energy investment, would grow at 5.5 per cent, the same rate of growth as GNE.

Can such a growth in investment be achieved? By historical standards the rate needed is not unusually high. Table 24 presents an historical comparison of non-inventory investment as a share of real GNE. Private non-residential investment will have to attain a somewhat higher share of GNE than previously. This rise is the result of increased energy investment. Total investment will remain rather stable as a share of real GNE because of the slow growth in residential investment and government capital formation.

Table 24

Non-Inventory Investment As a Share of Real GNE (%)

	Total Investment	Private Non-Residential Investment	Private Non-Residential Less Energy
1962-66	22.4	13.4	10.8
1971-73	20.0	13.1	10.9
1978-81	22.2	14.4	11.3

Source: Historical Data, Statistics Canada, National Income and Expenditure Accounts, Cat. 13-201, and National Income and Expenditure Accounts, Volume I, Cat. 13-531.

Will investors be willing to undertake the needed investment? Here one must separate short-term problems from longer and medium-term considerations. If the economy does recover along the projected track there is little reason to believe the investment will not be forthcoming. There may be sectors with particular structural problems where this will not be true. In general, however, the present incentive structure combined with a good cost performance and a return to more buoyant demand conditions should ensure the profitability of carrying out the needed investment. Further, the assumed wage and price performance should ensure healthy profits throughout the period. One major question mark overhangs this view. The political uncertainties surrounding the situation in Quebec may become so great as to seriously impede investment not only in that province but in the country as a whole. It has been assumed that this does not occur, but this factor reinforces the need to get as much investment going now as is possible.

4.7 Foreign Sector

In Section 3.6, a number of factors which have contributed to Canada's widening current account deficit over the last two to three years were discussed. The deterioration has resulted partly from the Canadian economy operating closer to capacity than did the economies of its trading partners. As well the declining competitive position has been a significant factor. Important structural problems also exist in some sectors - a potential deficit in oil and gas exports, larger deficits in the auto sector that may not simply reflect income and price movements, and rising deficits in manufactured goods and travel payments which may be the result of more than just cyclical and price factors.

The foreign sector should be a net contributor to Canadian growth. For this to occur, it will be necessary that programs and policies be adopted to deal with structural problems which could otherwise prevent the realization of beneficial growth effects from the foreign sector. The need for such policies becomes greater given the wage profile that has been specified for medium-term growth. Such a profile is necessary to bring Canada's competitive position back in line with that of its trading partners. An exclusive reliance on exchange rate adjustments could jeopardize the price targets.

The sections below outline the assumptions that have been made about the world economy and summarize the main characteristics of the foreign sector over the medium-term.

4.7.1 Assumptions

The assumptions about the international economy are based on external forecasts which are not overly optimistic but do conform to the general view that the industrialized world is likely to enjoy a moderate but steady recovery over the next four to five years. For the U.S. a real GNE growth rate of 4.3 per cent a year for the period 1978-81 has been assumed. This corresponds to an increase in industrial production of 5.6 per cent a year. This growth rate is between the Wharton School's optimistic forecast of 4.2 per cent annually and below the autumn Data Resources Inc. trend forecast of 4.4 per cent. It is still substantially below the U.S. administration's target of 5.1 per cent. For the rest of the world we have assumed a growth rate of 4.3 per cent a year with Western Europe at 4.0 per cent and Japan at 6.0 per cent. This is considerably below the OECD targets, and below the rates reported by the OECD countries to the working party producing current medium-term forecasts.

In the case of prices, an increase in the U.S. wholesale price index of 5.4 per cent a year has been assumed for the medium-term period. This is somewhat less than the current DRI projection because that projection includes a forecast of fuel prices rising 13.1 per cent a year. It has been assumed that oil prices will increase 5.5 per cent a year throughout the period, a rate which would not result in any significant increase in the real price of oil. Further, a moderate recovery in commodity prices has been assumed. Lumber prices rise almost five per cent a year, pulp and paper prices almost six per cent and metal and minerals about seven per cent. Wheat prices recover from the lows reached in 1977, rising more than 15 per cent on an annual basis over the period.

In constructing the recovery scenario an exchange rate of 93 U.S. cents equal to $1.00 Canadian was chosen. This is consistent with the wage profile which assumes some improvement in Canada's competitive position. The higher exchange rate represents a firming from present levels, and contributes to the achievement of the price profile.

4.7.2 Current Account Balance

The moderate recovery currently under way in the world has led to an improvement in Canada's trade balance sufficient to offset the deterioration in the service account. As a result there should be some improvement in the current account deficit for 1977 in real terms although it will remain high by historical standards. The medium-term growth projection is based on a continued improvement in the foreign sector. In real terms exports are projected to grow at 6.4 per cent annually, faster than the growth of real GNE and faster than the growth of output of Canada's trading partners. Imports are projected to grow at 5.5 per cent a year. Canada's real current account deficit in this projection remains constant in absolute terms, and falls as a share of real GNE from 4.1 per cent in 1972 to 3.2 per cent in 1981. There is a small increase in the current dollar current account deficit in absolute terms, but a decline as a share of GNE from 2.4 per cent in 1972 to 2.0 per cent in 1981. (See Chart 13)

Such an improvement in Canada's foreign sector performance implies a return to a strong surplus in merchandise trade. This will have to occur despite a likely deficit in the energy component, and a continuing large deficit in motor vehicles. The service sector deficit will likely continue to widen as a result of a larger deficit in interest and dividend payments.

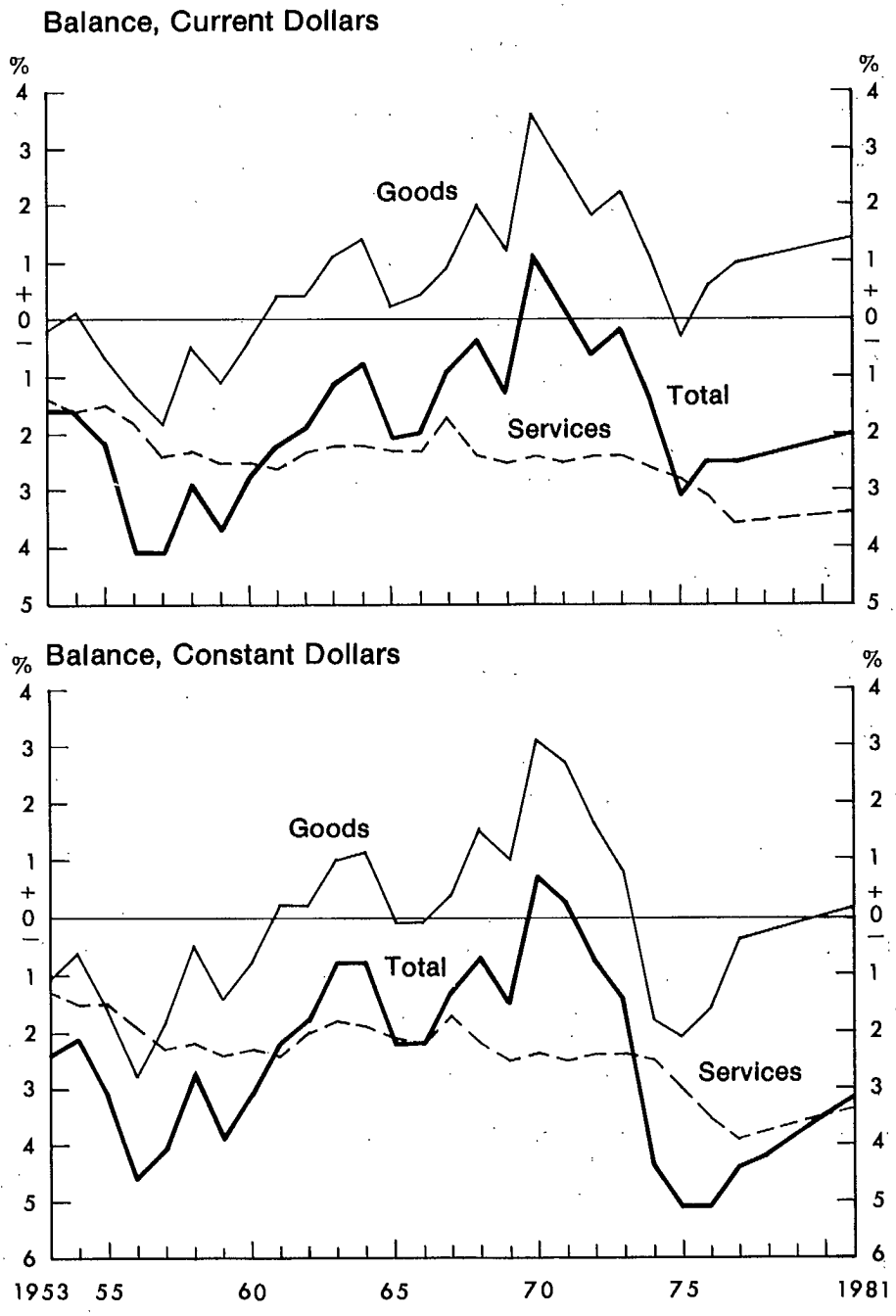
4.7.3 Issues, Problems and Uncertainties

It is clear that the improvements in the current account will not be easily achieved. There is some uncertainty about the prospects for the recovery of the world economy. A similar situation exists in the case of international commodity prices. More importantly, there is the uncertainty as to whether the recent depreciation of the dollar has been sufficient to restore Canada's competitive position and whether it has fully offset the decline in our competitiveness suffered over the last 15 years.

There is, at present, an unusual degree of uncertainty surrounding balance of payments projections. Among analysts, wide differences exist as to the appropriate price and income elasticities to use, especially in the medium term. It is not possible to say, at this stage, that the balance of payments will not represent a constraint to achieving the medium-term outlook. While it is clearly possible to get the needed current account performance by allowing a further

Chart 13

Current Account, Shares of GNE 1953-1981



Source: Statistics Canada, National Income and Expenditure Accounts, cat. 13-201.

depreciation of the dollar, such a policy would endanger the price projections. Because of the critical nature of the current account performance to both the price and growth targets, it seems advisable to build in some insurance in this area. There will be a need therefore, to search for structural policies which can simultaneously improve the efficiency of the economy and lead to a better current account performance.

4.8 The Projected Composition of Savings

Table 25 shows the composition of savings for the years 1962-66, 1971-73, 1976, for the forecast period 1978-81, and for 1981. It should be noted at the outset that estimates of the components of aggregate savings tend to be subject to wide margins of error. The data for the projection period in particular should be treated primarily as indicative, rather than as precise estimates.

Table 25

Sources of Savings (Per Cent)

	1962-66	1971-73	1976	1978-81	1981
Personal and Unincorporated Business	31.5	35.9	42.7	39	36
CCA's	28.2	27.7	24.5	27	27
Retained Earnings and other Sources	17.0	17.0	15.4	20	21
Corporate and Government Business	45.2	44.7	39.9	47	48
Government	16.9	18.4	7.0	6	8
External Sector	6.5	1.0	10.4	9	9
Total[a]	100.0	100.0	100.0	100	100

Note: (a) Percentages may not add to total because of rounding.

Source: Historical Data, Statistics Canada, National Income and Expenditure Acounts, Cat. 13-201, and, National Income and Expenditure Accounts, Volume I, Cat. 13-531.

It is expected that there will be some changes from historical patterns in the composition of savings. As was mentioned earlier the personal sector savings rate is expected to fall gradually from its 1974-76 average of 10.5 per cent to a level of about 8 per cent by 1981. The declining savings rate will reflect increasing consumer confidence, as the current uncertainties and pessimism dissipate and as rates of price inflation and unemployment decline. With the savings rate falling through the projection period, the personal sector share of total savings declines from the 42.7 per cent recorded in 1976 to about 39 per cent through 1978-81. This figure is above the 1971-73 personal sector share of total savings, and significantly higher than the 31.5 per cent share of the years 1962-66, when the average personal sector savings rate was only about five per cent.

The corporate and government business share of aggregate savings declined only very slightly between the 1962-66 and the 1971-73 expansions, with all of the decrease being accounted for by capital consumption allowances. The business sector share will recover to slightly above its historical level of 45 per cent from the depressed level of 1976. Within total business savings, the capital consumption allowance share can be expected to decline slightly from long term trends, with the retained earnings and other sources rising slightly.

Government saving includes the government sector's current balance (total government revenue less all current expenditure) and government capital consumption allowances. The projected share of savings being generated in the public sector is very low by historical standards. This reflects the need for substantial fiscal stimulus in the initial period of the recovery and the need to offset the continued high savings in the private sector if the recovery is to be sustained. The share of savings accounted for by governments should increase gradually over the recovery period.

The difference between investment and domestically-generated savings is of course equal to the current account deficit. Through the projection period, the current account deficit will be higher than it has been historically, implying that a higher proportion of aggregate savings will be generated externally. It is extremely difficult to provide detailed projections of the capital account in which one could place any confidence. From historical experience, and current knowledge of capital markets, the projected current account deficit would appear to be financeable.

4.9 The Role of Money in the Medium-Term

During 1975 the Bank of Canada began setting explicit money growth targets as operating guides for the implementation of monetary policy. Initially, the approximate limits of the target range within which the Bank was aiming to keep the trend rate of increase of the money stock (defined for this purpose as currency plus demand deposits) were set at "not less than 10 per cent a year, but not so

high as 15 per cent a year". At the same time the Bank indicated that this range would have to be lowered gradually over time for monetary policy to be consistent with the medium-term objective of ensuring a continuing gradual decline in Canada's inflation rate. Two successive reductions in the Bank's monetary growth targets have since been announced, the first in August of 1976 to a range of eight to 12 per cent a year, and the second in October of 1977 to a range of seven to 11 per cent a year. In setting these targets, the Bank's objective is to put explicit limits on the extent to which the trend of money supply growth will be allowed to deviate - without corrective action - from a medium-term path capable of accommodating a reasonably satisfactory rate of real economic growth together with a continuing gradual decline in the rate of inflation.

The attempt to avoid large, abrupt swings in the underlying thrust of monetary policy that is inherent in this approach is based on a recognition of the long and unstable lags that exist between changes in the money supply and their effects on output and prices, and on a recognition of the role of monetary policy in influencing expectations. The Bank of Canada's commitment to a gradual lowering of its monetary growth targets over time has contributed to a weakening of inflationary expectations and will continue to do so over the medium-term, while leaving adequate room for a reasonable rate of economic growth.

4.10 Relation to Short-Term Outlook

The projection has been set out as an average growth path for the economy over a four to five-year period. It is difficult to describe with any degree of precision the shape of an economic expansion over an extended period. The economy may grow somewhat quicker in one year, and slower the next. It is therefore more helpful to concentrate on a simple description of the average growth which can be expected for the economy, and for particular components of demand. Indeed, while average growth rates for each component of aggregate demand have been presented, these should be regarded as qualitative indications of the nature of the recovery, rather than precise estimates.

There are, however, important issues of shape and timing. It would be desirable for the economy to grow more rapidly in the early stages of the recovery while unemployment is high and less rapidly later on as fuller levels of employment and capacity utilization are being approached.

In reality, however, it will be a challenge to achieve even the average growth rate projected in the immediate future. The short-term forecasts now available call for a real rate of growth of between four and five per cent for 1978. Many see a rise in the unemployment rate. All see a deceleration in the rate of inflation, but few view a six per cent average for 1978 as likely. Thus, these forecasts would indicate that the economy in 1978 could perform less well than has been projected in the medium-term. They raise the

question whether such an initial shortfall jeopardizes the achievement of the recovery path. While the recent strength in such important indicators as retail sales, merchandise trade and housing starts increase the likelihood of five per cent real growth in 1978, the economy would still have to grow at about 5.7 per cent over the next three years to achieve the medium-term growth track if the economy grows five per cent in 1978. If the shortfall in 1978 were larger, then the subsequent growth rates would have to be even higher and questions would arise as to their practicality.

It is important to emphasize that the short-term forecasts now available assume no policy changes. They have all been developed prior to the medium-term strategy exercise, and therefore do not incorporate either the more general effect the strategy may have on confidence, or more specific measures which may be developed.

The main problem arises in the area of business fixed investment, which is currently forecast to grow by only one to two per cent in 1978 compared with the medium-term growth track of 7.4 per cent. In part this is due to slow growth in energy investment, with much of the work on Syncrude 1 now completed and the major new pipeline, the Alberta tar sands and heavy oil projects yet to get under way. But more broadly it is due to the present low rates of capacity utilization in the non-energy sector. The level of business investment has been rather well maintained in Canada in recent years. There is no shortage of capital; on the contrary there is a surplus of capital given existing production levels. Until aggregate demand has grown sufficiently to raise capacity utilization rates, non-energy investment is unlikely to be very strong. It would be desirable to speed up investment plans where possible, and to encourage new investment opportunities. The medium-term strategy, through improving confidence in the medium-term prospects for the economy and through structural policies, can make a useful contribution. Nevertheless, it is unlikely that investment will take the lead in the expansion in 1978.

Some offset will be felt in a slower growth of imports in 1978 than the 5.5 per cent projected for the medium-term, and exports have already been rising significantly. Nevertheless, it will be important for consumer spending to rise more rapidly in 1978 if a good start is to be made on the medium-term growth path and if the needed impetus to investment is to be provided. Indeed, consumer spending may have to rise by close to the 5.4 per cent rate envisaged in the medium-term projections. This is likely to require either a drop in the savings rate or a faster rise in personal disposable income than personal income or both.

5. ALTERNATIVE MEDIUM-TERM PATHS

5.1 Overview

Section 4 described in some detail the characteristics of a medium-term growth pattern which would return the economy to improved levels of output and employment. Underlying this projection is an explicit set of assumptions with respect to world growth and prices. The scenario also sets out the wage-price profile for the Canadian economy for the medium term which would permit the achievement of the real growth targets with an improved balance of payments. A government fiscal position which supports the necessary growth in consumption is also set out.

Although the projections in section 4 were not developed using an econometric model, such a model was used to reproduce results similar to those in the medium-term projections in order to verify those projections and to provide a basis for simulation experiments. A major question concerns the consequences if the assumptions prove to be incorrect. To shed some light on this question alternative assumptions were applied to the model and the results compared with those from the medium-term growth projection. The sections below summarize in general terms the direction of the impacts resulting from using different assumptions.

5.2 Higher Domestic Inflation

The medium-term growth picture is based on the requirement that there be a continued deceleration in average wages from eight per cent in 1977 to six per cent in 1981 (see Table 18). As well, the rate of inflation is assumed to fall from eight per cent in 1977 to 3.5 per cent in 1981. This decline in wage and price inflation plays an important role in the growth projection by increasing competitiveness and thereby strengthening the ability of the economy to compete both internationally and domestically. At the same time, the deceleration in the rate of inflation contributes to a decline in the savings rate thereby providing support for growth in real consumption.

It will not be easy to attain this wage-price performance in the medium term. There are risks and uncertainties which must be acknowledged. For example, there may still be some inflationary psychology remaining in the economy which could be easily rekindled after the

Anti-Inflation Program guidelines are removed. Alternatively, unexpected increases in food or other commodity prices may set off a wage response as workers attempt to maintain real wages. There will undoubtedly have to be some behavioural response changes from those which have existed in the last few years, and which lie behind most current wage determination equations. One of the purposes of the medium-term strategy is to develop policies which will alter these behavioural responses. It is important, in this context, to illustrate the effects of a failure to achieve the wage targets.

To determine the effects of a failure to achieve the wage profile the assumption of continued wage deceleration over the period to 1981 was replaced with an assumption of wage acceleration. The average wage profile used was 8.5 per cent - 1978, 9.0 per cent - 1979, 9.5 per cent - 1980, and 10.0 per cent - 1981. Under this wage profile average wages increase roughly 2.5 per cent a year faster than they do in the target wage profile.

The results indicate the importance of achieving the target wage profile if the economy is to achieve the desired output and employment targets in 1981. If the economy were to experience wage acceleration rather than wage deceleration over the medium-term, growth in real GNE would be significantly reduced and the economy would not reach benchmark levels of output until at least 1983 and perhaps later. At the same time, it is very likely that the unemployment rate would still be above seven per cent in 1981.

The reduction in real GNE growth would occur as a result of declines in investment and export growth and increases in import growth. Failure to make the competitive gains assumed in the medium-term growth projection could result in a considerably less viable current account balance. Over the period the current account balance in constant dollars would likely constitute a drag on real growth. Real consumption growth would also likely be reduced as a result of higher rates of inflation and a continuing high savings rate. These factors could partially be offset by higher residential investment growth, but the net effect would nevertheless be a significant decline in real GNE growth compared to that currently projected.

Associated with the higher rate of wage acceleration would be a higher rate of domestic inflation. Prices would increase more than in the projected price profile presented in section 4. This would occur both as a result of the higher rate of wage inflation and also possibly as a result of a devaluation in the Canadian dollar.

5.3 Higher World Inflation

In the medium-term growth projection the assumed domestic price-wage performance implies an improvement in Canada's competitive position vis-à-vis the rest of the world. It is unlikely that there could be any further improvement on the domestic side. There are uncertainties in either direction about the assumption for world inflation. World prices might increase faster or slower than have been projected. To consider this possibility it was assumed that world inflation would be one per cent higher each year than was assumed in the earlier figures. The effects of this higher world inflation, to be summarized below, would of course be in the opposite direction if world inflation improved rather than increased.

An assessment of the effect of higher world inflation on Canada depends critically on the assumptions with respect to the effect such higher rates of inflation would have on output growth of Canada's trading partners, the exchange rate, the products which experience higher prices and the reaction of exporters and importers. The assumptions made in doing the simulation tend to produce results favourable to the Canadian economy in terms of output, and unfavourable in terms of inflation. Alternative assumptions would result in a smaller output effect and a smaller inflation effect.

In the simulation it was assumed that the rate of price increase of both manufactured goods and commodities increased by one per cent each year more than assumed in the projections in section 4. Oil prices remained unchanged. Further, it was assumed that where possible (e.g. in the case of end products) exporters would attempt to gain larger market shares by not increasing their prices by the full one per cent. The exchange rate was held constant, and it was assumed that higher world inflation would not reduce world output growth.

As a result of a poorer price performance in the rest of the world relative to Canada, real GNE growth would increase by virtue of a substantial improvement in real export and investment growth. Further, the unemployment rate would likely fall to below five per cent by 1981 as a result of substantially higher employment growth. On the price side there would be some loss in terms of trade as the full one per cent annual increase in world prices would be felt on the price of imports but less than that on the price of exports. With no change in the exchange rate the terms of trade loss could dominate the real improvement in the current account balance and thereby result in some deterioration in the dollar value current account deficit. Finally, as a result of the higher rate of growth of import prices the rate of inflation as measured by the CPI would be higher than is projected.

In the above situation the exchange rate was assumed constant. It is likely that if the situation were to develop in this manner there would be, however, an appreciation of the Canadian dollar. This would tend to moderate the real gains on the net export side as well as reduce any terms of trade loss and the impact on the domestic rate of inflation. At the same time higher world inflation would likely reduce the real GNE growth of Canada's trading partners and through this reduce Canada's real GNE growth.

The results of this alternative scenario indicate the sensitivity of the medium-term targets to world inflation, and hence to policies pursued by other governments. It suggests that there are real gains to be made from improved competitiveness.

5.4 Higher World Real Growth

The medium-term projection in section 4 assumed real growth in the rest of the world of 4.3 per cent a year. This assumed growth is above that predicted by the Wharton School's high growth scenario but below that of DRI and the OECD. There are thus uncertainties in either direction, although the lower growth for the U.S. forecast by the Wharton School appears overly pessimistic. To assess the extent to which Canada might benefit from higher real world growth, the assumption was changed to allow real world growth of 4.8 per cent a year (i.e. U.S. at 4.5 per cent - other OECD at 5.0 per cent). Should there be less growth in the U.S. and other countries than is projected the effects of course would be in the opposite direction.

With slightly higher real growth in the rest of the world Canada could benefit on all fronts, although probably not to a large extent. Real GNE growth would increase marginally and there would be a further small decline in the unemployment rate. Further the effects on wage and price inflation would not likely be significant.

5.5 Higher Domestic Investment

In the medium-term growth projection non-residential private fixed investment is projected to grow at 7.4 per cent annually. Much of this growth is accounted for by investment in the pipelines and utilities sectors. Excluding energy, non-residential private investment will increase at roughly the same rate as real GNE - 5.5 per cent per annum. Forecasting investment expenditures is a difficult task as is evident by the wide range of forecasts currently being used by many private forecasters. To allow for the possibility that there may be more investment than projected, the rate of growth of non-energy fixed investment was increased by one per cent a year.

Higher investment growth would result in a marginal increase in GNE and employment growth and a further small decline in the unemployment rate. There is likely to be a deterioration in the merchandise trade balance because of the high import requirements for machinery and equipment. Import growth over the period would be higher than in the medium-term projections and there would be a rise in the current account deficit share of GNE. Depending upon the assumption on the financing of this extra investment, this could result in some depreciation in the exchange rate.

On the price side, the simulation suggests only a small increase in average wages and unit labour costs but little change in rates of price inflation.

5.6 Higher Savings Rate

The projected current balance of the government sector is sensitive to the projection of the personal sector savings rate. As an alternative to the medium-term growth track which incorporates a savings rate falling to 8.0 by 1981, a simulation was done in which the savings rate rises to 10.0 in 1978 and remains constant at that level through 1981. It is highly unlikely that the savings rate could rise above this level. For the growth rate of consumer expenditure and GNE to be maintained given this assumption about personal savings, the government sector would have to run significantly larger deficits.

These results indicate that should the savings rate assumption prove to be incorrect there would need to be significant compensation through fiscal policy in order to ensure achievement of the output and employment targets.

6. SECTORAL PERSPECTIVE - OUTPUT, INVESTMENT AND EMPLOYMENT

6.1 Sector Output Shares

Underlying the medium-term growth outlook for the Canadian economy is a projected distribution for gross domestic product, investment and capital stock in 1981. As well, an employment distribution can be derived consistent with these projections. These projections are tentative and are based primarily on macroeconomic analysis. Forecasting over a four- to five-year period will inevitably have forecast errors associated with it partly as a result of the statistical techniques available and partly because it is simply not possible to predict with accuracy the direction and impact of events that have just recently occurred or are likely to occur over the next four years. It is hoped that these projections can be improved as a result of the sector studies underway.

There are both cyclical and long-term factors at work determining the distribution of gross domestic product. At the aggregate level it was assumed in the medium-term growth projection that the share of total gross domestic product accounted for by the private sector would increase. This was based partly on an estimate of cyclical and trend behaviour in this share and also partly on the view that the government sector will attempt to restrain its growth over the medium-term. For individual sectors, equations were estimated using trend and cyclical variables to explain the behaviour of sector shares. In the projection period, however, it was necessary to make adjustments to the forecasts from these equations. For example, it was necessary to alter the downward trend in the share of GDP accounted for by non-durable manufacturing on the assumption of a significant improvement in competitiveness, resulting from the achievement of the wage-price profile, or supportive structural policies. This involved an arbitrary adjustment to the GDP share of non-durable manufacturing which inevitably affected the shares of other sectors. For the mining sector a moderate recovery in its share of GDP over the medium-term was assumed, although not as large as that experienced in other expansions. The assumption of some recovery in the mining share of GDP is consistent with the external assumption of a moderate recovery in world commodity prices over the medium-term.

There are other events and changes whose impacts on output shares are more difficult to predict. Examples include the higher cost of energy, the extension of the 200-mile fishing limit and the building of the AlCan pipeline. In some cases the direction of the effects

can be determined but it is simply not possible to predict with accuracy the magnitude of the impacts.

Table 26 summarizes the historical and projected output shares by sector. In broad terms the projected sectoral distribution of gross domestic product is consistent with the longer-term trends that have been operating in the Canadian economy. Agriculture, forestry and fishing continue to decline in relative importance, whereas the service sectors continue to increase their shares of gross domestic product. For total manufacturing, the share of gross domestic product stabilizes at a level comparable to that achieved during the 1960s, a result which is due partly to the assumption of an improvement in non-durable manufacturing. There are continued small increases in the shares of the energy and transport sectors, stabilization in the share of the construction industry and some offsetting declines in the shares of the mining and trade sectors.

In terms of medium-term growth prospects, the mining and non-durable manufacturing sectors are projected to have average annual rates of growth of between 7 and 8 per cent, construction and transport between 6 and 7 per cent and all other sectors less than 6 per cent.

6.2 Investment and Capital Stock

Both cyclical and trend factors interact to determine the behaviour of capital-output ratios. Technological innovations, changing relative factor prices, and capacity utilization are examples of such factors. Equations were estimated incorporating trend and cyclical variables to explain the movements of capital-output ratios but it was not always possible to incorporate directly in the equations the influences of a number of potentially important phenomena. An important example is the effect of higher energy costs on the capital-output ratios of individual sectors. On the basis of available research it is not possible to say at this time whether capital, labour and energy are substitutes or complements in the production process. A related issue is the extent to which higher energy costs may have resulted in some existing capital stock becoming obsolete. The investment projections in Section 4.6 assumed some increased obsolescence in machinery and equipment in the manufacturing and mining sectors over the medium-term as a result of higher energy costs.

Table 27 summarizes the historical sectoral distribution of non-residential private investment and the projected shares in 1981. The pipeline, electric power and gas distribution sectors will increase their shares significantly accounting for almost 25 per cent of investment expenditures in 1981

Table 26

Percentage Distribution of Real Gross Domestic Product[a]; Five-Year Averages, 1947-1976

	Agr. For. & Fishing	Mines, Quar. & Oil Wells	Const.	Manufacturing			Storage Comm.	Trade	Transp.	Pipeline	Elec. Pow. Gas Dist.	Per. Serv.	Fin/Ins. Real Est.	Total Private	Gov't.
				Total Mfg.	Dur. Mfg.	Non. Dur. Mfg.									
1947-51	8.3	2.3	6.5	23.5	10.7	12.7	2.7	12.3	6.2	-	1.3	12.7	6.8	82.8	17.2
1952-56	7.7	2.9	7.6	23.4	11.0	12.4	3.0	12.1	5.7	-	1.6	11.2	6.1	81.2	18.8
1957-61	6.1	3.8	8.3	23.1	10.2	12.9	3.3	12.5	5.6	-	2.1	10.7	5.6	81.3	18.7
1962-66	5.7	3.9	7.8	24.6	11.6	13.0	3.3	12.3	5.5	0.4	2.3	10.1	5.8	81.7	18.3
1967-71	4.5	3.9	7.4	24.6	12.2	12.4	3.3	12.2	5.7	0.5	2.6	10.3	6.7	81.7	18.3
1972-76	3.6	3.9	7.1	24.1	12.2	11.9	3.7	12.7	5.7	0.6	3.0	11.2	7.1	82.7	17.3
1981[b]	2.9	3.8	7.1	24.5	12.9	11.6	3.9	12.3	5.8	0.6	3.4	11.8	7.5	84.0	16.0

(a) Excludes residential output; sector definitions are on a 1970 SIC basis.
(b) Projected

Source: Historical data constructed from indexes of real domestic product (1971=100) published by Statistics Canada in Real Domestic Product by Industry, Cat. 61213, 61-506 and 61-510.

Table 27

Percentage Distribution of Non-Residential Private Investment Expenditures; Five-Year Averages, 1947-1976

	Agr.,For., Fishing	Mines, Quar. & Oil Wells	Const.	Manufacturing		Stor.& Comm.	Trade	Transp.	Pipeline	Elect. Power Gas Dist.	Personal Services	Fin.Ins. Real Est.
				Dur. Mfg.	Non-dur Mfg.							
1947-51	24.2	4.5	2.8	9.6	17.6	5.2	7.5	9.0	0.7	13.1	4.2	1.7
1952-56	16.1	9.0	3.5	11.8	15.3	5.3	7.4	10.0	2.4	13.4	3.6	2.2
1957-61	11.9	9.7	2.8	9.7	13.4	6.7	6.6	12.5	3.7	13.8	4.7	4.5
1962-66	13.1	10.9	2.5	11.6	14.6	6.7	5.3	8.6	1.9	13.2	6.2	5.3
1967-71	10.2	12.6	2.5	10.8	14.8	7.3	5.0	7.6	2.5	15.3	6.3	5.1
1972-76	11.3	11.2	2.5	9.5	12.8	7.8	4.6	6.6	1.8	14.9	9.8	7.1
1981[a]	5.7	8.0	1.5	11.8	13.2	7.8	5.5	9.2	5.0	18.4	6.6	5.5

(a) Projected

Source: Historical Data, Statistics Canada, Construction Division (CANSIM matrix 3487-3538).

compared to roughly only 16 per cent over the 1972-76 period. Manufacturing will retain a share about equal to that achieved in the 1960s. There are projected declines in the investment shares of agriculture, forestry and fishing, construction and mining. The shares accounted for by the trades and services sectors will increase from their long run averages but decline from the shares achieved in the 1972-76 period.

The distribution of investment can be misleading in terms of an indicator of production capacity. The historical distribution of the capital stock and the projected shares in 1981 are given in Table 28. They indicate very little deviation from past trends. The agriculture, forestry and fishing sector will continue to experience a fall in its share of the capital stock as has been the case since 1947. The same is true for transport. The share of the manufacturing sector will decline slightly from its 1972-76 average. Construction will retain roughly the same share as in the past; whereas, services and storage and communication will gain somewhat. The pipeline and utilities sectors will increase their share of the capital stock by almost 2.5 percentage points over the period, a larger increase than in previous periods, but in line with the upward trend evident over the entire postwar period.

6.3 Employment

Table 29 contains the historical employment distribution and the projected distribution for 1981. The employment data are obtained from the Labour Force Survey and it was not possible to obtain the same breakdown as in the case of output and investment. The major sectors are, nevertheless, included. Agriculture, forestry and fishing will continue to experience declines in their share of employment. Mining, manufacturing and transport, storage and communication will experience smaller declines in their employment shares relative to 1972-76. There will be some offsetting increases in the service sectors.

Table 28

Percentage Distribution of Private Sector Gross Fixed Capital Stock; Five-Year Averages, 1947-1976

	Agr.,For., Fishing	Mines, Quar. & Oil Wells	Const.	Manufacturing		Stor.& Comm.	Trade	Transp.	Pipeline	Elect. Power Gas Dist.	Personal Services	Fin.Ins. Real Est.
				Dur. Mfg.	Non-dur Mfg.							
1947-51	15.5	3.5	1.3	10.5	14.7	4.9	6.2	25.9	.7	9.7	4.7	2.4
1952-56	15.8	4.6	1.6	10.2	14.6	5.1	6.7	21.8	1.1	11.8	4.4	2.3
1957-61	13.8	6.3	1.9	10.2	14.5	5.5	6.9	18.9	2.0	13.2	4.2	2.6
1962-66	12.2	7.8	1.7	10.2	14.5	6.2	6.8	16.2	2.2	14.2	4.5	3.4
1967-71	10.6	9.4	1.5	10.6	14.8	6.7	6.5	13.0	2.4	15.3	4.9	4.2
1972-76	9.7	10.5	1.5	10.4	14.2	7.3	5.9	11.0	2.6	16.2	5.9	5.0
1981[a]	8.3	11.2	1.5	10.1	13.2	7.8	5.5	9.2	21.1[b]		6.6	5.5

(a) Projected
(b) Total for pipelines, electric power and gas distribution.

Source: Historical Data, Statistics Canada, Construction Division (CANSIM, matrix 3487 to 3538).

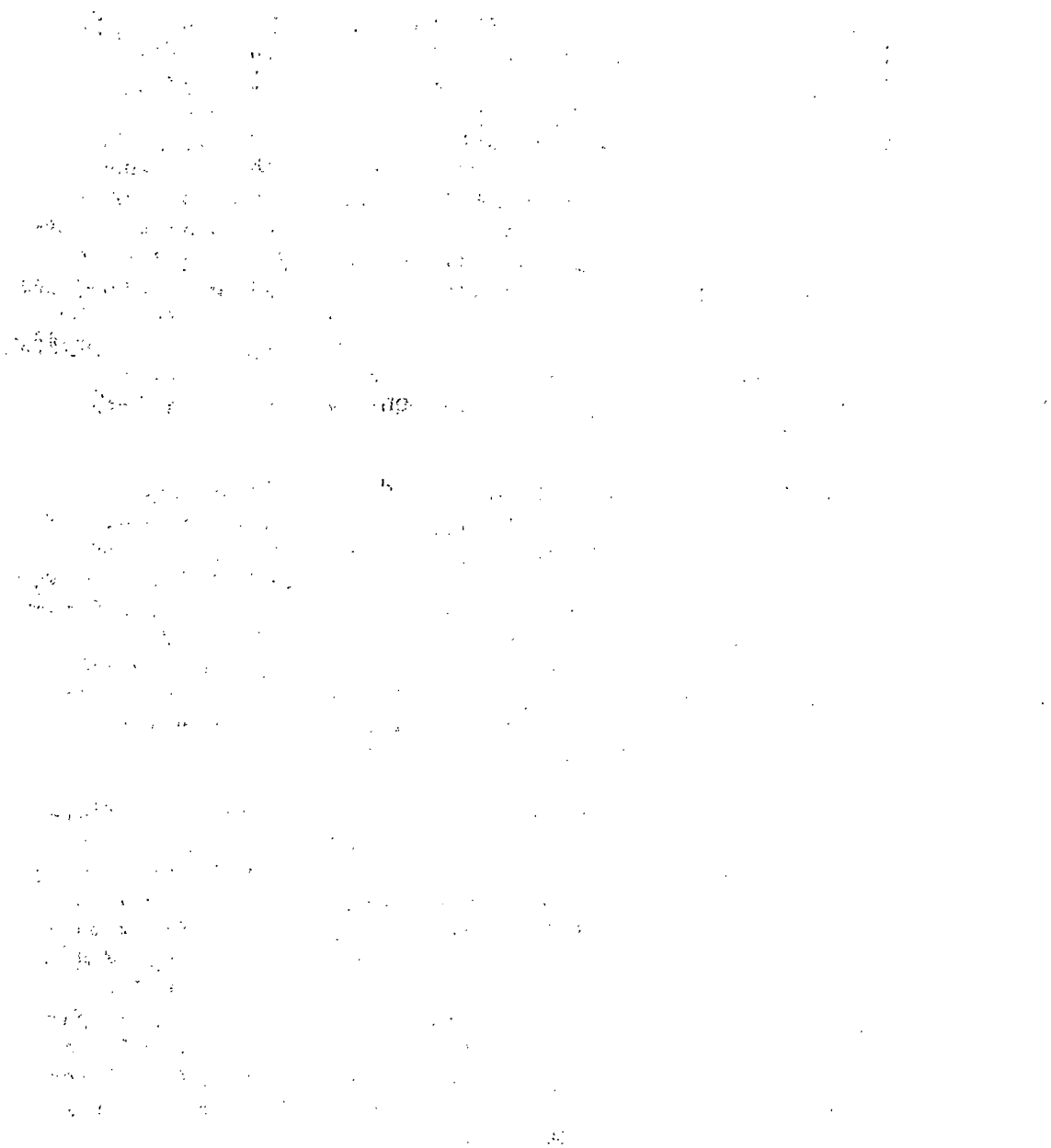
Table 29

Percentage Distribution of Employment; Five-Year Averages, 1952-1976

	Agr., For., Fishing	Mining	Const.	Total Mfg.	Trade	Trans.,[a] Stor. & Comm.	Elec. Pow. & Gas Dist.	Comm. Bus., & Pers. Serv.	Fin/Ins. Real Est.	Pub. Admin. & Defence
1952-56	18.2	1.9	6.3	24.7	16.4	8.8	1.1	14.5	3.3	4.9
1957-61	13.9	1.7	6.7	24.4	16.8	8.5	1.2	17.6	3.7	5.4
1962-66	10.8	1.5	6.5	24.3	16.7	7.9	1.1	21.2	4.1	5.8
1967-71	8.2	1.6	6.2	23.1	16.6	7.7	1.1	24.9	4.5	6.2
1972-76	6.3	1.5	6.4	21.4	17.3	7.6	1.1	26.6	4.9	6.9
1981[b]	5.2	1.4	6.4	20.3	17.5	7.4	1.1	27.4	5.7	7.0

(a) includes pipeline
(b) projected

Source: Historical Data, Statistics Canada, The Labour Force, Cat. 71-001



7. REGIONAL PERSPECTIVE

It is important, but also extremely difficult, to analyze the implications of the medium-term recovery path for each of the various regions. There are important short- and long-term factors at work. The nature of the recovery - a fairly strong recovery in manufacturing, a much weaker performance in mining - will naturally affect regions somewhat differently. Longer-term trends which have been evident for some time now, in particular the relatively strong performance of the West, will also influence regional developments in the medium-term. There are, as well, important factors which cannot be predicted, particularly those which relate to the adjustment mechanisms inherent in the economy. As an example, it is difficult to describe with precision the likely pattern of inter-regional migration. Finally, in the context of a medium-term scenario for Canada, it is clear political events are a rather important element affecting regional economic developments.

While each region in Canada does, of course, develop in its own distinct way, it is nonetheless true to say that economic activity in each of the regions is closely related to economic activity in the country as a whole. (Chart 14) It is also fair to say that a strategy which returns the Canadian economy to more normal levels of output and employment would be the single most effective way of lessening the economic problems of any of the regions. With the Canadian economy growing at 5.5 per cent in real terms, and the national unemployment rate falling, all regions should enjoy substantial real economic growth, and significant reductions in their unemployment rates.

In the time available, it has not been possible to undertake a detailed analysis of the implications of the projections for each of the regions. Nor has it been possible to integrate a regional perspective into some of the analytical questions raised in the paper. Obviously it would be useful, in looking at such issues as unemployment, availability of capital stock and international competitiveness, to examine them from a regional perspective. It is hoped that in future this could be done. The analysis therefore, does not follow directly from the analytical work presented so far in the paper, but represents an attempt to provide a qualitiative analysis of some of the broad forces operating on the different regions, and a description of some of the development opportunities available in each.

7.1 Longer-Term Regional Trends and Adjustment Implications

Employment and output growth will differ between regions, as some regions continue to grow faster than others. Indeed, in a country as geographically diverse as Canada, the changes associated with economic growth cannot be expected to be identical in all regions. Moreover, some regions, while growing in absolute terms, will experience declines in their relative shares of national output.

The factors leading to different regional growth rates are not unique to the Canadian experience. Indeed, many appear to be world-wide in scope. Within North America, they have produced dynamic effects which are similar in Canada and the United States. The decline in output share experienced by the eastern regions of Canada over the last several decades is similar in some respects to (and, in fact, not as dramatic as) the declines experienced in the American states bordering Ontario. Although the subject requires a good deal more study, it would appear that these continental geographic trends may very well continue for some time. By way of illustration, Table 30 shows the shifts in the shares of national output and employment that took place from 1966 to 1976. Alberta has been treated as a separate entity because its recent output performance has differed significantly from that of the other two Prairie provinces. Although the shares tend to display some cyclical variation, the shift from 1966 to 1976 appears to be indicative of longer term trends.

Table 30

Regional Shares of National Output and Employment (Per Cent)

		B.C.	Alta.	Man./ Sask.	Ont.	Que.	Atlantic
Output	1966	10.7	8.4	9.3	40.3	25.2	6.1
	1976	11.8	10.9	8.3	39.7	23.3	6.0
Employ-ment	1966	9.5	7.7	9.4	37.1	28.2	8.2
	1976	10.8	8.6	8.5	38.5	25.9	7.5

Sources: Statistics Canada, The Labour Force. Cat. 71-001; Output - The Conference Board in Canada, Provincial Forecast.

Such shifts in economic activity do not necessarily imply any worsening of the economic position of the people in a particular region. Nor in Canada's case is there any evidence to suggest that such

shifts in economic opportunity imply that the slower growing regions need to stagnate. Indeed, selective development opportunities exist in all regions. If appropriate adjustments can be effected, levels of regional unemployment and personal income can be brought closer to the national average and the quality of life can be excellent by national and international standards.

In order to ensure that people of all regions enjoy the strong economic growth expected over the medium and longer term, it is important that the available opportunities in each area be exploited, and that there continues to be a sense of movement and progress even in areas whose relative importance in the economy is declining. It is also important that governments, in framing policies, accept the need for some adjustment to occur if certain regions are to grow faster than others. The adjustment can come through a decline in the share of national population. It could as well come through a decline in the relative earned income per worker or through a decline in the relative rate of labour utilization, either through an increase in the unemployment rate or a decrease in the participation rate relative to the national average. This latter form of adjustment is likely to be regarded as less desirable but will occur in the absence of other adjustments.

The adjustment process can be partially offset by interregional transfers of one sort or another. Such transfers have been an aspect of the Canadian reality, and will continue to be if we are to survive as a nation. Nevertheless, it would be unrealistic to expect them to grow continually in size.

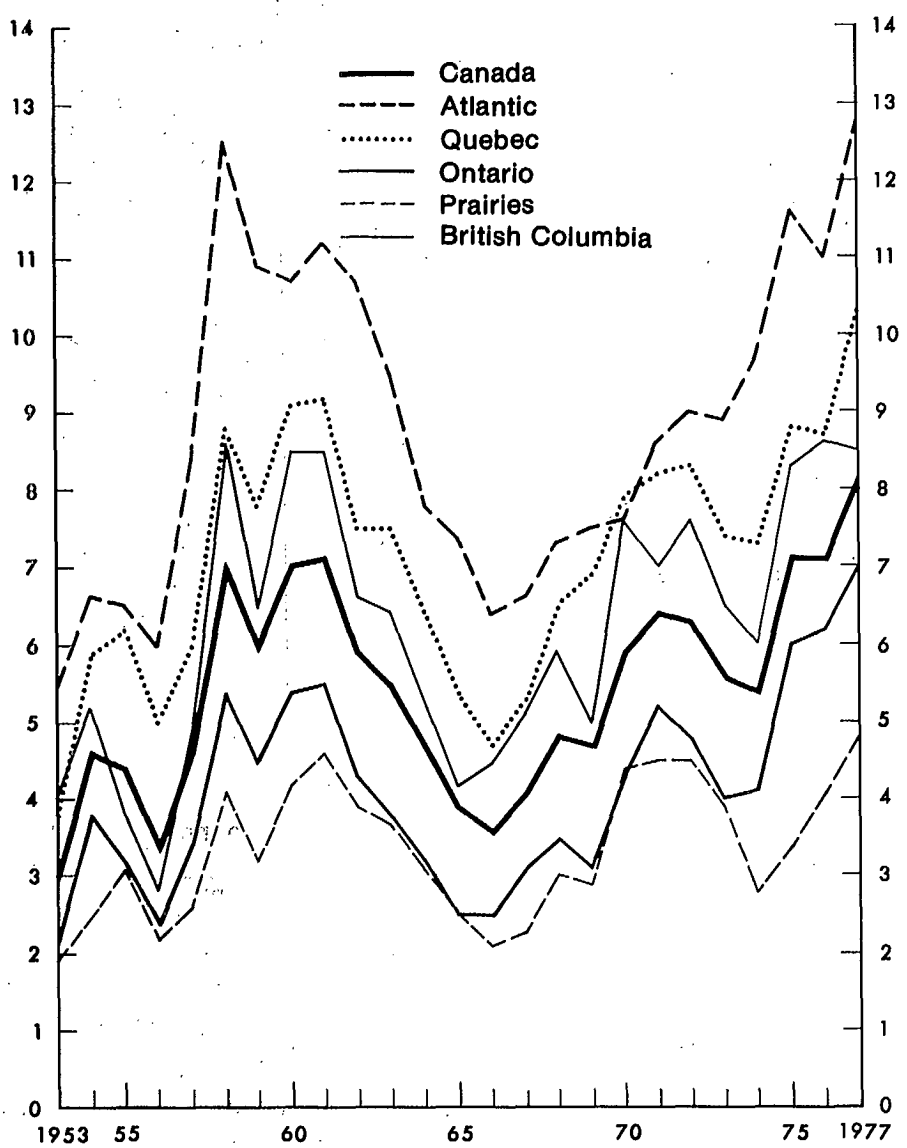
The challenge is to develop policies which allow the necessary adjustments to take place. It is also to ensure that the economic potential of each region is fully exploited, and that the adjustments which do take place are the best in terms of the longer-run social as well as economic well-being of the country.

7.2 Some Selective Medium-Term Prospects

It is clear that significant economic opportunities exist in all regions of Canada. Although individual opportunities may emerge unexpectedly as a result of resource discoveries, dramatic world price changes or the like, the past five years of intensive analysis by both federal and provincial governments has produced a reasonably clear understanding of the kinds of regional comparative advantage that currently exist and which can be translated into developmental strategies and projects. By way of illustration, some of the major strengths and potentials of each regional economy are listed in the following paragraphs.

Chart 14

Unemployment Rates
Canada and Five Regions



Source: Statistics Canada, The Labour Force Survey, cat. 71-001.

Atlantic

Most opportunities for directly expanding goods production in the Atlantic region stem from the renewable and mineral resource base of the region. The establishment of the 200-mile coastal area, which is being followed up by strengthened fisheries resource-management policies, creates a variety of possibilities for expansion in fishing and fisheries-related activities. Significant increases in income, particularly in Newfoundland, can be expected from fishing and fish processing. A somewhat delayed, but over the longer term significant, impact on employment can also be expected.

In addition to fish products, various minerals (including potash, as a result of recent discoveries), peatmoss and forestry resources exhibit considerable potential for expanded production and conversion from raw to higher value products. In the longer run, the exploration for and production of the mineral resources of the continental shelf could strengthen both primary and manufacturing sectors.

The location of the Atlantic region, traditionally a disadvantage in terms of North American markets, has become increasingly strategic as the two large industrialized areas of the U.S. and Europe grow more economically interdependent. Halifax and Saint John are already achieving fair rates of growth in traffic as a result of the shift to containerized cargo, and there are additional opportunities to move towards an integrated transportation and distribution system to service international traffic. In particular, the existence at Canso and Lorneville of two of the best deepwater ports on the Atlantic seaboard provides a capability for servicing the growing number of giant bulk cargo vessels and for establishing related on-shore industries.

Quebec

Although the economic prospects of Quebec are not tied as directly to a resource base as are those of the Atlantic region, the province possesses a number of advantages in resource production and processing, and in supplying inputs to secondary manufacturing activities. In the minerals sector, iron ore and asbestos play a dominant role, and abundant reserves and demand indicate continued high levels of production. However, although Canada accounts for 70 per cent of the free world's international trade in asbestos, only a small proportion of this production is processed before export. Given this virtual monopoly in export markets, high demand for the product and the current Multilateral Trade Negotiations, considerable opportunity should exist to overcome the tendency to process elsewhere caused by high tariffs in consuming countries and a high degree of foreign ownership in the industry. Copper and other base metals are found in less sizeable reserves, but improved access to the James Bay area

resulting from hydro development may open up geologically favoured areas to mineral exploration. This region is situated north of the Abitibi region, which already has considerable mineral activity, notably a copper smelter, and a trained mining work force.

The principal advantage of the James Bay development is, of course, the significant increase in the supply of electric power. Combined with existing hydro-electric capacity, James Bay should continue to give the province a significant advantage in the availability and longer-run cost stability of hydro power. This power, along with iron ore and limestone, provides conditions favourable to the expansion of specialized steel-making and fabricating facilities, particularly along the south shore of the St. Lawrence between Montreal and Quebec City, an area with substantial existing facilities and ready transportation. Such an expansion could be an important factor in strengthening the province's industrial structure, given the existence of interrelated activities in the primary metals, metal fabricating, machinery, transportation equipment and electrical products industries. Another industry with potential in terms of advanced technology and growth prospects is petrochemicals. Although both the Sarnia and Edmonton-centered complexes have certain advantages over Montreal in an industry comprised of increasingly large and concentrated facilities, the location in Montreal of the largest oil-refining capacity in the country provides an available feedstock which should enable the area to continue to be a viable and growing petrochemical producer.

Although Montreal has been losing its role as the nation's prime metropolitan and service-industry centre, opportunities exist for selective strengthening and expansion in this regard as well. In addition to a trained industrial and large bilingual work force, the city offers major advantages for sea and air transport, particularly as an entry and exit point for Canada to Europe and the eastern United States. For shipping, Montreal offers a good geographic location and well-developed infrastructure. Air cargo and passenger traffic may be stimulated by Mirabel, and various opportunities exist to develop intermodal links as well. The size of Montreal creates opportunities in itself, as it provides a local consumer market of over three million people. In particular, given the availability within the Montreal Plain of much of the best agricultural land in the province, various prospects exist for expanded food output and processing.

Ontario

Ontario is the most prosperous of the provinces in terms of many aggregate economic indicators, and this prosperity is founded on the most diversified economy in the country. The Toronto region is the most highly developed, exhibiting a wide range of growing economic activities. Southwestern Ontario, including such major centres as

London and Windsor, also has a diversified industrial base as well as a relatively efficient agricultural sector. Although the manufacturing heartland of Ontario may face certain adjustments in the next 5-10 years because of rising costs and possible tariff reduction, it is likely to remain the strongest and most dynamic goods-producing region in the country.

The performance of southern, and particularly southwestern, Ontario produces aggregate provincial indicators which mask less impressive economic circumstances elsewhere in the province. Northern Ontario has a slowly growing, resource-oriented economy, with industrial activity concentrated almost solely on the extraction and processing of wood, iron, nickel, uranium and base metals. Although these industries, with the notable exception of nickel, are expected to enjoy moderate output growth and to provide high wage jobs, pressures to maintain productivity and export competitiveness will likely result in further degrees of mechanization and hence slower growth in employment than in output. Supporting the continued growth of the resource-based export sector is a continuing and accelerating process of urbanization in Northern Ontario. The growth of such centres as Thunder Bay, Sault Ste. Marie, North Bay and Timmins will create new jobs in the service industries, particularly in transportation and communications and in retail and wholesale trade. Urbanization may also provide opportunities for import-substituting goods industries as it becomes worthwhile for firms to locate closer to larger and more efficient local and regional markets. Prospects for secondary export industries will likely continue to be limited because of remoteness from the major markets of North America, although Thunder Bay is well placed to serve the Minnesota, Wisconsin and Chicago-centred regions.

British Columbia and Prairie Regions

In 1976, for the first time, total western regional output exceeded the combined production of Quebec and the Atlantic, and there is every indication that the region will be able to more than maintain this position in the future. However, growth has clearly not been balanced across the region and no balance is seen in the medium-term.

The Manitoba economy is diversified among the main sectors of manufacturing, resource processing, agriculture and financial and distribution services. The northern resource development based on minerals, forestry and more recently hydro electric development which has continued since the 1960s is slowing down. This slowdown may be offset to some extent from promising mineral sites near Flin Flon and north of Lynn Lake. The Manitoba share of manufacturing output has been declining over the longer-term but has stabilized in recent years. There exist industrial opportunities that could offset the reductions in declining industries. These include opportunities relating to the processing of agriculture and resource outputs for

developing services to the Western region in distribution, warehousing, and transport operations. These services may in turn improve accessibility to major urban centres in the north-central United States where markets exist for manufactured goods.

Given the world demand for protein, Saskatchewan's large and rich agricultural resource base, producing wheat, feed grains, oil seeds and livestock, should continue to form the core of the provincial economy. Perhaps more important in terms of employment will be opportunities in the production of inputs to agriculture and in the processing of agricultural products. In addition to potash, major mining opportunities are in the energy sector, including the potential development of heavy oils in the Lloydminster area, and in uranium deposits. Although the manufacturing base of the province is small, buoyant economic conditions in the West will create a demand for materials and supplies which Saskatchewan can produce. In particular, there will be a large market for a variety of steel-based products needed in resource development and construction. IPSCO in Regina is the largest steel producer in Western Canada and should benefit substantially from such projects as northern pipelines.

In recent years, Alberta has been the fastest growing province in Canada, stemming largely from high levels of investment in both resource development and upgrading projects. Tied directly to this investment performance, the construction industry has experienced substantial growth. In addition, the service sector has expanded rapidly in response to the underlying strong growth in the economy. Over the medium term the potential exists for a continuing strong economic performance, based on further resource development and upgrading and processing of resources. Opportunities include further oil sands development, heavy oil development and coal development, as well as further exploration and development of conventional crude oil and natural gas deposits. On the upgrading and processing side, potential for expansion exists in petrochemicals, agricultural commodities and forest products among others. As well, the northern pipeline will provide some stimulus during the construction phase. Within the province a more balanced geographical dispersion of activity and growth has begun to emerge over the past few years in response to provincial policies as well as the location of resource-based projects. This trend is expected to continue.

British Columbia also has a rich resource potential which, along with its strategic location in terms of Pacific Rim trade, should provide various development opportunities in the future. Forestry has been the leading industry and mainstay of growth through the postwar period, and despite recent market difficulties, the sector is expected to grow strongly again in the medium term. Particular attention is being paid to the forest resources of the northern areas of the

province and of Vancouver Island, where potential exists for new mills in the coming years. The mining industry in B.C. is the most diverse of any province in Canada, with a strong resource base in metallic, non-metallic and structural minerals as well as in gas and coal. In the metallic sector, future expansion will be primarily in copper production, while both the northeast and the East Kootenay area should experience new coal developments. Manufacturing is concentrated in resource-related activities such as wood industries, paper, food and metals, and in the lower mainland where markets, labour, trade and transport are centred. Nevertheless, recent demographic trends suggest that developments outside the lower mainland are strengthening secondary centres such as Prince George, Kamloops and Kelowna and leading to more balanced provincial growth.

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