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First Annual Review

Economic Goals for Canada to 1970

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ECONOMIC COUNCIL OF CANADA

First Annual Review

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Economic Goals for
Canada to 1970



December 1964

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Catalogue No. EC21-1/1964 ✓

Price subject to change without notice

ROGER DUHAMEL, F.R.S.C.

Queen's Printer and Controller of Stationery

Ottawa, Canada

1964



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1

Introduction

THE MAIN PURPOSE of this Review is to examine the problem of achieving simultaneously and consistently certain basic economic and social goals in the Canadian economy in the medium-term future, specifically, over the next five years to 1970. These goals, as indicated in the Council's terms of reference, may be stated briefly as follows:

- full employment
- a high rate of economic growth
- reasonable stability of prices
- a viable balance of payments, and
- an equitable distribution of rising incomes

Since the Second World War most modern states have affirmed these aims in one way or another. Their achievement has become a major preoccupation of public policy during a period of accelerating change in a world sharply divided by rival ideologies. An increasing number of countries, particularly in Western Europe, have sought to develop special procedures and machinery designed to facilitate attainment of the widely accepted social and economic objectives. The establishment of the Economic Council of Canada is a part of this development.

Under the act of Parliament establishing the Council we are directed to study and advise upon the medium- and long-term development of the Canadian economy in relation to the attainment

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of the five economic and social goals mentioned above. We are also directed to prepare and publish annually a review of the medium- and long-term prospects and problems of the Canadian economy. During the past year, the Council has concentrated its efforts on these two very broad tasks. The results of this work are presented in this Review.

In this first year we have had to confine ourselves mainly to the over-all national conspectus and to broad national considerations. It has not been possible as yet to explore very far the implications of our analysis for particular regions and groups in the economy. However, all of these are vitally affected by the general prospects and problems of the country as a whole.

A first step is to define the goals more precisely. In this Review we define a number of the goals quantitatively in accordance with Canadian circumstances and possibilities. In this way the goals can be expressed in the form of targets. These targets are not forecasts or prophecies, but are intended to be measures of desirable performance by the economy—that is to be concrete objectives of policy. We are concerned with the development of public and private policies which are directed to the achievement of desired and agreed purposes to the greatest extent possible, rather than with the prediction of events which cannot be foreseen.

Recent history has shown that few, if any, of our economic and social goals can be expected to be realized automatically. A brief review of the operations of the Canadian economy since the Second World War, presented in Chapter Two, indicate that during this relatively short period, we have encountered at one time or another inflation, unemployment, slow rates of growth and crises in the balance of payments. This experience serves well to demonstrate that the real problem lies not in how to pursue some particular objective, but in how to achieve *all* our agreed social and economic goals simultaneously and consistently. The various goals are not always compatible with each other. Policies designed to accomplish a particular aim such as full employment or a rapid rate of growth may be in conflict with the policies needed to avoid inflation or to maintain a viable balance of payments. There is always the overriding requirement to reconcile conflicting tendencies and to achieve consistency. Otherwise, the objectives are not likely to be attained either collectively or separately over the longer run.

Our analysis focuses on the tasks to be accomplished by the economy over the period 1965-70 in relation to our combined targets

Introduction

and goals. This analysis, which is presented in Chapters Three to Seven, is designed to show in broad terms the way in which the main elements in the economy could be expected to develop and to interact if our aims are to be accomplished. The analysis is made on the basis of past relationships, known factors, and stated assumptions. The purpose is to indicate the significant interrelationships, the limitations, the range of possibilities, and the likely areas of conflict and inconsistency.

In Chapter Three we present an estimate of "the potentialities of the economy" to 1970. This estimate of "potential" output is a rough measure of the total goods and services which would be available if we succeed in achieving our goals regarding employment and the rate of economic growth. In the immediately following Chapters we examine the uses to which these goods and services may be put and a possible pattern of demand (by private consumers, investors, governments and exporters) consistent with the attainment of the "potential" output. This picture of the interdependent and interrelated factors serves to indicate the critical roles which will be played by the growth in the labour force, the efficiency of production, the increase in consumption, the level of savings, the rates of taxation, government expenditures and foreign trade. Indicated also are the nature and extent of the major shifts and adjustments which the economy is likely to encounter during the years immediately ahead.

With the help of this analysis, we attempt to draw conclusions concerning the more important problems which are likely to arise and the policies which are likely to be required during the period 1965-70. In Chapter Eight we discuss a number of factors which we consider to be significant for the attainment of our goals for employment and growth in a manner consistent with internal price stability and the need to maintain a viable balance of payments. We attach much importance to the achievement of adequate and rapid progress in regard to these matters.

In various parts of the Review, but particularly in Chapter Nine, we indicate our conclusions regarding appropriate guiding principles for policy during the period 1965-70. These relate to government fiscal policy, foreign trade and exchange, the supply of money and credit, the provision of social capital and improved public services, the promotion of adjustment to economic change, and the supplies of skills and knowledge which are essential for progress in a modern industrial society. Throughout, we direct our attention to the basic economic and social

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policies which affect the performance of the economy and which determine the general environment in which both private enterprise and the public services will operate. We have attempted to indicate the combination and balance of policies which would be necessary for the achievement of our goals in a free and predominantly private enterprise market economy.

We are concerned not with the question of inventing new forms of intervention, but rather with ordering and developing our policies and social programmes in a rational and coherent manner designed to accomplish consistently what the society has declared to be its economic and social goals. For this purpose it is essential to bring to bear the needs of the future on the decisions of today. This applies not only to decisions by governments but also to decisions in the private sector of the economy.

Many of the fundamental and necessary policies and programmes can be effective only in the longer term. The results from investment in the vast complex of social capital, from better education, more training and higher skills, from improvements in health and urban renewal, from research and the expansion of knowledge, and from policies to promote adjustment to change can be realized only over time. Consequently, forward planning in matters such as these is essential. Furthermore, if such plans are rationally and coherently developed and presented, they can improve significantly the circumstances under which private enterprises can develop their own forward plans and programmes. Such plans could reduce the risks and uncertainties of private initiative and investment. In this way the performance of the entire economy can be improved and the possibilities for the consistent achievement of our economic and social goals can be enhanced.

A set of policies, programmes and plans can be directed to the attainment of certain objectives, but they cannot guarantee success. The actual outcome will depend in considerable measure upon the unfolding of events, many of which are beyond Canada's control. Canada is an open economy strongly affected by developments beyond its borders. For the purposes of our analysis we have assumed the maintenance of peace and of favourable conditions in world trade and in our principal markets, especially the United States. If these assumptions prove to be wrong, the task of achieving our goals becomes vastly more difficult and more complicated. Also, an analysis can help to identify problems but it cannot contribute much to their solution if political and social tensions make it impossible.

We are concerned not with blueprints which are likely to become

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irrelevant, or with details which may never arise, but with broad strategy, with basic difficulties, and with methods of approach. Many of the details of actual policy must remain flexible to take account of the actual circumstances as they develop. It is necessary to maintain a continuing re-appraisal and re-assessment. This we intend to do in future Annual Reviews.

Failure to attain the basic economic objectives set forth in this Review would bring heavy costs in terms of unemployment and slow gains in living standards or in terms of inflation and economic distortions. Success, on the other hand, would bring great benefits. The increase in total output to 1970 would be almost double the rate of the last seven years. The improvement in average personal incomes would be even larger.

2

Canada's Post-War Economic Performance

AS A PRELUDE to our appraisal of the prospects and problems of the Canadian economy in the years ahead, it is useful to review its past performance. In this Chapter we attempt to assess in general terms how the post-war performance of the Canadian economy, as influenced by the special conditions and economic policies of this period, measured up to the basic goals of high employment, sustained economic growth, reasonable price stability, a viable balance of payments position, and balanced regional development.

Canada's past record in relation to these goals has clearly been mixed. Outstanding successes in some respects have been marred by conspicuous shortfalls in others. Periods of consistently high standards of performance have been rare and short-lived. In the two decades since the war, there have been few periods when all five basic economic objectives were being simultaneously attained with reasonable degrees of success. For example, there have been periods of full employment accompanied by sharp increases in prices and costs; periods of price stability with high unemployment and slow economic growth; periods of critical strain in the balance of payments, both with and without price stability and high employment; and periods of accentuation of the longer term weaknesses of some regions.

LEVELS OF EMPLOYMENT

In the early post-war period, employment was sustained consistently at high levels as a result of a powerful combination of underlying expansionary economic forces and deliberately expansionary policies.

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Strong external demand forces were coupled with even more vigorous internal demand pressures. These were supported and enlarged not only by the swift unwinding of war-time restraints, which had been especially effective in curbing price and wage increases, but also by a wide array of fiscal stimulants to private spending. Perhaps even more important was the fact that in spite of the large-scale monetary expansion which had already taken place in relation to levels of output during the war,¹ monetary policy was steadily aimed at maintaining "easy money" and consistently low interest rates. In the circumstances of central bank support for the bond market, large war-time accumulations of government securities represented highly liquid assets which could be readily translated into rising spending by consumers and business firms.

These expansionary policies were in large measure a consequence of the firmly expressed intention of the Canadian Government to prevent any future recurrence of massive unemployment such as had occurred in the 1930's. This dedication was enshrined in the White Paper on Employment and Income,² issued in 1945:

"... the Government has stated unequivocally its adoption of a high and stable level of employment and income, and thereby higher standards of living, as a major aim of Government policy. It has been made clear that, if it is to be achieved, the endeavour to achieve it must pervade all government economic policy. It must be wholeheartedly accepted by all economic groups and organizations as a great national objective, transcending in importance all sectional and group interests."

Combined with these expansionary policies was a broad range of powerful economic forces. There was first pent-up internal demand arising from the extended period of curtailment of consumer and business spending, not only during the war, but also during the 1930's. This was supplemented by expansionary demographic factors, including a catching up of marriages postponed by the war, trends towards younger marriages and larger families, the biggest "baby boom" in any western industrially advanced nation, and substantial increases in net immigration. There also existed strong external expansionary forces, with particularly vigorous demands for Canadian products in international markets, and with an absence of serious

¹ The money supply in relation to output was 30 per cent higher in 1946 than at the peak level of the 1920's.

² *Employment and Income with Special Reference to the Initial Period of Reconstruction*, Ottawa: King's Printer, 1945.

Canada's Post-War Economic Performance

international competitive pressures on Canadian industry under the circumstances of general dislocation and reconstruction of war-torn economies. Finally there was the reinforcement or replacement of some of these immediate post-war expansionary influences by a new round of stimulants including those resulting from the Korean War and a combination of special factors helping to generate a Canadian resources boom in the early and mid-1950's.

By the middle and later 1950's many of these special and highly favourable expansionary forces lost strength with consequent effects upon the levels of employment. In fact, in retrospect, even the business upswing in 1954-56, which seemed at the time to be broadly based, can now be seen in better perspective as an advance which was very heavily centred in the investment sector of the economy and was not founded on widespread underlying strength of internal and external demand trends. These general demand forces weakened further thereafter, and this was reflected in most industries and regions.

Among other factors which were associated with the loss of growth momentum in the Canadian economy during the 1950's were a simultaneous loss of momentum in the United States economy, a major deterioration in Canada's international competitive position, along with other factors which tended to induce weakness in Canada's trade and payments position, and a major shift in the posture of economic policies towards restraining expansionary forces.

The current business upswing since early 1961 has been more broadly based than the investment-centred expansion of the mid-1950's. It also began and has continued to proceed against a background of greater slack in the use of the country's economic resources than was the case in the 1954-56 upswing. It has thus far been a sustained and balanced expansion, with few apparent distortions of the kind which would ultimately give rise to corrections tending to inhibit longer term growth.

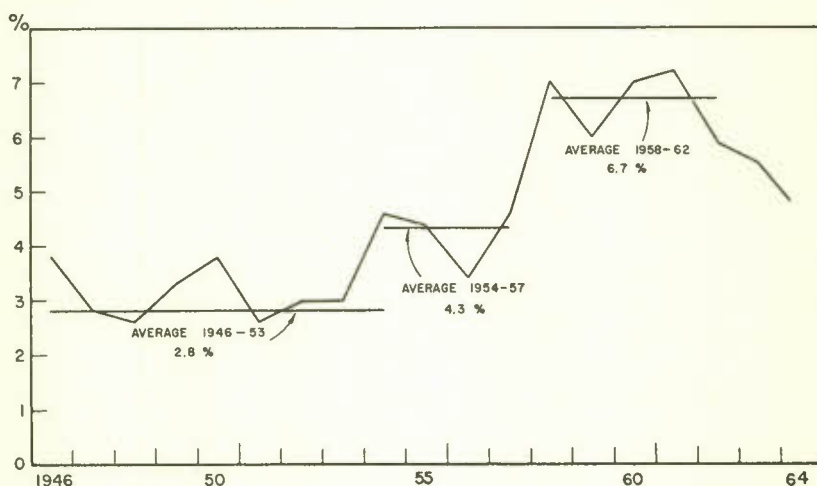
The levels of employment and unemployment experienced since the war have reflected these fluctuations and trends in economic conditions. The average rate of unemployment in Canada was 2.8 per cent in 1946-53. It rose by more than 50 per cent to an average of 4.3 per cent in 1954-57, and then by more than 50 per cent again to an average of 6.7 per cent in 1958-62 (see Chart 1).

One of the particular features of the development of relatively high rates of unemployment is the fact that, although rising unemployment tends to be widespread through the economy in various regions,

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industries and occupations, its incidence has been highly uneven. Thus the highest rates of unemployment have always tended to occur among workers in certain regions of the country (especially in the Atlantic Provinces), in some sectors and industries (for example, construction), in certain age groups (among teenagers and older workers), and among some occupations (especially among the less skilled).

CHART I
UNEMPLOYMENT AS PERCENTAGE OF LABOUR FORCE



Note: Total unemployment rates for 1946 to 1952, inclusive, are estimates incorporating adjustments for Newfoundland and for timing of the Labour Force Survey which, before November, 1952, was conducted on a quarterly rather than a monthly basis. 1964 is estimated on the basis of the first nine months, seasonally adjusted.

Source: Based on data from Dominion Bureau of Statistics.

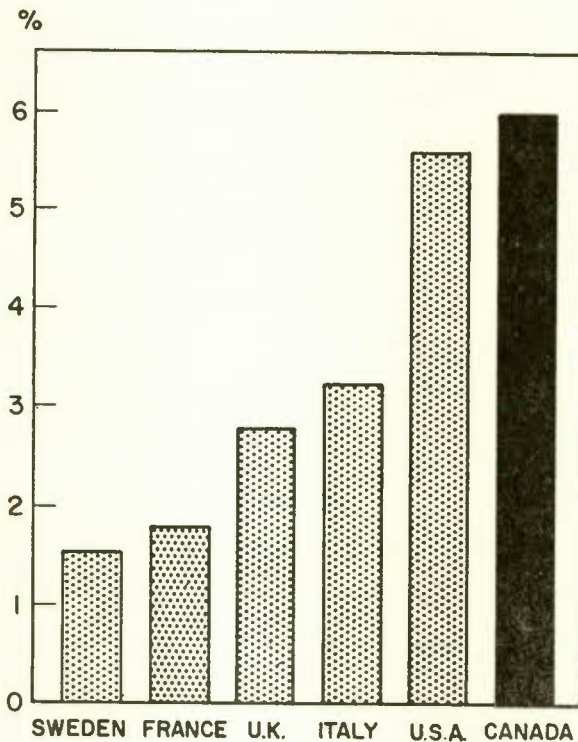
Since 1961, despite the recent acceleration in the growth of the labour force, the rate of unemployment has declined considerably. But it is still well above the rates which prevailed in the early post-war period, and also well above those recorded at comparable stages of the business expansion in the mid-1950's.

Furthermore, unemployment in Canada during the past decade has been substantially higher than unemployment in other industrially advanced countries, especially those in Western Europe. The post-war course of unemployment trends in most of these countries has been almost the opposite of that in Canada. High unemployment in some of these countries during the period of early post-war reconstruction

Canada's Post-War Economic Performance

subsequently disappeared and was replaced by pressing labour shortages. With sustained high rates of growth of demand, and with a virtual absence of short-term business cycles, unemployment rates in many of these countries over the past few years have approximated 2 per cent or less. Precise international comparisons are, of course, difficult to make, partly owing to different definitions and methods of measuring unemployment. But the construction of comparable figures for unemployment rates in 1962 among a number of countries (see Chart 2) shows a wide dispersion of rates, with the

CHART 2
INTERNATIONAL COMPARISONS OF
UNEMPLOYMENT RATES, 1962



Note: Adjusted to United States definition.

Source: Based on data contained in "Unemployment in Western Europe and the United States", by Robert J. Myers, published in *Unemployment and the American Economy*, by Arthur M. Ross, Editor, (John Wiley and Sons Inc., New York, 1964).

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United States and Canada having the highest, and with Canada at that time having an even higher rate than the United States. In fact, in six out of the past seven years, the rate of unemployment in Canada has been above that in the United States, while in the first ten years of the post-war period the rate in Canada was higher in only one year.

ECONOMIC GROWTH

The goal of rapid and sustained economic growth, especially in terms of growth in productivity, does not appear to have been a consistent objective of general economic policy in Canada throughout the post-war period.¹ Special government programmes were clearly designed to foster economic expansion, but other basic goals, such as full employment and price stability, appear, at different times, to have been considered to be much more important objectives. Serious discussion about Canada's growth performance and the conditions affecting it did not emerge until the rise in living standards and productivity virtually came to a halt in the latter part of the 1950's.

The dimensions of Canada's economic growth from 1946 through 1963 can be broadly sketched in the following terms:

- total real output has approximately doubled;
- real output per capita has increased by about 30 per cent;
- real output per person employed has risen by close to 50 per cent;
- real output per man-hour has increased by almost 70 per cent.

However, as indicated in Table 1, the rate of increase of all measures of growth is appreciably less over the past decade than during the earlier post-war years.

¹ Economic growth is usually measured in terms of long-term rates of increase in the volume of a country's total output, or its per capita output (a rough measure of improvements in the standard of living). Another concept is that of output in relation to the manpower required to produce it (a measure of advances in productivity). This is a concept which we emphasize in this Review. Unless otherwise indicated, all measures of output used in this Review are measures of physical volume of output—that is, after adjustment for price changes. The most frequently used indicators of over-all economic growth are: Gross National Product, Gross National Expenditure and Gross Domestic Product.

—The Gross National Product is the sum of all the incomes of the different factors of production in the economy plus capital consumption and indirect taxes less subsidies.

—The Gross National Expenditure measures the total flow of expenditures on goods and services. (GNP and GNE are equal by definition.)

—The Gross Domestic Product is the sum of the net output of all industries within the geographic boundaries of a country.

Canada's Post-War Economic Performance

TABLE 1—GROWTH RATES
(Average annual percentage change)

	1946-63	1946-53	1953-63
Gross National Product.....	3.9	4.5	3.5
Population.....	2.6	2.7	2.4
GNP per capita.....	1.3	1.7	1.0
Gross Domestic Product.....	4.2	5.1	3.6
GDP per employed person.....	2.3	3.4	1.6
GDP per man-hour (private sector).....	3.3	4.5	2.4

SOURCE: Based on data from Dominion Bureau of Statistics.

The rate of growth of total real output in Canada for the post-war period as a whole does not appear to be out of line with the longer historical record of Canada's growth performance (see Chart 3).

TABLE 2—LONGER TERM GROWTH RATES
(Average annual percentage change)

	1867-1963	1901-1963	1901-1929	1929-1963	1946-1963
Gross National Product...	3.3	3.5	3.6	3.5	3.9
Population.....	1.8	2.1	2.3	1.9	2.6
GNP per capita.....	1.5	1.5	1.3	1.6	1.3

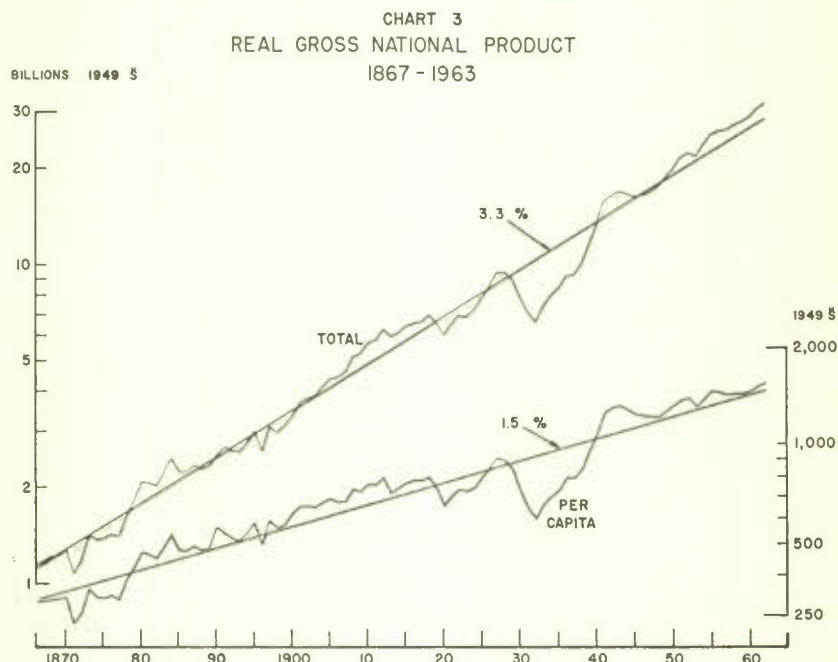
SOURCE: Based on data from Dominion Bureau of Statistics and from O. J. Firestone, *Canada's Economic Development, 1867-1953* (Bowes and Bowes, London, 1958).

For example, as indicated in Table 2, the 3.9 per cent rate of increase in the post-war period compares with average rates of 3.3 per cent from 1867 to 1963, 3.5 per cent from 1901 to 1963 and 3.5 per cent from 1929 to 1963. The post-war rate of increase in real output per capita is slightly below those recorded in the longer time spans—1.3 per cent per year compared with about 1.5 per cent.

The consistency in the above longer term growth rates should not be interpreted to mean that economic growth proceeds smoothly and

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evenly. Economic growth in the past has, in fact, been a highly uneven process. Nor should the above historical figures be interpreted to mean that the growth rates of the past will necessarily continue into the future.



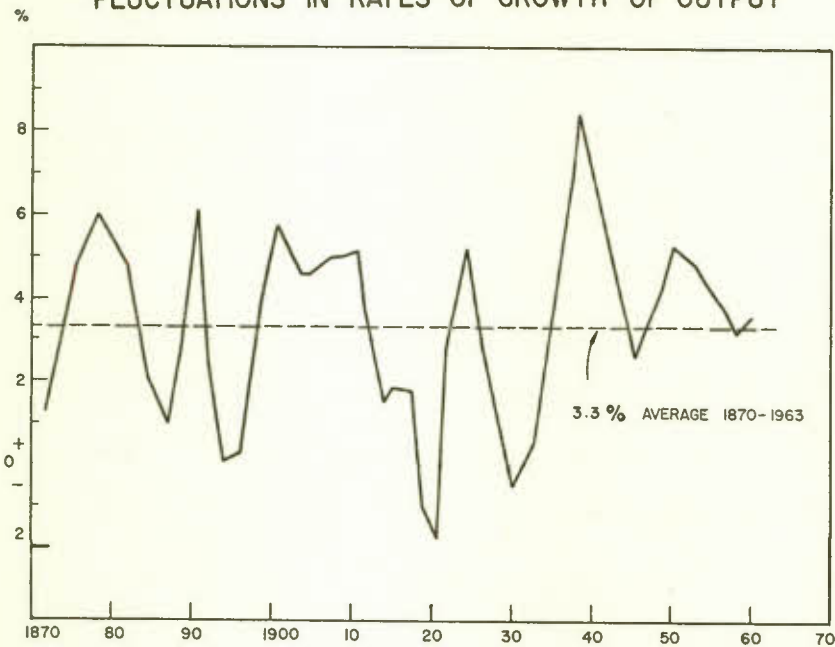
Source: Based on data from Dominion Bureau of Statistics and from O. J. Firestone, *Canada's Economic Development, 1867-1953* (Bowes and Bowes, London, 1958).

Canada's economic development has clearly gone forward in periodic surges of rapid growth and change, interrupted by extended periods of slowdown and sluggishness. In recent years we have become increasingly accustomed to thinking in terms of the alternating bunching of economic strengths and weaknesses for seasonal reasons and over the course of the short-term business cycle. Available longer run historical statistics suggest that there has also been an alternating bunching of more persistent economic strengths and weaknesses extending over much longer periods of time. A very clear pattern of such longer term periods of fast and slow economic growth since 1870 is revealed in Chart 4. This Chart depicts annual percentage

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changes in Gross National Product after adjustment to remove the effects of short-term business fluctuations.

CHART 4
FLUCTUATIONS IN RATES OF GROWTH OF OUTPUT



Note: Year-to-year per cent changes in real GNP have been corrected for short-term cyclical fluctuations.

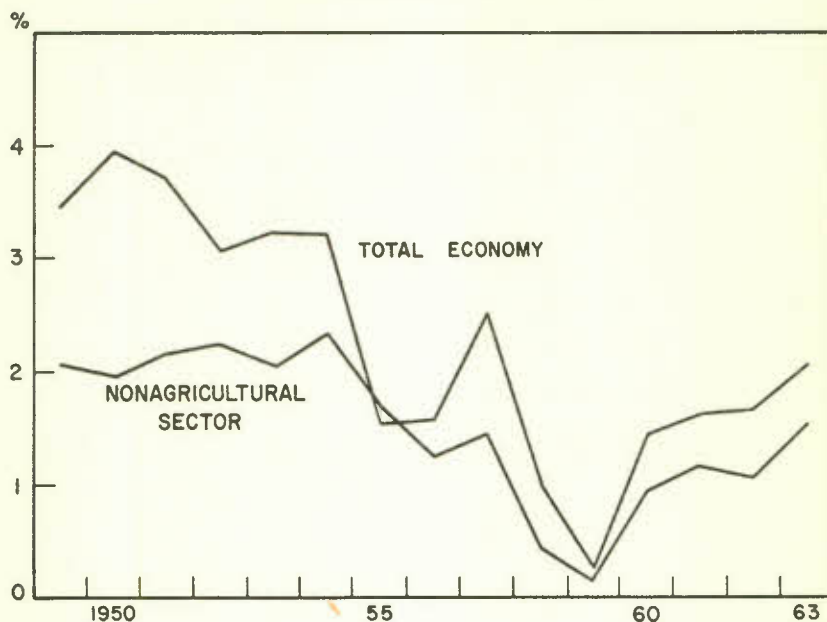
Source: D. J. Daly, *Long Cycles and Recent Canadian Experience* (mimeo., Ottawa, 1963).

The pattern of faster growth in the early post-war period, as contrasted with slower growth over the past decade, is indicated in sharper focus in Chart 5. This Chart draws particular attention to the underlying trends in output per person employed—that is, to the advances in productivity which are the basic source of improvements in Canadian living standards. More recently, as suggested in this Chart, there have been indications of some moderate improvement in Canada's productivity performance.

Over the longer run, the rate of increase in total output in Canada has been higher than that in some industrially advanced countries, but lower than that recorded in others, as indicated in Table 3.

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CHART 5
ANNUAL PERCENTAGE INCREASE IN OUTPUT
PER PERSON EMPLOYED



Note: Percentage increase computed from real Gross Domestic Product per person employed smoothed by five-year moving averages.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

TABLE 3—GROWTH OF OUTPUT PER PERSON
OF WORKING AGE, 1913-59

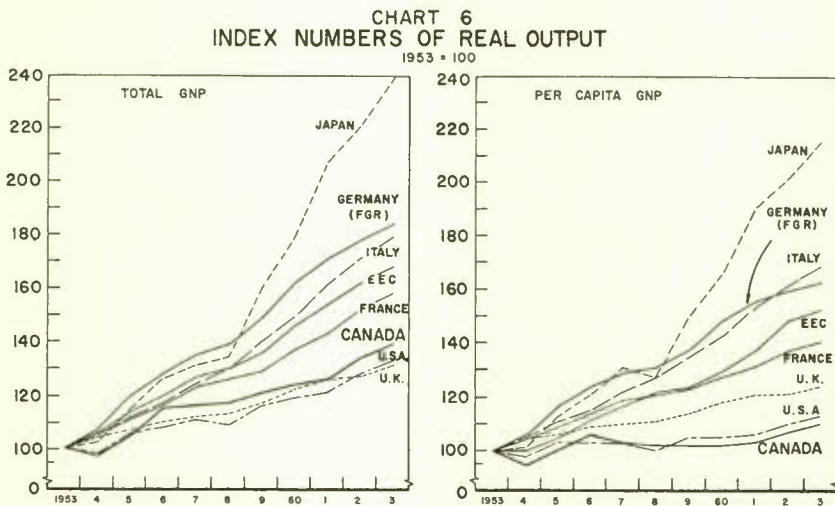
(Average annual percentage change)

Japan.....	2.6
Norway.....	1.9
United States.....	1.8
Italy.....	1.7
Sweden.....	1.7
Canada.....	1.5
France.....	1.5
Germany (FGR).....	1.4
Denmark.....	1.2
United Kingdom.....	0.8

SOURCE: *Economic Review*, July, 1961, National Institute of Economic and Social Research, London, England.

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Over the past decade, however, the Canadian economy appears to have experienced one of the slowest rates of growth of any industrially advanced country of the world, both in terms of average productivity and average living standards. An international comparison of gains in total output and in output per capita over the past decade is provided in Chart 6. In terms of total output, Canada's rate of growth has exceeded that of both the United States and the United Kingdom. But when Canada's much more rapid rate of population expansion is taken into account, the rate of increase in output per capita in Canada has been somewhat below that in either of these countries. At the same time, as regards both total output and per capita output, Canada's performance over the past decade has been far below the dynamic rates of expansion being recorded in Japan and in Western Europe.



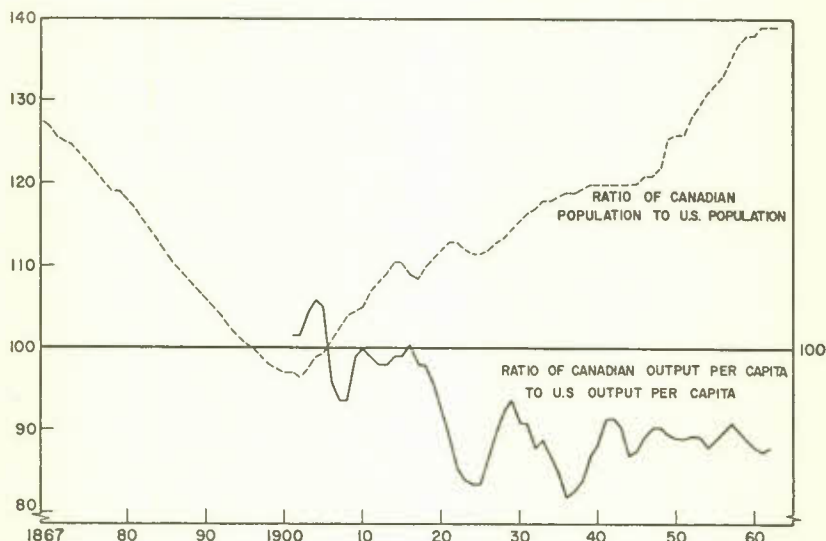
Source: Organization for Economic Co-operation and Development.

A closer look at trends in Canada and the United States over the past few decades indicates that both total output and population have been rising more rapidly in Canada than in the United States since the mid-1920's. Real output per capita has moved forward at approximately the same rate in the two countries—especially during the post-war period (see Chart 7). For the last two decades, the level of real income per capita has been consistently in the range of

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25 to 30 per cent lower in Canada than in the United States. It would appear that the difference between the two countries was significantly less about 15 to 20 per cent—at the start of the present century, but the gap widened between the start of the century and the 1920's.

CHART 7
CANADIAN GROWTH RELATIVE TO UNITED STATES GROWTH
(RATIOS CONVERTED TO INDEXES, 1900-1909=100)



Note: Canadian and United States ratios of population and real output per capita were converted to indexes with the base 1900-1909 = 100 for Canada and the United States. The lines shown represent the Canadian as a percentage of the United States indexes.

Source: Population—Canada, Dominion Bureau of Statistics; United States, Department of Commerce. Gross National Product—Canada, 1900-25, Kenneth Buckley (unpubl.); 1926-63, Dominion Bureau of Statistics; United States, 1900-28, J. Kendrick, *Productivity Trends in the United States* (Princeton University Press, 1961); 1929-63, Department of Commerce.

PRICE STABILITY

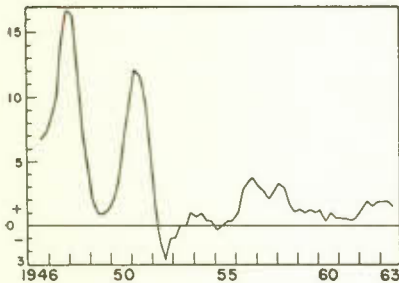
Concern about inflation has been a persistent theme in public discussion of Canadian economic affairs over much of the past decade. This has been reflected not only in economic policy but also in general public attitudes of hostility to price advances. These conditions have, in turn, undoubtedly contributed to the relatively high

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degree of price and cost stability actually recorded in Canada over the past decade. Such stability has also been a consequence of the increasingly vigorous international and domestic competition in more recent years, the relative weakness of demand and the emergence of considerable slack in the Canadian economy.

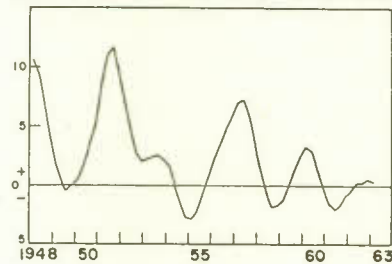
All of these conditions differ substantially from those of the earlier post-war years, when special forces led to sharply rising prices in 1946-48 and again in 1950-51, and when both the policy environment and underlying economic conditions permitted or encouraged strong upward pressure on prices and costs. Indeed, over a broad spectrum of prices and costs, the average annual increases which actually occurred during the 1946-53 period were several times as large as those recorded in the 1953-63 period (see Charts 8 and 9 and Table 4). In retrospect, it is apparent that failure to contain price and cost increases more effectively in the early post-war period laid the basis for a subsequent accentuation of economic problems in Canada during the 1950's.

CHART 8
ANNUAL RATES OF CHANGE
IN CONSUMER PRICE INDEX



Note: Seasonally adjusted quarterly data smoothed by three-term moving averages.

CHART 9
ANNUAL RATES OF CHANGE IN
UNIT LABOUR COSTS IN MANUFACTURING



Note: Index of wages and salaries in manufacturing was divided by the volume index of manufacturing production to obtain index of manufacturing unit labour costs. Line shown represents percentage changes in unit costs at annual rates. The original indexes are based on seasonally adjusted quarterly data and have been smoothed by nine-term moving averages.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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TABLE 4—SELECTED PRICE AND COST CHANGES
(Average annual percentage change)

	1946-53	1953-63
Consumer price index.....	5.9	1.4
Wholesale price index.....	6.8	1.0
GNP price deflator.....	6.4	2.0
Unit labour costs in manufacturing.....	6.0	1.1
Unit labour costs in manufacturing after adjustment for exchange rate changes.....	7.1	0.2

SOURCE: Based on data from Dominion Bureau of Statistics.

Next to the United States, Canada has had the smallest increases in consumer prices among all industrial countries over the past decade (see Table 5).

TABLE 5—COMPARISONS OF PRICE CHANGES
(Percentage change)

	Consumer Prices		
	1953-63	1953-60	1960-63
Canada.....	15.2	10.8	4.0
United States.....	14.5	10.6	3.5
United Kingdom.....	33.7	21.2	9.9
France.....	51.6	33.6	13.5
Germany (FGR).....	22.0	11.5	9.4
Italy.....	32.5	15.4	14.8
Sweden.....	37.0	24.0	10.5
Japan.....	37.6	13.6	21.1

SOURCE: Dominion Bureau of Statistics and Organization for Economic Co-operation and Development.

Persistent increases (or decreases) in Canadian prices and costs in relation to those in other countries tend to have an important bearing on the competitive capabilities of Canadian industry. In this context, the movement of unit labour costs in manufacturing in Canada (wages, salaries and supplementary labour income per unit of output), in

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relation to the movement of such costs in the United States, is likely to be of major significance. This is because unit labour costs account for a very important part of total unit costs in manufacturing.¹ In certain specific situations, however, other costs—such as capital consumption allowances, transportation and purchased materials and supplies—may have an important influence on the competitive position of Canadian industry.

Over the entire period from 1935 to 1963, unit labour costs in manufacturing in the United States have risen somewhat faster than comparable Canadian costs, but there have been large disparities in growth rates during certain periods. For example, the United States index of such costs rose by close to 80 per cent from 1935 to 1946, as indicated in Table 6, while the index of Canadian costs (which had been much more effectively restrained by tight war-time controls) advanced only half as much. As compared with pre-war conditions, Canada therefore emerged in the post-war period on relatively much more favourable competitive terms vis-à-vis the United States. But this relative improvement was substantially lost over the next seven years, 1946-53, as the Canadian unit labour cost index (after adjustment for exchange rate changes) rose 62 per cent while the United States index rose by less than half as much.

This change may be construed, at least in part, as a catching-up after the removal in Canada of the war-time price and cost controls to the more rapid increases which had already occurred in the United States. As indicated earlier in this Chapter, sharp price and labour cost increases were generated in the early post-war period in Canada by a large monetary expansion and by strong internal and external demand pressures. These increases in costs were undoubtedly an important factor in the subsequent increase of Canada's current account payments deficit. Since 1953, Canadian and United States labour cost indexes have moved more closely together, although some relative cost erosion continued in Canada through the mid-1950's. Since 1960, however, the reduction in the exchange value of the Canadian dollar has brought a significant relative improvement for Canada.

¹ Over the post-war period unit labour costs have consistently accounted for about two thirds of total unit costs of Gross Domestic Product at factor cost in manufacturing. This concept of Gross Domestic Product at factor cost represents the net value of production in manufacturing; it eliminates duplication in accounting of all goods and services purchased elsewhere for use in the manufacturing process.

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TABLE 6—PERCENTAGE CHANGE IN UNIT LABOUR COSTS
IN MANUFACTURING, CANADA AND THE UNITED STATES,
1935-39 TO 1963

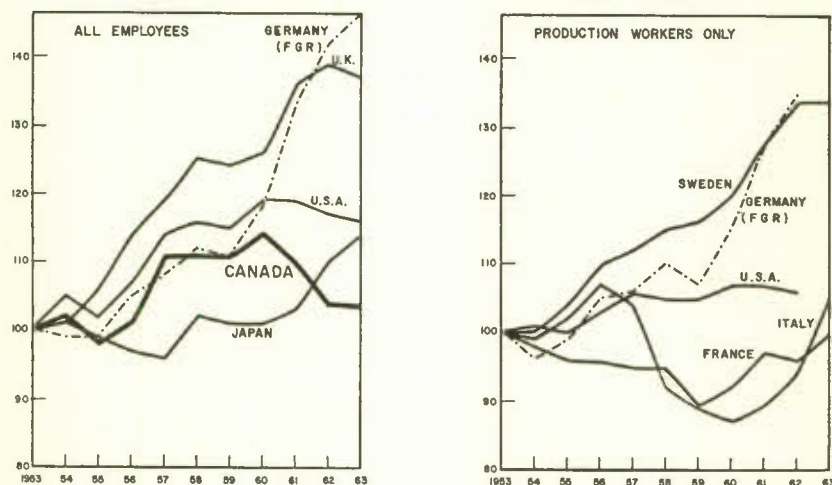
	1935-39 to 1963	1935-39 to 1946	1946 to 1953	1953 to 1963	1960 to 1963
Canada.....	135.4	40.2	50.6	11.5	— 1.4
Canada*.....	118.3	32.6	62.0	1.6	—11.3
United States.....	148.6	78.2	30.4	7.0	— 1.6

*Adjusted for exchange rate movements.

Source: Based on data from Dominion Bureau of Statistics; United States Department of Commerce; and Board of Governors of the Federal Reserve System.

After allowance for the change in the Canadian exchange rate Canadian unit labour costs in manufacturing over recent years have also risen substantially less than in most other leading industrially advanced nations (see Chart 10). Although the reduction in the exchange value of the Canadian dollar has been a very important

CHART 10
COMPARISON OF CHANGES IN UNIT LABOUR COSTS
IN MANUFACTURING, SELECTED COUNTRIES
(ADJUSTED FOR CHANGES IN EXCHANGE RATES)



Source: U.S. Department of Labor, *Monthly Labor Review* (April 1964), and Organization for Economic Co-operation and Development.

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factor contributing to this development, another important factor has been the relatively much smaller average increases in wages in Canada than have recently been occurring in most European countries.

BALANCE OF PAYMENTS EQUILIBRIUM

The dominant theme of Canada's economic history has been the heavy dependence of the country on international trade and payments. From the beginning, the pattern of Canadian development has been one in which resource-based exports and imported equipment and capital have played an important role. Canada has always been substantially affected by events in the world at large over which we have had very little control, and more particularly by events in the United States.

In any country, disequilibrium in the balance of payments may impede and frustrate attempts to achieve or maintain important domestic objectives, such as full employment, efficient use of resources or price stability. But the importance of external factors to the Canadian economy implies a special concern for the balance of payments, the exchange rate and exchange reserves, and a special need for appropriate reconciliation between domestic policy and the international environment.

Throughout the Second World War the Canadian dollar was fixed at 90.9 cents to the United States dollar. The Canadian balance of payments position at the end of the war was essentially strong. Large export surpluses during the war had resulted in the accumulation of substantial foreign exchange reserves. The immediate post-war years were a period of sustained and strong external expansionary forces. There was vigorous demand for Canadian products in international markets, supported by large-scale Canadian aid for reconstruction in Britain and other European countries. The general dislocation which the war had caused in the economies of many other industrially advanced nations limited their ability to compete either for world markets or in Canada. In 1946, the Canadian dollar was revalued to par with the United States dollar.

Over the next few years, however, Canada had a rather turbulent balance of payments experience. As a result of dynamic expansion of domestic output and income, imports of capital equipment, consumer goods and industrial materials rose rapidly. There was also an exceptionally fast increase in exports. But partly owing to substantial

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Canadian credit-financed exports to aid reconstruction in Britain, as well as in various other European countries, Canada's foreign exchange reserves came under heavy pressure in 1947, and emergency measures were necessary to deal with the balance of payments strains. Subsequently, in 1949, with widespread devaluation of European currencies, the Canadian dollar was devalued to 90.9 Canadian cents to the United States dollar again. Yet, in only a little over a year, with the resources boom and the surge of capital inflows being generated by the Korean War, strong upward pressure on the Canadian exchange rate required another exchange rate adjustment. On this occasion, Canada moved from a fixed exchange rate to a floating rate, allowing demand and supply forces to determine the appropriate level in the rate, without official intervention except to smooth irregularities. By 1951 all remaining exchange controls were abandoned.

During the earlier and middle part of the 1950's Canada's international payments position responded naturally to the combined stimulus of strong domestic investment and of fairly vigorous policies of economic restraint. Large inflows of foreign capital went hand-in-hand with the high domestic investment, with substantially enlarged imports of capital and other goods and materials, and with such incentives as increased interest rate differentials and profit anticipations. This was neither a new nor a surprising payments position in relation to the economic conditions of the mid-1950's. Very similar developments, for example, had occurred during the period from 1900 to the outbreak of First World War. In both of these periods there were large investment programmes and trade deficits. In each period, investment represented 20 to 25 per cent of Gross National Product. But in the earlier period, the long-term capital inflows and the current account deficits were, in relative terms, several times larger than those in the 1950's.

By the late 1950's, however, after the upsurge of investment had ended, and after domestic economic weaknesses had become much more obvious and pervasive, the persistence of upward pressure on the exchange rate, together with large capital inflows and substantial current account payments deficits, became less appropriate. In retrospect, it is clear that the adjustment of the exchange and payments position to slower growth and large-scale unemployment came much too slowly. Various factors appear to have impeded and frustrated swifter adjustment, including some external factors beyond Canada's capacity to influence. However, the adjustment also appears to have been impeded by the maintenance of inappropriately higher interest

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rates in Canada than in the United States which encouraged a continued heavy capital inflow, thereby maintaining an excessively high exchange rate. This, in turn, discouraged exports and encouraged imports.

Starting in 1960 the exchange value of the Canadian dollar began to decline to a more appropriate level with the effect of improving Canada's international competitive position. And over the past few years, on one of the rare occasions in the post-war period, an improvement in Canada's international trade balance and current account payments balance has gone hand-in-hand with a relatively long period of business expansion. One of the most unusual events in the course of this improvement was an exchange crisis in 1962 which involved a temporary collapse of long-term capital inflows leading to a substantial loss of foreign exchange reserves, and to subsequent speculative short-term capital outflows. This culminated, first, in a further devaluation of the Canadian dollar and a return to a fixed exchange rate mechanism, and then in a number of emergency measures to defend the new fixed rate of 92.5 cents to the United States dollar. Although the size of the structural deficit on non-merchandise transactions had left the balance of payments vulnerable to any decline in long-term capital inflows, the immediate elements in the crisis and in its timing reflected psychological and speculative considerations rather than any major shift in economic forces. In any event, it was a crisis which evaporated swiftly, once the firm decision to defend the Canadian dollar had been made clear.

From this brief account of post-war experience, it is obvious that Canada's balance of payments position is highly sensitive both to internal policies and to external influences, and that these factors require constant and close attention.

BALANCED REGIONAL DEVELOPMENT

Ever since Confederation, the notion of "balanced regional development" has been an implicit, if not explicit, objective of national policy. In this historical tradition, the Economic Council has been given terms of reference requiring it "to study how national economic policies can best foster the balanced development of all areas of Canada." The concept of balanced economic development, however, is difficult to define in unequivocal terms. Nor is there a clear consensus as to how progress towards its achievement should be judged and measured.

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Thus, the goal of balanced development involves much more complex issues than the four basic economic goals previously discussed. Moreover, these conceptual and practical difficulties greatly complicate the task of devising appropriate criteria for policy formulation in this field.

One of these difficulties arises in any attempt to assess the degree of regional participation in Canadian economic growth. Despite its admitted conceptual weaknesses, however, the change in personal income per capita is frequently used as a rough statistical measure of comparative economic growth among the various regions. In these terms, all five main regions in Canada have participated broadly, in per capita terms, in the very substantial rise in income which has taken place since the 1920's—a rise of more than 100 per cent in real income per capita from 1926 to 1962. Moreover, as shown in Table 7, rates of growth in personal income per capita among these regions have been closely bunched around the average rate for Canada as a whole.

TABLE 7—LEVEL AND GROWTH OF
PERSONAL INCOME PER CAPITA BY REGION

Region	Level			Growth	
	1927	1947	1962	1927-62	1947-62
	(Current dollars)			(Average annual percentage change)	
Atlantic*	286	633	1,124	4.1	4.2
Quebec	378	709	1,442	3.9	4.9
Ontario	509	981	1,930	3.9	4.6
Prairies	468	872	1,636	3.6	4.3
British Columbia	535	980	1,970	3.6	4.4
Canada	435	835	1,600	3.8	4.5

*Excluding Newfoundland.

NOTE: Data are for three-year averages centred on the year shown.

SOURCE: Based on data from Dominion Bureau of Statistics.

The post-war rate of income growth in some regions includes a larger element of federal government transfer payments which tends to mask an underlying relative deterioration in income-generating activities within certain regions. Moreover, considerable

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differences in per capita income levels have persisted between Canadian provinces over the past four decades (see Table 8).

The ranking of regions on this basis has not changed significantly since the 1920's, except that Ontario has replaced British Columbia with the highest income per capita. Table 7 also shows that for the whole period since 1927, income levels in both the Atlantic Region and Quebec, which are below the Canadian average, have been increasing somewhat more rapidly than income levels in the country as a whole.

TABLE 8—PERSONAL INCOME PER CAPITA AS A
PERCENTAGE OF THE NATIONAL AVERAGE

Province	1927	1947	1962
Newfoundland.....	—	—	59
Prince Edward Island.....	56	56	62
Nova Scotia.....	67	80	75
New Brunswick.....	62	72	67
Quebec.....	85	83	87
Ontario.....	115	115	117
Manitoba.....	103	103	98
Saskatchewan.....	101	96	96
Alberta.....	115	109	101
British Columbia.....	121	115	114

NOTE: Data are three-year averages centred on years shown.

SOURCE: Based on data from Dominion Bureau of Statistics.

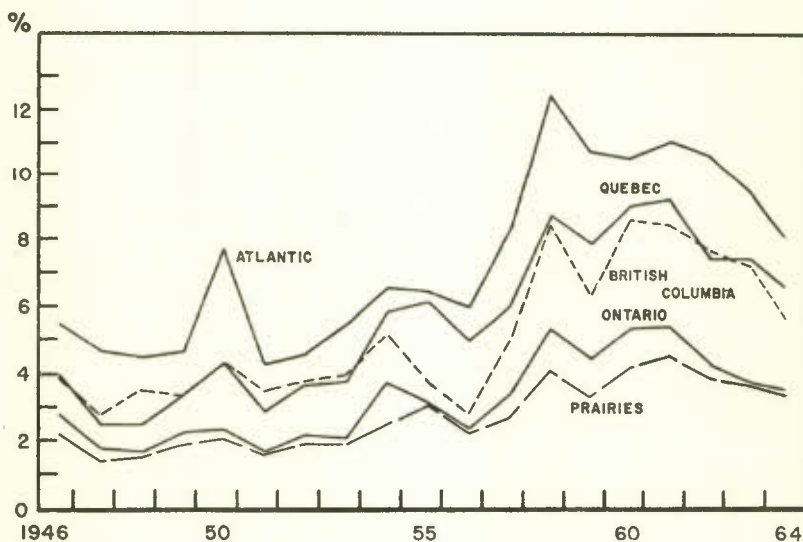
An examination of the post-war data suggests, however, that the forces tending to narrow differences between regional income levels have weakened considerably. During this period regional rates of income growth were higher in all regions and also showed a somewhat greater divergence. Ontario recorded a rate of income growth slightly above the average for Canada, while the rate of increase in Quebec was well in advance of the average. Personal income in the Atlantic Region grew at a rate which was significantly below that of the country as a whole and was little changed from the rate of increase which the region had experienced over the longer period.

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Sustained over-all economic growth and high employment in the Canadian economy appear to facilitate regional economic adjustments and to attenuate regional economic problems. Conversely, with slower over-all expansion, the longer term economic weaknesses and problems of some regions become more apparent. This can be illustrated with reference to regional unemployment trends over the past decade.

As large-scale unemployment developed in the latter part of the 1950's, the unemployment rates increased to much higher levels in some parts of Canada than in others. For example, in Ontario and the Prairies, the rates of unemployment rose from around 2 per cent in the early post-war period to a range of 4 to 5 per cent by the end of the 1950's. Quebec and British Columbia which had experienced unemployment rates of about 3 to 4 per cent in the early post-war period registered rates of 8 per cent or more in 1958 and 1960-61. And the Atlantic Provinces which had about 5 per cent rates in the earlier period climbed to 10 to 12 per cent rates by 1958-61 (see Chart 11).

CHART 11
REGIONAL UNEMPLOYMENT RATES
(ANNUAL AVERAGE PERCENTAGE OF LABOUR FORCE UNEMPLOYED)



Source: Dominion Bureau of Statistics; estimates for 1964 by Economic Council of Canada.

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The Chart also indicates the existence of basic structural differences in unemployment rates between different regions of the country, especially in view of the persistent differences in rates between regions even under conditions of relatively sustained high employment in the early post-war period. But there is economic evidence to suggest that the changes occurring in regional unemployment rates during the 1950's were not due to any *structural* changes then taking place in the economy, but rather to the general weakening of demand. In other words, this evidence suggests that with the re-emergence of a more satisfactory growth performance for the economy as a whole, the declines in unemployment rates would be general. Such a development has in fact appeared since 1961.

THE POST-WAR RECORD AS A WHOLE

Looking back over the post-war period as a whole, it would appear that the Canadian economy has passed through two distinctly different phases of economic performance, and may now have entered a third phase. The first of these phases, which stretched through the earlier post-war years into the early 1950's, was a period characterized by almost consistently high employment and well sustained increases in productivity and growth in total output. At the same time, this period was marked by special and recurrent price and cost pressures and strains in the balance of payments. Subsequently, during the 1950's, there was a transition to a totally different situation in which the economy, for a variety of causes and in a variety of different ways, lost momentum and suffered a significant deterioration in its competitive position. This was a period marked by relatively high unemployment, slow gains in productivity and total output, a relatively high degree of price and cost stability, and a loss of strength in the balance of payments which was a reflection of many different factors, including inappropriately high levels of the exchange rate and interest rates.

More recently, since 1961, the economy appears to have entered a third phase in which a degree of reduction in unemployment has been achieved, productivity gains have been improved, balance of payments strains have been eased, and reasonable price and cost stability has been largely maintained.

How to sustain and enhance high levels of performance, especially as regards employment and productivity, is one of the principal sub-

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jects of concern in this Review. It is our belief that over the post-war period, the absence of careful, consistent and regularly published appraisals of underlying forces and trends, and of medium-term future possibilities and problems, in the Canadian economy contributed in some measure to the failure to develop policies for the achievement of a consistently better economic performance. In particular, there does not appear to have been an adequate and soundly explored basis for consistent, confident and appropriate adaptation of both private decisions and public policies towards the achievement and maintenance of high standards of over-all performance in the economy. The Economic Council has been given responsibility for helping to fill this gap. The next several chapters of this Review set forth our initial, and in some respects incomplete, analysis and findings regarding the future potentialities and problems of the Canadian economy in 1970.

Potentialities for Growth of the Canadian Economy

THE ACT establishing the Economic Council of Canada calls upon the Council to examine the "potentialities" for growth of the economy.

It is important at the outset to define and clarify what we mean by the term "potential". The potential of an economy may be broadly defined as its inherent capacity for development or achievement. It generally refers to a calculated measure of the total volume of production consistent with reasonably full and efficient use of the economic resources available to a nation. Thus, it is essentially a measurement of the supply factors and capabilities of the economy, and assumes that the favourable and appropriate demand conditions necessary for its actual achievement can be generated. Such calculations can be made not only to indicate future potentials, but also to indicate the potentials of the past with which the actual performance of the economy can be compared. Many practical working assumptions are, of course, necessary as a basis for such calculations.

As regards future potentialities, we have limited our calculations to the economy as a whole, and to the period ending in 1970. We emphasize that such a measure of the country's economic potential is not an economic forecast. It is a calculation of the possible—in a sense, a target to be aimed at—not a projection of the probable. Moreover, it does not represent the highest possible level of attainment under the best of all possible circumstances, but rather an indication of productive capabilities under reasonable expectations of performance. Thus, it is not impossible for an economy to exceed its indicated potential, at least for a time, under exceptionally ex-

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pansionary conditions, or under conditions of exceptional exertion (during wartime, for example) in much the same way as the output of an industrial plant may occasionally exceed rated capacity.

The potential output of the Canadian economy in 1970 will be determined essentially by three factors. These are the size and structure of the labour force, the extent to which the labour force is employed, and the productiveness of those employed. These factors, in turn, depend on many other complex matters, such as the age composition of the population, immigration, the education and skills of labour and management, the mobility of manpower and other resources in adjusting to new opportunities for more productive employment, the volume of new investment, technology and natural resources, the framework of economic policies, and international economic conditions.

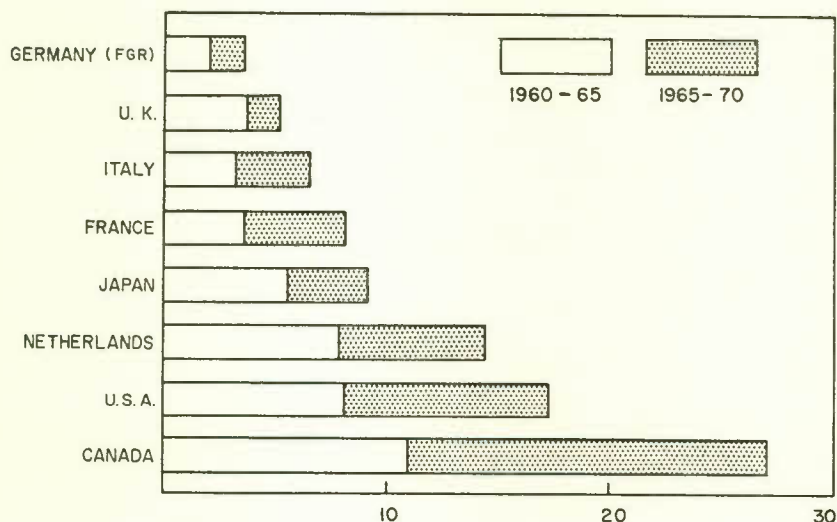
Our calculation of potential leans heavily on past rates and patterns of performance in regard to these factors. In so far as we can improve on the past record, it may be possible to go beyond the levels of achievement indicated by our assessment of potential—if not in the relatively short time-span to 1970, more certainly over the longer term. Some of the ways in which we can make this eventuality more likely are discussed in later parts of this Review.

LABOUR FORCE AND POPULATION GROWTH TO 1970

Canada is expected to have a more rapid rate of labour force growth during the 1960's than any other industrially advanced country in the western world. In fact, the increase in the labour force is likely to be several times the anticipated rates of increase in most European countries, and well over 50 per cent higher than that in prospect in the United States (see Chart 12). Moreover, the rate of labour force increase in Canada is expected to accelerate during the latter half of the 1960's (even with only moderate levels of immigration), and a continuing high rate of increase can be anticipated at least until well into the 1970's. An annual rate of increase of about 2.8 per cent is in prospect for the period 1965-70, a rate which is fully one third above the average rate recorded in the 1960-65 period. Thus, with the prospect of an unprecedented addition of over one million persons to the labour force over the five-year period 1965-70, Canada is moving towards one of the highest rates of labour force expansion in its entire history.

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CHART 12
PERCENTAGE INCREASES IN LABOUR FORCE, 1960-70



Source: Based on data from the European Economic Community, the National Economic Development Council of the United Kingdom, the Organization for Economic Co-operation and Development, the Economic Planning Agency of Japan, the United States Bureau of Labor Statistics and the Dominion Bureau of Statistics and estimates by the Economic Council of Canada.

Even more dramatic than the expected changes in the total labour force, however, are indicated changes in its particular components. The impact of the early post-war "baby boom" has been modified and delayed during the last few years by the tendency for young people to stay in school longer. But this has only acted as a temporary brake. Now the full force of the wave is starting to be felt in the labour force as the leading edge of this wave pushes up through the age structure of the population. Thus, the number of people in the 20-24 age group in the labour force is expected to increase by 33 per cent from 1965 to 1970, and by 57 per cent over the decade as a whole. Whereas the male labour force in this age group increased by only 25,000 in the decade of the 1950's, in the 1960's it will increase by 270,000, or more than ten times as much. In other words, the average increase for this group each year will exceed the increase which took place over the whole of the last decade.

Another striking aspect of labour force growth is the rapid increase in the number of working women. The female labour force numbered a little over a million in 1950 and over one and a half million in 1960.

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By 1970, it is expected to number about two and a half million, accounting for almost a third of the total Canadian labour force. By the end of the decade, about three out of every ten married women are expected to be in the labour force, compared with only one out of ten in 1950.

The dominant factor accounting for the current expansion in the labour force is the increase in Canada's population of working age. Basically this increase reflects the remarkably high birth rates experienced in Canada in the decade following the war. In this regard, as shown in Table 9, the rates registered in this country were significantly higher than in most industrial countries of the western world.

TABLE 9—BIRTHS, DEATHS AND NATURAL INCREASE IN
POPULATION, 1945-54

(Average rates per 1,000 population)

	Births	Deaths	Natural Increase
Canada.....	27.4	9.1	18.3
Netherlands.....	24.0	8.5	15.5
United States.....	24.0	9.8	14.2
Japan.....	26.9	13.1	13.8
Australia.....	23.2	9.8	13.5
Italy.....	19.8	10.6	9.2
Sweden.....	17.3	10.1	7.2
France.....	19.9	13.4	6.5
United Kingdom.....	17.1	11.7	5.4
Germany (FGR).....	16.5	11.0	5.5
Belgium.....	17.0	12.8	4.2

SOURCE: United Nations.

Immigration has at various times in the past made an important contribution to the growth of Canada's labour force. This was so in the 1950's, when the domestic supply of young people was severely limited by the low pre-war birth rates, and the expansion in the labour force was heavily dependent on foreign sources of manpower. It is estimated that net immigration accounted for two thirds of the total labour force increase in the period 1950-55 and for almost half of the increase over the decade as a whole (see Table 10).

The situation is now strikingly different. During the decade 1960-70 the increase in the labour force from domestic sources will be more

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than twice as great as in the decade 1950-60. Indeed, during the decade of the sixties the number of additional employment opportunities required to match the increase in the labour force from domestic sources alone (without taking any account of net immigration) will be at least 20 per cent greater than all the additional jobs which were required in the decade of the fifties for both relatively heavy immigration and domestic labour force growth. These changes also imply a reduced reliance in the 1960's on supplies of skilled and professional manpower from abroad and greater dependence on the development of such manpower in Canada. These are crucially important matters which we discuss in further detail in Chapter Eight.

TABLE 10—SOURCES OF LABOUR FORCE GROWTH

(Estimated average annual increase in thousands)

	1950-55	1955-60	1960-65	1965-70
Net Immigration.....	60	55	10	30
Domestic Supply.....	30	105	125	175
Total Labour Force Growth Per Year	90	160	135	205

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

In the 1950's the labour force grew less rapidly than the population. Several factors were responsible for this, including the continuously high birth rate, the relative shortage of young men and women of labour force entrance age, the sharp rise in average school-leaving age, and the marked tendency towards earlier retirement. The situation is different in the 1960's. With the massive influx of young people and the rapid increase in the number of working wives, the labour force is expected to grow at a faster pace than the population.

Changes in Total Population

Canada's population crossed the 19 million mark in the latter part of 1963. We estimate that it will cross the 20 million threshold in 1966 and approach 22 million by the end of 1970. Taking the decade of the 1960's as a whole, the increase would be roughly 22 per cent. This would be appreciably lower than the rate of population expansion in the 1950's, but would approximately equal the average

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rate since the beginning of the century. The over-all rate of increase is expected to be slightly higher in the second half of the 1960's than during the first half.

As in the case of the labour force, however, the changes taking place within the population structure during the 1960's are much more striking than the change in the total population. In particular, the children of the wartime and post-war "baby boom" will be moving through their late teens and into their early twenties. From 1960 to 1965, for example, the increase in the 20-24 age group will be almost 20 per cent, and from 1965 to 1970, this group will grow by an additional 30 per cent, making a total increase over the decade of well over 50 per cent. In contrast, this age group increased by less than 7 per cent from 1950 to 1960. This impressive change implies many related shifts—for example, in family and household formation, which we discuss in Chapter Four. On the other hand, the number of people in their thirties, after having increased by over 26 per cent during the 1950's, will experience a moderate decline in the 1960's, reflecting the low birth rates of pre-war years.

TABLE 11—CHANGES IN POPULATION, 1960-70

	June 1 1960	June 1 1970	Change	
	(thousands)	(thousands)	Thousands	Percentage
Total population.....	17,870	21,729	3,859	21.6
20-24 age group.....	1,179	1,821	642	54.5
30-39 age group.....	2,520	2,441	-79	-3.1

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

Net immigration is by far the most volatile element in Canada's population growth. It is therefore the most difficult to anticipate. The immigration and emigration assumptions underlying our population projections for 1965-70 are for average annual gross immigration of 125,000, average annual emigration of 75,000, and resulting average annual net immigration of 50,000.

These assumptions imply immigration rates, both gross and net, that are lower than those recorded through much of the 1950's, but higher than those of the past few years. Various considerations were taken into account in setting these assumptions. First, we have

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had regard to the unprecedented expansion of the labour force in the 1960's from domestic sources. Second, with regard to emigration, our assumption is that on the average in 1965-70 it will be moderately higher than in recent years. Third, the exceptionally high levels of immigration of the early and mid-1950's were taken to be a reflection, in large measure, of the special circumstances of the period. With the economies of Europe now fully recovered from World War II and growing at a rapid pace in conditions of general labour shortage, the potential supply of immigrants from this source has naturally diminished. Moreover, contributing significantly to the large influx of immigrants from Europe from the latter part of the 1940's and through the late 1950's were such special conditions and events as the large numbers of displaced persons in Europe after the war, the degree of insecurity and fear attaching to the Stalinist period, the Hungarian Revolution and the Suez crisis.

On the other hand, the gap in real per capita income between North America and virtually all other parts of the world, although currently narrower than it was, remains and will continue to provide an incentive to immigration in the years ahead. Our immigration assumptions are, of course, predicated upon the achievement of potential Canadian output and employment by 1970.

At a rate of 50,000 per year, net immigration would account for only about 12 per cent of total population growth between 1965 and 1970. Even if the rate were to be considerably higher, it would still not represent a very large part of the total increase. Thus, while we believe that these immigration assumptions are reasonable in the light of past developments and consistent with our future potentials, it should be emphasized that our population and labour force projections would not have been affected to any appreciable extent in terms of numbers were we to have chosen rather different rates. But a high component of skilled and professional categories among immigrants would make an important contribution to the productivity of the economy.

EMPLOYMENT POTENTIAL TO 1970

The question as to what would be a reasonable employment target for the Canadian economy is a particularly difficult one to answer. The concept of full employment varies considerably from country to country. Nowhere does it mean 100 per cent employment of the labour force. In any free society—even in countries experiencing an

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intense labour shortage—there is always a certain minimum amount of voluntary or unavoidable unemployment as workers move from one job to another.

In the light of careful studies, we have concluded that a 97 per cent rate of employment, or a 3 per cent rate of unemployment, of the labour force would constitute a realistic objective to be aimed at over the balance of the 1960's, and that economic policies should be actively directed towards the achievement of this target. We recognize that this target has important implications for other basic economic objectives—such as the maintenance of reasonable price stability and a viable balance of payments position—and we discuss the consistency of these broad economic goals in the final chapter of this Review.

Our target of 3 per cent unemployment, or 97 per cent potential employment of the labour force in 1970, recognizes that in a complex and dynamic industrial economy, a minimal amount of frictional and structural unemployment is normal and natural, and that changing seasons in a country such as Canada will inevitably be accompanied by some elements of seasonal unemployment.¹

Having regard to the extremely large rise in the labour force which we have already emphasized above, and also to the fact that our target of 3 per cent unemployment is around 40 per cent below the current level of unemployment in Canada, we recognize that this target will not be easily achieved. But we are satisfied that, given favourable domestic and world economic conditions and appropriate economic policies, it is a practicable objective.

At the same time, we wish to emphasize that while we consider this target to be a realistic objective for 1970, we do not regard it as an ultimate or ideal goal. Improved manpower policies can and should be developed and deployed which, over the longer run, would help to reduce the minimum levels of frictional, structural and seasonal unemployment, thus making possible a higher em-

¹ These three categories of unemployment may be defined as follows:

Seasonal—temporary unemployment arising from the variations in climate which affect production, consumer buying habits, and labour force entries and exits.

Frictional—short duration unemployment arising from the movement into the labour force of new entrants or re-entrants and from the movement of workers from one job to another.

Structural—long-duration unemployment arising from structural changes in the character of the demand for labour, coupled with the failure of the labour supply to adjust swiftly to these changes.

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ployment target. In Chapter Eight we discuss in more detail various measures to enhance the geographic and occupational mobility and the education, training and skills of workers—measures which would permit us to aim at a higher employment potential as a longer run goal.

Certain important features of our employment target deserve special emphasis. First, it should be noted that the 97 per cent employment potential is an *average annual rate*. This means that its attainment would imply a lower rate in winter and a higher rate in other months. Second, this rate is a national average; it would be composed of regional rates which vary to some degree. Third, this rate is intended to reflect a goal for a year of high activity within the short-term business cycle. But while short-term movements away from this minimum would occur during recessions, persistent deviations would suggest a general deficiency of demand calling for remedial measures. Fourth, we believe that this potential level of utilization of the labour force can be achieved on a sustained basis only if effective labour market policies are developed to promote higher and more efficient use of our manpower resources.¹

Finally, we wish to emphasize a further important matter relating to our employment potential. This concerns the duration of unemployment under minimum unemployment conditions. Clearly both the economic and the welfare implications of unemployment are quite different in circumstances in which, say, 10 per cent of the labour force in any year may suffer one week of unemployment each, and those in which 1 per cent may experience ten weeks each. If it takes a long time for an unemployed person to find a job,

¹ The experience of other countries in the sphere of selective manpower policies is instructive. Thus teenage unemployment rates in Britain are scarcely higher than the adult rates (in Canada since the war they have been consistently as much as two or three times as high) largely as a consequence of a comprehensive programme directed specifically to young workers and consisting of a national vocational guidance programme, an active youth employment service and a broad programme of apprenticeship and other formal vocational training. In Sweden, a broad range of selective labour market policies, including financial assistance for moving, provision of housing, extensive training and retraining programmes, co-ordinated and extensive programmes for collecting and disseminating current labour market information and forecasts, placement services, vocational guidance, industrial location research and counselling, serve to minimize frictional unemployment rates and to facilitate structural transformation in the economy. In the Common Market countries a combined programme of "readaptation" (inducements to mobility and assistance for retraining) and "redevelopment" (creation of new employment opportunities in depressed areas) has been adopted to minimize the adverse effects of structural change. All such policies have been instituted under conditions of high levels of over-all demand.

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it is not only a matter of individual welfare; it is also symptomatic of either general conditions in the economy having adverse effects on the demand for labour, or deficiencies in the way in which the labour market fulfills its role in matching workers with jobs.

In recent years certain groups in the labour force have suffered from a combination of both high rates of unemployment and long average periods of unemployment. Such workers endure serious loss of income as well as other adverse effects of prolonged idleness. In the most extreme cases, unemployment of very long duration may well lead to unemployability.

The unfortunately large extent of long-duration unemployment in recent years, however, has undoubtedly been closely related to the relatively high over-all rates of unemployment. Clearly our employment target precludes any sizeable element of long-duration unemployment.

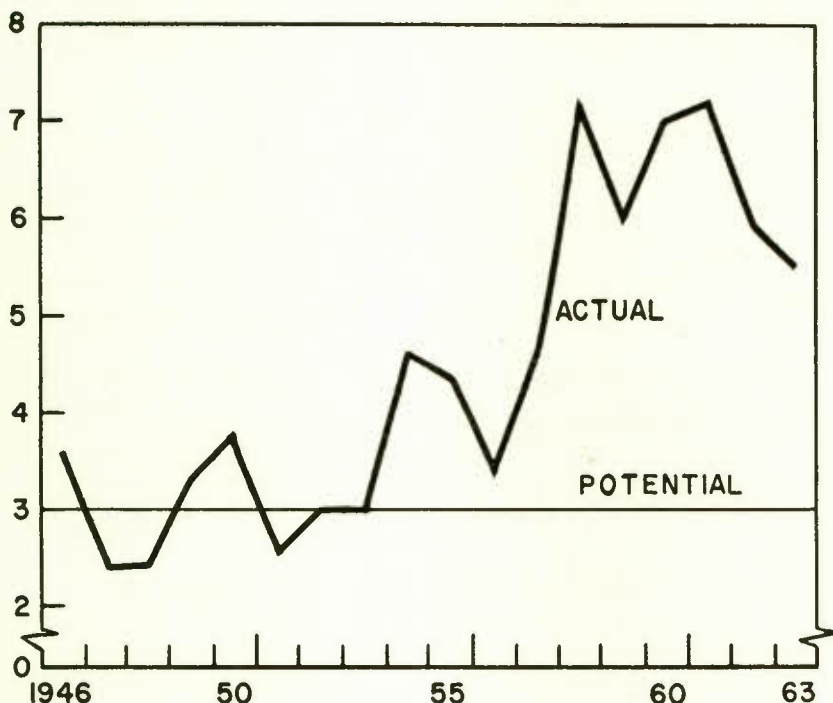
Our 97 per cent potential employment target for 1970 would approximate the comparatively high standard of employment performance in the Canadian economy from 1946 through 1953, when unemployment averaged about 3 per cent. We have concluded, moreover, that if the country had, in fact, sustained high levels of demand throughout the post-war period, the minimum rate of unemployment consistent with such conditions would have been around 3 per cent. This view is based upon a systematic analysis of the basic components of unemployment in the Canadian context.

Actual unemployment in recent years in Canada has been well above the 3 per cent level which we are using as a working assumption for the calculation of potential output (see Chart 13). In 1963, for example, with actual unemployment at 5.5 per cent, there was a gap of 2.5 percentage points between actual unemployment and the target rate which we have postulated. One of the most important implications of this is that in order to achieve our employment potential of 97 per cent by 1970, the economy must achieve a sufficiently large rise in employment to absorb not only the very large expansion in the labour force already outlined above, but also a substantial proportion of already existing unemployment.

Applying our concept of employment potential to our labour force projections, we arrive at the conclusion that in order to achieve our employment target, civilian employment will have to increase from 6,364,000 in 1963 to 7,883,000 by 1970. This will require the net addition of 1,500,000 new jobs. Such an increase is equivalent to an

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CHART 13
UNEMPLOYMENT AS PERCENTAGE OF
LABOUR FORCE



Note: Estimates not adjusted for Newfoundland prior to 1949.
Source: Based on data from Dominion Bureau of Statistics.

average annual growth of 3.1 per cent which is twice the actual rate of employment increase from 1956 to 1963. It is also substantially above the 1.8 per cent annual growth of 3.1 per cent which is twice the actual rate of employment increase from 1956 to 1963. It is also substantially above the 1.8 per cent annual rate of employment growth in 1946-56. Table 12 sets these figures in perspective in relation to population, labour force and unemployment trends.

The clear implication from this analysis is that we are standing on the threshold of a period in which the pace of expansion in employment will need to be very substantially better than our longer run experience if we are to avoid severe social and economic problems and strains.

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TABLE 12—POPULATION, LABOUR FORCE, UNEMPLOYMENT
AND EMPLOYMENT, 1946-70

	Population: 14 years and over (1)	Civilian Labour Force	Unemployment	Total Civilian Employment
	(Thousands)			
1946.....	8,778	4,810	171	4,639
1956.....	10,805	5,782	197	5,585
1963.....	12,466	6,737	373	6,364
1970.....	14,672*	8,127*	244**	7,883**
	(Average annual percentage change)			
1946-56 (2).....	2.1	1.9		1.9
1956-63.....	2.1	2.2		1.6
1963-70.....	2.3†	2.7		3.1

*Projected

**Potential, calculated at 3 per cent unemployment.

†Calculated after adjustment of the 1963 figure to comparable basis with 1970 estimate.

NOTES: (1) Non-institutional population, excluding the armed forces.

(2) Changes include effect of entry of Newfoundland into Confederation in 1949.

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

POTENTIAL PRODUCTIVITY TO 1970

The productivity of a country's economy—that is, the level of output in relation to the labour required to produce it—is at the heart of its economic welfare and the prosperity of its people.¹ Productivity gains are also the essence of economic growth and are the real source of improvements in average living standards. Moreover, without adequate productivity growth, an industrial nation's competitive position and its international payments position may be subjected to disturbing pressures and strains. Yet the longer term productivity gains of any nation are typically affected by numerous complex forces, many of which are difficult to identify and measure. Indeed, the field of productivity still bristles with technical difficulties, as regards both measurement and analysis.

Annual productivity gains are generally measured by very small numbers, and changes of a few decimal points in the annual rates of

¹The reference in this context is to "labour productivity", that is, the ratio of total net output to labour input. A more comprehensive measure of efficiency or productivity could be computed by taking the ratio of total net output to a weighted combination of all inputs, including labour, capital and all other supply factors.

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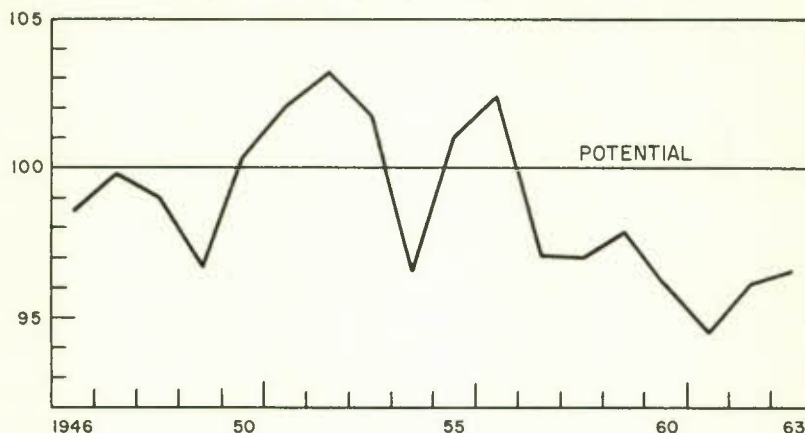
productivity advance in a nation over a period of a few years may well spell the difference between having a dynamic economy or a slack and sluggish one. For example, according to our calculations, the Canadian economy experienced an annual rate of growth of output per person employed of 1.0 per cent per year from 1956 to 1963, as against a potential productivity growth of 1.9 per cent per year over this period. This may appear as a very small difference, but in fact the latter figure is 90 per cent above the former. This difference reflected many factors contributing to a larger shortfall below potential in the case of output than in the case of employment during this period. It was also associated with the piling up of heavy unemployment and with the loss of billions of dollars of production in the Canadian economy. In contrast to the experience of more recent years, output per person employed rose by 3.2 per cent per year in Canada over the period 1946 to 1956. Although this figure was enhanced by the exceptionally favourable crop conditions and the unsustainably strong investment surge in 1956, and therefore exaggerates the underlying productivity trends of the 1946-56 decade, the substantially better productivity performance of these earlier post-war years was clearly associated with the reasonably good employment and growth performance of that period.

To arrive at an estimate of potential productivity gains for the Canadian economy to 1970 has required difficult judgements. In the process of making our estimates we have exercised considerable caution, and our assessments of the productivity capabilities of the economy have been guided by rather conservative interpretations of the relevance for the future of Canada's post-war record of productivity performance. Our conclusion is that the achievement of potential productivity would require an advance in output per man-hour of 3.0 per cent per year and in output per person employed of 2.4 per cent per year over the period 1963 to 1970.

Our calculations have made allowance for some acceleration of productivity gains as the economy moves towards potential from the 1963 level of operation. Actual productivity in the economy in 1963 was below potential in that year (see Chart 14), just as actual employment was similarly below the employment potential in 1963. But our estimate of potential gains in productivity for 1963-70 does not imply any radical departure from Canada's actual over-all productivity performance for the post-war period as a whole. This applies even though this performance is low in comparison with recent and prospective international experience, especially among European

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CHART 14
OUTPUT PER PERSON EMPLOYED,
ACTUAL AS PERCENTAGE OF POTENTIAL



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

countries in which gains in output per worker of 3 to 4 per cent per year have been recorded and are confidently expected to continue.

The fact that our calculations suggest potential productivity gains approximating the average post-war performance implies that such gains would be well above those of the past seven years, but well below those of the 1946-56 period. Table 13 shows not only the actual

TABLE 13—CHANGES IN PRODUCTIVITY AND HOURS OF
WORK, 1946-70

(Average annual percentage change)

	Output per Person Employed		Hours of of Work	Output per Man-Hour	
	Actual	Potential	Actual and Projected	Actual	Potential
1946-56.....	3.2	2.8	-0.9	4.1	3.7
1956-63.....	1.0	1.9	-0.9	2.0	2.8
1963-70.....	(2.4)	1.9	(-0.6)	(3.0)	2.5

NOTE: Figures in parentheses denote change from actual level in 1963 to potential level in 1970.

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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gains recorded but also the potential gains which we have calculated for these years. This is consistent with our view that the country experienced exceptionally high productivity gains in 1946-56 which were partly the result of short-run, non-sustainable factors, and that it subsequently suffered from exceptionally low productivity gains in 1956-63 which mainly reflected a loss of demand strength, but which were also partly attributable to a number of special, short-run retarding factors. In the 1946-56 period, the unusual productivity stimulants included sharply accentuated defence activity after the outbreak of the Korean War; the development of major new natural resource discoveries; extraordinary gains in agricultural productivity; and apparent large-scale shifts of manpower from marginal and relatively inefficient use in some areas of agriculture to much more efficient use in industry. We do not think that we should rely on such factors in the future to provide comparable stimulus to that provided in the earlier post-war period.

The forces depressing productivity advances over the past seven years have been many and varied. These have included the pervasive effects of inadequate aggregate demand which precluded the full and efficient use of existing plant and equipment in many lines of business. There have also been the effects of the loss of competitive strengths, especially as a result of an inappropriately high Canadian exchange rate over much of this period; conditions of sluggish demand for goods and a relatively heavy concentration of expanding activity in the services sector of the economy in which productivity is often relatively low and advances slowly (if at all); uncertainties regarding future economic prospects and problems which had adverse effects on the outlook of the private sector; and the absence of sufficient concern about efficiency as a high priority goal in the Canadian economy. More generally, as considerable slack developed in the economy, there emerged relatively fewer opportunities and pressures for manpower and other resources to flow from less productive to more productive uses between industries, occupations and areas. Such flows tend to increase under conditions of sustained high demand and they both reflect and contribute to processes of economic adjustment under conditions of healthy economic growth. These various checks on productivity growth have already been partly overcome as the economy has moved to a better performance over the past two or three years. The achievement of our productivity potential for 1970 will depend in large measure on the extent to which these factors can be further overcome.

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Finally, while we have drawn attention to a number of special circumstances contributing to unusually high productivity gains in the earlier part of the post-war period in Canada, we should point out that there are a number of other factors, both currently and prospectively, which may be more favourable to productivity gains in the future than in the past. The effects of many of these factors are difficult to measure with precision. We have therefore not attempted to take them specifically into account, but intend to explore further in these areas in the future. In the meantime they should perhaps be regarded as reinforcing our view that our calculations of potential productivity gains to 1970 may well be on the conservative side. Among these factors are accelerating industrial research and technology and its more widespread application, an increasingly educated and skilled labour force, improving managerial competence and know-how, and rapidly growing population and markets in Canada and abroad, providing increasing opportunities for larger scale and more efficient production of many commodities. In addition, as we indicate in Chapter Four, the achievement of potential output by 1970 is associated with a rising trend in the ratio of the stock of machinery and equipment to output. It is perhaps in the light of similar considerations that, according to some recent evidence, there has been both a tendency and an expectation for productivity gains to rise over time in various other expanding industrial economies.

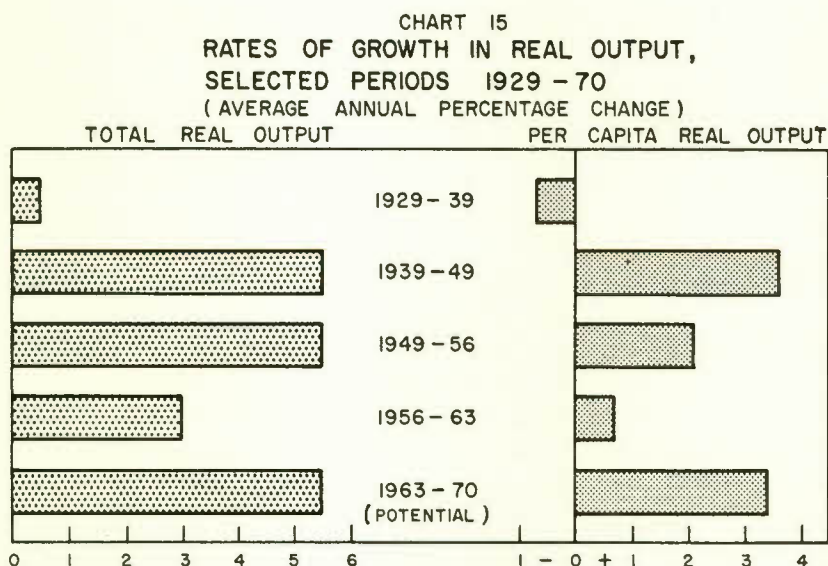
Despite the possible stimulus to productivity gains from such favourable factors, we emphasize that our productivity potential is unlikely to be achieved easily or automatically. In the concluding Chapter of this Review we discuss more fully both the need for a high productivity performance in relation to other economic goals and the economic policies which need to be directed towards its attainment.

POTENTIAL OUTPUT

One of the fundamental findings of our analysis is that the output of the Canadian economy must expand very rapidly and very substantially between now and 1970 if our growing labour force is to be employed both fully and efficiently. The achievement of our potential output target for the economy by 1970 calls for an average advance of 5.5 per cent per year in the volume of total production of goods and services from the actual level in 1963. This is the rate of expansion in output which we believe to be attainable on the basis of our

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projections of the growth of the labour force and of our calculations of the employment and productivity potentials to 1970. This rate of growth required for the achievement of potential output by 1970 and the accompanying rate of growth in per capita output are shown in Chart 15, which compares these rates with those actually recorded for various periods since 1929.



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

The chief elements in our calculations of potential output, and the growth rates needed to achieve this potential, are summarized in Table 14. The Table indicates the important differences in trends and potential performances in the main sectors of the economy.

One of the important factors contributing to the high rate of growth of output—especially of nonfarm output—required to reach our 1970 potential is that actual nonfarm output in 1963 was well below its potential. Farm output in 1963, however, was above its potential due to especially large crops and would need to grow at only a relatively slow rate, as shown in Table 14, to attain its 1970 potential. Thus the attainment of potential by 1970 requires both a closing of the existing gap between actual and potential output in the nonfarm sector, as well as an increasingly productive use of the swiftly expanding labour force.

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TABLE 14—RATES OF GROWTH TO REACH ESTIMATED
POTENTIAL BY 1970

(Average annual percentage change from actual 1963 level)

	Output	Employ- ment	Output per Person Employed	Hours	Output per Man- Hour
Total Economy.....	+5.5	+3.0	+2.4	-0.6	+3.0
Agriculture.....	+0.5	-2.3	+2.9	-0.4	+3.4
Nonagricultural Sector..	+5.9	+3.5	+2.3	-0.5	+2.8
Public and Communi- ty Services.....	+4.3	+4.8	-0.5	-0.5	0
Commercial.....	+6.1	+3.2	+2.8	-0.5	+3.3

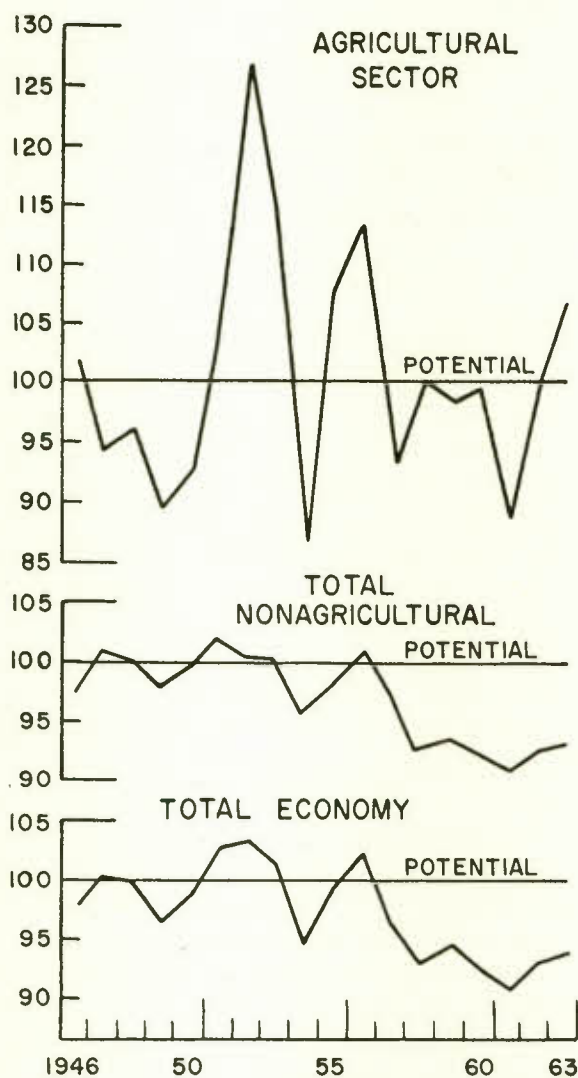
In this context, it is useful to look briefly at the actual levels of output over the post-war period in relation to year-by-year estimates of potential output over this period. Over the first eleven years after the Second World War the economy operated relatively close to its potential (see Table 15 and Chart 16). This was especially true for the

TABLE 15—ACTUAL OUTPUT AS A PERCENTAGE
OF POTENTIAL OUTPUT

	Total Economy	Total Nonagricultural	Agricultural Sector
1946.....	98	97	102
1947.....	100	101	94
1948.....	100	100	96
1949.....	97	98	89
1950.....	99	100	93
1951.....	102	102	105
1952.....	103	101	127
1953.....	102	100	114
1954.....	95	96	86
1955.....	99	98	108
1956.....	102	101	114
1957.....	96	97	93
1958.....	93	92	100
1959.....	94	94	99
1960.....	92	92	99
1961.....	91	91	89
1962.....	93	93	99
1963.....	94	93	107

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CHART 16
ACTUAL OUTPUT AS
PERCENTAGE OF POTENTIAL OUTPUT



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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nonfarm economy as a whole, which operated within two percentage points of its potential output in nine out of the eleven years from 1946 to 1956. Substantial variations in crop conditions naturally tend to produce considerable volatility in the agricultural sector. Only in 1946 and 1954, both years of moderate recessionary influences, was nonfarm output appreciably below its potential—although unemployment was somewhat higher through the mid-1950's than immediately after the war. By contrast, since 1957 the level of nonfarm output has in no year been within 6 per cent of potential, and in 1961, another year of recession, it was about 9 per cent below potential. Preliminary indications are that on the basis of the relatively strong business upturn over the past year, the nonfarm economy in 1964 may have reached a level of about 5 per cent below potential. This would represent the best performance of the economy in relation to its potential since 1957.

We emphasize that the extent to which the actual performance of the Canadian economy has fallen below its potential in recent years has been conservatively estimated. For example, our estimates make no allowance for the possibility that under more prosperous conditions more Canadians would have entered the labour force to seek employment. Nor do they allow for the probability that under such conditions there would have been more net immigration and higher levels of investment leading to a greater expansion of productive facilities. In addition, as we have already indicated, we have adopted a cautious view on post-war productivity trends in the belief that at least a part of the rapid productivity gains in the earlier post-war period is attributable to short-run, non-sustainable factors, and that not all of the subsequent slow-down in productivity growth can be accounted for merely by a loss of strength in demand.

In 1963 the economy was thus operating at an actual level of about 6 per cent below potential. It may appear surprising that such a large gap is indicated between actual and potential output in a year in which, as already pointed out, the "unemployment gap" was 2.5 percentage points—that is, the difference between the actual level of 5.5 per cent unemployment and our 3 per cent unemployment potential. The most important among the various factors which help to explain this apparent discrepancy is the fact that exceptionally rapid gains in productivity typically arise when a sluggish economy returns to a high level of use of its productive capacity on a sustained basis. In particular, nonproduction workers tend to be underutilized during

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periods of general economic slack, and their productivity tends to expand swiftly in business upswings.

We have not taken a position on the probable, possible or desirable path of gains in output year by year between 1963 and 1970. We have dealt with the *average annual rate of growth* necessary to attain reasonable output capabilities of the economy by 1970. In reality, of course, the performance of the economy cannot be expected to move uniformly from one year to the next.

Thus, our calculations of potential output in 1970 have been essentially designed to set defined targets for potential employment and economic growth in the Canadian economy to 1970. Our economic growth objective, moreover, is basically determined in terms of increased productivity of the Canadian labour force. It is from this increased productivity that rising living standards of Canadians will, in the last analysis, be derived.

The rate of growth of potential output to 1970—5.5 per cent per year from the actual level of output in 1963—may appear high in relation to Canada's long-term historical experience. It also appears high in relation to the growth performances and objectives of many other industrially advanced countries. *But it is not high in relation to Canada's prospective labour force growth* which is well above previous experience.

Indeed, the ratio of the rate of increase of output to the rate of increase of employment implied in our calculations is not exceptional in relation to Canada's historical experience. Nor is this ratio high in relation to recent experience and to expectations of the future in most other industrially advanced countries.

We underscore the fact that any lower potential output than that which we have suggested for 1970 would imply either a lower employment potential or a lower productivity potential, or both. If actual output in 1970 is below our calculated potential output, it would similarly imply either that actual unemployment will be above our 3 per cent potential unemployment minimum, or that actual productivity growth has fallen short of our 2.4 per cent productivity potential, or both. For example, on the basis of our estimates of the labour force to 1970, if the increase in actual output were to average only 4.5 per cent per year from 1963 to 1970, the achievement of an average productivity advance of 2.4 per cent per year over this period would imply an unemployment level approaching 9 per cent in 1970. Similarly at a 4.5 per cent rate of expansion in actual output, the achievement of a 3 per cent unemployment rate in 1970

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would imply a rate of productivity increase of less than 1.5 per cent per year. These are, of course, only hypothetical calculations; in practical terms, a widening gap between actual and potential output tends to create conditions in which relatively high unemployment and relatively slow gains in productivity go hand in hand.

The attainment of potential output by 1970 also implies, as already indicated in Chart 15, a closing of the existing gap between actual and current potential output. Compared with the gap of approximately 9 per cent which existed in 1960-61, there have only been two previous periods over the past half century when there was greater slack at the beginning of a period of sustained expansion in output; these periods were in the 1930's and in the early 1920's. We estimate that actual output was still about 6 per cent below potential in 1963. On the basis of preliminary information, this gap may have been reduced to about 5 per cent in 1964. It is widely believed that Canada has had an exceptionally rapid expansion in the volume of output beginning in 1961. Yet, this expansion is closing this gap only gradually, not swiftly. In fact, the current expansion has closed only about half of the gap between actual and potential output over the past three years. Having regard to the accelerated expansion of the labour force over the balance of the decade, the actual average rate of expansion achieved over the past three years would have to be maintained over the rest of the decade to bring actual output in the economy to our 1970 potential. Were a recession to be encountered between now and 1970, this would imply the need for even more rapid output gains at some other stage if our potential output target is to be achieved.

This setting of our potential output target in the context of recent Canadian experience may be further elaborated by comparisons in the two key areas of productivity and high employment. First, the assumed improvement in productivity per worker of 2.4 per cent per year from 1963 to 1970 is equivalent to an over-all rise of 18 per cent during these seven years. Such a rise would exceed the productivity gains actually recorded over the full decade 1953-63. Second, the increase in the number of persons employed required to achieve our potential employment target by 1970 exceeds the growth in employment which was actually experienced over twice as long a period from 1949 to 1963.

Observation of recent trends in Canada also indicates that these advances cannot be anticipated equally in all sectors of the economy. Special conditions obtain in the agricultural and service sectors, and

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it is critically important to recognize that the nonagricultural goods-producing industries will have to provide the bulk of the productivity improvement required to attain potential output. At the same time, as the pace of technological advance and automation proceeds unabated, about three quarters of the required new employment opportunities will necessarily have to be developed in the commercial and public service sectors.

For the economy as a whole, which will be growing year by year in size, the increase in the volume of output required for the economy to move from its actual level in 1963 to its potential level by the end of the decade is greater than that actually achieved in Canada over the 14 years from 1949 to 1963. Viewed from this perspective, therefore, the rate of economic growth will have to be rapid and vigorous if the economy is to measure up to its capabilities. By the same token, the advantages to be won from the attainment of our potential output target, and the effort and efficiency required for the task, present a clear and impressive challenge.

Finally, as we stressed at the outset of this Chapter, the calculation of potential output is essentially a measurement of the supply factors and capabilities of the economy. But if such a calculation is to be something more than an artificial, arithmetic exercise—if it is to be a realistic and useful concept as an economic objective—the output, employment and productivity possibilities outlined in this Chapter must be broadly consistent with demand possibilities both at home and abroad. In addition, the employment and growth objectives explicitly indicated in the calculation of potential output must be consistent with other basic economic objectives as we have indicated in Chapter One. These are matters to which we now turn our attention.

4

Consumption and Investment

IN THIS CHAPTER we examine in broad outline how some of the major categories of domestic demand for goods and services might develop as the economy moves to the attainment of potential output in 1970. The uses which are made of productive resources in a modern market economy reflect the needs and desires of the millions of individuals, business and other organizations, and government who participate in economic activities and decisions. The over-all pattern of resource use in Canada may therefore be viewed as the product of such varied and complex influences as basic wants for food, clothing, shelter, education and health services; the growing interest in new and better consumer goods and services which comes with rising standards of living; the provision of public services by all levels of government; and the creation of the vast capital facilities needed to carry on many of the productive processes of modern industrial society.

It should be made quite clear, however, that we have not attempted to forecast precise levels of domestic expenditures. Future spending decisions affecting the development of the Canadian economy between now and 1970 will reflect a whole host of factors, many of which cannot be foreseen. In these circumstances the pattern of potential demand discussed in this Chapter must inevitably be only one in a range of possible combinations which could be envisaged as being consistent with the achievement of potential output. In our analysis of the composition of future demand we have been guided by our studies of the relevant patterns and relation-

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ships of the past and by our assessment of certain expenditure requirements necessary for the attainment of potential output.

The distribution of Canada's Gross National Expenditure for goods and services among broad areas of domestic demand during comparable periods of high-level business activity is shown in Table 16. This Table does not reflect the gross levels of Canada's trade with other countries but only the net surplus or deficit resulting from this trade. It is important to keep in mind, however, that Canada has always been a large trading nation and that patterns of economic activity discussed in this Chapter reflect, to a very significant extent, developments in our external trade which are examined more closely in Chapter Five.

TABLE 16—PERCENTAGE DISTRIBUTION OF GROSS NATIONAL EXPENDITURE BY MAJOR COMPONENTS

	Personal Expenditure	Government Expenditure on Goods and Services	Business Investment and Housing	Other*	Gross National Expenditure
1926-28 average	67.2	10.3	17.6	4.9	100.0
1946-48 average	67.7	13.0	15.3	4.0	100.0
1956-57 average	66.5	16.0	20.9	3.4	100.0
1962-63 average	68.3	15.6	15.6	0.5	100.0

*Includes net balance of exports less imports, changes in inventories and residual error of estimate.

NOTE: Calculated on the basis of 1949 constant dollars.

SOURCE: Based on data from Dominion Bureau of Statistics.

The most striking feature of the Table is the high and relatively stable share accounted for by personal expenditure. For almost four full decades, slightly more than two thirds of total output has typically gone to the consumer sector during periods of high peace-time activity. Government expenditure on goods and services and total private investment, including housing, currently account in each case for approximately one sixth of the total. Government expenditures take a larger share of total output now than formerly, but larger defence expenditures mainly account for this change.

The broad pattern of the increases in the economic resources which would be available under the expansion of the economy to potential output by 1970, and the major uses of that output, are shown in

Consumption and Investment

Table 17. This Table summarizes the major results of Chapters Three to Seven inclusive, in terms of the over-all structure of the supply and use of resources. The total increases in resources available in moving from actual output in 1963 to potential output in 1970 would amount to roughly \$20 billion calculated in 1963 prices, or a rise of 47 per cent. This includes not merely the gain in total output indicated in the analysis in Chapter Three, but also a modest increase in foreign resources potentially available to the Canadian economy, estimated on the basis of past relationships in Canada's international trade and payments (see Chapter Five).

TABLE 17—CHANGES IN AVAILABILITY AND USE OF RESOURCES
1963 ACTUAL TO 1970 POTENTIAL

	1963	1970	Percentage Change	
			Total	Average Annual Rate
	(Billions of 1963 dollars)			
<i>Resources Available:</i>				
Gross National Product...	43.0	62.5	45.4	5.5
Net imports of goods and services.....	0.5	1.6		
	43.5	64.1	47.4	5.7
<i>Use of Resources:</i>				
Consumer spending.....	27.2	38.5	41.5	5.1
Government expenditure on goods and services...	8.1	11.3	40.4	5.0
Gross private fixed investment.....	7.5	13.9	85.3	9.2
Housing.....	1.7	2.6	52.9	6.3
Gross business fixed investment.....	5.8	11.3	94.8	10.0
Construction.....	(2.8)	(5.6)	(100.0)	(10.4)
Machinery and equipment.....	(3.0)	(5.7)	(90.0)	(9.6)
Other*.....	0.7			
	43.5	64.1	47.4	5.7

*Includes change in inventories and residual error of estimate.

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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As indicated in the Table, the major part of the increase in total output to 1970 will be accounted for by higher levels of consumer spending. This potential increase is roughly \$11 billion in 1963 prices, or about 5 per cent per year. Increases in business investment and housing would also be large. In fact, in our calculations, business investment would not only have to be very high to achieve the indicated growth in output, but would also have to increase more rapidly than any other major use of output. The increases in consumer spending, housing and business investment in attaining potential are discussed in the balance of this Chapter. Although our discussion of government expenditure on goods and services is contained in Chapter Seven, some reference is made to government capital spending in this Chapter as a supplement to the discussion of private investment.

BASIC FACTORS INFLUENCING DEMAND

As a prelude to more detailed discussion of major categories of domestic demand, we consider certain key factors influencing demand conditions, namely, international economic trends, population growth, potential income levels and urban growth.

International environment—The demand potential within Canada cannot be developed for Canada in isolation, but must rest on some working assumptions regarding the levels of economic activity in the rest of the world, and especially in the United States. In November 1961, the twenty member countries of the Organization for Economic Co-operation and Development agreed to set as a target the attainment of a 50 per cent (4.1 per cent per year) increase in their combined national product during the decade from 1960 to 1970. A basic assumption in this Review is that relatively high rates of increase in output will be attained and maintained in the rest of the world (see Chapter Five). This is a very important underlying assumption. If the major industrial countries do not achieve sustained growth, it would be very difficult, if not impossible, to realize our employment and output potentials in Canada.

Population growth—A major theme of Chapter Three was the rapid increase in the labour force expected over the balance of the decade. At potential employment in 1970, this expanded labour force would generate very substantial increases in demand. The discussion in the previous Chapter also indicated that there will be substantial

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population growth, together with important changes in the age structure of the population, over the balance of the decade (see Table 18). Such changes have important implications for some categories of demand.

TABLE 18—CHANGES IN POPULATION,
BY SELECTED AGE GROUPS, 1963-70

Age Group	June 1, 1963	June 1, 1970	Change	
	Thousands	Thousands	Thousands	Per Cent
0-14.....	6,400	7,134	+734	+11.5
15-19.....	1,600	2,051	+451	+28.2
20-24.....	1,255	1,821	+566	+45.1
25-29.....	1,178	1,444	+266	+22.6
30-39.....	2,528	2,441	- 87	- 3.4
40-64.....	4,493	5,202	+709	+15.8
65 and over.....	1,442	1,637	+195	+13.5
	18,896	21,730	+2,834	+15.0

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

Changes in family formation also play an important role in some areas of demand, especially housing. During the 1940's, there was a very rapid percentage increase in the number of families, more rapid than has occurred at any time since the First World War. A reduction in the average age at marriage was an important factor. During the 1950's, family formation was maintained at a high level by net immigration. In recent years, the lower level of immigration and the low birth rate of the 1930's have been reflected in an appreciable decline in net family formation. Over the balance of the decade, the growing number of persons in their twenties will be reflected in a sharp rise in the number of families. These changes, together with the changes in nonfamily households, can be seen in Table 19. The influence of these changes in families and households on residential construction will be considered later in this Chapter.

Potential income levels—Our potential output target to 1970 implies an annual rate of growth in average real income of 3.4 per cent per capita. This increase is almost double the rate which prevailed from 1926 to 1963, and is appreciably above that recorded in Canada's longer historical experience. Two important factors con-

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TABLE 19—AVERAGE ANNUAL INCREASES IN FAMILIES
AND HOUSEHOLDS, 1941-76

	Families		Family Households		Nonfamily Households		Total Households	
	'000	%	'000	%	'000	%	'000	%
1941-51	68.2	2.4	56.4	2.2	8.0	2.0	64.4	2.2
1951-61	85.8	2.3	94.3	2.8	20.5	3.8	114.8	2.9
1961-71	90.1	2.0	95.5	2.2	33.0	4.1	128.5	2.5
1951-56	84.6	2.4	91.7	2.9	12.4	2.6	104.1	2.9
1956-61	87.0	2.2	97.0	2.7	28.6	5.0	125.6	3.0
1961-66	72.0	1.7	77.7	1.9	34.5	4.7	112.2	2.3
1966-71	108.2	2.3	113.4	2.5	31.5	3.5	144.9	2.7
1971-76	126.2	2.4	134.1	2.6	30.6	2.9	164.7	2.7

SOURCE: Based on data from Dominion Bureau of Statistics and Central Mortgage and Housing Corporation, and estimates by Economic Council of Canada.

tribute to this result. The expected increase in the labour force will be markedly higher than the increase in total population, the average annual growth rates being 2.7 per cent and 2.0 per cent, respectively. Furthermore, when the economy is coming out of a period of under-utilization of resources, increases in output per person are typically well above the longer term experience. The expansion of income implied by the attainment of potential output would provide a strong underlying basis for higher levels of consumer spending and new housing construction.

Urban growth—Over the past few decades, the growth in population has been heavily concentrated in urban areas.¹ The most generally accepted indicators of "urban growth" suggest that since 1941 more than eight out of every ten people added to the Canadian population have been added to the urban total. During World War II, and subsequently, there has been an acceleration of expansion of urban areas in Canada and, by 1961, 62 per cent of the population was living in urban areas, compared with 52 per cent in 1951.

The rate of growth in urban areas in Canada has been considerably more rapid than in the United States and most European countries. In the 1920's Canada was less urbanized than many other industrially advanced countries, but the differences in the degree of urbanization have diminished substantially since then. This reflects in part

¹ Urban centres of 5,000 population and over, 1961 Census definition.

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the sharp decline in the relative importance of agriculture as an occupation. In 1901, 45 per cent of the male labour force was in agriculture; by 1961 this had fallen to about 13 per cent, with the decline being larger absolutely and relatively in the last two decades than in the earlier four decades of this century.

From 1951 to 1961, about 60 per cent of the total increment to Canada's population occurred in 17 metropolitan areas. Although there was considerable diversity in the rates of growth between one metropolitan centre and another, there was in all cases a higher rate of population increase in the suburbs than in the city centre. For all metropolitan areas, the increase in the suburbs was 97 per cent, or six times that in the city centres.

The pattern of relative decline in the population of rural areas and the relative growth of cities, especially metropolitan areas, is expected to continue through 1970, although with some tempering of the trends of the 1940's and 1950's. This pattern of urban growth has important implications for social capital, housing and municipal expenditures.

CONSUMER SPENDING

Consumer expenditure on goods and services is more than twice as large as all of the other uses of domestic output combined and has been maintained at about this level since the 1920's (see Table 16). It may, therefore, be helpful to look at the experience of the past as a basis for appraising potential consumer spending to 1970.

Since the late 1920's consumer expenditures per person have increased about 80 per cent, after allowing for price changes. As shown in Table 20, this is an average annual rate of increase of 1.7 per cent, with the increases from the late 1920's to the late 1940's being somewhat more rapid than those which have occurred since the early post-war years. This very substantial increase has brought a much higher average standard of living, reflected in the rapidly spreading ownership of automobiles and other consumer durable products, especially new types of home appliances, and rapidly rising expenditures for recreation and travel. The distribution of expenditures for the basic essentials, food, clothing and health care, has also been changed dramatically by a higher degree of processing and packaging of a wider variety of fresh and frozen foods, an increased and more diversified range of clothing, new varieties of drugs, and improved medical care.

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TABLE 20—INCREASES IN CONSUMER
SPENDING PER CAPITA

(Average annual expenditures in 1963 dollars)

1926-28.....	785
1946-48.....	1,134
1962-63.....	1,424

	(Percentage change)	
	Total	Average per year
1926-28 to 1946-48.....	44.5	1.9
1946-48 to 1962-63.....	25.6	1.5
1926-28 to 1962-63.....	81.4	1.7

SOURCE: Based on data from Dominion Bureau of Statistics.

Although the broad pattern of savings will be explored in Chapter Seven, some comments on personal savings are appropriate here. The percentage of personal disposable income going into net personal savings fluctuates considerably from year to year, but it shows a remarkable stability when measured over longer periods of time. In Canada, personal savings have averaged about 7 per cent of disposable income, a rate somewhat higher than in the United States. In this Review, we are assuming that this proportion will continue to prevail during years of high activity, and that a persistent upward drift in the savings ratio which would inhibit growth in real expenditures will not occur.

In the light of our earlier population projections, and our calculations of potential consumer spending, the attainment of potential employment and output would bring the average level of real consumer spending per capita by 1970 to double that of the late 1920's. This would mean that real consumer spending per capita would rise by an average of 3.0 per cent per year from 1963 to 1970, and reach a level of about \$1,775, in terms of 1963 dollars. This would approximate the average level of real per capita consumer spending attained in the United States by the early 1950's.

The rates of change projected for categories of consumer spending in moving towards potential output by 1970, are shown in Table 21. Spending on consumer durables would increase more rapidly than

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in the last seven years. Expenditures on nondurables would grow less rapidly, but would still surpass the growth rate of the 1947-63 period. Spending on services would increase nearly as fast as on durables and considerably faster than either pre-war or post-war experience. This would mean that by 1970 almost half of every additional dollar of consumer expenditure spent would go for services, close to one third for nondurables and one sixth for durables.

TABLE 21—CHANGES IN CONSUMER SPENDING,
1963 ACTUAL TO 1970 POTENTIAL

	1963 (Millions of 1963 dollars)	1970	Percentage Change	
			Total	Average Annual Rate
Durable goods.....	3,207	5,014	56.3	6.6
Nondurable goods.....	13,379	17,169	28.3	3.6
Services.....	10,644	16,417	54.2	6.4
Total.....	27,230	38,600	41.8	5.1

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

HOUSING

In considering the level of residential construction implied by the attainment of potential output by the end of the decade, it is important to recognize that the level has been rather low over the last five years, not only in relation to past experience in Canada, but also in comparison with recent experience in other countries. Since 1960, new residential construction has accounted for about 3.5 per cent of total output. This is a lower proportion than has existed at any time over the past four decades except during the mid-1930's and the Second World War.

Economic conditions as well as population influences have played an important role in the relative decline in housing construction in recent years. Levels of unemployment have been relatively high and increases in real per capita income have been moderate since the mid-1950's. This has had a restraining influence on new housing construction, as well as on the sale of existing homes. At the same

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time, in contrast with the 1930's, there has been no collapse of real estate values and few mortgages have been foreclosed.

The relatively low recent rates of new housing construction in Canada can also be seen from a comparison with other countries. In our discussion of urban growth, we emphasized that Canada was undergoing a more rapid increase in total population, especially in urban areas, than most other industrialized countries. This more rapid increase in population and urban concentration has not been accompanied by a commensurate increase in residential construction. In fact, as shown in Table 22, residential investment as a percentage of total output has been relatively low in Canada in recent years. If the number of houses completed is compared to the relative increase in population over the period from 1950 to 1960, Canada's low performance in relation to other countries is even more striking (see Table 23).

TABLE 22—INVESTMENT IN HOUSING CONSTRUCTION
AS A PERCENTAGE OF TOTAL OUTPUT, 1953-62

	1953-57	1958-62
Switzerland.....	5.1	6.2
Italy.....	5.1	5.8
Belgium.....	4.7	5.6
Sweden.....	5.2	5.3
Germany (FGR).....	5.1	5.2*
France.....	4.2	4.7
United States.....	4.4	4.6
Canada.....	4.8	4.4
Netherlands.....	4.4	4.4
United Kingdom.....	3.3	2.9

*1958-60.

SOURCE: Organization for Economic Co-operation and Development.

Although the United States experience, as indicated in Tables 22 and 23, appears to be rather similar to that of Canada, there have been important differences. For example, from 1941 to 1961 the number of households in Canada increased more than 75 per cent, compared with only about 50 per cent in the United States. In recent years, about 10 per cent more dwellings per 1,000 population have been built in the United States. Also the average value of new dwellings constructed in the United States has been about 15 per cent higher. The

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share of residential investment in total output has been about 15 per cent higher than in Canada since 1960. Higher real incomes and easier financing arrangements in the United States appear to have been the major factors contributing to these differences. The main factors promoting relatively higher residential building in various European countries have included a strong pent-up demand for housing, more active urban rebuilding, major improvements in housing standards and more government support for subsidized housing.

TABLE 23—RATIO OF HOUSING COMPLETIONS
TO INCREASE IN POPULATION, 1950-60

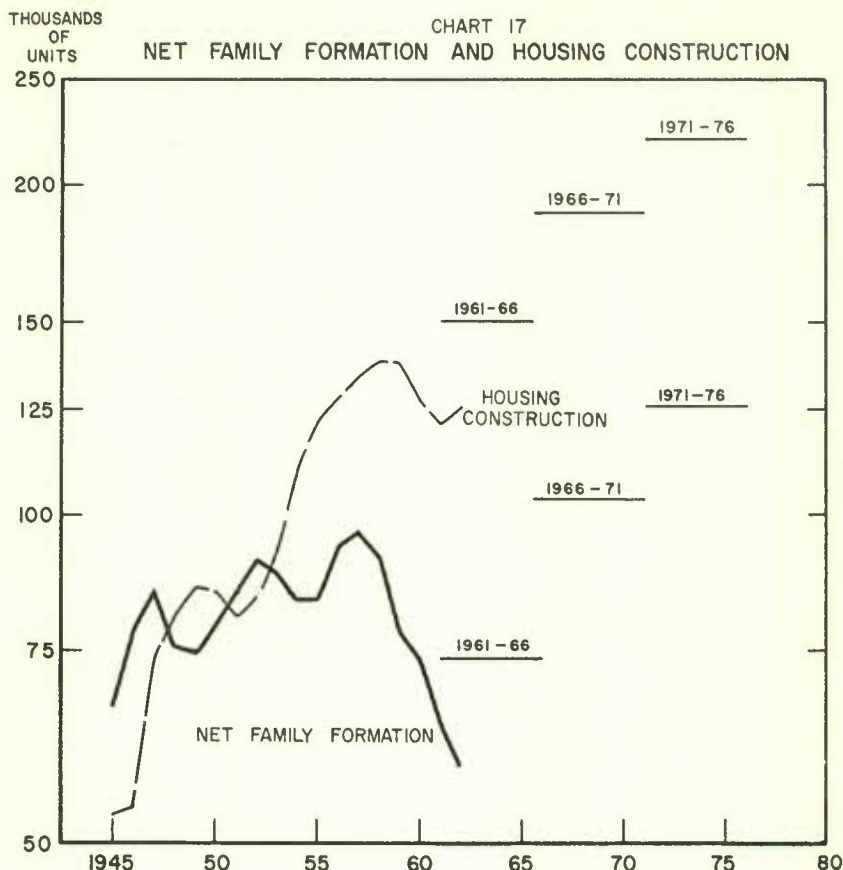
Country	Ratio
United Kingdom.....	1.5
Sweden.....	1.3
Germany (FGR).....	1.0
Belgium.....	0.9
Denmark.....	0.8
Finland.....	0.8
Italy.....	0.8
France.....	0.6
Netherlands.....	0.6
Switzerland.....	0.6
United States.....	0.5
Canada.....	0.3

SOURCE: United Nations.

In contrast to the trend over the past few years, the rate of family formation in Canada is expected to rise sharply over the balance of the 1960's and will inevitably generate renewed strength in the demand for new housing. Family formation, which has averaged about 60,000 per year in recent years, is expected to be almost twice as high by the end of this decade. Past and projected changes are shown in Chart 17.

A further important factor in housing demand in recent years has been the growing importance of nonfamily households. Such households consist primarily of older persons on the one hand, and young single persons on the other. From 1956 to 1961, half of the increase in nonfamily households was composed of women over 55 years of age, reflecting not only the increased life expectancy of women, but also higher income levels and improved pensions for the aged. In addition, since the mid-1950's, single young people have been entering the

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Note: The data for 1945-62 are smoothed by a three-year moving average; figures for 1961-76 represent annual averages for five-year census periods.

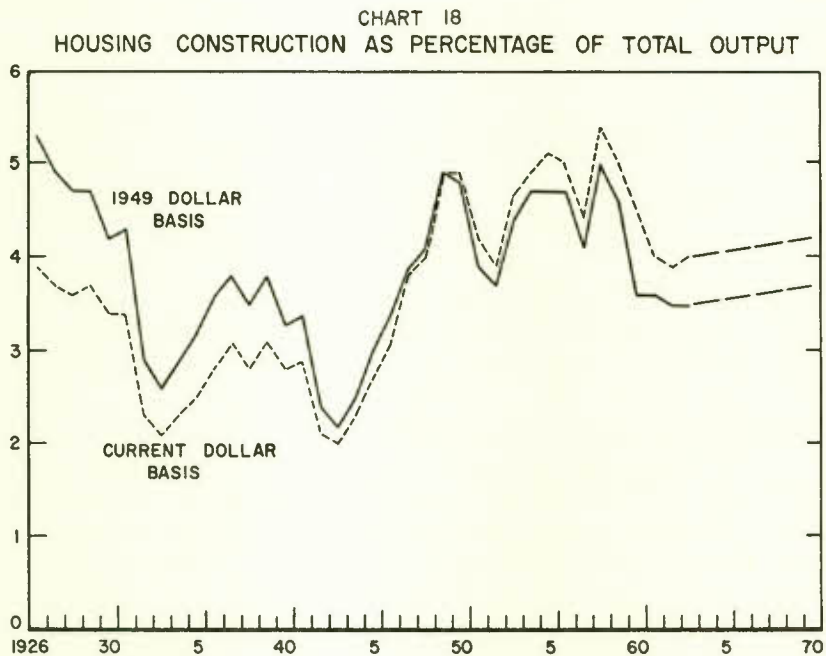
Source: Based on data from Dominion Bureau of Statistics, Central Mortgage and Housing Corporation, and estimates by Economic Council of Canada.

market for separate housing units, on a larger scale than before. The increased importance of these groups has been reflected in a rising proportion of multiple units, such as apartments, especially in urban areas. In 1951, multiple units constituted only 21 per cent of the new housing units being constructed in centres of 5,000 population and over, but by 1963 they had more than doubled in importance to about 46 per cent. As previously indicated in Table 19, it is expected that the number of nonfamily households will continue to increase at a relatively more rapid rate than the number of families.

The attainment of potential output would appreciably increase the levels of real income per person and per family. This would tend to

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generate higher levels of residential construction, as shown in Chart 18, reflecting both an increase in the numbers of units being constructed and in the average size and value per unit. The value of new residential construction at potential output (expressed in 1963 dollars) would amount to about \$2.6 billion by 1970, compared to \$1.7 billion in 1963, an increase of about 50 per cent. The number of new housing units constructed per year would rise from 135,000 in 1963 to about 190,000 in 1970. This implies that housing construction would account for a slightly larger share of total output than in recent years, although still below the relative levels of the 1920's and the earlier post-war years.



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

Most of these homes would be built in urban areas, and apartments would represent an important part of the total, especially having regard to the prospective large increase in the number of young families and nonfamily households. The relative importance of apartment construction is also likely to reflect the increased attractiveness of apartment accommodation, the rejuvenation of some downtown areas, and

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deterrents to suburban expansion arising from higher relative costs of suburban single-family dwellings and increasing traffic congestion in metropolitan areas. The share of apartments in the total of housing units constructed was 37.5 per cent in 1963 compared with 9.8 per cent in 1948. The expected distribution of new construction by areas and by type for the year 1970 is indicated in Table 24.

TABLE 24—PERCENTAGE DISTRIBUTION OF
NEW HOUSING CONSTRUCTION AT POTENTIAL OUTPUT,
BY AREA AND TYPE, 1970

Type—Area	Centres of 5,000 Population and Over	Other	Total
Single detached.....	38	12	50
Multiple units.....	49	1	50
(of which apartments).....	(40)	(1)	(41)
Total.....	87	13	100

Regarding low-rental housing and urban renewal, up to now the various programmes available to municipalities under the National Housing Act have produced meagre results. For example, during 1963, only 864 low-rental units were approved on the basis of federal-provincial agreements in this field. In total, only about 12,000 such units have been built under these arrangements since their inception in 1949. Moreover, in the case of the urban renewal programme, the entire federal share in 1963 under existing cost-sharing arrangements for the acquisition and clearance of blighted or sub-standard areas, was only \$3.2 million.

However, recent amendments to the National Housing Act have been designed to encourage more construction of low-rental housing and urban renewal. Our estimates in this Review include an allowance for some increase in expenditures in these fields.

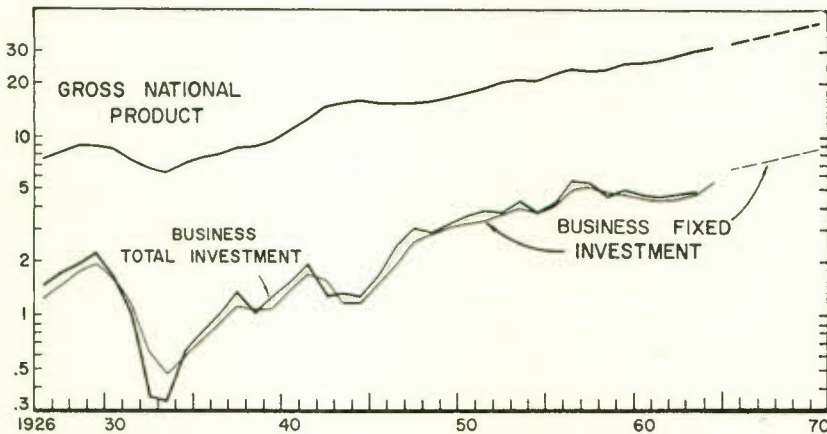
BUSINESS INVESTMENT

Historically, the level of business fixed investment (including housing) has fluctuated much more widely than total output, both over the longer swings in economic activity and over the shorter term

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business cycle. When changes in the volume of inventories are added to yield total business investment, the fluctuations are intensified in the short run, but the long-term patterns are not significantly affected. The relatively much more volatile behaviour of total business investment, in comparison with total output, is shown in Chart 19.

CHART 19
TOTAL OUTPUT AND BUSINESS INVESTMENT



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

Beginning after the Second World War and continuing through the mid-1950's, Canada had one of the largest sustained investment booms in history. Several factors contributed to this development. For a number of years after the Second World War there was strong demand in relation to output and capacity. The level of output was considerably higher than in 1929, the last previous period of high peace-time activity, but the stock of capital facilities had not increased to the same degree. Profit margins from the end of the war to 1951 were wider than in any other period since the mid-1920's. Monetary and financial conditions were persistently easy, interest rates very low, and business firms were generally in a liquid position. The resource development boom of the early 1950's required particularly large amounts of capital and was a major factor in sustaining high levels of investment. Resource-related investment augmented by some special capital projects such as the St. Lawrence

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Seaway and Power Development, reached a peak in 1957 and then declined sharply.

The high levels of Canada's investment programme in the mid-1950's in relation to those in a number of other industrially advanced countries are shown in Table 25. Canada reached a peak ratio of fixed investment (excluding housing) to output in 1957. In that year, the ratio was about 70 per cent higher than in the United States and about 45 per cent higher than the average ratio in the European Economic Community. Canada has consistently had a higher investment ratio than the United States, but in more recent years a number of European countries have had relatively as large an investment programme as Canada. The relatively high levels of investment in European countries were associated with the rapid increases in output and strong demand pressures of recent years, as well as with adjustment to an expanded market.

TABLE 25—FIXED INVESTMENT (EXCLUDING HOUSING) AS A PERCENTAGE OF TOTAL OUTPUT, SELECTED COUNTRIES

(Based on 1958 prices)

	1955	1956	1957	1958	1959	1960	1961	1962
Canada	17.65	20.52	22.14	19.84	18.79	18.47	17.81	17.17
United States	12.72	13.28	13.15	11.83	11.57	12.00	11.60	11.71
United Kingdom	11.25	11.87	12.56	12.60	12.95	13.52	14.31	13.79
European Economic Community	14.81	15.28	15.23	15.26	15.75	16.51	17.34	17.57

NOTE: Fixed investment includes government nondefence capital expenditures.

SOURCE: Organization for Economic Co-operation and Development.

In the light of the many similarities in the performance of the Canadian and United States economies, consideration should be given to some of the reasons for the higher ratios both of new business investment to output and capital to output in Canada. One important factor has been the relatively lower population density and the long distances between population centres, with resulting relatively high overhead costs for such facilities as railways, highways, radio and television, electricity transmission and oil and gas transportation. A further factor has clearly been the less efficient use of capital facilities implied in the shorter runs typically encountered in Canadian manufacturing plants as compared with similar plants

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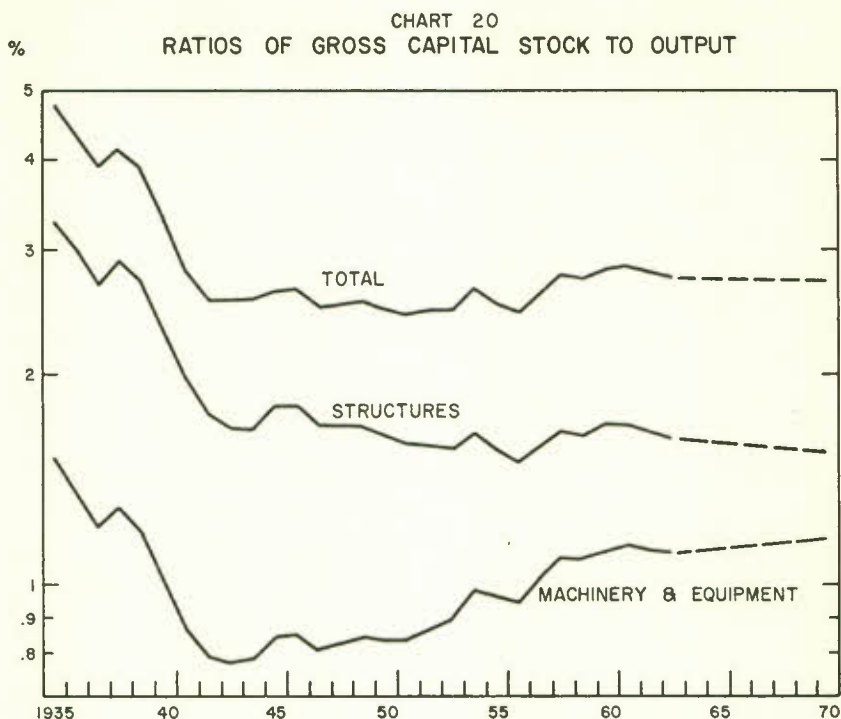
in the same industry in the United States. In addition, there are wide variations in the capital to output ratios between individual industries, and these are particularly high in some of the industries which are relatively more important in Canada—for example, electric power, transportation, communication and paper products.

In considering the levels of business investment required to attain potential output by 1970, we have carefully examined the major factors affecting business investment. We have concluded that investment decisions will be shaped more by advancing demand than by financial conditions. In other words, we view investment basically as responding sensitively (although sometimes rather slowly) to new market opportunities. Since a very large proportion of business investment is financed through retained earnings and depreciation reserves, it appears unlikely that credit conditions would impose serious direct constraints upon over-all investment during a period of sustained economic growth. There are, of course, other factors which also have a significant bearing on business investment, including international conditions, technological change, government economic policies, and changing patterns of demand and production.

Our estimates of potential investment have been developed on the basis of the potentialities for growth of output outlined in Chapter Three. However, in order to develop these estimates, it has been necessary to make a number of important additional assumptions. Of these assumptions, the most critical concern the ratios of gross capital stock to output in the major industries. These ratios have been influenced in the past by such factors as the need to restore an appropriate relationship between capital stock and output following periods of subnormal capital stock growth (relative to output), changes in technology, shifts in the composition of output and variations in the relative prices of units of labour and capital. We have had to decide how far to go in extending recent trends in these ratios into the future, bearing particularly in mind evidence of the existence of excess capacity in a number of industries for a period following 1957.

The assumption implicit in our calculations is that the trend in the over-all relationship of capital stock to output in the major industries accounting for the bulk of business investment would not change significantly in moving towards potential output in 1970 (see Chart 20). It is assumed, however, that the ratio of the stock of machinery and equipment to output would rise slightly and the ratio of the stock of construction to output would fall slightly. On the basis of these

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Note: Based on aggregate figures in 1949 dollars for ten major Industries.

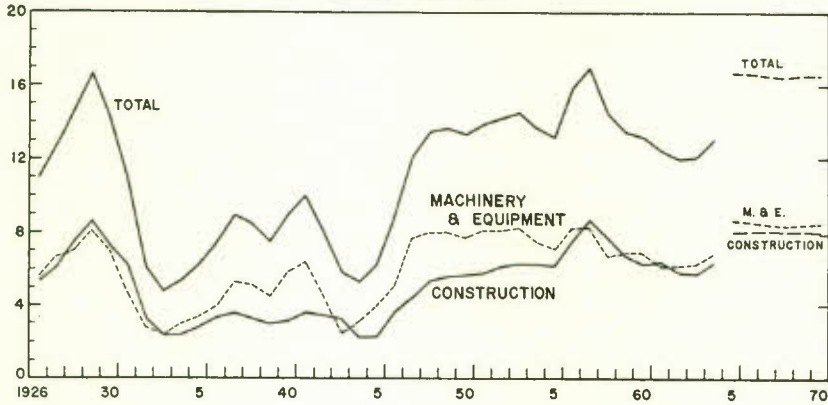
Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

assumptions, Chart 21 shows total business fixed investment as a proportion of total output, including allowances for investment in certain additional areas such as agriculture and services. In our calculations we have also assumed steady growth to potential output in 1970. It should be noted here that the higher the rate of growth in output, the higher the ratio of capital spending to output tends to be. The comparatively low recent ratios are partly a reflection of the recent low rates of output growth. The estimates to 1970 envisage a substantially higher proportion of new investment to output over the last half of the decade than has been experienced during any period of comparable length from 1926 to date.

In the course of our examination of the field of business investment, we have gathered information on the longer range investment plans of a number of large Canadian companies. The companies participating in our survey reported total planned investment expenditures for both

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CHART 21
BUSINESS FIXED INVESTMENT AS PERCENTAGE
OF TOTAL OUTPUT



Note: Based on 1949 dollars.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

1966 and 1967 about 45 per cent higher than their actual investment outlays in 1963. It is interesting to note that this planned increase in investment is broadly consistent with the sharply rising levels of new investment implied in our preceding discussion of estimated investment consistent with the achievement of potential output in 1970.

With regard to business inventories, it is apparent that there has been a steady downward drift in inventories in relation to sales and production for about a decade and a half. To some extent this reflects such basic factors as improved inventory control and faster transportation. In addition, the absence of price pressure and quicker delivery from manufacturers in Canada and abroad in recent years may also have encouraged relatively smaller inventory holdings. On the assumption that the attainment of potential output may check the trend towards relatively smaller inventories, our estimates of business investment include an allowance for changes in inventories which would parallel the underlying trend in output.

SOCIAL CAPITAL

The foregoing estimates of business investment at potential output include a relatively small, but significant allowance for the growth of what may be termed "nongovernment social capital". This consists

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mainly of capital investment in nonprofit institutional services and municipal water utilities. By far the largest part of this expenditure is undertaken by the universities and general hospitals, most of which depend mainly upon government financial assistance, but are nevertheless operated essentially as independent institutions. A much greater level of social capital investment is undertaken directly by governments, and this is referred to in the general appraisal of government expenditure trends in Chapter Seven. It will be useful at this stage, however, to supplement our discussion of housing and business investment by a brief consideration of requirements for social capital as a whole, and in this way secure a comprehensive view of total capital formation in the economy at potential output.

Canada's increasing population and its growing urbanization have, over the past several decades, created the need for very substantial increases in expenditures for social capital. As was emphasized in the study on "Housing and Social Capital" prepared for the Royal Commission on Canada's Economic Prospects, "urban communities require more social capital than rural ones and per capita investment in such facilities tends to be higher in large metropolitan and urban areas than in smaller cities and towns."

The need to solve urban traffic problems is a striking example of increasing pressure for rising levels of social capital investment. Added to the familiar complex of factors which have already created severe problems of traffic congestion both within and between major population centres is the prospect that the number of motor vehicles in use will climb even more rapidly than over the past decade. Underlying this trend is the demographic pattern which as we have already seen points to a bulge of growth in the young adult population, together with the more rapid rise in per capita income and the heightened levels of commercial activity implicit in the conditions of potential output. Accelerating volumes of road traffic clearly point to continuing large and relatively rapidly growing capital expenditures on a range of urban transport facilities.

There will be a continuing need for substantial capital expenditures for schools and universities over the balance of the decade. The growth in the number of children of school age has levelled off, but the pressure of numbers will be felt increasingly in post-secondary technical schools and universities. With substantially higher levels of real income at potential output and the increasing recognition of the importance of education, a rapidly growing proportion of young persons will want and will need a higher level of education. There

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will also be a need for more costly and complex facilities, particularly in relation to postgraduate training and research. The amount of both capital and current expenditures will therefore be higher per pupil, especially for the more advanced stages of education.

While the needs for roads, streets and other transport services, and for schools, universities and special educational institutions loom as most significant, the range of other social capital requirements is very wide. The construction of both health and welfare facilities is assumed to expand in line with population growth, rising income, and advancing concepts and standards of care. This points in the direction of more specialized institutions and higher relative levels of capital cost. Investment in public parks, tourist and recreational facilities has been stimulated by increasing urban concentration. The same trend accentuates the need for expenditure on water and sewerage services, fire and police protection, penal institutions, and public buildings generally. In the resource development field, projects for land, water and forest conservation and use, together with rehabilitation programmes aimed at long-term improvement in production, may be expected to expand in a vigorously growing economy. Publicly-sponsored research in many scientific fields will also involve rising levels of capital expenditure.

Taken as a whole, as shown in Table 26, we have assumed an increase in social capital investment in the public sector, of about 7.5 per cent per year as the economy grows to potential output.

Table 26 also recapitulates and brings together all the main elements of capital investment. It will be seen that while business fixed

TABLE 26—TOTAL PRIVATE AND PUBLIC INVESTMENT
1963 ACTUAL AND 1970 POTENTIAL

	1963	1970	Percentage Change	
	(Billions of 1963 dollars)		Total	Average Annual Rate
Public capital expenditure.....	1.8	3.0	66.7	7.5
Housing construction.....	1.7	2.6	52.9	6.3
Business fixed investment.....	5.8	11.3	94.8	10.0
<i>Construction</i>	(2.8)	(5.6)	(100.0)	(10.4)
<i>Machinery and equipment</i>	(3.0)	(5.7)	(90.0)	(9.6)
Total.....	9.3	16.9	81.7	8.9

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investment is assumed to grow most vigorously, and clearly dominates the picture of capital expenditure, the growth rates for both housing and social capital are also higher than the 5.5 per cent annual rate projected for total economic output. Capital formation in the aggregate rises by almost 82 per cent between 1963 and 1970, or at an average annual rate of close to 9 per cent, and constitutes a dynamic element in our analysis of the potential output target for Canada by 1970. It is, however, a sector which bears a particularly sensitive relationship to the international flow of exports, imports and capital, which is the general area explored in the next Chapter.

5

International Trade and the Balance of Payments

PERIODS of sustained economic growth and prosperity in Canada have historically and almost invariably been associated with dynamically expanding exports and imports, and we now turn to consider the implications of potential output for Canada's international trade and payments.

A large rise in exports is necessary to attain our potential output target in 1970. This will not only be required as a basis for rapidly rising production in Canada, but also to finance swiftly rising imports and to avert growth-inhibiting balance of payments strains.

A large rise in imports will also necessarily be associated with the attainment of our potential output target in 1970. Rising imports of various industrial materials, capital equipment and component manufactures will inevitably be required to facilitate rising domestic production. Moreover, rapid increases in employment, personal income, and investment and consumer spending will tend to generate rapidly growing demands for imports of finished goods. Indeed, in the past, under conditions of rapidly rising output and income, imports have tended to increase more vigorously than exports.

The attainment of potential output in 1970 implies more rapid increases in real income and spending in Canada than in most other countries. Such a differential in growth rates in income and spending accentuates the possibility of substantially larger increases in imports than exports. Compared with previous periods of rapid and sustained economic development, an improved performance of exports relative to imports is therefore, we believe, essential for the future if the attain-

Economic Goals for Canada to 1970

ment of our employment and rapid growth targets is not to be jeopardized by the threat of balance of payments difficulties. This will require a combination of favourable factors, including sustained growth in world production and demand, expanding international trade, better access by Canadian producers to foreign markets, increased productive efficiency and improved competitive capabilities by Canadian producers, and more broadly based, more aggressive, and more efficient export marketing which should be deliberately accorded a high priority even though domestic demand is expanding buoyantly.

ECONOMIC GROWTH AND THE BALANCE OF PAYMENTS

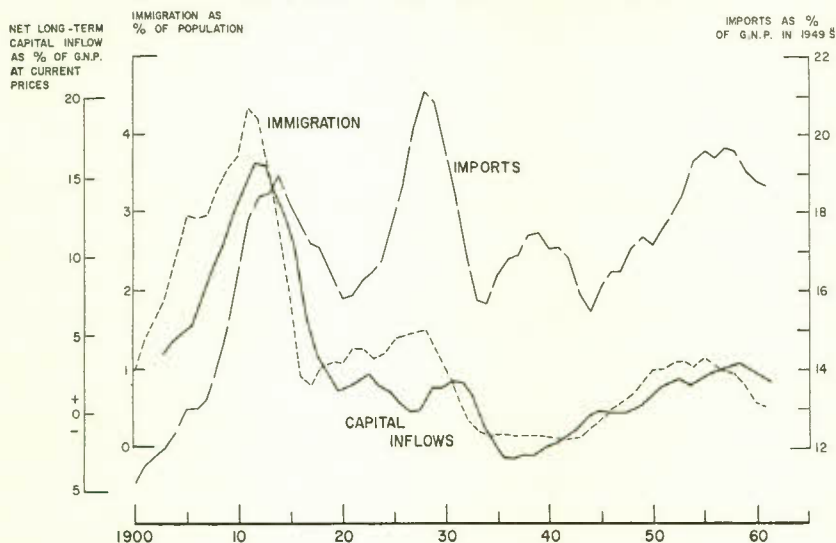
Canada has historically demonstrated a remarkable need and capacity to attract additional productive resources from abroad under conditions of rapid and sustained economic growth. Variations in inflows of basic productive resources—men, materials and money—are shown in Chart 22 which indicates a broad concurrence in the swings which have taken place in immigration, imports, and foreign investment in Canada. Such inflows have tended to allow for larger and more prolonged economic expansion than would have been possible without access to additional resources from abroad. Conversely, during extended periods of slower growth, there has clearly been reduced reliance on external resources, through smaller immigration, slower increases in imports, and reduced foreign investment.

A dynamic expansion of exports of certain basic commodities and industrial materials has also usually been associated with periods of sustained Canadian growth and prosperity. Exports, however, have typically risen less rapidly than imports over the full course of periods of expansion. As a result, the external sector of the economy has seldom continued to give added impetus and thrust to the over-all level of business activity in the later stages of such upswings—except under unusual circumstances, such as those immediately following the Second World War.

Three important features of Canada's historical international economic relations deserve special emphasis. The first is the heavy dependence of the domestic economy upon international trade. Merchandise exports have traditionally accounted for around 50 per cent of the output of the goods-producing industries in Canada. This has been especially true during periods of high-level business activity.

International Trade and the Balance of Payments

CHART 22
LONG - TERM TRENDS IN IMMIGRATION,
IMPORTS AND CAPITAL INFLOWS



Note: Based on centered five-year moving averages of annual data. Capital flow data exclude Government of Canada war and post-war loans and repayments.

Source: F. A. Knox, *Dominion Monetary Policy*, Ottawa, 1939; M. C. Urquhart and K. A. H. Buckley, Editors, *Historical Statistics of Canada*, to be published; K. A. H. Buckley, unpublished material; Bank of Canada; Dominion Bureau of Statistics; and Economic Council of Canada.

Similarly, imports have accounted for around 50 per cent of the total expenditure on goods.

Secondly, there has been a recurrent pattern of large deficits in merchandise trade and current-account payments during periods of high-level activity, and smaller deficits in payments during periods of slower growth. The larger deficits have been associated with high and rising domestic investment and substantial long-term capital inflows, while the smaller deficits have frequently been accompanied by surpluses in merchandise trade.

The third feature is the strong economic ties between Canada and the United States, which are reflected in the degree of concentration of Canada's trade with that country. This concentration was already high by 1900 and has increased further, especially for exports (see Table 27). Similarly, Canada is the largest single trading partner of the United States and has accounted, over the long run, for a growing share of United States exports and imports. Trade with Canada currently accounts for about one fifth of total United States trade.

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TABLE 27—DISTRIBUTION OF CANADA'S MERCHANDISE TRADE
(Per cent of current values)

	United States			United Kingdom			Other Countries		
	1900	1926	1963	1900	1926	1963	1900	1926	1963
Exports to.....	33	36	56	59	37	15	8	27	29
Imports from.....	59	66	67	25	16	13	16	18	20

SOURCE: Based on data from Dominion Bureau of Statistics.

In the post-war period, Canada's balance of payments has revealed a number of salient features. There has been a large, though variable, current-account payments deficit with the United States, reflecting a substantial excess of payments over receipts for merchandise, services and investment income. Furthermore, capital inflows for direct and portfolio investment from the United States, although substantial, have been inadequate to finance all of Canada's current-account deficit with that country. Third, there has been a diminishing payments surplus with the United Kingdom and other sterling area countries, together with a varying surplus with all other overseas countries as a group. It has been this surplus with overseas countries, along with Canadian gold production available for export, which has provided the basis for financing Canada's balance of payments deficit with the United States.

INTERNATIONAL ECONOMIC ENVIRONMENT

Since the Second World War, the volume of world exports has grown very rapidly. Indeed, trade among the main industrial countries has increased at a faster rate than total output. For the first time in this century, the growth in world trade has outpaced the growth in world production for a period of over ten years. This reflects trends towards increased international specialization of production and growing interdependence between the economies of the world's chief trading nations. In recent years, the countries which have had the highest rates of economic growth have typically been those which have expanded their trade at much steeper rates (see Table 28).

The rapid growth of world trade during the post-war period has been facilitated by a lowering of tariff barriers and by the removal of

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TABLE 28—GROWTH OF REAL OUTPUT AND
VOLUME OF EXPORTS, 1953-63

	Rank		Rate of Growth (average annual percentage change)		Value of Exports as a percentage of GNP, 1963
	GNP Growth	Export Growth	GNP	Exports	
Japan.....	1	1	9.1	16.8	9
Germany (FGR).....	2	3	6.4	11.7	15
Italy.....	3	2	6.1	14.5	11
France.....	4	4	4.7	8.4	11
Sweden.....	5	5	4.1	8.2	20
Canada	6	6	3.5	4.3	16
United States.....	7	8	2.9	2.9	4
United Kingdom.....	8	7	2.7	3.3	14

SOURCE: Based on data from United Nations, Organization for Economic Co-operation and Development, and International Monetary Fund.

most exchange controls and quantitative trade restrictions on industrial imports which had been previously imposed by almost all of the principal industrial countries. Despite notable exceptions, national tariffs on highly manufactured and processed products are generally higher than on primary materials. Nevertheless, the post-war reductions in trade barriers, together with other underlying economic forces, have particularly encouraged a much more rapid growth of world trade in manufactured products and processed materials (see Table 29).

Two other important features of trends in world trade over recent years are worthy of note. First, there have been much more

TABLE 29—INCREASES IN WORLD EXPORTS, 1955-61

	1955	1961	Percentage Increase
	(millions of U.S. dollars)		
Primary products.....	43,232	54,292	26
Processed materials.....	16,906	24,852	47
Manufactured products.....	31,512	52,306	66
Unclassified.....	1,550	1,800	—
Total.....	93,200	133,250	43

SOURCE: Based on data from United Nations and Organization for Economic Co-operation and Development.

Economic Goals for Canada to 1970

rapid rates of increase in such product groups as machinery, transportation equipment, chemicals and plastics, and much less rapid rates of increase in such other groups as textiles and clothing and primary products. Second, the expansion of world trade has become increasingly concentrated among the industrially advanced countries, and there has been a relative decline in the importance of trade between the industrially advanced and the economically less developed countries.

Many complex developments have been involved in this relatively rapid shift in the structure of international trade. These have included the following:

- A rise over the past decade in the prices of manufactured products relative to the prices of primary and lightly processed products.
- Rising unit values of manufactured goods resulting from improvements in quality and the increasing complexity of such goods, along with the continuous appearance of new products.
- Much more rapid increases in the industrial output of industrially advanced countries than in their consumption of raw materials. This "materials saving" is a reflection of many factors, such as improved technology; growing use of synthetic materials, scrap metals, and other "waste"; the trend towards miniaturization; increasing sophistication, fabrication, and lightness of weight of many types of consumer and investment goods; and the changing nature of defence equipment.
- The development of highly specialized and sophisticated manufactured products, the efficient production of which frequently requires a level of output in excess of domestic demand.
- Slow advances in international trade in agricultural products, partly because in industrially advanced countries food consumption rises less than proportionately with increases in income, and partly because of the retention and even extension of highly restrictive barriers against imports of agricultural commodities.

Canada has been adversely affected by the shift in the structure of international trade. Table 30 shows export prices relative to import prices for a number of countries over the past decade. Countries which export mainly manufactured products have had an improvement in their so-called terms of trade during this period, while countries such as Canada, which export mainly primary products and industrial materials, have experienced a deterioration in their terms of trade. This deterioration in Canada's terms of trade, which repre-

International Trade and the Balance of Payments

TABLE 30—RATIO OF EXPORT PRICES TO
IMPORT PRICES, 1953-63

	1953	1958	1963
United States.....	100	106	112
United Kingdom.....	100	111	116
Germany (FGR).....	100	110	120
Japan.....	100	99	102
Canada.....	100	96	92
Australia.....	100	65	74
Argentina.....	100	81	83

SOURCE: Based on data from Organization for Economic Co-operation and Development and International Monetary Fund.

sents a reversal of the trend of the previous two decades, may also partly reflect the reduction in the exchange value of the Canadian dollar. Thus, for Canada, a larger volume of exports was required in 1963 than in 1953 to finance a given volume of imports.

The more rapid increase in industrial output than in the consumption of raw materials is illustrated by long-term trends in the United States. Table 31 shows that over the past four decades, industrial production has grown twice as fast as the consumption of raw materials. However, there have been a few groups of products such as pulpwood and fertilizer materials, for which consumption growth has been more rapid (see also Chart 23).

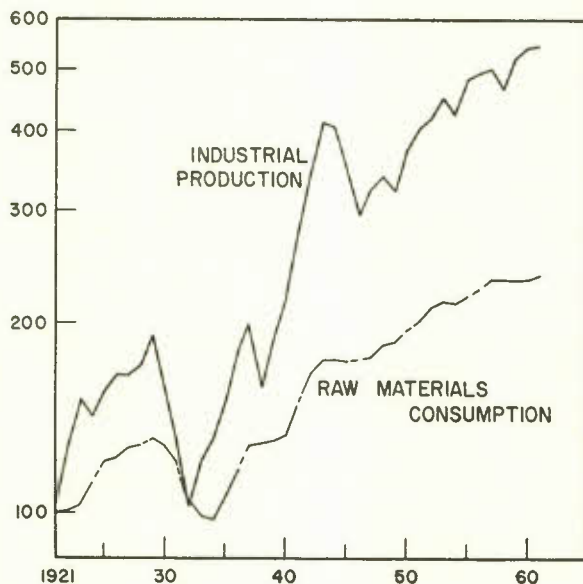
TABLE 31—GROWTH OF INDUSTRIAL PRODUCTION AND APPARENT
CONSUMPTION OF RAW MATERIALS IN THE UNITED STATES
(Average annual percentage change)

	1920-40	1920-61
Industrial Production.....	2.6	3.6
Apparent Consumption of Raw Materials (except food and gold).....	1.4	1.8
Forest materials.....	-0.3	0.2
Pulpwood.....	4.0	4.0
Metals.....	1.9	1.4
Mineral fuels.....	1.8	2.6
Construction minerals.....	2.6	3.9
Other minerals.....	2.5	3.8

SOURCE: Based on data from United States Department of Commerce, and Board of Governors of the Federal Reserve System.

Economic Goals for Canada to 1970

CHART 23
INDUSTRIAL PRODUCTION AND
CONSUMPTION OF RAW MATERIALS
IN THE UNITED STATES (1921=100)



Note: Index of volume of apparent consumption of raw materials, excluding food and gold; based on three-year moving averages of annual data.

Source: Based on data from United States Department of Commerce, and Board of Governors of the Federal Reserve System.

These developments help to explain why Canada's share in world trade has not been expanding. In fact, in recent years it has been below that of a decade ago. This decline has occurred despite the fact that Canada has increased its share of the world market for primary materials. But this sector of world trade has been growing relatively slowly. In the increasingly important sectors of processed materials and manufactured products, Canada's share of world trade has tended to decline (see Table 32).

A further factor has been that a very large proportion of Canada's total exports has continued to go to markets which have not been expanding dynamically over much of the past decade, namely, the United States and the United Kingdom. Even within these two markets, however, Canadian exporters have lost ground to the exporters of some other countries.

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TABLE 32—CANADIAN EXPORTS AS A SHARE OF WORLD EXPORTS
(Per cent of current values)

	1954	1955	1956	1957	1958	1959	1960	1961	1962
Total Canadian Exports.....	4.7	4.7	4.8	4.6	4.7	4.7	4.4	4.4	4.2
Canadian Exports of:									
Primary products..	n.a.	3.7	4.3	4.3	4.7	4.7	4.3	4.6	n.a.
Processed materials	n.a.	13.7	12.1	11.4	11.5	11.3	10.7	10.5	n.a.
Manufactured products.....	n.a.	1.3	1.4	1.5	1.6	1.4	1.3	1.4	n.a.

n.a.—Not available.

SOURCE: Based on data from United Nations and Organization for Economic Co-operation and Development.

In looking to the future in the following section, we have assumed that over the balance of the 1960's favourable conditions will persist for rapidly expanding world trade. In some respects these conditions may well be even more favourable, especially from Canada's point of view, than during the 1950's. We believe that there are reasonable possibilities not only for continued rapid growth in Europe and Japan, but also for more rapid and sustained expansion in the United States and the United Kingdom in the 1960's than in the 1950's (see Table 33). A better basis for economic growth and development may also exist over the years ahead in many other parts of the world, with growing industrialization and improved conditions for participation in international trade among many of the economically less developed countries.

In these circumstances, we also visualize a continuation of some of the predominant features of world trade over the past decade—in particular, a relatively much more rapid expansion of trade in manufactured products than in primary and lightly processed materials; increasing trade based on industrial specialization, efficiency, and new product development; and increased international economic interdependence under highly competitive conditions, and further steps towards more open markets. In the future, we should be looking particularly to the development of rapidly growing export opportunities in the most rapidly expanding markets.

EXPORT POTENTIAL TO 1970

Canada's export potential by 1970 will be determined essentially by four factors: the growth of foreign markets; access to these

Economic Goals for Canada to 1970

markets; the competitive capabilities of Canadian suppliers in terms of both their relative efficiency and their relative international cost and price position; and the marketing skills and aggressiveness of Canadian traders in exploiting opportunities for increased and diversified exports. In this section we deal mainly with the first of these factors.

TABLE 33—RATES OF GROWTH OF REAL OUTPUT AND
INDUSTRIAL PRODUCTION, 1950-70
(Average annual percentage change)

	1950-55	1955-60	1960-63	1963-70
Total Real Output				(projected)
EEC countries ⁽¹⁾	6.2	5.2	4.8	4.6
United Kingdom ⁽²⁾	2.4	2.6	2.5	3.3
Japan ⁽³⁾	8.9	9.7	10.0	8.1
United States ⁽⁴⁾	4.3	2.3	3.9	4.7
Industrial Production				
OECD industrial countries ⁽⁵⁾	5.7	4.0	5.2	5.5
United States ⁽⁶⁾	5.2	2.4	4.6	5.0

SOURCE: ⁽¹⁾1950-63, OECD; 1963-70 OECD; and EEC

⁽²⁾1950-70, OECD (the National Economic Development Council in the United Kingdom has set a target rate of 4 per cent for 1962-66)

⁽³⁾1950-63, Economic Planning Agency of Japan and OECD; figure for 1963-70 is the tentative medium-term plan for 1964-68 recommended by the Economic Deliberation Council of the Economic Planning Agency of Japan

⁽⁴⁾1950-63, U.S. Office of Business Economics; 1963-70, estimated by Economic Council of Canada, calculated on assumptions of moderately high levels of output and employment to 1970 (the OECD projection for the United States for 1960-70 is 4.4 per cent per annum; a National Planning Association projection for the United States for 1963-69 is 4.8 per cent per annum)

⁽⁵⁾1950-63, OECD; 1963-70, estimated by Economic Council of Canada

⁽⁶⁾1950-63, Board of Governors of the Federal Reserve System; 1963-70, estimated by Economic Council of Canada.

Trends in expansion of foreign markets may first be indicated by reference to recent and anticipated rates of growth of total output and industrial production in a number of major industrialized countries. Table 33 shows these trends and the relatively slower rates of increase recorded by Canada's principal trading partners—the United States and the United Kingdom—in comparison with other leading industrially advanced trading nations during much of the period since 1950. These two markets alone have accounted for three quarters or more of Canada's total nonagricultural exports in recent years (see Table 34), and their relatively slower growth has been particu-

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larly significant for Canada's export trade. However, an acceleration in the growth of output in these two principal Canadian export markets over the remainder of the decade, together with well sustained economic advances among other major industrially advanced countries, is projected. The achievement of these rates of growth would provide considerable stimulus for the expansion of Canada's exports.

TABLE 34—DISTRIBUTION OF CANADIAN
NONAGRICULTURAL EXPORTS, 1900-63
(Per cent of current values)

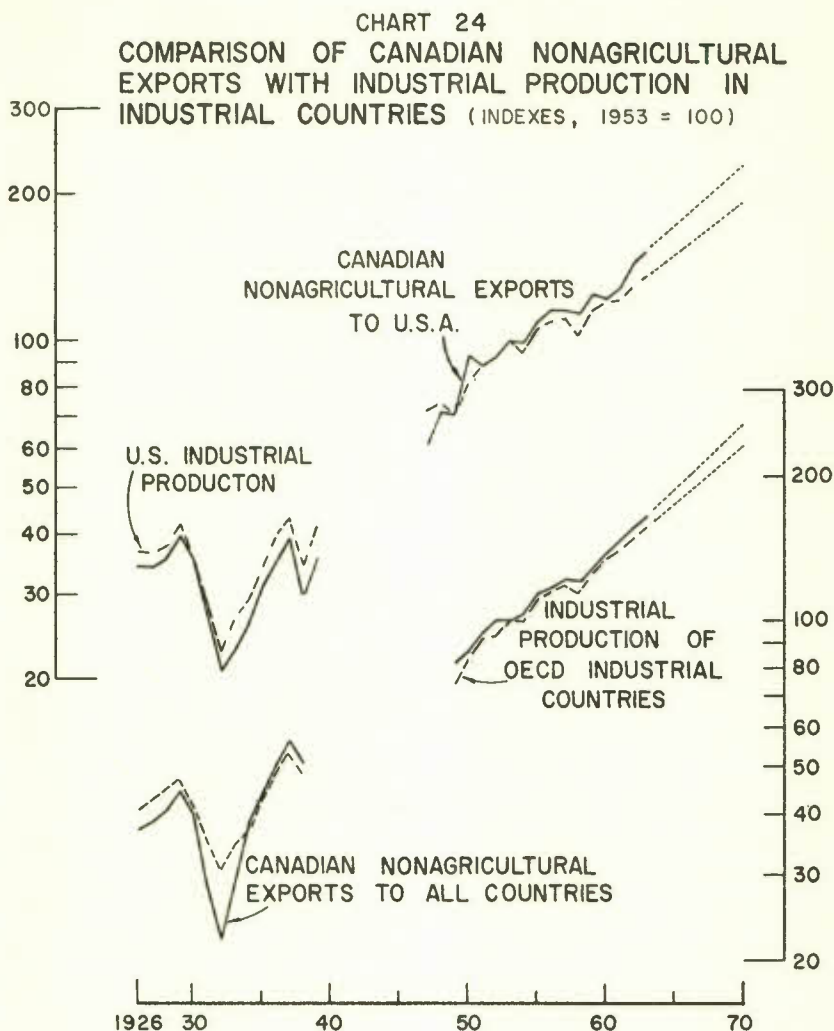
Destination	1900	1926	1936	1950	1960	1963
United Kingdom.....	27	9	27	9	15	13
United States.....	65	64	47	75	62	64
Other countries.....	8	27	26	16	23	23

SOURCE: Based on data from Dominion Bureau of Statistics.

Since 1926 the rate of growth in the volume of Canadian exports of nonagricultural products has been higher than the rate of growth of industrial production in the main trading countries, particularly in the United States. While the combined industrial production of the United States, Western Europe and Japan in 1963 was about 3.8 times the 1926 level, the volume of Canada's nonagricultural exports in 1963 was 4.4 times greater than in 1926. These relationships are shown in Chart 24, together with projections to 1970. Over the period from 1926 to 1963, each one per cent rise in the industrial production of these countries was accompanied by a rise of 1.13 per cent in total Canadian nonagricultural exports. In the case of the United States, the comparable relationship between increased industrial production and increased Canadian nonagricultural exports to that country was approximately 1.2 per cent.

The projection of these past relationships on the basis of the anticipated average annual rise of 5.5 per cent in the industrial production of the leading trading countries (shown in Table 33) would indicate a growth rate for Canada's nonagricultural exports of about 6.2 per cent per year between 1963 and 1970. Such a rate of expansion in exports would be roughly in step with the annual increase of 5.9 per cent in nonagricultural production associated with our estimate of potential output to 1970 (see Table 14).

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Source: Based on data from Board of Governors of the Federal Reserve System, Organization for Economic Co-operation and Development, Dominion Bureau of Statistics and estimates by Economic Council of Canada.

During the 1950's, primary materials were the most rapidly growing of Canada's nonagricultural exports, while exports of manufactured products showed very little increase. This was in marked contrast to the trends in world exports shown in Table 29. Since 1960, however, exports of manufactured products from Canada have grown more rapidly than any other category. As indicated in Table 35, these exports increased at an average annual rate of 21 per cent

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from 1960 through 1963, compared with a rate of growth for all Canadian nonagricultural exports of 6 per cent per year. This rapid growth may be viewed at least in part as a recovery from the exceptionally low levels of the early and mid-1950's. Indeed, as a proportion of total nonagricultural exports, manufactured exports were no higher in 1963 than they were in the late 1920's.

TABLE 35—INCREASES IN VOLUME OF CANADA'S
NONAGRICULTURAL EXPORTS, 1946-63
(Average annual percentage change)

	1946-63	1950-60	1960-63
Primary materials.....	8.6	10.7	6.0
Processed products.....	4.5	3.9	4.0
Manufactured products.....	0.7	1.3	21.0
Total.....	4.6	4.9	6.1

SOURCE: Based on data from Dominion Bureau of Statistics.

The expansion of Canada's manufactured exports since 1960 has developed in the context of a continued dynamic expansion of world trade in such products. It has also reflected a substantial improvement in the competitive position of Canadian industry, resulting from both the decline in the exchange value of the Canadian dollar and a high degree of internal cost and price stability. In addition, further stimulation for such exports has been provided by the Canada-United States defence production sharing programme and by improved financing facilities for exports of capital equipment. All these factors have also helped to provide an environment for more successful export promotion and international marketing.

With respect to agricultural exports, it is particularly difficult to project trends to 1970. This is because of the special circumstances in 1963 and 1964 which led to unusually large shipments of wheat and because of the sensitivity of agricultural exports to year-to-year variations in world harvests. Current indications are that Canadian agricultural exports will grow more slowly than nonagricultural exports. In particular, although exports of wheat and other grains may well exceed the 1963 calendar year levels in a few intervening years, we believe that such exports will not be at a substantially different

Economic Goals for Canada to 1970

level in 1970 than in 1963. However, it should be emphasized that the 1963 level was high by historical standards.

In the case of primary and processed forest products, minerals and other materials, our assumption, based on trends in world demand and supply, is that Canada's potential export volume will grow at an average rate of 5.5 per cent per year.

In the light of the foregoing calculations and assumptions regarding trends in world markets, we estimate that Canada's export potential for all products (excluding re-exports) by 1970 would be close to 45 per cent above the volume attained in 1963—or an annual average rate of 5.3 per cent. In terms of 1963 dollars, this potential would imply a rise in value from \$6.8 billion in 1963 to \$9.8 billion by 1970 (see Table 36).

TABLE 36—CANADA'S EXPORT POTENTIAL TO 1970

	1963 (actual)	1970 (potential)	Percentage Change	
	(billions of 1963 dollars)		Total	Average annual
Agricultural products.....	1.5	1.6	11	1.5
Nonagricultural products.....	5.3	8.2	53	6.2
Total.....	6.8	9.8	44	5.3

NOTE: Data for agricultural products include fishery products.

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

To achieve our indicated potential export growth, it is essential that manufactured exports continue to rise at a very rapid rate. Indeed, we anticipate a need for an average rate of growth in the volume of these exports of at least 10 per cent per year to 1970. Recent experience provides grounds for believing that opportunities will be available for such a performance, at least under a continuation of sustained growth of world industrial production and conditions favouring rapidly growing world trade. Also necessary to attain the above export potential will be consistent and appropriate domestic conditions favourable to a strong export performance. Such conditions include reasonable price and cost stability and a strong com-

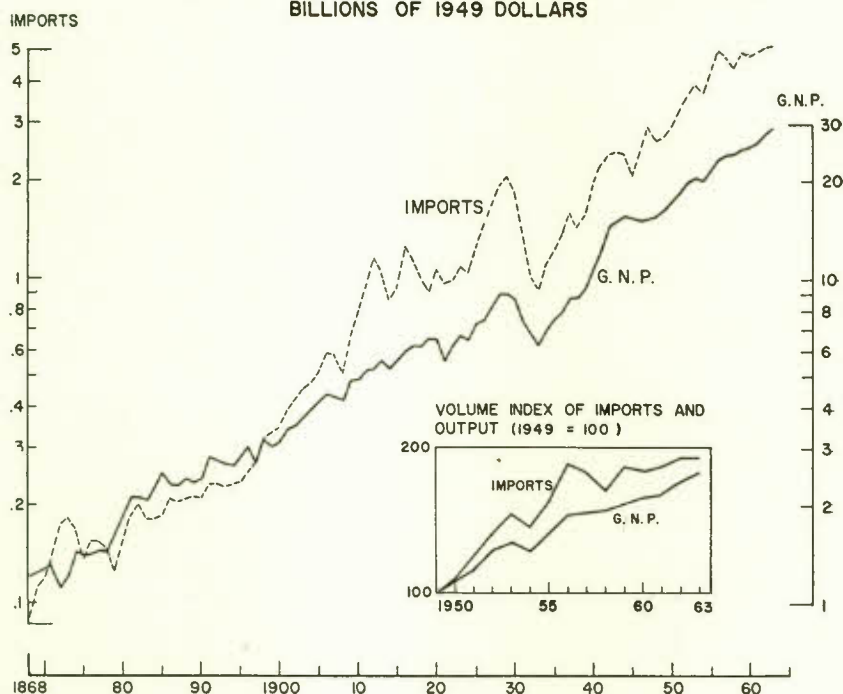
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petitive position for Canadian industry, together with an urgent seeking-out and exploitation of expanding export opportunities.

IMPORT POTENTIAL TO 1970

For more than fifty years the level of Canadian imports has been equivalent to roughly 15 to 20 per cent of total output. This ratio is generally in line with the experience of other industrial countries with relatively small populations. Strong surges of output, however, have historically been associated with even stronger surges in imports (see Chart 25). This pattern has continued in the post-war years. For example, imports rose much more rapidly than total output during the period of strong economic advance in the early post-

CHART 25
IMPORTS AND TOTAL OUTPUT, 1868-1963
BILLIONS OF 1949 DOLLARS



Source: Based on data from M. C. Urquhart and K. A. H. Buckley, Editors, *Historical Statistics of Canada*, to be published; K. A. H. Buckley, unpublished material; Dominion Bureau of Statistics; and estimates by Economic Council of Canada.

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war years and during the investment boom of the mid-1950's. On the other hand, during the slower economic advance beginning in the late 1950's, the volume of imports rose much less rapidly than total output. This slower growth in imports has persisted during much of the current upswing in domestic business activity since early 1961, mainly reflecting the effects of the reduction in the exchange value of the Canadian dollar, and the relatively low levels of investment during this period.

A decade ago, industrial materials and fuels constituted almost one half of Canada's imports, while capital goods and consumer goods each accounted for about a quarter of the total. Over the past decade there has been a relative decline in the use of imported industrial materials and fuels. At the present time, as Table 37 shows, each of the three categories of imports accounts for about one third of the total.

TABLE 37—CANADIAN IMPORTS BY END-USE
(Per cent of current values)

	Industrial Materials and Fuels	Capital Goods	Automobiles and Parts	Consumer Goods other than Automobiles	Total Imports
Average 1950-52.....	46	26	7	21	100
Average 1961-63.....	36	31	8	25	100
Average annual rate of growth 1950-52 to 1961-63.....	2.4	6.4	7.4	6.3	4.8

SOURCE: Based on data from Bank of Canada.

Over the past decade, imports of consumer goods have not only risen relatively rapidly in total, but have also risen on a per capita basis and as a percentage of total personal expenditure on goods. Similarly, imports of capital goods have increased relatively, for example, as a percentage of total investment in machinery and equipment (see Table 38).

Taking into account these past relationships and the high rate of increase in domestic output, income and spending, which would be associated with the attainment of potential output by 1970, we have assumed an average annual growth of 6.5 per cent in the volume of

International Trade and the Balance of Payments

TABLE 38—IMPORTS IN RELATION TO EXPENDITURE ON
CONSUMER GOODS AND MACHINERY AND EQUIPMENT

(Per cent of current values; averages for periods shown)

	1950-52	1956-57	1961-63
Ratio of imports of consumer goods to personal expenditure on goods.....	11	12	13
Ratio of imports of machinery and equipment to new investment in machinery and equipment...	45	52	59

NOTE: Data on imports of machinery and equipment exclude automobiles and parts but include parts of other machinery and equipment.

SOURCE: Based on data from Dominion Bureau of Statistics and Bank of Canada.

imports from 1963 to 1970. In terms of 1963 prices, this growth rate would lead to an increase in imports from \$6.6 billion in 1963 to \$10.2 billion in 1970.

We emphasize that this potential increase in imports has been calculated on the basis of relatively cautious assumptions. For example, the assumed level of imports by 1970 would represent no larger a share of the domestic market than the average level from 1955 to 1959. Further, the assumed rate of growth between 1963 to 1970 would be substantially less than the rate recorded over the period 1950 to 1956.

As in the case of our analysis of the export potential, we have also assumed reasonably stable internal prices and costs and the avoidance of any over-all deterioration in the competitive capabilities of Canadian producers.

BALANCE OF PAYMENTS AND CAPITAL FLOWS

Our merchandise export and import potentials have been calculated on the basis of a number of important underlying assumptions and have relied essentially on past relationships between trends in Canadian trade and trends in Canadian and world demand and supply. The export potential of \$9.8 billion by 1970 looks towards an export performance which would be roughly in line with those which have typically been associated with earlier periods of rapid and sustained growth in Canada and in the world economy. The import potential of \$10.2 billion, on the other hand, has been postu-

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lated on assumptions which imply that Canadian imports will not rise quite as fast in relation to output as in earlier periods of rapid domestic and international growth.

On the assumption that the relationship between export and import prices remains unchanged, there would be an end to the deterioration in Canada's terms of trade which occurred over the past decade, when a small rise in export prices was associated with a slightly higher rate of increase in import prices. Applying our assumption of small parallel increases in export and import prices, we arrive at an export potential of about \$10.5 billion, and an import potential of about \$11.0 billion in 1970, in current 1970 dollars. We also estimate that re-exports might be roughly a quarter of a billion dollars in 1970. The implications of these calculations are that the moderate trade surplus in 1963 might be replaced by a small trade deficit at potential output in 1970.

In the case of international receipts and payments for services, Canada has experienced persistent deficits since the last century. The excess of payments over receipts has continued to widen almost without interruption. The rapid growth in the deficit during the post-war years—from less than \$350 million in 1950 to well over \$1 billion in 1963—is reflected particularly in travel expenditures, investment income payments, and expenditures for a whole range of miscellaneous business services.

During the decade of the 1950's, rising expenditures for overseas and continental travel in relation to tourist earnings substantially increased the deficit on tourist account. More recently, devaluation and reductions of Canadian customs exemptions for tourist purchases inhibited the growth in expenditures as receipts continued to rise. With rapid expansion in employment and income as the Canadian economy moves towards potential output, Canadian expenditure on travel may tend to grow somewhat more rapidly than tourist and travel receipts. We have postulated, however, a rough balance in tourist and travel receipts and expenditures by the end of the decade, although we believe that this will require a concerted effort to promote larger tourist receipts.

In the 13 years from 1950 to 1963, the rapid growth in non-resident investments in Canada resulted in increased annual net payments of investment income to non-residents—from less than \$400 million to almost \$650 million. As the economy moves to potential output by 1970, investment earnings would tend to rise rapidly, and would result in further increases in net payments to non-residents.

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The excess of outflows over receipts from abroad for "miscellaneous services" has also been rising—from about \$150 million in 1950 to \$450 million in 1963. This is the fastest growing component of the nonmerchandise account in the balance of payments. It includes such flows as payments for personal and institutional remittances, and government transactions including official contributions. These outflows will continue to reflect the impetus of growth—especially of higher levels of personal and business income, strong demand for technical and other services associated with rising output, and increased Canadian participation in world affairs.

Taking the foregoing considerations into account, and allowing for increased expenditure for shipping associated with a higher level of imports, and receipts from the production of gold available for export, the indicated deficit on nonmerchandise account of the balance of payments would be around \$1.5 billion by 1970.

Our assumptions and calculations regarding a possible deterioration in the merchandise trade balance, together with the continuing trend towards a growing deficit on services, would indicate a substantial widening of Canada's deficit in its current account balance of payments. Indeed, our analysis shows that the attainment of potential output by 1970, could, on the basis of past economic relationships, result in a current account payments deficit in the order of \$1.5 billion to \$2 billion by the end of the decade.

In the past, the excess of current expenditures over receipts has been associated with large net capital inflows. This situation reflected the need, in periods of rapid growth, for both real and financial resources over and above our capacity to meet these requirements from domestic sources. To some extent, under such conditions Canadian monetary policy contributed to ensuring the ready availability of foreign capital. It should not be assumed, however, that the need for or the supply of foreign capital will necessarily continue to follow the patterns of the past. The availability of domestic savings is discussed in Chapter Seven, but it is pertinent at this point to anticipate the conclusion that the level of domestic savings would be relatively high at potential output, and that sustained, massive foreign capital inflows are not indicated as being necessary to finance the high levels of investment required to attain such output in 1970. At the same time, there is an obvious need for a high level of new investment associated with the development of foreign markets and the use of foreign technology, and this implies a continuing contribution of foreign capital, especially for direct investment.

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The development of secure and growing markets for Canadian exports is facilitated, in many areas of business, by close relationships between Canadian and foreign producers, consumers and distributors. In leading industrial countries, firms are becoming increasingly integrated on an international basis. Increased internationalization of business has been a very prominent feature of international economic developments over the past decade, not only between Canada and the United States, but very generally throughout the world. It has made an important contribution to expanding world trade and increasing specialization and efficiency of industry. We expect this trend to continue.

In this context, we believe that Canadian industry should give greater attention to opportunities for direct investment abroad with a view to facilitating increased Canadian exports. We visualize the need for the growing development of a two-way flow of business investment between Canada and other countries. More generally we consider it to be both important and desirable from the standpoint of Canada's economic interests to work along with other countries towards the achievement of freer international capital markets and avoidance of discriminatory and arbitrary impediments to international capital movements.

The analysis in this Chapter raises important questions regarding the policies required to reconcile the balance of payments position with the employment and growth objectives discussed in Chapter Three. These issues will be considered in a broader context in the final Chapter, but it is useful to examine and clarify certain important underlying aspects here.

The problems inherent in maintaining a viable balance of payments arise out of a whole range of factors affecting the international competitive position of the Canadian economy. These factors include the efficiency of Canadian industry, the relative price and cost position of Canadian producers (given the exchange rate), the marketing efforts of Canadian exporters, and the conditions of access to foreign markets.

The tendency of the Canadian economy to generate a large deficit on current account as a by-product of a rapid rate of growth reflects the influence of these various competitive factors on trends in merchandise trade, as well as the long-term structural deficit on services. In the short or medium term, there seems to be little possibility of reducing, or even containing, the size of the deficit on services. It is

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primarily in the field of merchandise trade that possibilities exist for improving on Canada's previous performance. Such possibilities lie mainly in opportunities for developing more competitive industrial activity in the areas of rapidly expanding world trade and domestic demand.

While raw materials will continue to occupy a very important position in Canadian export trade, the most rapidly expanding categories of world trade are in the fields of processed and manufactured goods. Similarly, the most rapidly expanding Canadian imports under conditions of sustained domestic growth would fall into these same categories. Consequently there are extensive opportunities for increasing Canadian exports and for reducing reliance on imports in these commodities.

The objective of a more rapid rise in exports relative to imports to 1970, than would be indicated on the basis of past relationships, will require effective policies and efforts designed to improve the competitiveness of the economy, particularly in the areas of more highly processed and manufactured products. Consequently increased emphasis must be given, as a matter of high priority, to industrial rationalization and specialization. This will involve greater technical efficiency and higher productivity in manufacturing, and particular attention to methods for achieving, in Canada, higher stages of processing of industrial materials. Further, Canadian prices and costs must be kept in line, at any given exchange rate, with world prices and costs for goods entering into international trade.

Competitiveness also involves successful selling in both domestic and international markets in strong competition with foreign producers. There are examples in recent years of some singularly successful efforts by Canadian manufacturers in exploiting new opportunities in foreign markets. To attain a wider and better performance in the future, the public and private institutional and psychological barriers, which tend in various ways to limit the export of manufactured goods, must be reduced. To this end, a wide range of interrelated actions are required—such as the broader development within industry of modern and aggressive marketing techniques; adequate and competitive industrial export financing facilities; the removal of arbitrary restraints, where they exist, on the competitive export capabilities of Canadian subsidiaries of foreign-controlled firms; and vigorous trade promotion programmes for industrial goods. More favourable terms of access are also of crucial importance. A relative improvement in

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the competitive and marketing capabilities of Canadian industry will not be very useful as a basis for improved export performance in a restrictive and protectionist world environment.

The direction of international commercial policy in the post-war period has clearly been towards freer trade. There has already been a substantial reduction in tariffs on industrial goods. This movement is continuing. The signatory countries to the General Agreement on Tariffs and Trade (GATT) are currently engaged in the "Kennedy Round" of comprehensive trade negotiations covering tariff and non-tariff barriers and all classes of products. These negotiations are proceeding on the basis of a working hypothesis of a 50 per cent reduction in tariffs for industrial products and materials, with a minimum of exceptions. Countries like Canada, whose trade currently consists mainly of primary and processed exports and manufactured imports, have taken the position that they will offer concessions equivalent in value to the benefits anticipated from improved access to other markets.

A substantial reduction of industrial tariffs under the Kennedy Round would provide Canadian industry with extensive access to wider markets and important new opportunities for increased exports.

Most of the tariff reductions stemming from these negotiations would be staged over a five-year period. However, the experience of the European Economic Community and the European Free Trade Association, under conditions not unlike those postulated in the Kennedy Round, is that many business firms tend to move quickly to anticipate, explore and exploit new trading opportunities. A similar response by Canadian industry to tariff reductions negotiated in the Kennedy Round could set in motion important anticipatory adjustments in Canadian production and marketing patterns before the end of this decade. Both increased exports and enhanced capabilities to meet import competition would develop from adjustment towards longer production runs, more industrial specialization and higher productivity.

Moreover, the impact of freer trade on comparative cost relationships, by encouraging moves towards increased specialization and productivity, would help to provide a basis for narrowing the real income gap between Canada and the United States. A rapidly expanding domestic market would provide an ideal environment for achieving this objective with a minimum of adjustment problems. Even under these conditions, a need would remain for carefully designed transitional safeguards and measures to assist adjustment within

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domestic industry. However, these should not be so protective of change as to thwart the original purpose.

The question of Canada's trade relationship with the developing countries deserves special mention. The real needs of these countries for goods and services from the industrial world are almost unlimited, but their capacity to pay is restricted by relatively low export earnings and proceeds from loans and gifts. A major growth in exports to these countries therefore requires efforts directed not so much at overcoming or reducing protection in these markets, as at fostering an increase in their international purchasing power. These countries themselves have emphasized that their basic need is for "trade not aid". Canada can participate in this development through its policy on imports from these countries. However, there is also a need for a vigorous effort to support the developing economies with trained personnel, technology, private capital, and public loans and grants. A determined approach by Canadian exporters, supported by export credits, could make a major long-run contribution to the successful development of these potentially large markets. If not within the present decade, undoubtedly within this century, the developing countries may well be the fastest growing market in the world.

Prices and Monetary Trends

THROUGHOUT THIS REVIEW our analysis is presented mainly in terms of physical volume. In a modern commercial economy, however, the purchase and sale of goods and services is almost universally carried on by means of transfers of money. This applies not only to commodities, but also to labour services in the form of money wages and salaries, and to capital in the form of interest and dividends.

The price mechanism plays an important role in the economy. It provides signals, for example, to indicate which goods and services are most in demand, and points to activities where productive resources and services can make higher rates of return. Prices not only influence the allocation of domestic resources, but also have a direct impact on Canada's economic and financial relations with other countries. Changes in relative prices in Canada and abroad can bring about significant shifts in the size and direction of migration, capital flows and trade.

For the price system to work well, there must be a reasonable degree of flexibility in the pattern of relative prices and mobility of resources between alternative uses. Although prices of various commodities and services frequently move in different directions at the same time, and although some prices move more frequently and to a greater degree than others, there are occasions when a majority of individual prices tend to move together, either upwards or downwards. Any such general and widespread movements in specific prices are normally reflected in movements in various general price indexes.

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Over a long historical period, widespread and pronounced general price movements in the western economies have almost invariably been associated with special circumstances, such as wars and revolutions, massive increases in world gold supplies, and major economic depressions. Since the turn of the century, except for the severe deflation of the 1930's, there have not been any prolonged periods of general decline in price levels. On the other hand, the upheaval of the First and Second World Wars generated sharp general price increases.

These trends have been generally true for Canada, and as we have noted in Chapter Two, the effects of the Second World War led to relatively broad and pronounced advances in prices and costs in the early post-war period. Over the past decade, however, there has been a much greater stability in prices and costs (see Table 39).

TABLE 39—CHANGES IN SELECTED PRICES AND COSTS
(Average annual percentage change)

	1946-53	1953-63
Consumer price index.....	5.9	1.4
Wholesale price index.....	6.8	1.0
Industrial materials price index.....	6.6	0.9
Canadian farm products prices.....	3.1	0.4
GNP price deflator.....	6.4	2.0
Average hourly earnings in manufacturing.....	9.8	3.7
Corporate profits per unit of output in manufacturing.....	2.9	-0.1
Labour cost per unit of output in manufacturing.....	6.0	1.1

SOURCE: Based on data from Dominion Bureau of Statistics.

It is clearly important to avoid excessive increases in internal prices and costs since such increases weaken the competitive position of domestic producers and may leave the balance of payments in a vulnerable position. Moreover, a persistent and excessive rise in prices also creates severe problems within the country. As a changing degree of demand pressure works through the economy, prices of individual goods and services and the incomes of various productive factors respond with varying speed. One of the most obvious resulting problems arises from a decline in the purchasing power of fixed incomes, such as pensions. Another problem is the changed economic position of debtors in relation to creditors. Some salaries also lag, as for

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example, during the period after the end of the war when salaries for teachers and civil servants were adjusted relatively slowly. Furthermore, while corporate profits respond swiftly and sharply to rapid increases in prices, basic wage rates respond more slowly. Under such conditions, growing concern with inequities in the distribution of the benefits and burdens of the rising prices and costs may be expected to lead to severe social stresses and strains.

It should be noted, however, that the relatively moderate rate of general price increase in Canada over the last decade did not give rise to serious distortions or problems either internationally or domestically. At the same time, these more moderate price changes encouraged the development of some new attitudes regarding the desired composition of assets and liabilities of individuals and firms. During the period of more rapid price advances in the late 1940's and early 1950's, there had been some shift away from money and bonds to equity holdings, real estate, and goods. In contrast, since the early 1950's price increases have been sufficiently small and selective that there has been little incentive to shift from holding money into buying goods in advance of need. In fact, the demand for goods was rather weak in the late 1950's and early 1960's, and there are some indications that individuals and firms have sought to build up their holdings of financial assets. In general, rearrangement of holdings of financial assets in the light of changing circumstances and attitudes reflects the required flexibility and competitiveness of the financial system, which was emphasized in the recent report of the Royal Commission on Banking and Finance.

MAJOR FACTORS AFFECTING THE GENERAL LEVEL OF PRICES

One of the most important factors affecting the level and structure of prices in Canada is the influence of world prices in general, and United States prices in particular. This influence is most apparent in the prices of products which play an important part in international trade, for example, major export commodities like wheat, base metals and newsprint, and major imports such as manufactured goods, industrial materials, and fresh fruits and vegetables. For products which are not normally traded across international boundaries, important price movements can occur in response to special pressures of domestic demand or supply. However, these internal price pressures

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tend to be held in check in Canada because of proximity to potential supplies in the United States. Influences from abroad which lead to widespread increases in domestic prices for manufactured goods will eventually be reflected in wages and prices for a wide range of services even though the latter initially might be relatively unaffected. It is clear that the Canadian economy cannot effectively be insulated from major price movements abroad.

Developments within Canada can also have a major influence on domestic prices. This is illustrated by the early post-war experience. Moreover, as we have already emphasized, the failure to contain price and cost increases more effectively in the early post-war period laid the basis for some accentuation of economic problems within Canada during the 1950's.

It is not easy to form a view as to what price trends might develop in the period ahead in North America under conditions of high levels of economic activity. In recent years, many other industrially advanced countries have achieved high standards of performance with respect to growth and employment, but in some cases this has been accompanied by increasing difficulties in maintaining price and cost stability. During the earlier post-war years when unemployment in Canada and the United States was reasonably low, the rate of price increase was fairly fast, and clearly not in line with the goal of reasonable price stability. However, in this period a number of special factors contributed to upward pressures on prices and costs, including an initial situation of pent-up demand, high liquidity, significant shifts of resources resulting from post-war reconversion, and adjustments associated with the removal of war-time controls.

Historically, excessive pressures of demand, such as those stemming from war finance or undue monetary expansion, have almost invariably been reflected in substantial price increases. Further, it is important to recognize that the strong demand conditions which are required to attain high levels of output and employment also tend to exert upward pressures on prices. In such circumstances, therefore, there are dangers of a broadening range of price increases as the economy reaches higher levels of activity. Bottlenecks tend to develop in the supplies of skilled manpower and particular items of machinery and investment goods, and prices and costs begin to creep up.

The goal of reasonable price and cost stability is one which is extremely difficult to define. In terms of our preceding discussion of the important role of prices in our economy, and because of the need for flexibility in the pattern of relative prices, we do not believe that

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a rigid structure of constant prices is a desirable or feasible objective. These flexible price adjustments in response to changes in underlying demand and supply conditions in our market economy should result in some year-to-year variability in over-all prices. However, we would regard persistent and rapid price increases as inappropriate and dangerous.

After careful consideration, we have assumed that if annual average rates of changes in prices and costs to 1970 can be contained within the limits of the ranges of movements over the decade from 1953 to 1963, this would represent the attainment of a satisfactory degree of price and cost stability. Over the past decade, for example, the average annual increases in consumer prices and in prices of all goods and services produced in Canada were 1.4 per cent and 2.0 per cent, respectively, but there have been some moderate year-to-year variations around these rates.

It should be emphasized that a continuation of this performance into the future will undoubtedly be a difficult task to achieve, especially under the high demand and high employment conditions which we have postulated. Some indication of this difficulty is suggested by the fact that the very moderate average annual changes in prices which we have assumed for the future are equivalent to those which took place over a decade which included an extended period of relatively high unemployment and economic slack.

Several important factors have encouraged us to believe that such a high standard of performance as regards prices and costs should be possible of achievement:

- the recent record of price stability under conditions of strengthening demand and the devaluation of the Canadian dollar;
- the higher productivity growth which we indicate as being possible for the years ahead;
- stronger internal and external competition;
- price consciousness for particular products among consumers and purchasers; and
- various policy measures to facilitate attainment of this objective (see Chapter Nine).

We have also assumed that there will not be strong international price pressures affecting the Canadian economy and, in particular, that reasonable price and cost stability will be maintained in the United States.

If rough stability in the general level of prices is to be maintained,

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the prices of some goods and services should decline to offset price increases in others. It is disconcerting to note that during the last decade prices of very few individual items declined, in spite of important productivity gains in certain fields and greater and more prolonged weakness in demand than at any time since the 1930's. Such developments, we believe, are symptomatic of a situation of insufficient flexibility and adaptability to changing circumstances in the economy. Our preceding assumptions regarding price stability for the future imply that there will be adequate flexibility in the price system in our market economy, resulting in some price declines as well as some price increases. Such flexibility will obviously tend to be encouraged through a continuing heavy interdependence with an increasingly competitive world economy.

In Chapter Nine we consider the interrelationships between the objective of reasonable price stability and the other basic economic goals set forth in this Review. We also discuss various policy measures to facilitate the attainment of this objective.

TRENDS IN MONEY AND CREDIT

In considering the question of the appropriate monetary environment, the focus of our concern is on the general trend in the supplies of money and credit which, having regard to the maintenance of reasonable price stability, are required to assist in achieving a high rate of economic growth. We do not attempt to explore shorter term adjustments in monetary policy in relation to the fluctuations of the business cycle. Similarly, we are not concerned with the day-to-day variations in money market conditions, or with the many immediate technical aspects of monetary policy and debt management with which the monetary authorities must deal.

In this broader perspective, the general principles for monetary expansion in relation to economic growth appear reasonably straightforward. In a market economy, a rising level of economic activity will invariably be accompanied by an increase in the money supply or a rise in the velocity of circulation, or both. Thus a strong upward trend in the physical volume of output such as we have projected in the expansion of the economy to potential output calls for a similar trend of growth in the monetary system.

A rate of increase in the money supply below the growth trend of real output could be offset initially by an increase in velocity. How-

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ever, if the disparity is serious and persistent, the over-all effect on the economy may be to restrict activity and generally to inhibit the rate of real growth and the attainment of a high level of employment. On the other hand, if the economy encounters widespread shortages and bottlenecks, an undue expansion of the money supply would result in an inflationary price rise, frustrate the objective of maintaining reasonable stability in prices, and may adversely affect the balance of payments.

Some aspects of the relationship between rates of real growth and expansion of the money supply are illustrated by empirical data for a number of industrial economies in the post-war period. Table 40 shows the average annual rates of increase in money supply, national output in real terms, and the consumer price index for the period from 1953 to 1961 for eight leading industrial countries. As the data indicate, high rates of real economic growth have generally been associated with substantial increases in the money supply, while slower rates of growth have been associated with relatively smaller rates of monetary expansion. Caution must be used in interpreting these data, however, since differences between countries in economic structure, levels of employment, institutional framework, financial efficiency and so forth may play a part in influencing the relationship between real and monetary growth.

TABLE 40—RATES OF GROWTH IN TOTAL OUTPUT, MONEY SUPPLY, AND CONSUMER PRICES, 1953-61

(Average annual percentage change)

	Real Gross National Product	Money Supply	Consumer Price Index
Japan.....	9.5	19.8	2.4
Germany (FGR).....	6.9	11.1	1.7
Italy.....	6.2	11.5	2.5
Netherlands.....	5.5	7.1	2.7
France.....	4.9	11.4	4.1
Sweden.....	4.2	7.3	3.1
Canada.....	2.9	5.4	1.4
United States.....	2.5	2.2	1.3

SOURCE: Based on data from International Monetary Fund, Organization for Economic Co-operation and Development.

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The general longer term requirement suggested here is an upward trend in the money supply broadly in step with the rise in real output; and since the achievement of potential output in Canada by 1970 involves an accelerated rate of real growth, it is likely to require a more rapid increase in the money supply than took place during the past decade. Moreover, this rate of increase will not only have to take account of the advance in physical output, but also make adequate allowances for the flexible operation of the price system and changes that may occur in the trend of the velocity of money. This is not to suggest in any way that the achievement of our growth potential implies an automatic and unvarying commensurate rate of expansion in the monetary system at all times. On the contrary the monetary authorities will clearly find it necessary in practice to maintain a highly flexible approach in dealing with the day-to-day requirements of debt management and changing conditions in financial markets. But we stress again that we are concerned here with the general direction of monetary policy appropriate to the achievement of the high rate of economic growth which we postulate to 1970.

Further, it is also important to emphasize that monetary policy in Canada cannot be pursued without regard to monetary and credit conditions abroad. With few impediments to capital flows between Canada and the rest of the world, differences in the levels of interest rates and in the availability of funds between Canada and other countries can readily generate large-scale capital movements through the foreign exchange markets. Monetary management in Canada in the future, as in the past, must therefore have careful regard to its implications for the country's balance of payments position and, in particular, at any given exchange rate, to its impact on the level of foreign exchange reserves.

Because of the especially close connection between the money markets of Canada and the United States, it is evident that, under a fixed exchange rate system, our monetary authorities must give particularly close attention to the trend of monetary developments in that country. Our close relationship to the United States clearly imposes certain restrictions upon our freedom to expand the money supply, even when such expansion would be desirable to assist a rapid rate of domestic economic growth. If the United States economy itself is moving along a path of rapid growth, and following appropriately expansionary policies in money and credit, this will facilitate the pursuit of similar appropriate policies in Canada. If the opposite

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is true, however, the implementation of a suitable monetary policy for the attainment of potential output in Canada will be greatly complicated.

Fiscal Trends and National Saving

OUR REVIEW to this point has outlined the broad dimensions of potential output in the Canadian economy by 1970, particular levels of components of demand consistent with that output, and the price and monetary implications of a vigorously expanding market economy. We turn now to the broad trends in fiscal and savings aspects, which would be similarly consistent with the high rate of economic growth and employment postulated in our analysis.

Several closely related questions are considered in this Chapter. There is first the impact of growth on levels of government expenditure, together with the particular contributions of public programmes to the longer run expansion of the productive capacity of the economy itself—to the further development, for example, of natural resources, of the productive skills of the rapidly growing labour force, and of the so-called infrastructure, or basic services provided by governments at all levels. Beyond this are the rather more general questions of the total flow of tax revenues which may develop under conditions of high and rising national income and expenditure, the differential trends in government revenues and expenditures, and the sources and volume of national saving in relation to investment requirements.

Some of these questions touch closely upon matters either recently reported upon by the Royal Commission on Banking and Finance, or currently under detailed study by the federal Royal Commission on Taxation, by several parallel provincial inquiries, and by the Tax

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Structure Committee recently established by the federal and provincial governments. We do not attempt, however, to anticipate the results of the studies now under way. Rather our Review confines itself specifically to those fiscal and savings questions of particular relevance to the attainment of potential output, including levels of demand assumed to develop in the government sector of the economy, possible trends in public revenues, and potential rates of gross national saving.

TRENDS IN GOVERNMENT EXPENDITURE

In turning first to the analysis of trends in government expenditure, it will be helpful to note the past record of this expenditure in relation to total national output, and to indicate the general order of this relationship as we assume it to develop under conditions of potential output. For this purpose, the most useful measure is that of the combined spending by federal, provincial and municipal governments (net of intergovernmental transfers) in relation to Gross National Product.

Over the past four decades a very substantial rise has taken place in the proportion of total output channelled directly or indirectly through the government sector. Including both direct government purchases of goods and services, and government outlays in the form of transfer payments to persons, firms and organizations, this proportion rose from an average of about 15 per cent in the latter half of the 1920's to about 32 per cent in the early 1960's. This longer term rise, however, has been an extremely uneven one. As in the case of the United Kingdom and the United States, the historical record for Canada on the share of national product accounted for through the government sector since 1926 reveals successively higher plateaus of considerable stability, interspersed by peaks occurring during periods of rapid and significant increase, such as during the early years of the depression of the 1930's, the Second World War, and the Korean War.

Between the outbreak of the Second World War and 1944, total government expenditure rose from about one fifth to one half of national output, with defence spending responsible for virtually all of the increase. This proportion dropped rapidly with the return of peace-time conditions, stabilizing for several years at 22-23 per cent of output. It rose again sharply during the Korean War, with a fourfold increase in defence requirements. Total expenditure then

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levelled out at about 26-27 per cent of Gross National Product during the mid-1950's, rising again after 1957 to a post-war peak of 32 per cent in 1961. It has now declined slightly below that level.

While the trend throughout even the past two decades has thus been an uneven one, the growth in government expenditure has clearly outpaced the rise in national output. There was first a very sharp increase in spending at the federal level required to meet renewed defence needs and the cost of new social security programmes, particularly family allowances, unemployment insurance and universal old age pensions. Subsequently, increasing expenditure began to develop more rapidly at the provincial-municipal level, with a substantial rise in the volume and cost of those public services such as education, roads and other social capital required by a growing and increasingly urbanized population. Finally the introduction of new public programmes in health and welfare and, after 1956, a lagging rate of expansion in the economy itself have been important factors in the enlargement of government expenditure relative to Gross National Product.

Under the target conditions of rapid and sustained growth, however, a significant change in the trend of the relationship between total government expenditure and national output would be possible. For 1963, total expenditure is estimated at about \$13.6 billion. On the basis of certain assumptions relating to our appraisal of potential growth in the Canadian economy to 1970, such expenditure is projected to rise to the order of \$19.2 billion (expressed in 1963 prices).

This is an increase of 40 per cent (equivalent to an average annual rise of 5.0 per cent) and compares with the over-all increase of 36 per cent in government expenditure between 1956 and 1963. However, as our analysis has shown, the real rate of growth for the achievement of potential output between 1963 and 1970 is 5.5 per cent. Our projections would thus lead to a further slight decline, or at least a stabilization, in the ratio of government expenditure to national output by 1970 (see Chart 26).

The assumed rate of change in the government sector is based upon a review of expenditure by all three levels of government, using a functional classification as a framework for analysis. Aggregate government spending by all three levels, including both current and capital outlays, can be broadly classified into certain functional categories such as defence, education, and social welfare,

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each of which indicates the general nature or purpose of a wide variety of particular programmes. The increases which we have assumed for the main categories and for the total of government expenditure are indicated in Table 41.

TABLE 41—ASSUMED PATTERNS OF EXPENDITURE BY ALL GOVERNMENTS, AT POTENTIAL OUTPUT, 1970, BY FUNCTION
(Millions of 1963 dollars)

Function	1963 (estimated)	1970 (assumed)	Percentage Increase	
			Total	Annual Average
National defence and veterans affairs.....	2,050	2,190	7	0.9
Education.....	2,140	3,080	43	5.3
Social welfare.....	1,980	2,610	31	4.0
Transportation.....	1,670	2,600	56	6.6
Health and hospital services....	1,290	2,000	55	6.5
Natural resources and primary industries.....	650	920	41	5.1
Recreation, community and cultural services.....	255	380	49	5.9
External affairs and grants-in-aid	100	170	70	7.9
General government and other services.....	2,115	2,770	31	4.0
Debt charges (net of interest receipts).....	1,110	1,270	14	1.9
Salary and wage allowance.....	—	650	—	—
Total functional expenditure.....	13,360	18,640	39	4.9
Net adjustments to national accounts basis.....	+270	+540		
Total expenditure.....	13,630	19,180	40	5.0

NOTE: The summary functional breakdown of expenditure estimates and projections is based primarily upon the conceptual framework and statistical classifications employed by the Dominion Bureau of Statistics in annual publications on *Consolidation of Public Finance Statistics*. The "net general expenditure" concept used here is a more consistent and comprehensive measurement than that provided in the public administrative accounts of the various levels of government, particularly with respect to the inclusion of "capital" accounts and certain administrative funds. Financial transfers between governments, either as unconditional payments or specific grants-in-aid are eliminated to avoid double counting. A further adjustment of the total of functional categories is necessary to arrive at a measurement of government expenditure as defined in the national economic accounts and transposed from a fiscal to calendar year basis. This latter adjustment is required to obtain data which may be related to the potential trend of Gross National Product.

SOURCE: Based on data from Dominion Bureau of Statistics, federal and provincial Budget Papers and Public Accounts, Canadian Tax Foundation, and estimates by Economic Council of Canada.

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These estimates are based primarily upon the existing complex of policies, the probable increases associated with population change, and upon continuing trends towards improved standards. No account is taken, however, of any major new policy developments except where these have been generally or explicitly indicated by governments, or where significantly increased levels of expenditure appear appropriate either to the requirements for, or as a consequence of, expansion of the economy to potential output.

The nature of the assumptions and main considerations underlying our projections of the most significant functional categories are indicated in a very brief review of each of these categories. We emphasize, however, that the projections given in the Table are not in any way intended to represent either a forecast of probable government expenditures by 1970, or a portrayal of an optimum pattern from any particular point of view. They indicate rather the general order of magnitude of expenditure programmes by function which might be expected to emerge under conditions of rapid economic growth.

National Defence and Veterans Affairs—Our assumption here is one of continued relative stability in total expenditure to 1970. This assumption is in line with the White Paper on Defence of March 1964, which outlined "the basic considerations in defence policy" and sketched "the shape of Canadian forces" as presently foreseen for the decade ahead. It may be noted that the relatively minor increase projected for defence is a fairly important influence in limiting the growth of total government expenditure.

Education—Outlays for education comprised the largest single functional component of government expenditure in 1963, and retain that position in our 1970 expenditure assumptions. Total operating and capital spending by public authorities on education (excluding capital debt retirement) is postulated to rise from about \$2,140 million in 1963 to the order of \$3,080 million by 1970, an average annual increase of 5.3 per cent.

An important shift in expenditure among three broad components of educational spending is indicated in Table 42. Here it will be seen that the rise in requirements at the combined elementary-secondary school level is expected to slacken considerably. The underlying reason for this is the change in the age distribution of the population anticipated by 1970. In the past few years the age group of 5-17 years inclusive has been growing by about 135,000 persons

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TABLE 42—COMPONENTS OF TOTAL PUBLIC EXPENDITURE
(OPERATING AND CAPITAL) ON EDUCATION
(Millions of 1963 dollars)

	1956	1963	1956-63 Average Annual Percentage Increase	1970 (assumed)	1963-70 Average Annual Percentage Increase
	(estimated)				
Elementary and Secondary....	970	1,680	8.2	1,950	2.2
Vocational and Technological	40	170	23.0	290	7.9
University and Professional....	145	290	10.4	840	16.4
Total.....	1,155	2,140	9.2	3,080	5.3

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

annually. By 1970, the annual increase is expected to fall sharply to about 75,000 persons. Consequently annual capital expenditures appear likely to decline fairly substantially, even though enrolment ratios continue to improve, particularly among the secondary school age groups in those regions in which they still remain relatively low, and despite a probable increase in replacement building and renovations. When allowance is made for these considerations, the assumed increase in expenditure is significant. It takes into account the slower growth in total enrolment and allows for higher expenditures per pupil brought about by improving educational standards and services.

In the vocational and technological field, a very high level of capital spending has recently been experienced, and this might be expected to stabilize or even decline. However, greatly increased operating costs and substantial new developments in programming, including the need for expanding and innovating expenditure in up-grading and retraining of workers, have been allowed for. The fastest rate of growth, 16.4 per cent annually, is postulated for current and capital spending for university and other professional training. This is based upon continued acceleration in enrolment ratios, substantial new capital expenditure, rapidly increasing requirements for postgraduate education and expanding university research facilities.

Transportation—A rapid increase of 6.6 per cent per annum in government expenditure on transportation facilities is included in our projections. The most significant factor here is a rising level of

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investment in main highways, public roads and urban streets of all kinds, and special transit facilities in the largest metropolitan centres. It has been estimated that with the emerging demographic pattern, the potential increase in per capita income, and high levels of economic activity, the number of motor vehicles in use may rise above recent levels by more than one third by 1970. Having regard as well to existing problems of traffic congestion in urban areas, steady advance and continuing technological change in air travel, the high volumes of rail and water traffic that would be associated with rapid economic growth, and the importance of transportation in resource development, a vigorous expansion of government expenditure at all levels on transportation is postulated.

Health Services—Government expenditure on health and hospital services is also assumed to rise at a high rate. The improvement in the general health of the population can be looked upon not only as a part of improving living standards but also as a contribution to longer run economic growth. The projected increase of 55 per cent, or 6.5 per cent per year, makes allowance for a rising volume of hospital care consequent upon population growth, and for the increasing relative costs implicit in rapidly advancing health technology, as noted in the report of the Royal Commission on Health Services.

Our assumption also takes account of expanded programmes in health research, the training of professional and other health personnel, altered federal health grants, and improvement of care in mental hospitals along the lines recommended for early implementation in the report of the Royal Commission. However, no formal statement of policy has been made at the government level regarding the major, long-run developments in publicly sponsored health insurance which were envisaged in that report. Consequently our projection makes no allowance for these costs. Even if it were decided to proceed, the problems involved in designing and implementing an appropriate programme are such as to raise doubts whether significantly increased government outlays would develop by 1970.

Social Welfare—The great bulk of welfare expenditure included in this category now consists of flat-rate allowances paid mainly at the federal level in the form of family and youth allowances and old age security pensions. The volume of these expenditures is not automatically affected by economic conditions, but rises with the increase in numbers in the recipient age groups and policy decisions as to rates of allowance. Provision has been made in our projections

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for old-age security pensions and other closely related rates of assistance for the aged, blind and disabled to follow the upward trend in the real income of employed workers.

The category in total is projected to rise at an average annual rate of 4.0 per cent. It should be noted, however, that this total does not include certain other important income support measures such as unemployment insurance and workmen's compensation, which are classified as self-sustaining trust fund programmes. The expenditures from these funds are included in the "net adjustments to national accounts basis" in Table 41. The same treatment is accorded to pensions for government employees, and to benefits paid out under the proposed government-administered universal pension plans. As the latter plans mature, pension expenditure will climb steadily.

Natural Resources and Primary Industries—This function embraces a very wide range of federal and provincial programmes in the administration, conservation and development of lands and agriculture, forestry, fisheries and wildlife, water resources, and mines and minerals. The level of expenditure postulated for 1970 is based upon an increase over the past trend of spending, reflecting the importance of a developing resource base in the achievement of sustained economic growth. In a number of the primary industries and regions of Canada there are significant problems of adjustment, involving the need to raise low incomes and enlarge economic opportunities. Our projection of an over-all increase in expenditure of 41 per cent by 1970 makes allowance for increased expenditures to help meet these problems. It also visualizes the possible re-allocation of funds now required for income subsidies into longer range development measures.

General Government and All Other Functions—The rate of increase postulated for this category is based primarily upon trends in real spending for a number of separate components as experienced in the decade 1953 to 1963. These trends have been modified by our expectations as to changed needs and circumstances up to 1970. In general, anticipated further concentrated growth in urban centres can be expected to maintain strong upward expenditure trends for police and fire protection, recreation and community services, and sanitation and waste removal. All of these functions are included under this heading. The category also includes a number of activities of fairly limited relative size, but possessing potentially high leverage in assisting growth. Consequently, we have included provision for expanded programmes in such areas as trade, tourist and industrial development

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promotion, government aid for scientific research and development, local government planning and development, services for public housing and urban renewal, central statistical operations, and services for Indian and Eskimo citizens.

As will be seen in Table 41, we have also included an allowance for the adjustment of wages and salaries for government employees, related to our assumption concerning rising productivity in the commercial sector of the economy. If this allowance could be accurately distributed among the functional categories, it would have the obvious effect of raising the average annual rates of increase by small margins, particularly in those areas involving significant numbers of public employees.

Interest Costs—The treatment of interest charges on the public debt is necessarily based upon particular assumptions. Actual requirements in the future will be based upon the rise or fall of outstanding indebtedness. This in turn depends upon the size and sequence of budget surpluses and deficits at all levels of government. Two assumptions underlie the figures postulated for 1970: first, that the federal budget will move close to an over-all balance, taking one year with the next, over the period to 1970, with the result that no significant change will take place in net federal interest costs; and second, that the combined provincial-municipal net outstanding debt and consequent net interest costs will be allowed to grow approximately in step with the growth in national output. Alternative assumptions which might be made would not result in significant differences in our projection of total expenditure. The national accounts adjusting entry in Table 41 also takes account of additional interest costs incurred by governments in financing certain loans and advances to government business enterprises, which are offset in the form of interest receipts included in the statement of government revenue.

IMPLICATIONS OF ASSUMED TRENDS

The rates of growth we have thus projected for the various expenditure functions when viewed from the perspective of an expanding economy, point to important changes in over-all trends and patterns of government expenditure. We have already noted the significant prospect that the economy as a whole could grow slightly faster than the government sector. Under these conditions, it follows that government expenditure could decline slightly as a proportion of total output, in

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contrast with the upward trend experienced throughout most of the post-war period (see Chart 26).

Government expenditure, moreover, consists of two main types. The first represents the direct purchases of goods and services and the employment of people by government itself, and thus enters directly into demands upon the physical capacity of the country to produce. The assumed expenditure on goods and services, as shown in Table 43, rises from about \$8,076 million in 1963 to the order of \$11,340 million in 1970, expressed in 1963 prices. This change reflects an average annual increase of 5.0 per cent, which is somewhat less than the potential rate of real growth in the economy. It is a considerably faster rate, however, than that experienced between 1956 and 1963, when increases in total government spending were more heavily concentrated in the form of transfer payments to persons and institutions, subsidies and interest costs.

One of the main characteristics of our projections is that they involve a considerable shift in the future composition of total government expenditure. Thus they provide for a vigorous rise in government investment in the necessary social infrastructure required for a rapidly growing economy, in resource exploration and development, in technical research, and in higher education and training. An illustration of this shift in emphasis is that fixed capital formation by government departments at all levels is seen as rising from about \$1,800 million in 1963 to the order of \$3,000 million by 1970.

TABLE 43—GOVERNMENT EXPENDITURE ON A
NATIONAL ACCOUNTS BASIS
(Millions of 1963 dollars)

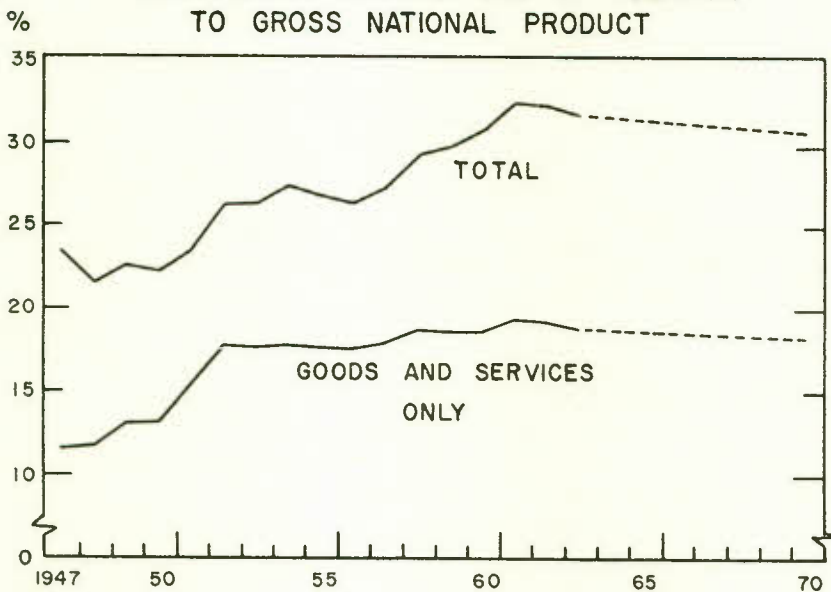
	1963 (estimated)	1970 (assumed)	Percentage Change	
			Total	Annual average
Goods and services.....	8,076	11,340	40	5.0
Transfer payments to persons and institutions.....	3,829	5,880	53	6.3
Subsidies.....	313	250	-20	-3.2
Gross interest.....	1,414	1,710	21	2.8
Total expenditure.....	13,632	19,180	40	5.0

SOURCE: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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The second main category of government expenditure is in the form of transfer payments to persons and institutions, subsidies and gross interest. These payments are made to persons and firms, who may then purchase or save at their own discretion. The total of transfer payments to persons and institutions is projected to rise at a rate of 6.3 per cent yearly. This compares with an average annual increase of 9.3 per cent experienced between 1956 and 1963. The projected growth rate reflects not only the rise in social welfare allowances and the introduction of the proposed government-administered universal pension plans, but is also strongly influenced by the assumed rise in grants to universities and hospitals.

CHART 26
GOVERNMENT EXPENDITURE IN RELATION
TO GROSS NATIONAL PRODUCT



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

A further implication relates to the impact of the different rates of growth among expenditure programmes upon the different levels of government. The data are presented for the public sector as a whole, recognizing that the distribution of responsibilities and cost burdens as between the federal and provincial governments and

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between the provinces and their local governments are undergoing change and adjustment. Nevertheless, it will be clear that rapid expansion in certain categories of expenditure, and more modest increases or relative stability in others, point to continued shifts in relative financial burdens as between the three levels of government. It will be noted in particular that the most expansive categories of expenditure, including education, transportation and health services, fall largely in areas of provincial-municipal responsibility. The significance of this shift will also be noted in the following discussion on trends in government revenues.

TRENDS IN GOVERNMENT REVENUE TO 1970

The foregoing analysis of the assumed growth in government expenditure has projected varying rates of increase for the main functional categories of expenditure, and noted significant changes in over-all trends and patterns. We turn now to consideration of the flow of government revenue likely to accrue under the general conditions of an economy expanding from a state of under-utilization of capacity to the level of potential output. In real terms, as previously detailed, the combined effects of a rapid increase in the size of the labour force, a significant decrease in unemployment, and continued gains in man-hour productivity have been projected as generating an average growth of total output and income of about 5.5 per cent per year. At this rate, the real Gross National Product would rise by 45 per cent by 1970, giving a powerful and no doubt welcome upward momentum to the flow of government revenue.

It is necessary here, however, to take into account a further basic factor which bears upon the projection of government revenues. This is the effect of changing prices postulated for the period ahead to 1970. As will be discussed later, the prominent position of the individual income tax with its progressive rate structure in the government revenue system has the effect of producing increases in revenue considerably greater than in direct proportion to the advance in incomes. This effect is obviously enlarged when incomes are expressed in money terms as against real terms. Consequently a projection of government revenues must take explicitly into account the factor of future price changes.

The general question of price changes has been discussed in Chapter Six. There it was stressed that we are necessarily concerned with

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a variety of prices and price changes. This flexibility in individual prices is an inherent and essential characteristic of a freely functioning price and market system. The main question here is to select a particular measure of price change which is suitable for an assessment of the government revenue base. This would appear to be the comprehensive price index for the Gross National Product, and we have used an average annual increase of 2 per cent between 1963 and 1970, comparable to the actual trend experienced from 1953 to 1963.

The responsiveness of yields under the aggregate tax and revenue system to increases in output is related to the fact that certain areas of income and expenditure in the private sector of the economy grow more than proportionately when the economy as a whole is expanding. This is particularly marked when the economy is moving from under-utilization towards potential output. Individual and corporate income, imports, capital investment, and consumer expenditure on goods subject to federal and provincial sales taxes are obvious examples. In 1963, the taxes levied on these responsive components of income and expenditure constituted some 62 per cent of total government revenue. The sources and hence the yields of other taxes and revenues may not respond as quickly to rising economic activity, but the over-all effect is for a significant gain in total government revenues when the economy rises towards fuller utilization.

This is particularly true, of course, of federal revenues since the federal tax structure is dominated by the more elastic taxes. For the year 1960, for example, as shown in Table 15 in Chapter Three, the economy was capable of producing over 8 per cent more production and income than actually occurred. The increases in the major federal tax revenues stemming from an attainment of potential output, however, would have been considerably greater than the implied rise in output itself. It has been calculated that personal income tax yields at the given rates would have been 12 per cent greater, the manufacturers' sales tax higher by a similar proportion, import duties would have increased by 20 per cent, and corporation income tax yields by more than one third. In the aggregate such calculations indicate that at potential output levels in 1960, federal tax yields at the rates then in effect would have been over 18 per cent higher than the actual collections in that year when the economy was operating substantially below capacity.

Over the longer run, once the economy has reached close to the level of potential output, the rise in tax revenues will not be so pronounced. This is because under these conditions rates of growth for

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the various components which make up the total of Gross National Product and Expenditure tend to be in line with the rate of growth for the economy as a whole. Thus, when periods of high employment and relatively full utilization are compared, the percentage contributions to the Gross National Product of such components as labour income and corporation profits remain fairly constant. Consequently, *except for the individual or personal income tax*, the yields of most of the major taxes tend to increase at rates only slightly ahead of the trend in Gross National Product. Certain tax revenues such as the real property tax, in part because of administrative policy and practice, may tend to lag behind. The over-all result, however, is that (again excepting the individual income tax) the projection of aggregate government revenues, based upon a given set of rates and policies and the movement of the economy from a condition of underutilization to potential output, might be reasonably or even conservatively correlated with the rise in the Gross National Product expressed in money terms.

The individual income tax, on the other hand, is a special case. Here the rise in money incomes and taxable incomes associated with our assumed rise in output and prices would produce a substantially steeper increase in revenue. This may be explained primarily in terms of the structure of the tax, with its fixed basic exemptions and graduated rates. Under present provisions, for example, a married man with two dependents, earning \$4,600 per year, has a taxable income, after standard basic exemptions, of \$2,000. But a 1 per cent increase in his earnings would result in an increase of 2 per cent in taxable income and a rise in tax payable of 3 per cent. This is not just a special case, but a typical one. For the whole body of individual taxpayers, given our projection of conditions of high aggregate and per capita growth, the yield of the individual income tax under present rates and provisions could be expected to more than double by 1970 from the 1963 level.

Two further developments may also add strongly to the flow of government revenue in 1970. The first is the step-by-step removal of exemptions of production equipment and building materials from the federal general sales tax. The effect of the removal of these exemptions was only marginally reflected in federal revenues for 1963. The second is the flow of contribution income from employees, employers and the self-employed under the proposed government-administered universal pension plans.

The projection of total revenues for all three levels of government

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under the assumed conditions of expansion in the economy to potential output by 1970 is summarized in Table 44. It will be seen that total revenue, assuming no major change in tax rates or tax structure, could approach the order of \$24,250 million, expressed in terms of assumed 1970 prices.

TABLE 44—ESTIMATED AND ASSUMED TOTAL
GOVERNMENT REVENUE
(Millions of dollars, current prices)

	1963 (estimated)	1970 (assumed)
Personal income taxes.....	2,487	5,250
Proposed pension plans.....	—	900
All other revenues.....	10,410	18,100
	12,897	24,250

NOTE: National accounts basis, excluding intergovernmental transfers.

SOURCE: Based on data from Dominion Bureau of Statistics, federal Budget Papers, and estimates by Economic Council of Canada.

When our assumed level of government expenditure in 1970 is adjusted for a change in prices similar to that used in the revenue calculation, the expenditure total is increased to about \$22,000 million. The increase in expenditure, as previously noted, is somewhat less than the growth in the total output of the economy. The rise in government revenue, on the other hand, is projected as outpacing the growth in output, assuming no significant change in the over-all tax structure. These projections of government revenue and expenditure at the level of potential output by 1970 indicate a possible surplus for all governments combined of the order of \$2,250 million. The appropriateness of a potential surplus of this magnitude, and implications for policy, are considered in Chapter Nine.

It should be noted that a significant proportion of the indicated surplus arises from the inclusion in the foregoing calculations of estimates of revenue and expenditure under the proposed government-administered universal pension plans. This is in accord with our treatment of government budgets on a national accounts basis, as distinct from the more familiar administrative or public accounts budgets.

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Under the growth assumptions as to employment, income and prices used in our calculations of potential output, payments into the proposed pension plans, together with interest earnings, could amount to the order of \$900-1,000 million by the year 1970. After allowance for pension benefits and administration costs, at potential output the net accumulation during that year could be of the order of \$800-850 million. This would comprise a new element in savings available to the government sector and would amount to about 40 per cent of the potential revenue surplus calculated on a national accounts basis.

It is also pertinent to observe again that our projection of government revenue, expenditure and potential surplus has been calculated on the basis of taking all three levels of government as a whole. Consequently the preceding analysis ignores not only the explicit and important distinctions as to increases in relative cost burdens, but also the differential effects of economic growth upon the flow of revenue accruing to each level of government. These are questions which are now under intensive scrutiny by the federal-provincial Tax Structure Committee, and will no doubt be touched upon by the federal Royal Commission on Taxation and several parallel provincial inquiries currently under way.

We make no attempt in any way to anticipate the outcome of these studies and discussion. Within the framework of our own assumptions and resulting projections, however, it may be noted that although a surplus of revenue over expenditure accrues for all governments taken together, a similar result may not necessarily develop for each level of government. This arises in part because of the different rates of growth as between the various functional expenditure categories, and because of differences in the range and character of the tax sources available to each level of government.

Under the existing distribution of tax resources and expenditure responsibilities, it may be said that our assumptions as to stabilization in defence costs, the relative slower rate of increase in fixed allowance social welfare payments, and the high potential yields of the personal income tax under conditions of rising per capita income, all point to the greatest margin of possible budget ease developing at the federal level. The provinces, in turn, have been assisted to a considerable extent by the widening share of the personal income tax accruing to them, as well as by the increasing importance of general retail and other sales taxes in their revenue base. Against these favourable factors, as pointed out earlier, they bear primary responsibility for

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categories of expenditure for which the most significant increases are generally projected. This latter aspect is also true of municipal governments. Continued rapid urbanization and the growth of urban-orientated industry, combined with the relatively narrower and less elastic tax base of municipal governments, point to further increasing pressure upon local government finances.

TRENDS IN NATIONAL SAVING TO 1970

The possible development of a significant surplus in the government sector of the economy at potential output in 1970 leads to consideration of the larger question of the total of national saving. Given the vigorous growth and expanding income inherent in our projections of potential output, what proportion of the total national income might be expected to accrue in the form of saving? This is a particularly important question in view of the high level of domestic investment previously indicated as a necessary and dynamic element in the growth of the economy.

In the sense used here, total national saving comprises the three elements of personal savings, business savings and government savings. In the personal sector savings are defined simply as current income less current consumption, with spending on consumer durables treated as current consumption. In the business sector, business savings include a net component arising from retained or undistributed profits, and a gross component in the form of depreciation or capital consumption allowances.¹ Regarding government savings, the statistical convention is to treat only the surplus of government revenue over expenditure as a source of savings, while a government deficit is regarded as dissaving. In contrast to private investment, government net investment in capital construction or capital goods is classified as current consumption even though it may obviously contribute to the capital structure of the economy and frequently may be financed by borrowing.

The primary determinants of national saving are described in conceptual terms as the "income, interest rates, wealth or net worth, and tastes" of the body of economic units comprising the economy. The

¹ Personal and business savings, together with adjustments for inventory valuation, comprise the flow of gross private saving. They may also be reclassified for analytical purposes in terms of corporate and noncorporate components.

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last-named factor represents the complex of psychological or non-financial motivation underlying decisions to save rather than to consume. We are lacking conclusive data and evidence as to the interrelationships among these determinants of saving, however, and an adequate theoretical framework is not available to provide a firm basis for projecting quantitative estimates of national saving under varying growth conditions.

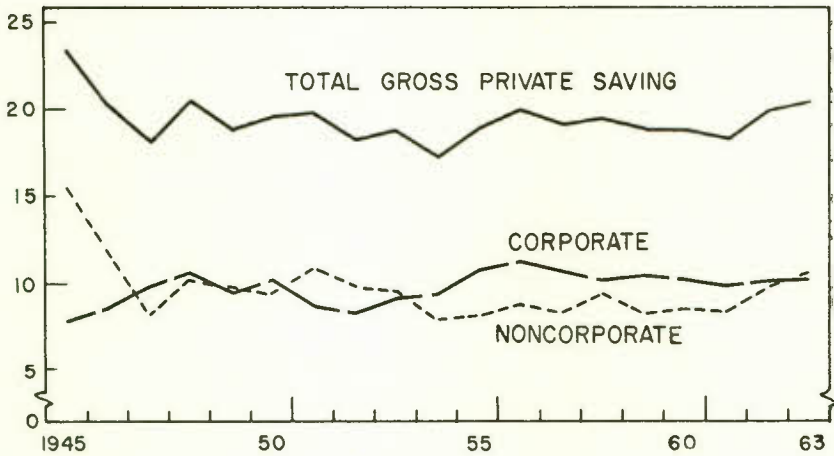
In the absence of such a framework, we have to rely mainly upon analysis of the relevant historical data for both Canada and the United States. This analysis, involving examination of annual changes in the components and subcomponents of national saving as far back as the available data will permit, reveals a noteworthy characteristic of the historical pattern of saving in both countries. When the total of gross private saving is expressed as a percentage of the Gross National Product for each year and then averaged out over the course of successive business cycles, the resulting ratios are remarkably constant.

Closer examination of the data for Canada shows that in spite of considerable fluctuation from one year to the next, the rate of gross private saving tends to follow a repetitive movement, generally declining in the downward phase of each business cycle and tending to move upward in the recovery phase. This occurs, moreover, in spite of wide changes in each of the constituent elements of gross private saving. Although no consistent pattern or trend can be observed among these constituents over the post-war period, there appears to be a general tendency for variations as between rates of savings in the corporate and noncorporate sectors to offset each other and thus contribute to greater stability in the aggregate (see Chart 27).

This stability in the ratio of gross private saving to the Gross National Product, when averaged out over the course of succeeding business cycles, is indicated in Table 45. The Table shows the calculated averages for Canada for successive business cycles beginning with 1926-29 and covering the post-war period, but excluding the abnormal years of the 1930's when private saving fell to very low levels, and the war years when it reached a very high peak. For all the more or less normal and completed cycles, the highest rate of gross private saving exceeded the lowest rate by only 0.81 per cent of the Gross National Product. The same stability in the ratio of gross private saving to national output has been observed in the United States over a period of 80 years.

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CHART 27
TOTAL GROSS PRIVATE SAVING AS PERCENTAGE
OF GROSS NATIONAL PRODUCT



Source: Based on data from Dominion Bureau of Statistics.

TABLE 45—RATES OF GROSS PRIVATE SAVING OVER
BUSINESS CYCLE PERIODS

Business Cycle Period	Gross Private Saving as percentage of GNP
1926-29.....	18.89
1946-48.....	19.69
1949-53.....	18.96
1954-57.....	18.88
1958-60.....	18.98
1961-63 average.....(preliminary)	19.69

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

The question arises as to whether the proposed universal contributory pension plans are likely to have significant effects upon the rate of gross private saving, and the flow of savings through the capital markets. Here again the lack of knowledge concerning

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determinants of saving makes conclusive assessment of future developments difficult. However, calculations based upon the growth conditions we have assumed for employment, income and prices indicate that by 1970 the annual contribution income of the plans (based upon the rate provisions outlined in the federal government White Paper) would amount to slightly more than 5 per cent of total gross private saving. This would be somewhat more than one per cent of the Gross National Product. Consequently, as the White Paper notes, even if this entire sum were diverted from the stream of private saving, the effect on the rate of total saving would be limited.

It has also been argued that in the longer run such a diversion, either from the personal or corporate flow of savings, seems unlikely, particularly under conditions of high and rising real and money incomes. Current studies under way in the United States, as well as the impact of social security development in Canada and elsewhere on the rate of private saving, lend support to this latter view. We incline to the belief that the stability of the rate of gross private saving will not be significantly affected by the introduction of the plans.

On the other hand, it is obvious that the accumulation of the pension funds during the initial period will provide a large and special source of capital financing for the provinces and their agencies. Although the requirements of repayment and interest costs will continue to exert familiar restraints, these governments may be led to expand expenditure on capital projects faster than they otherwise would. We have recognized this possibility in our projections. However, the net result would appear to be one of considerably reduced dependence by provinces and their agencies on the usual capital markets in both Canada and the United States.

From our review of historical data and of influences affecting the rate of saving, it would appear reasonable to accept the hypothesis of continued stability in the rate of gross private saving, when averaged over the business cycle. Moreover, for the year 1970, we are assuming a high level of economic activity and the achievement of potential output. Under these conditions, a rate of gross private saving of close to 20 per cent of the Gross National Product might be projected. When this rate is combined with the possible level of saving which could accrue in the government sector (on the basis of our given assumptions and calculations), a total flow

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of gross national saving in the order of 23 per cent of the Gross National Product might also be projected.

In Chapter Four, we set out the levels of the major areas of investment envisaged at potential output in 1970. Even though our estimate of gross private investment is relatively high by historical experience, there would not appear to be any serious shortfall in the total amount of available savings, in the light of the rate of gross national saving indicated at potential output and the possibility of some capital inflow. Furthermore, as we have noted in Chapter Six, the degree of monetary expansion that would be appropriate for such a high growth situation would facilitate the matching of savings and borrowings through the financial system.

8

Some Significant Factors in Economic Growth

IN PRECEDING CHAPTERS we have discussed the attainment of potential output over the period to 1970, and indicated the implications of such a level of output for employment, consumption, investment, trade, prices and savings. A high rate of use of resources, although necessary, is not sufficient. It is also important that these resources be used efficiently. Progress towards attainment of these objectives will involve certain problems which need to be resolved through appropriate adjustments if economic growth is to be facilitated and not impeded. With the dynamic developments envisaged in the period ahead, demands for new products and skills will emerge and new ways of producing existing products will develop. These changes will be reflected in specific areas of scarcities and surpluses, and individuals may have to face the problems of adjustment to such changing circumstances.

In this Chapter we examine in broad outline the trends and problems of adjustment in the primary industries, the effects of technological change on employment and skills, the expanding role of research and technology, and the needs for skilled and professional manpower. In addition, we also examine the adequacy of existing machinery, policies and programmes required to deal effectively with the many complex problems of adjustment in the whole field of manpower.

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TRENDS IN AGRICULTURE AND OTHER PRIMARY INDUSTRIES

The primary industries¹—agriculture, forestry, fishing and mining—have long been a major factor in the progress of the Canadian economy. Along with their associated processing industries, they continue to account for a very high proportion of Canada's exports. In 1963 they accounted for three quarters of all merchandise exports, and their importance in Canada's international accounts is well known. However, as a group the primary industries have been declining relatively as a direct source of employment as other parts of the economy have grown more rapidly. In adjusting to changes as Canada's economy grows, these industries continue to be substantially affected by Canada's position in world trade and the world market prospects for their output.

During the post-war years the output of the primary industries has risen almost as fast as that of the total economy, with an annual average rate of growth of 3 per cent over the period 1946-63, compared to a rate of 4 per cent for the whole economy. However, the dollar value of output of these industries has declined significantly relative to the output of the whole economy. After reaching a post-war high of 20 per cent of the total Gross Domestic Product in 1951, it declined to 12 per cent in 1957 and has remained at about that level since then.

In the years ahead, even with the Canadian economy moving towards potential output by 1970, the output of the primary industries would not increase as fast as total output. The indicated annual rate of growth for these industries is approximately 3 per cent, in comparison with a potential increase of 5.5 per cent for the economy as a whole. Agriculture, the largest of the primary industries, experienced very high crop yields and total output in 1963, and consequently we have assumed that output in this industry will increase at an average rate of less than 1 per cent per year between 1963 and 1970, assuming that the latter year would be one of average yields.

The pace of technological change has been rapid in most of the primary industries. In some of these industries there have been high rates of capital investment and in all of them there has been a general decline in labour requirements. The number of people employed in the

¹ As used here and throughout this Review the term "primary industries" excludes the activities involved in the processing or conversion of the primary products. This conforms with the concept as it is used in reports of the Dominion Bureau of Statistics.

Some Significant Factors in Economic Growth

primary sector dropped from 1.4 million in 1946 to just over 800 thousand in 1963. It is expected to decline by another 100 thousand to 1970. Most of this post-war decline has occurred in agriculture, in which employment fell by 545 thousand between 1946 and 1963. This change has involved a substantial rural-urban shift in population, which has had major effects on the requirements for housing and social capital to which we have referred in Chapter Four.

Several characteristics of the manpower resources caught up in this massive adjustment should be stressed. First, over 90 per cent of the work force in these industries is composed of male workers. Most of the female workers are wives and daughters of farmers assisting in work on the farm. Second, the educational level of a large part of the work force in the primary industries is and has been low. Third, in agriculture the average age of workers, particularly the farm operators, increased sharply between 1951 and 1961. These three factors have accentuated the adjustment problems occasioned by the rapid decline in the labour requirements of the primary industries, particularly with the build-up of general unemployment after 1957.

While production in agriculture, forestry, fishing and mining is different in many respects, there is one feature that is common to all. Much of the activity in these industries is carried on in widely dispersed locations far from large urban centres. Costs of transportation and communication for the movement of products to markets and for the procurement of equipment, materials and various services affect the competitive position of these industries, both domestically and internationally. Many services are expensive both to the businesses and to the people living far from large centres. This locational aspect also adds to the difficulties of those who are required to shift from one occupation to another. It similarly creates difficulties in recruitment and retention of labour on the part of those who operate expanding establishments in the primary industries. Production is far removed from substantial concentrations of labour supply, especially of those workers with special skills whose services are increasingly required. This problem is particularly evident in the more rapidly expanding primary industries of mining and forestry.

Government policy directed particularly towards the primary industries has been associated with various special features of these industries. Their heavy net export position and the large share which they represent in the total exports of the economy have influenced the nature of the policies of government with regard to them. In grains, government marketing has been developed in response to the neces-

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sities for orderly selling on world markets and for an orderly supply-adjustment mechanism. In agriculture generally, in comparison with many other countries, the use of price supports in response to adverse terms of trade has been relatively moderate, reflecting an over-all position of surplus supply in relation to domestic needs. The aim of maintaining a certain regional balance of enterprise, and the crucial importance of transport in a geographically dispersed economy, has led to such policies as freight assistance on feed grain shipments from the Prairie Provinces to Eastern Canada and British Columbia, coal subsidies, and "roads to resources". The family farm structure of the agricultural industry, together with its basic historic role in the development of the economy, have led government to accept many special responsibilities, including a central responsibility in production research and the extension of new knowledge to farmers, and a major role in the farm credit field. The importance of food as a consumer good has led the government to take a similarly central place in grading, packaging and inspection. Much the same may be said of fisheries. In this industry the traditional seasonal pattern has occasioned the special application of unemployment insurance. The difficult problems and stresses of adjustment in agriculture created by rapid technological change and weather and market conditions have led to programmes such as those of the Prairie Farm Rehabilitation and the Agricultural Rehabilitation and Development Administrations, through which an attempt is made to facilitate adjustment and resource development.

Though government subsidies to ease adjustment burdens and sustain incomes in the face of unfavourable prices have not, on the whole, been a major feature of government policy in Canada, nevertheless such policies may, and in some cases have, slowed down adjustment processes. The extent to which there is an inevitable conflict in objectives involved here is a complex and not fully understood question, especially in the agricultural sphere. The objective of optimum resource allocation is best served when labour and capital are not held in, or drawn to, economic activity that yields falling or low returns. Long-term solutions to the adjustment problems in primary industries are best served by measures to expand markets, by policies leading to more adequate educational and training programmes, and by facilitating the movement from declining to expanding economic activities. Programmes designed to meet other objectives, such as income maintenance or improvement, or price stability, should as far as possible be designed to minimize conflict

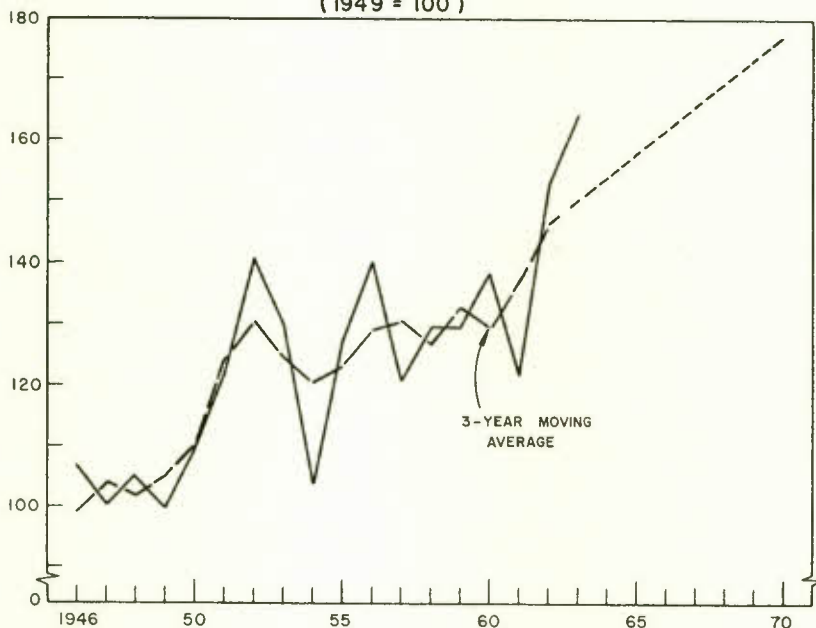
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with, or reinforce achievement of, such long-term objectives. Furthermore, these objectives of adjustment can be achieved most effectively when the measures are applied within an over-all framework of general economic policies which ensure the sustained increase in the general level of demand in the whole economy.

Agriculture

The volume of agriculture production has increased at an average annual rate of between 2 and 3 per cent over the post-war period.

CHART 28
INDEX NUMBERS OF THE PHYSICAL VOLUME OF
AGRICULTURAL PRODUCTION
(1949 = 100)



Note: Elsewhere in this Review we use the index of Gross Domestic Product at factor cost to indicate trends in the output of agriculture and other industries. Here we use the index of the physical volume of agricultural production. The main difference is that the index of Gross Domestic Product measures only the contribution to output of factors employed in agriculture whereas the latter index measures the total physical volume of agricultural production. The rate of increase in the physical volume has been greater than the rate of increase in Gross Domestic Product of agriculture since agriculture has been using increasing amounts of inputs from other sectors of the economy. We use the index of physical volume of agricultural production here because the measure of total inputs which we show in Chart 29 includes inputs purchased from other sectors of the economy.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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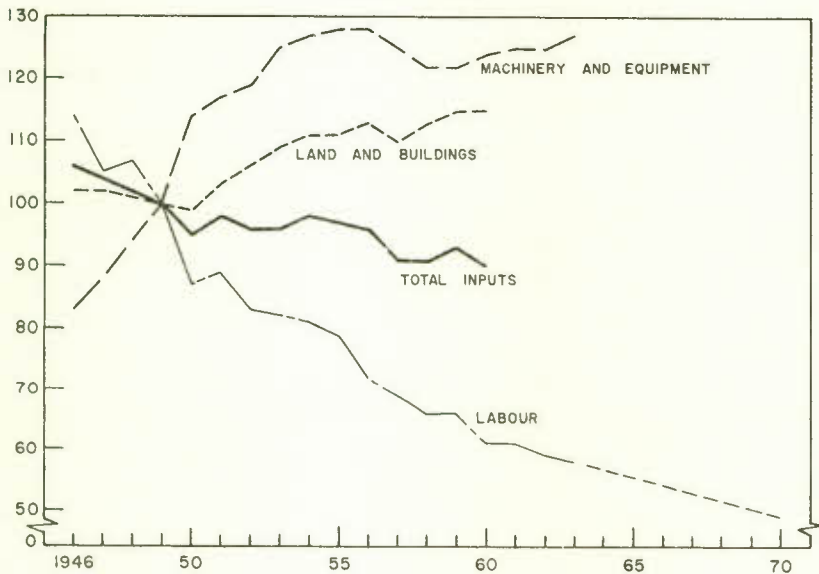
The rate of increase was somewhat greater than this in the early post-war years but, with generally weak demand conditions during the decade from 1952 to 1962, the rate of increase was considerably slower. Exports amounted to about 40 per cent of the value of agricultural production in the early post-war years but during the 1950's they averaged 32 per cent. An examination of the demand for agricultural products, taking account of increases in the Canadian population and their incomes, the allocation of enlarged incomes between food and nonfood items, and between domestic and imported food, and of developments in export markets, indicates a potential growth in demand for Canadian farm products of about 20 per cent between 1963 and 1970, or an annual average rate of increase of 2 to 3 per cent per annum. Because 1963 was a year of record agricultural production in Canada, production would not have to be increased to the same extent to accommodate this rate of growth in demand. In these circumstances, an average annual increase of about 1 per cent in the volume of production over the 1963 level has been postulated. These past and future trends in the volume of agricultural production are portrayed in Chart 28.

Agriculture has been in the throes of a technological revolution since the end of the war, with continued change in the proportions of the various inputs used (land, labour, machinery and equipment and purchased materials). There was an extremely rapid increase in the total amount of machinery and equipment used in agriculture through to the mid-1950's. The total real estate input has also increased somewhat. There have been increases of fuel and electricity, purchased feed and seed, fertilizer and lime, and a wide range of other materials purchased from other sectors of the economy. But the amount of labour used in agriculture has declined throughout the post-war period, with the result that total inputs used in agricultural production have declined. Changes in major input groups and in total inputs are shown in Chart 29.

A review of prospective changes in agricultural technology and expected changes in the size and scale of farm operations indicates that increases in agricultural production could continue to take place without an increase in total inputs used in agriculture, mainly because the labour force is expected to decline. With a high level of output and employment in the rest of the economy, agricultural employment is estimated to decrease by close to 100 thousand from 641 thousand in 1963 to about 540 thousand in 1970. Such a rate of decline of about 2 per cent per year would be less than the average rate over the

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CHART 29
LABOUR, CAPITAL, AND TOTAL INPUTS USED
FOR AGRICULTURAL PRODUCTION
(1949 = 100)



Note: Index of total inputs is calculated on 1958 weight base.

Source: 1946 to 1960, studies of Economics Division, Department of Agriculture, and estimates by Economic Council of Canada.

post-war period to date of almost 4 per cent per year. Some increase in the proportion of agricultural production taking place in the Prairie Provinces as compared with recent years is indicated in the years ahead, with the result that most of the future decline in the agricultural labour force would take place outside this region.

While the decline in Canada's agricultural labour force through the post-war period has been rapid, it is part of a shift that is taking place in all advanced countries. The rate of decline in Canada has been somewhat larger than in most other countries.

Efficient agricultural production is now carried out on farms with increased amounts of capital and fewer workers. Both in comparison with the past and with other industries in Canada, agriculture is relatively capital intensive. But, while a large reduction in the agricultural labour force has taken place since the end of the war, much of the labour still employed in some areas is redundant.

We continue to have too many farms, with many of the farmers

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earning low incomes. Leaving aside the part-time and residential farms, there were 400 thousand farms in Canada in 1961. Many of these farms, particularly in Eastern Canada, cannot hope to make efficient use of capital or labour without amalgamation with other units, and some of them will have to be abandoned or used for non-agricultural purposes. Under these conditions, incomes are relatively low in a large section of agriculture, particularly in Eastern Canada.

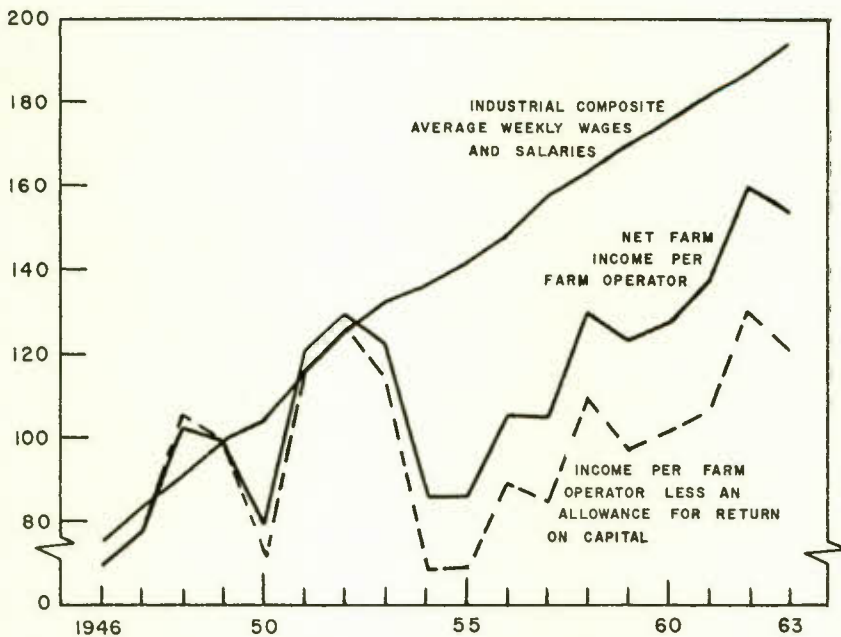
It is obvious that substantial income differences exist between agricultural and alternative nonagricultural occupations because there has been a substantial net shift out of the agricultural labour force throughout the post-war period. But the matter is not simply one of income differences. The capacity to earn income is affected by education, sex and age as well as other factors and there are important differences in these respects between those employed in agriculture and those employed elsewhere in the economy. In addition there are factors other than the level of income that influence one's choice of an occupation. These include security of income, costs of living, hours of work, travel time to and from work, the proportion of the family that can be employed, as well as one's attitudes towards farming as a "way of life" with its greater independence and more time spent outdoors. Thus, it is difficult, although not impossible, to assess income differences between agricultural and nonagricultural occupations.

Some perspective can be obtained by looking at changes in incomes in agriculture as compared with other occupations. Changes in annual income per farm operator may be roughly indicated by dividing the annual estimates of realized net farm income by the annual average number of farm operators as estimated in the Labour Force Survey. This attributes to the farm operator a return for his net capital investment and his management and labour as well as that of his family. Changes in average income per farmer measured in this way can be compared with income changes in other occupations. A comparison is shown in Chart 30, which also shows the changes in income per farm operator after deducting an allowance for return on capital. The changes shown are in current dollars. They indicate that incomes of farm operators increased at much the same rate as those of wage and salary workers employed elsewhere in the economy until 1952 or 1953, and that after a sharp decline in 1954, farmers' incomes have again increased as fast as those of the other group. By 1963 farmers' incomes were 54 per cent above the 1949 level while incomes of wage and salary workers elsewhere in the economy had increased by 94 per cent. Measured in constant 1949 dollars, incomes

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in agriculture had increased by 13 per cent while incomes in non-agricultural occupations had increased by 46 per cent. If an allowance for a return on capital was deducted from farmers' incomes, the increase in current dollars was 21 per cent, and in constant dollars there was a decline of about 10 per cent.

CHART 30
CHANGES IN INCOMES OF FARMERS
AND INDUSTRIAL WORKERS
(1949 = 100)



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

The decline in the relative income of farmers as compared with the early post-war years cannot be attributed to a slow rate of increase in productivity in the agricultural sector. Productivity in agriculture, while lower than in some other industries, has increased more rapidly than in the remainder of the economy. The dominant factor in the relative decline of farm income has been a worsening in the terms of trade of Canadian agriculture. This has not only been true of Canada.

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As stressed in Chapter Five, there has been a smaller increase in world trade and in prices of primary products than has occurred for processed materials and manufactured goods.

An important factor in the decline of farm prices in relation to other prices is the relatively slow growth in the demand for food in industrially advanced countries as incomes rise. Even within the food component, much of the demand is centered on services attached to food rather than on food itself. These influences have consequences for the demand for Canadian agricultural products and have diverse effects on different commodities and regions. As we indicate elsewhere in this Review, we intend to study regional developments and trends more closely in the coming year.

Many farmers stay in agriculture when their incomes are low because they lack alternative employment opportunities. They may lack the education, training and financial resources to move, or to enlarge their farm operations as a basis for more adequate incomes. If this situation exists throughout an area, inertia is likely to reinforce the other deficiencies.

We have already referred to the low level of education among those employed in the primary industries in general. In agriculture this problem is accentuated because here a person with relatively little education is increasingly called upon to provide the management and capital resources for a complex business. This increasingly complex modern-day business of farming is carried on in Canada almost exclusively on a family-farm basis. In most cases the land, buildings, machinery and livestock are owned by the farmers who operate the farms. The family farm has been well suited to the achievement of efficient agricultural production. But this type of organization, coupled with the nature of agricultural production, raises some special problems.

The low educational levels in agriculture are not easy to rectify. The costs of education are much higher for the farm youth than for the city youth, both in terms of the direct costs associated with attending school, and in terms of the indirect costs which are involved because of the loss of time that could be spent helping the father with farm work. Similar problems arise in the application of training programmes. The incomplete education and training of farm youth creates considerable difficulties in obtaining an adequate level of management for farms because it is principally from this group that the new farmers are drawn each generation. The effectiveness of many programmes is limited as a result of this continuing difficulty.

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This applies, for example, to programmes of agricultural extension and farm credit. In connection with credit it should also be noted that farms have to be refinanced each generation when they are owner-operated. A major transfer of farm enterprises took place during the period from 1945 to 1952. Another generation is due to take over in the decade from 1965 to 1975. This will place considerable strain on the owner-operator form of organization because the investment required for an adequate scale of operation has now reached a very substantial level.

The difficulties associated with low levels of education also extend to those of the farm youth who seek employment outside of agriculture. Their handicap is increased by the need in most cases to move when taking up a nonfarm job. The move may take a person far from familiar surroundings and experiences if job opportunities in the immediate region are not available. These problems of adaptation frequently impede mobility.

Much too little is known about how to solve these difficult problems of adjustment which continually face the farmer and his family. They will have to be subjected to much more thorough study than has been the case in the past if effective policies are to be devised.

Forestry

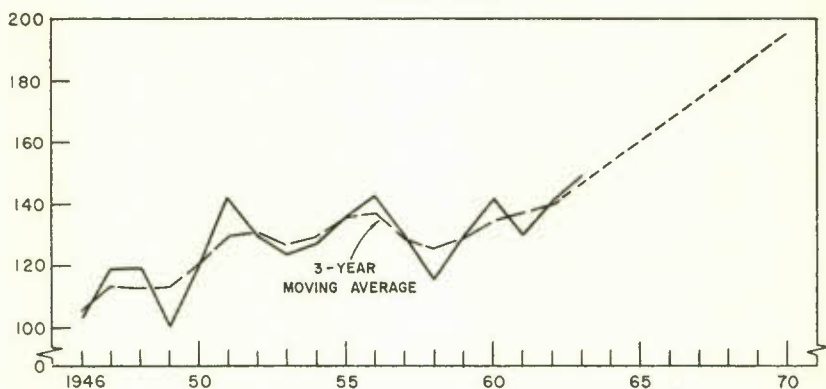
The output of the primary forest industry, like that of agriculture, shows wide year-to-year fluctuations. In contrast to agriculture, however, where the fluctuations are due mainly to variations in yield of the major crops, the shifts in forestry output are predominantly the result of adjustments to changes in demand. Over the post-war period output has increased at an annual average rate of about 2 per cent per year. Production of logs and bolts for sawmills has increased fairly steadily throughout the post-war period. Pulpwood production has varied widely with only a relatively slight upward trend. The pulp and paper industry is using increasing quantities of the residue from the sawmill industry. The proportion of wood material used by pulp mills which is made up of chips and other residue has increased from 3 per cent in 1952 to 13 per cent in 1961, and a further increase is in prospect.

The production of our forest industry is highly dependent on exports, with most of our pulp and paper and the major part of our lumber production moving to foreign markets. An assessment of potential exports and domestic demand indicates an increase of the order of one third in the output of the primary forest industry between 1963

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and 1970. On an annual basis this is a rate of increase of about 4 per cent, which would be approximately double the growth rate since the end of the war. This reflects large anticipated increases in world demand for softwood resources in circumstances of growing shortages of supply in many areas. Chart 31 shows over-all changes in the output of the primary forest industry.

CHART 31
VOLUME OF OUTPUT IN PRIMARY FOREST INDUSTRY
(1949=100)



Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

There has been a substantial shift in the regional distribution of production in this industry. During the period 1949-51, about 50 per cent of the logs and bolts and 9 per cent of the pulpwood were cut in British Columbia. By 1961 the proportions had increased to 64 per cent and 15 per cent, respectively, and a further shift to that province is expected during the next few years. It is already evident that a large part of the increase in pulp mill capacity will be in British Columbia.

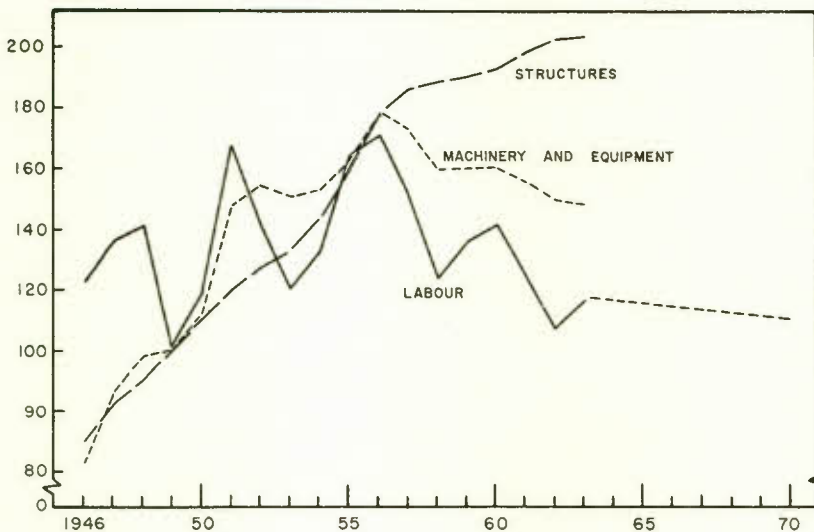
With Canada's extensive type of forestry, transportation costs in the primary forest operations have been relatively high. The major cost in the industry, however, continues to be incurred in the three-harvesting operations. There is a great difference between logging methods in Eastern Canada and British Columbia. In British Columbia, a relatively high degree of mechanization had been attained some time ago. Most of the work force is employed on a year-round basis. But in Eastern Canada until very recently there was little change in

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the harvesting of wood, other than the introduction of the chain saw in the early 1950's. Woods operators still employ large numbers of workers on a seasonal basis, although a considerable shift from winter to summer operations has taken place.

The wide swings in the pulpwood cut in past years have been accompanied by large variations in the average number of workers employed in the primary forest industry. However, some decline in the trend of employment in this industry has taken place since the mid-1950's. Some further decline is expected, even though the potential increase in output is substantial. The decline in employment will be concentrated in Eastern Canada. The trend in employment, as well as past trends in the amount of capital used in the industry, are illustrated in Chart 32.

CHART 32
LABOUR AND STOCK OF CAPITAL USED
IN PRIMARY FOREST INDUSTRY
(1949=100)



Note: Labour use is measured by the annual averages of employment in the industry. Newfoundland is not included in the data prior to 1950.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

About two thirds of the annual pulpwood cut in Eastern Canada comes from company limits. The remainder of the wood is purchased

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after being cut by small contractors and farmers. It is apparent that in operations on their own limits, companies in Eastern Canada are on the threshold of substantial changes in the methods of harvesting pulpwood. In the last few years there has been considerable activity in the development of new machinery. As the more elaborate machines are put into use, they will entail substantial investment on the part of the companies involved. They will increase the rigidity of the cost structure, with the result that companies will be more inclined to maintain a more stable level of woods operations throughout the year and from year to year than they have in the past. As these changes take place in woods operations on company limits in Eastern Canada, there will be a further reduction in the number of seasonal workers required.

We have noted previously that the amount of wood harvested in British Columbia will continue to increase more rapidly than in Eastern Canada. In some parts of Eastern Canada, increases in output will be relatively small. As mechanization takes place under these conditions, important problems of adjustment will arise. It is altogether likely that there will be a continuing shift from a relatively unskilled seasonal work force to a smaller, more highly skilled, year-round work force. This implies a continuing change from seasonal camp living to permanent residence at or near the site of woods operations. These significant changes have far-reaching effects for both those engaged in the forest industry itself and those in agriculture who in the past have derived part of their income from work in the woods. In particular, these developments increase the importance of programmes and facilities for the retaining and the movement of workers.

Fisheries

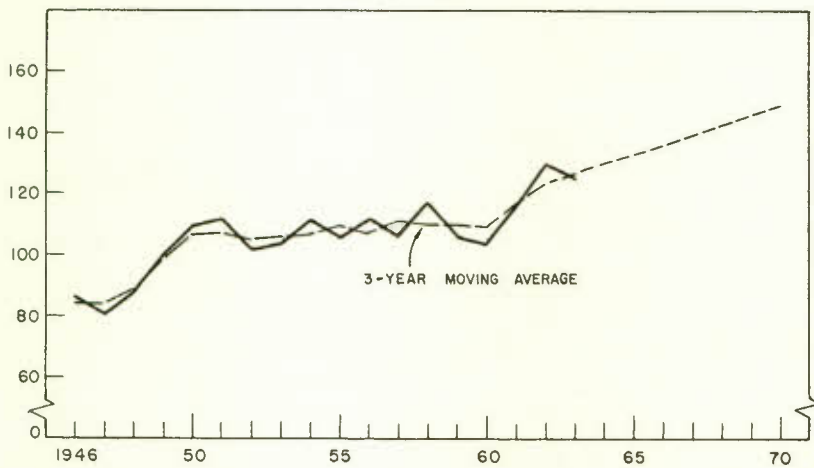
While the fishing industry in Canada is not as large as some of the other primary industries, it occupies an important role in a number of areas, particularly in the Atlantic Provinces and British Columbia. The over-all output of Canada's primary fishing industry has increased at an annual rate of about 2 per cent during the period since the war. Exports account for about 70 per cent of the value of production, with more than two thirds of these going to the United States. With a high level of economic activity in Canada and in the major export markets, it is reasonable to expect that this industry might increase its output between now and 1970 at an annual rate approaching 3 per cent. In this

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industry, output is influenced by conservation measures as well as by the relative fishing effort of Canadian and other fishermen.

There is a prospect that the total output of the fishing industry could achieve a slight increase over the post-war trend (see Chart 33). This would entail increased export demand along with some increase in

CHART 33
VOLUME OF OUTPUT IN FISHING INDUSTRY
1949 = 100



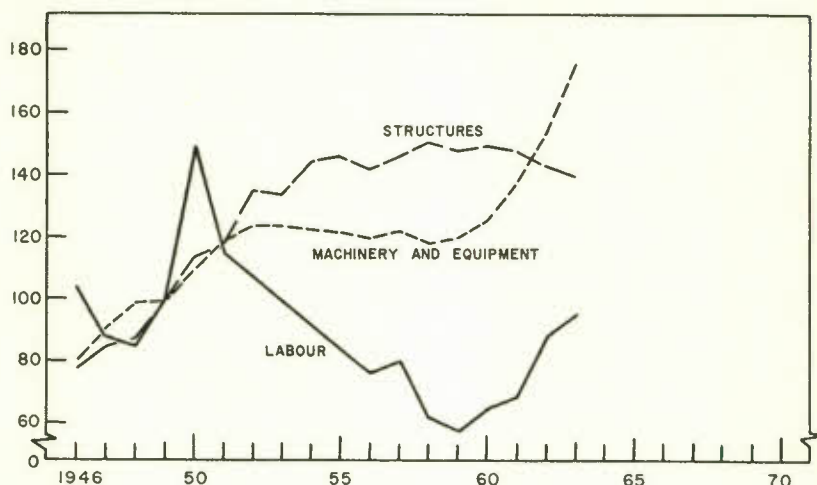
Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

domestic demand. As shown in Chart 34 there has been a sharp increase in the acquisition and use of equipment and boats in recent years. It remains a question, however, whether this will increase the average level of productivity. This will depend on the number of workers who continue to seek a livelihood in the fisheries.

On the West Coast the size of the annual catch in the main fisheries is dictated largely by conservation considerations. A relatively large number of fishermen and a relatively high level of investment have been drawn into and retained in the fishery to harvest the annual catch. Over a substantial part of the East Coast fishery the numbers engaged in the industry are large in relation to the output. Consequently, both productivity and incomes are low. These problems tend to be perpetuated by the particular measures employed to support incomes, including the Unemployment Insurance system as it applies to

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CHART 34
LABOUR AND STOCK OF CAPITAL USED
IN THE FISHING INDUSTRY
(1949 = 100)



Note: Labour use is measured by the annual averages of employment in the industry. Newfoundland is not included in the data prior to 1950.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

fishermen. There is no indication on the basis of the prospective trends that production possibilities and markets will themselves provide a solution to the chronic problems of the industry within the framework of present policies.

Mining

Output in the mining industry has risen rapidly since the end of the war, with the annual rate of increase averaging over 8 per cent, a rate of growth substantially exceeding that for the economy as a whole. From 1949 to 1956 the annual increase in output averaged 11 per cent, and in the period from 1956 to 1963, 5 per cent. Exports have been a dominant factor in the growth of this industry, and are equivalent to about 60 per cent of the value of production in the industry, with close to two thirds of these exports currently destined for the United States. The volume of exports of the mining industry increased over the period from 1949 to 1963 at the very rapid rate of close to 9 per cent per year.

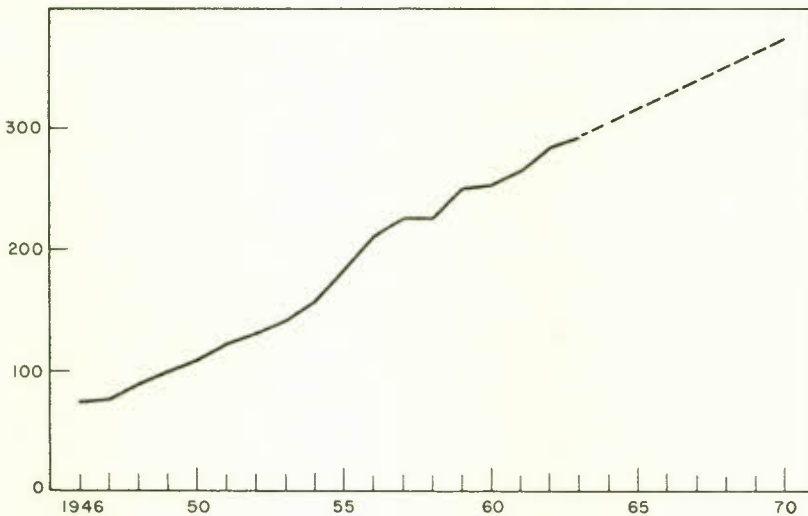
Since the end of the war the mining industry has been marked not

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only by rapid growth but by substantial shifts and changes. While output in metal mining as a whole doubled between 1949 and 1963, there was a seven-fold increase in production of iron ore and a decline in gold production. In the nonmetals group, output more than doubled, with asbestos continuing as the major product. There was a five-fold increase in the output of fuels, but this masked very diverse trends. Coal production was cut in half while production of both petroleum and natural gas increased by more than ten times. The exploration and the development of oil and gas production in Western Canada was one of the most spectacular events of the post-war period. These shifts and changes within the mining industry have altered the character of the industry substantially. The production of gold and coal has dropped from one third of the total in 1949 to less than one tenth in 1963, while the rapidly growing petroleum and natural gas sectors now account for close to one third, and iron ore for one tenth, of the value of production.

Future increases in output of the mining industry will continue to be highly dependent on export outlets. On the assumption of relatively rapid rates of growth in the economies which are our major export

CHART 35
VOLUME OF OUTPUT IN MINING INDUSTRY
(1949 = 100)



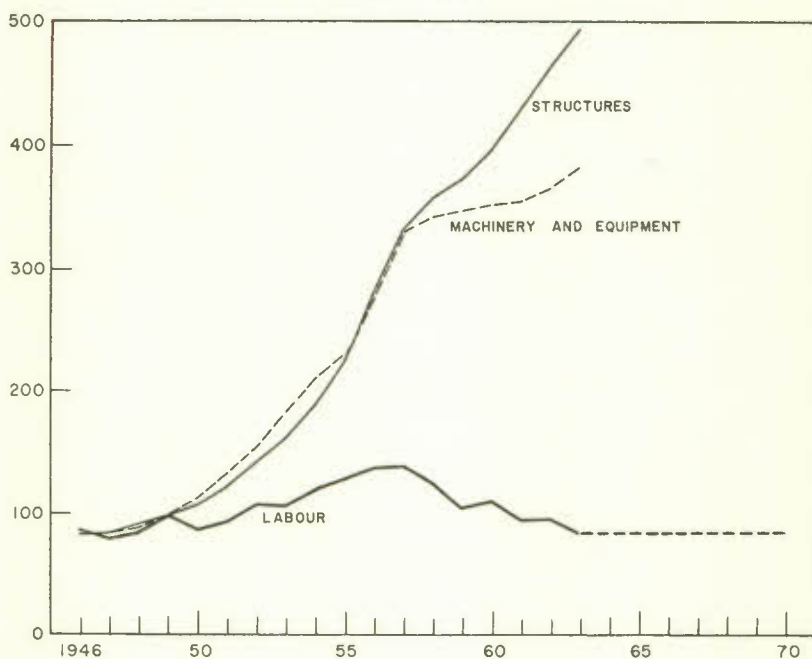
Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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markets for minerals, it is likely that Canada's mineral exports will continue to grow significantly but not at the very high rate experienced since the end of the war. The growth in exports, coupled with the increases in domestic demand which could be expected as the economy moves to potential output, indicates an average rate of increase in output of the mining industry in the order of 5 per cent a year. This would be close to the average rate of growth in recent years (see Chart 35).

A prominent feature of the mining industry since the end of the war has been the very heavy investment of capital, particularly in the years to 1957. A large part of this investment was related to the development of oil and gas. The number of workers employed in the industry increased somewhat until 1957 but has declined since. Output per worker rose at a very fast rate throughout the post-war period. This is a reflection of the rapid expansion of the highly capital intensive oil and

CHART 36
LABOUR AND CAPITAL USED IN MINING INDUSTRY
(1949 = 100)



Note: Labour use is measured by the annual averages of employment in the industry. Newfoundland is not included in the data prior to 1950.

Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

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gas sectors and the growing importance of mechanized open-pit operations such as exist in the large iron ore industry. The increase in output per worker is expected to continue with the result that the increase in production anticipated to 1970 will not involve any significant increase in the labour force. These trends in the employment of capital and labour are indicated in Chart 36.

While all primary industries have problems of adjustment, the mining industry has problems which are peculiar to it. The mining industry's activities are frequently carried out at some distance from centres of population. As new mining areas open up, a whole set of facilities has to be established or expanded. In addition to the investment in mining itself, there are expenditures required for mineral processing plants, railway or other transportation facilities, power projects, communication systems, townsites, and sometimes harbour facilities. These facilities, along with the labour employed, may become redundant in an area of declining activity in mining. In the post-war period, while the industry as a whole was growing rapidly, we have had severe difficulties in areas where gold, coal or, more recently, uranium mining has been the major activity. These difficulties have involved whole communities and have posed adjustment problems of a very special nature.

Conclusion

Among the primary industries there have been certain common characteristics in the trends since the end of the war. With rapid technological change, all of these industries have become increasingly capital intensive, and productivity has been rising rapidly, except in the fishery because of special circumstances. Total output has increased substantially in this sector, but employment has declined considerably.

These trends are likely to continue in the period to 1970. The primary industries will continue to increase their output, to be heavy users of capital, and continue to play a very important role in export trade. However, total employment will continue to decline. Consequently, the primary industries as a whole will not provide directly an outlet for the rapidly expanding labour force. Nevertheless, the continued growth of output and the rising productivity and incomes of workers in the primary industries will result in increasing purchases from the manufacturing and service industries, including capital equipment, materials, consumer goods, and services. This will indirectly, but significantly, expand employment opportunities elsewhere in the economy.

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There will also be changes in the kind of labour force which the primary industries will require in the years ahead. Traditionally, these industries have been heavy users of relatively unskilled manual workers. In the future, with greater mechanization and improved technology, increasing skills will be required, whether on the farms, in the forests, in the mines, or in the fisheries. These considerations indicate that the primary industries would be important beneficiaries of the improved training and educational programmes, and also of the more effective labour market policies, which we emphasize in later sections of this Chapter.

TECHNOLOGICAL CHANGE

Scientific progress and technological changes, including automation, are complex processes with powerful implications for the pace of economic growth, for higher living standards, for education, for leisure and the refinements of life. In a sense these changes are a continuation and acceleration of the changes initiated by the industrial revolution, which have been reflected in a dramatic increase in living standards in the western world. Technological advances create new employment and new occupations by bringing new processes and products into use, reducing costs and widening markets. This is an essential part of the changes in productivity which are emphasized in other parts of this Review. At the same time, however, changes of this scope and depth are inevitably accompanied by problems of adjustment for individuals affecting their conditions of work as old jobs and skills become less in demand.

Much remains to be learned about the manpower implications and ultimate employment effects of technological change. At present, knowledge of the subject is woefully inadequate. This is the situation in the United States as well as in Canada as indicated by the Secretary of Labor in a report to the United States Congress:

It has become increasingly clear that our present knowledge of manpower implications of automation is far from adequate. To meet this need, the Department is developing an over-all automation research plan which takes into account and synthesizes the research plans of each of the participating bureaus for the next five years. At present only limited information is available regarding such basic matters as the extent, rate of introduction, and employment effects of technological developments.¹

¹ Report of the Secretary of Labor on Manpower Research and Training, transmitted to Congress, Washington, March 1964, page 99.

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There are many different sources of increased productivity aside from the greater use of capital and it is extremely difficult to isolate and measure separately their effects on employment and economic growth. Among these sources are improved standards of education and health, research, specialization, enlarged markets, increased scales of production, better industrial relations and improved public facilities and services. Increased productivity is also achieved by better planning, administration, communication and control. Moreover, changes in general economic conditions can bring about marked changes in the average output per capital. Output per person tends to fall during a recession and to rise rapidly as the economy subsequently recovers.

Over the past several decades the steadily increasing use of larger, faster, more powerful and more highly mechanized equipment and machinery has had a tremendous impact on manpower requirements in basic industries such as agriculture, mining, forestry, construction and transportation. In the manufacturing industries, in addition to the more dramatic changes, there is the constant downward tendency in manpower requirements per unit of production as older facilities are replaced by more advanced mechanical equipment and through improvements in materials handling and the integration of production processes. Advances in materials handling also have an impact on manpower requirements in the wholesale and retail fields and other service-producing industries. In all these areas, technological changes include the long-term trend towards the substitution of mechanical energy for human labour as part of the process of obtaining the benefits of increased productivity, but bring in train problems of adjustment for individuals in the industries affected.

In the realm of information handling, newer technological trends include developments associated with electronic data processing, instrumentation and control, and communication. Such developments have brought about phenomenal advances in the collection, storage, analysis, retrieval, transmission and the use of information. As a result, information previously unavailable is now being obtained and the means are being provided for undertakings hitherto impossible. These trends have enlarged and accelerated the whole process of technological change and have accentuated its manpower implications.

The problems of adjustment for individuals associated with technological change and increased productivity are obviously more apt to arise in industries in which total employment is declining. The decline in employment in agriculture and forestry has already been discussed.

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In the case of the fuels industry, output rose over five times from 1949 through 1963, while employment contracted by more than 15 per cent. In the transportation industry fewer people were employed in 1963 than fourteen years earlier, although the volume of business went up by three quarters. Similarly a number of manufacturing industries increased output but employed fewer people in 1963 than in 1949. For example, output more than doubled in the tobacco industry, went up by a quarter in leather, and by over half in textile products other than clothing, and by over a third in textile and fur clothing. In all four cases, there was a decline in employment ranging from 5 to 15 per cent. In these circumstances of declining employment, individuals are more likely to encounter difficult problems of adjustment.

In contrast to situations in which the numbers employed showed a decline, there are many more cases of large increases in output accompanied by relatively small increases in employment. As estimated in Dominion Bureau of Statistics data collected from business firms, from 1949 to 1963, manufacturing as a whole showed a 74 per cent rise in output with a 16 per cent increase in employment. Motor vehicle production went up by 150 per cent with an increase in employment of less than 25 per cent. Similarly, output of iron and steel products grew over 60 per cent with employment increasing 15 per cent. The production of electrical apparatus and supplies expanded by nearly 125 per cent with an increase in employment of a little more than 50 per cent. Chemical products showed a volume increase of 150 per cent with employment going up by 35 per cent. In the construction industry, volume rose by slightly over 70 per cent with employment going up by 24 per cent. In these situations of expanding employment, individuals are less likely to encounter hardship.

In total, all the factors affecting employment in the post-war period from 1946 through 1963 produced two dominant trends as shown in Table 46. First, the net growth in employment in the goods-producing industries and construction was only about 75 thousand (partly reflecting the lower levels of demand in the latter part of the period), as compared to an increase of over 1.6 million jobs in the service-producing industries (transportation and other utilities; trade, finance, insurance and real estate; public administration; and business, personal, recreational and community services). Second, a large net shift took place within the goods-producing group; well over half a million jobs ceased to exist in primary industry while

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employment increased by more than 600 thousand in secondary industry (manufacturing and construction).

TABLE 46—CHANGES IN EMPLOYMENT BY INDUSTRY, 1946-63

Industry	Employment		Total Change	Percentage Change
	1946	1963		
	(thousands)			
Goods Producing.....	2,809	2,883	74	+ 1
<i>Primary</i>	1,371	819	-552	-40
<i>Secondary</i>	1,438	2,064	626	+44
Service Producing.....	1,858	3,482	1,624	+87
<i>Transportation, storage, and</i>				
<i>communications</i>	344	455	111	+32
<i>Public utilities</i>	33	75	52	+158
<i>Trade</i>	573	1,019	446	+78
<i>Finance, insurance, real estate</i>	124	254	130	+105
<i>Other services</i>	784	1,669	885	+113
All Industries.....	4,666	6,365	1,699	+36

NOTE: Newfoundland is not included in data for 1946. Other services include community services, public administration and defence (excluding armed forces) recreational services, business services and personal services.

SOURCE: Based on data from Special Surveys Division, Dominion Bureau of Statistics.

As in the case of the major reductions in employment in the primary industries, declines in many specific occupations have been closely associated with technological improvements and changing patterns of demand. Between 1951 and 1961, for example, employment shrank in such occupations as textile weavers, locomotive firemen and engineers, telegraph operators and motion picture projectionists, as well as in many primary industry occupations. Technological change may sometimes render obsolete skills of a high order in a very short space of time, as part of the process of increasing productivity in the economy.

In general, an outstanding requirement for, and consequence of, technological change is to raise educational and skill requirements. In the main, increasing use of more complex and costly machinery, operating with finer tolerances at greater speeds, together with other manifestations of technological change, require a human response at a different and higher level than was often needed in the past. Alertness and a greater measure of responsibility are called for, as

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well as a heightened ability to communicate. Advances in materials handling eliminate, of course, many tasks for which little was required in the way of basic education or training. In contrast, these qualifications are in growing demand with higher standards of maintenance required for intricate equipment, and for planning, control and technical functions. Generally, new and expanding occupations and the very nearly indispensable ability to adapt to change itself require a higher platform of basic education than is necessary for routine manipulative and clerical tasks.

Major advances in technology can impose severe hardships on individuals. This is especially the case under conditions of relatively slow growth in total demand and output, when few if any new job alternatives may be available to many individuals who lose their jobs in the course of the introduction of new processes and production equipment. Under more buoyant growth conditions with sustained high employment, however, much more ready adjustment and adaptability of displaced workers is feasible. Indeed, there may well be much more ready opportunities for shifts of this nature even within the same firms under generally strong demand conditions, particularly when such adjustments are facilitated by intelligent and co-operative planning and actions on the part of both management and labour.

The extent of adjustment by individuals is heavily influenced by the degree of normal labour mobility in industries, occupations and regions. If there is typically a high degree of mobility and turnover, considerable declines in employment in specific firms can develop if there is a slower rate of new hirings in comparison with the rates of voluntary separations and normal retirement of older workers. The available data on mobility in Canada suggest higher turn-over rates than in the United States and some European countries.

In our analysis of the potentialities for growth in the Canadian economy we have indicated the need for higher and better sustained advances in productivity in the future than over the past decade. This implies, among other things, the need for a sustained, and perhaps even accelerated, pace of technological advance. But we have also indicated both the possibilities and the needs for far more buoyant demand and employment conditions to 1970 than have prevailed since the mid-1950's. Under such conditions, the hardships and costs to individuals arising from even a stepped-up rate of technological advance would be far less widespread and severe than has been the case during the extended period of slow and sluggish economic

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growth over much of the past decade. Moreover, the problems of such adjustments would be greatly facilitated by effective labour market policies which we discuss in the last section of this Chapter.

In essence, the broad picture presented by current technological change shows that it is pervasive and complex, and consists of a combination of many ways of achieving improvement and progress. This dynamic process, operating in many different points in the economy, clearly requires interrelated and complementary public and private action in respect of basic education, training, retraining, mobility and job placement in order to facilitate the myriad individual adjustments required by ceaselessly changing work patterns and job opportunities. It also poses rapidly changing problems and tasks for labour-management co-operation.

RESEARCH AND DEVELOPMENT

The extensive use of advanced technology has been a very important factor among the circumstances that have made possible a high standard of living in Canada. The development of a modern high productivity economy has been founded on an appropriate combination of men, capital and knowledge. Indeed, the introduction of this combination into an empty land has always been a basic feature of Canadian economic growth.

Inevitably, in a new country of vast area and small population it has been necessary to bring in from outside not only men and capital, but also the most up-to-date technology. Very often they have come together, especially in respect of capital and technical know-how, and have constituted a dynamic instrument for progress and the achievement of a comparatively high level of income. Moreover, by these processes Canada has become one of the advanced industrial nations of the world.

The readiness and the ability to use on a large scale the technology and skills developed in older and more advanced countries has been one of the special features of the Canadian economy as contrasted with many of the other new developing nations. However, Canada has increasingly come into the position where she can, in her own interests, make an important and a rapidly growing contribution to scientific and technical knowledge. The first significant developments, including the establishment of the National Research Council, occurred shortly after the First World War. During the inter-war period there

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was a very slow but steady growth in scientific and research activity in the universities, in federal government laboratories, and in a few places in industry. The relatively small nucleus of scientists and research workers which had been built up became the basis of a very rapid expansion of research and development (R & D) work during the Second World War.

This expansion, directed almost entirely to the needs of the war effort, was continued after the war, but was broadened to cover both defence and civilian requirements. The federal government established additional research bodies, namely the Defence Research Board and Atomic Energy of Canada Limited, and greatly expanded the research activities in the National Research Council and in a number of government departments. Federal government expenditures on R & D expanded by about ten times between 1945 and 1964. Increasing resources were made available to the universities, but this growth has been slow and the scale of research activity in the universities remains relatively small.

Over the past decade there has been a noteworthy increase in R & D activity in Canadian industry. In recent years the federal government has sought to stimulate further this rate of activity by means of special programmes, including a special income tax incentive scheme, direct assistance programmes administered by the National Research Council and the Defence Research Board, and a defence-development-sharing programme now administered by the Department of Industry. In addition, a number of provincial governments have established research councils and have instituted new measures. These programmes and policies have helped to bring about the rapid rate of expansion in R & D activity now under way in a growing number of Canadian industries.

While these events have been taking place in Canada, there has been a striking increase in the emphasis placed on R & D by most of the advanced industrial nations of the world. In large measure, this is the outcome of a new realization of the substantial role which is played by technology, new knowledge, innovation and skill in the improvement of productivity and the achievement of economic growth. Nearly all of the principal industrial countries have in recent years stepped up sharply their total investment of resources in R & D to annual rates of increase in the order of 10 to 15 per cent a year.

Total annual expenditures on R & D are now running in the neighbourhood of 3 per cent of Gross National Product in the United States, between 1 and 3 per cent in several European countries and in

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Japan. The latter country, which for a long time depended very heavily on imported technology, has greatly increased its own efforts and is proposing to expand its investment in R & D during the present decade at a rate twice as fast as the very rapid increase in national production. In the United Kingdom total outlays on R & D were more than doubled over the past six years. Nearly all the advanced industrial countries are planning continued rapid increases over the next several years in their outlays on research and development as a significant feature of their programmes for the promotion of higher productivity and economic growth.

The Director General of the Organization for Economic Co-operation and Development has said: "Indeed, if the OECD member countries are to achieve the collective growth target of 50 per cent in real Gross National Product during the decade 1961-1970 according to their resolution of November 1961, they will have to call upon every resource which science and technology can provide." If Canada is to realize the high rate of growth needed for a very rapidly expanding labour force and is to achieve the betterment in productivity required for continued improvement in standards of living while remaining competitive in the world, we have all the more reason to call upon the resources of science and technology. We will need to continue to draw very heavily on foreign sources for technology. In many cases this will be the only source, and in many others it will be the cheapest and quickest way to get it. However, this will not be enough. Canada will also need to expand substantially her own efforts in order to supplement and adapt what is available and in order to take adequate advantage of particular Canadian possibilities. It is necessary to continue to develop better and more intensive methods in the use of Canadian resources, and it is necessary for Canadians to participate adequately in the fastest growing industries.

It has already been indicated that in the years ahead much of Canada's growth must come in the secondary industries and that a large part of the expansion in exports will have to be in the form of processed and manufactured goods. Over the past several decades the fastest growing secondary industries in all the main industrial countries have been the science-based industries. Also, the products of these science-based industries have been the fastest growing element in world trade. In order to achieve our economic objectives it will be necessary for Canada to participate adequately in these developments

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and to find a basis for effective and profitable specialization through her own efforts and skills.

A noteworthy feature of the recent expansion of R & D in Canada has been the growth of the activities of the federal government in this field. The most urgent need for further rapid development pertains to the universities and to private industry. In the basically important area of the universities the principal obstacle has been the woeful lack of resources which need to be increased substantially. In the case of private industry the main difficulties are likely to lie in the scarcity of professional and highly skilled manpower, and in the adequacy and operation of the available incentives. The problem of skilled manpower is discussed in the next section of this Chapter. There is an immediate need to review the existing measures and incentives from the standpoint of their relevancy and effectiveness. The Council's Advisory Committee on Research and Technology is addressing itself to this task as a matter of high priority.

PROFESSIONAL, TECHNICAL AND OTHER SKILLED MANPOWER

During the post-war period it has become increasingly apparent that the future prosperity of a nation will depend in large measure on its success in creating and maintaining an adequate supply of professional, technical, managerial and other highly skilled manpower.

Knowledge and skills have, of course, always played an important role in economic growth. The natural materials and resources which support today's high standards of living, for example, have always been available, but they had no value until the appropriate knowledge and techniques had been developed for their processing and marketing. Similarly, the dramatic economic recovery of those nations which suffered great physical damage during the Second World War was possible only because the necessary backlog of knowledge and skills was available during the reconstruction period. "It is true that in those countries a substantial proportion of factory buildings and plants, roads and ports had been destroyed. However, they had an asset that had not been affected even to a remotely similar extent, namely the human capital, the technical and organizational knowledge. If this fact is taken into account, the rapid reconstruction of certain economies loses much of the glory of miracle that has often

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been associated with it."¹ More generally, a growing body of economic analysis indicates that education, research and the advance of knowledge relevant to production contributed at least as much as increases in the physical supply of labour and capital to the spectacular growth which occurred in the United States and in other leading industrial countries in this century.

The new feature of recent years is not that change is taking place. Rather it is the widespread emphasis which is being given to organized efforts to expand and exploit the new knowledge and the new possibilities which flow more freely now that a great inventory of technical skills and knowledge has been accumulated. The spread of such consumer goods as television and the automobile, the development of a whole host of synthetic fibres, the advances in medical science, and the emergence of electronic computing and control devices are only a few examples of how our manner of living can be fundamentally changed within a short space of years.

The scientific and technological advances which are now being made and which will continue to be made in future years are changing the basis on which the prosperity of nations may be achieved and maintained. As the possibilities for significant new economic growth become more closely tied to the emphasis placed on advanced education and research, they are capable of being much more widely dispersed among the industrially and technologically mature nations of the world. In all advanced countries, large scientific and engineering resources are being devoted to discovering ways of exploiting hitherto low-grade resources and to inventing synthetics, substitutes and other new products. These developments will make it easier for more countries to achieve the potentialities of a modern industrial society. The demands and tensions inherent in a rapidly growing world population and swelling urban conglomerations are increasing the sense of urgency which is being attached to programmes for the development of scientific and industrial skills, especially among lesser developed countries. New programmes of technical aid are being developed by both East and West in an effort to win the support of the host of newly independent nations which aspire to the fruits of modern industrial society. There is, in short, a widespread and growing recognition that the nations which will prosper and maintain their relative standards of living in the years ahead will be those whose organizational

¹ Walther G. Hoffmann, "Expenditure on Education and Research in the Process of Economic Growth (I)", *The German Economic Review*, 1964: Vol. 2, No. 2, p. 98.

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and technological skills allow them to move ahead on the waves of scientific progress.

The Supply of Highly Skilled Manpower in Canada

In Canada, as elsewhere, the impact of rising educational and skill requirements is having profound effects on the composition of the labour force. It is apparent that highly educated workers have not only created work for themselves, but also for many other workers with lesser training. Table 47 shows that the occupational groups which are increasing their share of total employment are also those in which a relatively large proportion of the workers have advanced formal education. In contrast, the occupations requiring the lowest levels of formal education are declining.

TABLE 47—ADVANCED SCHOOLING AND TRENDS
IN EMPLOYMENT, 1941-61

Occupations	Percentage of Workers in Group Having 13 or More Years' Schooling, 1961	All Workers in Group as Per Cent of Total Occupations, 1961	Change in Percentage Share of Total Occupations, 1941-61
Clerical.....	21.0	12.9	+ 5.7
Professional.....	66.0	10.0	+ 3.3
Managerial.....	27.3	7.9	+ 2.5
Commercial and financial.....	17.3	7.8	+ 1.9
Transportation and communication.....	6.2	7.8	+ 1.4
Manufacturing and construction...	5.9	21.7	+ 1.0
Service.....	6.4	10.8	+ 0.3
Fishing, hunting.....	1.9	1.3	- 0.6
Logging.....	3.1	0.6	- 0.6
Mining and quarrying.....	5.1	1.0	- 0.7
Labourers.....	4.4	5.4	- 0.9
Agricultural.....	3.3	10.2	-15.6
Not stated.....	13.5	2.6	+ 2.3
Total.....	16.3	100.0	—

SOURCE: Based on data from Department of Labour, *Occupational Trends in Canada, 1931 to 1961*; and Dominion Bureau of Statistics, *Census of Canada, 1961*.

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The supply of highly skilled and professional manpower will undoubtedly be a critical factor in the achievement of our economic goals in the years ahead. During our consultations with industrial firms, shortages of specialized scientific and technical manpower were often cited as an obstacle to undertaking more extensive research activities to develop and produce new industrial products. Some companies reported that the supply of engineers was a limiting factor in their present and future capital expenditure programmes. Many of these companies expected that the problems of obtaining adequate numbers of highly skilled staff would become even more acute in the years ahead.

As a geographic neighbour and industrial competitor of the United States, the world's most advanced industrial country, and as an exporter of almost half of the goods which we produce, Canada has an especially urgent need to maintain adequate levels of business and technical skills. However, we are at present much less well equipped than the United States in this important area. For example, in employment outside educational institutions, Canada in 1961 had, in relative terms, approximately 40 per cent fewer scientists and engineers (see Table 48).

TABLE 48—SCIENTISTS AND ENGINEERS EMPLOYED
OUTSIDE EDUCATIONAL INSTITUTIONS, UNITED STATES
AND CANADA

	Civilian Labour Force	Scientists and Engineers	
	'000	'000	Per Cent of Labour Force
United States (1960).....	70,612	1,021	1.4
Canada (1961).....	6,405	67	1.0

NOTE: Data on scientists and engineers include architects but exclude medical scientists.

SOURCE: Based on data from National Science Foundation, *Scientists, Engineers and Technicians in the 1960's: Requirements and Supply*, Washington, 1964, and Dominion Bureau of Statistics, *Census of Canada, 1961*.

Although the number of university and college degrees granted annually in Canada has more than doubled since 1955, there has been little, if any, improvement relative to the United States. As shown in

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Table 49, Canada added one worker to her civilian labour force for every six added in the United States, but her universities produced only one bachelor's degree for every 20 granted in the United States. The gap was much wider at the postgraduate level: for example, Canadian universities produced only one doctoral degree for every 33 granted in the United States.¹

TABLE 49—COMPARISON OF UNIVERSITY
AND COLLEGE DEGREES AWARDED, UNITED STATES
AND CANADA, 1956-63

	Canada as Per Cent of United States
Civilian labour force, 1963.....	9.2
Increase in civilian labour force, 1956-63.....	15.9
<i>University and college degrees granted 1956-63:</i>	
Bachelor's and first professional degrees.....	4.9
Master's and other second-level degrees.....	2.8
Doctoral degrees.....	3.0

SOURCE: Based on data from U. S. Department of Health, Education and Welfare, and Education Division, Dominion Bureau of Statistics.

It is at the postgraduate level that the situation is most critical, since it is from this source that university teachers and high-level research workers are drawn. It is estimated, for example, that university enrolments in Canada will double again between 1963 and 1968 and triple by 1974. However, this cannot be accomplished, or can be accomplished only at the sacrifice of quality, if there are not sufficient numbers of holders of advanced degrees entering university teaching.

Although the supply of full-time university teachers and research

¹ Some of the degrees granted by Canadian universities are received by foreign students who do not remain in this country after completing their studies. Similarly, some Canadians go abroad to study, especially at the postgraduate level, and not all return to Canada. Very little is known about the net effect which these student movements have for Canada. However, it may be assumed that for the present at least the effect is very slight, since the total number of foreign students at Canadian universities is roughly equal to the number of Canadian students studying abroad. However, it should also be noted that the numbers of foreign students attending Canadian universities appear to be increasing somewhat faster than the numbers of Canadians studying in other countries.

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staff increased by 74 per cent between 1955-56 and 1962-63, the numbers of full-time students grew much more rapidly. As a consequence, the ratio of staff to students has tended to decline. Even if this declining trend continued to 1969-70, total staff requirements would double from about 11,700 to 23,300, an average increase of roughly 1,650 or 10.5 per cent per year, before taking account of losses due to death, retirement, transfers to other work and emigration (see Table 50).

TABLE 50—FULL-TIME ENROLMENT, AND TEACHING
AND RESEARCH STAFF IN CANADIAN UNIVERSITIES
AND COLLEGES

Year	Full-time Enrolment	Full-time Teaching and Research Staff
1955-56.....	72,737	6,719
1962-63.....	141,388	11,670
1969-70 (projected).....	312,400	23,300

SOURCE: Based on data from Dominion Bureau of Statistics, *Survey of Higher Education, 1962-63*; Edward F. Sheffield, *Enrolment to 1976-77 in Canadian Universities and Colleges*, Canadian Universities Foundation, Ottawa, 1964; and estimates by Economic Council of Canada.

An investigation covering the period 1956 to 1958 suggests that something like 5 per cent of all university teachers are lost to the profession each year. If that rate were to continue through this decade, the number of new university teachers required each year would reach approximately 2,800 by 1970. The present number of advanced degrees being awarded in Canada is far too small to provide sufficient qualified teachers to meet the anticipated increases in university enrolments and the additional research workers to develop the new knowledge and techniques required by business and government if Canada is to participate fully in the economic opportunities of the years ahead. In this regard, it may be noted that Canadian universities granted an average of only 332 doctoral degrees a year between 1960 and 1963.

The Key Role of Immigration

Since the Second World War, the high demand for professional, technical and other highly skilled manpower in Canada has been

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met to a significant degree by immigration from overseas. Between 1953 and 1963, for example, slightly more than 80,000 professional and highly skilled technical workers entered Canada from outside North America. The largest portion of these workers, accounting for approximately three fifths of the total, were British. Moreover, although total overseas immigration has fluctuated widely from year to year, professional workers have been accounting for a rising share of the annual inflow.

Coincidental with the great inflow of high-level manpower from overseas, a large and growing number of professional workers have been leaving Canada each year to take up work in the United States. This increasing flow southward has been part of a substantial growth in total annual emigration to the United States and has been three to four times greater than the numbers of professional workers moving in the reverse direction. It appears, however, that the proportion which professional workers represent of total emigration to the United States has not changed appreciably during the post-war period. On the other hand, a remarkable shift has occurred in the composition of immigration from the United States, with workers in professional categories rising fairly steadily as a share of the total. Consequently, in 1963 professional workers represented approximately 40 per cent of all workers entering Canada from the United States, but only about 23 per cent of the much larger number moving in the reverse direction.

The net result of all these migration patterns has been to increase the stock of highly trained manpower in Canada and to improve the quality of the nation's labour force. Although the statistics in this field are incomplete, Table 51 gives some indication of the net inflow which has occurred since 1950.

In some instances, the magnitude of immigration has been very great. Between 1953 and 1963, the number of engineers entering Canada from abroad was equal to 73 per cent of the number graduated by Canadian universities, while the ratio for architects was 141 per cent and for physicians and surgeons, 53 per cent. However, the beneficial effects of post-war migration have not been spread evenly throughout the labour force and for a few occupations migration has even resulted in a net loss. The differential effects which the net migration of foreign-born have had for individual occupations may be seen in Table 52, which presents data derived from the 1961 Census. In the case of engineers and physical scientists, for example,

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one out of every four persons now in these professional categories in Canada is a post-war immigrant. In the case of physicians and surgeons, the comparable figure is one out of every five.

TABLE 51—AVERAGE ANNUAL MIGRATION OF
PROFESSIONAL AND TECHNICAL WORKERS, CANADA, 1950-63

Inflow from United States to Canada.....	+1,230
Outflow from Canada to United States.....	-4,681
Net loss.....	-3,451
Inflows from rest of world.....	+6,560
Net gain on above flows.....	+3,109

NOTE: No comprehensive data are available on (a) the gross outflow of persons from Canada to countries other than the United States, (b) the number of Canadian residents returning to Canada after a stay abroad, or (c) the number of immigrants from the United States who return to that country after a stay in Canada. The fragmentary evidence which is available would indicate that the net result of these additional movements does not substantially affect the conclusions to be drawn from the Table.

SOURCE: Based on data from Department of Citizenship and Immigration, Canada, and U.S. Department of Justice.

TABLE 52—GEOGRAPHIC ORIGIN OF PROFESSIONAL
AND TECHNICAL WORKERS, 1961

Occupation Group	Per Cent of Total		
	Born in Canada	Immigrated Before 1946	Immigrated 1946-61
Architects.....	57.5	8.0	34.5
Physical scientists.....	67.6	6.6	25.8
Engineers.....	67.0	7.8	25.2
Computer programmers.....	75.6	4.4	20.0
Physicians and surgeons.....	74.7	6.1	19.2
Professors and college principals...	76.4	7.6	16.0
Actuaries and statisticians.....	77.6	7.2	15.2
Biological and agricultural professionals.....	80.1	5.9	14.0
Other professional and technical workers.....	82.9	6.1	11.0
Total professional and technical workers.....	81.0	6.3	12.7
All occupations, labour force.....	78.6	9.0	12.4

SOURCE: Based on data from Dominion Bureau of Statistics, Census of Canada, 1961.

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The Outlook for the Future

Much of the recent public discussion of Canada's so-called "brain drain" has focused solely on the rate of departures to the United States and thereby ignored the very considerable numbers of highly skilled workers which Canada has received from other countries. However, it is far from certain that this pattern of a net "brain gain" can be maintained in the years ahead. For one thing, it is estimated that the demands for highly skilled and professional workers in the United States will continue to grow faster than the demand for labour as a whole and possibly faster than domestic sources of supply. In these circumstances, the United States market for such workers is expected to be tight and therefore relatively attractive to Canadians. At the same time, the new and rapidly rising demands for highly skilled workers in European and other countries will make it increasingly difficult for Canada to continue to draw upon these sources on the same scale as in the past. In the United Kingdom, for example, the Robbins Committee on Higher Education has recommended that the proportion of the working population who have completed full-time higher education be nearly doubled by 1980. To accomplish this goal would involve increasing the number of places for full-time students in higher education from 216,000 in 1962-63 to 560,000 in 1980-81. At the same time, the Committee emphasized the conservative nature of this goal:

[In] modern societies the skills and versatilities required are increasingly those conferred by higher education. Indeed, unless this country is prepared to expand higher education on something like the scale we recommend, continued economic growth on the scale of the targets set by the National Economic Development Council is, in our view, unlikely to be attainable. It is easy to think of an over-production of particular kinds of expertise, difficult as it may be to predict it. But we may be fairly confident that the Government would have to go much further than anything our present projections indicate before our country was over supplied with trained talent in general. ... And when it is remembered that the other advanced countries of the world are all tending in the same direction, the risk still seems to be of too little higher education than too much.¹

The migration patterns for highly trained manpower in future years will almost certainly reflect a continuing pull of Canadian workers to the south and an increasing difficulty in attracting migrants from overseas in the face of rising demands both in the countries which have been our traditional sources of supply and in other countries as

¹ *Report of the Committee on Higher Education*, 1963 (Cmnd 2154), p. 73.

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well. We have noted earlier from our consultations with business firms the indications of shortages of skilled and professional personnel. When such symptoms are developing while there is still slack in the economy, it seems clear that a continued movement towards potential output would further accentuate the demands for such skills. In the short run, it will be necessary to expand efforts to attract new skilled workers from other countries and to retain the ones we now have. But in the longer run a much larger part of the solution must be sought in educating and training a sufficiently high proportion of our own young people in the levels of skills required by a modern industrial society. In particular, the numbers proceeding to postgraduate degrees must be greatly expanded.

There will also be an urgent need to make the most efficient use of the high-level manpower which is already available, so that persons with required top-level skills are not employed at tasks which do not allow them to make their most valuable contribution. For this purpose, it will be necessary to ensure that these key workers have sufficient supporting staff and other resources. There is, for example, considerable evidence that qualified engineers are being employed at tasks which could be just as well performed by technicians if the latter were more readily available.

If Canada is to devise appropriate policies for the development of adequate numbers of professional, technical, managerial and other highly skilled workers, much better information regarding the demand and supply must be compiled, not only for these workers as a group, but for individual skills as well. At the present time, great difficulty is encountered in attempting to assess the adequacy of our existing supplies of highly skilled workers in anything beyond the most general terms. Statistics on certain aspects of the changing demand and supply are collected in Ottawa by such diverse agencies as the Canadian Universities Foundation, the Department of Labour, the Department of Citizenship and Immigration, the Dominion Bureau of Statistics, and the National Research Council, chiefly as a by-product of other functions. There is, however, no one agency which compiles on a regular basis comprehensive and integrated surveys of anticipated developments in the supply and demand for high-level manpower in the years ahead. Because of the long periods of formal training required to produce these workers, it is necessary to anticipate possible areas of shortage well in advance so that policies to overcome these deficiencies may be developed and take effect in time. The need

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for more information and more forward planning in this vital field is urgent.

LABOUR MARKET POLICY

High employment can be sustained without rising prices and a deterioration of the nation's balance of payments only if there is efficient use of manpower resources. This concept has become widely recognized throughout the western world in recent years. It is for this reason that increasing attention has been focused on the development of labour market policies by European countries, and more recently by the United States. No country can achieve maximum efficient utilization of manpower resources without effective labour market policy.

Both the theory and practice of labour market policy are, generally speaking, a post-war development. Labour market policy is concerned with facilitating fuller and more efficient use of manpower. It has acquired increasing importance in many countries with the growing realization that it is crucial to the attainment of national economic goals.

The term "active and positive labour market policy" has recently come into circulation. This concept of labour market policy, which has been developed in practice to its highest degree in many European countries, implies that it must have the status of an important national economic policy *integrated* with general fiscal and monetary policy. Its objectives, like those of the latter, are the same: to promote not only full employment, important as this is, but other national economic goals as well. Labour market policies can contribute to these objectives to the extent that they can influence efficient use of manpower resources. They are a necessary and vital complement to fiscal and monetary policy.

The central purpose of this section is to examine Canada's present labour market policy and to consider what improvements are required in this area to help promote our broad economic objectives.

Object of Labour Market Policy

The object of labour market policy, as we conceive it, is to bring about the matching of the supply and the demand for labour in specific localities and occupations in a way that manpower resources

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can be most productively utilized. It has as its purpose both the achievement of high employment and the utilization of the labour force at its maximum productive potential. Workers who are employed at less than their productive potential, whether it is because of problems associated with lack of occupational, industrial or geographical mobility, earn less than they are potentially capable of earning. They contribute less to national productivity than they are potentially capable of contributing. There is thus an important loss of goods and services to the country as a whole. The national economic loss from inefficient use of manpower resources can be just as great as the economic loss arising from unemployment. Equally important, when there is a mismatching of the supply of and the demand for labour in an economy operating at a high level of demand, inflationary pressures inevitably arise.

The removal of obstacles to desirable labour mobility is a chief function of labour market policy. For example, effective labour mobility is indispensable to minimizing the duration of unemployment when workers are displaced from their jobs. Shortening the duration period of unemployment can contribute significantly to economic growth and stability by increasing the supply of labour needed to match demand. Inadequate labour mobility, by impeding the flow of labour at a time of high demand, results in shortages and bottlenecks which produce upward pressures on production costs.

In an economy affected by change, some industries will be contracting while others are expanding. As so often happens in the case of contracting industries, they may seriously affect over-all employment in the geographical area in which they are located. Consequently, a declining industry and a depressed locality often go hand in hand. Under these circumstances, a breakdown in labour mobility may not only prolong problems of the locality, but may also result in expanding industries elsewhere being deprived of needed manpower. There is thus a two-fold adverse effect on the national economy: the growth of the national product is retarded by unused manpower resources bottled up in a depressed industry or locality; and, at the same time, inflationary pressures may be created as a result of labour shortages in expanding industries or localities. Rigidities of this nature act as a deterrent to growth and handicap a country's competitive ability and its balance of payments position. Furthermore, since idle manpower must also be supported, this imposes an additional cost on the nation as a whole.

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There are three major kinds of labour mobility: occupational, industrial and geographical. An unemployed worker may face the need to undergo one, or two, or all three. In some cases, a worker may become displaced because his skill has become obsolete, and cannot be transferred elsewhere. To be re-absorbed into the labour market, he will have to acquire a new skill. This means re-training. In other cases, a displaced worker may be the victim of a declining industry. To become re-employed he will have to go to another industry. This may or may not require his learning a new skill, depending on whether or not his present skill is transferable. If he lives in a community where there are no alternatives, he will have no choice but to move to a new locality if he is to find employment.

The importance of labour mobility has increased in recent years, largely as a result of an acceleration in technological change and a more closely interdependent international economy. Occupational skills can be quickly wiped out through a new technical process. Whole industries can be sent into decline, either from technological advancements, from increasing import competition, or from changes in consumer demand. The day is probably gone when a new entrant into the labour force could reasonably expect to make one skill last throughout his working life, or, perhaps, to stay permanently in the same occupation, industry or locality.

With labour mobility having such critical importance to the viability of the economy, it cannot be dismissed as the sole responsibility of the individual. Nor can any local community be expected to assume the entire financial burden of providing training and re-training of its displaced workers when such workers, after training or re-training, may have to move elsewhere for re-employment. The dimensions of the problems associated with mobility are such that they can be dealt with adequately only with the assistance of appropriate public policy. An integrated programme to facilitate all forms of mobility is necessary if economic inflexibilities are not to thwart the achievement of national economic goals.

There is little point in re-training a worker for a job that exists outside of his locality if he lacks the financial resources to move himself and his family. Likewise, there is no point in a worker moving to a new area if he is uninformed about the labour market in that area, or is technically unequipped to take advantage of existing job opportunities once he gets there. Effective mobility cannot be promoted in this piecemeal fashion. It can only be promoted by the

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development of an integrated programme of labour market services. Nor can effective labour mobility be promoted if functions and responsibilities under labour market policy are dispersed among various agencies, whose activities are not properly co-ordinated.

National Employment Service

The main agency for implementing and for co-ordinating labour market policy should be the National Employment Service (NES). Because it is clearly apparent that there has been considerable public confusion over the role of an employment service in the economy, it is important that this role should be clearly defined. The proper functions of an employment service can only be determined with reference to what labour market policy is, or should be. If it is accepted that labour market policy should be an integral part of general fiscal, monetary and other policies for the purpose of promoting national economic objectives, then it follows that the employment service must have a key economic role. It can no longer be regarded as simply an agency for registering unemployed applicants and taking orders from employers with unfilled vacancies, important as these services are. A new concept of the role of an employment service has developed in many of the advanced industrial nations. This concept suggests that the employment service must have the means to promote the occupational, industrial and geographical mobility of the labour force to meet the requirements of a changing industrial economy.

This broader concept is in marked contrast with the much more limited and much less positive role which the NES in practice has played. In the comments that we shall make on the NES, it is not our intention to imply criticism of the present administrators of the NES. We believe that they have been handicapped and frustrated by the kind of administrative organization which was initially established, as well as by acute shortages of qualified staff and by inadequate facilities. The circumstances surrounding the origin of the NES were undoubtedly responsible in part for shaping its present role. It came into being in its present form at the time that the country's unemployment insurance programme was put into effect, and it was perhaps inevitable that it should become in part a subordinate agency for referring unemployment insurance applicants to test their availability for work. Unfortunately, the NES has thus throughout its history been regarded by the general public as primarily a servant of unemployment insurance. The idea that a person

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who becomes unemployed "has to go" to the NES to register for work as a qualification for claiming insurance benefits seems to have become a dominating negative factor in influencing public attitudes towards the NES. It is perhaps not too surprising, then, that so many have come to view it as an "unemployment" rather than an "employment" service.

The limited use of the NES by persons looking for jobs was sharply illustrated in a recent unemployment survey in an industrial area of Ontario, undertaken under the auspices of the Economic Council. Of 388 persons interviewed who had become recently employed, only 12 per cent learned of their present jobs through the NES. On the other hand, 75 per cent found a job by either applying directly at the plant or office, or had heard of it through friends or relatives. Of 421 unemployed persons interviewed, only 14 per cent learned about their last permanent job through the NES, while 72 per cent had applied directly at the plant or mill or had heard of it through friends or relatives.

The public has also tended too often to regard the NES as a "social" or "welfare" agency established primarily for the purpose of helping unskilled workers or those with limited education who find it particularly difficult to obtain employment; handicapped people (physically or mentally), who have little hope of getting work by their own initiative; and those who, because of their restricted social environment, have no means of knowing about their local labour market.

In the main, it would appear that the NES has been handicapped by: (a) its status as a subordinate agency of the Unemployment Insurance Commission; (b) its position outside of a department of government which has the responsibility for formulating over-all manpower policy; and (c) the general failure to appreciate the important role which a public employment service should play in implementing an integrated manpower policy.

The development of the NES in Canada deviated considerably from the concept of an employment service held by the National Employment Commission (Purvis Commission) as long ago as 1938. On reading its Report one cannot but be impressed with the clear foresight with which it visualized the kind of employment service required. It pointed out the need to create an organization which would find out where the jobs are, their nature, the remuneration offered, the kind of workers required. On the other hand, it pointed up the need for such an organization to find out where the workers are, their numbers, qualifications, experience, and general suitability in the

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light of job offerings. Whether or not because its inquiry into the need for a national employment service pre-dated the establishment of unemployment insurance, it made no suggestion that the employment service should become the "handmaiden" of unemployment insurance. It is clearly apparent that it felt that an employment service should become an institution in its own right, and endeavour to gain the highest possible public esteem.

The role which an employment service should play in the economy was clearly set out by the International Labour Organization Convention passed in 1948, and ratified by Canada in 1950. In Article 1 of that Convention it is stated: "The essential duty of the employment service shall be to ensure, in co-operation where necessary with other public and private bodies concerned, the best possible organization of the employment market as an integral part of the national programme for the achievement and maintenance of full employment and the development and use of productive resources."

In order to promote the NES as an active agent in the developing and co-ordinating of manpower policies, the Report of the Committee of Inquiry into the Unemployment Insurance Act (Gill Committee) recommended in 1962 that the NES be separated from the Unemployment Insurance Commission and be integrated into the Department of Labour. It stated that "the existing administrative organization must be changed in order to achieve the degree of co-ordination necessary to permit the development and implementation of adequate employment and manpower policies and to free the National Employment Service from existing limitations so that it may play its proper role in such policies."

Its reason for recommending the integration of the NES into the Department of Labour was stated as follows: "A national employment policy is the reflection of the policy of the government of the day and this can be implemented only by a government department under the direction of the appropriate Minister." The Department of Labour is the logical department to assume ultimate responsibility for manpower policies. At the same time, however, it must be recognized that the NES must become the *key operational agency* for implementing manpower policies. It must also become the *sole co-ordinating agency* of all policies and programmes related to the labour market. The allocation of responsibility for carrying out manpower policies among a number of separate branches and agencies will inhibit the development of a properly co-ordinated approach to manpower problems.

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If the NES is to assume the kind of role which we believe to be necessary to implement an active manpower policy, it must be given the highest possible stature within the Department of Labour. It must be able to command the services of highly qualified personnel and of the relevant specialized branches of the Department. The chief executive officer of the NES should work closely with other departments which are concerned with general economic policies. It is only in this way that labour market policy can become effectively co-ordinated with other policies in the pursuit of national economic objectives.

Advisory Committees

If a public employment service is to be truly effective, those who are directly affected by its operations must have the opportunity to advise it. This principle was clearly recognized at the time that the Unemployment Insurance Commission was set up. The Commission itself had representation from both business and labour as well as from government. In addition, a National Employment Committee was established, including both business and labour representatives. Its function has been to advise the NES.

Labour market policy must, of course, be essentially the responsibility of the government. In the development of this policy, there should be consultation with the parties directly involved with the employment service, particularly management and labour. The employment service is, and must continue to be, a free institution, heavily dependent on the co-operation of private groups. In the final analysis, the quality of any employment service is determined by the way it operates at the local community level. The wisest employment policy at the national level will have little prospect of succeeding unless there is effective co-operation at the local level. The employment service is basically a field operation, and labour market policies can be implemented only by the regional and local offices. Only the regional and local offices are in a position to have a first-hand knowledge of local labour market conditions.

It would seem of utmost importance, therefore, to establish much stronger advisory committees than currently exist at the regional office level of NES, and at the local office level of at least the larger urban centres across the country. Local committees advising the employment service should be active bodies having adequate terms of reference and should be representative of business and labour, and of

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local educational and other professional officials who have a high standing in their communities and who are in a position to have a knowledge of local labour market conditions and requirements.

Relationship Between Employment Service and Employers

Active co-operation between the employment service and employers is indispensable. No employment service can fulfil its role effectively without having an accurate and up-to-date knowledge of labour markets. This knowledge can only be obtained if there is an effective relationship between the local employment office and employers in the area. The key to an effective employment service is prompt reporting by employers of their unfilled job vacancies, and their expected vacancies.

A basic weakness of the present NES is its inability to secure co-operation from enough employers to make it possible for it to have comprehensive and up-to-date information on job vacancies. Indeed, a lack of comprehensive information on the demand for labour is a striking gap in our basic information about the economy. Available evidence indicates that less than 30 per cent of total hirings are made through NES, and it can be assumed that job vacancy coverage is equally small. The consequence of this is that economic intelligence of the labour market is highly inadequate. To formulate an active labour market policy without this fundamental knowledge is impossible. A strengthening of the local offices, playing a more effective role, would help to generate increased confidence among employers and provide a basis for better co-operation.

A main reason for the highly successful performance of the National Labour Market Board in Sweden is the close liaison which exists between employers and their local labour market boards. However, co-operation has gone much further than the reporting by employers of their unfilled vacancies. The National Board has entered into *voluntary* agreements with employers' associations calling for employers to report expected layoffs to their local board. Under these agreements a company provides information on:

- (a) the date when the expected layoffs are likely to go into effect (employers as a general rule give *two months'* notice before the planned curtailment or discontinuance of production);
- (b) the number of employees affected;
- (c) the estimated duration of the planned cuts in personnel;
- (d) the reasons for curtailing production.

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The local labour board then passes this information pertaining to curtailment of production on to the National Labour Market Board. If manpower adjustments are to be effectively anticipated and facilitated with a minimum amount of disruption, the need for information along these lines is clearly indicated.

Co-operation between employers and local employment offices must be on a *voluntary* basis. Compulsory agreements to effect such co-operation are not only incompatible with a free employment service, but they would only frustrate rather than aid the establishment of a good working liaison between employers and NES offices. If local offices provide an efficient service, it will be in the interest of employers to work closely with them. In the final analysis, this can be the only basis for developing effective co-operation, as is strongly confirmed by experience in other countries.

Labour Market Information

A major function of any employment service should be the collection, analysis and dissemination of *labour market information*.

According to the NES it has not been able to carry out this function satisfactorily. It has explained: "The amount of economic analysis that has been done by the [analysis and development] division at head office has been limited in recent years by difficulties encountered in finding and retaining suitable professional staff. The division has been plagued by staff vacancies over extensive periods of time, and has also been affected by vacancies in other research divisions at head office which have necessitated much doubling up of the available staff's responsibilities. *The result is that only the most rudimentary labour market analysis has been attempted, and this for internal administrative use almost entirely*" (italics ours).¹

The lack of comprehensive data on job vacancies makes labour market analysis at the present time virtually impossible. Data which are currently collected by the NES are useful as an operational tool for that organization, but they are not appropriate for analysis of total labour demand.

Such analysis of labour market data is of crucial importance for the planning of vocational education programmes for prospective entrants into the labour force, for occupational training and re-train-

¹ Analysis and Development Division, National Employment Service, Functions, Responsibilities, Organization and Staffing.

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ing of persons already in the labour force, for business planning, and for the purpose of enabling the manpower authorities to plan intelligently to meet expected labour surpluses and shortages. Until the deficiency in this area is overcome, the development of a positive manpower policy will be seriously hampered.

Not only is it essential that labour market analysis be undertaken at the national office of the NES, it is also important that it be performed at regional, and perhaps at the local offices serving the larger urban centres. Without adequate labour market information on a regional and local basis, adequate national labour market information is, of course, impossible to develop. The consequence of this is that there can be no realistic over-all labour market policy, since this information must constitute the very basis for the formulation of such a policy.

While collection and analysis of labour market information should be a key function of an employment service, the *distribution* of such information is, of course, equally important. Apart from the internal operational use of such information by the employment service, what is urgently needed is the dissemination of up-to-date data in such form that it can be properly understood and used by the general public.

Labour Market Services

If an employment service is to ensure, as suggested in the ILO Convention, "co-operation where necessary with other public and private bodies concerned, the best possible organization of the employment market as an integral part of the national programme for the achievement and maintenance of full employment and the development and use of productive resources," it must have, in addition to an excellent placement service, a well developed system of labour market services to facilitate labour mobility. In an economic environment undergoing rapid technological and industrial change, facilitating mobility of the labour force becomes an increasingly important element in labour market policy. The growing obsolescence of skills and changing industrial patterns will require an increasing number of workers to undergo both occupational change and geographical movement. An employment service which does not possess adequate means to promote such mobility can scarcely hope to succeed in assisting the matching of the supply of and the demand for labour in a way that manpower resources can be most productively utilized.

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Nor can there be a minimization of the over-all level of unemployment to permit the development of the country's economic potential.

There is perhaps no problem of greater complexity for labour market authorities than that of facilitating industrial and geographical mobility. There are many social problems which interfere with such movements, affecting in particular older workers and female workers. We do not for one moment underestimate their importance. These problems, however, are not peculiar to Canada; they are common, if somewhat different, to all countries. At the same time, movement between industries and localities has always taken place in response to economic changes. A classic example in Canada, as well as in other countries, has been the continual movement out of farm and rural areas into cities as urbanization and industrialization have increased.

If the obstacle to movement is predominantly of a financial nature, however, much can be done. A worker, displaced from his job in a declining industry, may simply not have the financial means to move. This will be particularly the case if he has a family. It seems to us that under these circumstances the employment service should have the means to provide adequate financial assistance. The existing programme under the NES is not adequate.

The objection that the financial cost of an adequate programme is one which society cannot afford is not economically valid. On the contrary, there is eventually a net economic return to society from such an investment. An unproductive worker and his family suffering from prolonged unemployment in a depressed industry or locality must be supported. In cold economic terms, this is nothing more than public subsidization of unproductive labour. This is a cost which the economy cannot afford.

Many of the European members provide mobility allowances. For example, *travelling allowances* are granted by Austria, Belgium, Denmark, France, the Federal Republic of Germany, Norway, Sweden and the United Kingdom. Contributions towards *removal allowances* are made by Belgium, France, the Federal Republic of Germany, Norway, Sweden and the United Kingdom. A *second residence allowance* is made by Austria, Denmark, the Federal Republic of Germany, Norway, Sweden and the United Kingdom. *Initial* or *installation allowances* are paid without reference to actual expenses by Belgium, France, the Federal Republic of Germany, Norway and Sweden.

At the present time, under the Manpower Consultative Service, the federal government is committed to providing a re-employment or

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mobility incentive to a province or an employer of one half of the costs incurred in moving workers and their dependants displaced by industrial change to other communities where employment is available. However, in an information paper on the Manpower Consultative Service, it is reported that "this provision is considered to be of infrequent use and is contingent upon certain prevailing conditions among which is that an employer or a province, or both, will assume the other half of the cost."

This basis for granting mobility allowances is less than satisfactory. It seems to us that it should be the *sole* responsibility of NES to administer allowances in accordance with over-all mobility requirements in the economy. With its large number of employment offices dispersed across the country, it is in the best position of any agency to discharge this responsibility.

If these mobility requirements are to be met, it is imperative that the NES be empowered to grant adequate allowances, through its local offices, to all workers who need to move to another locality or industry to become re-employed. This cannot be done in a piecemeal fashion. What is needed is an integrated system of allowances with adequate safeguards against abuse, to cover all essential costs of the worker and his family, beginning with their removal and continuing over a reasonable period of financial adjustment to their new environment. This would help to assure a wider opportunity for jobs among unemployed workers, greater accessibility to manpower by employers, and improved productivity for the economy as a whole.

Occupational Mobility

There is an urgent need for greater occupational mobility and for improved education, training and re-training of both new entrants to, and existing members of, the labour force. This is particularly necessary in a continually and rapidly changing environment. The magnitude of these tasks has been greatly increased by the fact that many young people entering the labour force have not had either sufficient basic education or technical training to meet advancing industrial requirements. The fact that there are serious deficiencies in the existing labour force makes it all the more necessary to accelerate educational and training programmes.

The special need for accelerated technical training is further emphasized by the fact that we can no longer rely as heavily as in the past on immigrant skilled manpower. The high current and pros-

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pective demand for skilled workers in Europe reinforces the need to increase the development of our own manpower resources.

In recent years, the federal government, in co-operation with the provinces, has greatly expanded vocational education and training programmes. It is too early to make any over-all assessment of their effectiveness in overcoming deficiencies in training. However, it is evident that not nearly sufficient use is being made of certain programmes. Opportunities for training programmes in industry, which are vitally needed to up-grade employed persons, and which qualify for government assistance, are not being adequately used. It is likewise apparent that programmes for training people no longer in the school system, as well as programmes geared to the training of unemployed persons, are reaching far too few of those who have inadequate basic education and training.

In the same Economic Council survey to which reference has already been made, it was found that of 499 unemployed persons who were interviewed, 88 per cent had not taken any of the training courses specially established for the unemployed. Less than 5 per cent had completed such courses. While this was only one industrial area surveyed, we suspect that not too dissimilar results would be reflected in other comparable surveys.

Even though substantial funds have been provided, and many training facilities set up, it would appear that further measures will have to be taken if there is to be a much greater use of training programmes by those in need of them. Whether many are not taking advantage of these programmes because of a lack of information about them, or a lack of knowledge of how to enroll in them, or a lack of understanding of the interdependent relationship between training and employment, or a lack of sufficient financial means to carry them and their families through the training period, needs to be determined. It seems to us that the NES, through its local employment offices, should be in a position to contact and consult such people, advise them through proper vocational guidance of the kind of programme best suited to their needs, and make appropriate arrangements with local educational authorities in the provinces and municipalities who are responsible for the administration of the programmes. Continuing publicity on a large scale, using all the communications media, the newspapers, radio, television, posters and bulletins, would then be essential to inform the public that such services were available at their local employment office.

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Making training programmes available is simply not enough. Those in need of such programmes are often the most uninformed concerning the reasons for their own economic plight, and often they have no understanding of their own training needs and how these needs relate to their own employment prospects. Without a highly organized communications system at the local community level, the best developed training programmes and facilities are not likely to succeed in attracting those who need them most.

Co-ordination of Labour Market Services

The lack of co-ordination of manpower services is a basic weakness of labour market policy in Canada. This has resulted in confusion. A recent example of such a lack of co-ordination may be seen in the establishment of the Manpower Consultative Service by the Department of Labour "for the purpose of assisting management and labour in their efforts toward meeting the challenges of manpower adjustment arising as a consequence of technological and economic change." The principle behind the setting up of this branch is unquestionably sound. The displacement effects from increasing technological changes in industry require vigorous application of manpower adjustment programmes at the plant level. It seems to us questionable, however, whether this agency can effectively discharge its heavy responsibility in the way in which it has been set up. It is hard to escape the impression that it is a disembodied branch, and not at all integrated into an over-all labour market programme.

The NES, with its more than 200 offices distributed across the country, is the only manpower agency in a position to have a close knowledge of labour market conditions throughout Canada. It follows, therefore, that the Manpower Consultative Service can only fulfill its function if it becomes an integral part of the operations of the NES. Unless regional representatives of the Manpower Consultative Service have complete access to, and an understanding of, labour market analysis undertaken in the employment service, it is difficult to see how they can cope with the "manpower challenges of technological change." They would need to have an up-to-date knowledge of present and expected job vacancies, an adequate description of these, vocational testing and guidance services, and appropriate means for facilitating occupational, industrial and geographical mobility of displaced persons. All of these responsibilities should be properly

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vested in an employment service. To distribute such tasks to separate branches and agencies will only succeed in rendering impossible an integrated labour market programme.

Throughout this section we have placed great emphasis on the need for co-ordinating labour market activities under the NES. The NES is in an ideal position, through its local offices, to perform this necessary function. At the same time, however, it cannot do this, and will not be able to do it in the future, unless there is a major improvement in its operations. There will have to be a great improvement in the qualifications of staff personnel at both the national and local NES offices if there is to be an up-grading of activities related to occupational information, guidance in employment, placement functions, and the other labour market services which have been discussed. In short, the development of the NES can no longer continue to be neglected if formidable problems, arising from rapidly changing labour market conditions, are to become manageable. This will become particularly true if we are to achieve sustained high rates of employment and economic growth. The necessary improvements will cost some money. However, the economic returns to the nation, in the form of higher employment, higher productivity, better price stability and an improved competitive position, will more than justify the cost.

9

Implications for Policy

IN EARLIER CHAPTERS, we pointed to certain problems which must be resolved if we are to attain the objectives of high levels of employment for a rapidly growing labour force, strong productivity gains in which all regions of the country are participating, reasonable cost and price stability in an increasingly competitive world economy, and a viable balance of payments position. We also indicated important elements of possible conflict between these goals since they are not always compatible. The purpose of this final Chapter is to consider guiding principles for policies that would promote the objectives and ease conflicts between them. These principles are intended to provide a consistent general framework within which specific policies and decisions can be developed in both the public and private sectors of the economy with regard to the medium-term future.

The simultaneous achievement of the basic objectives will not occur automatically or easily. Indeed, in comparison with past experience, their attainment will require extremely high standards of economic achievement and performance, and will set difficult and exacting tasks for Canadians.

BASIC OBJECTIVES—THE TASKS AHEAD

High Employment and Increased Productive Efficiency

The dominant challenge on Canada's medium-term economic horizon is that of providing very rapidly expanding employment opportunities in increasingly productive, and therefore more remunerative, activities. Canada is now crossing the threshold of a period of unprecedented

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growth of its labour force. *We require a net increase of 1,500,000 jobs from 1963 to 1970.*

The magnitude of this challenge is indicated by the fact that we need to achieve, in these seven years, approximately the same increase in total employment that occurred over the previous fourteen years. Moreover, in the period to 1970 we have postulated only moderate levels of net immigration, while over the last fourteen years, net immigration has accounted for a substantial proportion of the growth in the labour force and employment. The impending upsurge in the Canadian labour force will consist chiefly of new, young workers who are, on the whole, better educated and trained than their parents, and who will serve to give a more youthful, energetic and adaptable complexion to Canada's manpower resources. With regard to future employment, part of our task is obviously to reduce the existing level of unemployment which, although lower than a few years ago, is still inappropriately and unacceptably higher than the 3 per cent level which we believe to be a realistic medium-term goal for the Canadian economy, although not an ultimate and final goal for the longer run. This reinforces the need for vastly expanded new employment opportunities.

Considering the slack which still exists in the Canadian economy, as well as the dramatic expansion in the labour force in prospect over the next few years, it is essential to have a large and sustained growth in total effective demand if high employment is to be successfully achieved and maintained. *An appropriate combination of strong expansionary policies is therefore required to generate adequate levels of demand both at home and in export markets in support of rapidly expanding employment.*

The aim of swiftly rising employment is, however, not enough. There must also be strong emphasis on increased efficiency. Under highly competitive conditions, high rates of productivity growth must be achieved if the goal of sustained high employment is to be reached and maintained. At the same time, successful attainment of consistent high employment can be a powerful contributing factor to sustained productivity growth.

It is this combination of sustained high employment and sustained advances in productivity which together provide the basis for sustained economic growth. This partnership of employment and productivity has been at the heart of the economic growth performances and policies of the industrially advanced nations which have so successfully achieved continuing high rates of growth in total output over the past decade. And this partnership is vitally necessary for the attainment of

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the potentialities for growth in the Canadian economy that we have outlined earlier in this Review—namely, average annual rates of increase of 5.5 per cent in total real output and 3.4 per cent in per capita real output. This would amount to an increase of close to 50 per cent in total real output from 1963 to 1970, along with an increase of over 20 per cent in real per capita income.

Improvements in productivity provide the essential means for general advances in average living standards, they are also an important factor determining the competitive positions of industries, and hence have a vital bearing both on levels of prices and costs and on the balance of payments position of a country. In a very highly competitive world economy, any nation which fails to maintain adequate and well sustained productivity growth will sooner or later be faced with the kinds of repercussions which will greatly complicate the tasks of preserving a viable balance of payments and high employment, and will tend to produce an unsatisfactory "stop-go" economic performance.

The productivity assumption set forth in Chapter Three was that of an average annual increase of 2.4 per cent per year per person employed from 1963 to 1970. We indicated that this may well be a conservative figure. In any event, we consider it to be a minimum performance, and one which we should strongly seek to improve.

In earlier chapters we have discussed the essential ingredients for attaining the goal of faster and better sustained productivity growth. There are six basic groups of factors which can make very important contributions to this goal:

- increased investment in human resources to improve knowledge and skills,
- improved mobility of resources so that they can move easily and smoothly towards their most efficient employment,
- greater specialization and better organization of production,
- swifter and more effective technological advances,
- enlarged investment in fixed capital, and
- more initiative and enterprise in exploring new and better ways to use economic resources more productively, under the spur of competition and the lure of higher returns.

Competitive pressures will undoubtedly increase in the world economy over the years ahead, especially in the wake of steps towards substantial reductions in trade barriers. The potential Canadian economy we visualize for 1970 is a high-standard-of-living and high-employment economy, and it must therefore be a high-education economy, a high-resource-mobility economy, a high-research economy, a

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high-investment economy, a high-innovation economy, and a highly competitive economy.

Price and Cost Stability

Earlier in this Review we emphasized that a flexible price system can be an important contributing factor to sustained and balanced economic growth. Such a system can help to provide signals of changes in market conditions and appropriate incentives for shifts in patterns of output and in the use of productive resources. At the same time, we emphasized the danger that strong demand conditions favourable to high employment and sustained economic growth may also encourage rapid or persistent increases in prices which would have unfortunate consequences. Internally, such increases not only create social inequities, but also produce economic distortions which can readily generate uncertainties and instability, both in financial transactions and in the production and distribution of goods and services. Disturbing speculative elements as well as protection for relatively inefficient lines of production may emerge under such conditions. A cost and profit squeeze may also develop which will tend to bear most heavily on those individuals and on those lines of economic activity which are least able to protect themselves against inflationary pressures. Furthermore, if rapid and persistent price increases outpace those of a country's chief international competitors, such increase will tend to erode a nation's competitive position, with ultimate adverse effects on the balance of payments.

In our analysis, we have postulated the maintenance of a reasonable degree of price and cost stability in the years ahead. This implies, as we have suggested, that the range of price and cost movements could be successfully contained within the limits of the relatively moderate average annual changes in prices and costs actually recorded in Canada over the past decade. It also means a substantially better performance than that which has generally prevailed in other industrially advanced countries experiencing high employment and rapid growth over the past decade. It similarly implies a considerably improved performance regarding price and cost constraints than occurred in Canada from 1946 through 1953, when a number of special factors related to the extraordinary demand and supply conditions of the early post-war and the Korean war periods produced particularly sharp upsurges in prices and costs in 1946-48 and 1950-51.

We recognize that this is an objective which could be very difficult

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to attain under conditions of high employment and vigorous growth. We are well aware of the fact that we are setting for the Canadian economy the task, over the balance of this decade, of maintaining as good a performance concerning price and cost stability under prosperous conditions, as that which was actually achieved over the past decade under conditions of relatively high unemployment and relatively slow growth. Our position on this matter reflects a careful consideration of the necessary conditions and policies for successful attainment of this goal. Among these conditions and policies are the following:

- Rapid productivity growth arising from a wide range of factors discussed elsewhere in this Review, and promoted by strong public and private efforts to enhance productive efficiency in Canadian industry. Such growth will at least tend to minimize cost and price pressures in those areas in which sustained high productivity gains are being achieved. It may also permit—indeed, should be encouraged to induce—price declines which will help to offset possible price increases in other areas in which productivity gains can be less readily achieved.
- Increased international competition, along with active Canadian participation in international trade negotiations with the aim of securing substantially improved access to foreign markets for Canadian suppliers, and as a consequence, improved access for Canadian consumers to many foreign goods, thereby promoting improved competitive performance by Canadian industry.
- Increased adjustment to change and mobility of productive resources in the Canadian economy, along with greatly increased emphasis on effective labour market policies and more comprehensive long-term planning in business firms. All of these will help to minimize the kinds of bottlenecks, shortages, and excesses which contribute to price and cost pressures under high demand conditions.
- Responsible restraint in both wage demands and business pricing policies, with clearer recognition that failure to maintain reasonable price and cost stability will frustrate the attainment of other basic economic objectives, such as balance of payments viability and high employment, while also compromising our capacity to achieve steadily advancing living standards for the Canadian people, reasonable profitability of business, and the maintenance of purchasing power of pensions and savings.

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Trade and Payments

As the Canadian economy moves towards potential high levels of employment, output and demand, the balance of payments position will need careful attention. Our analysis in Chapter Five, based on a number of relatively favourable assumptions regarding both external and internal conditions and relationships, indicates the possibility of a current account payments deficit of the order of \$1.5 billion to \$2 billion at potential output in 1970. In the course of our analysis, we assumed that exports would grow in line with the world economy. A further assumption was that we could avoid a substantial rise in the ratio of imports to total output, such as has occurred in previous periods of rapid economic expansion in Canada's history, and such as might have been expected to occur with a relatively more rapid expansion in potential employment and income in Canada than in the United States and various other countries in the years ahead. Thus, a deficit of roughly this magnitude would be substantially lower in relation to domestic investment and total output than has been the case under comparable past conditions of rapidly rising domestic economic activity.

However, we consider a possible current account balance of payments deficit, and a corresponding net capital inflow, of this magnitude to be inappropriate as a standard of performance for the Canadian economy on a long-term, sustainable basis. In fact, we need policies, consistent with the attainment of other basic economic objectives, designed to achieve a more competitive economy, and hence a considerably lower current account deficit. Such a strengthening of the country's international payments position would also be appropriate in relation to certain other important ends—increased maturity of Canada as an industrial nation; the avoidance of vulnerabilities implicit in continued reliance on foreign capital inflows of very sizeable dimensions for balance of payments reasons; and the maintenance of assured national and international confidence in the management of our economic affairs.

This conclusion reinforces our conviction that we need a strong and concerted national effort to promote the highest possible gains in productivity and in industrial efficiency, reaching beyond our assumed rate of productivity growth of 2.4 per cent per year. It also reinforces the need for a high degree of price and cost stability. Only if we can be successful in terms of these objectives can we hope to have the competitive capabilities, given the exchange rate, for assuring high employment and continuing advances in living standards.

In addition, we need a commercial policy directed at securing a sub-

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stantial improvement in access to foreign markets, coupled with a vigorous programme of export promotion, to facilitate the attainment of the required growth of competitive exports, as discussed in Chapter Five. We also need a special programme of adjustment assistance to facilitate adaptation among workers and firms to the more competitive conditions arising from future reductions in Canadian trade barriers. The purpose of this programme should be to cushion the impact of such reductions and to promote the necessary adjustments to more competitive production, including new lines of productive activity.

The Canadian economy is influenced to a considerable extent by three sets of trade barriers—tariff and non-tariff barriers maintained by other countries, those maintained by Canada, and the so-called “institutional barriers” which include business organization, attitudes and practices which can have the effect of artificially limiting Canadian exports, especially of more highly manufactured and processed products. In the current Kennedy Round of tariff negotiations, Canada should actively seek to take advantage of the opportunities which could be available for improved access by Canadian producers to international markets for manufactured products and the more highly processed forms of industrial materials. Manufactures constitute the most rapidly expanding sector of international trade. We should seek to broaden the basis for greatly increased Canadian participation in this area of trade along the lines in which we have, or can develop, competitive advantages. *This requires a new emphasis in Canadian commercial policy.* But it holds forth the promise of the kinds of opportunities which are needed for improved competitive capabilities in both new and existing lines of Canadian industry through long production runs and increased specialization. This is an effective route towards higher productivity and reduced unit costs.

Similarly, there is a need among business organizations to remove “institutional barriers” to trade, including those which may inhibit larger exports by Canadian subsidiaries of foreign-controlled firms. If we are to attain our national objectives, Canadian industry must begin without delay to take full advantage of every possible means and opportunity to export. In this context, new business policies and methods may be needed, as well as a willingness to incur additional risks. Moreover, the need for large increases in exports will be accentuated rather than modified with a more rapid growth of domestic income and demand, and it is crucially important if high employment and dynamic economic growth are to be achieved, that Canadian manufacturing industry should become increasingly export-oriented.

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TOWARDS SUSTAINED AND EQUITABLE GROWTH

The Business Cycle

Our basic analysis in this Review has not attempted to take specific account of past or future patterns of the short-term business cycle. This does not reflect any lack of concern about the nature and timing of possible future cyclical patterns. It follows from the fact that we are primarily concerned with basic economic growth potentials rather than forecasting probable future trends, including shorter term fluctuations around these trends. In the interests of simplicity and convenience, we have therefore assumed, at all relevant points in our analysis, that our 1970 potentials relate to a year of high activity in the short-term business cycle. This should not be interpreted to mean, however, that we have simply assumed away the business cycle for the future, or that we are unconcerned about the possibility and the dangers of cyclical instability in the Canadian economy. Indeed, we are very much aware that any sharp cyclical fluctuations before 1970 could well impede the achievement of the basic economic objectives which we have set forth in this Review.

The short-term business cycle has long been a familiar feature of the North American economy. Unfortunately, we do not have ready prescriptions to assure its permanent demise. But we are concerned about avoiding the distortions which it feeds upon, as well as the disturbances and dislocations which it creates. This is especially so, since both near its peaks and its troughs it tends to generate conditions which frustrate the simultaneous attainment of the basic economic objectives with which we are concerned. Thus, we believe that it is vitally important to aim to achieve a pattern of future economic development in which cyclical movements are consistently dominated by growth trends in production, income and employment.

With regard to this aim, we are encouraged by the absence of marked cyclical variations within the economic growth patterns of many industrially advanced countries over the post-war period, although we recognize that a number of special factors may have made an important contribution to the relatively smooth growth achieved in many of these nations. We are also encouraged by the unusual duration and the exceptionally well sustained strength of the over-all economic advance in both Canada and the United States, which began early in 1961 and is proceeding into 1965 without serious distortions. The fact that this expansion began under conditions of

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very substantial slack in both countries has been an important contributing element to this recent favourable performance. Moreover, it could be argued that as the economy moves towards a level of activity much closer to potential, there may well be increased dangers of distortions, excesses, bottlenecks, and speculative elements. But the objective should be sustained prosperity. Steady economic growth is the best way to avoid recessions.

It is important to recognize that the business cycle in North America has been a pervasive phenomenon. The timing of turning points as well as the dimensions, durations and basic characteristics of cyclical movements have been remarkably similar in Canada and the United States. Consequently if the United States were to continue to experience short-term cycles in the future, it would appear most unlikely that we could avoid similar cyclical patterns in Canada. Nevertheless, it is extremely important that elements of cyclical instability emanating from the United States economy should not be aggravated by forces and influences within our own control. This requires, among other things, the maintenance of steadier rates of growth in business investment, better planning of government expenditure, and the avoidance of sharp movements in prices and costs.

There are a number of ways in which we may be able to improve on our past performance in these respects. First, it is desirable to avoid excessive preoccupation with short-term cyclical behaviour, and to attune policy more consistently to longer term views of basic economic conditions and trends, and to reduce uncertainties regarding general economic policies. Second, in the private sectors of the economy, there is a similar need for basing decisions on longer term analysis. We emphasize in the following section the need for better information and analysis as a basis for more consistent and confident planning of expenditures in both the public and the private sectors of the economy. Third, a high priority on the maintenance of strong competition, on mobility of economic resources, and on facilitating adjustment to change, should help to avert particular cost and price pressures arising from bottlenecks and other distortions. In the past, these strains have frequently contributed to inventory fluctuations, speculation and other forces which aggravate short-term instability.

Better Information and Planning

A sustained high level of performance in relation to the basic objectives with which we are concerned in this Review is unlikely

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to be attainable if the bulk of decisions, actions and attitudes in both the government and the private sectors of the economy are dominated by short-run considerations and issues. There is an obvious need for more intensive and more informed assessment of medium and longer term trends and conditions to provide a better basis for decision-making. This, in turn, requires better information for longer term analysis.

The Economic Council has been established to help outline and clarify future potentials in broad terms, anticipate future problems which need to be resolved, and provide general information and analysis to assist in better decision-making relating to medium and longer term horizons. But this is no substitute for the development of longer range planning in government, business enterprises and other organizations, on the basis of substantially improved economic intelligence, tailored to the particular needs of both public and private programmes and policies.

The role of government at its various levels has clearly expanded to the point of exerting both broad and specific influences in many important areas and aspects of the economy. This expanded role underlines the growing need for intelligent planning and efficient and adept administration throughout the whole range of public activities. The various levels of government in Canada now collectively account directly for about 18 per cent of total spending on goods and services and decisively influence the distribution of a further 12 per cent.

In Canada in 1962, the Royal Commission on Government Organization addressing itself to the Federal Government, stated:

Having regard to the rapid elaboration of government activity and the continuing demand for the provision of new or enlarged programmes of public expenditure, the question of forward planning assumes major significance. Based upon forecasts by each department over a period of years ahead, surveys of total anticipated expenditure in relation to prospective resources would provide a most useful background against which decisions involving substantial future expenditures should be taken. A five-year projection, amended and updated each year, should be an indispensable tool for policy-making, but has not so far been developed in Canada.

We therefore recommend that all departments and agencies be required to prepare and submit to the Executive long-term plans of expenditure requirements by programmes. Based thereon, an over-all forecast of government expenditures and prospective resources for a period of five years ahead (should) be prepared annually.

This recommendation of the Royal Commission is in complete accord with our own view of what is required. We are aware that

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work has in fact been initiated both in the federal government, and in some of the provinces, and that such surveys are coming into wider use for internal purposes in the planning and decision-making process. Moreover, at the municipal and local government level, it is not uncommon for longer term surveys of capital works requirements to be undertaken and sometimes made public. We believe that this development should be strengthened and accelerated, and that the regular preparation and publication of federal projections of important expenditure programmes over a period of five years ahead would not only contribute to more efficient administration, but would also greatly enhance orderly and consistent decision-making both in government and in business.

The most recent development in Canada regarding longer term surveys of needs and resources in the public sector has been the establishment of the Federal-Provincial Tax Structure Committee. As part of its inquiry, the Committee has agreed to develop longer term surveys of prospective expenditure requirements and potential levels of revenue for the federal government on the one hand and provincial-municipal governments on the other, for the five-year period 1967-68 to 1971-72.

A further current development of potentially great importance is the agreement of the federal and provincial governments to come together for periodic consultations on current conditions and the outlook for the economy, as a guide in the formulation of their respective fiscal policies. Much of the interest in these consultations will undoubtedly revolve around short-term questions and issues. But we believe that advantage should be taken of such opportunities for more attention to longer run requirements and problems. Consultation and attention to longer run questions is very important considering the scope and responsibility for action and programmes relative to our goals among the three levels of government.

As regards business firms, we indicated in Chapter Four that our staff has consulted during the past year with a considerable number of relatively large Canadian companies concerning their medium-term investment plans and their procedures for such planning. We have been favourably impressed by the indicated extent of the investment planning which these firms are undertaking. Many of those interviewed, however, stressed the limitations on their ability to plan as accurately or as far forward as they wish. The main obstacles identified were difficulties in anticipating technological changes, uncertainties about international conditions especially in the field of

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trade, and the unpredictability of government economic policies. One result of more informed and effective business investment planning could be the achievement of smoother and steadier growth of such investment.

In other areas of longer range business planning it is our impression that there is considerable scope for development and improvement of activities which would have great potential value not only to business itself but for the economy as a whole. We suggest that the areas requiring greater long-term attention are especially those of research; better assessment of manpower needs; more intensive programmes for development of managerial, and professional and other highly skilled manpower, all of which will be in relatively short supply; and, in co-operation with labour, more carefully planned adjustments to changing technology and competitive conditions.

In government, business, and labour there is an urgent need for more extensive and more long-range economic analysis. The Economic Council will help to fill this need by providing a framework within which more specific long-term analysis can be undertaken by others. But to facilitate the development of such longer term analysis—in fact, to facilitate our own work in the Council—a substantial increase in resources is required to improve and extend basic information and economic statistics.

The Royal Commission on Government Organization urged that much greater resources must be provided for the Dominion Bureau of Statistics. We wish to support strongly this recommendation. Over the post-war period much of the improvement which has taken place in our basic economic statistics has been tailored to the needs for better data for short-term economic analysis. This now needs to be supplemented by a major improvement in the data which are particularly relevant for both longer term and regional analysis.

Finally, there is a need for a much broader basis of published studies incorporating independent and objective analysis in the whole field of the social sciences. This is a field in which Canada lags far behind many other countries, especially with respect to support for studies undertaken by academic specialists and private, nonprofit organizations. While increased private support for such studies is obviously necessary, along with a better appreciation of the value of economic and social research as a basis for more informed private decision-making, we believe that expanded public support is also needed for more extensive and intensive private research in this field.

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Fiscal and Monetary Policy

Our analysis of broad trends in the government sector under conditions of rapid and sustained economic expansion has important implications for longer range aspects of fiscal policy. The projection of government operations for all levels of government, as outlined in Chapter Seven, indicated a strong tendency for the potential growth in revenues to outpace the assumed increase in expenditures, resulting in a possible surplus at potential output by 1970 of more than \$2 billion on a national accounts basis. This includes slightly more than \$800 million of net accumulation of funds in the proposed government-administered universal pension plans.

We emphasize that this is not intended to be a forecast. Our estimate for 1970 emerges from three factors—the substantial increase in national income as the economy moves towards potential output, the buoyant effect of such an increase in income upon government revenues given the existing tax structure, and the relatively slower growth of assumed government expenditures in our analysis.

A surplus of this magnitude would mean that all governments together would be siphoning off by taxes a substantially larger amount from the flow of incomes than they would be adding to the flow of incomes by government expenditures. In other words, this would be a measure of the degree to which aggregate demand would be reduced by the operations of the government sector. This raises important questions concerning the implications of a surplus of this magnitude for the attainment of our objectives, especially those of high employment and steady economic growth. We would favour a combination of levels of tax rates and expenditure programmes which would yield a rough balance if the economy were operating at potential output (after allowance for the net accumulation of funds in the proposed pension plans). This implies that when slack exists in the economy, a budgetary deficit (apart from the net pension fund accumulation) would normally be appropriate. Conversely, if the economy were to encounter shortages and bottlenecks leading to inflationary pressures, a budgetary surplus would normally be appropriate.

We do not attempt to comment upon the particular pattern or time-path of future policy decisions regarding possible tax cuts or new expenditure programmes. Such decisions involve broad social considerations, as well as practical problems arising in short-term fiscal management, and complex issues concerning the division of fiscal resources and responsibilities in our federal system. But we do emphasize that fiscal policy can either impede or facilitate the attain-

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ment of our basic economic objectives. We therefore urge that such policy be developed with a view to encouraging progress towards these objectives in two important ways. First, it must be designed to promote adequate growth of total demand in the economy as a basis for attaining high employment and high output. Second, it must be vitally concerned with the impact of the tax system on the competitive position of Canadian producers. This implies, among other things, the need for removing, or avoiding the use of, particular fiscal measures which handicap the competitive production and marketing capabilities of Canadian suppliers, especially in relation to those of their chief competitors in the United States.

In addition, while we recognize that it may well be necessary under certain conditions to adapt fiscal policy to shorter term objectives and special needs, such as those of moderating cyclical instability, we believe that the consistent shaping of fiscal policy to longer term economic objectives and potentials will contribute to a pattern of smoother and steadier economic growth in which the risks of cyclical instability would be reduced. In our federal system this will require effective co-operation between the different levels of government, and a strong appreciation of the necessity for such co-operation in order to attain our basic social and economic goals.

Monetary policy has an equally important role to play in facilitating the attainment of our basic objectives. We have already emphasized the need for longer term growth of the money supply approximately in step with expanding production under conditions of reasonable price stability (see Chapter Six). We have also recognized that special needs may arise from time to time requiring flexible, short-term adjustments of monetary policy—for example, to moderate instability in financial markets or to anticipate or respond to shorter term strains or pressures in Canada's international payments position. But we believe that continuing attention must be given to maintaining an appropriately expanding monetary system favourable to the longer term growth and development of the economy. This would help both to minimize the dangers of shorter term instability and to assist in the successful attainment of orderly progress towards consistent high standards of performance in the Canadian economy.

Social Capital and Social Welfare

The assumed pattern of government expenditure at potential output in 1970 allows for a high and sustained rate of growth in investment

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in social capital. This is required for increased over-all productive efficiency in the economy. It also reflects the growing demands in a high-income society for improved schools, hospitals, highways, streets, parks, cultural and recreational facilities.

There is a particular need to improve our cities for both economic and social reasons. This requires, among other things, rehabilitation of dilapidated residential areas or clearing some of these areas for more efficient use for commercial and other purposes. In the field of housing there is a need for improved living accommodation for families and individuals who are now relegated, by economic circumstances and urban decay, to substandard and blighted living conditions. To attempt to deal in a comprehensive manner with these needs will require the development of policies and programmes directed towards the elimination of their underlying causes. Many problems exist in this field and available information about them is meagre. But we believe that it is essential to develop a much larger and more effective programme than now exists for urban renewal and low-rental housing.

Social progress obviously requires balanced development in a number of fields, including social security, education and worker training, health services and standards, housing, and cultural and recreational opportunities. Social progress is thus not attained solely through higher rates of pay, shorter hours of work, and improved material standards of living. The growth of physical production, however, sets the limits within which continuing social progress can be made. Thus, improved social welfare programmes and economic growth are not really alternatives. Only if sustained increases in productivity can be achieved will it be possible to have, over the longer run, consistent advances in social welfare.

We would therefore argue that the most important contribution which can be made to future improvements in social welfare will be successful attainment of our basic economic and social objectives, including the goals of high employment, rapid productivity growth and reasonable stability of prices. We emphasize that the real costs of failure to attain our basic objectives will ultimately fall on individuals in terms of unemployment, lost income or reduced purchasing power. Moreover, such failure—for example, in the form of high unemployment or rapid price increases—would obviously tend to intensify both the needs and the social pressures for government programmes and policies to safeguard individuals against inequitable costs and burdens in the highly complex and highly urbanized

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Canadian economy in which we now live. Conversely, successful achievement of the goals will help to minimize not only the extent and the severity of individual hardships and burdens in the economy, but also the welfare problems and needs in Canadian society. The most effective "war on poverty" will be effective achievement of potential output, with adequate accompanying labour market policies and other measures to facilitate adjustment to change. Steady economic growth would also make possible significant improvements in standards for low-income groups, and provide rising margins of income and resources over time for further advances towards more comprehensive and adequate services and facilities in the social welfare field.

Nevertheless, we recognize that there will be Canadians who, for various reasons, will be unable to participate in the high employment and income opportunities under conditions of rapid and sustained growth, and whose poverty may become more acute and more obvious in a high-income, high-growth economy. The public must ultimately decide what degree of income redistribution it is prepared to make and what form it should take. But we believe that in an increasingly affluent society there will be growing scope for energetic measures to attack the problems of poverty.

We are impressed by the extensive array of private and public social welfare payments and services which have been established and are available in Canada. At the same time, we believe that over the longer run it will be important to consider remaining gaps—for example, in the field of medical care. At the centre of interest in this latter field is, clearly, care for the aged whose needs are greatest, and care for the poor whose resources are slimmest. More generally, we recognize that medical catastrophe remains an unpredictable threat to the financial security of many families. Other potential areas of need are those of safeguards against loss of wages during prolonged periods of illness, and more effective rehabilitation services for both the physically and socially handicapped. We are well aware that there are many complex questions involved in considering what combination of public and private means may be appropriate to the administration or financing of such advances in social welfare.

Regional Development

In this Review we have focused our attention on the potentials and problems of the economy as a whole. We have not had time for

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thorough study of the regional implications of our aggregative analysis. We emphasize, however, that a broad basis of regional participation in economic growth is essential if we are to attain consistent high standards of economic performance—especially as regards high employment and sustained productivity advances.

One important conclusion affecting regional developments is already indicated in our appraisal of the total economy and of relevant national policies designed to promote high standards of over-all performance for the medium-term future. This is that successful attainment of the basic economic goals would tend to moderate regional weaknesses and problems and provide a highly favourable environment for broad participation in rapid growth by all regions of the country.

During the coming year, we plan to pursue discussions with appropriate provincial and regional authorities and agencies. In this way, we intend to broaden our knowledge and understanding of regional trends and problems so that we may be able to consider how national economic policies can best foster the balanced development of all areas of Canada.

ESSENTIAL CONDITIONS FOR CONTINUING GROWTH

Adjustment to Change and Mobility of Resources

Rapid and sustained growth of productivity and total output does not proceed evenly in all markets and all sectors of the economy, in all industries and firms, in all areas and cities, and in all occupations and skills. It proceeds very unevenly. The prospects of economic growth will not automatically mean good news to all organizations, institutions and individuals. Progress produces casualties—the carriage makers and the blacksmiths, the manufacturers of steam locomotives and the firemen on diesel engines, the displacement of certain skills by machines, and the displacement of existing machines by better machines. Economic growth necessarily implies the expansion of some activities and the withering of others, the emergence of new products and the extinction of others, growing requirements for some skills and declines for others, the development of new knowledge and better techniques and the obsolescence and upsetting of traditional and established know-how and methods. Moreover, the swifter the pace of growth, the swifter and the more uneven will be these processes of change. Conversely, where there is little or no change there will be little or no growth.

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When sudden, severe and inequitable burdens—both economic and social—fall on individual workers and firms, and on particular communities, it is natural to expect strong pressures aimed at slowing down, or even halting, the processes of change. Governments are urged and tempted to subsidize and support declining and relatively less efficient industries. Employers are tempted to seek increased shelter behind trade restrictions or in the form of restrictive trade practices. Labour unions are tempted to exert strong pressures to cling to old working rules. Obviously, if such defensive and negative approaches prevail, both change and growth will be curtailed.

In recent years, increasing attention has been given to an alternative approach to the problems created by rapid change—that of facilitating adjustment from declining to expanding activities, and of increasing the mobility and adaptability of resources in the interests of maximizing both their efficient use and their incomes. Such increased mobility of resources, especially of manpower resources, is needed not merely in terms of shifts from locations and sectors of declining activity to those of expanding activity, but even more, in terms of shifts between industries and occupations.

Many complex issues are involved in attempting to facilitate adjustment to change and to promote greater mobility of resources. These concern such matters as the cultivation of new and constructive attitudes towards the benefits to be derived from increased modernization and efficiency; improved adaptability and skills of workers; the avoidance of excessive burdens of adjustment and the working out of equitable methods for sharing the benefits; and appropriate methods for more systematic and informed forward planning for orderly change. Greater co-operation and consultation between management and labour, based on better information and adequate longer range anticipation of impending changes, could in our judgment make an important contribution to such orderly change in the interests of both parties.

Governments have a vital role to play in facilitating smooth adjustment to change, as is reflected in the policies and programmes which have been developed in various countries in this field to assist both labour and business firms. Canada still has inadequate government programmes and facilities to assist and promote adjustment to change—particularly, as we have already emphasized in Chapter Eight, in regard to the carrying out of effective labour market policy. *We place a great deal of emphasis on the need for urgent and prompt improvement in the field of labour market policy.*

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Rapid technological advance and economic change will require a high degree of adaptability over the whole range of skilled and professional manpower. Our educational and training system must both reflect and contribute to rapid adjustments to change which are an essential feature of dynamic industrial growth. In this context, we need greater attention to, and greater resources for, retraining programmes of all kinds—for production workers as well as for professional and managerial personnel. This is an important issue requiring the concern of management and labour, as well as public authorities. Under conditions of dynamic industrial growth in the future, there will be diminishing opportunities for employment for those who have little education and are unskilled. There will undoubtedly also be advancing levels of minimum educational requirements for many occupations and jobs. *It is vitally important that general education and training should be given a very high priority in our economic system.*

International Economic Conditions

Success in achieving our basic economic goals will depend not only on appropriate domestic circumstances and policies, but also on international conditions and developments. Some of these, which are beyond our capacity to shape or control, could impose very severe constraints on the economy's internal achievements.

In this Review we have assumed a continuation of steady and sturdy growth in the world economy to 1970, together with conditions of sustained rapid growth in international trade. A lagging world economy would almost certainly lead to slower growth in Canadian exports, and a widening gap between actual and potential Canadian output could well develop. Moreover, in these circumstances, if Canada were to adopt more expansionary monetary and fiscal policies to enlarge domestic demand, the balance of payments deficit on current account would tend to grow. Without a corresponding increase in the net capital inflow, basic difficulties would tend to emerge in the balance of payments. Such an imbalance would become apparent very quickly under a fixed exchange rate, and some modification in the expansionary policies or in trade or exchange policies would have to be considered if an exchange crisis were to be avoided. Thus, any weakness in the world economy makes the possible conflict between internal and external balance much more acute for Canada.

We have also assumed in our earlier analysis that reasonable stability would be maintained in international prices and costs, especially

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in the United States. Upward pressures in international prices and costs would create real difficulty in maintaining reasonable price stability within Canada.

The degree of internationalization of the Canadian economy has been a source of considerable discussion among Canadians over the course of our history, and has produced recurrent proposals and actions aimed at insulating the economy from external forces, especially from certain economic forces and conditions in the United States. We wish to emphasize that Canada must continue to be highly interdependent with the world economy, and that deliberate policies calculated to create a more insulated and isolated economy will not, and cannot, point the way towards an alternative route to high economic performance in this country. This would be a path towards slower growth, less efficient use of our productive resources and slower advances in living standards. Furthermore, if insulating policies were to be strongly implemented, they would eventually lead to losses of some of the "growth resources" which we can least afford to lose if we wish to be prosperous—perhaps especially, skilled and professional manpower which would be increasingly attracted towards the higher relative living standards in the United States. Canada's continued interdependence with the world economy will in fact help to promote the development of a more mature and advanced, and a more enterprising and forward-looking Canadian economy over the years ahead. Many of the views which we have set forth in this Review are directed towards such an end.

The major responsibility for maintaining general international economic stability at high rates of growth without excessive price pressures must reside with individual national governments, especially those of the United States and Western Europe. It should not be concluded, however, that the governments of small countries have no responsibilities if the world economy encounters problems, although it is clear that their scope for independent action is relatively limited. It is very much in Canada's interests to play an active and constructive role with other countries in discussions in the international organizations on world economic developments, problems and objectives. Discussion of goals, long-term trends, short-term economic conditions, and increased international co-ordination of monetary, fiscal and other economic policies in the world economy are all topics of real importance to a small country like Canada which is heavily dependent on world trade.

Over the past two decades, a variety of important international

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institutions and organizations have been created for the purpose of assuring broad international co-operation directed at the maintenance of conditions favouring sustained growth in the world economy, expanding world trade, the rapid development of the economically less developed countries, and international financial stability. Canada has been an active participant in most of these institutions and organizations. It is of vital importance that we continue to play an active role in them. Considering the necessity for highly favourable international conditions if we are to have reasonable prospects for attaining our domestic economic objectives, our international economic policies should be strongly oriented towards generating and supporting co-operative international initiatives aimed at high growth, expanding and freer world trade under competitive conditions, more rapid economic progress among the less developed countries, relatively free international capital markets, and an adequate basis of international financial liquidity. Fostering of such developments and conditions in the world economy are clearly in the interests of Canada.

John J. Deutsch,
Chairman

Louis Couillard,
Vice-Chairman and Director

Arthur J. R. Smith,
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Roger Charbonneau

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TECHNICAL STUDIES

The following is a list of technical studies which have been prepared as background papers for the *First Annual Review* of the Economic Council of Canada. They are being published separately and are available from the Queen's Printer, Ottawa. Although they are being published under the auspices of the Economic Council, the views expressed in them are those of the authors themselves.

STAFF STUDIES

1. *Population and Labour Force Projections to 1970*, by Frank T. Denton, Yoshiko Kasahara and Sylvia Ostry.
2. *Potential Output, 1946 to 1970*, by B. J. Drabble.
3. *An Analysis of Post-War Unemployment*, by Frank T. Denton and Sylvia Ostry.
4. *Housing Demand to 1970*, by Wolfgang M. Illing.
5. *Business Investment to 1970*, by Derek A. White.
6. *Special Survey of Longer Range Investment Outlook and Planning in Business*, by B. A. Keys.
7. *Canada and World Trade*, by M. G. Clark.
8. *Export Projections to 1970*, by J. R. Downs.
9. *Federal Tax Revenues at Potential Output, 1960 and 1970*, by D. J. Daly.
10. *National Saving at Potential Output to 1970*, by Frank Wildgen.
11. *Changes in Agriculture to 1970*, by John Dawson.

SPECIAL STUDIES

1. *Immigration and Emigration of Professional and Skilled Manpower During the Post-War Period*, by Louis Parai.
2. *A Survey of Labour Market Conditions, Windsor, Ontario, 1964: A Case Study*, by G. R. Horne, W. J. Gillen and R. A. Helling.

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