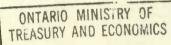
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Economic Council of Canada Conseil économique du Canada

ECONOMIC POLICY OPTIONS:

A TECHNICAL ANALYSIS



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OCTOBER, 1981

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INTRODUCTION

As it moves into the 1980s, the Canadian economy continues to be beset by many of the problems that developed during the last decade - slow growth, high inflation, only marginal improvement in productivity, substantial current account and federal government deficits, and relatively heavy unemployment.

The projections contained in the Economic Council's forthcoming Eighteenth Annual Review with respect to the economic outlook over the medium term indicate that some measure of improvement can be expected in certain aspects of Canada's economic performance even in the absence of changes in policy measures. Particularly in the first half of the decade, real economic growth will likely accelerate under the impetus of heavy capital investment in new energy projects at home and increasing economic activity abroad, which in turn will bring about some reduction in the rate of unemployment. The federal fiscal position will move from heavy deficit toward a balance as a result of the additional revenues generated by the 1980 National Energy Program as subsequently modified by the September, 1981, agreement with the government of Alberta. At the same time, however, inflation, productivity, non-energy related capital investment and the current account balances are all expected to present continuing problems. CAN.

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The core of the Council's Eighteenth Annual Review is devoted to an analysis of the prospective economic problems confronting the nation over the course of the current decade. New techniques adopted by the Council have been applied to measure the anticipated interaction of a wide variety of possible measures on the major aspects of Canadian economic performance. Through this means, the Council has sought to determine the mixture of fiscal and monetary policy measures which, after taking account of the innumerable trade-offs involved, will best achieve the policy objectives established by the political process. The new approach provides an opportunity to employ a range of fiscal and monetary instruments in order to bring about significant improvement in Canadian economic performance across a broad front.

This statement was drawn up by the Chairman on the instruction of members of the Economic Council at a meeting in September. Because the Council's Eighteenth Annual Review would not be published until late autumn, likely only after the introduction of the federal budget by the Minister of Finance, members concluded that a prior statement by the Chairman outlining the results of the Council's economic analysis would provide a useful contribution to the policy formulation process. It should be emphasized that the statement is put forward without prejudice to the views that may be expressed by the Council on policy issues in the forthcoming Review.

CURRENT ECONOMIC PROJECTIONS: THE BASE CASE

In keeping with past practice, the Economic Council has made projections on the anticipated evolution of a number of different facets of the Canadian economy over the next 10 years, which is termed the Base Case. These projections grow out of our present knowledge about the state of the economy and its prospects for the future in light of the framework of policy measures now in effect and anticipated developments at home and abroad over the course of the next several years.

The current base case has been revised significantly since that published in the Seventeenth Annual Review of the Council to take account of a number of subsequent major developments. These include the federal budget of October, 1980, the National Energy Program that was introduced simultaneously and its modifications under the agreement of September, 1981, the lowering of the Bank of Canada's target for the annual growth rate of the narrowly defined money supply to between 4 and 8 per cent, the supply-side economic approach adopted in the United States by President Reagan, and the prospective continuation of the U.S. Federal Reserve Board's tight monetary policy. Some of the key assumptions adopted in formulating these projections are included as notes to Table 1, which outlines the Council's base case.

The Economic Outlook

The picture emerging from the base case indicates that while the Canadian economy will continue to be dogged during the early years by the difficult problems inherited from the 1970s, its prospects for the decade as a whole are reasonably bright.

Notwithstanding these problems, real economic growth will be somewhat stronger during the first half of the decade than the last because of the stimulus provided by a number of major energy projects. Over the course of the decade, the gap between actual and potential growth will continue to grow, reaching a level of more than \$ 12 billion in 1971 dollar terms by 1990. Inflation, however, is expected to remain in the double-digit range until 1984 and then decline only marginally below that level during the remaining period to 1990. Unemployment will decline rather significantly through to the mid-1980s and then may begin to climb moderately thereafter unless - as is quite likely additional major investment projects are put in train in the late 1980s. The poor performance of productivity evident ever since the mid-1970s is likely to continue, improving only modestly in the latter half of the decade, with the trend of real wages following a similar pattern. The undertaking of a number of major energy projects will contribute to a significant rise in the level of capital investment.

The balance of trade in energy supplies will remain strongly in Canada's favour during the first half of the decade and then begin to fall off. The current account balance, however, will continue to deteriorate until around 1987, by which time the deficit will begin to decline once again.

One of the most marked and significant developments with respect to the indicators of economic performance that make up the base case is the change in the fiscal position of the federal government, which is expected to move from a position of substantial deficit in relation to Gross National Expenditures to a point of balance around mid-decade and subsequently into a position of growing surplus. This substantial turnabout is primarily the result of the increased revenues that will flow to the federal treasury as a result of the National Energy Program, as modified by the September agreement, and the assumption of continuing expenditure restraint. The provinces as a whole are expected to maintain a surplus throughout the 1980s, although the surplus will be concentrated in the three Western provinces; the others will probably be in deficit. The change in the federal fiscal position takes on particular significance because of the much greater room for manoeuvre it provides the federal government in devising policies aimed at dealing with a wide range of economic challenges.

The Anatomy of Inflation

Given the sluggish growth in consumption and the excess supply capacity that has existed for a number of years, the continuing high rate of inflation cannot be attributed only to excess demand factors. Nor is it possible any longer to regard it as purely a monetary phenomenon. The Council's analysis indicates instead that it is due to a multiplicity of other factors. These include the rate of increase in prices of goods and services produced abroad, high interest rates resulting from the tightness of monetary policy in the United States and Canada, continued slow growth of productivity, the tightness of certain labour markets, rising domestic energy prices, popular expectations with respect to wages and prices, and the increasing inclusion of cost of living adjustment provisions in labour contracts.

Some of these elements are beyond domestic control. Some could be ameliorated only at high social cost, such as through slower economic growth and greater slack in labour markets, resulting in high unemployment. Slowing the rate of increase in energy prices would run contrary to the thrust of public policy. Nevertheless, what the analysis suggests is that inflationary pressures should be countered by a broad range of approaches rather than by relying mainly on monetary policy.

POLICY OPTIONS

During the 1970s, the federal government introduced a substantial number of fiscal, monetary and energy measures aimed at maintaining economic growth, containing inflation, and moderating the adverse impact on many Canadians of sharp increases in the cost of living. The substantial increase in the federal deficit that came about as a combined result of these policies and stagnant economic activity both at home and abroad, reinforced a growing view that traditional instruments of economic management were no longer adequate to achieve healthy and balanced growth of the economy. Restraining inflation became the almost exclusive goal of policy, and restrictive growth of the money supply virtually the sole means of achieving that objective.

As indicated earlier, however, the prospective sharp decline in the federal budget deficit over the next few years and its anticipated shift to a surplus position - based on the current economic outlook and existing policy settings - provides a unique opportunity to institute a range of new policy measures aimed at achieving significantly stronger and more balanced economic performance than that projected in the base case.

Establishing Economic Performance Targets

In formulating its base case, the Council takes as given existing measures of policy and certain assumptions about the

future in an effort to project the course of the economy over the next several years. In approaching the question of what policy measures should be instituted in order to obtain better economic performance than that projected in the base case, we have reversed the process. In this case, we have established certain target objectives and sought to determine what mix of policy is required to come closest, on balance, to achieving those objectives. In our judgment, each of the targets is realistic and each in isolation is obtainable. This is not to suggest, however, that all of the targets can be reached in combination simultaneously. In current circumstances, this is not possible because of the inevitable trade-offs resulting from the impact of economic measures. What we have sought instead is to devise a mix of policy options that offers the prospect of achieving improved economic performance on a broad front.

The economic performance targets established are as follows:

- an annual inflation rate averaging 8 per cent during the period 1981-85;
- 3 per cent average annual real growth;
- federal fiscal balance on average between 1981-85;
- average unemployment at a rate of 6 per cent;

- annual money supply growth consistent with 8 per cent inflation and 3 per cent growth; and
- a current account balance between 1981-85;

The degree to which progress can be made towards achievement of each of the above targets depends in considerable measure on the priority objectives established by the political process and, subsequently, on the extent of the policy levers selected and the force applied to them in order to attain those objectives.

For purposes of illustrating the application of the new techniques used by the Council in order to determine the various impacts on various facets of the economy of different mixes of policy, we have focused the analysis on two broad strategies. These strategies are not mutually exclusive, however, with the result that policy instruments could be devised in an effort to achieve some combination of both strategic objectives.

Under the first strategy (Strategy 1), priority is accorded to the goal of reducing inflation and accelerated reduction of the federal government's budget deficit. The second strategy (Strategy 2) also provides for priority being given to the reduction of inflation, but the focus on faster reduction of the federal deficit is replaced by a new emphasis on the goal of promoting increased economic growth. In both strategies, other

economic performance goals are also taken into account, but given a lower priority.

The Policy Levers

For purposes of this exercise, a total of five policy instruments has been selected for the achievement in varying degrees of each of the two strategies, the outcome depending on the mix adopted and the relative force applied to each instrument. These instruments are: expenditure policy, indirect, corporate, and personal taxation, and monetary policy.

A total of six alternative approaches has been developed employing these instruments in a variety of combinations. These alternatives, which have been labeled from A to F, are as follows:

- A expenditure policy (also included in all following alternatives):
- B indirect taxation;
- C indirect and corporate taxation;
- D indirect, corporate and personal taxation;
- E indirect, corporate and personal taxation plus modest easing of interest rates through monetary policy;
- F as above except that monetary policy is somewhat less constrained.

It should be noted that instrument A, expenditure policy, envisages reductions in federal spending on goods only, not of any established social programs.

Strategy 1 - Goals: Inflation and Federal Deficit Reduction

To implement this strategy, each of the policy instruments designated above should be brought into play. The attached Tables 2 to 4 illustrate the way in which policy instruments would change, depending on the mix adopted, and the results in terms of various aspects of economic performance - consumer prices, growth, unemployment, federal deficit, current account, and so on.

If, for example, reliance were placed largely on expenditure policy (A) to achieve the objectives of Strategy 1, federal spending on goods would have to be reduced to 91.8 per cent of the base case in 1981, as shown in Table 2. Under this approach, some tuning adjustments would also be made in other instruments, but they would not be major elements of policy change. The federal sales tax on manufactured goods, the corporate tax rate, and short-term interest rates would all be reduced slightly below the base case from 1981 to 1985, while marginal personal income tax rates would increase somewhat in the first year, declining thereafter to the projected level for the base case in 1985.

Tables 3 and 4 indicate the impact of these policy changes

in terms of such measures as the Consumer Price Index, economic growth and unemployment.

Generally speaking, better performance overall will be achieved by making major changes in each of the other policy instruments, as provided for in alternatives E and F. A greater reduction in corporate and sales taxes on non-energy related goods will help to reduce inflationary pressures both directly and indirectly by encouraging increased capital investment and improved productivity. To eliminate the federal deficit while still lowering indirect and corporate tax rates in order to achieve these inflation, investment and productivity objectives would require an increase in personal tax rates averaging 24 per cent over the period 1981-85. The reduction in federal interest rate costs that would also be required to eliminate the deficit would be accommodated by a reduction in short-term interest rates of 3 to 4 percentage points as a result of the easing of monetary policy.

Activation of all of these instruments as provided for in Alternative F would produce improvements in a variety of areas. The federal fiscal position would be brought into balance by 1982. Inflation would be reduced by some 2.4 percentage points below the base case by 1983, declining from 12.2 to 9.8 per cent. The trade balance would be strengthened and increased productivity and capital investment achieved. At the same time, however, real Gross National Expenditures would be cumulatively reduced by

around \$5.3 billion by 1985, primarily as a result of the impact of increased personal income tax rates, while initially the unemployment rate would climb from the currently projected level of 7.1 per cent for 1981 to 8.4 per cent. Over the period 1981-85 there could be some 990,000 jobs lost and new employment opportunities forgone.

Strategy 2 - Goal: Inflation Reduction and Increased Real Growth

Taking account of the fact that the National Energy Program as it now stands will serve to reduce the federal deficit substantially over the period 1981-85, this strategy shifts the focus from further accelerating this reduction as provided for in Strategy 1 to achievement of stronger economic growth than that projected in the base case, while at the same time also reducing inflation.

Because real growth in 1980 was a fractional .1 per cent, the gap between actual and potential economic output has grown to nearly 6 percentage points and in 1981 is projected to amount to around \$8.8 billion in 1971 dollar terms. In undertaking this new strategy, the growth target has been raised from 3 to 3½ per cent and the unemployment rate reduced from 6 per cent to a level in 1985 of 5 per cent.

The alternative combinations in which policy instruments are applied in accord with this strategy are shown in Table 5 and the

various outcomes in terms of different performance indicators outlined in Tables 6 and 7. In the case of alternative F, which provides for the full application of all policy instruments, considerably less emphasis would be given to expenditure reduction. Personal income taxes would be increased only moderately (about 8 per cent on average over the 1981-85 period), although foregoing this alternative would not significantly affect the results in terms of economic performance. The reduction in the sales tax and corporate tax rate would be somewhat greater than provided for in Strategy 1 over the whole of the period. Monetary policy in the initial years would be somewhat more relaxed and short-term interest rates reduced further than projected in Strategy 1.

The active pursuit of Strategy 2 could add around 1 per cent to the real rate of economic growth and close the gap between actual and potential performance by 1985 by 60 per cent. Over the 1981-85 period, economic output would total some \$18 billion (1971 \$) more than projected in the base case, whereas in Strategy 1 it would be around \$5 billion below that total. The unemployment rate is expected to decline to 4.3 per cent by 1985. On the other hand, the inflation rate, while initially reduced significantly below that projected for Strategy 1, would on balance remain somewhat higher over the whole period (although still below the base case projection) because of less slack in the labour market. The federal deficit would initially be higher in this case also, but move closer to the base case over

the period. Capital investment and productivity would be stronger under Strategy 2, but the current account position, while improved over that estimated in the base case, would be weaker than in the case of Strategy 1 because of increased imports resulting from higher domestic economic activity.

CONCLUSION

It is evident from the foregoing analysis that significantly different results can be achieved from the pursuit of different economic strategies and the implementation of different combinations of policies for the achievement of those strategies.

The central point that emerges is that through the application of a broad range of instruments acting both on the supply side and the demand side it should be possible to bring about a significant improvement in a number of areas of economic performance. While a severely restrictive monetary policy may eventually achieve its single objective of reducing inflation, it can do so only at heavy cost because of its highly adverse impact on many other facets of the Canadian economy. The adoption of a judicious mix of fiscal measures can not only by itself serve to promote more balanced economic performance, but - equally important - can also make it possible to reduce the tightness of monetary policy and, consequently, ease its detrimental economic effects.

Note to Table 1

Key assumptions on which the base case is predicated include the following:

- Higher real growth is generated in the first half of the decade as a result of the phasing of large energy projects. No such projects are assumed to be initiated in the latter half.
- Productivity begins to improve marginally only in the second half of the 1980s.
- The rate of personal savings will decline because of the erosion of existing tax incentives, which are not indexed for inflation.
- The participation rate of women in the labour force will maintain its upward trend.
- The National Energy Program as revised by the September 1981 agreement with Alberta will contribute significantly to a decline in the federal deficit; the scope and funding of the Fiscal Arrangements Act will not be significantly altered, with the result that the provincial fiscal position as whole remains in surplus.
- The average annual reduction in domestic oil consumption will amount to only .35 per cent, not the 2.6 per cent reduction

forecast in the NEP, because of lower levels of oil substitution than estimated.

- The current account will deteriorate in later years because of a decline in the energy trade balance and the rising cost of servicing foreign debt.
- Real growth in the United States will amount to 2.7 per cent in 1981 and average between 3 and 4 per cent over the period 1982-84, with 3 per cent growth on average to the end of the decade; U.S. inflation will average 9 per cent during the first part of the 1980s and 8.3 per cent in the second 2 percentage points below that in Canada.
- U.S. monetary policy will remain very tight until the end of 1983, but interest rates will fall from unprecedented levels thereafter to around 10.5 per cent.
- Industrial production in other OECD countries in Europe and in Japan will decline by 2 per cent in 1981, increase by an average of 4 per cent in 1982 and 1983, and grow by approximately 4.6 per cent annually over the balance of the decade.
- No real increase is expected in international oil prices until after 1983, but for the decade as a whole it is assumed they will increase by an annual average of 2 per cent, possibly being boosted sharply at intervals by price shocks.

- Real federal defence spending increases annually by 3 per cent over the decade, while non-defence spending on goods and services rises by only 1.5 per cent, half the rate of increase in real GNE.
- The existing target for growth of narrowly defined money supply of 4 to 8 per cent annually is maintained.

Note to Tables 2 to 7

Tables 2 to 4 show the results for a strategy in which the major objectives are inflation control and deficit reduction.

Tables 5 to 7 show the results for a strategy in which the major objectives are inflation control and real growth.

Within each strategy, we have examined the projected implications of six alternative policy combinations (labeled A to F) for a set of policy levers (Tables 2 and 5), a set of policy target variables (Tables 3 and 6), and a set of major economic indicators (Tables 4 and 7). In the case of the policy levers and some of the economic indicators, the results are expressed as deviations from the base case outcomes. For the policy target variables and the rest of the indicators, the results of the base case and the six alternatives both appear, and a comparison can be drawn directly between them.

In the base case, the policy mix currently in effect is assumed to be maintained over the 1981-85 period. In alternative A, only expenditure policy is permitted to deviate from the base case. In each of the subsequent alternatives, another policy element is allowed to vary from the base case policy mix, and the policy measures that have already been modified are adjusted in response to the addition of the new element. In Alternative C, for example, personal taxation rates are permitted to deviate from the base case assumption. Expenditure policy, indirect taxation, and corporate taxation - which have already been modified in the preceding alternatives - than adjust accordingly.

Table 1

Selected Indicators from the Base Case Projection, 1981-90

| | 1981 | 1982 | 1983 | 1984 | 1985 (Per cent | 1986 1 t change) | 1987 Je) | 1988 | 1989 | 1990 |
|---|--------------------------------------|--|--|---------------------------------|--|-----------------------------|-------------------------------|--|------------------------|----------------------|
| Real GNE Consumer price index Labour force Employment Productivity Real wage rate Nominal wage rate | 22.5 22.5 3.16 2.24 9.84 | 2.6 2.3 2.3 3.1 -0.2 12.5 | 12.2 2.1 2.1 3.1 0.3 11.6 | 2.2 2.2 2.4 2.6 0.8 | 2.5 9.9 1.8 1.8 0.9 | 3.1 2.1 1.6 1.6 | 42.00 22.00 7.11 9.8 | 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | 2.08 4.1.9 6.0.6 | 7.80.00 7.4.00.00 |
| Saving rate ² Participation rate ³ Unemployment rate | 62.9 | 63.5 | 9.0 64.0 5.5 | 8.8 64.7 5.3 | (Per 8.4 65.2 5.3 | cent) 8.2 65.9 5.5 | 8.0 66.6 5.5 | 7.8 67.2 6.0 | 67.5 | 7.3 68.3 6.4 |
| Real investment Pederal surplus or deficit (-) Provincial surplus or deficit (-) | 23.2 | 23.5 | 24.4 | 25.0 -0.3 | ercentage of GNE) 25.6 26.2 26 0.4 0 0.8 0.7 0 | 26.2 0.4 | 26.8 0.8 0.7 | 26.7 1.0 0.7 | 26.7 1.2 0.7 | 27.0 1.6 0.8 |
| Balance of international payments Current account Energy Non-energy | 0.6 | 1.2 | 1.1 | -1.9 | -2.1 0.9 -3.0 | 0.7 | 0.4 | 0.2 | 0.2 | -1.7 -0.1 |

Output per person-hour. Personal saving as a percentage of personal disposable income. Labour force as a percentage of population 15 years and over (1971 revision).

SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

Table 2

Strategy: Inflation Control and Deficit Reduction

Effect of Six Policy Combinations (A to F) on Policy Levers (as a Proportion of Base Case Levels)

I Data represent per cent of base case value for the associated policy lever. For example, for federal government expenditure the value 91.8 in 1981 indicates that in this alternative the policy lever was reduced to 91.8 per cent of the base case value.

SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

² On non-defence goods.

Strategy: Inflation Control and Deficit Reduction

Effect of Six Policy Combinations (A to F) on Target Variables

| 1981 1982 1983 1984 1985 (Per cent change) | 12.5 12.2 12.2 10.6 9.9 12.5 12.1 11.9 10.5 9.0 11.6 11.6 11.7 10.9 9.9 9.5 9.1 11.6 10.7 9.8 9.5 9.2 11.6 10.7 9.8 9.5 9.2 | 3.5 2.6 3.3 2.9 2.5 3.4 3.0 3.0 0.3 3.3 3.9 6.0 5.6 5.6 5.6 5.9 3.8 5.0 3.8 5.0 5.0 5.6 6.0 5.0 5.6 6.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5 | 6.1 6.0 6.0 6.0 6.0 6.0 6.1 6.0 6.1 6.0 5.9 5.8 5.7 5.9 6.1 5.9 5.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6 | (Per cent) 7.1 6.4 5.5 5.3 5.3 7.3 6.6 5.7 5.4 5.3 7.3 6.5 5.6 5.1 4.5 8.4 7.5 6.3 5.5 5.1 8.4 7.5 6.3 5.5 5.1 | -2.0 -1.7 -1.0 -0.3 -1.8 -1.5 -0.7 -0.2 0.1 -2.4 -2.3 -2.0 -1.3 -0.7 -0.4 -0.4 0.2 0.1 -1.0 -0.3 0.1 0.2 0.4 0.3 | -1.1 -1.1 -1.7 -1.9 -2.1 -2.0 -0.9 -1.4 -1.8 -2.0 -2.0 -1.0 -1.1 -1.7 -1.9 -2.0 -2.0 -2.0 -2.0 -2.0 -2.0 -2.0 -2.0 |
|---|--|---|--|---|--|---|
| Consumer price index | Base Case projection A Expenditure policy only A Discontinuous control of the con | Base Case projection A Rapendiure policy only A Plus Indirect taxation C B plus corporate taxation C C plus personal taxation C D plus more tay policy (constrained) F D plus monetary policy (unconstrained) Money supply | Base Case projection A Expenditure policy only B A plus indirect taration B C plus personal taration C plus monetary policy (constrained) P D plus monetary policy (unconstrained) | Unemployment rate Base Case projection A Expenditure policy only B A plus indirect taxation C B plus corporate taxation C D plus personal taxation D D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | Pederal aurplus or deficit (-) Base Case projection A Expenditure policy only A plus indirect taxation C B plus corporate taxation C plus personal taxation B D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | Current account of balance of international payments A sapenditure policy only A plus fuditer taxation C plus corporate taxation B D plus monetary policy (constrained) P D plus monetary policy (constrained) P D plus monetary policy (unconstrained) |

SOURCE Sconomic Council of Canada, CANDIDE Model 2.0, September 1981.

Table 4

Strategy: Inflation Control and Deficit Reduction

Effect of Six Policy Combinations (A to F) on Selected Indicators

| 1981 1982 1983 1984 (Billions of dollars) | | 138.1 | 0.2 0.6 | -4.1 | | ce from the Base Case | -2.8 -0.1 | 2.6 3.5 | | 9.0 19.1 27.3 31.6 | | | | -1.0 -1.2 | 4.4 -7.4 | -2.1 -3.6 -5.8 -5.3 -1.0 -2.8 -4.4 -3.2 | (Per cent change) | | 6.9 | 0.1 | 0.0 | 9.1 1.1 | | 10.5 | 5.0 | 0.6 | 1.4 0.7 0.3 -0.1 | | (U.S. cents) | 84.8 | 65.9 65.1 | 85.4 85.6 04.6 84.3 85.4 85.3 84.1 63.6 | 67.0 86.3 | 86.9 86.2 |
|--|---|---|---------|------|---|--|----------------------|---------------------------|---|--|--|--|----------------------|----------------------------|-----------------------------|--|-------------------|--------------|-----|------------|-----|---------|--------|--|----------------------------|-----------------------------|------------------------|--|---------------|------------------------------|---------------------------|--|----------------------------|--|
| | Real gross national expenditure - difference from the Base Case | Base Case projection Promotive on tow only | | | 8 D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | Pederal and provincial surplus or deficit (-) - cumulative difference from the Base Case | Base Case projection | A Expenditure policy only | B A plus indirect temation C B plus corporate tamation | D C plus personal taxation E D plus monetary policy (constrained) | D bins movecary policy (unconstrained) | Business unremitted profits - cumulative difference from the Base Case | Base Case projection | 8 A plue indirect tenation | C B plue corporate taxation | E D plus sonetary policy (constrained) | | Productivity | | ũ ∢ | | plus | anid o | Base Case projection A Expenditure policy only | B A plus indirect taxation | C B plus corporate taxation | Dius prisones reservoi | o bine monetary policy (unconstrained) | Cachange rate | ac description of the second | A Expenditure policy only | A plus indirect taxation | D C plus personal taxation | 2 b plus monetary policy (constrained) |

¹ Output per person-hour.

SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

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| base Case projection A Expenditure policy only A Dissipation of the policy only B Dissipation of the policy only C Dissipation of the policy (constraint) D Dissipation of the policy (unconstraint) A Expenditure policy only A Dissipation of the policy only B Dissipation of the personal teastion C D Dissipation of the policy (constraint) D Dissipation of the personal teastion E D Dissipation of the personal teastion E D Dissipation of the policy (constraint) | Meal gross national expenditure - cumulative difference from the Sase Case | ined) rained) | from the Base Case | (fred) |
|--|--|--|---|--|
| | oss national expenditure - co | Expenditure policy only Expenditure policy only A plus indirect taxation B plus corporate taxation C plus personal taxation D plus monetary policy (onetrained) D plus monetary policy (unconstrained) | Investment ! - cumulative difference from the Base Case | se case projection A pipenditure policy only A pius indirect tassition B plus corporate tassition C plus personal tassition D plus monetery policy (constrained) |

Employment - cumulative difference from the Base Case

| A Expenditure policy only A Expenditure policy only B A plua indirect teastion C B plua corporate tasation D C plua personal tasation P D plua monetary policy (constrained) P D plua monetary policy (unconstrained) | Real disposable income | Base Case projection A Espenditure policy only | A plue indirect casation B plue corporate tasation C plue personal taxation C plue personal taxation D plue annetary policy (constrained) D plue annetary noticy (unconstrained) |
|---|------------------------|--|---|
| A Expendence of police of | eal dispo | Base Case | |

| Expenditure policy only | Indirect taxacion | corporate taxation | personal taxation | monetary policy (constrained) | D plus monetary policy (unconstrained) | ~ | Base Came projection | Expenditure policy only | plus indirect taxation | corporate taxation | personal taxation | monetary policy (constrained) | monetary policy (unconstrained) |
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Investment

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- 1 Construction and machinery and equipment.
- 2 Personal maving as a percentage of personal disposable income. SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

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| 134.6 134.6 107.6 107.7 | -0 | ************************************** |

Strategy: Inflation Control and Real Growth

Effect of Six Policy Combinations (A to F) on Policy Levers (as a Proportion of Base Case Levels)

| 1981 1982 1983 1984 1985 (Per cent.) | 1000.0 99.9 97.4 97.4 97.5 96.9 97.7 100.0 | 74.4 65.1 64.7 46.2 41.1 75.4 65.1 52.3 46.8 63.1 76.1 66.5 54.5 51.1 45.5 | 100.0 | 100.0 | 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.1 100.1 100.1 100.1 100.1 100.1 100.1 100.1 100.2 100.2 100.2 100.2 100.2 100.2 100.2 100.2 100.1 |
|---|---|---|---|---|---|
| Pederal government expenditure ² | Rese Case projection A Expenditure policy only B A plus indirect taxation C B plus corporate taxation C D plus monetary policy (unconstrained) F O plus monetary policy (unconstrained) F O plus monetary policy (unconstrained) A Expenditure policy only A Expenditure policy only B A plus indirect taxation C B plus corporate axation | D C plus personal texation E D plus monetary policy (constrained) P D plus monetary policy (unconstrained) Corporate tax rate | Base Case projection A Expediture policy only B A plus indirect teastion C B plus corporate tasation D C plus personal tasation E D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | Short-term interest rate Base case projection A Espenditure policy only B. A plus corporate taxation C plus personal taxation C plus monetery policy (constrained) P D plus monetary policy (unconstrained) P D plus monetary policy (unconstrained) | Base Case projection A Expenditure policy only B A plus indirect taxation C B plus personal taxation C plus personal taxation E D plus monetary policy (constrained) P D plus monetary policy (unconstrained) |

¹ Data represent per cent of base case value for the associated policy lever. For example, for federal government expenditure the value 101.7 in 1981 indicates that in this alternative the policy lever was increased to 101.7 per cent of the base case value.

SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

² On non-defence goods.

Table

Strategy: Inflation Control and Real Growth

Effect of Six Policy Combinations (A to F) on Target Variables

| (Per cent change) | 12.5 12.2 12.2 10.6 9.9 12.0 12.0 12.0 10.6 10.0 11.0 11.0 11.0 11.0 11.0 10.0 10 | 2.6 3.5 2.6 3.9 3.9 3.9 3.9 3.9 4.1 3.1 4.2 3.9 4.3 3.9 4.3 3.9 4.3 3.9 4.3 3.9 4.3 3.9 4.3 3.9 4.3 3.9 4.3 3.9 4.3 3.0 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 | 6.1 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.1 6.0 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1 | 7.1 6.4 5.5 5.3 5.1 5.1 7.2 6.1 5.0 4.1 4.1 7.2 6.1 5.0 4.1 4.1 7.2 6.1 5.5 4.3 7.3 6.5 5.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4 | -2.0 -1.7 -1.0 -0.3 -0.1 -1.5 -1.0 -0.4 -0.1 -1.5 -1.0 -0.4 -0.1 -1.6 -0.4 -0.1 -1.6 -0.1 -1.6 -0.1 -1.6 -0.1 -1.6 -1.7 -1.0 -1.5 -1.0 -1.7 -1.0 -1.7 -1.0 -1.7 -1.0 -1.7 -1.0 -1.7 -1.7 -1.7 -1.7 -1.7 -1.7 -1.7 -1.7 | -1.1 -1.1 -1.7 -1.9 -2.1 -2.1 -1.1 -1.1 -1.9 -2.1 -2.1 -2.1 -2.1 -2.1 -2.1 -2.1 -2.1 |
|----------------------|---|--|--|---|--|---|
| Consuser price index | Ependi plus plus plus | Mass Case projection A Expenditure policy only B A plus indirect tastion C B plus corporate tastion C C plus personal tastion B D plus monetary policy (constrained) | A Expenditure policy only A Expenditure policy only B A plus indirect tasstion C B plus corporate tasstion C plus personal tasstion F D plus monetary policy (contrained) P D plus monetary policy (unconstrained) | Base Case projection A Expenditure policy only A plus indirect taxation C plus personal taxation C plus monetary policy (constrained) P D plus monetary policy (unconstrained) P plus monetary policy (unconstrained) | Base Case projection A Expenditure policy only B A plus indirect taration C B plus acopcate taration C C plus personal taration E D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | Current account of balance of international payments Base Case projection A Expenditure policy only A A plus indirect taxation C plus personal taxation D plus monetary policy (constrained) F D plus monetary policy (unconstrained) |

SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

Table 7

Strategy: Inflation Control and Real Growth Rffect of Six Policy Combinations (A to P) on Selected Indicators

| | 1961 | 1962 (Billic | (Billions of dollars) | 1984 11ace) | 1905 | |
|---|---|---|--|---|---|--|
| teal gross national expenditure - difference from the Base Case | | | | | | |
| Base Case projection A Expenditure policy only B A plus indirect taration D C plus percent taration C plus mercenal taration P D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | 0.000.0 | 136.1 1.2 2.4 1.9 2.0 | 22.7 4.0.1 4.0.5 2.0.5 2.0.6 | 6.6 9.7 4.7 5.0 8.0 8.0 8.0 | 80.20 8.20 8.20 8.20 8.20 8.20 | |
| 'ederal and provincial surplus or deficit (-) - cumulative difference from the Base Case | | | | | | |
| Base Case projection A Expenditure policy only B A plus indirect taxation D C plus percent taxation D C plus moretary policy (constrained) F D plus monetary policy (unconstrained) | # 0 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | # F 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 115.0 | 3.5 -0.5 -7.1 -20.4 -12.5 -0.8 | -1.1 -26.1 -26.1 -20.4 | |
| business unremitted profits - cumulative difference from the Base Case | | | | | | |
| Assection Expenditure policy only A plus indirect taxation B plus corporate taxation C plus personal taxation C plus personal taxation D plus monetary policy (contrained) | -246268 | 400 | 9 5. 0. 0 0 5. 0. 0 0. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 6-45.55 6-45.55 6-45.55 | 21.0 25.3 25.3 23.1 20.1 | |
| Productivity | | , Per | cent change) | (ebu | | |
| Base Case projection A Expenditure policy only B A plus indirect testion D C plus personal testion E D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | 446 | 00000 | 000000- 000000- | 000 | 0 | |
| Real wage rate | | | | | | |
| Base Case projection A Expenditure policy only B A blus indirect teastion C A plus morporate teastion D C plus present teastion E D plus moretary policy (constrained) P D plus monetary policy (unconstrained) | 122.24 | 000000 | 20,100 | • 0 0 0 0 0 - | | |
| emchange rate | | 0) | (U.8. cents) | • | | |
| A Expediture policy only A Expediture policy only A plus indirect transion C B plus corporate transion C plus pormonal transion B D plus monetary policy (constrained) P D plus monetary policy (unconstrained) | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 888888 5.5448 7.77 | ************************************** | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 888888888888888888888888888888888888888 | |
| | | | | | | |

¹ Output per person-hour.

80URCR Economic Council of Canada, CANDIDE Model 2.0, September 1981.

Table 7 (continued)

Real gross national expenditure - cumulative difference from the Base Case

| | | | | (ped) | rained) |
|---|----------------------------|-----------------------------|----------------------------|-------------------------------------|---|
| Base Case projection A Expenditure policy only | 8 A plus indirect taxation | C B plus corporate tasation | D C plus personal taxation | E D plus monetary policy (constrain | P D plus monetary policy (unconstrained |

Suployment - cumulative difference from the Base Case

| | lass Case | |
|--|---|--|
| is case projection Expenditure policy only A plus indirect taxation B plus corporate taxation C plus personal taxation D plus monetary policy (constrained) D plus monetary policy (unconstrained) | Investment - cumulative difference from the Base Case | Expenditure policy only A plua indirect texation B plua corporate taxation C plue personal texation D plua monetary policy (constrained) D plua monetary policy (unconstrained) |
| A Expenditure policy A Dium indirect C B plum corporate C B plum corporate C D plum monetery P D plum monetery | Investment | A Expenditure policy of a plus indicate to blus corporate C blus personal to C plus personal to D plus monetary proping a D plus monetary proping to b plus monetary proping mon |

Real disposable income

| Expenditu | 2 40 20 00 |
|--------------|--|
| | The Court of the C |
| A plue in | A plus indirect taxation |
| B plus cor | corporate taxation |
| C plus per | personal taxation |
| D plue mor | monetary policy (constrained) |
| D plus sor | policy |
| Baving rate? | |

| ection policy only | texation | texation | taration | policy (constrained) | policy (unconstrained) | |
|--|------------------------|-----------|----------|----------------------|------------------------|------------|
| Base Case projection A Expenditure policy | A plue indirect texati | corporate | personal | Bonetary | Bonetary | |
| Dend | plue | plus | b) ne | plue | plus | ment |
| | | | 0 | 0 | • | Investment |

| iture policy only | Indir | | personal taxation | monetary policy (constrained) | onetar |
|-------------------|-------|-------------------|-------------------|-------------------------------|--|
| puad | plue | plue | plue | plus | plue |
| E3 | « | 80 | v | ٥ | ٥ |
| | | policy rect te | rect tal | ndirect tar orporate ta | penditure policy only plus indirect taration plus corporate taration plus personal taration plus monetary policy (|

1 Construction and machinery and equipment.

2 Personal saving as a percentage of personal disposable income. SOURCE Economic Council of Canada, CANDIDE Model 2.0, September 1981.

| 1988 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 1920 1920 1956.6 1956.6 1970.4 | 888-1780 | | ****** | F-000000 |
|------------------|---|--|---|---------------|---|---|
| 1984 dollare) | 12.5 2.5 2.6 2.6 2.6 10.4 | 226.1 41.0 226.1 416.0 218.8 161.8 | 2000 2000 2000 2000 2000 2000 2000 200 | 0.000000 | ***** | VVV B B B B B V B B B B B B B B B B B B |
| 1983 one of d | 142.7 0.7 3.4 7.0 8.1 5.4 5.7 | 11432.1 146.1 122.3 215.7 216.0 83.1 | 2000000 | N N O O O | 0 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - | 7.7.4.00 4.7.2.2.5.0 |
| 1982 | 2.6 | 11091.1 4.6 52.8 89.4 60.0 40.1 25.0 | ru-eoee | 24440 1446 | ****** | |
| 1961 | # 00000 | 10.76 -0.2 10.7 19.6 19.6 | 2.100000 | | | ###################################### |
| | | | | | | |

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