ECONOMIC COUNCIL OF CANADA

Third Annual Review

Prices, Productivity and Employment

November ★ 1966

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Introduction

WE LIVE in an age of "rising expectations", and the people of Canada have come to expect much from their economy. They expect the kind of economic and social progress which will maintain high employment and generate rapidly rising standards of living in a material way. They also expect the economy to provide growing resources for dealing with social problems and for improving the quality of life. They expect not only to have rapid gains in real incomes, but to have these along with wider choices of job opportunities, improved working conditions, more leisure, greater security from economic hardships, and more adequate means for helping people to adjust to rapidly changing conditions. They expect *steady* advances in real income and wealth, and an avoidance of the setbacks and inequities which in the past have arisen from inflations and prolonged recessions. And they expect that all Canadians should share in the country's social and economic progress. In other words, such progress is not judged to be satisfactory if various segments of the population or regions of the country are left out of the mainstream of the nation's over-all growth and development.

All of these high expectations were encompassed in the goals for the Canadian economy that were set out by Parliament in the terms of reference of the Economic Council of Canada when it was established in 1963. Since the inception of our work we have been concerned with the challenge of how to achieve, simultaneously and consistently, the fundamental economic and social goals essential to the future realization of these expectations. To meet this challenge it is essential to broaden and deepen knowledge and understanding about how our economic system works, and about how it can be made to work better in the future.

Our *First Annual Review* was devoted to a clarification of fundamental goals in the sense of outlining what the economy could be expected to achieve in the period to 1970, given a generally favourable international environment, together with public and private policies which would be more effectively and consistently shaped in the future than in the past towards the attainment of high standards of performance of the Canadian economy.

Our *Second Annual Review* probed further into the basic questions of how Canada's economic progress could be made stronger, more stable, and more regionally balanced. We have also initiated various other activities designed to develop and enlarge understanding about Canada's problems and policies, in line with our role as an advisory body. Among other things, we have organized Committees of the Council to work in certain fields and have sponsored a number of national conferences. We have also arranged for the preparation and publication of expert studies on a number of important topics, and have engaged in discussions and consultations with groups from business, labour, farm and other sectors of the economy.

In addition, we have been asked by the Government to undertake studies in two basic areas of economic policy, under special terms of reference: one concerns the basic issues involved in the task of maintaining reasonable price stability; the other, which is a very recent reference to the Council, concerns consumer interests and certain aspects of government policies affecting business organization and practices. We report on the former subject in this *Review*. Our work on the latter is just beginning.

This *Third Annual Review* develops and enlarges upon certain central themes of the Council's earlier work. One of these—a theme which runs consistently through the whole range of our work—is the profound bearing which international economic conditions have always had, and will continue to have, on the capacity of the economy to meet the high expectations outlined above. Chapter 2 seeks to provide a longer-term perspective on the external environment within which Canada will have to achieve progress in the years ahead. Particular attention is focused on the growth of world population, output and trade. This is intended not merely to provide useful background for subsequent analysis and conclusions in this *Review*, but also to bring out basic features of longer-term trends in world conditions that need to be taken into account in the formulation of public policies and private decisions.

Chapters 3, 4 and 5 constitute the report of the Council on the special reference made to it by the Government in March 1965. In this reference, the Council was specifically requested to study factors affecting prices, costs, productivity and incomes in the context of sustained economic growth, rising standards of living, and high levels of employment and trade. It was also asked to review the policies and experience of other countries in this field and their relevance for Canada.

From the beginning of our work, we have been much concerned with the inherent difficulty of achieving the goal of reasonable price stability in a Canadian economy which was successfully achieving high employment and rapid growth of output and living standards. Indeed, in the *First Annual Review,* which was prepared at a time when there was still a significant degree of unemployment and slack in the economy, we noted that policies designed to achieve full employment "may be in conflict with the policies needed to avoid inflation". A year ago, in the *Second Annual Review,* with the economy operating closer to its current potential than at any time since 1956, special attention was devoted to price and cost developments in appraising the economy's performance in 1965. We discussed these developments in the context of a growing concern "regarding the possible re-emergence of inflationary pressures which may have adverse implications both for equitable distribution of real income and for the competitive position of the economy".

In view of the exceptionally large advances in employment and demand in the latter part of 1965 and early in 1966, price and cost developments would have warranted very special attention in this *Third Annual Review,* even in the absence of the particular reference by the Government to the Council in this field. Accordingly, instead of publishing a separate report on this reference, we have included it as an integral part of this *Review.* This report consists of three parts. Chapter 3 sets out the basic issues and policy problems of this inquiry. The fundamental challenge is that of reconciling reasonable price stability with high employment and other basic economic goals. Chapter 4 provides a summary of the results of the basic analytical and statistical studies which we undertook in this field. Chapter 5 sets forth our basic conclusions and policy recommendations.

Under the Council's terms of reference, we are not expected to assess short-term business trends and prospects. However, in relation to our concern with medium- and longer-term potentials and problems, it is appropriate for the Council to examine regularly the progress of the economy towards the achievement of its basic economic and social goals. Thus, Chapter 6 (like Chapter 2 of the *Second Annual Review*) examines the economy's recent performance in relation to the goals of high employment, high growth, reasonable price stability and a viable balance of payments.

Finally, Chapter 7 examines various important aspects of regional economic developments over the first half of the 1960's. The basic approach is to look at these developments in relation to the complex problem, as outlined in the *Second Annual Review*, of reducing the wide and persistent disparities in average incomes and rates of economic development between the provinces of Canada. This Chapter also contains a discussion of the need for improved co-ordination of federal programmes and policies affecting regional economic conditions and developments.

2

Canada and the World Economy

SINCE THE earliest days of settlement, Canada's economic development has been profoundly influenced by external economic conditions and forces. Many strands have linked the Canadian economy to the world economy—trade and investment, migration and travel, growing organizational links in business, labour, agriculture and the professions, intergovernmental consultations and Canadian membership in international institutions, international flows of knowledge and technology, world-shrinking improvements in transportation and communications, and many less-obvious external connections. The country has today, and will continue to have into the future, an economy which is strongly influenced by changes in the international economic environment. Consequently, a better understanding of the basic trends in the world economy is vitally important to the development of appropriate Canadian policies for the future. The purpose of this Chapter is to examine in very broad perspective some of the current and prospective developments in the world around us, which have far-reaching implications for Canada. Among the developments which are explored here are the continuation of a very high rate of world population growth, the potentialities for world economic growth and development, and the possibilities for a large expansion of world trade.

At the outset, it should be emphasized that in the longer historical perspective of the past century or so, international conditions have been unusually favourable for Canadian growth in the two decades since the Second World War. Following the relaxation of wartime controls and the swift recovery and adjustment of war-torn countries to more normal peacetime conditions, a new and more dynamic world economic system has emerged. High rates of economic growth, closely linked to the movement towards freer trade and closer international economic co-operation, have provided an environment in which Canada's growth potentialities have been enlarged and strengthened. Not since the period prior to the First World War have general international conditions been so strongly and persistently favourable to Canada's economic growth and development.

The industrially advanced countries have generally experienced strong and relatively steady growth, even after the initial upsurge of postwar recovery. The high level of recent growth rates in relation to historical experience is indicated in Table 2-1.

The Organization for Economic Co-operation and Development (OECD) which embraces most of the world's industrially advanced countries, has set a target for the growth of combined real output of its members of 50 per cent for the decade of the 1960's.[1] In terms of U.S. dollars, this implies a rise in the total output of these countries from a total of about one trillion dollars in 1960 to about one and a half trillion (in 1960 dollars) in 1970; it also implies an average annual rate of increase in total real output of 4.1 per cent. In fact, the actual growth rate achieved over the first half of the 1960's has been 4.7 per cent.[2]

Even if the growth rates for a number of industrially advanced countries were to be somewhat less rapid in the latter half of the 1960's than in the first half—for example, in Canada and the United States which have both been experiencing unsustainably rapid increases in total output in the course of reducing previous economic slack during the first half of the 1960's—the potentials for growth among the industrially advanced countries are expected to continue to be very large. During the latter half of the 1960's all of the industrially advanced countries, without exception, are anticipating rates of growth well in excess of their long-term historical growth performance—not only in terms of the total volume of output but even more so in terms of output per capita. These countries are all

[1] The members of OECD are Austria, Belgium, Canada, Denmark, France, Germany (F.R.), Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

[2] These growth rates exclude Japan which was not a member of the OECD when the target was originally set. Including Japan, the 1960-65 actual annual growth rate of OECD countries was 4.9 per cent.

TABLE 2-1—ESTIMATED GROWTH OF REAL GROSS NATIONAL PRODUCT AND REAL GROSS NATIONAL PRODUCT PER CAPITA

(Average annual percentage changes)

	GNP			GNP Per Capita		
Country[1]	Long-Term[2]	1955–65	1965–70	Long-Term	1955–65	1965–70
Japan	3.9	9.6	7.5	2.7	8.6	6.7
United States	3.6	3.4	4.5	1.9	1.8	3.1
Canada	**3.5**	**4.4**	**5.2**[3]	**1.8**	**2.1**	**3.1**[3]
Denmark	2.9	4.8	4.4[4]	1.9	4.1	3.6[4]
Germany (F.R.)	2.8	5.6	3.5	1.8	4.3	2.8
Sweden	2.8	4.4	4.3	2.1	3.7	3.6
Switzerland	2.6	4.6	3.7	1.7	2.7	n.a
Norway	2.6	4.2	4.8	1.8	3.4	4.1
Netherlands	2.4	4.5	4.5	1.1	3.2	3.4
Belgium	2.1	3.5	4.0	1.5	2.8	3.5
United Kingdom	2.0	3.1	4.1	1.2	2.4	3.3
Italy	2.0	5.3	5.0	1.3	4.7	4.4
France	1.7	4.9	4.8	1.5	3.6	3.8
Austria	n.a	4.8	3.8	n.a	4.4	3.2

n.a. Not available.

[1] Adjusted for territorial changes.

[2] Mainly 1870 or 1871 to 1964; Japan from 1879; Switzerland from 1895.

[3] Based on *Second Annual Review* of Economic Council of Canada; revised population projections and calculations of growth potentialities to 1970 and beyond are being prepared for the Council's *Fourth Annual Review* in 1967.

[4] 1965–69.

SOURCE: Based on studies of A. Maddison of the OECD (Development Centre), data published by OECD, and estimates by Economic Council of Canada.

counting on continued strong productivity gains to act as a powerful engine to promote expanding real income, markets and standards of living.

The rate of growth in world trade has been even faster than the rate of growth of world output over the past decade. There appears to be a close association between the high rates growth of output and trade, not only for the world as a whole but also for national economies. Over the post-war period, the highest rates of growth of both exports and imports have been recorded by those countries experiencing the highest rates of growth of real output and productivity.

While the growth in output and trade has been most rapid among the more industrially advanced nations, population growth has been most rapid among the less-developed countries. Population growth in these countries, which has accelerated sharply, has in fact been a drag on the development of higher living standards in many of them. For this and other reasons, most of the low-income countries have not shared adequately in the post-war upsurge in world output and income. This disturbing fact exists in the face of great efforts in many of these countries to promote rapid and sturdy economic development, and despite the favourable international background of strong and sustained growth in the more industrially advanced nations.

Although it is clear that today's high-income countries will have the preponderant share of over-all world output, income, markets and trade in the next decade, the effectiveness of development policies in raising incomes in today's low-income countries will greatly influence the international environment in the years ahead, including the scope of future international trading opportunities both for the more industrially advanced and for the developing countries.

POPULATION TRENDS

The population of the world is growing at an accelerating rate. It is estimated to have reached 3.3 billion persons in 1965, compared with 2.3 billion in 1940, 1.8 billion in 1920, and 1.6 billion in 1900. It has been estimated that if recent population trends were to continue, world population would more than double by the end of this century—growing more than twice as much in absolute numbers over the last third of the twentieth century as it has grown over the first two thirds. The most rapid population growth is taking place, and will continue to take place, among the less-developed countries. Moreover, very large population increases will continue to occur among such countries for several decades due to rapidly declining mortality rates and the persistently high fertility rates in most of these countries through recent decades. Even a speedy and substantial reduction in fertility rates, while it would slow population growth in these areas before the end of this century, could not prevent further very rapid population growth among the developing countries over the medium-term future. Indeed, the population explosion among these countries is so strong that it is not inconceivable that by 1980—that is, in only 14 years—the population of such countries could be roughly as large as the entire world population in existence today. These developments have far-reaching implications, particularly as regards the vast expansion of food supplies required to avert famine and starvation, and the productivity-inhibiting burdens which rapidly intensifying population pressure could well tend to impose on some of the developing countries.

Population Growth and Birth Rates

Since the beginning of the nineteenth century, the growth of the population of the world has been accelerating. During the nineteenth century the growth rate was about 0.5 per cent per year. It almost doubled to a rate of close to 1 per cent per year in the first half of the present century. Since the end of the Second World War, it has almost doubled again to a rate of close to 2 per cent per year (Table 2-2).

TABLE 2-2—RATES OF POPULATION GROWTH IN MAJOR REGIONS OF THE WORLD

(Average annual percentage changes)

	1650–1800	1800–50	1850–1900	1900–30	1930–40	1940–50	1950–60	1960–63
World	0.3	0.5	0.6	0.8	1.0	0.9	1.7	1.9
Canada and United States	1.2	3.1	2.3	1.7	0.7	1.4	1.8	1.5
Latin America	0.3	1.1	1.3	1.8	1.9	2.3	2.7	2.9
Asia	0.4	0.4	0.4	0.6	1.1	1.1	1.8	1.9
Africa	(1)	0.1	0.5	1.1	1.5	1.5	2.1	2.5
Europe (including U.S.S.R.)	0.4	0.7	0.9	0.8	0.7	−0.1	1.1	1.2
Oceania	(2)	(2)	2.2	1.7	1.0	1.4	2.1	2.3

(1) Slight decline.

(2) No significant change.

SOURCE: Based on data from A. M. Carr-Saunders, *World Population*, (London, 1964), Figure 8; United Nations, *Demographic Yearbook, 1964*, (New York, 1965), Table 2.

The United Nations has made world population projections to the year 2000. The projections based on certain assumptions anticipating some moderation in the recent trends indicate that world population might rise to between 5.3 and 6.8 billion persons, with medium-growth assumptions yielding a figure of approximately 6 billion.

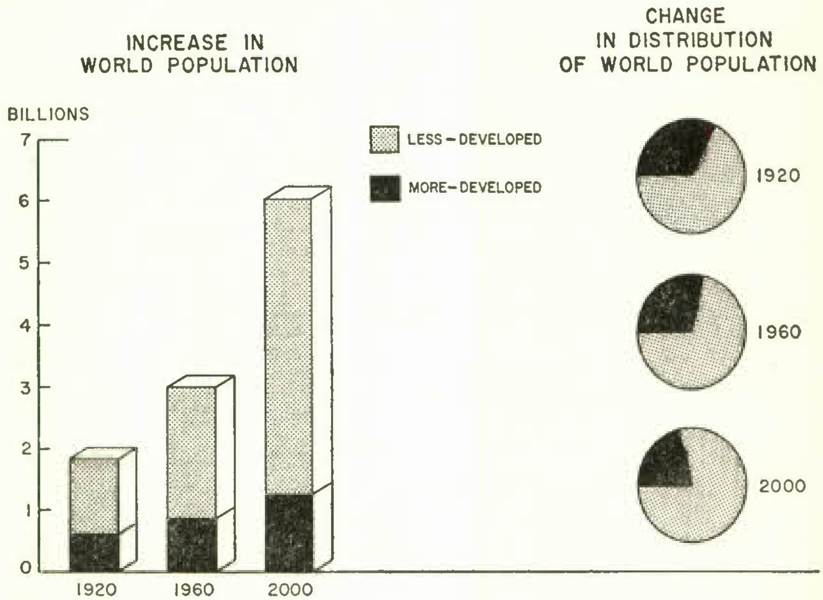
The largest proportion of future population increases will take place in the developing countries of Asia, Africa and Latin America. These countries, which already account for close to three quarters of the total world population, are expected to account for around four fifths of the total by the end of this century.

In the nineteenth century, Europe and the Western Hemisphere had the highest *rates* of population growth; the rate was particularly high

99157—2½

CHART 2-1

WORLD POPULATION 1920, 1960, AND 2000



Source: United Nations, *Provisional Report on World Population Prospects, As Assessed in 1963* (New York, 1964), Tables 5.1 and 5.3. Projection to 2000 is based on medium-growth assumptions. The division between "less developed" and "more developed" countries for all years shown in the Chart is based on current definitions used by the United Nations.

in North America which was receiving a large volume of migration from Europe. In recent years, the highest rates of growth have been occurring in the less-developed countries; and these rates have generally been substantially above those in the European countries during the nineteenth century. Among the important factors accounting for these contrasts are the following:

—Advances in science and medicine are bringing about an extremely sharp decline in mortality rates in the developing countries. This decline is far swifter than that which occurred in the earlier experience of today's industrially advanced countries.

—Birth rates have been tending to remain at very high levels in the developing countries, in contrast with the declining birth rates in Europe and North America in the latter part of the nineteenth century.

—Large-scale emigration from Europe during the nineteenth and early twentieth centuries to the Western Hemisphere and other parts of the world tended to reduce population growth pressures in Europe. Mass emigration cannot generally be considered a solution to the strong population growth pressures which are so evident in today's developing countries.

Mortality rates in Asia, Africa and Latin America have been approximately cut in half within the last two decades. Yet, as indicated in Table 2-3, mortality rates for these countries are still roughly twice those of the more industrially advanced continents.

TABLE 2-3—BIRTHS AND DEATHS PER 1,000 POPULATION, AND POPULATION GROWTH, IN MAJOR REGIONS OF THE WORLD, 1958-63

	Births	Deaths	Population Growth[1]
	(Annual average, per 1,000)		(Annual per cent growth)
Europe (excluding U.S.S.R.)	19	10	0.9
Canada and United States	24	9	1.6
U.S.S.R.	24	7	1.6
World	34	16	1.8
Asia	38	20	1.8
Oceania	27	11	2.1
Africa	46	23	2.3
Latin America	40	14	2.7

[1] Population growth reflects net immigration.

SOURCE: United Nations, *Demographic Yearbook, 1964* (New York, 1965), Table 2.

Differences in birth rates now represent one of the most obvious characteristics distinguishing the more-developed from the less-developed countries of the world. Birth rates in the former group of countries are now generally around 20 per thousand persons, while they are generally above 30 per thousand persons in the latter group. The birth rates in the major industrialized countries have undergone a long-term decline. In the 1860's and 1870's, birth rates among these countries were generally between 30 and 40 per thousand persons; by the early 1960's, most of them had been cut in half. The longer-term trends are illustrated for various industrially advanced countries in Table 2-4 and Chart 2-2.

An interesting feature of the longer-term birth rate changes is the large rise in birth rates in Canada and the United States in the latter part of the 1940's and the 1950's shown in Chart 2-2. More recently, however, birth rates have been declining steeply in both countries. In fact, even the total number of births has declined recently. Over the

TABLE 2-4—LONG-TERM TRENDS IN BIRTHS PER 1,000 POPULATION, SELECTED COUNTRIES

(Annual averages)

	1861–80	1910–14	1925–29	1935–39	1951–55	1960	1964
Canada	**23.8**[1]	**31.1**	**24.5**	**20.4**	**28.0**	**26.8**	**23.8**
United States	41.0	29.8	23.2	18.8	25.1	23.7	21.2
England and Wales	35.3	24.2	17.1	14.9	15.3	17.2	18.4
France	25.8	18.8	18.5	14.9	19.1	17.9	18.1
Sweden	31.0	23.7	16.3	14.5	15.2	13.7	16.0
Germany (F.R.)	38.2	28.2	19.7	19.4	16.0	17.2	n.a.
Italy	36.9	31.6	27.2	23.2	18.1	18.3	20.0
Japan	n.a.	n.a.	34.0	29.2	22.0	17.2	17.7

n.a. Not available.

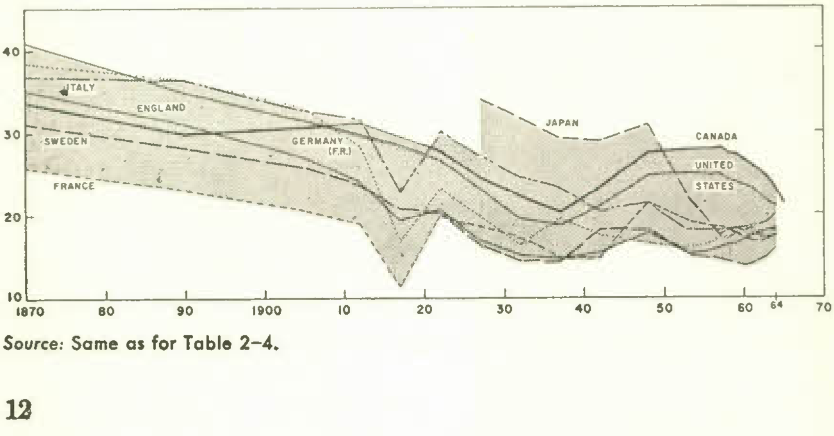
[1]1867–80.

SOURCE: *Historical Statistics of Canada*, M. C. Urquhart and K. A. H. Buckley, eds. (Toronto, 1965). United Nations, *Demographic Yearbook* (various annual issues). O. J. Firestone, *Canada's Economic Development 1867-1953* (London, 1958). Dominion Bureau of Statistics, *Vital Statistics* (Catalogue No. 84-001, December 1965). France, *Statistique générale de la France*, Paris, Imprimerie Nationale, 1907; Institut international de statistique, *Annuaire international de statistique*, The Hague, 1917–21; and idem, *Aperçu de la démographique de divers pays du monde*, The Hague, 1923–39 (irregular issues).

next decade, however, the post-war baby boom will create its own family formation boom. This will be particularly pronounced in Canada, with the prospect that the total number of births will increase substantially in the years ahead, even with some further decline in fertility rates. Canadian and U.S. birth rates now appear to be very close to those prevailing in various European countries, after many years of substantial divergence between the two continents.

CHART 2-2

LONG-TERM TRENDS IN BIRTHS PER 1,000 POPULATION, SELECTED COUNTRIES
(ANNUAL AVERAGES)



Source: Same as for Table 2-4.

It is generally agreed that birth rates will remain relatively low in the industrial countries in the foreseeable future. There is less agreement about the possible future trends of birth rates in the developing countries. New methods for reducing fertility could become a significant factor affecting birth rates; but their effects will depend on the willingness of people to use them and on the extent to which birth control programmes are adopted and supported by public policies. Also, complex sociological and other changes, which have historically played an important role in reducing the average size of families in the process of evolution of the more industrialized and urbanized societies of today, could well play a role in the future patterns of population changes in the less-developed countries.

Even if birth rates were to decline significantly in the developing countries in the near-term future, however, rapid population expansion would continue for an extended period. One of the major features of the sharp reduction in mortality rates has been the particularly large declines in infant mortality. Over at least the next few decades there will accordingly be a very large rise in the numbers of women of child-bearing age in the developing countries. Acceleration of population growth in these countries would therefore still be consistent with declining fertility rates (and as yet there is no clear evidence to suggest that significant declines are generally under way). Barring some cataclysmic human disaster, such as mass starvation or war, we can expect that there will continue to be a population explosion in the developing nations over the next few decades.

Population Growth and Living Standards

Several critically important areas of needs are obvious for the developing countries. These include: massive increases in primary food production to feed rapidly growing populations even at relatively low average standards of nourishment; greatly enlarged capital investment to achieve rising productivity; enormously increased educational efforts to sustain and improve the relatively low levels of labour quality and skills; improved information, technology and organization of production to maximize the efficiency with which very scarce capital, skills and other resources can be combined to achieve effective advances in productivity and living standards.

One of the most urgent implications of the accelerated population growth in the developing countries concerns potentially serious food shortages. Per capita food production has not increased since the late

1950's for the world as a whole, and in some areas—the Far East, the Near East and Africa—it has actually declined somewhat over the past few years. Moreover, the large surplus stocks of food which existed in various products half a decade ago have now virtually disappeared as a result both of higher international commercial demands for many food products and of substantial noncommercial shipments from food-surplus to food-deficit countries. Many of the less-developed countries do not produce sufficient food for even their minimum needs. Many of them also suffer from inefficient and inadequate facilities and methods for distributing food which is produced. The adequacy of future supplies of food for an accelerating growth of world population has therefore become the subject of increasing concern as a major world problem. The Food and Agriculture Organization in its recent publication "The State of Food and Agriculture, 1965", stated:

> Merely to keep pace with the expected population increase without any improvement in diets would require total food supplies to be almost doubled by the year 2000, but present dietary levels in the developing countries are so inadequate that actual needs are far greater than this. Of the present world population, 10 to 15 per cent are undernourished and up to half suffer from some degree of hunger or malnutrition or both, according to FAO's Third World Food Survey. The survey sets targets for nutritional improvements which would involve increasing total food supplies in the developing countries to four times the recent level, and their supplies of animal products to six times this level by the turn of the century.

These food shortage problems could be greatly further intensified by the large potentialities for increased per capita food consumption throughout the less-developed nations as average real incomes rise with successful progress in economic development. They could also be further intensified by the future evolution of increasingly industrialized and urbanized economic systems—especially in view of the possible emergence of extraordinarily large urban agglomerations—unless very high rates of growth of agricultural productivity are achieved and maintained.

Another important implication is that the less-developed countries will require increasing assistance from industrially advanced nations to achieve an adequate growth of investment. This will be true even with improved technology and managerial competence, and reasonable success in increasing domestic savings and enlarging investment capacity. Accordingly, the world may well be entering a period of intensified pressure of demands for capital resources in relation both to savings and to supplies of real investment resources. With high demands for capital also a dominant feature of strong economic growth among the industrially advanced countries, these developments are having far-reaching effects on both the cost and availability of capital on a world-wide basis. They also pose hard questions about the distribution and transfer of capital and real resources throughout the world economy.

OUTPUT, PRODUCTIVITY AND TRADE

As indicated earlier, the medium-term economic growth potentials among the developed countries, especially as measured by output or income per capita, are high relative to longer-term historical performance. Outside of North America, most of these countries have slowly growing labour forces. A few even anticipate some decline in the total number of man-hours worked over the next few years, as slight increases in the numbers of workers may be more than offset by a moderately declining trend in the average number of hours on the job by each worker. Strong productivity gains—that is, strong advances in output per employed person or per man-hour—constitute the basic element in anticipated future growth of virtually all of these countries (Table 2-5). This implies a considerably more rapid advance in average living standards than has occurred in the longer historical perspective.

A further important feature of prospective growth is that it is expected to be relatively more smooth and more stable than in earlier periods. Short-term business cycles have not been a prominent feature of post-war economic developments in most industrial nations. Even in North America where they are most clearly identifiable, they have been relatively mild—in particular, business recessions have been remarkably short and shallow by longer-term historical standards. Confidence has grown in recent years that severe business cycles will continue to be less likely among the industrial countries in the foreseeable future.

Basic Historical Trends in the Growth of Output and Productivity in the Industrially Advanced Countries

Over the past century the changes which have taken place in the industrial countries can only be described as sweeping. Accelerating technological change has revolutionized methods of production and

TABLE 2-5—GROWTH OF PRODUCTIVITY, EMPLOYMENT AND REAL GNP OF INDUSTRIAL COUNTRIES

(Average annual percentage changes)

Growth Rank 1955–65			Productivity (Real GNP per person employed)		Employment		Real GNP	
Productivity	Real GNP	Country	1955–65	1965–70	1955–65	1965–70	1955–65	1965–70
1	1	Japan	8.1	6.1	1.4	1.3	9.6	7.5
2	5	France	4.6	4.1	0.3	0.7	4.9	4.8
3	6	Austria	4.6	4.4	0.2	−0.6	4.8	3.8
4	3	Italy	4.4	4.2	0.9	0.8	5.3	5.0
5	2	Germany (F.R.)	4.3	3.5	1.2	0.0	5.6	3.5
6	11	Norway	3.9	4.0	0.3	0.7	4.2	4.8
7	4	Denmark	3.6	n.a.	1.2	n.a.	4.8	4.4[1]
8	8	Sweden	3.6[2]	3.6	0.8[2]	0.7	4.4	4.3
9	9	Netherlands	3.3	3.3	1.2	1.2	4.5	4.5
10	12	Belgium	3.0	n.a.	0.5	n.a.	3.5	4.0
11	7	Switzerland	2.6	n.a.	2.0	n.a.	4.6	3.7
12	14	United Kingdom	2.6	3.8	0.5	0.3	3.1	4.1
13	13	United States	2.1	2.4	1.3	2.1	3.4	4.5
14	**10**	**Canada**	**2.0**	**2.4**	**2.4**	**2.8**	**4.4**	**5.2**

n.a. Not available.

(1) 1965–69.

(2) Estimated from incomplete data.

SOURCE: Based on data published by OECD and estimates by Economic Council of Canada.

the types of goods and services produced. Increased capital investment and energy consumption have gone hand in hand with both the reduction in manual toil and increasing scale and specialization of output in the form of mass production systems in industry. Rising capital investment has, in turn, gone hand in hand both with a growing capacity to generate high savings through the growth of income in the business and personal sectors of these economies, and with the evolution of new techniques and institutions for mobilizing savings.

There has also been a vast up-grading in the quality of manpower, reflected in the emergence of mass literacy, a widening base of manpower with technical skills, and a high rate of growth of manpower with increasingly advanced professional and managerial qualifications. Greatly extended and strengthened educational systems have, at the same time, provided an indispensable basis for a "knowledge boom". This has been promoted by escalating efforts and resources devoted to the discovery of new information and ideas on the frontiers of existing knowledge, as well as by new media for the dissemination of knowledge. This has been essential to the long-term trend towards rising living standards and productivity. It has been central both to the long-term improvement in the quality of a nation's productive resources and to the increasingly efficient combination of such resources in the process of production and the generation of rising incomes.

Change has been the hall-mark of economic growth and development. Industrialization has been accompanied by profound changes ranging from fundamental changes in the basic economic structure of countries to those in the most minute aspects of economic and social activity. A century ago, agriculture was still the dominating sector in nearly all of today's industrially advanced countries. Indeed, in many of them, agriculture was still the dominating sector only a half century ago or even less. Agriculture and most other primary industries have, however, declined dramatically in relative importance since then. Even more notable, over the long term, has been the decline in the share of the total labour force engaged in agriculture (as well as in such other primary industries as fishing, forestry and mining) in the industrially advanced areas of the world.

On the other hand, nonagricultural goods production has represented an advancing sector of economic activity, though more in terms of an increasing share of total output than of total employment. This has been particularly the case for manufacturing. Since 1870, the volume of manufacturing output has risen more rapidly than real GNP in the industrial countries (Table 2-6).

TABLE 2-6—GROWTH OF VOLUME OF GNP AND OF MANUFACTURING

(Average annual percentage change)

	1870–1964		1955–65	
	GNP	Manufacturing	GNP	Manufacturing
West Europe	2.2	2.9	4.6	5.5
United States	3.6	4.2	3.4	4.1
Canada	**3.5**	**4.7**	**4.4**	**4.2**

SOURCE: Long-term estimates based on data from League of Nations, *Industrialization and Foreign Trade*, 1945, OEEC and OECD data, and studies of A. Maddison.

The share of services in total national output has also tended to rise substantially over the longer term. The rising importance of transportation, communication, financial markets and institutions, as well as business, professional and consumer services, have been closely associated with rising per capita incomes. Retail and wholesale trade have also grown in relative importance with the growth of markets and incomes, changes in distribution methods, and the diversification of production. Most important of all in this sector has been the substantial relative growth in the services provided by governments among the industrial countries. The service sector tends generally to encompass relatively highly labour-intensive activities. Thus, the growth in employment in services has been even more marked than the growth of output (at least on the basis of available measure of output in this sector) among the rapidly industrially advancing countries.

The changes in the United States, Britain and Canada (Table 2-7) illustrate the nature of these broad sectoral changes which have been occurring over the past century in the industrially advancing countries.

There have also, of course, been major structural shifts in the composition of output. For example, in manufacturing, real output of metals, machinery, transport equipment, chemicals and paper has risen most rapidly. Output of food, textiles and tobacco and beverages has generally risen at a slower pace, in the case of some countries

TABLE 2-7—EMPLOYMENT IN AGRICULTURE, MANUFACTURING AND OTHER OCCUPATIONS

(Per cent of total employment)

	United Kingdom[1]			Canada			United States		
	1901	1950	1965	1901	1950	1965	1900	1950	1965
Agriculture	9	4	2	40	21	9	38	13	6
Manufacturing	33	41	38	16	26	26	22	26	25
Other	58	55	60	44	53	65	40	61	69
Total	100	100	100	100	100	100	100	100	100

[1]For Britain, farming, forestry and fishing are included in "agriculture". By 1900, much of the decline in employment in British agriculture had already occurred. In 1850 this group accounted for 22 per cent of the occupied population in Britain.

SOURCE: Based on data from Phyllis Deane and W. A. Cole, *British Economic Growth 1688–1959*, and *Economic Review*, National Institute of Economic and Social Research; *Historical Statistics of Canada*, pp. 59–65, and *Canadian Statistical Review; Historical Statistics of the United States*, pp. 72–74, and *U.S. Statistical Abstract 1965*, pp. 216–220.

more slowly than the rise in real GNP. The changes in products have been so far-reaching over the past century that they cannot be readily described in quantitative terms. There has been an outpouring of new products (cars, planes, plastics, synthetic fibres, prepared foods, electric and electronic goods). A growing proportion of growing demands for materials is being met from synthetic materials of all kinds, which has made industries in this field among the fastest growing in the world. Improved quality of output has also been associated with the emergence of completely new aspects of technology and the supply of related goods and services.

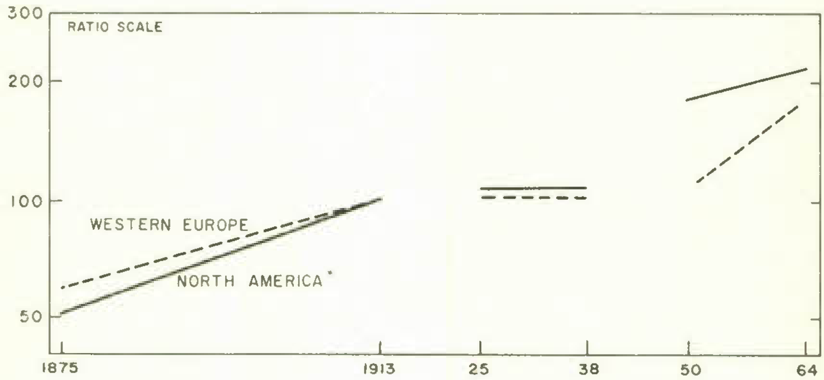
Large-scale net immigration has been a further historical feature of industrial development in some countries, particularly in the United States and Canada, and particularly during periods of exceptionally strong economic expansion. A more persistent phenomenon in all of these countries, though one which has also proceeded in uneven stages, has been very large-scale internal migration, especially from farm to nonfarm areas and occupations. Rapid urbanization has been an integral feature of industrial development, both contributing to and responding to such development.

International migration today differs significantly from the earlier large historical flows to North America. Professionally qualified and technically skilled people account for a high proportion of more recent flows. The attraction of the rich and growing societies for such people intensifies the problems of the less-developed countries in mobilizing the talents they require for their own economic development.

Growth has occurred unevenly between countries over time. The proportion of world output produced in North America over the past century has risen, and the highest levels of per capita output and income have been reached there. Chart 2-3 illustrates the long-term growth trends in output per capita between Europe and North America. Growth in Europe (and Japan) has been especially rapid and well sustained since the end of the Second World War, and a few European countries now appear to have levels of average per capita incomes close to the Canadian average, although all industrial countries still have a long way to go to reach current U. S. levels.

CHART 2-3

INDEXES OF REAL OUTPUT PER CAPITA
NORTH AMERICA AND WESTERN EUROPE
(1913=100)



*Canada and the United States.

Source: Long-term trends based on data from A. Maddison, supplemented by official sources and OECD data.

In the case of the rapidly growing industrially advanced countries, it is reasonable to expect an accentuation in the future of many of the basic historical changes outlined above. The attainment of very high rates of productivity gains in the future will inevitably require large advances in the quality of labour and capital resources, along with adjustments in their deployment involving further major changes in industrial structure, production processes and types of goods and services produced.

Some Problems of Rapid Industrialization and Growth

The long-term record of the growth of material wealth in today's high-income countries has been impressive. But this growth does not proceed without social costs, and it has been tending to throw into sharper focus a growing array of problems and needs relating both to the quality of life and to an appropriate sharing in the fruits of economic progress. Illustrative of the issues which have become the subject of increasing social concern are: the problems of poverty in the midst of affluence; the needs for better access to high standards of health care and to opportunities for maximum educational advancement for all individuals in the society; increased air and water pollution in an age of greatly advanced scientific capabilities for dealing with these problems; increased urban congestion and blight concentrated especially in centres of the highest average income and wealth; and the greatly increased needs for recreational facilities and enlarged cultural opportunities in conditions of reduced working time and increased leisure. In these and other fields, there has emerged an increasing awareness that under conditions of high income and well-sustained economic growth, there are both needs and opportunities for devoting proportionately greater resources to the maintenance and improvement of the quality of life. More generally, there has also emerged a strong conviction that economic growth and development cannot be regarded as satisfactory if the rising output and income which it generates is not widely shared among all groups and parts of a country. A more equitable distribution of rising opportunities, income and wealth has thus become a more prominent objective of modern industrial economies along with other basic economic and social goals.

Economic Growth Among the Less-Developed Countries

Although the economic and social conditions of life are no doubt improving throughout the less-developed world, the rate of progress has for the most part been dishearteningly slow, and large and generally widening disparities in living standards between the less-developed and more industrially advanced nations have long been a dominating and distressing aspect of the world's economic development. Table 2-8 shows levels of output per capita in various parts of the world as of 1958.

Given their very low levels of output per capita, it is not realistic to expect most of the less-developed countries to grow rapidly enough in

TABLE 2-8—OUTPUT PER CAPITA IN VARIOUS WORLD AREAS IN U.S. DOLLARS[1] 1958

	Area Average	Country Range in Area
Africa	119	36 to 538
Canada and United States	2,303	1,715 to 2,361
Latin America	270	85 to 650
East and Southeast Asia[2]	78	50 to 326
Japan	339	
West Europe	908	254 to 1,549

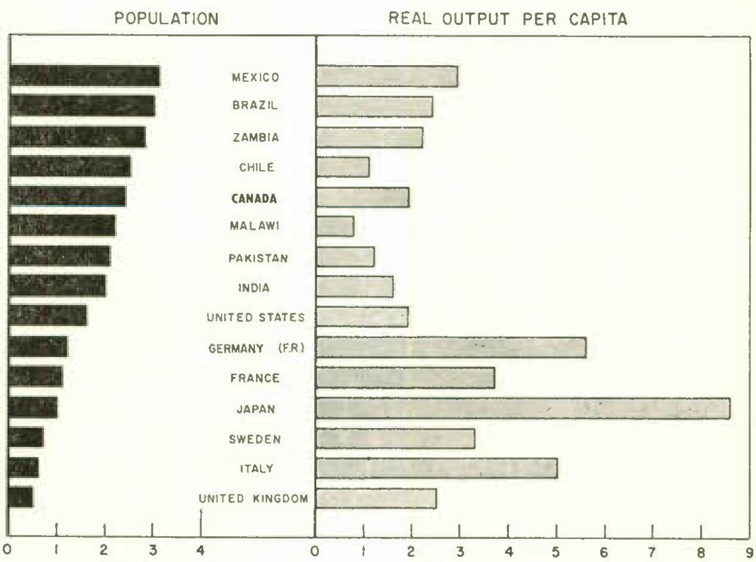
[1]Gross Domestic Product at factor cost, calculated at U.N. parity rates of exchange which make some allowance for the fact that relative money incomes do not reflect differences in relative purchasing power. Excludes Communist countries.

[2]Excludes Japan.

SOURCE: United Nations, *Yearbook of National Accounts Statistics 1965*, Table 9B.

CHART 2-4

GROWTH OF POPULATION AND REAL OUTPUT PER CAPITA, SELECTED COUNTRIES (AVERAGE ANNUAL PERCENTAGE CHANGE 1950-64)



Source: United Nations *Yearbook of National Accounts Statistics 1965*, New York, 1966, pp. 467–473. Population data from OECD and U.N. sources.

the medium-term future to narrow the gap in average living standards between them and the industrially advanced countries. Indeed, a much more rapid growth in per capita output would be required among the former than among the latter group merely to prevent a further substantial widening of this gap in the medium-term future.

Chart 2-4 illustrates the growth of real output of various developed and developing countries for which comparative figures are available. Although some less-developed countries have had high rates of growth of total output, much of this increment has been absorbed by rapidly rising populations. For example, in the post-war period, Brazil's output per head grew just about as rapidly as Britain's, although total Brazilian output grew nearly twice as rapidly as total British output.

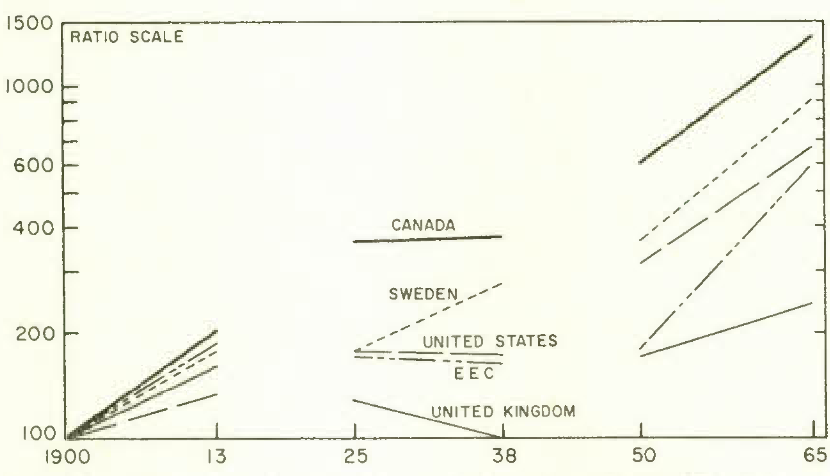
International Trade

The volume of world trade in the post-war period has grown rapidly and steadily. This is in marked contrast with the stagnation in world trade in the period between the First and Second World Wars. The pace of the post-war trade growth has, in fact, been similar to the patterns of trade growth prior to the First World War (Chart 2-5).

CHART 2-5

LONG-TERM GROWTH IN VOLUME OF EXPORTS, SELECTED COUNTRIES

(1900 = 100)



Source: Long-term trends are based on data from studies of A. Maddison, OECD and Economic Council of Canada.

99157—3

Over the very long term, the rate of a country's population growth is related to the rate of growth of its trade. In particular, the high long-term rate of growth of Canada's trade has been linked to its high long-term rate of growth in its population—a growth reflecting both high birth rates and large net immigration (Chart 2-6). Other factors including the nature of its resources and the "openness" of an economy to international competitive forces, also have an important bearing on trade growth. Sweden, for example, has experienced a high long-term rate of growth of trade with a relatively low long-term rate of growth of population.

Historical experience indicates that a relatively free flow of international trade is an important, in fact an essential, ingredient in the high growth process for developed countries. The evidence available indicates clearly that the period before the First World War, when trade was relatively free[1] and world transactions were facilitated by the smooth operation of one preponderant financial centre, was one of high and well-sustained economic growth. The First World War and the inter-war period witnessed the collapse of this commercial and financial system.

The First World War shifted national boundaries, particularly in Europe, and stimulated protectionism based in part on a desire for national security. The League of Nations succeeded in reducing import quota restrictions during the 1920's, but failed to halt successive tariff increases or to implement nondiscrimination in tariff treatment in any effective way. The war had also disrupted the exchange rates of major currencies. The need to repay wartime debts and to make reparations, required that several countries quickly achieve and maintain large export surpluses, an impossible target in a protectionist world. The mechanisms of international adjustment proved incapable of handling "hot money" flows, and of preventing a commercial and financial collapse associated with a disastrous depression in most industrial countries in the 1930's—a depression whose severity was greatly intensified as a result of narrowly nationalistic policies and the general movement towards higher trade barriers.

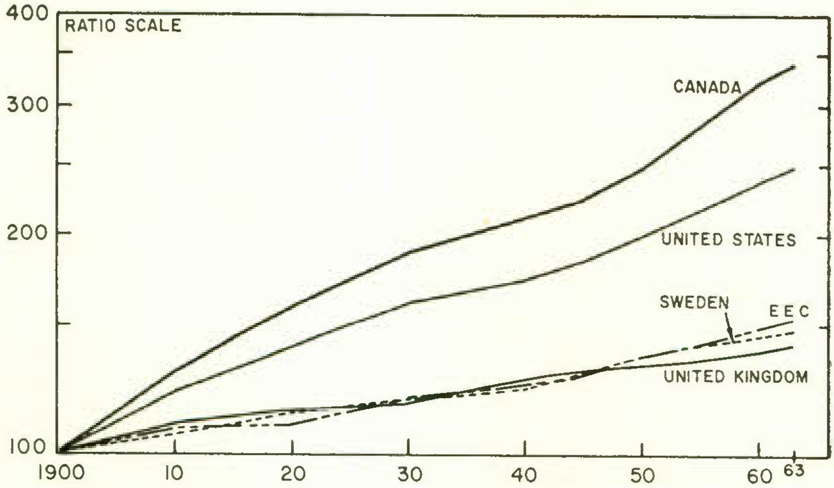
In contrast, the period since the early recovery stages after the Second World War, now approaching two decades in length, has seen

[1] Though a number of countries raised tariffs in this period, levels of protection were moderate in comparison with those reached during the 1920's and 1930's, and Britain remained a free trader until 1914. Rapid advances in the technology of transport and communications were reducing the costs of trading, and providing significant offsets to the rise of tariffs.

CHART 2-6

LONG-TERM TRENDS IN POPULATION GROWTH, SELECTED COUNTRIES

(1900=100)



Source: B. Mueller, *A Statistical Handbook of the North Atlantic Area*, The Twentieth Century Fund New York, 1965 (Table I-2).

a much more rapid and far better sustained rise in output, productivity, and trade among developed countries. Chart 2-7 shows that by and large the countries with more rapid growth of real Gross National Product between 1900 and 1965 have also been the leaders in the growth of export and import volume, a pattern also clearly evident since the Second World War.[1] In the latter period, moreover, the basic association is between the growth of trade and *productivity*, rather than between trade and total output. Many of the industrial countries have achieved high rates of growth of output with a slowly growing supply of labour, in the context of a very rapid rise in both exports and imports.

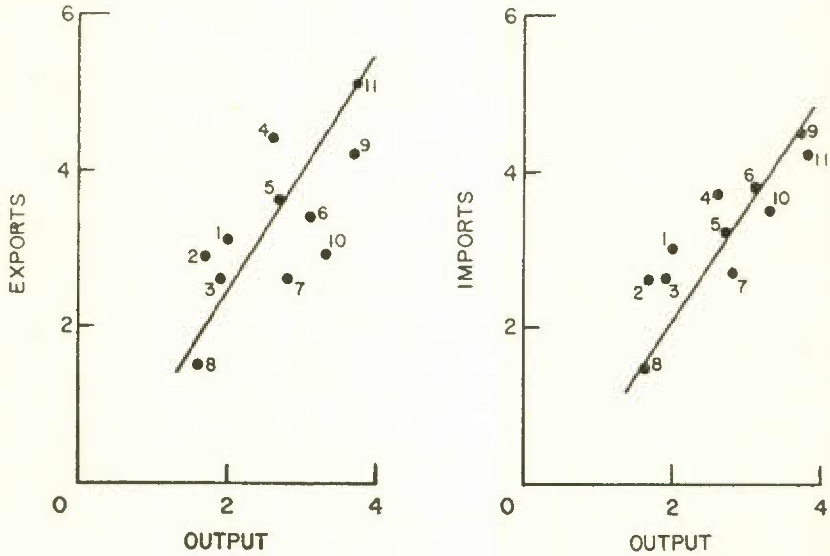
The growth of output and trade over time has also been associated with large net transfers of resources between countries. The massive growth of the North American economies, for example, was accompanied by the migration of millions, and by large transfers of capital resources. Table 2-9 highlights the relative magnitudes of such

[1] Economic Council of Canada, *First Annual Review*, Queen's Printer, Ottawa, 1964, p. 81.

CHART 2-7

GROWTH OF REAL OUTPUT AND VOLUME OF TRADE, 1900-65

(ANNUAL PERCENTAGE CHANGE)



Legend: 1. Belgium; 2. France; 3. Germany (F.R.); 4. Italy; 5. Netherlands; 6. Sweden; 7. Switzerland; 8. United Kingdom; 9. Canada; 10. United States; 11. Japan.

Source: Based on data from studies of A. Maddison; also data from OECD.

transfers over time in three countries—the United States, Britain and Canada.

Around the turn of the century, the United States began to generate a net surplus of trade in goods and services. Britain has long been a net exporter, apart from exceptional periods, but the ratio of Britain's surplus to its GNP has greatly declined over the past few decades. Canada has long been a net importer, apart from exceptional periods such as 1946-49 when net exports reflected special, large-scale financial assistance to Europe. In 1913, the ratio of Canada's current account deficit to GNP was 16 per cent, and in 1965 about 2 per cent.

As noted earlier, less-developed countries have not participated fully in the recent growth of world output and trade. In part, this reflects continued heavy dependence by many of these countries on types of exports for which demand was growing more slowly than total income or output in the industrially advanced world. Also, since the Second World War, the less-developed countries have been forced

TABLE 2-9—CURRENT ACCOUNT BALANCE ON GOODS AND SERVICES AS A PERCENTAGE OF CURRENT GROSS NATIONAL PRODUCT

(Minus sign represents net imports; no sign, net exports)

	United States		Britain	Canada
	(1)	(2)		
1872–1896	−0.5		4.2	−7.6(3) −6.9(4)
1897–1911	1.3		4.0	−10.0(5)
1920–1929	1.6		2.4	−1.7
1930–1939	0.7		−0.9	0.5
1946–1949	3.3	3.4	−1.1	1.8
1950–1959	0.8	1.2	0.8	−2.8
1960–1964	1.0	1.2	0.1	−1.8

(1) Excludes transfers financed by military grants.

(2) Includes transfers financed by military grants.

(3) 1870.

(4) 1890.

(5) 1900-13.

SOURCE: Based on data from M. C. Urquhart and K. A. H. Buckley, eds., *Historical Statistics of Canada*, Toronto, 1965; *Historical Statistics of the United States*, U.S. Department of Commerce, G.P.O., 1960, and *Survey of Current Business*, various issues; P. Deane and W. A. Cole, *British Economic Growth;* and International Monetary Fund data; also unpublished estimates by K. A. H. Buckley. Also O. J. Firestone, *op. cit.*

to ration available foreign exchange to give priority to selected imports, and have generally pursued industrialization policies based largely on the principles of import substitution. Neither their own commercial policies, nor the trade policies of the developed countries, appear to have encouraged the rise of export industries based on clear-cut and effective competitive advantages. What is also striking in more recent developments is that although the increase in total real output among the industrially advanced countries which are members of OECD has been of the order of 25 per cent over the first half of the 1960's, economic aid by these countries to the less-developed countries has remained stagnant and has, in fact, been tending to decline in relation to the combined levels of output or income in the industrially advanced countries.

In the period since the Second World War, the Communist countries generally have not participated in the movement towards freer trade or in the world arrangements for monetary co-operation. Yet trade between Communist and non-Communist countries is of more than marginal importance, and is facilitated at least in part by the widespread convertibility of Western currencies. There is evidence that the Communist states recognize the advantages of increasing commercial trade and may be adjusting towards a clearing system under which more of the reciprocal benefits inherent in the world multilateral pattern of exchanges could be realized. Such a result would also require adaptations of the trade policies of the "Western" countries, though no doubt the changes required would be less far-reaching than those required of the Communist countries themselves.

World trade today is conducted on the basis of a high degree of currency convertibility and an intricate pattern of multilateral flows not unlike that which existed prior to the First World War. The enormous gains made possible through specialization in, and exchange of, goods is closely associated with expanding trade in services, and also with substantial flows of capital and aid to less-developed countries. It is clear that Canada's stake in the continuation and effective evolution of this kind of international trading system is at least as great as, and perhaps even greater than, that of any other country.

SOME IMPLICATIONS FOR CANADA

Despite major dislocations in the world economy caused by war and depression, and despite vast changes in economic, social, institutional and political conditions throughout the world, there is in retrospect a high degree of continuity in the evolution of an increasingly interdependent international economy over the past century. There has been, in particular, a strong and persistent association between the growth of world output and trade. World experience during the past two decades strongly reinforces these conclusions and suggests that growing international economic interdependence can greatly facilitate the attainment and maintenance of high standards of national economic performance.

Measures and institutions designed to increase international co-operation and adjustment have been greatly strengthened since the Second World War, and are still evolving, although major issues remain to be resolved. Multilateral trade negotiations aimed at reducing present trade barriers are now at an advanced stage. The past decade has seen the emergence of regional economic arrangements aimed at creating free trade areas, or even more far-reaching systems of economic integration. Various means for adjusting present international monetary arrangements to sustain a growing volume of trade and other international transactions are under discussion.

New initiatives are being developed in trading relationships between the more-developed and less-developed nations and in various means for assisting a more adequate rate of growth of production and living standards among the less-developed countries.

In the perspective of the decades ahead, it is absolutely essential that the international community persist in efforts to achieve more satisfactory means of international adjustment consistent with high-growth national policies, as well as in efforts to cope effectively with the seemingly intractable problems of raising living standards in the less-developed countries.

The ability of the Canadian economy to provide rising living standards for its people is related in many highly significant ways to the growth of foreign markets for products which can be competitively produced in Canada, as well as to the spur of foreign competition as a factor in rising productivity of domestically oriented Canadian producers. Under conditions of rapidly growing productivity and living standards abroad, increasing international economic interdependence has always provided a very highly favourable environment for promoting Canadian economic progress. In this regard, the outlook for the future continues to have large growth potentials, especially in the case of the United States, Japan and European countries with which Canada has been developing closer economic relations. In this context, Canada has clearly reached a stage in its progress towards economic maturity which warrants a much closer look at the possible contributions which freer trade could make to productivity growth in various sectors of the economy. Increased specialization, leading to increased international marketing, could add significantly to the growth of real income per capita.

Canada's capacity to take full advantage of growing opportunities to participate in world growth, through sustained high growth of exports and imports, depends not only on the growth of, and access to, foreign markets, but also on equally fundamental influences, such as ready access to advanced technology and an adequate supply of capital. Careful attention will be required to these matters, especially in the prospective circumstances of accelerating and spreading advances in science, technology and knowledge in the world and of the possibility of a prolonged, if not intensified, shortage of capital throughout the world. In regard to the crucial factor of rapid technological change, what is required is not only much greater effort in developing and applying new technology in Canada, but also close attention to maximizing ready access to new foreign technology and to minimizing lags in its appropriate adaptation to Canadian opportunities and needs.

The bulk of the growth of trade in nearly all developed countries since the Second World War has occurred in highly manufactured and skill-intensive products. This phenomenon is no doubt interconnected in complex ways with the relatively high rates of growth of productivity in the output of such products over this period. International markets for these products appear to have especially large potentials for future growth and to offer rich rewards to enterprising, competitive, and technologically advanced producers.

The Canadian economy is relatively more heavily oriented to the production of primary and processed industrial materials than most other industrial countries. A significant part of our international comparative advantage will continue to lie in the output of such products, the markets for which will also grow substantially, given the projected high rates of growth for the industrial countries. However, the trend of growth in markets for these products is likely to continue to be lower than that for more highly manufactured products. A highly competitive posture on the part of Canadian producers for primary and processed products, as well as manufactures, will be required if Canada's share of such world markets is to grow. Canada is fortunate in possessing vast resources of wood, which is becoming scarce in most other industrial countries. There is also a very strong basis for the growth of diversified mineral production. Thus a solid foundation exists for an expansion of Canada's share of over-all world trade in both primary and processed products.

For the longer-term future to the end of this century and beyond, the potential for growth of effective demand on the part of the less-developed countries is enormous. It seems certain that in gross terms, the bulk of such demands must be met from a rise of domestic output in these countries themselves. But this by no means precludes a substantial expansion of their trade. Indeed, such an expansion could well be essential for facilitating an adequate rate of growth of output in these countries. From a trade viewpoint, even imports marginal to the over-all requirements of the developing countries for products such as cereals, pulp and paper, and minerals, as well as manufactured items in which Canada might be competitive, could represent huge volumes of the products in question. Although the less-developed countries now account for about two thirds of the world's population outside the Sino-Soviet bloc, they account for only about 8 per cent of Canadian exports, including aid-assisted exports. For this and other important reasons, Canada has a very large interest in assisting the underdeveloped countries to participate more fully in world trade and growth. Indeed, the task of achieving and maintaining satisfactory rates of economic growth among today's low-income countries is undoubtedly one of the greatest economic challenges facing the modern world.

Another development of particular importance to Canada is the failure of food production to keep pace in recent years with expanding population in many less-developed countries, containing a large proportion of the world's total population. Although the proportion of Canada's labour force employed in agriculture has declined rapidly over the post-war period, and now consists of less than 8 per cent of total employment, wheat production and exports still represent an important element in the economy as a whole, and a major economic factor in the Prairie Region. World food surpluses which were accumulated in the latter part of the 1950's have now largely disappeared so that the rapidly expanding needs of the future must henceforth be met out of stepped-up world production, including Canadian production.

At the outset of this Chapter it was emphasized that the evolution of the world economy historically had, and would continue in the future to have, a profound effect on Canada's economic development. Hence it is vital that Canada, in its own longer-term interests, should play an effective role in international initiatives and organizations concerned both with overcoming existing or potential international economic problems and with promoting strong and stable growth of world output and trade. Although Canada is not a powerful nation in the world of today, it is well placed to exert appropriate and constructive initiatives in many situations. A favourable evolution of the world economy, however, will not be sufficient to automatically assure highly beneficial effects for Canada's future economic performance. If Canada is to take full advantage of a favourable international economic environment, appropriate and effective domestic policies are also vital, especially to promote strong and sustained productivity gains and improved international competitiveness of the Canadian economy.

3

Price Stability and High Employment: the Fundamental Challenge

ON MARCH 22, 1965, the Government of Canada requested the Economic Council to launch a broad examination into prices, costs, incomes, and productivity, and their relationship to sustained economic growth. This and the following two Chapters of this *Review* constitute a report to the Government and to the Canadian public on our study of these matters.

A brief note on the organization of the chapters may be of assistance to the reader. The present Chapter identifies and discusses the basic policy problem and some other major issues which we believe to underlie the Government's reference to the Council. Various relevant matters are brought into the discussion, including notably Canada's dependence on foreign trade and the sensitivity of the Canadian economy to developments abroad.

Chapter 4 is largely empirical. It contains a general review and analysis of Canadian post-war experience with respect to prices, costs, productivity and incomes. A number of particular aspects of that experience are given special attention.

Chapter 5 is devoted to the policy implications which we believe to flow from our analysis. Policy approaches adopted in other industrial countries are considered and evaluated from the standpoint of their applicability to Canada. A recommended policy approach for Canada is outlined.

THE GOVERNMENT'S REFERENCE

The text of the Government's request to the Council was as follows:

1. To study factors affecting price determination and the interrelation between movements in prices and costs and levels of productivity and incomes.

2. To report on their relationship to sustained economic growth and to the achievement of high levels of employment and trade and rising standards of living.

3. To review the policies and experiences of other countries in this field and their relevance for Canada.[1]

The fundamental challenge posed by this reference, as we see it, is not merely how to get reasonable stability in the cost of living and the general level of prices in Canada, but how to do so within a framework of other important economic goals. This is not a new problem, nor is it peculiar to Canada. It has arisen during the post-war period in all the major industrial countries of North America and Western Europe, and in Japan.[2] To a very large extent, it reflects the high all-round standards of performance which people nowadays quite rightly demand from their national economies. In a world of "rising expectations" and of improved techniques of economic management, the tendency is to entertain not one but several major economic and social goals, and to set each of them at a level which more often than not implies a distinct improvement over average past performance. As to the nature of the goals, this does not differ much from country to country. The set of goals put forward for Canada in the *First Annual Review* of this Council—full employment, a high rate of economic growth, reasonable stability of prices, a viable balance of external payments, and an equitable distribution of rising incomes—can be taken as representative of most countries, although there are inevitable variations of precision and emphasis.

On the whole, the view that modern industrial economies ought to be capable of high levels of achievement on several fronts at once has been justified to a considerable degree by experience. Taking it all in all, the performance of these economies over the last 15 years has been unquestionably superior to their record during the inter-war

[1] *Hansard*, March 22, 1965, p. 12621.

[2] Further references in these chapters to "major industrial countries" should be taken to mean this group of countries. It is a group very nearly synonymous with the membership of the Organization for Economic Co-operation and Development.

period. Important problems have indeed arisen, but none so far encountered can properly be compared to the mass unemployment and general economic disorganization of the 1930's—or, for that matter, to the economic difficulties faced by many underdeveloped countries today.

There have, nevertheless, been worrisome problems. If economic goals can be mutually reinforcing in some ways, they can also come into conflict with each other, particularly in the short run. The most pervasive and recurrent goal-conflict of modern industrial economies has proved to be that between full employment and reasonable stability of prices (the latter being, in most cases, closely related to the objective of maintaining a viable balance of payments). The post-war employment and price experience of the major countries has varied considerably, but almost without exception they have had difficulty in obtaining as much price stability as they would have liked at times when their general levels of employment were widely thought to be about right—i.e., high but not "overfull". The North American experience has been part of this pattern. Thus, while the average Canadian and U.S. price performance through much of the 1950's and the early 1960's was better than that of most countries and was widely commended for this reason, a good deal of it occurred in a context of slow growth and high unemployment.[1] When output and employment were more buoyant, price rises in North America tended to be more like those experienced in overseas countries where levels of output and employment had been better maintained.

The over-all record has thus been one of greatly improved but by no means unblemished economic performance among the major indus-

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[1] This point was carefully noted in connection with the setting of price goals for Canada in the Economic Council's ***First Annual Review***. The relevant passage may be reiterated in full:

> "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." (***First Annual Review***, p. 105)

trial countries in the post-war period. Much of the improvement can clearly be attributed to better understanding of the broad forces at work within modern economies, and to better use of policies capable of influencing these forces. In particular, there has been a growing appreciation of the importance of total supply and demand within economies, and of the role of the "big levers" of fiscal and monetary policy in affecting these aggregates. It is realized that severe inflation is fundamentally brought about by excessive pressure of total demand for goods and services on the available supply, while heavy unemployment is the result of a large relative deficiency of demand. It is known that the principal remedy for both of these extreme conditions is the operation of fiscal and monetary policy to restrain or stimulate the growth of total demand as the case may be, and bring it back into a proper relationship with the growth of potential output.

TABLE 3-1—CHANGES IN CONSUMER PRICE INDEXES IN VARIOUS COUNTRIES

(Average annual percentage changes)

	1949–51	1951–53	1953–60	1960–63	1963–64	1964–65	2nd Q 1965–2nd Q 1966
Canada	**6.6**	**0.8**	**1.5**	**1.3**	**1.8**	**2.4**	**3.8**
United States	4.4	1.5	1.4	1.2	1.3	1.7	2.7
United Kingdom	5.9	6.2	2.8	3.2	3.6	4.4	3.8
France	13.7	5.1	4.2	4.3	2.6	2.6	3.0
Germany (F.R.)	0.4	0.1	1.6	2.8	1.8	3.6	4.3
Sweden	7.3	4.8	3.1	3.2	3.6	5.3	8.1
Netherlands	10.2	0.0	2.8	2.3	5.6	5.3	7.1
Switzerland	1.3	0.9	1.1	3.2	2.7	3.5	5.2
Japan	3.9	5.9	1.9	6.6	4.1	7.1	5.6

SOURCE: Based on data from Dominion Bureau of Statistics, U.S. Department of Commerce, Organization for Economic Co-operation and Development, and International Monetary Fund.

We restate these basic propositions here, firstly because they are always worth repeating, and secondly because we wish it to be perfectly clear that nothing said subsequently in these chapters is to be taken as invalidating them in any way. Regardless of the nature or size of the problems being experienced by the Canadian economy, they must always be related to what is happening to total supply and demand, and to the setting of the main policy levers. Thus, the correct management of the supply of money in relation to the over-all state of the economy is at all times a matter of central importance. There is no substitute for it, and it remains *par excellence* the classic defence against severe inflation. Similarly, there is no substitute for broad fiscal policy, defined as the management of total government revenues and expenditures with a view to influencing aggregate demand in the economy. There are no other policies which can take the place of a well co-ordinated use of these two instruments; their proper setting is always of basic significance. We shall, in due course, be advocating certain *complementary* policies, but these are to be seen as allies and auxiliaries rather than substitutes.

Let us return to the specific problem, so widespread in the post-war period, of reconciling high employment with reasonable price stability. Why has it been so common? Why has it apparently not been fully amenable to even the best use of fiscal and monetary policies? To ask this is not, of course, to imply that the use of fiscal and monetary policies against inflation has been optimal through the piece. Particularly in the early post-war period, and again at the onset of the Korean War, when relatively severe outbreaks of inflation took place, the big levers were not generally used with all the vigour that the situation warranted. Subsequently, too, there have been cases of inadequate response by monetary and fiscal policy to seriously overstrained economies—cases where a more stringent restraint of demand growth would have produced better price performance without any important sacrifice of employment and growth goals.

But looking generally at what has happened since Korea, over a period of 15 years during which the main "problem area" for consumer prices in the industrial countries has lain within a zone of roughly 1½ to 5½ per cent increase per annum, with occasional spurts to 6 per cent or higher, it seems clear that monetary and fiscal management cannot reasonably be asked to shoulder the whole blame. Some quite considerable price increases have occurred in economies which were running well below full employment and growing potential output. A problem of conflict between policy objectives has unmistakably emerged.

The problem must be seen in its real-life setting of economic fluctuations and uncertainty. When inflationary symptoms are somewhat milder than they typically were in the late 1940's and early 1950's, and above all when they are less general through the economy, the authorities' task of diagnosis and prescription can be very hard. This is particularly likely to be the case if a disturbing degree of price rise has developed while the economy has still some way to go before reaching its path of growing potential output, or again if substantial price increases have persisted into a slack period when the economy is falling away from its potential. In these circumstances, contending diagnoses will jostle for attention. Some will argue that particular or general excesses of demand in relation to supply are the main cause of the price rises, while others will stress the importance of cost-push factors such as the unwonted exercise of market power by big labour or big business or both. Much debating energy may be expended on the question of whether the economy as a whole can properly be said to have reached a state of inflation.

Underlying the confusions, the semantic wrangles, and the conflicting political pressures of such a situation may be an entirely genuine dilemma of economic policy. What many of those who insist on the use of the word "inflation" may really be saying is that the time has come to escalate the countermeasures—to employ, or to employ more vigorously, the main levers of fiscal and monetary policy to restrain total demand growth and so damp down price rises. And indeed, it is highly likely that a sufficiently restrictive application of these levers will have some dampening effect on price increases. But there will be other effects as well, and under the conditions described they will be a much more serious matter for concern than they need be under conditions of severe and generalized inflation. Supposing that the economy still has considerable slack in many of its regions and sectors, what will be the nonprice consequences of various possible degrees of demand restraint? How much employment and output ought to be sacrificed in return for what likely slowdown in price rise? How predictable are these effects? The question of timing may be crucial, since the action of fiscal and monetary policy is subject to time lags. What risk is there that the main weight of restraining action may be felt after demand pressures have passed their peak and the economy is sliding away from its potential? The position of policy-makers, subject to perplexities such as these and usually to other constraints as well, is not an enviable one. They must sometimes feel as though called upon to execute a wooden sculpture of some delicacy with an axe (which may also have a broken handle). Understandably, they have tended to seek additional instruments and policy options for dealing with their dilemmas.

These dilemmas are apt to be all the greater in Canada because of the strong and persistent regional disparities which characterize the economy. During an economic expansion, the typical pattern is for considerable inflationary pressure to develop in some regions or large parts of them (notably from Montreal westward) while elsewhere there is still substantial slack and unemployment. There are few countries where there is a greater need than in Canada for specific regional policies and for additional instruments which are capable of being applied on a differentiated basis from area to area.

The problem with which we are concerned here is not primarily that of the severer varieties of inflation. They are a dangerous class of phenomena, to which Canada is by no means necessarily immune; but the principal effective treatments are well known, and little more need be said about them. It is on the more partial and equivocal kinds of inflationary situation—on the kinds which can pose a real problem of conflict between policy objectives—that we have judged it most useful to concentrate our study. Here, there is much less certainty and agreement. Many countries have grappled with the problem; none as yet appears to have arrived at a definitive solution. We have not ourselves any magic cure or simple formula to propose, but only a combination of tried and new approaches, shaped as far as possible to what seem to be the significant peculiarities of the Canadian economy. Followed with energy, reasonable foresight, and consistency, in a favourable climate of public understanding, these approaches should be capable of progressively diminishing the problem. But spectacular, overnight results should not be expected of them. Particularly in such a field as price and cost behaviour, the sequence of premature expectations followed by disappointment and cynicism is especially to be avoided. Not only may it worsen the underlying situation; it may also lead to an unjustified early abandonment of the kind of sustained effort that is most likely to produce real improvement.

Fundamental to any consideration of the basic demand and supply conditions which may generate inflationary pressures, and of the operation of monetary and fiscal policies affecting such conditions, is the crucial importance of external economic influences. International economic developments have a powerful, and sometimes overwhelming, influence on Canadian economic developments. If the external environment is unfavourable, especially as regards the U.S. economy, there are substantial restraints on what Canada can do to moderate

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the impact on such unfavourable conditions. This is an important and recurrent theme over the next three Chapters.

The Process of Partial Inflation

How does it come about that an economy, expanding towards its potential growth path but with much unemployed manpower and other resources still to be taken up, generates an undesirable rate of increase in its general price level? This is probably one of the least settled questions in all economics—a subject of intense research and theoretical debate. Yet an interim view must be taken here, in order to give coherence to the ensuing discussion. The following outline must be understood to be drastically simplified. It should also be taken as reflecting a North American type of environment, with a characteristic structure of business and labour market organizations, and with a pattern of expectations that has been influenced by a post-war history of wider fluctuations in economic activity than have prevailed in many overseas countries. Finally, a key simplifying assumption is that the "set" of monetary and fiscal policies is such as to allow the economy to rise steadily towards full potential output.

In this type of environment, it is not to be expected that the economy will, as it were, wake up suddenly one morning and discover that it has inflation. Still less is it to be expected that the pattern of fairly generalized price rise which may ultimately develop can be largely blamed on "labour", or "management", or "farmers", or any one particular group. In the great majority of cases, inflation is not a unique phenomenon which is suddenly reached at a particular time or place. It is a spreading and evolving process, which in Canada has tended to be closely associated with the growth of total demand during the expansion phase (particularly the later expansion phase) of the short-term business cycle. By the time it has become sufficiently acute and generalized to attract widespread public concern, the "responsibility" for it is likely to be rather broadly diffused through the community and its institutions.

Just as the bumping of different segments of the economy against short-term supply ceilings is likely to be scattered through nearly the whole life of the business expansion, so the process of price rise is apt to be piecemeal and gradual, though with a noticeable broadening out and speeding up as full potential output is approached. The speed with which the economy as a whole approaches its potential growth path will of course substantially affect the rapidity with which price rises appear. Supposing that the starting point is one of considerable slack, there will probably, nevertheless, be some low-grade advance in the general price level already under way, emanating notably from the service sector. Elsewhere, some prices will be falling, but for many products the downward rigidity of final prices that has come to be regarded as a major characteristic of imperfectly competitive modern economies will be evident.

As expansion of output proceeds, scattered bottlenecks and shortages—pockets of excess demand—will begin to appear. Some will be of short duration, but immobilities and imperfections in the system will prevent others from being relieved so quickly, despite the pool of unemployed resources. The resulting pressures will lead directly to some increases in prices to final consumers, but more often—especially at this early stage—to price and wage reactions in the markets for raw materials, skilled labour, and capital equipment. The conversion of these sporadic pressures into an effective upward cost-push on final prices will tend to be prevented or delayed by a number of factors, including the sharp recovery of selling volume and profits, and the somewhat stronger productivity gains that are characteristic of a new expansion. Also, notwithstanding the improved profits picture, markets for most final goods and services will continue to have a relatively competitive appearance. In wholesale and other intermediate markets, even large sellers will be chary of pushing their buyers too hard—for fear, e.g., that some buyers may turn to foreign sources, or "integrate backward" and go into business against their suppliers.

With further expansion of the economy, bottlenecks will become somewhat more numerous and constraints on final price increases will begin to loosen. A point will be reached where construction and other capital investment pick up strongly, giving rise eventually to an important new group of bottlenecks and pressure points. Meanwhile, higher profit levels will make employers less resistant to higher wage demands, and stronger labour market conditions will give unions a firmer base from which to make such demands. One important influence on the size of wage demands will be the rate of increase in consumer prices: analysis done for us points strongly to a feedback effect of this sort.[1]

[1] See the forthcoming volume, G. L. Reuber, R. A. Bodkin, Mrs. E. P. Bond and T. R. Robinson, ***Price Stability and High Employment: the Options for Canadian Economic Policy,*** special study prepared for the Economic Council of Canada.

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Some big business firms and labour unions possessing substantial market power will find themselves in an especially favourable position to gain from the opportunities created by a more buoyant business climate. In general, however, the opportunity must exist before the power can be effectively exercised: where significant price increases or greater-than-average wage gains occur, they will in most cases reflect strong markets as well as strong bargaining positions within markets. Moreover, some of the largest gains will take place outside the main areas of market power, in relatively atomized markets where no individual seller has great influence over price. Among the best examples of this will be markets for certain internationally traded commodities, where relative insensitivity of demand and supply to price movements, plus speculative activity, can make for sharp price reactions to increased demand. Similarly, some kinds of unorganized service and professional workers whose skills are in great demand will experience particularly large wage and salary increases. As further discussion in Chapter 4 will indicate, it is not easy to identify the particular and distinct contribution of market power to the kind of general price rise here being described, especially in an economy highly subject to external influences. That there must be a contribution is suggested by the spreading of price increases and above-average wage increases outward from genuine bottleneck points into areas where pressures are clearly less intense, and by the typical persistence of general price rises beyond peaks of the business cycle into subsequent recessions. But to discern just where the riding of demand pressures ends and the significant exercise of market power begins is difficult to do in most individual cases, and even more so in that of the economy as a whole.

Closely related to the presence of varying degrees of market power is the important role likely to be played by lags and expectations. Some lags of a relatively mechanical nature will be inherent in the system, such as those brought about by long-term collective agreements, which cause current wage levels to be in part a reflection of bargaining conditions some years earlier. But there will also be psychological lags, which in the hitherto comparatively variable North American economic climate can be of special significance. When an economic expansion follows a period of considerable softness, elements of recession thinking may persist for some time among both management and labour, engendering caution, unusually high regard for union and job security, acute consciousness of foreign and domestic competition, doubts that the expansion will last very long, and general wariness of pressing advantage too far. Just as the feeling of pessimism is apt to be overdone, so the reaction when it comes may also be exaggerated. At some stage, when the expansion has acquired a look of robustness and durability, but most likely while there is yet much slack in many parts of the economy, the spirit of boom will return to the air. (Its reappearance in Canada is apt to be very close in time to the main spurt of recovery in capital investment.) This spirit will comprise, not only expansiveness and an enhanced willingness to take risks of all kinds, but also a feeling that after lean years there is catching up to be done. There will be, too, a heightened consciousness of how well some others in the community seem to be doing and a growing interest in maverick price and wage gains in other sectors. Union leaders will be aware that their negotiating performance—their ability to deliver sizeable wage and other benefits—is being more closely and critically scrutinized than usual by their members. Businessmen will tend to feel more justified in endeavouring to recover their past and prospective cost increases via price rises, and will be less concerned over longer-term competitive consequences. This tendency will be all the stronger if profit margins per unit of output have begun to level off or decline, as they generally do in the later stages of expansion. There will be no lack of Cassandras to warn that the economy has fluctuated downward before and may do so again; but this line of argument may be positively counter-productive in so far as it reinforces people in the belief that now is the time to make rightful gains and eliminate nagging discrepancies. Next year may be too late. Even publicly expressed anxieties of inflationary pressures may perversely encourage actions and attitudes likely to worsen the situation.

When, however, "next year" finally comes, and pressures ease, there may again be lags and a slopping over of earlier psychology. Full recognition of how much markets have really softened may be delayed, and misapprehension on this score may be in part responsible for a continued pushing up into prices of previous increases in costs, although once again there will also be lags of a more mechanical nature reflecting such factors as long-term collective agreements and the time required for price and cost changes to be fully transmitted between sectors of the economy. An even greater danger may be a persisting fear of inflation and a desire to lean hard on the waning if still considerable symptoms of past pressures. If this is allowed to have a major influence on policies affecting aggregate demand, it is likely to produce a remarkably poor "trade-off": very little diminution of price increase in return for a relatively substantial dampening of output and employment.

Time lags and different speeds of reaction are of the very essence of the process of price and cost change as it typically occurs in Canada during short-term cycles in business activity. Some prices, like those of raw materials, rise early, but also tend to turn down early—well before total activity reaches its peak. Corporate profit margins in commodity-producing industries follow a similar pattern. The consumer price index, by contrast, tends to lag behind total activity and to go on increasing appreciably for some time after production and employment have begun to level off or decline. The same is true of hourly wage earnings and labour costs per unit of output. Together with movements in productivity and prices, this belatedness of changes in costs helps to make corporate profits a particularly volatile element in the economy. More than that, it contributes to the short-term business cycle itself. For example, the relative stability of costs in the early stages of a business expansion stimulates not only profits but decisions to increase investment spending. Later, however, the appearance of large cost increases and their persistence beyond the peak of business activity exert a restraining influence on profits and investment decisions.

The above has been a summary, preliminary picture of how the rate of increase in the economy's general price level may become undesirably high well before full employment and full potential output are reached. "Cost-push" elements form a significant part of the picture, particularly as regards the timing and triggering of final price increases, but "demand-pull" forces are of basic importance both as a generator of bottlenecks and as a broad conditioning influence on a complex evolution of events. Obviously, this simple, generalized account must in due course be related to the much more varied actual experience of the Canadian economy in the post-war period. Also, certain highly important issues as yet barely touched upon must be gone into further: e.g., the role of productivity growth in restraining price rises and making room for sustained real increases in wages and other incomes, and the crucial interrelations between foreign developments and Canadian price and wage behaviour. Both of these topics are examined in later sections of this Chapter.

The reader must be reminded too that the above picture is in certain ways unbalanced. Its treatment of fiscal and monetary policies is simply to assume that their setting is broadly appropriate. It reveals nothing of the detailed evolution of monetary and financial developments, which in real life are closely interwoven with the other events described. The justification for such a picture is that it is a special-purpose canvas, designed primarily to illustrate certain aspects of a problem. The importance of these aspects will become clearer as the discussion proceeds.

General Price Level Stability

Certain basic issues now require to be given fuller treatment. The first is that of price goals. What is meant by the economic objective of reasonable stability of prices? How, in practical terms, ought it to be interpreted?

Some consideration was given to this question in our *First Annual Review,* in the context of the setting forth of major economic goals for Canada. A good deal of emphasis was there laid upon two points: first, the desirability of maintaining flexibility in the pattern of relative prices, and second, the importance of making proper allowance for the influence on the Canadian price structure of world prices in general and U.S. prices in particular.

The need for flexibility—for not interpreting the goal of reasonable price stability as an across-the-board standstill or a mildly upward lock-step movement—arises from the function of prices as an allocator of resources in the economy. For any one particular price to increase sharply is not necessarily deplorable: it may be signalling the existence of a serious bottleneck or shortage, and if the system is working well the higher price will help to attract needed additional resources into the trouble area. Stability of prices is therefore normally conceived as stability only on average, with room for fluctuations of individual prices within the average. This of course implies that there should be numerous downward movements to offset the upward movements—a condition that is unfortunately not enough satisfied in practice, with one result that too much of the relative adjustment of individual prices has to take place on the up side. While the comparative lack of downward price movements can be significant through a wide range of economic conditions, it is perhaps particularly important as one of the main proximate causes of low-grade residual advances in the general price level during periods of recession and slack.

It is nowadays well recognized that the price system's actual performance as an allocator of resources falls short of the ideal embodied in simple abstract models of the process of perfect competition. (This recognition, it may be added, has long since permeated elementary economics textbooks, where it was never entirely absent, but where today it is so emphasized that the student should be left in little doubt as to what the world is really like in this respect.) That resources can be sticky, that price signals can fail to attract much response, that exercise of market power and various discretionary processes can enter the pricing picture, that institutional and other factors of a quite deep-seated nature can substantially affect the allocative workings of the system—these things are now widely known. With all its lags and imperfections, however, and with its persisting virtues, including the very pragmatic ones of administrative decentralization and semi-automaticity, the price system continues to be the principal resource-allocation mechanism over much the larger part of the Canadian economy. This being the case, it remains highly important to conceive the goal of reasonable price stability in a way that makes full provision for the movement of relative prices and the best possible performance of the allocative function. Indeed, as will be argued, improving the discharge of this function is basically one of the most reliable ways in which greater price stability at high employment can be promoted.

In practice, then, reasonable stability of prices should be taken to mean the minimizing of upward movement in some average or general level of prices, embodied in one or more broadly based indexes. This raises, of course, problems of measurement, which will be discussed in Chapter 4.

It is also appropriate to defer slightly the question of how the play of external influences on the Canadian price level ought to be taken into account in the pursuit of price stability goals. This is best examined in conjunction with the external considerations which form part of the case for price stability as a major Canadian economic objective.

The Case for Reasonable Price Stability

Like the case for peace and tranquillity, that for price stability can be made most quickly and effectively by depicting the opposite situation. The normal tactic of advocacy is therefore to pick an extreme opposite such as violent hyperinflation, against which a very persuasive indictment can be drawn. Here, however, this would take us beyond the range of inflationary phenomena that are mainly being discussed. To make the case against the kind of general price rise that has typically been the problem amongst the major industrial countries during the last 15 years requires rather more explanation, but it too is a strong case.

Twenty years ago, or even more recently, the drawing of a distinction between the evils of large and small inflations would have struck many economists as not only unnecessary but even dangerously misleading, on the grounds that small inflations had a strong inherent tendency to grow into large ones. Support for the view that acceleration is inevitable has diminished, however, in the light of post-war experience. Accelerative tendencies have indeed appeared, and remain a constant potential threat; but to a greater degree than was anticipated they have run into powerful counterforces. One counterforce has no doubt been simply the resolve of people and their elected governments not to let indefinite acceleration happen, plus improved policy tools to make this decision effective. At some stage or other, especially when the balance of payments has gone wrong, an adequate consensus has developed for weighing in with sufficient force to bring acceleration to a halt. An additional and to some extent distinct factor, however, has been the remarkable slowness of many persons and organizations, who could with seeming ease get aboard the inflationary process, to avail themselves of the opportunity. This has probably been in part a reflection of the high cost of "moving out of money into goods", except in an indirect and selective fashion: it can be very expensive to store goods in advance of need, especially when they are perishable, and of course services cannot be stored at all. Whether from this, or faith, or other causes, large numbers of people have refrained from rearranging their affairs in ways which would amount to placing a heavy bet on further inflation and thus helping to accelerate it. This phenomenon has even been detected under much more extreme inflationary conditions than are here being discussed. Peoples' continued use and support of their national currencies have proved unexpectedly durable in the face of dismaying experience. It must be recognized, however, that this may not always be so.

There are, to be sure, many respects in which the objections to smaller and more limited inflations are really dilute versions of those which can be raised to hyperinflation. Thus, smaller inflations do not completely destroy the value of money but do impair its usefulness. Contracts expressed in money terms no longer mean what they say—there is a joker, a deception, or at all events an extra invisible element of guessing and calculation implicit in the transaction. The contract is in dollars, but a dollar at the end of the contract's term will have less purchasing power than it has now. One of the great virtues of money—its power to provide a stable reference point and accounting standard that facilitates the planning and execution of every sort of complex economic transaction stretching far into the future—is in some degree lessened, and society is the loser thereby.

Much the most common cause of resentment against inflation, however, is its impact on the distribution of income and wealth, which is attributable to the fact that some prices and money rates of return are likely to rise much faster than others. Most economic phenomena of any importance, including most economic policy actions, have appreciable distributive effects. Rising unemployment, which characteristically strikes hardest at the least skilled, the least educated, and the poorest paid members of the labour force—those, in short, likely to be laid off first when demand softens—is a phenomenon with a marked distributive effect. Regrettably, the effect is too often mistaken for cause.

The distributive effects brought about by inflation are notable both for their pervasiveness and for their partly hidden character. Many of the victims may take a long time to become fully aware of what is happening to them; their sense of injustice when they find out (and perhaps, too, their determination to seek redress by political or other means) may be all the greater as a consequence. The most likely losers from inflation are to be found among persons and organizations whose incomes are substantially tied up in long-term arrangements fixed in money, and whose net wealth holdings are heavily weighted with fixed-money assets such as bonds. More broadly, any sort of comparative inflexibility of income and wealth is likely to be disadvantageous during a rise in the general price level.

Some of those caught in vulnerable situations will be able to extricate themselves fairly rapidly; others will not. On the whole, the race of inflation is to the swift and the flexible, to the young, and to others relatively free to adjust to changing circumstances. It tends to go against the old, the restricted, and the tied-down. These categories cut across many of the more familiar economic classes, such as wage-earners and profit-earners. For this reason, and also because differently centred inflations have different distributive effects, it is difficult to make a firm judgment, e.g., as to whether inflation basically favours profits at the expense of wages:[1] the differences *within* the groups may well be more significant than the differences between them. Thus, some wage-earners will have the opportunity and the bargaining power to adjust the growth of their incomes quickly to the faster rise in the cost of living, but others will not. Corporations and other profit-making bodies will vary in a somewhat similar manner, partly as a reflection of differences in asset and liability structures. There may, too, be substantial variations within the classes of borrowers and lenders, for while in general inflation is unfavourable to lenders, in practice some lenders at least may find means of protecting themselves, and even possibly of turning the situation to some advantage. Again, it is often a matter of flexibility: a lending institution able and willing to make prompt and substantial changes in the term and other characteristics of its assets and liabilities is apt to make a better adjustment than one which is legally more restricted or is otherwise less adaptable.

Adjustment to inflation is generally easier to the extent that the rapidity of the price rise can be foreseen. If the rise goes on at a fairly steady rate over a number of years, it will be taken increasingly into account in financial markets and in forward planning of all kinds, and more adjustment to it will occur. If on the other hand there are unexpected inflationary outbreaks or speed-ups, they will likely find more unprotected victims.

With even the best of foresight, inflation is likely to result in much inequity and injustice, reflecting the sheer inability of many individuals and groups to protect themselves adequately. The most that such people can usually hope for is that where the injustice is seen to affect a large group, governments may, from time to time, take action to make good at least part of the group's loss of real income.

It has periodically been proposed that such rescue operations should be put on a more systematic and continuing basis, e.g., by gearing pensions and interest on government debt to an index of consumer

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[1] The traditional view has been that in an inflationary situation, wages tend to lag behind prices, and that income is consequently redistributed from wage-earners to profit-earners. More recent work, however, has expressed doubt concerning the validity of this generalization. For a review of the controversy, see M. Bronfenbrenner and F. D. Holzman, "Survey of Inflation Theory", *American Economic Review*, September 1963, pp. 646-652; also M. Bronfenbrenner, "Statistical Refinements of the Inflation Concept—II", paper presented at the September 1965 meeting of the American Statistical Association.

prices.[1] By and large, however, governments have been unwilling to move more than a certain distance along these lines. There are several likely reasons for this, of which one is the broad and unpredictable nature of the expenditure commitments that would be involved. Secondly, there has no doubt been reluctance to take action which might be construed as accepting inflation and even conferring on it a kind of backhanded official blessing. This could be an encouragement to accelerative tendencies. Finally, there has probably been some consideration of how difficult it would be to pick out appropriate candidates for a system of contra-inflationary compensation that extended beyond the more obvious cases such as pensioners, who have powerful arguments of equity on their side. Many things besides inflation affect the distribution of income. For some groups slipping downward in the relative income scale, inflation may be acting mainly as an exacerbation of other weaknesses in their position. This may sometimes be true—e.g., of farmers caught in a price-cost squeeze, of nonfarm producers adversely affected by shifts in consumer tastes or technology, or of business firms encountering competitive disabilities. If other weaknesses do in fact exist, it is important that they be detected and the situation treated in full rather than as a simple effect of inflation.

Equity and distributive justice are powerful elements in the case for reasonable price stability; yet it must be admitted that another consideration has often in practice been the main spur to anti-inflationary action. This is the balance-of-payments consideration—the desirability of keeping up competitively with other countries and so reducing the risk of serious external payments crises, with all that they may entail in the way of painful readjustments and interruptions to economic progress. There is little question but that this consideration has always been well to the fore in Canada. As this Council has already had occasion to point out, the concept of international competitiveness takes in a wide territory, including such nonprice factors as management attitudes, adaptability to changing world market conditions, and intelligent specialization of product lines. Also,

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[1] Pensions paid under the Canada Pension Plan have a limited escalation feature of this sort, geared to the consumer price index: "Small (price) increases—less than one per cent—will not be taken into account; and in order to avoid excessive change, the increase will never be more than two per cent from one year to the next. In any year when prices decline, pensions will not be reduced but subsequent increases will, of course, be slowed down as a result." Department of National Health and Welfare, White Paper, the *Canada Pension Plan*, August 1964, p. 12.

the connection between prices, costs and competitiveness is frequently oversimplified and misunderstood. Nevertheless, the connection undoubtedly exists and is important. If over any relatively prolonged period the general upward pressure on prices and costs in Canada is appreciably greater than in other countries, notably the United States, there is a likelihood that weakening competitiveness and contraction of sales will begin to appear along the fringes of exporting and import-competing industry. There are, to be sure, various circumstances in which fluctuations in the external current-account balance furnish a useful and welcome means of adjustment for the Canadian economy, but this is a facility which should not be presumed upon or abused. More will shortly be said about this matter.

A fourth major charge against inflation concerns its distorting and destabilizing effects on the domestic economy. These of course tend to be more marked when the inflation is severe; but they deserve mention here. Rising prices may encourage speculative inventory accumulation and excessive bidding for land and other real capital assets, based on the view (a) that capital assets are growing rapidly more expensive and should therefore be bought sooner rather than later, and (b) that mistaken investment decisions will be floated off by the rise in the general price level. The result may be misallocation of resources and a depressing effect on output and employment later on as swollen inventories and excess plant capacity are worked off. Financial repercussions may also occur. It should be added, however, that the depth and painfulness of the post-inflationary adjustment will depend very much on how skilfully the fiscal and monetary authorities act to cushion it. They must be prepared to resist the unhelpful analogies of purgation and repentance for sin that are apt to pass current at such junctures, and concentrate instead on maintaining as steady a rise in final demand as may be possible under the circumstances.

Four principal elements in the case against inflation—reduced usefulness of money, inequitable redistribution of income, impairment of international competitiveness, and destabilizing effects on the economy—have now been summarized. It should be added that an opposing case, in favour of aiming deliberately at some moderate amount of inflation, is sometimes made on one or both of two grounds. The first of these grounds is a fear that excessive preoccupation with price stability will work against the achievement of other important economic goals. We would agree that this is a real danger and that excessive preoccupation with one goal at the expense of others should definitely be avoided. We would not agree, however, that the way to deal with the matter is virtually to excise from the system an important and valid economic goal merely because it happens to be more awkward of achievement than some. We would, rather, study this awkwardness and discover how a better reconciliation of all important goals may be attained.

It is also sometimes argued that moderate inflation may have a positively beneficial effect on economic growth. In most versions of the argument, this effect is thought to occur through the income-redistributive effects of inflation, which may be held, e.g., to favour capital investment and thus increase the growth of potential output. As yet, empirical evidence in support of this view has not been highly convincing. Simple exercises, such as international comparisons of countries' rates of growth and rates of price increase, have generally produced quite inconclusive results, equally discouraging to those who feel that moderate inflation helps growth and those who feel that it is a hindrance. In any case, it is difficult to imagine a government in a literate democratic society openly avowing that it proposed to use the income-redistributive effects of inflation as a deliberate part of its growth strategy. The government would, no doubt, soon hear from those who were being redistributed against, and would be forced either to take action against inflation or to offset its redistributive effects.

Price Goals in an Open Economy

As part of its output of information relating to Canada's international trade, the Dominion Bureau of Statistics regularly publishes an index of Canadian export prices. When this index rises, it sometimes provokes comments on the dangers of Canada pricing herself out of world markets. Often, however, it transpires that much of the rise in the index is accounted for by world-wide increases in the prices of commodities such as base metals of which Canada happens to be a major exporter. From the standpoint of the Canadian balance of payments, this is good news, not bad.

The above example is but one illustration of the paradoxes that must be faced in conceiving appropriate policies for price stability and international competitiveness in a very open economy. There are of course other countries in the world highly dependent on international trade, and Canadians' insistence on the openness of their economy must sometimes grow tiresome to representatives of small- and medium-sized European countries which have at least as high a ratio of exports and imports to total production. Yet the insistence is justified, for the Canadian economy is more truly open than most other industrial economies, in ways which do not fully emerge from the aggregate trade statistics. The dependence on primary commodity markets, which are among the broadest and most sensitive of world markets, is one relevant fact. Even more important, however, are geographical closeness to the United States and the many links with

TABLE 3-2—FOREIGN TRADE(1) AS A SHARE OF GROSS NATIONAL PRODUCT IN SELECTED COUNTRIES, 1964

	Per Cent Ratio to GNP
Smaller, "open" economies	
Sweden	26
Denmark	31
Austria	26
Norway	42
Belgium	37
Netherlands	47
Canada	**23**
Larger, relatively "closed" economies	
United Kingdom	20
Germany (F.R.)	19
United States	5
France	14
Italy	17
Japan	12

(1) Average of exports and imports of goods and services.

SOURCE: Anne Romanis, "Cost Inflation and the Scope for Incomes Policy in Industrial Countries", forthcoming International Monetary Fund Staff Paper.

that country's economy over and above the actual exchange of goods and services. Informational links, so greatly facilitated by an unusual abundance of channels of communication, are especially significant.

Compared with the citizens of any country but the United States itself, Canadians are exceedingly well informed about all manner of developments in the U.S. economy, and their own behaviour is strongly affected thereby.

The central paradox for Canada—the relationship to be sorted out—is that while the need to stay competitive externally is unquestionably one of the most important reasons for paying close attention to Canadian prices and costs, these same prices and costs are to a quite unusual extent determined by external influences. Sensitivity to price-cost developments abroad is less for some Canadian products than for others, but in the over-all result the general Canadian price level is very considerably influenced by external price and cost movements. This has long been a common assumption among businessmen, economists, and government officials, and the results of research undertaken for the Council tend strongly to confirm it.

As has been suggested, the transmission mechanism by which price and cost developments in the outside world are communicated to Canada is complex and partly indirect. Some of it is related to other economic factors. Thus, if general price levels in Canada and the United States have a longer-run tendency to line up with each other, as they do, this is partly a result of a lining-up tendency in economic conditions such as general slackness or tightness. If conditions propitious to a certain kind of demand-related price movement exist in the United States, chances are that they will also exist in Canada, though probably subject to some differences of degree and timing.

There are, however, several more direct channels of price transmission. One of the most direct is a by-product of Canada's position as a producer and exporter of widely traded and relatively homogeneous commodities such as wheat, newsprint and nonferrous metals. Of most of these commodities it can be said, as a reasonable approximation, that the basic price is a world price, determined in world markets. Variants from the basic price may exist as a result of trade barriers, other market imperfections, transport costs, and long-term contractual arrangements, but from a Canadian standpoint, selling prices in both foreign and domestic markets are to a large extent given and predetermined, tending to move up and down with major shifts in the world price. They are not likely to be greatly affected by general demand or other conditions in the Canadian economy, or by how the Canadian authorities respond to those conditions.

TABLE 3-3—CANADIAN EXPORTS BY PRINCIPAL COMMODITIES, 1965

	Millions of Dollars	Per Cent of Total
Wheat	906	10.3
Other farm and fish	829	9.5
Softwood lumber	458	5.2
Wood pulp	494	5.6
Newsprint	870	9.9
Other forest products	279	3.2
Iron ore	361	4.1
Primary iron and steel	238	2.7
Aluminum and products	372	4.2
Copper, nickel and products	650	7.4
Lead, zinc and products	201	2.3
Crude petroleum and natural gas	384	4.4
Uranium ores, concentrates and other metal and mineral materials	479	5.5
Chemicals, fertilizers, manufactured goods, etc.	2,243	25.6
Total	8,765	100.0

SOURCE: Based on data from Bank of Canada.

For some other lines of Canadian export production, the degree of price determination or price transmittal from abroad is not so marked. In one or two cases, Canada is the dominant world producer and for that reason has more potential influence on price. Elsewhere, e.g., in the export of aircraft and other manufactured goods, there may be scope for considerable specialization and differentiation of product, and this may confer somewhat more freedom in setting price. But for obvious reasons there is a very large element of foreign-market determination in nearly all Canadian export prices, and this usually reflects back in some measure on the Canadian domestic prices of the same goods and services, although the relationship may be affected by tariffs and similar factors.

Other major channels of price transmittal are on the side of imports—these indeed appear to be the more important ones so far as direct effects on the general Canadian price level are concerned. Foreign prices of consumer and investment goods are transmitted directly, via imports, into Canadian markets for the same types of goods. In addition, foreign prices of investment goods and of raw materials enter via imports into a wide range of Canadian costs of production.

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But the relatively direct import transmittal of foreign prices does not end there, for in many of the markets where imports and domestic goods compete, there is a recognized tendency for the price of the domestic product to move up and down in fairly close relationship with the landed (tariff-paid) price of the competing import.

Some of our research is also suggestive of an independent transmission mechanism between movements of manufacturing wages in the United States and Canada; the detailed nature of this mechanism is, however, less clear than in the case of imports.

Enough has been said to indicate some of the particular ways in which Canadian prices and costs are subject to strong external influences. It must be added, however, that there are important sectors of the economy which, because much of their final product is incapable of moving across international boundaries, are largely exempt from foreign price influences and foreign competition. Among these relatively "unexposed" sectors are construction and services. As will be seen in a moment, their special characteristics in this regard have much relevance for economic policy.

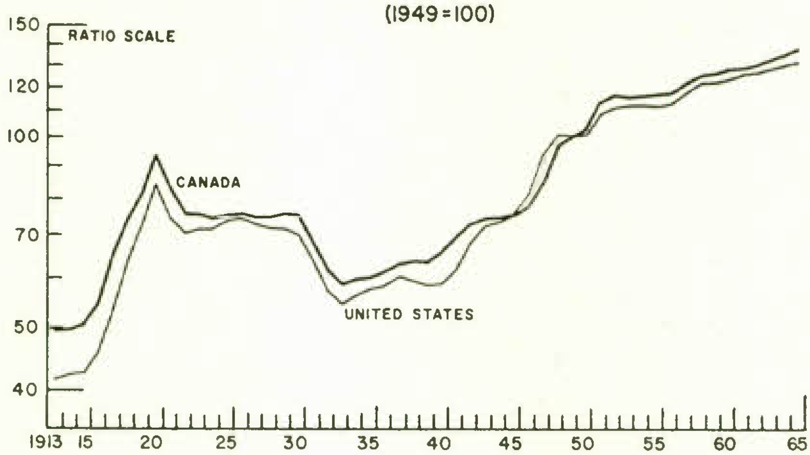
One major implication of the price-cost transmittal mechanism into Canada is suggested by Chart 3-1, which shows what relatively small divergence there has been over the last 50 years between movements of consumer prices in Canada and the United States. The power of the underlying forces making for longer-term similarity of price movements in the two countries is apparent. Given these conditions, it is clearly not realistic for Canada to aim at a price performance that is very different in either an upward or downward direction from the parallel performance in the United States. Barring a large and continuous offsetting movement in the exchange rate, or a deliberate insulation of the whole economy on a scale and at a cost that few Canadians would be prepared to tolerate, an attempt to do very much better or very much worse than the United States in achieving reasonable price stability would not be sound policy.

It must certainly not be concluded, however, that Canada is in any position to let nature take its course in the matter of prices and costs. The longer-term forces which bring about a broad conformance of price trends in Canada and the United States can operate smoothly and undisruptively, or they can be rough and painful, with periodic balance-of-payments crises and harsh corrective measures. Policies for price stability are needed to ensure that price-level conformance takes place as much as possible by the first route. Moreover, even if parts of the general Canadian price level are largely determined abroad and are thus not very susceptible to influence from domestic policy, other parts are much more susceptible. On them, domestic policy has real potential bite. And since, in the final analysis, the economy is an interdependent whole, there is really no part of it where the behaviour of prices and costs is not of some relevance for the other parts. In particular, what happens in sectors of the economy that are not much exposed to foreign competition (and whose prices and costs are, therefore, freer to push upwards) can be of real consequence for the international competitive position of sectors whose prices are by contrast highly subject to an external discipline.

CHART 3-1

CONSUMER PRICES: CANADA AND UNITED STATES

(1949=100)



Source: Based on data from Dominion Bureau of Statistics and U.S. Bureau of Labor Statistics.

There is unfortunately a severe problem of actually assessing the state of competitiveness in an economy like Canada's. No simple criteria exist. Looking at movements in the prices of exports and goods competitive with imports is of only limited help, since many of these prices are in one way or another largely determined externally. Over a wide range of products, Canadians are more "price takers" than they are "price makers". Simple observation of movements in total exports and imports, or in the external deficit on current

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account, can also be a poor guide to Canadian competitiveness, inasmuch as these quantities are subject to all kinds of forces that have relatively little to do with the behaviour of prices and costs in Canada. The current deficit may widen or narrow because the Canadian economy is growing faster or slower relative to the United States, because particular foreign economies to which Canada is a large supplier are growing faster or slower, or because world demand for specific products such as wheat, of which Canada is a major seller, happens to be spurting ahead or lagging behind. There is also a characteristic fluctuation in the current-account deficit over the course of the short-term business cycle. Many other items could be added to the list: the "mechanism of adjustment" of the Canadian balance of payments is a most complicated piece of machinery. Price and cost movements certainly have a significant role to play in it, but not always a starring or initiating role.

The behaviour of costs of production in exporting and import-competing industries is clearly one of the main keys to Canadian competitiveness. One important way in which competitiveness may be endangered is when excess demand or other phenomena affecting prices and costs in the relatively *unexposed* sectors of the economy are putting pressure on costs in the *exposed* sectors. The links between the construction and lumber industries in British Columbia during boom periods contain elements of this type of relationship. It is important, however, to understand that the connection between changes in costs and actual production and sales of export and import-competing goods can often be loose and lengthy, and subject to many other influences. Some of the really key impacts are not those on short-term price-setting or production decisions, but those on longer-term investment decisions whose relevance for Canadian growth and living standards, as well as for exports and imports, may not be evident for years. (Failure to realize this may be in part responsible for the puzzling inconclusiveness of much analysis of the effects of the Canadian exchange rate movement of 1960-62.) The decision of a Canadian company to go ahead or not to go ahead with an import-competing plant expansion in Canada, the decision of a large international corporation to locate the next phase of its world-wide expansion programme in Canada or elsewhere—these are the sorts of times when Canadian competitiveness can be most relevant, although the full working out of its effects may lie far in the future. At such times, costs may enter importantly into the decision process—short-run costs to some extent, but also forecasts of longer-run costs, having regard to all pertinent factors such as the prospects for productivity improvement. Reasonable *predictability* of costs can be an important plus factor for Canada in these decisions.

It must be remembered that the flow of price and cost pressures within the Canadian economy does not always run predominantly from relatively unexposed sectors like construction and services towards industries like metal mining which face substantial foreign competition. The current sometimes sets the other way. Normally, the situation is mixed, with many eddies and whirlpools; but there can be times when much the strongest inflationary influences in the country are those flowing in from abroad and spreading through the exposed sectors into the rest of the economy. This indeed is the typical pattern in the early stages of a Canadian primary resources boom: world prices of key Canadian exports increase sharply, setting in motion a widening process of expansion, investment, and price and cost advances within the domestic economy. Among those most squeezed by this process may be certain other exposed industries, competing mainly with imports, which have not had the benefit of a strong world-wide increase in demand or selling prices.

This type of situation is inherently more difficult for Canadian policy to deal with than one in which the main sources of pressure are domestic. There may in time be a gradual transformation from one situation to the other: what starts off as mainly an export boom turns into a broad domestic investment boom, and the export industries who began it all end up highly exercised about the implications for their costs and competitive positions. But so long as the origins of most of the pressures lie outside Canada, the position for Canadian policy is bound to be somewhat frustrating. As will shortly be indicated; an upward movement of the exchange rate is one possible option. Otherwise, about the best that can be done is for appropriate fiscal and monetary policies to try to hold the growth of total demand in the economy, external plus domestic, in a proper relationship with the growth of potential output, and for practical means to be devised of restraining the number of bottlenecks and discouraging the outward spread of price and cost increases from genuine pressure areas.

Life is not simple in an open economy, but there are valuable compensations. In the field of manufactured goods especially, where world prices do not gyrate as they do in many primary commodity markets, the pressure of foreign competition is perhaps the greatest single long-run force working in favour of reasonable stability in the general Canadian price level. The strength of this international discipline is indicated in the greater stability of prices of goods moving in international trade in relation to other prices (Table 3-4), as well as in responses to a special investigation undertaken on behalf of the Council into the pricing policies of a number of large Canadian corporations. It is clear that nothing quite compares with foreign competition as a limitation on the exercise of market power.

TABLE 3-4—CHANGES IN EXPORT, IMPORT AND DOMESTIC PRICES IN CERTAIN COUNTRIES—PER CENT CHANGE 1958-64

	Export Prices[1]	Import Prices[1]	Consumer Price Index	Implicit Price Index of GNP
Canada[2]	**8.0**	**12.0**	**8.2**	**11.0**
United States	3.0	0.0	7.3	8.9
Great Britain	7.0	4.0	15.4	13.8
France	19.0	13.0	29.1	29.5
Germany (F.R.)	2.0	− 6.0	14.6	20.1
Italy	− 4.0	− 6.0	23.8	26.7
Netherlands	2.0	− 2.0	18.8	23.2
Belgium	− 2.0	0.0	10.7	11.8
Sweden	5.0	6.0	19.3	21.4
Japan	− 5.0	− 4.0	32.0	24.0

[1] Based on indexes of export and import unit values.

[2] The period includes the period of devaluation 1960-62. If the devaluation period is excluded, the changes were as follows:

Canada—1958-60	2.0	−1.0	2.3	4.1
1963-65	2.8	1.8	4.3	5.5

SOURCE: Based on data from United Nations and sources shown in Table 3-1.

The concept of Canadian competitiveness is not something which can be tied to a particular target figure for the external balance on current account, for, as mentioned earlier, fluctuations in this balance have at times a highly desirable adjusting role to play in the Canadian economy—e.g., by expanding or contracting the net flow of foreign goods and services into Canada in such a way as to exert a corrective influence on situations of overabundant or deficient demand. A good state of international competitiveness for Canada means rather that over the long run the growth and development of the Canadian economy should to a considerable extent be built around a large "exposed" sector of industry, well capable of meeting the disciplines of international markets. Every effort should be made to ensure that the interests of this sector are not endangered by persistently greater inflationary pressures in Canada than in the United States and other industrial countries, or by a kind of price and cost performance in "unexposed" parts of the economy that puts a significant and persistent squeeze on the position of industries facing substantial foreign competition. The avoidance of such tendencies will promote simultaneously the goals of reasonable price stability and a viable balance of external payments.

No discussion of international competitiveness and price goals in an open economy would be complete without reference to the external value of the national currency. The Canadian exchange rate experience during the post-war period has of course been a varied one. Canada started off with a system of exchange control and with a so-called "fixed" exchange rate, which was however substantially altered on two occasions: in 1946 (upward), and in 1949 (downward). In the autumn of 1950, a sudden and very massive inflow of capital from abroad led to the final disappearance of exchange control and to the adoption of a "floating" exchange rate that was essentially free to find its own level in the market. This system, which over the greater part of its life worked very satisfactorily for Canada, lasted until 1962, when a return to a "fixed" rate took place. In fact, the present rate is not absolutely fixed in terms of gold and U.S. dollars, but may fluctuate within a very narrow band as provided by the rules of the International Monetary Fund. Provision also exists for more substantial alterations in certain circumstances.

One cannot foresee what changes in international payments arrangements may occur that will affect Canada's exchange rate system over the years to come: a great deal will clearly depend on how the world trade and payments system as a whole evolves. It is to be sincerely hoped that a timely evolution will occur, and that an atmosphere will develop in which all constructive proposals for improvement of the system can be given serious and thorough consideration followed by appropriate action. With this type of atmosphere, it is quite conceivable that important changes may ultimately result, including some with a bearing on exchange rates. For the present, however, we must couch our discussion in terms of the existing exchange rate system to which Canada is adhering.

Rational consideration of Canada's exchange rate unfortunately has to pick its way between two extreme views which are quite widely held. The first tends to regard the exchange rate almost as a cherished national symbol, whose substantial alteration in accordance with the IMF rules would not be just an economic policy move but something approaching a moral event of overwhelming importance. The second extreme view tends to look to the possibility of exchange rate adjustments as an ideal escape route—as a perfect answer to most of the impasses and goal-conflicts with which the Canadian economy is likely to be confronted. Both of these extreme positions seem to us unsound. The first involves a confusion of means and ends—a lop-sided conception of just what it is that Canadians ought to be trying to achieve with their economy. The second position appears dangerously out of touch with the realities of the world trading and financial system and Canada's position therein; it also suggests a possible misunderstanding of the conditions under which an exchange rate movement can best operate to correct a basic maladjustment.

Our own position can be briefly summarised. We do not regard the present exchange value or any other exchange value of the Canadian dollar as sacred. Under the existing system, the exchange rate can be moved and ought to be moved when circumstances justify it. The possibility of its movement must not be shut away in a cupboard labelled "Unthinkable"; it should instead be a constant potential dimension of Canadian economic policy. But it should never be treated frivolously. A fundamental disequilibrium must exist, and a good case made to the Canadian public, to the International Monetary Fund, and to the rest of the world at large. One does not lightly thumb one's nose at a valuable and respected international organization, but there is more to it than that. The foreigners whom Canada must ultimately convince of the justice of her case for an exchange rate movement are her major trading and investment partners, for they after all are the other parties to the transaction. Canada provides the numerator of the exchange rate fraction; the rest of the world the denominator. One does not idly court the disapproval and possible retaliation of those on whom Canada's future prosperity and growth so heavily depend.

It cannot of course be guaranteed that even when Canada possesses a good case for an exchange rate movement, that case can always be promptly and effectively pressed. Other countries may have troubles of their own, and the resulting stresses and strains on the world payments system may produce strong collective pressures against rocking the boat in any way whatever. This is simply another argument for not *counting* on an exchange rate alteration being available to Canada at the precise moment when it may be most desirable.

There are two principal sets of conditions in which a movement of the exchange rate can be used to obtain a better balanced achievement of goals in the Canadian economy. An *upward* movement of the exchange rate, as in 1946 and 1950, may on occasion be an effective way of dealing with a situation where strong inflationary pressures are flowing into Canada from abroad. By a raising of the cost of the Canadian dollar in terms of foreign currencies, imports are encouraged and exports discouraged. In effect, Canada's international competitiveness is weakened, but there are circumstances in which competitiveness can be too strong, and in the light of this and other relevant factors, some slackening-off may be deemed a price well worth paying for the resulting increase in available resources and the achievement of greater domestic price stability.

A *downward* movement of the exchange rate may be used to strengthen Canada's international competitiveness in circumstances where this has become a vitally necessary condition for the achievement of other major goals, including notably high employment and sustained economic growth. This condition was satisfied by the 1960-62 decline in the exchange value of the Canadian dollar; the movement was in fact long overdue. A substantial improvement took place in Canada's competitive position, in ways which will have been suggested by our previous discussion of competitiveness. The really important development was not price-cutting by Canadians against their foreign competitors, but rather a major relative increase in the attractiveness of export- and import-competing production as a means of putting Canadian resources to work. Crucially important to the success of the whole operation was the fact that plenty of such resources were available. There was much slack in the economy: men, materials, and plant capacity were readily obtainable to begin the process of building up export and import-competing production to higher levels than would otherwise have been reached. Thus output, employment and international competitiveness rose together, with the large initial amount of slack in the economy operating to produce a substantial real adjustment and a considerable damping-down of the domestic price rises normally associated with exchange rate declines.

These special features of Canada's most recent experience of an exchange rate movement ought to be kept firmly in mind in considering under what future circumstances devaluation might again be an appropriate policy move. Under less slack economic conditions than obtained in the early 1960's there would very likely be less fundamental correction of the competitive position and more domestic price rise. The penalty of dearer imports—particularly those imports for which there exist no practicable domestic substitutes—would not be so nicely offset by major reductions in unemployment and consequent boosts in total real income. The general balance of advantages and disadvantages would have to be very thoroughly considered, along with the question of international acceptability raised earlier. A careful thinking through of these matters should be sufficient to discourage any notion that Canada could long sustain a much poorer price and cost performance than the United States by means of frequent downward adjustments of the exchange rate.

A properly realistic view of price and balance-of-payments goals in Canada's open economy is not easy to achieve. Paradox and complication lie thick beneath the surface. Some useful guiding principles may however be put forward. Canada cannot realistically aim at getting a much better or much worse price performance than the United States. Close attention must, however, be paid to Canada's international competitiveness, particularly as this may be affected by developments in relatively "unexposed" sectors whose price and cost behaviour should be potentially more responsive to domestic economic policy. The international exchange system and the exchange rate of the Canadian dollar are important parts of the over-all picture. The exchange rate should be treated neither as a national icon nor as an easy out, but rather as a potential policy option whose carefully considered use in proper circumstances can bring great benefit to an economy whose achievement of basic goals has in some way become seriously out of balance.

THE ROLE OF PRODUCTIVITY GROWTH

The growth of productivity—of real output per person employed—occupies a central position among the matters which we have been asked to examine. It may be thought of as a key junction point, from which radiate out some highly important influences on the behaviour of output, prices, costs and incomes.

Let us begin by reiterating some basic propositions:

(1) The growth of total output and income in the Canadian economy can be defined to comprise two basic components—the growth of employment and the growth of productivity.[1]

(2) Productivity growth as we have defined it here is a handy, conventional way of measuring the effect of all those forces *other than the simple increase in employment* which help to bring about increases in total output. It is a measure which captures the contributions of capital, of technical progress, of improvements in the skill and training of the labour force, and of many other factors.

(3) Because of productivity growth, it is possible for wages, profits, and other incomes to undergo a sustained rise without any increase in the general price level. One way of defining a noninflationary situation is as a set of circumstances in which average rises in money incomes do not exceed the growth of productivity.

(4) Whatever happens to prices, productivity growth is what mainly determines the rate of rise in *real* income per head of population (the other major determinant being changes in the ratio of those employed to total population).

These are more than propositions; they are truisms which cannot be too often repeated. The one great danger about them is their beguiling simplicity, which leads people to read more into them than is really there—to see in them the whole answer to the policy problem of how to reconcile high employment and rapid economic growth with reasonable price stability. In fact, they do not provide the whole answer. What they do is to lay down a set of highly significant conditions which any answer to the problem must inevitably satisfy.

"In order to have price stability and strong international competitiveness, all that need be done is to control costs by ensuring that the rise of wages, profits, and other incomes does not exceed the growth of productivity." What is wrong with this statement as a practical operating rule for Canadian economic policy? Perhaps its worst fault is that it says nothing about demand, implying rather that the

[1] The reference in this context is to "labour productivity", that is, the ratio of total net output to labour input. The computation of labour input sometimes takes account not only of the number of employed persons, but also of average hours worked. 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.

determination of prices is a completely one-way street, running from costs to prices. In fact, as has already been suggested, the link between prices and costs is an interconnection, of a complex, two-way character. The price of widgets may be high partly because the wages of widget-makers are high, but the wages of widget-makers may be high partly because the demand for widgets is buoyant.

In its pristine, unqualified form, the rule gets into trouble as soon as it is confronted with awkward special cases, of which the Canadian economy provides an exceptional abundance. How is the rule to cope with the strong external influence on the Canadian price level—with the wide range of prices which are to a greater or lesser extent determined in international markets? It cannot really cope at all: if the world price of copper increases sharply and the Canadian price with it, someone's income will have to rise in excess of the relevant productivity gain, whether this be computed on a nationwide or an industry basis. If many of these irresistible breakouts occur, they will be disturbing, to say the least, to those whose incomes *are* being kept in step with productivity gains.

Other embarrassments emerge in sectors such as education, where rapid and sustained productivity gains, at least as conventionally measured, are virtually impossible to obtain. To enforce the rule here, on a sectoral basis, would progressively deplete the supply of teachers as teachers' incomes sank lower in the relative income scale. This would be one of the worst things that could happen to the prospects for longer-term economic growth, which depends so much on improved education of the labour force.

The more general question of the allocative function of the price system must also be considered. For this function to be well performed, some prices should rise and some incomes therefore outdistance productivity gains, whereas other prices and incomes should deviate from their respective norms (stable for prices, moderately rising for incomes) in a downward direction. The drafters of the original U.S. wage-price guideposts of 1962 clearly found it necessary to devote much ingenuity to this type of problem.

We shall be saying more in Chapter 5 about the manifold difficulties of converting basic truisms about productivity into practical operating guides for the running of economic policy and the judging of whether particular price increases or wage settlements are "inflationary" or "noninflationary".

No complications of detail, however, should be allowed to obscure the existence of these truisms and their essential relevance for the

Canadian economy as a whole. They are not the entire answer to the problem of how to obtain reasonable price stability at high employment, but they are an indispensable part of any thinking which leads to an answer. What they really come down to is the simple fact that there is no way known to man of getting more out of the Canadian economy than is put into it. A large sum of individual efforts to do just this is one of the ways in which the process of general inflation may be described. Some redistribution of income takes place; but over all, the basic productivity condition asserts itself, and the collective attempt to exceed the limits of the possible is dissipated in price increase rather than real income gain.

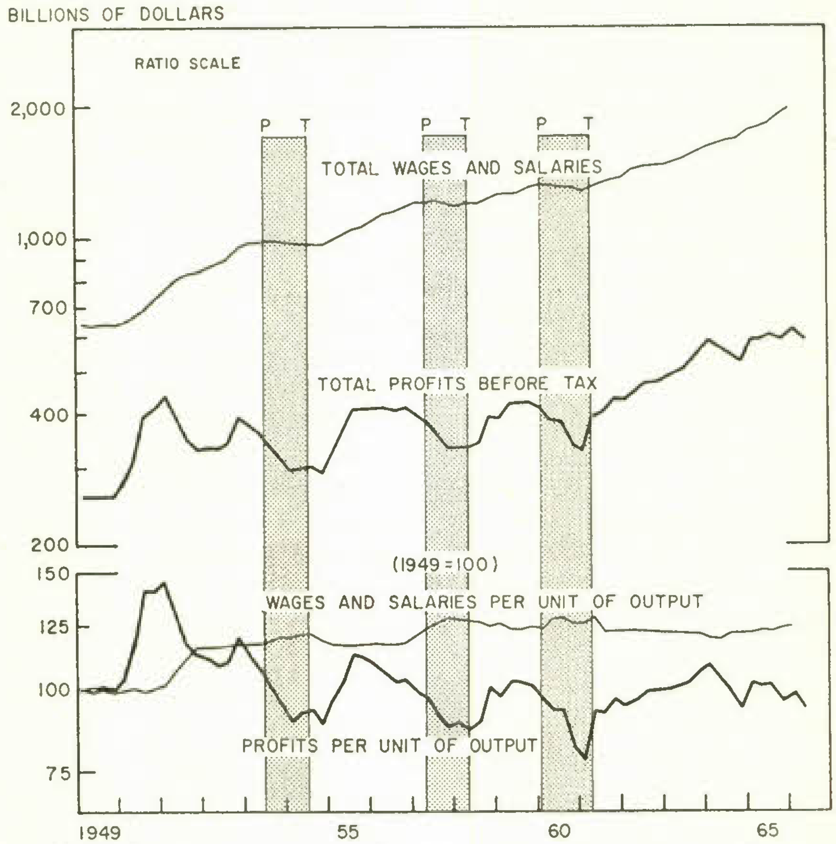
It may be objected by participants in the process that they are not trying to do the impossible but only to get their fair share of the possible. This comment cannot be brushed aside; it carries some theoretical and practical weight. So long as the price system is expected to do an allocative job, there ought not to be an across-the-board rigidity in the sharing of the rewards of production among labour, capital, and other factors. Shifts can and should take place in particular cases where the physical conditions of production—the optimal mixes and qualities of productive factors—are undergoing major changes. Further than this, it must be expected that within an imperfectly functioning economic system instances will always be coming to light of groups whose case for a sharp income catch-up is simply not to be denied.

But over-all conditions are not to be denied either. While shifts in the distribution of income do indeed take place (we shall be referring to some in the next Chapter), it is a most intriguing and relevant phenomenon that in the long run the broad sharing-out of industrial income between wages and salaries on the one hand and profits on the other exhibits a fair degree of stability. This has been observed and commented upon in a large number of countries, including Canada. Over the course of the short-term business cycle, the struggle visibly ebbs and flows, with the share of profits retreating as economic expansion approaches a peak and gives way to recession, then advancing again as a trough is reached and general expansion resumes; but over the longer run the great battle for income shares turns out to be much more of a saw-off than the tumult and the shouting might lead one to expect.

There is much controversy among economists about the reasons for this longer-run relative stability. Part of the explanation may be a matter of proportions: with wages and salaries typically running

CHART 3-2

PROFITS AND LABOUR INCOME IN MANUFACTURING



Note: Seasonally adjusted quarterly data. The shaded areas denote recessions and the letters P and T denote peaks and troughs in the short-term Canadian business cycle.

Source: Based on data from Dominion Bureau of Statistics.

between two thirds and three quarters of net national income in most countries, any very large rise or fall in this share would have spectacular implications for the absolute size of profits and other income components, and for that reason alone would be unlikely. But while the full explanation remains debatable, the empirical fact is well established that longer-run shifts in wage/salary and profit shares, to the extent that they occur at all, tend to be small and slow.

In the case of Canada, observation is rendered somewhat confused by swings over the period of the Great Depression, the Second World

War, and the early post-war years, and by the decline in the relative importance of agriculture and unincorporated business enterprise in the total economy. But it is notable that by the late 1950's and early 1960's, the relationship between investment income and wages/salaries in the nonfarm sector had returned to something very similar to that prevailing in the late 1920's.

The combination of our productivity truisms with the observed fact of relative long-term stability in *broad* income shares leads us to an important conclusion. It is that neither labour nor management need feel its position vis-à-vis the other threatened by a pattern of expansion in the Canadian economy characterized by a closer relationship between the growth of productivity and the growth of money incomes than has typically prevailed in the past. Such a pattern would mean less general price rise, stronger international competitiveness, and less chance of crises and interruptions to economic growth originating in the balance of payments. We expect and desire that collective bargaining and other aspects of the contest for income shares should go on as vigorously as ever—they are a facet of human nature, a sign of life in the body economic and social. What we want, and what we hope that our ultimate recommendations will tend to promote, is a situation where the contest is mainly about real income and not about illusory money gains to be wafted away in the next updraft of the cost of living—a situation where the contestants play hard, but are better aware than before of the effective limits of the playing field, which are set by productivity gains.

Our conclusion may be related to the much discussed question of "parity" between incomes paid for similar kinds of work in similar industries in Canada and the United States. A sensible approach to this question must, in our view, take account of both the following facts:

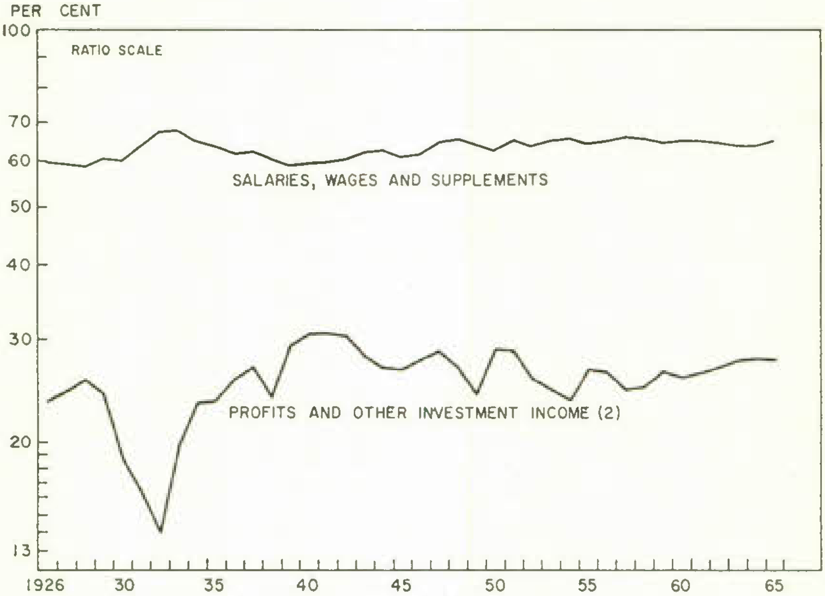
(1) Large present gaps in average income per head and average productivity per worker between the two countries.

(2) Very considerable and sometimes very persistent disparities in incomes and per-worker productivity both within Canada and within the United States.

These facts are not inconsistent with a limited number of cases of wage parity, or even of higher wages at some points in Canada than in the United States, for similar kinds of work in similar industries. But they are not consistent with a broad and pervasive pattern of real wage parity between the two countries in the near future.

CHART 3-3

SHARES OF NET NONFARM BUSINESS INCOME[1]



[1] Covers nonfarm domestic business income.

[2] Includes profits (before taxes and remittances to non-residents), rent, interest and miscellaneous investment income.

Source: Based on data from Dominion Bureau of Statistics.

Income differences between Canada and the United States were examined last year in our *Second Annual Review*. It was found that per capita income and hence the average standard of living in Canada was more than one quarter below the U.S. level. Some of this difference was found to be attributable to a higher ratio of employment to total population in the United States, leaving a gap of just under one fifth to be explained by various factors capable of being subsumed under the general heading of productivity:

> "Thus, the main explanation for the lower levels of Canadian incomes per employed person must lie in the differences in the quality of Canada's productive resources, and in the efficiency with which these productive resources are combined in the production process—that is, the scales of output, degrees of specialization, the attitudes and effectiveness of management and labour, and so forth."[1]

Given the fundamental nature of the factors accounting for the income gap, it should be clear that a great deal remains to be done, on

[1] Economic Council of Canada, ***Second Annual Review***, p. 61.

a variety of fronts, before the Canadian economy *as a whole* can be expected to enjoy effective parity of *average* per capita income with the United States. A general attempt to by-pass or leap-frog essential parts of the catching-up process would be bound to lead to an offsetting adjustment of some kind through the balance of external payments and the domestic price level. If one could imagine parity of money income for every Canadian citizen being decreed by Order in Council at ten o'clock in the morning, one could equally well imagine parity of *real* incomes being effectively repealed in the foreign exchange market before three o'clock the same afternoon.

TABLE 3-5—SELECTED MEASURES OF INCOME PER PERSON, CANADA AND THE UNITED STATES, 1965

	Canada	United States	Canada as a Percentage of United States
	(Canadian Dollars)	(U.S. Dollars)	
Per Head of Population			
Gross National Product...	2,657	3,501	76.00
Net National Income.....	1,985	2,873	69.00
Personal Disposable Income.................	1,788	2,411	74.00
Per Person Employed			
Gross National Product...	7,577	9,438	80.00

SOURCE: Based on data from Dominion Bureau of Statistics, U.S. Office of Business Economics and U.S. Bureau of Labor Statistics.

At the same time, while disparities between Canadian and U.S. incomes are very general and pervasive, at least some Canadians have enjoyed virtual parity with corresponding U.S. incomes for some time. Such situations are particularly apt to develop in industries where Canada enjoys special advantages in the supply of natural resources, or in certain skilled trades and professions where there is a tradition of high international mobility of labour. In this connection, it is pertinent to recall our finding last year that the median income of university educated males was somewhat *higher* in Canada than in the United States, although we did point out some special factors helping to account for this situation.[1] It is also pertinent to note that

[1] Economic Council of Canada, *Second Annual Review*, p. 89.

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officials of Canadian universities responsible for recruiting adequate numbers of teaching staff in relation to rapidly rising student enrolments have increasingly found it necessary to think about salary scales in terms of a single North American market.

It is apparent that the Canadian economy is able to support a limited number of parity situations. Moreover, it need not be a cause for undue alarm if parity sometimes figures as an argument in wage negotiations and in the publicity surrounding them. Arguments are one thing, actual settlements another; and if yardsticks and criteria laid upon the bargaining table are sometimes near-term possibilities, they are also often known to be long-term objectives which will do duty at more than one negotiation before their day of fulfilment dawns. The important thing to realize is that, for the Canadian economy as a whole, income parity with the United States cannot possibly be achieved through collective bargaining alone. Many other things have to be accomplished—above all, a productivity gap has to be closed, and this will not be done overnight. But if the gap can gradually be narrowed, the number of situations in which parity could become a reality will increase.

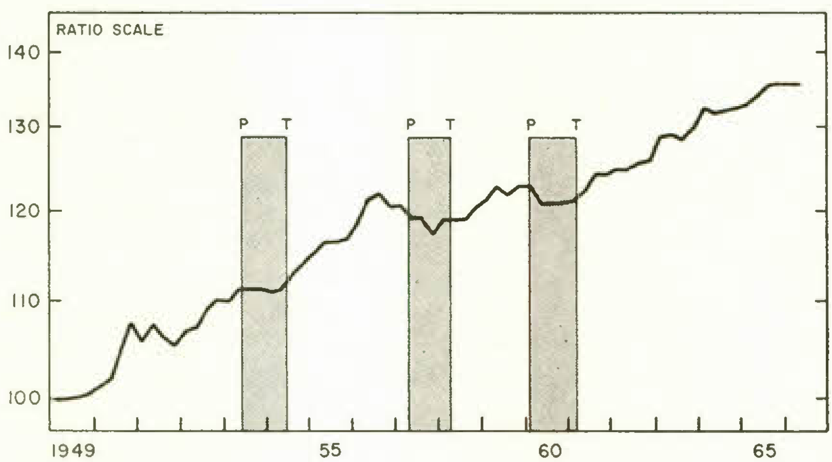
From its inception, this Council has been seized of two facts about productivity growth: its vital importance to the Canadian economy, and the lack of adequate knowledge and understanding of how it occurs, how it may be speeded up, and how it relates to the economy's performance as regards price stability, competitiveness, and other key matters. Progressively to enlarge understanding of these issues is one of the principal objectives of the continuing programme of research studies being carried out under our auspices. Some recent portions of this work have, we believe, thrown new light on how productivity and price movements relate to each other in practice. Hitherto, a large share of attention has been devoted to fluctuations in productivity growth over the short-term business cycle—deservedly so, since together with certain characteristic movements in prices and wages, these fluctuations help to make profits volatile, and are thus very much at the heart of the whole cyclical phenomenon. Typically, productivity growth has flattened out in the late stages of cyclical expansions and during recessions, then has rebounded sharply in the early stages of recoveries.

Some new work done for us has tended to shift the emphasis somewhat towards the role of productivity growth in exerting a more persistent type of dampening influence on price increases.[1] In the language of econometrics, productivity growth seems to manifest itself as part of a large negative "constant term"—a long-run downward pressure on the rise in the general price level. The impression is left that improving productivity growth is indeed of vital importance in promoting good price performance and strong international competitiveness in Canada, but that the problem may most appropriately be attacked on a long-term, sustained basis.

CHART 3-4

NONAGRICULTURAL OUTPUT PER EMPLOYED PERSON

(1949=100)



Note: Based on seasonably adjusted quarterly data. The shaded areas denote recessions and the letters P and T denote peaks and troughs in the short-term Canadian business cycle.
Source: Based on data from *Dominion Bureau of Statistics.*

PRICES, COSTS, AND SUSTAINED ECONOMIC GROWTH

In this Chapter, we have set forth our interpretation of the problem which the Government referred to us in March 1965. We have taken the basic problem to be that of reconciling the economic goals of high

[1] G. L. Reuber, R. G. Bodkin, *et al.*, *op. cit.*, Chapter 4.

employment and reasonable price stability. This has proved to be a major difficulty in the other industrialized countries as well as in Canada. We have explained, in a general way, how we believe the problem comes about, and how it may in practice be only partly responsive to even the best exercise of broad fiscal and monetary policy. We have examined the economic goal of reasonable price stability and the strong case that can be made for it. We have set this goal in the unique context of the very open Canadian economy and shown how it is conditioned, on the one hand, by the great influence exerted on Canadian prices and costs by developments in the United States and other foreign countries, and on the other hand, by the importance for Canada of keeping strongly competitive internationally. Finally, we have considered the crucial influence of productivity growth on all of these various matters.

Our terms of reference also ask us to relate this group of issues to the objective of sustained economic growth. In the light of the discussion thus far, what can be said about this relationship?

We have already observed how the rate of increase in productivity is a key point of interchange between all of the major matters that we have been asked to examine. A rapid and sustained increase in productivity does many good things. It damps down price increases, it maintains or improves international competitiveness, and it is the essential basis for a strong and continued growth of real income per head.

It is nevertheless difficult to lay down broad generalizations about the inherent relationship between economic growth and the rate of change in the general price level. This is a topic on which economic theory speaks with an unusually divided voice. Nor is economic history of much greater assistance. The historical experience of industrialized countries furnishes examples of rapid and relatively well-sustained economic growth occurring under all sorts of price conditions: strongly rising prices, moderately rising prices, comparative price stability, and moderately declining prices (the best-known example of the latter being that of the United States during much of the nineteenth century).

It is, however, possible to say a good deal, on a much more particular and down-to-earth basis, about the relationship between economic growth and price and cost developments as it exists today in Canada—an unusually open, North American economy, making its way through the latter half of the twentieth century. Such an economy, more subject than most to the winds of change that periodically sweep the broad landscapes of world trade and investment, has a special interest in staying out of unnecessary, self-generated trouble, of a type likely to upset the balance of its policy goals and produce a serious downgrading of its growth objective. This, it seems to us, is the essence of the *growth* case for aiming at reasonable price stability and strong international competitiveness for Canada. It is a case for avoiding interruptions and the need for harsh, emergency settings of the main policy levers—a case for seeking the sort of balanced achievement of policy goals, including price stability, that is the best insurance against saddling the Canadian economy with more trouble than the outside world is already only too able to provide.

Two kinds of trouble, in particular, are relevant here. The first is a rise in consumer prices so rapid that popular exasperation eventually forces a heavy concentration of public policy on this one problem. Such a concentration may on occasion be justified; the great danger, as we have suggested, is that it may be carried beyond its proper term, into a period of softening economic activity when emphasis should be shifting back to growth and employment goals.

The second kind of trouble, which is often but not invariably contemporaneous with the first, is a serious balance-of-payments crisis, usually heralded by heavy drains on official reserves of gold and foreign exchange. The true, underlying causes of such crises are often complex and rarely completely clear: the common tendency to ascribe them invariably to uncontrolled costs and general loss of competitiveness can sometimes be a gross oversimplification of reality. But whatever the causes, the immediate consequences for the balanced and clear-headed pursuit of economic objectives are usually most unfortunate, particularly if the crisis situation is dragged out over an extended period. Under these circumstances, the balance of payments tends willy-nilly to become the overriding objective, the central focus of all economic policy. There are indeed unwonted tendencies this way at the best of times, when no real crisis exists; but when the alarm bells sound unmistakably loud and clear, the balance-of-payments consideration inevitably takes over the driver's seat. Other policy objectives, for all the lip-service that may still be paid to them, are gradually shunted to the rear. Canada had a taste of this type of situation immediately before and after her adoption of a fixed exchange rate in 1962: she may count herself lucky indeed that she had not the peculiar burdens of a reserve currency to contend with, that other circumstances (including the availability of massive foreign assistance) were generally favourable, and that an appropriate adjustment and the dismantling of the principal crisis measures were accomplished with unusual quickness and efficiency.

One may well say that there is no inherent reason why the elimination of fundamental maladjustments in external payments, whether of Canada or of any other country, should not always be handled with comparable smoothness and expedition. The improvement of the world trade and payments system to this end should be an extremely high-priority objective for Canada in co-operation with other members of the international economic community. One absolutely cannot ignore, however, that such an improvement has so far proved very difficult of achievement, and that in the world as it stands, things can rarely be expected to work out as well as they did for Canada in 1962-63. This does not mean that Canadians should live in a perpetual state of high-pressure anxiety about their external payments: this would be one of the surest possible guarantees of unbalanced and unclear thinking about fundamental economic objectives. It does mean, however, that unnecessary balance-of-payments crises, or crises that have been unnecessarily worsened by a protracted failure to devote sufficient attention to prices, costs, and competitiveness, are worth a great deal of effort to avoid. In the real and uncertain world where economic policy is made, they can be extremely bad medicine for economic growth and other basic objectives.

Our conception of the key link between sustained economic growth and price and cost performance is thus primarily related to the operation of economic policy rather than to fundamental processes at work deep within the Canadian economy. It is true that there is a highly significant interconnection, by way of productivity, between growth, prices, costs, and incomes. But in the Canadian context, it seems to us, the major threat to sustained economic growth is the kind of crisis situation that brings about a violent shift of policy emphasis on one or two objectives only. There is always the danger of an excessive and exclusive emphasis, at one time on employment and at another time on price stability. This is why, in the interests of economic growth as well as for the other important reasons which we have stated, we believe that the pursuit of reasonable price stability and strong international competitiveness—not to the exclusion of all else, but subject to the more challenging requirements of a balanced and continuing relationship with other economic goals—merits the best effort and attention of all Canadians.

4

Canadian Price and Cost Experience in the Post-War Period

THE MAIN purpose of this Chapter is to examine a number of signficant aspects of Canada's price and cost experience since the completion of the initial phase of post-war reconstruction in the late 1940's. This examination provides additional factual background for the discussion of major issues in Chapter 3. At the same time, by delineating some major aspects of Canadian price and cost performance and problems, it prepares the way for policy conclusions in Chapter 5.

This present Chapter contains a considerably greater amount of technical and statistical material than we would normally wish to include in our *Reviews*. But given the inherent complexities in the relationships between prices, costs, productivity and incomes which we were asked to study, we have concluded that it is essential to report at some length on these matters as a basis for the conclusions and policy recommendations which follow.

An assessment of some of the more important Canadian price indexes constitutes an essential first step in this Chapter; interpretation of the record of Canada's post-war price experience is vitally affected by the nature and reliability of these measures. Some of the highlights of this experience are then outlined, followed by a closer look at price and cost developments in particular sectors of the economy. The latter part of the Chapter discusses, in turn: some other factors affecting prices and costs (collective bargaining and business pricing); the longer-term patterns of income distribution; and "trade-offs" between price changes and unemployment rates.

THE NATURE AND RELIABILITY OF PRICE MEASUREMENTS

Questions of high policy are decided on the basis of the presumed accuracy of our economic statistics. If the statistics are inaccurate, the policies may well be wrong. Good information is required for good decision-making at all levels—business firms, governments, labour unions, and private individuals. In the light of this, it is clearly of fundamental importance to consider Canadian price measures from the standpoint of their reliability and usefulness for economic analysis and policy decisions. The following discussion, which is confined to the barest outline of facts and problems, deals specifically with three major measures of price change: the consumer price index; the wholesale price index; and the price component of Gross National Product (i.e. the over-all implicit price deflator). The major part of the discussion centres on the consumer price index and the implicit price index of Gross National Product.

Among the considerations encouraging particular emphasis on these latter two indexes are the facts that these are the most comprehensive and widely used measures of general price changes, and that they tend to be especially widely used for assessing the degree of inflation in the economy. It should, of course, be noted that price indexes are needed to serve numerous important purposes other than that of helping to recognize inflation—for example, to appraise consumer welfare, to diagnose imbalances in the economy, to derive measures of physical volume by "deflating" measures of value, to assess international price competitiveness, and to measure comparative levels and growth of real income between different groups and regions in the country. But the larger issues with which we are here most concerned relate to the maintenance of reasonable over-all stability of prices in the economy. It is in this context that the focusing of special attention on the consumer price index and the Gross National Product price index is appropriate.

With regard to the assessment of the degree of inflation in the economy, however, it should be stressed that excessive reliance should not be placed on general price indexes alone, no matter how well such indexes may be designed to serve this purpose. At best, they can only give indirect readings of inflationary pressures in the system. They may, in many instances, be subject to extraneous influences which do not reflect genuine inflationary conditions or dangers. And price indexes are subject to leads and lags, which means that they are not always appropriate indicators of inflationary pressures in the particular period to which they apply. Strong and persistent inflationary pressures will usually tend to be reflected in substantial price increases across the whole range of basic price indexes. But for diagnosing incipient or potential inflationary dangers at an early stage, or for diagnosing the ebbing of underlying inflationary pressures, there is a need for the development and wider use of additional measures which will facilitate the appraisal of supply-demand pressures and imbalances more directly—measures such as unemployment, unfilled orders, and the percentage utilization of plant capacity.

One further introductory comment is appropriate. Canada, unlike the United States, has not had the benefit, during recent years, of a continuing dialogue between the academic community, private research foundations, and government statistical agencies, over ways and means of improving the quality and information content of official price data.[1] Indeed, a staff study published by the Royal Commission on Banking and Finance in 1962 has been the only major piece of research which has been carried out recently in this field,[2] until the work undertaken for the Economic Council during the past year.

The Consumer Price Index

The consumer price index is perhaps the most widely used and best known of all of the Canadian price indicators. It is also subject

[1] During the past five years the United States has had the benefit of far more discussion and research into the nature of these issues than has been undertaken in Canada. In 1960, a high-level group of some of the nation's most eminent economists, under the chairmanship of Professor George J. Stigler, carried out a thorough-going appraisal of the price statistics of the U.S. Federal Government, which formed the basis of a series of Congressional hearings. While progress has been slow in the United States, despite the large amount of vigorous discussion which has taken place, there is now a master frame or blueprint for the longer-term development and improvement of U.S. price statistics. It has also been increasingly realized that if progress is to be made in these areas, more resources will have to be devoted to staffing the statistical services and, in particular, research staffs must be set up within the operating sections to provide continuing research into ways and means of improving the official indexes. More recently, in May of this year, a further series of hearings was held before the Subcommittee on Economic Statistics of the Joint Economic Committee of the Congress which was devoted wholly to a reappraisal of the quality of the government's price statistics, and a stock-taking of the progress which had been made during the five years since the Stigler Committee Report was released. (The latter report was published by the National Bureau of Economic Research under the title, "The Price Statistics of the Federal Government", 1961).

[2] A. Asimakopulos, "The Reliability of Selected Price Indexes as Measures of Price Trends", working paper prepared for the Royal Commission on Banking and Finance, November 1962.

to a good deal of misunderstanding and misinterpretation. It is thus important to be aware of what the index attempts to measure and what it does not attempt to measure.

> "Specifically, the consumer price index measures the percentage change through time in the cost of purchasing a constant "basket" of goods and services representing the purchases made by a particular population group in a specified time period. The "basket" is an *unchanging or equivalent quantity and quality* of goods and services. Only those goods and services which have a price, i.e. a market cost of a specified unit, and which can be priced continually over time can be included in the basket.... the index is a price index and its movements result from price changes only. It relates to a broad but specific group of urban families...."[1]

The above definition is the essential determinant of the proper use and interpretation of the behaviour of the index. Certain important implications flow from it. First, as a general rule, major new products, such as television and frozen foods, are not included in the consumer price index when they first come on the market. This is because the index is intended to cover only the prices in a "fixed basket" of goods and services of unchanging quantity or quality. New products are, rather, typically introduced into the index after some lag[2]. Second, the index does not take account of changes in spending patterns. For example, a shift from steak to hamburger as a result of a sharp rise in the price of steak would not be reflected in the index (although the change in the price of steak itself would be included in terms of its weight or importance in the base year). An important corollary of this is that the index does not purport to measure changes in the "cost of living", for this would have to take into account changes in family expenditure patterns over time as well as changes in prices. Third, in cases in which changes occur in the quality or physical characteristics

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[1] The family groups upon which the consumer price index expenditure patterns are based (which form the "weights" for the goods and services priced in the index) consist of urban families living in Canadian cities with over 30,000 population, whose incomes range from $2,500 per year to $7,000 per year, and whose size ranges from two adults to two adults with four children. It is the average expenditure pattern (or "basket" of goods and services) of these families in the base year which is priced in the index. ("The Consumer Price Index for Canada 1949=100", Dominion Bureau of Statistics Occasional Paper, Catalogue 62-518, p. 8.)

[2] Major new products are, of course, introduced into the index at the time of each major revision, when new weighting patterns are established based on current family expenditure surveys. These major revisions occur only about once in each decade. It may be noted, however, that only a very strict interpretation of the consumer price index definition would exclude *all* new products until a major weight revision. The definition allows for equivalence of quality and quantity; for instance, compact cars were spliced into the U.S. and Canadian consumer price index in 1960 because they were becoming important substitutes for former models.

of products, and in which related cost changes can be identified and measured in "dollars and cents" terms, prices are adjusted to take account of such changes in compiling the index. This procedure results from the attempt to measure only the changes in the price of a "fixed basket" of goods and services of constant or equivalent quality. Changes in quality, however, which cannot be so identified and measured are not taken into account. In a world in which continual changes are taking place in both the quality and the physical characteristics of products, the ingenuity of the statistician is taxed to the utmost to make adjustments aimed at holding his bundle of goods and services constant. It is inevitable that he must resort from time to time to approximating procedures. But the important point to note is that he is endeavouring, in the consumer price index, to produce an index of pure price change which is invariant to the effects of changing expenditure patterns, changing physical characteristics, or changing quality.

The consumer price index is a reasonably accurate and reliable reflection of changes in prices in the consumer sector in accordance with the definition set out above. A study carried out for the Royal Commission on Banking and Finance concluded that over the 12-year period, 1949-61, there may have been an upward bias of the order of 1 to $1\frac{1}{2}$ index points in the total consumer price index, or something of the order of $\frac{1}{10}$ of 1 per cent per year, due to inadequacies in the price series used for automobiles, new houses, and food. At the same time, the study drew attention to areas where the bias could well be in a downward direction. On the basis of all the evidence, the conclusion was that there was probably some upward bias in the index that could not be measured very precisely, but which was probably not very large. The analysis undertaken for the Council on this particular aspect of the problem reaches a similar conclusion.

Critics of the consumer price index sometimes allege that one of its imperfections is the failure to reflect the effects on living costs of the introduction of major new products. But one cannot have it both ways. One cannot measure the price change in an unchanging "basket" of goods and services and at the same time keep changing the composition of the "basket". Generally speaking, as a matter of practical necessity, the statistician can only introduce major new products into the index at periodic intervals when the entire weighting pattern of the index is being revised to reflect more current expenditure patterns on a comprehensive basis. However, if such revisions are long delayed, the index becomes less useful.

Another criticism of the index is that it is not representative of one large part of the population, the elderly and the retired. There is evidence that the proportion of income spent for food, housing and medical care is considerably greater for older people than for the rest of the population. Changes in the consumer price index are based on the spending patterns of groups of consumers who lie substantially outside of this part of the population. The index thus fails to provide accurate information on the course of prices paid by that part of the population which is least able to protect itself from the effects of inflationary developments.

But by far the most widespread technical criticism of the consumer price index is the allegation that it fails to hold the "basket" of goods and services constant as to quality. Despite possible deterioration in the quality of certain items at a given price, the quality of consumer goods and services as a whole tends to improve over time. As already noted, an attempt is made to allow for changes in the quality and characteristics of products in so far as these can be identified and measured in terms of market-based criteria. But no allowance is made for improvements in quality to the consumer that cannot be readily associated with changes in the price of the item or in the cost of producing it—for example, changes in design. Some critics therefore claim that there are quality improvements in goods and services which effectively represent a decline in prices. In other words, the consumer price index is alleged to have an upward bias. This issue is currently the subject of lively debate among practitioners of the art of index number construction. In its essentials, the matter appears to come down to a question of distinguishing between two quite separate approaches to consumer price measurement—whether one tries to measure the change in price of a fixed basket of goods and services as determined in the market, or whether one tries to measure the change in the cost of maintaining a constant level of consumer satisfaction. The essential problem with the latter approach is the difficulty of devising measures for constructing some type of "constant utility" index which would be more concerned with the usefulness of items to the consumer.

In summary, we conclude that the present consumer price index provides a useful measure of change in the price of consumer goods and services *if it is interpreted within the limits of its definitions.* But we are impressed by the need for research into all of the issues which are raised by the growing requirement to develop index numbers which will more accurately serve different purposes in economic analysis.

The Wholesale Price Index

The presently published general wholesale price index is deficient in both the time that has elapsed since its weight base was established (1935-39), and in its lack of a specific relation to any particular group of purchasers or producers in the economy. In addition, it is not an unduplicated measure of price change since it includes many commodities whose price is measured at two or more stages in the fabrication process.

In recent years, research efforts have been directed to the development of industry selling-price indexes for about one hundred individual manufacturing industries, with detail provided on the price movements of the individual commodities sold by each industry. This has been a promising new start. However, because interindustry transactions are not netted out of the indexes, any attempt to combine the industry detail into a total index involves duplication. For this reason, the usefulness of these indexes is largely restricted to the detail which they provide.

The Price Component of Gross National Product

The price component of Gross National Product, frequently referred to as the "implicit price deflator" of GNP, is the most comprehensive of all of the indicators available in Canada for the measurement of price change. Although the consumer price index is perhaps the best-known and most widely used indicator, it covers only the prices of goods and services purchased by a particular group of consumers. By contrast, the implicit price index of Gross National Product is a measure of the change in price of all goods and services produced by Canadians.[1] Not only does it cover the price component of all goods and services purchased by consumers, it also covers price changes in all of the other expenditure components of the GNP—government expenditure on goods and services, new housing construction, new non-residential construction, new machinery and equipment expenditures, inventory investment, and the net effect of price change arising

[1] The GNP price index, however, covers only the production of new goods and services. It therefore does not take into account price changes in land values or financial assets; nor does it take account of changes in prices of second-hand goods (except for mark-ups).

out of transactions taking place in the international sector. Because of the comprehensive nature of this index, it is used as a measure of price change taking place in the economy as a whole. This index is extremely important because it is needed to separate changes in the total value of GNP into two components—the change in the physical volume of output, and the change in the price of all goods and services—and hence it underlies calculations of the growth in the nation's total real output, productivity, and per capita real income.

As a measure of price change, however, the implicit price deflator suffers from several important defects. In the first place, it is not a measure of pure price change. The movement of the index is affected not only by changes in prices, but also by changes in the pattern or composition of expenditure components of GNP. Tests have shown that the changing expenditure patterns usually have little effect on the movements of the index from year to year. It is thus generally used to approximate over-all changes in the price level. However, it should be noted that major expenditure shifts have occasionally occurred with resulting significant effects on the index. For example, between 1954 and 1955, there was a shift from a small grain crop to a large crop. This shift had the effect of tending to damp down the rise in the implicit price deflator in 1955; with the change in crop production between 1954 and 1955 excluded, the implicit price deflator would have recorded an increase more than 1 percentage point greater than that which it actually showed. (At today's levels of GNP, a 1 percentage point difference in the implicit price index is the equivalent of well over $500 million.) While this is not a typical situation, it does point up the fact that the implicit price deflator must be interpreted with a good deal of care. It would obviously be desirable to move towards the construction of a price index for Gross National Product which would not be affected by changing expenditure patterns, and which would represent a measure of the pure price change in the Gross National Product. Considerable progress has already been made towards the development of such a "base-weighted" index.

The implicit price deflator suffers from a further and important defect. In the large and important construction sector, which represents almost two thirds of total private and public investment, and amounts to about 16 per cent of total output, there are no adequate measures of price change. The measures of price change in the construction sector are based on changes in wage rates and building material costs, with the single exception of highway construction, where an index of actual bid prices for specific types of construction on contracts let has recently been introduced. It is, of course, enormously difficult to construct an index which measures end-product prices for such a heterogeneous group of products as are covered in the construction sector—dams, harbours, apartment buildings, houses, shopping centres, factories, and many other vastly different types of structures and engineering works. No other country yet appears to have developed fully adequate price indexes of construction, so Canada is by no means unique in this regard. But the present practice of using indexes of labour and material costs to represent changes in end-product prices in the construction industry means that no allowance is being made for increases in productivity or for changes in profit margins and overhead costs. The failure to allow for an advance in productivity results in an overstatement of the actual amount of price change in construction expenditures. This defect tends to bias the over-all implicit GNP deflator in an upward direction, thus adding to its deficiencies as a measurement of price change. Moreover, it means also that the rate of growth of real output, both in the construction industry and for the economy as a whole, is understated. This also affects measures of the capital stock—that is, the country's total inventory of business structures, machinery and equipment available for current production.

Investigations undertaken on behalf of the Council suggest that the longer-term upward bias in the implicit index of construction prices could well be of the order of 1.5 per cent per year, though this undoubtedly varies over the course of the business cycle. In other words, the actual price advances in the construction sector are estimated to average about 1.5 per cent per year less than those indicated in the official published statistics. Correspondingly, the actual advance in productivity and real output in construction would be around 1.5 per cent per year higher. Moreover, on the basis of estimates designed to overcome deficiencies in the construction price measurements, the implicit deflator of GNP would have an upward bias of about 0.2 per cent per year.

A third defect of the implicit price deflator relates to government expenditure on goods and services. This component, which includes expenditures by all levels of government, currently amounts to 18.5 per cent of GNP. About half of total government expenditure on goods and services consists of wages, salaries, and military pay and allowances paid by governments to their employees. Price changes in this portion of government expenditure on goods and services are simply measured on the basis of increases in wage and salary rates of government employees; the volume of output is measured by the total number of employees on the government payroll; and output per worker, or productivity, is assumed to remain constant. No one has yet devised a means of fully measuring the rate of productivity improvement in the government sector,[1] but there can be little doubt that significant technological advances and improvements in efficiencies do take place in this sector, as in the private economy. To this extent, the official indicators understate government output, and the price component of this particular segment of government expenditure is biased in an upward direction.

It has been calculated that, if an allowance were made in the government sector for a productivity improvement on the same scale as that which occurred in the commercial nonagricultural sector of the economy, the implicit price index of government expenditure on goods and services currently presented in the official data would have an upward bias amounting to about 1 per cent per annum. Given the size of government expenditure on goods and services in the total GNP, an adjustment on this scale would have the effect of reducing the rate of rise in the implicit GNP price index by around 0.2 per cent per year. This would imply a corresponding increase in the measurement of over-all economic growth and of total productivity gains.

The remaining part of government expenditure on goods and services (the half which is not represented by the wage and salary component) consists of capital formation (mainly construction), defence purchases, and a miscellaneous residual element. We have already noted the deficiencies in the price measurement in the construction sector. We would simply note further that there are very difficult problems of developing appropriate matching price indicators for the purpose of deflating defence expenditures and the remaining residual segment of government purchases.

To sum up, it seems entirely possible that the amount of upward bias which the implicit Gross National Product price deflator currently contains could be of the order of 0.5 per cent per year (Table 4-1). However, the qualifications which must accompany this evaluation require special emphasis. This has not been a complete appraisal of all components of the implicit Gross National Product price index; it has covered somewhat more than one half of the area taken in by the total available supply estimate (i.e. Gross National Product plus

[1] A beginning has been made in the United States on this problem. Output and productivity measures have been devised for four or five governmental agencies. See "Measuring Productivity of Federal Government Organizations", U.S. Bureau of the Budget, 1964.

imports). No quantitative estimates have been made of the direction or dimensions of possible bias in the price components of inventories, machinery and equipment, exports or imports; no quantitative evaluation was made for a substantial part of the government expenditure component. Attention has been focused mainly on those major areas in which deficiencies would clearly appear to exist, and in which some indication suggestive of an order of magnitude could be developed.

For these reasons, the figures should be taken only as indicative of possible orders of magnitude. The important point is not that the numbers contained here are precise, but that the general appraisal on which they are based makes it clear that a major and continuing research effort is needed to improve upon current measures of over-all price change, but also to correct for the understatement which such from the point of view of greater precision in the measurement of price change, but also to correct for the understatment which such biases imply for the rate of the nation's growth in real output and productivity. This is a very important matter for analysis and policy. An upward bias of 0.5 per cent in the GNP price index, for example, would imply that the *rates of growth* in over-all productivity and average real living standards in the Canadian economy over the post-war period would have been understated by roughly one fifth. Because the implicit price indexes contain systematic biases, these by

TABLE 4-1—BIASES IN IMPLICIT PRICE INDEXES FROM NATIONAL ACCOUNTS

	Per Cent Per Annum by Which Various Indexes Overstate Price Increases
Possible upward bias in price index of private and public construction	0.2
Possible upward bias in price index of government expenditure on goods and services	0.2
Possible upward bias in price index of consumer expenditure on goods and services[1]	0.1
Possible upward bias in total Gross National Product price deflator	0.5

[1]The composition of this bias is not identical to that determined in relation to the consumer price index. In part, it relates to the fact that non-commercial institutions are treated as associations of individuals in the consumer sector of the National Accounts, and no productivity adjustment is made in measuring the output of these institutions.

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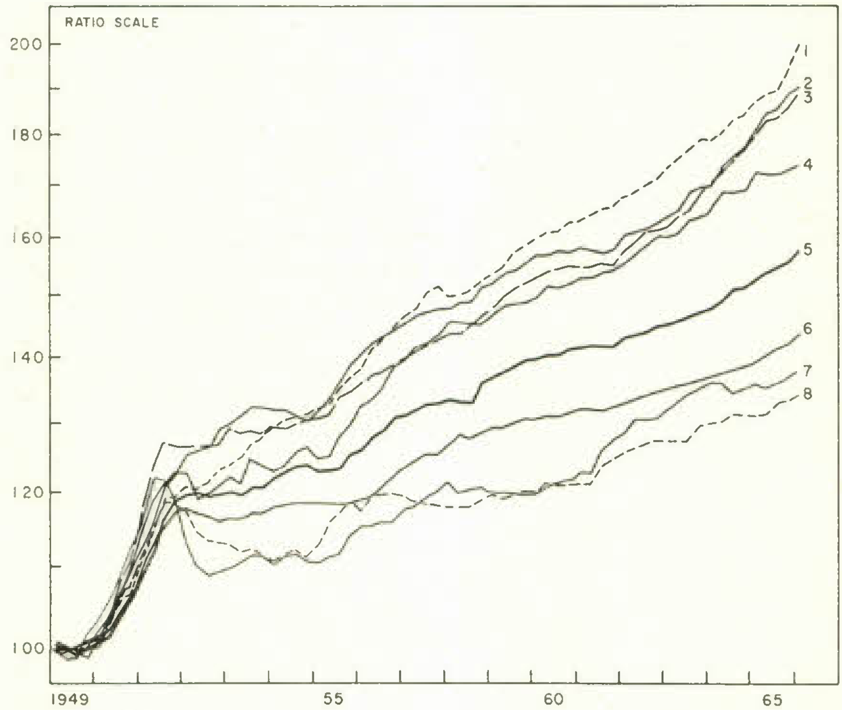
no means render such indexes ineffective for shorter-term economic analysis. But the problems posed for longer-term analysis and policy questions are more serious when the biases can cumulate into large dimensions.

It should be noted, however, that Canadian practice is essentially similar in these respects to that in many other countries, with the result that the above biases do not substantially affect international comparisons based on National Accounts data.

CHART 4-1

PRICE INDEXES OF GROSS NATIONAL PRODUCT AND MAJOR COMPONENTS

(1949 = 100)



Implicit price indexes:

1. Government expenditure on goods and services
2. Non-residential construction
3. Housing
4. Machinery and equipment
5. Gross National Product
6. Personal expenditure on consumer goods and services
7. Imports of goods and services
8. Exports of goods and services

Note: **Based on seasonally adjusted quarterly data.**
Source: **Based on data from Dominion Bureau of Statistics.**

Chart 4-1, which is based on official statistics, shows clearly that price increases in the government and construction sectors have been much more rapid than for the economy as a whole or for other main components. Added to the foregoing appraisal, this suggests that some degree of cumulative upward bias is present in these particular indicators of price change.

The Role of the Dominion Bureau of Statistics

None of the conclusions regarding price statistics, either in the preceding discussion or elsewhere in this *Review*, reflect on the performance of the Dominion Bureau of Statistics. The present range and quality of the price statistics generated by the Bureau represent a highly productive output in relation to the resources available for their development and maintenance.

But it is our view that there is considerable scope for improving and extending the existing data in the field of prices to meet the increasing demands which can and should be placed on the development of better basic price information for economic analysis and policy decisions. Not all of the problems which we have outlined briefly in this section lend themselves to early solution; and none of them lend themselves to easy solution. Difficult conceptual and technical problems will have to be overcome, with the aid of substantially enlarged and highly skilled resources. But this merely reinforces the need for early initiative to strengthen the statistical base of our knowledge about prices. High rates of return will accrue from the allocation of larger resources to this end, especially if better information helps to avoid costly mistakes in policies affecting employment, production, income and the standards of living of Canadians.

GENERAL FEATURES OF PRICE AND COST EXPERIENCE SINCE 1949

The Timing of General Price and Cost Increases

The greater part of the price increases which have occurred in Canada since 1949 has been concentrated within three fairly short intervals of time. The consumer price index in Canada has risen by close to 45 per cent since 1949. Well over half of this increase has been concentrated in three fairly short periods—the period immediately following the outbreak of the Korean War (in June 1950); the period during and shortly after the resource-based investment boom of the

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mid-1950's; and the most recent period of price advance. These three periods together cover less than one third of the total time span. Similarly, the rise in the implicit price deflator of the Gross National Product has been heavily concentrated in these three periods, although the degree of compression is less striking. The figures are shown in Table 4-2. Apart from the three special periods mentioned, the average rates of increase in the consumer price index have not exceeded 1.5 per cent per year, and average rates of increase in the price deflator of Gross National Product have not exceeded 2.0 per cent.

TABLE 4-2—ANNUAL RATES OF CHANGE IN MAJOR PRICE INDEXES SINCE 1949

(Percentage changes)

	Consumer Price Index		
	Total	Total, excluding food and services	Implicit Price Index of GNP
(a) *Periods of Rapid Increase* (29 per cent of total time period)			
2Q 1950 to 4Q 1951	10.4	9.0	11.3
2Q 1956 to 4Q 1958	3.1	1.7	2.5
2Q 1965 to 2Q 1966	3.8	2.1	4.0
Weighted average of above periods	5.4	4.0	5.4
(b) *Periods of Slower Increase or Decline* (71 per cent of total time period)			
1Q 1949 to 2Q 1950	1.4	1.4	1.5
4Q 1951 to 2Q 1956	−0.1	−0.8	1.5
4Q 1958 to 2Q 1965	1.4	0.7	1.9
Weighted average of above periods	0.8	0.2	1.7
(c) *Total Time Period*			
1Q 1949 to 2Q 1966	2.1	1.3	2.8

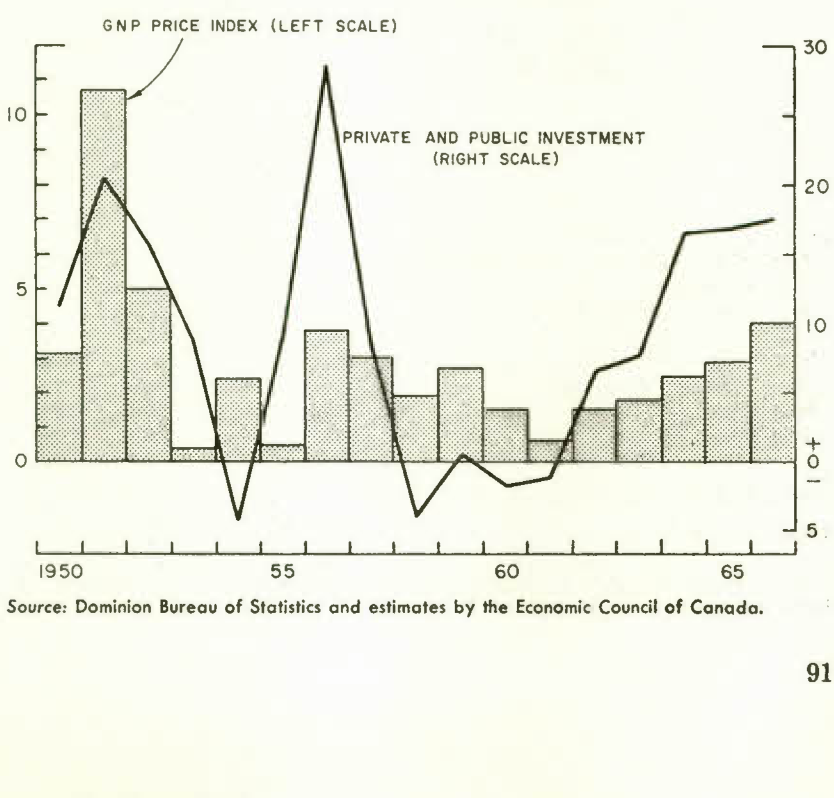
SOURCE: Based on data from Dominion Bureau of Statistics.

Another important aspect of Canada's post-war price performance is that the three periods of strongly rising prices and costs have been associated with massive capital investment booms arising from strong over-all demand (including export demand) which put increasing pressure on existing capacity. In the case of the Korean period, which was the period in which the rate of price advance was most clearly excessive, there were also sharply rising levels of defence expenditures. Between 1950 and 1952, defence outlays rose from about $500 million to $1,800 million. Over the same period, private and public investment outlays in Canada rose by close to 40 per cent, and there was also heavy speculative accumulation of inventories. The price and cost effects of these extremely strong demand pressures in the domestic economy were aggravated by international developments, including sharply rising prices of internationally traded commodities and heavy demand for Canadian exports. Thus, the price rise in the Korean period was greatly in excess of the price increases which accompanied the resource-based investment boom of the middle 1950's, and it was also greatly in excess of the price increases which have been experienced over the present strong expansion during which investment outlays have once again risen very rapidly. Chart 4-2 provides some perspective on the intensity and timing of price increases in the Canadian economy since 1949, as measured by changes in the over-all price index of the Gross National Product, in relation to the dimensions and timing of Canada's post-war investment booms.

The implication of the evidence in Chart 4-2 is that the post-war periods of greatest price increase in Canada have been those in which

CHART 4-2

ANNUAL PERCENTAGE CHANGES IN GROSS NATIONAL PRODUCT PRICE INDEX AND IN TOTAL PRIVATE AND PUBLIC INVESTMENT



Source: **Dominion Bureau of Statistics and estimates by the Economic Council of Canada.**

a new wave of capital investment has tended to drive up the level of demand to a point at which the economy's supply capabilities have been placed under increased strain, with consequent upward pressure on general levels of prices and costs. This is not the only factor in the process, but it is a very important one. We shall have more to say on the role of the construction sector as a destabilizing element in this process in a subsequent part of this Chapter.

Comparison with U.S. Experience

A further major aspect of Canadian price performance, not simply over the post-war period but over a much longer time span, is the marked similarity in the behaviour of the main measurements of price change in Canada to those of the United States. A comparison of consumer prices in the two countries since 1913 has been shown in Chart 3-1 of Chapter 3. A closer look at other aspects of comparative price performance since 1949 is provided in Chart 4-3 and Table 4-3. The longer-term similarity of price movements in the two countries is not surprising. It reflects the wide range of economic relationships between the two countries, a largely common economic experience of depression and war, and considerable similarity and linkage between shorter-term fluctuations in the two economies.

TABLE 4-3—PRICE PERFORMANCE,
CANADA AND THE UNITED STATES
(Average annual percentage changes)

	1949–65		1960–65	
	Canada	U.S.	Canada	U.S.
Implicit Price Indexes of:				
Personal expenditure on consumer goods and services	2.2	1.8	1.4	1.1
Government expenditure on goods and services	4.1	3.3	3.3	2.6
Residential construction	3.8	2.4	3.4	2.0
Non-residential construction	3.9	3.0	3.3	1.9
Machinery and equipment	3.5	2.1	2.7	0.3
Exports of goods and services	1.7	1.2	1.8	0.9
Imports of goods and services	1.9	1.4	2.3	0.5
Gross National Product	2.7	2.1	1.9	1.4
Consumer Price Index	2.1	1.8	1.6	1.3

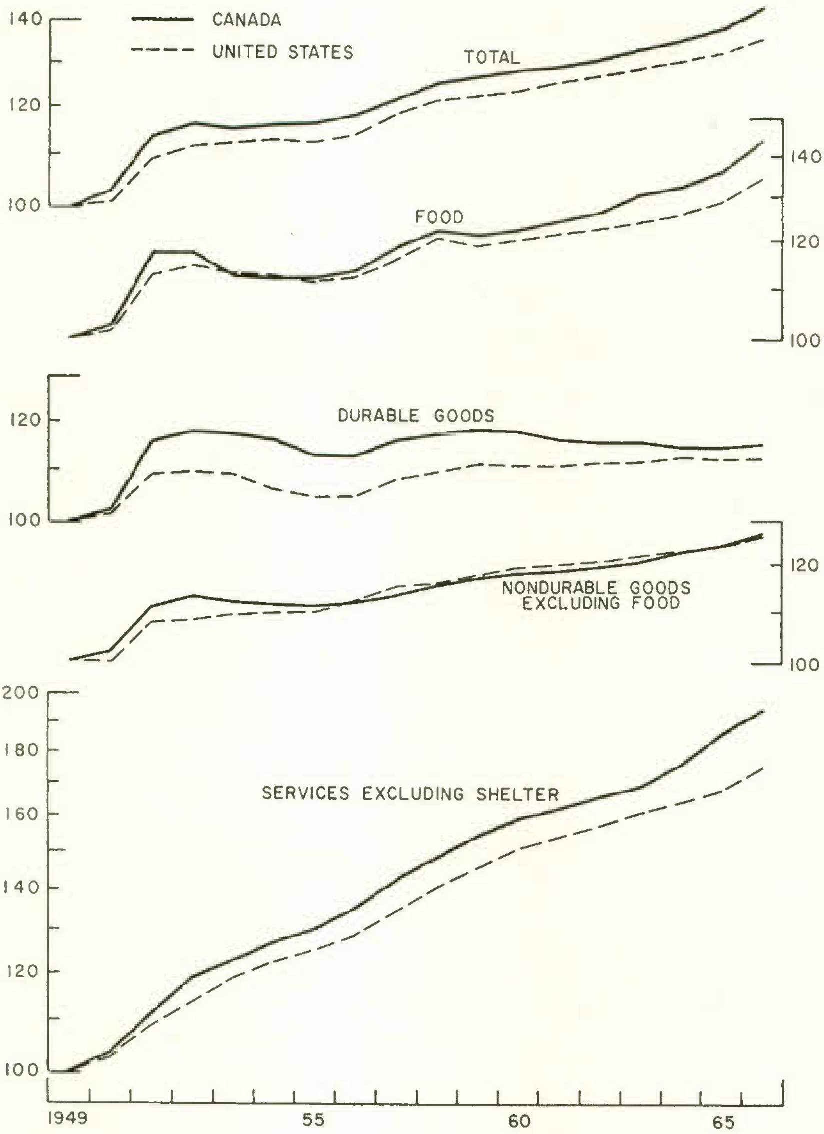
SOURCE: Based on data from Dominion Bureau of Statistics, U.S. Department of Commerce, and U.S. Bureau of Labor Statistics.

CHART 4-3

CONSUMER PRICES, CANADA AND THE UNITED STATES

(1949=100)

RATIO SCALE



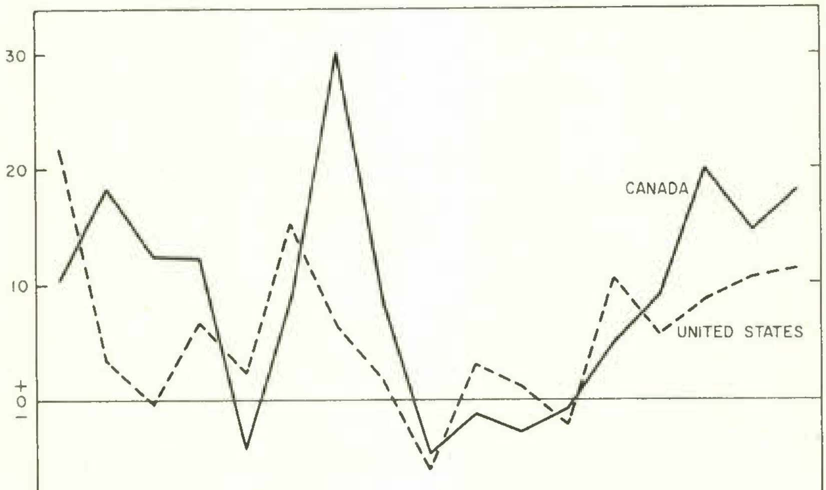
Note: 1966 data are average for seven months.
Source: Based on data from Dominion Bureau of Statistics and U.S. Bureau of Labor Statistics.

Despite the longer-term similarities and closely parallel trends in prices between the two countries, there appears to have been a tendency in the post-war period for general indexes of prices to rise somewhat faster in Canada than in the United States during periods of strongly rising economic activity in North America. This would appear to reflect, among other things, the typical tendency of total demand to rise even more strongly in Canada than in the United States in such periods, frequently with greater pressures on manpower and other productive resources, and with particularly strong additional stimulation from external expansionary forces. The relatively much larger and more volatile investment sector of the Canadian economy is also a contributing factor. In 1965, Canadian private investment accounted for 20 per cent of Gross National Product compared with 14 per cent in the United States. Chart 4-4 shows the relatively greater volatility of investment in Canada.

Also, the Canadian economy would appear to be somewhat more exposed than the U.S. economy to major fluctuations in world commodity prices. Some of these prices have frequently advanced strongly during periods of business expansion in Canada and have had particularly important effects on the economy because of Canada's heavy

CHART 4-4

ANNUAL PERCENTAGE CHANGE IN PRIVATE INVESTMENT, CANADA AND THE UNITED STATES



Source: **Based on data from Dominion Bureau of Statistics and U.S. Department of Commerce.**

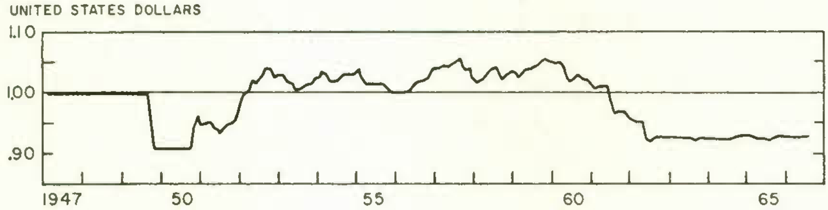
involvement in exports of many of these commodities. This was most notably the case during the sharp rise in commodity prices at the outbreak of the Korean War when, in spite of the moderating influence of an upward movement in the exchange rate, Canada's general price level increased significantly more sharply than that of the United States. Rises in world commodity prices of this breadth and speed have not recurred, but rises in base metal prices in 1964-66 had a greater relative impact on Canada than the United States.

The Effects of Exchange Rate Adjustments

Major adjustments in Canada's foreign exchange rate have been an important aspect of the country's post-war price and cost experience. For example, under the strong demand conditions emerging at the time of the outbreak of the Korean War in 1950, the abandonment of a fixed exchange system and the subsequent rapid rise of the exchange value of the Canadian dollar acted to moderate the extent of the price increases being generated by other factors. Again, the decline in the exchange rate in the early 1960's and the return to a fixed exchange rate system in 1962, at a level well below that of the 1950's (Chart 4-5), tended to have an upward influence on many prices. However, the existence of substantial slack in the economy at that time undoubtedly moderated and retarded the price and cost effects which such a devaluation would have tended to have if it had taken place under conditions of stronger demand and lower unemployment.

CHART 4-5

CANADIAN EXCHANGE RATE[1]



[1]Monthly average noon rates, U.S. dollars per Canadian dollar.
Source: Based on data from Bank of Canada.

A major adjustment in the exchange rate is a fundamental change which alters the whole level and structure of prices and costs of a country in relation to those abroad. A wide range of economic consequences and adjustments tend to flow from major changes in the external value of a nation's currency, and these take varying periods of time to work themselves out, especially as regards their effects on prices and costs. Some of the latter effects are relatively quick; others are much slower. Many complex factors may have a bearing on both the nature and dimensions of these effects and on the speed with which they develop.

TABLE 4-4—PERCENTAGE CHANGE IN EXCHANGE RATE AND SELECTED PRICE INDEXES

	1Q 1960 to 4Q 1962
Price of U.S. dollar in Canadian funds	+13.1
Import price index	+ 9.8
Export price index	+ 5.5*
Wholesale price index	+ 5.1
Consumer price index	+ 3.6
GNP price index	+ 3.5

*This figure understates the actual rise in export prices during this period owing to the reporting of the values of some exports in U.S. rather than Canadian dollars.

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

The decline in the exchange rate, which began early in 1960 and which culminated in the pegging of the rate in May of 1962 at a value some 13 per cent below its earlier peak, had a pervasive and significant effect on Canadian prices, both through its immediate impact on import and export prices and through the longer-term adjustments which it stimulated in the domestic economy. The short-term impact of the exchange rate decline on the various measurements of price change in Canada cannot be calculated with any great degree of precision, but the figures in Table 4-4 are suggestive of the orders of magnitude which may have been involved. In a period of close to three years, import prices, which were most directly affected by the exchange rate decline, rose by close to 10 per cent. At the same time, the index of export prices rose by about half as much as import prices.[1] This latter development reflected the fact that the prices of many of Canada's basic commodity exports are established in international markets; an unchanged international price, translated into

[1] The rise in export prices and in the value of exports over this period is known to be understated to some extent by the available price measures, owing to a reporting of the values of some exports in U.S. rather than Canadian dollars.

Canadian dollars at the lower exchange rate, would result in a substantial rise in the Canadian dollar price equivalent of such exports. Over this period, too, the wholesale price index, which has a high export and import content, rose by 5 per cent. However, the more general measures of price change—the consumer price index, and the price index of Gross National Product—rose more moderately.

It should be noted that some part of the rise in the import price index over this period reflected the imposition, in mid-1962, of emergency surcharges on certain types of commodity imports. These were subsequently removed in progressive stages, and completely eliminated in the spring of 1963. Moreover, it would be imprudent to ascribe all of the increase which occurred in the various price indexes over this period to the decline in the exchange value of the Canadian dollar; other forces were also at work. The mechanism through which the price effects of an exchange rate decline are transmitted to the domestic economy is complex, and it is not possible to disentangle such effects at all precisely from other forces which operate on prices and costs. But it is clear that a large part of the increases which occurred in the import, export and wholesale price indexes over this period was attributable to the steep decline in the foreign currency value of the Canadian dollar and the correspondingly sharp rise in the price of foreign exchange.

The shorter-term effects of exchange rate changes on prices of internationally traded items were thus fairly direct. As long as there was a significant amount of slack in the economy as a whole, there was only a modest influence on prices and costs of items which were largely produced and consumed domestically. However, as the economy moved closer to full capacity, there was less scope to increase output rapidly from unutilized resources. The higher Canadian dollar prices of internationally traded items began to have a somewhat greater upward pull on costs and prices in other areas. Furthermore, the subsequent strength of the expansion in the Canadian economy, which carried the unemployment rate to a level that was for a time well below that of the United States, and which also gave rise to a major capital investment boom, was undoubtedly related to the longer-term stimulating effects of the exchange rate movement on total production and employment. In these circumstances, the surprising thing is not that prices in Canada rose relative to those in the United States, but that the extent of the relative rise in Canada took so long to develop and has been so moderate in relation to the initial devaluation.

The Cyclical Behaviour of Costs and Prices

The cyclical behaviour of costs and prices is an important aspect of Canada's post-war cost and price experience. Some of the most important features of such behaviour can be seen in the cyclically volatile manufacturing industry, which is the largest component of the goods-producing sector of the economy. It is in the goods-producing sector that business cycles typically originate, and it is here that their manifestations are most clearly discernible in the economic indicators.

In commenting on the cyclical relations of costs, prices, and profits, the National Bureau of Economic Research states that:

> "...prices and costs per unit of output follow one another closely in their broader movements yet diverge significantly at strategic points in the business cycle. For example, in most manufacturing industries, when an expansion in sales gets under way, unit costs decline at first. But as the expansion continues, costs per unit generally begin to rise. The cyclical upturn in costs often produces a downturn in profit margins before sales reach their peak. Prices usually do not contribute to this tendency for margins to fall: the prime mover is unit costs...."[1]

These particular relationships are clearly illustrated for Canadian manufacturing in Chart 4-6. The decline in unit labour costs in the early stages of an expansion is related to the stronger advance in productivity which generally occurs as the economy moves out of a period of slack. It also reflects the fact that in the early stages of an expansion, the labour market situation is usually relatively easy, while other developments with a bearing on wage behaviour, such as movements in consumer prices and profits, have not yet begun to encourage strong advances in average hourly earnings.[2] As the expansion proceeds, and well before it reaches its peak, unit labour costs begin to rise. This rise tends to be prolonged well past the peak of the expansion, reflecting the fact that once a pattern of spreading wage-

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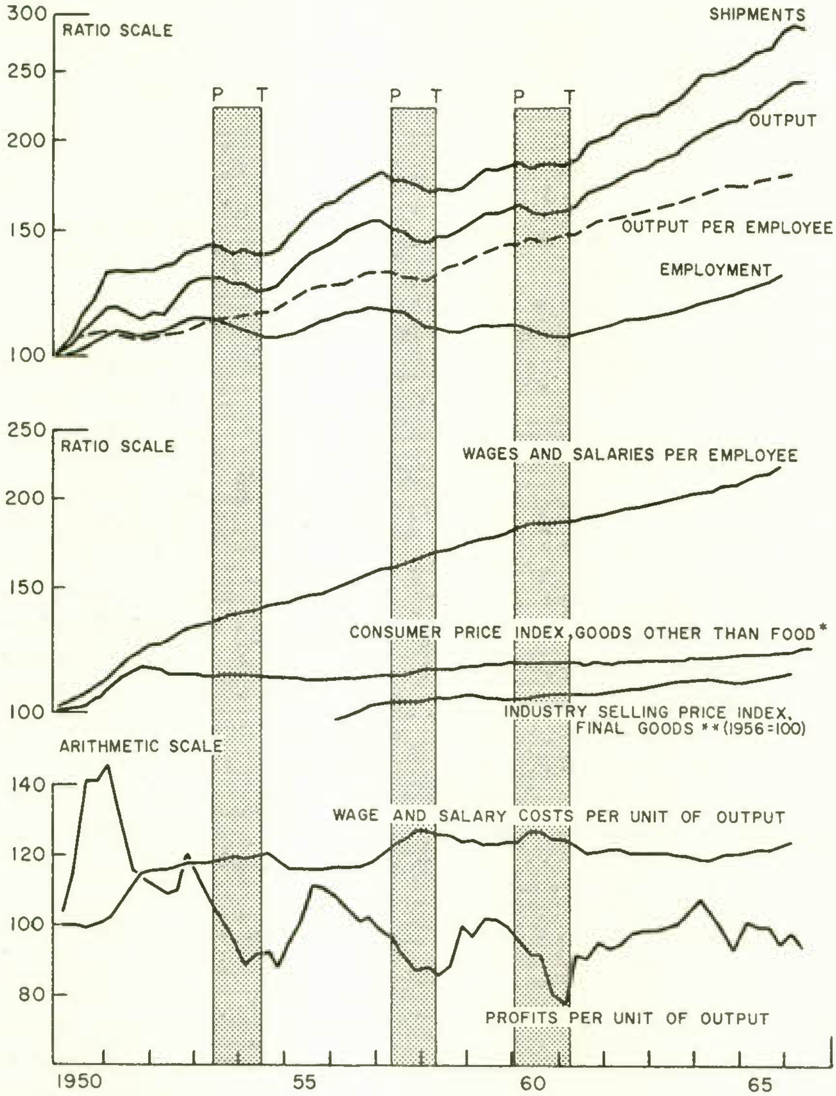
[1] National Bureau of Economic Research, ***Forty-Sixth Annual Report***, June 1966, p. 3. The analysis in this section draws heavily on Thor Hultgren, ***Costs, Prices and Profits, Their Cyclical Relations***, Studies in Business Cycles Number 14, National Bureau of Economic Research, 1965.

[2] In the concluding section of this Chapter, we shall be reviewing some evidence that in addition to being sensitive to the state of the labour market and of the economy generally, wages respond to changes in consumer prices, and—subject to a lag—to changes in profits. An exception to the rule that unit labour costs usually decline in the early stages of an economic expansion is provided by the experience of 1950–51, when unit costs did not decline and rose sharply at an earlier-than-usual stage of the 1949–53 economic expansion. This may be explained by the tight state of the labour market at the beginning of the expansion, by the sharp further tightening which occurred with the outbreak of the Korean War, and by exceptionally sharp rises in consumer prices and profits which stimulated very strong upward wage movements.

CHART 4-6

INDEXES OF SELECTED ECONOMIC INDICATORS RELATING TO MANUFACTURING

(1949 = 100)



*Based on monthly data.

**This index, compiled by the Economic Council of Canada, involves some double-counting of price movements in individual industries.

Note: The shaded areas denote recessions and the letters P and T denote peaks and troughs in the short-term Canadian business cycle.

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

rate increases is under way it may continue for some time even after output and employment have turned down and productivity growth has slowed.

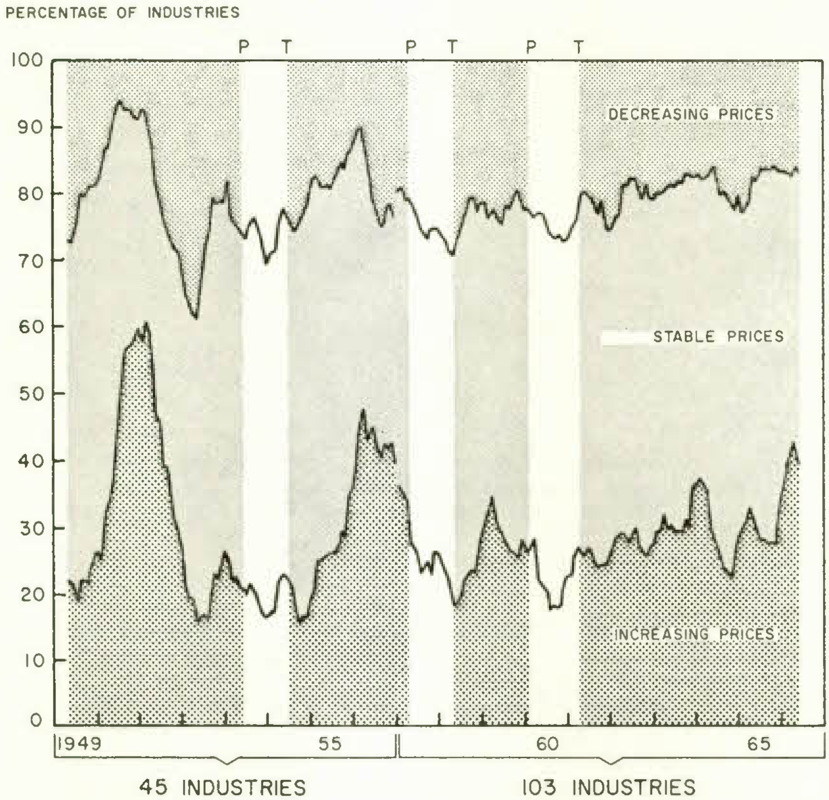
The effect of these cyclical movements in unit labour costs is strongly reflected in the behaviour of profits per unit of output over the course of the business cycle. In the early stages of the expansion, when unit labour costs are typically declining, profits per unit of output tend to rise very strongly. Well before the expansion has reached its peak, however, as unit labour costs turn upward, profits per unit of output turn sharply down. These declines in unit profits have usually continued well into the recession, a development which mirrors the fact that unit labour costs have tended to continue to rise well after the peak of the cycle has been passed. The cyclical volatility of unit profits in manufacturing tends to be much more closely linked to changes in unit costs than to changes in the selling prices of manufactured goods over the course of the business cycle. Indeed, as indicated in Chart 4-6, selling prices in manufacturing tend, on the whole, to remain relatively stable over the course of shorter-term business fluctuations.

During any period of time there are both increases and declines in prices of manufactured products. But during business cycle expansions, there tend to be fewer price declines and more price increases; conversely, in recessions, there are typically fewer price increases and more reductions. Chart 4-7 shows the "diffusion" or breadth of price increases which have taken place over the post-war period in industry selling prices. The cyclical patterns of change are clearly in evidence. At one point during the 1950-51 expansion, as many as 60 per cent of the industries for which indexes are available were increasing prices. During the 1956-58 period, this figure did not get above 50 per cent. In the economic expansion which began in 1961, the broadening out of manufacturers' price increases was more gradual than in previous periods of business expansion.

Chart 4-8 relates a broad panorama of changes in a number of the better-known price indicators over the period 1949-66 to periods of cyclical expansion and recession. Each of these indicators showed its strongest advance during the period following the outbreak of the Korean War. The most sensitive of these indicators, the price index of 30 industrial materials, responds more sharply than the other measures of cost and price change to cyclical fluctuations in the economy. Indeed, this particular index has usually weakened well before the peak of business expansions has been reached, and is thus classed as a "leading indicator" by business cycle analysts. On the other hand, the consumer price index and the index of average wages and salaries per employee shown in Chart 4-6, tend to show a stronger secular tendency, responding with less sensitivity to business cycle fluctuations, and usually continuing to increase significantly after a cyclical peak in general business activity. The implicit price deflator of GNP also behaves rather sluggishly through periods of cyclical weakness, showing a tendency to continue to drift upwards. Conversely, these indexes do not generally begin to rise quickly or strongly during the

CHART 4-7

PERCENTAGES OF SELECTED MANUFACTURING INDUSTRIES WITH INCREASING, STABLE OR DECLINING PRICES



Note: The white areas denote recessions and the letters P and T denote peaks and troughs in the short-term Canadian business cycle.

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

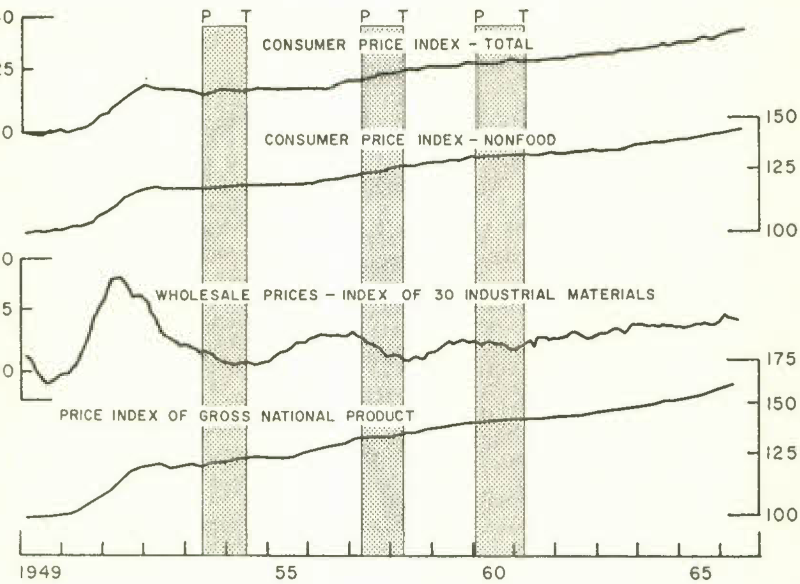
earlier stages of a cyclical expansion. These indexes, along with the more cyclically volatile unit labour cost index, are therefore frequently termed "lagging indicators".

CHART 4-8

SELECTED GENERAL PRICE INDEXES

(1949 = 100)

RATIO SCALE



Note: Monthly data for consumer and wholesale prices; quarterly data for GNP price index. The shaded areas denote recessions and the letters P and T denote peaks and troughts in the short-term Canadian business cycle.

Source: Based on data from Dominion Bureau of Statistics.

It is clear from this analysis that the interpretation of the degree of pressure on costs and prices in the economy at any given moment is a matter requiring considerable skill and judgment. Increases in the price measurements which continue to be reflected for a considerable time after business conditions have weakened can lead, through misinterpretation, to inappropriate policy actions. The leads and lags in the movement of the broad cost and price indexes therefore call for great care in interpreting price indicators as measures of the degree of underlying and persistent pressures in the economy.

The Effects of Indirect Taxes

A further aspect of Canada's post-war price performance, and one which has not received a great deal of attention, has been the increasing extent to which indirect taxes and other government levies have affected costs and prices. From 1949 to 1965, indirect taxes per unit of output rose more sharply than any other major cost component of GNP, and such taxes now account for about 15 per cent of total GNP. They rose, in fact, at a rate more than 50 per cent faster than the GNP price deflator over the whole period, and at more than double the rate of the GNP price deflator since 1960 (Table 4-5). This

TABLE 4-5—INDIRECT TAXES PER UNIT OF OUTPUT AND SELECTED COST COMPONENTS OF THE GROSS NATIONAL PRODUCT PRICE INDEX

(Average annual rates of change)

	1949–65	1960–65
Indirect taxes per unit of output	4.2	4.0
(Federal)	(2.6)	(2.7)
(Provincial-municipal)	(5.8)	(5.1)
Labour costs per unit of output	2.9	1.8
Corporation profits (before taxes) per unit of output	1.8	3.6
Total costs per unit of output (GNP price index)	2.7	1.9

SOURCE: Based on data from Dominion Bureau of Statistics.

development mainly reflects increased revenue requirements of provincial-municipal governments to meet growing expenditures in their fields of responsibility. More recently, since 1963, there has also been a sharp advance in such taxes at the federal level as a result of the application, in progressive stages, of the 11 per cent federal sales tax to machinery and equipment and building materials. The figures do not, of course, reflect the imposition of a payrolls levy on business firms to meet part of the cost of the recently inaugurated Canada and Quebec Pension Plans which came into effect in 1966. This has operated to raise the total labour costs of businesses by about 1 per cent in 1966. To the extent that this cost is "shifted forward" to customers through higher prices, it also represents an element in the price rise which has occurred between 1965 and 1966.[1]

[1] The Canada and Quebec Pension Plan contributions by business firms are not classified as indirect taxes either in the National Accounts or in government accounting records. However, if they are shifted forward, their effect on price is the same as that of an indirect tax or any other business cost which is shifted forward.

99157—8

It is important to recognize that although indirect taxes and other charges levied by governments may be shifted forward and show up as price increases in the price indexes, they are of a rather different character than the conventional type of price rise. They represent, in effect, the price which the community in a collective sense pays for increased government services including social capital and pensions. Had the community chosen some other method of financing such increased government services—by higher direct personal taxes, for example—the effects on prices and on the measurements of price change would have been quite different.[1] When increased indirect taxes represent a major source of financing for rising government spending, however, the community in effect pays for an increased level of government services by accepting a higher price for the goods and services which it purchases in general. There is no doubt that this has been a significant factor in the "measured" rise in prices which has taken place over the past decade and a half.

PRICE AND COST DEVELOPMENTS IN PARTICULAR SECTORS

Price and cost increases over the post-war period have been far from evenly spread across major sectors of the Canadian economy. Within the consumer price index, for example, the variation in movements of food prices and the much more rapid increase in the price of services than in that of goods stand out sharply. It was also observed earlier (Chart 4-1) that, in the economy as a whole, rises in the prices of construction goods and of goods and services bought by governments appeared to have been distinctly greater than average. This, however, was attributed in part to upward biases in the relevant price measures. In the light of these patterns, special attention would appear to be warranted to price and cost developments in three particular areas: construction, food, and consumer services.

Construction

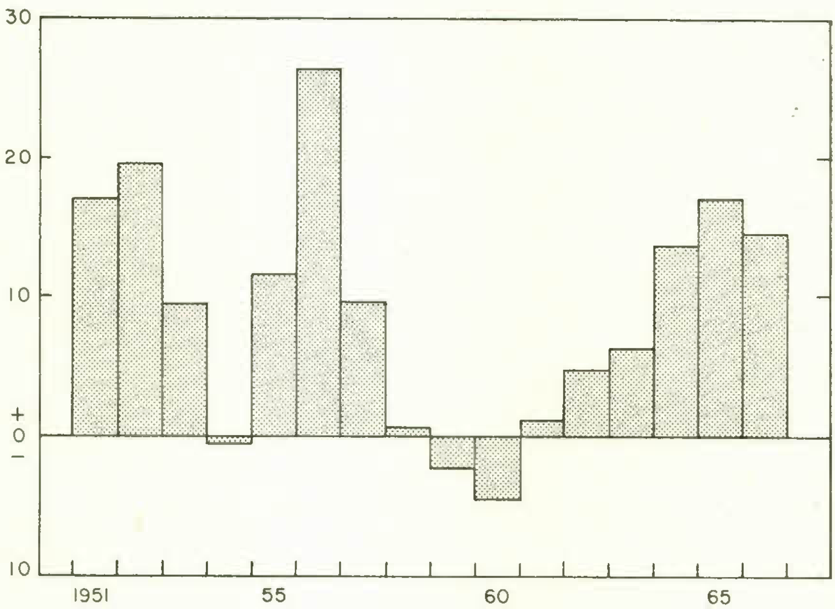
Under post-war conditions, construction spending has shown a special and unique potential for aggravating, or even inducing, instabili-

[1] It is not suggested here that higher direct personal income taxes may not eventually give rise to demands for higher wages which may in turn be shifted forward into price. But the link to prices is more tenuous and indirect and the effects in terms of degree and timing would certainly be different. Also, increases in both direct and indirect taxes have various effects, including that of restraining expansion of private demand.

ties in the Canadian economy, with consequent repercussions on general costs and prices.[1] Chart 4-9 and Table 4-6 illustrate the extreme volatility of construction demand in Canada over the past decade and a half. At the upper end of the range, residential construction outlays have shown swings of from +25 per cent in one year to −17 per cent only two years later; non-residential construc-

CHART 4-9

YEAR-TO-YEAR PERCENTAGE CHANGE IN TOTAL CONSTRUCTION EXPENDITURE



Note: 1966 data are estimates based on officially reported intentions.
Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

[1] This section of the analysis deals with private and public construction outlays as defined in both the National Accounts and in the private and public investment surveys carried out by the Dominion Bureau of Statistics and the Department of Trade and Commerce. The data used throughout this section cover new construction only. The bulk of this construction work is carried out under contract by the "construction industry" in response to demands originating in the private and public sectors. However, some part of it (a steadily declining share) is carried out by workers whose labour force attachment is not to the construction industry as such but to the industry for whom the work is performed. In 1965, about 83 per cent of all construction work was performed under contract by the construction industry.

99157—8½

TABLE 4-6—YEAR-TO-YEAR PERCENTAGE CHANGES IN MAIN COMPONENTS OF CONSTRUCTION OUTLAYS

Increase over Previous Year	Residential Construction	Non-Residential Construction	Direct Government Outlays	Total
1951	1.4	21.9	33.7	17.0
1952	4.2	23.3	32.4	19.6
1953	25.0	9.8	−6.8	9.4
1954	5.2	−2.8	−3.7	− .5
1955	12.3	10.6	12.4	11.6
1956	10.7	40.1	22.8	26.5
1957	−7.7	19.9	9.8	9.7
1958	25.1	−9.4	−1.3	.8
1959	−1.6	−7.9	10.4	−2.1
1960	−16.8	− .5	3.4	−4.5
1961	1.0	4.1	−3.9	1.2
1962	8.2	−1.7	14.2	4.9
1963	8.2	7.5	2.7	6.4
1964	18.4	18.4	0.6	13.8
1965	5.1	17.8	30.6	17.1
1966	− .7	23.3	13.6	14.6

NOTE: 1966 data are estimates based on officially reported intentions.

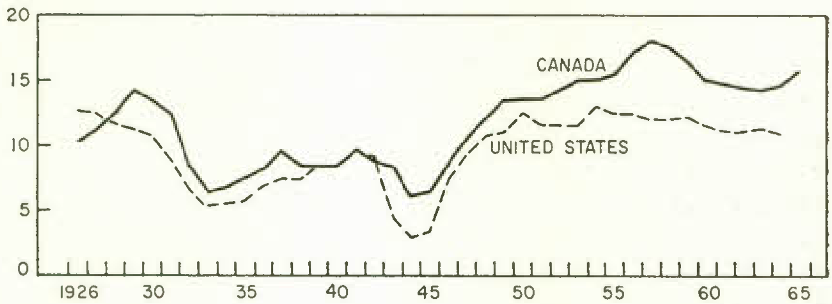
SOURCE: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

tion outlays have shown shifts of from +40 per cent to −9 per cent over a two-year period; direct government construction outlays have swung around by as much as from +32 per cent in one year to −7 per cent in the next. Moreover, in periods of strong expansion, all three components of construction demand—residential, non-residential and government—have tended to surge forward together, creating pressures which have not only driven up costs and prices in this sector, but have contributed to excessive levels of over-all demand, only to be followed by recurrent periods of slower growth and rising unemployment.

Several features of the construction sector contribute to its unique status as a destabilizing element. The first is simply its size. Construction outlays currently account for about 16 per cent of the Gross National Product in Canada, compared with about 11 per cent of GNP in the United States (Chart 4-10). About 8 per cent of Canadian GNP is represented by business non-residential construction (both private and government business enterprises); about 4 per cent by government departments and institutions; and about 4 per cent by outlays for new housing construction (Table 4-7). Clearly an industry

CHART 4-10

CONSTRUCTION AS PERCENTAGE OF GROSS NATIONAL PRODUCT, CANADA AND THE UNITED STATES



Source: Based on data from Dominion Bureau of Statistics and U.S. Department of Commerce.

which bulks so large in the economy is capable of exercising major leverage effects on levels of economic activity, and also possesses a greater potential for inducing elements of instability in Canada than in the United States.

A second feature of the construction industry in the past has been the extreme volatility of construction demand—a volatility which has ultimately arisen from instability in total demand for all goods and services in North America. Rapid increases in demand for non-residential business construction do not normally occur in the early

TABLE 4-7—PRIVATE AND PUBLIC CONSTRUCTION OUTLAYS AS PERCENTAGE OF GROSS NATIONAL PRODUCT

	1957	1961	1965	1966
Direct government outlays (government departments and institutions)	4.0	3.7	4.1	4.2
New private residential construction	4.4	3.9	4.1	3.7
New non-residential (business) construction	9.7	7.2	7.6	8.5
(of which government business enterprises)	(2.6)	(1.8)	(2.3)	(2.3)
Total private and public construction	18.1	14.7	15.8	16.4

NOTE: 1966 construction data are estimates based on officially reported intentions.

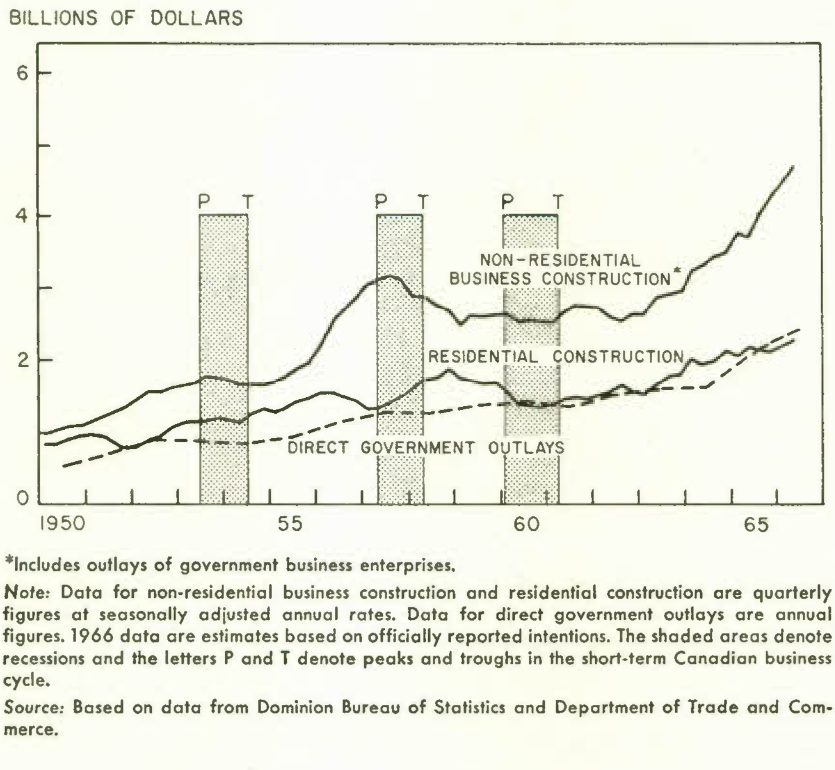
SOURCE: Based on data from Dominion Bureau of Statistics and estimates by the Economic Council of Canada.

stages of an expansion in total output and demand, but only after a lag when production rates begin to rise in relation to existing productive capacity and the need for a major expansion of capacity is indicated. Then the rise in construction demand tends to gather momentum quickly. Later, with a slowing of underlying growth in total output and demand (and again, after a lag), there has typically been a decline in non-residential construction demand—leading to a decline in the value and volume of new construction activity in the business sector. When this basic pattern of volatility of construction demand in this sector is reinforced, as has almost invariably been the case in the past, by concurrent large swings in government construction demand, the dimensions of the over-all volatility in demand for construction have been extraordinarily large. The steepness of the rise in over-all construction demand in the later stages of a strong general economic expansion tends to bring the supply capabilities of the construction industry under strong pressure, and threatens to spill over into significant cost and price increases. Conversely, when a significant degree of slack has emerged in the economy, the construction industry has suffered particularly seriously. New construction expenditures, along with expenditures on new machinery and equipment and those on durable consumer goods, stand out as categories which are much more volatile than other major categories of demand, rising faster than total output in periods of strong expansion and falling significantly relative to total output in periods of slack.

A third important feature of the construction sector is that governments must clearly be assigned a major contributing role as a destabilizing element in the over-all construction situation. In this connection, it is striking to observe that direct construction outlays by all levels of government rose by only 1 per cent between 1963 and 1964, but in the period 1964 to 1965 the rise in government construction outlays was no less than 30 per cent (Table 4-6 above). More generally, in each of the three periods of major expansion in construction activity since 1950, government construction outlays have reinforced and aggravated the excessive demand pressures on construction. Only during the short-lived 1958-60 cyclical expansion, when residential and non-residential construction outlays were declining, did government construction outlays move counter to the trend in the other two areas of construction demand. Moreover, through each of the recession phases since 1950 (1953-54, 1957-58, 1960-61) government construction outlays have declined, adding to the weakness of demand in other sectors of the economy. Further attention is given below to the way in which this volatility of demand in the government sector including construction demand of government-owned business enterprises, has intensified cyclical instability in the economy.

CHART 4-11

CONSTRUCTION EXPENDITURE BY MAIN SECTORS



***Includes outlays of government business enterprises.**

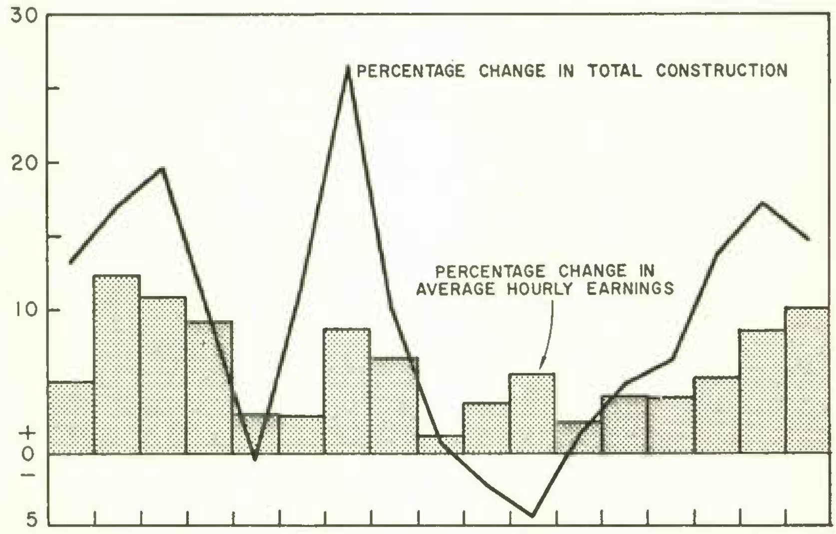
Note: **Data for non-residential business construction and residential construction are quarterly figures at seasonally adjusted annual rates. Data for direct government outlays are annual figures. 1966 data are estimates based on officially reported intentions. The shaded areas denote recessions and the letters P and T denote peaks and troughs in the short-term Canadian business cycle.**

Source: **Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.**

The strongly rising construction demands of the past three years have come to press increasingly hard against the supply capacity of the construction industry and have resulted in: sharply higher wages in the industry; strong increases in building materials prices (a significant part of which, however, has been due to the 11 per cent federal sales tax imposed in three stages beginning in mid-1963); sharply higher bid prices on new contracts; increases in costs and prices on projects already under way; and fewer bids per construction

CHART 4-12

YEAR-TO-YEAR PERCENTAGE CHANGE IN AVERAGE HOURLY EARNINGS IN CONSTRUCTION AND IN TOTAL CONSTRUCTION EXPENDITURES



Note: 1966 construction data are estimates based on officially reported intentions; average hourly earnings for 1966 based on data for six months of 1966 over first six months of 1965.

Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

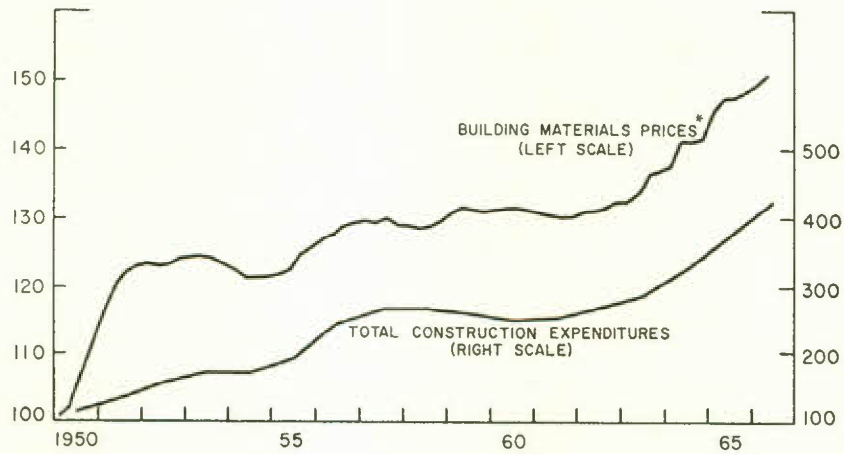
contract. Each of the three major waves of construction spending which the economy has experienced since 1950 has been accompanied by similar developments (Charts 4-12 and 4-13).

Such extremely rapid increases in construction demand cannot easily be matched by a correspondingly rapid adjustment in supply. In these circumstances, certain types of supply bottlenecks are especially likely to appear—for example, in skilled labour, where a considerable period of time is required before training and apprenticeship programmes can increase availabilities in any significant way. With the supply of skilled labour relatively inelastic in the short run, such shortages will readily be reflected in a bidding up of wages and a general inability to resist demands for large wage rate increases in the light of an increasingly tight labour market. At the same time, such a situation is frequently accompanied by accumulating shortages of various types of construction materials for which output cannot be

CHART 4-13

INDEXES OF TOTAL CONSTRUCTION EXPENDITURES AND OF BUILDING MATERIALS PRICES

(1949 = 100)



*The steep rise in these prices after 1962 reflects to a significant degree the 11 per cent sales tax imposed on building materials in three stages—June 1963 (4 per cent); April 1964 (4 per cent); and January 1965 (3 per cent).

Note: Construction expenditures are annual data; 1966 construction data are estimates based on officially reported intentions; building materials prices are quarterly, to the second quarter of 1966.

Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

expanded with sufficient speed to keep up with rising demand. Moreover, certain types of construction materials must be designed to order, e.g., various types of girders and steel shapes used in many of the larger construction undertakings. In such a situation, with supplies unable to adjust quickly enough to meet strongly rising levels of demand, a spillover into cost and price increases occurs across a broad front of labour and material resources.

A further feature of such situations is that during periods of sharp increases in construction demand, such demand itself tends to be relatively insensitive to the increases in costs and prices which it may be helping to generate. Many major projects take fairly long periods of time to complete, extending over a year or more; once work has commenced, it tends to be pushed forward regardless of the higher costs. Demand is thus said to have become inelastic with respect to price.

This insensitivity of demand to changes in price is not simply a feature of the construction sector's performance at the peak of a boom, although it tends to be magnified at this stage. The amount of construction output demanded *at any time* appears to be less affected by price considerations than is the case with demand for the output of most other industries. This characteristic is related to the peculiarities of the market for construction. To a considerable extent, construction expenditures by governments are based on political and social considerations and the availability of financial resources from taxation and borrowing. In the case of private business firms, new structures are likely to be bought when a profitable rate of return seems assured over the life of the structure. Since a typical structure has a very long life, usually exceeding 20 years, a very large increase in the cost of the structure is required to alter the estimated rate of return by a significant margin.[1] Home buyers, too, appear to be relatively insentitive to moderate changes in price. The terms, conditions and availability of mortgage financing are likely to determine decisions in this area to at least as great an extent as the price of housing itself. Thus all buyers of construction tend to be characterized by inelastic demand schedules.

There is another aspect of the behaviour of the construction sector that is relevant in this connection. After a boom subsides, construction activity levels off and may even decline for a time. Bankruptcies increase, profit levels drop, and employment falls off sharply (Chart 4-14). Workers who have been attracted into the industry during the boom are forced to seek other employment or become unemployed. The industry adjusts to a lower base from which to operate until the next burst of activity takes place. When the upswing again occurs, it finds the industry in a deflated condition, unequipped to accommodate readily such swift and sustained increases in demand as have characterized post-war investment booms in Canada. Instability of demand, and the repeated process of gearing up to meet very vigorous surges in activity, followed by prolonged periods of slack, have represented a continued impediment to the maximizing of efficiencies in the construction industry in Canada.

It is also significant, in the context of cost and price performance, that the construction industry is not subject to any important degree of foreign competition. Generally speaking, the final product of the

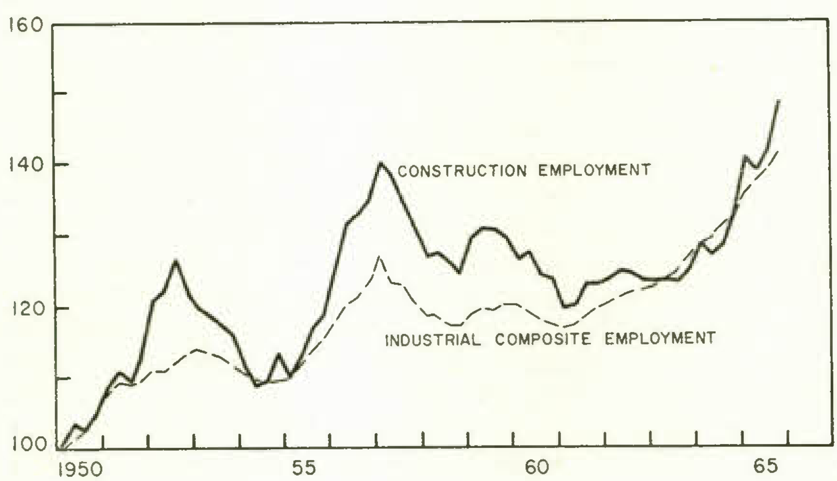
[1] For example, a capital expenditure costing $10 million, planned with the expectation of a 15 per cent (before tax) yield over a 20-year period, would have to increase in cost by almost 20 per cent (to $11.9 million) before the anticipated yield would fall to 14 per cent.

construction industry cannot be moved across international boundaries—although, of course, there have at times been important inflows from abroad of construction workers and of certain types of building materials. Pricing practices therefore tend to be less affected by international influences than those of many other Canadian industries. It is domestic demand and supply forces which, by and large, set prices and costs in construction in Canada.

CHART 4-14

INDEXES OF CONSTRUCTION EMPLOYMENT AND TOTAL INDUSTRIAL EMPLOYMENT *

(1949 = 100)



*Indexes based on quarterly data; total industrial employment excludes agriculture, fishing, trapping and public administration and defence.

Source: Based on data from Dominion Bureau of Statistics.

In this situation, it is not surprising that the construction industry sometimes experiences greater-than-average cost and price increases. This raises the danger that it may sometimes act, at least partially, as a "pattern-setter" for other industries. When wages, costs, and prices in construction have risen strongly in a generally buoyant economic environment, there has in fact tended to be some impact on costs and prices and the climate of collective bargaining across a broader front.

It is not always sufficiently recognized that while business construction outlays add to the pressure of demand in the current period, they provide the means through which future sources of enlarged supply are secured. Thus, business investment spending, while potentially a source of instability on the demand side, is also closely linked to the growth of the economy's total supply capabilities. Policy measures which strike at aggregate demand pressures through the investment process are, in effect, altering the economy's capacity to generate goods and services in the future. It follows from this that it would be appropriate to press for the development of attitudes within the business community which would encourage longer-term planning of business investment outlays. This would contribute to the stabilization of demand by evening out the peaks and troughs in business construction outlays and would thereby operate to bring about a smoother response in the growth of the future supply capabilities of the economy. But it is initially necessary for better future results in this regard to improve on the economy's past performance and, by means of improved government policies as well as of improved private decision-making, to achieve a steadier growth in the volume of total final demand.

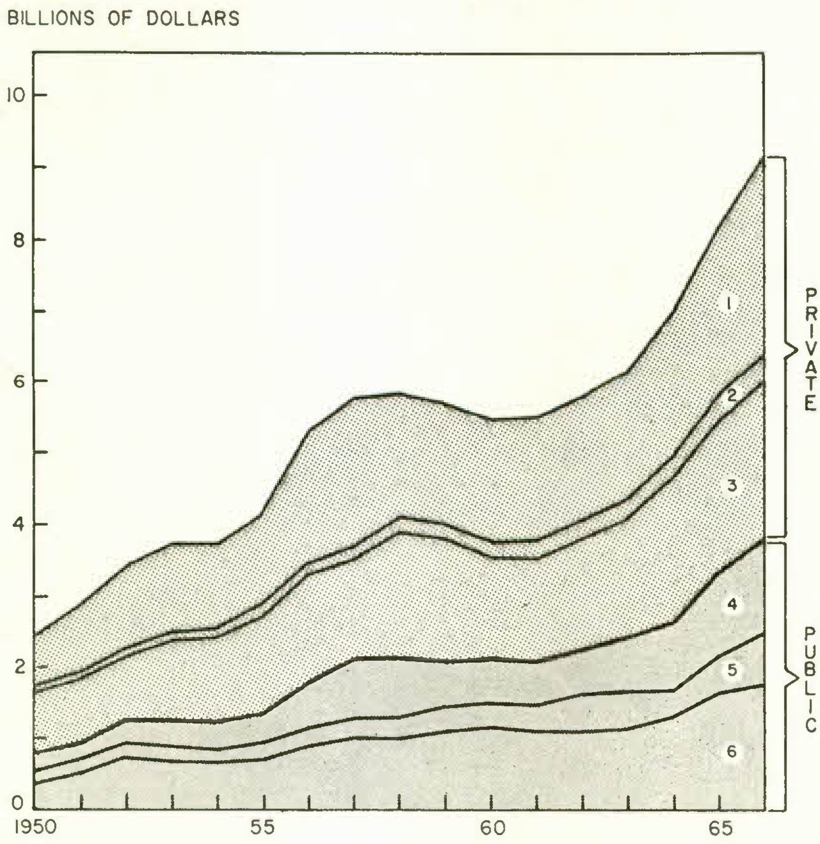
At the same time, the avoidance of excessive upsurges of demand in the construction industry would permit the supply of labour and material resources in the industry to adjust at a more even pace. This would operate to significantly reduce the distortions and imbalances which have characterized the industry over the post-war period.

Expenditures for new housing over the post-war period have frequently been powerfully influenced by government policies which have curtailed housing outlays during expansions and have encouraged house-building activity in recessions. Sharp fluctuations in the demand for housing tend to have the effect of thwarting the growth of efficiency in this sector of the industry, and thus of increasing housing costs and prices over the longer run. Moreover, in the short run, higher financing costs and restraints on the supply of dwellings tend to exert an upward pressure on rents; and to the extent that this results in increases in consumer prices, there may be indirect pressures exerted on wages and costs in other parts of the economy.

In recent years, private non-residential construction outlays (mainly by business) have accounted for somewhat more than one third of total private and public construction expenditures. Housing outlays have accounted for somewhat less than one third of the total. Government departments and government-owned or operated commercial enterprises and institutions have made up about 40 per cent of the total (Chart 4-15). Thus, a substantial moderation of instability in construction activity is clearly within the power of governments, given the relatively large volume of construction expenditures which

CHART 4-15

CONSTRUCTION EXPENDITURES
BY TYPE OF ENTERPRISE



1—Private business enterprises
2—Private institutions
3—Private housing
4—Government-owned enterprises
5—Government-operated institutions and housing
6—Government departments

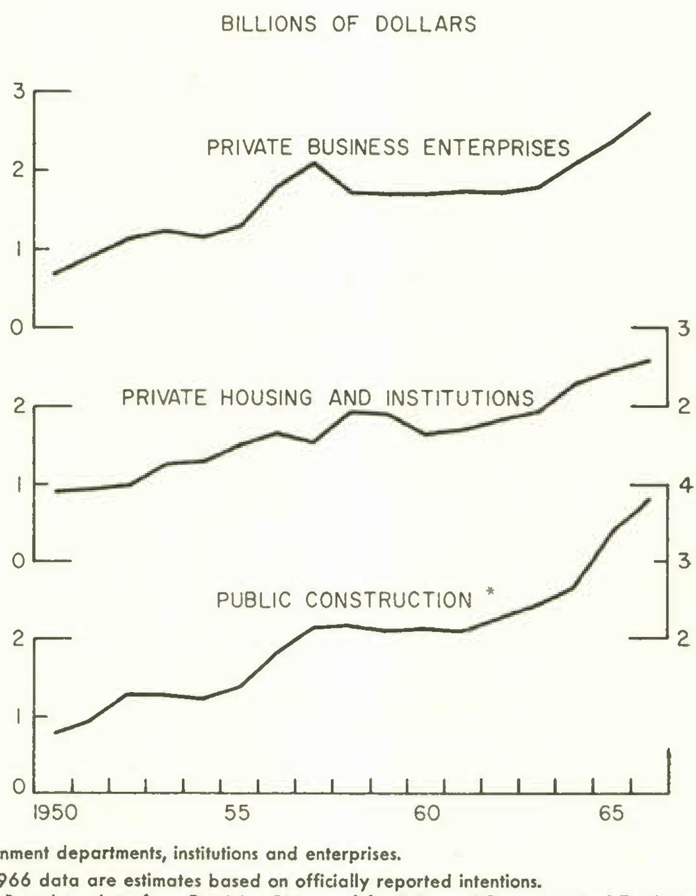
Note: 1966 data are estimates based on officially reported intentions.

Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

are either directly or indirectly under their influence. In addition, through the operation of the National Housing Act, the federal government is able to bring its influence to bear on the level of housing activity in Canada. In recent years, housing starts financed by loans approved under the National Housing Act have varied from about one third to almost one half of all housing starts in Canada. On this basis, then, well over half of all total new construction carried out in Canada can be said to fall within the institutional framework of the public sector. Given these circumstances, it would appear that a large degree of the instability in construction demand, with its accompanying price and cost distortions, could be moderated through effectively co-ordinated government programmes aimed more deliber-

CHART 4-16

CONSTRUCTION EXPENDITURES
BY MAJOR SECTORS



*Government departments, institutions and enterprises.

Note: 1966 data are estimates based on officially reported intentions.

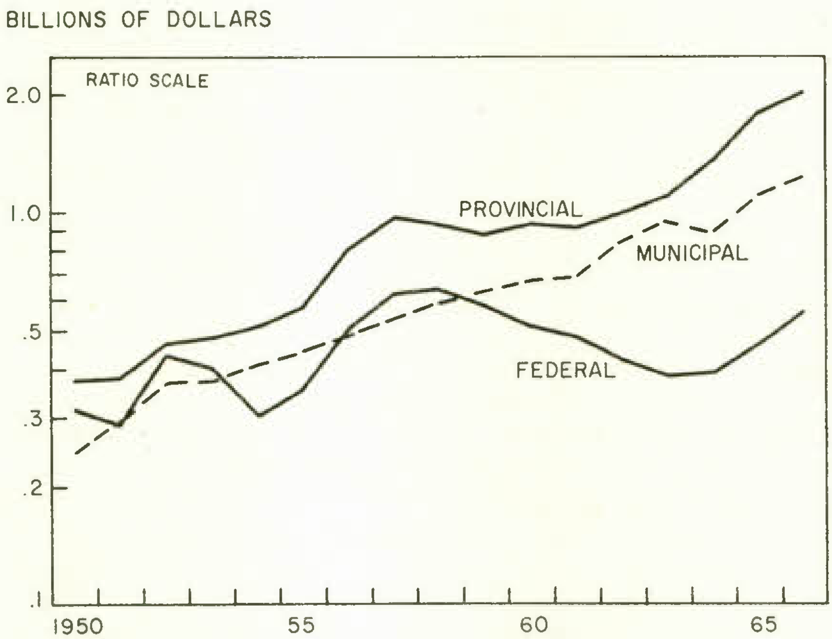
Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

ately at achieving a stable advance in new construction. Chart 4-16 provides a view of the degree to which the variability of construction outlays under the control of governments over the past decade and a half has reinforced and aggravated the instability of construction demand in the private sector.

Moreover, it is at the federal and provincial government levels that such instability has been most pronounced. The longer-term rise in municipal government construction has been relatively steady. These conclusions apply to new construction both by government departments and by government-owed enterprises. Chart 4-17 shows the marked volatility of construction demand at both the federal and provincial government levels, in relation to that at the municipal level, for total new construction by governments (including government-owned business enterprises).

CHART 4-17

CONSTRUCTION EXPENDITURES BY LEVEL OF GOVERNMENT



Note: Data covers government departments, institutions and enterprises. 1966 data are estimates based on officially reported intentions.

Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

With smoother longer-term growth of total construction activity, many of the industry's other problems would also be easier to ameliorate—problems of maintaining and developing an adequate supply of skilled and trained construction manpower, problems of wide swings in profitability and periodic waves of bankruptcies, problems of adaptation to new technology, and problems arising from the inefficiencies and strains of alternating boom and slack.

One final point about Canada's post-war experience in the field of construction deserves emphasis. Private non-residential construction has not shown itself to be quickly amenable to general monetary and fiscal measures designed to moderate either total or investment demand. Higher interest rates and reduced availability of financing have not produced swift and decisive effects on demands for new construction, except in the field of housing where their impact tends to be relatively quick and severe. Restraint would appear, rather, to develop after a considerable lag, through the induced effects of a slowdown in other sectors of demand, which then press less hard against the limits of productive capacity.

Some General Factors in the Movement of Food Prices

Food does not now occupy as dominant a position in the family budget as it did in earlier periods of history when the bulk of the population lived much closer to the subsistence line. In recent years it has accounted for about 22 per cent of all consumer expenditure in Canada. It nevertheless remains a highly important category of consumer expenditures, particularly for low-income families and individuals for whom food must necessarily represent a dominating category of expenditure. It is also one of the most frequent of purchases, with major shopping expeditions typically occurring at least once a week. This has the effect of creating a more sensitive public awareness of movements in food prices than of those in any other kind of price. When retail food prices rise rapidly, they will tend to have two important effects: they will tend to generate upward pressures on wages and salaries, and they will adversely affect the real living standards of those on fixed incomes.

Measured from the 1949 base year of the consumer price index, the total rise in food prices to September 1966 amounted to 48 per cent, not greatly different from the rise of 45 per cent in the over-all index. Over the course of this period, however, there were noteworthy changes of direction and pace. A sharp increase in the food component of the index at the onset of the Korean War was followed by several years of shallow decline. Another fairly sharp rise occurred in 1956-58. Since 1958, the movement has been generally upward but at varying rates of speed. Some acceleration took place as a reflection of the 1960-62 exchange devaluation, which particularly affected the prices of items entering international trade on a large scale, such as beef, fruits, and vegetables. A much steeper and more generalized increase got under way in 1965, and has accelerated in 1966.

Many factors can affect the prices of particular foods: for example, seasonality, and the year-to-year vagaries of weather, such as droughts or severe frosts in important food-supplying areas in North America. Many foods are also subject to specific production cycles of varying length, such as the well-known hog cycle, which basically reflects the considerable time required for the output of marketable pigs to react to changes in consumer demand and prices. It is normal for movements in the total food component of the consumer price index to contain numerous divergent movements in the prices of individual foods. One notable divergence of a long-run nature has been the pronounced post-war down-drift in poultry prices (Chart 4-18), which has been a consequence of a major technological revolution in the production and marketing of poultry products.

It would not be practicable to attempt here a product-by-product analysis of the recent and longer-run behaviour of food prices in Canada. Instead, we shall undertake only to point up four factors which have had broad implications for the prices of a number of foods:

(1) The tightening world food situation, already outlined in Chapter 2 of this *Review*. This has had important secondary and tertiary effects, notably by way of its impact on grain stocks in North America (including heavy aid shipments from such stocks). The production of livestock has, in turn, been affected.

(2) The strength of the increase in North American consumer demand since the resumption of economic expansion in early 1961.

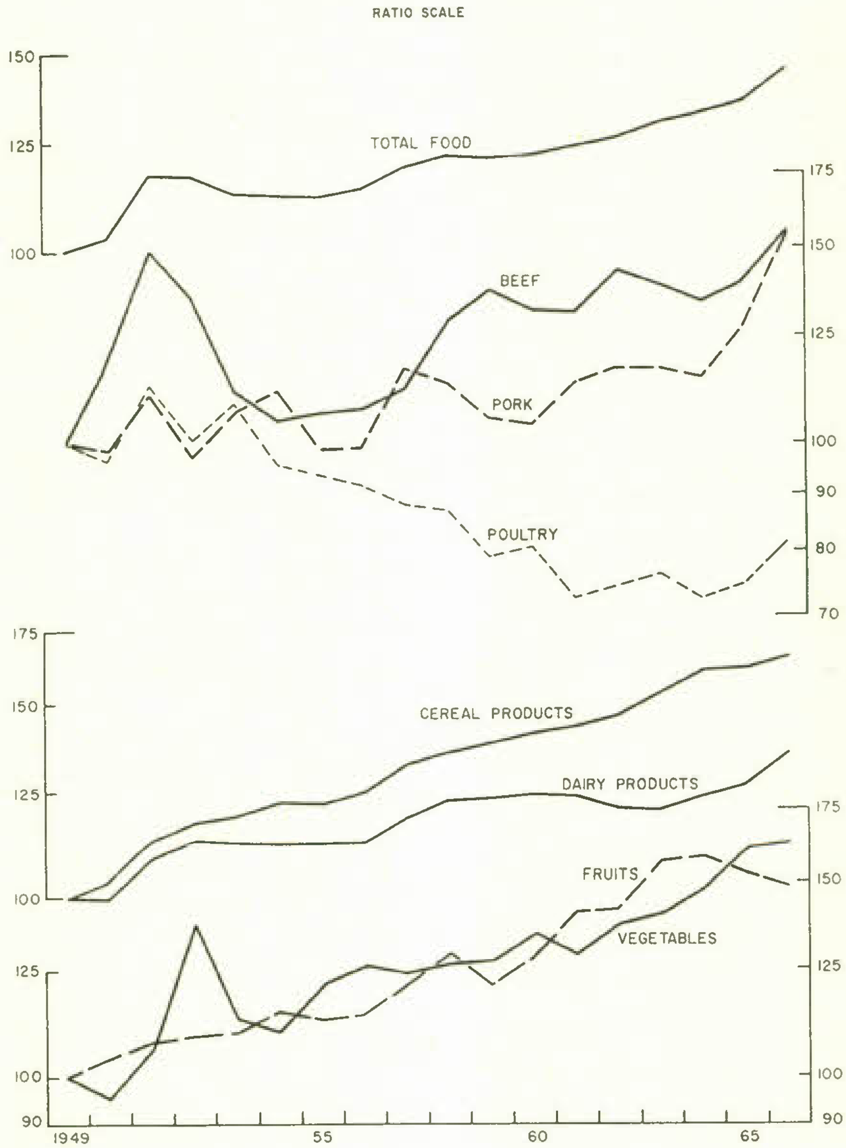
(3) The impact of exchange devaluation on Canadian food prices, already mentioned above.

(4) The post-war revolution in food processing and marketing, which has made what the consumer finally buys in the retail store a more highly processed product with an increasing proportion of services embedded in it. The processing-packaging-marketing component of retail food prices is now greater

CHART 4-18

CONSUMER PRICE INDEXES, SELECTED FOOD COMPONENTS

(ANNUAL AVERAGES, 1949=100)



Note: 1966 data are based on increases in nine months over a year earlier.
Source: Based on data from Dominion Bureau of Statistics.

than the component paid to farmers. This change largely accounts for the much greater increase in food prices at the retail than at the farm level over the post-war period (compare Charts 4-18 and 4-19).

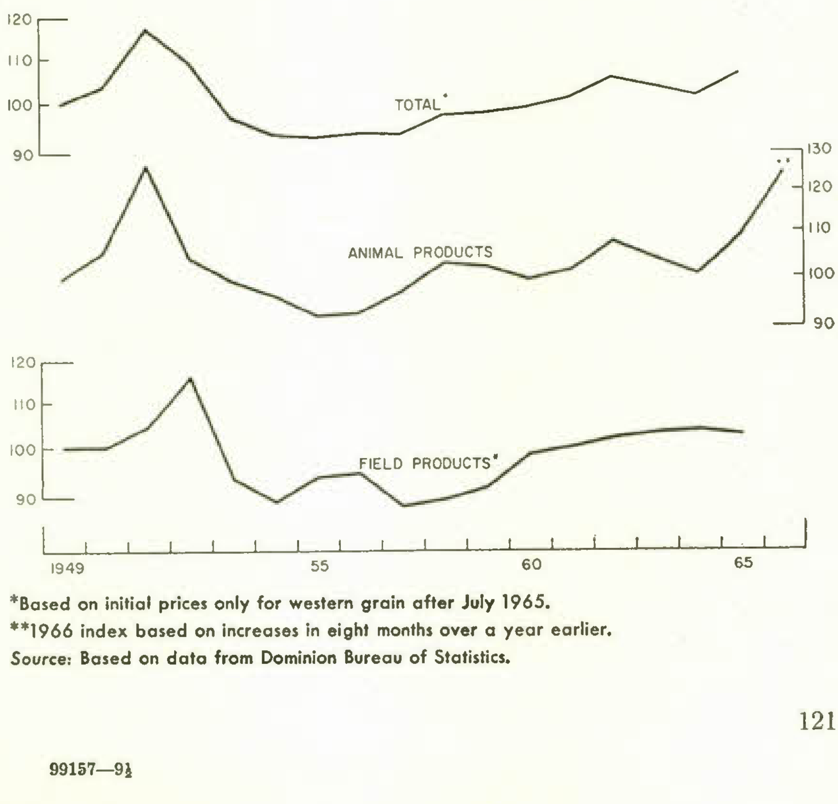
The first of these factors, the slowing down in the growth of world food production relative to the growth of population, has not as yet resulted in any large and continuing increase in world export prices of food products. Its main consequence has rather been a drawing down of the surpluses of agricultural products that were built up in the major exporting countries (mainly in North America) during the 1950's. For example, world stocks of wheat, coarse grains, butter and cheese are down sharply from their levels of 1961. In Canada, stocks of the five major Canadian grains stood at less than 700 million bushels on July 31, 1966, compared with the record level of over 1.1 billion bushels reached in 1957. Stocks of butter during the first nine months of 1966 have averaged 57 million pounds, down from an

CHART 4-19

CANADIAN FARM PRICES

(ANNUAL AVERAGES, 1949=100)

RATIO SCALE



*Based on initial prices only for western grain after July 1965.

**1966 index based on increases in eight months over a year earlier.

Source: Based on data from Dominion Bureau of Statistics.

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average of more than 200 million pounds over the years 1962-64. Large stocks of butter oil which had built up until 1962 have also been eliminated. In the United States, stocks of wheat and coarse grains at July 1, 1966, were 3.3 billion bushels, following a steady decline from the peak level of 5.5 billion bushels reached in 1961.

The drawing down of North American surpluses has reduced the substantial cushion previously available to meet upsurges in demand, but it has also had more subtle effects extending over a number of related food products. There are signs, for example, that it may have tended to slow up the normal response of Canadian livestock production to increased prices. During the period when Canadian wheat stocks were large and were backing up on farms, there was an appreciable inducement for farmers to turn to livestock production on a major scale whenever livestock prices were reasonably buoyant. Now, with much larger and more assured markets for wheat, such shifts do not take place so readily.

A second major factor in the recent behaviour of food prices has been the strength of the North American economic expansion which began in 1961. The demand for food is typically less responsive than many other consumer demands to increases in incomes, but in this instance the rise in disposable income in Canada and the United States has been long enough and strong enough to have a marked effect on patterns of food demand, with particularly strong increases in consumption of higher quality, more highly processed and more expensive food products. Another effect of the economic expansion has been to reduce unemployment and to intensify the pull of nonfarm job opportunities on the farm labour force. The farm labour force has decreased very substantially over the past few years; also, it has become much more difficult to meet seasonal needs for farm labour. Reduced over-all unemployment, along with shifts of farm workers to jobs with steadier employment and higher returns, are obviously welcome and appropriate developments from many points of view, but they tend to make more difficult the increasing of agricultural production in response to rising demand. Moreover, there are particular difficulties in some types of production, such as livestock, where the substitution of capital for labour is less readily effected than it is in, say, grain production.

The transformation of food into a more highly processed and service-laden product has been a long historical development. But it has been particularly marked since the Second World War. Commenting on this development in its 1959 report, the Royal Commission on Price Spreads of Food Products distinguished between three categories of service contributing to the relative growth of marketing cost:

> First, there are services which are related to the convenience of consumers and to the patterns of behaviour of consumers...We call attention to the evolution which has occurred in food retailing with the growth of the supermarket and of all the facilities that go with it. This development clearly represents an adjustment to increased incomes and changing patterns of urban living...Second, there are services in the processing of food materials which are made possible by technological developments and which are reflected in the form or quality of the food materials...Third, food marketing firms engage in various forms of promotional activities, e.g., packaging, advertising, "give-aways" and contests.[1]

The Royal Commission placed a good deal of emphasis on the changing structure of the food marketing system and the emergence of the chain supermarket as the dominant institution. The tendencies

TABLE 4-8—GROSS MARGINS AND MAJOR EXPENSE ITEMS, CHAIN FOOD STORES, 1947-63[(1)]

		Operating Expenses					
	Gross Margin[(2)]	Wages and Salaries	Occupancy	Supplies	Advertising	All Other Expenses	Net Operating Profit
			(Per cent of sales)				
1947	16.0	8.4	1.1	0.7	0.5	2.5	2.8
1949	15.6	8.0	1.3	1.3	0.5	2.0	2.5
1951	15.8	7.6	1.3	1.1	0.5	2.2	3.1
1953	16.5	7.4	1.3	1.0	0.7	2.9	3.2
1955	16.5	7.7	1.4	1.0	0.9	2.5	3.0
1957	17.4	7.3	1.8	1.0	0.9	2.8	3.6
1959	17.9	7.9	2.1	1.0	1.1	3.1	2.7
1963	19.6	8.3	3.0	1.0	1.4	3.3	2.6

(1) The data shown are for chain combination stores only.

(2) Operating expenses and net profit.

SOURCE: Based on data from Dominion Bureau of Statistics.

which the Royal Commission noted in 1959 have persisted since that date. By 1964, corporate chain stores accounted for 47 per cent of all retail food sales and voluntary chains for a further 38 per cent. These proportions may be compared with 1951 figures of 32 per cent and 5 per cent respectively.

[1] Royal Commission on Price Spreads of Food Products, Report of the Volume I, p. 27, September 1959.

In Table 4-8, the Royal Commission's statistical breakdown on the "gross margins" of chain food stores has been brought up to 1963, the latest year for which data are available. It will be noted that the rising trend in these margins is to a considerable extent accounted for by higher occupancy costs reflecting the construction of larger and more elaborate stores, capable of displaying a vastly increased number of individual items and provided with extensive parking facilities—and by increased advertising expenses, including the cost of trading stamps.

A second of the Royal Commission's compilations, relating to the gross margins of food processing industries, has also been brought up to 1963 in Table 4-9. It would appear that gross margins of these industries (including wages, salaries, packaging, advertising and certain other expenses) underwent a considerable increase over the decade from 1949 to 1959, but declined slightly from 1959 to 1963.

The net result of the various increases in processing-packaging-distributing costs that have occurred generally over the post-war period is that prices of food at the retail level in Canada have increased more than prices at the farm and, as a result, the share of the retail food cost accounted for by the basic farm product has declined from nearly 60 per cent in 1949 to about 40 per cent in 1965. Retail food prices in 1965 were 36 per cent above their 1949 level. Farm prices, on the other hand, were at a level only about 10 per cent above 1949. Thus, it is clear that, over this period, most of the rise in retail food prices was occasioned by increases in costs beyond the farm. Since early 1965, however, an important factor in the 6 to 7 per cent rate of rise in food prices has been rising prices at the farm (see Chapter 6).

TABLE 4-9—GROSS MARGINS IN FOOD PROCESSING,[1] TOTAL AND SELECTED INDUSTRIES

Year	Total Food Processing	Meat Products	Dairy Products	Bakeries	Flour Mills	Fruits and Vegetables	Sugar Refineries	Breakfast Foods
				(Per cent of sales)				
1949	30.4	18.1	27.5	54.9	16.9	63.3	27.0	66.0
1954	35.7	22.7	31.2	60.4	22.1	63.5	36.2	75.4
1959	38.7	26.4	31.9	62.0	29.9	65.4	34.9	75.3
1963	36.9	21.7	32.7	58.6	23.7	62.5	24.9	70.9

[1] As in Table 4-8, the "gross margin" consists basically of operating expenses and net profit.

SOURCE: Based on data from Dominion Bureau of Statistics.

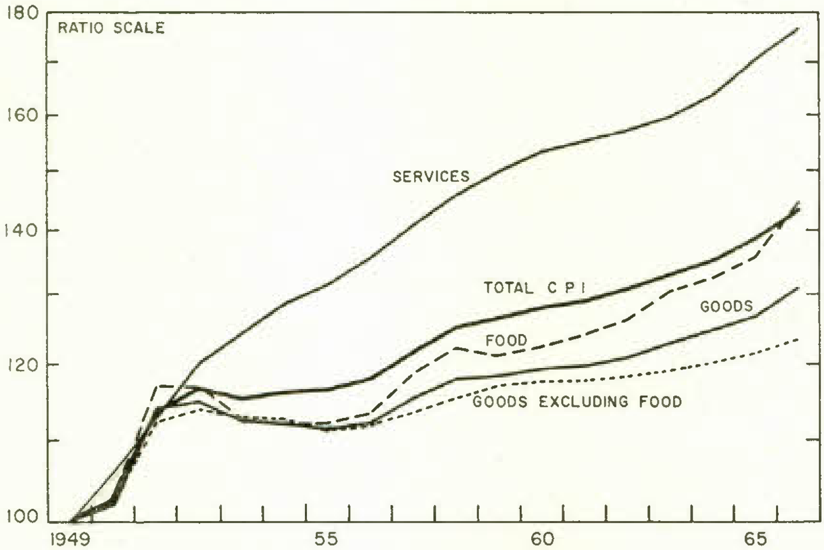
Consumer Services

A much more than proportionate share of rises in the consumer price index since 1949 has been accounted for by consumer services (Chart 4-20). This phenomenon is common to most industrial countries, and reflects some general characteristics of demand and supply in the service sector. One of the most important features of this sector of the economy is that money demand for services (which includes a very wide range of expenditures—see Chart 4-21) tends to grow faster than income. This appears to be particularly the case in the period since 1949.

CHART 4-20

CONSUMER PRICE INDEX AND MAJOR COMPONENTS

(1949=100)



Note: 1966 data are based on the percentage increase between first nine months of 1965 and the same period in 1966.
Source: Based on data from Dominion Bureau of Statistics.

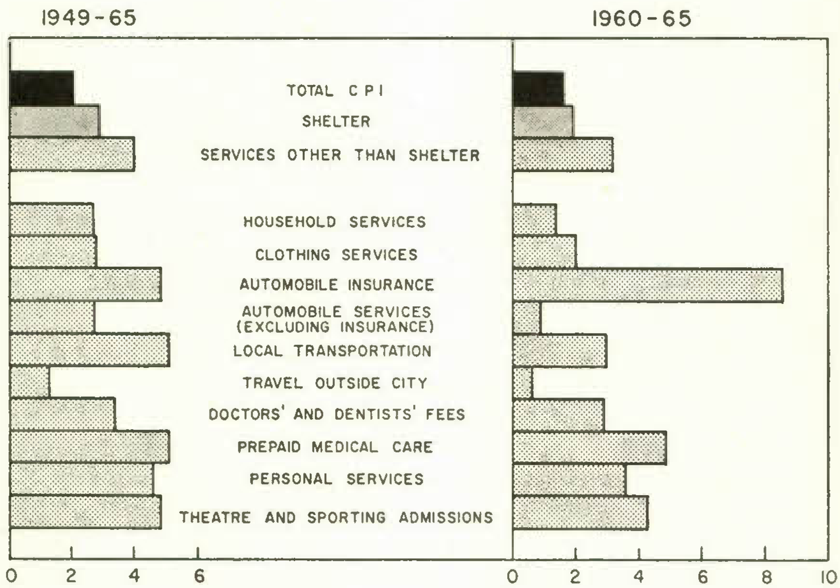
It has often been suggested that prices in this sector are related to limited opportunities for productivity improvement, but serious problems of measurement of both output and input in this sector make it difficult to come to a decisive assessment of this matter at this time. A further factor of some importance is that the production of most services, in contrast to that of many goods, is not subject to any great degree of foreign competition. Indeed, the markets for some services, being localized, fragmented and regulated, are not highly competitive even on a domestic basis.

Service prices have risen more rapidly in Canada than in the United States in recent years. However, the average *level* of such prices still appears to be below the corresponding U.S. level.

Prices of major service items in the consumer price index are shown in Chart 4-21. Among the highest rates of increase since 1949 have been those in automobile insurance, local transportation (including transit and bus fares), prepaid medical care, personal services, and theatre and sports-events admissions. In the case of automobile insurance, the price of which rose particularly sharply from 1963 to 1966, there has likely been some catching up with rapidly mounting accident rates and casualty costs. In the case of medical services, it must be borne in mind that the index does not take into account nonmeasurable improvements in the quality of such services.

CHART 4-21

AVERAGE ANNUAL PERCENTAGE INCREASE IN CONSUMER PRICE INDEX AND PRINCIPAL SERVICE COMPONENTS



Source: Based on data from Dominion Bureau of Statistics.

OTHER FACTORS AFFECTING PRICES AND COSTS

Collective Bargaining

The effect of unions and collective bargaining on the level and structure of wages may seem at first glance to be among the more obvious of economic phenomena. However, when it has been carefully examined in the light of all the relevant and available statistical data, the *independent* influence of unions and collective bargaining on wages has proved surprisingly elusive and difficult to distinguish from the broader economic forces affecting costs of the types discussed in earlier portions of this Chapter. Neither in Canada nor elsewhere have scholars achieved a broad consensus of view concerning this subject.[1]

In an effort to bring new facts to the discussion of this important unsettled question, the Economic Council has participated in a study of certain aspects of collective bargaining which was already under way at the federal Department of Labour. The Council's contribution has been especially directed towards a computer tabulation of a number of relatively standard and economically important features of collective agreements. Among these features are base rate wages, hours worked, overtime rates, and vacations with pay. The analysis covers the period from 1953 to 1966, and relates to collective agreements affecting 500 or more employees in all industries except construction and railways, which are excluded because of special statistical difficulties.

A large mass of data is gradually emerging from the study, which is still in progress. Some early results can, however, be reported. These should be related to the general background of union organization and wage determination in Canada. In particular, the relatively decentralized character of union organization in Canada should be kept in mind, together with the fact that while the percentage of the labour force organized is now markedly higher than before the Second World War, more than two thirds of the total nonagricultural labour force is non-union (Table 4-10). In other words, there is a large sector of wages and working conditions not covered by the collective-agreements data.

Among the more interesting early results of the analysis are those relating to trends in the general character of collective bargaining

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[1] For a general review of the controversy, see Sylvia Ostry, "Labour Economics in Canada", Part II of H. D. Woods and Sylvia Ostry, *Labour Policy and Labour Economics in Canada*, pp. 461–466.

TABLE 4-10—TRADE UNION MEMBERSHIP AND WORKERS UNDER COLLECTIVE AGREEMENTS IN CANADA

	1939	1949	1965
Total union members (000)	338	902	1,588
Total non-office employees (000) under collective agreements	n.a.	n.a.	1,976
Total labour force (000)	4,598	4,913	6,862
Non farm labour force (000)	3,234	3,836	6,268
Non farm paid workers (000)	2,056	3,297	5,655
(excluding managerial)	(n.a.)	(n.a.)	(5,360)
Trade union members as a per cent of			
(i) Non farm labour force	11	24	25
(ii) Non farm paid workers	17	27	28
(excluding managerial)	(n.a.)	(n.a.)	(30)
Non-office employees under collective agreements as a per cent of			
(i) Non farm labour force	n.a.	n.a.	32
(ii) Non farm paid workers	n.a.	n.a.	35

n.a. Not available.

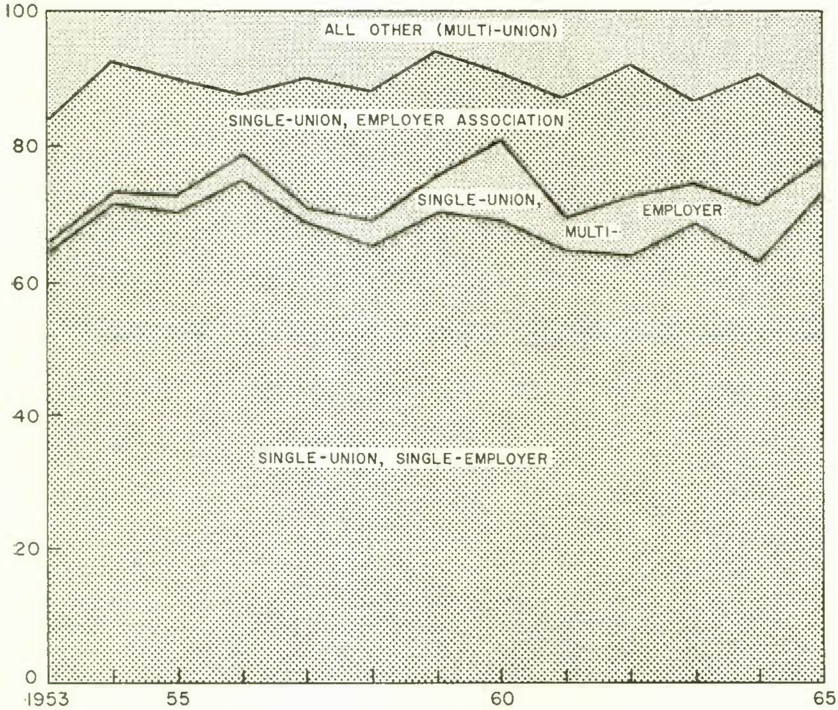
SOURCE: Based on data from Department of Labour and Dominion Bureau of Statistics.

since the early 1950's. In one instance, illustrated in Chart 4-22, the results are notable for a comparative absence of trend. It can be seen from this Chart that agreements between a single union (e.g., the United Auto Workers, the United Brotherhood of Carpenters and Joiners of America, and the Metal Trades Federation) and a single employer have continued to dominate the collective bargaining scene in Canada, accounting for about two thirds of all employees covered by the analysis. There has been no strong shift, on balance, towards more centralized types of bargaining—for example, between associations of unions on the one side and associations of employers on the

CHART 4-22

COLLECTIVE BARGAINING BY TYPE OF AGREEMENT

(YEAR-BY-YEAR PERCENTAGE DISTRIBUTION OF EMPLOYEES COVERED BY NEW AGREEMENTS)



Note: Data relate to collective agreements covering 500 or more employees in all industries except construction and railways, and are weighted by numbers of employees covered in each agreement. Data for each year relate only to agreements signed in that year.

Source: Based on data from Department of Labour and Economic Council of Canada.

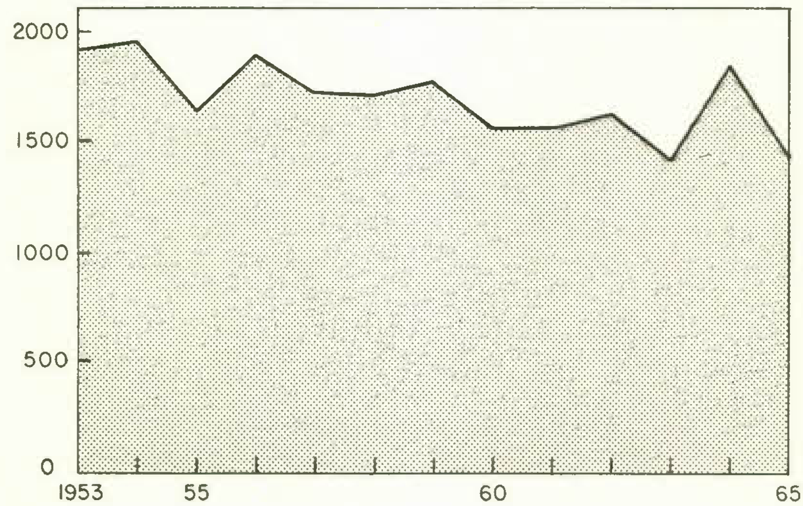
other. This has some relevance for the discussion of incomes policy in Chapter 5.

Not only has the single-union, single-employer type of agreement predominated, but about half of this group (and therefore about a third of the total) has been accounted for by bargaining in a single industrial establishment—one union, one firm, one plant. These proportions would doubtless be higher if it were possible to include in the analysis agreements affecting fewer than 500 employees, which are very largely on a one-union, one-firm, one-plant basis.

The impression that bargaining in relatively small units continues to predominate in Canada is also supported by Chart 4-23, which suggests that the average number of employees per negotiation[1] has, if anything, tended to decline since the early 1950's.

CHART 4-23

COLLECTIVE BARGAINING:
AVERAGE NUMBER OF EMPLOYEES PER NEGOTIATION



Note: See note to Chart 4-22.

Source: Based on data from Department of Labour and estimates by the Economic Council of Canada.

One very noticeable trend has been a lengthening of the term of collective agreements, which now run more than two years on average, compared with one and one third years in 1953-55 (Table 4-11). This lengthening has all occurred in periods of economic expansion: in recession periods such as 1957 and 1960, the average term of agreements has declined or flattened out.

The collective-bargaining study has also been concerned with base-rate wage increases under collective agreements—that is, the average

[1] For purposes of the study, a negotiating unit is defined as "the decision-making unit through which the private parties in an industrial relations system negotiate or bargain over changes in the substantive terms of their collective agreement". Sometimes a single negotiation can give rise to more than one agreement—e.g., an agreement covering employees in Province A, and a second agreement relating to employees in Province B.

TABLE 4-11—AVERAGE LENGTH OF CONTRACT OF COLLECTIVE AGREEMENTS IN CANADA

Year of Signing	Length of Contract in Months	Year of Signing	Length of Contract in Months
1953	16	1960	21
1954	16	1961	21
1955	16	1962	24
1956	22	1963	25
1957	18	1964	25
1958	21	1965	27
1959	22		

NOTE: See note to Chart 4-22.

SOURCE: Based on data from Department of Labour and estimates by Economic Council of Canada.

annual rate of increase over the life of the contract from the time of signing. These figures must be interpreted with particular care. It must be borne in mind that they represent one provision only of collective agreements, which also normally contain provisions affecting non-base-rate wages, hours of work, and various fringe benefits. There is no certain way of knowing in what direction the inclusion of all these other important provisions, if it were possible to reduce them to a wage equivalent, would affect the percentage increases shown. In some cases they would raise the percentages, in other cases lower them, depending on the relative weighting of wage and other benefits within agreements. This weighting often varies with general economic conditions: in a recession period, agreements tend to put somewhat more relative emphasis on union and job security provisions and on certain fringe benefits than they do in more prosperous circumstances, when straight wage benefits are relatively more to the fore. It can thus be concluded that the fluctuations in total benefits are probably not as great as the behaviour of base rates alone would suggest.

Subject to these important qualifications, it can be seen from Chart 4-24 that base-rate wage increases under collective agreements have shown a high degree of sensitivity to general economic conditions. Lagging slightly behind turning points in business conditions, the percentage increases have tended to rise during periods of economic expansion and to fall during recessions. Thus, the wage benefits which unions have obtained for their members appear to have been powerfully affected by the general state of the economy.

CHART 4-24

AVERAGE ANNUAL PERCENTAGE CHANGES IN BASE RATE WAGES OVER LIFE OF COLLECTIVE AGREEMENTS

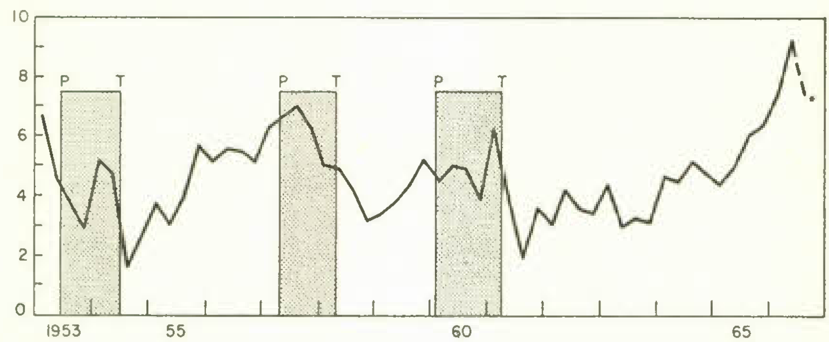


*Figure for third quarter of 1966 is a preliminary estimate.

Note: See note to Chart 4-22. Data relate to quarter in which collective agreements were signed. The shaded areas denote recessions, and the letters P and T denote peaks and troughs in the short-term Canadian business cycle.

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

The peak rate of increase in base rates for the whole of the period since 1953 was reached in the second quarter of 1966. The figures for this quarter include the unusually large settlements on behalf of Seaway workers and St. Lawrence River longshoremen. To a greater extent than in previous economic expansions, large settlements in the public sector of the economy have played a prominent role in the general evolution of collective bargaining during 1965 and 1966. Normally, bargaining in Canada is not characterized by strong *national* pattern-setting: for example, settlements in the steel and automobile industries in Ontario do not usually exert any great effect on collective bargaining in British Columbia, which tends to have a life of its own. But large, highly publicized settlements to which governments are parties inevitably have somewhat more impact on the climate of collective bargaining across the country.

Generally, however, our analysis of actual wage settlements tends to reconfirm the importance of demand pressures as a basic factor in price and cost developments. Whatever may be the independent effect of unions on wages, they are clearly much affected by fluctuations in the general level of economic activity.

Business Pricing

As a part of the Economic Council's work on the Government's 1965 reference, some direct insight was sought into the pricing policies of a number of large Canadian firms *as viewed by the firms themselves.* A principal object was to discover how pricing decisions were in fact made, and how much discretion (as opposed to simply taking a price from the market) these large firms believed themselves to have in matters of price.

Accordingly, an interview survey was conducted among 21 companies engaged in manufacturing and resource production in Canada. The great majority of these firms has total assets of over $100 million, and most were in a range from $100 million to $500 million. In order to secure the greatest possible frankness of response, the survey was conducted on a confidential basis.

The survey was patterned to some extent on work sponsored in the United States by the Brookings Institution which resulted in the volume, *Pricing in Big Business.*[1] It should at once be added that limitations of time and resources did not permit an examination to the degree of depth and thoroughness achieved by the Brookings study. Nevertheless, it is interesting to note that the general flavour of the Canadian material and some of the more specific findings quite closely paralleled the Brookings results. One major point of resemblance was the difficulty of making broad generalizations:

> "It might be expected, after probing as far as officials would permit into the pricing subconscious of the big business, that the Brookings study would emerge with one or more definite generalizations on how price is shaped by size that would be applicable to all companies in our limited sample. What finally emerges, however, is an inability to fit their price policies into a common category."[2]

While bigness is clearly necessary for some kinds of pricing policy, it does not, of itself, appear to produce a standard pattern of such policies.

One fairly broad generalization may, however, be drawn from the Canadian results, and interestingly enough it constitutes the one significant divergence from the Brookings findings. This concerns the influence of the external sector, relatively little mentioned in the U.S. study. In Canada, by contrast, considerations of foreign competition appeared to be much the broadest and most important limitation on discretionary pricing by large firms. The limitation is evident, first, in the position of many exporters, particularly of primary products, who have to meet a world or North American price and have little

[1] A. D. H. Kaplan, Joel B. Dirlam, Robert F. Lanzillotti, *Pricing in Big Business—a case approach,* the Brookings Institution, 1958.
[2] *Ibid.,* pp. 288-289.

discretion to set a price on their own; and second, in the practice among many Canadian firms producing for the the domestic market of pricing to the landed (tariff-paid) price of competing imports. These two types of situation are widespread though by no means universal. There are, for example, certain exporters who are not wholly without some discretion as to price, and certain industries which price below the landed price of competing imports.

It is also noticeable that certain other types of pricing practice, such as domestic price leadership and the "building up" of a price on a cost-plus-desired-return basis, seem most to prevail where there is an appreciable degree of insulation from external competition, whether as a result of tariffs, or transport costs, or both.

The following were some less general but recurrent themes:

(1) Apart from foreign competition, the power of large buyers and the competition of substitute materials and products were the factors most often mentioned as tending to limit the scope for discretionary pricing. They did not usually appear to be absolute limitations, but were more in the nature of potential threats discouraging excessive upward price movements. Buyer power was generally conceived as the buyer's ability to turn to foreign suppliers, to "integrate backward" and set up as a self-supplier or, in the case of a large retailer, to substitute the retailer's own branded line of goods for that of other suppliers. Competition between different materials seemed to be particularly important in textiles and in the complex of industrial markets for steel, aluminum, copper, and plastics.

(2) Pricing decisions often appeared to be closely mingled with other corporate decisions, notably in respect of investment. A key price decision might be taken at the same time as the decision to market a new and distinctive product and to set up the necessary productive facilities.

(3) The most common company goals relevant for pricing decisions were the achievement of a certain return on investment and the gaining or maintaining of a certain share of the market. The goal of achieving a certain return on sales was also encountered. Companies varied, however, in the immediacy which they assigned to these goals. For some companies, they were serious, practical targets; for others, they were ideal goals which might actually be realized only in an occasional good year. Companies, varied, too, in the degree to which they articulated their goals and assigned definite numbers to them.

(4) Other things being equal, firms often appeared to have a preference for situations of relatively stable prices, with competition occurring mainly in respect of quality, style, service and advertising.

(5) A desire on the part of producers of basic materials to "integrate forward" into more highly processed and fabricated forms of product was also evident. Such integration appeared to offer an ultimate prospect of more stable and certain markets for materials and somewhat greater pricing freedom.

(6) The nature of the product was an important factor affecting the possible scope for discretionary pricing. The scope for such pricing appeared to be less for perishable products, and for products whose demand tends to be highly responsive to price changes. For products with a high content of technology, some signs could be discerned of a typical price history. At the outset the price might be relatively high, then decline as increased competition and a reaching out for higher sales volume developed. Differences between pricing policies and profit experience relative to "old" and "new" products could be noted within multi-product firms. The same firm was often engaged in producing newer products, in which it had some technological, patent or other "edge" over its competition, and older and more standardized products the technology of which had become widely known and disseminated. A more discretionary pricing policy generally applied to the first type of product.

(7) In a number of industries, prices of all firms tend to be much influenced by price decisions of the leading firm in the industry.

(8) An interesting variant on the practice of pricing to the landed price of imports was that of pricing by suppliers to processors so that the latter would be able to meet the landed price of their import competition. Thus, product 'A' might be a major ingredient of product 'B'. Product 'A' would be priced so that product 'B' could comfortably meet its import competition.

While the survey cast useful light upon factors entering into the formulation of business pricing decisions, it did not yield a clear-cut picture of how such decisions on the part of large firms might affect the pattern of price rise associated with a cyclical expansion of the Canadian economy. The significance of the survey results appeared to lie more in the area of the longer-run processes in the economy and the allocation of productive resources.

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It is likely that the possession by some large firms of scope for discretionary pricing affects the timing of price changes. Some firms dislike overly frequent price changes, and may prefer to link the changes they do make not to changes in demand, but directly to major movements in their costs. This is in accord with the tendency noted earlier for final price increases to lag somewhat behind fluctuations in output and employment. There is also a tendency for discretionary prices to exhibit more downward rigidity in periods of economic slack. Generally, however, it is difficult to distinguish clearly the influence of discretionary price-making by large firms from the rest of the complex forces which play on prices and costs, especially in an open economy such as Canada's.

SOME TRENDS IN INCOME DISTRIBUTION

Some important relationships between income distribution and price and cost behaviour have been touched on earlier in this *Review*. In particular, attention has been drawn to the fact that, in the short run, the labour and capital components of nonfarm business income have undergone certain characteristic cyclical fluctuations which are closely related to changes in prices, costs and productivity. At the same time, the labour and capital shares of income have been relatively constant in the longer run (see Chart 3-3).

It is appropriate, in an appraisal of Canada's actual price and cost experience in the post-war period, to fill out somewhat the picture of the longer-term behaviour of income shares sketched in Chapter 3. In particular, it is desirable to look briefly at some over-all patterns of income distribution, including incomes in the farm and government sectors. To improve perspective, a number of comparisons are made with pre-war figures. The periods compared in Table 4-12—1926-29, 1950-53, and 1962-65—have been selected because all were periods of relatively high average levels of output and employment.

Examined in this broader framework, both the return to paid employment and on capital investment, as shares of total income, appear to have undergone some increase between the late 1920's and the 1960's as a result of structural shifts in the Canadian economy—particularly, the declining relative importance of self-employment in agriculture and nonfarm unincorporated business.

Remuneration to paid employees (wages, salaries, and supplements) as a share of national income has risen from just under 60 per cent in

TABLE 4-12—PERCENTAGE DISTRIBUTION OF NET NATIONAL INCOME

	1926–29	1950–53	1962–65
Salaries, wages and supplements paid by			
Business	50	52	52
Military	*	1	2
Other general government	6	7	11
Persons and institutions	3	2	4
Sub-total	59	63	68
Corporate profits before tax	11	16	13
(after tax)	(10)	(8)	(7)
Deduct: profits remitted to non-residents	− 3	− 2	− 2
Rent, interest and miscellaneous investment income	10	6	9
Deduct: payments to non-residents	− 3	*	*
Net farm income from farm production	13	10	5
Other net non-corporate business income	12	9	8
Adjustments	*	− 2	− 1
Net national income at factor cost	100	100	100

* Less than one half of one per cent.

SOURCE: Based on data from Dominion Bureau of Statistics.

the late 1920's to just under 70 per cent in the 1960's. This increase has been influenced not only by the shift away from self-employment but also by the growing relative importance of government employment.

Over the same period, corporate profits before tax have increased from 11 per cent of the national income to 13 per cent. On an after-tax basis, they have fallen from 10 per cent to 7 per cent.

Another type of return to capital—rent, interest, and miscellaneous investment income—amounted to 10 per cent of national income in the late 1920's. A large proportion of this, however, consisted of remissions to non-residents of interest on foreign-held public debt. Nowadays, this type of flow is relatively much less significant. An increasingly important component, by contrast, is house rent, and in particular the imputed rental value of owner-occupied houses, which

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has been affected by the boom in residential building and the expansion of home ownership. This component accounts for a large part of the growth in rent, interest, and miscellaneous investment income, from 6 per cent of national income in the early 1950's to 9 per cent in the 1960's.

Net farm income underwent a particularly steep relative decline following the Korean War, with its share dropping from 10 per cent of total income in 1950-53 to 5 per cent in 1962-65. There has, of course, been a massive movement of manpower out of agriculture, so that the reduced share is being received by a smaller number of persons. Even so, as we noted in our *First Annual Review*, it was the case during the 1950's that net farm income per farm operator failed by a large margin to grow as fast as average wages and salaries in nonfarm industry. More recently, thanks in large measure to good crops and assured markets for wheat, as well as to increased farm prices in 1965, net income per farmer has grown faster than industrial wages and salaries, and in 1965 was not far short of the relative position prevailing in 1949 (Chart 4-25).

The decline in the share of income going to nonfarm unincorporated business enterprises has been less dramatic than in the case of farm income, but no less persistent. Important factors here have been the continuing trend to the corporate form of business in the goods-producing sector of the economy, and the post-war growth of large corporations in retailing and other service industries.

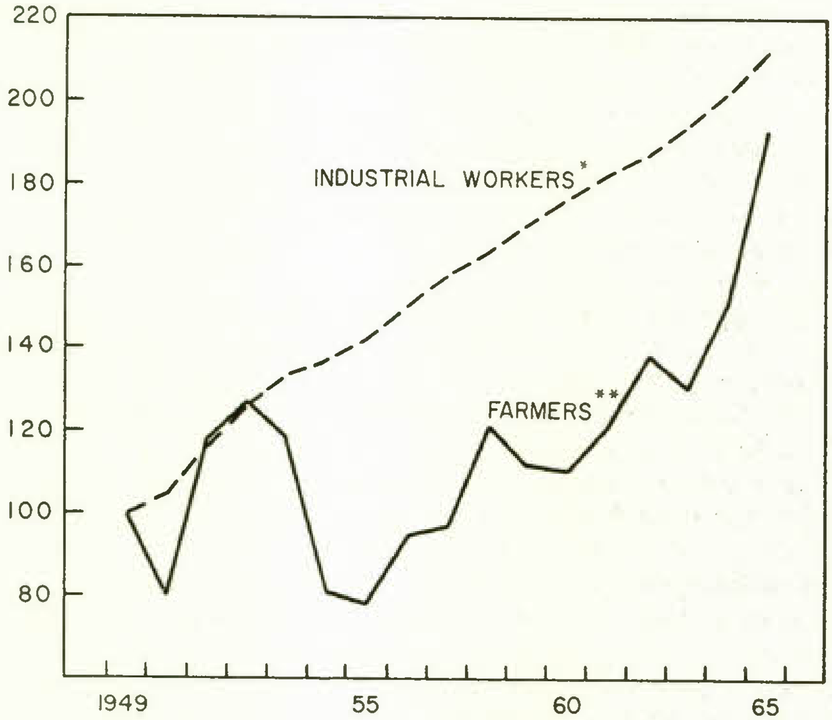
Many of these same developments find a reflection in the broad distribution of personal income, shown in Table 4-13. A significant feature of this Table is the rapid growth indicated in government transfer payments (for example, unemployment insurance, family allowances, and Old Age Security pensions) and in personal direct taxes.

There has been a narrowing of after-tax income differences since the late 1920's. This is the result, among other things, of the greater importance in today's economy of transfer payments and of direct taxation of personal and corporate income. The transfer payments help to raise incomes at the lower levels, and direct taxes on personal incomes tend to fall more heavily on the higher incomes. Other factors tending to produce a more equal size distribution of income have been a general pattern of decline in earnings differentials among occupations, industries, and skills; a relative decline in incomes from self-employment and investment income; and the rise in paid remuneration.

CHART 4-25

INDEXES OF INCOMES
OF FARMERS AND INDUSTRIAL WORKERS

(1949=100)



*Index of average weekly wages and salaries.

**Index of realized net income per farm operator.

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

TABLE 4-13—PERCENTAGE DISTRIBUTION OF PERSONAL INCOME BY SOURCE, SELECTED YEARS

	1926	1931	1941	1951	1961	1965
Salaries, wages and supplements	59	66	67	63	66	66
Net farm income from farm production	15	3	8	12	3	4
Other net noncorporate business income	12	12	11	10	8	7
Rent, interest and miscellaneous investment income	12	15	11	8	11	11
Transfer payments	2	4	4	7	12	12
Personal income (before tax)	100	100	100	100	100	100
Personal direct taxes as per cent of personal income	1	2	5	7	9	10

SOURCE: Based on data from Dominion Bureau of Statistics.

The distribution of family incomes shown in Table 4-14 is one evidence of the narrowing of income differences that has occurred. It will be noted, however, that most of the narrowing had taken place by 1951; since then, there has been relatively little change. Some of the available data suggest that occupational income differences may have begun to widen again.[1]

TABLE 4-14—DISTRIBUTION OF FAMILY INCOME(1)

Families Grouped by Size of Income	Per Cent of Family Income 1930–31	1951	1961
Lowest-income 20 per cent	5	8	8
Second 20 per cent	11	15	15
Third 20 per cent	17	18	19
Fourth 20 per cent	23	22	24
Highest-income 20 per cent	43	36	33

(1) Data for 1930–31 relate to the salary and wage income of families whose income is primarily from this source; for 1961 the distribution is of total income of these families; the salary and wage distribution and the income distribution for 1951 were sufficiently close that the average of the two is not misleading.

SOURCE: Adapted from S. A. Goldberg and J. R. Podoluk, "Income Size Distribution Statistics in Canada", in *Income and Wealth*, Series VI, London, 1957, pp. 159 and 163, and from *Surveys of Consumer Finances*, 1952, 1962, Dominion Bureau of Statistics.

It should be noted also that income distribution tables of this sort necessarily impart only broad information. They can give little indication of poverty problems, which increasingly tend to take the form of "pockets" of poverty within broader groups of the population. An essential prerequisite for attacking poverty effectively is indeed better and more specific information about its true extent and character.

"TRADE-OFFS" BETWEEN RATES OF PRICE CHANGES AND RATES OF UNEMPLOYMENT

Much of this Chapter has been analytical in the sense of breaking down and separating into components. Factors influencing Canadian price and cost experience in the post-war period have been broken down into various components, some of which have been selected for

[1] A 1961 census monograph analyzing income distribution in Canada from a number of different standpoints is in course of preparation at the Dominion Bureau of Statistics.

particular attention. The selection has been influenced to a considerable extent by the desire to locate areas where new and improved economic policies might be capable of having some impact on the problem of obtaining better price performance in the Canadian economy at high levels of employment.

It is also necessary, however, to retain a clear view of the problem as a whole. Where an economic problem gives evidence of being broad and pervasive in nature, as this one does, some of the analysis of it should be on a broad basis. Details—even important details—should be suppressed for the time being, and an investigation made of the relationships which appear to prevail between some of the broad underlying forces in the economy. It was partly with this in mind that we commissioned a special study of interrelations between changes in wages, prices and employment in Canada. Although this is a highly technical study, it represents a considerable amount of careful work and has helped us materially to get a better understanding of the nature of the various problems under consideration.[1] The framework of analysis in this study is inevitably less than ideal, reflecting limitations of data, time and resources. The ideal would have been to work out price and wage relationships on a suitably detailed simulation model of the entire Canadian economy. But in the absence of such a model a more partial approach has had to be taken that has yielded useful results, some of which are summarized briefly here.

Wages: During the period 1953-65, the rate of change in average hourly earnings in manufacturing appears to have been importantly influenced by:

(1) The rate of change in consumer prices;
(2) The level of manufacturing profits per unit of output half a year earlier;
(3) The unemployment rate;
(4) The rate of change in average hourly earnings in the United States;
(5) The rate of change in Canadian hourly earnings a year earlier.

This list does not perhaps contain too many surprises. A strong feedback effect from consumer prices to wages is evident. The unemployment rate appears as the best available measure of the relationship between demand and supply in the labour market. Also, however, it plays the broader role of an indicator of the relative slackness or

[1] G. L. Reuber, R. G. Bodkin, Mrs. E. P. Bond, and T. R. Robinson, *Price Stability and High Employment: The Options for Canadian Economic Policy*. This special study is being published by the Council and will be available shortly.

buoyancy of the whole economy. The same can be said of the profit rate which, like the unemployment rate, is highly sensitive to general economic conditions.

As to the apparent influence of U.S. wage movements on similar movements in Canada, this no doubt reflects various links between the two economies, including particularly those between their labour markets, as well as general underlying economic conditions in North America.

Prices: During the period 1953-1965, the rate of change in the consumer price index appears to have been importantly influenced by:

(1) The rate of change in "wages" (i.e. average hourly earnings in manufacturing, as above);

(2) The rate of change in import prices;

(3) The rate of change in Canadian consumer prices one quarter earlier.

A strong foreign influence on Canadian prices is readily apparent in the results. Foreign prices appear to exert an influence by way of the prices of imports into Canada, while the relationship between Canadian and U.S. wages appears to find its way into Canadian prices via the domestic wage-price relationship. It is interesting to note that, in one of their explorations, the authors of the study found some evidence of an even stronger relationship between Canadian and U.S. price movements. In the results given above, the period of the Korean War (1950-53) was deliberately excluded from the calculations on grounds that it was of a very special character. Some tests were run including the Korean period, however, and in these the movement of the U.S. consumer price index appeared to register as an *additional* and very powerful influence on the movement of consumer prices in Canada. This suggests the possibility that the U.S. influence on Canadian prices may be especially strong when prices are moving with unusual rapidity, as of course they did during the Korean period.

But while foreign developments bulk large in the over-all picture, it is also apparent that domestic factors, capable of being acted upon by Canadian economic policy, still count for something. The reconciliation of high employment and reasonable price stability thus remains a real and distinct problem for Canadian policy.

In the analysis undertaken in the study, a number of so-called "trade-off" curves were derived showing, under varying assumptions and conditions, the rates of price increase which would tend to occur at different levels of unemployment rates. One of the most important factors having a bearing on the estimated relationships between price changes and unemployment was the degree of foreign inflationary influence on Canadian prices.

For all the intricacies in the technical derivation of such "trade-off" curves, this analysis conveys a simple message: price increases tend to be relatively high when unemployment is low and the economy is buoyant; and conversely, price increases tend to be much lower when unemployment is high and the economy is slack. But the complexity of the factors and forces affecting such a relationship between rates of price change and levels of unemployment are such, both in theory and in the real world, that no specific "trade-off" curve can depict this relationship in a way that fits all (or even most) circumstances. Chart 4-26, however, indicates a "trade-off zone" which, apart from illustrating the nature of this relationship, would generally reflect and accommodate actual experience in Canada since 1953—an experience which encompasses diverse economic circumstances as regards the nature of external price influences, the postures of economic policy, the changing structure of the economy, the patterns of economic instability, the variations in expectations, and so forth.

Even after full allowance for qualifications, the central analysis of this special study strongly confirms the existence of an inherent reconciliation or trade-off problem between the goals of high employment and reasonable price stability in Canada in the post-war period. Moreover, careful evaluations of the results, together with some probing of pre-war experience in Canada and post-war experience of other countries, reinforces the view that the reconciliation problem is a persistent and pervasive phenomenon and has nowhere lent itself to easy solution, even under widely differing economic conditions and developments. The result is that this problem—the fundamental challenge raised in the preceding Chapter—poses hard tasks for economic policy.

An especially useful feature of the trade-off concept is that it affords an illuminating way of viewing the roles of different kinds of economic policy. Some kinds of policies, for example, may be viewed as primarily tending to have the effect of moving the economy along a trade-off curve within the zone depicted in Chart 4-26—either by moving towards a reduction in unemployment at the risk of eventually encountering greater price increases, or by moving towards a damping down of price increases at the risk of eventually leading to increased unemployment. Broad fiscal and monetary policies, acting upon total final demand and employment, are of this type.

CHART 4-26

"TRADE-OFF ZONE"
UNEMPLOYMENT AND PRICE CHANGE
1953 - 65

These policies have a very important role to play in the economy, and the trade-off concept helps to show the situations in which changes in the basic strategies of these policies can be appropriate. It should be the purpose of these policies to help to keep the economy away from both the upper and the lower ends of the trade-off zone in Chart 4-26. That is, when actual output in the economy is falling persistently and substantially below potential output, with accompanying heavy unemployment and generally stable prices, it is clear that expansionary fiscal and monetary policies would be appropriate—and that it should be feasible to achieve a significant reduction in unemployment without encountering any significant degree of inflation. Conversely, when actual output is tending to press strongly and persistently against potential output (even though potential output is expanding), the general economic situation will almost invariably be one of very low unemployment and relatively strong general price advances. In these circumstances, it would be appropriate to deploy restraining fiscal and monetary policies—and it should be feasible to achieve a significant moderation of price and cost pressures without precipitating a substantial rise in unemployment. In short, the essential task of these so-called "big levers" of policy should be to try to keep the economy away from the upper and lower extremities of the trade-off zone.

There is, however, another very important range of policies whose task is a basically different one—that of trying to improve the trade-offs. In terms of the trade-off zone depicted in Chart 4-26, the task of these policies is to try to shift the whole trade-off zone downward and to the left—that is, to seek ways of achieving less price increase for any given level of unemployment (and less unemployment for any given level of price increase). These are, in other words, policies whose basic task is more directly that of improving the reconciliation between the goals of high employment and the maintenance of reasonable price stability. Among the policies which would fall into this category are those designed to improve the mobility and adaptability of manpower, to strengthen productivity gains, to maintain effective competition, to facilitate adjustments to change, and to deal with pressure points and bottlenecks. These policies have been strongly emphasized in the Council's *First* and *Second Annual Reviews* as being essential to facilitate reconciliation between the goals of high employment and reasonable stability of prices set forth by the Council (see Chapter 6 below). In the light of post-war experience, the simultaneous achievement of these goals was clearly recognized by the Council to be extremely difficult, if not virtually impossible, without much more effective policies of these types.

Incomes policies, which are discussed in the next Chapter, have also been used in a number of countries in an attempt to improve these trade-offs.

Nothing said here should be taken to imply that policies to improve the trade-offs are in any sense "better" than policies to prevent the economy from running into excessive price pressures or excessive unemployment. Both kinds of policies are needed. Both must play important roles. These are the issues to which we now turn in developing our conclusions and recommendations in the following Chapter.

5

Policies for Reasonable Price Stability at High Employment

THE ANALYSIS of the two preceding Chapters indicates clearly that the basic economic policy issue raised by the Government's 1965 reference to us is one of reconciling the goals of high employment and reasonable price stability. This problem has been examined both in general and in relation to other economic issues and goals, including the goals of a viable balance of payments and rapid, well-sustained economic growth. After noting that the problem has been ubiquitous and pervasive among industrial countries in the post-war era, we have placed it in a specifically Canadian setting and analyzed some of the special aspects which it has assumed in this country. This has helped us to identify a number of areas where there is scope for new and improved policy approaches. At the same time, our analysis has left us in no doubt that the over-all reconciliation problem is inherently difficult and will likely continue to be so in the future. The estimation of post-war "trade-offs" between employment and price change discussed at the conclusion of Chapter 4 has strongly underlined this finding.

Before turning to policy recommendations, it is appropriate to consider certain policy approaches adopted in other countries. This is specifically called for in the Government's terms of reference, which ask us, among other things, "to review the policies and experiences of other countries in this field and their relevance for Canada".

To assist us in this part of our work, we commissioned a special study which is being published along with this report.[1] The passages

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[1] David C. Smith, ***Incomes Policies: Some Foreign Experiences and Their Relevance for Canada.*** Special Study No. 4, Economic Council of Canada, Ottawa, Queen's Printer, 1966.

immediately following draw on the results of this study, which has examined incomes policies and certain other instruments developed in the United States, Great Britain, France, Sweden, and the Netherlands. These countries were selected primarily because of their use during recent years of a wide range of policy approaches which have not hitherto been employed to any significant degree in Canada but which have been a subject of growing public debate among Canadians. Our ultimate concern has been to consider the relevance for Canada of foreign experience with these approaches. For a full description of foreign experience in the field of incomes policy, we urge the reader to consult the special study.

INCOMES POLICY

The Nature and Scope of Incomes Policy

Of the five countries examined, four have employed at least some elements of an incomes policy. The fifth, Sweden, is often referred to as a country with an incomes policy, but does not in fact have one; what it does have is a type of national wage policy that has evolved within the framework of the unique Swedish system of highly centralized collective bargaining.

What then is an incomes policy? The following definition by the Organization for Economic Co-operation and Development appears to command general acceptance:

> "What is meant by an incomes policy ... is that the authorities should have a view about the kind of evolution of incomes which is consistent with their economic objectives, and in particular with price stability; that they should seek to promote public agreement on the principles which should guide the growth of incomes; and that they should try to induce people voluntarily to follow this guidance."[1]

There are certain ambiguities to this definition, notably in the exact meaning of "voluntarily", but it is no doubt as precise a definition as one has a right to expect in a branch of economic policy where the arts of persuasion must obviously play an important role. The definition effectively locates an incomes policy roughly midway be-

[1] Organization for Economic Co-operation and Development, ***Policies for Price Stability***, Paris, 1962, p. 23.

tween two policy approaches to price stability that have often been used in the past. One of these approaches consists of periodic exhortations and generalized statements by the public authorities about the way in which wages and prices ought to develop in the best interests of the country. An incomes policy clearly goes further than this, but it cannot go all the way to a full-scale, statutory freeze of wages and prices on the wartime model and still satisfy the OECD criteria. Thus, while an incomes policy does not lend itself to a precise, once-and-for-all definition, it can be said to occupy some sort of middle ground between the other two approaches.

A complete incomes policy consists of three principal components. The first is a set of general targets for the whole economy indicating an appropriate course of development for the major forms of income and for prices. Most frequently, these targets or guidelines are worked out only for wages and other compensation to employees, and for prices. This is justified on the grounds that profits and other forms of income, accounting for a third or less of total income, will in effect be determined mainly by the relation between prices and compensation to employees. It is interesting and significant to note that, whereas much of the earlier post-war discussion of additional instruments for securing good price performance was conducted in terms of national wage policies, the emphasis has now shifted to national wage-price and incomes policies. This has been partly a strategic response to the argument by labour spokesmen that specific guidelines or targets applying only to wage incomes are discriminatory. It has also reflected a genuinely greater concern about imperfections in the economic processes determining nonwage incomes and prices.

A second essential component of an incomes policy is some means of rendering national guidelines meaningful and relevant for individual price and wage decisions. The procedure followed has varied widely: sometimes national guidelines have been broken down into separate guidelines for different sectors of the economy, while sometimes the national guidelines have been declared generally applicable over most of the economy, but subject to modifications and exemptions in specified circumstances. This has been especially the case in the United States, where the original formulation of guideposts in the *Annual Report* of the President's Council of Economic Advisers in 1962 was clearly intended to apply to all wage and price decisions of national significance, with indications of appropriate adaptations and exceptions for particular situations.[1] Successive annual restatements of these guideposts by the Council of Economic Advisers have tended to widen the area of their intended applicability and to reduce the importance of exceptions.

The final component of an incomes policy is a means of inducing people to follow the guidelines. Widespread, if not 100 per cent, conformance is clearly desirable on practical as well as moral grounds: systems of discipline wherein good children are patted on the back while bad children repeatedly get away with it, have never been noted for durability. In the United Kingdom the means of implementation have been successively strengthened, and have most recently taken the form of a rigid temporary freeze on all wages and prices. Generally, the tendency has been for the means of inducement to toughen over time:

> "...Emphasis has been placed on the use of moral suasion rather than direct controls, but some forms of persuasion are stronger than others. In countries that have attempted an incomes policy for any length of time it has been clear that various types of sanctions have had to be developed for the policy to have much effect. They may include, for example, public exposure and condemnation of wage and price decisions inconsistent with the guides, prior notification and deferment of wage and price decisions, strong government pressures through purchasing and stockpile policies, selective tariff or export subsidy changes, and selective use of anti-restrictive-practices policy."[2]

Reasons for Adopting Incomes Policies

Countries that have adopted incomes policies or portions of incomes policies appear to have done so for a variety of reasons. They have been influenced by many considerations—some economic, others social or political; some reflecting characteristics common to most industrial

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[1] The general guidepost for wages was that wages in each industry should increase at the trend rate of labour productivity growth for the whole economy. The guidepost for prices was that industry prices should fall where productivity growth was above the national average, rise where it was below, and otherwise remain stable. (This would in principle ensure not only stability in the general level of prices, but also a parallel movement of wage and nonwage incomes.) It was suggested that wages might deviate from the productivity norms in order to take care of situations of labour surplus or deficit. Thus an industry which was having difficulty attracting sufficient labour might increase wages at more than the guidepost rate, but an industry with a labour surplus would be expected to go below the guidepost rate. There was also provision for equalizing the situations of workers whose wage levels were very low or very high because of unusually weak or strong bargaining positions. Prices might similarly deviate from the guideposts in certain circumstances—e.g., to accommodate movements in non-labour costs, or to bring about profit levels that would be more conducive to movements of capital out of industries where it was overabundant into industries where it was scarce.

[2] David C. Smith, *op. cit.*

economies, and others related to peculiarities of institutional structures in individual countries. Once the most common economic reason for resorting to incomes policy has been stated, it becomes difficult to rank the remaining reasons in any particular order of importance, and the following list makes no attempt to do so:

(1) The most common economic reason for instituting an incomes policy has been the desire to obtain a better trade-off between high employment and reasonable price stability, particularly in circumstances where excessive price and cost increases have posed a threat to balance-of-payments viability. This consideration has outranked all others in importance by a large margin. The special significance of the balance-of-payments aspect emerges repeatedly, especially in the case of Great Britain. One can make the further generalization that countries most likely to be attracted towards incomes policies are those where economic goals are relatively rigid and demanding, where there are important constraints or inhibitions on the use of such policy devices as movements in international reserves and alterations in exchange rates, and where there is a comparatively high degree of rigidity in other economic adjustment mechanisms.

(2) The interest of some countries in incomes policies has arisen partly from a desire to use such policies to guide the longer-run distribution of income. (There are of course other well-known methods, including those which operate through systems of progressive taxation, and welfare and other income-transfer payments.) This is notably true of France, where incomes policy has been of interest in relation to the growth of incomes as projected in that country's current five-year plan.

(3) In the Netherlands, the desire to achieve what might be judged on social grounds to be a better long-run wage structure, and to achieve it in a more harmonious fashion, has been a factor of some importance. It has also been influential in Sweden, although, as mentioned previously, arrangements in that country do not constitute an incomes policy.

(4) Where, as in Great Britain, there has been much concern over the existing rigidities in economic adjustment processes, it has sometimes been hoped that the process of working out guides for incomes and prices might improve the climate of labour-management co-operation on matters affecting productivity and growth.

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(5) Views held by economists and others about the way in which wages and prices are being determined can be influential. As a crude generalization, the more opinion leans to the view that the basic process in one of cost-push—the more it is believed that big labour and big business are playing a major independent role in forcing up wages and prices—the stronger is likely to be the advocacy of an incomes policy. Such a policy may be all the more advocated if it is believed that patterns of wage and price behaviour throughout the economy are being substantially influenced by decisions in a few key industries or sectors. It can then be argued that all an incomes policy need do to bring about more desirable patterns is to alter decisions in these sectors.

(6) An incomes policy may also be advocated as part of the scene-setting and preparation for other policies, to smooth the path and facilitate the process of adjustment. It may, for example, be used in an attempt to change a climate of expectations that has become geared to excessive rates of wage and price increases. Other policies may be employed to produce the necessary adjustment, but the incomes policy may help to signal the change and render its accomplishment less disruptive.

(7) Adoption of an incomes policy may also provide rearguard protection and ensure the acceptance of other policies that are moving in an expansive direction. One of the main functions of the original U.S. wage-price guideposts of 1962 was to allay fears that the Administration's proposal to accelerate economic expansion by cutting taxes would lead to inflation and a worsening of the balance-of-payments situation.

(8) An attraction of incomes policy to governments is that it tends to spread certain responsibilities and risks more widely. Governments nowadays are charged with heavy responsibilities for the proper functioning of national economies and are subject to strong criticism when economies are not performing well in one or more respects. But the adoption of an incomes policy, particularly one which has been worked out in consultation with leaders of various nongovernmental organizations, carries a more clearly recognized implication that private groups must share, along with the government, responsibility for the maintenance of price and cost stability.

(9) An incomes policy has also been claimed to be valuable as an effective means for generating wider public understanding and education about the operations of the economy and the basic relationships between prices, costs, incomes and productivity.

Some Problems of Incomes Policy

The experience of a number of countries that have attempted to implement incomes policies reveals very clearly that such policies are confronted with serious problems. Through many of these problems runs one common thread; the fundamental difficulty, in a complex, modern economy, of translating policy from the general to the particular. At the general level—the level of the whole economy—the relationship between prices, incomes and productivity, on which most incomes policies are based, is an easily understood truism and seems deceptively simple. The broad lines of the sort of price and wage behaviour that would be consistent with the national interest may appear obvious, leaving only the problem of bringing the national interest more effectively to bear on the making of individual decisions. But there precisely is the rub: at the level of individual decisions, the economy proves to be virtually a collection of special cases, affected by rigidities and market power to some extent, but also by a variety of desirable economic adjustment processes in different stages of completion. To state what the national interest requires in each of these cases is no longer easy. Confronted by the kind of price and cost increases which are largely the result of specific or general demand pressures in the various markets making up the system, an incomes policy cannot get at the more underlying factors in the situation. It can only attempt to repress symptoms.

A conflict is posed between the need for simplicity on the one hand and the need to take account of complex economic relationships on the other. Because an incomes policy relies heavily on persuasion, it must be simple enough to be readily understood and accepted by the general public; but if it is too simple it will not make economic sense in many actual cases. In such instances, it will either be ignored or will become an economic straitjacket which imposes new inequities and rigidities. For a policy like incomes policy which is founded on public attitudes and persuasion, problems of practical administration are more than ordinarily important, for they have to be met in the full light of publicity, and the manner in which they are met reflects

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on the nature and practicability of the policy as a whole and has a significant influence on how the public regards it.

In practice, incomes policies tend to have the effect of blunting the influence of changes in demand on relative prices, costs and incomes. Shifts in such relative prices, costs and incomes are needed to bring about the reallocation of resources required to meet changes in demand. Also, the manner in which incomes policies tend to be implemented is predicated on the view that existing patterns of income distribution are appropriate. Among the possible effects may be a freezing of income relationships at a particular stage of the business cycle.

In a situation of price advances resulting from special influences which cannot be controlled—for example, external developments—it is difficult to devise guidelines equitably which will not tend to spread price and cost increases on a broad front.

It was stated earlier that a full incomes policy has three main components: a set of general guidelines for incomes and prices in the whole economy, a means of making these guidelines relevant for individual price and wage decisions, and a means of inducing conformance with the guidelines. Each of these components has its special set of problems.

In laying down general guidelines for the whole economy, the question arises of how to arrive at an appropriate set of figures for such guidelines. In countries strongly committed to national economic planning, the tendency has been to indicate appropriate patterns of income, productivity and other changes within the framework of an over-all national plan. Appropriate rates of increase for prices, wages, and other incomes are incorporated in the plan. As compared with backward-looking criteria based on past performance, this arrangement has certain advantages of flexibility. Plans can be changed to suit current conditions; adjustments can be made if problems such as unforeseen balance-of-payments difficulties arise. On the other hand, there cannot be too much chopping and changing, for in a typical exercise of this kind the approval of interested parties must be obtained for each major alteration of course. One way or another, there is a heavy reliance on the accuracy of economic forecasts, which are seldom correct. When they go badly wrong, the wage-price criteria which have been put forward become impossible to apply. After this has happened once or twice, the credibility of the entire procedure is gravely impaired.

The United States and Great Britain have preferred to use relatively fixed guidelines for wages and prices based more explicitly on previous or anticipated trend rates of growth in productivity. This procedure is relatively simple, does not require a comprehensive national economic plan, avoids difficulties associated with frequent changes in guidelines, and lends itself well to the educational function of laying before the public basic truisms concerning the relationship between prices, productivity, and incomes. This function is not unimportant, for there are persistent myths about these relationships that need to be combatted: e.g., that all wage increases, no matter how small, are inflationary, or alternatively that wage increases cannot ever be inflationary because they all come out of profits. One statement often heard concerns the "unfairness" of passing on to labour in wages the full fruits of productivity increases for which labour is only in part responsible. This is a matter which can be discussed from several standpoints, but the statement often appears to stem from an arithmetical misunderstanding. Gearing rates of increase in wages to rates of increase in labour productivity does not in fact mean that labour receives the full fruits of higher productivity.[1]

There are too, however, certain serious difficulties in the productivity approach to guidelines. Especially in an open economy, they may be upset by uncontrollable movements in foreign prices. Also, the measurement of productivity poses real practical problems. Productivity measurement is not a cut-and-dried affair, but a difficult and controversial procedure, both in the choice of an output figure for the numerator and that of a labour input figure for the denominator (total employees? man-hours? quality-weighted man-hours?). Many other questions arise. It may be thought that a fairly rough-and-ready national productivity figure will serve well enough for guidelines purposes. But even this, experience shows, will be subject to statistical revision from time to time, with possibly embarrassing consequences. There is again a problem of choosing between simple

[1] Let us suppose that at the starting point 20,000 units of product are being made and sold at one dollar each, and that the proceeds are being divided between wages and salaries on the one hand and profits and other incomes on the other in a ratio of 75:25. Thus labour gets $15,000 and other incomes $5,000. Now suppose that labour productivity undergoes a cost-free increase of 5 per cent, increasing total output to 21,000 units without an increase in the work force. Proceeds rise to $21,000 with unchanged prices. Wages and salaries are increased by 5 per cent, the rate of productivity gain, bringing total labour income to $15,750. But this still leaves $5,250 for profits and other incomes, compared with $5,000 at the starting point. Thus *both* income components rise by 5 per cent, without a rise in prices.

methods of estimating productivity trends, such as five-year moving averages, and statistically better but more complex methods. The simple methods, if rigorously adhered to, may involve excessively frequent changes in the guidelines; the complex methods, on the other hand, may have difficulty gaining public acceptance, especially if the resulting trend figures seem far out of line with what is actually happening in the economy in the short run.

Another disadvantage of the trend-productivity procedure for developing guidelines at the national level is that even a temporary nonconformance of the economy with the guidelines puts the entire conceptual basis and credibility of the system in jeopardy. If, for example, labour is asked to accept wage increases in line with a 3 per cent per year productivity trend, but for some reason consumer prices are already rising at about 3 per cent, wage-earners will realize soon enough that they are in effect being asked to accept stationary real incomes. The authorities are caught in a dilemma: they will probably be most reluctant to authorize a raising of the wage guideline to 6 per cent and the price guideline to 3 per cent. They will most likely have to take a somewhat more relaxed attitude to nonconforming wage increases, meanwhile urging all classes of income-earners to behave better and to believe that improved price performance is not far away.

In translating national criteria into more specific guides for individual decision-making, another important choice must be made. Should different guidelines be laid down for different industries, or should the national guidelines be declared generally applicable? If the translation is done on an industry-by-industry basis, with each industry's prices expected to remain stable and each industry's wages expected to follow the industry productivity trend, the result is unlikely to make much economic sense. A rigorous interpretation of the industry guidelines will effectively rule out many of the relative price and wage movements between industries that are normally considered to be essential for shifts in resource allocation—shifts which are central to the process of economic growth. It will also create major difficulties in sectors where large productivity increases are impossible to obtain, but where major expansions of demand are occurring. Finally, the statistical problems of productivity measurement are on the whole worse at the industry than at the national level.

The alternative course of declaring national guidelines based on national productivity trends to be broadly applicable to all industries places a different kind of straitjacket on the economy's allocative mechanism. This was recognized in the original U.S. guidepost statement of 1962, which greatly mitigated this defect by careful qualifications and exceptions. However, the qualifications and exceptions were played down when it was decided to make strong governmental efforts to back up the guideposts. Exceptions to policies, no matter how justifiable, are always difficult to explain to those who do not benefit from them and who consequently tend to feel that they are victims of discrimination.

This brings us finally to problems associated with the implementation of incomes policies. Experience indicates that mere appeals for voluntary conformance are unlikely to be sufficient. Periodic exhortations to major economic decision-makers to conduct themselves more in the national interest may do some good, especially in periods of economic crisis, and are always worth trying as an adjunct to other actions, but their efficacy is at best uneven and not to be counted upon:

> *Glendower*: I can call spirits from the vasty deep.
>
> *Hotspur*: Why, so can I, or so can any man;
> But will they come when you do call for them?[1]

In practice, the implementation of incomes policies has proved to require the use or at least the threat of governmental sanctions against non-conforming parties. Milder forms of sanctions have included public exposure and scolding of offenders, and requirements for advance notification of price and wage changes. These approaches basically involve the mobilization of public opinion, which may be reasonably effective in this role so long as the incomes policy commands general public support and only a few major cases of nonconformance need to be dealt with. But if the number of cases increases, if many of them occur in decentralized industries such as construction, and if some of the more important decision-makers in the economy far from being frightened by governmental denunciation positively revel in it, mild sanctions will not be enough. Another weakness of the resort to public opinion is that comparatively little interest can usually be generated in cases where, according to the guidelines, prices should have declined, but failed to do so.

It is not surprising, therefore, that stronger sanctions have often been sought. The U.S. experience provides examples of many of these,

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[1] *Henry IV*, III, 1.

or of the threat of them. In most countries with incomes policies there has usually been visible the possibility of a much stronger set of measures, such as direct wage and price controls, which the government could employ if necessary.

Another technique of implementation has been for the government, in its role as an employer, to attempt to set an example of noninflationary wage behaviour for the rest of the economy. This, however, has usually done little more than distort the relative wage structure and produce recruitment difficulties and a sense of inequity in the public sector.

In countries possessing highly centralized labour and management organizations, there has been a natural tendency for governments to enlist the help of these bodies, first in agreeing upon appropriate wage and price criteria, then in making them effective. It may be observed, however, that centrally agreed criteria and actual performance at the periphery have often been very different things. Wage drift—increases in pay beyond the centrally agreed rates—has almost invariably occurred on a large scale in these countries, to some extent as a sort of natural solution to the strait-jacket problem.

Effectiveness of Incomes Policy

Incomes policies are not normally expected to bring about spectacular improvements in price performance, and they have not in fact done so. Within their more modest range, they do on occasion seem to have had some effect, but it is difficult to say how great this effect has been over all, how long it has lasted, and whether in the end, all things considered, the initiative has been worthwhile. There have been some clear cases of failure, in the sense of incomes policies having much less effect than was initially claimed for them. Generally, our examination of experience in other countries indicates that once an economy is operating at high levels of demand and employment there is an inevitable tendency for actual price and wage increases to break through whatever guidelines have been established.

In so far as incomes policies have had a beneficial influence on the rate of trade-off between employment and price stability, this effect has tended to be largely temporary. This is not necessarily crippling in certain applications—e.g., the use of an incomes policy to meet a sudden temporary crisis, or to prepare the way for stronger measures to follow. But it does discourage reliance on incomes policy as a permanent and effective part of the apparatus of economic policy. This is underlined by the phenomena of wage-price "explosions", which often seem to have followed periods of comparative stability attributed to incomes policies. We have also noted the recent metamorphoses of incomes policies in Great Britain and the United States.

Incomes Policy in a Canadian Setting: An Appraisal of Possibilities

Foreign experience generally suggests that incomes policy may in certain circumstances have some beneficial effect, if only a temporary one, on the reconciliation of price and employment goals. However, its institution on a reasonably comprehensive basis—and considerations of equity and public acceptability soon argue for a fair degree of comprehensiveness—involves a number of serious problems.

In what sort of country would an incomes policy have the best chance of success? To begin with, the country would be a unitary state with strong central powers and a tradition of considerable governmental intervention in the detailed functioning of the economy. There would be few constitutional or other impediments preventing the government from resorting, if necessary, to direct controls—this possibility would always be in the background. The economy would be comparatively self-sufficient. Private economic power would be relatively concentrated within the country and both union and management organizations would be strong and centralized, furnishing readily available *corps intermédiaires* for implementation of the policy. There would be broad support for greater control over income distribution and a more central direction of the wage structure. There would be mutual confidence among economic groups that no one sector or region would try to benefit more than others from general wage and price restraint. The general sense of cohesiveness and willingness to co-operate would probably be heightened if the country were suffering from severe economic difficulties.

It will be seen that by these criteria Canada is very far indeed from being a favourable environment for incomes policy. Not only is its economy marked by strong regional differences; there are also divisions of jurisdiction between the federal government and the provinces in key legislative areas relating to incomes policy—e.g., in the field of labour relations:

"Industrial-relations public policy in Canada is controlled by both the Dominion and provincial governments. Each jurisdiction has, however, its own sphere of operations derived from the British North America Act and court interpretations of that basic constitutional document. These interpretations have assigned the major role in labour relations to the provinces, leaving to the Dominion government a limited, although troublesome, segment."[1]

This amounts to saying that over a large part of the economy, the federal government could use only the most purely voluntary methods of inducing conformance to the wage portion of an incomes policy. (It must be assumed, of course, that the policy would apply to both prices and wages: a more one-sided approach would be a political and economic non-starter.) In such an important sector of the economy as manufacturing, the government would have no formal authority for intervening in negotiations in an attempt to bring about an agreement within a set of guidelines.

An important back-up for an incomes policy, the possibility of resort to direct price and wage controls, would be a hollow threat in Canada except under a great national emergency such as war. The federal government has not now the power to institute such controls, and has only in practice been able constitutionally to obtain that power (together with temporary jurisdiction over labour relations in areas normally assigned to the provinces) under wartime conditions.

Barring a rather unlikely degree of concerted action by the federal government and the provinces, it is therefore probable that an incomes policy in Canada would have to be more voluntary in character than in most other countries, including the United States. What of the prospects of enlisting the effective co-operation of *corps intermédiaires*? Such bodies certainly exist in Canada, but they too have strong tendencies towards decentralization, and lack the coverage and cohesiveness of their counterparts in Western Europe. The Canadian labour movement is a case in point. Its total membership as a percentage of the labour force is less than in most European countries,[2] and its pattern of organization is marked by a high degree of

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[1] H. D. Woods and Sylvia Ostry, *Labour Policy and Labour Economics in Canada*, Macmillan, Toronto, 1962, p. 19. The federal government's segment of labour relations includes mining, transportation, communication, public-service utility, railways, steamships, telegraph and telephone lines, gas, electric light, water and power works.

[2] Union membership in Canada is close to 30 per cent of the paid nonagricultural labour force, compared with close to 40 per cent in Great Britain and the Netherlands and about 70 per cent in Sweden. The U.S. percentage is very close to that of Canada.

autonomy for individual unions. The two major central bodies, the Canadian Labour Congress and the Confederation of National Trade Unions, are in the nature of federations of trade unions joined together to promote common interests.

> "Like the AFL-CIO in the United States, the Canadian Labour Congress has no legal power over its affiliates and takes no part whatsoever in collective bargaining. It acts rather as a clearing-house for information, undertakes research, assists affiliates in organization, and takes an active role in political activity. The amount of influence it can exert over affiliated unions is dependent on its prestige and the support it receives from member unions."[1]

In sum, the structure of the Canadian labour movement is far from being such that the Canadian central bodies could enter into meaningful undertakings that would bind member unions to the observance of a set of guidelines. The most they could do would be to urge conformance on a voluntary basis.

Employer organizations in Canada are even more decentralized than the labour unions and are in no position whatever to commit individual employers to compliance with income or price guidelines.

Finally, the characteristics of the Canadian economy itself must be taken into account—in particular, the strongly regional nature of some markets, varying regional investment patterns, and the openness of the economy as a whole to external influences. Guidelines appropriate in Ontario would not necessarily be appropriate in Quebec, the Atlantic Provinces, the Prairies, or British Columbia. Moreover, guidelines appropriate in the established southern parts of the country would be most unlikely to be appropriate in northern frontier regions, in which significant premiums are often necessary to attract required manpower, and investment. It might be easy enough to hold a lid on one part of the country, but impossible to do so on another part: the resulting situation, so apparently discriminatory, would be anything but conducive to general harmony. Meanwhile, price-increasing developments in international markets might be raising profits and incomes in a number of primary exporting industries, and little could be done about it other than to try to explain to the public why exceptions must be tolerated in these instances. Any argument that a Canadian incomes policy need only aim at influencing decisions in a few key sectors must be confronted with the fact that, in contrast to

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[1] George Saunders, ***Wage Determination in Canada***, Occasional Paper No. 3, Economics and Research Branch, Department of Labour, 1965.

the situation in the United States, many of the truly key sectors of the Canadian economy are strongly influenced by external trade, where prices are primarily determined in world markets and not in Canada.

In Canada, to a greater extent than elsewhere, an incomes policy would have to be really voluntary. More rapidly than in most countries, a large number of exceptions would have to be permitted. There would soon be a situation where price and wage decisions in important sectors of the economy were free while in other important sectors they were subject to the restraints of guidelines. Because this would be poor economics and administratively impractical, it would be unlikely to last very long. The strain on voluntary compliance would be too great.

It is sometimes argued that notwithstanding the difficulties of an incomes policy, any mileage at all that can be obtained from one is worth having. This, in our view, ignores what is perhaps the greatest danger of an incomes policy: the danger that it will absorb attention and effort which ought to be going into other policy initiatives. Most policy measures against inflation—incomes policy, fiscal and monetary policy, other complementary policies which we shall be suggesting—are in some degree unpleasant for some people. Most governments have only limited political bank accounts on which to draw when the state of the economy calls for unpleasantness. It is best that their resources be husbanded for the most relevant and most effective measures.

We are not disposed to rule out completely, or under all circumstances, a resort to incomes policy in Canada. In a sudden emergency situation—in a crisis atmosphere—sufficient voluntary support might be rallied to make the policy temporarily effective, pending the mobilization of better measures to follow. A country's arsenal of economic policy weapons can always appropriately include some short-term devices for occasional use in emergencies. However, such weapons should be used only in genuine emergencies and then for the express purpose of providing time to put into effect the more basic corrective policies which are needed.

There are two points of clarification that we should like to emphasize strongly before leaving the subject of incomes policy. One is that in expressing doubts about what has come to be known as incomes policy, we would specifically exempt a wide range of other policies bearing on income and its distribution. In this broader sense, Canada has long had and should continue to have "incomes policies". There are many different ways in which a society's collective view as to what would constitute a more equitable distribution of rising incomes can find effective expression, the most familiar of these ways being tax and welfare policies. Rejection of an incomes policy, in the special and narrow sense of the term which we have been employing here, in no way constitutes a rejection of "wars on poverty" and measures to improve the position of disadvantaged groups, including old age pensioners adversely affected by rising prices. There is a challenge here to which any civilized society must respond positively. Measures designed to help the disadvantaged are likely, however, to be more effective if they endeavour to promote a more even distribution of income without at the same time placing important brakes on the long-term growth of total real income.

A second point is that we recognize validity to the claim frequently made that an incomes policy may stimulate better understanding and discussion of basic economic relationships, especially those in the field of prices, costs, productivity and incomes. But, as we shall point out, more appropriate means can be developed to help fill this important need in Canada.

A GENERAL APPROACH TO THE UNDERLYING POLICY PROBLEM

Having recommended against a formal incomes policy as a means of bringing about an improved reconciliation of high employment and reasonable price stability in Canada under normal peacetime conditions, we now turn to what we consider would be a more effective framework of policies and programmes than now exists to accomplish the same end. We are aware that, as compared with the novelty and sweep of an incomes policy, our proposals may appear somewhat unglamorous. We believe, however, that while they may lack the initial surface glitter of an incomes policy, they will wear better in the long run. Our work has made us highly conscious of the ultimate political and economic dangers of policies which seem to promise more than they can in fact deliver.

At the risk of being repetitious, we would stress again that the basic problem to be attacked is difficult and deep-seated. Nothing in the experience of Canada or any other industrial country suggests that there is some simple formula or over-all prescription which will get rid of it quickly. The task will call for patience and a willingness to persevere with the development of certain supplementary policy approaches even at times when price increases do not appear to be a large immediate problem from either an economic or a political standpoint. As in the case of some other economic policy problems with which we have been concerned, improved effectiveness seems to require most of all a better head start—a longer-term view, and more advance preparation for difficulties known to be recurrent. When action has been left too late, it is usually not possible to find a quick cure which can make up for lost time.

A number of our following proposals imply more radical changes in established Canadian ways of doing things than a casual glance may at first suggest. We would draw attention particularly to our recommendations concerning the planning and scheduling of construction outlays and other expenditure by the three levels of government. The implementation of these recommendations would require considerable effort, upheaval, and alteration of customary attitudes, and for this very reason we would urge strongly that some of the necessary changes should be set in motion within the near future. We would also draw particular attention to the recommendations to strengthen the factual and analytical basis for parliamentary and general public discussion and understanding of the state of the economy.

In turning away from incomes policy towards other lines of approach, we have in effect rendered a judgment on the market mechanism of Canada's mixed economy. The problem with which we are confronted arises to a large extent from imperfections and imbalances of one sort or another in this system. We are convinced, however, that substantial improvements can be made in the system. The main thrust of our recommendations therefore runs along the lines of improving the use of the basic monetary and fiscal policies, lessening market rigidities, strengthening competitiveness within and between markets, promoting greater mobility of resources between alternative uses, removing inequities and enlarging general understanding of all these matters. We feel that for all their troubles and imperfections—for all the static and turbulence which they periodically generate—the essentials of the institutions of free collective bargaining and of flexible and relatively decentralized determination of wages and prices should be preserved. In the long run, they seem likely to be more compatible with good all-round performance by the Canadian economy than any visible alternative. However, in order to survive, they must continually demonstrate their ability to foster the processes of change and growth which are essential to the achievement of rising standards of living and to the development of a sound basis for the pursuit of other important economic and social goals.

THE BASIC IMPORTANCE OF APPROPRIATE MONETARY AND FISCAL POLICIES

Early in Chapter 3, we stated that there could be no substitute for a properly co-ordinated use of fiscal and monetary policies, whose management in relation to the general state of the economy is at all times a matter of central importance. We repeat this statement, as being the point at which any well-conceived attack on the problem under consideration must begin. The operation of these two instruments is of course subject to uncertainties and constraints—to time-lags between the occurrence of economic developments and the impact of policies responding to these developments, to a lack of precise knowledge as to the extent and distribution of policy impacts, to the "give" in the financial system, to economic and financial developments abroad, and so forth. In addition, monetary policy bears heavy special responsibilities in connection with the balance of payments and with the stabilizing of financial markets in relation to possible severe shocks of external or domestic origin. But, as we indicated last year, the underlying purpose of these two major policy instruments should be seen as that of maintaining the growth of final demand in the Canadian economy in an appropriate relationship with the growth of potential output. We also suggested that the use of monetary and fiscal policies for this purpose had tended in the past to be too closely geared to relatively minor, short-term fluctuations in the economy, and that they might be more effectively employed with a view towards stabilizing larger economic fluctuations over longer time periods—that is, to moderating prolonged pressure against resources or reducing persistent economic slack.[1]

It is an interesting point for speculation whether, in the future, a successful use of fiscal and monetary policy to maintain the Canadian economy closer to its potential growth path would tend to lessen the amount of price rise experienced at any given level of unemployment. Inevitably, the analysis of Chapters 3 and 4 was largely based on the past experience of the Canadian economy, which has been characterized by a relatively high degree of fluctuation in business activity. The very nature of the price instability that has occurred has been

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[1] In the *Second Annual Review* the roles of monetary and fiscal policy were stated as follows:

Monetary Policy

"We believe that the basic strategy of monetary policy should be concerned with expanding the money supply roughly in line with growing potential output, with a view to facilitating stable expansion of total final demand. We recognize, however, that the degree of success of such a monetary policy strategy will depend critically on whether a comparable strategy is being pursued in the United States....

"Short-term instabilities—of either external or domestic origin—are a prominent feature of sensitive financial markets. These may inevitably require tactical adjustments in monetary and debt management policies to meet special situations....

"Implicit in the above conclusion about the basic strategy for monetary policy is the view that monetary policy should not be essentially designed to deal with short-term cyclical instability in total demand. We believe that, within the limits which are necessarily imposed by external constraints, any fundamental adjustment in the basic strategy of monetary policy—that is, from the strategy of expanding the money supply roughly in line with potential output—should only be contemplated when final demand threatens either (1) to press in a persistent and prolonged way hard against the potential capacity of the economy to meet such demand, or (2) to fall persistently below potential, with a consequent prolonged situation of significant economic slack."

Fiscal Policy

"We believe that the context within which medium-term fiscal policy should be formulated is the basic strategy of fiscal policy for stable growth... a combination of levels of tax rates and expenditure programmes, taking all levels of government together, which would yield a rough balance on a national accounts basis (before allowance for the net accumulation of funds in the government-administered universal pension plans) if the economy were operating at potential output. This implies...

—A deficit on this basis would automatically be generated when actual output is below potential output; conversely, under conditions of very strong demand, accompanied by shortages and bottlenecks leading to inflationary pressures, a surplus would also automatically emerge.

"...A basic adjustment of strategy towards greater restraint or towards greater stimulation, should depend on whether there are prospects for strong and persistent forces pressing the economy too rapidly or too hard against its potential or, conversely, prospects for the emergence of prolonged and significant economic slack."

See also *Conference on Stabilization Policies*, a report of a conference convened by the Economic Council of Canada at the University of Western Ontario in 1965. (Queen's Printer, Ottawa, 1966) closely related to this larger pattern of instability. But what if the larger fluctuations were damped down somewhat and the economy oscillated less around its growth path? Would the high-employment price performance then show some improvement? We suspect that it would, although only a sustained actual experience of this rare stable kind of expansion can provide a conclusive answer.

Further than this, there are two essential points to be made about the "big levers" in the present context of policy recommendations. The first is that, especially in relation to the kind of troublesome price phenomena likely to arise while the economy is expanding but is still well short of its growing potential output, these instruments need to be supplemented by other policies. A second, equally important point, however, is that if the main levers are badly out of alignment with the general state of the Canadian economy, or with each other, there is little that other policies can do to bring about a tolerable reconciliation of employment and price goals. If, for example, the Canadian economy is swinging strongly towards either severe inflation or heavy unemployment—towards either of the extremities of the "trade-off" zone of the previous Chapter—it is on monetary and fiscal policies and not on supplementary policies that one must primarily rely to bring the economy back to a more desirable position.

There are some other basic conditions which must be reasonably close to right if real progress is to be made in solving the reconciliation problem. As always, a generally favourable external economic environment is of vital importance. Virtually every aspect of the task of maintaining an all-round high-performance economy in Canada rests on this foundation. There must be, too, an approximately correct setting of the Canadian dollar exchange rate: if this were again to become clearly inappropriate, as it did in the late 1950's, it would have to be put right before much else could be accomplished. Too high a rate can contribute to slow growth and unemployment; too low a rate to greater pressures on prices and costs than in the rest of the world. Another necessary condition involving broad policies is the maintenance of progress towards lower tariffs, freer world trade, and an improved international payments mechanism. This will help greatly to widen the area over which the pressure of international competition exerts a pervasive resistance against rises in the domestic prices of finished goods relative to those abroad.

The broad instruments of economic policy are of great significance, both in general and in connection with the particular problem being

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examined here; yet much remains to be learned about how they really work, and about the extent and timing of their effects on the Canadian economy. As we shall indicate, intensive probing into these questions should occupy a high place on any list of research priorities relating to the reconciliation of economic goals.

SUPPLY AND OTHER COMPLEMENTARY POLICIES

Fiscal and monetary policies are by and large instruments for influencing aggregate demand. The need for additional, complementary policies is in part a need for policies that will work on the side of supply. Important as demand is, it can be said that there has up to now been a relative neglect of policies to increase supply, both in general and in areas of particular pressure. Such a neglect is incompatible with the aim of maintaining a high level of achievement of all major goals in the Canadian economy, including that of reasonable price stability. Supply policies are highly relevant for the price stability goal, although they have much importance for other goals as well.

Another special usefulness of many of these supply and other complementary policies is the capability which they have of being adjusted to various sorts of differences within the Canadian economy. Often, for example, their impact can be differentiated as between regions or between industries. They can be concentrated on certain areas or sectors where the need for them is greatest, leaving other areas exempt. In the case of policies to avert excessive pressures in the construction sector, for example, it would not only be possible but essential to look at matters on a region-by-region or even finer basis, since the construction market tends to be fragmented, with pressures varying considerably from locality to locality. The broader, demand-oriented policy instruments discussed above do not generally have this sort of capability.

The complementary policies which we are about to advocate fall into two groups. On the one hand is a group of active and specific policies, designed to have a direct impact on the actual workings of the economy. These include manpower and other supply policies to improve resource allocation and open economic bottlenecks, policies to stabilize the growth of construction expenditure and so reduce the pockets of excess demand which periodically develop in that sector, policies to achieve better co-ordination of expenditure planning and fiscal policy by all three levels of government, the laying of a groundwork for a fresh policy approach to the problem of market power, policies to improve productivity growth and facilitate adjustment to technological and other change, and policies relating to the government's increasingly important role as an employer and as a participant in collective bargaining. All these policies relate directly, via one channel or another, to the price performance of the Canadian economy.

We shall also advocate a second group of "background" policies whose impact on price and other aspects of economic performance is less immediate and direct, but is likely to be significant in the longer run. These include policies for the improvement of basic research and statistics, and of public information and education.

The first group of proposals is outlined in this section of the Chapter; the second group is dealt with in the next section.

Dealing with Pressure Points and Bottlenecks

In our earlier analysis, we noted the unevenness with which the Canadian economy tends to rise towards potential output—unevenness in the sense that certain regions, sectors, and industries typically run into short-term supply ceilings well before the economy as a whole can properly be said to be suffering from inflation. The result may well be the emergence of a growing number of pressures and bottlenecks at particular points in the economy—points at which demand has risen relative to supply and at which there may be, for a variety of reasons, a slow response in terms of enlarged production. Such pressure points and bottlenecks can become trouble centres in various ways—not merely by holding up the physical flow of supplies to other industries, but also by generating rises in the prices of intermediate and finished goods, and by throwing up maverick wage increases which exercise a disturbing influence on the general climate of collective bargaining.

It should be noted that a bottleneck, in the economic sense, and a shortage are not necessarily synonymous. For example, it is often the case that an industry will feel itself to be experiencing a shortage of certain labour or materials *at the price it is willing to pay*. But the explanation may simply be that the labour and materials are not coming because they can command higher returns elsewhere. From an over-all viewpoint, this is entirely desirable; the economy maximizes

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its growth when resources seek out their areas of highest return. A true economic bottleneck can be discerned when higher returns are in fact being offered, but for some reason or other are not sufficient to activate flows of resources needed to enlarge supplies. Signals have been hoisted by the price system but are not being readily responded to. As a result, the signals will have to remain high or be hoisted still higher.

Time and the economy's natural adjustment mechanisms eventually open most bottlenecks; but we believe that there are certain practicable measures which could be taken to encourage and speed up the process. In many ways these would amount to a development and extension of the approach to manpower policy which we advocated in our first two *Annual Reviews.*[1]

A first, indispensable requirement is more and better information about the location and extent of specific pressures in the Canadian economy. One key piece of information—a comprehensive statistical series of unfilled job vacancies as recommended in our *Second Annual Review*—is already in course of development by the federal Department of Manpower and Immigration and the Dominion Bureau of Statistics. To this should be added regular survey information concerning the extent to which available plant capacity in Canadian industries is being utilized. Such information is difficult both to collect and to analyze, but the job can be done and has in fact been done for some years in the United States, with valuable results. We would envisage most of the data being collected in conjunction with the regular government surveys of investment-spending intentions. This would be logical as well as convenient, since both sets of data are closely interrelated and would play an important role in bottleneck analysis.

Also of great help in bottleneck analysis would be better and more detailed statistical series than now exist of unemployment by industry and locality and of unfilled orders.

These various "pressure gauges" would be useful for many purposes. Hitherto, statements about pressure and overheating in the Canadian economy at any given time have had to be largely based on a few very broad statistics, on the indirect evidence of price and wage movements, and on nonstatistical impression-gathering. The proposed

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[1] An anti-bottleneck policy proposal for the United States is to be found in John T. Dunlop, "Guideposts, Wages and Collective Bargaining", included in *Guidelines, Informal Controls, and the Market Place* (George P. Shultz and Robert Z. Aliber, editors), University of Chicago Press, 1966.

new measures, by contrast, would be directly and specifically related to pressures on available supply, and would furnish more detailed information about these pressures. They would be more likely than presently available information to suggest positive, supply-oriented ways in which some pressures at least could be relieved.

For full effectiveness, the new statistics would have to be used in conjunction with short-term and medium-term forecasts of economic activity in Canada. Economic forecasting is an imperfect art; but a slow if irregular improvement is occurring, and a stage has now been reached where it ought to be possible to do a better job of foreseeing at least some of the specific pressures likely to develop as the Canadian economy expands towards full potential. We would envisage that much of the responsibility for practising this improved foresight should devolve upon government departments and agencies which are already in or about to enter the field of forecasting economic activity. This Council would be prepared to play a suitable role in the over-all programme, consistent with the nature of its responsibilities which relate to the economy's medium-term and longer-term problems and potentials.

Identification of likely future bottlenecks could be followed by various courses of timely action, depending on the particular circumstances. An appropriate first step would be to bring potential bottleneck problems to the attention of those most immediately concerned. Out of the ensuing closer examination would likely emerge some clearer indications of the character and extent of such problems (assuming they were agreed to *be* problems), and of appropriate public and private actions which might be taken to deal with them.

Where the anticipated bottleneck involved a shortage of skilled labour, a fully operational manpower mobility and adjustment programme would have much to contribute. Given sufficient lead-time, a thorough canvass could be conducted of available sources (including foreign sources) of the type of labour required, and arrangements made to tap these sources effectively. Again assuming adequate lead-time, part of the solution might prove to be a retraining and upgrading of some members of the existing labour force.

The outside world has traditionally been a major source of relief from both general and specific pressures in the Canadian economy, and could be effectively resorted to as a means of opening many kinds of bottlenecks. The special tariff arrangements instituted in 1966 to relieve a tight supply situation for certain items of auto-making machinery are an illustration of what it is possible to do on a temporary basis, without prejudice to Canada's longer-run tariff bargaining position. One particular attraction of calling on the external sector for help in opening a bottleneck is that its response will often be rapid.

Other courses of government action in the fields of taxation and expenditure planning may sometimes be indicated. We would not envisage a great deal of detailed tax adjustment to meet bottleneck situations, but rather the keeping of a lookout against the occasional possibility that features of the tax system might be tending to aggravate specific shortages.

Importance of Greater Stability in Construction Activity

We have argued that the instability of demand for construction goods is one important cause of periodic pressures and bottlenecks in the Canadian economy—the price and cost rises are sharp, and they have an important influence on other sectors of the economy. Any progress that could be made in dealing with this problem in a positive way—in a way that would fully recognize Canada's need for a heavy volume and steady growth of construction outlays over the years to come—would make a useful contribution to reasonable price stability and strong international competitiveness in the Canadian economy.

While housing construction has responded very noticeably to changes in monetary policy and other public policies, attempts by the authorities to influence the volume of non-residential construction have had much less success. This may have encouraged a fatalistic belief that wide fluctuations and boom-and-bust are an inevitable way of life for the Canadian construction industry. We do not share this fatalism. Some measure of instability in construction spending will no doubt always exist, particularly in the case of programmes closely related to the state of world demand for Canadian exports of primary products. But much of the fluctuation of demand growth in this sector is of more domestic origin and susceptible to a significant degree of correction. The relative lack of success of previous governmental efforts in this direction we would attribute primarily to two factors:

(1) An excessively short-term, intermittent, and one-way approach to the problem. A policy for stabilizing the growth of construction expenditure that manifests itself chiefly as an attempt to cut back spending in years when a boom situation and

numerous pockets of excess demand have already developed is unlikely to stem the momentum greatly in the short run. Its main effect may well be deferred somewhat, involving some risk of administering a depressant to a patient that has begun to need a stimulant.

(2) An excessive concentration of attention on the instability of construction spending in the private sector of the economy, as compared with that in the public sector, some of which is inherently more susceptible to stabilizing action.

A more effective approach to smoothing the growth of construction spending in Canada must begin at the level of the whole economy. Construction and other investment spending responds to a variety of stimuli, including the need to modernize aging facilities and incorporate new technical improvements, but the strongest and most pervasive motivating force is the pressure of growing demand for all goods and services on the economy's existing stock of capital facilities. It follows that the steadier and more predictable is the upward course of aggregate final demand, the steadier is likely to be the growth of construction expenditure.

Greater Stability in Government Expenditures on Construction

Given more effective policies to obtain reasonable stability in the growth of final demand close to rising potential output, along lines suggested in our *Second Annual Review,* it is also important to have supporting measures of a more specific nature to stabilize the growth of demand for construction. These measures should be conceived in terms of a time horizon of three to five years—longer in some instances—and they should lay greater relative emphasis than hitherto on non-residential construction spending by the public sector of the economy, broadly defined to include publicly owned corporations of all types. A smoother growth of public construction than in the past is not only essential in itself, for a smoother growth of the economy at large, but it will also tend to facilitate a more stable growth pattern in private investment as well. Impracticable targets should of course be avoided. We would not contemplate the use of public-sector expenditure as an offset to short-term swings in construction spending by the private sector of the economy. It would be sufficient in our view, and a definite improvement over past performance, if total non-residential construction expenditure by the public sector could simply follow a more stable growth path, neither flattening out greatly in periods of comparative slack, nor spurting upwards in years like 1956 and 1965 when private construction was booming.

Such an approach seems to us realistic because, while some public sector outlays are closely geared to developments in the private sector of the economy, there is a large amount of construction expenditure—notably in such fields as education, health, highways, other transport facilities, waterworks, pollution control, and public buildings and cultural and recreational facilities—which is required to meet longer-term public needs of a kind broadly foreseeable for some years ahead. This means that there should be good inherent opportunities for better planning and scheduling of these expenditures in relation to the best available information about the medium-term prospects for the Canadian economy and the likely demand-supply situation of the construction industry in key areas.

It is essential, however, that the planning process be continuous and that the stabilization of expenditure growth operate in both directions. There should not be an exclusive preoccupation with trying to saw the peaks off booms in public construction; attention should also be given to filling up the valleys. An easing of the demand-supply position of the construction industry, and the appearance of a prospect that for some time ahead it will be able to handle the considerably larger volume of business that it already has in hand, should be a signal for pressing ahead as hard as possible with public projects that will clearly become urgent necessities before many years have passed. The more of these that can be undertaken, the fewer there will be to reach the stage of urgency later on when the construction industry is again at full stretch and not easily able to take on major additional projects.

More stable growth of public construction expenditure is unlikely to be achieved if the problem is conceived entirely in terms of restraint and waste reduction, highly desirable as the latter may be. Much of the problem is really one of better long-term management of essential and productive outlays. To a considerable extent, periodic bouts of excess demand for construction goods can be blamed on necessary public projects which have been left so long that they are incapable of further postponement.

As we observed earlier, the bulk of public construction expenditure in Canada is carried on by provincial and municipal governments and their associated utilities and enterprises. This of course raises special problems in the development of co-ordinated policies for smoothing demand growth: some proposals to help meet these problems will be found in the next section of this Chapter. There remains, however, a major responsibility on the federal government to provide leadership and an example in the handling of its own construction expenditures. It should also organize its grants to provinces and municipalities and its cost-sharing programmes relating to construction in such a way as to give the maximum possible inducement to better long-term planning and more stable growth of outlays. (Provincial-municipal grant structures and procedures whereby municipal capital programmes are subject to provincial approval also provide some scope for provinces to exert an appropriate influence on municipal construction expenditures.)

Governments and related bodies in Canada have made some progress over the last few years in taking a longer-term view of their expenditure programmes—in introducing five-year capital budgets and other such procedures. This progress should be accelerated. As recommended in our earlier *Reviews*, longer-term capital budgets should be published on a regular annual basis. Within this frame work of capital budgeting it will be especially important to give careful attention to appropriate investment priorities in relation to the economy's basic economic and social goals.

We would also emphasize that considerations of economic stability should be thoroughly integrated into the longer-term planning process in the public sector. They should not be introduced at the last moment, from outside, as a highly unwelcome disruption of carefully prepared programmes. They should be there from the outset, in the form of periodically revised appraisals which will keep the Treasury Board or other planning groups continuously advised of the sort of short-term and medium-term economic environment in which major expenditure programmes will probably be unfolding. It should be kept firmly in mind that bad economic timing can cost the taxpayers money. The effect of much painstaking effort to trim the fat from a programme can be completely swept away by an undue bunching of construction contracts in a boom year of few and high bids.

Steps should also be taken to bring about a greater centralization of information and decision-making about construction expenditures by the federal government. At present, responsibility appears to be widely spread among departments and as a result relatively unco-ordinated. More centralized information and co-ordinated procedures would permit better account to be taken of the total impact of government construction spending, both nationally and in relation to the individual demand-supply situations of local construction markets.

Among the desirable effects of a more stable pattern of growth in non-residential construction in Canada would be a decreasing emphasis on the use of housing as an enonomic regulator. Housing construction, as mentioned earlier, has proved markedly sensitive to government policies for economic stabilization, but it is a regulator that can be over-used. The labour force employed in housing construction is a rather different one in many respects from that in non-residential construction, notably in skill levels and degree of unionization, and to assume that a pinching of housing immediately releases an equivalent amount of usable labour to the non-residential market is to assume too much. Further than this, one undesirable by-product of a sharp squeeze on housing is that in some fast-growing metropolitan areas it may put considerable upward pressure on rents.

Another point of some importance concerns the impact of monetary policy on the supply side of the construction market, both residential and non-residential. In allowing monetary conditions to tighten during expansionary periods, the authorities' primary object is to bring about a better balance between demand and supply. No doubt most of the impact on construction activity does in fact fall on the demand side (although with a considerable lag) but there are some undesirable side effects on supply. Small contractors, strapped for financing, are unable to bid on jobs, resulting in a smaller total of bids, less competition, and higher prices. Anything which would ensure that the effects of tighter money occurred more on the demand side of construction rather than on the supply side would be to the good.

Towards Better Co-ordinated Federal-Provincial Fiscal Planning

Our consideration of construction expenditure by the public sector raised the issue of the division of responsibility for this kind of outlay among the three levels of government. We suggested that the provision of leadership and an example by the federal government, and an appropriate use of intergovernmental grants and cost-sharing arrangements, to achieve a more stable growth of construction outlays, might go some way to meeting the problem. We should now like to add to this a further proposal affecting not only construction expenditure but the broader area of all fiscal planning. In brief, we would envisage a procedure by which more and better information about the Canadian economic situation and outlook is made available to federal and provincial governments, and is discussed among them. This information should become available at a convenient time in relation to established patterns of budgetary and other decision-making, and it should be published. A better basis would then exist for informed consideration and debate, leading to better planning of construction and other expenditure in the public sector as a whole.

A useful custom has already been established of holding regular meetings between federal and provincial finance ministers and treasurers in November or December of each year. The Canadian economic situation and outlook is one of the items on the agenda of these meetings, whose timing is such that the discussion is potentially capable of influencing budgetary decisions taken early in the following year. With this annual meeting as a focus, the federal Minister of Finance has recently proposed a number of innovations, at both the technical and policy level, intended to improve intergovernmental liaison on economic matters, widen the range of discussions on federal-provincial budget planning, and assist in more systematic analysis of national and regional problems of economic growth and stability.

Because of the need for longer-term planning and the importance of broader public understanding of government policy, we would propose that the scope and importance of these annual meetings be enlarged in still further ways. The documentation should be fuller and the time horizon of the economic outlook longer. Above all, the documentation should be published in advance and should be of a type that would permit the public and members of Parliament and provincial legislatures to join effectively in the broader debate surrounding the actual meetings. We would envisage a sort of open season on discussion of the Canadian economy and related problems of public finance, extending from the autumn through to the appearance of federal and provincial budgets in the winter and spring. There would be no closed season thereafter, but the autumn-through-spring season would be regarded as particularly open.

Beginning in 1967, the *Annual Reviews* of this Council will be appearing in the autumn; they will therefore be available for the purposes we have in mind. Another key document would be a preliminary published survey and appraisal of capital-investment intentions, which would include some indications of spending plans by major private and governmental bodies not just for the coming calendar year but for some years ahead. The Council intends to initiate such a survey itself on a regular annual basis.

A third highly important document which should be prepared and published in the autumn would be an earlier version of the Economic White Paper now published by the federal government shortly before its annual budget. The scope and usefulness of this Paper has been most commendably improved over the last few years: it has ventured into explicit short-term forecasting of economic activity; it has examined various significant aspects of the Canadian economy; it has become much more than a prelude to the Budget Speech. We would now propose to separate it from the Budget Speech by some months —to have it appear late in the previous calendar year, in time to provide documentation both for the meetings between federal and provincial finance ministers and treasurers, and for the broader public debate which we wish to see inaugurated as an annual custom. This earlier publication would raise some technical and statistical problems, and there would also be a need to provide some sort of updating of the paper for use in connection with the federal budget, but we do not think that either of these difficulties would be insuperable.

Consideration might also be given by Parliament to the setting up of a Standing Committee on Economic Affairs of the Senate and the House of Commons of Canada, one of whose major purposes would be to conduct annual examinations of the three documents mentioned and of issues arising out of them. Expert witnesses might be called, and a small permanent staff of high quality provided for the committee's use. In making this proposal, we have been much influenced by the excellent record of the Joint Economic Committee of the Congress of the United States, which has done a great deal to raise general standards of economic debate both inside and outside Congress.

Between all of these proposals and the policy problem to which we have chiefly addressed ourselves there is a closer connection than may readily appear. To deal with the policy problem requires, among other things, better planning of public expenditure; and this in turn requires more specific recognition of the role of all three levels of government and improved public understanding of the interrelationships between government fiscal actions and the progress of the Canadian economy. We believe that bringing these matters more into the open, and giving them regular, formal examinations in public, should in the long run result in improved economic performance on most major fronts.

Programmes for Productivity Improvement and Adjustment to Technological and Other Change

We have stressed repeatedly, especially through our *First* and *Second Annual Reviews,* the significance of the vital contribution which improved productivity must make to the steady growth of the economy and to rising real incomes for Canadians. In a later section we emphasize the need for further research into the relationship which demonstrably exists between productivity improvement and the performance of the economy with respect to prices and costs and its competitiveness at home and abroad.

There is some evidence of a growing appreciation of the need for better productivity performance if Canadians are to reach their economic and social goals. A number of new or expanded policies and programmes which can lead to productivity improvement have been initiated in both the public and private sectors of the economy: increasing investment in human resources to improve knowledge and skills and the higher priority being given effective manpower policies are outstanding examples. However, not sufficient progress is being made. A good deal more could be done through planned productivity-improvement programmes at the enterprise or industry level, and through the stimulation of industrial research and innovation. There is insufficient awareness of the many services which are already available or could be made available to Canadian enterprises from public and private sources to help them plan imaginative and effective programmes for productivity improvement.

Quite often the technological and other changes which competition imposes on a business enterprise, or which are necessary to achieve a better productivity performance, result in manpower adjustment problems affecting the welfare and future of individuals. These adjustment problems must be dealt with justly and adequately. Their solution imposes important responsibilities on management, labour and government and constitutes a serious challenge to labour-management relations. The Council will shortly be convening a national conference on the problem of manpower adjustments to technological and other change.

Market Power and Consumer Protection

The question of market power and its role in price and wage determination has arisen at a number of points in our analysis. Our general conclusion is that, while it appears to have been a factor of some importance in Canada, it cannot readily be assigned sole or principal responsibility for the kind of rising price phenomena which the economy typically experiences as it moves through a business-cycle expansion. There is too much evidence of the influence on prices of other important forces such as increases in aggregate demand and foreign price changes. The climate of expectations is also of great significance. A major analytical difficulty, which has not yet been surmounted, is that of disentangling the *independent* influence of market power from these other forces.

An analysis concerned mainly with rises in the general price level during periods of economic expansion is not the best framework within which to examine the phenomenon of market power. It is too narrow. Paradoxically, and contrary to widespread general impression, the effect of market power on wages and prices is likely to be proportionately more important (and easier to discern) during periods of economic slack, when the general price level is rising comparatively slowly, than it is in more buoyant periods. Further than this, the proper study of market power should embrace much more than overt price and wage increases. Many of the more important effects of monopoly and other kinds of power concentration may lie rather in the realm of downward price rigidity, restriction of production, and barriers to would-be entrants into trades, professions, and industries.

In the light of these considerations, it is apparent that effective policies for dealing with problems arising out of the exercise of market power should ideally be continuous policies, operated in accordance with sound and generally understood principles, and designed to give protection to the consumer while, at the same time, stimulating the internal and external competitiveness of the Canadian economy. The difficulty of achieving this type of approach within the Canadian constitutional framework must not be underestimated. But it is clear that a continuous approach, to the extent that it is possible, is likely to be more effective than, say, an approach which consisted only of sporadic ripostes to those more obvious exercises of market power which readily attract public attention.

The Government has now requested this Council to conduct a major investigation into this general area. The terms of reference, dated July 22, 1966, are as follows:

> "In the light of the Government's long-term economic objectives, to study and advise regarding:
> (a) the interests of the consumer particularly as they relate to the functions of the Department of the Registrar General;
> (b) combines, mergers, monopolies and restraint of trade;
> (c) patents, trade marks, copyrights and registered industrial designs."

In announcing these terms, the President of the Privy Council further stated, in part:

> "...The Council will be requested to press forward with this comprehensive study as swiftly as is practicable in order that appropriate legislation may be prepared thereafter with a minimum of delay. To expedite this process it is also the intention that officials shall press forward their study in those aspects of these fields which may be advanced without duplication or interference with the work of the Economic Council. In this way it is the Government's intention that the soundest policy may be developed and translated into legislation as speedily as possible consistent with the clarification of the constitutional position and the proper role of the federal authorities.
>
> "The Economic Council will be free to make interim reports on such particular aspects of the study as the Council deems appropriate to enable the Government to consider taking initial steps consistent with the general review."[1]

The studies carried on under this new reference will aid in the development of a co-ordinated and consistent programme of policies for dealing with this important group of matters. There will be an opportunity to consider, among other things, what review procedures and review bodies, operating on a continuing basis, would be most appropriate.

Criteria for Wage and Salary Determination in the Public Sector

The rapid expansion of the public sector together with the rapid development of collective bargaining in that sector in recent years have considerably enlarged the role of governments in wage settlements. These developments make it mandatory that governments as employers become clearly aware of the influence which wage decisions to which they are a party may have on the economy, especially at a time of rising prices and costs. The constraints which underlie collective bargaining in the public sector are different and often much less clear than those which apply to collective bargaining in the private sector. The constraints of the market place which require a private

[1] President of the Privy Council, The Honourable Guy Favreau, Q.C., Press Release, July 22, 1966.

employer to maintain competitive costs so as to ensure the very existence of his firm do not apply to governments. This distinction becomes important particularly when a senior government is involved in a wage settlement which may come to be regarded as a pattern-setter for wage settlements in private sectors of the economy. This may be especially true of the federal government, which is by far the largest employer in Canada.

It is imperative that governments, and particularly the federal government, should develop and adhere to certain basic principles and criteria relating to wage and salary policies and collective bargaining in the public sector. In regard to these principles and criteria, three elements should be of major importance:

(1) In all cases where the government is the immediate or the ultimate employer, the objective of policy should be to maintain as close a relationship as possible with wages, salaries, and other benefits paid by good employers in the private sector. This relationship should be maintained on a current basis, without the excessive delays and procrastination which have often occurred in the past, resulting in dissatisfaction, loss of efficiency, and an eventual need for unusually large wage and salary adjustments.

(2) From time to time, because of the introduction or rapid expansion of particular services, the government may need to increase sharply its employment in certain categories and skills. To meet such needs, the government, like any other employer in similar circumstances, may find it necessary to increase appreciably the rates paid for those categories and skills.

(3) In cases in which governments find it necessary to make particularly large adjustments or settlements to meet particular needs, to remove inequities, or to remedy disparities with the private sector, it is important that the reasons should be clearly stated so that they will not be interpreted as setting patterns or guidelines generally in the economy.

Food Prices

We note in Chapter 4 and elsewhere some reasons why the behaviour of food prices tends to be of special interest to consumers, particularly in a period such as 1965-66 which had been marked by sharp upward movements in the prices of a number of basic foods. In order to keep the special attention being paid to food prices in reasonable perspective, it is useful to record at this point the range of price experience for the various groups of consumer goods and services over the period since 1949, which are reflected in the current levels (August 1966) of those groups in the Consumer Price Index:

All items	144.9
Food	148.1
Housing	145.0
Clothing	124.8
Transportation	150.6
Health and Personal Care	181.3
Recreation and Reading	159.6
Tobacco and Alcohol	125.1

We also outline in Chapter 4 some of the more pervasive factors underlying the rise in food prices, including the drawing down of food stocks, the tightening world food situation, the strength of the North American economic expansion since 1961, some effects of the 1960-62 exchange devaluation, and the longer-term rise—both absolute and proportionate—in the processing-packaging-distributing component of the retail price of food throughout the post-war period. This latter component has risen from about 40 per cent of the total retail price in 1949 to almost 60 per cent at present.

From 1949 to 1965, the general level of prices received by farmers had risen about 10 per cent. Over the same period food prices at the retail level increased by 36 per cent. It is clear that the greatest part of the rise in retail food prices over this post-war period has been occasioned by increases in marketing costs.

Many of the changes affecting food supplies which we have outlined above are world-wide or North American in character and may continue for some time. It must be recognized too that important sectors of the Canadian, and indeed the North American, agricultural industry may well be entering a new phase of development. During much of the post-war period, the industry was in a prolonged phase of rapidly increasing productivity and less rapidly increasing market demand: the number of farmers needed to meet food requirements declined drastically. During this period manpower moved out of the industry and returns to resources used in agricultural production tended to be relatively low. Now, however, relatively greater returns may be required to attract and retain enough productive labour and capital, in competition with nonfarm uses of these resources.

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Under these circumstances, it will be all the more important that, as in other industries, the most effective possible measures be taken to increase productivity, both in agricultural production and in processing, packaging and marketing.

It is to be expected that agriculture will continue to be faced with opportunities for advances in technology and science which will have profound implications for it. In a situation in which it is apparent that we have moved into a position where agriculture is having to face more directly the competition of other industries for labour and capital, it becomes increasingly important to strengthen policies which will help farmers to adopt new technology and new scientific advances.

During the past year or more a significant part of the faster rate of rise in food prices has been due to rising prices at the farm. The causes of the rise are complex—a combination of shorter-term cyclical highs in some prices, such as for hogs and eggs; plus the pressure of a more rapidly rising demand for livestock products and fruits and vegetables in North America; plus the high level of world demand and reduced stocks of grain which have an indirect delaying effect on production of some other products such as hogs. It will take some time to adjust to these circumstances.

The recent rise in prices therefore has temporary and longer-term aspects, the longer-term ones highlighting the need for the continuing and sustained adoption of new technology, especially in the livestock field where the process of adoption of new techniques of mechanization, feeding and management cannot be very rapid.

In short, the upward limits which will in practice exist on future food prices, as far as the farm level of prices is concerned, will be basically those determined by the degree to which the technological and scientific potential for rising productivity is realized in the industry. This is all the more reason to implement policies which will facilitate necessary improvements and adjustments that will be in the interest of both farmers and consumers.

Special efforts must be made to meet seasonal labour requirements and to step up programmes to achieve larger and more efficient farm units. There should be continued emphasis on the new programmes being developed to help in dealing with the problems of the low-income small farmers. It will be important to have a blend of policies which, while including desirable income-supporting measures, will operate so as to promote efficient increases in production. It will be particularly important, in areas of farm production where intervention by government is practised, not to follow policies which place unnecessary disincentives on the production of some products while encouraging overproduction in others.

We have noted previously the fact that the processing-packaging-advertising-distributing process has become the largest part of retail food costs. In urban centres, where an increasing proportion of the Canadian population live, this process is a complex combination of activities and services, including transportation, storage, preservation, quality control, customer parking, promotion, display and other elements. It is important that those engaged in the marketing of food products seek out ways to improve the technology of their operations and reduce costs, and that they consider carefully how they can reduce unnecessary expenses.

IMPROVED ECONOMIC INFORMATION AND RESEARCH

The Need for More Basic Economic Research

One of the stronger impressions which we have gained from our work is of the existence of important gaps in the analysis of price, cost and related matters in Canada. For example, even if one makes an appropriate allowance for the larger size of the United States and the larger pool of economic expertise available there, one finds no real Canadian counterpart to much of the important body of empirical research generated in the late 1950's by the Joint Economic Committee of Congress in the course of their investigation of employment, growth and price levels. Considerable public discussion of inflation and kindred issues has certainly taken place in Canada, but for the most part it has had insufficient back-up or follow-up. Moreover, in relation to many countries other than the United States, Canada is clearly lagging in the relative volume of resources devoted to economic research, as well as to the social sciences in general. There is a distinction to be made between the expression of opinion, even well-informed opinion, and the much more time-consuming process of basic research.

All this would not perhaps matter too much if Canada could be content to coast along with the results of economic research in other countries. As we have emphasized, however, the Canadian situation with regard to prices and costs is importantly different in many ways from that of the United States and other countries, and this alone

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would seem to justify the mounting of a larger indigenous effort. The studies undertaken and commissioned by the Economic Council in connection with the present report will constitute, we trust, a useful beginning of such an effort, but we are well aware that they are only a beginning. The subject is a vast and complex one, and much more needs to be done. What is particularly required is thorough, impartial, factual research, carried out by highly qualified persons with enough time and resources to achieve real penetration into the many inherent difficulties of the subject. This will require much more adequate financial support than has been available in the past, but the money will be well spent provided it goes into properly organized efforts in universities and elsewhere, and is not dissipated in a succession of quick and superficial passes at the problem. We believe that longer-range research requirements in this field should be given careful consideration by governments, business firms, and other public and private bodies keenly interested in problems relating to economic growth and stability. We intend to pursue continuing investigations of our own, relating generally to these matters; we hope that many others will contribute to this work.

It might be useful to indicate some particular lines of research which seem to us likely to be fruitful. The following list is intended to be illustrative rather than comprehensive:

(a) Further investigation of how changes in broad fiscal and monetary policy, and in the mix of these and other policies, affect the operations of the Canadian economy.[1] Special attention should be devoted to the distribution and timing of policy effects.

(b) Detailed exploration of the development of price, cost and other phenomena within and between major sectors and regions of the Canadian economy. There is an urgent need for analysis of regional developments in the Canadian economy.

(c) The construction and testing of econometric models of the Canadian economy in which are incorporated sub-sectors dealing with movements in prices, wage rates, and other rates of return to productive factors.

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[1] For important contributions in this area and indications of further possibilities, see, *Conference on Stabilization Policies*, report of a conference convened by the Economic Council of Canada at University of Western Ontario in 1965. (Queen's Printer, Ottawa, 1966)

(d) Further study of prices, wages, costs, productivity and profits, relative to shorter-term business fluctuations, in those areas where suitable data are available.

(e) Studies of various aspects of the Canadian construction industry. A programme of such studies has been sponsored as a Centennial project by the Canadian Construction Association.

(f) Studies of prices, costs and productivity in the service industries, partly with a view to obtaining a better understanding of the persistent uptrend in service prices.

(g) Continuing study of trends and developments in productivity in Canada as compared with the United States and other countries.

(h) Detailed study of Canada's international price competitiveness in specific types of manufactured products, along lines being pioneered by the National Bureau of Economic Research in the United States.[1]

(i) Further study of economic aspects of collective bargaining in Canada and their relationship to other developments, based on new computerized data of collective agreements developed by the federal Department of Labour in co-operation with the Economic Council of Canada.

(j) Studies of industrial organization in relation to the performance of the Canadian economy.

The Need for New and Better Statistics

Private and public decision-making and economic research alike depend on the availability of good economic statistics. As in the physical sciences, quantitative measurement is the key to the testing of ideas and the understanding of processes. Such knowledge as we have of the structure and behaviour of the Canadian economy rests on the foundation of quantitative measurement.

Already, in the course of our recommendations, we have pointed to specific needs for additional data that would be required to implement new policies—e.g., measures of capacity utilization and other "pressure gauges", for use together with longer-term investment surveys in locating potential pressure points and bottlenecks.

We would also recommend a particular strengthening of those divisions of the Dominion Bureau of Statistics which are concerned

[1] Irving B. Kravis, Robert E. Lipsey, Philip J. Bourque, ***Measuring International Price Competitiveness—A Preliminary Report***, National Bureau of Economic Research, Occasional Paper No. 94.

with price measurement. This in no way reflects on the Bureau's past performance in this field, which if judged on the basis of the relationship between output and available resources is a highly commendable one. Rather, we are persuaded that the amount of resources made available for this work must be substantially increased if measures of price change in Canada are to be adequate to serve the growing number of uses to which they are put, and if related measures of output, economic growth and productivity are to be improved.

We would urge also that the research capabilities of the Dominion Bureau of Statistics be strengthened. This is essential if price statistics are to be improved, and if important questions periodically raised about the Consumer Price Index and other widely used measures are to be thoroughly investigated and reported upon. We further believe that a programme for the longer-term development of price statistics should be set up, and that the programme should be developed within a conceptual framework which will make it possible to relate price movements more systematically to changes in the value and volume of output by industry, to changes in wages, profits and productivity, and to the total and major components of the implicit deflator of Gross National Product. Such a programme would necessarily take many years to implement fully. Immediately, however, steps should be taken to improve the estimates of price measurement in construction, and to see whether there is any practicable method of making a productivity adjustment in the government sector. These are the two areas in which the present Gross National Expenditure price deflator appears most seriously deficient.

In the field of productivity measurement, we would recommend that the important research and development programme which the Bureau has had under way for some time be continued and strengthened in close consultation with potential users. The demand for productivity measures at all levels of aggregation is certain to be fast-growing. More attention should be given to measures of real output and productivity in the service sector, which now comprises such a large proportion of the total economy, and to the maintenance of ready compatibility between productivity measures and other widely used economic statistics.

These are in fact only a few facets of the urgent needs for strengthening the statistical base for many important areas of economic analysis and policy formulation, implementation and appraisal. Decision-making in many areas of our increasingly complex economy requires new and better information. Rapid progress is being made, especially in the United States, in developing new techniques and capabilities for the storage, retrieval and extremely rapid compilation and analysis of data. It is imperative that the Bureau, which has not been able to move very far or fast to exploit these large new potentialities, should obtain the financial and technical resources and, above all, the highly qualified and trained manpower, to move quickly to develop these potentialities. We therefore urge that a high priority be given to a strengthening of the Bureau.

The Need for Better Analysis and Understanding of Current Economic Developments

As indicated earlier, we recognize the value of better public understanding of current economic issues and developments arising from the use of incomes policies. Our survey of the wage-price guideposts in the United States has led us to the view that one of the good things to come out of that initiative, in the form in which it was originally launched in 1962, was a perceptible discrediting of ancient shibboleths and an improvement in public discussion of the interrelations between wages, prices and productivity.

In recommending that the importance of the annual autumn outlook meetings between representatives of the federal and provincial governments be expanded, that published analysis be provided as a background for these meetings, and that a broader debate of the relevant economic and fiscal issues be encouraged, we were concerned to promote public education in these matters. Further along the same lines, we believe that there is an urgent need for more regular and systematic analysis and appraisal of shorter-term developments in the economy, to serve as a solid and objective basis for public discussion and debate about current economic conditions and the shorter-term business outlook. Among other things such analysis and appraisal should naturally cover the current and prospective evolution of prices, incomes, and productivity. Canada lacks the kinds of institutions which exist in many other countries—in many cases, private, nonprofit institutions—whose main function is to study and make widely available to the public, expert analyses of current economic problems and developments. Such analyses have not only tended to play a very important role in assisting financial and economic reporting and commentary in the daily and weekly press, but have also served to provide useful material as a background for decision-making in many parts of the economy.

The functions and organization of the Economic Council and the basic focus of its work on medium- and longer-term developments and potentialities make it an inappropriate body to undertake the kind of shorter-term analysis and appraisal which is needed. We therefore recommend that there should be created in Canada an independent research institute, specializing in the analysis of current economic developments and possessing some of the characteristics of bodies already existing abroad[1]. A principal function of the institute would be the publication of a periodic bulletin containing a general analysis of current economic developments and other articles of interest. To do this well would require a highly qualified professional staff, plus appropriate supporting echelons. It would be desirable that the institute be financed from a number of sources, both private and governmental. Other features of its organization should be designed to ensure the greatest possible degree of independence and detachment from the interests of any particular private economic group or government.

So organized, the institute would have a real contribution to make to improved understanding of the Canadian economy. A jealously preserved detachment would make it a particularly valuable commentator on developments of a more contentious sort, including, from time to time, developments in wages and prices.

SUMMARY OF CONCLUSIONS

The purpose of the recommendations in this Chapter is to meet the fundamental challenge posed for the Canadian economy by the problem of maintaining reasonable price stability at high levels of employment. The recommendations may be summarized as follows:

(1) A formal incomes policy would not be an effective way of meeting the problem in Canada, except possibly under rare emergency conditions and then only on a temporary basis. This finding applies only to the kind of incomes policy that is primarily concerned with obtaining price stability at high employment. It does not apply to a wide variety of taxation, welfare, and other policies which have an important bearing on the distribution of income.

(2) A first and indispensable part of an effective programme to meet the problem is a well co-ordinated and otherwise

[1] For example, the Swedish Business Cycle Research Institute, the National Institute of Economic and Social Research in Great Britain, the National Bureau of Economic Research in the United States, the Munich Institute for Economic Research in Germany.

appropriate use of the broader instruments of economic policy, including fiscal and monetary policy, exchange rate policy, and commercial policy. If these policies are not being properly operated there is little that other policies can do to bring about a better reconciliation of price and employment goals. An underlying principle for the operation of fiscal and monetary policy is that they should try to keep the growth of final demand for goods and services in the Canadian economy as close as possible to the path of the economy's growing potential output.

(3) To achieve a more satisfactory reconciliation of economic goals, the main policy "levers" must be complemented by policies whose primary focus is the *supply* rather than the *demand* side of the economy. Among these are effective manpower and other policies to encourage the flow of available resources into their highest and most remunerative uses, and to help relieve the economic pressure points which are in part responsible for the appearance of excessive price and cost increases before the economy has reached its potential path.

(4) The problem of periodic strains, excess demand, and strong price and cost pressures in the construction sector calls for special treatment. A major requirement is for a smoothing of the hitherto needlessly destabilizing growth pattern of construction spending by governments and other public bodies. This will necessitate, among other things, the development of better procedures for longer-term planning and co-ordination of government capital outlays, and the provision of a lead and an example by the federal government both in the handling of its own capital programmes and in whatever grants and shared-cost capital development programmes are undertaken with the provinces and their municipalities.

(5) The annual autumn meetings between federal and provincial finance ministers and treasurers should be developed into a major vehicle for the improvement of longer-term planning and the better co-ordination of expenditure programmes and other fiscal matters by the three levels of government. A number of basic economic documents should be published prior to such meetings to serve not only as a background for them, but also as a basis for stimulating broader public debate about economic developments, problems and potentialities in advance of the

formulation of annual budget policies. A Standing Committee on Economic Affairs of the Senate and the House of Commons should be established, one of whose functions would be to hold annual hearings on economic issues arising out of the above-mentioned documentation and discussion.

(6) A further examination is needed of problems of consumer protection and the exercise of market power in the Canadian economy. The emphasis should be on consistent and continuous policies, based on well-founded and well-understood principles. These are among the matters recently referred to the Economic Council by the government for special study.

(7) Programmes for productivity improvement and adequate measures for dealing with the manpower problems arising from technological and other change should be pressed ahead with all possible speed. The programmes should operate both at the general and at the industry and plant level. As part of its continuing effort to facilitate progress in this field, the Economic Council is sponsoring a special Labour-Management Conference on manpower adjustment to technological and other change at the end of November.

(8) Governments should take immediate steps to improve the discharge of their responsibilities as major employers and increasingly large-scale direct participants in the process of collective bargaining. The object should be to develop sound criteria and principles and to avoid disturbing repercussions on the climate of collective bargaining in the private sector of the economy.

(9) In the light of underlying factors which have significantly altered the world and the Canadian food situation, and some of which are likely to continue for some time, it is more than ever important that effective measures be taken to increase productivity at all stages of food production and distribution. Relatively greater returns to resources than in the past are needed in agriculture, and special efforts must be made to meet seasonal labour requirements, to achieve larger and more efficient farm units, and generally to realize the technological and scientific potential for rising productivity in the farming industry in a manner which is in the best interests of both producers and consumers. At the same time, those engaged in the processing-packaging-distributive process must seek out

ways to reduce costs, increase the efficiency of operations, and reduce unnecessary expenses.

(10) Much more basic economic research needs to be done on problems relating to prices, costs, incomes and productivity in the Canadian economy. More adequate resources should be made available for these and other areas of economic research.

(11) There is a general and immediate need for improvements in price and other economic statistics. For this purpose, the Dominion Bureau of Statistics should be substantially strengthened.

(12) In the interests of better public education and information regarding current economic developments, including those in the field of prices, costs and incomes, steps should be taken to establish an independent institute of economic research, along the lines of those already existing in many other countries. A major function of such an institute would be the publication of a regular bulletin containing analysis of short-term developments in the Canadian economy and other articles dealing with significant changes and problems.

Both the social and the economic costs of price and cost instability are high. Since its inception, the Council has stressed the importance of appropriate government policies to maintain a reasonable degree of general price stability in conjunction with the attainment of other economic and social goals. The Council has also called for "responsible restraint in both wage demands and business pricing policies". The basic thrust of our recommendations has been to articulate more clearly what is required by way of policy and what is needed to strengthen the understanding and information essential for good performance and responsible behaviour in the field of price and wage decisions.

6

The Performance of the Economy

THE COUNCIL'S *First Annual Review* outlined basic social and economic goals for the Canadian economy to 1970. A year ago, the *Second Annual Review* concluded that these goals and potentialities were still valid and that during the first half of the 1960's the economy had, on the whole, been moving towards higher standards of performance in relation to them. After another year, it is appropriate to re-examine both the goals and the economy's performance, in line with the duty of the Council under its terms of reference to prepare and publish annually a review of the medium- and long-term prospects and problems of the Canadian economy.

THE BASIC GOALS

The basic economic and social goals indicated in the Council's terms of reference and set forth in the Council's *First Annual Review* are:

—full employment
—a high rate of economic growth
—reasonable stability of prices
—a viable balance of payments
—an equitable distribution of rising incomes.

The progress of the economy in relation to the first four of the above goals will be the principal concern of this Chapter. The main focus of this appraisal will relate to developments since 1963. Some important aspects of the fifth goal will be discussed in the following Chapter.

These goals are, of course, concerned with medium-term *potentialities* rather than *probabilities*. They are not intended to represent forecasts about what is likely. They are intended to portray challenging targets which the Council considers the country can and should seek to attain. Moreover, their attainability rests not only on important assumptions, especially about prerequisite international conditions, but also on appropriate domestic conditions and policies.

Consistent attainment of such goals for Canada is simply not conceivable in circumstances of major instability in output, trade, prices or monetary conditions in the world economy—or, even more particularly, in the face of instability or distortions in the U.S. economy.

A the same time, while a favourable international economic environment is a necessary condition for attainment of Canada's basic economic and social goals, it is by no means a sufficient condition. Improved public and private policies, shaped more consistently towards the simultaneous attainment of these goals, are essential if the country is to achieve and maintain higher standards of future performance in relation to these goals than has typically prevailed in the past. We have outlined such policies in our earlier *Reviews*, and develop our views further on certain aspects of these policies in various other parts of this *Review*.

One prior question is basic to any appraisal of the economy's performance in relation to its goals and potentialities. This is whether the medium-term goals and targets outlined in the Council's *First Annual Review* are still valid as standards against which various aspects of performance may now be judged. We believe that they are. The basic structure and results of the original analysis have stood up reasonably well in the light of actual developments since 1963.

Full Employment

The objective to be aimed at for 1970 was an annual rate of 97 per cent employment of the labour force (or no more than 3 per cent unemployment) for the economy as a whole. We believe that this is still a realistic goal. In the *First Annual Review* it was emphasized, however, that this is a target which would not be automatically or easily attainable along with other goals, especially that of reasonable price stability. The relatively quick movement towards full employment since 1963, before effective policies were developed to promote a better basis for consistency between these goals, has had a bearing on the development of various bottlenecks, as well as more general price and cost pressures in the economy. Recent experience thus reinforces the need for the development of much more effective supporting policies—especially for improving productivity, strengthening competitiveness, facilitating adjustments to change, and increasing manpower training and mobility—if high employment is to be consistently achieved and maintained with other basic economic and social goals.

It was also emphasized in the *First Annual Review* that an extraordinarily large expansion in total employment would be required between 1963 and 1970 to achieve the full-employment goal—a net increase of 1,500,000 new jobs, and an even larger increase in new nonfarm jobs (with some contraction in farm employment). In the light of recent developments this employment challenge does not appear to have been overstated. In fact, the required employment increases over this seven-year period may be somewhat larger than originally anticipated as a result of two factors—the tendency for net immigration to run above the original assumptions, and the tendency for a slightly faster rise than was originally estimated in the proportion of those of working force age who are seeking work (especially among women). In addition, the huge expansion required in nonfarm employment is apparently being even further accentuated by a considerably more rapid trend of decline in farm employment than was originally expected.

Economic Growth

Were a detailed recalculation of the Council's original 1963-70 potential output estimate to have been undertaken in 1966, a number of adjustments would be indicated. But such adjustments would likely have had only a relatively small net effect on the 5.5 per cent annual growth rate which was originally deemed to be an appropriate target to bring actual Canadian output in 1963 to potential output in 1970 (a target which not only took account of the potential growth of productive resources and capacity, but which also made allowance for eliminating the economic slack which still existed in 1963). If anything, the net balance of adjustments might tend to tilt towards a *slightly* higher potential growth target.

One factor tending to raise the original potential has been a significant upward revision in the basic data on industrial output. This has raised the average post-war rates of expansion of total output and of over-all productivity on which the original potential output estimate for 1970 was based. Another positive factor, noted above, has been the development of a slightly more rapid rate of growth in the potential labour supply than originally projected. A third has been the faster shift of labour from the farm to the nonfarm sectors of the economy than was anticipated, with correspondingly larger resources available for the growth of nonfarm output at higher levels of productivity.

However, currently available data indicate that such factors have been at least partially offset. Productivity growth in the commercial nonfarm sectors has failed to move up quite as vigorously as had been anticipated to be commensurate with reduced unemployment. Also, for reasons not yet fully understood, productivity performance in the noncommercial sector appears to have been falling below the original projections.

Detailed new calculations of the future growth potentialities of the Canadian economy are now being prepared for the Council. Such potentialities for 1970 and beyond will be set forth next year in the *Fourth Annual Review.* In the interim, the original growth target of an average annual rate of increase of 5.5 per cent for the period 1963 to 1970 would still appear to provide a reasonably good basis for appraisal of the economy's growth performance.

Reasonable Price Stability

The goal of reasonable price stability was set forth in the following terms in the *First Annual Review*: ". . . 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. . .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 we have postulated. . .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."

We have restated these main elements of our original definition of this goal because, with the recent experience of price and cost increases, there has been some misunderstanding of the Council's actual formulation of this goal. The Council did not set a rigid upper limit of 1.5 to 2 per cent for price increases, to apply year by year to 1970. Rather, year-to-year variability of price movements was accepted as inevitable, and the price stability goal was cast in terms of containment "within the limits of the ranges of movements over the decade from 1953 to 1963". Nor did the Council treat this goal as one of purely domestic attainability; a crucial underlying assumption was that Canada's major trading partners, especially the United States, could be successful in maintaining reasonable price and cost stability.

Recent events confirm that reasonable price stability is extremely difficult to achieve and maintain during high-speed advances towards high levels of demand and employment. The inherent difficulties of reconciling the goal of reasonable price stability and the goal of full employment have been thrust into particular prominence in the past year. These problems have been all the more serious because of the failure in the past to develop adequate and effective policies especially designed to facilitate this reconciliation. Among the required measures are an important range of supply-oriented policies, including those designed to improve productivity, to strengthen competition, to facilitate adjustments to technological and other change, and to increase manpower training and mobility. None of these policies can bring about an easy and quick reconciliation of these basic goals; but without them, no satisfactory reconciliation is feasible even over the medium- and longer-term horizon towards which the Council's assessment of future potentialities and goals is directed.

A Viable Balance of Payments

Three underlying considerations were of critical importance to the Council's balance-of-payments goal—the unprecedented potentialities for growth of output and income in Canada to 1970 associated particularly with an extraordinarily large growth of the labour force; the assumption of highly favourable international marketing conditions and opportunities for Canadian export growth; and the need for improved international competitive performance by Canadian producers.

In regard to the first of these factors, as already noted, the basic growth potentialities of the Canadian economy still appear to accord substantially with our earlier anticipations; if anything, any adjustment might imply a slightly higher potential for growth of employment, output and income to 1970, and hence a somewhat larger import potential to 1970. Second, the growth of the world economy and international trading opportunities would appear to be developing somewhat more propitiously than was originally assumed. This implies a somewhat larger long-term export growth potential than was originally anticipated. Third, a large challenge remains for improving the international competitive position of Canadian producers—both among those which are export-oriented and among those who must meet import competition in the domestic market—if the country is to achieve the trend of improvement in such competitiveness that was at the heart of the Council's balance-of-payments goal to 1970.

One of the principal implications of the Council's original formulation of a goal of balance-of-payments viability was a structure of payments at potential output in 1970 in which there could be a current account payments deficit (and an accompanying net capital inflow) of the order of $1.5 to $2 billion. This would still appear to be, in our view, a reasonably realistic assessment of a balance-of-payments structure which would be consistent with other goals, having in mind particularly the relatively higher rate of growth of potential employment, output and income in Canada than in other industrial countries in the 1960's. Such consistency depends, perhaps even more now than when originally set forth, on a combination of favourable international economic conditions and on a very strong competitive performance by Canadian industry. In this regard, future developments in Canada's balance of payments will also depend significantly on progress towards freer international trading conditions and critically on the maintenance of sound and smoothly functioning international monetary and payments systems. These are matters of commanding importance for strong and sustained future economic development of the Canadian economy.

INTERNATIONAL CONDITIONS

A rapidly expanding world economy continues to provide a favourable setting for Canada's economic growth and development. Despite the attention focused from time to time on temporary moderation of economic growth or on balance-of-payments or other basic problems in a number of major industrial countries, the over-all record of growth of world output and trade in the 1960's continues to be exceptional. The OECD countries, for example, have achieved an average rate of growth over the first half of the 1960's well in excess of the average rate required to achieve the OECD growth target of a 50 per cent increase in the volume of their combined output between 1960 and 1970.

From Canada's point of view, no element in this world setting has been more important than the strong and sustained expansion taking place in the United States. The extraordinary length and strength of the business expansion which began in the United States well over five years ago is all the more dramatic considering the size of the U.S. economy and the sheer dimensions of the over-all gains in total output and income. The value of total output in the United States has advanced from $500 billion in early 1961 to $750 billion in the latter part of 1966. Gains in the volume of output and in real income have been the dominating element in this advance; increases in prices have accounted for less than a third of it.

Like Canada, the United States moved into the current business expansion in the early 1960's with very considerable economic slack in the form of excessive unemployment and underutilized productive capacity. This slack was virtually eliminated by early 1966, supported by policies to sustain vigorous economic expansion (within the constraints arising from balance-of-payments strains). By 1963, anticipation of growing pressure of demand against productive capacity, together with improved business profitability, set in motion a powerful and prolonged thrust of new investment spending. More recently, growing U.S. military involvement in Viet Nam has been a further expansionary factor with increasingly far-reaching effects on business activity. Moreover, the strong and sustained growth of demand has been accompanied by an accelerated growth of the U.S. labour force and strengthening of the basic forces conducive to high productivity growth—including advances in the education, training and skills of the labour force, and new strides in technology and innovation.

As the U.S. economy has moved closer to its rapidly growing potential output, it has drawn in a growing volume of imports from Canada. Indeed, such trade has grown more rapidly than U.S. output, and also more rapidly than Canadian output, in recent years. Both directly via trade and investment, and indirectly through many complex channels, the sweeping advance of the U.S. economy has had powerful and pervasive effects through virtually all parts of the Canadian economy.

In past periods of buoyant North American economic expansion, output and income have typically grown more rapidly in Canada than

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in the United States. One of the most important factors contributing to this pattern is the relatively much larger role of investment in the Canadian economy, and the inherent tendency for investment to be a more volatile factor in Canada than in the United States whenever demand begins to press persistently on existing productive capacity. More generally, faster over-all expansion in Canada than in the United States has usually been accompanied and accommodated by stepped-up inflows of immigration, capital and imports.

Recent Canadian experience has followed this earlier experience, especially since the economy moved beyond the foothills of expansion in 1961-62 to the higher slopes in 1963-66. Substantially larger inflows of immigration, capital and goods and services have occurred. Also, as in the past, the pace of advance in the volume of total output and in total real income has been somewhat higher in Canada since 1963 than in the United States.

Canada has historically had, and continues to have, its closest economic relations with the industrially advanced nations. And it is clear that the industrially advanced world, as a whole, has been passing through an extended period of unprecedented prosperity. The trends of growth in output, productivity and living standards have been, without exception, tilting up far more steeply than could have been anticipated from historical experience. The economies of these countries have generally been characterized by persistent high employment and low unemployment, pressures on productive capacities and resources, high rates of new investment, shortages of capital and generally tight credit conditions, shortages of skilled labour and many commodities and services, advancing prices and costs, and major shifts in patterns of production and employment. World trade has been flourishing as never before and, more particularly, trade in manufactured products has continued to grow at an astonishing rate, far more rapidly than increasing output of such products.

From a Canadian viewpoint, three aspects of recent international economic developments perhaps deserve special attention. These are rising prices, rising interest rates, and food shortages.

Throughout the world there has been a general and widespread pattern of price increases. This has become a matter of serious concern in a growing number of countries in recent years. After an extended period of reasonable price stability, even the United States has developed a spreading pattern of internal price increases during the past year. Earlier in this *Review,* strong emphasis was placed on the crucial importance of international price and cost developments, especially those taking place in the United States, for an open economy such as Canada's. No simple set of data can fully convey the wide spectrum of price developments taking place in various countries, but some indication of the dimensions of price advances being recorded in consumer goods and services in a number of economies since 1960 is shown in Table 6-1. The higher price increases in many of the overseas industrial countries in recent years has clearly been associated with heavier demand pressures on their productive resources and capacity. One indication of these pressures is the generally lower levels of unemployment which have typically prevailed in these countries than in Canada or the United States (Chart 6-1).

TABLE 6-1—CONSUMER PRICE CHANGES IN SELECTED COUNTRIES
(Average annual percentage change)

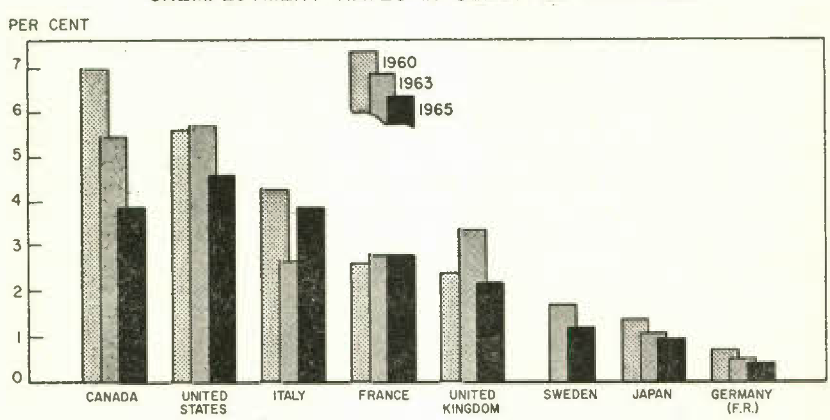
	1960-63	1963-65	Second Quarter 1965 to Second Quarter 1966
Canada	**1.3**	**2.1**	**3.8**
Italy	4.7	5.2	2.3
United States	1.2	1.5	2.7
France	4.3	3.0	3.0
United Kingdom	3.2	4.0	3.8
Germany (F. R.)	2.8	2.9	4.3
Japan	6.6	5.7	5.6
Netherlands	2.3	5.5	7.1
Sweden	3.2	4.5	8.1

SOURCE: Based on data from National Institute of Economic and Social Research, International Monetary Fund, U.S. Department of Commerce and Dominion Bureau of Statistics.

Higher interest rates and rising demands for capital in relation to available savings and credit have become an accentuated feature of recent international economic developments. Many factors have contributed to this. Among these are rapidly increasing demands for capital on a world-wide basis to support economic growth and development; more restraints on international capital movements, especially in the case of the two most important currencies used for international payments and reserves—the U.S. dollar and sterling; and an increased reliance on monetary restraint as the principal instrument in various countries to curb excessive demand and to facilitate the maintenance of more stable prices. Underlying these factors have also been two others—a thickening network of international financial relationships which transmits financial pressures or strains at particular points more readily to other parts of the world, and a growing concern about the adequacy of the existing international monetary system. In these circumstances it is important to recognize that the high interest rates and shortages of capital resources which now prevail in Canada are not out of line with, and are not unrelated to, present international conditions.

CHART 6-1

UNEMPLOYMENT RATES IN SELECTED COUNTRIES



Note: The unemployment rates for the various countries shown in this Chart have been calculated on the basis of the definitions and concepts used in measuring unemployment in the United States.

Source: U.S. Department of Labor.

Concerning the world food situation, as noted in Chapter 2, major changes appear to have been taking place in the 1960's. The substantial world surpluses which developed for various basic food commodities in the 1950's have now largely disappeared. World population growth and the basic food requirements of many countries are accelerating, while world food production has hardly kept pace with population trends. Superimposed on these basic developments have been supply short-falls—in some cases of an apparently temporary nature—for various meats, fruits and vegetables in the United States, Canada and elsewhere during the past year or two. Although there have been some notable exceptions (for example, sugar), international developments in food demand and supply have tended to bring an end to the previous softness in many food prices, to promote higher levels in a wide range of prices for imported, exported and domestically marketed farm and food products, and to enlarge international trade in food products.

THE ECONOMY'S PERFORMANCE

The following discussion of the recent performance of the economy is essentially a factual outline of developments in five fields: employment and labour market conditions; output and productivity; investment; exports and the balance of payments; and prices and costs. A more general analysis and appraisal of recent developments is provided in the concluding section of this Chapter.

A strong and sustained growth of demand through all major sectors of the economy has been the essential condition for the economy's strong forward momentum and for the massive increases in employment achieved in recent years. The two most powerful engines of demand growth since 1963 have been new investment and exports, both of which have been rising, in real terms, at about double the rate of the volume of total output. Both of these key sectors, the latter more directly than the former, have been associated with the high rate of sustained economic expansion in the United States and the devaluation of the Canadian dollar in the early 1960's. Devaluation has apparently had a strong and prolonged impact on the Canadian economy. Government spending has also risen rapidly at all levels of government. These widely based demand forces have also been augmented by such additional factors as the current exceptionally high wheat sales. All of these basic forces have helped to support an accompanying strong and steady advance in consumer spending.

A rise in demand sufficiently strong to bring about a closing of the gap between actual output and the economy's rapidly expanding output potentialities in the 1960's would be dominated, according to the Council's *First Annual Review*, by three key features—a massive rise in new fixed capital investment, a rising current-account payments deficit (and accompanying rise in the net capital inflow), and a very steep rise in government revenue at existing tax rates (which would permit either tax reductions, increases in government spending, or government debt liquidation). These have in fact proved to be the key elements of developments in 1963-66. While total output has increased by a third in value and a fifth in volume, new fixed capital investment has risen since 1963 by close to two thirds in current dollar terms and by over two fifths in volume. The current account payments deficit has widened from less than $550 million to around $1 billion. And government revenues at all levels of government combined have increased by over two fifths; expenditure increases, rather than tax reduction or debt reduction, has been the dominating feature in the government sector.

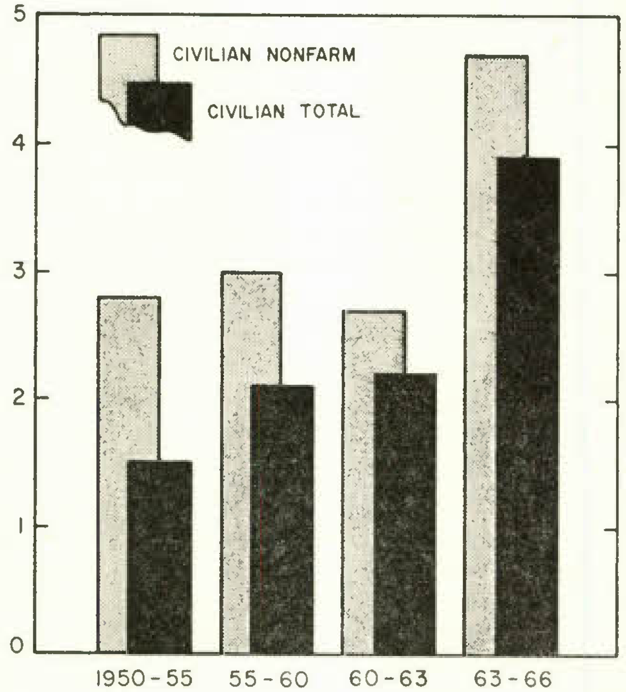
Employment and Labour Market Conditions

In less than four years—from early 1963 to the latter part of 1966—there has been an expansion of close to a million jobs in Canada. This is a larger absolute increase than occurred in the whole decade of the 1950's, and is also larger than the increase over the

CHART 6-2

GROWTH OF EMPLOYMENT

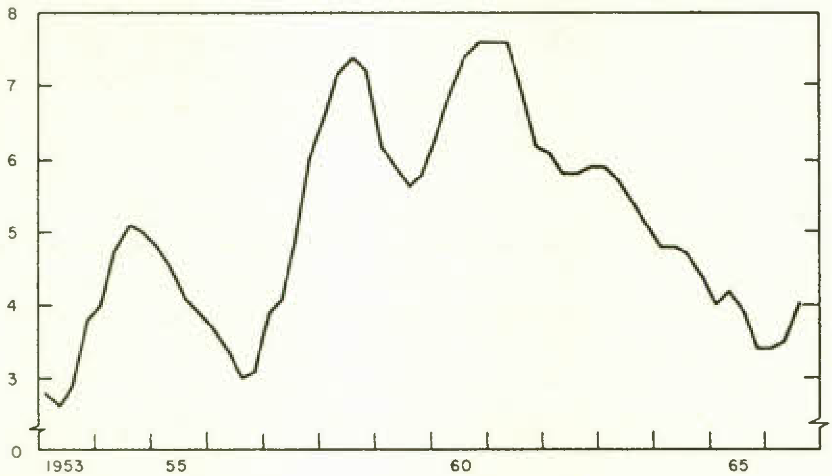
(AVERAGE ANNUAL PERCENTAGE CHANGE)



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

CHART 6-3

UNEMPLOYMENT AS A PERCENTAGE OF THE LABOUR FORCE



Note: **Quarterly averages of monthly seasonally adjusted data.**
Source: **Dominion Bureau of Statistics.**

whole period from 1929 to 1946. Moreover, with a significant decline in farm employment, the expansion in nonfarm employment has been even more massive than that in total employment (Chart 6-2).

In large part, this upsurge reflects the entry of the country into what will be an extended period of extremely high labour force growth. Canada's post-war baby boom has now led to a labour force boom in the 1960's. Reduction of previously excessive unemployment has also been an important factor in the employment gains; unemployment has declined from 5.5 per cent in 1963 to about 3.5 per cent in the latter part of 1965 and early 1966. This level is about half the level of the recession year of 1961 and is the lowest level reached since 1956 (Chart 6-3). By early 1966, however, the decline in unemployment stopped; since then it has, in fact, moved up slightly after allowance for seasonal factors.

Still further accentuation of labour force and employment growth has arisen from two other factors, although these are of relatively much less importance—higher levels of net immigration and a rising proportion of female workers. In the conditions of substantial slack in Canada in 1960-62 net immigration had fallen sharply from the high levels of the 1950's to less than 20,000 per year. Since then, it has increased rapidly to a flow of over 70,000 in 1965 and a flow of perhaps

80,000 or more in 1966. International migration has been a volatile phenomenon in Canada's history. But it is relevant to note here that the current levels are very substantially in excess of the *average* annual net immigration of 50,000 persons for 1965-70 which was assumed for the labour force projections of the Council's *First Annual Review.*

As regards participation in the labour force, a marked rise in the search for employment by younger women, especially in the 20-24 age group, has resulted in a somewhat more rapid over-all growth in the ratio of the labour force to the total population of labour force age (14 years and over). Increased participation in the labour force has been particularly notable in the regions of strongest labour demand and most rapidly rising employment. Out of the total increase of over a million persons at work in nonfarm employment between early 1963 and late 1966, approximately one third were women, bringing the total number of employed women to over two million.

As a result of all these factors, total employment has increased at an annual rate of close to 4 per cent in 1963-66. Nonfarm employment has grown even faster—at an annual rate of close to 4¾ per cent—while farm employment dropped sharply. In the *First Annual Review* it had been estimated that employment in agriculture would decline by about 100,000 persons from 1963 to 1970; in 1963-66 the actual decline which has already taken place is around 100,000, bringing the percentage of those employed in agriculture down from over 10 per cent in 1963 to less than 8 per cent in 1966. This decline has been widespread, with a substantial proportion of the total occuring in the Prairie Provinces.

Underlying these developments has been an average annual increase of slightly over 3 per cent in the total labour force (Table 6-2). This compares with the significantly lower rate of labour force growth of about 2 per cent over the years 1950 to 1963, and with a prospective further rate of growth of about 2½ per cent in 1966-70. This latter projection, coupled with the recent relatively low level of unemployment, suggests that potential employment growth in 1966-70 will also be of the order of about 2½ per cent per year. This is substantially above the potential rates of employment growth in all other industrially advanced countries over the medium-term future. Moreover, it is well above the rate of population growth in prospect in Canada in the medium-term future, implying a potential rise in the employment-to-population ratio—and, accordingly, a particularly favourable potential for rising real income per capita as the number of workers rises in relation to both younger and older people outside of the labour force.

TABLE 6-2—LABOUR FORCE AND EMPLOYMENT
(Average annual percentage increase)

	Labour force	Total Employment	Nonfarm Employment
1950-55	1.7	1.5	2.8
1955-60	2.7	2.1	3.0
1960-63	1.7	2.2	2.7
1963-66	3.1	3.9	4.7

NOTE: 1966 data for civilian labour force and employment are estimated for the year as a whole.

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

With further acceleration in the rise of nonfarm employment during 1965-66—a rise which was widely distributed regionally and industrially—labour markets became considerably more taut. By early 1966, previously existing demand-deficient unemployment had very largely been eliminated in the Canadian economy. This did not mean, however, that labour market conditions had reached a highly satisfactory state in all respects. Indeed, this was far from the case. Critical labour shortages emerged over a widening spectrum of localities, industries and occupations. At the same time, shrinking, but by no means insignificant, areas of excessive unemployment and wasted human resources persisted. Further, a combination of factors produced increased labour unrest, unusually high wage claims in various labour negotiations, and a substantial rise in the number of man-days of work lost through industrial disputes.

Output and Productivity

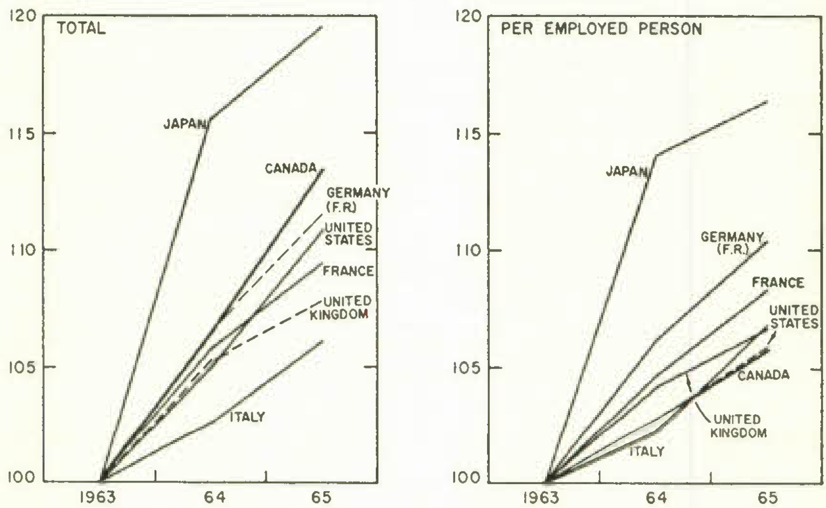
Total output in Canada has forged ahead strongly through 1963, 1964, 1965 and the early part of 1966. Moving into a period of unprecedented growth in the labour force and drawing on slack which had previously existed, the economy has achieved an average annual rate of growth of over 6 per cent per year in the volume of total output during this period. Indeed, the economy's expansion since the 1960-61 recession has exhibited characteristics of sturdiness, balance and durability which make it a unique phenomenon in relation to earlier cyclical business expansions under peacetime conditions.

This strong thrust has moved Canada into the front ranks of economic expansion among the industrially advanced nations since 1963. But it has failed to measure up nearly as well in the gains recorded in output per employed person (Chart 6-4). It is the latter gains—that is, advances in productivity—which are ultimately the key to rising living standards. As a consequence of the relatively slower growth in productivity in Canada, average living standards in most of the overseas industrial countries have been moving up closer to Canadian levels.

CHART 6-4

INDEXES OF REAL OUTPUT IN SELECTED COUNTRIES

(1963=100)



Source: Preliminary estimates based on various countries' sources.

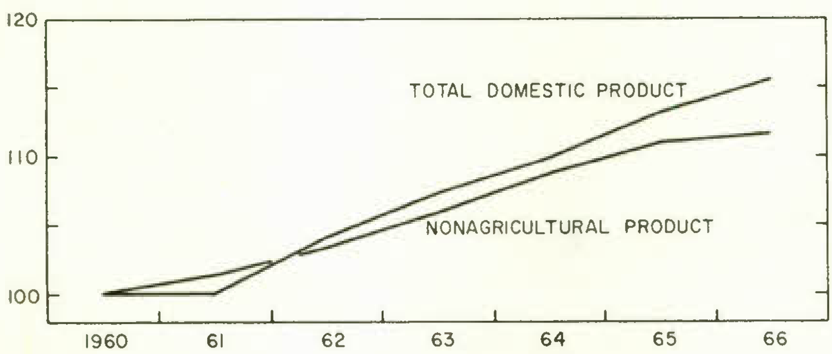
Looking more closely at very recent evidence, it would appear that after an extremely strong spurt of expansion in Canada at the end of 1965 and in early 1966, there has been a sudden slowing in the advance of total demand and output. The increase in total final demand in the Canadian economy in the second quarter of 1966 remained unchanged from the first quarter (after allowance for seasonal factors). There has also been a similar, but somewhat less pronounced, slowing of expansion in the United States.

While employment has continued to rise (although unemployment has also risen somewhat), over-all productivity growth was apparently sharply checked in the second quarter of 1966. More generally, during the course of 1966, there have been accumulating signals among the basic economic indicators pointing to at last a temporary moderation in the strength of expansionary forces in the economy. The possible longer-term significance of these very recent developments will be discussed later.

Productivity, measured in terms of the volume of output per employed person, has not advanced as strongly in the Canadian economy in 1963-66 as was anticipated in the Council's *First Annual Review.* In particular, on the basis of earlier historical experience, there had been an expectation that the economy would achieve an especially rapid rise in nonfarm productivity as the gap between actual and potential output was closed; the rise which has occurred in the process of closing the gap has not measured up fully to these expectations. Nevertheless, the rise in nonfarm productivity since 1963—indeed, since the current phase of business expansion began early in 1961—has been well above the performance of the late 1950's, and also well above the long historical trend. At the same time, with exceptionally high levels of agricultural output in recent years, productivity growth in the economy as a whole has outpaced that in the nonfarm sector. (Chart 6-5).

CHART 6-5

GROWTH IN REAL OUTPUT PER EMPLOYED PERSON
(1960 = 100)



Note: 1966 is estimated on the basis of the first two quarters.

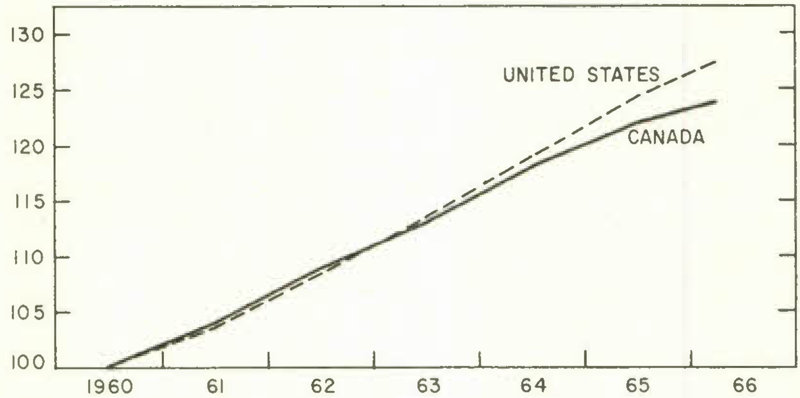
Source: Based on data from Dominion Bureau of Statistics and estimates by Economic Council of Canada.

With the aid of this very strong agricultural productivity surge, the over-all productivity performance of the Canadian economy since 1963 has closely paralleled that of the United States (Chart 6-4). However, even on the basis of the revised Canadian data on manufacturing output, it is now apparent that in the crucially important manufacturing sector Canada has fallen short of matching the U.S. performance in 1965 and 1966 (Chart 6-6).

CHART 6-6

REAL OUTPUT PER EMPLOYED PERSON IN MANUFACTURING, CANADA AND THE UNITED STATES

(1960=100)



Note: 1966 data cover first two quarters.

Source: Based on data from Dominion Bureau of Statistics and U.S. Department of Commerce.

Investment

A surging expansion in new investment spending has been an essential feature of rapid Canadian economic growth in the 1960's. Starting from an initial situation of slack in the economy, such spending has in fact had to grow substantially more rapidly than total output to facilitate the narrowing of the gap between actual and potential output.

No strong and sustained expansion in demand could be accommodated without a large expansion in productive capacity; otherwise the pressure of demand against existing capacity would threaten to spill over into serious inflation and excessive imports. No strong and sustained rise in employment could be accommodated without a tremendous expansion in buildings for people in the rapidly expanding labour force to work in and new equipment for them to work with. No high rate of productivity growth and no substantial gains in real income per worker—both for existing and new workers—could be achieved without enlarged capital outlays to increase the scale and specialization of production, to introduce new technology, and to bring about more efficient combinations of productive resources in the production process. Not only was a huge expansion in productive capacity required in business, but also a vast expansion was no less urgently required in the field of social capital, including housing, schools and universities, roads and transportation capacity, medical facilities and urban capital outlays.

An extraordinary large rise in new investment has in fact taken place in 1963-66. While total output has risen by about one third in value and one fifth in volume during this period, total investment spending has risen nearly two thirds in value and over two fifths in volume. This tremendous expansion of investment has taken place over a very broad front of new machinery and equipment, business non-residential construction and government social capital spending. All major industrial sectors have participated in it, with especially large rates of increase in outlays in the resource-based industries, utilities and manufacturing.

Historically, the investment sector of the Canadian economy has been large relative to other countries. Canada has always had a highly capital-intensive economy. The investment sector of the Canadian economy is also "highly levered" in relation to economic trends in the United States—that is, the emergence of strong demand conditions in the United States typically exerts a heavy effect on investment expansion in Canada.

The developing investment boom was examined at some length in the *Second Annual Review*. A number of the conclusions set forth a year ago are still valid in 1966:

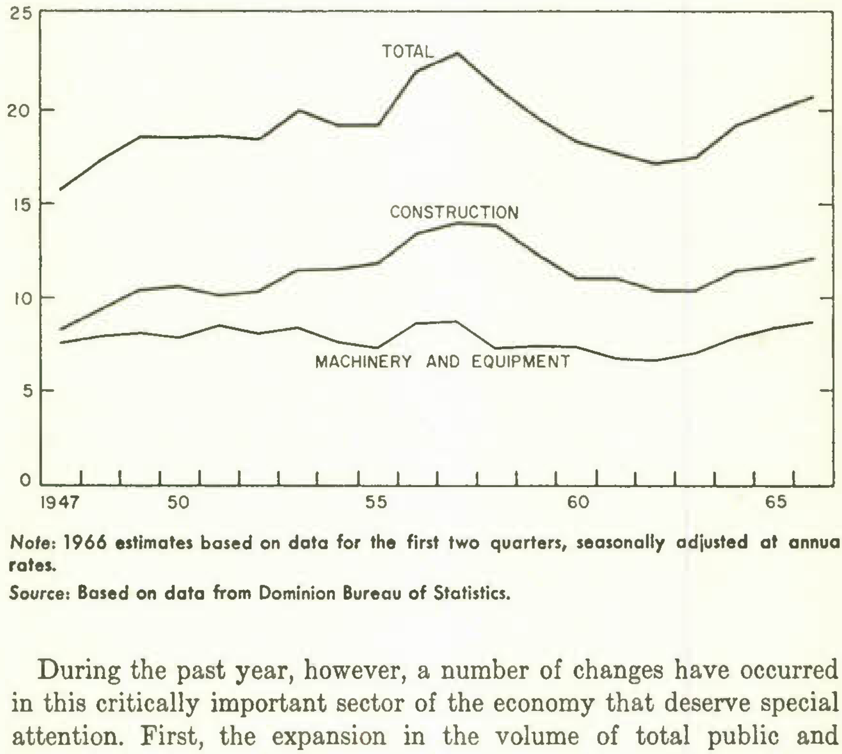
(1) Although the rate of increase of business investment has been rapid, it has been less rapid than in 1955-57, and such investment still accounts not only for a lower proportion of Gross National Product than in 1956-57 (Chart 6-7), but also a lower proportion than was estimated in the *First Annual Review* to be required at potential output in 1970.

(2) In spite of the rapid business investment expansion since 1963, the growth in productive capacity seems to have been less than the growth in the volume of output.

(3) Demand pressures on productive resources and capacity have created particularly severe strains in the construction industry, especially in certain regions and localities, and this is leading to worsening bottlenecks and to escalating wage and cost pressures.

CHART 6-7

BUSINESS GROSS FIXED INVESTMENT AS A PERCENTAGE OF GROSS NATIONAL PRODUCT



Note: 1966 estimates based on data for the first two quarters, seasonally adjusted at annua rates.

Source: Based on data from Dominion Bureau of Statistics.

During the past year, however, a number of changes have occurred in this critically important sector of the economy that deserve special attention. First, the expansion in the volume of total public and private investment has apparently remained very high in 1966. According to the mid-year review of investment intentions by the Department of Trade and Commerce, the rate of over-all increase will not be much different from the two preceding years. However, the patterns of new investment have changed significantly. According to present indications, business capital formation has accelerated; government investment has slowed from the extremely rapid advance in 1965; and new residential construction has declined. Price and cost increases, especially in the construction sector, have remained high.

Second, various government actions and policies have been aimed at relieving pressures in the investment sector, although it might be noted that a very large expansion in government investment in 1965 contributed materially to the development of greater pressures in this sector coming into 1966. On the one hand, there has been a strengthening of certain "supply policies"—in particular, greater efforts to train and mobilize more manpower for construction, and the facilitating of imports of certain types of machinery and equipment. On the other hand, demand restraint has been strengthened, not only through the development of generally tighter monetary and credit conditions, but also through various fiscal actions by the federal government deliberately designed to stretch out the investment boom. Included among the latter actions have been postponements or cut-backs in government construction outlays, the introduction of a new refundable investment tax on business corporations, the temporary reduction of capital cost allowances below normal levels, and the promised reduction of the federal sales tax on new machinery and equipment as of April 1967. A growing body of economic analysis has indicated, however, that attempts to use monetary and fiscal measures to restrain investment demand through reduced availability and increased cost of financing are likely to produce significant effects on investment outlays *only after a considerable lag*. This may be especially true in the Canadian economy in which the pressure of demand against productive capacity has been a more powerful factor than financial factors affecting investment outlays. In any event, there is at this time little evidence to suggest that business investment programmes for 1966 have been substantially affected by the relatively strong and concerted fiscal measures announced in the Budget in March 1966. The main weight of these measures may still remain to be felt in 1967.

Third, there is, however, one major part of the investment sector which has been substantially affected by over-all policy restraints—housing. New housing starts have declined very considerably in 1966 and new residential construction outlays in 1966 will be lower than in 1965, not only in volume but also in value. This development is primarily attributable to tight credit conditions leading to reduced mortgage lending by institutional lenders. Moreover, the decline in new residential construction, which has been heavily concentrated in multiple dwelling units, has occurred at a time of extremely rapidly

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expanding family formation, and probably also of strongly rising nonfamily households. The rate of new family formation has, in fact, moved swiftly to a new post-war peak and will continue to rise over the medium-term future at an exceptionally rapid pace, in line with the surging advance in the numbers of young people in their late teens and early twenties. Substantially increased immigration, greater internal population and labour shifts, rapid urbanization, and a stepped-up decline in the farm labour force are all factors tending to accentuate expanding housing needs. In these circumstances, housing vacancies have been reduced and growing housing shortages have developed, and may be on the threshold of becoming acute in various metropolitan centres. In addition, the developments in this field have begun to produce an accentuated rise in rents. In these circumstances, the question of how to accommodate a return to higher levels of new housing construction within the near future is one which needs very close attention. In the absence of an early upturn in new residential construction, a severe housing shortage could emerge very quickly in Canada; and rent increases could become a powerful new factor accentuating the rise in living costs and in wage demands.

Fourth, even though policy restraint upon new investment has apparently not had its full impact on investment expenditures during 1966, moderating influences may already be emerging in various lines of investment. The growth in business investment outlays now appears to be bringing productive capacity more closely in line with the expansion of output to meet rising demand. Also, certain categories of construction contract awards have either declined or have no longer continued to rise vigorously in 1966. At the same time, the completion of various Centennial projects and of the preparations for Expo 67 will, in the near future, moderate pressures in a number of localities. The extremely vigorous increase in the value and volume of investment activity that has gone on for the last four years thus appears to be moderating. Further expansion required to provide an adequate base for potential output in 1970 would be more in line with the trend of growth in output from now to the end of the decade.

Exports and the Balance of Payments

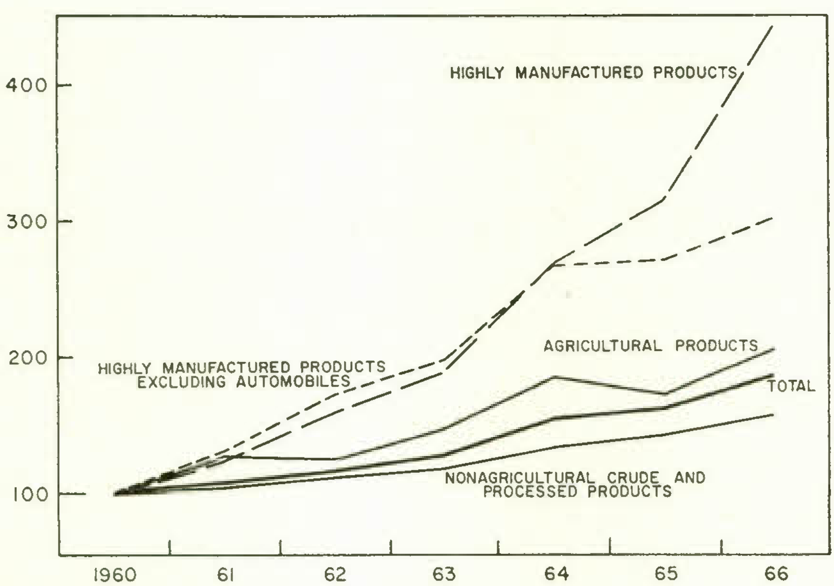
Canadian exports have surged to record levels since 1963. The cumulative increases have been widely dispersed through virtually all categories of products, and to virtually all major markets. The volume of exports has grown almost twice as rapidly as the volume of total output in this period. They have also grown much more rapidly than was estimated in the analysis of the Council's *First Annual Review* in which it had been projected that, under favourable external conditions, Canadian export volume would increase by slightly more than two fifths between 1963 and 1970. In fact, the increase between 1963 and 1966 has already come close to two fifths.

This performance, however, has occurred in the context of exceptionally favourable external economic circumstances. In particular, there has been a cyclical business expansion in the U.S. economy which is not sustainable as a long-run trend. United States industrial production in 1963-66 has in fact risen at the extraordinary rate of roughly 8 per cent per year, over half again as high as the indicated medium-term potentialities for the United States to 1970. This kind of U.S. expansion has always generated an unsustainably high rate of rise of Canadian exports to that country.

CHART 6-8

GROWTH OF EXPORTS

(1960=100)



Note: 1966 data are estimates for the year.

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

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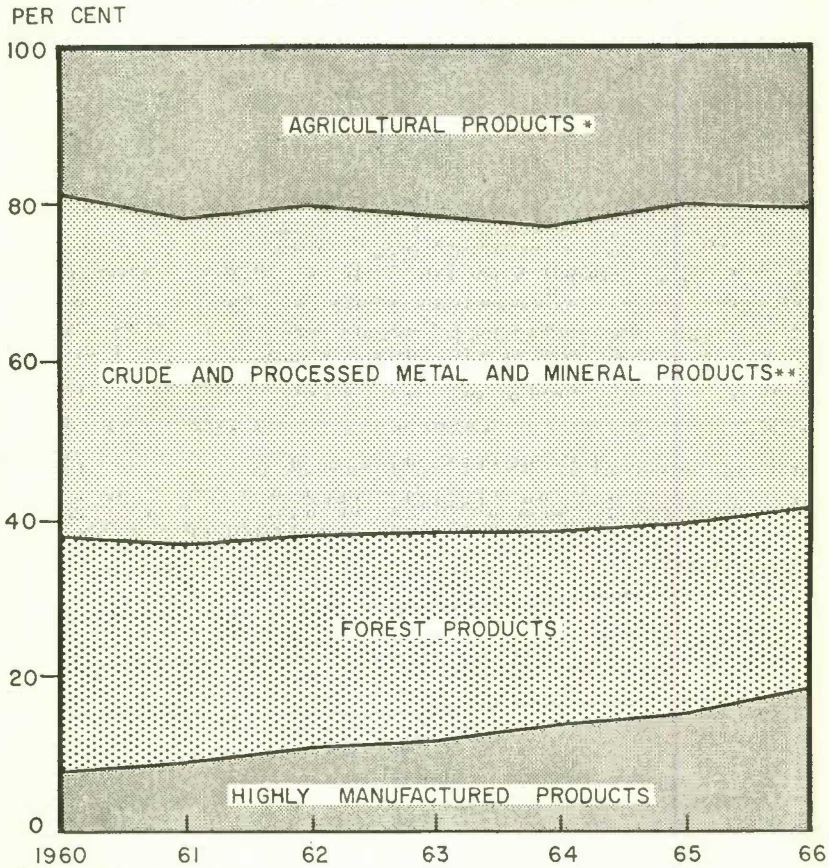
There has also been a widely recognized upsurge in exports of wheat, to a point which pressed hard upon Canada's capacity to deliver during 1966. Along with this has been an even more dramatic upsurge in exports of highly manufactured products in this period (Chart 6-8). In 1966, for the first time in peacetime history, exports of highly manufactured products approximated those of agricultural (including fisheries) products (Chart 6-9). A short six years ago, such manufactures accounted for only 8 per cent of domestic exports. Thus, Canada has swiftly become a substantial exporter of highly manufac-

CHART 6-9

COMPOSITION OF EXPORTS



* Includes fisheries products.

** Includes a small proportion of nonmineral, miscellaneous products.

Note: 1966 data are estimates for the year.

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

tured products. The U.S. market has accounted for about 70 per cent of the total rise in such exports from 1960 to 1965, and an even larger percentage in 1966. However, there has been a levelling off of highly manufactured exports to overseas countries in 1966, while the export of autos and parts has become the predominant feature of the further growth in such exports to the United States, although by no means the only source of strength.

The Council's *First Annual Review* had estimated that imports would grow more rapidly than exports to potential output in 1970, and that this would contribute to a significant rise in the current-account payments deficit. The rapid growth in imports was related particularly to the fact that total output and income would be growing more rapidly in Canada than in most of Canada's trading partners because the rate of growth of potential employment is so much higher in Canada. The exceptionally rapid growth which has taken place in total output and income in Canada since 1963 has naturally tended to exert a strong pull on imports. In fact, during the past three years, imports have risen more than exports, producing a moderate shift in the merchandise trade balance.

There has also been a moderate rise in the payments deficit on service transactions—a deficit which has been a basic structural feature of Canada's payments position for many decades. Thus Canada's current-account deficit has widened appreciably from somewhat over half a billion dollars in 1963 to a billion dollars or so in 1966. This has been accompanied by a larger net inflow of capital.

Over the next few years this deficit may widen further in the light of the prospective faster growth of the labour force and of employment in Canada than in its major trading partners. In these circumstances, it is imperative that maximum efforts be maintained to expand exports vigorously, and that Canadian industry, both in export-oriented and in import-competing lines of production, should explore and exploit every conceivable means to strengthen its international competitive capabilities. It is also essential to the satisfactory medium-term performance of the Canadian economy that appropriate arrangements be maintained for an adequate net inflow of foreign capital within the wider framework of increased two-way flow of capital between Canada and other nations.

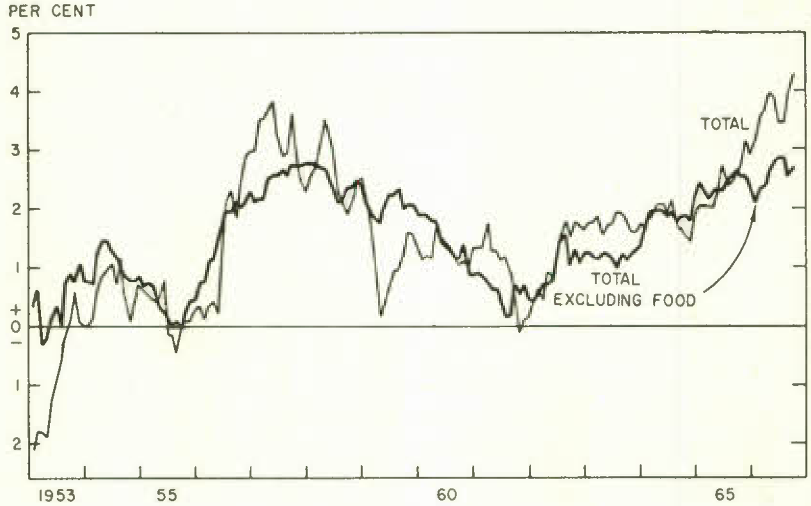
Price and Cost Stability

Higher rates of price and cost increases during the past year have become the subject of increased concern in Canada. Broader aspects of the causes and implications of these price and cost developments will be discussed in the concluding section of this Chapter. The following will focus mainly on clarifying the nature of recent changes.

By early 1966 price increases in Canada were on the threshold of exceeding those recorded during the last period when there had been virtually no gap between actual and potential output in Canada—that is, in 1956-57. For example, the rate of increase in the total consumer price index in 1966 has been close to 4 per cent a year, in the same range as was the case early in 1957 (Chart 6-10). In both of these

CHART 6-10

CHANGE IN CONSUMER PRICES



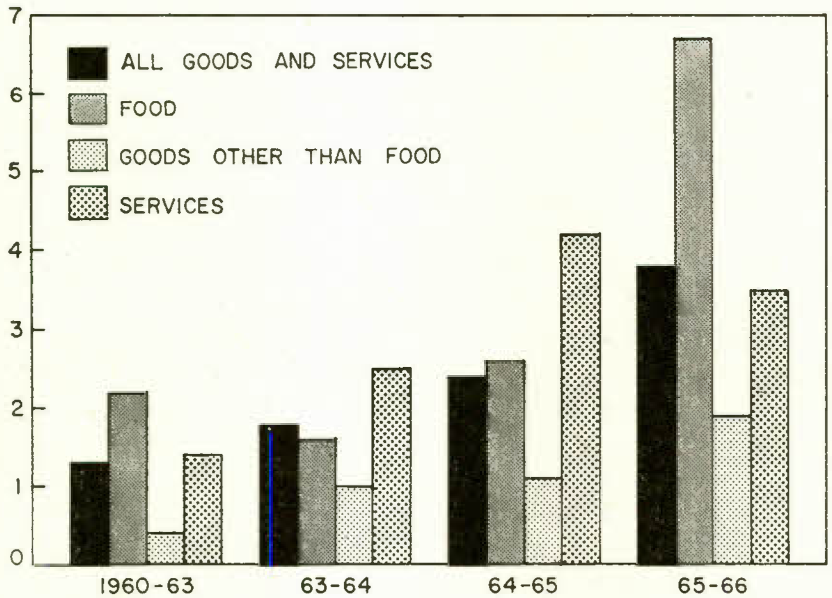
Note: Change over corresponding month in previous year.
Source: Based on data from Dominion Bureau of Statistics and Bank of Canada.

periods, moreover, there were exceptionally high rates of increase in food prices. Nonfood prices were showing increases at an annual rate of about 2.5 per cent in 1966, compared with about the same rate in 1957 and early 1958. Similarly the increase in over-all prices in the economy as indicated by the Gross National Product price deflator was about 4 per cent in the first half of 1966, about the same as in 1956.

A heavy concentration of the recent larger increases in consumer prices is to be found in the food category. On the whole, there were moderate increases in the prices of most food products in the early 1960's. This gave way to a pattern of somewhat more rapid and widespread advances in 1965, and this has been followed by a marked acceleration of such advances in 1966 (Chart 6-11). Average food prices over the first nine months of 1966 were close to 7 per cent

CHART 6-11

PERCENTAGE INCREASES IN MAJOR COMPONENTS OF CONSUMER PRICE INDEX



Note: 1965–1966 based on first nine months of each year.
Source: Based on data from Dominion Bureau of Statistics.

above the comparable period in 1965, well over twice the rate of food price increases in 1965. Moreover, in 1966, the rate of increase in prices of food in the consumer price index has been about double that of consumer services and more than triple that of nonfood commodities. Although food accounts for only about one quarter of the market basket used in compiling the over-all consumer price index, price increases in the food component account for close to one half of the increase in the total index over the past year.

These increases in food prices reflect a combination of underlying factors, including:

—the changing world food situation discussed in Chapter 2, arising from the extremely high rate of world population growth, rising world food needs in relation to world food production, and the disappearance of stocks of surplus food which had been available a few years ago;

—the strength of North American consumer demand, coupled with shortages of supplies of some food products caused partly by adverse weather conditions and partly by lags in adjusting livestock production to increased demand; and

—the nature of the demand for food products (over-all food consumption is not readily responsive to price changes, especially under conditions of high and rising incomes, and food demand does not typically tend to be reduced in the face of price increases).

Associated with the sharp advance in food prices has been an unusually strong advance in average farm prices in 1965 and early 1966, following declines in such prices in 1963 and 1964. Particularly strong increases in the prices of animal products have been the principal factor in the recent rise of farm prices, with an increase of 14 per cent in the first eight months of 1966 over a year earlier. However, farm prices have declined somewhat since the earlier part of this year.

International developments have had an especially important bearing on food price changes in Canada over the past year or two. In the United States, food and farm prices have also increased significantly in 1965 and in 1966. More generally, world prices for many food products have risen since 1964, along with a substantial increase in world trade in agricultural products. Reflecting international forces, some of the most obvious increases in prices of both Canadian exports and imports have appeared in categories of agricultural products.

Among the most significant consequences of the strong rise in food prices have been: their increased role as a factor tending to escalate wage demands and to push up labour costs; and their adverse impact on the real living standards of those on fixed money incomes from pensions or other sources.

Increased prices of services have also represented an important factor in the over-all consumer price increase in 1966 although it is interesting to note that the average prices of consumer services have not accelerated during the past year. Over the post-war period as a whole, prices of services have generally tended to outpace increases in goods prices, and have been a significant factor in the longer-term, as well as the more recent, advance in the consumer price index.

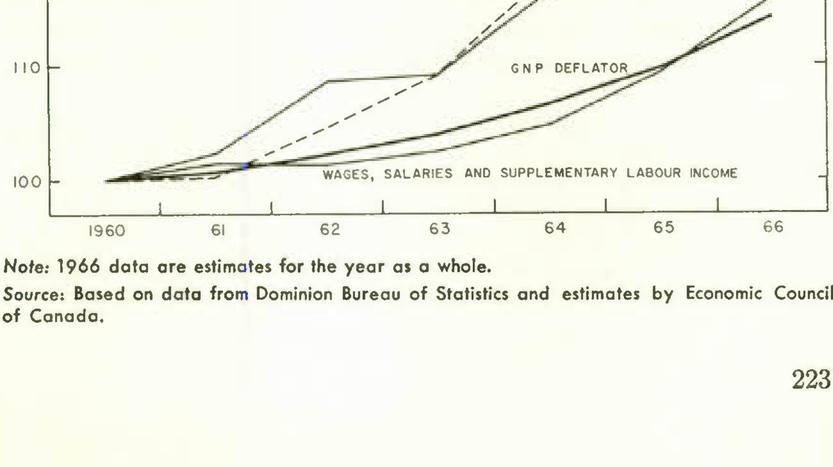
While special and possibly temporary factors, including some supply bottlenecks, have contributed to price pressures in various cases, a more widely diffused pattern of price advances has characterized the developments in 1966 than in 1965. For example, the bulk of the changes in the detailed categories of consumer price changes fell in the range of increases of 0 to 5 per cent, as was also the case in 1964-65, but there were significantly fewer price declines in 1966 and significantly more increases above 5 per cent. Similarly, a wider diffusion of price increases has also occurred in the area of industry selling prices in 1966 (Chart 4-7, in Chapter 4).

Indirect taxes per unit of output have risen by close to one third since 1960, and have been the most steeply rising component of costs

CHART 6-12

COSTS PER UNIT OF OUTPUT

(1960=100)



Note: 1966 data are estimates for the year as a whole.

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

per unit of output in the national accounts (Chart 6-12).[1] Indirect taxes have therefore become, as emphasized in Chapter 4, a significant factor in the over-all cost and price increases taking place in the economy over the past few years.[2] Moreover, their impact was further reinforced in 1966 by similar effects produced through the business payroll levy to pay part of the costs of the newly introduced Canada and Quebec Pension Plans. The combination of increased indirect taxes and the introduction of the Pension Plans may have had a particularly pronounced and pervasive cost-push effect on prices in 1966.

Indirect taxes as a means of financing increased government spending —taxes which have been enlarged at the federal level and even more rapidly at the provincial level in recent years—in effect result in a growing package of government services being embedded in the rising prices of goods and services purchased by consumers and business. This is therefore a rather special, if not illusory, element in rising prices; it is a means of financing increased government services through the tying of purchases of such services to the purchases of goods and services for private use. But it is important to recognize that this element exists in various measures of price increases. It is also important to note that it may have conceivably accounted for somewhere in the vicinity of a quarter of the over-all increase in prices in Canada over the past few years.

Prices and costs have, on the whole, been advancing slightly more rapidly in Canada than the United States over the past two or three years. In the case of consumer prices, for example, the recent rate of increase in Canada has been about 1 per cent higher than in the United States (Table 6-3); this is also true of the recent changes in the Gross National Product price deflators of the two countries.

Labour costs per unit of output have similarly moved up somewhat, relative to those in the United States. These are shown for the two countries in manufacturing in Chart 6-13. But it is relevant to note

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[1] Indirect taxes include federal and provincial sales taxes, real estate taxes, customs duties, liquor and tobacco taxes, and various licences and fees.

[2] Increases in direct taxes, including corporate profits taxes and personal income taxes, may also tend to contribute to price increases—in the case of personal income taxes, perhaps largely through the route of increased wage demands. But the cost-push effects of direct taxes on prices tend to operate more indirectly. Increases in both direct and indirect taxes, of course, have various effects in addition to cost-push effects on prices, including restraints on private purchasing power.

TABLE 6-3—CONSUMER PRICE INCREASES, CANADA AND THE UNITED STATES
(Annual percentage change)

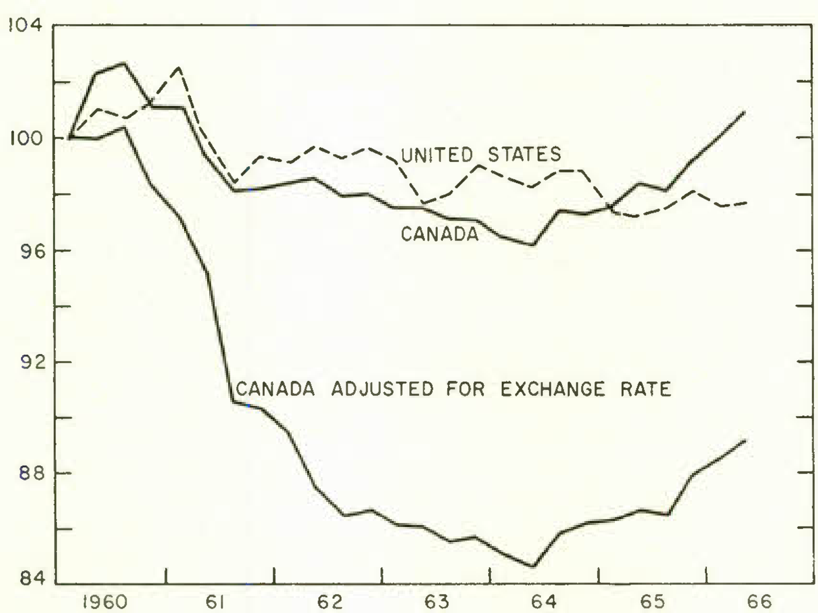
	Canada	United States
1959-60	1.2	1.6
1960-61	0.9	1.1
1961-62	1.2	1.2
1962-63	1.8	1.2
1963-64	1.8	1.3
1964-65	2.4	1.7
1965-66*	3.6	2.6

*First seven months of 1965 to first seven months of 1966.
SOURCE: Based on data from Dominion Bureau of Statistics and U.S. Department of Commerce.

CHART 6-13

INDEXES OF UNIT LABOUR COST IN MANUFACTURING, CANADA AND THE UNITED STATES

(FIRST QUARTER 1960 = 100)



Note: Quarterly averages of seasonally adjusted monthly data. 1966 data cover first two quarters. Labour costs include wages and salaries.
Source: Based on data from Dominion Bureau of Statistics and U.S. Department of Commerce.

that on the basis of currently available data such costs declined slightly more than those in the United States from 1960 to 1964, and the more rapid increase since 1964 in Canada has only brought these unit costs back to the 1960 level early in 1966, while comparable U.S. costs are about 2 per cent below 1960. On the whole, unit labour costs in manufacturing in Canada and the United States have in fact remained relatively stable in the 1960's and close to the relationship which prevailed between them in 1960.[1] Moreover, as indicated in Chart 6-13, if Canadian unit labour costs in manufacturing are adjusted for the devaluation of the Canadian dollar in the early 1960's—an adjustment which reflects a measure of competitive advantage gained by Canadian manufacturers as a result of devaluation—it is highly significant that, in these terms, such costs have fallen substantially relative to U.S. costs since 1960. Indeed, the great bulk of this competitive gain still remained in 1966 and has apparently been only moderately eroded by the developments since 1964.

A longer look at labour costs per unit of output in Canada and the United States also reveals a high degree of stability in such costs in North America since the early 1950's (Chart 6-14). In early 1966 such costs were less than 5 per cent above their respective 1953 levels in both Canada and the United States. This contrasts sharply with the considerable increases in unit labour costs that have taken place in most other industrially advanced countries. Profits per unit of output in manufacturing have been much more volatile in both countries, rising in the earlier stages of business cycle expansions and usually falling in the late stages of such expansions and during recessions (unit labour costs tend to move the opposite way, but much more moderately—usually falling during the early stages of expansions and rising during the later stages of expansions and during receessions).

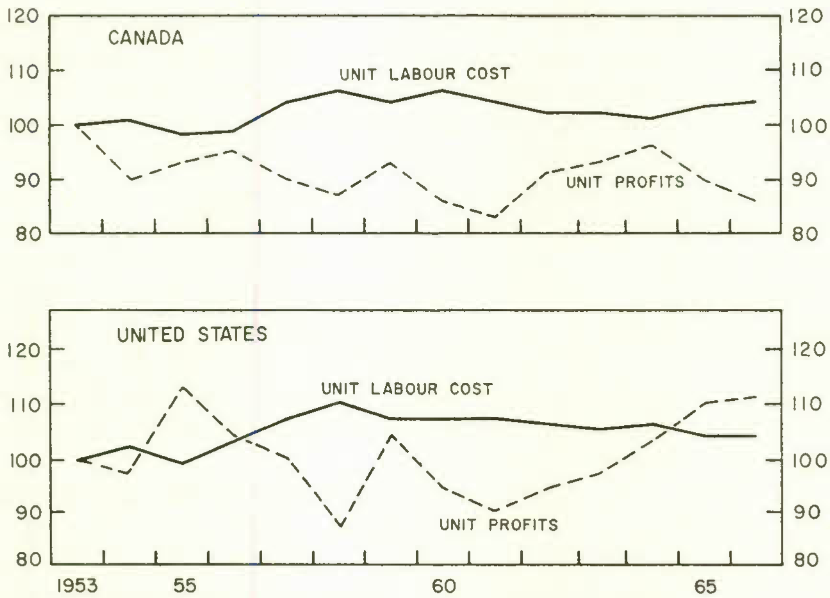
There is, however, a very sharp difference between Canadian and U.S. experience, especially with corporate profits per unit of output in manufacturing in 1965 and 1966. In the United States they have risen, while in Canada they have fallen sharply and in the first half of 1966 were apparently almost back to the level of 1961 (the trough of the last recession occurred in the first quarter of 1961). This contrast together with the relative rise in unit labour costs in Canada in 1965

[1] Labour costs have not remained stable, however, in the nonmanufacturing sectors of the two economies. Indeed, unit labour costs have tended to rise persistently in a number of nonmanufacturing sectors, on the basis of available data.

CHART 6-14

INDEXES OF LABOUR COSTS AND CORPORATE PROFITS PER UNIT OF OUTPUT IN MANUFACTURING, CANADA AND THE UNITED STATES

(1953 = 100)



Note: Labour costs include wages and salaries; 1966 data cover first two quarters.
Source: Based on data from Dominion Bureau of Statistics and U.S. Department of Commerce.

and 1966, reflects in part the relatively slower advance in productivity in Canadian manufacturing in this period (Chart 6-6).

Finally, it is useful to examine the broad spectrum of recent wage and price changes in Canada in the context of the general patterns and lags which have been associated with earlier business cycles. Cyclical aspects of price and cost changes have already been outlined in Chapter 4, and the developments since 1961 appear to have conformed fairly closely to the patterns which might have been anticipated on the basis of earlier cyclical experience. In the early stages of the current prolonged business expansion, initial strength appeared in various sensitive commodity prices (as well as in corporate profits per unit of output). Increased prices abroad and the devaluation of the Canadian dollar also began to have an upward influence on prices in Canada through the earlier years of the current expansion. Later on, price and cost pressures appeared in a number of particular bottleneck areas—especially in construction.

But it was only when the gap between actual output and potential output had been substantially narrowed that price increases became more widespread in extent and more pronounced in magnitude. In particular, a number of major categories of prices and costs—such as consumer prices, wage costs and interest rates—tended, as usual, to lag substantially behind the pressure of demand against resources. There has also been the usual pattern of costs tending to rise faster than prices in the later stages of business expansion, bringing increasing pressure to bear on profit margins. Increases in basic wage rates have been more rapid over the past year than at any time in the past decade and higher costs will continue to work their way through the system for some time. In fact, consumer prices, labour costs and certain other prices have invariably tended to continue to rise for an extended period even after demand pressures begin to ease, output gains begin to slow down, and unemployment begins to rise. In the light of this experience it would appear to be inevitable that further significant increases in many lagging prices and costs are likely to continue in Canada in the near-term future regardless of basic economic conditions.

On the other hand, it is interesting to note that the "leading" prices, especially the sensitive commodity prices, appear to have reached a peak early in 1966 and have declined significantly during 1966—a development which is in line with various other indications of some easing in the previous strong expansionary forces. Also, the general wholesale price index has remained relatively stable since early in 1966, while the index of farm prices has declined somewhat in recent months.

CONCLUSION

The Canadian economy appears to have been in a rather delicately balanced position by mid-1966 in relation to its medium- and longer-term goals and potentialities. In fact, the case might be made that the economy appears to have been moving, or at least threatening to move, *slightly* away from all of these basic economic and social goals at the same time. Unemployment has risen slightly. Productivity growth has apparently slowed. The growth of final demand was sharply checked in the second quarter of 1966. Prices and costs have increased relatively rapidly in a number of categories. Concern about maintaining, let alone improving, competitive strength in the balance of payments has increased. Yet, for all this, taking account of both accomplishments and short-falls, the general impression gained from objective appraisal of the current economic situation is one of reasonably good over-all performance.

Under its basic terms of reference, the Council is asked to focus its attention specifically on medium- and longer-term prospects and problems of the economy. Hence, it is not our function to review and assess the economy's shorter-term business prospects over the next year or so. Our concern is, rather, with the underlying trends and developments in the recent preformance in relation to the economy's medium- and longer-term goals and potentials, and with the progress and policies required to attain these.

From this perspective, we have concluded that while it is by no means inconceivable that the economy could move *slightly* further away from several of its goals in the near-term future, the underlying situation—both internationally and domestically—still displays indications of sufficient basic strength and balance to make it unlikely that the country faces the danger of a prolonged or *major* departure from the goals assessed in this Chapter. Accordingly, it is important not to resort to short-term measures which would be inappropriate for the achievement of longer-term goals.

Perspective on Employment Growth

In recent years, the economy has not merely kept pace with its growing potential to pour forth a rapidly rising volume of goods and services. Previous slack has been taken up and the economy has thereby temporarily achieved an additional margin of expansion. This margin represents an extra element in the rate of growth which cannot be indefinitely sustained. Indeed, the large amount of slack which had been present in the economy a half decade ago was virtually eliminated by the beginning of 1966. Symptomatic of this has been the more or less persistent decline in the rate of unemployment to a level in early 1966 which reached the lowest point in a decade. In short, the economy has experienced an unsustainably rapid rate of over-all growth which, if not moderated somewhat, would not be consistent with other basic goals—the maintenance of reasonable price stability and an adequate degree of international competitiveness. Only a sharp and improbable uptilt of productivity performance, going beyond even the high standards set by the Council for such performance, could maintain the pace of over-all advance of the past few years without the generation of increasing and serious economic instability. And the available facts suggest that productivity growth, far from accelerating recently, has if anything tended to slow down.

By early 1966, it was therefore clear that an adjustment to a more moderate and sustainable rate of growth was necessary. Not only was the pressure of demand against resources threatening to generate a growing number of bottlenecks and inflationary patches in the economy, but conditions were also emerging conducive to inflationary psychological attitudes. Price and cost increases had begun to break out from their earlier pattern of selective salients into a pattern of spreading advances. In these circumstances, monetary and fiscal policies were set to operate in a manner which imposed increasing restraint on the growth in total demand.

Yet, even before these policy actions had had adequate time to make anything like their full impact felt, some underlying elements of moderation in expansion began to emerge. The rate of unemployment ceased to fall. Expansion in the volume of total final demand was slowed. The modest increase in total real output in the second quarter of 1966 was associated with a marked rise in business inventories (especially in the case of automobiles). A growing number of business indicators pointed to the probability that further output increases in the latter part of 1966 would be at a much more moderate rate than those occurring from 1963 through the first quarter of 1966. The extremely high rate of new investment, supported by high and rising imports, was not only minimizing the spread of bottleneck situations, but even giving rise in the case of a few products to not-too-distant possibilities of supply capabilities in excess of demand probabilities. In addition, some apparent moderation of excessive expansionary forces in the United States before mid-year tended to have an indirect moderating influence on some aspects of Canadian business trends. The question has therefore arisen by the latter part of 1966 as to whether the North American economy may be in the process of adjustment to a slower rate of growth. Even if so, there is the further question as to whether the moderation of earlier mounting pressures on resources and capacity may be a very brief and temporary phenomenon—perhaps like the brief slowing of North American economic expansion in 1962—and whether a new round of strong expansionary forces may soon emerge, as in 1963, but in circumstances in which there would now be less slack and greater risks of more substantial price and cost pressures. These are still very much open questions at the time of writing this Chapter. Moreover, the answers lie, as usual, not so much on prospective economic conditions and forces in Canada as on those in the United States.

It should be emphasized, however, that the potentialities for further sturdy growth of output in the Canadian economy are relatively high for the medium-term future. An average annual rate of increase in the total volume of output of close to 5 per cent per year from 1966 to 1970 is estimated to be required to attain potential output in the latter year. This reflects, to a very important degree, the substantial potential which exists, in the light of further large increases in the labour force over the next four years, for a high rate of growth of employment.

Until the latter part of 1965, the twin *employment* objectives of economic policies were the creation of enough new jobs to absorb the growing labour force and the creation of an additional margin of new jobs to absorb excessive unemployment. In the employment and labour market circumstances of early 1966, however, it had become evident that the objective of sustaining high employment in line with the continuing rapid growth of the labour force should clearly take precedence over that of attempting to push the over-all rate of unemployment down still further. Also, effective training, mobility and other manpower policies and programmes, although essential not only when unemployment is low but also when it is high, had risen in relative importance in the developing conditions of rising job vacancies, growing skill shortages, and widening job alternatives for the underemployed. More effective policies and programmes in this field, even though they cannot, overnight, relieve rapidly accumulating shortages of many high skills, can help to minimize the mismatching in significant areas of labour demand and supply. They also help to raise productivity and to minimize losses of income, not only to individuals but also to the country as a whole. The more active implementation of effective manpower policies and programmes has been in the process of development, especially since the Government's decision late in 1965 to establish a new Department of Manpower and Immigration. These efforts should yield very high rates of return to the Canadian economy in years to come.

The challenge of maintaining an adequately high rate of growth of employment is indicated by the fact that Canada's total labour force will grow by about 10 per cent in 1966-70, or by close to 2.5 per

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cent per year. This implies that there is a need to expand the total number of jobs by about three quarters of a million from 1966 to 1970, and nonfarm jobs by an even larger number. In these circumstances, it is obvious that unemployment could build up very rapidly—much more rapidly than in the 1950's—in the event that a reasonably strong growth in total demand and output is not maintained.

Perspective on Prices and Costs

Rapid increases in some prices and costs have become a matter of growing concern in 1966. Among the increases taking place, there have been more widely diffused increases in those types of prices and costs which have always tended to advance more strongly in the later stages of a business expansion. General price and cost increases are running somewhat in excess of those in the United States, and have come closer to those occuring in some European industrial countries. They are therefore tending to erode the international competitive advantages of some Canadian producers.

Price increases of the nature of those taking place in 1966 have also begun to impose hardships upon the weak—especially on those on fixed money incomes who are unable to defend themselves against such rises through increases in earnings.

Rapid general price and cost increases not only threaten, as they have done in the past, to produce distortions which may ultimately spawn weaknesses leading to an eventual recession. They have also generated strong demands for vigorous policy actions to contain inflation—actions whose ultimate effects could well be adverse to the maintenance of high employment and strong economic growth. Such increases, it must be frankly recognized, may therefore become the indirect means to further cruel burdens upon the weak—that is, upon those who are least able to keep their jobs if demand is reduced and economic growth is slowed down.

The Council has emphasized strongly, both in its earlier *Reviews* and in earlier chapters of this *Review,* that price changes have an important role to play in Canada's economic system of decentralized market decisions. The price mechanism, which applies not merely to the distribution of goods and services but also to the services of labour and capital as productive resources, helps 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. For the price system to work well there must therefore be a reasonable degree of flexibility in the pattern of relative prices, together with an adequate degree of mobility of resources between alternative uses. A rigid structure of prices would not be appropriate in such a system. However, what is required for a good standard of price performance in this system is a reasonable balance between increases and decreases in prices, the avoidance of a widespread and persistent upward movement of prices, and the prevention of mounting cost increases which would inevitably push up prices. Canada has not had a satisfactory standard of price performance in these terms during the past year.

Fundamental to any appraisal of the current price performance of the Canadian economy is a recognition of the fact that the previous gap between actual and potential output was virtually eliminated by early 1966. From the outset, the Council has stressed that the closing of this gap—that is, the achievement of high standards of performance for employment and economic growth—would pose hard challenges for the maintenance of the goal of reasonable stability of prices.

Furthermore there is always the danger than an economy may move up too rapidly from a state of excessive unemployment and underutilization of its productive resources and capacity. This may not only lead to bottlenecks and pressure points which are difficult to ease quickly, but may even press generally too hard for a time against the limits imposed by supply capabilities. The level and pace of expansion of output early in 1966 raised the possibility of this danger. According to the limited available evidence at the time of writing this Chapter, this threat has been reduced by an apparent moderation in the forward movement of the economy, with a resulting more comfortable balance between increasing demand for output and available supplies of productive resources and capacity during the year. Never theless, over-all demand forces could, after a relatively brief interval, re-emerge strongly. And with little or no slack left in the economy, the situation could become one of generally greater exposure to dangers of general price and cost advances in the latter part of the 1960's than in the earlier part of this decade.

One of the most notable features of recent price performance has been the continuation of significant price increases, and a spreading pattern of substantial wage increases during 1966, despite the fact that the economy's productive resources and capacity do not appear

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to have been under generally mounting pressures since earlier in the year. To some degree, this undoubtedly reflects the typical tendency of many prices and most wages to lag significantly behind the tightening of markets for goods, services and productive resources. To some degree, this also reflects the emergence of other factors discussed in Chapter 3:

—the emergence of important pressure points and bottlenecks;

—an increased tendency to claim that high wage settlements in some specific cases have automatically set a standard or pattern which should be followed in other cases, or to claim that price increases in some cases have set precedents for increases in other cases;

—a similar tendency for wage demands to be more heavily influenced by the rising cost of living, and for business pricing policies to be more heavily influenced by higher wage costs; and

—more generally, the development of a more widespread "inflation psychology" under which both expectations and fears of increasing prices and costs promote actions which encourage further increases.

But beyond these factors, it is also important to recognize the emergence of a number of general underlying factors which have created an environment less favourable to the maintenance of a good record of price and cost stability than was the case in the earlier years of the current economic expansion since 1960. Among these are:

—the general slowing down which has taken place, according to available data, in productivity growth in 1965 and 1966;

—the increased prices of many Canadian exports and the pervasive effects in Canada of higher increases of many prices in the United States;

—the significant impact on prices and costs of rapidly rising indirect taxes, along with the similar effects arising from the introduction of the payrolls levy on business firms to meet part of the cost of the Canada and Quebec Pension Plans; and

—the basic change which is taking place in the world food situation, with the disappearance of the previous large surplus food stocks, the acceleration of world population growth, and rising world food demand in relation to food output.

The significance of these underlying factors is that they comprise a variety of forces acting on price and cost trends, including some forces of external origin, which are beyond the scope of direct influence by demand restraint policies in Canada. Among those which can be influenced by Canadian policy actions, the actions required must essentially concern means of increasing the output and productivity of Canadian producers.

Various developments have given rise to growing concern over a possible deterioration in Canada's international competitive position, especially in relation to the United States, over the past year or two. Among such factors have been the relative rise in Canadian labour costs, the relative decline in Canadian corporate profits per unit of output, and the somewhat more rapid price increases which have occurred in some nonfood consumer and industrial products in Canada. Such concern is justified, for Canada cannot long maintain persistently stronger price and cost increases, particularly under a fixed exchange rate, except under exceptional circumstances.

In judging the seriousness of this possible danger, however, it should be kept in mind that the devaluation of the Canadian dollar in the early 1960's has brought Canada's commodity-producing industries into a stronger position in world and domestic markets. This has been an important factor in the greater vigour of the expansion in Canada than in the United States in recent years. This vigour, however, has tended to exert some upward influence on prices and costs in Canada relative to those in the United States. The tremendous and well-sustained surge of Canadian exports since the early 1960's, especially in manufactured products, has been emphasized above—a surge which has continued, even in the face of some relative price and cost deterioration vis-à-vis the United States. Considering this surge of exports, the faster productivity growth of the United States and the exceptionally strong and sustained expansion within Canada, it is not surprising that prices and costs have increased relative to those in the United States. Rather, it is surprising that they have increased so little. Moreover, much of the competitive advantage derived from devaluation still remains.

The preservation of this competitive advantage against erosion should, however, be an important objective as a basis for achieving a satisfactory longer-term economic performance for the Canadian economy. A persistent trend of significantly higher price and cost increases in Canada than in the United States is most unlikely to be tolerable without sooner or later precipitating balance-of-payments strains which would threaten the capacity of the economy to maintain high employment and high growth.

A Comment on Policy

The Canadian economy has been operating in 1966 under a moderate degree of general policy restraint. The money supply has increased less rapidly than output over the past year, and credit conditions have become very considerably tighter as investment demand has pressed harder against available financial resources. There has also been a moderate degree of fiscal restraint. The three levels of governments combined have run a surplus (on a national accounts basis) at a seasonally adjusted annual rate of over $600 million in the first half of 1966, including revenues from the Canada and Quebec Pension Plans. This, it might be noted, represents a more restraining fiscal position than exists in the United States.

These postures of monetary and fiscal policy are, we believe, generally appropriate to the basic economic conditions, both exernal and internal, confronting the country during the past year; they are broadly in line with the basic strategies which the Council has previously indicated to be appropriate for the use of these "big levers" in facilitating good longer-term performance of the economy in relation to all of its basic goals. It is recognized, however, that some questions have been raised regarding the exact timing of specific policy changes.

With regard to some of the particular aspects and effects of monetary and fiscal policies, we wish to draw attention again to two special areas which will require close attention. One of these is the field of housing in which adequate measures and adjustments are needed to reverse the decline in new housing construction and to avoid the danger of a rapidly intensifying housing shortage. The other concerns the *long lags* between actions designed to restrain investment booms and the actual impact of such actions on investment outlays. A combination of factors, including fiscal policy actions, now appears likely to bring about a moderation in the rising volume of new investment during the coming year. In these circumstances, the risks of excessive strains and pressures in this sector would be reduced next year, and special care must be exercised to give consideration to a timely easing of the fiscal restraints on investment—again having regard to the long lags likely to be involved between any such actions and their probable effects on investment outlays. Two fundamental issues are relevant here. First, it is imperative that much greater care be given to minimizing instability in the growth of investment in the future, with the aid of well-timed government policies and longer-range government planning for smoother investment growth. Second, enlarged investment outlays—so long as these can be accomplished without undue strains—will help to expand capacity and output and thereby contribute to minimizing longer-run inflationary dangers.

7

Economic Expansion and Regional Development

THE COUNCIL'S *Second Annual Review* set out in a preliminary way the main considerations involved in achieving regionally balanced development in Canada, consistent with our other national economic goals. It noted, first, "the importance of reducing the relative disparities in average levels of income as they presently exist among the regions"; and second, "the need to assure that each region contributes to total national output, and to the sustained, long-run growth of that output, on the basis of the fullest and most efficient use of the human and material resources available to the region".

The evidence of growth in income and population over the past four decades, 1926 to 1964, revealed deep-rooted differences among the regional and provincial economies. These were reflected in large interregional disparities in per capita income. But despite market forces and policy measures which presumably have favoured a better long-run balance, the level of disparity stubbornly persisted almost unchanged over the past four decades. The experience of recent history indicated strongly that a better balance in regional economic development in Canada would not be easily or quickly achieved.

Our analysis did not detect any consistent relationship between the level of interregional disparity and the cyclical rise and fall of economic activity in Canada as a whole. However, the policy goal of improved balance is a sensible one only if it can be achieved, not under circumstances of slack and stagnation in the higher-income regions, but under conditions of strong growth in employment and income in the total national economy. Moreover, our earlier survey of some of the important factors contributing to interregional disparity—for example, differences in manpower utilization, productivity per worker, capital investment and public services—suggests that neither the free play of economic forces nor public policy are likely to produce the required adjustments except in an environment of vigorous national growth.

As Chapter 6 has indicated, such a favourable environment has been provided by the sustained economic expansion experienced in Canada over recent years. The growth of demand and output, the drawing down of serious economic slack, and the rise in employment and investment have all been widely based and have affected almost every sector of economic activity. But a favourable national environment may not in itself ensure balanced regional participation. Two further requirements must be met to achieve this result. First, the expansionary forces, wherever they originate or wherever they exert a primary impact, must spread quickly and widely to all regions, particularly those with lower average incomes. Second, once the expansionary signals are received in the lagging regions, their human and material resources must be readily adapted to meet rising foreign and domestic demand in more efficient ways.

This Chapter is concerned, therefore, with exploring in a broad way the extent to which the favourable conditions of the past five years have been effectively spread across all regions of the country, thus contributing to balanced participation in economic development. Obviously the interpretation of comparative interregional change over such a brief period is a hazardous task. This is particularly so because random events or special circumstances may affect only one or a few of the regional economies, especially the smaller ones, in such a way as to lead to faulty conclusions regarding underlying trends. The discussion which follows, however, is adapted from the methods of longer-run analysis developed in the *Second Annual Review*. It focuses mainly, therefore, upon regional income flows and related concepts. Consideration is given in turn to the role of income and population growth over the period 1961-65; to changes in the utilization of labour, as well as to the structure of investment and production; and to the pattern of regional public revenues and expenditures. Finally, brief account is taken of emerging trends in each of the regional economies and certain implications for policy are drawn.

INCOME AND POPULATION GROWTH

A comparison of regional growth rates in total personal income,[1] population, and personal income per capita provides a useful overview of interregional growth experience since the beginning of the current economic expansion. In the absence of generally acceptable measures of total regional output, it is customary to refer to the annual flow of personal income as a measure of regional economic activity. Table 7-1 shows that all provinces have shared in the expansion since 1961, although in varying degrees.[2] However, this variation in growth rates, ranging from a low of 6.4 per cent for Nova Scotia to a high of 9.0 per cent for Prince Edward Island, has been much in line with longer-run post-war experience. Within the range there has been little systematic relationship between rates of growth and per capita income levels. Both higher- and lower-income regions have experienced better-than-average, and below-average, annual increases in total income. It appears, as we have stressed, that random events and special situations have complicated the comparative growth picture.

Average rates of population growth for the provinces since 1961 are everywhere significantly below the post-war trend and reflect the recent sharp fall in the birth rate. Comparative advances among the provinces, however, have been much in line with historical experience. Central Canada, the two most westerly provinces and Newfoundland have all continued to exceed the average, while migratory outflows have reduced the rate of population increases in the other five provinces, particularly in Saskatchewan and Prince Edward Island. In other words, the long-established pattern of population redistribution among the regions has remained substantially in force during the current expansion, with further movements of people from rural areas to urban centres, and from low- to high-income provinces. Moreover, migration estimates indicate that, as the expansion has proceeded, the rate of population movement has increased. Thus the inflow into

[1] Personal income in current dollars is obtained from the National Accounts, published by the Dominion Bureau of Statistics. Its major components are: wages, salaries and supplementary labour income; military pay and allowances; net income of farm operators from farm production; net income of nonfarm unincorporated business; interest, dividends and net rental income of persons; and transfer payments.

[2] Because of abnormally adverse conditions in the agricultural sector in 1961, it is a poor year upon which to base comparisons. Since Prince Edward Island and Saskatchewan are the two provinces most affected by low 1961 levels of agricultural income, the base year for comparisons in their case is the average of 1960, 1961 and 1962.

TABLE 7-1—INCOME AND POPULATION GROWTH BY PROVINCE, 1961—65

(Average annual percentage change)

Province[1]	Total Personal Income[2]	Population	Personal Income Per Capita
Ontario	7.7	1.9	5.6
British Columbia	8.4	2.4	5.9
Alberta	7.8	2.2	5.5
Saskatchewan	8.4	0.7	7.7
Manitoba	7.3	1.1	6.1
Quebec	8.1	1.8	6.1
Nova Scotia	6.4	0.8	5.5
New Brunswick	7.7	1.0	6.6
Prince Edward Island	9.0	0.7	8.2
Newfoundland	8.1	2.1	5.9
Average for Provinces	**7.9**	**1.5**	**6.3**
Canada	**7.9**	**1.8**	**6.0**

[1] Provinces are ranked in respect of level of personal income per capita in $\overline{1964}$, i.e., the average of the three years 1963, 1964 and 1965. For Prince Edward Island and Saskatchewan, income data for 1961 are averages for the three years 1960, 1961 and 1962.

[2] Based on current dollars.

Source: Based on data from Dominion Bureau of Statistics.

Ontario and British Columbia accelerated after the middle of 1963. Conversely, the outflow from Manitoba and Nova Scotia increased. Saskatchewan appears to have experienced a significant decline in net out-migration over the 1961-65 period, but Alberta recorded a net outflow in the most recent years, thus marking a reversal of the trend of the past two decades.

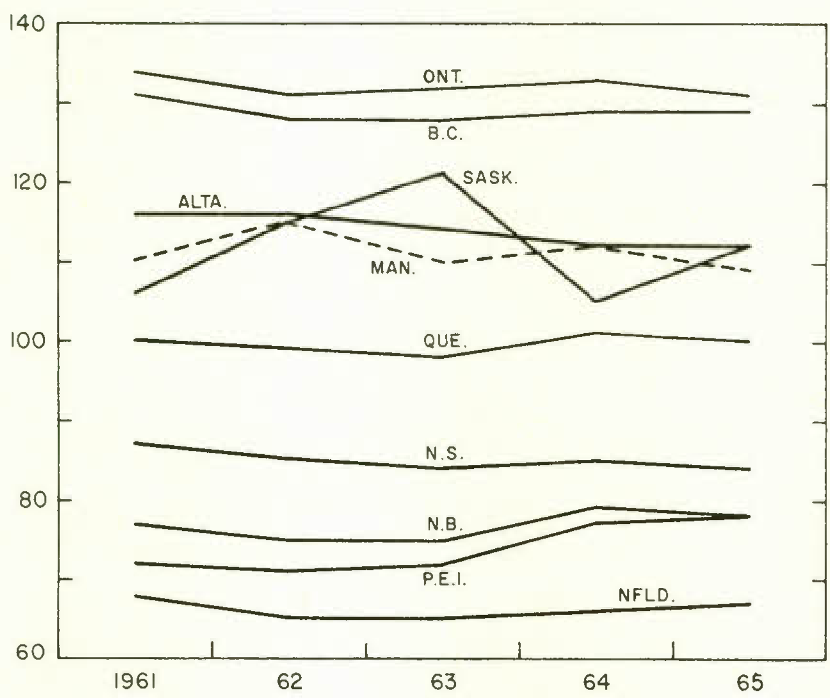
Interregional differences in the growth of personal income per capita reflect the combined influence of the rates of increase in total income and population. The range of variation among regional growth rates for this measure is somewhat larger than that for total personal income. This is due in large part to the experience of Saskatchewan and Prince Edward Island where the lowest rates of population growth were combined with the highest rates of advance in total personal income. Within the range there is a mixed experience among the provinces. Broadly speaking, however, the faster growth of population in the higher-income provinces has been associated with lower-than-average increases in personal income per capita. The opposite is apparent for those provinces with lower levels of income per person.

During the recent advance in economic activity all provinces have recorded rates of growth in personal income per capita which, from an historical perspective, are very high. This would still be true even after price changes were taken into account. And since the concept of personal income per capita is a rough measure of both comparative productivity and economic welfare per person in the separate regions, the economic advance since 1961 has been both significant and widespread. Moreover, the comparative growth rates shown in Table 7-1 point to some narrowing of interregional per capita income disparities between 1961 and 1965.

The slight convergence of per capita income levels among the regions over the 1961-65 period emerges more clearly from a year-by-

CHART 7-1

PERSONAL INCOME PER CAPITA
AS PERCENTAGE OF AVERAGE FOR PROVINCES



Note: **Income in 1961 for Saskatchewan and Prince Edward Island is the average for the three years 1960, 1961 and 1962.**

Source: **Based on data from Dominion Bureau of Statistics.**

year comparison of the level for each region in relation to the over-all average. As shown in Chart 7-1, and taking 1961 as the base year, income levels in the three leading provinces, Ontario, British Columbia and Alberta, all moved somewhat closer to the average. Among the middle third, Manitoba and Quebec both maintained consistent relative positions; but Saskatchewan's position varied as a result of the familiar fluctuations in farm income. Experience was mixed among the lowest-income group of provinces. Prince Edward Island gained relatively; Nova Scotia fell somewhat behind, while New Brunswick and Newfoundland experienced little or no change in relation to other regions.

The actual levels of income and the degree of interregional income disparity[1] are shown in Table 7-2. Since 1961, the index of disparity has declined from 22.3 to 21.2 per cent. While this was clearly only a small reduction, it is nevertheless significant that the direction of change has been fairly neutral or has tended towards a narrowing of income differences, rather than towards a renewed widening of disparity which might well have developed during the course of the expansion. Again, however, it must be remembered that among the forces affecting the interregional comparisons have been the income advances in Saskatchewan and Prince Edward Island, largely due to major gains in the agricultural sector.

Whatever the relative gains or shifts recorded over the past half decade, Table 7-2 shows clearly that the income differences among the provinces—of the order of 100 per cent from top to bottom—have remained essentially unchanged. This general conclusion is not significantly altered if other concepts of income per capita are employed, if the number of regions considered is varied, or if different techniques are used in assessing the degree of spread.[2] All of these detailed

[1] This is measured by an index of disparity which takes into account the position of each of the provinces in relation to the average for all provinces. A wide scatter of provincial per capita incomes around the average results in a high value for the index, while a concentration around the average is indicated by a low value of the index. In statistical terms it is an index of relative dispersion and is obtained by dividing the standard deviation of the distribution by the unweighted mean.

[2] For example, over the 1961–65 period, the index of disparity in ***earned income*** per capita—a concept which excludes income from property and from government transfer payments—fell only from 24.0 to 22.7 per cent. Property income includes interest, dividends and net rental income of persons. If income disparity is measured for the five major regions rather than the ten provinces, or if a weighted index of disparity is used, the fall in the interregional spread of personal income and earned income per capita is in each case less than one percentage point. The weighted index takes account of the share of population in each region in estimating the degree of income disparity.

TABLE 7-2—LEVEL AND DISPARITY OF PERSONAL INCOME PER CAPITA

(In current dollars)

Province	1961	1962	1963	1964	1965
Ontario	1,843	1,932	2,031	2,134	2,296
British Columbia	1,802	1,878	1,972	2,071	2,263
Alberta	1,595	1,703	1,747	1,795	1,974
Saskatchewan	1,462	1,695	1,867	1,683	1,966
Manitoba	1,513	1,688	1,683	1,801	1,919
Quebec	1,383	1,454	1,509	1,614	1,754
Nova Scotia	1,197	1,252	1,298	1,370	1,483
New Brunswick	1,064	1,110	1,153	1,259	1,374
Prince Edward Island	1,000	1,047	1,103	1,234	1,370
Newfoundland	934	955	1,006	1,065	1,173
Average for Provinces	**1,379**	**1,471**	**1,537**	**1,603**	**1,757**
Canada	**1,573**	**1,664**	**1,739**	**1,824**	**1,983**
Index of Disparity (per cent)	22.3	23.2	23.3	21.3	21.2

NOTE: Provinces are ranked in respect of level of personal income per capita in 1964, i.e., the average of the three years 1963, 1964 and 1965. For Prince Edward Island and Saskatchewan, income data for 1961 are averages for the three years 1960, 1961 and 1962.

SOURCE: Based on data from Dominion Bureau of Statistics.

variations serve to confirm that the interregional spread of income has tended to converge rather than widen over the course of the expansion. But this tendency has been quite limited. This experience reinforces earlier conclusions that the growth of the economy at the national level provides a necessary and favourable environment, but is not in itself sufficient to secure major improvements in regionally balanced economic development. This is clearly a long-term objective to be sought on the basis of deliberate, integrated public policy.

REGIONAL UTILIZATION OF MANPOWER

One of the most important factors contributing to interregional differences in per capita income is the variation from area to area in the full and efficient employment of manpower resources. Other things being equal, the higher the proportion of a region's total population gainfully employed, the larger the income per person in the region is likely to be. Indeed, the analysis of our *Second Annual*

Review noted that differences in the utilization of available manpower accounted for about half the gap in per capita earned income between the Atlantic Region and the national average. That analysis also traced out the long-standing influence of several component factors in manpower utilization, including the age composition of the population, rates of participation in the labour force, the incidence of unemployment, and the average number of hours worked each week.

Apart from growth in the labour force, a particularly dynamic factor in the current advance in the national economy has been the substantial reduction in the waste of unemployment. Unfortunately, the lack of adequate annual data precludes a province-by-province review, but the estimates for the five major economic regions indicate that each region has shared in the drawing down of unemployment from the severe levels of 1961. Thus, the unemployment rate in the Atlantic Region, where unemployment was most severe, fell from 11.2 in 1961 to 6.4 per cent in the first eight months of 1966. In Ontario, where unemployment is less severe, the rate fell from 5.5 to 2.5 per cent.

Nevertheless, as indicated in Table 7-3, the past half decade has witnessed some widening of interregional disparity in this aspect of manpower utilization. While the unemployment rate was more or less halved in Ontario and the Prairies, in the Atlantic Region and Quebec the proportionate decline was less impressive. The result has been a shift of a higher percentage of the total remaining unemployment to these latter regions. After approximately five years of rapid and continuous expansion, they have ended with a relatively greater concentration of over-all Canadian unemployment than when the expansion began.

One of the apparent consequences of this recent experience has been to restrain the convergence of *earned income per capita* among the regions. In this regard the index of disparity declined by less than 1 per cent between 1961 and 1965. It is instructive to compare the level and movement of this index with that indicating interregional disparity in *earned income per employed person,* as is shown in Chart 7-2. The difference between the two indexes is a measure of the influence of regional variation in labour utilization upon the interregional spread of earned income. On the average over the five-year period the difference is of the order of 40 per cent. In other words, the spread in earned income per capita among the regions could be reduced by two fifths, if essentially similar employment-to-population ratios could be achieved in each region. This underlines the importance of policies

TABLE 7-3—INTERREGIONAL STRUCTURE OF UNEMPLOYMENT

Region	Unemployment Rate						Percentage Share of Total Unemployed					
	1961	1962	1963	1964	1965	1966	1961	1962	1963	1964	1965	1966
Atlantic	11.2	10.7	9.5	7.8	7.4	6.4	13.7	15.9	14.7	14.2	16.1	15.0
Quebec	9.2	7.5	7.5	6.4	5.4	4.8	36.1	35.5	38.0	38.3	39.3	37.8
Ontario	5.5	4.3	3.8	3.2	2.5	2.5	28.3	26.9	25.1	25.6	23.6	25.8
Prairies	4.6	3.9	3.7	3.1	2.6	2.1	11.4	11.8	11.8	11.4	11.4	9.7
British Columbia	8.5	6.6	6.4	5.3	4.1	4.4	10.5	10.0	10.4	10.5	9.6	11.6
Canada	**7.1**	**5.9**	**5.5**	**4.7**	**3.9**	**3.6**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

NOTE: Data for 1966 are averages of seasonally adjusted rates for eight months of the year.

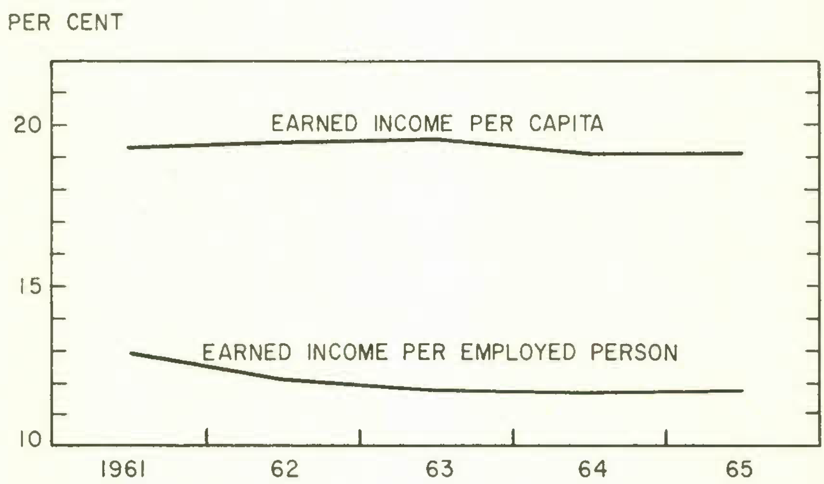
SOURCE: Based on data from Dominion Bureau of Statistics.

and programmes to increase employment and to improve labour mobility and adaptability to changing labour market conditions, particularly in the lower-income regions.

The decline in the index of disparity for earned income per employed person since 1961 is also suggestive. In this case, interregional differences appear to have fallen by almost 10 per cent over the period. Since the concept of earned income per employed person is a rough approximation of regional productivity, it may be inferred from this decline that interregional differences in the efficient use of labour have been somewhat modified during the recent economic expansion. Further gains in this direction remain a continuing objective of fundamental long-run importance.

CHART 7-2

INDEXES OF DISPARITY IN EARNED INCOME PER CAPITA AND PER EMPLOYED PERSON



Source: Based on data from Dominion Bureau of Statistics.

GROWTH IN CAPITAL INVESTMENT

A central feature of the current economic expansion has been an extremely large advance in capital investment in the national economy. An obvious question is whether or not this capital investment boom was experienced with more or less equal intensity in all regions of the country. The issue is important in the short run because of the current income flow generated by this investment activity. In the longer run, interregional disparities in the stock of capital per worker, its average age and degree of utilization, appear to account for some portion of the long-standing differences in earnings per employed person. While additions to the capital stock over a fairly brief period of five years are not likely to alter interregional differences in the stock of capital per worker in any significant degree, new and more technologically advanced capital facilities do provide a basis for gains in regional productivity. For both reasons, therefore, favourable comparative rates of increase in investment in the lower-income regions should contribute to a better interregional balance in economic development and income levels.

Over the period of the current expansion, however, the inherent volatility of investment and the diverse nature of the various regional economies appear to have led to an extremely variable investment experience among the ten provinces. The long-standing ranking of the provinces—characterized at the two extremes by relatively high investment levels in the three most westerly provinces, in contrast to levels substantially below average in the Atlantic area—did not change greatly. But the relative positions of most provinces were greatly altered. The diverse experience is illustrated in Chart 7-3, which traces out gross capital formation per capita for each of the regions in relation to the national average. Despite substantial shifts, the interregional spread of annual investment per person remained essentially unchanged. The index of disparity declined only from 26.6 per cent in 1961 to 25.3 per cent in 1965 (or 23.3 per cent in 1966 if the tentative data for this year are considered).

The variation in experience of the separate provinces is brought out sharply by the growth rates for total investment and for the three broad categories of business capital formation, housing and public investment, as shown in Table 7-4. Over the course of the business expansion, annual additions to capital grew at only modest rates in Nova Scotia, Alberta and Manitoba, but at a very rapid pace in New Brunswick, Saskatchewan and British Columbia. Ontario and Quebec were somewhat below and above the national average respectively. But the three categories of investment contributed in markedly different ways to this net result. Generally speaking, business investment has tended to advance at higher-than-average rates in the higher-income provinces, although similar gains were also achieved in Nova Scotia and New Brunswick. Public investment has also been an important sustaining force in Quebec and in most of the Atlantic

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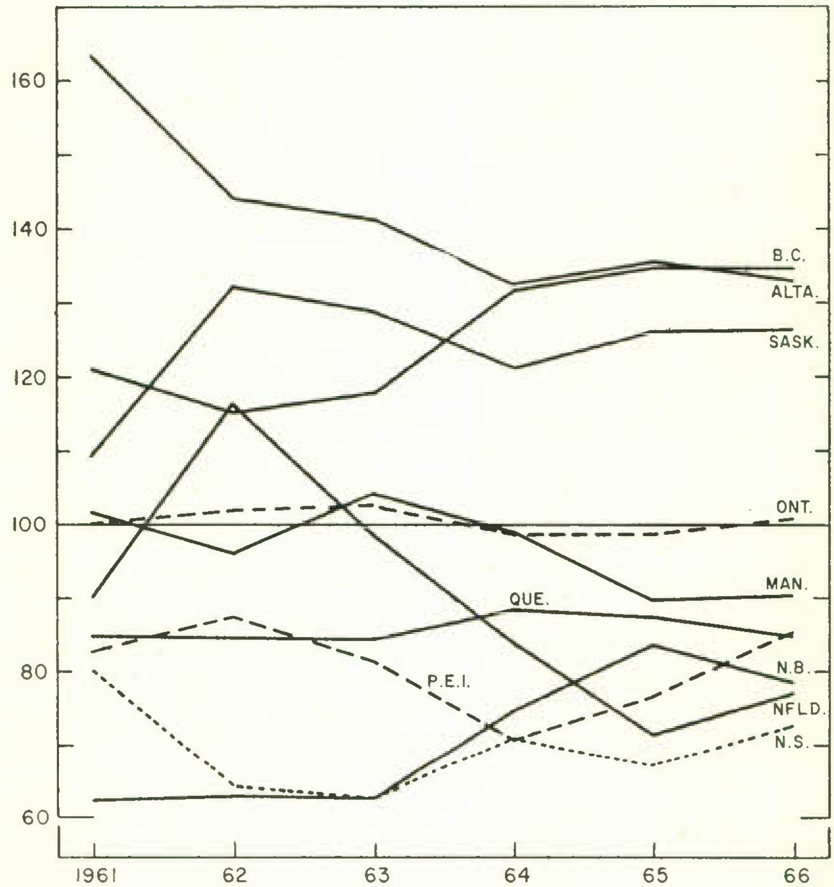
CHART 7-3

COMPARATIVE LEVELS OF REGIONAL PUBLIC AND PRIVATE INVESTMENT PER CAPITA

(AVERAGE FOR CANADA = 100)



Note: Estimates for 1966 are based upon capital spending intentions as formulated at the end of 1965 and January 1966. Population for 1966 is estimated as of April.

Source: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

Provinces, particularly in Newfoundland where business investment declined. On the whole the annual rates of increase in housing investment tend to conform with population growth.

TABLE 7-4—COMPARATIVE LEVEL AND CHANGE IN ANNUAL VOLUME OF INVESTMENT PER CAPITA, 1961-65

	Comparative Level	Average Annual Change			
	(Average annual investment per capita for Canada in 1961-65=100)	(Per cent) Total	Housing	Business	Public
Ontario	100	6.0	4.1	8.4	2.5
British Columbia	124	10.0	10.8	15.1	– 0.8
Alberta	145	1.1	– 3.1	2.9	– 1.6
Saskatchewan	122	11.3	7.8	14.0	6.9
Manitoba	100	2.7	1.5	3.6	1.8
Quebec	86	7.5	4.0	5.8	14.5
Nova Scotia	67	1.4	– 3.7	10.6	5.4
New Brunswick	70	17.3	4.7	23.6	13.5
Prince Edward Island	80	4.0	2.4	– 0.8	9.7
Newfoundland	88	0.0	– 0.3	– 6.5	15.4
Canada	**100**	**6.4**	**3.8**	**7.8**	**5.1**

NOTE: Based on constant 1957 dollars. Provinces are ranked in respect of level of personal income per capita in 1964, i.e., the average of the three years 1963, 1964 and 1965. Business investment includes trade, finance and commercial services, utilities, primary industry and construction, manufacturing and publicly owned commercial enterprises. Public investment includes institutional services and government departments.

SOURCE: Based on data from Dominion Bureau of Statistics and Department of Trade and Commerce.

It seems clear, therefore, that the upswing in capital investment over the past five years has had varied characteristics and an uneven impact among the ten provinces. No doubt, for the smaller regional economies in particular, special events and situations have played a large role in short-period developments, thus tending to obscure longer-run trends in the interregional pattern. From the standpoint of improved regional balance, it is disappointing that the lower-income provinces, including Quebec and the Atlantic Region, failed to show uniformly strong comparative gains. But at least their comparative positions were not seriously weakened under conditions of strong investment growth at the national level.

CHANGES IN INDUSTRIAL STRUCTURE

In the discussion so far, we have examined the interregional impact of the current economic expansion in terms of aggregates such as income, population and capital formation. These measures tend to obscure the divergent influences affecting the various industrial sectors of a region. Other things being equal, regional incomes will rise faster where rapid growth of employment is concentrated in high-productivity and high-earnings industries. For a better understanding of the underlying features of interregional income variations, it is useful to distinguish among those regional industries which have advanced most rapidly and those which have lagged behind during the current period of economic prosperity.

TABLE 7-5—GROWTH OF INCOME AND EMPLOYMENT IN AGRICULTURAL AND NONAGRICULTURAL SECTORS, $19\overline{61}$-65[1]

(Average annual percentage change)

	Agriculture			Nonagriculture		
	Income[2]	Employment	Income per Worker	Income[2]	Employment	Income per Worker
Atlantic........	8.3	−9.6	20.0	7.3	4.1	3.1
Quebec........	−1.5	−3.7	2.2	8.2	4.0	4.0
Ontario........	3.1	−2.3	5.5	7.8	3.2	4.4
Prairies........	13.0	−2.0	15.4	6.3	3.5	2.7
British Columbia....	2.0	−5.9	8.1	8.7	5.2	3.7
Canada........	**6.6**	**−3.1**	**10.1**	**7.7**	**3.8**	**3.8**

[1] $19\overline{61}$ is the average of 1960, 1961 and 1962. Income in agriculture is the sum of net income of farm operators from farm production (from National Accounts, DBS) and wages paid to agricultural labourers (from Quarterly Bulletin of Agricultural Statistics, DBS). Subtracting this sum from earned income yields an estimate of nonagricultural income.

[2] Based on current dollars.

SOURCE: Based on data from Dominion Bureau of Statistics.

Distinguishing, first, the broad sectors of agricultural and non-agricultural activity, the experience over the period $19\overline{61}$[1] to 1965 is in many respects an extension of the historical pattern. As may be seen from Table 7-5, employment in agriculture, where average

[1] $19\overline{61}$ is the average of 1960, 1961 and 1962.

productivity is relatively low, has continued to decline in all the major regions while that in nonagriculture has expanded. The intersectoral shift in employment has, therefore, contributed to advances in the level of earned income per capita for the national economy and in the individual regions. The impact upon the interregional differences in income, however, is less clear. Among the lower-income regions, agricultural income per worker grew very rapidly in the Atlantic Region but lagged significantly in Quebec. Of the three remaining regions, the Prairies experienced the most rapid growth in agricultural income (reflecting in part the vagaries of climate) both in total as well as in relation to the numbers employed in that sector.[1] The net effect of these variations was to reduce the interregional spread in agricultural income per worker by roughly 8 per cent as measured by the index of disparity, although the decline was not continuous throughout the period. Convergence in interregional levels of income per worker in this sector has in turn contributed to the reduction in disparity of earned income per employed person.

Regional variations in the nonagricultural sector have been less marked. Ontario, Quebec and British Columbia experienced relatively rapid rates of growth in nonagricultural income per worker. Evidence for the latter province suggest that it has sustained the most widely based economic expansion of all the regions. At the same time the slowest growth in the nonagricultural sector was recorded in the Prairies. In contrast to the agricultural sector, interregional differences in nonagricultural income per worker remained almost unchanged. Because of the weight of this sector in the total, it tends to dominate the degree of disparity in earned income per employed person.

The nonagricultural sector may be further disaggregated and changes in employment by province in eight commercial industry categories delineated. The comparative experience can be gauged by taking the growth of industrial employment in Canada as a whole as the base (Table 7-6). Total employment in the commercial nonagricultural sector grew at a faster rate than the Canadian average in only British Columbia and Newfoundland. In the former province, all industries recorded above-average increases in employment, the most marked advances occurring in construction, mining and forestry.

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[1] The rapid growth of agricultural income in the Prairies was due to significant advances in both physical output and prices. In the Atlantic Region, however, the volume of agricultural production rose relatively little, and increases in agricultural income owed more to advances in prices.

TABLE 7-6—CHANGES IN EMPLOYMENT IN COMMERCIAL NONAGRICULTURAL INDUSTRIES IN RELATION TO CANADIAN AVERAGE, 1961-65[1]

Province[2]	Mining	Finance, Insurance, Real Estate	Transportation, Storage, Communication, Public Utilities	Manufacturing	Construction	Trade	Commercial Services	Forestry	Total
Ontario	85	95	100	103	98	99	99	102	101
British Columbia	120	104	105	101	129	104	102	111	105
Alberta	100	96	103	105	97	101	96	112	100
Saskatchewan	140	100	94	96	102	98	91	*	97
Manitoba	108	96	95	96	84	95	92	133	94
Quebec	101	108	101	95	97	102	106	97	99
Nova Scotia	91	103	93	103	91	93	88	78	93
New Brunswick	154	97	93	98	126	91	95	95	96
Prince Edward Island	*	99	77	113	98	89	131	*	96
Newfoundland	170	105	111	100	108	102	120	74	105
Canada	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

*Zero or an insignificant number of employees.

[1]The Canadian average used as the base for comparison is the industry employment in 1965 divided by the industry employment in 1961.

[2]Provinces are ranked in respect of level of personal income per capita in $\overline{1964}$, i.e., the average of the three years, 1963, 1964 and 1965. Industries are ordered from left to right in respect of level of earned income per employed person for Canada in 1961.

SOURCE: Based on data from Dominion Bureau of Statistics.

Mining was the dominant sector in Newfoundland, although advances in employment were widely shared by other industries in that province.

The rate of total employment growth in Alberta, Ontario and Quebec was equal or close to that for Canada. In the first two provinces the advances were greatest in manufacturing and forestry, but in Quebec business and commercial services were the sources of greater-than-average employment growth. Among those provinces in which total employment lagged behind the national rate of growth, significant advances were recorded in specific industries. Mining in New Brunswick and Saskatchewan experienced relatively large increases. In Nova Scotia and Prince Edward Island, employment rose in the key sector of manufacturing. None of these leading industries were of sufficient weight, however, to raise the expansion in total provincial employment up to the national average.

The pattern of employment growth among the eight industries and among the ten provinces from 1961 to 1965 was clearly uneven. No systematic relationship emerges between the provinces ranked in respect of level of income and industries ranked in respect of earnings per employed person. The changes in the industrial structure of employment would seem to accord with the conclusion stated earlier, that interregional disparities in nonagricultural income per worker have remained unchanged over the current expansionary period.

INTERREGIONAL TRENDS IN PUBLIC SERVICES

Over relatively short periods, levels of expenditure on the public services are likely to be effectively influenced by current policy considerations, and in such situations basic relationships with underlying economic and social forces tend to be obscured. Nevertheless, it would appear that the marked stability in the interregional structure of income experienced over the past half decade has also substantially carried over into the public sector. Since 1961, only modest changes have occurred in the extent and significance of the interregional disparities in regional public services which were outlined in the *Second Annual Review*.

The public finance data available for the two most recent years are of a very preliminary nature. They indicate, however, that the longer-run trend towards some narrowing of differences in provincial-municipal services among the regions has continued but at only a very limited rate. The growth of per capita revenues and expenditures over the past five years has been highly variable across the country (although tending in almost every instance to outrun the gains in income). But expect for Quebec, the rank order of the regions in total public revenues and expenditures per capita has undergone only minor change (Table 7-7).

TABLE 7-7—RATES OF INCREASE IN PROVINCIAL-MUNICIPAL GOVERNMENT REVENUES AND EXPENDITURES, 1961-62 TO 1965-66, AND INDEXES OF DISPARITY

	Revenues	Expenditures		Expenditure Functions		
		Total	"Growth-Related"	Education	Public Health	Transport and Communication
Newfoundland.........	12.2	8.3	8.3	4.9	6.9	14.6
Prince Edward Island..	8.8	9.8	3.4	0.3	10.4	2.5
Nova Scotia...........	8.6	8.9	8.5	7.3	8.5	8.2
New Brunswick........	10.0	8.1	7.7	9.0	6.9	8.0
Quebec................	10.9	14.0	17.6	12.9	14.0	27.0
Ontario................	10.1	9.4	8.6	11.0	6.4	8.6
Manitoba..............	10.3	7.5	6.7	3.3	6.7	6.0
Saskatchewan..........	8.2	9.3	9.3	7.4	14.1	8.7
Alberta................	5.5	6.4	6.1	10.9	6.4	0.4
British Columbia......	8.0	5.9	5.6	9.7	6.0	0.1
Indexes of Disparity (%)						
1961-62..............	18.1	15.1	17.2	22.0	19.2	22.0
1965-66..............	13.8	13.9	16.8	28.3	21.8	17.6

NOTE: Revenues raised by provinces under provisions of the Established Programmes (Interim Arrangements) Act are classified as derived from federal sources. Revenues and expenditures include federal shared-cost contributions.

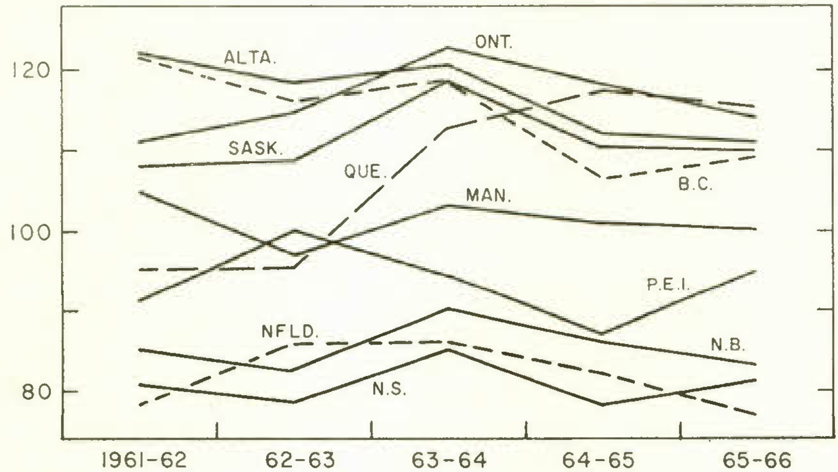
SOURCE: Based on data from Dominion Bureau of Statistics and provincial budget estimates.

As may be seen in Charts 7-4 and 7-5, Ontario and the three most westerly provinces have maintained their consistently high standing; Manitoba has remained in its central position; and the four lower-income, lower-tax-capacity provinces of the Atlantic area have improved their relative positions by only the narrowest of margins. Quebec, however, has been a most striking exception. This region has experienced a growth rate in provincial-municipal outlays about twice as great as the average for the other regions. It has moved, in five years, from a below-average position to about the top rank in expenditure per capita on regional services. Over the same period and for the whole group of regions, however, the index of disparity has declined

CHART 7-4

PROVINCIAL-MUNICIPAL GOVERNMENT EXPENDITURES PER CAPITA

(AVERAGE FOR PROVINCES = 100)



Note: Expenditure data comprise provincial-municipal net general expenditure and federal shared-cost contributions.

Source: Based on data from Dominion Bureau of Statistics and provincial budget estimates.

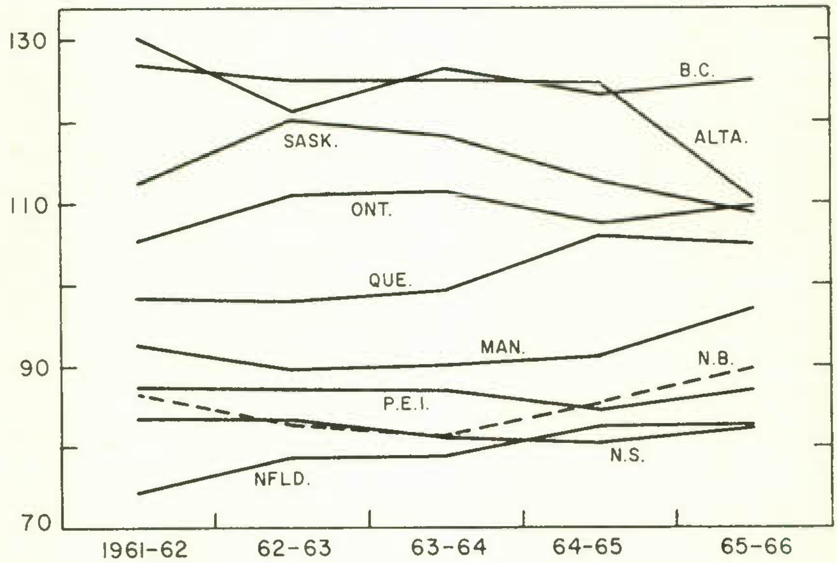
by only one percentage point. Similarly, as indicated in Chart 7-4, the relative expenditure gap between the lowest and highest regions —about 40 per cent—has shown only a marginal narrowing.

A preliminary functional breakdown of provincial-municipal expenditures confirms the relatively great weight in these outlays, of requirements for public programmes in education, public health, transportation and communication, and natural resources and primary industries. In most of the regions, support for what we have called "growth-related" services has paralleled the increase in total expenditures. Because of a number of exceptions, however, the positions of the regions for such expenditures have tended to shift somewhat more than in the case of total outlays. Quebec, again, is a conspicuous case. Outlays for education, transportation and health have grown very rapidly in this region. On the other hand, British Columbia, Alberta and Prince Edward Island, all of which started from high levels, have tended to lose ground in relation to the other provinces in one or more of these functions. Despite such shifts, however, both the relative

CHART 7-5

PROVINCIAL-MUNICIPAL GOVERNMENT REVENUES PER CAPITA

(AVERAGE FOR PROVINCES = 100)



Note: Revenue data comprise net general revenues and federal shared-cost contributions.
Source: Based on data from Dominion Bureau of Statistics and provincial budget estimates.

spread among the regions and the range from bottom to top, have narrowed only very slightly. Notwithstanding the prolonged and substantial economic expansion across the whole country, a significant gap has persisted between the Atlantic area particularly and the rest of the country in provision for those public services most closely related to long-term growth. It is especially disturbing that disparities among the provinces in per capita expenditures on education have tended to widen, rather than contract, over the recent period (see Table 7-7).

The experience of the past half decade also underlines the growing importance of federal transfers in underpinning the provision of regional public services in the lower-income regions, and the essential role of the federal government in helping to ensure the availability of a minimum level of these services in all parts of the country. As indicated in Chart 7-5, the spread among the provinces of per capita revenues from all sources narrowed to an appreciable degree between 1961 and 1965. The index of interregional disparity declined, in fact, from over 18 per cent to less than 14 per cent over the period. But revenues raised by provincial-municipal governments from what might be called their own sources have continued to be much more variable among the regions, and interregional differences tended to widen over the course of the economic expansion. This divergence was more than offset by the growth of federal transfers which increasingly favoured the lower-income areas. Since 1961, these transfers have risen by about one fifth or more for six of the provinces. By 1965 the Atlantic group depended upon federal contributions for from 36 to 60 per cent of their total revenues. In contrast, the three highest income regions relied upon federal sources for only about 12 per cent of revenues, a ratio little changed from the beginning of the period.[1] The new federal proposals on revenue equalization payments to the provinces and cost-sharing in joint programmes indicate a continuation and further development of this pattern of support for regional public services.

REGIONAL PARTICIPATION IN NATIONAL EXPANSION

Our review of broad interregional differences in the exceptionally long and vigorous expansion of the Canadian economy since the early 1960's should not be allowed to obscure the fact that the benefits of the advance have been quite widely diffused throughout the country. All of the regions have participated in the growth of income and the rise in living standards, and they have achieved rates of increase on a per capita basis considerably higher than their long-term historical experience. The growth in employment and the reduction in unemployment has been widespread. The capital investment boom has extended to all regions, and a substantial expansion of provincial-municipal services has been accomplished. Of particular interest is the tentative evidence of interregional convergence in earnings per employed person, implying, as it does, some moderation in the wide differences in productivity levels among the major regions.

[1] For 1965–66, preliminary estimates of federal contributions as percentages of total provincial-municipal revenues ranged as follows: Newfoundland, 60; Prince Edward Island, 53; New Brunswick, 43; Nova Scotia, 36; Manitoba, 23; Quebec, 22; Saskatchewan, 19; Alberta and British Columbia, 13; Ontario, 12.

It is clear, nevertheless, that the inherent diversity of the country has also made for widely different patterns and an uneven pace of development among the various regions. Briefly stated, the strongest and most diversified gains have been achieved in the two highest-income regions, Ontario and British Columbia, where broadly based expansion in total income and employment have enabled these provinces to maintain a substantial lead over the rest of the country.

In Alberta, although income and employment growth were sustained at high levels, the rate of advance relative to the total economy tended to moderate in some degree. The economies of Saskatchewan and Manitoba developed along somewhat divergent paths. In the former, exceptional grain crops and markets, and further strong growth in mining, gave a strong boost to income levels, in contrast to slower over-all development in Manitoba. Generally in the Prairies, there continued to be a large-scale movement of persons off the farm, to employment both within and without the region.

The Quebec experience since 1961 has been greatly varied, with a vigorous advance in certain sectors and sub-regions, but relative weakness in a number of other respects, notably in manufacturing employment and business investment. There was also a comparative lag in the income generated by the agricultural sector while the level of provincial unemployment remained relatively high.

For the Atlantic Region, the picture has been similarly mixed. Over all, New Brunswick and Prince Edward Island have shown relatively stronger growth than Nova Scotia, in spite of the significant advances in manufacturing employment achieved in the latter province. In Newfoundland, encouraging gains in employment in a number of industries occurred, but with a very high rate of population growth the increase in per capita incomes lagged behind the national average.

For the Atlantic Region as a whole, and to a lesser extent in Quebec, a continuing failure to make full use of available manpower and a resulting drag on the growth of per capita incomes have been evident. Consequently, although the economy as a whole was approaching capacity output in 1965, evidence of slack in these areas was still apparent. Notwithstanding the high mobility of resources in Canada, in a country as diverse as this it seems almost certain that levels of utilization of capacity will inevitably differ among the regions. It underlines the extremely difficult problem of how to adjust broad policies for stabilizing the national economy and yet take account of important differences in regional situations.

PROBLEMS OF NORTHERN DEVELOPMENT

It is appropriate in this discussion of regional growth and national economic expansion to include a reference to the Canadian North. This past summer, on the invitation of the Minister of Indian Affairs and Northern Development, Council members were most fortunate in being able to visit various centres in the North, travelling from Baffinland in the east, across the fringe of the high Arctic to Inuvik in the Mackenzie Delta, over the rugged terrain of the Yukon to Dawson and Whitehorse, and thence eastward through Northern Alberta and across the subarctic regions of the Northwest Territories to the port of Churchill on Hudson Bay. Our hurried 7,500-mile "junket"—as a northern editor tartly described it—could not be expected to provide time for searching inquiries into conditions and prospects in such a far-flung and difficult frontier area. But it gave us an unforgettable opportunity, through "on-the-ground" observation and first-hand personal experience, to acquire some insight into the general situation in the North, in a way that no other method of study could provide. We learned of the progress being made and secured a better appreciation of the efforts and hopes of Northern residents. We came away with certain distinct impressions.

It is apparent, first, that while it is customary to speak of the North as a vast single region of severe climate, empty distance, and harsh geography, it is in fact an area of very considerable diversity. It comprises a significant number of different regions, or subregions, marked by quite diverse geographic and climatic conditions, possessing varying potentials, facing differing problems, and entering into different stages of economic and social development. Any over-all policy for developing the North must necessarily take adequate account of this diversity, and selective programmes must be adapted to the particular needs and prospects of the varied subregions.

A second distinct impression is that while the land is vast, virtually unpopulated, and forbidding in many aspects, it undoubtedly possesses significant resources. True, the importance of renewable resources of agricultural land and forests is very limited. But there is no question of the presence of rich and varied mineral resources, including iron, base metals, industrial minerals and fuels. A number of important deposits have already been successfully brought into production; others have been located and are being tested; and the probability is great that further exploration and investigation will continue to yield new and important finds. The whole process of discovery would be stepped up by increased research and the further development and application of new techniques for exploration.

The longer-run development of the North depends essentially upon the success achieved in the economic exploitation and use of these mineral resources. In this regard it seems clear that some subregions are now approaching the stage of commercial utilization much more rapidly than others. This is generally true of the Yukon and parts of the Western Arctic, not only because more is known as to the existence and quality of resources in these places, but also because difficulties of access, transportation and climate are less formidable than in other areas.

Even for the more favoured subregions of the North, however, there are two major obstacles to be overcome. The first is the problem of providing transportation and of undertaking the very large capital investments involved in the building of the transport facilities needed to move heavy, primary commodities over long distances to potential markets. The steady extension of such transport links, probably pushing up through the northern reaches of some of the provinces, may well be expected; but careful, long-run national planning will be essential to ensure the best use of available funds and to avoid potentially costly errors. The second problem is equally important. It will require imaginative approaches and special efforts to deal with the particular difficulties of living and working on a permanent basis under northern conditions. This is not just a matter of overcoming a relatively inhospitable climate and supplying the conventional amenities, but even more of providing the kinds of advanced services and the social environment which will help to alleviate a sense of isolation from the advantages of modern urban life. Unless these difficulties can be resolved, it is hard to see how the human resources and human skills necessary for productive development can be attracted and successfully held in the new communities of the North.

Finally, no visitor to the North can help but be seized by the serious plight of the native people. Whatever the reasons, the impact of modern civilization upon the culture and way of life of the Eskimo and northern Indians has been sudden, drastic and disruptive. Their problem today is both difficult and urgent. The need to improve their economic and social condition, and at the same time to assure them of a rightful participation in the future development of the North, constitutes a pressing challenge to the people of Canada today. As a Council, we hope by means of future studies to contribute to the increasing efforts of the Department of Indian Affairs and Northern Development to respond to this challenge, and to explore ways for effectively promoting development in the North in a manner which will enhance over-all national growth.

REGIONAL GROWTH AND CO-ORDINATION OF FEDERAL POLICY

Our analysis of the past half decade shows that, all of the regions have participated in the strong and sustained expansion of the national economy. The relative positions of each region and the degree of income disparity among them, however, has hardly changed at all. This experience thus accords closely with the longer-run situation considered in greater detail in the *Second Annual Review*. Indeed, the diversity of experience across the country throughout the recent period of growth has confirmed the basic pattern of regional strengths and weaknesses outlined in our earlier analysis, which traced underlying factors and trends over a period of 40 years. Whether viewed in the context of history, or only in the light of the circumstances of the recent past, therefore, the problem of narrowing income gaps among the regions remains essentially the same. It reaffirms the conclusion that a better regional balance in national growth, in a manner consistent with our other national goals, can only be achieved through new and special efforts deliberately focused upon this compelling objective.

The historical and more recent evidence shows that the key requirement in comprehensive, long-run regional growth policy is to increase opportunities for high-productivity employment and bring about a rapid and widespread improvement in productivity in the lower-income provinces. To this end, we have previously urged public policies to accelerate investment in human and natural resources and in growth-promoting social capital in these regions; to assist in developing employment alternatives as rapidly as possible as a substitute for subsidies presently used to prop up low-productivity industries and declining occupations; and to encourage the growth of efficient concentrations of economic activity "in order to achieve increasing economies of scale, larger markets, and more useful pools of skills".

We have also emphasized the importance of close co-ordination in the formulation and implementation of consistent regional development policies and programmes among all levels of government. In recent years, impelled in part by the problems of slow growth and

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high unemployment experienced at the turn of the sixties, all of the provinces have taken more vigorous steps to promote the growth of their separate economies. Many innovations in attitudes, policies and specific measures have been evident. At the federal level in turn, several departments have expanded long-standing development programmes or established entirely new measures usually oriented towards particular aspects of regional growth. However, a unique departure of major importance has been the creation of the Atlantic Development Board, which, apart from its capital grants programme, is explicitly engaged in the development of a comprehensive, long-term plan aimed at the expansion of employment and the increase of productivity needed to raise relative income levels in the entire Atlantic Region. In this regard, the Atlantic Development Board is consulting with this Council as well as with other bodies.

Heightened concern and new efforts directed towards regionally balanced development accentuate the need for careful clarification of function and responsibility and for collation and co-ordination in policy. No doubt all of the characteristics of the country which make the issue of regional balance itself so difficult—sheer physical distance and diversity, a federal constitution, and the need to have adequate regard for free institutions—also compound the problem of evolving and executing appropriately integrated programmes embracing a large number of agencies and government departments. But the inescapable alternatives to effective consultation and co-ordination are conflict, confusion, waste, frustration and ultimate failure of policy.

Continuous and effective federal-provincial liaison is undoubtedly an overriding requirement. This is a fundamental issue which has been receiving increased attention from both levels of government. It is one upon which we hope to comment in a future review when our programme of research into the regional impact of federal policies is further advanced. In this regard, an important issue is the extent to which the objective of improved regional balance requires that account be taken of the specific regional impacts of broad national economic policies such as those in the fiscal, monetary, commercial and transportation fields, when these policies are being formulated and put into effect.

At this stage, however, we draw attention to one major aspect of the over-all problem—the importance of developing a deliberate and consistent focus upon the regional problem within the area of *federal government operations in themselves*. This is not meant to suggest that a high degree of liaison and communication is not frequently maintained among the operating departments and agencies in dealing with their respective functional programmes and particular projects. Mutuality of interest, reliance upon scarce, specialized skills, and practical common sense impel co-operation within specific operations. But the objective of regionally balanced growth, as we have defined it, raises the larger issue of attempting to assess the total potential impact of numerous separate programmes upon a particular region, and of bringing them together in the most consistent, efficient manner. The question might be illustrated, for example, simply by asking whether and how such federal activities as the rural adjustment and relocation programme of the Department of Forestry and Rural Development, the manpower training and mobility measures of the Department of Manpower and Immigration, the area industrial grants and incentives of the Department of Industry, the transportation subsidies of the Department of Transport and the capital grants of the Atlantic Development Board, are all brought together, along with other federal activities, in a consistent, mutually reinforcing way in helping to raise levels of productivity and income in the Atlantic Provinces.

In a general way, the need for co-ordination among numerous federal operations involves three main stages: (1) the formulation and consideration of consistent programmes as they affect or are directed towards regionally balanced growth; (2) communication from and the delegation of effective authority to regional administrative units of federal departments; and (3) the meshing together of specific operations by federal departments and agencies within the region.

Before policies can be translated into operating programmes, they must of course be conceived and broadly designed. It is usually the responsibility of the interested department to bring proposals forward for government approval as far as individual functions are concerned. But, as we have stressed, an appropriate regional focus implies the assessment of a number of programmes and their reconciliation for maximum effectiveness and consistency in results. This suggests the need for collation and analysis of activities in a horizontal or area perspective, as well as from a vertical or functional point of view.

Such collation and appraisal of federal government activities clearly belongs not in any one operating department but within the central machinery of government. In the present organizational framework, one obvious possibility for assuming this responsibility is the Treasury Board. The Board has as one of its main duties the detailed study

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of all operational proposals from departments. Hence it would appear to be in an excellent position to extend this examination to appraise the over-all regional impact of all federal operations, draw attention to conflict or inconsistency between departmental proposals, assist in clarifying the functions and responsibilities of different agencies, help in avoiding duplication of effort and expenditure, identify gaps which might well be filled under existing policies, and generally assure adequate interdepartmental communication.

Beyond the need for better co-ordination of federal policies and programmes, it is also necessary to provide an improved administrative framework to assure the consistent yet appropriately flexible implementation of programmes in the field. Most federal departments already have branch organizations, but they are not necessarily related to effective regional administration or decentralization. The execution of programmes focused upon the central objective of supporting regional economic growth, however, hinges in large measure upon an organization deliberately structured and adequately staffed to provide for both the interpretation and sensitive application of central policy in a manner suited to the particular regional situation, *and* the forceful communication of the particular needs of the area concerned to the centres of policy formulation.

In recent years there has been an encouraging trend for the administrative structures of a number of federal departments and agencies to move in just this direction. It has come about not only because of the practical demands of the administrative situation but also because of a growing realization that a high degree of departmental centralization and decision-making may be inappropriate in adapting federal programmes to the particular needs of widely diverse regions. Other government agencies are actively exploring possibilities for reorganization of this type. A movement of this kind might well be assisted and stimulated if our suggestion for an active co-ordinating unit in Ottawa, perhaps in the Treasury Board, is further explored. Notwithstanding the difficulties which arise from the diverse nature of field operations, moreover, one of the useful results might be an attempt to reach agreement among different departments upon the definition of standard administrative regions, or tiers of regions, and the location of regional headquarters.

Finally, study is required of possible techniques for effective interdepartmental integration of federal operations at the field level. The prospect of a number of regional administrations vested with greater independence and authority proceeding to exercise their own functions without regard to other related government operations in the same area is a danger that must be avoided. The Glassco Commission drew attention to this difficulty a number of times in its report. But the answer to field co-ordination is not easily found, particularly where departmental activities are superficially quite disparate and range over distinctly different areas of involvement.

It seems to us, however, to be a fruitful area for experimentation and improvement. For example, to the extent that it is possible to define reasonably comparable administrative regions, we suggest the formation of an interdepartmental co-ordinating committee in each region, comprised of senior regional administrators and formally constituted by Treasury Board minute or Cabinet directive. In the initial stages, it might be appropriate for the government to appoint the committee chairman, perhaps from among the group of regional administrators themselves. The explicit function of the committee would be to maintain continuous interdepartmental liaison and co-ordination in field operations. Initially it should be provided with a secretariat, including a full-time secretary, who might well be an officer of the Treasury Board. The committee would also be responsible for an annual report to the Board advising upon the totality of federal government activity in the area and its relationship to the problems and needs of the region. As further experience is gained, consideration might be given to a more formal co-ordinating structure which might assist in better policy-planning.

We advance these suggestions not on the basis of exhaustive research and study, but simply because it appears urgent at this time to stimulate efforts towards better integration of federal regional operations. In the course of our work, increasing concern has been expressed to us by federal and provincial officials and by the general public that the expansion of programming for regionally balanced growth is not likely to yield the best possible gains unless integration and co-ordination are accepted and carefully cultivated as basic requirements. We are aware, moreover, that there are larger problems of harmonizing federal operational programmes not only with broad monetary, fiscal and commercial policies at the federal level, but also with active development programmes being carried on by the provincial governments. As previously noted, we hope in due course to report upon these larger issues. But it is plain to us that comprehensive, long-run federal policy requires as a first step that the federal government should make sure that its own efforts are soundly conceived and effectively co-ordinated.

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