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Twenty-Fifth Annual Review

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Economic Council of Canada
Twenty-Fifth Annual Review
1988

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Contents

Members of the Economic Council of Canada vii

Foreword ix

Executive Summary xi

1 Taking Stock 1
Longer-Run Trends 3
Commodity Prices 3
New Industries and New Skills 4
New Sources of Economic Power 6
An Outline of the Review 7

2 The Medium-Term Outlook 9
Three Areas of Concern 9
Current-Account Imbalances 9
The U.S. Budgetary Deficit 11
Third World Debt 12
The Economic Outlook 14
The United States 14
Canada 16
Trade-Offs in Economic Performance 19
Growing Regional Differentiation 20
Fiscal and Monetary Policy 22
The Savings/Investment Nexus 24
Conclusion 25

3 Labour Markets in Transition 27
Mismatching in the Labour Market 27
The Commodity Shocks 29
Regional Industrial Structure 31
Policy Factors 33
Summary 33
Sectoral Shifts and the Labour Market: The Case of the Service Sector 34
The Growth in Service Employment 35
The Job-Quality Issue 35
Meeting Skill Requirements 38
Conclusion 39

4 A Window on the Longer Term 41
Linkages between Global Systems 41
Economic Development and the Environment 42
Systems Linkages and Policy Making 43

The Emerging World Economic System 45
Convergence 45
Differentiation 45
Multipolarity 45
Interdependence 46
The Service Sector 47
International Governance 47
Canadian Choices and Policy Options 49
Competing in the International Marketplace 50
Enriching Human Resources 50
Education and Training 52
Organizational Change and Industrial Relations 52
Distributional Issues 53
Conclusion 54

5 Priorities, Targets, and Objectives **57**
Setting Targets 57
The New Targets 58
A New Policy Mix 61
Enhancing Competitiveness 62
Strengthening Human Resources 63
Education 64
Labour-Market Programs 64
Industry Action 65
Local Initiative 66
Conclusion 66

Comments **67**

Appendixes

A Additional Tables **71**
B Measures of Employment-Income Inequality **77**

Notes **79**

List of Tables and Charts **83**

Project Contributors **85**

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Foreword

When the Economic Council of Canada was launched in 1963, the country was beginning to recover from an extended period of recession. From the vantage point of hindsight, we observe that the Council, and Canadians generally, were justifiably optimistic at the time, because they were about to enter one of the longest and strongest periods of domestic economic expansion on record.

The Council's mood as it celebrates its 25th anniversary is a more cautious one, for two reasons: the continuing instability in the international economic environment; and the need to recognize not only the risk of escalating prices but also the danger of recession in a domestic economy now well into its sixth year of expansion.

At this stage in the cycle, it might be tempting for Canadians to simply set their sights on the rather short-range objective of avoiding the hazards of both inflation and recession. Those are important goals. But it is the Council's role to encourage Canadians to look beyond the short term. Accordingly, this Review examines the events of the past quarter-century, as well as – looking ahead to the turn of the century – the potential trends in the global economy. Our analysis sets the background needed to update our targets for economic performance (which were last revised in 1983) and to recommend the policy priorities that will help Canadians to meet these targets. Taken together, the new targets and policies constitute a call for Canadians to return to the fundamentals of sound economic performance. The Council's main message is that Canada must build the resilience needed to face unforeseen events that are the inevitable by-product of a changing world economy.

This 25th Review has been prepared under the leadership of Keith Newton and Ross Preston, both Senior Research Directors at the Council. They have drawn upon the inputs of researchers from a number of project teams; on behalf of the Council's members, I thank them for their energy and commitment.

Judith Maxwell
Chairman

Executive Summary

The Economic Council's 25th anniversary provides an opportunity to take stock – to look back over the performance of the past 25 years and ahead to the challenges that the next century will pose.

Canada is much richer today than it was 25 years ago. More Canadians are working; output per worker has increased by nearly 50 per cent; and personal income per capita has doubled. The quality of life has also improved in important respects: consumer goods and services are more accessible; there is a richer Canadian culture; and people live longer and have more leisure time.

The record of the last quarter of a century is by no means unblemished, however. Growth has been interrupted by recessions; unemployment rates have trended persistently upward; real wages have declined since the mid-1970s; and the public debt has mounted.

The 1970s, in particular, were marked by poor performance, reflected in low productivity growth, high rates of inflation, declining competitiveness, and outflows of equity capital. But for much of the decade, these weaknesses were concealed by rising resource prices, which added to real incomes. The depreciation of the Canadian dollar after 1976 also helped to mask the loss of competitiveness in many industries. Thus the global economic recession of 1981-82 hit Canadians particularly hard, because they had for too long neglected the basics of sound economic performance.

The news has been better more recently. Six years of expansion have produced a modest revival in productivity, over a million new jobs, a slower rate of price increases, and a strengthening of corporate balance sheets. Many firms have also enhanced their competitiveness, using new technologies to revitalize their operations.

So, much has been accomplished, but there is still much to do, especially on the unemployment and budget-deficit fronts. Furthermore, there are signs of overheating that could cause a breakout of inflation, as well as fears that the long period of growth may be coming to an end.

One lesson that we draw from our consideration of past performance is that the unexpected has become commonplace. Sudden swings in energy prices, dramatic changes in the prices of other commodities, and interest-rate and currency gyrations, for instance, explain much of what has happened in the last 25 years. We cannot forecast the shocks that will be experienced in the years ahead. But in setting targets for the economy – and in planning policy – provision can at least be made for the impact of the unexpected, so that the economy will have the resilience to adjust.

Setting Targets

Against this background, the Economic Council has established new targets for medium-term economic performance. The old targets were set in 1983, in the light of the post-

recession conditions that then prevailed. The new targets reflect current conditions – including, in particular, the fact that there are fewer underutilized resources today than there were in 1983. They also reflect ongoing structural changes in the economy.

The Council's current projections for the economy – our base case, based on the "most probable" assumptions for the period 1988-92 – indicate that actual performance will meet some of the new targets. For example, with moderate growth, the economy will be able to avoid recession and rapidly escalating rates of price increase. But economic performance will fall short of other targets in the absence of a shift in domestic policies or priorities. In the case of the unemployment rate, for example, more effective implementation of structural policies will be necessary.

In itself, these potential shortfalls in performance are not surprising, since the purpose of setting targets is to stretch the capabilities of all participants in the economy – labour, management, governments, and other groups. The new targets are indeed ambitious. We know that they will be tough to meet. But we also believe they are feasible.

If current policies continue, the Council projects that productivity growth will be significantly below target; the unemployment rate and the federal deficit will remain too high; the average inflation rate will also be a little over target; and the objective of balanced growth in the regions is unlikely to be achieved. On the other hand, the targets for real GDP growth, employment growth, and reliance on foreign capital will be met. In the box, we compare the new targets with those established in 1983 and with our base case.

The Council recommends three closely related priorities for policy that, together, constitute the fundamentals of better economic performance. A commitment to these priorities over the next five years would bring Canada much closer to the new targets. If Canadians go back to the basics today, they will leave a much richer legacy for the challenges of tomorrow.

A New Policy Mix

The first priority is to change the mix between fiscal and monetary policy over the medium term, putting more restraint on the former and thus allowing the monetary authorities to be more accommodating. The current fiscal régime, with large budgetary deficits year after year, puts an inevitable upward pressure on interest rates and on the external value of the Canadian dollar. These pressures in turn have adverse consequences for the unemployment rate, regional disparities, investment, productivity, and the amount of public debt. A tighter fiscal stance would thus offer numerous advantages in meeting the new targets.

Enhanced Competitiveness

The second priority is to focus more attention on competitiveness. Governments can *promote* competitiveness through policies that open doors to new export markets, foster the rapid diffusion of technologies, and give a high priority to education and training. Thus, in addition to backing the Canada-U.S. Free-Trade Agreement, the Council strongly supports efforts, such as those within the current Uruguay Round of multilateral trade negotiations, aimed at promoting liberalized trade in goods, services, technology and information flows, and agriculture. Various institutional initiatives to give science and technology a higher profile – for example, the creation of the National Advisory Board on Science and Technology – are also welcome.

Performance Targets and Projections

	Targets set in 1983	Base-case projection for 1988-92	New targets for 1988-92
		(Per cent)	
Growth in:			
Productivity	1.5 to 2	0.7	1.5 to 2
Employment	2 to 3	2.1	1.5 to 2
Real GDP	3.5 to 5	3	3 to 4
Level of:			
Unemployment rate	6 to 8	7.6	5 to 7 by 1992
Inflation rate	5 or less	4.4	4 or less
Federal deficit as a proportion of GDP	Reduction	4	2.5 or less by 1992
Net capital inflows as a proportion of GDP	2 or less	1.4	2
Social programs	Maintain objectives and substance of social programs; improve efficiency; and, where possible, fill the most urgent gaps	. . .	Same target as in 1983
Regional development	Balanced growth, employment opportunities, and social infrastructure	. . .	Same target as in 1983

But only industry can *be* competitive, and industry needs concrete benchmarks against which to gauge its own performance. The Council therefore recommends that firms, working through industry associations, develop a variety of industry-, product-, or technology-specific indicators. Some firms and associations are already doing this, with impressive results. Many more should be doing it. The Council also emphasizes the need to improve productivity in the service industries and to strengthen Canada's technology performance, which is weak compared with that of its major trading partners. We further suggest that federal agencies undertake periodic surveys in both the goods and service sectors to measure

Canada's progress in technological innovation and diffusion – an area in which the Council did pioneering work in 1986.

Strengthened Human Resources

The third priority is to strengthen human resources as the most effective way of reducing the deadweight cost of long spells of unemployment, bottlenecks in production caused by skill shortages, and the high cost of income support for the unemployed.

The Council is concerned that educational institutions are losing credibility at a time when they should be part of the strategic effort to upgrade the quality and adaptability of the work force. The Council is also troubled by the fact that federal-provincial jurisdictional problems have delayed action on programs and prevented an overall agreement on objectives for human-resource policies.

In general, human-resource policies must be tailored to the needs of individuals and of the communities in which they live. As far as federal labour-market programs are concerned, the Council believes that their objectives are appropriate, but it raises three issues that have yet to be resolved: 1) the effectiveness of the programs in reaching the people who need help; 2) the resistance of some institutions of higher learning to the provision of customized courses aimed at meeting the needs of local employers; and 3) the treatment of older workers, who appear to be one of the groups most disadvantaged by changes in the economy.

The Council strongly supports efforts to enhance industry participation in training, whether in the workplace, in local community colleges, or through various types of training leave. Finally, the Council points to the advantage of using local initiative to tap the unused potential of Canada's regions.

The Medium-Term Economic Outlook

The budgetary and current-account deficits in the United States, the large current-account imbalances among the industrialized countries, and the large Third World debt ($1.2 trillion) all entail potential disruptions to financial and currency markets that could seriously affect the outlook for all economies, including those of Canada and the United States.

In reviewing the prospects for the next five years, the Council begins with the U.S. outlook, since what happens south of the border will have a major influence on events here in Canada. The Council points out that a slow-growth, medium-term scenario for the United States, involving a recession, is a distinct possibility. A "high-growth" scenario, in which the United States would "outgrow" its twin deficits, has a lower probability of being realized; it would also add to the risk of sharply accelerating inflation. A change in policy mix, consisting of a reduced U.S. budget deficit, accompanied by an easing of monetary policy and some further reduction in the U.S. exchange rate, would help to reduce the twin deficits of the United States, and it would also help Canada through a lowering of interest rates. The "most probable" scenario, however, is one where sustained foreign capital inflows keep financing the twin deficits, thus enabling the United States to avoid the kinds of tough fiscal measures that would constitute a major component of a solution to its economic problems. This last scenario, which includes a slowdown in growth in 1989 and 1990, forms the backdrop for our projections for Canada.

Here in Canada, the economic expansion has reached the stage where there are dangers from two directions: rising rates of inflation, and a possible recession. These dangers are linked, in that the fear of escalating rates of inflation – or the reality of it – could easily prompt a response by the monetary authorities that would result in higher interest rates and, ultimately, a recession. Nonetheless, we believe that with sound economic management the worst of both of these dangers can be avoided. For this reason, the Canadian base case projects moderate real growth – an average of 3 per cent annually for the period 1988-92. This is expected to lead to an unemployment rate of 7.3 per cent and an inflation rate of 4 per cent by 1992. Labour productivity is projected to grow, on average, by less than 1 per cent per annum, with little change being expected in real wages. The federal deficit as a proportion of GDP is expected to decline only slowly – from 4.3 per cent in 1988 to 3.7 per cent in 1992 – and the current-account deficit should range between 1.3 and 1.6 per cent of GDP over the period.

The most controversial issue in the base case is the inflation outlook. Many of the current indicators are unsettling (e.g., the renewed rise in the prices of commodities other than food and oil; some overheating in southern Ontario; a tightening of labour markets; and credit growth). The upward pressure on prices is greater than what we have seen since 1981.

Nonetheless, the Council does not believe that there will be a return to the high inflation rates of the 1970s. Our view is that inflation pressures will be contained, with the rate of increase in consumer prices peaking at just over 5 per cent in 1989. A number of factors underlie this forecast. One is that the base case assumes some tightening in monetary policy. A second is that the current oil glut and high grain stocks will contain price increases in the energy and food areas. A third factor is that price and wage decisions – by business and labour – still appear to be influenced by the painful lessons learned in the 1981-82 recession. Business seems to have focused on cost and quality control to beat the competition; and labour has been more concerned with work rules, technological change, and job security than with wage settlements.

While the overall performance suggested by the base case is far from satisfactory, it reflects judicious trade-offs between conflicting goals. For example, faster growth, unless achieved through better productivity performance than the Council now anticipates, would lead to an acceleration of inflation and a deterioration in the current account of the balance of payments, without making much progress in reducing the unemployment rate or the federal deficit. Conversely, slower growth would lower the inflation and current-account risks but would lead to a deterioration in the federal fiscal position and in unemployment.

Slower growth than projected in the base case could increase the disparities in regional unemployment rates – disparities that have already widened in the 1980s. This widening appears to be associated with the shift in employment from goods production (mainly mining and manufacturing) to service production. The shift in the nature of new job opportunities has significantly increased the mismatch between people looking for work and the jobs that are available.

Mismatching in the Labour Market

Since 1960, Canada's unemployment rate has been climbing. The principal reason for this increase has been changes in industrial structure leading to a growth in labour-market mismatching. Over this period, the Canadian labour market has drifted into a situation characterized by more unemployment and more job vacancies.

This increase in mismatch is rooted in the commodity shocks of the 1970s and 1980s, as well as in the high interest rates and recession that the second oil shock (1979) helped to trigger. The result was reflected in an acceleration in the rate at which jobs disappeared, especially in the goods-producing industries, as well as a radical shift in the nature of the jobs being offered.

The growth in long-term unemployment was also a reflection of the growing structural mismatch. The proportion of the unemployed who had been without work for 53 weeks or more increased dramatically, rising from between 4 and 5 per cent in 1980-82 to around 10 per cent in 1983-87, and it has only recently begun to decline. The proportion of older workers among the long-term unemployed also rose during this period. Long-term unemployment has been most prevalent in the regions that have undergone the most severe industrial restructuring in the 1980s – namely, Quebec and British Columbia.

In the beginning of the 1980s, with the recession, all five regions experienced an acceleration in the rate of transition from goods production to services. But as the national economy subsequently picked up steam, the amount of structural unemployment persisted the longest in the less-diversified eastern and western provinces. Their economies were the least able to absorb the workers forced out of the goods-producing industries.

Although employment growth in the service sector has been strong in all provinces during the recovery, many of those who lost their jobs lacked the skills or the mobility to make the needed transition to new jobs. In the meantime, the skill requirements of the service sector have themselves been changing rapidly. While service employment is commonly perceived to be unskilled and low-paying, a growing proportion of it consists, in fact, of high-skill, high-paying jobs in the financial sector; in business services; and in transportation, communications, and utilities.

The service sector itself faces major challenges in meeting its skill requirements. The job opportunities in low-skill occupations will continue to grow, but fewer women and young people (who traditionally filled these jobs) will be available. Indeed, the number of young people will decline sharply by the mid-1990s. As for the high-skill jobs in the service sector, the problem will be to find workers with the necessary advanced education or training.

Given this mismatch between new job opportunities and the skills of unemployed workers, we conclude that the most effective way to get the unemployment rate down is to concentrate on human-resource policies, including programs that are targeted at the requirements of local markets.

Window on the Longer Term

The Council's 25th anniversary provides us with an opportunity to look ahead to the year 2000 and to the early decades of the next millennium. The challenges facing mankind will, in many ways, be very different from those which prevailed in the decades following the Second World War. Three major differences are that: 1) the nations of the world will need to develop a general strategy for coping with the linkages between the major global systems – economic, technological, geopolitical, demographic, and ecological; 2) in shaping domestic economic policy, Canadian decision-makers will also have to take account of the relationships between global systems and, to a greater extent than is now the case, of trends in the global economy; and 3) the evolution of the world economy – the convergence of living

standards and continued economic development in the newly industrialized countries – will reinforce the need for Canada to become more competitive. Given this context, the key policy instruments will be trade, technology, and human-resource development.

While the key issues of tomorrow will be different from those of the past, there are strong parallels with those flowing from our analysis of the medium-term outlook. Productivity, competitiveness, education, and training will be vital ingredients for better Canadian performance in the medium term; they will also be essential for Canadian prosperity in the evolving world economy. This means that Canadians will need to tackle some fundamental weaknesses, especially with respect to technological performance. Increasingly, as labour-intensive production shifts to the less-developed countries, the advanced industrialized countries like Canada will need to focus on knowledge-based goods and services. To be successful in those knowledge-based industries, Canadian managers and workers will need first-class education and training.

A well-educated and well-trained labour force that can cope with the impacts of the new technologies and of shifting trade relationships is a necessary, but not sufficient, condition for Canadian economic success. Also necessary is a climate of labour-management relations that is characterized by cooperation, recognition of common interests, and a sense of fairness and humanity. Policies should be designed to improve labour-management relations and to promote organizational change within the workplace.

In a world of rapid change, it is also essential to implement a social safety net that is both effective and fair. With a consensus on the safety net, Canadians will be more willing to adapt to the new economic realities. In this sense, social policy can – and should – be seen not just as a humanitarian concern for the disadvantaged, but also as part of an economic strategy oriented towards success in a global economy.

READER'S NOTE

The reader should note that various conventional symbols similar to those used by Statistics Canada have been used in the tables:

.. figures not available
... figures not appropriate or not applicable
-- amount too small to be expressed
– nil or zero
e estimated figures
x data confidential, to meet the secrecy requirements of the *Statistics Act*.

Details may not add up to totals because of rounding.

1 Taking Stock

The Economic Council's 25th anniversary offers an opportunity to take stock – to reflect on past achievements and to identify future challenges and opportunities. In this Annual Review, we look back over the economic performance of the past 25 years, and we look ahead to the turn of the century, in an effort to anticipate the challenges that must be faced in ensuring that the rising living standards that flow from high rates of economic growth will benefit all Canadians.

On looking back, there is much to be proud of.

Today, Canada is a more productive nation. More Canadians, including many more women, are in the labour force. Output per worker is nearly half again as high as it was 25 years ago, reflecting improvements in skills, tools, equipment, communications systems, and management techniques since the early 1960s. Partly as a result, Canada is also a much richer nation: real personal income has more than doubled since 1963 (Table 1-1).

For most Canadians, the quality of life has improved in many respects. They have greater access to more consumer goods and services, and they enjoy a rich cultural life. In general, people are healthier (or at least they live longer), and they have access to a wider range of educational programs and institutions. They have more leisure time and enjoy many attractive recreational facilities.

It has not all been smooth sailing, however. Economic growth has been interrupted by several recessions, the worst of them occurring in 1981-82. Unemployment rates have persistently trended upward since the mid-1960s, and they remain unacceptably high in many parts of the country. The real wages of the average worker have been declining for more than a decade. Many Canadians still live in poverty or near-poverty. In assuming greater responsibility for delivering services and transfer payments, governments have allowed expenditures to far exceed revenues, and that has resulted in an increase in the burden of debt that will have to be financed by future generations (Chart 1-1). The interest on this debt already absorbs 28 per cent of federal revenues and 12 per cent of provincial revenues. It is quickly constraining the capacity of governments to provide the kind and quality of public services that Canadians have come to expect.

Table 1-1

Selected Economic Indicators, Canada, 1963 and 1988

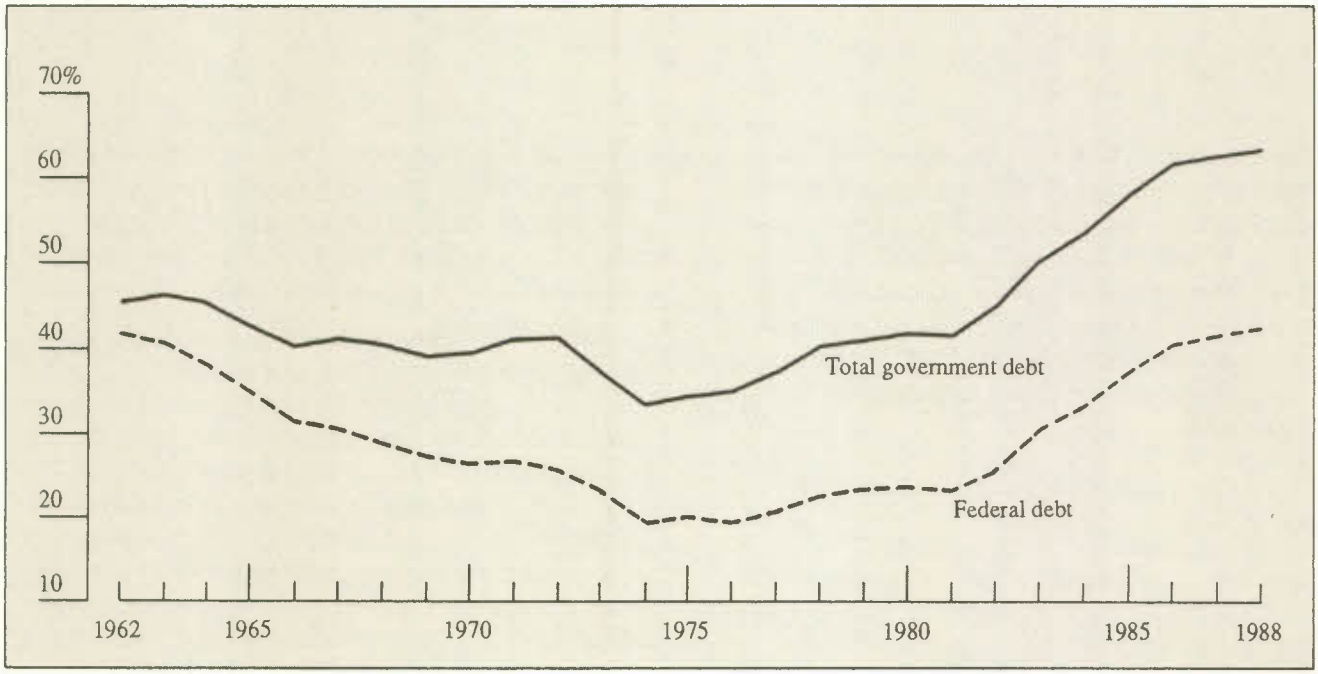
	1963	1988[1]	Average annual rate of change
	(Millions)		(Per cent)
Population	19.0	25.9	1.3
	(Billions of 1981 dollars)		
Real GDP	154.2	440.2	4.3
	(1981 dollars)		
Real GDP per capita	8,126	17,005	3.0
Real personal income per capita	5,733	13,306	3.4
Output per employed person	24,194	35,676	1.6
	(Per cent)		
Employment as a proportion of the working-age population	50.8	60.4	0.7
Government debt (all levels) as a proportion of GDP	46.5	63.0	1.4

1 Projections.

SOURCE Estimates by the Economic Council of Canada, August 1988.

Chart 1-1

Government Debt as a Proportion of GDP, Canada, 1962-88



SOURCE Estimates by the Economic Council of Canada, August 1988.

Other problems have surfaced. For example, we have polluted the atmosphere near many industrial centres; many of our lakes and streams have also been contaminated as a result of industrial activity.

The debt burden and the pollution constitute a costly legacy to future generations. The debt burden represents a serious obstacle to further economic progress, because it substantially increases Canada's vulnerability in the event of an economic downturn. And the high unemployment, which is heavily concentrated in some regions, will be very difficult to overcome.

In many respects, however, the 1980s show a better track record than the 1970s. It was the unforeseen shocks that threw Canada off course during that decade. The 1970s were marked by high inflation, low productivity growth, declining competitiveness, and an outflow of equity capital. For much of the decade, Canadians did not notice that deteriorating performance, because rising resource prices brought generous increases in income, especially in the western provinces; and the depreciation of the Canadian dollar after 1976 made uncompetitive industries appear competitive. The reality did not strike home until unemployment soared during the global recession of 1981-82. The economic downturn hit Canada particularly hard, because corporations and consumers were overindebted, and policies in general had, for too long, neglected the basics of sound performance – productivity, competitiveness, and price stability.

Since 1982, Canada has made progress in restoring those fundamentals, although the private sector seems to have made more progress than the public sector in getting its finances in order. Many firms have also enhanced their competitiveness by using new technologies to revitalize their operations. At the same time, governments have introduced a number of policies – such as tax reform, deregulation, and trade liberalization – designed to place greater emphasis on market forces. Six years of economic expansion have thus produced:

- a modest, but nonetheless welcome, revival in productivity growth;
- the creation of over a million new jobs;
- a sharp deceleration in the rate of inflation to near 4 per cent;
- a modest rise in living standards;
- an improvement in corporate balance sheets; and
- more recently, signs of a recovery in all of the regions.

Canadians must nevertheless remain cautious over the next few years, for two reasons. First, any sustained period of growth eventually tends to lead to the build-up of imbalances in financial markets and bottlenecks in production. The medium-range projections in this Review are therefore preoccupied with two quite different sets of risks. One is the threat of a recession, flowing from the excessive debt burdens of consumers and governments, which could compel them to cut back spending – or which could compel governments to raise taxes – in order to get their finances under control. The other is the threat of a burst of inflation, which could be triggered by shortages of particular commodities or particular types of workers, especially in southern Ontario. An outbreak of inflation would probably provoke a shift to greater monetary restraint; that, in turn, could well cause a recession.

The second reason for caution in our outlook is the presence of storm clouds in the international economy, as the United States grapples with its twin deficits in the budget and trade accounts. At the same time, the economies of the heavily indebted developing countries are faltering, because their export earnings do not cover the interest on their accumulated debt. They are looking for ways to reduce that debt burden in order to restore faster rates of economic growth.

How these international problems will resolve themselves is hard to predict, but what happens on the world scene will probably help to determine whether Canada can avoid both a recession and accelerating inflation. Canadian policy makers must be on guard against both possibilities.

Longer-Run Trends

Because this is the 25th Annual Review of the Council, we have chosen to examine some of the longer-term trends, in addition to the medium-term outlook. In particular, we observe here three trends that have affected current performance and that will have a strong bearing on future progress. These trends cut across the themes developed in the next three chapters and help to link them together. They are:

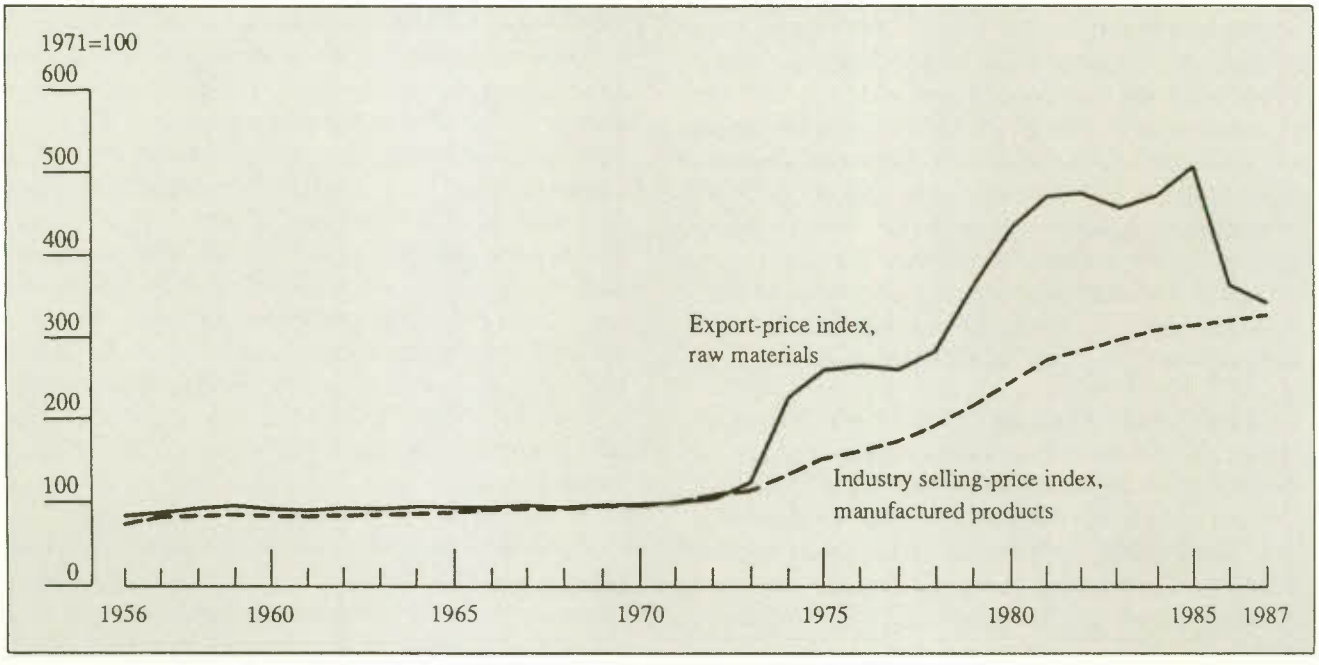
- the relationship between commodity prices and the prices of manufactured goods;
- the consequences of the changing industrial structure for skill requirements; and
- the changing sources of economic power.

Commodity Prices

Throughout the 1950s and 1960s, the prices of raw materials and manufactured goods tended to move in tandem (Chart 1-2). In the early 1970s, however, a boom in commodity prices launched the producers of raw materials

Chart 1-2

Price Indexes of Manufactured Products and Exported Raw Materials, Canada, 1956-87



SOURCE Estimates by the Economic Council of Canada, August 1988.

on a wave of optimism. That boom was triggered by strong demand, reflecting the high rates of global economic growth in that period, and by the expectation of long-term shortages of materials, as predicted by the Club of Rome, in particular.[1] From 1973-74 on, the prices of raw materials and manufactured goods followed entirely different courses, with the former rising at an average annual rate of 20 per cent, compared with 11 per cent for manufactures. This created a bonanza for those countries or regions which sold materials and bought manufactured goods, since their revenues rose far more quickly than their expenditures. In the jargon of the economist, their "terms of trade" had improved dramatically.

Then the tables turned in 1982. Suddenly, there was a glut of raw materials; prices dropped sharply, and today they remain far below the levels reached in the early 1980s. The bonanza not only disappeared, but the producers of raw materials soon found themselves at a severe disadvantage in the marketplace. They could no longer afford to pay for the manufactured goods they needed. They had to reduce their purchases, and their standard of living dropped. The terms of trade had shifted in favour of countries that imported materials and sold manufactures – Japan and West Germany, for example.

The heavily indebted countries (Brazil and Mexico, for example) found themselves in a double bind. They had borrowed throughout the 1970s, on the assumption that their export earnings would keep rising to pay the interest on their debt. As the recession hit, interest rates soared and commodity prices fell, so that the cost of servicing the debt jumped, just as export earnings slumped. To make matters worse, when the U.S. dollar depreciated after 1985, the export earnings of these countries declined even further, because the prices of most internationally traded raw materials are stated in U.S. dollars. In this Review, we discuss the consequences of this terrible shake-out in the developing countries for the medium-term outlook. We also examine the radical variations in economic performance between countries, noting that several of those without heavy debt burdens have achieved successful industrial take-off.

Canada, and especially its western provinces, experienced the same boom-and-bust cycle. In effect, the resource-producing regions got richer in the 1970s and then became poorer in the 1980s because of the fluctuations in their terms of trade. The impact of the accompanying shift in the industrial structure on regional unemployment rates is examined later on in the Review.

An important issue for the future is whether the prices of raw materials and manufactured goods will revert to the old pattern of moving in tandem or whether they have become permanently decoupled. Over the medium term, new technologies are likely to have a dampening effect on commodity prices. New developments in agriculture, for example, have enhanced crop yields to the point where, apart from the effects of short-term weather variations, supply is expected to outpace potential demand. And new materials (such as plastics, ceramics, and fibre optics) are emerging as cheap and accessible substitutes for nickel, steel, aluminum, and copper. In the meantime, the energy price shocks of the 1970s encouraged conservation measures that have contributed to excess supplies around the world.

While individual commodities will undoubtedly continue to experience boom-and-bust cycles, it seems unlikely that the world will experience a sustained, synchronized boom in the prices of raw materials over the next several years. This adds a welcome source of stability to the world economy, but it also forces the indebted countries to go back to the basics of economic development in order to get the growth process going again.

New Industries and New Skills

The lessons in this commodity story are less severe for Canada because, on a national basis, its industrial base has already been diversified. Whereas resources accounted for 40 per cent of Canada's exports in 1963, that figure had fallen to only 22 per cent in 1987. This reflects the long-term trend away from primary production and towards manufacturing and services. Table 1-2 shows the changing structure of employment in Canada between 1946 (when 29 per cent of the work force was employed in primary industries), 1963 (almost 13 per cent), and 1987 (less than 7 per cent). The share of employment in manufacturing fell from about 25 per cent in 1963 to 17 per cent in 1987. Today, the service sector, diverse as it is, dominates the scene, employing more than 70 per cent of the work force (40 per cent in 1946 and nearly 55 per cent in 1963). In general terms, the new service jobs can be divided into two categories: high-skill, high-paying jobs in knowledge-based industries; and low-skill, low-paying jobs in, say, personal-service industries, where productivity growth is slow. But in both cases there have been problems in matching people with jobs, as we shall see later.

This raises a fundamental challenge for workers and for policy makers. Jobs disappear in some industries and some regions, even as new ones are being created in others. As a result, there are jobs going begging in some parts of the country, while unemployment remains too high in other regions. What kinds of adjustment must individual workers

Table 1-2

Distribution of Employment, by Industry, Canada, Selected Years, 1946-87[1]

	1946	1963	1987	Change in employment, 1946-87
		(Thousands)		
Total employment	4,666	6,365	11,955	7,289
		(Per cent)		
Goods-producing industries	60.2	45.3	29.2	24.2
Primary	29.4	12.9	6.4	–44.1
Secondary[2]	30.8	32.4	22.8	89.4
Service industries	39.8	54.7	70.8	355.6
Regulated services[3]	8.1	8.5	7.6	140.3
Trade	12.3	16.0	17.7	269.3
Finance, insurance, and real estate	2.7	4.0	5.8	460.5
Other services[4]	16.8	26.2	39.7	505.6
All industries	100.0	100.0	100.0	156.2

1 The figures for 1946 and 1963 include 14-year-olds, whereas those for 1987 do not. Newfoundland is not included in the data for 1946.
2 Include manufacturing and construction.
3 Include transportation, communications, and public utilities.
4 Include community, business, and personal services; and public administration.

SOURCE Economic Council of Canada, *Economic Goals for Canada to 1970*, First Annual Review (Ottawa: Queen's Printer, 1964); and Statistics Canada, *The Labour Force*, Cat. 71-001, December 1987.

make in order to adapt to the new jobs? What are the new skill requirements? How can the existing work force acquire those skills? The Council's Statement on *Managing Adjustment* pointed out that thousands of workers are successfully making such changes every year.[2] The problem is that many others do not; and that is an important cause of the rise in long-term unemployment since 1982.

The shift to the service sector is large and significant, but it is only the tip of the iceberg. In *Making Technology Work*, the Council showed that even within a plant, a firm, or an industry, skill requirements are being transformed: workers need new skills even when they do not change employers.[3] While technology generally creates a need for workers with higher skills and a better education, the shift to higher skills is occurring across the board, not just in high-tech firms. Miners must operate complex process-control systems, for example; and western farmers must manage large, capital-intensive enterprises. Table 1-3 compares the occupational structure of a typical firm that uses computer-based technology with that of a firm that does not. Note the lower proportion of blue-collar jobs and the higher proportion of professional, technical, and other office workers required by the innovating firm. In effect, the emphasis in the future will shift from physical to mental work. Hence, human resources – people – will be Canada's most important resource endowment in the 1990s and beyond.

Table 1-3

Occupational Structure of Innovating and Noninnovating Establishments, Canada, 1985

	Innovating establishments	Noninnovating establishments
	(Per cent)	
Occupations:		
Managers	7.3	7.9
Supervisors	7.0	6.0
Professional and technical employees	13.3	5.4
Skilled workers	18.9	23.5
Manual workers	31.4	43.0
Sales personnel	7.6	5.7
Other office workers	14.5	8.5
Total	100.0	100.0

SOURCE Economic Council of Canada, Working with Technology Survey, 1985.

New Sources of Economic Power

The third long-term trend discussed in this Review is the shift in the sources of economic power in the international community. The changing pattern of world trade serves to illustrate how several industrial countries, and even some newly industrialized ones, have begun to catch up with the United States. The value of world trade (in constant dollars) is now eight times greater than in 1960, as more countries engage in the exchange of goods and as the trend towards product specialization gains momentum. Within that context, the United States – until recently the unchallenged "locomotive" of the international economy – saw its share of world exports drop from about 13 per cent in 1960 to less than 9 per cent in 1986 (Table 1-4). Meanwhile, Japan's share rose from 2 to 8 per cent, and the share of the newly industrialized countries in Asia also increased – from 2.5 to 6.5 per cent between 1973 and 1986. (Canada's share fluctuated between 3.4 and 4.4 per cent.) The decline of the U.S. share of trade is a reflection of two factors – a weakening of competitiveness in the United States, and a strengthening of its trading partners.

This shift in economic power has destabilized the world economy in two ways. First, expansionary fiscal policy in the United States, coupled with the competition between the major industrial countries, has led to very large increases in current-account imbalances in the 1980s (Chart 1-3), mainly because of the large deficit of the United States and the surpluses of Japan and West Germany. In turn, these imbalances have caused tensions over access to markets, thus giving rise to protectionist sentiments; they have also led to abrupt swings in currency values.

Second, the United States is still the wealthiest – and probably the most productive – country in the world, but by running substantial trade deficits during the 1980s, it has suddenly become a net debtor. This is a jolting change for the world economy, after 50 years when the United States was a net creditor to other countries and the U.S. dollar acted as the foundation of the world payments system. Now, in the late 1980s, the major net creditor nations are Japan, West Germany, and Taiwan; but none of these countries is ready or able to play the leadership role that the United States performed in the past. It is nonetheless evident that a transition in leadership must occur over the next five to ten years. In the meantime, the fragmentation of economic power adds to uncertainty and complicates decision making at the international level.

In the shorter term, the recent depreciation of the dollar will help the U.S. trade position, although it will not, by

Table 1-4

Distribution of World Exports,[1] by Country or Group of Countries, Selected Years, 1960-86

	1960	1970	1980	1986
		(Per cent)		
All developed countries	58.4	63.4	66.1	69.4
United States	12.9	10.6	11.8	8.8
Japan	2.0	4.8	6.9	8.3
European Community[2]	33.3	36.2	36.8	37.6
Canada	3.4	4.1	3.6	4.4
All developing countries[3]	41.6	36.6	34.0	30.6
Newly industrialized countries[4]	. .	2.5 (1973)	4.1	6.5
World total	100.0	100.0	100.0	100.0
World trade as a proportion of world GDP	11.5	14.9	18.5	18.7

1 Based on figures expressed in constant (1980) U.S. dollars. An export unit-value index is used to calculate constant-dollar export figures. World estimates exclude some centrally planned economies that are not members of the IMF.

2 For comparison purposes, the Community's current 12 members have been included in the data for 1960, 1970, and 1980.

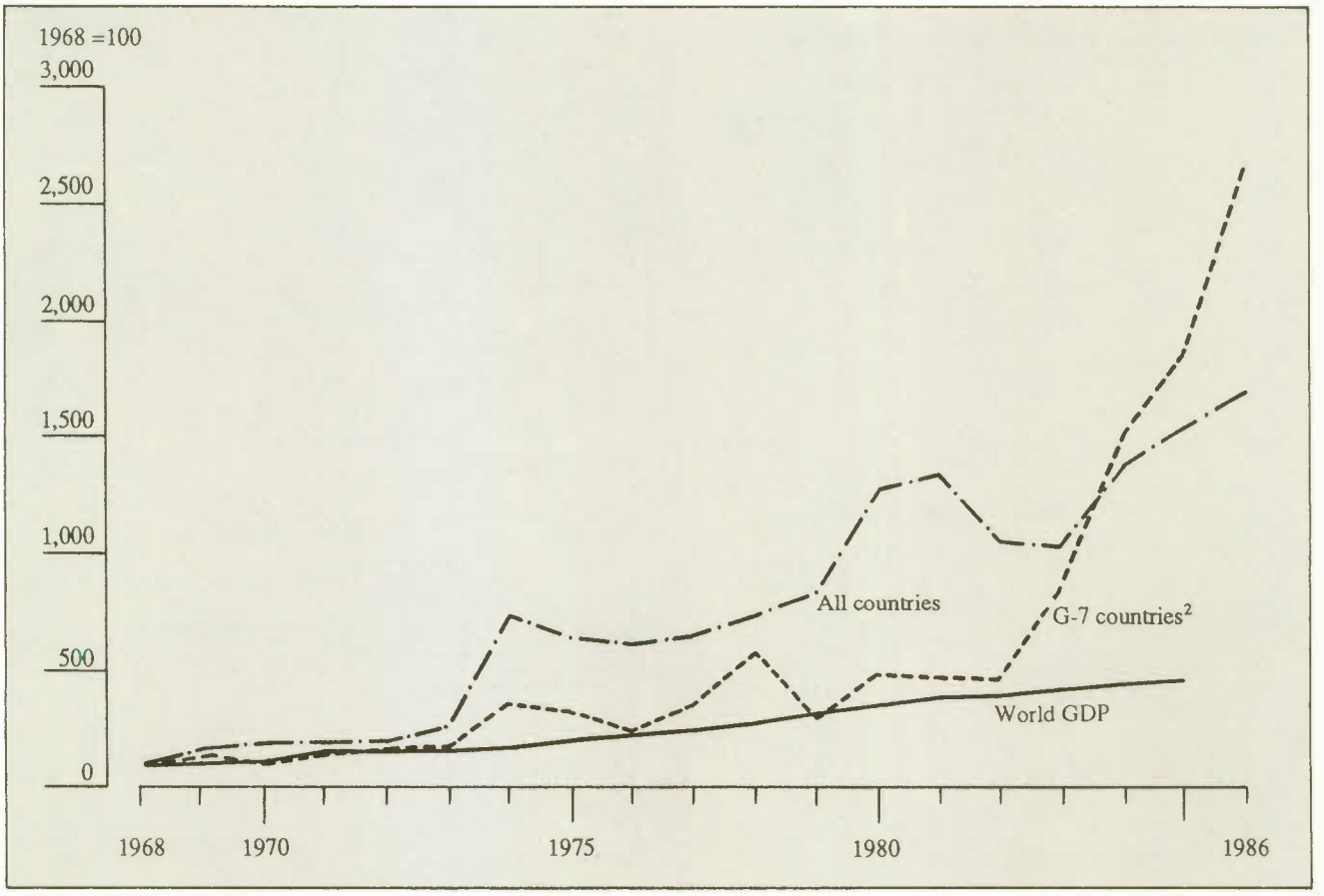
3 Include some centrally planned economies that are members of the IMF – China, Vietnam, Kampuchea, Hungary, Poland, Yugoslavia, and Romania – in addition to other Third World countries.

4 Include Hong Kong, South Korea, Singapore, and Taiwan.

SOURCE Estimates by the Economic Council of Canada, based on International Monetary Fund, *International Financial Statistics Yearbook, 1987*; and IMF, *World Economic Outlook*, April 1988.

Chart 1-3

Index of International Trade Imbalances,[1] 1968-86



1 The imbalances are measured as the sum of the absolute values of current-account balances, expressed in U.S. dollars.

2 United States, Japan, West Germany, United Kingdom, France, Italy, and Canada.

SOURCE Estimates by the Economic Council of Canada, based on International Monetary Fund, *International Financial Statistics: Supplement on Balances of Payments, 1984*, and on IMF, *Yearbook, 1987*.

itself, eliminate the trade deficit unless the U.S. Administration finds a way to reduce its budgetary deficit. How the government adjusts its fiscal policy and how much the trading partners of the United States are prepared to reduce their trade surpluses will have an important bearing on the health of the world economy and on the relative rates of growth of various trading nations over the medium to longer term.

An Outline of the Review

Bearing in mind these three long-term trends, in Chapter 2 we undertake a detailed examination of Canada's medium-term prospects. We also highlight the tough trade-offs between policy objectives, with special emphasis on the tension between unemployment and inflation.

That tension is the starting point for the analysis in Chapter 3, which takes a more detailed look at the problems in Canadian labour markets, to help explain why Canada still has considerable unemployment in certain regions, at a time when many industries are operating at close to full capacity. The point of this chapter is that governments must pursue policies that go beyond simply stimulating growth if they want to reduce unemployment.

In Chapter 4, we turn to the longer sweep of history and to the global context. Drawing upon our current research project on "Visions of Canada in the Year 2000," we look at the long-run trends in global politics, economics, population, ecology, and technology in order to define some of the elements of the emerging global economy. We draw attention to the linkages between these global systems and to the fact that abrupt shifts in political or environmental

factors can have large and widespread economic repercussions. We also point to the importance of two priorities for Canada – the development of human resources, and the enhancement of international competitiveness.

Finally, in Chapter 5 we set out goals for economic policy, and we present, in the light of the experience of the past five years, a new set of targets for Canada's medium-term performance.

2 The Medium-Term Outlook

The period of economic growth that Canada and most other industrial countries have known over the past six years or so must not obscure the old problems that beset the world economy. Since Canada's medium-term fortunes are clearly bound up with the outlook for the world economy, there is good reason to be concerned about the future evolution of such factors as the current-account imbalances of the major industrial countries, the U.S. budgetary deficit, and the burden of Third World debt.

Three Areas of Concern

The sudden and massive worldwide collapse of equity prices in October 1987 was, to a large extent, a reflection of investor nervousness about these three fundamental imbalances. The burden of debt-servicing costs borne by Third World borrowers continues to undermine the growth prospects of some of the poorest nations in the world; at the same time, interruptions in interest payments by some debtor countries have jeopardized the smooth operation of the world financial system, which is so important for economic stability. In the United States, the budgetary deficit has helped to create the surge of imports that is at the heart of that country's large trade deficit. Given the persistence of that trade imbalance and given the surpluses recorded by West Germany and Japan, financial markets have remained jittery, and currency values have gyrated.

One very positive change in the international setting over the past year has been the reduction in international political and military tensions. If this trend continues, it should at least open up the possibility of reductions in the defence spending of the United States, including military expenditures overseas. That would help to ease the U.S. twin-deficit problem over the medium term.

In the meantime, however, there is a widespread belief that if governments fail to act decisively to rectify these problems, markets will adopt their own solutions. Should another large and sudden reduction in the value of the U.S. dollar result, interest rates in the United States would surely rise quickly. Economic growth would be halted; and unemployment would increase, first in the United States and then, as the effects rippled outward, in other countries as well (including Canada).

Current-Account Imbalances

The enormous deterioration in the trade imbalances of the world's major industrialized countries was highlighted in Chart 1-3. The basis of this disequilibrium is the large current-account deficit of the United States (ranging between US$140 and $160 billion over the last two years), along with the large surpluses of Japan and West Germany (which, together, are approaching the size of the U.S. deficit). Little progress was made in redressing this situation in the last year. In the United States, the current-account deficit as a percentage of gross national product continued to rise, and in 1987 that proportion was more than twice as high as in Canada. The surpluses recorded by West Germany and Japan rose slightly, while those of the newly industrialized countries of Asia – in particular, South Korea and Taiwan – began to build up substantially (Chart 2-1).

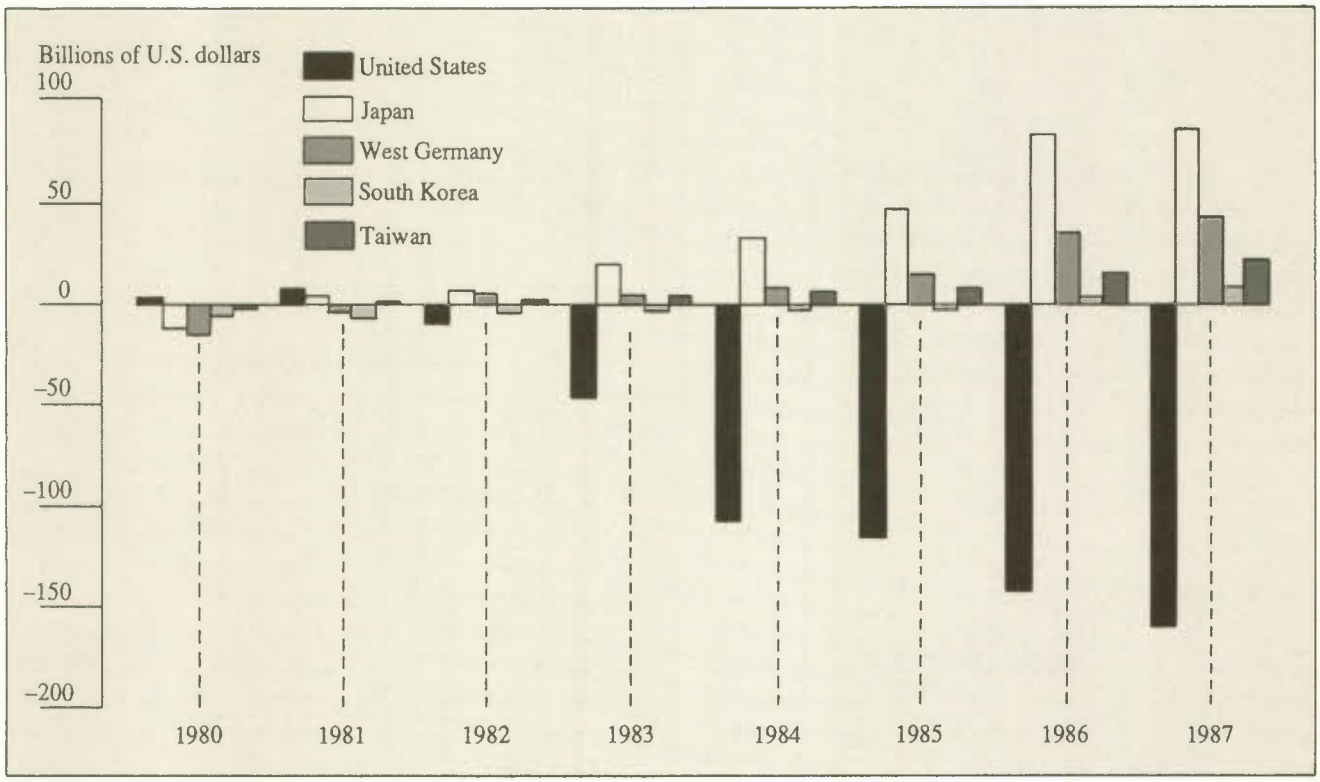
Propelling this disequilibrium have been the high levels of consumption in the United States, which have been fueled by an expansionary fiscal policy. While that consumption has served as the engine of economic growth for much of the world economy, it has also resulted in a very large increase in U.S. imports. Chart 2-2 shows the resulting deterioration of the current account and the fall in the value of the U.S. dollar.

Together, the decline of the dollar since 1985 and the various initiatives taken by U.S. industry have resulted in an improvement in the competitiveness of manufacturing in the United States. In volume terms, the U.S. trade deficit began to diminish in late 1986 (Chart 2-3); this turnaround did not show up in the actual dollar figures until early 1988, however, because purchases of foreign goods had to be paid for with a larger amount of U.S. dollars.

Notwithstanding this improvement in competitiveness, by mid-1988 the United States was still experiencing a current-account deficit that hovered around $140 billion (about 3 per cent of GNP). But the amount that will have to be transferred from the domestic to the foreign sector in order to eliminate the deficit will have to be even higher than

Chart 2-1

Current-Account Balances, Selected Countries, 1980-87



SOURCE International Monetary Fund, *World Economic Outlook*, April 1988.

that, since the U.S. import bill for energy and the cost of servicing the growing foreign debt are both expected to rise.

If the United States is to export more and to slow the growth of its imports, other large industrial powers will have to take on the task of growth leaders; otherwise, a serious economic recession could result. Indeed, much of the economic diplomacy of the U.S. and Canadian governments over the last two years has focused on efforts to persuade both West Germany and Japan to expand their economies and thus provide the markets required to sustain world economic output.

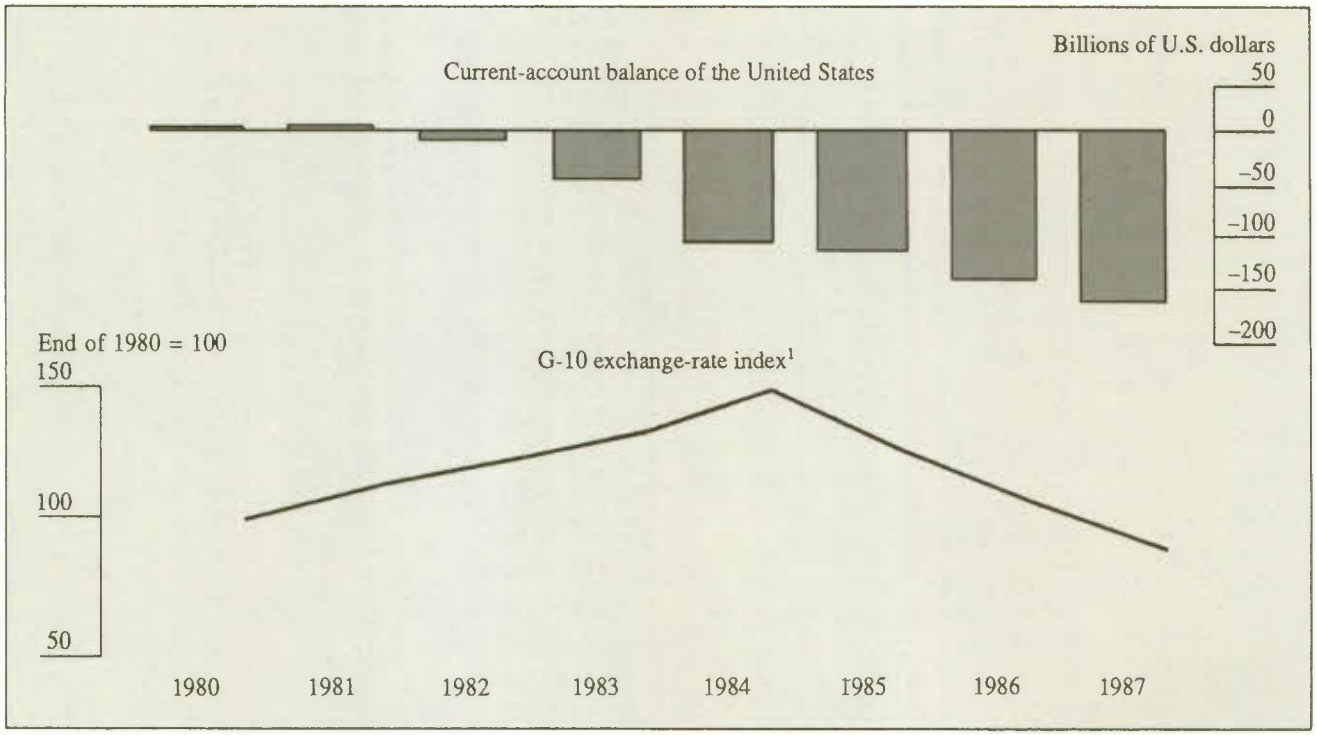
Japan has, in fact, accelerated growth through fiscal initiatives to stimulate consumer expenditures. Recent forecasts show that the Japanese economy will grow by more than 4 per cent in 1988, with domestic demand expanding by close to 5 per cent; Japan's trade surplus is expected to decline, and Japanese imports will act as a stimulus to growth in other countries.

The West German authorities have been more reluctant to stimulate their economy, and their hesitation has had the effect of dampening growth in all the countries of the European Monetary System. For reasons that may be related partly to Germany's historical experience with inflation and partly to the belief that much of the current disequilibrium is a product of flawed decisions by the United States, West Germany has been more cautious than Japan about serving as a locomotive of economic growth. Although the West German budgetary deficit has grown slightly over the last year, it remains low by international standards; and the West German economy continues to operate below capacity.

The so-called Asian "dragons" (Taiwan, South Korea, Hong Kong, and Singapore) – an important new group of players on the international scene – have contributed to the global imbalances. They have managed to achieve growth rates that are sometimes in excess of the peaks reached by Japan a few years ago. During the recent period of currency realignment, they kept the external value of their currencies fixed to the U.S. dollar. As a result, they, like Canada, have benefited from relatively easier access to the Japanese and European markets. In 1987, these four countries had a combined current-account surplus of US$32 billion.

Chart 2-2

Current-Account Balance and the Exchange Rate of the Dollar, United States, 1980-87



1 The Group of Ten includes Belgium, Canada, France, West Germany, Italy, Japan, the Netherlands, Switzerland, the United Kingdom, and the United States. The G-10 exchange-rate index shown here is a trade-weighted composite of the exchange rates of the currencies of the first nine countries relative to the U.S. dollar.

SOURCE Estimates by the Economic Council of Canada, July 1988.

In sum, the $140-billion deficit of the United States is paralleled by the very large surpluses recorded by West Germany, Japan, and the Asian "dragons." It is fundamental to economic stability worldwide – and hence to Canada's economic prospects – that these imbalances be rectified. At the time of writing, investors and markets seem to be willing to wait and see if the next U.S. Administration will act decisively in the matter of the budget deficit. But with the passage of time, the risk of a shock from abrupt currency or interest-rate fluctuations will only increase.

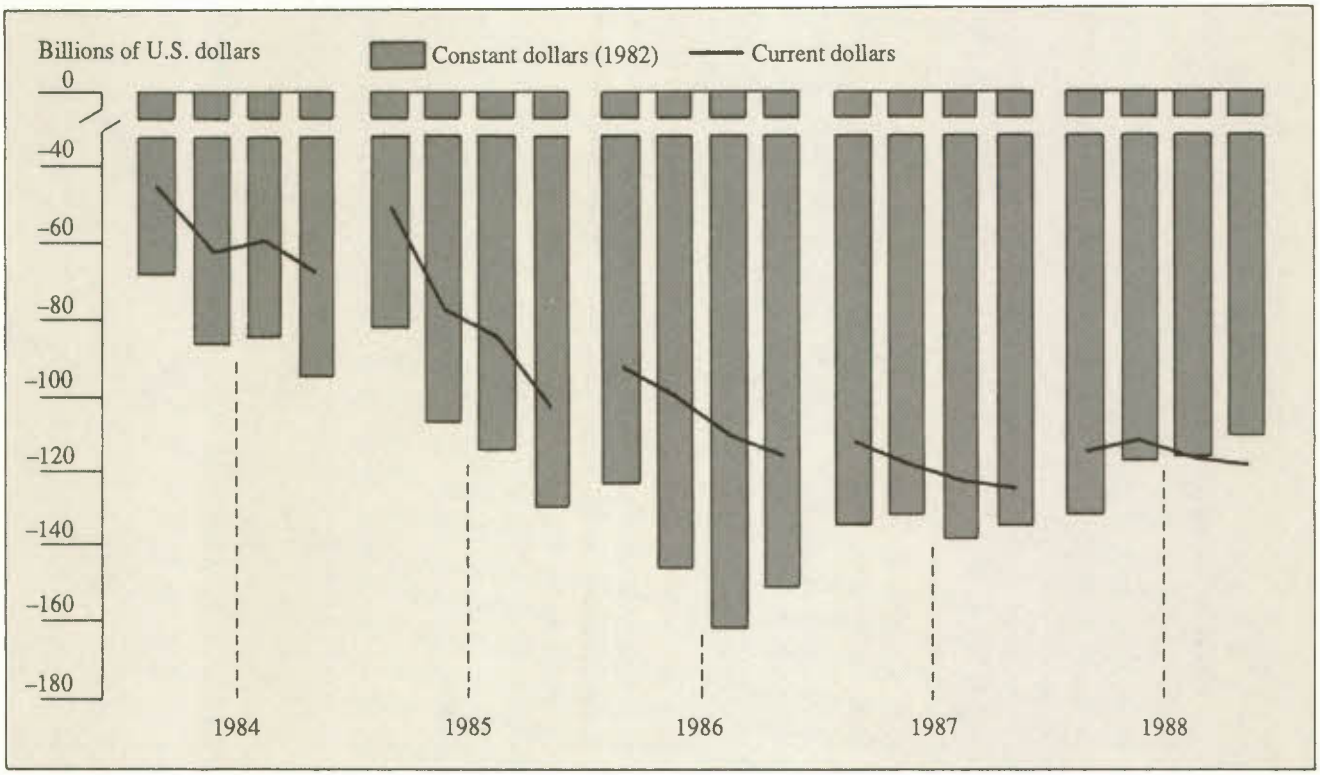
The U.S. Budgetary Deficit

The second of the large imbalances is the budgetary deficit of the U.S. government. As already noted, that deficit has helped to fuel growth in the domestic economy and to draw in the imports that have contributed to the current-account deficit. At the same time, businesses and individuals in the United States have reduced their saving rates to historically low levels. As a result, the government has had to rely very heavily on foreign capital to finance its deficit. Two key questions arise here: What are the prospects for reducing the U.S. budgetary deficit? And what are the prospects for seeing a significant rise in saving rates in the United States?

After the October 1987 collapse of the stock market, the Congress and the Administration accepted more fiscal restraint than either had been willing to undertake before the crash. But their agreement contained many stopgap measures and little substance: nearly half of the deficit-reducing measures agreed to were associated with the sale of assets or with the timing of revenues. Such measures will not increase future revenues or reduce future spending. Furthermore, the 1986 tax-reform package, which produced higher revenues in 1987, is expected to result in lower government revenues in the future. In addition, debt-servicing costs will keep the deficit high. To make matters worse, pressure is building in the United States for more spending on education, research and development, infrastructure rebuilding, job training, and other areas that are essential for future productivity growth; increased spending in those areas could well offset the potential gains from a cut in defence spending.

Chart 2-3

Net Exports, United States, 1984-88



SOURCE Estimates by the Economic Council of Canada, August 1988.

Thus the U.S. federal deficit will worsen in the medium term unless taxes are raised. A tax increase is out of the question in this election year, however, and that puts a considerable burden, once again, on financial markets and hence on monetary policy. Some observers suspect that because this is an election year, monetary ease will be the most likely approach. Too little action in 1988, however, could lead to a tightening of money in 1989 – at about the same time that the new U.S. president should be raising taxes.

The personal saving rate in the United States was at an all-time low in the period 1985-87. It has recovered in recent months, but not to its pre-1982 level. Nonetheless, because the United States has been consuming more than it has been producing – thereby running a current-account deficit – the government has had to rely on foreign capital to finance its budget deficit, either directly or indirectly. Table 2-1 shows that as fears about the international value of the U.S. dollar rose last year, private foreign investors stopped purchasing U.S. government debt instruments. Indeed, foreign central banks ("official sources" in the table) have provided much of the capital needed to finance the budget deficit since 1986. Together, a higher personal saving rate and a reduced fiscal deficit would slow down the U.S. economy, but they would also reduce the need for foreign capital to finance the deficit. That would moderate one of the major sources of instability in the world economy.

Third World Debt

The other principal source of danger to the economic outlook is the total debt of roughly US$1.2 trillion owed by Third World countries.[1] The amount of that indebtedness continues to grow, albeit very slowly, partly as a result of the capitalizing of unpaid interest.

The large amount of debt has raised different concerns in creditor and debtor countries. In the former, the unpaid interest charges affect the health and stability of their financial institutions and, potentially, of the financial system as a whole. For debtor nations – including some of the poorest countries in the world – the interest acts as a crushing burden that effectively reduces living standards. It also means that the economies of these nations cannot assume a normal growth path, which would benefit not only their own citizens but the world economy generally. The

Table 2-1

Flows of Foreign Assets into the United States, Selected Years, 1977-87

	1977	1982	1984	1985	1986	1987
			(Billions of U.S. dollars)			
Sources of net foreign assets:						
Official[1]	37.1	3.2	3.4	–1.3	34.7	44.3
Private	13.7	84.7	93.9	128.4	178.7	158.3
Purchases of U.S. Treasury securities	0.6	7.0	22.4	20.5	8.3	–6.1
Total	50.9	87.9	97.3	127.1	213.4	202.6

1 The large inflows recorded for 1977, 1986, and 1987 were the result of interventions by foreign central banks in support of the U.S. dollar.
SOURCE U.S. Department of Commerce, Bureau of Economic Analysis, Balance of Payments Division.

resolution of the problem of Third World debt would therefore bring a positive contribution to world economic growth as well.

In recent years, the flow of external funding to the developing countries has slowed to a snail's pace, because the financial institutions of the creditor countries have become increasingly uncertain about the ability of the debtor nations to service their existing debt. That cautious attitude about new lending has also been adopted by the regulatory authorities of the creditor countries, who fear that a "domino effect," triggered by the default of a large debtor, could lead to the failure of one or more of the large lending banks. Together, the prudence of the institutional lenders and the fear of the regulators have led to actions that have reduced the possibility of such a failure and added a measure of strength to the financial system. The creditor banks have increased their loan-loss provisions and, at the same time, have attempted to reduce their stock of existing debt by such actions as debt-for-equity swaps and loan sales. Table 2-2 shows that most large banks have now set aside fairly large reserves against potential loan losses, thus reducing the fragility of the financial system.

Viewed from the perspective of the debtor nations, however, the situation is very different. When payments of principal and interest are taken into account, the debtors are actually experiencing a net outflow of funds (Chart 2-4), which means that there is precious little capital available to finance investment.

The absence of adequate financing has also contributed to intense pressure on the government budgets of the debtor countries, and it jeopardizes the structural-adjustment programs that are the cornerstones of the plans devised by the International Monetary Fund and by the World Bank to rejuvenate their economies. As Chart 2-5 shows clearly, the

Table 2-2

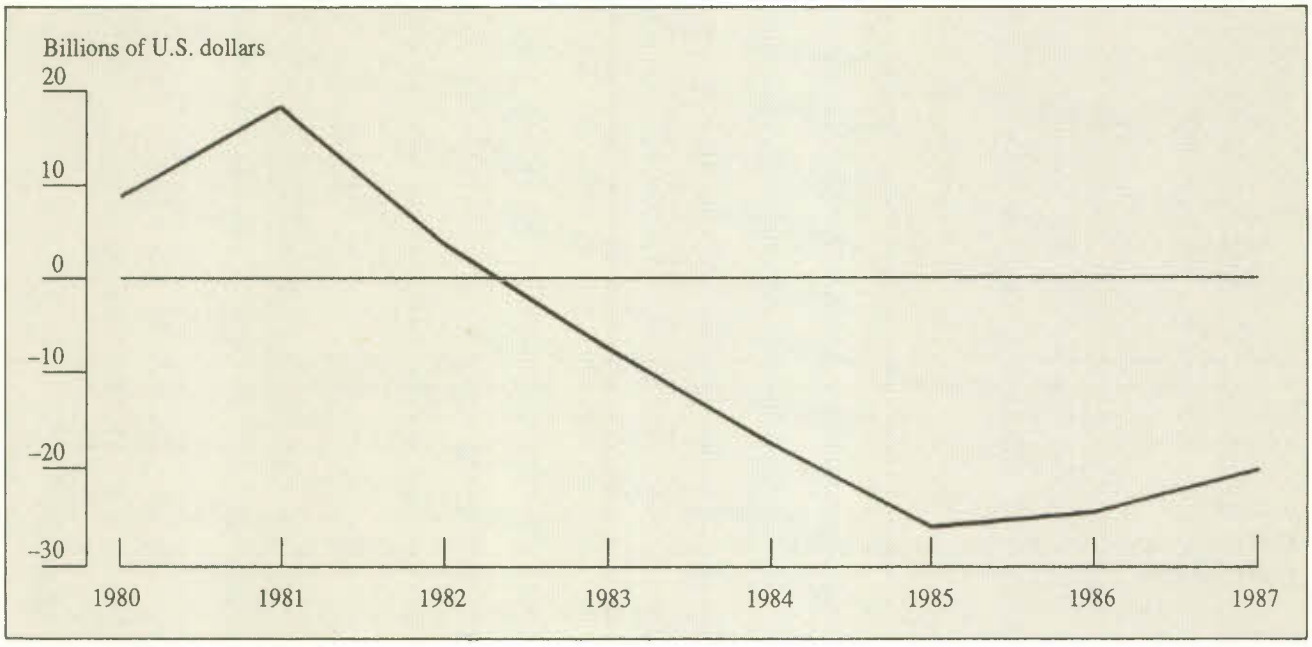
Loan-Loss Provisions of Commercial Banks against Loans to Problem Countries, 1987

	Bank reserves	
	Estimated amount	As a proportion of exposure[1]
	(Billions of U.S. dollars)	(Per cent)
Banks, by country:		
United States		
15 largest	18.5	20 to 35
Others	4.0	5 to 25
Canada	7.0	35 to 40
Japan – 22 largest	1.5	5
United Kingdom	9.0	25 to 30
France, West Germany, and Switzerland	25.0	35 to 70
Others	6.5	. .
Total	71.5	. . .

1 Exposure is defined here as the total outstanding claims of the banks on the problem countries.
SOURCE World Bank, *World Debt Tables, 1987-88 Edition – External Debt of Developing Countries, Volume 1: Analysis and Summary Tables.*

Chart 2-4

Net Transfers to the Highly Indebted Countries, 1980-87[1]



1 The data for 1987 are projections.

SOURCE World Bank, *World Debt Tables, 1987-88 Edition – External Debt of Developing Countries, Volume 1: Analysis and Summary Tables* (Washington, D.C., 1988).

developing countries with debt problems have fared much worse than those without such problems.

The short-term policy question is: Can the debt problem be managed in a way that will not hamper the prospects for economic growth in the debtor countries while preserving the integrity and smooth operation of the international financial system? The answer will depend critically on two factors – investment and trade.

Within the debtor countries, the key element will be an increase in the level and efficiency of investment. Here, external funding will have to play a significant role, given the lack of domestic savings. In addition, the sources of external funding and the treatment of existing debt will probably have to differ for the very poor countries in Africa and for the middle-income debtors in Latin America.

External conditions – such as higher export prices, access to markets in the industrialized countries, and relatively low interest rates – will also help. A major element of the solution, however, will be for the industrialized countries to redress their current-account imbalances without contributing to a major economic slowdown. Such a development would have the advantage of helping to sustain markets for the exports of developing countries, and of avoiding a return to very high interest-rate levels; higher interest rates would add immeasurably to the already massive debt burden of some Third World countries.

The Economic Outlook

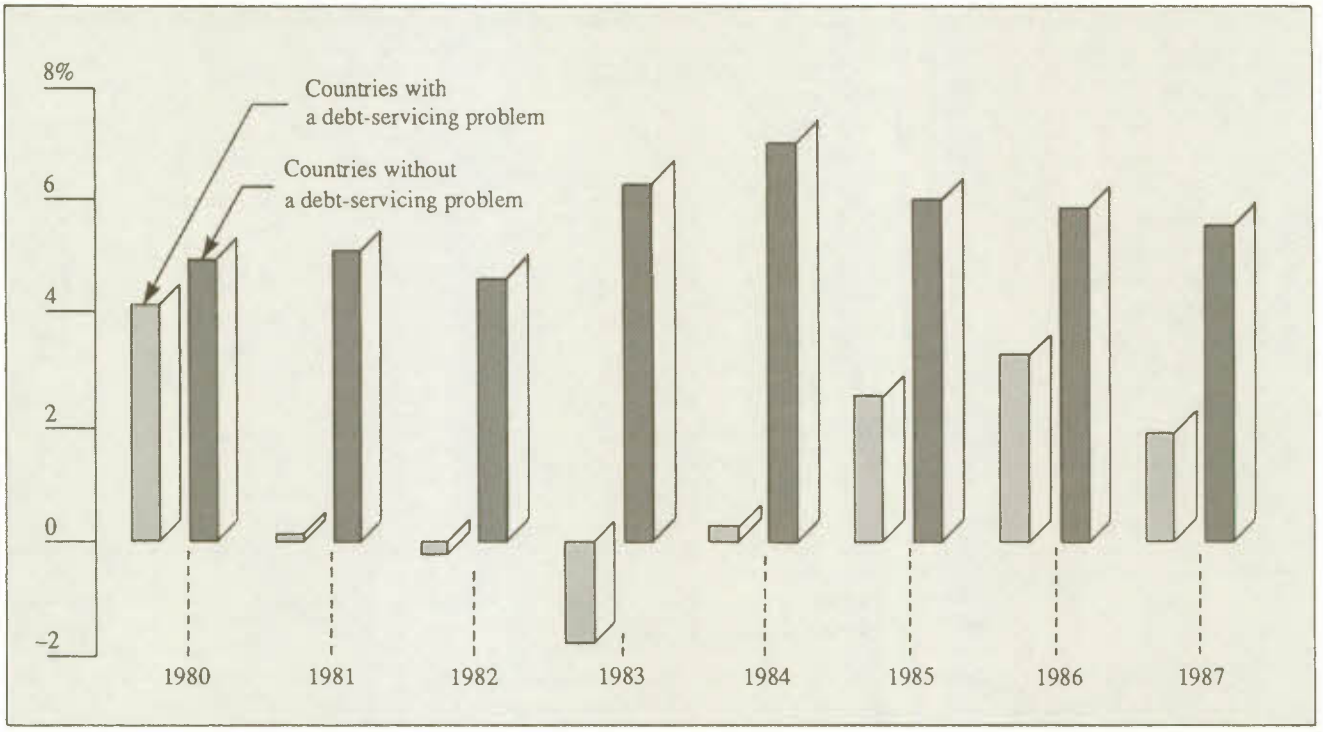
The United States

The United States is now more than halfway through its sixth consecutive year of expansion, and many signs point to a seventh year of moderate growth. Capital spending has become one of the main sources of this buoyancy, but increased exports have also played a role. The resulting improvement in the U.S. current-account position strengthened the dollar in mid-1988. Other indicators point in an ominous direction – namely, the high rates of capacity utilization, unemployment rates that are low by recent historical standards, higher commodity prices, the prospect of higher agricultural prices as a result of the summer's severe drought, and an upward drift in interest rates. In short, the weak spot in an otherwise buoyant situation is the prospect of rising rates of inflation.

Given the uneasy situation created by the international imbalances and given the growing apprehension about

Chart 2-5

Change in Real GDP, Developing Countries, 1980-87



SOURCE International Monetary Fund, *World Economic Outlook*, April 1988.

inflation, what, in fact, are the prospects for the U.S. economy? We consider four scenarios. The first three described below have a lower probability than the fourth, which constitutes the base-case assumption for the Canadian outlook. (The impact of each scenario on the current-account and budget deficits of the United States is shown in Table 2-3; other indicators appear in Appendix Table A-1.)

The first scenario is a low-growth one, in that it assumes that a full-scale recession will develop in the United States, possibly precipitated by such factors as the response of the market to inaction on the budgetary deficit, the use of monetary policy to slow down an overheated economy and contain inflation, or an economic slowdown in the other industrialized countries.

A high-growth scenario is also possible but not, in our view, very likely. In this scenario, the United States would be able to work its way out of its twin-deficit problem by maintaining high levels of economic activity. A continued expansionary mix of fiscal and monetary policy would lead to additional employment, a reduction in the spending associated with programs such as unemployment insurance, and an increase in government revenue. The high-growth view assumes that technology will have a highly favourable impact on productivity and that the other industrialized countries will also experience high growth rates. Such developments could hold the U.S. unemployment rate close to 5 per cent during the next five years. This scenario has disturbing implications regarding inflation, however.

Neither of these scenarios is entirely desirable: the low-growth scenario portends many hardships, and the high-growth case contains an ominous inflationary component. The most attractive scenario is one that we call the "U.S. policy-mix" case. We believe it is the one that the Canadian government, and others, should be urging on the new U.S. Administration when it assumes power in early 1989. It requires decisive action on the U.S. federal budget – that is, a large increase in taxes – accompanied by an easing of monetary policy and some further reduction in the value of the U.S. dollar. Our projections show that the policy-mix alternative would make a substantial dent in the government deficit and would help to reduce the current-account deficit as a share of GNP.

Our base case for the U.S. economy (which is used as an input into our base case for the Canadian economy) is the fourth scenario considered here. It assumes that the United States will manage to avoid a serious recession, even though

Table 2-3

Actual and Projected Current-Account and Budgetary Deficits, United States, 1983-87 and 1988-92: Four Scenarios

			Projected				
	Average, 1983-87	Average, 1988-92	1988	1989	1990	1991	1992
			(Billions of U.S. dollars)				
Current-account balance							
Base-case scenario	–114	–161	–158	–153	–144	–173	–178
High-growth scenario		–178	–158	–150	–146	–194	–240
Low-growth scenario		–152	–157	–156	–120	–149	–176
Policy-mix scenario		–151	–158	–152	–141	–154	–148
Federal budgetary deficit							
Base-case scenario	–180	–145	–153	–171	–162	–119	–119
High-growth scenario		–95	–153	–166	–118	–34	–4
Low-growth scenario		–148	–153	–176	–209	–116	–86
Policy-mix scenario		–104	–153	–167	–128	–49	–24

SOURCE Estimates by the Economic Council of Canada, July 1988.

it will fail to come to grips fundamentally with its twin-deficit problem. It can only delay action on this front because of the Federal Reserve's rather tight monetary policy, which will continue to attract foreign capital to finance the current-account deficit. But that tight money policy means that the economy will grow relatively slowly over the period 1989-92. While the average growth rate in the U.S. base case is not much higher than in the low-growth scenario, the pattern is much smoother; in other words, growth is sluggish, but there is no recession.

In the U.S. base case, real GNP is projected to grow at 2.6 per cent per year, on average, during the period 1988-92. Unemployment will hover near 6 per cent – up from current levels – and inflation will average just under 5 per cent. Some progress will be made in reducing the U.S. budgetary deficit, but the latter will remain at well over $100 billion in the early 1990s; the current-account deficit as a proportion of GNP will remain close to current levels.

The U.S. base case does not, however, entail the major change in the policy mix that would bring about sustained reductions in both the current-account and the fiscal deficits. As a result, a resolution of these problems is postponed to a later date, and other countries are relied upon to fund the twin deficits. In the policy-mix case, there is less reliance on inflows of foreign capital. That scenario is obviously more desirable for the United States, and it would also help to stabilize the international economy. In addition, it would be beneficial for Canada, helping to reduce interest rates here and to lower the borrowing costs of the federal government.

Canada

We have also examined four scenarios for Canada, but only the base case is discussed here; the assumptions and results of the other scenarios (high-growth, low-growth, and policy-mix) appear in Appendix Table A-2.

The Council's base case for Canada's medium-term outlook is founded on a whole array of assumptions with respect to external developments, including the U.S. base case just described and its assumption that a serious recession will be avoided in the United States. On the domestic side, our assumptions reflect the anticipated impact of the Free-Trade Agreement; Phase One of tax reform; an up-to-date assessment of other federal programs; the details of most provincial budgets; and a continued tightening of monetary policy, particularly towards the end of 1988, with some relaxation occurring as we approach 1990.

Given this framework, real economic growth in Canada for the period 1988-92 is projected to average 3 per cent annually, with real growth in 1988 being 3.8 per cent (Table 2-4). The combination of slower exports to the United States (where growth slips to 2 per cent in 1990) and a tail-off in the domestic investment cycle (particularly in the housing sector) will depress Canada's GDP growth

Table 2-4

Selected Indicators of Actual and Projected Performance, Canada, 1983-87 and 1988-92

	Council targets (1983)	Average, 1983-87	Projected					
			Average, 1988-92	1988	1989	1990	1991	1992
			(Per cent)					
Change in:								
Real GDP		4.3	3.0	3.8	2.2	2.6	3.5	2.7
Consumer price index	5 or less	4.5	4.4	4.1	5.1	4.6	4.2	4.0
Labour force		1.8	1.7	1.9	1.4	1.6	1.9	1.7
Employment	2 to 3	2.4	2.1	3.2	1.6	1.5	2.1	2.0
Productivity (output per person-hour)	1.5 to 2	2.2	0.7	–0.2	0.2	1.2	1.4	0.8
Real wage rate		–0.9	–0.3	0.4	–1.2	–0.3	–0.2	–0.1
Nominal wage rate		3.6	4.1	4.5	3.9	4.2	4.0	3.8
Level of:								
Unemployment rate	6 to 8	10.4	7.6	7.7	7.6	7.7	7.6	7.3
Participation rate[1]		65.3	67.5	66.7	67.0	67.3	68.0	68.6
As a proportion of GDP:								
Real investment		19.9	21.2	21.4	21.1	20.8	21.1	21.5
Government deficit								
Federal	Downward trend	5.7	4.0	4.3	4.5	4.0	3.6	3.7
Provincial and local		1.0	0.6	0.2	0.6	0.7	0.8	0.9
Balance of payments								
Current account	2 or less	–0.6	–1.4	–1.4	–1.6	–1.3	–1.4	–1.3
Merchandise account		3.2	2.0	1.9	2.0	2.2	2.1	2.0
Non-merchandise account[2]		–1.0	–0.8	–1.0	–1.0	–0.9	–0.7	–0.6

1 Labour force as a proportion of the population aged 15 and over.
2 Excludes net income services.
SOURCE Estimates by the Economic Council of Canada, August 1988.

rates to a range between 2.2 and 2.6 per cent in 1989 and 1990.

The key elements of the medium-term outlook for Canada are as follows. The slower period of economic growth forecast for 1989 and 1990 is expected to stall the current downward trend in the unemployment rate, but the latter should resume its decline when growth picks up again in 1991-92. Thus the unemployment rate is projected to average 7.6 per cent between 1988 and 1992; by 1992 it will have slid to just above the 7-per-cent mark.

During the period 1988-92, the federal deficit as a proportion of GDP is expected to average about 4 per cent. Given the period of slow growth projected for 1989-90, we see little chance of quick improvement in this indicator, even though we have assumed a continuation of rigorous spending restraint.

We anticipate that Canada's balance of international payments on the current account will remain in deficit during the period 1988-92. The deficit will average just a little under 1.5 per cent of GDP. An average real-growth rate of about 3 per cent will result in an increased demand for imported goods; however, the growth slowdown projected for the United States will inhibit Canadian exports in the early part of the projection period.

The most controversial issue in the medium-term outlook is the trend in inflation. Many of the current indicators are unsettling: they include a renewed upswing in the prices of commodities other than food and oil; some overheating in the economy of southern Ontario, particularly in the housing market; the tightening of labour markets; credit growth that has raised the ratio of consumer debt to disposable income above its previous peak, reached in 1982; and, until recently, a rapidly growing money supply. While the strength of the Canadian dollar has remained moderate, there is obviously more upward pressure on prices and costs than we have seen since 1981. Chart 2-6 shows that the upward pressure has started to filter through from raw materials to industry selling prices, although it has not yet shown up in the prices that consumers pay for goods and services.

The question is: Should we expect another cycle of rising inflationary expectations and soaring prices? The Council's view is that inflationary pressures will be contained and that the rate of increase in consumer prices will peak at just over 5 per cent in 1989. That is partly because the base case assumes that the government will adjust monetary policy to take account of any evidence of an acceleration in prices. But there are two important market factors that will also help to contain inflation.

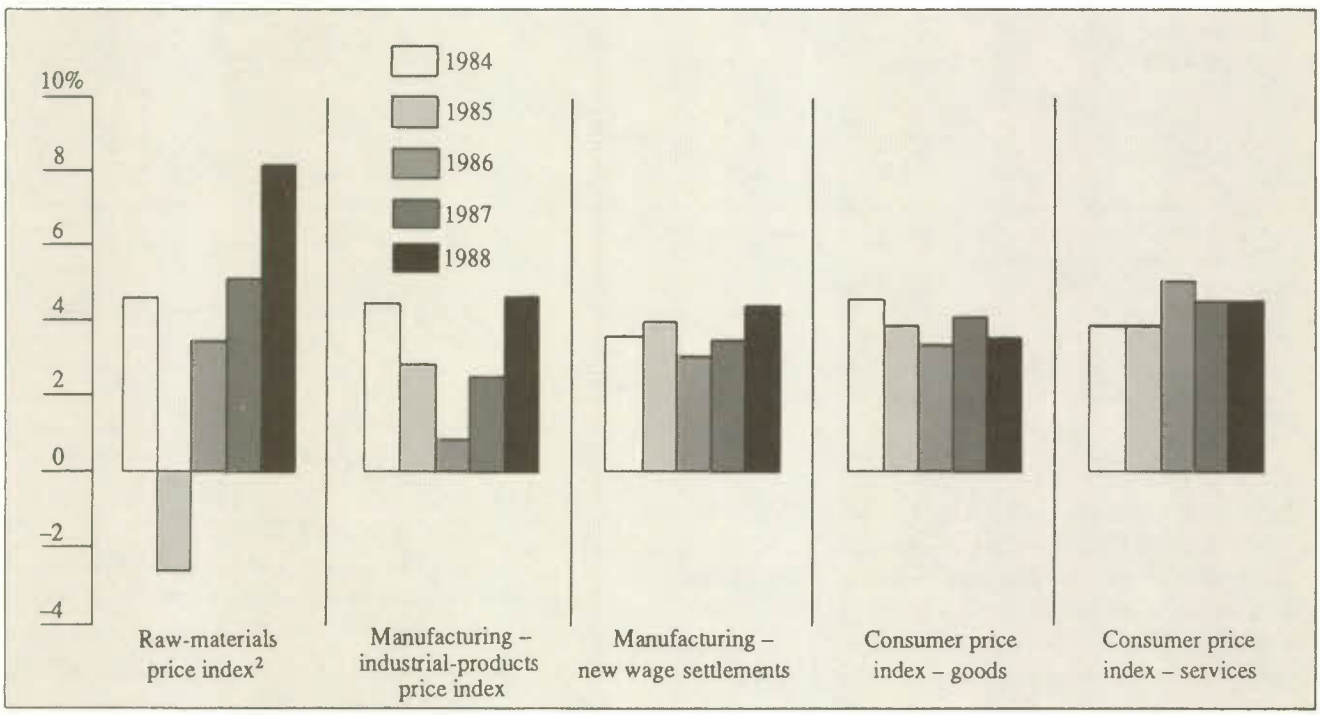
The first is the relatively abundant supplies of key commodities. The current oil glut will reduce price pressures in energy markets. And the large grain stocks will constrain food prices, despite the recent drought in western Canada and in the north-central region of the United States.

A second factor that could help to contain inflation is that many price and wage decisions are still influenced by the painful lessons of the 1981-82 recession. Businesses in general are still making efforts to control costs and improve quality in order to beat the competition. And collective bargaining is more concerned with work rules, technological change, and job security than with outright salary levels, with the result that wage settlements are not out of line with underlying trends in productivity.

The crucial question, as far as inflation is concerned, is whether the lessons of the early 1980s have been learned: Will corporations and their employees keep their focus on competitiveness or will the old inflation expectations come back? Obviously, policy makers will have to be on guard.

Chart 2-6

Change in Selected Price and Cost Indicators, Canada, 1984-88[1]



1 For 1988, the data record the change in the year's first quarter over the same quarter in 1987.
2 Excluding mineral fuels.
SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

One helpful development is that the productivity gains of the past six years have finally diminished the fundamental imbalance between wages and productivity, as shown in Chart 2-7. Beginning in the early 1970s, real wages accelerated, even though productivity had stopped increasing. The lack of productivity gains to validate wage increases, coupled with slower growth and rising unemployment, stopped the growth in real wages in the mid-1970s. The chart suggests that, thanks to the recent productivity growth, the economy may now be close to the point where real wages and output per worker are aligned. As a result, the fundamentals are now in place to permit a rise in real wages, in harmony with future gains in productivity.

Note, however, that the growth in labour productivity during the period 1989-92 is not expected to average more than 1 per cent[2] – substantially less than the average rate of 2.2 per cent recorded during the period 1983-87 (see Table 2-4). That high rate appears to have been associated with the recovery from the recession – that is, with an increase in capacity utilization – rather than a shift in the long-term trend. Some strengthening is expected to follow the growth slowdown anticipated for 1989-90, but on the whole, the outlook for productivity is not, in our view, an encouraging one.

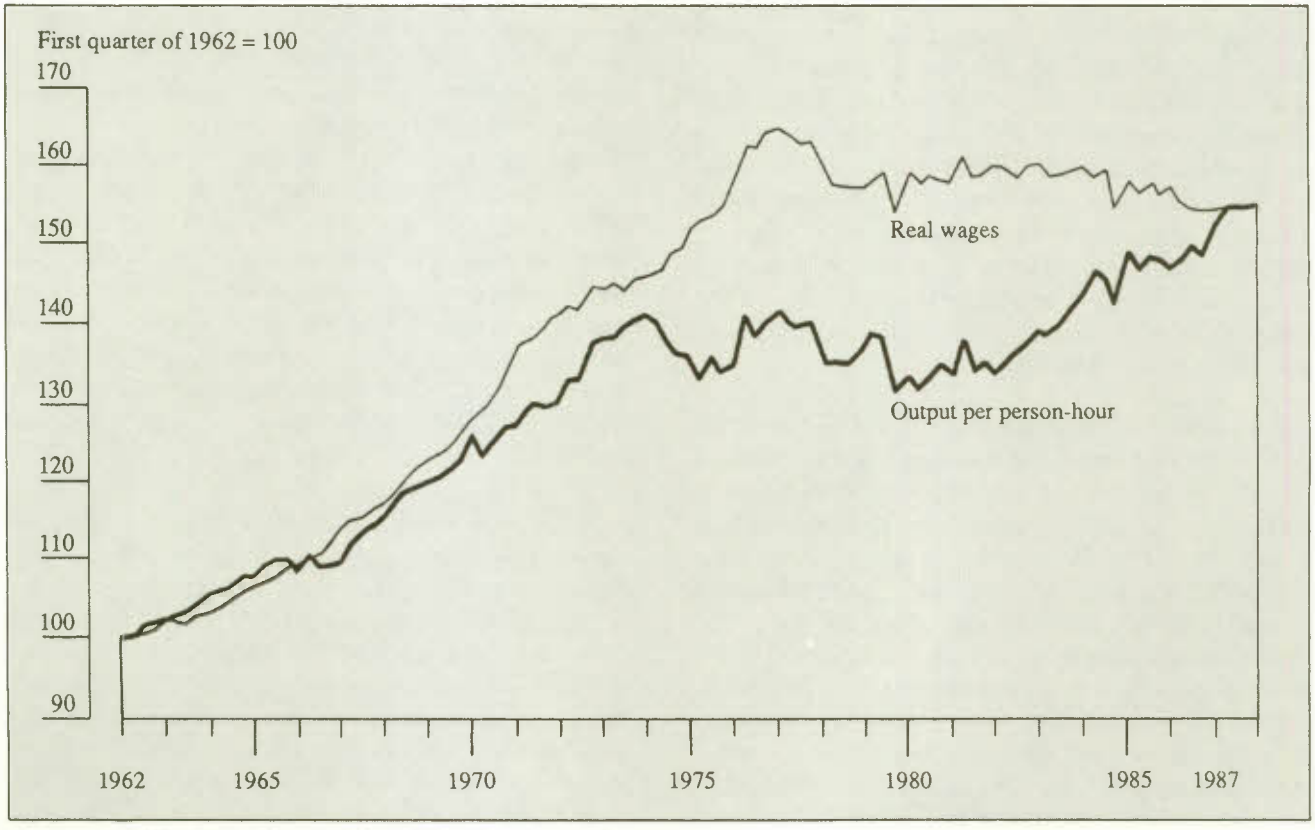
Trade-Offs in Economic Performance

It has taken six years of economic expansion to get Canada's unemployment rate down from more than 12 per cent to slightly below 8 per cent. During the same period, the rate of inflation subsided from over 12 per cent to about 4 per cent. This represents substantial progress on both fronts, but our analysis shows that it will be much more difficult to push the unemployment rate further down without, at the same time, causing upward pressure on prices.

Once an economy enters the zone where some labour shortages and bottlenecks in production begin to occur, the tensions between these two important economic objectives become highly relevant for policy makers. While it is difficult to measure the boundaries of this zone, it is there that pressures build up, in the form of bottlenecks in the

Chart 2-7

Change in Real Wages and Productivity, by Quarter, Canada, 1962-87



SOURCE Conference Board of Canada, Historical database, July 1988.

supply of materials and shortages of workers with specific skills. These pressures may be reflected in higher prices and wages in particular markets but not in a generalized trend. Beyond a critical level, however, the bottlenecks become so pervasive that the economy reaches a flashpoint at which inflation begins to accelerate. Canada clearly has not reached that flashpoint yet, in either product markets (see Chart 2-6) or labour markets, but policy makers need some guidance as to how to detect the warning signs.

The economy's position with respect to this danger zone can be determined by reference to a concept known to economists as the "natural" rate of unemployment – not to be confused with some notion of an "acceptable" rate. The natural rate measures the level of unemployment at which bottlenecks are likely to occur – that is, the level at which employers begin to experience problems in hiring workers with the particular skills and levels of experience that they require.[3] Put in more technical terms, the natural rate reflects the level of unemployment that is associated with the structural characteristics of the labour market, regardless of the pace of economic activity. When the unemployment rate approaches the natural rate, there may be many new job openings in bottleneck industries. If, however, the workers who are looking for work lack the skills desired by employers or live in different regions, then those openings will go unfilled. Thus, even if the actual unemployment rate remains relatively high, wage and price pressures will begin to accumulate. Once the economy enters the danger zone (where the actual rate of unemployment is close to the estimated natural rate), only policies aimed at improving the speed and effectiveness of labour-market matches (better training programs, for example) can achieve a further reduction in joblessness. The policy challenge, then, is to design the optimal mix of policies aimed at relieving the mismatching in labour markets that will, at the same time, keep the economy growing at moderate rates.

In a recent study prepared for the Council,[4] it was shown that the estimated natural rate of unemployment for Canada rose slowly, but more or less constantly, from the early 1960s to the late 1970s. It then climbed to a peak of about 9.7 per cent in 1982 (see Appendix Table A-3). As shown in Chart 2-8, the natural rate of unemployment was above, or equal to, the actual rate in the late 1960s, the mid-1970s, and the early 1980s. When the lower panel of the chart, which shows the course of the inflation rate over that period, is compared with the upper panel, it can be seen that when the actual rate of unemployment is lower than the natural rate, labour markets tighten and inflation rates rise. On the other hand, when the actual rate is higher than the natural rate (as in the post-1982 period), the rate of inflation decelerates.

The Council's study also shows that the natural rate has been falling since 1982. Many of the structural factors (changing energy and commodity prices, for example) that produced the upward trend in the natural rate of unemployment in the 1970s have been reversed. Our analysis indicates that the danger zone has shifted downward to a range between 7 and 8 per cent. Following the economy's strong performance in 1987 and so far in 1988, the unemployment rate has dropped substantially, having reached about 7.9 per cent at the time this report was completed. Thus the actual rate had fallen close to the natural rate. We expect the natural rate to remain between 7 and 8 per cent during the period 1988-92, but as we stress in the next chapter, policy makers can work to reduce the natural rate and thus lower the danger zone by more-effective labour market policies. In the short run, however, it would be dangerous to try to reduce unemployment by stimulating economic growth. The immediate outcome would be much more inflation and relatively little progress in reducing unemployment.

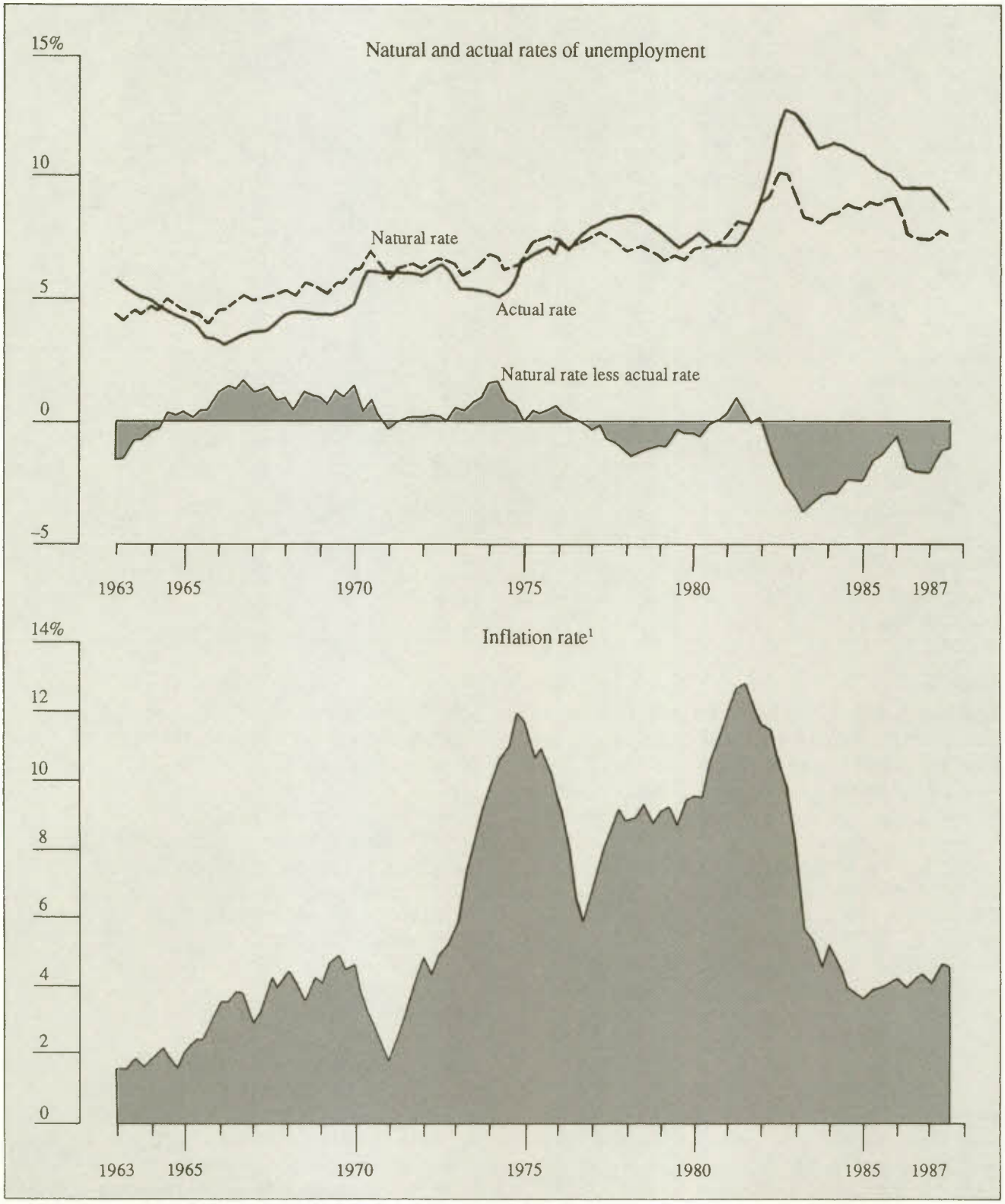
Growing Regional Differentiation

National averages for Canada always mask differences in regional performance. Each of the regional economies has its own distinctive set of industries and markets, and thus each performs differently from the others (Chart 2-9). The Atlantic provinces have consistently lagged in two ways: personal income per capita has been well below the national average; and unemployment rates have moved further away from the Canadian average. In terms of income per capita, British Columbia was a relatively rich province until the 1980s, but it has experienced a severe setback on the unemployment front in recent years. Quebec's situation has been improving, but personal income per capita is still below the national average, and the unemployment rate is higher. A disturbing aspect of the patterns displayed in Chart 2-9 is that the disparities in unemployment rates have widened over the past 15 years.

This growing disparity is linked to differences in industrial structure. The regions outside central Canada still depend on highly specialized foreign markets, such as those for paper, petroleum, fish, lumber, and grain. Accordingly, when the demand and prices for their products are moving in their favour, the regional economies experience growth in real incomes; the reverse occurs when demand collapses and exports decline. For example, the western provinces were the beneficiaries of the boom in commodity prices that occurred in the early 1970s. Since the middle of that decade, however, the commodity-dependent regional economies have suffered from falling prices. There has been some

Chart 2-8

The Inflation/Unemployment Trade-Off in Canada, 1963-87

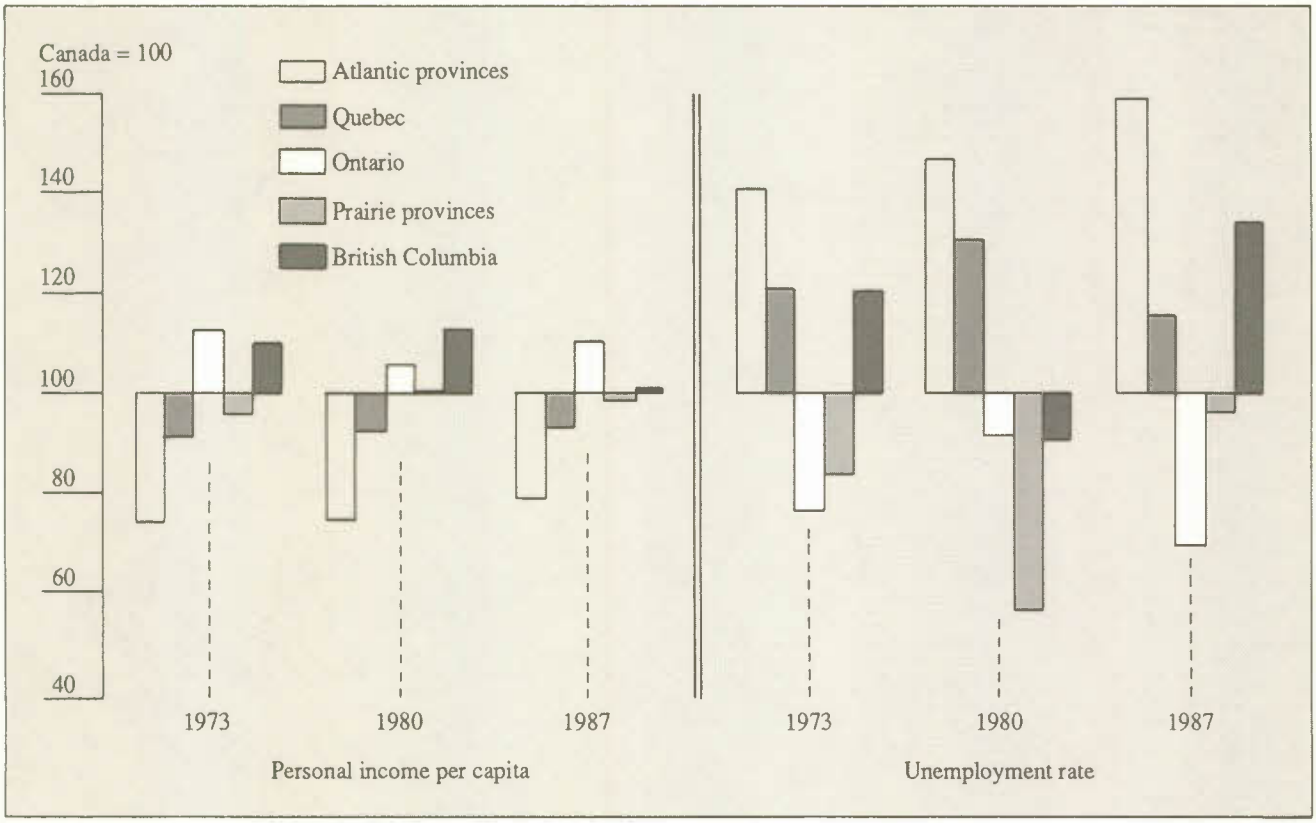


1 Measured as the change in the consumer price index in a given quarter relative to the corresponding quarter in the previous year.

SOURCE Estimates by the Economic Council of Canada, August 1988.

Chart 2-9

Personal Income per Capita and Unemployment Rate, by Region, Canada, Selected Years, 1973-87



SOURCE Estimates by the Economic Council of Canada, July 1988.

improvement over the past year, particularly with respect to the prices for minerals, metals, pulp and paper, and (to a lesser extent) fish. For the regions of the country that are dependent on agriculture, however, this summer's drought will take a heavy toll, in both economic and human terms.

In Ontario, the industrial base is much more diversified, and manufacturing plays a much bigger role. That province and, to a lesser extent, Quebec are therefore less subject to the boom-and-bust cycles associated with specific markets for raw materials that are experienced in the western provinces and, to a lesser degree, in the Atlantic region. Instead, Ontario and Quebec tend to move more in tandem with the other industrialized countries.

In order to explore the growing disparities in rates of unemployment between the regions, the Council has estimated the natural rate of unemployment for each region. Here, too, we find that the disparities are growing (Chart 2-10). All regions showed an increase in the natural rate between the 1970s and 1980s, but the increases were much larger in the Atlantic provinces and British Columbia; moreover, the decline since 1985 has been more modest in those regions. The disparity between Quebec and Ontario is also wider now than it was in the 1970s.

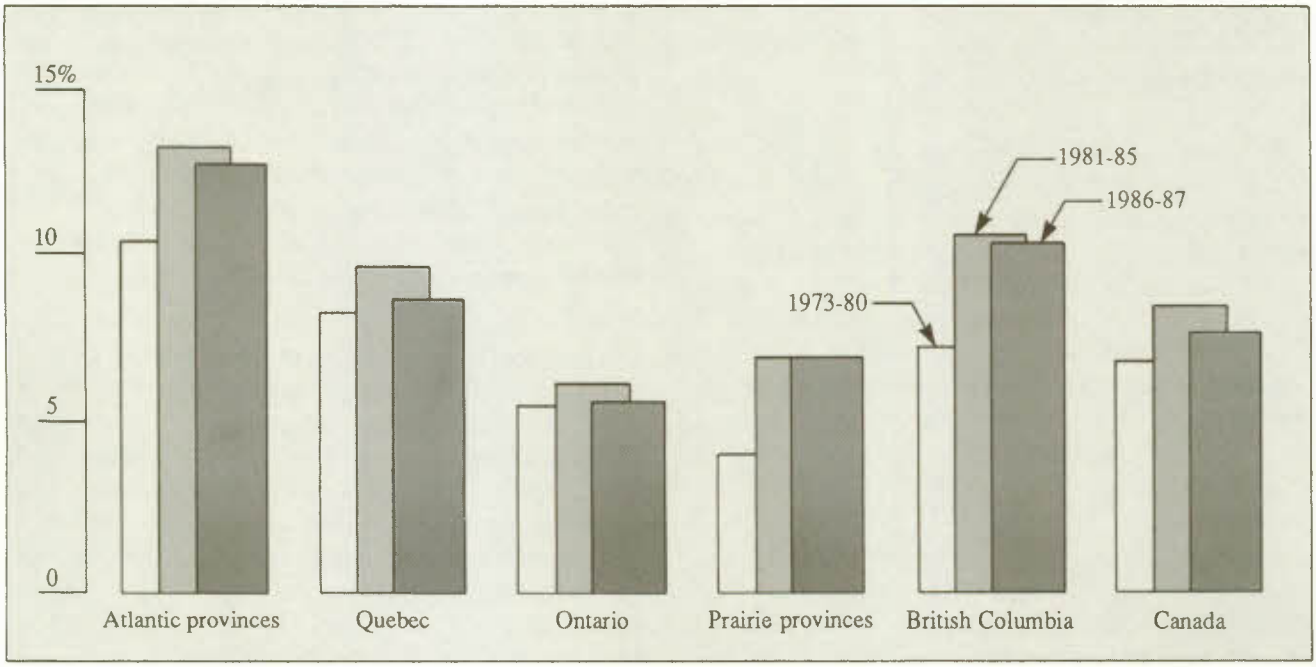
These estimates exclude the influence of cyclical factors. In other words, a significant portion of the increase in regional disparities cannot be explained by weak demand. Rather, our estimates show that structural factors have contributed significantly to the growing gaps between provincial unemployment rates.

Fiscal and Monetary Policy

One difficulty that confronts policy makers is that the threat of higher inflation is showing up at a time when, by past standards, unemployment rates remain very high. In earlier times, the policy response would have taken the form of additional stimulus through monetary and/or fiscal policy. To provide additional stimulus now, however, would be both inappropriate and counterproductive, for several reasons.

Chart 2-10

Natural Rates of Unemployment, by Region, Canada, 1973-87



SOURCE Estimates by the Economic Council of Canada, based on A. Burns, "The natural rate of unemployment: A regionally disaggregated approach," a background paper prepared for the Economic Council of Canada, September 1988.

First, further stimulus would result in rising inflation, with relatively little reduction in unemployment, because the economy is nearing the limits of existing production capacity in many industries and because some labour markets are getting tighter.

Second, fiscal policy is constrained by the size of the federal deficit and the mounting public debt. Table 2-5 shows that the federal budget was already in deficit in the mid-1970s; currently the deficit is equivalent to about 4 per cent of GDP, down from about 7 per cent in 1984. The interest on the federal debt rose from 13 per cent of federal revenues in 1976 to 28 per cent in 1987. It now takes $30 billion a year to service that debt. Since 1976, the accumulated debt of the federal government has risen from about 20 per cent to over 40 per cent of GDP; that of all government levels has risen from about 35 per cent to 63 per cent of GDP. Clearly, these high levels of debt seriously impair the scope for using fiscal policy as an instrument to reduce unemployment.

What is more perturbing is that the federal deficit remains so large in 1988, at a time when some sectors of the economy are getting closer to the limits of their current capacities. This implies that, given the current tax regime and given the government's current expenditure commitments, the level of output required to balance the federal budget cannot be attained without igniting inflation. If our analysis is correct, a continuation of the current fiscal regime would therefore

Table 2-5

Characteristics of the Federal Debt, Canada, 1976 and 1987

	1976	1987
	(Per cent)	
Federal deficit as a proportion of GDP	1.7	4.3
Accumulated federal debt as a proportion of GDP	19.8	41.7
Interest on federal debt:		
As a proportion of GDP	2.3	5.0
As a proportion of federal revenues	12.9	28.4
	(Billions of dollars)	
Amount	4.5	27.7

SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

be inflationary. And as unemployment rates decline, the immediate onus of fighting inflation would fall squarely on monetary policy. (In the medium term, however, labour market policies could help to reduce unemployment without adding to inflationary pressures.)

Third, it is impossible to formulate a monetary policy that will affect the different regions in different ways without instituting regional credit controls. Given the U.S. experience with State usury laws, we believe that such controls would undoubtedly drain funds from the very regions that need them the most. In addition, investment in residential construction would likely dry up. Interest rates can vary according to the level of risk, but once the market has accounted for the latter, regional differences imposed as a conscious policy cannot be maintained in a national market where funds seek the highest rate of return.

It is also clear that regions with high rates of unemployment are not shielded from growing inflation, because they import so many goods from regions where price pressures do exist. Thus we find that those regions which have had very high unemployment rates in recent years (the Atlantic provinces and British Columbia, for example) have also experienced significant rates of inflation (albeit lower than Ontario's).

In summary, large budgetary deficits tend to reduce the options that are open to policy makers. Monetary policy is then left to bear the brunt of the load in steering an economy in which the gaps between regional unemployment rates have widened – a task it is ill equipped to do.

The Savings/Investment Nexus

Just as it is unrealistic to set objectives for unemployment and inflation in isolation from one another, it is also impractical to establish targets for the size of the federal budgetary deficit or surplus (and thus for the amount of the federal debt) independently of Canada's use of foreign capital.

The domestic capital available for investment comes from the savings generated by households, business, and government. It is generally plentiful in periods when the rate of personal saving is high, businesses are profitable, and governments are in a surplus position. If government budgets are in deficit or if the other sectors are generating small amounts of savings, investment capital is scarce; and when domestic savings fall short, any additional investment capital must come from abroad.

For decades, the traditional pattern in Canada's international transactions has been to run surpluses on the trade account and to run deficits on international travel and on so-called "invisibles" (consisting mainly of the net outflows of interest payments, dividends, royalties, fees, and so on). In general, the deficit on travel and invisibles exceeds the trade surplus, leading to a current-account deficit that usually ranges between zero and 3 per cent of GDP, with capital inflows acting as an offset. Thus the current-account balance measures the extent to which Canadians supplement domestic savings with external funds.

There has been a net inflow of foreign savings in most years since 1975 (Table 2-6). That pattern has been broken from time to time – most recently during the first half of the 1980s, when the trade surplus exceeded the deficit on travel and invisibles. During that period, domestic savings exceeded investment requirements, and there was a net outflow of capital. Recall, however, that the net flow of capital is composed of large inflows and outflows. Over the past decade, there has been a net outflow of private savings, as well as a net inflow of funds, borrowed mainly by governments and their agencies. Thus Canada's international balance sheet has changed quite dramatically.

Historically, the rate of output growth in Canada's resource and manufacturing sectors has been linked to foreign investment. In many instances, the amounts of capital required are very large, and in the absence of reduced domestic consumption (both public and private) or of cutbacks in other areas of domestic investment, such new outlays often require access to foreign sources of funds. For example, in 1975 the combined rate of saving for the personal and business sectors was equal to 20.9 per cent of GDP, while private investment was equal to 21.4 per cent – close to Canada's typical investment ratio. The shortfall of half a percentage point had to come from elsewhere – either from foreign savings or from the public sector. Since the public sector was a net user of savings in that year, the source was the foreign sector. The use of foreign savings makes sense when the investments that are put into place – be they in mines, hydro facilities, or manufacturing plants – yield rates of return that are sufficient not only to service the debt incurred (both domestic and foreign) but also to create jobs and income at home and to provide access to new technology that might not otherwise be available.

In the public sector, the historical pattern has been somewhat different. Typically, government investment has exceeded savings, and the shortfall has been covered by using either private or foreign savings. But over the past decade, two important changes have occurred. First, public-sector

Table 2-6

Sources and Uses of Savings, Canada, 1975-87[1]

	Private sector			Public sector			Net foreign savings[2]
	Savings	Investment	Net	Savings	Investment	Net	
				(Per cent)			
1975	20.9	21.4	–0.5	1.2	3.7	–2.5	3.0
1976	21.2	21.7	–0.5	1.4	3.2	–1.8	2.3
1977	20.1	19.8	0.3	0.6	3.1	–2.5	2.2
1978	21.1	20.1	1.0	–0.2	3.0	–3.2	2.2
1979	22.3	22.2	0.1	0.7	2.7	–2.0	1.9
1980	22.9	20.7	2.2	–0.1	2.7	–2.8	0.6
1981	21.4	21.8	–0.4	1.1	2.6	–1.5	1.9
1982	22.4	16.1	6.3	–3.1	2.8	–5.9	–0.4
1983	23.0	15.6	7.4	–4.4	2.6	–7.0	–0.4
1984	23.9	17.1	6.8	–3.9	2.6	–6.5	–0.3
1985	23.7	17.3	6.4	–4.3	2.7	–7.0	0.6
1986	21.1	18.1	3.0	–2.9	2.5	–5.4	2.4
1987	20.9	18.8	2.1	–2.2	2.3	–4.5	2.4

1 The data are expressed as proportions of GDP.

2 A positive number indicates an inflow of savings to Canada.

SOURCE Statistics Canada, *National Income and Expenditure Accounts*, various years.

investment has declined significantly – from 3.7 per cent of GDP in 1975 to 2.3 per cent in 1987. And, second, public-sector budgets have shifted from surpluses to rather large deficits. In other words, not only has government borrowing increased, but more of it is being used to finance government consumption.

The current pattern is not, in our view, a healthy one. Canada's public debt is mounting, even as investment – particularly public investment – remains lower than in the past. That will add to the burden on future generations of taxpayers, especially if the debt is external. So long as Canada has attractive investment opportunities, it may appropriately use foreign funds to finance a portion of those activities. But it is very risky to finance growing public consumption through net foreign borrowings, for two reasons: the build-up in debt-servicing costs makes Canada very vulnerable to an upswing in interest rates; and the diversion of future incomes to pay interest to non-residents reduces the incomes available to Canadians. The way to avoid these costs is to reduce the federal deficit, but it must be done in a way that will keep the economy growing, since any slump in activity will lead to a greater deficit and more debt.

Conclusion

Canada has entered a period during which the normal trade-offs between policy goals have become very constraining. The economy is moving closer to the danger zone where inflation pressures could become serious; high rates of unemployment persist, even though the national economy is operating close to capacity; and high levels of government debt and of borrowing have increased Canada's vulnerability to a slowdown and constrained the margin for manoeuvre in fighting unemployment. At the same time, regional disparities in unemployment have widened.

Monetary and fiscal policy are currently caught between conflicting objectives. They must now be more vigilant on inflation, but they cannot shift attention away from unemployment. There are therefore two priorities for the medium term: governments must change the mix of fiscal and monetary measures, reducing deficits so that monetary policy can be more accommodating; and they must focus much more attention on the mismatching in labour markets. Accordingly, the next chapter is devoted to a more detailed analysis of the reason why high rates of job vacancies and of unemployment exist at the same time.

3 Labour Markets in Transition

The important message that emerges from Chapter 2 is that, because there are signs that the Canadian economy is approaching a danger zone where inflation could accelerate if aggregate demand were to increase appreciably, there is precious little elbow room to tackle unemployment with the big levers of monetary and fiscal policy. The bottom line, therefore, is that in order to speed up the decline in stubbornly high rates of unemployment, Canadians must look to focused, targeted structural solutions. Thus what we are concerned with in this chapter is not the cyclical unemployment associated with swings in the level of activity but those factors which have altered the ease with which unemployed workers and available job openings can be matched, even in times of economic buoyancy.

In the recession year 1983, the unemployment rate in Canada averaged 11.9 per cent, having climbed as high as 12.5 per cent in February of that year. Since then, the rate has fallen more or less continuously – to under 8 per cent in the summer of 1988. Despite this notable progress, unemployment in Canada remains at historically high levels (Chart 3-1).[1] It is the transformation of the industrial structure that is the principal cause of those high levels of unemployment, because it has led to increases in labour-market mismatch.

Mismatching in the Labour Market

Compare the following newspaper advertisements:

Clearly, the mere existence of a job opening is not enough to ensure the employment of a jobless worker, nor does the presence of a job seeker assure an employer of filling an opening. The process of matching people and jobs involves the reconciliation of their infinitely diverse characteristics. The age, sex, education, location, and aspirations of workers must be matched with such job features as pay, working conditions, and skill requirements. But, as the ads suggest, there are additional factors at work that complicate the matching process.

For example, demographic changes markedly affect the character and composition of the labour force. Not only are women more heavily represented than ever before, but the needs, attitudes, and aspirations of labour-force participants are continuously evolving. The rising numbers of married women and of single-parent families, the growing educational and ethnic diversity of Canadians, as well as their changing lifestyles and attitudes to work – all make for different expectations than those which prevailed even as recently as a decade ago.

Recruiting needs are also altered by current developments, such as technological change and the globalization of production and trade. As the ads suggest, some employers are looking for a new breed of employee: versatile, mobile, adaptable. For their part, workers also want flexibility; and, increasingly, they are concerned with nonpecuniary rewards, such as a healthy work environment, job

Help Wanted

Leading-edge biotech firm offers exciting opportunity to versatile, entrepreneurial scientist:

- Ph.D. in biochemistry with proven record of applied research in enzyme engineering
- relocation and frequent travel required
- fluency in Japanese desirable
- six-figure package

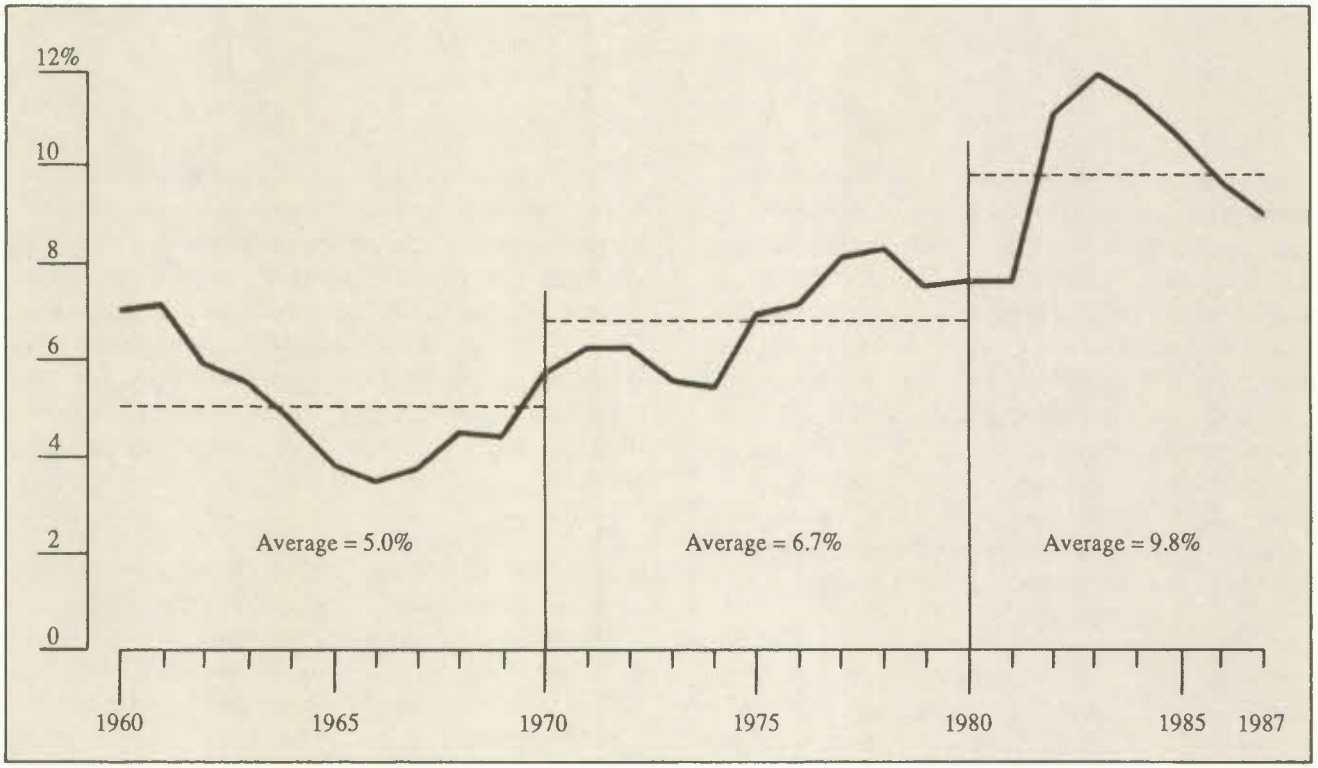
Position Wanted

Arts graduate seeks part-time editorial work in Charlottetown area:

- preference for smoke-free work environment with daycare facilities
- willing to consider job-sharing or home-working arrangements
- salary negotiable
- résumé on request

Chart 3-1

Unemployment Rate, Canada, 1960-87[1]



1 The data for the years 1960 to 1965 include 14-year-olds.
SOURCE Statistics Canada, *The Labour Force*, Cat. 71-001.

satisfaction, and self-fulfilment. As is the case with the vacancy and job seeker in the ad, the marketplace does not always succeed in coordinating with optimum speed and effectiveness the needs of firms and the characteristics of the available labour supply. Numerous factors may impede the matching of people and jobs. Cultural or linguistic ties may hinder geographical mobility, for example; illiteracy may preclude access to training, and attitudes and values may distort hiring decisions. Enlightened government policy can intervene to correct such market failures. To frame appropriate policies, however, it is necessary to know the magnitude of the problem and its causes. As a first step, we consider how mismatching occurs and how it might be measured.

The matching process is, above all, a dynamic one. The labour market is in a constant state of flux, with workers entering and leaving the labour force, finding and losing jobs, and moving from one job to another. Some firms expand and advertise new vacancies; others contract and are forced to lay off workers. At any moment in time, however, a certain number of unemployed persons (people without jobs) and a certain number of unfilled vacancies (jobs without people) will coexist. Much of the unemployment, and many of the vacancies, will be short-lived (or "frictional"), reflecting only the time required for the parties to acquire the requisite information and make the necessary arrangements. Mismatches may also persist over a long period of time, however. A considerable body of evidence suggests that it is precisely the increase in the amount of mismatch that explains the rise in structural unemployment rates at the national level, as well as the increasing disparity between regional unemployment rates (see Chart 2-9).

Some vacancies and some unemployed workers will be found even in a healthy labour market, as individuals search for a good fit between their skills and wage expectations and the vacancies available. Of greater concern than these transitory "frictional" mismatches, however, are the deeper-rooted and more permanent changes that produce structural unemployment. These structural factors can include changes in the demographic composition of the labour force, the impact of policies that alter labour-market incentives, industrial restructuring in response to an altered demand mix or to technological change, and regional variations in unemployment. The most important one for Canada

in recent periods has been industrial restructuring in response to changes in the demand mix and in technology. A lesser role has been played by the impact of certain government policies on labour-market incentives.

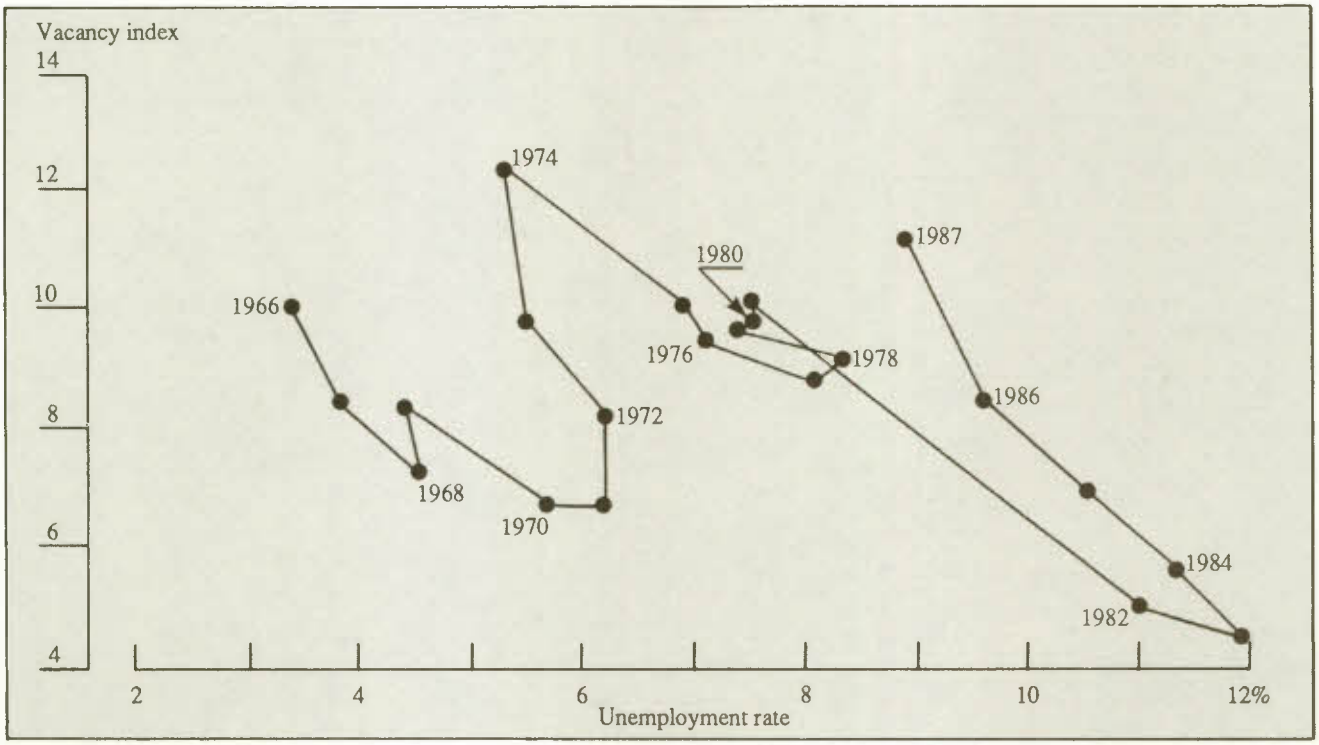
Evidence of the increase in mismatches can be seen in the relationship between unemployment rates and the job-vacancy index. The relationship is shown in Chart 3-2, where each point shows the combination of vacancy index (v) and unemployment rate (u) prevailing for each year between 1966 and 1987. A swing of the uv curve to the upper left represents a tightening of labour markets, with more vacancies and less unemployment; a cyclical swing to the lower right means fewer job vacancies and higher unemployment rates. Notice, however, that the relationship has meandered towards the upper right since the mid-1960s. In other words, over the course of the last two decades, the Canadian labour market has drifted into a situation characterized by both more unemployment and more job vacancies: the national unemployment rate associated with any given level of the vacancy index has shifted upward by 5 percentage points since 1966.[2] Why has this happened?

The Commodity Shocks

The outward shift in the uv curve and the rise in structural unemployment reflected in the estimates of the natural rate (see Appendix Table A-3) are rooted in the commodity shocks[3] of the 1970s and 1980s. The shock of high oil prices in the 1970s had a major impact on the mix of demand. Overnight, the demand for energy-efficient products rose, while the demand for energy-guzzling products declined dramatically. Naturally, some firms and industries experienced significant growth, while others saw the demand for their products evaporate. In the case of the second oil shock in 1979, these factors were exacerbated by the high interest rates that prevailed at the time, the drop in other commodity prices, and the recession triggered by the oil shocks. At the level of the firm, reactions to the recession, the credit squeeze, and the commodity shocks were reflected in retrenching, retooling, and the rationalization of operations. At the macroeconomic level, the movement from a goods-producing system towards a service-based one quickened. These effects were reflected in an acceleration of the rate at which jobs disappeared, as well as in a

Chart 3-2

The Unemployment/Job-Vacancies[1] Relationship, Canada, 1966-87



1 The vacancy index is derived from Statistics Canada's Help-Wanted index and is expressed as a proportion of nonagricultural paid workers.

SOURCE S. Gera, S. S. Rahman, J.-L. Arcand, and L. Lavallée, "Help Wanted index, job vacancies and structural unemployment in Canada," a background paper prepared for the Economic Council of Canada, June 1988, as updated by the authors.

radical shift in the nature of the new jobs being offered. The net result was an increase in the degree of structural mismatch in the economy at any given time. Whatever the initial reason for the layoff of workers, a considerable amount of the unemployment generated in 1981 and 1982 became structural, as firms responded to tight money and uncertain demand conditions by rationalizing and restructuring the production process.[4]

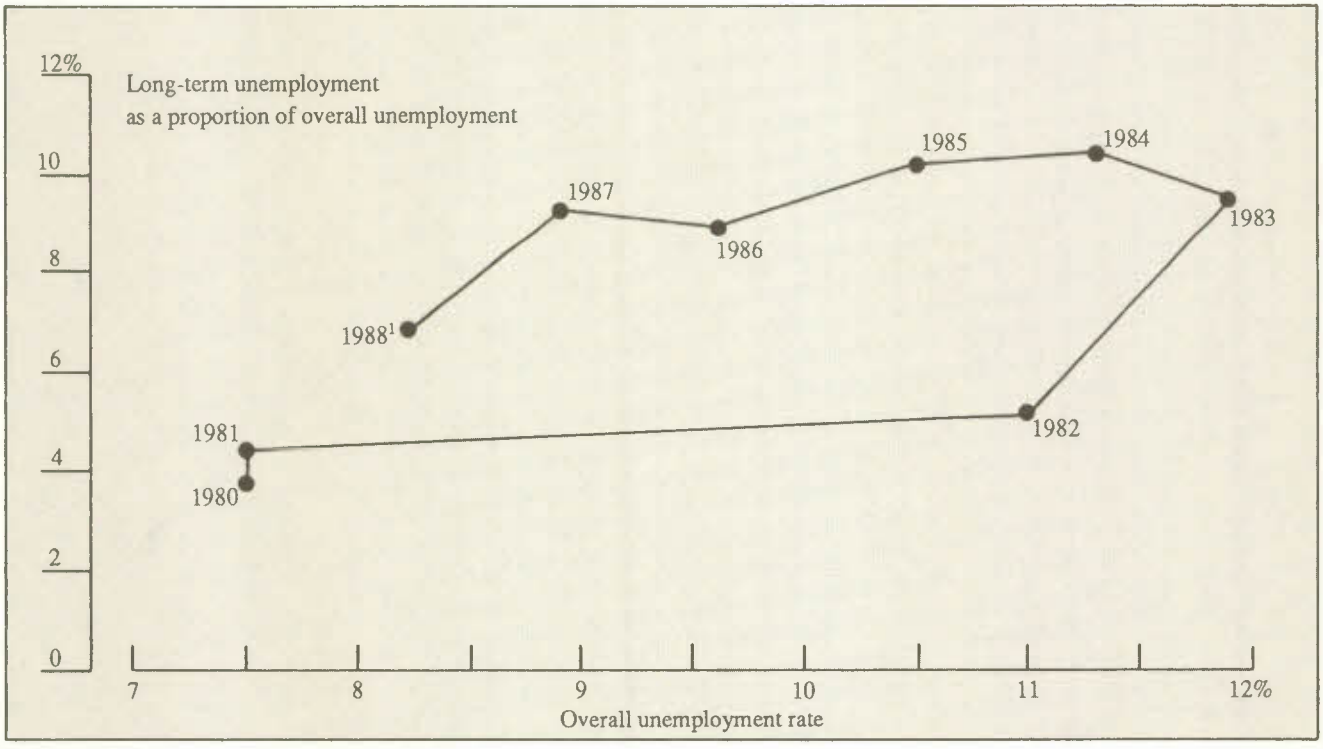
A large body of evidence supports this interpretation of the increase in structural unemployment during the 1970s and 1980s. One indicator of structural unemployment is long-term unemployment, defined here as lasting 53 weeks or more. Such an extended search is indicative of a serious failure on the part of markets to match job seekers with existing job vacancies. After 1980, the proportion of all job seekers who were long-term unemployed increased dramatically – from between 4 and 5 per cent in 1980-82 to approximately 10 per cent over 1983-87. Only recently has that percentage begun to decline (Chart 3-3).

The proportion of older workers (aged 45 and over) among the long-term unemployed rose from 24 to 34 per cent between 1983 and 1987. This suggests that there was an increase in job/worker mismatching brought about by a change in the structure of demand and in the organization of the workplace. Older workers are typically less mobile than younger workers, primarily because they tend to be more burdened by family responsibilities and because their skills tend to be more firm- or industry-specific. Faced with layoffs in one industry, brought about by a change in the mix of demand, they will find it more difficult to cross geographical borders or occupational lines in order to gain employment in sectors that are experiencing growth.

Of further concern is the fact that long-term unemployment itself is a potential source of structural unemployment. Previous work by the Council has described the vicious circle of long-term unemployment: the longer people are out of work, the less is their chance of finding a job.[5] Two factors explain this phenomenon. On the demand side, employers may use the duration of joblessness as a device to screen potential job applicants: a long spell of unemployment will have a negative impact on the applicant's chances if it is perceived as signaling some sort of inadequacy. As a result, the long-term unemployed may be pushed to the back of the queue of job applicants. On the supply side, the longer that individuals are engaged in an unsuccessful job search,

Chart 3-3

Long-Term Unemployment, Canada, 1980-88



1 January-June.

SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

the more discouraged they are likely to become and the less likely they are to maintain the intensity of their job search. Moreover, a long absence from work may lead to a deterioration of job skills and work habits.

Long-term unemployment tends to be more prevalent in the regions that have undergone the most severe industrial restructuring in the 1980s – that is, in Quebec and British Columbia. In addition, Quebec's rate of long-term unemployment has fallen much more slowly than those of Ontario and British Columbia in the past year or so – a sign that the problems of skill obsolescence and discouragement have been more traumatic for Quebec workers leaving the mining and manufacturing sectors than they have been for workers in other provinces.

Regional Industrial Structure

Further evidence of the importance of the changes in demand engendered by the commodity shocks of the 1970s can be seen in the accelerated shift in employment away from the goods-producing sector to the service sector. In fact, research conducted at the Council suggests that much of the increased disparity in regional unemployment rates can be explained by variations between provinces in the pace and timing of the long-term shift in employment from goods to services.[6]

All regions in Canada are experiencing the long-term industrial transformation from goods production to service activities. As a result, the share of employment in the goods-producing industries (manufacturing, mining, construction, forestry, and agriculture) has been declining for decades. While the rate of decline was relatively uniform across all provinces in the 1960s, after 1973 the pace of the industrial shift began to diverge from one region to another. For Canada as a whole, the employment share of goods industries declined from just over 34 per cent in 1975 to 29 per cent in 1987 (Table 3-1). The decline between 1975 and 1980 was relatively gradual, suggesting that workers were probably gravitating to service jobs because employment growth in the goods industries was slow. In other words, before 1980 the transition was evolutionary and predictable, but after 1980 the pace accelerated in response to the commodity shocks, high interest rates, and the recession. Thousands of workers in the goods-producing industries were suddenly laid off; many of them were never recalled by their employers.

A special study commissioned by Statistics Canada[7] and others by the Council suggest that a high proportion of displaced workers do eventually find new jobs. As we pointed out in our report on *Adjustment Policies for Trade-Sensitive Industries*, however, "adjustment problems are likely to be most acute in cases where the industrial base is narrow or where older workers are particularly affected."[8] Thus the relatively sharp increases in structural unemployment observed in the less-diversified eastern and western provinces, compared with the more moderate reactions in Ontario (see Chart 2-10), are consistent with an increase in mismatching.

The effect of the shift in industrial structure is reflected in changes in the percentage of all workers employed in the goods-producing industries. After 1980, all five regions

Table 3-1

Employment in Goods-Producing Industries and Natural Unemployment Rate, by Region, Canada, Selected Years, 1975-87

	Employment in goods-producing industries as a proportion of total employment			Average natural rate of unemployment		
	1975	1980	1987	1975-80	1981-86	Change, 1975-86
			(Per cent)			
Atlantic provinces	32.3	31.4	28.9	10.9	13.4	22.9
Quebec	34.5	32.0	28.7	8.6	9.7	12.8
Ontario	35.5	35.4	31.7	5.5	6.0	9.1
Prairie provinces	35.8	33.0	28.3	4.1	7.1	73.2
British Columbia	29.0	28.0	24.0	7.5	10.5	40.0
Canada	34.4	33.0	29.3	6.7	8.2	22.4

SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada; and A. Burns, "The natural rate of unemployment," a background paper prepared for the Economic Council of Canada, March 1988.

experienced an acceleration in the rate of transition from goods production to service activities.

The Prairie provinces and British Columbia experienced the largest relative increase in structural unemployment, as well as the largest shift in the structure of the labour force. In British Columbia, the acceleration in the shift towards a service-oriented economy was accompanied by a large increase in manufacturing productivity (Chart 3-4), suggesting that the restructuring and revitalizing process did much to improve the competitiveness of manufacturing in that province. It would appear, however, that the competitive improvement failed to generate sufficient employment to re-employ displaced workers. In the Prairie provinces, falling commodity prices led to a decrease in construction activity, as well as to a general decline in manufacturing, but there is little evidence that the manufacturing sector has undergone a revitalization process similar to that which is suggested by British Columbia's productivity figures.

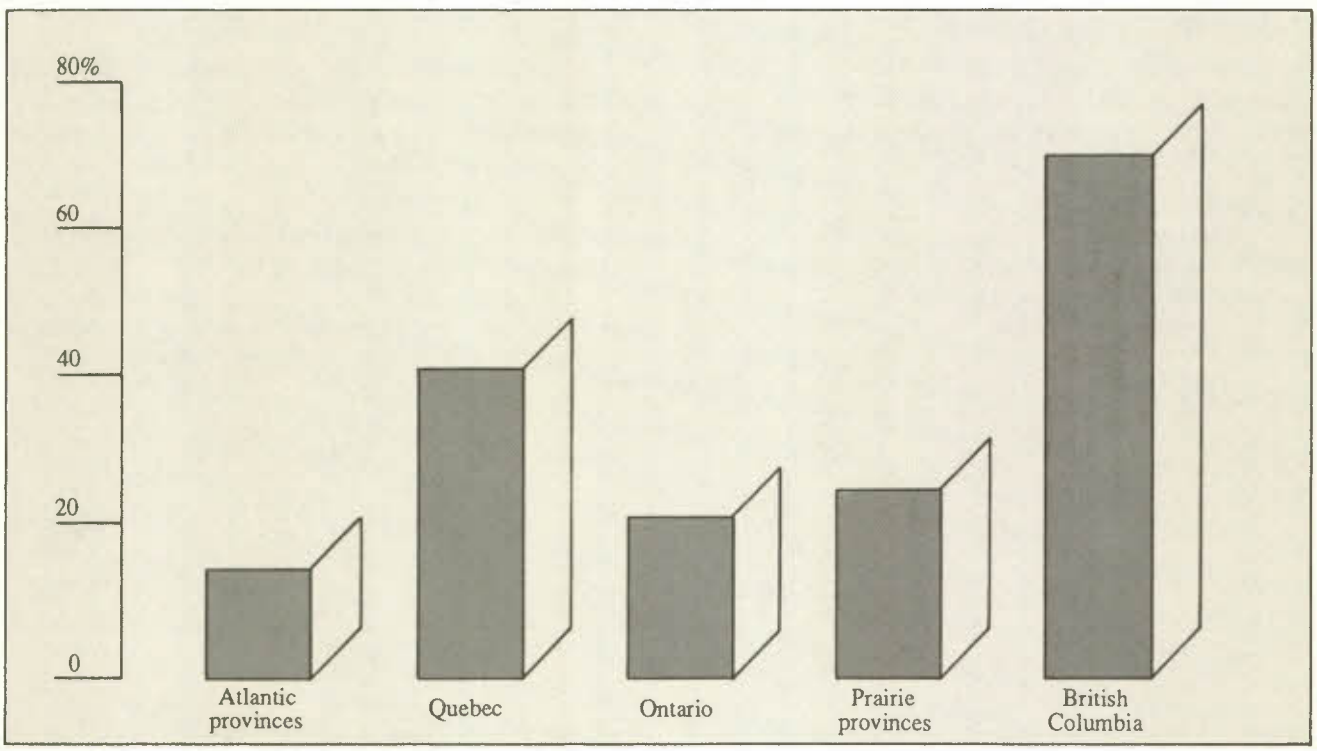
Ontario experienced very little increase in structural unemployment, owing to the diversity and density of its economy, which enabled workers to move relatively easily from declining to expanding industries. In Quebec, the share of manufacturing in total employment fell less abruptly than in British Columbia, but that decline was not any smaller in overall magnitude. As in British Columbia, there is evidence in Quebec of significant improvements in productivity accompanying the shake-out of the goods-producing industries and the concomitant increases in structural unemployment.

The Atlantic provinces have experienced a relatively small increase in structural unemployment (in percentage terms) and very little productivity gain. The shift in employment from goods-producing to service-oriented industries in that region has been much slower than in the rest of the country, and it contributes little to the explanation of the growth of unemployment. Research at the Council indicates that unemployment rates in the Atlantic provinces have been affected by other factors, among them increased real wages and the policy factors discussed below.[9]

In addition to mismatch within regions, there is the possibility of mismatch across regions. If there is excess demand for skilled carpenters in British Columbia and the only unemployed carpenters are in Newfoundland, interregional mismatch occurs. There are obviously many

Chart 3-4

Growth in Output per Person Employed in Manufacturing, by Region, Canada, 1975-87



SOURCE Conference Board of Canada, Provincial database, 1988.

barriers to mobility across regions; some are social (family, language, and cultural ties), while others are economic (the high cost of housing in Toronto, for example). The point here is that when the mismatching of jobs and people occurs within a community or a province, it raises local or provincial unemployment rates. But in a national context, mismatching also occurs because people are unwilling to move from one region to another.

Policy Factors

Several government policies, such as the provision of unemployment-insurance (UI) benefits and minimum-wage laws, directly affect both the willingness of individuals to supply labour and the decisions of firms to hire workers. As a result, they have direct implications for structural unemployment.

By subsidizing the process of job search, the UI system has helped millions of Canadians to survive bouts of joblessness that were not of their own making and to find not just any job, but one that matched their skills and aspirations. Unemployment insurance has become a central strand of Canada's social safety net, and the Council believes it to be a fundamental requirement of a humane society capable of shielding its members from the undesirable effects of an otherwise beneficial, dynamic economy.

Desirable as the UI program may be, it has also been subject to some abuse by workers and employers. The Newfoundland Royal Commission on Employment and Unemployment reported that unemployment insurance can become part of the community culture in regions where there are very high levels of joblessness. In that province, UI benefits have served as a vehicle for sharing work and related income support, to the point where incentives to go to school or to seek a full-time job have been seriously eroded.

Research at the Council has estimated the addition to the national unemployment rate that resulted from the legislative revisions of 1972, which significantly increased the generosity of UI benefits.[10] But later revisions to the *Unemployment Insurance Act* (in 1976 and 1979) reduced that generosity by increasing the qualification period for entitlement and decreasing both the duration of the benefit period and the benefit rate. Although the system today is still more generous than it was in 1970, these recent revisions have contributed to a net reduction in unemployment since 1976.

Another important facet of the UI system has been the provision of regionally extended benefits. This feature contributes to interregional variations in unemployment rates by increasing the generosity of the system in regions where unemployment is high. Indeed, the contribution of the UI system to increased provincial unemployment rates has been greatest in those provinces where extended benefits are the most generous. Thus, while the increment to the unemployment rate in Saskatchewan in 1986 was estimated at just over half a percentage point, in New Brunswick – where the UI system was more generous – the increment was close to 2 percentage points.

Minimum-wage legislation can also be expected to have an adverse effect on the employment prospects of certain groups by raising the cost of hiring those workers without increasing their productivity. Council research suggests that minimum-wage laws exert less restraint on the efficient functioning of labour markets in 1988 than they did in the 1970s. The amount of unemployment attributed to minimum-wage legislation has declined in Quebec, Ontario, and Manitoba since 1976.[11]

Summary

The forces set loose by the 1981-82 recession and the associated drop in commodity prices resulted in a painful shock for Canadian workers. Because the shift was so sudden, there has been congestion in the labour market ever since, and that congestion has caused hardship for older workers in particular. There is some evidence that the effect of that shock is now wearing off, however. The backlog of long-term unemployment began to recede during the past year, and the estimated "natural" rate of unemployment has fallen considerably since it peaked in 1982.

Indeed, the industrial shift from goods to services may now be returning to the more gradual pace of the 1960s and 1970s. If that is the case, the mismatching problem in the years ahead could diminish somewhat. In the light of continuing trade liberalization and rapid technological change, however, there is no escaping the need to prepare workers for the transition to new kinds of jobs. Besides, as we shall see below, mismatching problems also occur within the service sector.

Maintaining steady growth in employment is clearly essential to making further progress in reducing unemployment rates. But in order to attack the mismatching problem at its roots, Canada will have to focus on programs and policies that are geared to helping workers move from one kind of industry and/or occupation to another. This means that policies to relieve the mismatching problem must be attuned to the needs of the region, or even the

community. Standardized, blanket approaches to the design and delivery of labour-market programs will be much less successful than decentralized approaches tailored to local needs.

Sectoral Shifts and the Labour Market: The Case of the Service Sector

When a worker loses his/her job in Canada's traditional industries – resources or manufacturing – where are most of the new jobs likely to be? Probably in services. But how well do the skills of a miner or a machinist match the needs of the service industries? At first glance, it might appear that rapid job growth in the service sector would help to lower unemployment levels in Canada. The service sector, however, has its own special needs: the skills, pay, and working conditions differ from those in the goods sector. Moreover, the service sector is itself made up of a variety of industries that differ markedly in their rates of job creation. To assess the prospects of mismatching in the Canadian labour market, therefore, it is necessary to examine the characteristics of employment in the large and growing service economy. Our discussion of this topic is based on the preliminary findings of a detailed study currently under way at the Council.

Canadians are now living in a service economy: not only does over 60 per cent of the country's output in the late 1980s consist of services, but the service sector now employs seven out of every 10 workers. The dominance of services is, of course, a relatively new development. As recently as 1951, for example, the service sector accounted for only 44 per cent of employment, as most Canadians were still working in resource production, construction, or manufacturing.

The trend towards services has not lost any of its momentum in the 1980s. Since the beginning of the decade, net employment in Canada has increased by 1.25 million jobs, and *all* of that net increase has been in the service sector. But this overall growth masks a varied pattern of performance among the industries that comprise the service sector. Indeed, the diversity of the service sector in terms of growth and skill requirements creates major challenges for the matching of people with jobs.

First, however, what are the "service" industries? How can we classify them in order to make some sense of their diversity? The following industry divisions come under the services umbrella:

- Transportation, communications, and public utilities;
- Trade;
- Finance, insurance, and real estate;
- Business services (e.g., computer services or engineering services);
- Personal services (e.g., barbers or dry cleaners);
- Accommodation and food;
- Health, education, and social services; and
- Government services.

This is clearly a heterogeneous collection of activities. Some of these industries operate in markets; others do not. While all of them involve some sort of transformation, the specific nature of that transformation can involve people, goods, or information. In light of these distinctions, the service industries have been organized into a classification scheme (see box). Where possible, the data in the following

Classification of the Service Subsectors

	Subsectors		
	Personal services	Distributive services	Information services
Market	Personal services Accommodation and food	Transportation Communications Public utilities Trade	Finance, insurance, and real estate Business services
Nonmarket services	Public administration Health Education Social services		

discussion are presented in accordance with that classification.

The Growth in Service Employment

In comparison with the goods-producing sector, the contribution of relatively high output growth and lower productivity growth in the service sector resulted in much higher average annual rates of employment growth (Chart 3-5). Note that the Canadian experience parallels similar shifts in most other OECD countries.[12]

To see where growth has taken place in the service sector, we look at output and employment over the past 25 years in the four subsectors (Table 3-2). During that period, personal services (such as food and accommodation) were the fastest-growing subsector in terms of employment creation.[13] This group of industries accounted for 17 per cent of service employment in 1987, though its output share, at 9 per cent, was relatively small. The employment gains of this subsector have clearly been bought with poor productivity performance.

Information services have also recorded impressive rates of job growth, though their share of total service employment remains small. Unlike personal services, output has grown relatively quickly. Information services now account for more than 28 per cent of the output of the service economy, and their employment growth has been accompanied by modest productivity increases.

Distributive services have represented the largest service subsector for many decades. They were responsible for 42 per cent of total service employment in 1971. That share has declined slowly over time, however, and in 1987 it was 36 per cent. Thus, although employment growth has been slow, this subsector remains the largest service employer, and its output has grown steadily. Obviously, these industries have been able to generate large productivity gains.

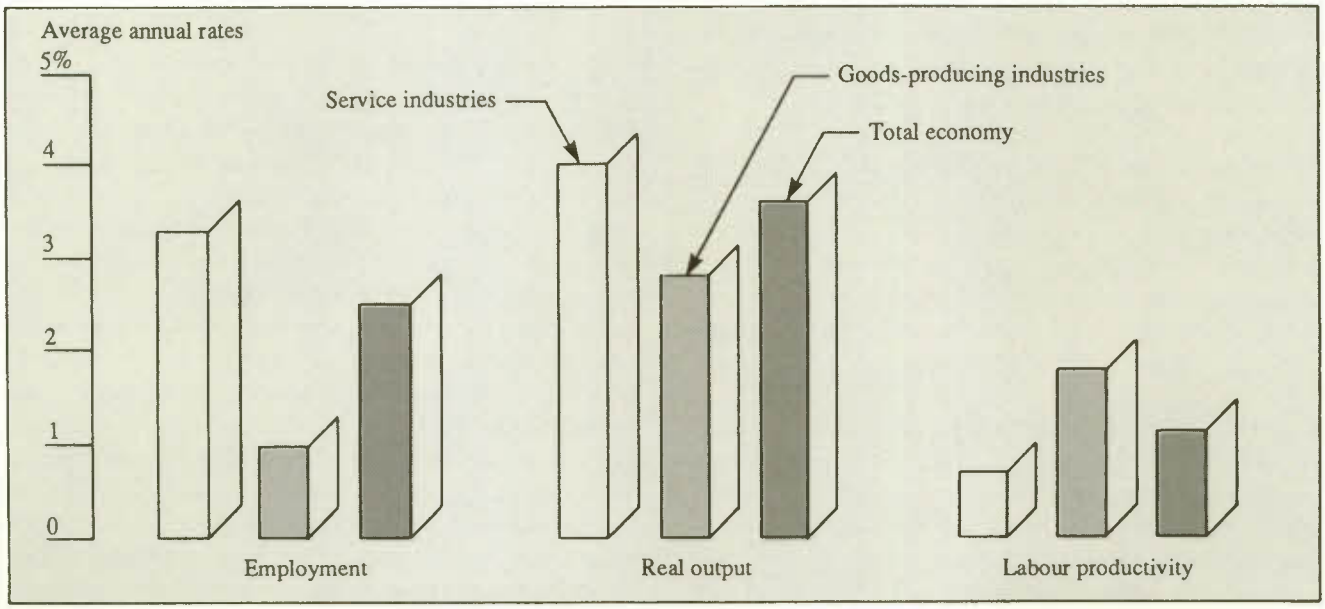
The relative importance of nonmarket services has not changed since 1962. Their share of total service employment has remained stable, while their share of output has declined. Growth was relatively strong in the 1960s, as government services expanded significantly in the rapidly growing postwar economy. More recently, however, with more-constrained public spending in many areas, growth in both output and employment has slowed considerably.

The Job-Quality Issue

If the service industries have been the engine of employment growth over the last two decades, what types of jobs are being created? There is a commonly held perception that

Chart 3-5

Growth in Employment, Real Output, and Labour Productivity, Canada, 1971-87



SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

Table 3-2

Growth and Composition of the Service Sector, by Major Subsector, Canada, 1962-87

	1962-71	1971-81	1981-87
		(Per cent)	
Growth in employment:			
Distributive services	22.6	35.9	8.1
Personal services	..	87.7	19.5
Information services	..	73.7	20.9
Nonmarket services	..	45.2	15.2
Growth in real output:			
Distributive services	75.3	52.7	25.2
Personal services	34.1	65.4	11.6
Information services	62.4	81.3	22.8
Nonmarket services	65.4	32.0	10.8
Share of total service-sector employment:			
Distributive services	41.7	37.7	35.7
Personal services	13.0	16.2	17.0
Information services	12.1	14.0	14.9
Nonmarket services	33.2	32.1	32.4
Share of total service-sector output:			
Distributive services	34.5	34.4	36.1
Personal services	9.0	9.7	9.1
Information services	23.1	27.3	28.1
Nonmarket services	33.3	28.6	26.6

SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

service jobs are inferior, so that the faster employment growth in services is leading to an overall decrease in job quality. Is this concern justified? In considering the elusive concept of quality, two dimensions of employment are of particular interest: income, and job stability.

Are service-sector jobs low-paying jobs? Chart 3-6 shows that wage rates in two service groups that are very large employers – retail trade; and community, business, and personal services – are well below the national average. But some service industries (for example, communications) are *above* the average, so it is not accurate to characterize the entire service sector as a low-wage sector.[14]

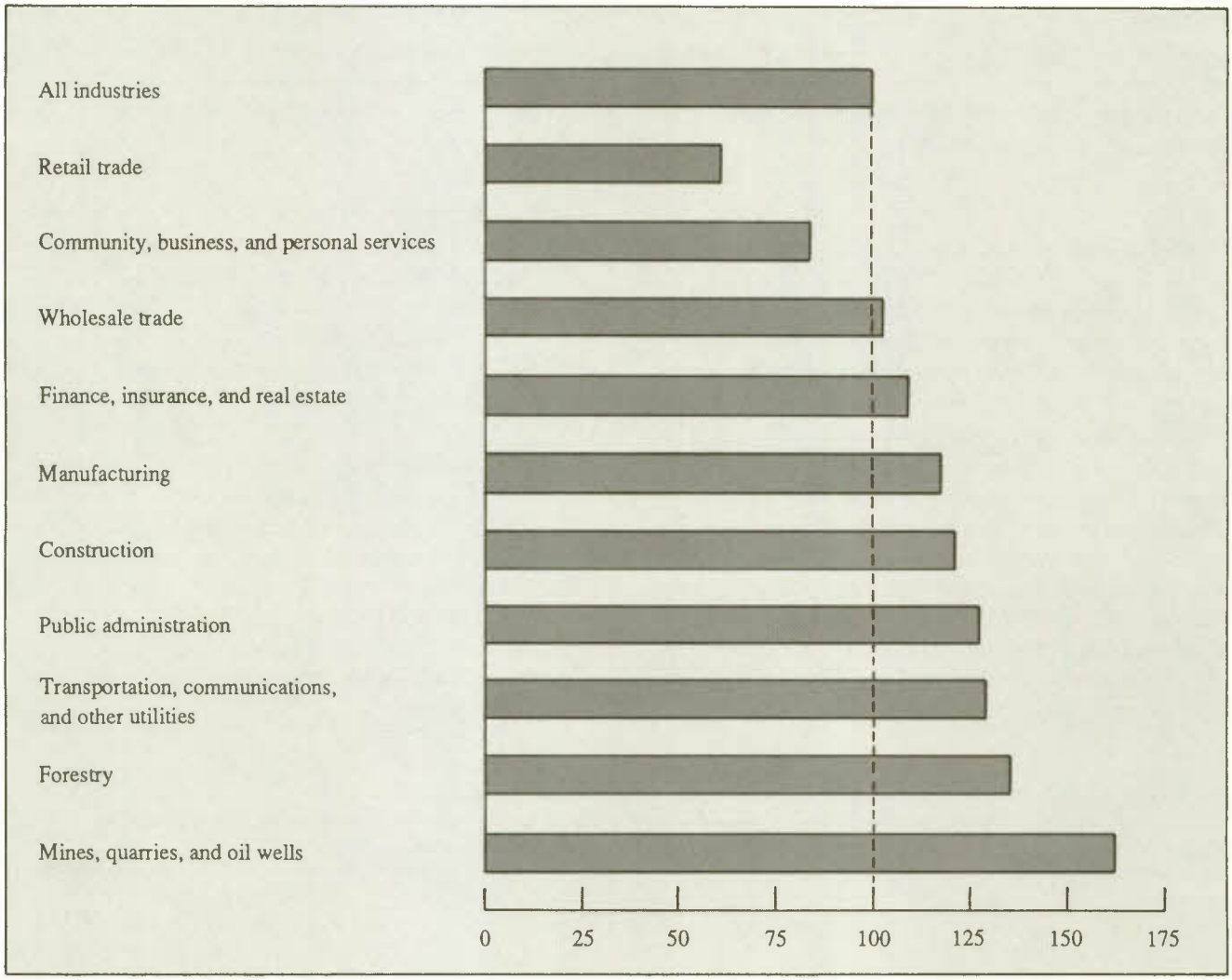
Another aspect of job quality is job security, in particular as viewed in the context of *travail précaire*. As opposed to traditional full-time work, *travail précaire* (as it is called in the European literature) provides workers with discontinuous job patterns, short-term contracts, temporary work, and poor benefit coverage, leading to poor job attachment and rapid job turnover. To assess whether the shift towards a service economy increases the more precarious forms of employment, three indicators are examined: involuntary part-time employment, job tenure, and job turnover.

In general, part-time workers are less well paid, have fewer fringe benefits, and have less access to protective legislation and collective bargaining than their full-time counterparts. The data show that involuntary part-time employment – that is, the employment of people who are forced to accept a part-time job because they are unable to find a full-time one – commands a greater share of total employment in the service sector than in the goods sector. Among the industries with high rates of involuntary part-time employment are retail trade, community services, and personal services. There are, of course, growing numbers of workers who prefer part-time work; they are quite appropriately treated separately as voluntary part-time workers.

Another important part of job precariousness involves the permanence of employment. There have been concerns that the incidence of temporary, short-term jobs is increasing, at least in part because of the growth of the service sector.[15] In fact, there has been only a modest rise in the incidence of

Chart 3-6

Index of Average Weekly Earnings, by Industry, Canada, 1987



SOURCE Estimates by the Economic Council of Canada, based on data from Statistics Canada.

short-tenure work since 1975, and the increase has been greater in the goods than in the service industries. Within the latter, the pattern has been mixed. Short-tenure employment has increased in retail and wholesale trade and in community, business, and personal services – the two industries that had the highest incidence of short-term employment to begin with – while the financial sector and public administration have experienced a decline.

A third indicator of employment instability is job turnover. While some turnover is necessary for flexibility and adaptability, high turnover rates are associated with low-quality jobs that do not encourage workers to maintain a long-term attachment to employers. Overall, the goods industries are characterized by higher turnover levels than the service industries. The composition of this turnover, however, is significantly different in the two sectors. In the goods industries, most worker separations are employer-initiated layoffs – some permanent and some temporary. In services, on the other hand, where business levels fluctuate less, layoffs are not nearly as prevalent; much more of the turnover appears to be worker-initiated – in the form of quits, for example. Quit rates are particularly high in the accommodation and food industry.[16]

On balance, the indicators considered here offer a mixed story on the implications of the sectoral shift for job stability. Certainly, in many ways, service-sector employment does seem more precarious than goods-sector employment. There is considerably more part-time – and, notably, more

involuntary part-time – work in the service sector, especially in retail trade and in community and personal services. As well, some of these industries have high quit rates, which may simply reflect the characteristics of the work force but could also be indicative of low-quality jobs. On the other hand, there continues to be considerable instability in the goods sector, caused by substantial layoff rates that are not evident in the service sector.

Meeting Skill Requirements

The skill requirements of the service economy are of vital importance to the matching of people and jobs. There are two, quite different aspects to this issue, related to the low- and high-skill segments of the service-sector labour market. A significant proportion of service employment is composed of low-skill, low-wage jobs that have traditionally been filled by women and young people. Demographic and labour-participation trends suggest that the supply of such workers will grow more slowly in the future and may not be adequate to meet the expected increases in employment demand.[17] At the other end of the spectrum, more highly skilled workers will be required in the future – notably in the distributive and information services, which are operating in increasingly competitive markets.

Low-skill jobs — Low-paid employment is particularly evident in retail trade and in community, business, and personal services: in 1987, the average weekly earnings in those two groups were 39 and 16 per cent below the all-industry average, respectively. These two industries are the largest employers in the service sector; together, they account for over 45 per cent of total employment in this country.

Projections suggest that low-wage service jobs will continue to play a major role in employment growth (Table 3-3). The 10 occupations expected to contribute the highest number of new jobs until 1995 are found predominantly in the service sector, and most are low- to medium-skill positions. These industries employ a high proportion of women and young people.

There are indications that not enough women and young people will be available to meet the expected demand at the low-skill end of the service-sector labour market. The number of workers aged 15 to 24 will actually decline by 450,000 between 1987 and 1995. At the same time, the number of women aged 25 and over in the labour force is expected to rise by around 3 per cent by 1992 – a much slower rate of increase than the 4.6 per cent recorded for the period 1980-87.

Table 3-3

Occupations Contributing the Most to Projected Employment Growth, Canada, 1987-95

	Projected new job openings, 1987-95[1]	Share of employment, 1981	
		Both sexes, under age 25	Women, all age groups
	(Thousands)	(Per cent)	
Food and beverage servers	77.3	58	86
Bookkeepers and accounting clerks	44.4	26	82
Secretaries and stenographers	43.1	28	99
Janitors and cleaners	31.0	25	41
Cashiers and tellers	30.3	54	93
Truck drivers	25.6	23	3
Elementary school teachers	21.4	8	80
Accountants, auditors, and other financial officers	18.8	5	29
Food and beverage supervisors	18.0	19	42
Sales and advertising managers	17.5	8	17
All occupations in the economy	. .	25	41

1 The number of job openings expected to result from growth in the economy.

SOURCE Employment and Immmigration Canada, *Job Futures: An Occupational Outlook to 1995*, vol. 2 (Ottawa: Supply and Services Canada, 1987).

This deceleration of growth in female participation, coupled with the aging of the working population, probably presages a shortage of workers to fill low-skill service occupations in the future. Indeed, the future may already have arrived in certain high-growth areas of the country. Retail and hospitality firms in southern Ontario are now experiencing shortages in entry-level positions.[18] This situation calls for a rethinking of traditional recruitment patterns. Persistent vacancies may force employers to upgrade the quality of low-skill service jobs, offering some combination of higher pay, better benefits, and more opportunities for promotion. Or they may choose to recruit older workers – a group that is increasing numerically in the Canadian labour force – or to press for an increase in the number of new immigrants.

High-skill jobs — Not all of the growth in service-sector employment is taking place in unskilled occupations. While we have noted that the largest absolute contribution to job creation will come from the low end of the labour market, a number of the occupations with the highest projected growth rates have high skill levels. For example, the following occupations are anticipated to experience above-average growth rates to 1995: architects, civil engineers, aerospace engineers, surveyors, lawyers, university professors, community-college teachers, optometrists, musicians, choreographers, actors, and sports and recreation instructors. Projections made in the United States by the Bureau of Labor Statistics and the Hudson Institute indicate that many of the fastest-growing occupations in that country are also expected to be high-skill service occupations.[19]

Most of these occupations require advanced education or training. Many of them are likely to play a critical role in the success of service firms, which are operating in increasingly competitive environments in Canada and – for some industries, such as financial services, business services, and communications – internationally as well. Success in those markets will require highly skilled personnel who are capable of exploiting new technologies and new business opportunities.

In a more general sense, the expansion of increasingly competitive services is affecting the *kinds* of skills that all workers must have. New emphasis is being placed on the need for a variety of "postindustrial" skills, ranging from interpersonal abilities (such as teamwork and customer relations) to the ability to handle unpredictable events. Flexibility and adaptability are becoming the basic currency of the work force of the late 20th century; as one observer put it: "The skills of acting and thinking in dynamic settings . . . may in fact constitute the basic literacy of the service economy."[20]

In summary, it is useful to paint the service sector in two colours: One represents "dynamic," high-value-added industries, operating in competitive settings and oriented towards productivity growth and the adoption of new technologies. This includes the information services and much of the distributive services. The other represents "traditional" service industries (personal services and retail trade), with essentially the opposite characteristics – i.e., low productivity and low wages. Each accounts for an important share of the rapid expansion of the service sector. This excludes the nonmarket services, where the future will be largely dictated by political choices. Government services exhibit employment characteristics more akin to the "dynamic" services, but they do not share their competitive features.

In the case of traditional services, two issues come to the fore. The first concerns the problem of meeting manpower needs when traditional supply sources do not grow rapidly enough. The second issue pertains to the poor quality of the jobs in these traditional service industries. If such shortages do materialize, it remains to be seen whether employers will improve the quality of employment in an attempt to attract job applicants who are seeking better working conditions (including better wages).

The major issue for dynamic industries will be the development of a skilled work force. Increasingly, these dynamic services seem to be operating in competitive environments, where the quality of human resources is a key to survival and growth.

Workers coming out of jobs in the primary industries or in manufacturing thus face an important fork in the road. Do they have the work skills to win a job in the dynamic service sector (with high productivity and high wages) or will they be forced, because they lack the appropriate skills, to go to less attractive jobs in traditional services? A critical question for the medium term will be whether employers in the traditional services will be able to find ways to upgrade jobs so as to make them attractive to the more mature workers.

Conclusion

The analysis in this chapter shows that the currently high levels of unemployment in Canada stem from a variety of structural factors in labour markets, which result in a growing mismatch between unfilled vacancies and the attributes of the unemployed. This maladjustment is illustrated most clearly in the growth of long-term unemployment, since the presence of long spells of unemployment in the face of large

numbers of job vacancies is a sign that the unemployed lack the skills that employers require. Also disturbing is the growth in disparities between regional labour markets, which has been provoked by the shifting industrial structure in such provinces as British Columbia and Quebec. If governments are to reduce unemployment further, macroeconomic policy must be supplemented by a range of much more specific policies aimed at improving the way in which labour markets function.

Manpower training can, in principle, alleviate the joblessness that is caused by deficient skills. Here, our analysis suggests that programs must, in practice, be highly adaptable to rapidly changing circumstances and targeted at the requirements of local labour markets. It is not just that technological advance is hastening skill obsolescence; the nature and destination of the clientele are also changing. For example, the special needs of older workers are assuming greater importance, while the special needs of the expanding service sector demand a reorientation of the more traditional, craft-oriented programs. For older workers with lower levels of educational attainment, in particular, literacy or remedial education programs may be needed before fresh vocational skills can be acquired.

Timely and high-quality information will also be vital to the job search of the unemployed, the hiring decisions of employers, and the planning of future strategies by decision makers in all sectors. The pace of change in the labour market places a high premium on investment in human capital.

4 A Window on the Longer Term

It often takes a look back over recent history to understand why certain economic events occur. But we must also look forward over a longer time span to try to determine what problems (and opportunities) are likely to greet us in the years ahead. In the next few pages, we open a window on the longer term. The dominant issues in the year 2000 will be very different from those of the recent past, partly because the pressures associated with a growing population, with technology, and with the state of the environment will continue to grow. Nonetheless, we find that the economic policy priorities for Canada will be surprisingly familiar.

Linkages between Global Systems

The world today faces severe environmental problems that are largely the direct result of human actions – deforestation, acid rain, depletion of the ozone layer, toxic wastes, the "greenhouse effect," the extinction of several animal and plant species, and others. It is also plagued by frightening technological disasters, symbolized by events such as the chemical explosion at Bhopal and the nuclear accident at Chernobyl. Indeed, the United Nations' World Commission on Environment and Development (the Brundtland Commission)[1] has pointed out that mankind's drive to improve living standards is systematically degrading the planet.

In some parts of the world, population pressure and the drive to sustain life are the direct causes of environmental problems. The desertification of some regions of Africa, for example, is the result of deforestation caused by the extension of subsistence agriculture and the ever-growing demand for wood – the main fuel source in those regions. In other parts of the world, environmental problems result more directly from the activities of advanced, industrialized, and urbanized societies. The toxic wastes produced by industrial activity damage the ozone layer, leading experts to fear higher rates of skin cancer in some parts of the world in the future. The burning of fossil fuels creates acid rain, which is damaging forests and killing the plant and animal life in many lakes and streams in parts of North America and Western Europe.

The world's population today stands at around 5 billion people; it will, according to some current estimates, reach over 6 billion people by the year 2000 and 8 billion by 2025. And these billions of people are very unevenly distributed over the earth's surface (Table 4-1). While more than half of them will continue to be found in Asia over the next 40 years, the Asian share will decline gradually. Latin America's small share will increase, while the shares of North America, Europe, and the Soviet Union are small and are expected to decrease. Africa, the poorest region of all, will see a sharp increase in population.

The world's population is also becoming increasingly concentrated, particularly in urban areas of the Third World and of the newly industrialized countries (Table 4-2). The growth of these "megacities" creates tremendous pressure, as masses of people seek the means to meet their minimum requirements for food and shelter. It should be noted that the two largest megacities – Mexico City and Sao Paulo – are already among the most polluted in the world and that each is expected to have at least 24 million people by the year 2000.

Table 4-1

Actual and Projected Size and Growth Rate of the World Population, by Region, 1985, 2000, and 2025

	1985	2000	2025
		(Billions of persons)	
World population	4.8	6.1	8.2
Regional distribution:			
		(Per cent)	
Africa	11.6	14.2	19.7
Latin America	8.5	9.0	9.5
North America	5.4	4.9	4.3
Asia	58.3	58.0	55.2
Europe (less Soviet Union)	10.1	8.3	6.3
Soviet Union	5.8	5.1	4.5
Oceania	0.4	0.5	0.5
Total	100.0	100.0	100.0

SOURCE Based on World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), p. 101.

Table 4-2

Actual and Projected Population in Selected Third-World Cities, 1950 to 2000

	1950	Most recent estimate	U.N. projection for 2000
		(Millions)	
Mexico City	3.05	16.0 (1982)	26.3
Sao Paulo	2.70	12.6 (1980)	24.0
Bombay	3.00 (1951)	8.2 (1981)	16.0
Jakarta	1.45	6.2 (1977)	12.8
Cairo	2.50	8.5 (1979)	13.2
Delhi	1.40 (1951)	5.8 (1981)	13.3
Manila	1.78	5.5 (1980)	11.1
Lagos	0.27 (1952)	4.0 (1980)	8.3
Bogota	0.61	3.9 (1985)	9.6
Nairobi	0.14	0.8 (1979)	5.3
Dar es-Salaam	0.15 (1960)	0.9 (1981)	4.6
Khartoum	0.18	1.1 (1978)	4.1

SOURCE World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), p. 237.

Economic Development and the Environment

Rates of population growth have an important bearing on the pattern of economic development and on the environment. Often, their effects go well beyond the borders of a single country or even a single continent.

In the drive to improve their economic performance, many countries in the Third World are engaging in activities that have serious adverse impacts on the environment. For some time now, developing countries have focused their production on commodities that are in demand in the advanced countries, often to the detriment of food production for their own, rapidly growing populations. An example is the production of cotton as a cash crop for export in the Sahel – notably in Burkina Faso, Chad, Mali, Niger, and Senegal – where it is displacing the production of food crops.[2] During the period in the 1970s when commodity prices rose quickly, many developing countries were able to borrow heavily from the developed countries. The 1980s have seen a sharp drop in commodity prices, however, and those countries which borrowed heavily in the previous decade are now experiencing difficulty in servicing their debt. The debt problem reinforces the need for these countries to export and, consequently, the sort of environmentally damaging behaviour that is associated with the drive to provide both cash crops for export and food for their own populations. It is estimated, for example, that 1.5 million hectares of forest were replaced by pasture for beef production in Brazil's Amazon Basin between the early 1960s and the late 1970s.[3] Deforestation, in turn, seriously disrupts drainage and weather patterns; the cutting and burning of forests also contributes to the global warming trend by releasing carbon dioxide into the atmosphere.

Yet, while the pursuit of economic growth results in certain kinds of environmental damage, there is also abundant evidence that improvements in the standard of living generally tend to slow down the rate of population growth in the developing countries – an outcome that can have positive implications for the environment. Thus we have a paradox here, in that a better outlook for the world environment would seem to require successful economic development. Indeed, because of the transborder effects of environmental problems, it is in the interests of the advanced nations to help the developing countries to achieve that aim quickly and in a way that is least damaging to the environment. What that means, of course, is that the transfer of some existing technologies that are themselves damaging to the environment may not be appropriate; instead, the developed world must work to create technologies that are less harmful. It is also in the best interests of the advanced countries to provide Third World countries with wider access to their markets.

The industrial countries have a vested interest in helping the poor countries to solve this paradox, for two reasons. First, the growing gap between the haves and the have-nots, between expectations and the ability to meet those expectations, will inevitably cause greater international political tension. Second, continued environmental degradation entails a reduction in the capital stock, which is the foundation for future economic growth in all regions of the world. As a consequence, it impairs the well-being of both present and future generations.

A second example of linkage focuses on patterns of development in the more advanced economies. The most heavily industrialized areas are often the most heavily polluted ones as well. Industrial chemicals, the burning of fossil fuels (including automobile pollutants), and the daily production of hundreds of tons of garbage in large cities mean that the quality of the air, water, and land in those regions is deteriorating. These pollutants are seldom localized: once they enter the biosphere, they can spread to all corners of the earth. Today, deposits of toxic elements are found in regions – such as the Arctic and the Antarctic – that are far removed from the polluting sources. Such developments have implications for the survival of different species and hence for the richness of the resource base. Scientists

are now convinced that the release of carbon dioxide and other industrial pollutants contributes to the depletion of the ozone layer and to a climatic warming trend – the "greenhouse effect" – that will have far-reaching consequences for growing conditions and for habitation in many parts of the world. These undesirable environmental developments can only be reversed very slowly; indeed, some may turn out to be irreversible.

Systems Linkages and Policy Making

In a world of growing linkages between systems, decision making appears to require that account be taken of a number of factors, including:

- the "scale of impact" of development decisions;
- the long-term effects of those decisions; and
- the interactions between systems.

As far as the scale of impact is concerned, there are three dimensions – space, time, and intensity. Some environmental impacts are local – the chemical disaster at Bhopal or the disappearance of certain wetlands, for example. Others are regional in scope, as in the case of acid rain. And some impacts have a global reach, as in the case of the "greenhouse effect." It is worth noting that over the past century, accelerating population growth and technological change have combined to make environmental impacts more and more global in scope.

Another dimension is time. Development decisions are often based on cost/benefit analyses that focus on the short term and ignore long-term consequences, particularly for the physical environment. In addition, the cost to society of trying to undo environmental damage may far exceed the benefits associated with the initial development decision. Too often, policy makers are placed in the position of trying to catch up and undo the damage that has already occurred rather than anticipate and prevent it.

The failure to take account of the long-term consequences of development decisions for the environment may be attributable, in part, to the absence of a system of management and accountability that would require the initiators of development to concern themselves with the impact of their decisions on future generations or on people outside their national borders – or, indeed, with short-term, local impacts. It is for reasons such as these that the environment must be regarded as a common heritage and, in economic terms, as part of the capital stock. Environmental decay entails an erosion of that capital stock, which results in a smaller stream of real income and a poorer future for current generations and for generations to come.

Finally, there is the intensity of the impact. Some impacts may be diluted enough that the environment can absorb them; others, however, exceed the absorptive capacity of natural systems.

A second key requirement for wise decision-making is that long-term trends – in human population growth and in the efficiency with which resources are used, for example – and the factors that shape them be identified. The lack of accurate data on the environment and on such issues as long-term trends in global temperature and ozone levels may be the greatest gap in our knowledge of natural phenomena.

Yet, because of discontinuities – that is, sudden changes in trends – long-term trends are not always a reliable basis for predicting impacts. Planning for the future must always include the possibility that the unforeseen will happen.

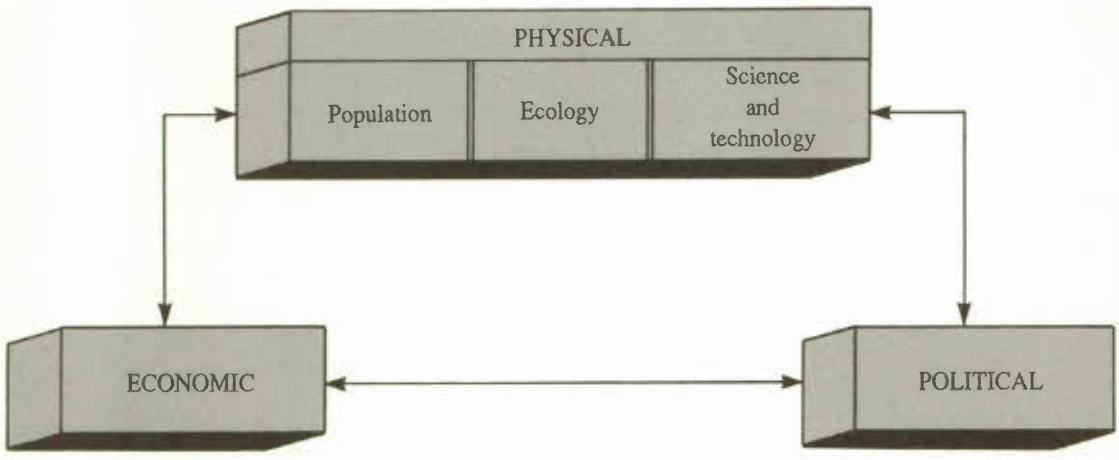
Last – and most important for a better understanding of the environment that is so badly needed – is the identification of the linkages between global systems (see box). Environmental impacts develop out of mankind's use of physical resources; technology is the tool used to transform these resources into goods and services. Since the scale of environmental impacts transcends national boundaries and since all countries contribute to these effects, it is becoming increasingly difficult for a single country or government to control the problems. Governments, however, are not the sole actors: environmental effects are cumulative, and so individual and corporate actions play a key role as well.

In effect, citizens and governments must learn to treat demographic, environmental, economic, and political issues as interdependent if they are to halt the accumulation of problems facing the world. The goal must be to determine where and how these issues interconnect, and how the failure to be attentive to policy issues in one area – say, population – can turn into problems in other areas. They must begin to understand that the gains made in one system can filter through to create gains in the others. As one observer put it:

> These newer concerns tend to transcend borders, national laws, and local customs. As a result, the politics needed to meet present and future challenges require a new vision and a new diplomacy, new leaders, and new policies.[4]

In short, we face a future that poses bold new challenges for decision makers. If they cannot come up with new, more

Linkages between the Global Systems



The Three Two-Way Linkages: Some Illustrations

Physical ↔ Political

- Political decisions to pursue nuclear supremacy may involve testing, which threatens (and, in some cases, actually degrades) the environment – e.g., the mutants at Bikini Atoll; the military/political decision to use Agent Orange, which had severe ecological consequences; and political decisions to promote nuclear energy, which entail the risk of disasters such as those experienced at Three Mile Island and Chernobyl.

- Conversely, environmental threats (such as acid rain) can strain political relations between nations.

Physical ↔ Economic

- Worldwide population expansion poses an economic challenge, not just in the Malthusian sense of increasing food requirements but also because the less developed countries, which often display the highest population growth rates and the highest expectations, must be helped so that they can share in growing global prosperity.

- Simultaneously, the race to exploit the world's natural riches in the name of economic progress frequently results in massive and severe ecological degradation – the extinction of plant and animal species and the consequent reduction in the size of the gene pool, which provides the source material for the introduction of new, desirable characteristics to existing plants and animals.

Political ↔ Economic

- The economic decision to establish the European Common Market led inexorably to far-reaching political consequences within the member states and in the relations between them.

- Ideologically based political decisions (such as the move to "degovernmentalization" by conservative administrations in the United States, the United Kingdom, and Canada) may significantly alter the character of the economy; examples include deregulation, privatization, fiscal reform, and trade liberalization.

cooperative approaches to problem solving and cannot provide the necessary leadership, the situation could easily become chaotic. We will have more to say on the options for the global management of these issues once we have digested the results of the "Visions of Canada in the Year 2000" Conference, which will be held later this year.

The Emerging World Economic System

The spillovers from one global system to another will make economic policy-making far more complex in the years ahead. At the same time, there are five important trends within the world economic system that will influence decision making as we approach the year 2000. They are:

- convergence – that is, a narrowing of the economic gap between the industrial leaders and some of the more successful developing countries (such as South Korea and Taiwan);

- differentiation – that is, a widening of the gap between the rich and some of the very poor countries in the Third World (including many African nations);

- an increase in the number of major centres of economic power;

- the heightened interdependence of national economies, resulting in part from the growth of international trade in goods and of international flows of investment capital, and in part from numerous other linkages, such as growth in trade in services and in flows of knowledge and ideas; and

- a greater orientation towards services and, as more of the service sector becomes knowledge-based, a larger share of services in international trade.

Convergence

Convergence towards the leader, the first of these features, is not a new phenomenon in economic history. Over the centuries, different countries have assumed world leadership at different times, generally on the basis of an advantage of one kind or another that turned out to have a special economic relevance. In the period following the Industrial Revolution, for example, the United Kingdom was able to assert a significant measure of world economic dominance because it controlled key technologies, like steam, the transportation technologies, and textile machinery. Over time, however, Britain lost its exclusive use of these technologies because they were based on knowledge, which moves relatively freely across borders.

In the aftermath of the Second World War, the United States was the unquestioned economic leader in the non-Soviet world. While most of its advantage at that time reflected the wartime destruction of much of the economic base in Europe and Japan, it also rested on U.S. excellence in scientific research, technological development, and innovative methods of business organization and marketing. The United States actively promoted the export of its technology and business methods to those countries. As this knowledge spread, other countries used it to achieve rapid increases in productivity. This growth of productivity and incomes in Europe and Japan facilitated saving and investment, enabling them to close the gap that separated them from the leader. Now, they are leaders themselves in certain industrial sectors – in machine tools (West Germany) and microchips (Japan), for example.

South Korea and Taiwan today have much in common with the Japan of two decades ago; Brazil, too, may be about to make the leap. By the next century, Thailand, Malaysia, and India may be able to follow in the footsteps of Taiwan and South Korea as they, in turn, absorb the benefits of the new technologies and management techniques. Chart 4-1 illustrates the way that per-capita output in nine countries has converged towards that of the United States since 1950.

Differentiation

An economic takeoff like that experienced in Taiwan requires several ingredients. For example, when the educational standards of a country do not enable its people to acquire modern technology and make effective use of it or when there is a lack of either political stability or workplace discipline, the prospects for economic improvement are poor. Thus some countries may be unable to speed up their development, while others are approaching takeoff. In other words, some Third World countries will catch up; others, however, are unlikely to break out of the pattern of poverty. Hence the gap between the rich and the very poor is likely to widen.

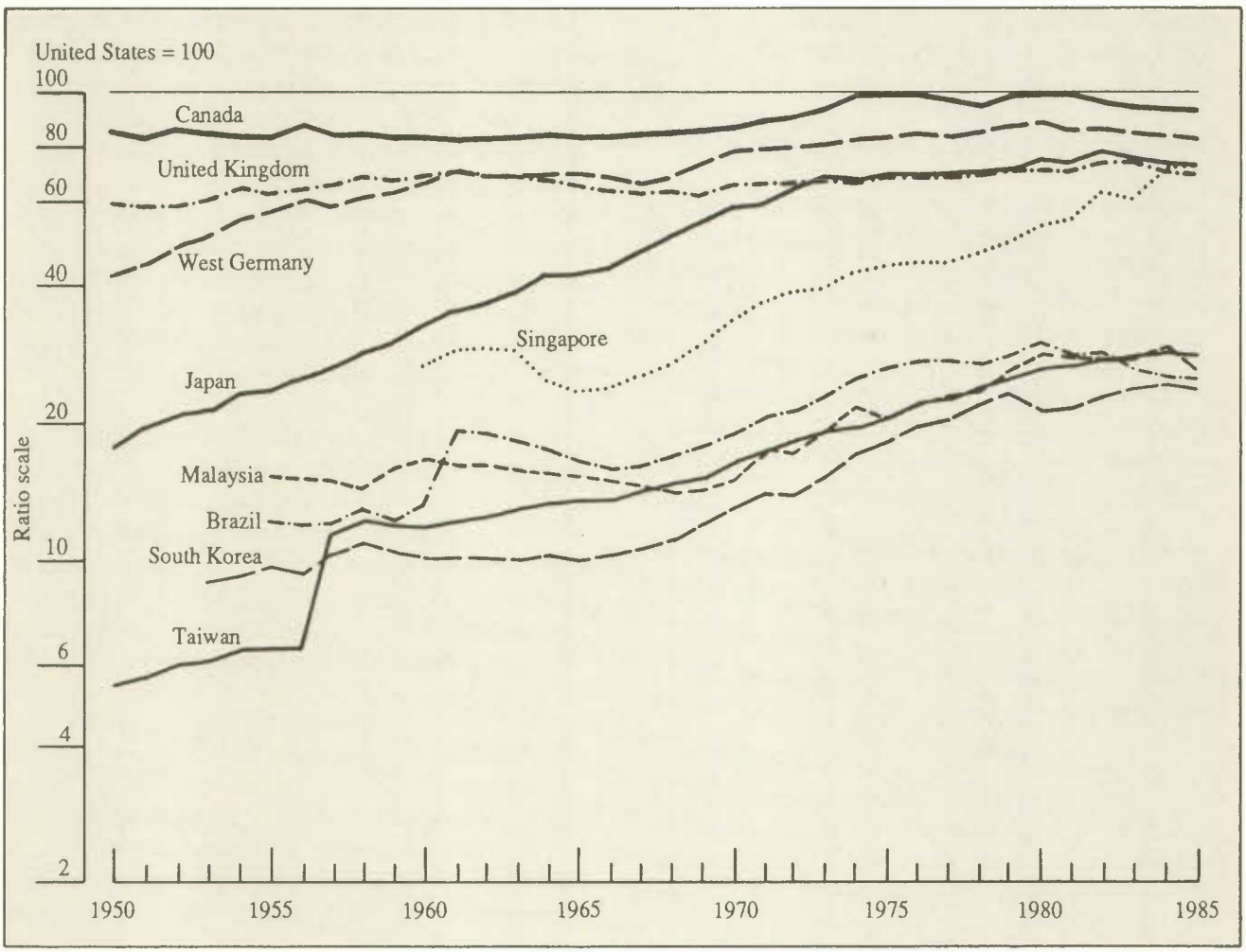
Multipolarity

Another feature of the emerging world economic system is multipolarity. In the years following the Second World War, for reasons already stated, the United States was clearly the leader of the world economy and had a strong influence on the formation of new institutions and the development of new rules for international trade and investment. Since then, other countries have begun to catch up with the United States. Although parity has not yet been

Chart 4-1

Convergence towards the United States

Index of real GDP per capita, selected countries, 1950-85



SOURCE Robert Summers and Alan Heston, "A new set of international comparisons of real product and price levels: Estimates for 130 countries, 1950-1985," *Review of Income and Wealth*, series 34, no. 1 (March 1988).

achieved, there are now three principal economic power centres – the United States and Canada in North America; the European Community; and Japan.

As we move towards the 21st century, the number of major economic powers is likely to grow. China and India are among those countries which have the potential to become major centres of economic power. While it could be many decades before they achieve living standards comparable to those of Japan (the Asian leader), even moderate increases in their rates of development and productivity growth would make them major forces on the world economic scene, given the size of their populations. Brazil, too, is large enough to become such a centre, at least on a regional scale. While the future economic orientation of the Soviet Union and Eastern Europe remains a matter for much speculation, recent political events could ultimately result in that region playing a much larger role in the world economy.

One cannot be sure which economies will, in fact, make a successful transition or whether they will do so as individual countries or as regional groupings. Nor can one be sure when such events will occur. Still, there is a significant possibility that the number of substantial centres of economic power will grow over the next quarter of a century.

Interdependence

Together, economic convergence and rising living standards also imply increasing international

interdependence. Over time, trade has assumed an ever greater role in linking the various countries of the world. In fact, the pace of expansion of world trade has exceeded the rate of growth of world output by a wide margin. The share of world merchandise exports in total world output has risen steadily from over 12 per cent in 1965 to 19 per cent in 1986 – a 50-per-cent increase. In Canada, the level of merchandise exports as a proportion of GDP has been even higher, having risen from 20.5 per cent in 1975 to 25.9 per cent in 1985.

Another indicator of growing economic interdependence is the increasing amount of trade involving crossflows of very similar products – automobiles, furniture, and canned goods, for example. As production within countries becomes more specialized, the amount of such "intra-industry" trade increases. In 1964, intra-industry trade accounted for 46 per cent of the total international trade of the 10 major countries of the OECD; in 1985, it amounted to 60 per cent. Multinational enterprises play an active role in carrying out intra-industry trade between countries. These trade links are increasingly being paralleled by a growing volume of international investment, attributable in part to growth in the size and number of multinational enterprises and in part to increased investment in real estate and in business partnerships. Capital flows have grown enormously as well. In U.S. dollars, the total amount of funds raised on international capital markets rose from $119.4 billion in 1980 to $396.2 billion in 1986. The volume of transactions on the London Eurodollar market and in global foreign exchange amounts to tens of trillions of dollars each year.

The flows of scientific and technological knowledge and ideas are another component of interdependence. The spread of new technologies plays many roles: it gives countries the means to improve their economic performance, thus contributing to a convergence in living standards; but it also presents them with a competitive challenge, for those countries which fall behind in the application of science and technology will also lag in terms of economic growth; and, last, science and technology play a linking role, in that methods of production and the nature of consumer products are becoming universal.

The Service Sector

Global markets for services are also emerging. The role played by the service sector in economic growth has been growing steadily, and more services are knowledge-based. This makes services more "tradable" and extends international competition to activities that have been sheltered in the past; trade is growing in telecommunications, as well as in financial, engineering, management, and consulting services, for example. As a consequence, the international community will have to work to reduce or abolish the barriers to trade in services, because they impair economic efficiency and thereby diminish the benefits associated with that trade.

The economic scene over the next two decades will be one in which the fragmentation of economic power will coincide with a greater need for coherence in decision making, in order to cope with the spillover of issues from the economy to the environment, and so on. This raises a whole set of issues for international governance.

International Governance

The complexity and unpredictability of global developments create a need for increased international cooperation, coordination, and, in some cases, harmonization of policies and practices. In a world where the distribution of economic and political power is becoming increasingly widespread, dealing with global issues will require that a growing number of countries share the responsibility for the management of our planet. Therein lie both the challenge and the danger. The challenge is that nations must work together to create a desirable future for all; the danger is that the diffusion of power will lead to chaos instead of cooperation.

The growth in the number of economic power centres and in the links that bind countries together can be illustrated in a number of ways. The western industrialized world has evolved from having a single economic power centre – the United States – in the years immediately following the Second World War, through the 1970s, when five countries dominated the world economic scene (the so-called Group of Five, or G-5: the United States, Japan, West Germany, France, and the United Kingdom), to the 1980s, when Canada and Italy joined to make up the G-7. And decision makers in even the largest economies, including the United States, must now take account of events beyond their borders when making policies. Interest-rate decisions in the United States, for example, reverberate throughout the world; and, to a certain extent, the central bank in the United States must take account of that. Another example is tax reform, which has been introduced, or is being planned, in a number of OECD countries. The rapid spread of tax reform across these countries, which are economic competitors, reflects, in part, the fact that harmful distortions would arise if the tax regime in any one country were too different from that of the rest. Agricultural and industrial policies, as well as science and technology policies, all have a growing international dimension as well.

A vital element in the management of international relations is the set of institutions that establish the rules of international conduct and serve as a forum where common problems can be addressed and solutions can be sought. Because the situations that the existing international institutions were originally intended to manage have changed, either qualitatively or in terms of magnitude, these institutions currently lack the mandate to accomplish the coordination, cooperation, and harmonization required to deal with many of the problems that transcend national borders.

The realization that the role of these institutions is vital in increasing international cooperation and coordination is not new. The founding fathers of the current world bodies – the GATT, the IMF, the World Bank, and the United Nations family of organizations – most of which were established in the period immediately following the Second World War, had the same objectives in mind when they established them.

The experience of the "beggar-thy-neighbour" tariff wars of the 1930s led to the signing of the General Agreement on Tariffs and Trade, which was aimed at progressively lowering the barriers to trade and eliminating discriminatory treatment in international commerce. Since 1947, seven rounds of multilateral trade negotiations have been completed under the GATT, each round culminating in contractual agreements that focused mainly on tariff reductions. They have contributed to a substantial increase in international trade.

Similarly, concern over the competing exchange-rate devaluations that plagued the interwar years and over the devastating effects of the financial collapse of 1929 prompted the establishment of the International Monetary Fund. Created in 1944, the IMF was entrusted with the primary task of promoting international monetary coordination and exchange-rate stability. Its responsibilities included the establishment of a multilateral system of payments, the provision of balance-of-payments support to member countries, and the facilitation of expansion and growth in international commerce. In the case of the World Bank, the intention was that it perform for the developing countries a task similar to that of the Marshall Plan for war-torn Europe – in other words, that it provide them with access to concessional funds so that they could finance their economic development.

While all of these institutions have performed yeoman roles in the past, the question is whether their current mandates enable them to be as effective in the world of today.

Concern over the future role of these international institutions is manifest in their current attempts to change. The pressure to change pushes in two directions. First, it involves the adaptation of the institutions themselves to a changing world. Second, it involves an attempt to link the activities of different institutions as it becomes increasingly evident that they are part of interrelated systems and deal with problems that are also becoming increasingly linked. As a result, the functions performed by different institutions overlap more and more, and the institutions themselves – or some of their member countries – wish to take steps to coordinate their actions in the face of these interrelated issues, in order to increase their effectiveness in dealing with them.

Thus the agenda of the latest round of GATT negotiations – the Uruguay Round – includes proposals concerning the growing trade in services, trade-related investment issues, intellectual property rights, and trade in high-technology goods and services. These issues are being raised in response to the growing importance of trade in services (which now accounts for close to 30 per cent of world trade),[5] to the rapidly growing linkage between trade and investment, and to the increasing flow of technology and information. The introduction of these issues broadens the focus of GATT negotiations, which has traditionally been on trade in goods, and it reflects the changing composition of international trade.

The IMF has also moved further afield. Because its influence on currency stabilization was weakened by the return to flexible exchange rates in the early 1970s, the IMF now finds itself an observer and reporter of events in the developed countries, charting and predicting their economic course and their impact on international monetary stability. Its role in relation to the developing countries has also undergone considerable change. The Fund originally provided stand-by financing to help them to bridge balance-of-payments difficulties. With the deepening of the international debt crisis, the Fund effectively assumed the role of the final arbiter and, to some extent, of enforcer in the debt-rescheduling process. Approval by the Fund and acceptance of its conditions have become the prerequisites for the granting of new financing to the indebted countries. The recognition that economic development is an essential precondition to debt repayment by developing countries has recently led the IMF to provide, under its Enhanced Structural Adjustment Facility (ESAF), more broadly based infrastructural funding.

In creating ESAF, the Fund has ventured into what was traditionally a World Bank function. The Bank, long concerned with the development of critical industrial sectors in

developing countries, also provides funds under its own Structural Adjustment Facility (SAF). The SAF, which predates the ESAF, currently covers a wider range of development activities. Thus, in this particular respect, the IMF and the World Bank perform almost duplicate functions.

Another recent development at the World Bank has been the explicit recognition, in the form of the International Finance Corporation (IFC), of the role of the private sector in fostering economic development, in both developed and developing countries. The IFC provides funding for activities such as private-sector initiatives in the transfer of technology, as well as investment guarantees. In addition, the Bank has recently been urged to take into account the environmental impact of the development activities that it finances.

A key proposal for increased cooperation between the GATT, the IMF, and the World Bank is under discussion in the current Uruguay Round. Some members of the GATT would like to see its role broadened from that of overseer of the rules of international trade to one that would also include monitoring the trade policies of member countries. The provision of trade-policy information to the contracting parties of the General Agreement would increase their knowledge of what the other countries are doing in that area and would thus facilitate the negotiation of bilateral or multilateral trading arrangements. All three international institutions would participate in the information-gathering effort; the GATT would specialize in trade-policy information, while the IMF and the World Bank would concentrate on their traditional strengths of economywide and sectoral analysis. Canada is one of the principal proponents of this initiative.

The changing world economic circumstances mean that there is, indeed, a need for new visions – and enhanced mandates – for most international institutions. The international rules of conduct will have to keep pace with the growing number of ways in which the economies of different countries can influence one another. If they fail to do so, a retreat into protectionism, at either the national or the regional (e.g., continental) level, could result sooner or later. Thus the challenge of leadership is enormous; and the price of failure would surely be heavy.

But there are even bigger challenges than the reform of the world trading and monetary systems. Many of the poor countries in sub-Saharan Africa and others in Asia and Latin America are falling further behind. Yet others are closing the gap, but at a desperately slow pace. The grounds for assisting all of these countries to the point of economic takeoff are many. They include not only humanitarian and political considerations but, as noted earlier, the economic self-interest of the wealthier countries. If the poorer nations cannot achieve successful economic development, they will continue to exploit their resources in ways that will directly affect the global environmental legacy.

There is, therefore, the prospect that the existing international institutions will have to be strengthened – or that new ones will have to be established – in order to help the world community take environmental factors into account. As already noted, environmental concerns are likely to become progressively more important in international contacts. Moreover, as many environmental problems arise out of activities that foster economic development, it is likely that the resolution of these issues will require, as the Brundtland Commission has proposed, institutions that will deal with environmental and economic issues as parts of an integrated whole.

Canadian Choices and Policy Options

In coming years, Canada will be operating in a complex international setting in which countries will be more closely linked, whether they like it or not. In part, those linkages will be forged through the ties of trade, technology, globalized production, and finance; and, in part, they will arise out of the relationships between the economic, political, and environmental systems.

As the spread of industrialization helps an increasing number of Third World countries to join the ranks of the so-called "newly industrialized countries" (South Korea, Taiwan, Hong Kong, Singapore, Brazil, and so on), competition will intensify. One outcome will be that countries such as Canada will be forced to focus their production activities on goods and services that are more knowledge-intensive and embody greater value-added. Meanwhile, the low-cost producers will usually be found in the less-developed countries. What that means, of course, is that technological change will play an extremely important role.

Technological change brings three kinds of pressure. First, each country needs to improve its technology in order to enhance productivity and competitiveness. Innovation fosters the emergence of new industries to replace those which disappear because of shifts in comparative advantage. Ultimately, technological change is the foundation for higher living standards. Failure to keep up means that competitors reap the benefits of increased competitiveness, incomes, and jobs. Second, the pace of change is rapid. Therefore, not only must countries introduce change, they must do so at an accelerating rate. That requires a domestic

economy that is able to cope with change. But, third, change inevitably brings with it shifts in the distribution of wealth, both globally and domestically, since some industries and regions are better able than others to capitalize effectively on such changes.

Thus there will be two related priorities for Canada:

1 to compete effectively in the international marketplace; and

2 to make the most effective use of the mental energy of its workers and managers.

Competing in the International Marketplace

Canadians will have to adapt to a world of many power centres, where international institutions will require extensive support and cooperation from national governments. International trade will continue to play an important role in economic growth and will need the support of government and industry if Canada is to be successful internationally.

Governments in Canada can help to shape the rules of world trade and to open markets through trade negotiations. They cannot, however, guarantee the competitiveness of Canadian industry. That is the job of industry. Indeed, for industry the challenge is to become (or remain) competitive in a world where there is a constant flow of new producers and new products. Some Canadian businesses have already begun to recognize that it is important to add more value to their product, to make effective use of technology, and to invest much more in marketing and in the identification of new markets. It will probably be necessary, as well, to engage more actively in new ways of doing business, such as joint ventures and various other types of alliances with firms in other countries.

Governments can also encourage this process by facilitating both research and development and the diffusion of new technologies. But it is business that must make the crucial decisions about products, processes, and markets. In many of these decisions, management and labour will have to gear up jointly to make sure that skills at every level are ready for the challenge – a point to which we shall return shortly.

A country's competitive advantage lies in how well it uses the new information technologies, in how quickly it integrates them into the production process, and in how well it prepares the people who will use them. It is widely acknowledged, however, that Canada falls well behind other industrialized countries in research-and-development activity as a share of gross domestic product – and particularly in the industrial commitment to R&D. But the problem goes deeper than that. As Chart 4-2 shows, Canada is well down the list of industrialized countries in terms of patent activity. With respect to the number of patents granted per 100,000 inhabitants, Americans obtain more than three times as many, and the Japanese nearly seven times as many, as do Canadians. In addition, Canadians secure far fewer patents abroad than do the residents of other countries. And of the patents applied for *within* Canada, the vast majority (over 90 per cent) are sought by non-residents.

Despite these obvious weaknesses, there is no question that a number of Canadian firms and their workers have shown a great capacity to use the new technologies. This is illustrated by the outstanding experience of individual companies in areas such as telecommunications technology and organizational development. What is more, the Council's own work on the diffusion of technology shows that the use of computer-based technologies in Canada is widespread. The problem is that the average firm tends to fall so far behind the leaders.

The new technologies offer important advantages to a country like Canada, because they enable firms to produce efficiently on a smaller scale than previously. They also enable businesses to be more responsive to rapid and locally differentiated changes in taste. While technology is not the only lever for enhancing competitiveness in a global market, it is without doubt a critical one.

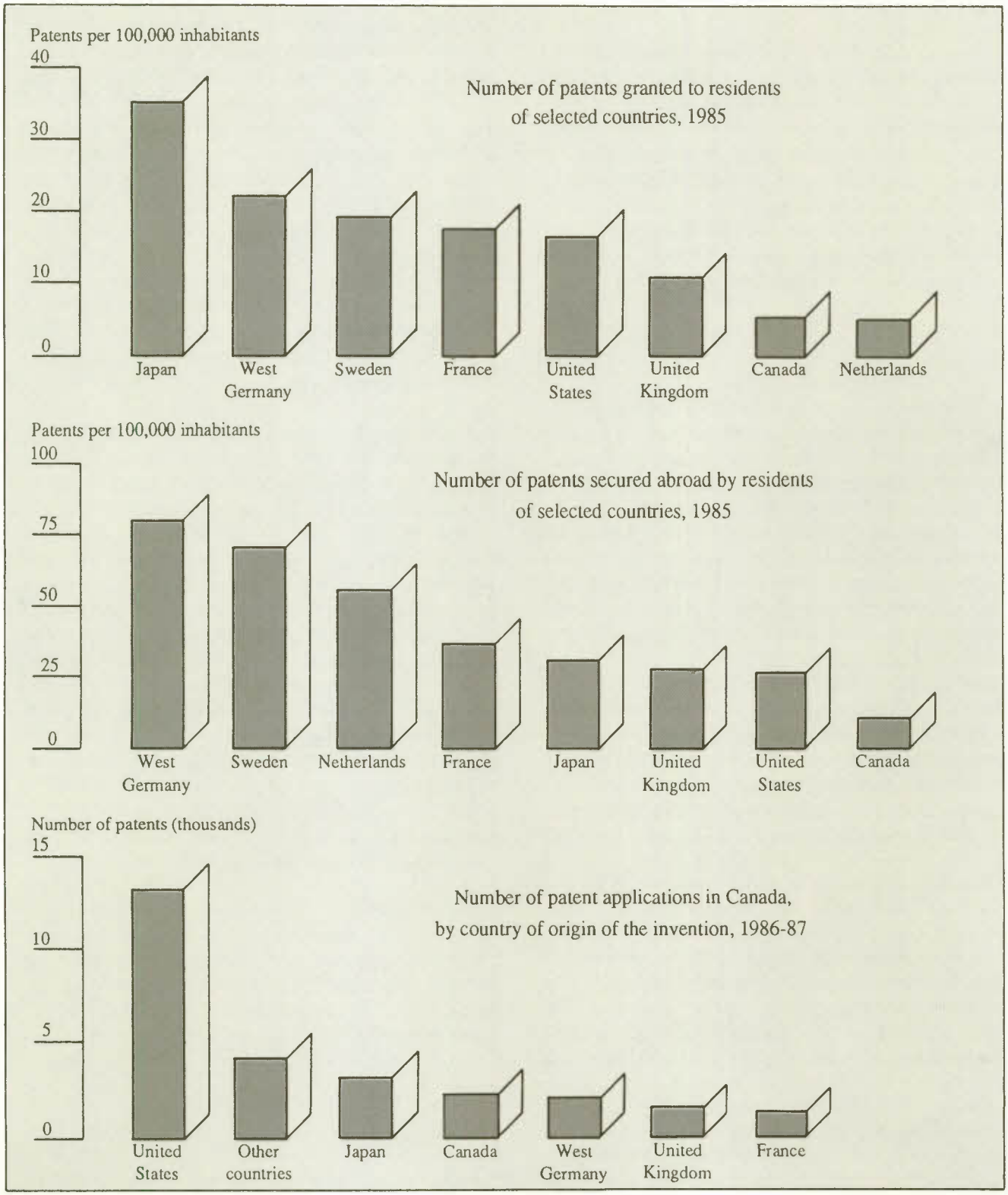
Enriching Human Resources

The other priority for Canada over the longer term must be human resources. The broadest concern here will be population trends. Projections show that, with current fertility and mortality rates and with immigration levels in the traditional range, the Canadian population will decline substantially in the early years of the next century unless there is a significant change in immigration policy.[6] Further work on these issues will be high on the Council's future research agenda. Certainly, the future course of population trends and immigration policy, in particular, will have a critical impact on the structural adjustments in labour markets that are the specific concern of this section – namely, education and training programs, employer/employee relations, and the credibility of the social contract.

As shown in Chapter 3, the factors that lie behind Canada's current unemployment problems are structural. To eliminate or moderate the influence of structural factors, Canada must be much more effective in its implementation

Chart 4-2

Patents as Indicators of Canada's Technological Lag



SOURCE World Intellectual Property Organization, *Industrial Property Statistics, 1985 – Part 1: Patents* (Geneva: WIPO, 1987); and Consumer and Corporate Affairs Canada, *Annual Report*, 1987.

of education, training, and other human-resource policies. The longer-term analysis in this chapter leads to the same conclusion.

Currently, Canada spends large sums of money on social programs, but government policy in this country still does not reflect the notion that human resources will be a key resource endowment in the 21st century. Public opinion shows deep concern about the quality of education, the effectiveness of training, and the waste of human capacity implicit in high rates of unemployment. That concern, however, has yet to be translated into a positive strategy aimed at preparing Canadians, personally and collectively, for the opportunities that lie ahead.

Education and Training

Public concern about education has so far focused on the perception that the Canadian educational system is responding neither quickly enough nor well enough to the demands of a high-technology world. Some question the quality of basic education. Drop-out rates are high, particularly for some groups, and a disturbing number of high-school graduates are functionally illiterate and innumerate. These concerns are causing a renewal of interest in the educational system and are raising some very fundamental questions regarding its quality, content, purpose, and organization.

One key issue for the long term is the education curriculum. To be relevant, general education must teach the basic skills of communication (keeping in mind that mathematics itself is a "language"), the knowledge needed to function effectively in modern society, and the "ability to learn" – i.e., the ability to acquire additional skills and information, as required, in a rapidly changing technological society.

In contrast, vocational education must provide the specific starting skills and knowledge needed for one's occupation. It cannot be overemphasized, however, that in tomorrow's world, occupational shifts will be commonplace for individuals; periodic episodes of retraining will be necessary, making the "ability to learn" a key skill. The essential foundation of vocational education, therefore, consists of the acquisition of a good general education first.

Taking into account the growing internationalization of the world economy, there will also be a need for empathy with the sociocultural background of one's business partners, employees, clients, and customers. While such empathy may best be acquired if one masters the other's language, the minimum requirement will be a fuller awareness and understanding of other cultures. In a country that is becoming increasingly multicultural, there are important domestic benefits to be gained from such developments.

Another key issue relates to the source and nature of the financing of education. Government currently plays a predominant, though by no means exclusive, role in this area. In the future, the sources of funding may have to be reexamined. Certainly, employers will have to shake off the tradition of buying the skills of their employees rather than developing them in their own enterprises. They must regard training as an investment, not a cost; and they must regard training as a continuous process, not an occasional, one-shot event. In some industrialized countries, firms do indeed provide a substantial amount of vocational education; such practices tend to be more prevalent in countries where worker mobility between employers is low, so there is less risk of employers losing their investment in the human capital of their employees.

Finally, there is the question of quality. Is Canada better served by maximum access to an overall average system or by a system that includes centres of excellence as well as average institutions? These questions obviously raise the issue of quality vs. cost – a dilemma that is difficult to resolve because of the problem of measuring the quality of education. In effect, we have no way of gauging the effectiveness of current spending on education, because educational quality is measured through indicators of *input* into the educational system (e.g., spending per student, teacher/student ratios, salaries of teachers, and so on). Research studies indicate, however, that within the relevant range prevailing in the industrialized countries, such indicators show no relationship with the educational achievement of the pupils. For that reason, it will be necessary to develop, and apply, appropriate *output* measures to ascertain the level and improvement of educational quality and to ensure that educational institutions are judged on their results.

The most important consideration in the debate on education will be the requirement for excellence, in order to ensure that Canada can compete at the leading edge and, at the same time, encourage its citizens to learn how to learn, so that all Canadians may acquire the skills to perform satisfying work. Basic literacy and numeracy will be essential in the emerging world economy.

Organizational Change and Industrial Relations

Some of the choices that confront Canadian labour, management, and governments can be identified by examining alternative institutional arrangements in other countries, as well as the Council's own research. Three specific

sets of labour-market issues will be high on the agenda as we approach the 21st century.

The first set of issues concerns the impact of technological progress on the design of the workplace – that is, on decision-making structures, on the design of work, and on compensation systems. Our research on the labour-market impacts of technological change highlights the need for innovation on all three fronts. The case studies show very high payoffs from joint planning and integration of human-resource and technical systems based on large investments in skills, motivation, training, and human capital. A few Canadian companies have been pathfinders in this respect, but far too many firms are still locked into the more traditional employer/employee relationship. In some industries – steel, forestry, electrical products, and shipbuilding, for example – new institutional arrangements are being developed to break down the old adversarial patterns. Joint approaches to identifying sources of, and analysing opportunities for, global competitiveness should help both parties to broaden their horizons, seek help from government agencies when appropriate, and thus begin to innovate at the plant level.

A second set of issues concerns the best balance that Canadians can achieve between work time and leisure time. Longer working hours and limited leisure time have been the experience in Japan, while reduced annual work time has been more common in Europe. While some people advocate reduced hours of work as a solution to a perceived need to create employment, others express the more positive view that reduced working time is a benefit that arises from improved efficiency. In either case, the key ingredient is increased productivity: in order to reduce working time without a corresponding loss in the standard of living, the level and rate of increase of productivity must be maintained. This, then, brings us back to the critical role of technological change, which, by having a major influence on productivity growth, will enable both the creation of jobs and (perhaps) an improvement in the quality of life, as the possibility of reduced working time becomes more attainable.

A third set of questions relates to the future role of labour unions. In both the United States and the United Kingdom, where the adversarial model has traditionally been dominant, the labour movement has weakened in recent years. By contrast, in Sweden, where labour and management recognize their common interests, the union base remains strong. Because business and labour are operating in an increasingly interdependent world, both must increase their awareness of the sources and nature of external pressures, and they must be more responsive to those pressures. A question for Canada is the extent to which this increased responsiveness will develop readily within the context of a strong and progressive collective-bargaining system.

As for the labour movement itself, the demand for worker representation will not wither away, whether or not a formal collective-bargaining system is in place. This raises questions about the forms of worker representation and governance that are best suited to the needs of the economy, of society, and of the work force, and about the policies and institutional changes that are needed to achieve those forms of governance.

The role of governments will be to facilitate this change in labour/management relationships and to ensure that the fundamentals of labour law evolve in tune with the new realities.

Distributional Issues

There is much concern that the changing industrial structure is acting to polarize our society into two groups – those who are highly skilled and well-paid; and those who are unskilled and poorly paid – with few workers in between. The Council examined this question in a recent report, in the context of technological change and the labour market.[7] While we found no clear-cut evidence that the size of the group earning middle-class incomes is, in fact, decreasing, we urged that this result not be used as an excuse for complacency. To the contrary, our research showed that there are a number of disturbing trends that contribute to increased inequality in opportunity and income. Some industries in the service sector, for example, do show evidence of a "declining middle." If employment in those industries were to grow, then the middle class would decline overall. Similarly, if the trend towards more part-time employment endures, then polarity in incomes can be expected to increase as well.

In Chapter 3, we described the disturbing increase in long-term unemployment in Canada, which has been generated by the mismatching of people and jobs. A key policy objective in the next decade must be to improve the matching process. At the same time, Canada must ensure that it has a credible safety net to support those people who, for one reason or another, are unable to participate in the labour market, who earn an inadequate income, or who need help in adapting from one work situation to another. Some of this assistance can be channeled through training and retraining, which provide temporary support; in other cases, longer-term support will be necessary. The Council's recent study of policies for trade-sensitive industries identified the most

vulnerable groups as older workers, workers in remote communities, and people with low education.[8]

What kind of social safety net should be in place to help these people? This is a crucial matter, because society functions best when it is based on a social contract that ensures that the victims of change will be compensated, especially if the change is introduced to increase national welfare. Indeed, the Council has often repeated that the pursuit of national goals that necessarily involve adjustment costs for individuals must be accompanied by programs to facilitate that adjustment.

The principle of support for individuals who bear the costs of adjustment in the interests of national economic gain is justified by considerations not only of equity but also of efficiency. Programs that prepare people for the challenges of change will contribute to the development of a well-trained labour force that can exploit the potential benefits of that change fully, rapidly, and fairly. Moreover, a reduction in the costs of transition to individuals will enhance the acceptability of policy-induced change and hasten progress. In other words, efficiency and equity are mutually supportive goals rather than goals that must be traded off. After all, equity is a precondition of societal consensus and of confidence in the future.

Conclusion

The challenges that will face mankind as the year 2000 approaches will in many ways be remarkably different from those which prevailed in the decades following the Second World War. During the 1950s, 1960s, and 1970s, the public debate was dominated by the bipolar East-West political and military confrontation, including the nuclear stalemate; by growing cooperation between the industrialized countries, aimed at increasing economic growth and improving living standards; and by decolonization, with most of Europe's former possessions and protectorates acquiring political independence, creating their own political structures, and attempting to build up their economies. That period also witnessed the beginnings – but only the beginnings – of a political and economic debate between the industrialized world and the developing countries (the North/South dialogue), aimed at helping the latter to share in the growing world prosperity. These concerns were reflected in the roles of the principal economic institutions – the IMF, the World Bank, and the GATT. The more modest role played by the United Nations Conference on Trade and Development was, perhaps, symptomatic of the limited economic successes achieved in the developing countries.

We are now building towards a rather different set of concerns for the future. Important technological changes in food production, nutrition, disease prevention, and other areas have facilitated rapid growth in the world's population. At the same time, extraordinary progress in industrial technology has enabled the wealthier countries to increase massively the volume of goods and services that they produce, and some of this knowledge and technology has spread to the Third World, contributing to urbanization and to additional production there. The successes of those decades carried with them a price, however, in terms of the stress that they imposed on the natural environment. That stress shows every sign of having an adverse effect on the quality of life of people all over the world; over time, it may even jeopardize much of the economic progress of the last four decades. Moreover, advances in fundamental science and their technological spinoffs will continue to open doors to new possibilities that, until now, seemed to belong only in science fiction. Managing the issues that emerge from these developments promises to make the policy debates of the year 2000 very different from those of 1950 or even 1980.

The global political scene has also been altered. The number of centres of economic power is increasing, and countries are becoming ever more interdependent. The linkages between nations are growing, not only in the economic system but also in the political, technological, demographic, and ecological spheres.

The result is that many of the emerging problems are very difficult to understand; often, the management and solution of these problems are beyond the authority of national governments. They will have to develop joint responses to these challenges, based on a common analysis and, quite probably, on some concessions of individual gain for the greater common good. With the growing fragmentation of economic and political power, this will be a formidable task.

Thus the international institutions – which have been weakened in recent years by funding cuts, by the non-compliance of some of their members with commonly agreed-upon conditions, and by other difficulties – will have to be revitalized. More importantly, when new problems falling outside the mandates of existing institutions arise, innovative management will be required. In all likelihood, new institutional arrangements will be needed to deal with the economy/environment nexus in a way that better reflects their close relationship.

It could be argued that this is only one of several possible futures and that protectionism and a retreat into isolation, for example, could instead dominate in the future. It is the

Council's view, however, that international cooperation and joint action will be in the best interests of all countries if they are to respond successfully to the truly global problems that the world faces.

For Canadians, it is very probable that a growing proportion of the decisions affecting their economy and their standard of living will be even more influenced by events outside their borders. That will dictate an emphasis on two sets of policies: first, those which shape our approach and attitude to the world economy, including trade policy and the constellation of policies and programs that affect the speed and effectiveness with which we use new technologies; and second, the policies that affect the way we develop, motivate, and utilize people – Canada's human resources.

What is reassuring about these two conclusions is that they correspond so closely to the priorities that flowed from Chapter 3, where we looked at policy responses to the immediate problem of underemployment. The challenges in the year 2000 may be different, but the appropriate responses are remarkably similar. In a sense, that makes the policy choices easier. Anything that we can do in the short to medium term to prepare the work force for frequent job changes and rapid industrial adaptation – that is, to reduce the mismatching problem – will position Canada for a much better economic performance over the longer term.

5 Priorities, Targets, and Objectives

The Council's view of the medium-term outlook takes account of past performance as well as current trends, of pressure points as well as trade-offs. Looking back over the last quarter-century, we note that unforeseen events are largely responsible for much of what happened during that period. The 1960s witnessed substantial gains in real income, employment, and productivity, with little inflationary pressure. The early 1970s featured a boom in commodity prices, with Canada experiencing very strong growth in real income from a favourable shift in the terms of trade.

By the mid-1970s, however, Canada and the world economy were reacting to the first oil-price shock. The recycling of petrodollars from the oil-rich countries was a daily topic in financial markets; international bankers were eager to lend to commodity producers in the developing countries; and discussions of megaprojects dominated much of Canada's investment planning. Fiscal policy was preoccupied with distributing the new-found "rents" in the oil patch, while the ever-present danger of inflation prompted central banks to adopt the principle of gradualism and led governments to implement policies regulating prices and incomes. The slowdown in productivity growth was little noticed in the swirl of other events.

Beginning in 1979, the shocks really began to reverberate. Oil prices jumped a second time and then fell sharply; non-oil commodity prices also plummeted, but inflation rates nevertheless rose to double digits; and interest rates peaked above 20 per cent. In 1981-82, Canada experienced the deepest downturn since the Depression of the 1930s, with very high rates of unemployment. The recovery from that recent recession has produced six years of strong growth in the industrial countries, but many of them have experienced severe fiscal and trade imbalances, while a number of developing countries have been struggling with their debt-servicing problems. In Canada, high unemployment and poor productivity performance have emerged as national concerns.

The obvious lesson from this brief review of the past 25 years is that unexpected shocks to the economy are frequent and almost inevitable. As our analysis in Chapter 4 suggests that the frequency of unanticipated events is likely to rise, any attempt at setting performance targets for the medium term must make provision for the impact of the unexpected and thereby build some resilience into the economy.

Setting Targets

When it was launched in 1963, the Council was given a mandate to help Canada achieve a number of broad economic objectives. On page 1 of its First Annual Review (published in December 1964), the Council translated that mandate into five specific goals:

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

Since then, in an attempt to add operational content to these goals, the Council has, from time to time, set out quantitative targets that were intended to be measures of desirable performance rather than forecasts. The targets set by the first Council were ambitious. In the early 1960s, the combination of rapidly rising labour productivity and a fast-growing labour force led to a decision to set a target for real growth at 5.5 per cent per year, to which both factors were expected to contribute in equal degree. It was considered at the time that a sustained real-growth rate of that magnitude would bring the unemployment rate down to the target of 3 per cent by 1970.

Given the experience of the late 1950s and early 1960s, the Council also concluded that these targets for unemployment and real growth could be met with a rate of price increase of only 1.5 per cent annually. The target for the current-account deficit was set at between $1.5 billion and $2 billion.

Following the establishment of the first set of targets, there were occasional refinements, adjustments, and additions. By 1983, however, the performance of the Canadian

economy was at a substantial remove from its underlying potential. For example, the unemployment rate had reached almost 13 per cent in the previous year. While much of that situation was caused by weak demand, there was strong evidence that substantial structural changes were under way in labour markets. Indeed, unemployment rates had been rising slowly since the 1960s, even in buoyant times. Accordingly, the Council decided in 1983 to establish a new set of quantitative targets that took into account many of the new realities of the late 1970s and early 1980s. These targets were:

1 to restore a trend rate of increase in productivity, as measured by real output per employed person, of between 1.5 and 2 per cent annually;

2 to achieve a trend rate of employment growth of between 2 and 3 per cent annually so as to reduce unemployment to between 6 and 8 per cent of the labour force by 1990;

3 to keep the trend rate of annual inflation down to 5 per cent or less, recognizing of course that there will be variations in inflation rates because of international and domestic factors;

4 to encourage a rate of domestic saving high enough to contain Canada's average dependency on net capital inflows to about 2 per cent of GNP or less;

5 to maintain the objectives and the substance of the existing social programs, insofar as they provide affordable benefits to Canadians; at the same time, to improve the efficiency of their delivery systems and, where possible, to fill the most urgent gaps in their application.

Later, two additional targets were added. They were:

6 to reduce the size of the federal deficit gradually to an easily manageable level, bearing in mind the cyclicality of the economy, and thereby re-establish a sound fiscal relationship in the federal budget; and

7 to achieve growth, employment opportunities, and social infrastructures that are regionally balanced.

The current targets have served as benchmarks by which to assess the progress of the economy. In important respects, as we have shown in Chapters 1 and 2, the Canadian economy has performed within the bounds of these targets. Annual rates of inflation have been held below 5 per cent. The unemployment rate has just recently moved into the range between 6 and 8 per cent. Canada's domestic savings performance has been high enough to contain Canada's average dependency on net capital inflows at the 2-per-cent mark. Although some modest progress has been made in deficit reduction, however, that progress has not been nearly enough to satisfy the target of rendering the deficit "easily manageable." This is cause for serious concern. The other major disappointments have been the continuing – and, in some respects, growing – gaps that exist between regions and the failure to restore the trend rate of productivity growth to the target zone of 1.5 to 2 per cent.

In 1983, Canada was just coming out of a recession, and the underutilization of resources cried out for a solution emphasizing growth. Growth remains an important objective today, but our assessment of the economy suggests that there must be a shift in emphasis in establishing new targets. The Council is aware that there are not as many underutilized resources now as there were in 1982-83 – and that, of course, is a positive factor. But we also recognize that the gaps between regions are wider now than they were in earlier decades. Furthermore, our analysis of the natural rate of unemployment indicates that the danger zone, where continuing demand pressure could cause inflation to accelerate, corresponds to an unemployment rate ranging between 7 and 8 per cent. These and many other factors have influenced us in updating our indicators. On the one hand, care must be taken to choose growth targets that will not push the economy too far into the inflationary danger zone without first applying structural remedies that can alleviate frictions, tensions, and mismatching in labour markets. On the other hand, growth targets that are too low imply fiscal deficits that will remain high or even increase, as well as high unemployment rates.

The New Targets

In presenting new indicators, we begin with productivity, since achieving a strong performance in that area is fundamental to success with respect to many other indicators. For that reason, the Council restates its 1983 target of increases in *productivity*, as measured by real output per employed person, at a rate *between 1.5 and 2 per cent per annum*. Canada has not attained such standards with any consistency for a long time. But since Canada's ability to compete in international markets and to meet other targets, such as those for inflation and growth, depends fundamentally on productivity performance, we believe that the target rate of 1.5 to 2 per cent must be retained. If Canadians were willing to settle for less, they would be aiming at a second-class future. We do not believe that is what they want.

For many years, the rates of productivity improvement in the goods-producing industries have been far higher than in

the service sector. Past experience suggests that our target of 1.5 to 2 per cent for overall productivity growth requires a rate of at least 3 to 4 per cent in the manufacturing sector. As for the service sector, the meaning of productivity targets is more ambiguous, for two reasons: 1) much of the service sector is made up of nonmarket industries that function largely in the public and quasi-public sectors; and 2) even in the private sector, competitiveness is dictated by a number of considerations other than the kind of efficiency standards that are common in manufacturing. To compound that ambiguity, the measurement of productivity in many service industries is extraordinarily difficult. Bearing these differences in mind, we believe that a target rate of 1 to 1.5 per cent is appropriate for those commercial and competitive portions of the service sector where productivity targets are meaningful.

The unemployment target must also be reconsidered. We are constrained here by the risk that efforts to lower the unemployment rate could induce an acceleration of inflation and by our recognition that the structural policies needed to eliminate bottlenecks would take some time to be implemented and to work. Nonetheless, employment growth must be high enough to absorb new entrants into the labour force and to maintain employment for all of those workers who currently hold jobs. The minimum acceptable rate of growth in *employment* would therefore appear to be in the range between *1.5 and 2 per cent per annum*. Canadians should not stop there, however. As discussed later in the chapter, structural policies, especially labour-market policies, should be made more effective to enable additional employment growth to be achieved in ways that would not be inflationary. On this basis, we are reducing our target range for unemployment to between 5 and 7 per cent, in the belief that Canada should make a major effort to further reduce structural unemployment over the medium term, and thus make progress toward the longer range goal of between 4 and 6 per cent.

Inherent in the above targets is a *target rate of 3 to 4 per cent for real growth*, provided that at least one-half of that growth comes from productivity improvements. In the absence of such improvements in productivity, a growth rate at the upper end of the target range would be too inflationary.

We also conclude that the *target rate for inflation must be lowered to 4 per cent or less*. To do this and yet sustain our unemployment target, the structural issues that beset the labour market must become a priority for policy. We would not want to see the gains that have been made in combatting inflation since the late 1970s and early 1980s – gains that were paid for in lost jobs – go down the drain. We recognize, of course, that there will be variations in inflation rates because of international and domestic factors, such as droughts, the fluctuation of commodity prices, and so on. However, Canadians must not let these factors work their way into inflationary expectations, ratcheting up inflation rates and undoing the hard-won gains of the last six years. The memories of the terrible human and economic price paid in the 1981-82 recession are too fresh, we trust, for Canadians to accept another bout of rapidly accelerating price increases.

The Council's position on domestic savings remains unchanged. *Savings should be high enough to contain Canada's average dependency on net capital inflows to around 2 per cent.* (Note that as a result of the revisions made to the System of National Accounts by Statistics Canada in the summer of 1986, the concept of GNP – used for this target in our 1983 Annual Review – has been replaced by that of GDP as the major indicator of economic growth. We maintain our 2-per-cent target, as it is the ratio of foreign savings to the growth indicator that matters.) The large government deficits of recent years have represented a drain on domestic savings that might otherwise have been available to other domestic borrowers (such as the corporate sector), who were forced to raise money outside Canada instead. Thus further reductions in government deficits would tend to reduce reliance on inflows of foreign capital.

The federal deficit should be reduced to 2.5 per cent of GDP or less by 1992. Achieving such a reduction would constitute a significant improvement over the current 4.3 per cent. If, either through good management or good luck, the economy can avoid a serious slowdown, however, we believe the target should be more ambitious. That is why we use the words "or less" in establishing this target. We acknowledge that it can only be met through some combination of tax increases and spending cuts (unless there is a substantial fall in interest rates during a period of sustained economic growth).

The Council's position regarding *social policies* remains unchanged: *to maintain the objectives and the substance of the existing social programs, insofar as they provide affordable benefits to Canadians*. We still consider it important to improve the efficiency of their delivery systems and, where possible, to fill the most urgent gaps in their application. But these objectives cannot be met by an economy that suffers chronically from slow growth, high unemployment, and rapid inflation. In fact, under such circumstances any existing problems will get worse. Thus the achievement of our objectives in the area of social policy is again related to the viability of our other targets.

Finally, we declare again the target of *achieving growth, employment opportunities, and social infrastructures that are regionally balanced.* In order to reach that target, structural policies – strategies aimed at promoting economic diversification and reducing labour-market mismatching – must be a major component of any permanent solution. Here, we reiterate our concern about the undesirable effects of high interest rates on regions of slow growth, in part because they are the main contributing factor to the strength of the Canadian dollar and therefore have a dampening impact on exports. With a tighter fiscal position (as outlined above), the need to use monetary policy to control inflation can be reduced, and regional objectives will become more attainable.

When the Council's new targets are compared with those established in 1983 and with our medium-term projections (as set out in Chapter 2), it can be seen that our new targets are ambitious (see box). And indeed, that is how it should be. While the targets should be feasible, they should also stretch the capabilities of the economy. Thus it is not surprising that when we compare the desired performance – that is, the new targets – with the projected outlook, there will be a shortfall with respect to a number of targets unless there is some combination of a favourable shift in the external environment and a significant change in domestic policy. Productivity growth will be far from adequate; the unemployment rate and the federal deficit will remain too high; and the average inflation rate will exceed the

Performance Targets and Projections

	Targets set in 1983	Base-case projection for 1988-92	New targets for 1988-92
		(Per cent)	
Growth in:			
Productivity	1.5 to 2	0.7	1.5 to 2
Employment	2 to 3	2.1	1.5 to 2
Real GDP	3.5 to 5	3	3 to 4
Level of:			
Unemployment rate	6 to 8	7.6	5 to 7 by 1992
Inflation rate	5 or less	4.4	4 or less
Federal deficit as a proportion of GDP	Reduction	4	2.5 or less by 1992
Net capital inflows as a proportion of GDP	2 or less	1.4	2
Social programs	Maintain objectives and substance of social programs; improve efficiency; and, where possible, fill the most urgent gaps	. . .	Same target as in 1983
Regional development	Balanced growth, employment opportunities, and social infrastructure	. . .	Same target as in 1983

target. There is also reason to question how much progress will be made with respect to the regional-development target. On the other hand, our projections do suggest that the targets for employment growth, for reliance on foreign capital, and for growth in real GDP will be met or exceeded.

What changes in policy are required to bring Canada closer to the desired performance implied by the new targets? In the Council's view, three closely related policy responses are essential:

1 The medium-term policy mix must be altered, with greater emphasis to be put on fiscal restraint, thus enabling monetary policy to be more accommodating.

2 Much more attention must be devoted to enhancing competitiveness by allowing markets to function more efficiently – a target that will require a strong commitment by both management and labour, as well as by government.

3 Human-resource development must be strengthened; such a commitment will require action by governments and educational institutions, as well as by business, labour, and community leaders.

All three policy responses would take some time to implement; and the beneficial impacts of particular initiatives – those related to human-resource development, for instance – might take many years to realize. Nonetheless, all three should be given high priority on the policy agendas of governments.

A New Policy Mix

In Chapter 2, we noted that the current economic expansion has now reached its mature phase: the rates of capacity utilization in many industries are high; some labour markets are growing tighter; and in southern Ontario, labour shortages have emerged in a number of industries.

We also observed, however, that consumer prices and wages have not yet begun to spiral upward. Indeed, the moderate price increases and wage settlements of the past year or so have helped to sustain the expansion. Businesses appear to be working hard to keep their costs down, in an attempt to strengthen their financial position and to preserve their market shares in an increasingly competitive world. Trade unions appear to be more concerned with work rules and job security than with large wage increases. This suggests that both business and labour leaders have learned some hard lessons from the painful inflationary experience of the 1970s.

Notwithstanding these favourable omens, we believe it is necessary to sound a note of warning at this time. A number of the indicators traditionally seen as bellwethers of inflation have begun to flash warning signals. In particular, recent increases in the prices of commodities and of intermediate goods suggest that some increases in consumer prices are probably in the pipeline. Moreover, the fact that plant capacity in many industries is being heavily utilized and that skill shortages are growing suggests that the economy would be unable to meet additional demand if the latter grew too quickly. That is why we believe that any additional stimulus at this time would do relatively little to reduce further the current high unemployment rate. Such stimulus would likely add to inflationary pressures in the areas that are already overheated, but it would bring few benefits to the unemployed in, say, the Atlantic provinces. Thus our analysis suggests that if real-growth rates were systematically to exceed 3.5 per cent annually (given our base-case projection for productivity increases), inflation would almost certainly move to a range between 5 and 6 per cent, which would make Canada highly vulnerable to any external shocks or to a sudden shift in inflationary expectations.

But inflation is not the only threat. Inflationary pressures would undoubtedly be eased if the economy were to grow too slowly – say, at a rate well below 3 per cent annually over the next several years – but it would be difficult to avoid increases in unemployment, and the fiscal position of governments would deteriorate. To avoid the dual risks of accelerating inflation and rising unemployment, an average annual growth rate of 3 to 3.5 per cent over the next few years is what is needed, given our base-case assumption about productivity.

At this juncture, therefore, recognizing that the benefits from changes in structural policies would take some time to be felt, the Council believes that it would be appropriate for governments to set a moderate growth course. While we understand that the temptation to spend more is a permanent feature of the political process, we urge strongly that it be resisted unless there are offsetting revenue increases. We do not believe that additional fiscal stimulus would be appropriate now – not only because of its inflationary impact but also because fiscal stimulus would add to government deficits that are already too high and to a public debt that is mounting.

But our concern extends much further. As we look ahead to the medium term, we are very concerned that unless the current mix of fiscal and monetary policy is modified

significantly, much hardship could be inflicted on the economy in general and on the regions outside central Canada, in particular.

Specifically, given the current fiscal stance, there is little doubt that should the economy move into a period of accelerating inflation, the burden of combatting it would fall squarely onto monetary policy. But monetary restraint would entail higher interest rates and, quite likely, a stronger Canadian dollar. The rise in interest and exchange rates would have a number of interrelated adverse effects. Higher interest rates slow down the investment that is essential to enhanced productivity and competitiveness. A stronger Canadian dollar also affects the competitiveness of industries and regions whose goods and services are exported, particularly those which are priced in U.S. dollars. The commodity-dependent regions of western Canada would be particularly hard-hit. All regions could be damaged, but those with the highest unemployment rates might fare relatively worse.

In short, we believe that the current mix of monetary and fiscal policy, because of its undue reliance on monetary restraint, has adverse implications for the medium-term performance of the economy, and especially for the unemployment rate, regional disparities, the amount of public debt, and investment levels – and hence productivity. The policy implications of this conclusion are twofold.

First, a significant improvement in the fiscal position of governments is fundamental to improving the economic outlook and to preparing Canadians more effectively for the competitive world of the 21st century.

Second, much more attention must be paid to structural policies that will improve the functioning of labour and product markets. Such policies offer the prospect of a better matching of people and jobs, without adding to inflationary pressures through the wage side; they also offer the prospect of keeping product markets competitive and thus, over time, of slowing inflationary pressures.

Enhancing Competitiveness

From the analysis of the medium-term outlook in Chapter 2 and of the longer-range view in Chapter 4, and from the re-examination of targets in this chapter, competitiveness emerges as a central theme. While Canada has performed admirably in terms of economic growth in recent years, the upswing in productivity from 1982 to 1987 was caused mainly by higher rates of capacity utilization. The national measures of productivity show no evidence of a broadly based revitalization of Canadian industry, although we know such revitalization has been happening in individual industries. The lack of a clear, strong upward trend in national productivity over the long term is alarming, because the international competitiveness of Canadian businesses will be a critical determinant of living standards at home – of our capacity to increase real wages and to maintain a strong safety net.

Among the levers that affect competitiveness directly are trade policy, technology, and education. Competitiveness could also be helped by greater reliance on market forces in situations where governments do regulate or otherwise intervene. Productivity measures and other indicators of competitiveness, on the other hand, are simply ways of assessing Canada's strengths and weaknesses and thus of helping in the design of policies and programs.

Trade policy can play a key role in creating an environment that promotes competitiveness – by reducing barriers to trade and other distortions that diminish the economic gains associated with trade; by promoting competition that is less constrained by rules and by national borders; and thus by opening new markets both overseas and at home. National governments shape trade policy, and it will be important for Canada's future that the federal government continue to open doors and to improve access to foreign markets for Canadian businesses, as has been done in the framework of the Canada-U.S. Free-Trade Agreement.

For Canada to achieve its trade-policy objectives, we believe it is also essential that this country continue to support the organizations that are charged with the responsibility of maintaining a stable system of international payments and a set of rules that encourages and facilitates the continued multilateral liberalization of world trade. In the current context, this means that we strongly endorse the initiatives undertaken in the Uruguay Round of multilateral trade negotiations under the auspices of the GATT.

The Uruguay Round is concerned with, among other things, the reduction of the barriers to trade in services and to flows of technology and information, and with a reduction in agricultural subsidies, which cause distortions in patterns of production and trade. As well, because services are a growing part of the Canadian economy, more international competition in services is probably fundamental to achieving stronger productivity gains in this area. The importance of improved flows of technology and information for productivity performance is large and still growing; and any progress in lowering agricultural subsidies would help to increase farm efficiency and to reduce the drain on

the Treasury. Like the Canada-U.S. trade agreement, which the Council assessed in some detail in *Venturing Forth* (published in April 1988), new accords aimed at opening access to markets and at enhancing efficiency will speed up the revitalization process and improve economic performance. It is important, too, that Canada continue to look beyond North America for such markets.

Ultimately, however, while it is the role of government to create an environment that *promotes* competitiveness, it is the role of industry to *be* competitive. And a vital component of industrial competitiveness is technological performance. To be adept at technological change is to be able to produce high-quality goods and services that attract consumers, both at home and abroad, and to produce them at a competitive cost. In other words, the use of technology is an essential determinant of productivity. One reason that Canada's productivity performance has been poor in recent years is that its technology performance is weak compared with that of its major trading partners (as shown in Chart 4-2).

Many observers and analysts, including the Council, have pointed to Canada's shortcomings in both R&D performance and innovation diffusion. Awareness of the importance of these weaknesses is growing, and in the last few years, governments in Canada have put into place a number of institutional arrangements that provide forums where the nature of Canada's technological strengths and weaknesses can be discussed. These include, among others, the National Advisory Board on Science and Technology (chaired by the Prime Minister), the Council of Science and Technology Ministers, and the (Ontario) Premier's Council. By drawing together Canadians from all sectors of the economy – business, labour, academia, and government – and from different parts of the country, these institutions should be able to provide a better understanding of the problems and to facilitate concrete action. We recognize, however, that these institutional developments do not, in themselves, guarantee progress – that it is the actions of business that will ultimately count the most.

In the meantime, it is important that Canadians have better standards and benchmarks against which to judge Canada's technological progress. The Council's Working with Technology Survey (1986) provided an overview of the spread of computer-based technologies throughout Canadian industry. That was a useful beginning. What is required now is a regular follow-up to determine Canada's rate of progress in technological diffusion, to identify problem areas, and to pinpoint associated problems of labour-market adjustment. A number of federal ministries (including those responsible for employment, science and technology, communications, and industrial expansion) have an important stake in the process of technology diffusion and adjustment. We urge these ministries, in conjunction with Statistics Canada, to consider the development and publication of a regular, ongoing survey to monitor technological change.

While the Council has set out a national goal for productivity growth, we realize that this specific quantitative target lacks operational meaning for individual decision-makers in industry. They require more-concrete measures that reflect the standards of performance in their industries. We therefore recommend that firms, working through industry associations, develop a variety of productivity measures that will enable companies and industries to compare their own performance with that of their competitors, both in Canada and in other countries. By their very nature, such measures will need to be industry-, product-, or technology-specific; the collection and analysis of data should therefore take place at the plant level. We are aware that some firms and associations are already conducting such analysis, but many others could follow suit.

In particular, much better productivity indicators are needed for the service sector, which is not only large (accounting for 60 per cent of total output) but is also increasingly exposed to international competition. The traditional view is that the productivity performance of those industries is poor. In fact, some of the most rapidly growing services demonstrate high productivity growth, while others show little improvement. It is also known, however, that the tools used to measure the output of most service industries are themselves quite inadequate. We therefore support the efforts of Statistics Canada and the new Department of Industry, Science and Technology to improve their knowledge of the service industries, and we encourage them to focus on measures of output. This is also an area where individual firms and industry associations can play a useful role.

Finally, one of the primary ingredients of a strong productivity performance is human resources – a highly qualified and well-motivated work force that can transform materials, know-how, and technology into goods and services that people want to buy.

Strengthening Human Resources

The dramatic increase in labour-market mismatching in the 1980s (as documented in Chapters 2 and 3) is a deadweight burden that Canada must work to overcome. That

burden includes long spells of unemployment for too many Canadians; bottlenecks in production (and potential cost increases) because employers cannot hire the required level or quality of skills; and the heavy cost to the State of transfer payments to those who are involuntarily out of work. For human, economic, and social reasons, Canadians should be determined to reduce the mismatching problem; they should also do it for strategic reasons. Our description of the emerging global economy (in Chapter 4) makes it very clear that the developed countries must shift production to goods and services with higher value-added – i.e., to products where the mental energy of the work force is essential. Anything that Canada can do in the medium term to upgrade the quality and adaptability of its work force will result in a big payoff down the road, in terms of competitiveness.

The mismatching problem is so complex that it will require a response from every player on the economic scene – governments, industry, unions, workers, education leaders, and community organizations. The driving objective must be a focus on the needs of individuals and communities. Whether the solution is training, placement, mobility, or education, it has to be tailored to the specific characteristics of individuals (their aptitudes, work experience, and training) and of the community where they live (including the occupations for which jobs are available). In setting out the Council's views on policies and programs, we begin at the national level and then turn to educational institutions, labour-market programs, industry action, and areas for local initiative.

Education

Governments now spend $30 billion (6 per cent of GDP) on education and training. This suggests that Canadians recognize that education is a public good – that there are strong social and economic benefits that flow to the nation as a whole from such large expenditures. Implicitly, then, it would seem that Canada's human-resource policy is on a rather grand scale. But in fact, no government in Canada even thinks in those terms. In Ottawa, for example, funds are disbursed by Employment and Immigration Canada, the Department of Finance, the Secretary of State,[1] and various research and granting councils. Thus no single ministry is responsible for policies and programs for human-resource development at the federal level. In Ontario, to cite only one provincial example, there are two ministries of education, a Labour Department, and a Ministry of Skills and Development. This mélange of government interests is also seriously complicated by the fact that the constitutional responsibility for education and training rests with the provinces. Each province therefore sets its own standards and curricula, with the federal government contributing funds for postsecondary education, training, and other programs that it deems desirable. The federal government has little or no capacity to intervene in order to suggest national standards, and it has only recently begun to sit on the Council of Ministers of Education of Canada.

One of the motivations for a more active and more representative Council of Ministers of Education is the growing tide of public dissatisfaction with the results of the $30 billion being spent on education. Stories abound in the popular press about illiteracy and about the criticisms of parents and students directed at schools and universities. Whether the stories are all correct is not at issue here; the fact is that educational institutions, once the pride of many Canadians, are losing much of their credibility. Many colleges and universities have begun to respond with programs to reach out to industry and the community at large. But one of the problems is that neither the institutions nor their critics have any concrete indicators by which to measure performance. The statistics that are available measure mostly inputs, not outputs; moreover, because the provincial systems are organized so differently, it is difficult to compare provincial data or to add them up in order to assess the national performance.

While the Council shares the concern that Canadians are registering about the possible deterioration of the education system, we are also aware of a basic paradox in current attitudes. Many Canadians are deeply concerned about access – the ability of each person to qualify for a place in a school, college, or university.[2] Others are concerned about quality – for example, the slow pace of the curriculum in elementary school and the lack of truly excellent institutions of higher learning.[3] Naturally, there is a trade-off between access and quality, because both make substantial claims on the public purse. Over the past 25 years, when choices have had to be made, the emphasis has been on access. The question is: What will be the right balance between access and quality for the competitive global environment of the 1990s and beyond? Clearly, both are important. We believe that the overall balance deserves careful attention by policy makers and education leaders.

Labour-Market Programs

In the course of a working life that usually spans 40 years or more, most people change jobs several times; as the industrial structure changes, more of them will also change the type of work they do. Many will experience unemployment between jobs; many will need some retraining or some help in locating another job. The budget of Employment

and Immigration Canada for labour-market programs in 1987-88 was $1.6 billion, of which about one-third went into institutional training. The unemployment-insurance system currently provides for another $400 million annually, to be spent on training, job creation, and work-sharing arrangements. These federal programs are supplemented by provincial programs and by the activities of industry.

The main objectives of the federal programs seem quite appropriate, in the light of our research findings. They are tailored to the needs of individuals, and there is a genuine effort under way to decentralize decision making on the allocation of funds through the input of the local advisory councils (LACs) set up for most of the Canada Employment Centres (except in Quebec).[4] These Councils do not appear to be functioning as well as they could, however. We therefore endorse the proposal set forth by the House of Commons Committee on Labour, Employment and Immigration, which recommended structural reforms to make the LACs smaller and more collegial and to give them more scope for contributing to decision making – for example, to identify local priorities in training.[5]

There are other important issues about labour-market programs that also require consideration:

- One such issue relates to the effectiveness of the programs. It is one thing to say that program objectives seem appropriate; it is another to be sure that actual needs are being met. One question here is whether the government is making the most appropriate allocation between job creation, training, and other elements of the Canadian Jobs Strategy (CJS). It seems strange, for example, that with all the talk of skill shortages in fiscal 1987, only 38 per cent of CJS expenditures in Ontario went to the purchase of training. Did that truly reflect local needs? Are there any biases in the program structure that favour job creation over training? The preliminary results of an evaluation by Employment and Immigration Canada show a very high payoff (in terms of ongoing employment and the use of new skills) from workplace-based training but lower payoffs from programs intended to create jobs and provide work experience.[6] In that context, we note that wage subsidies are generally a more efficient form of support for job creation than other direct-job-creation initiatives, as shown in an evaluation of the brief experiment with the Employment Tax Credit in 1979 and 1980 that was done for the Council.[7]

- A second issue is the transition from direct purchases of institutional training to customized courses that meet the needs of local employers. Many colleges and technical schools have resisted this change, probably because they are not accustomed to dealing directly with employers and because it is easier to sell courses already in the curriculum than to design a course to meet local needs. Yet it is essential that training be focused on the skills needed for tomorrow's jobs. We note that some local employers' coordinating groups have been established in Ontario and Quebec to facilitate the employer/college interface and that some colleges have been soliciting input from employers and union leaders. The Council would certainly support any effort to enrich the interface between colleges, industry, unions, and governments. The Council will also be publishing a Statement late in 1989 on employment in the service industries, with a special focus on training needs and job quality.

- A third issue is the treatment of older workers. The case studies done for the Council's Statement, *Making Technology Work*, demonstrated that older workers (even those with relatively low education) can be retrained to use computer-based technologies if the training is properly designed. Thus the design of programs should not presume that older workers cannot be retrained. But there will be some older workers who find it difficult to adapt and who merit income support until they are eligible for pensions. In its Statement on *Managing Adjustment*, the Council identified the need for such programs and made a number of suggestions with respect to their design.[8] The Council expressed dismay that a federal-provincial disagreement has caused long delays in introducing the proposed Program for Older Worker Adjustment. Workers who would unquestionably meet the eligibility criteria are being denied access to the program for that reason only.

We note here the frequency with which federal-provincial jurisdictional battles have impeded the elaboration of appropriate policies. Surely there is some way that the two levels of government can agree on national priorities: human resources will be too important in the future to tolerate costly delays and inaction.

Industry Action

There is clearly a need, and a responsibility, for industry to play a role in attacking the mismatching problem; that role could involve training, job design, and work organization and compensation systems. Industry obviously has a lot to gain from a highly qualified and well-motivated work force; yet the industry track record on training is very spotty. Though sometimes large amounts of money are being spent, too much emphasis is being placed on short-term courses.[9] Industry is in a better position than government agencies or colleges to determine its manpower needs. Human-resource planning should involve a combination of in-house

training, support for cooperative courses at community colleges and other institutions, and various types of training leave (both paid and unpaid). The inhibition has always been that there is no use training workers who will soon leave for another employer. But employers can instil loyalty – and attract good recruits when necessary – through effective approaches to work organization and compensation.

In the same vein, employers who currently depend on the shrinking supply of young people to do low-quality/low-wage jobs will have to do some imaginative thinking about job design and career enhancement in order to attract the employees they will need in the future.

Local Initiative

The widening disparities in regional unemployment rates in the 1980s highlight the need to focus on the strengths and weaknesses of individual provinces and communities in order to stimulate economic development in disadvantaged areas. The new technologies hold out potential for development in those areas, because they create the scope for smaller-scale production units that are still efficient and that can often function effectively despite long distances from markets. For example, Canada has one successful exporter of diagnostic chemicals in Charlottetown and another selling advanced mining tools from its base in Kirkland Lake. The success of firms like these stems from the energy and ideas of a few individuals, but they can have a profound impact on job opportunities and income flows in the community. There is scope, therefore, for development at the community level, based on cooperation with governments, workers, and industry.

The Council is currently working on a study of regional development, based on 15 instructive cases of community action across Canada. We shall be making suggestions, in a Statement to be released in 1989, for changes in federal and provincial policies in order to foster local initiatives that will tap the unused potential of Canada's regions. The need to invest in people will be an important theme in that Statement too: people are, after all, the strategic resource for the next century.

Conclusion

The policy priorities outlined in this Review, with their focus on the need to correct fiscal imbalances, poor performance in productivity, labour-market mismatching, and the lack of clear priorities for human-resource development, constitute a call for an improvement in the fundamentals – a return to the basics of wise policy. Without such action, Canadians will find themselves falling behind in the world marketplace of tomorrow, despite Canada's rich endowment of natural resources.

But we do not stress these themes only out of concern about the need for competitiveness, as fundamentally important as that may be for the economic well-being of Canadians. Our preliminary look at longer-run issues raises the spectre of an increasingly complex and fragmented world over the next few decades. This will pose new challenges to our social and political institutions: they will have to cope with the demands posed by the greater international scope of decision making and with far more complicated linkages between world economic, political, environmental, and demographic systems.

Canada is well placed to take advantage of the opportunities that will flow from the dynamic global environment that we have explored in this report. But our ability to prosper and to contribute to the prosperity of others in that new environment will be advanced if future generations of Canadians inherit a legacy that includes low levels of government debt, strong productivity growth, low unemployment, and a higher-quality education system. If Canadians go back to the basics today, they will leave their children much better tools with which to meet the challenges of tomorrow.

Comments

Raymond Koskie, Q.C.

The Council's Twenty-Fifth Annual Review, in the words of its Chairperson, was to be "a truly landmark document" containing "visionary ideas." Unfortunately, it is but a pale ghost of this vision and falls woefully short of the standards that Canadians deserve and expect on this anniversary.

The Review contains many positive general statements, but conspicuous by their absence are any original or innovative ideas as to how we can resolve the problems that we can all see. No doubt, this is so because of the Council's preoccupation with the political debate about the government's proposed Free-Trade Agreement. As I have said before, the Council's activities in this regard went well beyond its legislative mandate to provide economic advice to the federal government and consequently tainted the Council with partisanship. As well, the Council found itself with insufficient time to devote to a more thorough review of the many issues, economic and otherwise, which face Canada today. The Twenty-Fifth Annual Review would have provided an excellent opportunity for the Council not only to advance an original analysis of the current international situation, but also, and more importantly, to provide a visionary and creative approach to solving some of the problems which plague us today.

I have urged my colleagues in the past to study the experiences of such successful economies as Japan, Sweden, Germany, and the United States in regard to such matters as productivity standards, skills training, and research and development. Productivity improvements depend largely upon advances in research and development and in skills training. In both of these areas, government policies are seriously deficient. Other economic commentators have used an international comparative analysis to underscore Canada's problems in these areas and to point the way towards solutions. David Crane, the Economics Editor for the *Toronto Star*, for example, recently wrote as follows in reference to data contained in two recent sets of numbers from the Organisation for Economic Co-operation and Development:

> Manufacturing productivity per person employed in Canada grew just 0.1 per cent a year between 1979 and 1985; in the U.S. it grew 2.5 per cent a year. Labor productivity in manufacturing in Canada was 76.9 per cent that of the U.S. in 1984; in 1979 it was 87.9 per cent that of the U.S.
>
> Research and development spending in Canada per employed worker in 1985 was $370 (U.S.) in 1980 dollars; in the U.S. it was $810 (U.S.). Each American worker has 2.2 times as much R&D backing for new technology and innovation as each Canadian worker. (*Toronto Star*, August 20, 1988)

Further, Arthur Donner, a noted Toronto economic consultant, had this to say about research and development underinvestment in Canada:

> R and D under-investment is even more pronounced in Canada because of its relatively small population, a heavily foreign-controlled industrial structure and finally, because our federal government simply cannot or will not keep up with the Americans in terms of direct support for R and D. (*Toronto Star*, June 6, 1988)

Although the Council has identified skills training and research and development as important issues facing the economy, it has failed to advance the national discussion about these issues in any meaningful way. The Council has brought no originality to bear on these questions, and this is extremely disappointing.

I very much agree with the Council's emphasis on the structural dimension of unemployment and on the need for improved education and skills training. These are vital to improve Canadian living standards, productivity and quality of work. Needless to add, they also have budgetary implications and it is in this area that my colleagues have failed to come up with any substantial recommendations. For example, we should be evaluating the specific educational and skills-training requirements for Canada in the short, medium and long terms, and we should be making specific programmatic and budgetary recommendations in this regard, all of which the Council has failed to do. This is not surprising, given the Council's single-minded focus and extended participation in the free-trade debate.

Finally, I am extremely concerned that the Council foresees the possibility of a severe recession, yet does not caution against overzealous monetary policy. Strict monetary policies, made with a view only to the inflation risk, have historically caused or exacerbated serious economic

downturns. The consequent losses in income and employment devastated the Canadian and international economies as recently as the early 1980s and must not be repeated.

William Mackness

The Twenty-Fifth Annual Review of the Economic Council of Canada is deficient in its principal mandate, the provision of policy advice to government. The report also suffers from a preoccupation with interventionist strategy in preference to reliance on free markets.

The Council's policy advice is deficient on two main issues, the need for fiscal restraint and a perceived need for a major new interventionist thrust in labour markets-education policy. By now, the need to reduce the deficit is well recognized; the real policy issue is how to do it. The Council's fiscal recommendation is unhelpful because it studiously avoids the critical issue of controlling runaway spending on transfer payments and universal social programs.

The labour markets-education proposal is simply a reworking of some of the most barren ground in Canadian public policy. The proposal is even more difficult to take seriously because it makes not even a passing acknowledgment of the monumental waste, inefficiency and moral hazard already built into Canada's existing unemployment-insurance program.

There is also a matter of consistency. The Council makes no estimate of the costs attaching to its labour markets-education proposal or how such costs would factor into its proposal for fiscal restraint.

Appendixes

A Additional Tables

Table A-1

Assumptions Regarding the External Environment, 1988-92: Four Scenarios[1]

	Average, 1983-87	Average, 1988-92	1988	1989	1990	1991	1992
				(Per cent)			
United States							
Change in real GNP							
Base-case scenario	3.8	2.6	3.6	2.2	2.0	3.1	2.2
High-growth scenario		3.2	3.6	2.5	3.5	4.0	2.6
Low-growth scenario		2.8	3.6	1.7	0.6	6.2	1.9
Policy-mix scenario		2.7	3.6	2.2	2.0	3.2	2.7
Change in employment							
Base-case scenario	2.5	1.4	2.4	1.0	0.7	1.6	1.5
High-growth scenario		1.7	2.4	1.2	1.5	2.0	1.5
Low-growth scenario		1.7	2.4	0.9	0.0	3.1	2.0
Policy-mix scenario		1.5	2.4	1.0	0.7	1.6	1.7
Change in consumer price index							
Base-case scenario	3.3	4.9	3.9	4.9	5.3	5.2	5.1
High-growth scenario		5.4	3.9	4.9	5.5	6.1	6.4
Low-growth scenario		4.9	3.8	5.3	5.2	4.4	5.7
Policy-mix scenario		5.0	3.9	4.9	5.3	5.2	5.5
Level of :							
Unemployment rate							
Base-case scenario	7.5	6.1	5.4	5.8	6.5	6.3	6.3
High-growth scenario		5.4	5.4	5.7	5.6	5.0	5.1
Low-growth scenario		5.9	5.4	5.9	7.2	5.7	5.3
Policy-mix scenario		6.0	5.4	5.8	6.5	6.3	6.1
Federal funds rate							
Base-case scenario	8.2	7.8	7.5	8.8	7.8	7.3	7.4
High-growth scenario		7.3	7.5	8.5	7.1	6.6	6.6
Low-growth scenario		8.3	7.5	9.2	9.3	8.3	7.2
Policy-mix scenario		7.2	7.4	8.6	7.2	6.3	6.4
				(Billions of 1982 U.S. dollars)			
Real net exports							
Base-case scenario	–98	–92	–119	–92	–75	–92	–83
High-growth scenario		–116	–119	–90	–81	–125	–164
Low-growth scenario		–78	–120	–90	–42	–60	–78
Policy-mix scenario		–77	–119	–91	–69	–64	–42

Table A-1 (concl.)

	Average, 1983-87	Average, 1988-92	1988	1989	1990	1991	1992
				(Per cent)			
United States							
Current-account balance as a proportion of GNP							
Base-case scenario	–2.8	–2.9	–3.3	–3.0	–2.6	–2.9	–2.8
High-growth scenario		–3.1	–3.3	–2.9	–2.6	–3.2	–3.6
Low-growth scenario		–2.8	–3.3	–3.1	–2.2	–2.5	–2.8
Policy-mix scenario		–2.8	–3.3	–3.0	–2.6	–2.6	–2.3
Federal budgetary deficit as a proportion of GNP							
Base-case scenario	–4.6	–2.7	–3.2	–3.4	–3.0	–2.0	–1.9
High-growth scenario		–1.8	–3.2	–3.2	–2.1	–0.6	–0.1
Low-growth scenario		–2.8	–3.2	–3.5	–3.9	–2.0	–1.4
Policy-mix scenario		–2.0	–3.2	–3.3	–2.3	–0.8	–0.4
Personal income tax as a proportion of personal income							
Base-case scenario	14.6	15.0	14.8	14.7	14.9	15.3	15.3
High-growth scenario		15.1	14.8	14.7	15.0	15.4	15.4
Low-growth scenario		15.0	14.8	14.7	14.9	15.3	15.4
Policy-mix scenario		15.6	14.8	14.7	15.5	16.4	16.5
Investment as a proportion of GNP							
Base-case scenario	16.0	15.7	16.2	15.7	15.3	15.7	15.4
High-growth scenario		16.5	16.2	15.7	15.8	17.1	17.6
Low-growth scenario		15.3	16.1	15.5	13.9	15.4	15.8
Policy-mix scenario		15.7	16.2	15.7	15.3	15.8	15.6
Rest of the world							
Change in real GDP							
Base-case scenario	3.4	2.9	3.1	3.1	2.4	2.9	3.0
High-growth scenario		3.3	3.1	3.5	2.9	3.4	3.5
Low-growth scenario		2.8	3.1	3.0	2.2	2.9	3.0
Policy-mix scenario		2.6	3.1	3.0	1.9	2.4	2.5
				(US$/barrel)			
Level of international price of crude petroleum							
Base-case scenario	23.38	18.43	17.01	18.38	18.75	19.00	19.00
High-growth scenario		18.43	17.01	18.38	18.75	19.00	19.00
Low-growth scenario		19.01	16.59	20.19	20.25	19.00	19.00
Policy-mix scenario		18.43	17.01	18.38	18.75	19.00	19.00

1 The high-growth scenario assumes higher real growth and lower inflation rates in the overseas countries, a further depreciation of the U.S. dollar, increased grain exports, lower interest rates, and a higher level of consumer confidence in the United States, plus increased U.S. investment and export growth. The low-growth scenario assumes a U.S. recession in 1989-90, coupled with lower real growth and higher inflation rates for commodities (including oil) in the overseas countries, an appreciation of the U.S. dollar, higher interest rates, decreased consumer confidence, and a weakening of investment spending in the United States. The policy-mix scenario assumes a depreciation of the U.S. dollar, as well as lower interest rates, reduced federal defence spending, higher corporate and personal tax rates in the United States, and lower real growth and higher inflation rates in the overseas countries.

SOURCE Estimates by the Economic Council of Canada, July 1988.

Table A-2

Selected Indicators of the Canadian Economy, 1988-92: Four Scenarios[1]

	1988	1989	1990	1991	1992	Average, 1988-92
			(Per cent)			
Growth in:						
Real GDP						
Base-case scenario	3.8	2.2	2.6	3.5	2.7	3.0
High-growth scenario	3.8	2.6	3.3	4.5	4.1	3.7
Low-growth scenario	3.7	1.8	1.4	2.9	2.5	2.5
Policy-mix scenario	3.8	2.2	2.6	3.6	3.0	3.0
Consumer price index						
Base-case scenario	4.1	5.1	4.6	4.2	4.0	4.4
High-growth scenario	4.1	5.4	5.7	6.3	7.2	5.7
Low-growth scenario	4.2	5.0	3.8	2.6	2.3	3.6
Policy-mix scenario	4.1	5.1	4.6	4.2	4.2	4.4
Employment						
Base-case scenario	3.2	1.6	1.5	2.1	2.0	2.1
High-growth scenario	3.3	2.0	2.5	3.5	3.7	3.0
Low-growth scenario	3.2	1.2	0.3	1.0	1.9	1.5
Policy-mix scenario	3.2	1.6	1.5	2.2	2.4	2.2
Nominal wage rate						
Base-case scenario	4.5	3.9	4.2	4.0	3.8	4.1
High-growth scenario	4.9	5.4	7.2	8.6	10.2	7.3
Low-growth scenario	4.5	3.7	2.9	1.2	1.1	2.7
Policy-mix scenario	4.5	3.9	4.3	4.2	4.3	4.2
Level of:						
Unemployment rate						
Base-case scenario	7.7	7.6	7.7	7.6	7.3	7.6
High-growth scenario	7.7	7.4	7.1	6.5	5.5	6.8
Low-growth scenario	7.8	7.8	8.4	8.6	8.4	8.2
Policy-mix scenario	7.7	7.6	7.7	7.5	7.1	7.5
Federal deficit as a proportion of GDP						
Base-case scenario	–4.3	–4.5	–4.0	–3.6	–3.7	–4.0
High-growth scenario	–4.2	–3.9	–2.7	–1.4	–0.5	–2.5
Pessimistic scenario	–4.3	–5.0	–5.7	–5.9	–5.9	–5.4
Policy-mix scenario	–4.3	–4.4	–3.9	–3.3	–3.2	–3.8
Federal debt as a proportion of GDP						
Base-case scenario	42.5	44.2	45.6	46.0	46.6	45.0
High-growth scenario	42.4	43.4	43.0	40.4	37.0	41.2
Pessimistic scenario	42.5	44.9	48.4	51.6	54.9	48.5
Policy-mix scenario	42.5	44.2	45.4	45.5	45.5	44.6

Table A-2 (concl.)

	1988	1989	1990	1991	1992	Average, 1988-92
			(Per cent)			
Current-account balance as a proportion of GDP						
Base-case scenario	–1.4	–1.6	–1.3	–1.4	–1.3	–1.4
High-growth scenario	–1.5	–2.0	–2.3	–2.9	–3.2	–2.4
Low-growth scenario	–1.4	–1.2	–0.3	0.4	0.1	–0.5
Policy-mix scenario	–1.4	–1.6	–1.5	–1.6	–1.6	–1.5

1 The Canadian high-growth scenario includes the U.S. high-growth scenario, as well as stronger investment spending, lower interest rates, and higher nominal wage growth in Canada, and a stronger Canadian dollar. The Canadian low-growth scenario includes the U.S. low-growth scenario, as well as weaker investment spending, a higher saving rate, and higher interest rates in Canada, and a weaker Canadian dollar. The Canadian policy-mix scenario includes the U.S. policy-mix inputs.

SOURCE Estimates by the Economic Council of Canada, August 1988.

Table A-3

Natural and Actual Rates of Unemployment, Canada, 1963-92

	Natural rate	Actual rate
	(Per cent)	
1963	4.4	5.5
1964	4.8	4.7
1965	4.3	3.9
1966	4.8	3.3
1967	5.0	3.8
1968	5.4	4.5
1969	5.5	4.4
1970	6.5	5.7
1971	6.3	6.2
1972	6.5	6.2
1973	6.3	5.5
1974	6.5	5.3
1975	7.3	6.9
1976	7.4	7.1
1977	7.5	8.1
1978	7.1	8.3
1979	6.7	7.4
1980	7.2	7.5
1981	8.0	7.6
1982	9.7	11.1
1983	8.5	11.9
1984	8.7	11.3
1985	8.9	10.5
1986	7.9	9.6
1987	7.7	9.2
1988-92 (projected)	7.7	7.6

SOURCE Andrew Burns, "Unemployment in Canada: Frictional, structural and cyclical aspects," a background paper prepared for the Economic Council of Canada, March 1988.

B Measures of Employment-Income Inequality

Two measures of income inequality are shown in Table B-1. The first – middle-class size – though not an income inequality measure in the strict sense, does gauge the extent to which the "middle class" – i.e., the proportion of people in each group whose employment income is within 25 per cent of the mean for each group – is getting smaller or larger over time, or is smaller in one industry than in another. In the table it is observed that, though there has been an erosion in middle-class size overall, the performance of the various sectors has been mixed, with the primary and secondary industries showing large declines and services displaying comparatively smaller ones. Note, however, that income in the service sector still appears to be distributed less equitably than in the goods sector, though the gap has narrowed over the years.

The other measure is the Gini coefficient – the traditional measure of income inequality. It gauges the gap between the cumulative income distribution of a particular industry or year and perfect equality (where X per cent of the population receives X per cent of total income.) The Gini coefficient rises with the degree of inequality, ranging from 0 (complete equality) to 1 (complete inequality). In the table we see, again, mixed results across industries based on the Gini coefficient, with rising inequality in both the primary and secondary sectors, as well as in the trade sector; a trend towards more equitable income distribution is observed in both the services and public-services categories, however. The outcome for the whole economy is a slight increase in inequality, in net terms.

Table B-1

Measures of Employment-Income Inequality for Individual Workers, by Industry, Canada, 1975 and 1984

	1975		1984	
	Middle-class size	Gini coefficient	Middle-class size	Gini coefficient
	(Per cent)		(Per cent)	
Primary sector[1]	23.9	0.470	18.0	0.502
Secondary sector[2]	35.8	0.328	29.6	0.356
Trade	28.2	0.408	24.5	0.402
Services[3]	26.4	0.421	22.5	0.435
Public services[4]	32.7	0.369	30.9	0.363
All industries	29.7	0.389	25.7	0.404

1 Includes agriculture, fishing, forestry, and mining.
2 Includes manufacturing and construction.
3 Includes community, business, and personal services; finance, insurance, and real estate services; plus transportation, communications, and other utilities.
4 Includes health, education, and welfare services; plus public administration.

SOURCE Norman Leckie, "The declining middle and technological change," Discussion Paper 342, Economic Council of Canada, Ottawa, 1988.

Notes

Chapter 1

1 Donella H. Meadows, Dennis L. Meadows, Jørgen Randers, and William W. Behrens III, *The Limits to Growth*, a report for the Club of Rome's project on the Predicament of Mankind (New York: Universe Books, 1972). The authors of this document did not anticipate the degree to which higher commodity prices would call forth new production and substitute materials. Nonetheless, their message with respect to environmental degradation and excessive population growth is still highly relevant.

2 Economic Council of Canada, *Managing Adjustment: Policies for Trade-Sensitive Industries* (Ottawa: Supply and Services Canada, 1988), pp. 7-11.

3 Economic Council of Canada, *Making Technology Work: Innovation and Jobs in Canada* (Ottawa: Supply and Services Canada, 1987), pp. 15-16.

Chapter 2

1 The most highly indebted countries include Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ivory Coast, Ecuador, Jamaica, Mexico, Morocco, Nigeria, Peru, Philippines, Uruguay, Venezuela, and Yugoslavia.

2 It should be noted that an average increase in productivity of 1 per cent per year would typically be composed of gains of 2.5 per cent in manufacturing and much smaller rates of change in other sectors of the economy.

3 The concept of the natural rate is closely associated with the NAIRU – the non-accelerating inflation rate of unemployment. The latter is the flashpoint from which an economy with a stable inflation rate could be launched into a situation of accelerating inflation.

4 Andrew Burns, "Unemployment in Canada: Frictional, structural and cyclical aspects," a background paper prepared for the Economic Council of Canada, March 1988.

Chapter 3

1 The Council's estimates of the natural rate of unemployment (presented in Chapter 2) suggest strongly that the bulk of the remaining unemployment is structural in nature. As indicated in Chart 2-10, the natural rate of unemployment in all Canadian provinces rose dramatically in the early 1980s; see Burns, "Unemployment in Canada," and Andrew Burns, "The natural rate of unemployment: A regionally disaggregated approach," a background paper prepared for the Economic Council of Canada, September 1988. In these studies, regional wage spillover, labour power, social attitudes, minimum wages, unemployment insurance, government subsidization, and taxation are among the additional factors found to be important in affecting regional natural rates.

2 Surendra Gera, Syed S. Rahman, Jean-Louis Arcand, and Laval Lavallée, "Help-Wanted index, job vacancies and structural unemployment in Canada," a background paper prepared for the Economic Council of Canada, June 1988; and Syed S. Rahman, Surendra Gera, and Miles Corak, "Long-term unemployment – The Canadian experience," a background paper prepared for the Economic Council of Canada, August 1988. These two papers explore the *uv* relation in greater detail.

3 Rising raw-material export prices in the 1970s helped to alleviate the effects of the first oil shock. In the 1980s, however, raw-material prices fell dramatically, accentuating the impact of the oil shock and of the needed structural adjustment.

4 A special study by Statistics Canada suggests that a large proportion (41 per cent) of workers laid off in the goods-producing sector were forced to seek new employment in the service sector. A much smaller proportion (21 per cent) of laid-off service workers found work in the goods-producing sector. See Garnett Picot and Ted Wannell, "Job loss and labour market adjustment in the Canadian economy," in Statistics Canada, *The Labour Force* (March 1987), Cat. 71-001.

5 See Economic Council of Canada, *In Short Supply: Jobs and Skills in the 1980s* (Ottawa: Supply and Services, 1982), Chapter 6; and Abrar Hasan and Patrice de Broucker, *Unemployment, Employment and Non-Participation in Canadian Labour Markets*, Economic Council of Canada (Ottawa: Supply and Services Canada, 1985).

6 The important role of the industrial composition of employment in determining disparities in unemployment rates is illustrated by two "counterfactual experiments." In the first, over the period January 1975 to June 1988 the employment growth rates of Ontario and British Columbia are assumed to

be identical to that of Canada while the industrial structure of each province is maintained. The result is a widening of the unemployment-rate differential between the regions. In the second experiment, the provinces retain their own actual rates of employment growth but are given the same composition of employment as in Canada as a whole. The result is that the unemployment-rate differential between the provinces narrows.

7 Picot and Wannell, "Job loss and labour market adjustment."

8 Economic Council of Canada, *Adjustment Policies for Trade-Sensitive Industries* (Ottawa: Supply and Services Canada, 1988), p. 32.

9 Burns, "Unemployment in Canada"; and Burns, "The natural rate of unemployment."

10 Burns, "Unemployment in Canada"; Burns, "The natural rate of unemployment"; and Tom Siedule, Nick Skoulas, and Keith Newton, *The Impact of Economy-wide Changes on the Labour Force: An Econometric Analysis*, Economic Council of Canada (Ottawa: Supply and Services Canada, 1977).

11 Burns, "The natural rate of unemployment."

12 See Organisation for Economic Co-operation and Development, *OECD Employment Outlook* (Paris: OECD, September 1987).

13 Although the industrial breakdown of employment data does not permit a precise calculation of growth rates prior to 1971, preliminary estimates indicate that this subsector has been the fastest-growing since the end of the Second World War.

14 Industry wage levels give only part of the earnings picture; an important additional aspect is the distribution of earnings within the work force. Some have argued that earnings in the service industries are not distributed as equitably as those in the goods sector and that, as a consequence, the shift of employment to services has tended to exacerbate income inequality in the economy as a whole. This is not borne out by the evidence, which reveals that some service industries experienced a reduction in employment-income inequality over the period 1975-84, compared with overall increases in the goods-producing sector (see Appendix B).

15 With appropriate data, this aspect of job instability could be documented by examining the industrial distribution of seasonal and casual jobs over time or by observing the growth in the temporary-help industry (for example), which is a major employer of temporary workers. Trends in temporary employment may also be captured by looking at job-tenure data.

16 The information on turnover is drawn from Matthew Robertson, "Perspectives on labour adjustment in the Canadian economy," *Labour Market Bulletin* (Employment and Immigration Canada) 4, no. 5 (June 1987):5-14.

17 Traditionally, immigrants have been an important source of supply in these labour markets. Issues of demography and immigration are high on the Council's future research priorities.

18 Karen Howlett, "Service sector firms finding it harder to get employees," Globe *and Mail*, 7 September 1987.

19 Elinor Abramson, "Projections 2000," *Occupational Outlook Quarterly* 31, no. 3 (Fall 1987):28-33; and William B. Johnston, *Workforce 2000: Work and Workers for the 21st Century* (Indianapolis: Hudson Institute, 1987).

20 Larry Hirschhorn, "Skill formation in the U.S. service economy: Final report," Wharton Center for Applied Research, University of Pennsylvania, Philadelphia, April 1987, p. 69. Note that many of these so-called postindustrial skills will also be relevant in the goods sector.

Chapter 4

1 World Commission on Environment and Development (Brundtland Commission), *Our Common Future* (Oxford: Oxford University Press, 1987).

2 Brundtland Commission, *Our Common Future*, p. 68.

3 Lester R. Brown *et al.*, *State of the World – 1988*, a Worldwatch Institute report (New York: W. W. Norton, 1988), p. 86.

4 James Gustave Speth, "Addressing environmental issues in the future," in Economic Council of Canada, *Managing the Legacy: Proceedings of a Colloquium on the Environment*, December 1985 (Ottawa: Supply and Services Canada, 1986), p. 91.

5 *The Economist*, 20 February 1988, p. 81.

6 That is the conclusion of the recent review article by C. Passaris, "Canada's demographic outlook and multicultural immigration," *International Migration* 25, no. 4 (1987):361-84. The author also points out that, based on historical experience, Canada can expect to gain considerably from the human and financial capital that accompanies a dynamic and ethnoculturally diverse immigrant population. Policy makers would be wise, however, to anticipate the special needs and characteristics of immigrants who will increasingly be drawn from countries that have not traditionally been the main source of immigrants for Canada.

7 See Economic Council of Canada, *Innovation and Jobs in Canada* (Ottawa: Supply and Services Canada, 1987).

8 ECC, *Managing Adjustment*.

Chapter 5

1 The Department of Finance disburses $2.2 billion annually on education under Established Programs Financing, while the Secretary of State is responsible for numerous cultural and citizenship programs, as well as support to education.

2 That was the dominant theme at the Post-Secondary Education Forum, held in Saskatoon in October 1987. The forum, sponsored by the Council of Ministers of Education and the Secretary of State, was an ambitious consultation exercise.

3 The concern about quality was voiced by Pierre Lortie in a speech delivered at the Prime Minister's Conference on Technology and Innovation (January 1988) and by the Science Council of Canada in *Winning in a World Economy: University-Industry Interaction and Economic Renewal in Canada*, Report 39 (Ottawa: Science Council, 1988).

4 In Quebec, where a provincial system of advisory committees already exists, work is under way to develop alternative channels for local input.

5 House of Commons Committee on Labour, Employment and Immigration, *Review of the Canadian Jobs Strategy* (Ottawa, April 1988).

6 Employment and Immigration Canada, "The Canadian Jobs Strategy: A Review," Ottawa, July 1988.

7 Surendra Gera, *Creating Jobs in the Private Sector: Evidence from the Canadian Employment Tax Credit Program*, Economic Council of Canada (Ottawa: Supply and Services Canada, 1988).

8 ECC, *Managing Adjustment*, p. 37. The Council suggested that an independent tribunal such as the Labour Adjustment Review Board, which now has responsibility for certifying that a worker is eligible for this form of income support, should also be responsible for designating the industries/communities where the program would apply. The Council argued that pre-retirement programs of this sort are sound in principle but have been given only limited opportunity to demonstrate their usefulness because of the interference of other policies that retard adjustment.

9 See ECC, *Making Technology Work*.

List of Tables and Charts

Tables

1-1	Selected Economic Indicators, Canada, 1963 and 1988	1
1-2	Distribution of Employment, by Industry, Canada, Selected Years, 1946-87	5
1-3	Occupational Structure of Innovating and Noninnovating Establishments, Canada, 1985	5
1-4	Distribution of World Exports, by Country or Group of Countries, Selected Years, 1960-86	6
2-1	Flows of Foreign Assets into the United States, Selected Years, 1977-87	13
2-2	Loan-Loss Provisions of Commercial Banks against Loans to Problem Countries, 1987	13
2-3	Actual and Projected Current-Account and Budgetary Deficits, United States, 1983-87 and 1988-92: Four Scenarios	16
2-4	Selected Indicators of Actual and Projected Performance, Canada, 1983-87 and 1988-92	17
2-5	Characteristics of the Federal Debt, Canada, 1976 and 1987	23
2-6	Sources and Uses of Savings, Canada, 1975-87	25
3-1	Employment in Goods-Producing Industries and Natural Unemployment Rate, by Region, Canada, Selected Years, 1975-87	31
3-2	Growth and Composition of the Service Sector, by Major Subsector, Canada, 1962-87	36
3-3	Occupations Contributing the Most to Projected Employment Growth, Canada, 1987-95	38
4-1	Actual and Projected Size and Growth Rate of the World Population, by Region, 1985, 2000, and 2025	41
4-2	Actual and Projected Population in Selected Third-World Cities, 1950 to 2000	42
A-1	Assumptions Regarding the External Environment, 1988-92: Four Scenarios	71
A-2	Selected Indicators of the Canadian Economy, 1988-92: Four Scenarios	73
A-3	Natural and Actual Rates of Unemployment, Canada, 1963-92	75
B-1	Measures of Employment-Income Inequality for Individual Workers, by Industry, Canada, 1975 and 1984	77

Charts

1-1	Government Debt as a Proportion of GDP, Canada, 1962-88	2
1-2	Price Indexes of Manufactured Products and Exported Raw Materials, Canada, 1956-87	3
1-3	Index of International Trade Imbalances, 1968-86	7
2-1	Current-Account Balances, Selected Countries, 1980-87	10
2-2	Current-Account Balance and the Exchange Rate of the Dollar, United States, 1980-87	11
2-3	Net Exports, United States, 1984-88	12

2-4	Net Transfers to the Highly Indebted Countries, 1980-87	14
2-5	Change in Real GDP, Developing Countries, 1980-87	15
2-6	Change in Selected Price and Cost Indicators, Canada, 1984-88	18
2-7	Change in Real Wages and Productivity, by Quarter, Canada, 1962-87	19
2-8	The Inflation/Unemployment Trade-Off in Canada, 1963-87	21
2-9	Personal Income per Capita and Unemployment Rate, by Region, Canada, Selected Years, 1973-87	22
2-10	Natural Rates of Unemployment, by Region, Canada, 1973-87	23
3-1	Unemployment Rate, Canada, 1960-87	28
3-2	The Unemployment/Job-Vacancies Relationship, Canada, 1966-87	29
3-3	Long-Term Unemployment, Canada, 1980-88	30
3-4	Growth in Output per Person Employed in Manufacturing, by Region, Canada, 1975-87	32
3-5	Growth in Employment, Real Output, and Labour Productivity, Canada, 1971-87	35
3-6	Index of Average Weekly Earnings, by Industry, Canada, 1987	37
4-1	Convergence towards the United States	46
4-2	Patents as Indicators of Canada's Technological Lag	51

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