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# Short-Term Stability and High Employment

## Introduction

As Commissioners have already emphasized, there is good reason to believe that over the longer run, the main determinants of economic growth and development are structural factors related both to the supply of goods and services, such as expansion of the labour force and changes in capital investment and productivity, and also to shifts in world demand for Canada's products. That Canadians' real incomes are now, on average, more than twice as large as they were 25 years ago, that total employment is almost twice as high, and that total employment in manufacturing is 1.3 times as high are among the results of combinations of these structural factors.

At the same time, however, we are also acutely conscious of the fact that our well-being at any given point can be sharply affected by shorter-term fluctuations in the economy. This is particularly obvious at a time when unemployment remains close to its record post-Second World War level, when real interest rates are very high, and when experience with high inflation and even higher interest rates is still very fresh in Canadian minds.

The major elements here—output, employment and unemployment, inflation, and interest and exchange rates—are closely interrelated, although some may be of more fundamental importance than others; most observers, for example, view unemployment as of more importance than the exchange rate. The study of the relationships, levels and stability of these elements over the short term has come to be called “macro-economics”. Governments, using a variety of instruments, try to achieve the best possible balance among these factors; the most important and powerful are monetary and fiscal policy, which together constitute “demand management”.

Because of the complex relationships among macro-economic elements, the simultaneous achievement of goals involving the levels and stability for each is often very difficult, if not impossible. A growth of output so strong that it

strains available human, material and financial resources, for example, may lead to an increase in inflation and interest rates that in time could adversely affect the prospects for the continued growth of productivity and employment. An extended period of high unemployment may be associated with weak investment and thus with a lasting reduction in Canadians' capacity to produce and in our real income levels. Long-run benefits may involve short-run costs, and vice versa. Given these kinds of trade-offs, which directly affect the welfare of different groups in society, the problems of striking the right balance in setting demand-management policy must be both complex and controversial.

In organizing our discussion of demand management and some of its options, Commissioners have faced something of a dilemma in emphasis. For most of the post-war period, Canada, like most other developed Western economies, has experienced relatively high employment. A tendency for the rate of inflation to creep or climb upwards has, however, been a persistent concern. Many of the major developments in economic analysis over this period have centred on inflation and have brought into better focus the limits of demand-management policy in stabilizing the economy and reducing unemployment. Another important strand of development has dealt with the nature of unemployment; it suggests that a significant level of unemployment is a normal phenomenon, associated with the "frictions" of workers moving into the labour force or from job to job.

Canada's economic experience since 1982, however, makes it all too clear that unemployment can rise far above any level that could be considered "normal", and that it can still constitute a severe—currently, the most severe—problem facing our economy. Since 1982, rates of unemployment have prevailed which are higher than 11 per cent overall and, indeed, stand at almost 20 per cent for youths aged 15 to 19. These high rates and the lengthy periods of unemployment experienced by many older workers constitute a grave failure of our economy to provide a reasonable standard of social and economic welfare for all, and to make full and good use of its resources. The prospect that the situation will improve only slowly causes Commissioners deep concern, not merely because of the immediate hardship and current waste of resources involved, but also because prolonged experience with unemployment can sap the morale and the future potential of those affected, including those who are, or should be, at the critical stage of acquiring their first work experience.

For these reasons, a paramount objective of this Commission is to find ways to achieve, on a sustained basis, substantially lower levels of unemployment. Nonetheless, we are a Commission "for the longer term". We believe that the present high unemployment is largely a cyclical phenomenon, though one that may take several years to overcome. When we reach policy conclusions in this chapter, we give full weight to the need to use demand-management policy to alleviate the short-term, but crucial, problem of the high cyclical unemployment current in Canada. We also give substantial attention and weight to historical experience and to analysis arising in the post-war period. These elements offer lessons for the longer run about the level of unemployment likely to be sustainable, on average, through demand-

management policy. In light of this Commission's long-term perspective, the question of means available to reduce this *non-cyclical* component of unemployment is of equal importance to, or even greater importance than, the *cyclical* component.

To provide a framework for the analysis of demand management, the first section of this chapter outlines some of the basic notions of macro-economics. Supplementing the general discussion are subsections on recent analytical approaches to unemployment and on recent experience with inflation and policy attitudes towards it. Two specific analyses are important to understanding the macro-economic choices open to the economy: the implications of the openness of the Canadian economy to trade and capital movements, and the extent to which the size of fiscal deficits and government debt constitute a constraint on policy. After reviewing this analytical framework, we shall consider its implications for the conduct of Canada's monetary and fiscal policy. The issues to be considered include:

- The desirability and feasibility of using exchange controls, taxes or other measures to insulate interest rates in Canada from international movements of interest rates
- The desirability and feasibility of going further in providing various forms of inflation adjustment
- Monetary and fiscal policy questions that arise from the federal and regional nature of Canada.

We shall also consider whether incomes policies might serve as means of further improving macro-economic performance, and whether structural changes in wage and price setting might have the same potential and, in particular, might be used to lower the "normal" rate of unemployment without generating new inflationary pressures. A brief concluding section outlines a possible policy approach that includes monetary, fiscal and incomes-policy action in an attempt to achieve a more rapid reduction in unemployment than seems in prospect, while avoiding any resurgence of inflation.

## **Our Macro-economic Choices: An Analytical Framework**

Some aspects of macro-economics—in particular, the linkages of money, inflation, exchange rates and interest rates—have been the subject of study for centuries; the analysis of business cycles also has a long history. However, modern analysis of macro-economic issues, especially the role that demand management can play in stabilizing the economy, really began to take form only after the publication, in 1936, of John Maynard Keynes' *The General Theory of Employment, Interest and Money*.<sup>1</sup>

A highly simplified outline of the main ideas and vocabulary of the evolution of macro-economics since Keynes provides a good means of sketching current issues and the policy-action options that our present understanding suggests are open to us. Our "story" form of presentation is meant to provide a constant reminder of the highly simplified nature of our

discussion, which is aimed at underlining the broad considerations that must be taken into account for policy purposes.

## **The Development of Macro-economics**

Perhaps the most familiar name to students of modern macro-economics is that of John Maynard Keynes. For several decades, most theoretical work in this field has expounded, expanded or reacted to *The General Theory of Employment, Interest and Money* and his other works. This is not to say that Keynes created macro-economics. Many concepts fundamental to this field are much older than his works. One, for example, is that of aggregate demand, which refers to total spending in the economy on “final” goods and services.<sup>2</sup> The aggregate demand in a given national economy is, broadly speaking, the sum of spending by consumers on goods and services, by business on new physical capital and net accumulation of inventories, by governments on the goods and services they provide, and by foreign purchasers of the country’s exports. The complement of aggregate demand is aggregate supply, which is, basically, the sum of the final goods and services that will be supplied for all of the above purposes at a given average price level. Aggregate demand in nominal terms, that is, in terms of the prices that actually prevail at a particular point in time, is determined by a number of factors; these include the level of the money supply, which is governed by monetary policy, and the levels of government expenditures and revenues, which are determined by fiscal policy. For any given level of nominal aggregate demand, real aggregate demand will vary inversely with the price level: the higher the price level, the lower will be the real demand, and vice versa.

Analysts early developed important points about interdependence of spending (aggregate demand), prices, income and employment. One concept was the multiplier effect: the notion that an initial increase in spending will eventually result in some multiple of the initial increase because the income from the initial spending will be re-spent. Analysts also assumed that in the short run, the prices of goods and services would not vary much with output as long as that output was below the level corresponding to full employment of the labour force. Prices would start to rise only if demand rose beyond this point.

Aggregate demand and aggregate supply together determine the short-term levels of output, employment and prices. Consequently, monetary and fiscal policy will affect these levels as will other influences on demand, such as demand for exports and the amounts people wish to save. In theory, then, monetary and fiscal policy, by influencing aggregate demand, might guide the economy to the output level consistent with relatively full employment and stable prices.

The deep prolonged depression of the 1930s led macro-economists to the view that in the absence of government action, aggregate demand might fail to find a level consistent with full employment of the economy’s resources. They concluded, therefore, that demand-management policy had a potentially

important role: that is, to keep aggregate demand high enough to sustain relatively full employment.

The widespread acceptance of this theoretical approach in the 1940s and 1950s owed much both to the Great Depression, which came about when aggregate demand fell far short of aggregate supply for an extended period, and also to the Second World War, which demonstrated that government could indeed play a very effective role in stimulating aggregate demand and thereby decreasing unemployment.

By the mid-1940s, economists recognized that this analytical framework applied only to the very short term. It became apparent that in the longer run, capital investment would expand the potential productive capacity of the economy. Furthermore, the accumulation of wealth from savings, such as those invested in bonds issued to finance government deficits, might induce individuals to channel an increased proportion of additional income, not into further savings, but into consumption, and thus add to aggregate demand in the economy. A more complex theory was clearly required, one that could be used to analyse issues involving economic growth over the longer term. This growth theory has evolved continuously since the 1940s, but it has proved difficult to integrate with the theory of shorter-run “cyclical” fluctuations in the economy.

The creeping inflation of the 1950s and a closer scrutiny of the historical record forced economists to conclude that the notion of a sharp dividing line between inflationary and non-inflationary levels of demand was not appropriate, even as a simplified representation of reality. In the real world, prices and wages began to rise before the economy was running “flat out”: that is, before the unemployment rate fell to the level which people thought might correspond to the rather vaguely defined concept of full employment.

The analytical response to this phenomenon evolved into the so-called “Phillips curve” originally devised by A.W. Phillips of the London School of Economics, who carried out an extensive analysis of the history of wage behaviour in Britain. The Phillips curve depicts a relationship between inflation, as represented by the *rate of change* of prices or wages (rather than just the price or wage *level*), and the level of unemployment or some other measure of economic activity. Phillips found the relationship between the two phenomena to be inverse: if unemployment were “low” and the economy were, therefore, operating close to the limit of its capacity, upward pressure on costs and prices would be “high”, and vice versa.

This framework for viewing demand management implied that the policy problem was more awkward than it had at first appeared. Demand-management policy might be able to move the economy along the Phillips curve, achieving lower unemployment at the cost of higher inflation or achieving lower inflation at the cost of higher unemployment. There was no reason to think, however, that such policy could shift the position of the curve itself and so improve the basic trade-off. Empirical estimates of the Phillips curves for individual nations suggested that in most countries, inflation would, in fact, begin at levels of unemployment higher than the notions of full employment current in the 1950s. In Canada, for instance, full employment

was considered to encompass an unemployment rate of 3 to 4 per cent. Not surprisingly, this discovery led to consideration of policy measures that might shift the curve, measures such as price controls, wage controls and other, more voluntary, “incomes policies”. It was suggested that the trade-off between inflation and employment might also be improved by increasing the efficiency of labour-market operations. Improving the trade-off might involve reducing regional or occupational labour shortages that put upward pressure on wages and salaries before the economy as a whole was fully employed.

By the early 1960s, the advent of computers and advances in statistical analysis had led to the development of an increasing number of econometric models of the economy. These models were designed to provide reasonably accurate quantitative representations of the economy and its dynamics. In addition to providing useful economic forecasts, they furnished a basis for estimating how possible changes in monetary and fiscal policy would affect aggregate demand, employment and inflation. The development of this capability offered some prospect that judicious, and possibly frequent, changes in monetary and fiscal policy could “fine tune” the economy and thus keep it close to the best possible point of balance between unemployment and inflation on the Phillips curve.

It was also generally realized, however, that monetary and fiscal action tended to influence the economy only after various lags, and that economic forecasting was subject, probably inevitably, to significant errors. Thus the notion that it was possible to keep the economy within a very narrow range on the Phillips curve was never taken very seriously—or, at least, never taken very seriously for very long—by most of those involved in policy making or policy analysis. Indeed, the degree of uncertainty associated with economic developments had led a number of economists to accept the view, advanced by Milton Friedman of the University of Chicago, that governments could probably do no more to stabilize the economy than simply allow the money supply to grow at a constant pace. This view contradicted the accepted notion that government, by varying the availability of credit, could contribute to the stabilization of demand. In part, at least, the alternative view was a product of a developing perception that changes in monetary policy tended to influence the economy after particularly long—and variable—lags, making the effective application of such policy extremely difficult.<sup>3</sup>

Taking the concept a step further, some economists recommended an approach to fiscal policy that would, on average, maintain expenditures on a reasonably steady track over the longer term. The exceptions to this “rule” were expenditures for programs such as Unemployment Insurance (UI), which vary automatically with the business cycle and keep tax rates at levels calculated to balance the budget or produce a target surplus or deficit. This approach would involve an acceptance of the fluctuations in revenues and in the deficit that resulted from fluctuations in the level of economic activity. Such policies would provide automatic fiscal stabilization: the amount of taxes collected and Unemployment Insurance benefits paid would be allowed to vary as required to dampen cyclical fluctuations in the economy. In periods of slow growth, for example, tax liabilities would decline, and UI benefit payments would rise, dampening the decline in aggregate demand, output and employment.



In the 1960s, some economists perceived that changes made by the central bank in the money supply might have a greater effect on nominal demand than the majority of macro-economists had allowed for over the previous two decades, and that fiscal actions might have somewhat weaker effects than had been supposed. The direct longer-run relation between money and prices (that is, between monetary growth and inflation), which had been recognized by many economists in the pre-Keynesian era, was brought forcefully to public attention; again, the most prominent preceptor was Dr. Friedman, the leader of the emerging theory of economics known as “monetarism”. Economists who supported this theory also devoted increasing attention to the possibility that the way in which fiscal policy was financed affected its impact. The change in the budget deficit associated with a given fiscal policy action could be accommodated by a change in the money supply, such as the sale of at least some of the government debt to the central bank, or it could be financed entirely by sale of debt to the general public. Use of the latter alternative would put pressure on interest rates, “crowd out” private expenditure, and thus offset part of the action’s effect on nominal demand.

In 1968, an address made by Dr. Friedman and an article written by Edmund Phelps precipitated a further development in the economic analysis of inflation and stabilization policy. In essence, both economists argued that the notion of a stable trade-off between inflation and unemployment ignored a fundamental reality: if inflation continues for some time, people begin to expect it to continue, and they adjust their economic behaviour accordingly. If the rate of wage increase starts to rise as unemployment drops below a certain point and labour markets tighten, it is presumably because workers are in a position to earn higher *real* wages.<sup>4</sup> Once the higher rate of wage increase is reflected in costs, however, prices also start to rise more quickly, with the result that workers do not obtain expected increases in *real* wages. If labour markets remain tight, the nominal wage rates demanded and obtained will increase again, to offset the higher rate of price increase. In short, the inflation spiral will continue as long as labour markets are tight.

The short-run Phillips curve might appear to offer a trade-off between inflation and unemployment. It is critically important, however, to recognize that the position of this curve is fixed only for the rate of inflation *expected* by most participants in the economy. If demand-management policy attempts to take advantage of this apparent short-run trade-off by trying to reduce unemployment below the so-called “normal” unemployment rate for any significant period of time, the expected and actual rates of inflation will progressively shift upward. As the expected rate of inflation increases, as it will if unemployment falls enough to add upward pressure, the short-run Phillips curve and the actual rate of inflation will tend to ratchet progressively upward. The argument also holds in reverse: if unemployment is high enough, actual inflation will fall below the currently expected rate, and the actual and expected rates will continue to fall over time.

The longer the period of time under consideration, the steeper is the trade-off curve. Ultimately, there is no trade-off between sustainable levels of unemployment and the rate of inflation.<sup>5</sup> Associated with this “no long-run trade-off” principle is the notion that there is a critical level of unemployment rate that tends to prevail, on average, over the longer run. This critical

unemployment rate has been variously called the “natural”, “normal” or “full employment” rate, or, more neutrally, the “non-accelerating inflation rate of unemployment” (NAIRU). When unemployment stands above this rate, inflation will tend to decrease continuously. When unemployment stands below this rate, inflation will tend to increase continuously.<sup>6</sup>

Thus a situation in which the unemployment rate is higher or lower than the NAIRU is inherently unstable since it involves continuous change in the pace of inflation and cannot be maintained indefinitely. In principle, if unemployment is at the NAIRU, inflation will tend to persist at its current rate. In other words, the NAIRU represents a stable or “equilibrium” situation for the economy. The level of the NAIRU depends on the structure of labour markets and, possibly, on other institutional features of the economy. Factors that make for a prompt matching of supplies and demands for different types of labour, such as helpful information about job openings, high mobility of labour, and incentives that encourage people to take such jobs as are available, also make for a situation in which the unemployment rate can be quite low without leading to net upward pressure on inflation: that is, they tend to result in a low NAIRU. Factors that make for a mismatch in supplies of, and demands for, labour, including geographical dispersion, fluctuations in demand for different types of labour, and changes in the labour-supply mix, tend to result in a relatively high NAIRU. For the Canadian economy, the NAIRU is currently estimated to stand in the range of 6.5 to 8 per cent. (It is generally believed to have been lower, probably in the 4 to 5 per cent range, from the mid-1950s to the mid-1960s, but to have risen to the current range by the mid-1970s.)

The NAIRU is a critically important concept, and we shall refer to it frequently throughout this chapter. The “no long-run trade-off” principle implies that the NAIRU sets a lower limit to the level of unemployment that expansionary demand-management policy can achieve on a sustained basis. Demand management may still have an important potential function: in general, to stabilize the economy within the range of the NAIRU. Nevertheless, the notion that demand-management policy could achieve even lower rates of unemployment if society were willing to tolerate higher *but stable* rates of inflation evaporated with the general acceptance of the “no long-run trade-off” view. Another key corollary is that the chief way to achieve lower average rates of unemployment over the longer run is to reduce the NAIRU through policies supplementary to demand-management policies. Part V of this Report considers certain structural policies, including reform of the Unemployment Insurance system and other social safety nets that may make it possible to reduce the NAIRU.

General acceptance of the principle of “no long-run trade-off between unemployment and inflation” still left a short-run trade-off. This trade-off was different, however, from the original Phillips-curve concept of a trade-off between lasting reductions in unemployment and the continuing rate of inflation. It was now suggested that the trade-off was between *temporary* periods of unemployment below or above the NAIRU and increases or decreases in the continuing rate of inflation.

The proposition that there is no long-run trade-off between inflation and unemployment is consistent with one contention of the monetarist school: that

an increase in the rate of growth of the money supply, beyond the increase required to accommodate the sustainable increase in real output, will eventually result only in higher prices, and not in greater expansion of output and employment. This proposition has now gained wide, though not universal, acceptance. The monetarists' argument marks a return to the classical economic view that money is essentially neutral in the sense that in real terms, it has no long-run effect.

The proposition that no trade-off exists over the long run was put forward in the latter part of the 1960s, just after inflation had risen to a higher level than was consistent with the prevailing unemployment rate, given an "unshifting" Phillips curve. Before long, economists started to work with "extended" or "augmented" Phillips curves, in which the current rate of wage increase was related not only to the unemployment rate, but also to some measure of the *expected* inflation rate or some combination of the expected inflation rate and "catch-up" for past unexpected inflation. Fairly soon, it became evident that expectations about the rate of future inflation were having an effect on wage settlements, consistent with the hypothesis that there was little or no trade-off between inflation and unemployment over the long run.

The concept of "inflationary expectations" is important, not only to the analysis of actual inflation and the inflation-unemployment relationship, but also to the interpretation of interest rates and the analysis of their economic impact.<sup>7</sup> When people refer simply to the "interest rate", they usually mean the *nominal* interest rate, which is the ratio of the flow of money income that accrues to the owner of an asset—say, a savings deposit or a bond—to the money value of the asset in question. The real interest rate is the nominal interest rate adjusted for the effects of inflation in reducing the real purchasing power of the asset in question. Thus, if a \$100 bank deposit brings its owner \$10 per annum, its nominal interest rate is 10 per cent. If the inflation rate is 6 per cent per annum so that over a year the purchasing power of the deposit falls from \$100 to (approximately) \$94, the real rate of interest yielded by that deposit is (approximately) 4 per cent. The \$6 "inflation premium" must be saved if real wealth is to be preserved. In brief, the real interest rate equals the nominal interest rate minus the rate of inflation.

Decisions to save, invest, borrow or lend are likely to depend more on real than on nominal interest rates. For example, if inflation is continuing steadily at a rate of 20 per cent, an investor will require a nominal interest rate of 20 per cent just to break even in real terms (before taxes), since the interest will be paid in money worth 20 per cent less than the value of the money borrowed. Under these circumstances, a nominal interest rate (on, say, bank deposits) of 22 per cent might be considered low,<sup>8</sup> whereas under steady inflation at 4 per cent per annum, nominal interest rates of 10 per cent might be considered high.

Real rates of interest calculated by adjusting nominal interest rates for actual rates of inflation are sometimes referred to as "actual" or *ex post* real interest rates. Decisions to invest, save, borrow or lend are, however, inherently forward looking, and the real interest rate that affects them is the expected or *ex ante* rate: that is, the nominal rate adjusted for *expected*

*future* inflation. Expected future inflation rates are, therefore, an important determinant of nominal interest rates.

Another determinant of inflation came to be regarded as important in the 1970s. In 1973, the world economy received a severe shock—and a sharp reminder of its vulnerability—from the Organization of Petroleum Exporting Countries (OPEC), which set in motion a fourfold increase in international oil prices. The experience dramatically emphasized the fact that measured inflation is not determined solely by the relationship among aggregate demand, unemployment and wages. Significant “supply shocks” can make both inflation and unemployment more severe.<sup>9</sup> Nevertheless, when allowance is made for supply-side shocks, the Phillips curve, as adapted to take account of inflation expectations, still provides a reasonably satisfactory framework for analysing the inflation experienced by developed Western countries since 1973.

During the early 1970s, there was a further development in thinking about the effects of expectations on the behaviour of the various participants in the economy. Partly as a matter of analytical convenience, it had been conventional to assume that expectations were determined by recent past experience and, therefore, tended to lag behind actual developments. In this “adaptive expectations” view, an expansionary shift in policy would give rise to the following sequence of developments. If the economy were at the NAIRU, the stimulative action would, after some lag, cause a reduction in unemployment. This decline in unemployment would, after some further lag, cause an increase in inflation. The increase in actual inflation would be followed by an increase in the expected rate of inflation. The cost and price hikes initiated in response to the increase in expected inflation would cause further increases in the pace of actual inflation. And so the spiral would continue to mount. As we noted above, this view suggested that inflation would eventually result in the dissipation of any real expansion in output and employment initially generated by expansionary policy measures. The economy would return, perhaps along a cyclical path, to the “pre-expansion” level of unemployment, but at a higher price level or rate of inflation.

In contrast, the new anticipatory view holds that individuals and businesses base their expectations on a “rational analysis” of the future effects of current and prospective economic policy and other circumstances. In particular, participants in the economy may anticipate the ultimate inflationary impact of any expansionary policy measures. This foresight leads them to boost inflation immediately by demanding higher prices, wages and nominal interest rates in order to avoid being left behind. Thus, policy measures can have a perverse effect. For example, a perceived attempt by monetary authorities to increase the money supply in order to reduce interest rates can have the opposite effect if investors are prepared to lend only at increased nominal rates of interest because they expect the monetary policy to raise the future rates of inflation and thus erode the value of their capital.

Behaviour based on such rational expectations, combined with very flexible prices and wages, can dissipate, virtually from the start, any real expansionary thrust of macro-economic measures. However, anticipatory behaviour has another side that provides some room for optimism about the effect of anti-

inflationary policy. If participants in the economic process can be convinced of the authorities' firm determination to pursue policies to reduce inflation, achieving this result may require less slowing of the rate of economic growth and a lower rise in unemployment than would be anticipated if expectations adjusted only to changes in actual economic conditions. Private behaviour might become less inflationary immediately after the shift in policy. Ideally, a move by policy makers to contain inflationary pressures by reducing the *nominal* level of aggregate demand would quickly lead to a reduction in the rate of increase of prices and wages, sufficient to prevent any decline in the level of *real* aggregate demand and, hence, any significant rise in the level of unemployment.

This description does not do justice to the subtleties and complexities of the "rational expectations" or "new classical" school of thought. The theory of rational expectations may suggest that demand management can have no impact on real variables such as output and employment. Yet most policy makers would agree that this conclusion goes beyond what happens in the real world. No country in post-war history has been able to reduce embedded inflation through a shift to anti-inflationary demand-management policy without going through a recession, no matter how strongly the authorities have worded their commitment to reducing the growth of the money supply. Nonetheless, the rational expectations analysis at least reminds us of the common-sense tenet that expectations have a critical influence on economic behaviour. It is not safe to assume that people will form their expectations mechanically and retrospectively. Participants in the economy almost certainly tend to react directly to policy and to act on the basis of what they believe about the longer-run effect of policy actions.

A final analytical development over the last decade has been the deeper exploration of the reasons for the relatively slow adjustment that is usually observed in rates of wage increases. The causes seem to be threefold: many wage contracts last for two or three years; many wage contracts "overlap", or expire on different dates; and inflationary expectations generally tend to lag behind actual experience. In turn, the slow adjustment of wages helps to explain why a speed-up or slow-down in the growth of nominal demand, following an inflationary or deflationary shift in policy, initially appears as a change in real growth and in unemployment. Only after an extended lag is the change in nominal demand reflected mainly in a change in inflation, with output and unemployment returning to their trend levels.

### *Today's Mainstream Economists and Their Differences*

The majority of today's macro-economists still use an expanded version of the analytical framework that evolved out of Keynes' theories. They think that both monetary and, at least in the shorter run, fiscal policy can influence nominal aggregate demand, and that changes in nominal demand have at least some short-run effects on real demand, output and unemployment. Generally, they believe that what can be broadly termed "Keynesian policies" have contributed significantly to making economic fluctuations substantially

less severe in the post-war period than they were in the preceding hundred years. Finally, many still accept that periodic severe shortfalls of total demand which the operation of “normal” market forces does not solve quickly—the basic Keynesian problem—are a continuing danger and create an important function for active monetary and fiscal policy.

Today’s economists do, however, generally stress short- and long-run effects on prices more than did the original Keynesian analysts. Furthermore, the majority now accept the view that there is little or no possibility of using expansionary demand policy to achieve sustained reductions in unemployment that will reduce that factor below the NAIRU, and they are unwilling to tolerate the inflation that would accompany such policy. Although they do not view the work of establishing a satisfactory analytical framework as complete, they sometimes think back wistfully to the “good old days”, when it seemed unnecessary for economic analysis to concern itself with such a variable human element as expectations,<sup>10</sup> when the profession’s reputation for forecasting economic developments was higher, and when the policy advice it offered tended to be more palatable and more welcome.

These general propositions appear to command the support of a sufficient number of today’s macro-economists to be considered as the mainstream view. It would be highly misleading, however, to suggest that this view translates into consensus on a wide range of policy issues. It remains, for example, a matter of considerable controversy—and of considerable importance in terms of future policy—whether it was appropriate for Canada, the United States and most other Western nations to tighten sharply their monetary policies in 1979 and thereafter, in an effort to reduce the inflation that had built up, partly because of the second oil-price shock. The sharp contraction in the growth of the money supply was almost certainly the primary cause of the severe recession experienced around the world during the 1980–82 period. The resulting decline in output and the dramatic increase in unemployment did much to reduce the inflationary spiral of prices from double-digit levels. This outcome presumably dispelled any doubts about the effectiveness of monetary policy in influencing aggregate demand and inflation. Lingering questions remain, however: Was the cure worse than the disease? Might not a less stringent application of monetary policy have achieved a similar result? And might other policy options have helped to control inflation with less lost output, lost income and unemployment?

While the United States has experienced a rather healthy recovery from the recession, Canada and Western Europe have not. Mainstream macro-economists are divided on the question of whether Canada and Western Europe will recover fully from the recession in the not-too-distant future (say, within two to four years). They also disagree about whether that recovery will occur on its own or will require assistance from more expansionary monetary and/or fiscal policy. They are divided, too, about whether it will be possible, after the recovery, to maintain unemployment rates in the NAIRU range without engendering new flare-ups of inflation.

Neither is there consensus as to whether attempting to achieve further reductions in inflation (say, going all the way to a zero rate) would be worthwhile, given the economic and social costs of postponing full recovery

that such a course would probably involve. Nor is there agreement about whether inflation should be addressed solely through non-inflationary demand management, which relates, primarily, to monetary policy, or by supplementing such policy with some form of incomes policy. Some argue that a temporary incomes policy would lessen the above-average unemployment associated with the process of reducing inflation. A smaller number claim that a permanent incomes policy would make it possible to achieve permanently lower rates of unemployment, without touching off another inflationary spiral: that is, that such a policy would lower the NAIRU. Finally, there is no consensus as to whether monetary and fiscal policy are best conducted according to fixed, relatively simple, publicly stated rules, or whether it is useful to take discretionary action in response to the evolving course of, and outlook for, the economy.

The disagreements among economists on these issues reflect complex combinations of differences in value judgements and in judgements on what are, in principle, matters of fact. The divergences in value judgements range from differences in the importance individual economists attach to avoiding a period of above-average unemployment, to differences in the weight they give to avoiding the interference with personal freedom that an incomes policy would entail. Divergences in empirical estimates are almost as wide. For example, practitioners have come up with substantially different calculations of the amount and duration of above-average unemployment associated with achieving a given reduction in inflation, and of the costs, in terms of efficient functioning of the economy, associated with inflation or application of an incomes policy. Perhaps most fundamentally, there are profound differences in judgements concerning the strength of the private sector's self-correcting forces: that is, about the likelihood that the economy, if left alone, will stay reasonably close to the NAIRU. These differences, which reflect considerable uncertainty about the effectiveness of various policy options and the nature of the trade-offs among them, are important because they underlie the difficulties we Canadians face as we consider means of improving macro-economic performance.

Before turning to these policy issues, however, we must consider the evolution of analysis in several specific areas: the nature of unemployment, and why the NAIRU is generally viewed as having risen significantly over the past two decades; the industrialized nations' recent, but fairly general, shift to the view that controlling inflation is a prerequisite for achieving good economic performance; the implications of the fact that Canada is an open economy with close linkages to the rest of the world through large, and relatively free, flows of goods and services and financial capital; and whether concerns about the size of the government deficit should constrain the exercise of fiscal policy to achieve macro-economic goals, such as a lower level of unemployment.

## **The Level of Unemployment and the Evolution of NAIRU**

A key trend in the post-war period has been the rise in average unemployment rates. Economists' views about unemployment, its causes and its significance

have, in turn, undergone important changes. This section briefly reviews this evolution of knowledge, focusing on the components of the NAIRU, the “normal” rate of unemployment, which, as we have seen, is the portion of unemployment that is not directly related to cyclical changes in demand.

In focusing on the NAIRU, we Commissioners are not attempting to downgrade the importance of the hardships created by the cyclical component of unemployment. Indeed, the cyclical component disturbs us deeply, not least because, since 1982, it has accounted for a substantial proportion – probably at least one-third – of total unemployment. Because cyclical unemployment is tied to cyclical changes in demand, however, we deal with it separately, later in this chapter.

The unemployment rate is one of the most widely cited economic statistics. To a considerable extent, the attention it receives reflects policy makers’ and the public’s concern about the hardship that unemployment imposes on the jobless and their families and, from an economic perspective, about the lost output represented by unemployed workers.

The degree of hardship associated with periods of unemployment is extraordinarily difficult to measure, but for many members of the labour force, it has clearly declined in the post-Second World War period. This decline reflects a number of important trends described in more detail in Chapter 7. Most important, perhaps, has been the very substantial rise in the proportion of Canadian families that have more than one income earner. During the years immediately after the Second World War, an unemployed worker was often the sole or primary source of income for a family, but this situation became significantly less common in the late 1960s and 1970s, as the labour-force/participation rate of youth and, most dramatically, of married women increased. Even when unemployment peaked in December 1982, nearly 70 per cent of families with one or more unemployed members had at least one member who was working. In more than half of these families, the unemployed person was not the primary income earner. Another factor in easing the hardship of unemployment has been the expansion of the coverage and the benefits of the Unemployment Insurance (UI) system and, to a lesser extent, of provincial welfare programs. In addition, both real income and wealth have grown substantially so that many families can finance periods of unemployment more readily now than in the past.

In noting this long-term trend towards reduced hardship, the severity of the current unemployment problem and associated financial hardship must be acknowledged fully. As several studies have confirmed, the burden of unemployment is unevenly distributed among members of society.<sup>11</sup> Thus we make these general statements about the unemployed population as a whole in the full realization that they do not apply in many individual cases.

Given this general easing of hardship in the past few decades, some analysts have challenged the notion that unemployment is largely involuntary. The outcome of the ensuing debate has widely confirmed the very uncertain nature of the distinction between voluntary and involuntary unemployment. Keynes classified unemployment as voluntary if a job is available, but the unemployed worker is not willing to accept it at the existing wage; involuntary unemployment, he said, occurs when the worker is willing to work at



existing wages, but no jobs are available. Much popular discussion today uses a simpler distinction: unemployment initiated by a worker's quitting the last job is classified as voluntary, and other unemployment is considered involuntary.

Neither approach is sufficiently subtle to provide ground for analysis of some labour-market situations. Job hunters may have imperfect information about the various jobs available and their rates of pay and working conditions, and their unawareness makes it difficult to draw a dividing line between voluntary and involuntary unemployment. If an individual refuses the first job available, but continues to search for employment, is he or she voluntarily unemployed? Similarly, if a worker joins a firm or enters an industry or occupation known to be subject to lay-offs, in response to fluctuations in demand, is he or she voluntarily unemployed when a lay-off occurs? The unemployment is voluntary in the sense that the worker knew the risk at the time of accepting employment; indeed, the wage received may well have reflected this risk. It is involuntary, however, in the sense that he or she might have preferred continued work, even at a reduced wage.

The extensive debate has not produced agreement on acceptable definitions of voluntary and involuntary unemployment. It has, however, resulted in some new ways of looking at unemployment. One that emerged in the 1970s was the "new unemployment" view, which emphasized the importance of turn-over in the labour market. Its proponents challenged the notion that unemployment can be characterized simply as a shortage of jobs for a stock of unemployed workers waiting for an economic expansion. Rather, they suggested, at least when the economy was at or below the NAIRU, the problem was not a shortage of jobs, but the brevity of many spells of employment, which presumably reflected a large supply of unattractive jobs and a certain amount of experimentation with different types of employment. This situation, said the turn-over analysts, was particularly characteristic of many younger workers and of women, the groups whose labour-force participation was rising significantly. As evidence, they pointed to the substantial flows among the various labour-market categories (employed, unemployed, out of the labour force) and to the relatively brief duration of spells of unemployment.

A considerable amount of subsequent research has shown that while this concept is valid in a number of important respects, it is overly simplistic as a general description of unemployment. Research confirms, for example, that average spells of unemployment are brief, typically lasting two to two-and-a-half months. Furthermore, the groups with the highest unemployment rates, that is, youth and women, undergo shorter durations of unemployment than men. Thus, more frequent, rather than longer, spells of unemployment must account for the higher unemployment rates of youth and women. The research also shows, however, that a sizeable minority of workers suffer long spells of joblessness, and these lengthy spells account for a significant amount of the economy's total unemployment. In other words, individuals unemployed for long periods bear a substantial portion of the total burden of unemployment. Moreover, some of them are "chronically unemployed" because they suffer such repeated spells of joblessness that they are

unemployed for a substantial portion of their working lives. For these individuals, the claim that unemployment primarily reflects a shortage of available jobs seems substantially accurate. This conclusion is reinforced by the findings that a substantial proportion of spells of unemployment end in withdrawal from the labour force, that this proportion increases with the length of the spell of unemployment, and that spells of unemployment that end in employment are longer, on average, than those that end in withdrawal from the labour force.

Many analysts decry unemployment as a waste of valuable human resources. Although this description is widely accepted as applicable to unemployment caused by a deficiency of aggregate demand, it is less so to other components of the unemployment rate: frictional unemployment, which results from time lags in workers' moving from one job to another; seasonal unemployment, which results from the seasonal nature of activity in some industries and kinds of jobs; and structural unemployment, which results from basic changes in technology and consumer demand.

In fact, *some* periods of unemployment, rather than being a waste of resources, are a productive investment in the acquisition of information about job opportunities. To a point, job turn-over among young labour-force participants may represent their productive investment in the acquisition of information about types of employment most suitable for the longer term. In addition, for any unemployed searcher always to accept the first job offered is not in the interest either of the individual or of society. The search process, both by employers with job vacancies and by unemployed or underemployed workers, facilitates the efficient matching of workers and jobs. Similarly, temporary lay-offs in response to fluctuations in demand can be an efficient arrangement for employers and employees, especially when workers highly value brief periods of additional leisure time, and when the alternatives to lay-offs, such as inventory accumulation, are prohibitively expensive.

Thus, *some* of the unemployment unrelated to deficient demand is beneficial in the sense that it yields returns both to the individual and to society. The challenge in terms of policy is to ensure that the amounts of seasonal, frictional and structural unemployment are not excessive: that is, that the NAIRU is not too high.

A final observation concerning the waste of human resources applies to the way in which we measure unemployment. The unemployment rate as it is currently calculated does not reflect all unutilized or underutilized labour. The most important exclusion is the group commonly referred to as "discouraged workers": people who could work, but are not searching for employment because they believe that none is available, or because they are still awaiting recall after more than six months on lay-off. Another important group omitted consists of the underemployed people who are working fewer hours than they wish, or who are temporarily performing jobs that do not fully use their skills. The importance of these groups increases significantly in times of recession, but some underuse exists when the economy is at the NAIRU, because of a mismatch of job skills, for example.

The NAIRU is estimated to have risen from the 4 to 5 per cent range in the 1950s and early 1960s, to 6 to 7 per cent in the early 1970s, and to 6.5 to 8

per cent today. (These estimates should be treated with some caution because of the difficulties in allowing for the variety of factors that have affected inflation and unemployment during these years.) A detailed treatment of the various factors that are believed to have caused this rise in the NAIRU is provided in Part V of our Report. Briefly, the two factors that most empirical studies have found important are the very substantial demographic changes that have occurred in Canada since the Second World War and changes in social legislation that have affected the labour market, particularly legislation regarding Unemployment Insurance and, to a lesser extent, minimum wages. A third potentially important factor—one that has received little attention until recently—is the rapidity of structural change in the economy. If the pace of change accelerates, structural unemployment will increase temporarily as the economy and labour markets adjust to increases in demand in some industries and decreases in others. Some evidence indicates that the rate of structural adjustment was higher in the 1970s and early 1980s than in the late 1950s and early 1960s, although it is now probably no greater than it was during the immediate post-war period. However, the extent to which this increased volatility of the economic environment has contributed to a higher NAIRU has yet to be established.

The various factors have different implications for the future course of the NAIRU. Most of the demographic trends should now be leading towards a decline in the NAIRU, albeit a slow one: the growth rate of the labour force has dropped from earlier peak levels; most members of the baby-boom generation have slowly worked their way into the labour market; and the labour-force/participation rate of women is not expected to continue its earlier rate of rapid growth. Similarly, social legislation, particularly amendments to the Unemployment Insurance Act since the later 1970s, has contributed to some reduction in the NAIRU, although the extent to which these developments have been offset by increasing structural adjustment is an unsettled question. To predict the degree of volatility of the future economic environment is, of course, even more difficult.

Thus we see that the evolution of knowledge and belief about unemployment has led to increased recognition of its complexity and of the trade-offs between employment and other goals. The commitment to full employment declared in the 1945 White Paper on Employment and Income<sup>12</sup> has gradually given way to the realization that policy makers must pay attention to the goal of achieving both high employment levels and price stability. The degree to which unemployment results in economic hardship, the extent to which it represents a waste of human resources, and the proportion in which it is involuntary are questions that continue to be debated extensively, and this Commission can draw no simple conclusions concerning them. Unemployment is associated with financial difficulties, but for many unemployed persons, the degree of hardship is less now than it was in the past. Deficient demand and most structural unemployment result in a waste of resources, with associated human and social costs, but some frictional and other kinds of unemployment can be productive, since they can improve the matching of workers and jobs, and facilitate adjustment to economic fluctuations. The degree to which unemployment is voluntary or involuntary

is disputed to the extent that agreement has not yet been reached even on the meaning of these terms.

## **Inflation and Real Economic Performance**

One of the most fundamental shifts in policy attitudes over the course of the 1970s was towards inflation. During the early 1970s, governments in countries that belonged to the Organisation for Economic Co-operation and Development (OECD) tended to accept the trade-off view of the relation between unemployment and inflation. Although they wanted to avoid a continual upward ratcheting of inflation, they seemed willing to live with the current rate of inflation, which was then in the 3 to 6 per cent range in most countries, rather than wage an all-out campaign to reduce it. By the end of the 1970s, however, the rate of inflation was nearing, or had passed, the 10 per cent level in many of these countries. Particularly after the second OPEC oil increase, which occurred in 1979–80, most of the Western industrial nations became much less willing to accommodate inflation. What were the causes of this change?

Some analysts have argued that the combination of rising inflation and falling real economic performance (slower real growth and higher unemployment) in the 1970s indicated that inflation *causes* poor real economic performance. This case is not easy to establish because of three strands of the 1970s experience.

Clearly, the relationship between economic performance and inflation during the decade was not causal. The oil-price shocks raised inflation, lowered real demand for goods and services, and probably lowered their real potential supply, as producers economized on the use of petroleum at the cost of some loss to their potential production with any given amount of labour and capital. The slow-down in the underlying trend of productivity growth, which some, though not all, analysts identify, also tended to worsen both real performance and inflation. These adverse “supply-side” shocks, although important to an understanding of economic development in the 1970s, do not imply a causal relationship running from inflation to real economic performance. In particular, few economists think that a more clearly anti-inflationary demand-management policy would have affected the size or the real impact of those supply-side shocks in any basic way, for better or for worse.

A second strand in the relationship between inflation and real economic performance involves the effect of inflation on demand. It is possible that an increase in the rate of inflation, in particular an increase that is not a direct result of a shock such as the escalation of world oil prices, might depress an economy’s real demand for goods and services. In the absence of a fully indexed tax system—a system with inflation adjustments for capital consumption allowances, inventory costs, interest deductions, capital gains, and so on—inflation is likely to reduce the real after-tax rate of return on investment. All other factors being equal, this effect will discourage capital investment. Long-term investment is particularly sensitive to uncertainty about future rates of inflation and interest rates, and uncertainty can

reasonably be expected to be greater when inflation averages 10 per cent than when it averages 2 to 4 per cent. Moreover, inflation may depress capital investment that depends on financing amortized over a long period of time, such as mortgage financing for construction, because inflation increases “front-end loading”: that is, the real cash flow that must be allocated to debt servicing in the early years of amortization.<sup>13</sup> Inflation is also likely to raise nominal personal savings rates, but it simultaneously increases nominal personal interest income. Finally, if a country’s rates of inflation are higher than those in competing countries and are not fully offset by exchange-rate depreciation, the result is a loss of competitive strength and thus further weakness in demand.

In these instances, causation runs from inflation to real demand, which, in turn, has effects on economic performance. In theory, the effects can be offset by various institutional adjustments, such as indexing the tax system as it applies to business income, interest and capital gains; introducing indexed or graduated-payment bonds and mortgages; letting nominal government deficits rise both to offset the higher nominal personal savings corresponding to the “inflation premium” component of interest income and to reflect the decline in the real value of government-debt costs; and appropriately depreciating exchange rates.

Some of these adjustments occurred in Canada during the last decade. There were various *ad hoc* increases in investment incentives in the tax system, although economists debate whether they fully offset the interaction between high inflation and the lack of an “inflation-accounting” approach to the calculation of taxable income. There were some limited experiments with graduated-payment debt instruments to alleviate the front-end/loading problem with mortgages. The Canadian government ran deficits during the late 1970s that were probably high enough to offset roughly the inflation component of its public debt costs. Except between 1974 and mid-1976, Canada’s exchange rate adjusted in a way that, by and large, offset any excess of domestic inflation over inflation experienced by our major trading partners. The presence of these adjustment mechanisms makes it unlikely that any major portion of the fall-off in Canada’s economic performance after 1973 can be attributed to the aspects of inflation that reduce real demand.

A third strand in the relation between inflation and real economic performance is inflation’s potential for impairing the functioning of the economic system. History and theory suggest that in situations of very high inflation, savings flows tend to be diverted from investments that have long-run productivity to various “inflation hedges” comprised of real estate and readily storable commodities such as gold and art. Meanwhile, many participants in the economy devote substantial amounts of time, effort and paperwork to keeping up with inflation information, resetting prices, minimizing average cash balances that are earning no return, and comparable activities; yet the complexity and uncertainty of many of these economic calculations presumably lessens the efficiency of the economy. In particular, uncertainty besets longer-term decisions so that investment planners generally shorten their time horizons with a resulting loss of attention to actions oriented to the longer-term future. Causation here clearly runs from inflation

to economic performance, although the worsening of the latter may accumulate only slowly and be reflected partly in recorded real-output statistics and partly in unmeasured inconvenience to various participants in the economy. Assessment of the quantitative importance of this category of inflation effects is necessarily speculative, even in the case of hyperinflation. Intuitive judgements of the importance of adverse impacts of this type, which arise from inflation in the 10 per cent range, suggest that the effects were probably slight to moderate and were generally not high enough to account at all fully for the productivity slow-down.

As we have noted, however, most OECD countries did harden their approach to inflation in the late 1970s, and they persisted in doing so even in the face of the severe recession of the early 1980s. Their governments were generally unwilling fully to accommodate even the direct inflationary effects of the second oil shock, whereas a number of countries, including Canada, had provided significant monetary and/or fiscal accommodation at the time of the first oil shock. Even in the spring of 1979, before the second oil shock, the Carter administration was obviously tightening the U.S. policy and thus making reduction of inflation a key medium-term goal, notwithstanding clear recognition that a period of above-average economic slack would likely be initiated in the process. In the United Kingdom, the Thatcher government has, of course, become noted for its severe anti-inflation measures, but the Labour government of Prime Minister James Callaghan had already moved to a basically non-accommodating stance in its last two or three years in office.<sup>14</sup>

It seems reasonable to suppose that in a number of these countries, an intuitive judgement—or fear—that inflation impairs real economic performance along one or more of the lines already suggested was one of the reasons for giving priority to policy meant to contain and reduce inflation. Other factors, however, were probably just as important or even more so. One was the growing recognition that, as explained in the preceding section, any real gains in economic performance resulting from the adoption of inflationary demand policies was likely to be short lived. In fact, given the probable sensitivity of expectations (particularly as they affected interest rates and exchange rates) to an indication that a government was prepared to accept higher inflation, stimulative policy might have accelerated inflation more rapidly than historical relationships suggested, and any gains in real activity levels would have been particularly brief.

The notion of learning to live with relatively high rates of inflation has not been appealing. Neither governments nor the general public have shown a desire to make the institutional changes, including indexation of various types, that would be required to ease at least some of the problems associated with living with, say, 10 per cent inflation. Continuing inflation in this range creates serious inequities. (The largest readily identifiable group of “losers” consists of elderly people whose pension rights are not protected by full indexation, or who have significant savings invested in such a way that they are not able to take advantage of high interest rates.) Furthermore, the political viability of maintaining a fairly high rate of inflation is open to question. If a government is prepared to tolerate 10 per cent inflation, why

should people believe that it will take decisive action to prevent a climb to 11 or 12 or 15 per cent or even higher? Sooner or later, the public will reject high inflation, whether it is climbing steadily or intermittently, and demand that it be controlled at what is generally accepted as a low level.

The difficulty of the process of adjustment varies, of course. The higher the rate of inflation, and the more firmly entrenched inflationary expectations have become, the more difficult adjustment becomes. Moreover, the authorities have a range of choices about the degree and pace of the reduction. Most of the major members of the Organisation for Economic Co-operation and Development initially opted to curb inflation gradually. (A partial exception was the United Kingdom, which started its process of adjustment from cost inflation of 15 to 20 per cent.) However, the United States, in 1979, and Canada, in 1980, decided to accept the risk of recession and adjusted their monetary policies in order to reduce inflation more sharply.

In sum, the tendency among the industrial nations to give priority to anti-inflation measures in the late 1970s and early 1980s did not reflect conclusive new evidence of the adverse effects of inflation on economic performance.<sup>15</sup> Neither was it based on carefully calculated comparisons of the likely courses of economic performance under combative and relaxed attitudes towards inflation. Rather, it reflected a widespread judgement—almost, one might say, an instinct—that to accommodate high and rising inflation was simply no way to run an economy. This view was perhaps based as much on fear of the possibility that ever-increasing inflation could, at some unpredictable point, lead to major economic collapse and social and institutional upheaval as on the probability that over some specified period, average real living standards would become  $x$  per cent lower if inflation were allowed to continue.

### **The Implications of an Open Economy for Demand-Management Policy**

We have already noted that modern macro-economic analysis had its genesis in Keynes' *General Theory*. As its title indicates, this was a work of economic theory; moreover, it dealt primarily with a closed economy: that is, one that neither trades nor engages in capital-market transactions with the outside world. The subsequent development of Keynesian thought, particularly the systematic explication of its implicit policy conclusions, tended to be dominated by the work of economists based in the United States, where, in the 1940s and 1950s, the hypothesis of a closed economy closely coincided with the nature of the country. For that reason, analysis of the problems of an open economy, which is of particular relevance to Canada, was rather slow in coming.

To adapt Keynes' theories to the dynamics of an open economy required economists to broaden their understanding of issues involving the international balance of payments, as well as to develop a clearer knowledge of the implications of monetary and fiscal policy changes in an economy that is exposed to the world through the trade and capital flowing across its borders. Subsidiary considerations included adapting early ideas about policy in an

underemployed economy to a fully employed economy, a process so much more relevant in the first two decades after the Second World War, and in due course, the creation of a body of analysis directed at understanding the inflationary process in an open economy.

Without doing too much violence to historical accuracy, we can begin to describe these developments by examining what is referred to as the “elasticities approach” to the balance of trade: that is, the sensitivity to changes in the exchange rate of the quantity of exports times their price, minus the quantity of imports times their price. In the 1930s, many governments resorted to devaluation of their currencies, in an effort to promote their exports by making them cheaper abroad and to cut back on imports from abroad, many of which competed with domestic goods, by making them more expensive at home. Many economists of the day thought that whether an individual country could sustain such a policy—quite apart from whether many countries could succeed in using the same remedy simultaneously—depended on the sensitivity of home demand for imports and of foreign demand for exports. The explanation of their thinking may be found in the extreme example in which both export and import demands are completely insensitive to price. Devaluation can then do nothing to improve the demand for domestic output and will clearly lead to a deterioration of the trade balance. In terms of foreign currency, for instance, the amount received in payment for exports will decline as a result of the depreciation of the exchange rate,<sup>16</sup> while the amount paid for imports will remain unchanged.<sup>17</sup>

As demand sensitivity to prices increases, this extreme outcome begins to change. The quantity of goods imported will fall as their domestic prices rise, and the quantity of goods exported will increase as their foreign prices fall; thus aggregate demand will certainly expand. Whether the balance of trade will improve, however, depends on the sensitivity of the demand responses in question. If quantities demanded change only slightly in response to price, the balance of trade will continue to deteriorate. If demand is sensitive enough, however, the balance of trade will improve. The sensitivity of demand to price is called “elasticity”; this factor is computed as the ratio of the percentage change in quantity demanded to the percentage change in price. The precise break-even point—the point at which there will be no change in the trade balance—lies where the sum of the price elasticities of demand for imports and exports is unity.

Given the critical function that this analysis ascribed to elasticities of demand (and of supply, in more elaborate versions), it is hardly surprising that from the late 1930s to the early 1950s, there was much debate among economists about the precise statistical degrees involved. Those who were pessimistic about the elasticity of demand to price changes doubted that devaluation could much improve trade balances, while those who were optimistic held the opposite view. The argument was not solely academic. Pessimism about the elasticities of prices must lead to the conclusion that a regime of flexible exchange rates is inherently unstable: because the exchange rate of a trade-deficit country tends to fall under such a regime, it exacerbates the deficit, setting up a vicious circle of falling exchange rates and deteriorating trade balances. Hence, in the political sphere, pessimism about



elasticities was strongly associated with interventionism in the exchange market and often with more general economic intervention.

After the Second World War, it soon became apparent that the elasticities approach provided only partial analysis of the balance of trade in a world in which low employment levels were the norm. The unqualified elasticities approach presumes the existence of a stock of unemployed resources that can be drawn on to meet the extra demand for exports and import substitutes that results from a successful currency devaluation. A fully employed economy does not have such a stock; it cannot expand supply for foreign trade without diverting resources from other uses in the economy.

Here we have the fundamental insight of what came to be called the "absorption approach" to balance-of-payments analysis: that a country in which domestic absorption (that is, consumption plus investment plus government expenditure) exceeds the economy's productive capacity is bound to have a balance-of-trade deficit, regardless of the exchange rate, because it must import goods and services to meet domestic demand. Two corollaries follow. One is that a country with a fully employed economy can improve its trade balance through devaluation only if it takes simultaneous measures to reduce domestic demand, thus making resources available for the production of exports. The second corollary is that the successful operation of a regime of flexible exchange rates requires attention to the level of aggregate domestic demand.

That second corollary required economists to extend their analysis of demand-management policy. One of the most important examples of this extension was the Mundell-Fleming model, named for the Canadian and British economists who independently developed it. This model was essentially an open-economy version of the closed-economy macro-analysis popular in the 1950s and early 1960s, which we have already described. Today we see that this model had serious shortcomings; specifically, it concentrated on macro-economic policy's influences on levels of income and employment, using three unhelpful assumptions: that the economy was chronically underemployed; that its price levels were fixed for the foreseeable future; and that people expect the exchange rate to remain static. Nevertheless, this analysis yielded two insights of lasting importance for macro-economic theory. First, it stressed, as earlier analysis had not, that the balance of payments consists of more than the trade balance: it also includes the balance of capital flows, to which economists and policy makers must pay attention in devising economic policy in an open economy. Secondly, the analysis clearly demonstrated the fact that in an open economy, the manner in which domestic policy impinges on purely domestic goals, let alone on the balance of payments and exchange-rate targets, depends on the nature of the country's exchange-rate regime. According to the Mundell-Fleming model, a country with fixed exchange rates could use fiscal policy, but not monetary policy, to pursue domestic income and employment goals. Flexible exchange rates reversed the possibilities.

This conclusion, the precise form of which is nowadays of more academic than practical interest, followed from consideration of the effects of capital flows in determining the balance of payments under fixed exchange rates and

in influencing exchange rates under a flexible system. In particular, the model assumed that international capital flows were highly elastic (at the extreme, perfectly elastic) in response to interest-rate differentials. Thus, in a country with a system of fixed exchange rates, any attempt to lower interest rates through an increase in the money supply would be frustrated by the reaction of the international capital market, whose funds would flow out to take advantage of higher interest rates elsewhere. By the same token, an expansionary fiscal policy would not be offset by rising domestic interest rates as it would be in a closed economy. Rather, capital inflows induced by a tendency of domestic interest rates to rise would ensure that expansionary fiscal policy could simultaneously increase domestic income and improve the overall balance of payments. Although domestic credit does not expand in the model, the money supply does, in response to the capital inflow to neutralize upward pressure on interest rates and the exchange rate.

Under a flexible system of exchange rates, however, capital inflows generated in response to the incipient increase in interest rates which results from the expansion of fiscal policy would drive up the exchange rate.<sup>18</sup> This appreciation, which would make exports more expensive abroad and imports cheaper at home, would tend to go on until the effect of expansionary fiscal policy on domestic output was offset by a change in the real balance of exports and imports. An expansionary monetary policy, however, would drive down a flexible exchange rate through its incipient downward pressure on interest rates, affecting domestic income and employment. Therefore, it was argued, a regime of flexible exchange rates would restore the potency that monetary policy was thought to have in a closed economy. The model simply transformed the route by which policy would have its effects; that route would cease to be one primarily involving changes in interest rates and become one primarily involving changes in exchange rates.

The late 1960s and early 1970s witnessed major growth in both the size and the efficiency of world-wide capital markets. The same period also saw the emergence of inflation as a world-wide problem. Macro-economic theorists working on open economies began to incorporate these developments, as they did the subsequent breakdown of the system of (more or less) fixed exchange rates that had been established shortly after the Second World War and the international financial turbulence of the 1970s and 1980s.

Two contemporary ideas profoundly influenced economists' views about the manner in which macro-economic policy should be conducted in an open economy. These were monetarism, which insisted, particularly, on the central importance to the inflationary process of the interaction of the supply and demand for money, and the development of the expectations-augmented Phillips curve, which was important to the understanding of the relationship between inflation and unemployment. The monetary approach to analysis of the balance of payments and exchange rates emerged, in the early 1970s, from the work of Canadian economists Robert Mundell and Harry Johnson, among others. With benefit of hindsight, it can be seen both as a major extension of the Mundell-Fleming model and as an attempt to overcome the shortcomings of that earlier analysis. This new approach focused on a world

in which prices were not assumed to be stable, but rather one in which inflation was a central policy problem. Taking up Friedman's insight, this approach identified as the key factor underlying longer-run inflation the interaction of the supply of, and demand for, money, both in the world economy as a whole, under fixed exchange rates, and in individual open economies, under flexible rates.

This analysis also pointed out that the way in which expectations about inflation are formed differs under fixed and flexible exchange-rate regimes. Under a fixed system, an individual economy, especially a relatively small one, cannot long sustain a rate of inflation very different from that prevailing abroad. Therefore expectations about the prospects for inflation in that country must be based primarily on views about the prospective levels of inflation in the rest of the world. A system of exchange rates that are flexible, however, permits participants in the economy to draw their expectations from the domestic scene. In other words, a flexible exchange rate permits an open economy to have not only its own "made-at-home" inflation *rate*, but also its own inflation *expectations*.

A detailed review of current macro-economic theory relating to the open economy is unnecessary, but it is useful to mention one or two highlights. Modern analysis makes it abundantly clear that, contrary to the Mundell-Fleming model, adopting a flexible exchange rate does not turn an open economy into one that for the purposes of conducting policy may be treated as if it were closed. Flexible rates do give an open economy latitude in choosing its own long-run inflation rate, but they do not insulate it from the short-run, but often severe, effects of monetary turbulence abroad. Examples of these often-widespread effects include transmission of pressures on interest rates from one country to another and wide swings in exchange rates that are not directly related to differences in inflation rates, that is, wide swings in real exchange rates. Neither do flexible exchange rates insulate an economy from such real shocks as world-market changes in the relative prices of energy or raw materials. Moreover, since flexible exchange rates are determined in extremely efficient markets, a country has great difficulty exploiting any short-run trade-offs between inflation and unemployment that closed-economy analysis suggests. In fact, there is always a distinct possibility that domestic policy changes in an open economy may have their first effect, not on output and employment, but on exchange rates and, thereby, on domestic prices.

What general conclusions can be drawn from this brief and necessarily oversimplified account of the evolution of the macro-economic theory of the open economy? Above all, this theory increasingly stresses that the pursuit of domestic policy goals is interdependent with actions affecting the balance of payments and exchange rates. Moreover, the complex nature of that interdependence suggests that there are important limits to the actual policy independence possessed by the authorities of an open economy such as Canada. With a flexible exchange rate, we Canadians can choose our long-run inflation rate, and to that extent we can have a "made-in-Canada" macro-economic policy. We cannot, however, insulate our economy from foreign monetary developments in the short term or from real developments.

Moreover, because the workings of international capital and exchange markets can so limit, both in duration and scope, the potential of our monetary and fiscal policies for affecting real demand, the effect of our policy actions on domestic and foreign expectations—that is, on confidence—is especially important.

These conclusions are very different from those formed by macro-economists of the early post-war period, which seemed to suggest that the authorities of a country such as Canada had broad scope to fine-tune the performance of their domestic economies. Views on these matters have shifted for two reasons. First, understanding of the way in which the economy works has changed. To some extent, the current, more pessimistic view of the possibilities of fine-tuning the economy are based on analyses of interactions that have long been at work in the world, but that earlier analyses failed to take into account. However, the second reason—one that encourages Commissioners to take those views seriously—is the changed nature of the world. The international economy is much more integrated now than it was 20 or 30 years ago. In particular, the world capital market has been transformed beyond all recognition, both in size and efficiency, reducing the latitude available to the government of an open economy to pursue autonomous macro-economic policies.

Commissioners have noted at several points in this Report the great benefits that accrue to Canada from its participation in a liberal international economic order, and we have argued that further liberalization of the international economy is highly desirable. Although we believe that the gains of such a policy would outweigh the costs, we must, nevertheless, note that this international integration has imposed costs on Canada in the form of exposure to external shocks and considerable loss of domestic autonomy in short-run macro-economic policy matters.

### **The Budget Deficit: An Independent Constraint on Policy?**

Are budgetary deficits of the magnitude of the current Canadian and U.S. federal deficits in themselves a matter for economic concern? In the past, economists who subscribed to Keynesian views on demand management usually argued that the size of the deficit was not a matter for concern. The important point was “to balance the economy” rather than “to balance the budget”. These economists did not argue that the amount of the deficit should be limitless, but rather that the size of the deficit should be determined only by what was required to provide the appropriate amount of aggregate demand in the economy. Such economists also argued that since public debt is often held largely by citizens of the country, a situation which certainly applies to Canada’s federal debt, it is an obligation that the people of a country mostly owe to themselves. For this reason, it does not impose a burden on a nation as a whole, comparable to the burden that exists when an individual or a firm is in debt to someone outside the family or corporate group.

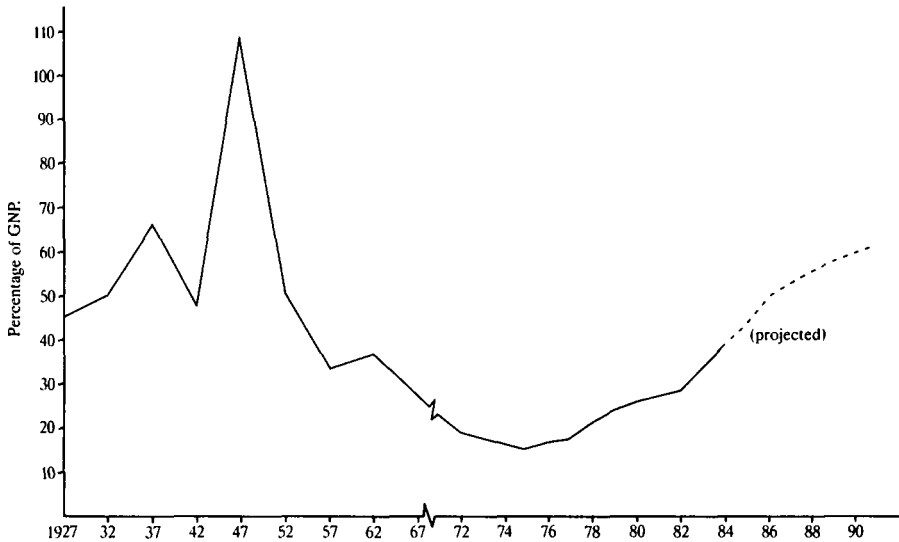
The first consideration in looking at deficits is their implications for the growth of government debt relative to the size of the economy. If the ratio of

the debt to the size of the economy is constant or decreasing, it is difficult to argue that the deficit presents an imminent crisis or is unsustainable, although it may be cause for continuing concern. Figure 10-1 shows the ratios of net debt of the Canadian federal government to gross national product (GNP), which is a measure of the size of the economy, for the fiscal years from 1927 to the present, plus projected values for fiscal years from 1985 to 1991. At the beginning of the period, the debt/GNP ratio was high, reflecting the large deficits incurred in the First World War; it increased significantly during the Depression and then jumped dramatically as a result of heavy deficit financing during the Second World War. From the end of the war until fiscal 1975, the federal government ran surpluses in some years and relatively modest deficits in others. On balance, the dollar value of the net debt outstanding increased moderately, but it grew much less rapidly than the economy, so that the debt/GNP ratio fell dramatically. By fiscal 1975, it was much lower than it had been at any time since the First World War. Since 1975, however, the size of deficits has driven the outstanding debt up more rapidly than GNP has increased, and the same trend has continued very much more rapidly since fiscal 1982. The current debt/GNP ratio is more than double its 1975 value, though it is still substantially below the levels experienced from the First World War to the early 1950s. The projections for the next seven years, which were based on the tax and expenditure structure in place before the November 1984 fiscal statement and reasonably favourable economic assumptions, show the debt/GNP ratio as continuing to rise. Measures announced in November 1984 and not reflected in the projections shown were expected to moderate, but not reverse, this upward trend.

The debt/GNP ratio will rise as long as the ratio of the deficit to GNP exceeds the rate of GNP growth multiplied by the ratio of the outstanding debt to GNP. With the federal government's net debt standing currently at some 40 per cent of GNP and nominal GNP growth in the 7 per cent range (representing roughly 3 per cent real growth plus 4 per cent inflation), a deficit equal to 2.8 per cent of GNP (that is, 7 per cent of 40 per cent) would entail no change in the debt/GNP ratio. However, the budgetary deficit for fiscal 1985 is projected at \$35.8 billion, which is some 8.5 per cent of GNP, and even assuming sustained recovery, the deficit prior to the May 1985 budget measures was projected at about 6 per cent of GNP for fiscal 1991.

Another useful reference point in considering deficits and debt is the budget balance excluding net public debt charges (that is, net of government investment income), which is sometimes called the "primary balance". (See Figure 10-2.) Debt would grow in lock-step with GNP if the primary balance were zero and the average interest rate paid by the government on its debt were just equal to the growth rate of nominal GNP. In fact, however, current interest rates are higher than the expected average rate of GNP growth. Under these circumstances, the primary balance must be in surplus to avoid an increase in the debt/GNP ratio. Nevertheless, the primary balance for Canada is currently in a deficit equal to roughly 4 per cent of GNP, and projections prior to the May 1985 budget showed that even by fiscal 1991, it would decline only to about 1.25 per cent of GNP.

**FIGURE 10-1 Government of Canada: Net Public Debt as a Percentage of GNP**



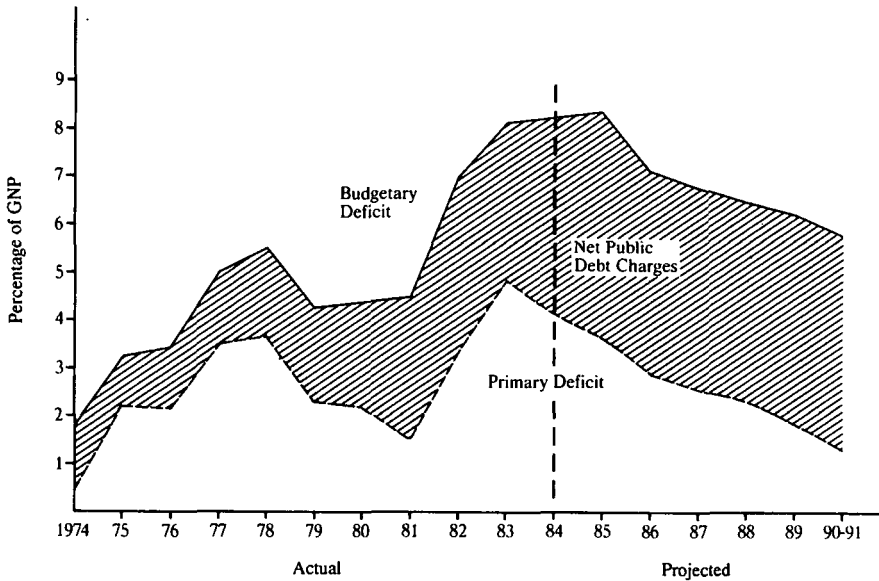
Source: Projections calculated from Minister of Finance, Government of Canada, *A New Direction for Canada*, November 1984.

Notes: The projected values are based on the "status quo" projections in the federal government's fiscal statement of November 1984. These projections assumed the existing tax structure and the expenditure programs and plans that had then been enacted or put before Parliament, but they did not allow for measures introduced in that statement. They also assumed reasonably favourable economic conditions: an average annual rate of real growth of more than 3 percent, a gradual decline in the unemployment rate to 7 per cent by 1990; and a substantial decline in nominal and real interest rates.

The Canadian federal deficit is clearly of a magnitude, even if it should be reduced automatically by further economic recovery, to raise serious questions about its sustainability. The federal budgetary structure prior to the May 1985 budget implied continuing increases in the debt/GNP ratio and, if all other factors are equal, a rising ratio of interest charges to GNP. Just to cover the increases in interest charges would mean continuing increases in tax rates, continuing reductions in expenditures, or carrying still higher deficits. These implications for the government's fiscal position and for future tax and expenditure levels probably provide the clearest reasons for concern about the size of Canada's current and projected deficits.

Another frequent concern is that high deficits or debt tend to "crowd out" private investment, thus reducing future prospects for economic growth.<sup>19</sup> In an open economy, high deficits also tend to crowd out net exports. (The impact of the government deficit on net exports can be offset by other factors, such as high private savings, a phenomenon currently apparent in Canada.) Crowding out can occur through upward pressures on interest rates and/or

**FIGURE 10-2 Government of Canada:  
The Primary Deficit and Net Public Debt Charges  
as a Percentage of GNP**



Source: Government of Canada, Dept. of Finance, *A New Direction for Canada*, 1984.

exchange rates deriving from the government's demand for capital financing.<sup>20</sup> Many analysts attribute, at least in part, the high levels of real interest rates that have prevailed internationally since 1982 to the large government deficits being run by many countries, especially by the United States, given its importance in the world's capital markets.

A final criticism of high deficits and debts is that they make governments vulnerable to increases in interest rates and constrain their ability to manoeuvre. In particular, they reduce governments' ability to take expansionary fiscal action.

Before leaving this analytical consideration of deficits, it is appropriate to ask why the Canadian deficit has grown to be such a major problem and to examine the circumstances under which it would be reasonable to anticipate bringing it under better control. As we have already noted, at the end of the Second World War, the federal government faced a huge debt, amounting to some 100 per cent of GNP. Over the ensuing 30 years, however, that debt fell almost continuously as a percentage of GNP, and in more than half of these years, it fell absolutely. As a result, by 1975, Canada's federal net debt was only 15.5 per cent of GNP. During the last half of the 1970s, however, the budgetary deficit increased substantially; it averaged more than 3.5 per cent of GNP from fiscal 1976 to 1982 and then ballooned with the severe recession that began in the latter year. These enlarged deficits caused the debt/GNP

ratio to rise again; it reached 26 per cent by 1980 and more than 40 per cent in March 1985, a figure higher than that for any year since the beginning of the 1950s.

This pattern is not unique to Canada. Beginning in about 1975, almost all developed countries moved from the relatively balanced budgets of the post-war period to large deficits. As a result, the total government debt outstanding for some 17 OECD countries increased from about 40 per cent of GNP in 1970 to 51 per cent in 1983.

Why did almost all developed countries suddenly experience this shift after three decades in which debt and deficit problems were almost non-existent or, at most, easily manageable? To understand the reason, it is helpful to take into account some simple arithmetic that applies to deficits. If we leave aside for the moment the balance of exports and imports, economic logic dictates a precise relationship between the surplus or deficit of the government and the corresponding surplus or deficit of the private sector. A private sector surplus is defined here as an excess of private sector savings over private sector capital spending. If the government sector is running a deficit of a given size, the private sector must have a surplus of the same size. Thus, the sudden rise in government deficits after 1975 had to be matched by an equal rise in private sector surpluses.

Of course, simple arithmetical relationships do not, in themselves, say anything about causation. Do high private sector savings cause larger government deficits, or is it the other way around? In 1982, at least, the direction of causation seems clear. Private sector capital spending in Canada (including changes in inventory) fell from 21.8 per cent of GNP in 1981, to 16.1 per cent in 1982. That sharp decline caused income to fall, thus reducing government revenues, while increased unemployment produced correspondingly higher government expenditures. Because the fall in private spending was so large, the increase in government deficits was also very large.

Since 1982, savings in the private sector have continued to be relatively high, while its capital spending has remained weak. Necessarily, the government-sector deficit has been large. Thus, the process of restoring Canada's fiscal balance will have to involve a recovery in private capital spending and perhaps some reduction in the relatively high savings rate.

The preceding analysis, however, does not take account of the foreign sector: that is, our imports and exports of goods and services and the differences between them. If we expand our consideration to include the balance on current account, we must modify our simple arithmetic. For example, a government deficit may be partly offset by a private sector surplus and partly by an excess of imports over exports. Such an excess implies that foreign savings are being drawn on to help finance the government deficit. (This is exactly what is occurring on a large scale in the United States at the present time.)

The relationships between the balances in the government sector, the private sector, and the foreign sector are shown in Table 10-1 for the seven major industrial countries in the OECD from 1975 to 1982. As these data show, the foreign sector balances were usually small, and so there was a close relationship between government-sector deficits and private sector surpluses.



Leaving aside Italy (whose data may be distorted by a high inflation rate), Japan, West Germany and the United Kingdom averaged the highest government deficits, along with the highest private sector surpluses, over this period.

A review of the historical record suggests that the primary cause of the growth of government-sector deficits since about 1975 has been a private sector weakness in capital spending in relation to savings rates. We have already noted the Canadian data. Since both Japan and West Germany have long had reputations for high savings rates, it is not surprising to find them running large private sector surpluses.

This view of the cause of larger government deficits is supported by data on the behaviour of gross capital formation in the OECD countries. From 1960 to 1973, real gross capital spending increased at an average of 6.3 per cent per year. Over the following eight years, this growth rate fell sharply to a mere 0.3 per cent; in other words, capital spending levelled out almost completely after 1973. For the European members of the OECD, the decline was even sharper: from 5.5 per cent for 1960–73 to –0.7 per cent for 1973–81. This Commission's research program did not explore the causes of this sudden and severe change in the pattern of capital spending in Europe after 1973. Some analysts have suggested, however, that it resulted, at least in part, from levels of real wages that were excessively high in relation to productivity and thus curtailed the prospective profitability of new investment. As we noted earlier, Canada experienced no downward shift in the investment share of GNP until

**TABLE 10-1 Sectoral Balances of the Seven Major Industrialized Countries of the OECD, 1975 to 1982**

Country	(percentage of GDP)		
	Government-Sector Deficit	Private Sector Surplus <sup>a</sup>	Foreign-Sector Balance <sup>b</sup>
United States	–1.6	+1.8	0.0
Japan	–4.1	+4.6	–0.3
West Germany	–3.5	+4.2	0.0
France	–1.3	+0.4	+0.9
United Kingdom	–3.5	+3.9	–0.4
Italy	–9.9	+9.6	+0.4
Canada	–2.6	+1.1	+1.0

*Source:* Calculated from data given in Robert W.R. Price and Jean-Claude Chouraqui, *Public Sector Deficits: Problems and Policy Implications*, Occasional Studies, OECD Economic Outlook (Paris: OECD, 1983), p. 21.

- a. Private sector surpluses estimated as the sum of household and corporate sectors.
- b. A positive foreign-sector balance indicates a positive foreign contribution to savings: that is, a current account deficit. A negative foreign-sector balance indicates that a portion of national savings was provided to the rest of the world: that is, that the country ran a current account surplus.

after 1981, although our savings have tended to be relatively high since 1973, particularly if the measure includes no adjustment for the distorting effect of inflation on personal savings. We cannot be certain whether the decline in investment in Canada since 1981 has been entirely a cyclical development that is likely to be reversed, or whether a part of it was the result of some fundamental weakness.

Finally, it seems useful to consider what changes Canada would require in the present pattern of private capital spending and savings if the private sector is to return to the balanced position that would eliminate the government deficit, without help from the foreign sector. From 1982 to 1984, private sector capital spending averaged about 16.5 per cent of GNP, that is, about 3.5 percentage points below the average that prevailed during the 1947–81 period. To return to an average 20 per cent level would require an increase in private capital spending in the order of \$14 billion (based on the GNP expected by mid-1985). The average private sector savings rate from 1982 to 1984 was 22.8 per cent of GNP. To reduce this amount to match a 20 per cent capital-spending level would require an increase in consumer spending of some \$12 billion. Thus, to enable the government to bring its budget back to a balanced position would require a net increase in private sector spending of some \$26 billion.<sup>21</sup>

Although the view is widespread that Canada's deficit should be substantially reduced as the economy recovers, there is much less agreement as to whether it would be desirable to reduce the deficit sharply before recovery is further advanced. There is also little agreement on means to promote the increase in private capital spending and the reduction in private savings that are a necessary counterpart of deficit reduction.

An argument can be made that even in Canada's current circumstances, a reduction of the deficit would have significant favourable effects on expectations about inflation and interest rates. Action to reduce the deficit now, so this argument goes, would lessen fears that continuing high deficits may eventually lead the central bank to increase the growth rate of the money supply in order to accommodate the deficit, with inflationary consequences. Fears of such future inflationary dangers may be helping to keep current interest rates high. Under these circumstances, it is conceivable that the favourable effects on interest rates and confidence would have a large enough impact on investment and other components of demand to offset, more or less, the direct negative effects on demand from the requisite expenditure reductions or tax increases.

The more widely accepted view among economists, however, is that deficit reduction could affect interest rates favourably, but not sufficiently, in the short run, to offset direct effects on demand. Given the importance Commissioners attach to avoiding further increases in unemployment, it might be preferable to defer any substantial reduction in the deficit until recovery is further advanced. We would, however, modify our view on the timing of a significant move towards deficit reduction if such a cut-back could be coupled with an easing of monetary policy sufficient to offset, or more than offset, the effect on demand and unemployment in the short term. We shall return to this possibility later in this chapter.

## Notes

1. This outline owes more to the simplifications of Keynes, found in the elementary economics texts of the 1950s and 1960s, than it owes to Keynes' own complex and subtle work. We do not wish to create the impression that all macro-economists immediately accepted Keynes' analytical framework. We concentrate on his work because it was vital to the development of macro-economics, and because it gained increasingly general acceptance over the 1940s and 1950s. See John Maynard Keynes, *The General Theory of Employment, Interest and Money* (London: Macmillan, 1936).
2. "Final" goods and services do not include inputs into the production of other goods and services, nor do they include items produced before the current measurement period.
3. Professor Phillips made important contributions to the analysis of the implications of lags for the conduct of policy.
4. According to another view of the short-run relation between higher wage increases and lower unemployment, the causation runs the other way: that is, workers, are more willing to supply labour when wages appear to be higher.
5. The long-run trade-off curve might even become positively sloped (more inflation associated with more unemployment) rather than vertical (more inflation associated with no reduction in unemployment) if higher inflation causes labour markets to function less efficiently.
6. This review of the relation between inflation and the NAIRU disregards sources of inflation (or deflation) other than excess demand. Such other factors may temporarily disturb the relation between changes in inflation and the level of unemployment. For example, an adverse supply shock, such as a sudden rise in the price of oil imports, might cause inflation to increase temporarily, even if the current unemployment rate happened to be at a level generally considered to indicate significant labour- market slack (that is, above the NAIRU).
7. This analysis of interest rates and expected inflation, while mentioned at this point in our account, has long been familiar; it was introduced just before the turn of this century by the American economist Irving Fisher.
8. It might still, however, pose cash-flow problems for borrowers. See the treatment of the "tilt" or "front-loading" effect later in this chapter.
9. Some economists, most recently Michael R. Darby *et al.* in *The International Transmission of Inflation* (Chicago: University of Chicago Press, 1983), argue that the oil-price shock and other large raw-material price increases of the 1972–74 period were not accidental exogenous events; rather they were attributable, at least in considerable part, to excessive demand among the industrialized nations generally, which in turn resulted from excessive monetary growth in the late 1960s and early 1970s.
10. Keynes himself should be held blameless for the lack of attention to expectations. For him, they were of major importance, though not necessarily in the ways emphasized in recent analysis.
11. See, for example, R.P. Shaw, "The Burden of Unemployment in Canada", *Canadian Public Policy* (forthcoming).
12. Canada, Department of Reconstruction and Supply, *Employment and Income* (Ottawa: King's Printer, 1945).
13. If nominal interest rates increase in line with inflation, as they usually do, the nominal repayment stream, which is traditionally constant, tilts, becoming higher, in real terms, in the initial years of the repayment period and lower towards the end. For example, given a 25-year mortgage with a 5 per cent real interest rate, the annual payments per \$100 of principal are \$7.10 under zero inflation and \$15.93 under 10 per cent inflation (15 per cent nominal interest rate). The latter

stream, which has the same real present value as the former, entails a real payment of \$14.49 in constant dollars (in which the \$100 principal was measured) in the first year, roughly twice the level of the no-inflation case, but that payment falls to \$1.47 in constant dollars after 25 years, about one-fifth the level of the no-inflation case. Thus inflation is said to front-load the real payment stream when the interest payments (or the combined interest and repayment-of-principal payments used in a conventional mortgage) are constant in nominal terms.

14. In 1976, Prime Minister Callaghan stated at the Labour Party Conference in Blackpool:

*We used to think that you could just spend your way out of a recession and increase employment by cutting taxes and boosting government spending. I tell you in all candour that that option no longer exists and that insofar as it ever did exist, it worked by injecting inflation into the economy. And each time that happened, the average level of unemployment has risen. Higher inflation followed by higher unemployment: that is the history of the last twenty years.*

15. In fact, some countries, such as Brazil, Israel and Iceland, have succeeded, over fairly extended periods, in combining high rates of inflation with real economic performance that is not obviously worse than average.
16. Notice the assumption that export prices are set in the domestic market. If they are set in foreign markets, as they are in a small open economy, devaluation leaves unchanged export prices, export revenues in foreign currency, and the trade balance.
17. Alternatively, viewed in terms of the domestic currency, the deterioration of the trade balance results from an increase in the cost of imports, with no offsetting gain in export receipts.
18. By contrast with the fixed exchange-rate case, this model implicitly assumes that the money supply would remain on some given path that was independent of the fiscal policy action.
19. The combination of the rapid growth in debt resulting from high deficits and of crowding out of private investment with the accompanying reduction in total GNP growth prospects, has the potential to create a vicious circle of low growth and spiralling debt/GNP ratios. Among other economists who have made this point is Professor James Tobin of Yale University, who advocates a sharp reduction in the size of the U.S. federal deficit.
20. In an open economy with a flexible exchange rate, crowding out may well operate to a more important degree through the exchange rates on net exports than through the interest rates on physical capital investment. Thus, in an open economy, crowding tends to be reflected more in decreases in the stock of total assets (physical capital *plus* set foreign assets) owned by residents than in the physical capital stock located in the country.
21. Commissioners do not wish to suggest that a reduction in the government deficit all the way to balance is necessarily desirable.

## The Conduct of Fiscal and Monetary Policy

Clearly, a government's overall monetary and fiscal policies exercise a major influence on the growth of the economy's nominal demand. Less obvious is the degree to which demand-management policies result in a change in the volume of output as compared with a change in the overall price level. The current conventional view is that a speed-up or slow-down in the growth rate of nominal demand will initially be reflected largely in a speed-up or slow-down in real output and an accompanying fall or rise in unemployment. As time passes, however, less and less of the change will be reflected in higher or lower output and more and more of it in a faster or slower rate of inflation. Before considering the policy implications of this rule of thumb, it is worth reviewing the post-war record of fiscal and monetary policy.

### Retrospective

It takes only a few historical highlights to illustrate the tendency of the Canadian economy to encounter the same problems repeatedly. The same history also indicates the way in which the analytical economic framework and the objectives and application of policy have evolved in response to experience.

In 1945, the Canadian government, in its White Paper on Employment and Income, adopted the maintenance of a "high and stable level of employment and income . . . as a major aim of Government policy."<sup>1</sup> Although it did not attempt to quantify this goal, the government, having witnessed the double-digit unemployment rate of the 1930s, might well have expected even "high employment" to involve an unemployment rate somewhat higher than the 2 to 4 per cent level that characterized the first decade following the Second World War.

By the late 1950s, the authorities were troubled by the slow response of inflation to conditions of economic slack. "This tendency toward rising prices, particularly in a period of recession, is a matter for concern," the federal government asserted in the 1959 budget speech. It expressed strong determination to resist inflation and confidence that it was "well within the power of Canadians to achieve reasonable price stability without sacrificing either immediate recovery or balanced growth".<sup>2</sup>

In 1964, the Economic Council of Canada (ECC) published its first annual review, proposing medium-term goals of 3 per cent for the unemployment rate and less than 2 per cent for the average annual rate of price increases.<sup>3</sup> The Council recognized that the combination of high employment and price stability had not been achieved over the 1945–63 period, but thought that this goal might still be attainable, given favourable international developments, advances in productivity, policies to increase mobility and adjustment in the Canadian economy, and "responsible restraint in both wage demands and business pricing policies."

In 1966, the Royal Commission on Taxation (the Carter Commission) advanced the view that the unemployment rate could usually be reduced to 4 per cent without development of any sustained inflationary pressure, but that

rates below 3 per cent were unsustainable.<sup>4</sup> It advocated a short-term target of 3.5 per cent and considered the ECC's 3 per cent goal possible in the medium term. It also criticized the policy of the late 1950s and early 1960s for over-concern with inflation.

In 1968, the government, in a White Paper entitled *Policies for Price Stability*, stated, "It is becoming increasingly evident that, with the existing tools of economic policy, we cannot count on simultaneously maintaining the desirable level of employment and reasonable price stability."<sup>5</sup> Stressing a determination to avoid inflation "without awaiting the harsh remedies which economic forces, given time, will otherwise administer", the White Paper specified some of the policy problems involved in controlling inflationary demand pressures:

- Lags in the impact of policy actions, coupled with the speed with which unforeseen demand pressures sometimes arise
- Uncertainty about the precise upper limits at which the economy can be permitted to operate relative to its capacity, before serious demand pressures and inflationary price increases develop
- Bottlenecks in particular sectors arising before high employment is attained generally and thus generating inflationary pressures.

The White Paper also put forward the government's response to inflation, which involved restraint in its spending on goods and services, coupled with tax increases, to achieve reduced deficits (or increased surpluses); structural measures concerning human resources and trade policy; establishment of the Task Force on Labour Relations to study the special problems of wage and salary bargaining in the public sector;<sup>6</sup> and creation of the Prices and Incomes Commission to "inquire into and report upon the causes, processes and consequences of inflation and to inform those making current prices and income decisions, the general public and the Government on how price stability may best be achieved."<sup>7</sup> A special Senate committee was also established.<sup>8</sup>

Monetary policy was tightened, but the fixed exchange rate of the day severely constrained the independence of Canadian monetary action. In 1970, however, the Canadian dollar was allowed to float; it began to appreciate significantly, unemployment increased, and inflation slowed, at least as measured by the Consumer Price Index. Yet initially, little reduction in the rates of wage increases was evident. Meanwhile, the Prices and Incomes Commission had attempted to persuade business and labour to adhere to voluntary wage and price guidelines, but agreement with labour proved elusive, and the attempt was abandoned in the same year.

In 1971, the Special Senate Committee on Growth, Employment and Price Stability reported that it was feasible to apply fiscal, monetary and exchange-rate policies to achieve the medium-term goal both of maintaining unemployment at 4 to 4.5 per cent and of restricting annual increases in the Consumer Price Index to 2 to 3 per cent. It saw little need for imposing general wage and price controls or guidelines, though it recognized that their temporary use, if backed by strong national support, could supplement demand-management policy to "bring about a short-term psychological adjustment

towards a less inflationary climate.”<sup>9</sup> It recommended that the Prices and Incomes Commission identify “unreasonable” wage or price increases and that Old Age Security (OAS) and Canada Pension Plan (CPP) benefits be fully indexed.

The summary report of the Prices and Incomes Commission, presented in 1972, attributed the increase of inflation in the mid-1960s largely to excess demand; the persistence of inflation after the clear emergence of economic slack in 1970, said the report, resulted both from lags in adjusting inflation expectations to match slower economic growth and from strongly held inflationary expectations. Estimating that the unemployment rate reached a “danger point” of inflationary pressure when it fell below 4.5 to 5 per cent, the Commission was also pessimistic about the possibility of using human-resource/adjustment programs, regional-development or similar types of structural policies to reduce unemployment in a way compatible with price stability. It regarded demand-management policy as the key to countering inflation; however, it also considered that adoption of a temporary incomes policy could provide a useful reinforcement to demand management in “trying to extricate the economy from a major inflationary outbreak originally generated by an overshoot of demand but persisting stubbornly because of widely held inflationary expectations and response lags.”<sup>10</sup>

By 1971, the unemployment rate had risen to more than 6 per cent. Budgets which had given priority to reducing the rate of inflation in the late 1960s now had as their first objective the reduction of the unemployment rate. Consequently, federal fiscal action in 1971, 1972 and 1973 was expansionary. The February 1973 budget even noted that the policy might be excessively expansionary, but this risk was judged worth taking at this time, in the interest of dealing more effectively with unemployment. Monetary policy was also expansionary: the narrow measure of the money supply (M1) grew at double-digit rates from 1971 to 1973.

With the benefit of hindsight, monetary and fiscal policy are generally viewed as having been too expansionary from 1971 to the close of 1973 and thus as having contributed to building up inflationary expectations that are perhaps only now being reduced. The period is of particular interest, as it illustrates a number of difficulties to which policy making is subject. For example, Canadian policy makers, academic economists and the interested public initially failed to recognize what the 1972 Unemployment Insurance reform would do to the non-cyclical component of unemployment (the NAIRU). From 1971 to 1972, the unemployment rate remained at an average of 6.2 per cent, although the number of people employed increased at the relatively strong rate of 3 per cent. As already noted, the Unemployment Insurance (UI) reforms are generally estimated to have increased the unemployment rate by one to two percentage points. Thus, although an unemployment rate of 6.2 per cent may have indicated that the labour market was relatively slack before the reforms were made, afterwards it was equal to, or below, the new NAIRU, signalling a moderately tight market. Few people realized, however, the change that had occurred.

Initial National Accounts data also tended to mislead policy makers and other observers of the day. At the time of the February 1973 budget, the

published data showed real Gross National Expenditure (GNE) in 1972 below the trend value, another indication of a slack economy. But subsequent revisions to the National Accounts showed the cumulative growth of real GNE between 1969 and 1972 as 2.2 percentage points higher than had the first-published version, a level marginally above the trend.

During this period, the money supply was allowed to increase at a rapid rate, at least partly because of a desire to hold down interest rates and restrict the inflow of capital from abroad so as to limit appreciation of the Canadian dollar. Our dollar had strengthened partly because of a boom in our resource exports. Such a development inevitably poses a difficult policy choice: to dampen inflation by allowing substantial appreciation of our currency at the cost of imposing a difficult adjustment on the manufacturing sector, or to protect the competitive position of Canadian manufacturing by limiting exchange-rate appreciation at the risk of setting off an inflationary spiral.<sup>11</sup>

However, the major increase in domestic inflation in 1973 and 1974 did not come solely from excessively expansionary policy within Canada. It is now apparent that during the previous few years most other OECD countries, acting independently, had been pursuing monetary and fiscal policies that were probably excessive individually and were undoubtedly so in their cumulative impact. (In the United States, these policies dated from the country's growing involvement in the Vietnam War in the mid-1960s.) The synchronized growth that followed in virtually all the advanced industrial countries not only generated internal inflationary pressures, but also led to a sharp increase in international commodity prices, which occurred in response to the substantial increase in world-wide demand. These hikes were compounded, in the early 1970s, by the sharp rise in the prices of a number of agricultural products; that rise was the result of major crop failures in several parts of the world and of the disappearance from the South American coast of the schools of anchovies that had provided a rich source of animal feed. These pressures had especially strong effects in Canada, where the rapid increases in prices of many of our raw-material exports led to high profits that created the potential for high and successful wage demands that proved difficult to bring down when the resource-price boom ended. In late 1973, the system received the first oil-price shock. A sharp global recession followed, accompanied for a time by continuing sharp increases in prices.

Throughout 1972 and 1973, the Canadian government had expressed concern about inflation. Rather than tightening fiscal and monetary policy, however, it had confined its response to encouragement of supply, restraint of particular prices, and assistance to citizens especially hard hit by inflation. In essence, the government's approach was to accept high rates of inflation as likely to continue for some time and to introduce measures aimed at reducing their adverse impacts. The May 1972 budget, for example, introduced full indexing of Old Age Security and Veterans' pensions. The February 1973 budget tried direct price reduction through cuts in the sales tax (on children's clothing) and tariffs, together with a form of budgetary stimulus (tax cuts) that was intended to help contain inflation. In a measure that took effect in January 1974, the same budget introduced indexation of rate brackets and most personal exemptions to offset the effects of inflation on the personal



income-tax system, in order to prevent inflation-induced increases in real tax liabilities.

By May 1974, the budget makers were referring to “inflation, world wide in its origin and impact” as being “deeply [disturbing to] our country and this government”. Their macro-economic policy stance provided no further stimuli, but they rejected deflation of demand through severe monetary and fiscal restraint as “a cure worse than the disease” and termed general wage and price controls “totally ineffective in overcoming the kind of inflationary problems we have been, and are still facing.”<sup>12</sup> They did, however, institute more measures intended to mitigate the effects of inflation on income categories that had not been aided by the 1972 and 1973 measures. One of the 1974 measures was the introduction of the \$1000 interest-income exemption in the personal income tax. The government also attempted to restrain particular prices by such means as removing the sales tax from adult clothing and footwear and holding the domestic price of oil below world levels.

In the following months, the outlook for inflation worsened as wage and salary costs accelerated. But the outlook for real output and employment also deteriorated sharply as a result of the recession affecting Canada’s major trading partners. The budget of November 1974 introduced income-tax cuts and incentives to construction, to sustain aggregate demand; it also sought to mitigate the effects of inflation, primarily through the exemption of \$1000 of pension-annuity income from the calculation of personal income tax. The government appealed for restraint in wage demands and announced that it would try to persuade labour and business interests to agree to such restraint in an effort to ease inflation. No such agreement was forthcoming. Given that failure, as well as the continued strength of inflation, the June 1975 budget provided no further general stimulus to demand. The government, however, still rejected severe fiscal and monetary restraint, and shunned controls because of the lack of widespread public support.

Partly because our policy measures were relatively expansionary and partly because the increase in world oil prices had domestic effects that were favourable as well as unfavourable, the Canadian economy experienced a much milder slow-down from 1974 to 1975 than did the economies of most OECD countries. However, our inflation rate also stayed higher than most of theirs.

In September 1975, the Governor of the Bank of Canada stressed the prime importance of achieving lower rates of inflation and the necessity of keeping the rate of monetary expansion within reasonable limits in order to reach this goal.<sup>13</sup> In the following month, the government introduced its Anti-Inflation Program (AIP), which consisted of:

- Fiscal and monetary policies aimed at restraining growth in total demand and production at a rate consistent with declining inflation
- Government expenditure policies intended to limit the rate of increase in public service employment and the growth of public expenditures to or below the trend in the growth of GNP
- Structural policies to deal with the special problems of energy, food and

housing, to ensure a more efficient and competitive economy, and to improve labour/management relations

- A temporary prices and incomes policy that established controls over prices, wages and other incomes for larger firms, and over wages and some prices in the government sector.

In November 1975, the Governor of the Bank of Canada announced the first explicit targets for the growth of the money supply. For the first year, M1 (a limited definition of the money supply) was to expand 10 to 15 per cent (preferably towards the lower end of the range); thereafter, the growth was to decline, to approach the rate consistent with long-term price stability. This program marked the official start of monetary targeting in Canada.

Soon after introduction of the Anti-Inflation Program, wage and price inflation declined quite sharply, while the Canadian economy continued to avoid a recession as severe as that experienced in the United States and most Western European countries. Unemployment, however, climbed gradually to a new peak of 8.4 per cent in 1978. During the 1976–78 period, analysts judged that the economy had room for some expansion of demand without risking the gains made in lowering inflation. Federal fiscal policy became increasingly expansionary as tax cuts, rather than new or expanded expenditure programs, provided most of the stimulus.

Although unemployment fell during the period from 1978 to 1981, reaching a low of 7 per cent in mid-1981, price and wage inflation started to increase again; it was given an extra boost in 1980 and 1981 as a result of the sharp increase in world and domestic energy prices. The government had made further efforts in 1977 and 1978 to achieve agreement with labour and business on the need for incomes restraint, and in 1978, the Centre for the Study of Inflation and Productivity was established to provide an early-warning system on inflation. In addition, fiscal policy was tightened somewhat between 1978 and 1981.

In November 1979, the United States, faced with rising inflation and a depreciating currency, implemented a monetary policy that was much more aggressively anti-inflationary than Canada's. Although our monetary authorities cushioned the effect on Canadian financial markets of some of the large swings in U.S. interest rates, Canada also moved into a period of much higher nominal and real interest rates.

The world-wide recession of 1981–82, which followed the doubling of international oil prices in 1979–80 and the sharp tightening of monetary policy had particularly severe effects in Canada. The rate of inflation slackened in 1982 and fell sharply in 1983; the result of the recession in slowing the increase of prices and wages was augmented by the application of the federal government's "Six-and-Five" program and by the introduction of similar programs relating to public sector wages and prices in most provinces. A number of private sector prices under federal regulatory control were included in the program.

Another significant development of the 1981–82 period was the apparent breakdown in the historical relationship between nominal GNP and M1. In setting its target band for monetary growth, the Bank of Canada had been using this narrow measure of the money supply, which excludes, among other

items, personal savings accounts and term deposits with the chartered banks. The breakdown was caused principally by shifts in personal deposits into the newly available daily interest chequing accounts, which, by definition, were not included in the M1 measure, and by corresponding developments in business deposits. In 1982, the Bank of Canada suspended the practice of defining its policy in terms of a target growth rate for M1.

From mid-1981 to late 1982, the severe recession led to a very sharp rise in unemployment, which has since remained at very high levels. Inflation has continued to decline. Most European countries have experienced a similar pattern of unemployment and inflation; the U.S. economy, virtually alone, has experienced rather strong recovery. The Canadian government began to take expansionary fiscal policy action with the June 1982 “mini-budget”. Monetary policy has remained relatively tight, substantially because of the importance given to limiting depreciation of the Canadian dollar relative to the very strong U.S. dollar.

This review of the post-war record suggests a number of conclusions:

- Given current labour and product-market institutions, unemployment rates of about 6.5 per cent at best, and perhaps rising as high as 8 per cent at worst, appear to be required to avoid accelerating inflation. Analysis of this issue is, however, complicated by the large “special” price shocks that the economy has experienced since 1972.
- Wage and price controls do seem to have eased the transition to lower inflation during the 1975–77 period, and the Six-and-Five program probably helped this process in 1982 and 1983. The Canadian experience with such incomes policies differs from that of many other countries, in particular the United States. The U.S. controls instituted from 1971 to 1974, which were not supported by anti-inflationary monetary policy, and which did not pursue a phased reduction in inflation, had little lasting effect; any helpful initial impact tended to be offset by a subsequent snap-back of prices and wages.
- Achievement of general agreement in support of voluntary restraint of incomes and prices is difficult to obtain in Canada, given the country’s decentralized wage negotiations, and the fact that many of its important “prices” (including interest rates) are more or less determined in international markets.
- It is unrealistic to hope to fine-tune the economy by applying policies to keep real demand on a narrow path of non-inflationary growth. Attempts are constantly undercut by the uncertainties to which economic forecasting seems inevitably subject, by uncertainties concerning levels of real output and unemployment that are sustainable without setting off renewed inflationary spirals, and by uncertainties about the extent of, and lags in, the effects of monetary and fiscal policy actions.
- Recent experience with instability in the relationship between the demand for money and changes in GNP raises serious doubts about the desirability of setting monetary policy in terms of strict adherence to a simple rule of monetary growth.

- Sufficiently tight monetary restraint can sharply reduce inflation, but the process is likely to involve a severe and possibly extended recession. A gradual approach to controlling inflation will probably involve less severe rates of unemployment, but it will take longer to produce effects and offers less certainty of success.

## **Policy Issues**

### ***General Policy Issues***

Any discussion of future policy setting for Canada must first address two general issues: approaches to exchange rates and active, as contrasted with automatic, mechanisms for stabilization. Only then can we turn to issues related specifically to today's circumstances.

### ***The Exchange-Rate Regime***

As we have seen, the choice between a fixed and a flexible exchange rate is of fundamental importance. For a small open economy to opt for a fixed exchange rate is to abandon virtually any opportunity to exercise an independent monetary policy. (Recall, however, that such an economy's freedom to manoeuvre under a floating-exchange system should not be exaggerated.)

For Canada, choosing a fixed exchange rate would mean, essentially, tying ourselves to U.S. monetary policy, to U.S. interest rates, and, broadly speaking, to the U.S. rate of inflation. Such ties would produce benefits if the United States succeeded in establishing monetary stability and low inflation. Under these circumstances, such a policy approach would help us to establish stable, non-inflationary expectations and to stabilize the environment for decision making in industries for which trade with the United States is important.

These potential benefits are not illusory. The countries of the European Monetary System (EMS) have opted for a fixed regime with regard to one another's currencies, although the "bands" within which rates are fixed permit significant flexibility. The Federal Republic of Germany, as the largest country in the group, exercises an important influence on the monetary policy of the system as a whole, and many observers suggest that the other EMS countries have benefited from this link by "importing" expectations of low and stable inflation.<sup>14</sup>

Despite the merits ascribed to the European example, to tie the Canadian dollar to the U.S. dollar would further limit our monetary independence. Recent experience has demonstrated that Canada might not wish to be bound to developments in the United States. Even under favourable circumstances, however, fixing our exchange rate with the U.S. dollar would deny us the shock-absorbing benefits that a flexible exchange rate can often provide. A flexible exchange rate eases our adjustment in the face of a "boom or bust" in resource exports and, under certain circumstances, provides some temporary

insulation from changes in U.S. interest rates, although we remain strongly influenced by U.S. monetary developments.

Commissioners conclude that maintenance of flexible exchange rates and thus of the possibility of independent monetary policy is, on balance, desirable. We shall consider later in this chapter the desirability (or lack of desirability) of attempting to insulate Canadian interest rates from U.S. rates through exchange controls or interest-equalization taxes.

### *Steadiness or Activism in Macro-economic Policy*

During the latter 1970s, a growing number of countries came to favour a strategy of setting macro-economic policy—and particularly monetary policy—on a steady medium-term course estimated as consistent with stable growth in nominal GNP, with stable and low rates of actual inflation, and with non-inflationary expectations. Policy makers were brought to this approach by their growing awareness of several realities: the limits of their ability to forecast developments in the medium term; the lack of long-term trade-offs between unemployment and inflation; and the importance of expectations in influencing economic behaviour. Canada, the United States, West Germany, Switzerland and Britain all chose to set monetary policy by specifying a target growth range for one or more measures of the money supply.

This approach, however, has not been without its difficulties. First, reasonable stability and predictability in the relationship between money and aggregate demand (nominal GNP) is an essential part of the steady approach to monetary growth. Yet in several countries, especially Canada and the United States, the relationship between GNP and the chosen measure of the money supply has not proved as predictable as expected. For example, the 1982 drop in nominal GNP in the United States was more drastic than predicted on the basis of the reduction in monetary growth. In Canada, the breakdown in the historical relationship was so severe that in 1982, the Bank of Canada suspended the monetary-growth/targeting approach.

Secondly, just as adherence to a fixed exchange rate essentially means that monetary policy must be directed to maintaining that rate, so adherence to a money-supply growth rate means that the exchange rate must be allowed to fluctuate freely. Yet countries for which trade is important are often reluctant to accept large swings in exchange rates, especially swings that do not reflect differences in inflation performance. Thus, both West Germany and Switzerland have been prepared to compromise, at least temporarily, their adherence to monetary-growth targets in order to “lean against” swings in the exchange rate that they regarded as excessive.<sup>15</sup>

Thirdly, although monetary policy makers can set a stable and low target for growth of the money supply, fiscal policy admits of no such simple rule. Possible guidelines for fiscal policy do exist; most involve maintaining some “cyclically adjusted” or “high-employment” budget balance, expressed as a percentage of GNP, or some debt/GNP ratio trend. Such an approach permits—indeed, requires—the operation of the automatic fiscal stabilizers: that is, it preserves the automatic counter-cyclical swings in the actual budget

balance that tend to dampen swings in the economy. The success of reliance on the automatic stabilizers, however, depends very much on acceptance of their implications for the deficit by the public at large and by the domestic and international investment communities. In essence, these groups must neither be “spooked” by the substantial deficits that automatically result in times of severe recession, nor press for tax cuts or expenditure increases when economic booms automatically generate substantial budget surpluses. Moreover, estimates of the cyclically adjusted budget balance are inevitably somewhat arbitrary. There is always a margin of uncertainty about the true level of the “high employment” or “trend” output path to be used as a basis for calculating the “normalized” or cyclically adjusted budget balance. Even in the absence of such uncertainties, the choice of a target budget balance or debt/GNP ratio involves complex controversial issues, both analytical and empirical.

In addition to these difficulties, at least two considerations raise questions about the suitability of a stable setting for the growth of money supply and a stable approach to fiscal policy. First, economies may occasionally be subject to severe and prolonged recessions caused by substantial weakness in private demand. Such circumstances may well warrant the provision of some stimulus beyond that generated by the automatic stabilizers. Secondly, rigid adherence to steady policy settings precludes the conscious adjustment of the mix of monetary and fiscal policies.

Economists have reached no clear consensus on the advantages and disadvantages of adopting steady guidelines for policy. Generally speaking, the “monetarists”, who emphasize the advantages, are those who are particularly impressed by the limits of policy makers’ ability to forecast the course of the economy and to estimate the effect of discretionary action; who are concerned about adversely affecting expectations by making discretionary policy changes; and who have confidence in the strength and speed of the economy’s self-righting mechanisms. The “neo-Keynesians”, who take the opposite view on one or more of these points, tend to be more sympathetic toward discretionary departures from the “steady rules” approach, at least when there are clear shifts in the money-GNP relationship or clear prospects of an extended boom or recession. (Of course, such shifts and prospects are seldom very clear until well after the event.)

A compromise approach, which has recently received attention from some academic economists, suggests formulating demand-management policies in terms of targets for growth of nominal GNP. When the relationship between the money supply and nominal GNP is stable or undergoing a relatively mild, short-lived, cyclical disturbance, this compromise approach might well involve the same settings for monetary and fiscal policy as would the stable monetary and budget-balance guidelines. It would, however, involve a willingness to change the targets and to adjust fiscal and monetary policy in the event of significant prolonged departures of nominal GNP from a steady growth path. It would also provide a framework for considering changes to the mix of monetary and fiscal policy. For example, if it were deemed appropriate to cut the fiscal deficit substantially, in view of concerns over the growth of public debt and the lack of funds required for private investment, it might also be considered appropriate to provide some monetary stimulus to offset the effect

of tighter fiscal policy on nominal (and real) GNP growth. This approach tends to be more attractive to neo-Keynesians than to monetarists; to the latter, it verges on a back-door return to the illusions of fine-tuning.

A significant element of the rationale for adopting steady rules to govern monetary and fiscal policy is the potential the policy offers for helping to establish non-inflationary expectations, which, once established, improve the prospects of achieving or maintaining low inflation and reasonably high employment. Ironically, although to establish such expectations firmly may require a period of rather rigid adherence to clearly non-inflationary monetary and fiscal rules, the existence of firm expectations of low inflation subsequently increases the room of authorities for taking *discretionary* action to combat recessions or other economic disturbances. For example, in the late 1970s, when the West German and Swiss central banks temporarily raised the rate of increase of the money supply in their respective countries, in order to counter appreciation of their exchange rates, they may well have judged that they could do so without risking a resurgence of inflationary expectations because of the confidence they had established in their underlying commitment to maintaining low inflation. The recent willingness of the U.S. Federal Reserve System to allow a high rate of increase in M1 in response to an apparent upward shift in the demand for money might be similarly interpreted. In sum, it seems that credibility can be achieved over time at a price, and that once established, it may well permit stabilization policy to operate more effectively than it could in the absence of such confidence. Yet the danger remains that hard-won credibility will be eroded if the public loses faith in authorities' continuing commitment to prevent the development of renewed inflationary spirals.

Commissioners conclude that the difficulties to which fine-tuning is so clearly subject and the potential contribution to stable expectations that governments can make by following steady policies oriented to the medium term provide a strong case for rejecting short-run adjustments of monetary and fiscal policy as long as departures from a non-inflationary growth path are moderate. Granting this, however, we note that the current state of economic analysis falls considerably short of offering clear guidance for developing satisfactory medium-term guidelines for setting policy. For this reason, we think it worth considering an approach based on targeting monetary and fiscal policy in relation to non-inflationary growth of nominal GNP. Furthermore, while we support a medium-term rather than a "fine-tuning" approach, we do not exclude the possibility of supplementing automatic stabilization with discretionary action in times of wide and protracted departures from satisfactory levels of nominal demand. The existing high levels of unemployment and the prospects for their slow reduction suggest that the current situation may constitute the kind of exceptional case just described.

### **Medium-Term Prospects: Implications for Present Policy**

During the last three years, fiscal policy in Canada and the United States has gone well beyond mere acceptance of the upswing in deficits that would have resulted from following a steady, cyclically adjusted, budget-balance

approach. Deliberate fiscal measures and unexpectedly high real-interest rates have increased the federal deficits substantially. (This holds true even if we adjust for the effect on the deficit of the cyclical weakness in the economy. What remains after such an adjustment is a high "structural deficit": that is, a deficit that would exist, given actual tax and expenditure structures, even if the economy were operating at a "normal" level of activity.) Monetary policy, however, has generally remained rather tight.

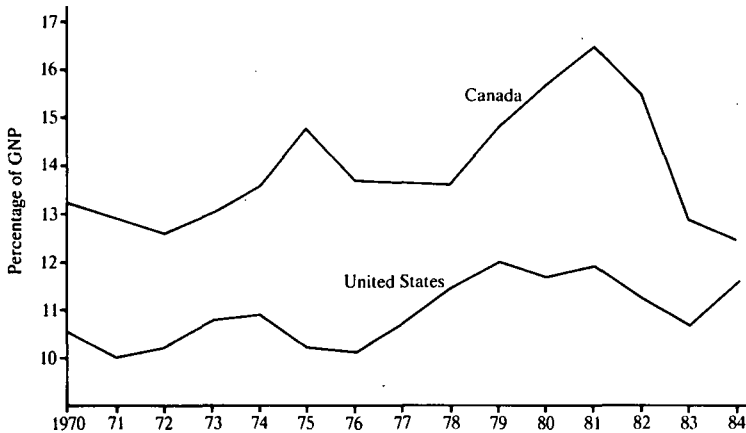
This policy mix has achieved major reductions in inflation in both countries, although there are some doubts as to whether the reductions in inflationary *expectations* have fully matched those in actual inflation. In the United States, this policy mix has also been consistent with a reasonably satisfactory recovery from the recent recession, but many Americans are still concerned about the continuing high level of the deficit. In Canada, the recovery started from a deeper trough and has been rather anaemic, particularly as measured by the unemployment rate. There are fears that unemployment will remain high for an extended period. The level of the Canadian federal deficit also causes much concern to many observers.

Given the broadly similar setting of policy in Canada and the United States, it is not entirely clear why recovery has been so much stronger in one country than in the other and, in particular, why private investment has recovered strongly south of the border, but is still weak in this country, as Figure 10-3 shows. The explanations advanced include the apparently greater rigidity of wages in Canada (and, therefore, our economy's less flexible response to monetary restraint and to changing competitive conditions) and the fact that the cessation of the energy boom and the world-wide weakness in raw-material industries have had stronger effects on the Canadian than on the U.S. economy. In addition, the preceding inflationary boom appears to have been more pronounced in Canada, causing a more severe "hangover" as corporations and individuals have retrenched to reduce the heavy debts incurred when they expected inflation, along with economic prosperity, to continue and, thus, the real burden of debt servicing to be low. That the United States substantially strengthened tax incentives for investment in 1981, whereas Canada had taken similar action in the 1972-77 period, is no doubt of some importance in explaining the relative strength of business investment in the two countries, both in the late 1970s and more recently. Of course, the higher levels of capacity utilization in the United States also help to explain the greater strength of investment in that country, although the difference in capacity utilization is itself part of the puzzle that we are trying to solve. Finally, differences in the two tax systems' treatment of consumer debt and mortgage-interest payments may make the Canadian economy more sensitive to high interest rates.

In both countries, however, demand management is constrained by the fact that projected federal deficits, even if cyclically adjusted, imply ever-higher ratios of debt (and debt-servicing costs) to GNP as long as real interest rates stay relatively high. These high deficits doubtless gave important support to the level of economic activity during the recession. They may also, however, have created expectations that to bring them under control will eventually require substantial tax increases, or that to finance them will induce a shift to more inflationary monetary policies.



**FIGURE 10-3 Business Fixed Investment**



Sources: Canada. Historical Compendium, Table 24,  
U.S.A.— The President's Council of Economic Advisors:  
*Economic Report to the President*, February 1984, Table B7.

### ***Inflation and Employment Goals***

As we Commissioners have already made clear, we accept the view that given the present structure of the economy, demand-management policies alone cannot reduce unemployment below 6.5 to 8 per cent on a sustained basis. It is for this reason that we attach such importance to structural initiatives which could lower the attainable floor rate of unemployment. Moreover, we think that it would be very unwise to risk our recent reduction in inflation, purchased at such great cost, by attempting to use demand-management policy alone to return unemployment very rapidly to the 6.5 to 8 per cent range. We are still faced, however, with a range of important choices in future fiscal and monetary policies. A fundamental choice concerns the extent to which Canada should push for further reductions in the rate of inflation. That choice means balancing the risks of making slower progress towards further reduction of inflation and of reducing unemployment only slowly to more tolerable levels.

Our current unemployment rate is much higher than most estimates of the NAIRU; other indicators also suggest a substantial degree of slack in the economy. Furthermore, we seem to have made major progress in restoring expectations that inflation will be maintained at moderate levels for the foreseeable future. The prospects for the Canadian economy, considered in Chapter 7, suggest that within the present framework of economic policies, we face a rather extended period of only modest recovery. Under these circumstances, a moderate increase in the projected growth of demand, which would offer the prospect of a significant reduction in unemployment, as well as a strengthening of investment, should be consistent with further reduction in inflation.

## *Policy with Respect to the Deficit*

The earlier analysis of deficits and debts offered in this chapter suggested that deficits are a potential problem if they are of a size that causes an upward *trend* in the debt/GNP ratio. This appears to be the present situation in Canada, even if we adjust for current below-normal levels of activity.

Among the larger OECD countries, as Tables 10-2 and 10-3 show, Canada's deficit/GNP ratio for the total government sector is exceeded only by Italy's. However, while Canada's overall deficit/GNP ratio is higher than that of the United States, when the deficit is expressed as a percentage of net private savings, Canada appears to be in a better position than its neighbour. This fact reflects the much lower level of personal savings in the United States than in Canada.

Commissioners accept the wisdom of lowering the deficit to a level consistent with stabilizing or decreasing the debt/GNP ratio. We shall not put forward a specific target for reduction of the deficit: that is a job for those with access to the latest economic and fiscal projections, and such targets may well require revision over time as the projections change. We recognize, however, that the required deficit reduction is substantial, probably in the order of an annual increment of 1.5 per cent of GNP, which would be equivalent to \$10 billion by fiscal year 1991.<sup>16</sup> (According to the government's November 1984 projections, this would reduce the federal budgetary deficit, by the same year, to about 4 per cent of GNP.)

Examples are helpful to illustrate the magnitude of the action we are considering. To achieve a \$10 billion deficit reduction by the end of the decade, entirely through an increase in personal income tax revenues, would require that rates be increased by about 20 per cent, and this calculation does

**TABLE 10-2 Ratio of Budget Balance to GNP**

Country	(total government sector)					
	1979	1980	1981	1982	1983	1984 <sup>a</sup>
United States	+0.6	-1.2	-0.9	-3.8	-4.1	-3.2
Japan	-4.8	-4.5	-4.0	-3.4	-3.3	-2.2
West Germany	-2.7	-3.1	-3.8	-3.4	-2.7	-1.7
France	-0.7	+0.2	-1.8	-2.5	-3.4	-3.5
United Kingdom	-3.2	-3.8	-3.1	-2.4	-3.3	-3.1
Italy	-9.5	-8.0	-11.9	-12.7	-11.8	-13.5
Canada	-1.8	-2.7	-1.6	-5.0	-6.2	-6.0
Total of above countries <sup>b</sup>	-1.7	-2.4	-2.6	-4.0	-4.2	-3.6

Source: Organisation for Economic Co-operation and Development, *Economic Outlook, December 1984* (Paris: OECD, 1984), p. 29.

a. OECD estimates and forecasts.

b. 1982 GNP/GDP weights and exchange rates.

**TABLE 10-3 Ratio of Budget Balance<sup>a</sup> to Net Private Savings<sup>b</sup>**

Country	(total government sector)										
	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
United States	4.8	52.4	30.4	13.7	-2.6	-9.3	22.0	15.0	71.4	68.2	49.7
Japan	-2.1	17.1	20.6	23.0	31.0	29.8	28.2	26.5	24.7	26.9	20.3
West Germany	12.9	55.9	35.5	28.9	26.2	27.8	35.4	46.2	40.6	30.5	15.8
France	-5.9	20.2	5.8	8.5	16.7	6.7	-2.6	24.2	35.2	47.0	47.2
United Kingdom	61.4	76.1	68.5	37.8	40.7	35.8	42.8	40.5	30.8	56.3	48.1
Italy	48.7	69.4	52.4	47.9	54.2	51.4	47.5	73.0	78.0	82.9	85.1
Canada	-19.1	24.1	16.8	26.7	30.6	15.3	20.8	10.4	50.5	49.8	44.0
Total of above countries	9.1	45.6	30.6	20.5	15.2	10.0	25.2	25.7	54.0	54.8	42.7

Source: Organisation for Economic Co-operation and Development, *Economic Outlook, July 1984* (Paris: OECD, 1984), p. 29.

a. General government financial *deficit* as a percentage of private savings. A minus sign indicates a financial *surplus*.

b. Net private savings are household plus business net savings.

not allow for any effect that tax increases might have in constraining economic growth and, thus, the increase in revenues. To eliminate the deficit entirely, through expenditure reductions, would require an average cut of about 10 per cent of all expenditures, excluding public-debt charges, of about 11 per cent if national defence costs and foreign aid were exempt; of about 15 per cent if transfers to the provinces for equalization and established-program financing, to cover health care and post-secondary education, were also exempt; or of about 20 per cent if, in addition, expenditures on the Old Age Security/Guaranteed Income Supplement (OAS/GIS) were exempt.

We shall not attempt to indicate in detail the form that a package for reducing the deficit should take. We do, however, note several considerations that, in our judgement, should be taken into account in determining the contents of any such package:

- Tax cuts during the 1975–78 period contributed significantly to the build-up of the deficit. Since 1975, expenditures for regular government programs have been kept reasonably stable in relation to trend GNP; growing public-debt charges, plus an increase in UI benefits and the introduction of special programs related to the recession, account for most of the recent increase in federal expenditure relative to GNP.
- Despite the impact of past tax reductions on the government's fiscal position, we are concerned that a large increase in tax rates now would have adverse effects on incentives and thus impair prospects for the development and growth of the Canadian economy. We also note that significant increases in taxes will be necessary, over the medium term, for reasons other than reduction of the deficit. The contribution rates for the Canada Pension Plan (CPP) and the Quebec Pension Plan (QPP) will have to rise as the programs mature, and some increase in general taxes may also be necessary to finance OAS/GIS pensions and health care as the proportion of the elderly in the population increases.
- Given these considerations and the fairness of "spreading the pain", we favour a combination of tax increases and rather broad reductions in expenditure. This recommendation raises the question of which expenditure areas should be spared, at the cost of deeper cuts elsewhere. Everyone, of course, will have particular candidates. We have recommended in Part II a faster pace of increase for foreign aid. We have also called attention to the potential need to expand economic and employment-adjustment programs. Canada's relatively low defence expenditures provide a case for exempting this area. Moreover, given current economic circumstances, we would not wish to see cuts that adversely affected Canadians who are already experiencing hardship as a result of unemployment.
- A possible way to implement broadly based tax increases and expenditure reductions would be to set the indexing factor for the personal income tax and for some transfer programs at  $x$  percentage points below the rate of inflation, and to hold the price factor for all other expenditure programs—excepting foreign aid and national defence—at  $x$  percentage points lower than the rate of inflation. We calculate that to set these factors 3 percentage points below the inflation rate for a three-year period would generate a deficit reduction in the order of 1.5 per cent of GNP.

This Commission's concern that the deficit be reduced has important implications for our Report: any net expenditure increases or tax reductions we propose would add to the tax increases and expenditure cuts required elsewhere. We also recognize that tight restraint by the federal government creates an environment that could well make federal-provincial fiscal and other relations more difficult.

### *The Mix of Monetary and Fiscal Policy*

Earlier in this section, we Commissioners expressed our judgement that Canada's fiscal and monetary policies should be directed to promoting some increase in the pace of recovery. We have now added the objective of reducing the structural deficit. The only way to achieve both objectives simultaneously is to change the policy mix, moving to a somewhat more expansionary monetary policy that will more than offset the initially restrictive effect of deficit-reducing fiscal measures. This net shift towards expansion would help to bring the unemployment rate down from its current unacceptably high level; it would also help to reduce the deficit by stimulating capital spending and net exports and, perhaps, by reducing private savings.

The kind of monetary policy we favour would probably involve a *temporary* increase in money-supply growth rates followed by a return from the higher base to rates consistent with non-inflationary, nominal GNP growth. It is important that a credible plan for reducing the deficit to sustainable levels be initiated at an early date so that Canada can start to ease monetary policy temporarily, without creating renewed inflationary expectations. Finally, some of us also favour fiscal policy measures that would encourage increased private spending: for example, a temporary reduction in some of the tax incentives for saving.

The prospects for the Canadian economy under such a policy approach depend critically on whether the U.S. Administration follows a similar course of deficit reduction coupled with some "one-shot" monetary easing or continues to use its current fiscal-monetary mix. If the United States were to adopt the former course, its interest rates would decline, and a similar fall in Canadian interest rates would probably not have a major effect on the exchange rate. If, however, the United States persists with its current policy mix, the recommended change in the Canadian policy mix will likely result in a smaller temporary reduction in our interest rates, coupled with some depreciation of the exchange rate. (As we explain below, the exchange rate must depreciate to a level from which it is subsequently expected to appreciate if Canadian interest rates are to be reduced relative to U.S. rates.) Under this second possibility, the export- and import-competing sectors would experience more stimulus than under the first, while the interest-sensitive sectors, particularly residential and non-residential construction, would experience less.

It should be emphasized, however, that although a one-shot easing in Canadian monetary policy must be expected to cause some reduction in the exchange rate, all other circumstances being equal, the decline should be self-limiting if the policy is conducted within a broader framework that includes a

clear credible commitment to avoid inflationary pressure. We do not wish to downplay the risks: a loss of exchange-market confidence could turn a limited depreciation into a free fall. We believe, however, that the overall approach we have suggested clearly avoids the prospect of increasing inflation and thus establishes the key condition to ensure that the exchange-rate depreciation will be self-limiting.

Another possibility is a broader policy approach that would combine monetary and fiscal policy action with a temporary incomes policy. Commissioners consider such an approach in the conclusions to this chapter.

## Notes

1. Canada, Department of Reconstruction and Supply, *Employment and Income* (Ottawa: King's Printer, 1945), p. 23.
2. Canada, House of Commons *Debates*, April 19, 1959, pp. 2518–19.
3. Economic Council of Canada, *Economic Goals for Canada to 1970*, First Annual Review (Ottawa: Queen's Printer, 1964), p. 189.
4. Canada, Royal Commission on Taxation, *Report*, vol. 2, *The Use of the Tax System to Achieve Economic and Social Objectives* (Ottawa: Queen's Printer, 1966).
5. Canada, Department of Consumer and Corporate Affairs, *Policies for Price Stability* (Ottawa: Queen's Printer, 1968), p. 7.
6. See Canada, Task Force on Labour Relations, *Canadian Industrial Relations* (Ottawa: Queen's Printer, 1968).
7. Canada, Prices and Incomes Commission, *Inflation, Unemployment and Incomes Policy*, Final Report (Ottawa: Information Canada, 1972), p. iii.
8. See Canada, Senate, Standing Committee on National Finance, *Growth, Employment and Price Stability* (Ottawa: Information Canada, 1971).
9. *Ibid.*, p. xiv.
10. Canada, Prices and Incomes Commission, *Inflation, Unemployment and Incomes Policy*, Summary Report (Ottawa: Information Canada, 1972), p. 7.
11. It is important to recognize that if the boom in exports lasts, adjustment in manufacturing must occur, one way or the other.
12. John N. Turner, Minister of Finance, *Budget Speech* (Ottawa: Department of Finance, 1974), pp. 1, 6.
13. Bank of Canada, *Annual Report of the Governor to the Minister of Finance and Statement of Accounts for the Year 1975* (Ottawa: The Bank, 1976), pp. 9–11.
14. Another frequently cited example is that of Austria, which is not a member of the EMS, but has tied its currency closely to the West German Deutschmark. Some 35 per cent of Austria's trade is with West Germany, and many people consider the currency link an important factor in Austria's success in achieving low inflation and low unemployment. Austrian employers and unions are highly conscious of the implications of their pricing and wage setting for competitiveness with their chief trading partner.
15. The experience of these countries is reviewed in the proceedings of a symposium held by this Commission. See John Sargent, *Foreign Macroeconomic Experience: A Symposium*, vol. 24 (Toronto: University of Toronto Press, 1985).

16. In November 1984, the Minister of Finance stated the government's intention of achieving expenditure reductions which, presumably, would largely be translated into a deficit reduction in the order of \$10 to \$15 billion by fiscal year 1991. Such a reduction would, on the basis of the November 1984 projections, be sufficient to end the growth of the debt/GNP ratio. Professors Neil Bruce and Douglas Purvis of Queen's University, who have also called attention to the government-debt issue in studies for the C.D. Howe Institute and for this Commission, have proposed a deficit reduction of \$11 billion by 1988.

## **Related Institutional Issues**

The management of monetary and fiscal policy raises questions about the desirability of Canada's undertaking various institutional changes. Three of these issues are the close ties between our exchange rate and international interest rates, indexation as a means of adjustment to inflation, and the constraints on stabilization policy raised by Canada's regional and federated nature.

### **The Exchange Rate and International Interest Rates**

The steep decline in the value of the Canadian dollar in relation to U.S. currency, which began in the late 1970s and extended into the early 1980s, is regarded by some observers as a measure of Canada's economic weakness. Short-term fluctuations in the exchange rate are also sources of continuing concern in this country. In addition, Canadian interest rates, following the course of U.S. rates, climbed to unprecedented heights in our economy towards the end of 1981, and even after subsequent declines, they are still at high levels, particularly in real terms.

Most economists agree that both Canada's current low level of capital formation and its slow recovery from the 1981-82 recession are attributable, at least in part, to these high interest rates. It is widely recognized that these rates have been a world-wide phenomenon transmitted to Canada through international capital markets. The same high interest rates that have created difficulties in Canada have also done much to exacerbate, though they did not cause, the international debt crisis that emerged in 1982, involving certain developing and Eastern Bloc countries.

Because our system makes possible the virtually free flow of capital across our borders, plus a heavy flow of trade in goods and services, international monetary developments have wide-ranging and profound effects on the Canadian economy. As a result, some observers fear that our continued adherence to present arrangements must involve a substantial sacrifice of our ability to control our own economic destiny. In this section, we shall first consider the extent to which such concerns are justified and then examine various measures that might be adopted to address them.

#### ***The Exchange Rate***

Although no one could possibly claim that all has been well with our economy over the last decade, Commissioners nevertheless believe that attempts to gauge Canada's economic health by reference to the exchange rate with the U.S. dollar are both misguided and misleading. In our judgement, such a view is an outgrowth of past circumstances that no longer apply.

From the end of the Second World War to the mid-1960s, the U.S. dollar was the key currency of the international monetary system. During this period, the currencies of all our other trading partners were linked to the U.S. dollar by fixed exchange rates. The float of the Canadian dollar from 1950 to 1961 was an anomaly in the international monetary system. In an environ-



ment of generally fixed exchange rates, the Canadian dollar moved against these other currencies in lock-step with its movement against the U.S. dollar. Hence, Canadians came to think of the U.S. dollar exchange rate as synonymous with the exchange rate between Canada and the rest of the world in general.

Given the special circumstances of the time, Canadians were correct in this perception. Until the mid-1960s, particularly after the Korean War, the United States was successful in achieving a relatively high degree of domestic economic stability. Its economy during these years was, for the most part, almost inflation free. In consequence, any tendency of the Canadian dollar to depreciate against the U.S. dollar (or for the current account to be in deficit after Canada returned to a fixed exchange rate) could properly be read as a sign either that the terms of trade (that is, the relative values of the goods and services in which we trade internationally) were turning against us, or that undue inflationary pressures were building up internally. A tendency for the Canadian dollar to appreciate indicated the reverse.

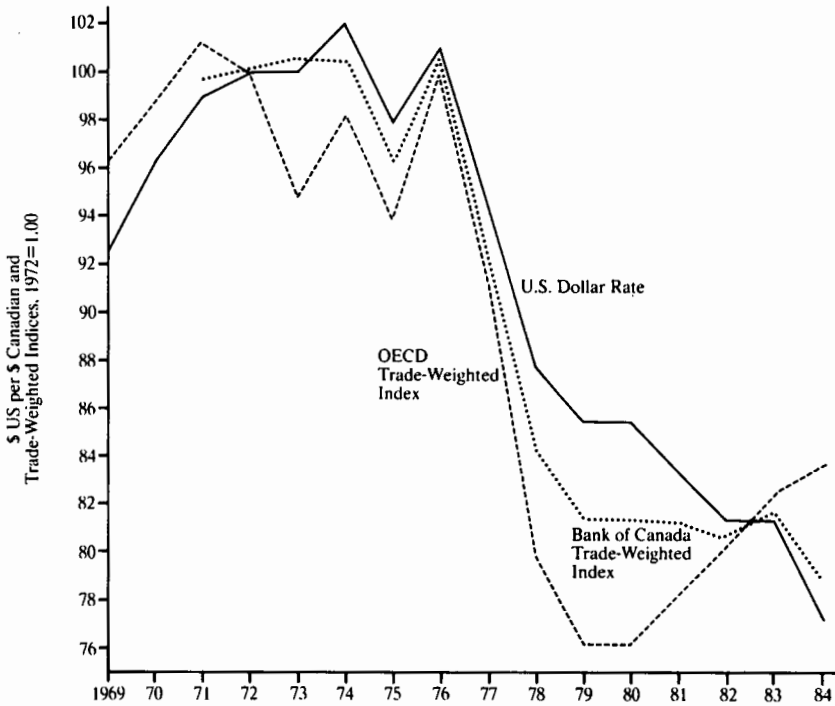
These special circumstances no longer prevail, however, and to continue to use the U.S. dollar exchange rate in this way would be inappropriate for two reasons. First, the rest of the world has not pegged its currencies to the U.S. dollar for more than a decade. The U.S. dollar exchange rate, therefore, gives an imperfect reading of what is happening to the Canadian dollar relative to the basket of currencies of the countries with which we trade. Secondly, the macro-economic performance of the United States over the last decade, like that of most other countries, has not provided a stable bench-mark and may not provide one during the next few years.

The difficulty with using the U.S. dollar exchange rate to measure the international performance of our Canadian dollar is illustrated in Figure 10-4, which shows the exchange rate of the Canadian dollar measured against U.S. currency and against two indices of our "effective exchange rate": that is, against two baskets of the currencies of Canada's trading partners. Even though the latter are heavily influenced by the U.S. dollar exchange rate (because the U.S. dollar makes up more than 70 per cent of the baskets of currencies in question), it is clear that the U.S. dollar rate and the effective rate have often behaved somewhat differently. Sometimes, as in the 1982-84 period, the U.S. dollar exchange rate has indicated that the Canadian dollar is a weak currency, while at least one of the trade-weighted rates has told a somewhat different story.

Figure 10-5 plots the trade-weighted exchange rates of major OECD countries from 1969 to 1984. It shows quite clearly that the Canadian dollar, far from being chronically weak, as the U.S. dollar exchange rate alone suggests, was indeed one of the world's stronger currencies during this period. Its depreciation against the U.S. dollar between 1980 and the present was symptomatic of the strength of the U.S. currency against virtually all currencies, and not of any specific weakness in the Canadian economy.

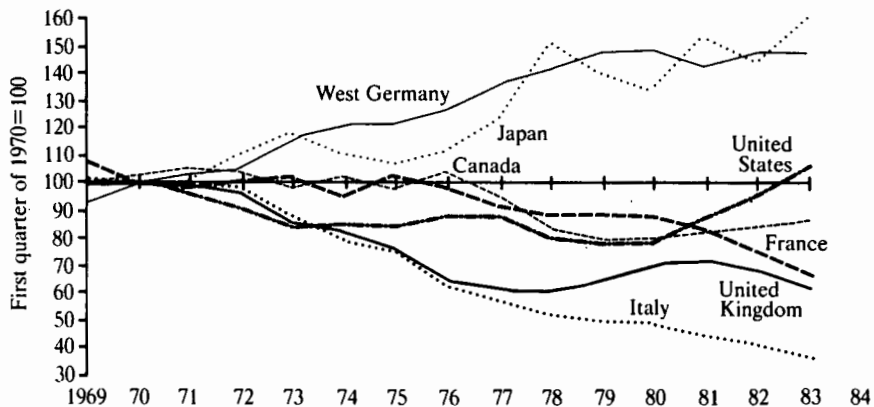
This is not to suggest, however, that the relative changes in the exchange rates of the Canadian dollar against the U.S. and other currencies were of no importance to Canada. Obviously, they were important, and it is reasonable to ask whether they required a concerted policy response by Canadian

**FIGURE 10-4 U.S. Dollar and Trade-Weighted Exchange Rates for the Canadian Dollar**



Source: OECD *Economic Outlook*, Dec.1984 Tables 32, R15, R16; Bank of Canada Review, Feb. 1985 and Sept. 1984.

**FIGURE 10-5 Effective Exchange Rates, Trade Weighted (Average of Daily Rates)**



Source: OECD *Economic Outlook*, July 1984, Table R16 and 33.

authorities. Exchange-rate fluctuations, regardless of their cause, have consequences for the producers and consumers of goods traded across national boundaries. In Canada, exports represent more than a quarter of national income, which means that one way or another, exchange-rate fluctuations affect virtually every Canadian. Moreover, since more than 70 per cent of our trade is with the United States, there can be no denying that the U.S. dollar exchange rate is an extremely important variable for all of us. We must, therefore, consider what response, if any, might be appropriate for the Canadian authorities to make to exchange-rate fluctuations.<sup>1</sup>

### *The Long Run*

The primary responsibility of Canada's fiscal and monetary authorities is to achieve a situation in which inflation is low and stable, employment is high and stable, and economic growth proceeds at a reasonable pace. Furthermore, Commissioners do not believe that over the long run, trade-offs are available among these goals. Exchange-rate policy must be judged against this background.

An exchange rate is the relative price of two currencies, a price influenced by factors affecting either of them. This elementary truth has important implications. If the authorities of all countries with whom Canada trades give similar priority to the pursuit of domestic goals, including that of low inflation, exchange rates will maintain long-run stability in the absence of changes in the real terms of trade. If Canada successfully pursues such policies, but some of its trading partners find a rise in domestic inflation tolerable, then their currencies will depreciate against the Canadian dollar, and vice versa.

The Canadian government cannot simultaneously commit itself to the pursuit of domestic economic stability and to the maintenance of a stable exchange rate against the currency of any country unless it can be certain that the other country's authorities will pursue the same domestic goals, and that the real terms of trade and other determinants of trade between the countries will not change. If our government cannot be certain of both points, it must choose between a commitment to domestic goals and a commitment to a constant exchange rate. Commissioners conclude, as we have already indicated, that Canada should opt for a flexible exchange rate against the currencies of other countries, including the United States.

This does not mean, we emphasize, that Canadian exchange rates should fluctuate constantly. It means, rather, that when faced with a choice between pursuing domestic goals and stabilizing the exchange rate over the long run, the authorities should firmly choose the former alternative. The main disturbances to exchange rates would then, in principle, result from monetary-policy initiatives in other countries that it would be unwise to imitate in Canada and from changes in the terms of trade. There is no reason to suppose that such shocks will come frequently or that when they do come, they will always be severe. A commitment to a flexible exchange rate amounts to a contingency plan for lessening the impact on the domestic economy of such shocks as they arise.

## *The Short Run*

The preceding argument is not controversial. Very few people would contend that the Canadian authorities should commit themselves in advance to importing excessively inflationary or deflationary policies from abroad, by attempting to peg the exchange rate. Neither is it difficult to agree that when the terms of trade (or other real factors) move against Canada, it is better to allow exchange-rate changes to effect the required adjustment of relative prices of our imports and exports than to force the change to work its way through the economy by way of internal adjustments, primarily in wages. As experience over the last few years has shown, however, the exchange rate also seems to be subject to all manner of short-run pressures, the origins of which are not obviously to be found in other countries' profound policy changes or in basic changes in the terms of trade.

Many analysts argue that a free market in foreign exchange contains within itself speculative forces that cause rates to move in ways that do not reflect underlying, long-term, economic factors but that, nevertheless, can undermine the efficient operation of an economy as open as Canada's. It is thus tempting to argue that the Canadian authorities, while continuing to give priority to domestic goals, should still leave themselves room to iron out short-run fluctuations in the exchange rate.

Since Canada returned to flexible exchange rates in 1970, the government and the Bank of Canada, through monetary policy and exchange-market intervention, have explicitly adopted such a policy stance on more than one occasion. The abandonment of money-growth targets in 1982, for example, was associated in the minds of many observers with shifting policy emphasis towards stabilizing the U.S. dollar exchange rate. This period was hardly one in which our exchange rate against the U.S. dollar was pegged. None of the policy actions obviously contravened the principles set out above. The exchange-market interventions and some of the monetary-policy actions were geared explicitly to smoothing out the exchange rate's movement towards the long-run value that the pursuit of domestic goals seemed to require. The questions we face here are these: Did such interventions achieve their aims? And will they be productive if governments continue to resort to them in the future?

Commissioners would first point out that such interventions are technically feasible. The pursuit of long-run domestic price stability requires that the growth rates of various domestic monetary aggregates remain within certain bounds. To the extent that attempts to smooth out fluctuations in the exchange rate require the expansion and contraction of the domestic monetary supply, they carry a possibility—but only a possibility—that those bounds might be violated. The links, over time, between the growth of monetary aggregates and the domestic price level are not so precise as to prevent the authorities from influencing the foreign-exchange market.

Intervention may also be desirable, at least in principle. The pursuit of domestic price stability dictates only a range of growth rates for various monetary aggregates, not precise values for the growth of specific aggregates, because the demand relationships for particular aggregates are not entirely

stable over time. A temporary drop in the demand for Canadian monetary aggregates will tend to increase the short-term domestic inflation rate implicit in a particular rate of growth of the supply of those aggregates; it will also tend to put temporary downward pressure on exchange rates. Monetary tightening to counter this downward pressure on exchange rates will reduce the growth rate of the monetary aggregates at precisely the right time as far as the pursuit of domestic goals is concerned.

A temporary shift in the demand for monetary aggregates is not the only source of short-term pressures on exchange rates that the Canadian authorities might appropriately offset. Temporary balance-of-payments problems (the result, say, of a bad harvest) might also best be dealt with by Bank of Canada intervention in the exchange market, as might problems caused by movements of short-term capital, based on false information or a speculative bubble. In each case, the source of disturbance is temporary and likely to be removed in the longer run. Yet if it is allowed to affect the exchange rate, the price signals given to the market sectors of the economy might be misleading. Thus, for example, a temporary fall in the exchange rate might lead to a general and inflationary increase in domestic wages.

The case for intervention in such circumstances is strong, but not overwhelming. Temporary fluctuations in exchange rates present the private sector with opportunities for profit; to the extent that speculators exploit these opportunities, their activities will tend to stabilize exchange rates without the aid of the monetary authorities. In fact, because of speculators' knowledge of the forces at work in foreign-exchange markets and their ability to weigh prospective developments, their actions might counterbalance a sharp drop in the exchange rate that would otherwise occur in response to some adverse, but probably only temporary, development in the market-place. Short-term, central bank intervention in the foreign-exchange market needs more to justify it than the existence of temporary pressures on the exchange rate. It requires either that central bank authorities have some systematic monopoly on knowledge that makes them able to judge better than private agents when and to what extent to intervene, or that the private sector cannot muster enough resources to intervene effectively, whereas the central bank can.

It is by no means obvious that either of these conditions holds at present. The private sector is clearly not lacking in resources. In fact, private international capital markets have grown to such an extent that central banks frequently complain that the resources at their disposal are insufficient to resist pressures emanating from this quarter. The private sector's knowledge is more debatable. During the last ten years, on a number of occasions, it has certainly seemed as if speculators were attempting to shift Canadian exchange rates to an inappropriate level. During this period, however, private operators have known full well that the Bank of Canada was ready to intervene in the foreign-exchange markets, and that knowledge must have had two effects on their activity. First, to the extent that the Bank was expected to iron out fluctuations that could otherwise have profited private agents, their incentive to learn about the causes of such exchange pressure and to speculate on its outcome must have been reduced. Secondly, private operators'

incentives to second-guess and speculate on the intentions of the Bank must have been increased.

We cannot use evidence generated by central bank intervention to infer how private markets might work in the absence of this activity, although it is worth noting that intervention was often minimal for significant periods, especially in the case of major European currencies. We presume that the actions of the market would be more stabilizing than is apparent when the Bank intervenes, but how much more is a matter about which reasonable people can disagree; so, too, is the question of how often the Bank's intervention is itself well conceived.

### *Interest Rates*

During the last few years, concern about the Canadian dollar's exchange rate, particularly in relation to the U.S. dollar, has become deeply associated in the public mind with concern about high interest rates. High levels of interest charges are widely believed to undermine the private-sector investment on which the long-run growth of output and employment depends. What scope do the Canadian authorities have for insulating the domestic economy from interest-rate levels that are too high to be compatible with these goals?

After 1982, the inflation rate in Canada fell dramatically, but nominal interest rates did not fall to the same extent. Moreover, even allowing for the fact that actual inflation and expected future inflation do not necessarily coincide, real interest rates, which are the chief matter of concern for capital accumulation and hence for growth and employment, have risen substantially since 1981. It is therefore worth considering the extent to which we can control real rates and the extent to which domestic control could be strengthened by institutional change.

One of the most striking developments of the last 20 years has been the internationalization of capital markets. Nowadays the level of real interest rates is determined primarily by the world-wide interaction of the supply and demand for capital. Consequently, a dominant influence on the real interest rates prevailing in any given country is the structure of real interest rates prevailing internationally. Of course, some countries, notably the United States, are bigger than others, both as suppliers and demanders of capital; thus their policies can affect the world-wide level of real interest rates. Canada, however, is simply too small to have any influence in these matters. As long as we permit capital to flow across our borders with almost complete freedom, the level of real interest rates prevailing in the world economy will be a major influence on our rates, especially in the longer run.

To specify the "longer run" is important because the Canadian authorities do have some short-run influence over domestic real interest rates as long as they maintain flexible exchange rates. If interest rates rise temporarily in the world economy, the Bank of Canada can choose whether to match the increase. The choice has immediate consequences for the exchange rate. If the Bank follows the increase, the exchange rate will remain unchanged. (More precisely, it will continue to take whatever path other factors determine for

it.) If the Bank does not match the increase, the Canadian exchange rate will fall, initially to the point at which investors conclude that the relatively low interest available on securities in Canada is more than offset by the appreciation they expect in the value of the Canadian dollar between the time at which funds are invested in this country and the time at which they can be converted back into a foreign currency. In other words, there is a short-run trade-off between the domestic level of real interest rate and the exchange rate.<sup>2</sup>

This trade-off is one of the benefits that a flexible exchange rate bestows on Canada, but we must emphasize its short-run nature. Canadian real interest rates cannot sink below those prevailing world wide unless the Canadian dollar is expected to appreciate at some time in the future. A temporary depreciation of the currency—that is, one that the exchange market confidently assumes to be temporary—can stave off temporary increases in world interest rates or delay the effect of more permanent increases. It cannot stave off the latter forever. In the long run—and that period is sometimes better measured in months than in years—real interest rates in Canada are broadly determined in world markets.

### *Intervention in Capital Flows*

Our interest rates are essentially beyond our control because of the freedom with which capital can enter and leave the country. Any attempt by Canadian authorities to establish long-run control over real interest rates in this country would require them to interfere in this free movement. We turn now to a consideration of two methods by which they could do so.

### *Exchange Controls*

Any intervention in the movement of capital across our borders, aimed at reducing real domestic interest rates below the world level would have to rest on a judgement that real international rates are higher than appropriate to our domestic economic circumstances. Since 1982, the view has been widespread that real interest rates are indeed excessively high. But deciding whether their level justifies the creation of the institutional machinery of exchange controls which, in themselves, would have an economic cost depends, at least in part, on a judgement about the permanence of the problem. Inflationary expectations were probably an important factor in creating these high rates, but they are also partly a result of a high rate of borrowing by the public and private sectors of the U.S. economy, in combination with a rather low rate of U.S. domestic savings. This problem is understood within the United States, as elsewhere, and we hope that it will be tackled in due course. To deal with a temporary problem, however, serious though it may be, by making a permanent institutional change is not an appropriate action. Hence, in Commissioners' judgement, the introduction of exchange controls would not be justified for Canada today.

### *An Interest-Equalization Tax*

Temporary problems do sometimes persist for uncomfortably long periods, and they do recur. Sometimes interest rates abroad are too high for too long to be staved off by a short-run depreciation of Canadian currency. Commissioners therefore take seriously suggestions that temporary measures to influence interest rates warrant consideration.

The principal measure to be considered is some form of interest-equalization tax, which would work by taxing at a premium rate all interest income earned outside the country by any person or corporation taxable in Canada. Thus it would tend to make domestic investors willing to lend to Canadian borrowers at a lower rate of return than they would expect to receive from foreigners.<sup>3</sup> In judging such a tax, one must assess both how much effect it would have on domestic interest rates and what other costs, if any, it would impose on Canadians.

Such a measure would reduce interest rates in Canada only to the extent that it diverted more domestic savings from flowing out of the country than it kept foreign savings from flowing in. Given that Canada has a high domestic-savings rate, an effective interest-equalization tax might indeed have this effect. However, it would also have other effects that are not quite so desirable. First, it would mean that all Canadian savers, not just those who had previously held their wealth abroad, would earn a lower rate of return than they would earn in the absence of intervention. Such a tax, then, would, in effect, be levied not just on speculators, but on all Canadian savers.

Secondly, to have any hope of being effective, the tax would have to be levied on all investment income earned abroad, no matter where, including that earned in less-developed countries. Under any other arrangement, it is difficult to see how investors could be prevented from re-routing, through intermediaries located in poorer countries, investments ultimately destined for the United States and Western Europe. There are certainly drawbacks to a measure which, if it is to be effective, would levy excess taxes on Canadian investments in countries that desperately need investment and that Canada wishes to aid.

Moreover, a theme throughout this Report has been that Canada, perhaps more than any other advanced country in the world, depends on maintaining a liberal international trading environment to ensure its future prosperity. Though trade in capital is not quite the same as trade in goods and services, the two are intimately related, and it is not obvious that we could promote further liberalization of our trade relations with the rest of the world at the same time that we were imposing restrictions on capital flows. An interest-equalization tax is, when all is said and done, a form of protectionism.

Finally, an interest-equalization tax would, by design, drive a wedge between international interest rates, which represent the return that the Canadian economy earns on savings supplied to the rest of the world and the interest rate facing individual Canadian decision makers. When decision makers act on the basis of a trade-off that differs from the trade-off actually facing the economy as a whole, the result is usually some distortion or cost in terms of economic efficiency.



## **Automatic Adjustment to Inflation through Indexation**

Although the approach Commissioners recommend for monetary and fiscal policy should be consistent with further reductions in inflation, the possibility that inflation may continue in the 3 to 4 per cent range cannot be ruled out. Such a rate of inflation, although moderate compared to the levels experienced over the past decade, nevertheless remains a potential source of inequity and economic distortion. Uncertainty about future inflation can produce further inequity and distortion. In principle, these problems can be alleviated by a set of institutional changes, most of which involve indexation in one form or another.

A study prepared for this Commission outlined the many institutional and private adjustments to inflation that have already been made.<sup>4</sup> The personal income tax has indexed exemption levels and rate brackets to avoid making taxpayers liable for higher effective tax rates if their real incomes do no more than keep up with inflation. The Consumer Price Index (CPI) has been used as an index for a number of government transfers to individuals: the OAS/GIS payments and Family Allowances. Unemployment Insurance (UI) benefits and accruing CPP/QPP pension rights are indexed to measures of earnings. Cost of living adjustment clauses (COLAs) have become quite common in wage contracts, especially those of fairly long duration. Many analysts see the increasing popularity of shorter maturity terms for financial instruments over the past decade as, at least in part, a response to increased uncertainty about inflation and, thus, about the real value of fixed dollar amounts maturing some distance into the future. Finally, the sharp rise of nominal interest rates in the 1970s is generally viewed as an adjustment to the considerably higher levels of actual and prospective inflation.

Despite discussion and tentative experiments, there is little or no formal provision for automatic inflation adjustments in four areas:

- Lack of inflation adjustment in business accounting reduces the usefulness of conventional financial statements as indicators of the ongoing viability and value of a business; it may bias a firm towards excessive dividend payments and mislead the public about the true level of profits. Accountants have, therefore, engaged in much study and discussion of alternative approaches to adjustment, and the accounting professions in the United States and Britain have taken initiatives to introduce inflation accounting, which involves adjusting inventory and depreciation allowances from the traditional "historical cost" basis to a "current" or indexed basis. It also involves adjusting nominal interest payments to reflect the decline in real value of outstanding liabilities that are fixed in dollar terms (which include virtually all business debt).

The Canadian Institute of Chartered Accountants recently made a start in this direction by issuing experimental standards for adjusting for the effects of changes in prices. It asked large firms to use these standards to provide supplementary information in their financial statements. These supplements are, however, voluntary, and so far, the number of firms issuing them has been insufficient to allow a clear assessment of their usefulness.

- The tax treatment of business income, interest income, and capital gains requires inflation adjustments similar to those needed for accounting purposes.<sup>5</sup> The tax authorities have introduced certain *ad hoc* offsets to the lack of formal inflation adjustment, such as accelerated rates of depreciation, the 3 per cent inventory allowance, and the \$1000 interest-income deduction. The extent to which these measures have offset the tendency of effective tax rates to rise under inflationary conditions is not entirely clear. It is clear, however, that the degree of offset they provide differs from one industry to another and among firms in the same industry. Formal inflation adjustment would result in a more neutral tax system. It would also lessen the incentive, which the unindexed system creates because of the full deductibility of nominal interest costs, to finance through debt rather than equity.

To introduce inflation adjustment would result in a loss of tax revenue, but the loss could be offset, at least partially, by eliminating the *ad hoc* provisions.

- Indexed financial instruments, such as bonds and mortgages, the principal value of which is linked to a price index, have received considerable academic attention. The British government successfully introduced bonds of this type in 1981, but no such instrument has been seen in Canada or the United States. In their absence, savers and borrowers inevitably face uncertainty about the impact of inflation on the real value of their assets and loans. In addition to eliminating this uncertainty, indexation would provide a straightforward way of eliminating the front-loading of real payment streams that is characteristic of conventional bonds and mortgages under inflationary conditions.
- Some limited indexing of private pensions exists in Canada, and the federal government has put forward proposals that would require at least a degree of indexation to be applied more broadly in the future. The lack of fuller indexation of private pensions is partly related to the absence of indexed financial instruments; private pension plans cannot guarantee fully indexed payments as long as they are not able to invest in indexed assets. Partial indexing might be achieved, however, by relating benefit levels to interest-rate levels, as under the federal proposal.

We Commissioners recognize the complexities that reform in each of these areas would entail. We recognize, as well, that indexation would not be an unmixed blessing. In addition to adding complexity, widespread use of indexing, particularly of wages and salaries, is destabilizing under some circumstances with some types of indices. For example, if Canada experienced a rise in import prices with no corresponding rise in export prices, the CPI would rise, although the economy's ability to pay for goods and services, domestic and foreign, would not have increased. In these circumstances, indexation would preserve some real incomes and not others, thus tending to create an inflationary spiral and concentrating the necessary downward adjustment on the unindexed sectors.

Nevertheless, we judge that the greater use of inflation adjustment or indexation would, on balance, be beneficial in all four of the areas listed. Use

of indexed bonds, for example, could lower the real cost of public-debt charges (because current, long-term, nominal interest rates appear to include a premium against the risk of renewed inflation). A period of low inflation and low inflationary expectations is, in our view, the least disruptive time to make this institutional change.

Moreover, the risks associated with certain inflation-adjustment mechanisms can be reduced by using indices more appropriate than the unadjusted CPI. The ideal index would not be sensitive to supply shocks, shifts in the terms of trade, or changes in indirect taxes. The National Accounts use a deflator to show price changes of the gross domestic product (GDP) at factor cost; the CPI can be adjusted to eliminate the impact of changes in import prices, indirect taxes and possibly food prices. Either might be an appropriate measure for the indexation of financial instruments, such as bonds or mortgages, of pension benefits, and of the taxation of business and investment income. These measures might also be considered as replacements for the CPI in providing standards for indexing personal income-tax exemption levels and tax brackets, and for at least some indexed transfer payments, such as Family Allowances.

### **The Regional and Federal-Provincial Aspects of Stabilization Policy**

Both the federal nature of Canada and the broad diversity of its several regions raise a number of issues about economic stabilization policy. Should the federal government differentiate stabilization policy by region? Do stabilization-policy actions discriminate against some regions? Has the post-war decrease in the federal share of total government expenditures and revenues diminished the federal government's ability to apply effective stabilization measures? Do we need greater federal-provincial co-ordination of stabilization policy?

#### ***Regional Differentiation of Federal Policy***

We turn first to the recurring question of whether the federal government should attempt to differentiate its fiscal and monetary policies regionally. At the most general level, substantial differentiation already exists if "regional fiscal policy" is taken to include all government revenues and expenditures. Such differentiation is effected explicitly through equalization grants and through expenditures by the Department of Regional Industrial Expansion (DRIE). The federal income tax and the system of transfer payments to persons also involve implicit regional differentiation, which is created by the relationship of the income tax and some transfer payments to per capita incomes, and by the relationship of UI benefits to unemployment rates. Notice that differentiated tax rates (or the depreciation provisions of the corporate income tax) provide an alternative means of achieving the objectives of current expenditures by the Department of Regional Industrial Expansion. This was the practice in the early 1960s, and it is currently a feature of the investment tax credit.

## *Regional Fiscal Policy*

Many people use the term “regional fiscal policy” in a more restricted sense, referring to regional differentiation of temporary variations in taxes or expenditures that are motivated by considerations of stabilization policy. Canada’s experience with regionalization of this type of policy has been limited. The most significant use has been the allocation of funds under direct employment programs.

Should this type of regionalization be expanded? Basic to any consideration of this issue is the fact that cyclical conditions in Canada’s regions generally vary in a similar way. (If this were not so, there would be few grounds for any stabilization policy at the national level.) When exceptions occur, it is usually because some export-oriented industry that is important in the region is experiencing particularly favourable or unfavourable conditions. Such a situation may well require fundamental structural adjustment rather than smoothing of a cycle. Moreover, the federal personal income-tax and personal transfer systems (particularly Unemployment Insurance) automatically help to stabilize fluctuations in regional conditions, regardless of whether they coincide with average conditions across the nation. Moreover, when unfavourable regional conditions obtained, the federal government has on occasion provided assistance directly to the industries involved.

Some observers suggest that the above-average unemployment rates that almost always prevail in certain regions indicate a continuing state of inadequate demand.<sup>6</sup> Their calls for a response of differentiated stabilization measures amount to advocating either:

- More-than-average stimulus to a “poor” region when general economic weakness leads to stimulative fiscal policy nation wide
- Exemption of a “poor” region from restrictive national policies when the national average of economic activity is strong.

Proponents of regionally differentiated stabilization policy have not reached consensus on which option they prefer. In fact, it is sometimes less than clear which of the two an individual proponent favours. Such lack of agreement is not surprising, since each option has its advantages at different points in the cycle. If the federal government provides “extra-strength” stimulus to a depressed region during a recession, there will be outcries when assistance is evened out as the economy recovers that “Federal assistance is being cut back more here than in prosperous regions.” Moreover, if a depressed region is exempt during periods of national restrictive policy, there will be criticism as the economy swings into recession that “Less is being done here to prevent the slide than in more prosperous regions.” Furthermore, although the second option might increase the average level of activity in the region affected, it would lead to less stabilization of activity there than would a policy of making no differentiation.

In sum, given Canada’s pattern of broadly similar cyclical conditions across regions, a region could gain from a differentiated fiscal stabilization policy during some phases of a cycle, but it would appear to lose from such a policy during other phases. Thus, the attractiveness, political or economic, of either option is doubtful from any longer-term perspective.

Implementation of both options, on the other hand, would go beyond stabilization policy. Together they would amount to permanent differentiation in favour of a given region: in other words, to an enlarged version of what is already done through the Department of Regional Industrial Expansion, equalization, and the national tax-transfer system. And although the pursuit of both options might raise the average level of activity in a region, it would do nothing to increase its stability. If such a permanent regional policy is considered desirable, it seems unlikely that differentiation in the types of taxes and expenditures generally used for national stabilization policy would prove the most effective instrument.

### *Monetary Policy*

Regional differentiation of monetary policy presents a rather different problem. Apart from any questions about its desirability, it is simply not a practical possibility within a common currency area. Given the mobility of financial capital, we cannot expect to maintain differential interest rates on general loans of the same risk class. This practical consideration does not, of course, rule out the use of interest-rate subsidies tied to the location of physical activity. Such subsidies could be provided through explicit government-expenditure measures; in principle, they could also be achieved through implicit subsidies, such as variations in banks' reserve requirements tied to their patterns of lending for investment in specific regions. In this Commission's opinion, however, such interest-rate subsidies are more usefully viewed as a part of fiscal policy rather than of monetary policy.

### *Regional Complexities*

Another issue here is whether national policies impinge in unintended ways on particular regions. Critics sometimes suggest that because tight monetary policy causes exchange-rate appreciation (or reduces depreciation than would occur under a mix of looser monetary and tighter fiscal policy), it has particularly severe effects on regions where raw-material exports are of above-average importance, particularly the West. Alternatively, heavy fiscal restraint tends particularly to affect Ontario and Quebec, where manufacturing industries are the most directly oriented to the domestic market.

These points seem to have some substance. It is never possible to find policies, alone or in a mix, that achieve perfect neutrality across regions. Nonetheless, the broad regional effects should be a factor taken into consideration in determining the monetary-fiscal policy mix.

### *The Relative Size of the Federal Sector*

Whether the growing size of the provincial-local sector has impaired the potential effectiveness of federal fiscal action for stabilization is an issue that has been considered at length in two discussion papers prepared for the Economic Council of Canada.<sup>7</sup> The author points out that while the provincial-local sector has grown significantly, relative to the economy and

relative to the federal sector, the federal sector has also grown slightly relative to the economy. Thus, as long as provincial-local spending is no less stable than the private sector spending it has displaced—and it is probably more stable—there are no grounds for concluding that the federal sector is less able to achieve any given degree of stabilization than it was in the 1950s.

This is not to deny that enhanced co-ordination of federal- provincial action would be helpful. The issue seems to be whether more formal approaches to co-ordination, perhaps in the form of formal agreements, would be superior to our current informal approaches: annual or more frequent meetings of Canada's eleven finance ministers plus occasional First Ministers' Conferences. The answer depends, in part, on whether we can realistically aim for more co-ordinated outcomes, given a system in which both levels of government have full responsibility for their own budgetary actions. (Institutional arrangements that might enhance federal-provincial consultation and co-operation are discussed in Part VI.)

A final issue is whether there are areas in which new institutional mechanisms for federal-provincial co-ordination might be particularly advantageous. A research study prepared for this Commission suggests that greater co-operation might enhance stabilization by achieving a counter-cyclical pattern of public spending on capital projects.<sup>8</sup> Capital expenditures constitute an attractive instrument of stabilization policy because their effects are concentrated in the particular areas in which the projects are located. The advantages of a co-operative approach arise because most such projects are carried out by provincial or local governments, but the responsibility for stabilization is viewed as primarily federal. More co-ordination in this area might be achieved either through a formal stabilization fund or through *ad hoc* measures, such as those that the federal government initiated in the early 1970s to stimulate provincial and local capital spending.

## Notes

1. Clearly nothing can be done, in a relatively free-trade world, about the fact that our real exchange rates may move differently from those of our individual trading partners. This fact poses particular problems of competition for individual industries and regions even when the average or trade-weighted real exchange rate can be viewed as reasonably appropriate.
2. This analysis can be summed up by the so-called "interest parity" relation, which suggests that under conditions of full capital mobility:
  - Interest rates in Canada = U.S. interest rates + expected change in Canadian \$ price of the U.S. \$.
  - An expected depreciation is represented by a positive value in the second term on the right-hand side (an expected rise in the price of U.S. \$ measured in Canadian \$) and thus leads Canadian interest rates to exceed U.S. rates. An expected appreciation is shown as a negative value in the same term and thus leads Canadian interest rates below U.S. rates.
3. Such a measure would, in principle, permit real interest rates in Canada to be maintained at lower levels than those ruling in the world at large. However, the fact that Canada, although currently running a balance-of-payments surplus, is still a net debtor on international account somewhat qualifies our ability to reduce domestic interest rates by this means.

4. Peter Howitt, "Indexation and the Adjustment to Inflation in Canada", in *Post-War Macroeconomic Developments*, vol. 20 (Toronto: University of Toronto Press, 1985).
5. Substituting the expenditure basis for the present income basis of personal taxation (and the cash-flow basis for the income basis of business taxation), as discussed earlier in Part III, would obviate the need to index the tax system.
6. However, as two research papers prepared for this Commission suggest, most of these long-lasting divergences in unemployment appear basically non-cyclical in nature. See Yves Rabeau, "Regional Stabilization in Canada" in *Fiscal and Monetary Policy*, vol. 21; and Robert L. Mansell and Lawrence Copithorne, "Canadian Regional Economic Disparities: A Survey" in *Disparities and Interregional Adjustment*, vol. 64 (Toronto: University of Toronto Press, 1985).
7. Pierre Fortin, *The Comparative Size of the Federal and Provincial Budgets and Economic Stabilization*, Discussion Paper 211 (Ottawa: Economic Council of Canada, 1982), and *Provincial Involvement in Regulating the Business Cycle: Justification, Scope and Terms*, Discussion Paper 213 (Ottawa: Economic Council of Canada, 1982).
8. Rabeau, "Regional Stabilization in Canada".

## **A Role for Incomes Policies?<sup>1</sup>**

Commissioners use the term “incomes policy” broadly, to refer to policies of intervening in wage and price setting in order to influence the overall rate of inflation.<sup>2</sup> This definition covers a wide range of policy initiatives, including exhortation or “jaw-boning”; guidelines for, or agreements on, acceptable levels for wage and price increases; statutory controls on wages and prices (or profits); and tax-based incomes policies (TIPs), which provide incentives for restraint through taxes or subsidies. It is usually governments that undertake such interventions, but in some countries, especially those which practise centralized bargaining between national labour and business organizations, incomes policies are privately administered under the government aegis.

The industrialized world has a rich post-Second World War history of experience with incomes policies from which we can draw some conclusions about their advantages and disadvantages. In Canada, these experiments included a number of attempts at voluntary restraint, one of which involved the creation of a special agency, the Prices and Incomes Commission of 1969 to 1970. In addition, mandatory wage and profit controls were a key part of the Anti-Inflation Program of 1975 to 1978, and wage controls were applied to public sector employees in the federal “Six-and-Five” program and in associated provincial programs which began in 1982, and some of which are still in effect. The United States employed incomes policies during the Korean War period (the Wage Stabilization Board of 1950 to 1953), during the Kennedy and Johnson administrations (the guideposts of 1962 to 1966), during the Nixon administration (the wage-price controls of 1971 to 1974) and during the Carter administration (the guidelines of 1978 to 1980). In many European countries, since the Second World War, periods with incomes policies of some form have been more common than periods without them.

### **The Potential Contribution of Incomes Policies**

A variety of proposals for incomes policies have been put forth. One distinction useful to make at the outset is between measures to be designated as permanent and those to be designated as temporary. The distinction is important because the underlying rationale is different for each approach.

#### ***Is There a Case for a Permanent Incomes Policy?***

Adoption of a permanent incomes policy is typically advocated on the grounds that the economy has an inflationary bias which makes price stability difficult or impossible to maintain. Two distinct arguments have been advanced:

- The decentralized setting of a vast multiplicity of wages and prices is socially inefficient because the workers and managers in individual firms do not take into account the inflationary costs that their actions impose on the rest of society. According to this view, a permanent incomes policy is required to deal with the divergence between private costs and social costs.
- The market power of large corporations and unions biases the economy towards inflation, making price stability and full employment incompatible.



Thus, a permanent incomes policy is required if full employment is to be maintained over time without generating inflationary pressures which would eventually make it impossible to maintain full employment.

Each of these arguments is worth examining in more detail.

### *The Prisoners' Dilemma*

The view that decentralized wage and price setting results in social costs is based on the following rationale:

*When business firms grant wage and salary increases in excess of the average growth rate of productivity in the economy, they impose a cost on society by producing the "public good" ("bad") called inflation. Yet they are not charged for doing so, and therefore do not take this social cost into account when they make their wage-salary decision.<sup>3</sup>*

Another explanation of the inflationary process is that individual wage and price setters are in what is often called a "prisoners' dilemma" situation. In one version of this story, two criminals are arrested, charged with murder and locked in separate cells. The police have sufficient evidence to convict both of a lesser crime, such as breaking and entering, for which they would each receive a five-year prison sentence. Without a confession, however, the Crown will be unable to obtain a conviction on the murder charge. Each prisoner is informed individually that if he alone confesses and testifies against the other, he will receive a light sentence, while his accomplice will receive the maximum 30-year sentence. If both confess, the prosecution will recommend 20-year sentences.

If the two prisoners could collude, their joint optimal strategy would be for both to remain silent and accept the five-year sentences. But they are in separate cells, and each must act independently. Each individual's optimal strategy is to confess because, by doing so, he will obtain a lighter sentence *whatever the other prisoner chooses to do*. Thus, although both recognize that they would be better off if they could co-operate, neither will do so because each is forced to make an independent decision about his action. In these circumstances, both would be likely to welcome any means that would allow co-operation for their mutual advantage.

There are many real-life examples of prisoners' dilemma situations. A simple, but telling, example can be observed in the baggage-receiving area of the Vancouver airport. On the floor around each carousel is a white line. If everyone stood behind the line (the co-operative action), each individual would be able to see her or his luggage arrive without pushing, crowding or undue waiting. Once one individual edges forward, however, the others will follow in order to see. Individual decision making leads to a tight crowd around the carousel station; those in the front line are being shoved and those behind are unable to see their baggage; thus everyone is worse off.

U.S. President Jimmy Carter once used a vivid simile to describe the prisoners' dilemma aspects of the inflationary process: "Inflation is like a crowd at a football game. No one is willing to be the first to sit down."<sup>4</sup> The

group as a whole prefers the co-operative outcome (everyone sitting down) to the non-cooperative outcome (everyone standing up), yet the non-cooperative outcome obtains.

Similarly, no one is willing to be the first to stop in an ongoing inflationary spiral of wage and price setting. Suppose that inflation has been running at approximately 10 per cent for some time, and the general expectation is that it will continue to do so in the future. Firms that wish to maintain constant relative prices for their products will, therefore, raise their prices by 10 per cent. Firms and workers who have agreed on a 3 per cent increase in real wages will settle on a wage increase of 13 per cent. With an average price increase of 10 per cent, real wages rising, on average, at the rate of productivity growth, the economy at the NAIRU, and a monetary growth rate per unit of output of 10 per cent, inflation will continue at the 10 per cent rate.<sup>5</sup>

This spiral could, in principle, be ended if all wage and price setters would simply not incorporate the expected inflation. For example, the firm planning no change in its relative price would maintain the current price, while the workers seeking a real wage increase of 3 per cent would accept a wage settlement of 3 per cent. Because the average increase in prices would be zero, there would be no subsequent pressure for higher wages to maintain living standards. Because wages increased at the rate of productivity growth, there would be no upward pressure on prices. The inflationary spiral would have ended. Without some co-ordinating or co-operative mechanism, however, all the wage and price setters will incorporate expected inflation in their behaviour, and the wage-price spiral will continue.

Clearly, the prisoners' dilemma applies to the inflationary process, but only with some restrictions. It is apt only if inflation is ongoing and the expected inflation rate differs from the desired rate. Furthermore, it only applies to the process of reducing the underlying rate to the desired rate; once the two rates are equal, the co-operative and unco-operative outcomes coincide. Individual wage and price setters are not permanently trapped in a prisoners' dilemma game. This suggests that the argument is stronger as a rationale for temporary controls than for permanent ones.

### *Secular Inflation*

The second rationale for a permanent incomes policy, sometimes called the "theory of secular inflation", is based on the view that the market power of large corporations and unions gives the economy a built-in inflationary bias that makes full employment and price stability incompatible.

Although this theory cannot be completely rejected on the basis of existing knowledge, it appears to be inconsistent with the proposition, accepted by monetarists and Keynesians alike, that the economy has a natural unemployment rate, a NAIRU. It also appears to confuse high prices with rapidly rising prices; market power might well raise prices or wages for some goods or types of work above the levels that they would otherwise reach, but it cannot result in their rising more rapidly. Furthermore, it contradicts empirical evidence

which indicates that price stability can be achieved when there is extensive underutilization of plant capacity and unemployment.

Presumably, the proponents of the theory of secular inflation are suggesting that the market power of large firms and unions has pushed the NAIRU above what they regard, under the circumstances, as a realistic level of "full employment". Thus, to prevent inflation from increasing, it may be necessary to maintain levels of unemployment and excess capacity that are higher than is socially desirable.

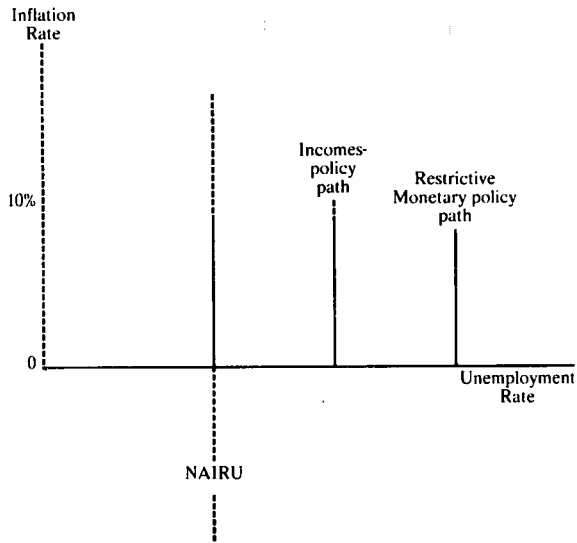
A permanent incomes policy is one option for reducing the NAIRU. This Commission's view, however, is that in the Canadian setting, this option is unattractive compared to others available, such as structural changes designed to improve the functioning of the labour market. Some countries, of which Austria is probably the best example, do appear to have used a more-or-less permanent incomes policy to achieve comparatively low unemployment rates without steadily rising inflation. However, the conditions that enable these essentially voluntary and privately administered policies to function do not exist in this country. A permanent incomes policy in Canada would have to be imposed and administered by government, either through statutory wage and price controls or through tax incentives. Co-operation of the federal and provincial governments would be required, for intervention in wage and price setting on a permanent basis lies outside federal jurisdiction. Such continuing intervention in our market economy would become extremely costly to our long-run prospects for income and employment growth. This Commission, therefore, rejects the institution of a permanent incomes policy as a means of dealing with inflationary pressures in Canada.

### *Is There a Case for a Temporary Incomes Policy?*

Although the case for a permanent incomes policy may be weak, the rationale for a temporary incomes policy under certain circumstances appears to be considerably stronger. Winding down an inflationary spiral, for example, requires a prolonged period of economic slack, especially if inflationary expectations are deeply entrenched. These high costs provide the rationale for alternative or supplementary approaches. If an incomes policy will help to achieve reductions in inflation that are not purely transitory, then actual and expected inflation will tend to decline more rapidly than would otherwise occur for any given level of unemployment at or above the NAIRU. The transition from high to low inflation will thus have lower costs in terms of unemployment, bankruptcies and lost output. Figure 10-6 compares the transition paths of demand restraint and an incomes policy in moving from a high to a low inflation rate.

The view that a temporary incomes policy could successfully aid the transition to lower inflation rates appears, at the present time, to be widely held in Canada (but less so elsewhere) among laity and experts alike. Indeed, one knowledgeable observer terms it a "middle-of-the-spectrum view, which may perhaps by now be seen as the conventional Canadian wisdom".<sup>6</sup> The fact that econometric studies indicate that the 1975-78 Anti-Inflation

**FIGURE 10-6 Alternative Approaches to Inflation Reduction**



Program had a significant independent effect on wage settlements has undoubtedly contributed to the development of this conventional Canadian wisdom.

### *Complementary Demand-Management Measures*

An important part of the rather sanguine view outlined above is the proposition that an incomes policy must be carefully co-ordinated with a program of monetary and fiscal restraint. This proposition has two parts:

- To maintain the economy at existing levels of output and employment, the rate of monetary growth must be reduced by the expected reduction in price inflation. Thus, for an economy at the NAIRU, with an ongoing inflation of  $x$  per cent, an incomes policy intended to reduce inflation to  $y$  per cent should be accompanied by a reduction from  $x$  to  $y$  per cent in monetary growth per unit of output. If this does not happen, monetary and incomes policies will be working at cross purposes. One of the errors of some control programs instituted in several other countries was the belief that incomes policy could, by itself, reduce inflation while monetary and fiscal policies remained expansionary.
- The credibility of an incomes policy will be enhanced if monetary policy goes further and makes some independent contribution to reducing inflation. Credibility is important in affecting inflationary expectations,<sup>7</sup> which suggests the need for operating the economy somewhat above the NAIRU. (The incomes policy path in Figure 10-6 illustrates this case.) The fact that the 1975–78 Anti-Inflation Program combined a gradual reduction in monetary growth with gradually declining norms for wage

increases may well account for its success relative to that of most incomes policies instituted elsewhere.

## **Incomes-Policy Options**

Although we have suggested that an incomes policy is likely to be a useful component of a package designed to make the transition from a high to a low inflation rate, we have not yet discussed the form of such a policy. Yet it is important to do so because an incomes policy can take one of a number of forms, each with a distinctive blend of positive and negative features. In this section, we examine the various possibilities, from voluntary mechanisms to wage-and-price controls and tax-based incomes policies, in order to determine the real options available to Canada.

### ***Voluntary Mechanisms***<sup>8</sup>

One form of incomes policy is simply to establish broad national agreement among business, labour and government on the rate of change in wages and prices. The form of such an agreement is a guideline, or set of guidelines, that all three parties will respect in the general process of collective bargaining and determining prices.

A system of voluntary restraint along these lines would clearly have tremendous advantages for Canada today. It would avoid the conflicts and tensions often generated by mandatory controls and would accord with the desire of many Canadians, including the members of this Commission, to avoid, as much as possible, extending state intervention into our economic life.

Other countries have been able to rely on voluntary mechanisms for lengthy periods. During the post-war period, a number of European countries devoted considerable effort to developing institutions and decision-making processes that encourage ongoing collaboration between government and major economic interests. Countries such as Austria, Sweden, Norway, Denmark and, for a briefer period, West Germany established tripartite systems, which emphasize central negotiation and accommodation among the three "social partners" – government, business and labour – on a wide range of economic policy issues. Although these systems differ in important details, the heart of each was the development of a voluntary incomes policy.

In the view of a number of observers, the success of these economies, particularly during the 1970s, has rested substantially on the effectiveness of these mechanisms in achieving social consensus. This section, therefore, examines the European experience with incomes policies and the prospects for developing such voluntary co-operation in Canada.

### ***The Tripartite Experience***

In assessing the European experience, it is important to focus on two basic points. The first is the economic and political conditions under which voluntary incomes policies have been established and have flourished. The

second is the actual effect of such policies on the economic performance of the countries that have used them.

Virtually every student of European tripartism stresses the extent to which its mechanisms depend on features of the economic and political structures of the societies that rely on them. One such pre-condition seems to be the centralization of both economic and political authority. National federations of employers and trade unions cover the great majority of enterprises and the work-force, and these federations are capable of negotiating and concluding agreements that bind their members. Similarly, government authority to reach and to fulfil understandings about public policy is not fragmented among different bodies or different orders of government.

Certainly, the countries with the most experience in voluntary incomes policy are centralized societies. Politically, they are either unitary states or, like Austria and West Germany, centralized federations in which authority over economic policy is concentrated at the national level. They are also centralized in the practice of collective bargaining. The Scandinavian countries and West Germany have well-established employer federations; Austria achieves a similar concentration through compulsory membership in official "Chambers". A parallel pattern has developed within organized labour. Countries such as Austria, Sweden, Norway and Denmark have both high levels of unionization and trade-union movements that are the most highly centralized in the Western world, in terms of the national federations, financial resources and authority over their affiliates and members. This framework complements a highly centralized process of wage formation; direct or indirect government involvement in the negotiations is a common feature.

A second factor that facilitated the emergence of consensus mechanisms in these countries was political alliance between the governing party and the major economic interests. Although conservative-leaning parties in some countries were sympathetic to tripartite initiatives, modern tripartism, for the most part, was the creation of Social Democratic parties that were closely allied with organized labour. Social Democratic governments (or coalitions of which they were a part) gave a high priority to full employment and expansion of the welfare state. In addition, they brought with them to power a faith in economic planning and a determination that labour should participate more equally with business and government in the processes of policy formation. Indeed, Social Democrats often appealed to the electorate on the ground that their special relationship with labour made them uniquely able to deal with trade unions, to generate wider social consensus, and to minimize social conflict over the directions of economic change.

The presence of institutional and political factors conducive to tripartite decision making has not, however, meant that in these countries, consensus on incomes policy was easy to achieve or to maintain. Rather, voluntary collaboration is subject to continuing internal strains and to occasional collapse. In general, tripartism reduces the autonomy of all three of the parties and can thus generate severe tensions, not only between the main participants, but also within the organizations that represent them. Such conflicts can become particularly strong if a significant segment of the

membership of any participating organization perceives its leadership to be co-operating in the adoption of unpopular measures. This danger is greatest for labour organizations. Leaders of even the most highly centralized federations often discover that the price of acquiescence in unpopular courses is erosion of their membership levels or serious challenges from below.

Because of these strains, the tripartite approach in Western Europe has gone through a number of phases, each characterized by an active search for consensus on an incomes policy, and each marked at its close by instability or breakdown of participatory arrangements. The first phase covered the period of post-war reconstruction. A second phase, which began in the mid-1950s, eroded—and in some instances, collapsed—in the late 1960s, in reaction to the effect of wage restraint. In the words of a recent study by the U.S. Brookings Institution, the policies of this period:

*... failed to provide significant rewards for cooperation. In particular, the distributional implications of most of the policies were not advantageous to labor, and efforts by national union officials to cooperate with the incomes policy objectives of their governments eroded the institutional authority of the officials over the rank-and-file membership. In fact, cooperation . . . in several countries brought about reductions in real wage growth that were followed by grass-roots revolt, wildcat strikes, and the wage explosions of the late 1960s.<sup>9</sup>*

The third phase of tripartism, which began in the very different economic circumstances of the 1970s, was often a complement, rather than an alternative, to deflationary policies. Thus, negotiations broadened beyond simple wage policy to a wider “social contract” in which governments offered workers various forms of compensation for their co-operation: wage indexation, price controls, tax reductions or increased social benefits, participation in management, improved legal protections for unions. These new arrangements, however, were unable to contain all the tensions. Breakdowns occurred in several countries, including Sweden and West Germany. Some countries, such as Britain, which had experimented repeatedly, if often unsuccessfully, with such initiatives, subsequently elected governments resolutely opposed to such forms of economic policy making. The predisposition to consensual forms of decision making may indeed be stronger in parts of Europe than in North America, but even in Europe, success is not guaranteed.

Over the last 20 years, however, no system of economic management has avoided periodic crises. The question remains, therefore, whether the voluntary approach, with all its internal strains, represents a better means than ours of managing a modern economy. An answer requires a judgement of the economic records of tripartite countries, and, unfortunately, systematic examination of the results of the consensus-seeking process is a difficult task. Existing studies tend to compare different countries over different time periods, and they often disagree on the contribution of incomes policies to the economic patterns they discover.

Some early examinations gave optimistic readings of the economic performance of countries that had adopted the tripartite approach. Recent studies, however, have produced important qualifications. One study

conducted for this Commission compared the performance of Austria, Sweden, Norway and several other countries with that of all the OECD nations over the last 20 years.<sup>10</sup> As a group, the tripartite countries do not seem to have performed better systematically, according to a wide range of economic indicators including economic growth, profits and rates of return, investment levels and productivity. Nevertheless, on the two measures central to this section, inflation and unemployment, these countries did fare better, although the experience of individual countries differed. Austria's record is impressive by any standard, but in Sweden and Norway, inflation was above the OECD average throughout most of the 1970s and early 1980s. Unemployment rates in each of these countries were consistently below the OECD average, though the record has eroded recently. The present rates are still enviable by Canadian standards, but they are high by the norms established in those countries during the 1970s and early 1980s.

Perhaps the most decisive effect of economic tripartism has been that on the frequency of strikes. During the years between the two World Wars and the period that followed the Second World War, the decline in rates of strikes, in countries such as Austria, Sweden and Norway, was truly spectacular, especially given their previous histories of conflict. Indeed, it is possible that tripartism's major contribution has been that of reducing the levels of industrial and social conflict.

What conclusions can be drawn from this brief survey? Clearly, tripartite co-operation should be a serious contender for the management of a modern economy. Tripartite mechanisms have served some countries well, especially in particular periods. If, in the future, Canada were to face major new inflationary pressures, a voluntary incomes policy would offer real attractions. Nonetheless, important qualifications are in order. The success of this approach in various European countries has been facilitated by economic and political structures and relationships embedded in the fabric of their societies, and, even then, the process has not always been easy to implement. Moreover, voluntary restraint has not proved a magic formula yielding guaranteed economic success.

### *Consultative Approaches in the Canadian Environment*

Clearly, the distinctive set of factors which have facilitated incomes policies in some European countries is, for the most part, not replicated in Canada. In the first place, Canadian institutions are characterized by the fragmentation of power, not by its concentration. In both economic and political institutions, authority is dispersed across competitive groups in ways that inhibit the centralized interaction that lies at the heart of tripartite systems.

In the political realm, our federal system divides authority over economic matters between the two orders of government. As a result, economic policy evolves through the independent, and often competing, actions of 11 governments. This constitutional division does not, of course, prevent federal authorities from discussing a voluntary restraint program with business and labour, but it does limit the prospects for reaching comprehensive agreement.



The federal government could not, for example, enter into any commitment concerning the salaries of provincial employees (who constitute a significant component of public sector unions) or the wide range of provincially regulated prices. A fully comprehensive agreement would, therefore, require discussions among business, labour, and Canada's 11 senior governments. The history of federal-provincial conferences does not encourage high expectations of such deliberations.

Fragmentation of authority also characterizes the institutions representing both business and labour in Canada. Business in this country certainly does not lack representatives. Some 480 nationally oriented business associations are in operation today; there are 102 associations representing various interests in the agricultural sector. In contrast to the European pattern, however, Canadian associations are fragmented, pluralistic and often competitive. The vast majority represent special-product interests, and they are not integrated into a central association that can speak for business as a whole. Even general associations, such as the Business Council on National Issues, the Canadian Chamber of Commerce, the Canadian Federation of Independent Business, and the Canadian Organization of Small Business, represent different elements of the business community. Moreover, these general groups are direct-membership associations that have no formal relationship with sectoral organizations, such as the Canadian Manufacturers' Association, or the many subsectoral associations; thus they cannot speak authoritatively for all business groups. (The closest Canada comes to central organizations is at the provincial level, where the Business Council of British Columbia and Quebec's *Conseil du Patronat* represent their constituents.) Most important, given their voluntary nature, these organizations would be hard pressed to bind their members to specific norms or even to commit the business community as a whole to a general course. We Commissioners believe that business associations have an important role to play in consultations on economic policy (a theme to which we return in Part VI of this Report), but they could do no more than encourage their members to adopt guidelines on wages and prices.

This pattern of dispersed authority is repeated in Canadian organized labour, which lacks the comprehensive centralized structures that sustain tripartism in Europe. In the first place, the proportion of the work force that is unionized is substantially lower in Canada than it is in Europe, and the problem of how to represent the interests of unorganized labour in any negotiations is controversial. Even more important is the pluralistic nature of the Canadian labour movement. Whereas West Germany, for example, has a total of 16 unions, Canadian unions are highly fragmented, and most of them are small. In 1980, the labour movement in Canada comprised 734 unions; two-thirds of these had fewer than 10 000 members, and 40 had fewer than 22 members. This organizational fragmentation is the counterpart of highly decentralized processes of collective bargaining. Although there is some variation from industry to industry and from region to region, most collective bargaining in Canada takes place between a single union and a single employer, in a single location. Even in spite of informal linkages among units,

the system ranks among the most decentralized in the world. Certainly it is in stark contrast to the centralized structures of nations that have adopted the tripartite approach. As one commentator says of Canadian labour:

*[Centralization] is minimal when compared to the nations of Scandinavia and Continental Europe ... where multi-employer structures are the rule. In Canada, only about 8 per cent of units covering 25 per cent of the workers in the sample bargain under multi-employer structures, and a significant portion of these units are local in scope. Again, this contrasts with Scandinavia and Continental Europe where industry wide bargaining at the regional or national level is common. Only the United States and the United Kingdom exhibit comparable levels of decentralization.<sup>11</sup>*

This fragmented structure generates a parallel pattern at the national level. The Canadian Labour Congress (CLC) is certainly the predominant central federation and the one best positioned to engage in broad national discussions. Nevertheless, the CLC cannot claim to speak for all organized labour because Canada has several separate federations. Moreover, the real economic power of most unions – the power to organize and bargain collectively – rests firmly with their locals and is exercised within a tradition of considerable local autonomy. The central federation remains a voluntary association of unions, regulating relations among affiliates and representing their collective interests to governments. Neither the executive of the CLC nor the executives of most of the affiliated unions have much ability to commit locals to movement-wide courses of action.

The implications of this dispersed authority become clear as soon as attention turns to a voluntary incomes policy. The discussions of 1976–77, on ending the mandatory wage and price controls then in place, foundered partly on this very point. As the author of a study prepared for this Commission observes:

*There was no precedent in Canada for a union central adopting a wage negotiating guideline. The CLC does not have the internal machinery for assessing any such standard or for generating consensus around it. Thus, even if the CLC leadership had seen such a standard as being in the interest of its members, they would have been making a radical change in their practices by endorsing it, and would have done so at considerable risk to themselves. They had no mandate from the 1976 convention to engage in this kind of activity, and would have been held accountable for their actions at the 1978 convention.<sup>12</sup>*

In contrast to the European pattern, then, the fragmented nature of our Canadian political and economic institutions constrains development of a voluntary incomes policy. The underlying political relationships among business, labour and government are different here as well. As we noted earlier, a key factor in the emergence of tripartism in Europe was the formation or control of governments by Social Democratic parties which were closely allied with organized labour. Union leaders tended to be in broad agreement with the overall direction of economic and social policy, which encouraged their co-operation in the risky business of incomes restraint. In Canada, however, the close relationship between organized labour and the

New Democratic Party (NDP), which has yet to win power nationally, complicates the process. Organized labour faces an enduring tension between its longer-term political objectives and co-operation with the government of the day, a tension that contributes to considerable ambivalence about the value of consultative arrangements generally. Indeed, within the labour movement as a whole, there remains considerable scepticism about whether anything that goes beyond the collective bargaining process will protect the interests of its members.

Given this institutional and political context, it is perhaps not surprising that attempts to develop a voluntary incomes policy have been unsuccessful in Canada. In 1969, the federal government appointed the Prices and Incomes Commission, which attempted to negotiate a package of commitments to restraint among business, labour and governments. After a series of exploratory meetings, however, the CLC and the Confederation of National Trade Unions jointly rejected the call for voluntary guidelines. The Prices and Incomes Commission continued its efforts, and at a national conference in February 1970, it managed to secure broad agreement from the business community to restrain price increases. However, a subsequent attempt to develop a guideline of 6 per cent for wage and salary increases failed, in the face both of continued opposition from organized labour and of the federal government's own acceptance of several public sector settlements that exceeded the guideline. Without meaningful commitments on wages and salaries, the program of price restraint expired at the end of 1970.

In response to another acceleration in inflation in 1974, the then Finance Minister John Turner attempted to achieve consensus with business and labour on the necessity of exercising voluntary restraint. He initiated a round of discussions which extended into a series of 20 meetings that came to be known as the "consensus talks". The exercise took place at two levels. At the political level, it involved the minister, business leaders he had selected, and officers of the CLC. The intent, on the government's side, at least, was to reach a common understanding of Canada's economic situation as a foundation for an agreement on appropriate measures of restraint. However, in April 1975, when the government proposed a voluntary guideline for wage increases of 12 per cent (up to a maximum of \$2400), with parallel limitations on increases in prices and profits, the CLC quickly rejected the proposal. In October 1975, the government imposed a mandatory controls program.

In September 1976, on the government's initiative, another round of consultations, known as the "post-controls talks", began to explore the possibilities of an early exit from controls (scheduled to run until 1978) and of agreement on post-controls policy. At the outset, the government, which was represented by the Prime Minister, several ministers, and a very few senior officials, met separately with business and with labour. In early 1977, however, business and labour leaders discovered that they had shared interests in an early end to controls and an improved system of consultation with government; thereafter, the meetings were tripartite. In June 1977, the government made specific proposals: controls would end in 1977, one year ahead of schedule, if business and labour would make certain commitments

on wages and prices; if these sectors did not respond within two weeks, controls would run their course. The CLC rejected the proposals and effectively terminated the consultation process.

### *The Scope for Voluntary Mechanisms*

Despite the undeniable attractions of relying on voluntary agreement in developing an incomes policy, the structure of our institutions and the complexities inherent in our political relationships limit the applicability of the tripartite model in this country. There is undoubtedly great scope for consensus-building mechanisms, especially mechanisms to support a continuing national dialogue about our economic problems and prospects. Nevertheless, our expectations for incomes policies must be conditioned by our experience. The desirability of consensus in a democratic society suggests that a voluntary program should always be the first preference of Canadian governments. Moreover, there are signs that the experience of the recent recession is promoting reconsideration of traditional attitudes towards incomes policies; if Canada once again faced serious inflationary pressures, incomes restraint might well receive much more sympathetic consideration than it has evoked in the past. Nevertheless, the prospects for developing an effective, purely voluntary, incomes policy remain uncertain at best.

### *Statutory Wage and Price Controls*

Given the lack of past success with voluntary mechanisms as a means of restraining inflationary pressures in Canada, government is left to choose among other policy options: statutory wage and price (or profit) controls; a tax-based incomes policy; or the application of macro-economic policy alone (a course that will almost certainly involve recession).<sup>13</sup> None of these courses is very appealing, but they are the options from which a government must choose.

Statutory wage and price controls are at least easy to conceptualize. They attempt to achieve by fiat what the structure of the economy makes difficult to obtain otherwise: a reduction in the actual rate of inflation, without a substantial increase in unemployment. They are often part of an inflation-reduction package that also includes monetary policy geared to reducing the growth of the money supply in step with reducing inflation.

If the public can be convinced that the reduction in inflation achieved by controls is not simply temporary, inflationary expectations will decline, and this development will result in less inflation for each level of unemployment. As long as appropriate monetary policy accompanies the controls, there is no reason for higher inflation to resume after the controls end and, therefore, no reason why the public should expect it to resume. In other words, using controls as part of a package to enable the economy to make the transition from a high inflation rate to a low rate does not involve "fooling" the public in any way. This point is important because potential success over the longer term depends on public expectations that inflationary pressures will not erupt again following the removal of controls.

## *The Benefits of Controls*

The potential benefits of temporary wage and price controls are clear. How well have these programs worked in practice? Attempts to control rising prices by government fiat have been made since Biblical days. The majority were largely unsuccessful because the source of inflationary pressures—an increase in the quantity of money or some other cause of excess demand—was not removed. Here, however, we are reviewing a much more sophisticated form of incomes policy, one in which the stipulation of norms for wage and price increases is accompanied by appropriate reductions in the rate of growth in the money supply.

The experience of Western nations, including the United States and the United Kingdom, with statutory incomes policies in the post-war period has not been overwhelmingly favourable. In many instances, the policy appears to have had little effect. In others, the results were only temporary, and the removal of controls was followed by a wage or price “bubble”. In many of these unsuccessful cases, however, the controls were not combined with the appropriate monetary restraint. To date, Canada’s 1975–78 Anti-Inflation Program (AIP) is probably one of the best examples of a statutory incomes policy introduced as part of a package that included restraint on monetary growth. Thus, the case for using wage and price controls rests, to a considerable extent, on this experience.

How successful was the AIP? To assess the effect of a controls program is not an easy task. Any reduction of inflation that occurred during the program could have had other causes. Alternatively, even if inflation did not decline (perhaps because of unavoidable increases in import prices), prices might have increased more without the controls. In other words, to establish the effects of the controls, analysts must determine what would have happened in their absence under otherwise identical circumstances. A number of empirical studies have addressed this issue. Most conclude that the AIP lowered wage increases by 2.5 to 4 per cent per year during the three years it was in operation. It is estimated that a comparable reduction in wage inflation by means of monetary restraint alone would have required unemployment rates of approximately 12 to 13 per cent, as compared with the 7 to 8 per cent actually experienced.<sup>14</sup>

The AIP’s effect on price increases was less impressive. The controls, which affected prices only indirectly, by putting restraints on profits, influenced only about 60 per cent of the commodities that make up the Consumer Price Index. The annual rate of change in the CPI declined from about 11 per cent in the two years before the introduction of the AIP to 7.5 per cent in the first year of the program and to 8 and 9 per cent respectively in its second and third years. The substantial drop during the first year came primarily from a reduction in food prices that had little to do with controls. In the second and third years of the program, on the other hand, substantial increases occurred in the prices of food, energy and imports, which were uncontrolled, and which offset the downward pressure on controlled prices. As a result of these unanticipated inflationary shocks in 1977 and 1978, the program did not fully achieve its objectives. However, these shocks would have tended to raise the

inflation rate in any event: estimates indicate that in the absence of controls, price inflation would have been 1 to 2 per cent higher in each of 1977, 1978 and 1979. The lag is notable. Although the program had little independent effect on prices in its first year because existing wage contracts were not abrogated, its effect on price inflation became greater as time went on; it peaked in 1979, the year following the end of the program.<sup>15</sup>

Profit margins declined during the AIP, but the fall appears to have resulted, primarily, from the slow-down in economic activity. In other words, the program's profit controls do not appear to have exerted any significant independent effect, at least for the economy as a whole. Thus, the AIP's effect on price inflation resulted chiefly, if not entirely, from the lower rate of increase it induced in labour costs through lower wage inflation. Empirical studies also indicate that no wage or price bubble developed in the post-controls period. The AIP experience, therefore, supports the view that direct wage and price controls can aid the transition from high to low inflation rates, a view in line with conventional Canadian wisdom.

No studies have yet been published about the effectiveness of the Six-and-Five program of wage controls in the public sector, implemented by the federal and most provincial governments in 1982 and 1983. There is no doubt that wage settlements in the public and private sectors did decline markedly in 1982. The difficulty is to determine how much of the decline was associated with the severe recession and how much with the AIP controls. A complete answer must await careful econometric research, but a simple inspection of the data suggests that the 6 per cent ceiling imposed in the first year of the federal program had some independent effect on public sector wage settlements. However, the 5 per cent ceiling used in the second year of the program was, in retrospect, probably too high; it seems to have resulted in some settlements that were higher than they would have been in its absence. This phenomenon illustrates one of the problems inherent in setting wage or price norms far in advance: these norms may turn out to be inappropriate for the economic conditions prevailing at the time they take effect.

### *The Costs of Controls*

Since virtually every Western industrialized country has adopted some form of incomes policy at various times, the cost of these policies is well documented. The costs associated with direct wage and price controls are by no means trivial. The administrative costs alone are considerable. Controls require a bureaucracy to monitor wage and price increases and to ensure compliance with the guidelines. (One of the most difficult and expensive tasks this agency faces is the costing of non-wage benefits.) Reporting procedures also impose a cost burden on the private sector. In addition, there are the costs of distortions associated with general wage and price limits, which block the relative changes that otherwise would have been made in response to economic forces in the market-place. A simple example illustrates this point.

Suppose that the economy has five commodities, each providing 20 per cent of GNP and each subject, in the absence of an incomes policy, to different

future price increases. An ideal incomes policy would scale down all the prospective increases by some common percentage, thus preserving the relativity of the planned changes and ensuring that no adverse effects interfered with the normal functioning of the economy. If the goal of the incomes policy were to reduce the inflation rate from 6 per cent to 3 per cent, the distribution of price changes would look like this:

Commodity	1	2	3	4	5
Proportion of GNP	20%	20%	20%	20%	20%
Planned percentage increase in price	2	4	6	8	10
Non-inflationary price increase	-1	1	3	5	7

The downward pressure would be proportionately the same at all points, maintaining the relative distribution of prices that would have occurred without controls.

In a normal program, however, the limits imposed are absolute. Suppose that the program sets a 3 per cent limit on price increases for all commodities. The distribution of price changes will look like this:

Commodity	1	2	3	4	5
Planned percentage increase in price	2%	4%	6%	8%	10%
Price increase under controls	3	3	3	3	3

The distribution of prices is now skewed from what the market-place would have achieved in the absence of the program. The control ceiling becomes a floor for some commodities and, for others, seriously undercuts proper value. Without controls, any given year sees considerable variation in negotiated wage settlements and price increases. A controls program that sets upper limits, even with allowance for costly administrative exceptions, is bound to alter this distribution in undesirable ways. Moreover, application of the ceilings to all settlements is bound to involve some inequities, which can undermine support for the program.

### *Constitutional and Political Issues*

Considering statutory wage and price controls for Canada raises various constitutional and political issues. Some of these issues stem from the division of powers between the federal and provincial levels of government. In effect, the division of powers limits the federal government's capacity to mount a statutory controls program, although the limits it imposes may not be as extensive as they seem at first thought.

Under normal circumstances, prices and incomes lie largely within provincial jurisdiction, as matters of "property and civil rights" fall within the powers of a province pursuant to section 92(13) of the Constitution Act, 1867. (The federal Parliament may, of course, legislate incomes policies in the federally regulated sector, which includes banks, airlines, railways, and

federal Crown corporations, and in the federal public sector.) However, the Anti-Inflation Act, passed in 1975, gave the federal government regulatory authority over prices, profit margins and wages in selected areas of the private sector. It also applied directly to the federal public sector, and it authorized the government to enter into agreements with the provinces to apply the AIP to the provincial public sectors. Administered by a federal tribunal, the Act was to be in place until 1978 unless the AIP was terminated earlier.

Several trade unions challenged the constitutionality of the Act. Responding that the legislation was grounded in its emergency powers, the federal government, in 1976, referred to the Supreme Court of Canada for a ruling. In a seven-to-two decision, the Court held that the Act was valid under the federal power to make laws for the "Peace, Order, and good Government of Canada" in an emergency situation, even in peacetime.

The case seems to have established several key points for the future. First, the Court will not ask whether there is evidence of an emergency, but rather whether there is a "rational basis" for the legislation. Secondly, extrinsic evidence, such as economic briefs or government white papers that bear on the issue, will be admissible as evidence that such a rational basis exists. Thirdly, the onus is on the opponents of the legislation to show that it has no rational basis. Fourthly, the Court will not consider the wisdom or likely success of the legislation. Thus, this case indicates that the federal Parliament may introduce a statutory wage- and price-control program in an emergency, provided that the legislation has a rational basis. Furthermore, the Court is unlikely to question the government's assessment of emergency conditions.<sup>16</sup>

One important limitation, however, is that emergency legislation is inherently temporary as the majority of judges firmly indicated in 1976. A permanent system of federal wage and price controls would have to be created by both levels of government or sustained through an amendment to the Constitution. Moreover, if the federal government resorted to a succession of "temporary" emergency programs, the nature of the "emergency" would become legally suspect, and difficulties in federal-provincial relations would certainly be exacerbated.

The Canadian Charter of Rights and Freedoms may also have some implications for the conduct of incomes policy. Such a policy restricts what collective bargaining can achieve, but it does not interfere with an individual's right to join or form a union. Thus temporary wage controls would not appear to contravene the freedom of association that the Charter guarantees. Most incomes policies, however, are selective in their coverage. For example, the AIP guidelines applied only to firms with 500 or more employees; firms whose employees bargained in an association with employees of other firms; construction firms with more than 20 employees; federal government and Crown-corporation employees; employees of participating provincial governments; and members of professions. A policy that covers only part of the labour force could be challenged under the equality provisions of the Charter.

Political complications also surround statutory programs. Controls are more likely to succeed if both business and labour support them, but to



attempt to gain that support raises the same set of constraints and tensions examined in our consideration of voluntary mechanisms. The fact that wages are easier to control than many prices may increase suspicions that the program is essentially anti-labour in nature. Even if a program is not intended to slow growth in real wages, it may have this effect if unanticipated inflationary shocks hit the uncontrolled-prices sector. Each occurrence of differential treatment makes it more difficult to obtain the co-operation and, at the extreme, the compliance of labour in future anti-inflationary efforts. (This was the fundamental logic of a wider and wider range of public policies that underlay the extension of the “social contracts” negotiated in Europe during the 1970s.)

Another problem arises from the fact that it may be politically difficult to lift established controls from certain sectors. Rent controls still exist in some provinces, for example, as a legacy of the “temporary” 1975–78 AIP.

More generally, incomes policies extend political authority over a wide range of private activity, dramatically increasing the state’s responsibility for the fate of the economy. They also transfer more of society’s distributional function into the public realm. Government has long been involved in income redistribution through the tax and social-benefit systems, but an incomes policy makes the state much more clearly the final arbiter of income differentials. The psychological difference is important. Although the allocative outcomes of markets may not always seem fair, the process is reasonably anonymous. An incomes policy, on the other hand, places distributional questions at the very centre of the government agenda and inevitably injects conflicts over these questions into the political process. The difficulty is that without broad social consensus on the ideal distribution of the nation’s resources, governments are hard pressed to fine-tune income differentials, especially in a period of stagnant or even declining real incomes. The danger is that the conflicts generated by the effort may seriously exacerbate political tensions throughout society.

There is no inevitability here. A number of European countries have managed to contain the pressures; indeed, incomes policies have probably helped to reinforce political stability in some: Austria is a case in point, although the contrary experience of Britain should also be noted. In Britain, the collapse of incomes policies, both statutory and voluntary, has often inflicted drastic consequences on their political authors: we cite the experience of the Conservative government of Prime Minister Edward Heath in February 1974 and that of the Labour government of Prime Minister James Callaghan in March 1979.

In addition to all these considerations are the costs deriving from interference with individual freedom. The fact that these are difficult to measure does not mean either that they are insubstantial or that they are unimportant.

### *The Case for Temporary Controls*

As part of a package including moderate demand restraint, temporary statutory wage and price controls are probably a better choice for society than

is severe demand restraint for a limited period or prolonged moderate demand restraint. Government may, however, be reluctant to choose statutory controls because of uncertainties about its constitutional authority to do so and because of objections from opposition parties and other groups, particularly organized labour. If inflation rises again, however, the government might do well to institute controls and so avoid the recession that must result from reliance on demand restraint alone. If it does initiate controls, it would do well to emphasize that the major beneficiaries of a successful wage- and price-control program are the workers who would otherwise have been laid off, the owners of firms that would otherwise have gone bankrupt, and the many others whose income and employment prospects would otherwise have been reduced. Recognition of these benefits would contribute to support for such policies.

### ***Tax-Based Incomes Policies***

The difficulties associated with demand restraint and statutory controls provide the rationale for proposals of tax-based incomes policies (TIPs). The measures suggested vary in several ways, but their central feature is that they create incentives for moderation in wage and price increases. On the one hand, like direct controls, these policies promise to avoid the high unemployment and lost output associated with controlling inflation solely by means of monetary and fiscal restraints. On the other hand, these policies attempt to use, rather than supplant, decentralized mechanisms of individual decision making and collective bargaining, preserving informational advantages and permitting freedom of choice.

Where statutory controls impose limits or norms on wage and price setters, TIPs would impose a set of rules within which firms and workers would be free to determine wages and prices. The rules would acknowledge the principle that moderation is in the self-interest of the wage and price setters and would likely include norms or guidelines for percentage increases in wages, prices, profit margins or some combination of these factors. The mechanisms could be taxes (the “stick” approach), subsidies (the “carrot” approach), or both. The taxes might be levied on firms through the corporate-profit tax or through a payroll or value-added tax; they might be levied on employees through the personal income tax or through a payroll tax. Whatever the rules, they would presumably apply only to the private sector. In the public and quasi-public sectors, the norms could be applied directly.

Both discrete and continuous TIPs have been proposed. A discrete TIP would apply the same penalty to all increases above the norm or the same reward to all increases below it. A continuous TIP need not have a specific norm; rather, it would provide a schedule of tax or subsidy rates that varied with the rate of wage or price increase. For example:

Observed Percentage Price Increase	Tax Rate on Corporate Profits
10	54
8	52
6	50
4	48
2	46
0	44
-2	42
-4	40

Combinations of discrete and continuous schedules are possible; for example, the policy could provide a schedule of tax rates for increases above a norm and a flat rate below it.

One often-cited TIP scheme would use the corporate income tax to stiffen firms' resistance to wage increases above a norm: the size of the penalty (the tax rate) would depend on the difference between the increase granted and the norm. TIPs which are more elaborate (and thus more costly to administer) would apply both to wages and to prices or profits. For example, employees who accepted wage increases within the guidelines might be granted a tax rebate, as might employers whose price increases or profit margins did not surpass a norm.

Fiscal neutrality (a net revenue of zero) would probably be a desirable feature of a TIP so that its purpose might be seen strictly as controlling inflation, rather than as raising revenues or providing a fiscal stimulus. The design could accomplish this goal by including both reward and penalty elements that approximately offset each other. Alternatively, a TIP providing a pure reward could be combined with an increase in the general tax rate to achieve fiscal neutrality.

### *The Advantages and Disadvantages of TIPs*

In considering the choice between statutory controls and TIPs, the point that deserves most emphasis is the similarity in their underlying rationales and in the difficulties they face. Both systems are appropriately viewed as complementary to, rather than substitutes for, policies of demand restraint intended to wind down an inflationary spiral. Thus both face the difficulty that apparent early success may tempt a government to abandon or reduce the demand-restraint part of the package. Both involve similar administrative tasks: measuring wage and price changes and non-wage benefits, and monitoring compliance with the policy. Since neither is likely to cover all wages and prices in the economy, some of the inequities and inefficiencies associated with partial coverage are bound to occur. Finally, both should be

used infrequently and on a temporary basis to deal with serious inflationary pressures.

In contrast to the extensive experience with various forms of statutory controls, experience with TIPs is limited. A number of countries have seriously considered implementing such a policy, but only Hungary has actually done so. Studies indicate that its TIP has succeeded in restraining inflationary pressures, but the implications of the Hungarian experience for economies that are not centrally planned are not clear. Thus, there is some uncertainty in the matter of how effective a TIP would be in reducing inflation, and in the matter of which design features are most desirable.

Of course, Western industrialized nations have accumulated considerable experience with tax incentives of various kinds that is clearly useful in predicting the effectiveness of a TIP. Furthermore, despite extensive experience with statutory controls, uncertainty remains about the probable effectiveness of such programs.

Although the effects of a TIP are more problematical than those of statutory controls, some of the doubts about both have the same roots. As we have seen, an ideal incomes policy would scale down all wage and price increases proportionately, preserving relativity and ensuring that the policy would have no adverse effects on resource allocation. To design a TIP that would preserve relativity would be difficult even if wage and price setting were fully synchronized. Some TIPs, however, would be more likely to approximate this result than others. In particular, a continuous TIP would exert downward pressure at all points of the wage- and price-change distribution, although equal pressure at each point would be difficult to achieve. In our earlier illustration of a continuous TIP schedule, for example, a firm anywhere on the range of distribution could lower its tax rate by lowering its price increase.

Most proposed TIPs, however, are discrete, with a schedule of tax rates for increases above a norm and a lower rate for increases below the norm. Such a policy could not preserve the wage- or price-change distribution because it would exert no downward pressure on increases that, in the absence of the TIP, would have been below the norm.

If we compare the effects of a discrete TIP with those of direct controls, we see that both policies alter the distribution of wage and price changes: direct controls cut off the upper part of the distribution, and a TIP cuts out a segment from the middle. It is difficult to say which effect is more serious, since both distort relativity to some extent. The advantage of the TIP is that it does permit large increases, which allows wage and price setters to deal with serious shortages or inequities.

Although a continuous TIP should cause little distortion in the relative wage or price structure, it penalizes firms with higher wage or price changes even if they reduce their increases from what they would have been without the TIP, and subsidizes those whose increases would have been at the lower end of the distribution continuum. Both fairness and allocative efficiency, therefore, argue against a substantial penalty (that is, a steep tax schedule), which limits the potential effectiveness of the program.

As in the case of direct controls, a TIP that does not abrogate existing contracts can achieve only modest reductions in the inertia affecting wage inflation. One source of this inertia is the long-term and overlapping nature of wage contracts. Another is the slow response to anti-inflation policies of expectations of future inflation. Theoretically, a TIP could reduce these expectations, but the people involved in wage and price setting are likely to be quite uncertain about the effects of an untried program. They are unlikely to lower their expectations until there is some demonstration that the program is reducing inflation. This argument suggests that the effectiveness of a TIP would be somewhat less than that of direct controls.

Several supporters of a TIP claim that its administrative costs would be much lower than those of direct controls because the program could be accommodated within the bureaucracy that administers the tax system. Commissioners believe, however, that the costs of administering a TIP are likely to be very similar to those of administering direct controls. First, there is no reason to believe that the relationship between the number of firms covered and the effectiveness of the program would be different for the two policies. Therefore, the degree of coverage judged appropriate would be quite similar. Secondly, both programs would involve monitoring wage and price increases and assessing compliance with the guidelines laid down; these are not currently activities of the tax authorities. Thirdly, the most difficult and expensive parts of these activities, the valuation of non-wage benefits and the measurement of price increases, would be common to both programs. For these reasons, it appears likely that a TIP on wage and price increases in Canada would involve a bureaucracy similar in size and requirement of skills and knowledge to that of the Anti-Inflation Board of the 1970s.

The social and political costs of a TIP are the most difficult to assess, but they may also be the most important. For statutory controls, as we have seen, these costs are likely to involve a general reduction in goodwill and a co-operative spirit; harm to the collective bargaining system; increased animosity and distrust of government on the part of the private sector; the direction of the efforts and resources of business and labour away from collective bargaining and towards the political arena; and the possible increased acceptance of government intervention as a method of solving economic problems. Because of its "voluntary" nature, a TIP might involve lower costs in relation to these last elements than would statutory controls. Although it would complicate collective bargaining and decentralized wage and price setting, it would not displace these important institutional features of our market economy.

A potentially important offset, however, arises from the reliance of a TIP on the tax system. Many observers are concerned that the tax system is already too complex. They believe that it must be simplified and made more equitable if it is to retain the social acceptance so important to a system that relies, to a considerable extent, on voluntary compliance. Whether a TIP would further erode confidence in the system is not clear, but the risk should be kept in mind. From the perspective of the federal government, a TIP has a clear advantage over statutory controls in that it could be implemented in the private sector without invoking emergency powers.

Commissioners see little reason, then, to expect that a tax-based incomes policy would be more effective in reducing inflation than statutory wage and price controls. On the other hand, a TIP has some advantages in that it allows collective bargaining and wage and price setting to proceed, and thus interferes less with individual freedom and market forces.

## Conclusions

On his 90th birthday, George Bernard Shaw was asked how he enjoyed old age. Shaw replied, "It's not bad when you consider the alternative." The issue of choosing the best policy for dealing with inflation and unemployment has to be approached in a similar fashion. Each of the incomes policies reviewed in this section, voluntary mechanisms, statutory wage and price controls, and tax-based incomes policies, has significant adverse aspects. We Commissioners have important reservations about all three. But to reduce inflation by demand restraint alone has, as we have recently been reminded, very substantial costs, many of which are borne by the weakest members of society. The most important conclusion of this section, therefore, is that there are sound reasons for carefully examining structural reforms that would facilitate the control of inflation and unemployment. In the absence of these structural reforms, governments will have to rely on fiscal and monetary restraint, possibly combined with periodic incomes policies, to counter inflationary pressures.

Commissioners have further concluded that incomes policies can help to reduce inflation provided that these policies are part of a larger package incorporating appropriate restraint in aggregate demand. Such a combination of policies can reduce the very substantial costs associated with the reduction of inflation through pure demand restraint; it might well be regarded as a more equitable way of spreading those costs across the entire population.

Living with inflation is not a viable option. The experience of the recent recession has again confirmed that it is possible to reduce inflation primarily by demand restraint, but only at high cost. Should a serious inflationary spiral again emerge, it would be desirable for business, labour and government to seek agreement on adopting voluntary norms for wage and price restraint. If such an agreement cannot be reached (as has been our past experience) consideration should be given to the temporary adoption of either statutory controls or a tax-based incomes policy.

## Notes

1. Much of this section draws on a study prepared for this Commission by Craig Riddell, "Dealing with Inflation and Unemployment in Canada: Options and Their Consequences", in *Dealing with Inflation and Unemployment in Canada*, vol. 25 (Toronto: University of Toronto Press, 1985).
2. As opposed to policies that attempt to control or prevent price increases in particular sectors, such as rent controls.
3. L. Seidman, "A New Approach to the Control of Inflation", *Challenge* 19 (July/August 1976), p. 40.
4. U.S. President Jimmy Carter, October 25, 1978, televised address.

5. In this and other examples in this section, we assume a constant average velocity of circulation of money.
6. J. Vanderkamp, "Wage and Price Controls: Some Basic Macro Issues", in *Wage and Price Controls*, edited by Greg Mason (Winnipeg: University of Manitoba, Institute for Social and Economic Research, 1983).
7. Indeed, some analysts claim that a credible commitment by the central bank to reducing monetary growth will lead to substantial reduction in inflation without causing the pain of a recession. The argument is associated with the "rational expectations" position reviewed earlier; if citizens believe that the central bank is committed to a restrictive monetary policy, they will realize that inflation will fall; thus their inflationary expectations will decline, leading to a decline in actual inflation.  
At the present time, this theory lacks substantial empirical support, although its proponents argue that the absence simply reflects the fact that the public has not viewed commitments to restrictive monetary policy as credible. Perhaps the experience of the 1981–82 recession, in which a restrictive monetary policy clearly results in a substantial reduction in inflation, will help the "rational expectations" mechanism to work better in the future.
8. This section draws on several studies carried out for this Commission. See Ken G. Waldie, "The Evolution of Labour-Government Consultation on Economic Policy", in *Labour-Management Co-operation in Canada*, vol. 15; and Leo Panitch, "The Tripartite Experience", William D. Coleman, "Canadian Business and the State", and Pierre Fournier, "Consultation in Canada: Case Studies and Perspectives", in *The State and Economic Interests*, vol. 32 (Toronto: University of Toronto Press, 1985).
9. Robert J. Flanagan, David W. Soskice, and Lloyd Ulman, *Unionism, Economic Stabilization, and Incomes Policies: European Experience* (Washington, D.C.: Brookings Institution, 1983), p. 4.
10. Panitch, "The Tripartite Experience".
11. Robert J. Davies, "The Structure of Collective Bargaining in Canada", in *Canadian Labour Relations*, vol. 16, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).
12. Waldie, "The Evolution of Labour-Government Consultation on Economic Policy".
13. Theoretically, the federal government could also choose to live with inflation. However, as Commissioners argued earlier, this is not a true option because in the long run, the goals of stable prices and full employment cannot be traded off.
14. See, for example, David A. Wilton, "An Evaluation of Wage and Price Controls in Canada", *Canadian Public Policy* 10 (June 1984): 67–73. The experience of 1981 to 1983 suggests that these estimates many overstate the extent of unemployment likely to be associated with this degree of reduction in the pace of wage increases.
15. *Ibid.*
16. The division of powers under ss. 91 and 92 remains intact during an emergency, but the range of concurrent federal powers is enlarged; this means that parallel provincial laws are more likely to be found to be inoperative. Under the doctrine of paramountcy, where a provincial and a federal law conflict, the federal law is paramount.

## **Structural Changes in Wage Mechanisms<sup>1</sup>**

If inflation should begin to rise again, Canada's choice of economic policy options, in the absence of structural reforms, is not highly appealing, as the previous sections have made clear. Accordingly, this section examines certain structural changes in our system for determining wages that could lead to improvements in our economic performance, especially in price stability and levels of employment. Commissioners' concern here is with the long term, and not with the short- to medium-term problem of how to accelerate the current recovery from recession. In keeping with this long-run perspective, we focus largely on an economy that initially is assumed to be operating in the NAIRU range.

For conceptual purposes, it is helpful to divide potential reforms into two groups. The first comprises structural changes designed primarily to reduce fluctuations in output and employment resulting from economic shocks, and thus to enable the economy to be maintained close to the NAIRU and its natural level of output, without generating rising levels of costs and prices. Most of the structural changes considered in this section belong to this first group. The second set of reforms consists of those that would lower the NAIRU, and the most important of these are reforms to Unemployment Insurance. These UI reforms are considered in Part V of this Report.

It is important to recognize at the outset that these structural reforms would have costs as well as benefits, and that their effects cannot be predicted with complete certainty. To decide which reform, if any, should be implemented is not an easy task. To neglect that task, however, might be most unwise: George Bernard Shaw's dictum about the alternative must be kept in mind. The key question is: Which alternative is likely to yield the mix of costs and benefits most advantageous to Canadian society?

Earlier, we outlined "prisoners' dilemma" situations in which decentralized decision making by individual actors cannot achieve the outcome that is in the best interest of society as a whole. Several of the institutional reforms dealt with here would probably not be in the individual interests of particular consumers, employees or employers. For this reason, these reforms are not necessarily those that a decentralized market economy will adopt independently. Their implementation, therefore, may depend on government's taking the initiative.

### **Full Employment in the 1980s and Beyond**

The consideration of potentially important structural changes is best begun by outlining the constraints that govern Canada's choices. This framework is necessary to an understanding of the effects of these changes, as well as to give some indication of those improvements in performance that can realistically be achieved. As we have seen, most economists now accept the proposition that in the long run, there is no trade-off between inflation and output or employment. The implication is that to accept somewhat higher inflation will not result in lower levels of other than temporary unemployment. In this sense, the NAIRU, the "non-accelerating inflation rate of



unemployment”, stands as a realistic definition of full employment. To aim to maintain the economy below the NAIRU would require continual increases in inflation. Thus, if we consider that the current NAIRU range of 6.5 to 8 per cent unemployment is unacceptably high in terms of economic hardship, wasted resources and social costs, we must adopt structural measures to reduce the NAIRU. If we accept this constraint, we can say that a full-employment goal is feasible, and that it is consistent with price stability.

At this point, it is worth recalling John Maynard Keynes’ dictum: “In the long run we are all dead.” To a considerable extent, what matters most for economic performance is the sequence of short periods during which the economy can, and typically does, deviate from full employment. The extent and duration of these deviations must be another concern of full-employment policy.

After the Second World War, the Western industrialized world gained confidence in the ability of governments to protect citizens from the vicissitudes of the business cycle by stabilizing output and employment. At least until 1980, the post-war period generally compares very favourably, by this standard, with the pre-war era. However, two points have emerged from our accumulated experience with Keynesian macro-economic policy. First, as we have seen, we lack the ability to fine-tune the economy by means of discretionary monetary and fiscal policy. It may be possible to avoid serious recessions, especially if inflation has been held in check, but the notion that governments can improve performance by attempting to smooth out cyclical fluctuations completely is open to serious question. Secondly, the commitment to using aggregate demand policy to prevent even minor downturns may well have imparted an inflationary bias to the economy. (This notion is part of the theory of secular inflation reviewed earlier.) One U.S. economist made these points in 1974:

*The present inflation is rooted deep in the nature of the mixed economy . . . We live in the age after Keynes. Electorates all over the world have eaten of the fruit of the tree of modern economic knowledge and there is no going back to an earlier age. High employment or full employment is everywhere a goal insisted on by the electorate of all political persuasions. A half-century ago there was no comparable political sentiment effective against incurring prolonged depression or even stagnation; rather there was often a preoccupation with the perils of inflation, of budget and foreign trade deficits. This shift in populist attitudes of governments necessarily shifts the odds against stable prices (and of course against falling prices). No longer can one expect half of the peace-time years to experience falling prices. If general price levels rarely stand still and often rise then the secular trend of prices must be upward on the average.<sup>2</sup>*

Recognition of these two points has turned economists’ attention from the use of stabilization policy for fine-tuning towards the structural characteristics of the economy that may contribute to the extent and length of deviations from full employment. This very useful change of focus has increased awareness of the fact that economies with different institutional characteristics differ in the extent of deviations from their normal levels of output and employment. This means that increased recognition of the limited ability of governments to

foresee economic shocks and offset them, in order to prevent cyclical fluctuations, as well as the possible inflationary consequences of doing so on a continuing basis, has given rise to the opinion that fiscal and monetary policies should be directed more towards longer-term goals. This proposition, in turn, implies that we should seek structural changes to bring the system to shorter and less severe deviations from full employment.

Change is the most pervasive feature of modern economic life; the economy is continually being affected by various disturbances, some of which are partially anticipated, while others are quite unexpected. The nature of the economy's reaction to these disturbances depends on its institutional features, as well as on other factors. Initial reactions to shocks can give rise to cumulative effects that result in cycles of overall economic activity. A change in aggregate demand, for instance, can be the result of any one of myriad circumstances: an increase in the quantity of money, increased expenditure on plant and equipment by firms, increased expenditure by consumers, or increased demand for our exports in foreign markets can provide a positive stimulus. Other circumstances can result in negative shocks. Thousands of positive and negative disturbances in aggregate demand occur weekly. Some of these disturbances cancel one another so that despite their importance for individual products, markets, firms and workers, they have no net effect on aggregate demand. In most instances, however, the net effect is not zero.

When a net increase or decrease occurs in aggregate demand, it partly affects wages and prices and partly affects output and employment. The result of a fall in aggregate demand of, say, 10 per cent may be a 10 per cent decline in output and a corresponding decline in employment with no change in prices; a 10 per cent fall-off in prices, with no change in output and employment; or some combination of the two. The extent to which the effect changes wages and prices (that is, has nominal effects) or output and employment (that is, has real effects) depends on a number of factors.

One of these factors is the position of the economy relative to its potential output or full employment. The effect on output and employment of an increase in aggregate demand is typically stronger if the economy is initially below potential output than if it is above potential output. A second factor is the extent to which participants in the market-place anticipate the change in aggregate demand. An important general proposition, though one that evokes considerable controversy, is that the more the public anticipates changes in aggregate demand, the less the effect those changes will have on output and employment, and the greater the effect they will have on wages and prices.

The relative time horizon also affects the division between real and nominal effects. Assuming that the economy is operating at the NAIRU, any permanent change in aggregate demand will, in the long run, alter wages and prices alone, but it may affect employment and output in the short run.

As we have mentioned, major supply shocks, such as the increases in energy or food prices that occurred in the 1970s, can also cause output and employment to deviate from their usual levels. These shocks are particularly troublesome in that they tend to raise prices and to reduce output and employment; that is, they can lead to stagflation. In addition, they may require a downward adjustment in real wages to maintain full employment.

The proposition that greater wage and price flexibility would lead to greater stability in employment and output has a long history. It is clearly valid where there is a change in demand in a single market, but, as Keynes noted, the effects on aggregate demand must be taken into account. If wage reductions made in response to a decline in aggregate demand lead to a further decline in aggregate demand, they may make employment and output less, rather than more, stable.

This is a complex issue, and it is not possible to explore it in detail here. We do note, however, that modern Keynesian and monetarist economists alike hold that greater wage and price flexibility would contribute to greater stability in employment and output, given stable monetary and fiscal policies. In addition, more flexible wages and prices would clearly reduce the costs of fighting inflation by demand-management policies. They would also weaken the case for using statutory wage and price controls or tax-based incomes policies to deal with inflationary pressures.

### **Reform of Wage- and Price-Setting Arrangements**

The response to demand and supply shocks depends to an important extent, on the manner in which the economy determines wages and prices. We turn, therefore, to a consideration of the influence of existing institutional mechanisms on the setting of wages and prices.

One of the most important institutional arrangements affecting the economies of Canada and the United States is the system of collective bargaining between unions and management. Among its important implications for wages and prices is the considerable rigidity or inertia it creates in both. The result of this rigidity is that the short-run effect of changes in aggregate demand falls primarily on output and employment, rather than on wages and prices. Wide and lengthy deviations from full employment, therefore, can and often do occur. If we effected structural changes that made wages and prices more responsive to demand, we could achieve greater stability in employment and output.

The inertia in wages and prices and its implications for employment have not gone unnoticed by policy makers. In his annual report for 1982, the Governor of the Bank of Canada raised the issue:

*Our economic system has exhibited stubborn resistance to a reduction in the rate of cost and price inflation. Why has the resistance been so stubborn?*

*Let me say first of all that I doubt that anybody is able to give a definitive answer to this question. It involves an aspect of the functioning of Canadian society that has received far too little consideration . . . I think it likely that a thorough examination of the question would point to policy initiatives of one kind and another that would improve appreciably the prospects for employment and output in Canada.<sup>3</sup>*

Recent research by macro-economists identifies several features of North American wage contracts as an important source of inertia in costs and prices. Union contracts in Canada and the United States often run for two to three years. They typically specify the wage rates to be paid throughout their

term; thus these wages are not contingent on the economic conditions prevailing at the time the wage is paid. The main exception is cost-of-living/adjustment provisions, which make wage levels contingent on only one dimension of economic conditions, that is, the increase in the Consumer Price Index. In addition, collective bargaining agreements overlap one another; in an average year, about half of all settlements are renegotiated, with only a modicum of seasonality in the bargaining calendar.

In brief, we are interested here in three components of collective bargaining in North America:

- The overlapping of contracts
- Predetermined duration of contracts, which is often considerable
- Predetermined or non-contingent wages.

For a number of reasons, these features are believed to be an important source of persistence in wages and prices.

First, an obvious factor in the sluggish response of the average wage to changes in economic conditions is that only some wages are reset in each contract period. The observed change in the average wage is affected, not only by new settlements reached during the period and by increases under cost-of-living/allowance (COLA) provisions, but also by the proportion of wages that do not change and by implementation of deferred increases as provided for under existing contracts. (The size of the deferred increases was determined earlier, when the relevant contracts were negotiated.)

The second obvious way in which these institutional features cause wage rigidity results from the long-term nature of contracts. The economic conditions prevailing at the time of negotiations have considerable influence because they can shift relative bargaining power by affecting the cost of a strike or lock-out to the firm and to the workers. However, negotiators also look to the conditions that they expect will prevail during the term of the contract. Thus changes in current economic conditions, especially those that are regarded as temporary rather than permanent, exert less influence on long contracts than on short contracts.

The third and most subtle, but possibly also most important, reason that these institutional features appear to be a major source of inertia consists of the interaction between the overlapping of union contracts that cover different workers in similar or related industries or occupations and the importance attached by firms and their employees to relative levels of compensation. In setting wages, firms and workers take into account the compensation levels prevailing and expected to prevail in similar industries and occupations. This process implies looking both backwards at wages set previously and forward to negotiations that will occur during the course of the group's present contract. It tends to produce considerable persistence in the pattern of wage settlements, which, in turn, significantly affects the level of employment and output. If recent wage increases have been running at, say, 10 per cent, and a decline in demand occurs, it will be difficult, at least initially, for firms to persuade union leaders and workers that substantially reduced settlements are now in order. As a result, much of the decline in aggregate demand will be met by reductions in output and employment.

The fourth source of inertia is the fact that contracts both extend for a predetermined period and provide for rates of compensation that are not contingent on all relevant economic factors. Whatever negotiators' expectations about the future, they almost always prove incorrect to some extent. Yet a contract with a predetermined duration and pre-set wage rates means that any adjustment for unanticipated economic conditions must normally be postponed until it runs its course.<sup>4</sup> Empirical evidence indicates that this lag makes "catch up" important in many subsequent contract negotiations.

The problem of unanticipated economic conditions can, of course, work both ways. Many wage contracts signed in the late 1960s and early 1970s clearly failed to anticipate subsequent large increases in inflation. Thus, real wages were lower than anticipated, and employees were dissatisfied. The opposite occurred in the early 1980s: contracts negotiated just before the beginning of the recession anticipated both a higher level of inflation and stronger economic activity than actually occurred. Employers were squeezed as they paid higher real wages and faced weaker market conditions than they had expected.

These two cases point to one of the disadvantages of a long-term, fixed-wage contract. The terms agreed to at the time a contract is negotiated may turn out to be inappropriate to the economic conditions over the life of the contract. The negotiation of subsequent contracts must then provide adjustments. As a consequence, the process of adjustment to the original change in economic circumstances is spread over time.

The foregoing considerations indicate that long-term overlapping contracts cause the short-run effect of changes in aggregate demand to fall primarily on output and employment, rather than on wages and prices. Empirical evidence also supports this view, as illustrated by differences in wage-setting institutions in industrialized nations. Canada and the United States are unique in their reliance on long-term overlapping contracts. Japan and several European countries make use either of shorter contracts or of more closely synchronized bargaining; labour relations in the United Kingdom are characterized by short contracts without a predetermined expiry date and by non-synchronized negotiations. If long-term overlapping contracts are an important source of inertia, the response of wages and prices to aggregate demand should be more sluggish in North America than in Europe and Japan. Furthermore, if sluggish wage adjustment results in greater variation in output and employment, these real variables should deviate more from their trend or normal levels in North America. Similarly, if synchronization is important, Japan and the United Kingdom should show significant differences in degree of responsiveness of wages, prices, output and employment.

The general conclusions of several cross-country comparisons confirm these expectations. Nominal wages display substantially less variability in the United States than they do in either Britain or Japan, while output and employment display substantially more variability. In Canada, where the degree of wage inertia resembles that of the United States, the variability of output and employment is more like that of the United States than it is like

that of Japan or the United Kingdom. Japan, with its short contracts and synchronized negotiations, displays the greatest variability in nominal wages relative to the variability in employment and hours worked.<sup>5</sup>

That North America's long-term contracts are a post-war phenomenon suggests that analysis of the historical record might also cast light on the relationship between wage flexibility and economic performance.<sup>6</sup> The empirical evidence tends to confirm the suggestion of many observers that wages and prices have become less responsive to variations in aggregate demand during the past 40 years. The most striking study is that of a U.S. economist who finds that wage and employment variability in the United States before the Second World War was similar to that of Japan and the United Kingdom. Only in the post-war period did the United States display less variability in wages and greater variability in employment and hours worked.<sup>7</sup>

Other cultural or institutional differences among countries appear to account for some of the observed differences in wage, price, output and employment variability. As we have previously noted, several European countries have more centralized bargaining structures than Canada and put greater reliance on voluntary incomes policies. In Japan, an important factor is the substantial use of bonus payments. Nonetheless, the evidence suggests that long-term, overlapping, wage contracts are an important factor in creating wage and price rigidity.

Additional evidence comes from macro-economic models. Simulations carried out in 1982 showed that a policy of shortening contract lengths was significantly more effective in lessening the unemployment costs of reducing inflation than either statutory wage and price controls or a tax-based incomes policy.<sup>8</sup> In a study carried out for this Commission, two different econometric models indicated that in general, greater wage and price flexibility would reduce the deviations from equilibrium levels of output and employment caused by a change in aggregate demand.<sup>9</sup>

Thus, the analysis suggests that we could use shorter wage contracts and/or synchronized negotiations to decrease the inertia in our wages and prices, and to permit greater stability in employment for the future. Of course, such a change would also reduce stability in nominal wages and prices. This is the nature of the trade-off that we face in a world in which the economy is often hit by disturbances that governments, central banks and the public can anticipate only very imperfectly.

Should these structural changes be made? Let us examine a number of factors that need to be taken into account in attempting to reach a judgement. First, as already noted, decreasing contract duration and synchronizing negotiations would have symmetrical effects: they would make inflation-reducing measures less painful in terms of unemployment, but they would also make the economy more prone to rapid increases in wages and prices. Our view is that the symmetrical nature of these changes is not a strong argument against them. Indeed, their adoption would make more quickly apparent the consequences of overly expansionary policies. An unfortunate consequence of the existing institutional arrangements is that the short-term

costs of such policies are deceptively low and so create a temptation that the economy would be better off without.

This point deserves some elaboration. With the output of the economy initially at its potential, the first result of a rise in aggregate demand—especially an unanticipated rise—would primarily be increases in output and employment. Since the inflationary consequences would be small at this point, a government might be tempted to pursue such a policy, especially as an election approaches. However, the gradual overheating of the economy sets in motion forces that tend to raise wages and prices and to lower output and employment. The stronger state of product and labour markets leads to some initial increases in prices and earnings, which then feed into higher wages, either directly through COLA clauses or indirectly as “catch-up” pressures affect new settlements. The higher wages, in turn, raise the costs of production, causing further price increases. The seeds of an inflationary spiral have now been sown.

Shorter wage contracts and/or synchronized negotiations would make wages and prices respond more quickly to a situation of excess demand, thus signalling more rapidly the inflationary implications. As a consequence, the costs of excess demand would be obvious sooner. Policy makers would be supported by tangible evidence as to why restraint measures were required. Structural changes in wage settlements, then, could help to arrest inflation more quickly than it could otherwise be halted. Thus the fact that the proposed structural changes would make the economy more prone to increases in wages and prices does not constitute an argument against their adoption.

Before we seriously consider changing these institutional arrangements, however, we need to ask why labour-market participants continue to choose overlapping fixed-wage contracts. Obviously, these institutional arrangements reflect firms' and unions' preferences; otherwise they would choose an alternative. One obvious reason is a desire to economize on the costs of negotiations. From 1967 to 1981, negotiations in all Canadian industries lasted an average of six to ten months.<sup>10</sup> Although negotiating periods would undoubtedly be reduced if contract periods were shorter, these data do suggest that the direct costs of negotiations may be large, and that contracts covering a period shorter than one year are not likely to be feasible.

Another explanation for the wide use of long-term contracts is that they constitute a method of avoiding or reducing industrial disputes. Canadian labour laws prohibit strikes and lock-outs during the term of a collective agreement, and since the expiry date of the contract is known, the firm and its customers can take such action as inventory accumulation, to minimize the potential costs of a strike; with shorter contracts, negotiations would occur more frequently. The probable effects on collective bargaining disputes need to be considered. Recent evidence indicates, however, that the probability of a strike's occurring varies directly with the length of the previous agreement.<sup>11</sup> Thus, to shorten contracts would reduce the probability of a strike's occurring in any set of negotiations, although it would increase the number of negotiations. Employers also seem to prefer long-term wage contracts to assist

their planning and to facilitate use of the marketing advantages of security of supply.

Thus, overlapping multi-year agreements seem to have become an enduring feature of North American labour markets. In using them for wage-setting, however, individual firms fail to take into account the social costs of the wage and price inertia they generate. That is, in negotiating a long-term, fixed-wage contract, the two parties do not take into account the costs imposed on society as a whole through macro-economic instability in employment and output. Furthermore, no single firm or union has any incentive to deviate from this type of contract. To do so would neither help the individual parties nor contribute much to aggregate employment stability. Improving employment stability would require a co-ordinated change by a significant number of firms and unions.

What we have here is another prisoners' dilemma: a co-ordinated change could make all parties better off, but individual parties cannot achieve the same result independently. This suggests that there is a public policy case for altering the institutional arrangements. To make the case convincing, however, it must be shown that the change would decrease the costs to society as a whole, without substantially decreasing benefits to the parties involved in wage and price determination. This seems to be the situation. Although the private benefits of long-term contracts are not small, including as they do such items as reduction in the costs of negotiation, avoidance of disputes, and contributions to long-term planning and security of supply, they must be compared to the costs imposed by wage and price inertia, which are clearly large.

Thus there seems to be a case for public policy to encourage shorter contracts or possibly more closely synchronized wage negotiations. An intermediate possibility is a flexible wage provision within the context of a long-term contract. The entire contract need not be renegotiated each time wages are discussed. Rather, employers and employees could negotiate long-term contracts on working conditions, non-wage benefits, and other particulars, but negotiate wages more frequently.

### ***Wage Indexation and Gain Sharing***

That wage rates are predetermined in most collective agreements suggests another way to reduce wage and price inertia: make wages or earnings contingent on realized economic conditions, rather than set them in advance. Two kinds of contingent-compensation systems can serve. In wage indexation, employees are paid an hourly wage, the size of which is contingent on some measure of realized economic conditions. In a "gain-sharing" or "shared-compensation" system, employees receive a share of the profits or revenue of the firm. As we shall see below, the latter is a more fundamental reform.

#### ***Wage Indexation***

The most common form of wage indexation is the COLA clause, which links wages to changes in the cost of living. Much less common are schemes that



index wages to variables related to the employer's ability to pay: the wages of gold miners, for instance, might be related to the price of gold or those of steel workers to the price of steel.

Wage indexation is one way of dealing with uncertainty. Uncertainty about future economic conditions means that both employers and employees face risks. Wages set in advance will turn out to be too high for some economic conditions and too low for others. If both employers and employees observe economic conditions that they agree are relevant, both parties can gain from making wages contingent on realized outcomes. Thus a wage-indexation system has potential benefits.

Offsetting these benefits are the additional costs of negotiating, writing up, and enforcing an indexing arrangement. Although these costs may not be trivial, especially for the first such arrangement, they do not appear to form a serious obstacle. A more serious difficulty seems to be finding observable variables that are closely related to the conditions relevant to the firm and its workers. There are two problems here. One is the inevitability of imperfect information: neither party will have complete information about all the relevant economic conditions. Thus, the wage cannot be made fully contingent on realized conditions. The parties are restricted to a second-best arrangement in which the wages are made contingent on some specified variables. This clearly reduces the potential benefits of an indexed system. Another frequent problem is asymmetrical information: one party has better information than the other about some key aspects of the relevant conditions. Typically, the firm has superior information about demand-side or "ability-to-pay" variables, such as revenues, profits, output or labour productivity. The more widespread use of wage-contingency schemes would require more sharing of information among employers and employees and their representatives than currently takes place.

Increased risk for workers might constitute another cost. Certainly workers dislike the risks associated with an uncertain income. However, flexible compensation is not inherently more risky for all workers. Fixed-wage contracts also involve income risks in that employers may use temporary lay-offs in response to fluctuations in demand. Whether contingent-wage/compensation schemes are more or less risky than fixed-wage systems depends on how much the former reduce the risk of lay-offs: that is, to what degree these schemes affect the variability of employment.

Empirical evidence supports the view that more flexible wage-payments systems imply a lower risk of lay-offs. The evidence of cross-country comparisons has already been cited. Additional evidence comes from comparing temporary lay-offs and wages in unionized firms, where fixed-wage contracts are common, with the same conditions in non-union firms, which can, and often do, adjust wages upward and downward to reflect changes in the state of the economy. Studies confirm that unionized companies rely more on temporary lay-offs to respond to fluctuations in demand than do non-union companies.<sup>12</sup>

Flexible systems do, however, change the distribution of risk among workers. In any given firm, workers are not affected equally by the risk of lay-off. Unionized firms and, to a lesser extent, non-union firms usually make

lay-offs in reverse order of seniority. Thus, under a fixed-wage system, the risk of lay-off is very low for the majority of workers, except during an unusually severe recession. The risk is high, however, during even moderate downturns in economic activity, for workers at the bottom of the seniority ladder. To change to a more flexible wage-compensation system would result in a somewhat higher risk of income fluctuations for the majority of workers, but in substantially reduced risk for those with little seniority.

### *Gain Sharing*

Compared to wage indexation, gain sharing, or shared compensation, has considerably stronger tendencies to stabilize employment and output in response to economic shocks. Such a system can operate in two general ways. One is to negotiate or otherwise determine a sharing formula in advance. The most obvious base for making this determination is revenue (or profits) per employee: the parties would agree ahead of time that each employee would receive, say, two-thirds of the revenue per employee and the employer would receive the remainder. The second method is to determine the shares after the fact. This second system is used in Japan, where bonus payments are negotiated semi-annually for most regular industrial workers. The bonus is not related to profits or revenue by an explicit formula, but it does vary somewhat with the company's market performance. Either system is likely to involve a fixed salary or wage, with the share or bonus as a supplement. In Japan, the bonus component of income is substantial, averaging more than one-quarter of a worker's total earnings.<sup>13</sup>

The author of a recent book argues that an economy in which a share-compensation system is widely used will exhibit a strong tendency to maintain full employment of labour.<sup>14</sup> He sees a fundamental difference between an economy in which workers are paid a fixed hourly wage and one in which they are paid a share of revenue or profit. In the wage economy, the labour market is in equilibrium when the demand for labour equals the supply of labour. In the share economy, on the other hand, there is always unsatisfied demand, in the form of unfilled vacancies, at the prevailing negotiated shares. This excess demand for labour acts as a cushion, protecting the economy from significant deviations from full employment. Any reduction in labour demand will be offset by the existence of unfilled vacancies. The reason for this important difference between compensation systems is that with share compensation, a firm can reduce unit-labour costs and increase profits by expanding employment and output to any degree desired. With the wage system, the firm will expand employment only to the point at which the additional revenue generated by the extra workers equals the additional cost represented by their wages.

The main empirical evidence supporting the view that widespread use of a share-payments system will stabilize employment and output comes from post-war Japan. Japan weathered the economic contractions of 1954, 1957–58, 1962, 1965, 1971, 1974–75, and 1981–83 with relatively little change in registered unemployment. Of course, it would be a mistake to attribute this remarkable performance to the use of the bonus system alone. Japan's annual

synchronized bargaining, as we have already noted, contributes to stability in employment and output. In addition, the country has a large number of workers who move out of the labour force whenever the economy turns down, and who therefore do not show up in normal measures of unemployment. Nevertheless, analysis of the Japanese experience lends support to the proposition that a share-payments system can make a positive contribution to a country's economy. Like Japan's other key wage-setting institutions, substantial bonus payments were adopted in the post-war era. Before that time, the Japanese economy suffered substantial fluctuations in employment and output.

### *The Case for Contingent Compensation*

Given the potential benefits of contingent-compensation arrangements, why are they not more common? One answer may be that the transactions and monitoring costs that arise from imperfect and asymmetric information are simply too large to make worthwhile indexation to variables other than the CPI. This answer presumes that the people involved in wage determination have assessed gain-sharing or wage-indexation schemes and decided that the expected costs exceed the expected benefits.

Nonetheless, there is a case for policy intervention to promote gain-sharing arrangements. Like the case for shorter contracts and synchronized negotiations, it rests on the macro-economic benefits to Canadian society of greater employment stability. The multiplier effects associated with business cycles mean that lay-offs in one industry reduce total output demand and, consequently, employment in other industries. Yet individual firms and unions do not take these macro-economic effects fully into account in making choices about wage setting. The situation is another prisoners' dilemma in which co-ordinated change could benefit society as a whole.

In addition, the move to widespread use of fixed-wage contracts may have been partly based on the assumption, common in the 1950s and 1960s, that governments could substantially reduce cyclical fluctuations through discretionary use of monetary and fiscal policy and through built-in stabilizers. We now recognize, however, that our ability to anticipate and offset economic shocks is much more limited. The experience of the recent recession may well encourage firms and unions to reconsider wage-setting arrangements. Despite evidence that labour-market participants are in the process of re-examining compensation schemes, significant change has yet to occur in Canada. If substantially more widespread use of gain-sharing arrangements is considered desirable for society, it seems likely that some form of government intervention will be required.

A final point should be emphasized about the function of public policy in promoting flexible payments systems. Commissioners assume that such a policy would be intended to be neutral for the *average* compensation level: that is, it would make compensation more responsive to changes in economic conditions that affect particular firms and industries, but on average, over time, wages under the new system would be neither lower nor higher than they would be under the existing system.

## Conclusions

In this section Commissioners have reviewed four options for increasing stability in employment and output in Canada: shorter contracts, synchronized wage setting, indexation of wages, and gain sharing. Each would lead to increased flexibility and variability in wages and prices. They would not, however, necessarily cause real wages to be any more variable overall.

As we stated at the outset, we cannot make precise predictions about the effects of these reforms, which are currently the subject of considerable research and debate. Of the changes described, gain-sharing/compensation arrangements seem likely to yield the best mix of benefits and costs. A further, and not entirely unrelated, advantage is that contingent-compensation reform would probably be the easiest to implement. To achieve synchronized wage negotiations or uniformly shorter contracts would require federal-provincial agreement on the wisdom of these reforms. Moreover, it would involve governments' imposing these changes on the private sector, which is a consequence Commissioners would prefer to see avoided.

The federal government alone could bring about greater use of gain sharing by offering employees more favourable tax treatment of earnings they receive in the form of a share of profits or revenue.<sup>15</sup> Such a scheme should not favour any particular form of gain sharing, such as profit sharing, but rather, should provide equal incentives for a variety of flexible wage-payments systems. Nor would any compulsion be applied. Employers and employees who prefer not to take advantage of the more favourable tax treatment accorded this type of income should be free to make this choice, just as individuals are now free not to take advantage of the more favourable tax treatment given to income from capital gains.

A serious obstacle to the more widespread use of gain sharing, especially for employees of firms that are privately owned, is the inadequate exchange of relevant information between employers and employees. However, as we point out in Part V of this Report, Commissioners consider a more open exchange of information a key element for improving labour/management relations and reducing the incidence of strikes and lock-outs.

## Notes

1. This section draws on a study carried out for this Commission by Craig Riddell, "Dealing with Inflation and Unemployment in Canada: Options and Their Consequences", in *Dealing with Inflation and Unemployment in Canada*, vol. 25 (Toronto: University of Toronto Press, 1985).
2. From the writings of the Massachusetts Institute of Technology's Paul Samuelson.
3. Bank of Canada, *Annual Report of the Governor to the Minister of Finance* (Ottawa: The Bank, 1982), p. 10.
4. It is noteworthy, however, that during the recent recession, a number of contracts were re-opened with the consent of union members, and compensation was adjusted downward as a means of enhancing job security.
5. See Robert J. Gordon, "Why U.S. Wage and Employment Behaviour Differs from That in Britain and Japan", *Economic Journal* 92 (March 1982): 13-44; and W. Craig Riddell, "The Responsiveness of Wage Settlements in Canada and Economic Policy", *Canadian Public Policy* 9 (March 1983): 9-23.

6. The pioneering multi-year settlement was the 1948 agreement between General Motors and the United Auto Workers. In Canada, one-year contracts were widely used until the late 1950s; the move to two- and three-year agreements took place between 1956 and 1959 in manufacturing, the sector in which multi-year agreements remain more popular than elsewhere. For the economy as a whole, the move towards multi-year contracts took place gradually throughout the late 1950s and early 1960s.
7. See Gordon, "Why U.S. Wage and Employment Behaviour Differs from That in Britain and Japan". See also Robert J. Gordon, "A Century of Evidence on Wage and Price Stickiness in the United States, the United Kingdom, and Japan", in *Macroeconomics, Prices and Quantities: Essays in Memory of Arthur M. Okun*, edited by James Tobin (Washington, D.C.: Brookings Institution, 1983).
8. William M. Scarth, "An Evaluation of Tax-Based Incomes Policies", in *Tax-Based Incomes Policies: A Cure for Inflation?*, edited by Michael Walker (Vancouver: Fraser Institute, 1982).
9. Brian O'Reilly, W.R. White, and Robert Ford, "Price Flexibility and Business Cycle Fluctuations in Canada: A Survey", in *Post-War Macroeconomic Developments*, vol. 20 (Toronto: University of Toronto Press, 1985).
10. Canada, Labour Canada, *Major Wage Settlements* (Ottawa: The Department, various years).
11. Jean-Michel Cousineau and Robert Lacroix, "Why Does Strike Activity Vary over Time and Between Industries?" (Montreal: Université de Montréal, Département des sciences économiques, 1983). The relationship between contract length and strike activity is treated further, later in this Report.
12. James L. Medoff, "Layoffs and Alternatives under Trade Unions in United States Manufacturing", *American Economic Review* 69 (June 1979): 380-95.
13. Although we are concerned primarily with the implications of gain sharing for employment stability, it is worth noting that many observers recommend such a system as a method of improving employee morale and productivity. Some analysts also view gain sharing as an important part of a package for the development of a labour-relations environment that involves increased co-operation and consultation. These aspects are considered in Chapter 17.
14. Martin L. Weitzman, *The Share Economy: Conquering Stagflation* (Cambridge, Mass: Harvard University Press, 1984).
15. The February 1984 budget proposed a measure along these lines, but it no longer appears to be under active consideration.

## **The Challenge to Expedite the Reduction of Unemployment**

Before we turn to our main conclusions and recommendations on the broad range of issues of economic growth, employment and economic stability that we have been examining, we should consider further the critical short- to medium-term challenge confronting Canada: How are we to improve this country's prospects of achieving substantially lower levels of unemployment over the next several years, without putting at risk the progress Canadians have already made in reducing inflation? In other words, how can we expeditiously reduce unemployment to the present NAIRU range? (The longer-run challenge of reducing the NAIRU itself is taken up again in Part V of this Report.)

In our examination of macro-economic policy, we Commissioners have indicated our conviction that as one means of furthering this shorter-run objective, the government should change the mix of monetary and fiscal policy. It should take fiscal measures to reduce the deficit, and simultaneously, if temporarily, increase monetary expansion enough to more than offset the effect of fiscal restraint on aggregate demand. Such a combination of moves would raise the prospective growth of output. This development, in turn, should contribute to a reduction in unemployment that is more certain and decisive than that currently anticipated, while achieving the reduction in the deficit that is necessary to provide room for stronger growth of capital investment and output in the private sector.

We would be fortunate, however, if this approach, taken by itself, resulted in reducing unemployment by as much as one percentage point a year, starting in 1986, a pace that would not take us to the NAIRU range until 1989 or 1990. Yet to use monetary and fiscal policy to push the reduction in unemployment much faster would be to put at risk our progress in reducing inflation; bottlenecks could develop during rapid expansion, and overactive policy could adversely affect confidence and, thus, the exchange rate, interest rates, and wage and price behaviour.

Commissioners believe that the challenge is not just to the federal government and the Bank of Canada. The onus is on all participants in Canada's economy—in particular on business and labour, as well as government—to follow courses that will maximize the extent to which growth in aggregate demand is translated into growth in output and employment, and to minimize the extent to which the former slows the pace of reducing inflation.

Earlier in this chapter, Commissioners rejected the idea of establishing a permanent incomes policy in Canada. We also noted the potentially adverse effects of adopting a temporary incomes policy. At the same time, however, we concluded that the benefits of such a policy could outweigh its costs, particularly when it is used to reinforce fiscal and monetary measures aimed at checking inflation. In the absence of such a complementary measure, as Canadians have learned from recent harsh experience, fiscal and monetary policy alone may succeed in controlling inflation only at high cost in terms of lost output and employment.

The situation that now confronts Canada is somewhat different from that in which adoption of a temporary incomes policy is ordinarily contemplated. At the moment, inflation appears to be reasonably well under control. Given, however, the extraordinary challenge that confronts us as a nation to do everything possible to reduce unemployment from its present unacceptable level as quickly as may be practical, Commissioners believe that a temporary incomes policy should be instituted to reinforce the downward trend in inflation and so make possible a temporary acceleration in the rate of economic growth, with minimal risk of renewed inflation. With such an incomes policy in place and with a change in the monetary-fiscal mix of the type already outlined, we believe that it would be feasible to accelerate the average reduction in unemployment as much as two percentage points annually, in order to achieve the NAIRU level by about 1988. Although Commissioners are well aware of the costs and inconvenience of employing an incomes policy, the institution of such a policy for a period of, say, three years or so would, in our judgement, be a small price to pay for the major social and economic benefits Canada would reap from a faster reduction in unemployment.

Commissioners' overwhelming preference is for a voluntary incomes policy based on agreement among the principal players, about guidelines for wages and prices (or profit margins) consistent with further reduction in inflation. We recognize, however, that it might well prove difficult—as it has in the past—to arrive at an effective agreement under which all major groups would voluntarily bind themselves to abide by guidelines. The prospects may be better for achieving consensus in support of mandatory guidelines introduced by federal and provincial governments.

Commissioners believe that governments, as well as implementing a temporary incomes policy, should act to reinforce the prospects for relatively strong growth in demand. Specifically, we advocate that federal, provincial and municipal governments move forward on the basis of at least some informal co-ordination, and, if possible, increase the capital expenditures they have planned for the rest of the decade, especially those expenditures that could contribute directly to creating jobs and improving the economic infrastructure.

Policy makers might be disturbed by the effects on the deficit of this temporary increase in capital expenditures, although economists draw important distinctions between capital and current expenditures in assessing the suitability of any given deficit level. If policy makers judge it desirable to offset some or all of these effects, Commissioners would support the introduction of a temporary income-tax surcharge. We also recommend a review of tax expenditures as a further possible means of increasing revenues. Reductions in inflation subsequent to the introduction of some measures may have obviated the rationale for implementing them: the \$1000 investment-income deduction, the \$1000 pension-income deduction, and the Registered Home Ownership Savings Plan deduction are obvious examples.

Commissioners are convinced that it is eminently worthwhile and clearly in the best interest of all the groups concerned to work openly, co-operatively, and in a spirit of substantial willingness to ask and grant concessions, in order

to meet the challenge of reducing the unemployment rate by two percentage points a year from now until 1988, without undercutting our gains against inflation.



## Conclusions and Recommendations

### General

Canada's growth and employment prospects depend heavily on developments in trade and in the use of our human and natural resources. Regional development policy and the institutional framework of our federal form of government also affect our growth and employment prospects. Part III of this Report addresses other components that affect these prospects: the role of capital, technology and management; the choice of industrial policy; the demand management or setting of monetary and fiscal policies; and the flexibility of wages and prices in responding to the vagaries of the business cycle. While the following recommendations are addressed separately, their strength depends significantly on their integration with the recommendations in the rest of this Report.

Governments must be prepared to vary their role in the allocation of human, capital and natural resources in response to changes in external and domestic pressures. In general, however, governments should endeavour to facilitate the operation of the market mechanisms of our economy, rather than to seek occasions for further intervention.

■ In the management of the economy, governments must acknowledge the considerable international and domestic constraints on policy. They cannot provide quick solutions to every economic difficulty. Rather, they should set the medium- and long-term framework within which solutions can be worked out.

Although economic growth is a key means of increasing the welfare of all members of society, Commissioners do not advocate the pursuit of maximum growth at all costs. The claims of growth must be balanced against those of equitable income distribution, employment security and environmental quality. □

### Recent Performance and Prospects

Canada's post-Second World War performance was strong until 1973; after that date, inflation began to climb rapidly, and productivity growth declined. Since the 1981-82 recession, unemployment has been our most serious policy concern.

This Commission has examined four independent projections of Canada's likely economic performance in the absence of major policy changes. These forecasts suggest that Canada's growth rate in real gross national product over the next two decades will closely parallel the U.S. rate. Annual real growth in Canada should average 3 per cent during the late 1980s, and decline to about 2.5 per cent during the 1990s, in keeping with a decline in the rate of labour-force growth. The growth prospects for natural resource-based production seem weak, especially in mining and forestry.

■ Most analysts predict that unemployment will remain at relatively high levels in Canada throughout the 1980s. Current

high rates of unemployment are associated with insufficient total real demand relative to total supply. In addition to this critical problem, there are major structural problems which, unless addressed, will not allow unemployment to drop below 6.5 to 8 per cent over the long term. This level is unacceptable by this Commission's standards, and the problem of reducing the structural unemployment rate must be addressed. □

Employment growth and productivity growth are essentially independent. Growth in the labour force is the principal cause of employment growth. Productivity growth increases both the supply of output and real demand to roughly equivalent degrees. Thus, growth and employment goals are not in substantial conflict over the longer run. We can improve productivity without harming long-run employment growth; more generally, technological unemployment is unlikely to become a major problem. Rather, increased productivity and technological change are the key to longer-term growth in real income and economic welfare.

Some fields have experienced an increase in the rate of technological innovation over the past two decades, but the overall rate is difficult to estimate. The decline in productivity growth since 1973 might suggest a decline in the pace of technological innovation. However, the recent increase in the share of gross national expenditure spent on research and development (R&D) in the United States and Canada will raise the pace of technical change and contribute to a recovery in productivity growth.

## **Industrial Policy**

Canada's industrial policy has shifted since 1945, emphasizing, in turn, nationalistic goals or trade liberalization, development of the manufacturing sector or development based on natural-resource wealth.

Industrial policy in Canada incorporates a wide range of policy instruments, some of which have purposes related to trade or to general economic policy. Neither the federal government nor the provinces have blueprints for industrial policy. This omission reflects a fundamental reliance on market forces and private-sector enterprise as the engine of growth.

Commissioners' review of foreign industrial policy indicates that policies that work in some countries may not work in others. Despite Japan's low expenditure on R&D, that country has been successful in the knowledge-intensive industries. France and Germany have very different industrial policies, despite being members of the European Community. France has a highly targeted interventionist approach, while Germany's approach is more market oriented. There would seem to be no particular mix of industrial policy instruments that ensures success.

Canadians differ on the proper role of government in promoting economic growth and employment. The polar extremes of a strictly hands-off approach and a highly interventionist, targeted, industrial policy appear to overlook the complexities of policy formation and practice.

■ Relative to current practice, Commissioners favour a more market-oriented industrial policy. More particularly, we favour letting the market work and placing less emphasis on government intervention to protect declining industries. We have reviewed the possibility of a more specifically targeted approach – the strategy of “picking winners” – but we believe it unlikely that such a highly interventionist approach would meet with greater success overall than would a more neutral policy.

For several reasons, some modes of intervention make sense; hence Commissioners do not favour a strictly hands-off approach. Furthermore, while there is little evidence in Canada or abroad that a targeted industrial policy is more effective than a market-oriented approach, other countries will continue to experiment. Canada should monitor these experiments carefully and consider strategic ways of strengthening its areas of comparative advantage. In our judgement, however, Canada has relied on intervention too often, too extensively and in too *ad hoc* a fashion.

Canada’s industrial policy should emphasize broad-based support programs that work in tandem with basic market forces. To the extent that government involvement is required as, for example, in R&D support, benefit/cost criteria should guide it.

This Commission does not propose a blueprint for industrial development; indeed, to attempt a detailed formulation would be counter-productive. We believe, however, that consistent with our emphasis on market mechanisms, there should be a clearly stated framework for industrial policy. Such a framework would facilitate both private-sector decision making in Canada and the co-ordination of government policies and programs. This stated framework should express the strategic objective for industrial policy. Commissioners believe that the productivity of Canadian industry should predominate over other concerns, and that we should concentrate on improving our competitive position.

Commissioners believe that industrial policy should fortify incentives for excellence, for the efficient allocation of resources, and for adjustment to new economic realities. Such a policy would produce increases in real income, fuller employment and the means to address income distribution.

To improve the productivity of Canada’s human, capital, and natural resources, and the competitive position of Canadian industry, industrial policy should include the following elements:

- A supportive macro-economic framework that while controlling inflation, promotes growth of output and employment at a reasonably even pace, in accordance with the economy’s capacity

- A commitment to freer trade and the freer flow of investment. We favour both multilateral freer trade and bilateral free-trade negotiations with the United States.
- A commitment to strengthening Canada's labour, capital, technology and management resources.

### *Capital, Technology and Management*

Recommendations respecting education and training are addressed in Part V of this Report.

- With respect to capital, technology and management, this Commission makes the following recommendations.

#### *Capital Formation*

- International comparisons suggest that Canada has not suffered from any serious lack of investment over the last two decades. However, some recent economic analyses indicate that the tax treatment of savings and investment may result in a capital stock that is too small.
- While this Commission has not reviewed the tax system in detail, it does appear to us that government should examine the effect of this system on savings and capital formation. This examination should consider the adequacy of the current allowances for inflation in the tax treatment of savings and investment. It should also consider the desirability of altering the current personal tax system by substituting an expenditure base for the income base.

#### *Domestic R&D*

The effectiveness of R&D expenditure is more important than setting a target level in relation to GNP.

- To increase the effectiveness of domestic R&D, governments should consider the following measures:
  - Ensure the availability of existing incentives to all business through some type of refundability of tax losses.
  - Broaden the definition of R&D while lowering the rate of tax subsidy, even though we recognize that such a broadening could give rise to administrative problems.
  - Ensure that adequate resources are devoted to obtaining information about foreign technological developments and to disseminating information on technological developments to domestic industry.
  - Encourage excellence by concentrating Canadian effort on projects, research and development of world-scale value

through “networking” between experts within Canada, as well as internationally.

- Reduce protection of domestic industry and encourage it to be more competitive internationally.

### *Technological Acquisition*

New technologies are increasingly shared on a global basis, and the originating country has little lead time over others to exploit its advantage. Canada draws extensively from the world pool of new technologies, in part through investment in Canada by multi-nationals. New manufacturing technologies spread more slowly in Canada than they do in other countries:

- A potential solution is to liberalize trade and to reduce the existing barriers to the flow of equity capital.
- Public policy in education and the gathering and dissemination of information could improve technological adaptation in Canada. Post-secondary institutes should place more emphasis on science, engineering and business courses. Universities should be more active in the commercialization of inventions. The National Research Council’s initiatives on information gathering and dissemination could be a model for other agencies. Technology brokers, contract-research organizations and think-tanks have assisted technology acquisition in other countries. Both the private and public sectors in Canada should consider more activity of this nature.

### *Management and Entrepreneurship*

- Increased international competition demands that Canada draw on world-class management. We should have greater exposure to competition, a reorientation of small-business/assistance programs, and strengthened business schools. Closer bonds between business and the arts community would improve product design.
- Entrepreneurship is another key component of national economic development. While small business is a vital source of entrepreneurship, other sources also require encouragement. Governments should consider changing regulations to stimulate equity investment by financial intermediaries in small and medium-sized firms, and change the tax system to make equity ownership more attractive.

### *Framework Policies*

Another element that is needed to improve Canada’s economic position is a commitment to framework policies that encourage the private sector to adapt to change and the efficient allocation of Canada’s human, capital and natural

resources. Framework policies include tax policy, competition policy, general regulatory policy, foreign investment and adjustment policy.

- Our recommendations in each of these areas are as follows.

### *Tax Policy*

- While Commissioners have not undertaken a comprehensive review of tax policy, they have investigated the issue in general terms and looked at some specific problems. Tax policy has a fundamental influence on economic and social choices.
- We recommend a thorough review of the influence of the tax system on decisions that distinguish work and leisure, and consumption, savings and investment. Policy makers must become more aware of the efficiency costs of the tax system. In addition, Canadian tax policy must recognize the fluidity of capital flows.
- There appears to be merit to building on recent changes that moved personal income tax in the direction of a personal consumption tax.
- Governments should review non-neutralities in the corporate tax structure and consider indexing of capital assets for inflation. Alternative accounting methods of defining the corporate tax base, such as the cash-flow approach and the refundability of negative taxes, are also worthy of review. Such provisions could replace fast write-offs of exploration and development expenses in the resource sectors, and accelerated capital-cost allowances in the manufacturing sector.

### *Competition Policy*

Canadian industry appears to have become more concentrated at the producer level over the past decade. However, trade liberalization and deregulation have reduced concentration at the seller level. Mergers and conglomerates can result in undue concentrations of economic power; they can also improve efficiency and competitiveness internationally.

- Canada's competition policy should better reflect both of these realities. Commissioners recommend that Parliament empower the Director of Investigation of the Combines Investigation Act to report on all developments that impede competition in Canada, including trade protection and regulatory provisions. We recommend further that governments exercise greater discretion respecting mergers and conglomerates, directing restraining provisions to those cases where a clear threat to competitive practices is evident. With increased trade liberalization, the primary area of concern could be the non-internationally trading sectors of the economy. Canadian firms should

retain the right to co-operate with one another in export markets, provided that they do not reduce domestic competition, and clarification should be offered through advance rulings. All large corporations, public and private, Canadian owned and foreign owned should be required to file annual reports with the government.

### *The Regulatory Framework*

Commissioners do not accept the simplistic notion that regulation should always be kept to a minimum. Some current problems, such as those associated with the environment, can probably be addressed only through an increase in regulatory activity. In many other areas, however, a reduction in regulation, and a concomitant increase in competition, would substantially increase economic efficiency. Even where regulation is necessary, it could in many cases be made simpler and more responsive to changing conditions.

- We recommend that government undertake to review and reform the regulatory framework as a whole. Regulatory agencies should be subject to closer Parliamentary scrutiny than they are at present, and their mandates should be more clearly and closely defined. Whenever possible, regulatory activity should be subject to a "sunset clause": that is, it should be limited in advance to a specific term.

### *Crown Corporations and Privatization*

- The sale of some Crown corporations to the private sector would be a logical concomitant of deregulation, since it would enhance competition. By the same token, the federal government and the provinces should arrest the tendency toward nationalization or mixed enterprises, particularly insofar as this tendency is associated with industry bail-outs. Both levels of government should reassess the functions of these Crown corporations and mixed enterprises. If the functions or objectives of a given Crown corporation could be met more effectively by other means, the enterprise in question should be either phased out or sold to the private sector. If a Crown corporation is to be privatized, foreign buyers should not normally be excluded from bidding for the assets. Exceptions to this rule include cases where purchase by a foreign buyer would result in barriers to entry by other competitors, or where the industry in question should be reserved for Canadians.

### *Foreign Investment*

Over the past 15 years or so, Canadian ownership of our industries has increased substantially. It is now appropriate to re-examine mechanisms for

monitoring foreign investment in Canada. Bill C-15 provides some useful guidelines, but further innovations are required to balance the need for international equity funds and the need to foster good corporate citizenship.

- The review of foreign-investment proposals should be conducted by a quasi-judicial tribunal to ensure full public disclosure and political accountability. Fast-track procedures and practices for the handling of commercial confidences would need to be developed. Commissioners believe that new foreign investments need no longer be reviewed; the tribunal should review acquisitions only. The threshold for review should be raised from \$5 million in gross assets to at least \$50 million in order to focus resources on the larger and more critical take-overs. The review process should emphasize the competitive and technological conditions surrounding the proposed foreign take-over. The government should clarify the standards governing the post-entry behaviour of foreign investors by promulgating a general code of conduct applicable to all major firms, domestic and foreign, operating in Canada. To promote compliance with the code of conduct and to improve our understanding of the consequences of foreign control, the government should legislate an annual reporting requirement for all major firms or for corporate groups operating in Canada with assets in excess of \$50 million. Firms should be required to disclose specified types of information relevant to their observance of these guidelines. Canadian directors should be required to file an annual statement detailing their firm's efforts to achieve the objectives of enterprise performance set out in the proposed code of conduct.

### *Adjustment Policy*

- Whenever possible, adjustment assistance should be provided to workers rather than to firms. Commissioners recommend the institution both of tougher international agreements and of mandatory reference to a neutral agency, such as the Tariff Board, in order to make it more difficult for governments to resort to protection of declining industries. By the same token, we also recommend that it be made more difficult for governments to resort to the use of firm-specific subsidies; this could be done by attaching conditions to the recipients, and by requiring the costing of off-budget subsidies. If firm-specific subsidies are given in declining sectors, the assistance should go to the most viable, and not the weakest, firms. Part V deals at length with our recommendations regarding labour adjustment policies. Declining single-industry communities require special labour-adjustment assistance.



If the economy is flexible and adaptable, adjustment will probably be much easier, and involve less unemployment. In addition, real income levels will be improved. Flexibility in prices and wages – or, more generally, the development of successful incentives – is the key to achieving a flexible and adaptable economic structure.

### ***Infrastructure Support Services***

This Commission views policies regarding transportation, communications and infrastructure generally as vital components of an industrial policy designed to enhance Canada's productivity growth and overall competitiveness. Commissioners note with concern the shrinking share of government expenditure devoted to such infrastructure.

■ We urge both the public and the private sector to view investment in the transportation and communications field as a priority. While Commissioners recognize that a strong public role in this field is both inevitable and desirable, we conclude that deregulation and a more market-oriented approach is desirable.

The private sector should be encouraged, through the tax system and government programs, to adopt the technological and other measures necessary to establish a first-rate transportation and communications network across the country. Canada needs better mechanisms for accommodating divergent regional-investment policies and regulatory policies that have national implications.

### ***Government Intervention***

■ Government should provide itself with a clear set of guidelines to determine the nature of its intervention at the sectoral or firm level. Given the difficulty of measuring the costs and benefits of intervention, Commissioners recommend that selective intervention be used sparingly. Few cases warrant special attention, and the burden of proof should be on those that propose intervention at the sectoral or firm level. A strict limit on the funds budgeted for intervention is essential. Intervention should be undertaken only where there is clear evidence of market failure, or in industries that exhibit substantial economies of scale, or where high risk and large size make it difficult for market forces to operate adequately. Where these considerations prevail, the following guidelines should apply:

- The benefits of intervention must demonstrably exceed its costs.
- If efficiency is not the overriding objective, the objective should be achieved at the least cost.
- There must be sufficient consultation with business and labour to ensure that the chosen means of intervention are appropriate.
- International obligations must not be jeopardized.

## *The Economic Union*

■ A commitment to a strengthened economic union is a vital element of a healthy Canadian economy. Barriers to the free flow of labour, capital goods and services should be minimized, and integration of policies should be harmonized. □

## **Stabilization and High Employment**

For structural and institutional reasons, the rate of unemployment consistent with stable inflation in Canada is in the range of 6.5 to 8 per cent. Expansionary monetary and fiscal policies cannot sustain levels of unemployment below this range over the longer term. A permanent reduction in such "structural" unemployment would require structural changes, by which we mean such policies as freer trade, labour-market adjustments, and new mechanisms for labour-management relations.

The current rate of unemployment (about 11 per cent) is well above the rate consistent with stable inflation. This unacceptably high rate is the result of an insufficiency of total demand relative to total supply. Impediments to reducing unemployment by even 3 to 4.5 percentage points are the large federal government deficit, the high real current rates of interest and the extraordinarily complex role played by expectations.

Limitations in forecasting and lags in the effect of policy action argue against moderating short-run fluctuations in economic activity through discretionary action. The federal government should use stabilization policy to achieve non-inflationary growth in demand in the medium term, while preserving automatic fiscal stabilizers. However, economists disagree about the strength of the self-righting forces in the economy, that is, the forces that will drive unemployment toward its "natural" or full-employment level. Commissioners believe that discretionary stimulus or restraint can help in periods of major extended divergence in demand from a non-inflationary growth path.

Global interdependence, especially in capital markets, limits the degree to which policy can insulate an open economy such as Canada's from foreign developments. Given our flexible exchange rate, we can choose our inflation rate in the long run, and to that extent, we can have a made-in-Canada macro-economic policy. But the influence that we can hope to have on real demand in our own economy is likely to be short term in nature and rather limited in scope.

■ To preserve independence in domestic policy for Canadian authorities, this Commission recommends a flexible exchange rate.

We do not recommend exchange controls or an interest-equalization tax to control capital outflows.

Commissioners share the widespread concern about the size of the federal government's deficit. We recognize that if the government does not reduce the current structural deficit, it will have to increase taxes just to pay interest costs and will find its flexibility seriously constrained.

■ Commissioners recommend a strategy of gradual deficit reduction, given the current outlook of slow recovery. To stabilize or decrease the debt/GNP ratio, the government will need to reduce the deficit by about 1.5 per cent of GNP, which would be equivalent to \$10 billion by 1990–91. The practice of laying out an explicit medium-term fiscal plan, introduced in the December 1979 budget and continued since, is useful. We favour using a combination of tax increases and rather broad expenditure reductions to reduce the deficit. The precise means of achieving this reduction are a matter for shorter-term government policy, but Commissioners offer one possible means for consideration. This would be to set the indexing factor for the personal income tax and for some transfer-payment programs at  $x$  percentage points below the rate of inflation and to hold the price factor for all other expenditure programs—except foreign aid and national defence—at  $x$  percentage points below the rate of inflation. Setting these annual indexing factors three percentage points below inflation for a period of three years would generate a reduction in the deficit of about 1.5 per cent of GNP, thereby reducing the deficit and by that amount the deficit/GNP ratio from the 6 to 7 per cent range projected for the late 1980s.

■ Under present circumstances of high unemployment, a shift to a less expansionary fiscal stance, so as to reduce the deficit, should be more than matched by a temporary shift to a less restrictive monetary stance. A moderate increase in the projected growth of demand, which might significantly reduce unemployment and strengthen investment, should still be consistent with a further reduction in inflation.

While Commissioners recognize that adherence to a steady monetary-growth guideline can help to ensure that a stable, non-inflationary environment will be maintained, shifts in the demand for money during the past few years have made this approach difficult to apply. Furthermore, such an approach might lessen governments' ability to adjust the mix of monetary and fiscal policy in order to balance consumption and investment, and to balance the sectors of the economy that are strongly influenced by the exchange rate and the sectors that are not.

■ As a compromise solution, the government could relate demand-management/policy targets to the growth of nominal GNP. This policy would require a willingness to adjust monetary-growth targets to nominal GNP, in the event of significant shifts in relation of the money supply, and monetary and/or fiscal policy in the event of severe prolonged departures of nominal GNP from a steady growth path. Commissioners recommend that the joint setting of monetary and fiscal policy be consistent with non-inflationary growth of nominal demand.

Commissioners have also considered potential adjustments to lessen the distortions and damage that any continuing inflation imposes. We share what seems to be a general preference, that has emerged over the last few years, to emphasize low and stable inflation, rather than structural adjustments that would make it easier to live with inflation.

■ Despite the preceding conclusion, Commissioners believe that serious consideration should be given to indexation of financial assets, accounting systems and tax systems. To adjust the tax system to take inflation into account would improve its neutrality in general and lessen the incentive to rely on debt financing in particular.

In Commissioners' judgement, permanent wage and price controls or even a permanent tax-based incomes policy would probably not prove acceptable to Canadians and would not be consistent with our general approach of promoting a flexible, adaptable and growth-oriented economy.

■ We do, however, recommend the temporary use of controls or incentive-based incomes policies if the country needs to reduce inflation again. Furthermore, the use of temporary controls could bring about a more rapid reduction of unemployment than presently seems to be in prospect. Such temporary controls should be the subject of negotiation with business and labour groups.

Commissioners believe that a formal voluntary incomes policy, which would involve commitments to respect common guidelines for wage increases and for price or profit patterns, will be difficult to achieve, given the structure of labour and product markets in Canada.

■ We recommend, however, continued informal and formal consultation on a broad range of economic issues, and increased openness about the bases of economic policy formation. Such an approach might assist public understanding and encourage realistic attitudes about wages and prices. It might also contribute to lower unemployment.

■ Commissioners believe that gain sharing—that is, making compensation more dependent on the current performance of the firm or industry—offers the most promising approach to achieving greater cyclical stability in employment and productivity growth. Gain-sharing would be viable only in an environment of greater trust and openness, and thus we tie our recommendation for its use to our position on consultation noted above.

■ Commissioners recommend to labour, business and governments that they consider some form of incomes policy, coupled with supportive monetary and fiscal action, to increase employment. Without such a comprehensive approach, reduction of unemployment to the level of 6.5 to 8 per cent may be a lengthy and difficult process. Furthermore, without such a demonstration

of political will by all major groups in society, and by individuals as well, the prospects for undertaking major structural changes to reduce unemployment below 5 per cent would appear to be less bright. This basic challenge of political will is the central determinant of improved economic performance. □



**PART IV**



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**NATURAL RESOURCES AND  
ENVIRONMENT**

## **PART IV**

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## Introduction

The natural environment and its resources are special to Canadians. We usually describe our economic history as the exploitation of a sequence of resource products: fish, fur, timber, wheat, minerals, and, most recently, oil and gas. Each product has left its distinctive stamp on Canada's economy, its politics, and even the Constitution. In short, natural resources have been the basis upon which our country was built.

Our natural resource endowment has also shaped this country in a more fundamental sense. Canada's status as a resource-rich nation contributes in significant ways to our culture and our international identity. The pursuit of resources opened each of the country's several regions and created most of its thousands of communities, and always the nature of the resource and the character of the environment in which Canadians found it contributed to a uniqueness of the region or the community. All Canadians have certain qualities in common, but the expression of these qualities will not be precisely the same in a Newfoundland outport, a mining town in northern Ontario, and a farming community in Saskatchewan. The many aspects of our environment—and the many different uses we have made of it—are responsible for much of our national diversity, of which we are justly proud, and for not a little of our regional friction, which we have sometimes had reason to regret.

Although resources and environment have contributed so largely to Canadian development, they have not been without problems. Resource industries are notoriously cyclical, and it is partly, at least, on this account that our economy has alternated between “boom” and “bust”, often over very short periods. Moreover, we have tended to rely on foreign capital and expertise to develop mineral deposits, while at the same time we have worried about the consequences of foreign control of so much of our natural endowment. Almost from Canada's beginning as a nation, we have been

dissatisfied with our role as primary producer, and we have sought ways to increase the local processing of products. In addition, intergovernmental relations touching on resource issues have not always been smooth; nor have our goals for the resource industries always been clear. Finally, while we still think of Canada, as does the international community, as a vast and unspoiled land, we are also aware, at the same time, that many parts of the country show the scars of a sometimes-wanton disregard of the fragility of our natural endowment.

If we Canadians have sometimes had doubts about the role that our resource endowment has given us, we have nonetheless retained a confidence that it is indeed our role. Even now, we ourselves and the world at large perceive Canada as a country whose economy is based on an abundance of natural resources. Yet however great the contribution of those resources to Canada's social and economic development in the past, can we safely assume that they will make a dominant contribution to our future? Are we, in fact, losing our historic comparative advantage in natural resources? If so, then two further questions arise. First, does this loss of advantage apply to resources in general, or only to particular sectors or commodities? Secondly, does it mean that Canada will be forced to undergo a process of major economic adjustment? In particular, must Canadians create a fundamentally new economic basis for our country, one that relies less on natural resources and more on human resources?

There are many developments in both our domestic and our international economies which signal a change in the function of resource industries. While our resource industries are still important—indeed, often vital—and will remain so to many regions and localities, we are becoming relatively less dependent on resources *as a nation*. Moreover, although there is certainly much that we can do to retard this tendency, we may not be in a position to reverse it. Although our natural resources are still abundant by world standards, they are by no means as boundless as perhaps they once seemed to be. In some resource sectors, such as forestry, we are approaching—in fact, some would say have passed—the practical limits of growth. It seems to this Commission that our confidence in the plenitude of our resources has made us wasteful. In other sectors, such as mining, we find that changing technologies and slower growth have reduced world demand for some of our key minerals. Foreign competition, especially from developing countries, poses another and a growing threat to our traditional role as a leading exporter of resource products. Our resource sector's declining relative importance is not entirely the result of changing demand and physical scarcity, however; to a considerable extent, it is also the result of poor management. We have failed in many ways to make the best of what we have, so great has been our confidence that we shall always have it.

The lesson is that Canadians can no longer take natural resources for granted. We can no longer expect them to provide either the leading edge for future economic growth or an automatic solution to our troubles in times of economic difficulty. To the extent that we continue to rely on resources, we shall have to ground that reliance in responsibility. In general, the issue will

not be how quickly we can exploit our resources, but how well we can manage and sustain them. Resource policy will have to take into account not only our needs ten or 15 years from now, but also the needs of generations to come.

Resource issues are prominent in this Commission's mandate to examine Canada's prospects. Not only are they important to our economic prospects, but they are also important because of what they imply about Canada and Canadian institutions generally. The questions associated with resources and the environment have become bound up with almost every other issue that presently concerns Canadians, from education to federal-provincial relations, to the role of government in our economy. This suggests that it will not be possible to address the problems of individual resource sectors in isolation. If particular solutions are to work, they must be carried out in a context of broader co-operation and institutional change. Before we can design such a context, however, we must accept the fact that many of our traditional assumptions about Canada, our institutions, and our role in the world may no longer be accurate.

Canadians have begun to adjust to a more realistic view of the place for resources in Canada's future growth. During this Commission's cross-country hearings, more than a few intervenors expressed the opinion that our natural resource endowment will not yield the same proportion of benefits in the future as it has done in the past. The Machinery and Equipment Manufacturers' Association spoke bluntly:

*We must accept that the potential for resource industry expansion has now become limited for reasons over which we have no control. The expansion of our manufacturing industries, however, if nationally well managed, can be assured.*

(Machinery and Equipment Manufacturers' Association of Canada, Brief, August 27, 1984, p. 5.)

According to Polysar, "Canada should encourage the exporting of Canadian expertise rather than the exporting of our resources." (Polysar Limited, Brief, September 13, 1984, Attachment B, p. 3.) The Mining Association of Canada took a pessimistic view of its own sector's situation:

*Canadian production for most metals . . . as well as the volume of [proved] ore reserves, declined; Canada's share of world markets decreased; and . . . employment stagnated. Moreover, the industry is no longer discovering and opening new mines at rates sufficient . . . to maintain present output.*

(Mining Association of Canada, Brief, November 23, 1983, p. 2.)

Agreement with such sentiments was far from unanimous, however. David Culver, President and Chief Executive Officer of Alcan Aluminium Limited, confronted the issue head on:

*There is a growing perception that Canadian resource-based industries are industrial "losers". I think we would be making an enormous error if we subscribed to this thinking. Canada's natural resources continue to be in demand — whether it be coal in B.C. or oil off Newfoundland.*

(Alcan Aluminium Limited, Brief, August 2, 1984, p. 4.)

The Canadian Chamber of Commerce supported this view:

*We do not believe . . . that Canada's primary resource industries . . . stand condemned. As industrialization spreads among the three-quarters of the global population now classed as economically developing, the world's need for abundant resources at reasonable cost will increase. This will provide continuing opportunities for Canada as a producer of food, energy, minerals and other resources.*

(Canadian Chamber of Commerce, Brief August 23, 1984, p. 40.)

These two points of view are not irreconcilable. No one doubts that our Canadian resource sector continues to be important, or that it possesses opportunities for future growth. However, the resource sector is no longer alone, or nearly alone, in its importance; nor can it be, if we are to maintain an economy that will sustain us in the future. The point Commissioners would emphasize is that unless major efforts to manage our natural resources better are made a national priority, the relative decline in the importance of resources to Canada will be needlessly and irresponsibly hastened.

Chapter 11 presents the main points of the evidence from which Commissioners derive these conclusions. Our emphasis in this chapter is on the role of resources in the national economy. But Chapter 11 does not tell the whole story, as there are hundreds of communities whose well-being still depends on the health of one or another of the resource sectors. Many intervenors talked about the problems, prospects and policy needs of particular resource industries. Their concerns were not long-term and general, but immediate and personal. They saw their livelihood or their communities threatened by land salinization, or by the depletion of timber stocks, or by a loss of foreign markets, or by what they saw as inappropriate taxes or government directives. Our second task, then, is to address these more specific concerns. In Chapter 12, we assess the prospects and policy needs of the individual resource sectors and propose some remedies. In each instance, we have been guided by the general analysis in Part III of this Report, which suggests that there will be a greater need in the future to encourage flexibility and adaptability in the economy and to give greater weight to concerns of efficiency in designing government policy and the incentive structure for the private sector.

As we Canadians learn not to take our resource endowment for granted, we become increasingly aware of the fragility of that endowment. This Commission had no mandate to mount large-scale research efforts into particular environmental matters such as acid rain and land salinization. Nevertheless, we Commissioners were very much struck during our hearings by the breadth and intensity of concern expressed by many Canadians about environmental issues. Moreover, we are convinced that to manage the natural environment in accordance with constructive environmental principles will improve the prospects for our resource-based industries. Accordingly, Chapter 13 assesses the scope of the regulatory task and the ability of our institutions to respond to current and future environmental issues. We do not mean to suggest that the problems of the environment are solely, or even primarily, linked to the resource sector. The other sectors of the economy and the new urban environment they have produced are at least equally culpable

in this regard. We voice our concerns about the environment at this point in our Report simply because, wherever the specific blame may lie, it is Canada's natural endowment that suffers the consequences of our neglect. This endowment has been the source of much that makes our nation Canadian, and we have a responsibility to pass it on, substantially intact, to future generations.





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## Resources and Canadian Economic Development

### The Role of the Natural Resource Sector

There are two senses in which the natural resource sector – and every other sector – contributes to the economic well-being of Canada. In the first place, natural resource goods are part of what we produce as a nation, either for our own consumption or for export in exchange for other goods. What matters in this context is the extent of our resource production and its value relative to other goods and services. By this measurement, we face economic dislocation in the future if the contribution of resources to aggregate output is reduced, or if the terms of trade are to turn against primary goods.

The other perspective on resources and the economy looks at the sector not as a producer of goods, but as an employer of capital and labour. The important point in this instance is the number of jobs a particular natural resource project will provide or, conversely, how many jobs will be lost if a given mine or mill should close. As a source of income from direct employment and investment, the natural resource sector will only contribute to our economic future if it is able to absorb significant numbers of new workers.

Let us begin with output. Table 11-1 gives the current dollar values and percentage shares of the natural resource industries' contributions to gross domestic product (GDP) for various years since 1926. Note that in absolute terms, output in all sectors has expanded substantially and, for the most part, continuously. Overall, the resource sectors have expanded their value of output more than forty-fold since 1926, and more than twenty-fold since the Second World War.

As the percentage figures show, however, the value of output of the primary industries has not kept pace with the rest of our economy. Resources accounted for about 24 per cent of total GDP in 1926. Mobilization caused its relative contribution to drop to 16.5 per cent by 1941, but by the war's end it was back above 20 per cent. By 1971, however, only about 10 per cent of

**TABLE 11-1 GDP at Factor Cost by Industry, Canada**

(millions of dollars and percentage of total)

Year	Agriculture		Forestry, Fishing and Trapping		Mines, Quarries and Oil Wells		Electric Power (Gas and Water)		Total	
	\$	%	\$	%	\$	%	\$	%	\$	%
1926	884	18.2	107	2.2	154	3.2	—	0.0	1 145	23.5
1941	670	9.1	156	2.1	391	5.3	—	0.0	1 217	16.5
1946	1 305	12.2	350	3.3	364	3.4	224	2.1	2 243	20.9
1951	2 322	11.8	562	2.9	814	4.1	410	2.1	4 108	20.9
1956	1 839	6.4	588	2.1	1 219	4.3	691	2.4	4 337	15.1
1961	1 498	4.2	462	1.3	1 398	4.0	1 036	2.9	4 394	12.4
1966	2 886	5.3	629	1.1	2 203	4.0	1 489	2.7	7 207	13.2
1971	2 791	3.4	743	0.9	2 840	3.4	2 385	2.9	8 759	10.6
1976	6 100	3.5	1 631	0.9	7 377	4.3	5 058	2.9	20 166	11.6
1981	10 399	3.3	3 037	1.0	18 649	5.9	11 032	3.5	43 117	13.7
1982	10 846	3.3	2 990	0.9	19 050	5.8	13 947	4.2	46 833	14.2

Source: Statistics Canada, *Historical Statistical Compendium*, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Ottawa: Statistics Canada, 1985), Tables 12.1 and 12.2.

national output originated in the resource sector. This trend was reversed after 1972 as rising values for most primary materials, especially energy, along with an increase in electrical power generation, caused their shares to rise again, by nearly 4 percentage points. By 1982, the resource sector's share of total output (14%) was essentially what it had been 25 years earlier. Thus while resources have fallen from the position they held in the early decades of the century, there has been little decline recently.

What has changed in recent decades is the relative importance of the various resource sectors. Agriculture's share of GDP has declined more or less continuously over the post-war period. Its contribution had fallen to approximately 6 per cent of total national output by 1956, and it has since been halved again. In the forestry, fishing, and trapping categories, most of the decline had also taken place by the early 1960s, with less significant decline since then. On the other hand, electric power and mines, quarries, and oil wells have improved their relative positions somewhat in recent years.

The provinces vary widely in their degree of direct dependence on resource industries. Those that rely most on resource production<sup>1</sup> are Saskatchewan, with its agriculture, and Alberta, with its agriculture and oil and gas. In 1982, as Table 11-2 shows, more than 20 per cent of Saskatchewan's gross provincial product (GPP) came from the primary sector, as did nearly 15 per cent of GPP in Alberta. Newfoundland and Prince Edward Island are also quite heavily dependent on resources, while Quebec and Ontario are the provinces least dependent. In keeping with the national pattern, there has

been relatively less decline in most provinces' degree of reliance on the resource sector since the 1960s than there was earlier. However, the resource share has been halved in Ontario and Quebec since the 1960s, and there has also been a marked decline in the sector share in Newfoundland, Nova Scotia, and British Columbia.

**TABLE 11-2 Sector Shares of Gross Provincial Product**

Province	(per cent)				
	Agriculture	Forestry	Fishing and Trapping	Mining <sup>a</sup>	Total Resource
Newfoundland					
1961	1.0	2.4	2.7	11.4	17.4
1971	0.7	1.3	2.1	13.5	17.7
1982	0.4	0.9	2.2	6.7	10.2
Prince Edward Island					
1961	9.3	0.0	3.1	0.0	12.4
1971	6.9	0.0	3.0	0.0	9.9
1982	9.9	0.0	2.5	0.0	12.3
New Brunswick					
1961	2.7	2.1	1.0	0.9	6.8
1971	1.6	2.0	0.7	3.0	7.4
1982	1.4	1.2	0.5	2.9	6.1
Nova Scotia					
1961	2.0	0.5	2.4	5.4	10.3
1971	1.4	0.6	1.9	2.7	6.5
1982	1.4	0.3	1.7	2.8	6.3
Quebec					
1961	2.7	0.9	0.1	2.1	5.8
1971	1.8	0.7	0.0	1.7	4.2
1982	1.4	0.5	0.0	0.8	2.7
Ontario					
1961	3.0	0.4	0.0	2.9	6.3
1971	2.0	0.3	0.0	1.9	4.3
1982	2.1	0.2	0.0	0.7	3.1
Manitoba					
1961	5.1	0.1	0.2	3.2	8.7
1971	7.0	0.1	0.1	4.1	11.4
1982	6.0	0.1	0.1	1.6	7.8
Saskatchewan					
1961	13.4	0.2	0.2	7.0	20.8
1971	23.5	0.2	0.1	8.1	31.8
1982	15.3	0.1	0.0	5.4	20.8

TABLE 11-2 (cont'd.)

Province	(per cent)				Total Resource
	Agriculture	Forestry	Fishing and Trapping	Mining <sup>a</sup>	
Alberta					
1961	8.4	0.2	0.1	10.1	18.7
1971	6.2	0.1	0.0	14.7	21.0
1982	4.6	0.1	0.0	10.0	14.6
British Columbia					
1961	2.0	4.2	0.8	2.6	9.6
1971	1.2	3.9	0.4	3.0	8.6
1982	1.6	2.2	0.4	2.4	6.7

Source: Conference Board of Canada, *The Provincial Economies* (Ottawa: The Board, 1984).

a. Includes hydrocarbons.

Much of the contribution that resources make to Canada's economic well-being arises from our opportunities to trade them for the goods and services of other nations. Two trends appear in Table 11-3. First, the value of resource exports has grown significantly over time, from less than \$2 billion at the end of the Second World War to nearly \$50 billion currently. Secondly, there has been a quite dramatic downward shift in the share of Canada's total export trade accounted for by resources. As late as the mid-1950s, the products of Canadian farms, mines, forests, and oceans provided 84 per cent of the value of the goods we sold abroad. Our *relative* dependence on resource exports began to decline with the sharp increase, in the early 1960s, in shipments of manufactured products, mainly autos and auto parts under the Auto Pact. By 1983, the resource sector's share of exports had fallen to about 51 per cent. Still, it is clear that our ability to export an ever-increasing value of resource products has been instrumental in giving us the standard of living we now enjoy.

Another dimension of the situation emerges if one looks at employment patterns. Table 11-4 shows both total employment in the natural resource sector for various years from 1921 to 1983 and each sub-sector's share of that total. At the onset of the Great Depression, one Canadian in three worked in resource industries, mainly in agriculture. The ratio was much the same 15 years later, at the end of the Second World War. Then came the shift of labour out of agriculture. Because of this shift, by 1956 the resource sector's share of total employment had dropped to slightly more than half of its pre-Depression level. By 1966, 10.7 per cent of the work-force was employed in resource industries. The decline since 1966 (to about 7 per cent of total employment in 1983) has been steady, but less spectacular, and most of it continues to occur in agriculture. The shares of the other sectors are much closer to what they were at the end of the war.

**TABLE 11-3 Export Shares by Resource Sector**

(millions of current dollars and percentage of total)

Year	Agriculture		Fishing and Trapping		Forestry		Mining <sup>a</sup>		Total Resources	
	\$	%	\$	%	\$	%	\$	%	\$	%
1931 <sup>b</sup>	—	218	33.8	—	170	26.3	113	17.5	501	77.7
1941 <sup>b</sup>	—	410	22.3	—	340	18.5	448	24.3	1 198	65.1
1946	771	31.5	118	4.8	626	25.6	451	18.4	1 966	80.3
1951	986	24.3	147	3.6	1 454	35.8	947	23.3	3 534	86.9
1956	988	20.4	133	2.7	1 496	30.9	1 471	30.4	4 088	84.5
1961	1 160	19.6	141	2.4	1 622	27.5	1 861	31.5	4 784	81.0
1966	1 790	17.3	217	2.1	2 239	21.7	2 933	28.4	7 179	69.5
1971	1 891	10.6	288	1.6	3 085	17.3	4 767	26.8	10 031	56.3
1976	3 832	10.0	597	1.6	6 534	17.0	11 424	29.7	22 387	58.2
1981	8 329	9.9	1 502	1.8	12 855	15.3	24 476	29.2	47 162	56.3
1982	8 885	10.5	1 597	1.9	11 961	14.1	23 025	27.2	45 468	53.8
1983	9 008	10.0	1 560	1.7	13 148	14.5	23 104	25.4	46 900	51.6

Sources: 1931–1951, 1983, *Bank of Canada Review, Statistical Summary* (Ottawa: Bank of Canada, various issues); 1966–1981, Statistics Canada, *Historical Statistical Compendium*, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Ottawa: Statistics Canada, 1985), Tables 6.9 and 6.10.

a. Includes hydrocarbons.

b. In 1931 and 1941, agriculture, fishing and trapping were one category.

In some resource sectors, absolute decline in employment has accompanied relative decline. In 1931, 1.1 million Canadians worked on farms. By 1961, the figure had fallen to less than 700 000 and in 1983 only 476 000 Canadians were employed in agriculture. The decline has been absolute in forestry as well (from 86 000 in 1961 to 75 000 in 1983). On the other hand, the number of fishermen and trappers has increased, particularly since the mid-1970s (from 18 000 in 1961 to 19 000 in 1976 to 36 000 in 1983). Employment in mining rose from 80 000 in 1961 to 210 000 in 1981, falling again to 170 000 in 1983.

As Table 11-5 shows, the variation in resource employment across provinces is marked. Nearly a quarter of Saskatchewan's labour force still works in the primary sector, while in Quebec, the proportion is less than one in 20. Resource employment in many localities and municipalities—Sudbury and Port Alberni, for example—remains high. Resource dependence is a concept that must be qualified to suit the geographical area one has in mind, a point to which we return below.

The employment and output figures reported in the tables in this section represent only a part of the resource sector's economic impact. Significant indirect effects arise from the sector's links with other industries. Backward-linked industries provide inputs to the resource industry itself, in the form of

**TABLE 11-4 Employment by Natural Resource Sector, Canada**

(thousands and percentage of total employment)												
Year	Agriculture		Fishing and Trapping		Forestry		Mining <sup>a</sup>		Total Resources		Manufacturing	
	#	%	#	%	#	%	#	%	#	%	#	%
1921	1 042	32.8	34	1.1	40	1.3	52	1.6	1 167	36.8	530	16.7
1931	1 128	28.7	48	1.2	50	1.3	72	1.8	1 298	33.1	665	16.9
1941	1 082	25.8	51	1.2	94	2.2	93	2.2	1 320	31.5	917	21.9
1946	1 186	25.4	27	0.6	84	1.8	74	1.6	1 371	29.4	1 214	26.0
1951	939	18.4	30	0.6	115	2.3	79	1.5	1 163	22.8	1 350	26.5
1956	776	13.9	20	0.4	118	2.1	117	2.1	1 031	18.5	1 435	25.7
1961	681	11.2	18	0.3	86	1.4	80	1.3	865	14.3	1 452	24.0
1966	544	7.6	26	0.4	76	1.1	121	1.7	767	10.7	1 744	24.4
1971	510	6.3	22	0.3	72	0.9	129	1.6	733	9.1	1 795	22.2
1976	472	5.0	19	0.2	70	0.7	145	1.5	706	7.4	1 921	20.3
1981	485	4.4	35	0.3	78	0.7	210	1.9	808	7.3	2 122	19.3
1983	476	4.4	36	0.3	75	0.7	170	1.6	757	7.1	1 886	17.6

Sources: Statistics Canada, *Labour Force Annual Averages, 1975-1983*, Cat. No. 71-529 (Ottawa: Minister Supply and Services Canada, 1984); and *Historical Statistics of Canada*, 2d ed. (Ottawa: Statistics Canada, 1983).

a. Includes hydrocarbons.

excavation machinery, transportation services, fishing boats and agricultural machinery. Forward-linked industries, such as smelting and refining, fishpacking, and food processing, use the output of the resource sector as inputs. While not all of the resource sector's indirect effects on the economy are readily ascertainable, it is certain that the sum of these effects is large. The food and beverages industry alone employed 14 per cent of all workers in Canada's manufacturing industries in 1982. And, of course, incomes earned in the resource industries themselves are spent on consumer goods and services such as housing, food, and entertainment.

In some parts of Canada, resources also contribute significantly to government revenues. In 1981, resource revenues constituted 45 per cent of gross general revenue in Alberta, nearly 20 per cent in Saskatchewan, and 6

**TABLE 11-5 Employment in Natural Resource Sector by Province**

Province	(per cent of total provincial employment <sup>a</sup> )				
	Agriculture	Forestry	Fishing	Mining <sup>b</sup>	Total Resources
<b>Newfoundland</b>					
1966	— <sup>c</sup>	3.0	16.5	5.0	N.A.
1976	—	1.2	16.3	3.9	N.A.
1982	—	1.1	15.8	2.3	N.A.
<b>Prince Edward Island</b>					
1921	59.5	—	4.0 <sup>d</sup>	—	N.A.
1966	19.7	—	9.1	—	N.A.
1976	13.2	—	4.6	—	N.A.
1982	12.7	—	6.6	—	N.A.
<b>Nova Scotia</b>					
1921	26.5	—	8.0	—	42.3
1966	4.6 <sup>c</sup>	1.0	5.5	3.1	14.2
1976	2.7	0.6	3.4	1.5	8.2
1982	2.1	0.7	3.5	1.7	8.0
<b>New Brunswick</b>					
1921	35.4	—	5.4	—	41.4
1966	5.4 <sup>c</sup>	4.0	3.0	1.4	13.8
1976	2.6	2.5	2.1	1.2	8.4
1982	2.8	1.8	2.4	1.3	8.3
<b>Quebec</b>					
1921	28.1	—	1.9	—	30.5
1966	5.0 <sup>c</sup>	1.1	0.2	1.3	7.6
1976	3.0	0.6	0.2	1.0	4.8
1982	3.0	0.5	—	0.8	N.A.
<b>Ontario</b>					
1921	26.4	—	0.9	—	28.1
1966	4.5 <sup>c</sup>	0.5	0.4 <sup>f</sup>	1.2	6.6
1976	3.1	0.2	0.1 <sup>f</sup>	0.9	4.3
1982	3.2	0.3	0.1 <sup>f</sup>	0.7	4.3

**TABLE 11-5 (cont'd.)**

(per cent of total provincial employment <sup>a</sup> )						
Province	Agriculture	Forestry	Fishing	Mining <sup>b</sup>	Total Resources	
<b>Manitoba</b>						
1921	40.1	—	0.3	—	0.1	40.5
1966	14.0 <sup>c</sup>	0.4	0.4 <sup>f</sup>	1.6	1.6	16.4
1976	8.9	0.2	0.1 <sup>f</sup>	1.6	1.6	10.8
1982	9.1	0.3	0.1 <sup>f</sup>	1.1	1.1	10.6
<b>Saskatchewan</b>						
1921	65.4	—	0.3	—	0.1	65.8
1966	28.4 <sup>c</sup>	0.1	0.4 <sup>f</sup>	1.6	1.6	30.5
1976	24.6	0.2	0.1 <sup>f</sup>	1.7	1.7	26.6
1982	20.0	0.2	0.1 <sup>f</sup>	2.2	2.2	22.5
<b>Alberta</b>						
1921	52.8	—	0.4	—	4.0	57.2
1966	14.2 <sup>c</sup>	0.5	0.4 <sup>f</sup>	3.4	3.4	18.5
1976	13.9	0.2	0.1 <sup>f</sup>	4.1	4.1	18.3
1982	6.8	0.2	0.1 <sup>f</sup>	5.3	5.3	12.4
<b>British Columbia</b>						
1921	16.0	—	7.8	—	4.9	28.7
1966	3.1 <sup>c</sup>	2.9	1.8	1.4	1.4	9.2
1976	1.8	2.1	1.6	1.3	1.3	6.8
1982	2.5	1.4	1.4	1.3	1.3	6.6

*Sources:* Statistics Canada, CANSIM (Ottawa: Minister of Supply and Services Canada, 1983); *Labour Force Annual Averages, 1975-1983*, Cat. No. 71-529 (Ottawa: Minister of Supply and Services Canada, 1984); Department of Fisheries and Oceans, *Annual Statistical Review 1982* (Ottawa: The Department, 1984). For 1921, Census of Canada 1931 (Ottawa: Dominion Bureau of Statistics), vol. VII, Table 8.

*Note:* N.A. = not available because of missing sub-totals.

- a. These figures do not include employees engaged in the further processing of natural resources, for example in pulp and paper and metal products.
- b. Includes hydrocarbons.
- c. Information not released by Statistics Canada for reasons of confidentiality: small employment figures.
- d. In 1921, forestry and fishing employment were covered by one category.
- e. 1966 agriculture figures are for males only.
- f. Fisheries estimates are averages for Ontario and Prairie provinces.

per cent in British Columbia. However, the other provinces derive only very limited revenues from natural resources, and only in Alberta, Saskatchewan and British Columbia have these revenues grown in importance over time. In most of the other provinces, the revenue share from natural resource rents has declined substantially in the last 30 years.<sup>2</sup>

Two conclusions follow from this brief overview of past performance. First, in relative terms, our natural resource sector contributes much less to national economic activity now than it did in the past. This decline began in earnest



immediately after the Second World War and was largely complete by the mid-1960s. In the 1970s, many observers believed that the pattern of decline was about to be reversed, partly because of the resource boom in western Canada. Indeed, in 1981, the federal government proposed a medium-term strategy based on Canada's resource strengths.

Output in the natural resource industries has continued to grow absolutely, and in a few instances, employment has continued to grow as well. Other sectors, however, have grown so much more rapidly that the relative share of output and employment accruing from resources has shrunk significantly. The relative decline of employment is especially pronounced because of productivity increases in the resource industries. The mix within the natural resource sector has been altered somewhat, with agriculture continuing to slip and energy and hydro expanding, particularly in recent years.

Secondly, while the natural resource sector no longer looms as large in the national economy as it once did, it continues to dominate the economic life of some provinces, some areas within every province, and many localities. Grain prices are still important in Saskatoon, as are fish landings in St. John's. And many Canadians are only too familiar with the fact that in one-industry towns, a downturn in demand for minerals or plywood can mean the death of the community. In many ways, it is misleading to talk in general or national terms about dependence on resources.

What does the foregoing analysis tell us about the place of resources in future Canadian economic development? The long-term forecasts made in Part III presented an overview of the resource sector and warned of serious problems. Our own sectoral analysis suggests the same conclusion, at least in some respects. In an absolute sense—dollar value of production, for example—resources will be at least as significant as ever. Entire industries are not about to shut down, although individual mines, farms, or fishing enterprises might. Large numbers of Canadians will continue to work as farmers, loggers, fishermen, miners, and roughnecks. We shall also continue to find markets for our resources abroad that will provide us with ongoing access to the products of other nations.

In an absolute sense, then, Canadians will continue to see resources as a fundamental part of our economy. There are problems with dependence on resources, most notably cyclical instability and the tendency for employment to grow only very slowly over time or even to decline, but there are many positive features as well. Resources do provide skilled jobs. It was pointed out to Commissioners repeatedly in our hearings that resource industries are some of the highest-technology concerns in the world. They can therefore provide employment, and hence a "stay option", in regions of the country that are unlikely to attract manufacturing or service industries.

In a relative sense, however, it is likely that the resource sector as a whole will continue to decline, albeit more slowly than in the immediate post-war period. Output is unlikely to grow as quickly as that for manufactured goods and services so that the share of GNP attributed to these activities will fall further. Exports of resource products will continue to expand, and the terms of trade are unlikely to turn against us in any dramatic fashion. Nevertheless, this trade orientation will increasingly need to be supplemented by more

highly processed products in order to maintain our access to the goods and services of other nations.

Where employment is concerned, the pattern of relative decline will be even more pronounced. Overall, resource industries are unlikely to provide any net new jobs in the future. As in the early 1970s, this may not be true in all cases or in every year. Generally speaking, however, Canadians will have to find more and more of their jobs and sources of income on the factory floor or in the office tower. It is in this sense more than in any other that the fear is justified that resources are no longer the engine of growth they once were.

What do these conclusions portend for future adjustments? Are we at a turning point as regards the role of resources in Canadian economic development? From the perspective of the national economy, we have dealt, in the past, with much larger dislocations stemming from structural changes in the resource sectors than we are likely to face in the future. To argue that we now face special problems in this respect requires demonstration either that the costs of adjustment in the immediate post-war years were so large that even to repeat them on a much reduced scale is unthinkable, or that the economic climate is so different now that even much smaller dislocations will be more difficult to absorb. On the former point, it is, in fact, commonplace to remark on how smoothly we moved in such a short time from a predominantly rural to a largely urban society.

The second consideration is more substantive. Is it true that our capacity to adapt to even small economic shocks is now so much reduced? Could we not handle another off-farm exodus of the extent seen on the Prairies in the 20 years following the war? Our conclusions in Part III indicate that our ability to adjust remains high. However, to the extent that Canadians have elevated place-prosperity to a position above that which it occupied previously, relocation becomes more difficult. If we no longer accept that displaced farm workers from one province will take up jobs in another, or that resource towns will close as mineral deposits become uneconomic, it becomes that much more important to maintain the resource base. If, however, the resource-related economic base is truly inadequate, this adjustment, though painful, is probably inevitable and best proceeded with promptly. If, on the other hand, the inadequacy stems from the needless deterioration of resource-industry prospects, government actions to restore the balance may well be justified.

These prospects do not provide justification for neglecting the resource sectors. Indeed, for reasons of national comparative advantage, local and regional development, and national self-esteem, it is important to address problems that do exist. We may not have maximized our potential for natural resources in the past, but it is important that mismanagement not be the cause of any future decline. While the bulk of adjustment took place in the post-war years, we have continued to think and act as though resources guaranteed our prosperity. They may no longer do so.

There *are* problems, in fact, in each of our main resource sectors, in some instances, quite serious ones. Often, however, they are problems that can be overcome by appropriate policies. Finally, it is important to address problems quickly because resource industries discharge a function in our society that is

far in excess of what mere statistical indicators of jobs or value added can convey.

It must be stressed that the following review of specific sectors<sup>3</sup> and the policy prescriptions Commissioners have to suggest are necessarily brief. The breadth of our mandate precluded us from undertaking detailed and specialized studies of individual industries. We attempt only to flag what we see as important problems, and to indicate how reform might proceed in a direction consistent with the main themes of this Report.

### *Notes*

1. Not including electricity, for which no consistent statistical series is available on a provincial basis.
2. Statistics Canada, *Provincial Government Finance: Revenue and Expenditure*, Cat. No. 68-207 (Ottawa: Minister of Supply and Services Canada, various years).
3. Much of the background material contained in the sectoral profiles presented was adapted from a study prepared for this Commission. Interested readers are referred for further details to Bruce Wilkinson, "Canada's Resource Industries: A Survey", in *Canada's Resource Industries*, vol. 14, prepared for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1985).