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The Options for Stabilization Policy in Canada

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RESEARCH REPORT 7113
THE OPTIONS FOR STABILIZATION
POLICY IN CANADA

by

Grant L. Reuber
in association with
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B R I E F

TO THE STANDING SENATE COMMITTEE ON NATIONAL FINANCE

May 20, 1971

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in association with
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The Options for Stabilization Policy in Canada

1. Introduction¹

At this stage in these Hearings the members of this Committee, after listening to the various views of a series of witnesses, may well feel much like Alice in Wonderland who at one point is heard to mutter "It's really dreadful the way all the creatures argue. It's enough to drive one crazy". Perhaps it would be somewhat reassuring to begin by saying that on two points at least there seems to be widespread agreement. First, the problem of reconciling full employment with stable prices is common to all industrial countries and is by no means unique to Canada - as witness the recent O.E.C.D. study on inflation.² Secondly, despite the ambitious claims of some commentators, no one anywhere has yet come up with a satisfactory answer to this policy dilemma, now recognized as one of the foremost issues facing many governments.

In part the differences of view about what policy should be reflect different estimates of the relative costs and benefits of rising prices versus unemployment, as well as underlying preferences. And in part these different viewpoints reflect a difference of view about the circumstances found in the country and about the empirical relationships that determine how the economy works. A host of issues arise along both of these avenues. Rather than attempt a comprehensive review of these issues, this Brief touches on three areas:

1. The chief factors that have given rise to the recent rapid rise in prices accompanied by high levels of unemployment;
2. The main policy options that face the country and some of the implications of each;
3. Several associated issues that arise out of the first two questions and the questions posed by your Staff.

2. Principal Factors Accounting for the Recent Rapid Rise in Prices
in Combination with High and Rising Levels of Unemployment

a) Exceptionally Rapid Increases in the Labour Force Combined with
Labour Market Imperfections:

As the Economic Council of Canada pointed out a few years ago, the Canadian labour force has grown at an unprecedented rate since 1965 and will continue to grow very rapidly throughout the 1970's (see Appendix, Table 1). The present rate of growth far exceeds the recent and projected growth rates in the labour forces of other industrialized countries (Charts 1 and 2). This rapid growth rate in Canada is mainly the lagged consequence of the large post-war baby boom but it has also been influenced by rising female participation in the labour force, as well as by positive net immigration. Looked at from the standpoint of job creation rather than from the standpoint of absorbing available labour supply, the Canadian economy has performed with a success that is unprecedented, at least since immediately after World War II, and that exceeds by a substantial margin the performance of the U.S. and European economies (Table 2).

A rapid increase in labour supply is to be welcomed on a variety of grounds, including the possibility which it opens up for more rapid increases in output because of the large increments in this fundamentally important productive resource. Moreover, with perfectly functioning labour markets little or no difficulty would arise in absorbing exceptionally large increases in labour supplies. Indeed, in a well-functioning labour market increasing labour supplies are likely to make market adjustments somewhat easier since the increments in labour supply will tend to be absorbed into growing sectors of the economy, thereby reducing the need to reallocate labour from slow-growing to fast-growing sectors in a dynamic economy. The difficulties of absorbing a rapidly growing labour force arise for the most part because labour markets are far from perfect. Among the many imperfections that are evident are various regional and occupational immobilities; inadequate information about job opportunities, restrictions on entry into various employments because of trade

unions, professional and governmental barriers and regulations; labour pricing arrangements such as wage-parity and minimum wage laws; non-portable pension plan arrangements; fiscal incentives to substitute capital for labour; seniority arrangements to protect the interests of older, established workers; social welfare and other measures that undermine labour mobility and work incentives; and others.

Such imperfections become particularly serious, especially in the short-run, when the labour force grows at the rapid pace now experienced in Canada. Moreover, the effects of these imperfections are further exacerbated when aggregate demand is dampened in order to cope with inflationary pressures. Given the rapid increase in labour supplies in Canada, the anti-inflationary policies that have been followed and the imperfections found in the Canadian labour market - which may well be greater than in most other countries because of the geographic dispersion of the labour force and the importance of regional and seasonal factors - it is hardly surprising that unemployment levels in Canada have generally been higher since the 1950's than in Western Europe and the United States, where the labour force has grown more slowly and where labour markets are more homogeneous. (Table 3).

b) External Price Changes:

As is widely recognized, external price and wage changes, especially those in the U.S., have a fundamental influence on price and wage changes in this country. This influence arises directly through our heavy volume of foreign trade as well as through the ease with which productive factors move between Canada and the U.S. This external influence also arises indirectly through at least two channels: the first is through institutional links between businesses and trade unions in Canada and the U.S.; the second is through the influence of events in the U.S. on expectations in Canada about future trends in prices, wages and output. The first of these is obvious and has been much discussed. The second is less obvious and has received less attention but may be even more important. Available evidence suggests, for example, that expectations indices based on U.S. data are more powerful in explaining Canadian

interest rates than expectations indices based on Canadian data.³

Throughout recent history Canadian price changes have moved closely in line with international prices - particularly U.S. prices. (Table 4). This has been especially true during periods when we have been on a fixed rate of foreign exchange. From 1965 to May 1970, for example, the consumer price index in Canada increased 21 per cent compared with 22 per cent in the U.S. With the adoption of a floating exchange rate in May 1970, the rigid link between Canadian and U.S. price trends was broken. Subsequently the rate appreciated by over 8 per cent. As a consequence of this, as well as strong competitive pressures in the food sector, contractionary monetary-fiscal policies and other factors, Canadian prices have risen appreciably less than U.S. prices since the spring of 1970. Unless, however, one can foresee a further significant change in the exchange rate, there is little reason to believe that after this once-for-all readjustment in relative price changes has been absorbed, Canadian price changes will not again closely follow price changes in the U.S. and elsewhere. Barring truly extra-ordinary measures entailing substantial readjustments and economic costs, all our history indicates that it is unrealistic to believe that Canadian prices over any period of time can be expected to follow a path that differs significantly from price changes in the U.S. and other foreign countries.

c) Poor Market Performance in Product Markets:

With the appearance of substantial excess capacity in the economy, one would expect prices to decline gradually in response to competition. With the major exception of the food industry, where this in fact has happened in recent months, one finds little evidence of such reductions. Indeed, throughout the period since 1968 the prices of the non-food and service components of the consumer price index have consistently continued to increase and at rates well in excess of the rates from 1960-65. (Table 5). While this phenomenon partly reflects the effect of foreign price changes and the lagged effect of earlier price and wage changes, it possibly also reflects the exercise of market power in some cases. Had producers had less market power, prices might

have been more sensitive to the increased competitive pressure entailed by greater slack in the economy.

This said, one needs to add two further points however. First, producers engaged in export trade or facing import competition - which includes a majority of Canadian producers - have faced substantially greater competition since the appreciation of the exchange rate in May 1970, and this has been reinforced in some cases by tariff reductions following the Kennedy Round of tariff cuts. Secondly, corporate profits have declined substantially since 1969 and the rate of return on capital is now relatively low.⁴

The effects of market power in Canada, in both factor and product markets, are not only found in upward pressure on prices but may be even more important because of the downward rigidity in prices arising from this power. As a consequence of this downward rigidity, the resource and output reallocations required in a dynamic economy tend to raise prices as expanding industries outbid stagnant and declining industries where prices tend to remain unchanged. Although too much can be made of this phenomenon, which was first emphasized by Charles Schultze,⁵ the evidence available suggests that it has been of some significance in Canada.⁶ Moreover, it should be recognized that even if there were no asymmetry in price behaviour, shifts in demand could generate increases in prices because of differing supply elasticities in various industries.⁷

d) Rapid Growth in the Size of the Public Sector:

From 1965 to 1969 total government (all levels) revenues as a percentage of GNP increased from about 30½ per cent to 36½ per cent and total government expenditures (including transfer payments) from 30 per cent to over 33½ per cent.⁸ Not only were these ratios substantially larger than at any time since World War II, but, more important, the rates of increase - 20 and 12 per cent in four years - were very large by historical standards and standards in most other countries. Moreover, the projections prepared by the Economic Council suggest that further substantial increases in these ratios can be expected to at least 1975.⁹

A rapid increase in the public sector is inflationary in that it increases the marginal propensity to consume: first, because the first expenditure round through the government sector omits the bite that would be absorbed by savings in the private sector¹⁰ and secondly, such expenditures may redistribute spending from groups with a higher propensity to save to those with a lower propensity to save. Moreover, a growing public sector may lead to a reallocation of resources from sectors where productivity growth is relatively rapid to the public sector where historically productivity growth has been very slow. Given small and gradual changes in the size of the public sector, demand management policies can adapt and compensate for these factors. This is also true with a large and rapidly growing public sector but it is likely to be much more difficult operationally, given the various factors constraining these other policies and the uncertainties about their effects. In other words, adjusting to and compensating for a large and rapidly moving element is likely to be more difficult and in practice less successful than adjusting to and compensating for a small and slowly changing element.

Another inflationary factor in the rapid growth of the public sector has been the lack of co-ordination between the demand and supply aspects of the policy. Thus the introduction of Medicare, which greatly expanded the demand for medical services of all kinds by offering medical care to everyone at greatly reduced private cost, failed to make adequate provision for a corresponding increase in the supply of medical services. The predictable result has been a large increase in the relative prices of medical services. Many other types of policies such as those designed to support declining industries, to fund pollution control, to subsidize technology, housing and other types of investment have had a similar inflationary bias.

A further factor to be recognized in this context is that with a progressive tax system, rising prices tend to generate an ever-growing public sector.¹¹ This could be offset, of course, by tax reductions. Such reductions are rare, however. In situations of rising revenues and a back-log

of unfilled demands for public services, recent governments have generally given priority to expenditure increases over tax reductions.

e) Lags in Prices and Wages Behind the Appearance of Above-Average Aggregate Demand:

Given some four years of above-average aggregate demand from 1963 through 1967, substantial inflationary pressures developed behind both prices and wages which have continued long after excess capacity had again appeared in the economy. (Chart 3). As indicated in the recent O.E.C.D. study on inflation, price increases did not exceed their trend line until 1965 and labour's share of income, after falling below its trend line from 1962 to 1966, did not exceed its trend until after 1967. On this showing upward deviations from trend in price and labour income shares lagged some two to three years behind the appearance of above-average aggregate demand. On the basis of historical experience in Canada and elsewhere, there is every reason to expect a similar lag on the down side. Hence prices and wages have continued to rise since 1968 even though substantial excess supply has again developed in the economy. There is some evidence, however, that this lag is now gradually being exhausted and that the lagged upward pressure on prices is now becoming less.

f) Exchange Depreciation, an Undervalued Exchange Rate and the Failure to Adopt a Free Rate Sooner:

Early in the 1960's, Canada depreciated the exchange rate by about 11 per cent at a time when there was significant excess capacity in the economy. As this excess capacity disappeared and a high level of aggregate demand developed in subsequent years, the full inflationary impact of this devaluation was gradually transmitted throughout the economy. Moreover, the new exchange rate undervalued the Canadian dollar in terms of foreign currency, as evidenced by the continuing improvement throughout this period in the current account balance, the large increase in Canada's reserves and the upward pressure on the reserve ceiling when it was operative. This undervaluation further added to the inflationary demand pressures on the economy from 1963 onwards. In addition, because of the fixed exchange rate, international price changes were,

and were expected to be fully transmitted to the Canadian economy.

One of us has reviewed this matter in another paper that has been made available to members of your Staff and we do not propose to pursue it further here.¹² Suffice it to say that we believe it probably was a mistake for Canada to have adopted a fixed rate in 1961 and that, having adopted it, it may have been a mistake not to have returned to a floating rate before 1970. Had we adopted a floating rate sooner, we deem it likely that we would have experienced less price inflation than we have and that our problems would now be somewhat less than they are.

g) Monetary-Fiscal Policies:

Over the period 1963 to 1968 the Federal Government can scarcely be said to have followed a very active monetary and fiscal policies to combat inflation, as argued in greater detail elsewhere.¹³ On the fiscal side a surplus of \$625 million gradually became a deficit of \$256 and \$165 million in 1967 and 1968. (Table 6). A substantial surplus in 1969 was followed in 1970 by a small deficit. Other Canadian governments have had large and growing surpluses, reflecting their particular revenue and expenditure patterns and particularly the revenues generated by the Canada and Quebec pension plans. Although these surpluses have not reflected active anti-inflationary policies on the part of provincial and municipal governments, these surpluses have nonetheless served to dampen inflationary pressures.

Turning to the money supply one finds not only a very rapid increase during the period since 1965 but also wide fluctuations in the rate of increase ranging from over 20 per cent per year in mid-1968 to a net reduction in the third quarter of 1969. (Table 6). During the period of rapidly rising prices from 1965 to 1969, the money supply increased almost 55 per cent compared with a 19 per cent increase in real output. Thus \$2.87 of new money was created per \$1.00 of additional real output. In 1969 the increase in the money supply matched the increase in real output but in 1970 - when inflation had become a major preoccupation - the rate of change in the money supply again accelerated (10.0 versus 5.6 per cent).

Nominal interest rates increased sharply between 1965 and 1969 and only recently have declined somewhat again. Real rates of interest, on the other hand, increased much less in absolute terms and at their peak probably did not exceed $5\frac{1}{2}$ per cent for most borrowers.

Since 1969, as unemployed rates have risen from about $4\frac{1}{2}$ per cent to almost 7 per cent both monetary and fiscal policy have been much tighter than from 1965 to 1968 when unemployment was generally well below 5 per cent.

This picture scarcely conforms with prevailing conventional notions of appropriate monetary and fiscal policy, whether inspired by Milton Friedman or Walter Heller or both. During much of this period one might have expected, by most conventional standards, changes in the money supply to at least not exceed significantly changes in real output. And, on the fiscal side, according to most conventional ideas, one would have expected to find large and growing federal surpluses deliberately designed to reduce inflationary pressure. Thus, the indictment of conventional monetary and fiscal policy can hardly be that it was tried and didn't work. Indeed, during much of this period these conventional levers appear to have been moved in the wrong direction; and to the extent that they were effective, these policies tended to enhance the upward pressure on prices rather than the other way around.

No attempt will be made here to review the various factors that contributed to this situation.¹⁴ In part, it reflected political pressures, in part a series of events beyond the control of the authorities, in part the rigid adherence to a fixed exchange rate which virtually emasculated monetary policy, and in part inadequate analysis and understanding within the government as well as without of the unfolding economic scene and the degree to which the policies being followed were inconsistent with the requirements of stabilization policy. From the standpoint of policy, the important point is not to establish with the benefit of hindsight that policy during this period might have been better but rather to ascertain what lessons might be learnt from this period to improve future policy.¹⁵

3. Policy Options

As the foregoing section implies, we fail to see why there is any great mystery about Canada's price level and unemployment experience during the 1960's. Nor is there all that much uncertainty about why prices have continued to rise since 1968 at the same time that unemployment has increased to over 6 per cent. Comments that suggest that this experience is beyond the explanatory powers of contemporary economics and illustrates the need to cast aside conventional analysis and frantically to seek out new and untried analytical techniques and policy prescriptions are largely unwarranted in our view.

In order to consider the policy options open to this country, it is necessary to have some notion of the economic environment in which stabilization policy is likely to be framed between now and, say, 1975. Three elements in the picture seem reasonably clear. First, from the demographic evidence available it is apparent the labour supply will increase at a rapid rate to 1980, though possibly not quite as rapidly as from 1965 to 1970. Secondly, the projections made by the Economic Council indicate that the size of the public sector can be expected to increase significantly to 1975, especially if new programmes are introduced to cope with such needs as pollution abatement, poverty and regional and urban development. Thirdly, external prices, and especially U.S. prices, can be expected to continue to increase at rates not far below those experienced in recent years. Strong inflationary pressures are evident at present both in Europe and Japan and even if these are reduced somewhat in the next year or so, the lagged consequences of these pressures are likely to be evident for some time to come. (Table 7). The same is true of the U.S. Moreover, the prospect of a Presidential election in 1972 suggests that there will be strong political pressure to follow expansionist policies in that country, which will tend to support rising price and wage levels.

Given the continuing growth in labour supplies, continuing growth in the public sector and an inflationary world environment, it seems likely that within the framework of current policies there will be a continuing tendency

for labour supplies to exceed labour demand and for Canadian prices to continue to rise over the next few years. What options are open to try to at least ameliorate these conditions?

a) Labour Market Policies

First and foremost, it is important that every effort be made to improve the performance of labour markets through a series of policies that make these markets more competitive and permit the absorption of increasing labour supplies more easily than at present. This issue has been much discussed over the years and has been frequently emphasized by the Economic Council,¹⁶ Although some marginal measures have been adopted, this country has yet to adopt comprehensive labour market policies which are fully integrated with welfare and other types of policy and which will greatly improve the performance of labour markets. Without canvassing all the possibilities in detail, it is evident that measures are needed to reduce the control over labour supplies exercised by trade unions and professional organizations, to increase occupational and regional mobility through training programmes, better information and job placement services, financial assistance for moving and so forth, together with measures to increase the portability of pension and other benefits, to reduce the disincentives arising from social welfare measures to move and accept employment in another locality, to reduce present fiscal incentives to substitute capital for labour, to reduce the incidence of artificial wage levels through wage-parity arrangements and minimum wage laws. We fully recognize that implementing such changes means challenging a variety of vested interests and sacred cows. Substantial progress along these lines will call for not only for technical skill but also for political courage of a very high order. On the other hand, failure to take substantial steps in this direction will imply unnecessarily high political and social as well as economic costs associated with unnecessarily high levels of unemployment.

b) Competition Policy:

Policies to improve the efficiency of labour markets need to be accompanied by policies to increase competition and improve efficiency in

product markets. The Economic Council of Canada has produced several reports on this subject within the past few years. We endorse the recommendations made in these reports and urge their speedy implementation.¹⁷

In this connection, we should especially like to emphasize the importance in Canada of reducing barriers to foreign trade as a means of checking price increases and reducing market power. In addition to reducing and eliminating tariffs and quotas generally, special attention might be given to liberalizing export restraint agreements, government procurement policies, aid-tying policies, and tariff and quota restrictions against low-cost imports from less-developed countries. Particular attention might also be given to tariff reductions in areas where past investigations under the Combines Investigation Act have indicated substantial elements of market power: e.g., dental supplies, matches, rubber goods, fine papers, paperboard, zinc oxide, sugar, and drugs.¹⁸

Such policies, as in the case of labour market policies, mean challenging various vested interests who can be expected to mount strong resistance. Nevertheless, to the extent that this resistance can be overcome, the result will be better-functioning, more competitive markets tending to produce more stable price levels.

c) Closer Co-ordination of Public Policy Outside the Realm of Monetary-Fiscal Policy with the Objectives of Stabilization Policy and Increased Efficiency in the Public Sector:

Although monetary and fiscal policy are directly concerned with stabilization policy, it is apparent that many other areas of government policy have an important impact on prices and unemployment. It is also evident that government policies in these other areas frequently are poorly co-ordinated with the objectives of stabilization policy - in many instances having an adverse influence on the effectiveness of stabilization policy.

This problem arises primarily in four areas. The first concerns income support policies, particularly in connection with food and agricultural prices. Price support policies are particularly inconsistent with the desire

to stabilize the overall level of prices. Canada, fortunately, has relied mainly on a deficiency-payments approach rather than a price-support approach. Nevertheless, even a deficiency payments approach tends to hold up prices since it is normally linked to restrictions on imports.

A second range of policies are concerned with fostering development in particular areas - e.g., research and development - or regions - e.g. DREE. Such policies have sometimes been planned and implemented with little or no attention having been given to their impact on national employment and price levels. It is not obvious, for example, that policies which subsidize technical innovations that lead to the substitution of capital for labour are in the national interest when the country has widespread unemployment. Nor is it obvious that regional development policies that subsidize sub-optimal allocations of labour and capital from a national viewpoint are in the best interest of increasing employment, raising incomes and slowing down the rate of increase of the price level. This is not to say by any means that all such development programmes are inconsistent with the aims of stabilization policy. In many cases they may in fact strongly reinforce stabilization policy. It is evident, however, that this is not always the case and that there is considerable scope for closer co-ordination of development policies with stabilization goals.

A third area is in the field of social welfare programmes, where again one can find examples of a lack of co-ordination with the aims of stabilization policy. The empirical evidence we have suggests, for example, that government transfer payments and unemployment insurance benefits inhibit labour mobility.¹⁹ Difficulties of a different kind arise when policies such as Medicare are introduced which greatly increase the demand for services but make no provision for a corresponding increase in the supply of services, as mentioned earlier.

The fourth area relates to the need to improve efficiency in the public sector, including not only government departments but also government-related agencies such as educational and health institutions. Total employ-

ment in government and government-related agencies now account for about one-eighth of the civilian labour force. Although it is very difficult to measure productivity in the public sector, it seems to be generally conceded that productivity growth in the public sector, as in other service sectors, has been very slow and has been a drag on the overall growth in productivity in the country.²⁰ Upward pressure on prices has arisen as wage demands have outstripped productivity gains. Given the size and growth of the public sector and its apparent low rate of productivity growth, steps to improve efficiency in the government sector are of major importance in attempting to bolster overall productivity

We fully associate ourselves with those who have urged upon this Committee the need for greater co-ordination of Government policy. Presumably this is one of the main functions of the Economic Policy Committee of the Cabinet established in recent years. In order to advance this principle further, we suggest that consideration might be given to three specific steps.

1. A review by the Bank of Canada and the Department Finance of existing income, development and welfare programmes to determine their implications for stabilization and to consider how these programmes might be amended to make them more fully consistent with the goals of stabilization policy.

2. An extension of the functions and capabilities of the Treasury Board to foster greater policy co-ordination within the Federal government and to ensure that appropriate priority is placed on stabilization and other objectives by individual operating departments.

3. Adoption of the principle that all departmental proposals in future should be accompanied by a careful assessment of the implications of the proposal for national and regional employment and price levels in both the short- and the long-term.

Co-ordination within the Federal Government is, of course, only part of the problem of co-ordinating public policy in this country. The other part relates to co-ordinating policy among different levels of government. This is

a long-standing, widely-recognized problem to which almost everyone pays lip-service, where some progress has been made and where much more remains to be done. About all one can recommend is that everyone concerned keep soldiering on.

d) Exchange Rate Policy:

We endorse a floating exchange rate for Canada at present, given the uncertainties in the international monetary system and the desirability for Canada to retain some freedom to follow somewhat independent monetary and fiscal policies. In saying this, we do not claim that a floating rate will make it feasible to have a price-employment experience that is totally or even largely independent of developments abroad. The claim is rather that the free rate makes it feasible to gain somewhat greater freedom in the short-run and to make adjustments to changing circumstances more smoothly.

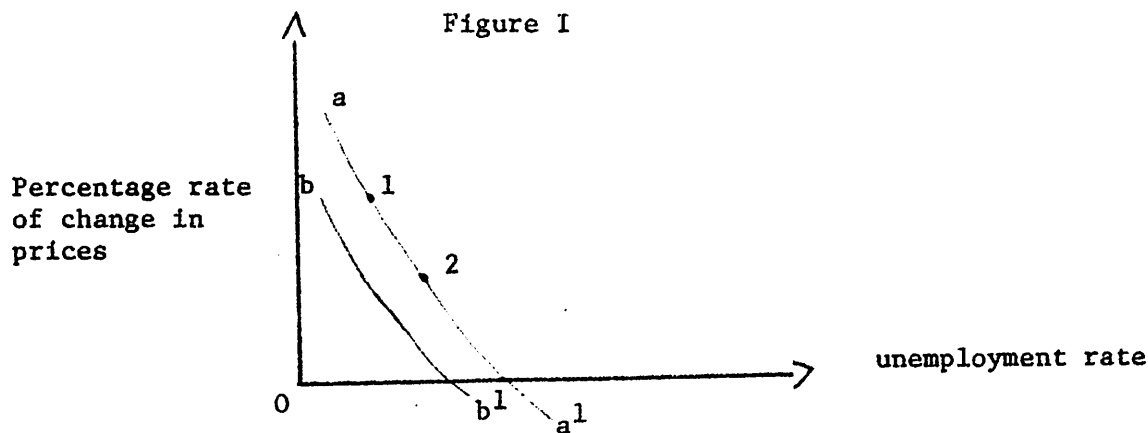
Since 1970, of course, Canada's rate has not been completely free of intervention by the authorities. From May 1970, when we went off the fixed rate to February 1971, Canada's holdings of gold and foreign currencies increased by 13 per cent and total international reserves by 19 per cent. By intervening the authorities have prevented the rate from appreciating by as much as it would have without intervention. We question this intervention on two grounds. First, further appreciation would have served as a powerful anti-inflationary factor, both directly by placing further downward pressure on Canadian price levels and indirectly by having made it feasible to increase the money supply by less than some 15 per cent from May 1970 to February 1971, at a time when output increased a little over 3 per cent. Secondly, by allowing the rate to exceed \$1:00 Canadian = \$1:00 U.S., it is likely that countervailing forces would have arisen to reduce the inflow of capital and to increase the current account deficit, which would have reduced the upward pressure on the Canadian dollar.²¹ By not allowing the mechanism to work to the full, in other words, we may have foregone some of the advantages of floating the rate.

It is just as mistaken to take a theological view about the floating rate as about the fixed rate. Historically, Canada has, with some exceptional

periods, taken a pragmatic approach to whether we adhere to a fixed or a floating rate system. In present and foreseeable circumstances, we would argue that a floating rate which is free of intervention, except to iron out day to day fluctuations, will best serve the interests of stabilization policy in this country.

e) General Monetary-Fiscal Policy:

All the policy options so far considered attempt to improve the trade-off relationship between price stability and full employment in the sense of making it feasible to operate the economy at lower levels of unemployment with less price inflation. Changes in monetary and fiscal policy attempt to regulate the level of economic activity. As such they determine at what point on the short-run trade-off curve the economy finds itself but also, by the manner in which they are employed, monetary and fiscal policy may affect the position of the curve itself. This may be illustrated with the aid of the accompanying figure.



The policies discussed earlier are concerned with moving the trade-off curve closer to the origin, 0. Depending on the stance adopted by monetary-fiscal policy, the economy in the short-run may in principle, be regulated to operate at point 1 or at point 2, the later implying more unemployment and less price inflation than the former. In addition, the way in which policy is exercised may itself tend to move the curve closer to the axis, improving

the trade-off relationship, or away from the axis, making things worse.

A great deal of discussion has developed regarding the stability of such a relationship as depicted in Figure 1. Leaving this aside for discussion later, we are sympathetic to the view that more stable and predictable monetary-fiscal policies that are geared to longer-term prospects and potentials may tend to improve the trade-off relationship. This does not mean that we endorse proposals to adopt automatic and rigid rules about increases in the money supply or changes in fiscal policy nor that we believe immediate circumstances can safely be ignored. There is, however, some danger of becoming too mesmerized by the immediate situation, and that by frantically adjusting in response to the changing current situation things may turn out worse than if policy were less influenced by immediate prospects and more influenced by longer-term prospects and the potential of the economy. Looking over the period from 1965 to 1971, one may argue that the large swings in fiscal and monetary policy indicated by Table 6 themselves tended to be destabilizing. Had policy been confined to a more limited range linked to longer-term employment and output prospects and potentials, the trade-off relation might now be better.

Aside from the stability of monetary and fiscal policy, there is the question of where to aim on the trade-off curve. *Given the openness of the Canadian economy to external and especially U.S. price developments, it seems evident that any attempt to achieve significantly greater price stability in Canada than in the U.S. and elsewhere over any extended period of time is likely to entail very high levels of unemployment even if various policies are adopted to improve the trade-off relationship.* The question then is one of preferences and weighing the relative costs of these high levels of unemployment against the benefits of marginally greater price stability. Although economists have been intrigued by the problem of assessing the relative economic costs and benefits of price inflation and unemployment and some brave attempts have been made to measure these relative costs and benefits,²² the fact remains that the relative economic costs and benefits of price inflation and unemployment remain highly uncertain and that the relative social and

political costs and benefits are even more uncertain.²³ As a consequence there is a considerable diversity of opinion. It is our view that when unemployment exceeds a rate of 4 to 4½ per cent of the labour force, the combination of economic, social and political costs of unemployment outweigh the benefits resulting from the marginal gains likely to be achieved in terms of greater price stability in this country. On the other hand, historical experience suggests that when unemployment falls below 4 per cent in Canada, strong inflationary pressures develop that make it costly as well as impractical to maintain unemployment at these low levels - especially when the attempt to do so is usually followed by a swing in unemployment to levels well above 5 per cent as belated efforts are made to offset the pressures that have built up. Accordingly, we would argue that the authorities should set their eyes firmly on a target of about 4 per cent averaged out over two to three years. When unemployment is tending to fall below this level, restrictive measures should be applied even if prices are slow to reflect developing inflationary pressures; and when unemployment exceeds this level, expansionist policies should be adopted even though prices may be rising at rates comparable to those experienced in the late 1960's.

f) Selective Fiscal Policies:

Historically, selective fiscal policies have usually taken the form of imposing or reducing taxes and other financial restrictions on various sectors that are assumed to be in the van of inflationary or deflationary pressures: e.g., sales and excise taxes on consumer durables, changes in house mortgage regulations, consumer credit regulations and margin requirements, changes in depreciation allowances, and so forth. Such regulations were used frequently during the 1940's and 1950's but lost favour during the 1960's. This seems to be mainly because serious doubts developed about the effectiveness of these policies, about their effects on the distribution of income and wealth and, also, because anticipations began to develop in the minds of the public, based on experience, which tended to accelerate precisely the changes that some of these measures were designed to reduce.

It is possible that we now have too great an aversion to the use of such measures and the development of new types of special fiscal measures of this kind. Among the latter are such possibilities as income tax holidays for a month or more or double taxation for a comparable period. On balance, we believe that it probably would be helpful to provide the authorities with stand-by authority to invoke and revoke certain types of special fiscal measures of this kind.

More recently, as part of the discussion on incomes policy, two further varieties of special fiscal measures have been receiving attention. One, which was advocated by Professor Bellan before this Committee and which in a somewhat different form has been advocated by the Economist²⁴ for the U.K., calls for a confiscatory tax to be levied against wage and salary increases which exceed a certain agreed guideline rate of increase. Thus, if the guideline rate of increase is 6 per cent, all or most earnings above this rate would be absorbed by tax, thereby totally or partially eliminating the incentive to bargain for more than a 6 per cent increase. Such a tax in our view would not only be very difficult to implement politically but also would be extremely cumbersome and difficult to administer. In particular it would be virtually impossible to separate increases in wages and salaries arising because of the greater responsibilities and output by individuals, additional hours of work or improved skills, from those increases arising because of straight-forward increases in salary and wage rates.

Another variant of this proposal has been advanced by Professor S. Weintraub, who argues for the imposition of a special corporate income tax surcharge on those firms that settle for wage and salary increases that on average exceed the announced guideline.²⁵ The purpose of this tax would be to increase the opportunity cost to firms of making wage and salary concessions, thereby inducing employers to resist employee demands more strongly. This tax has the merit that it is administratively feasible; any difficulties that might arise would be considerably less than those associated with a direct tax on employees. On the other hand, unless employees accepted the guideline, such a tax might have

the effect of reducing the return to investors and deterring investment, either because of the increased costs of plant shutdowns and strikes or because of the increase in taxes arising from concessions to avoid a strike. And the learning process for employees could be a slow one. Moreover, such a policy would only affect groups paying corporate income taxes: it would not affect firms with zero or negative profits nor the large group of employers, employing a high proportion of the labour force, who are not subject to corporate income tax. In addition, given the "cost-push" hypothesis that underlies the proposal, it is difficult to see why those groups that are subject to corporate tax and have positive profits would not pass along most or all of the surtax in the form of higher prices.

The Weintraub proposal appears to Bodkin to have merit and possibly to be worthy of a trial, especially since we have so few effective weapons in this area. On the other hand, Reuber believes that it might be simpler and more effective to modify general tax rates in response to changing economic circumstances - possibly with standby provisions being granted to the government to modify these rates quickly within a limited prescribed range on a discretionary basis without further reference to Parliament. (Note that this form of selective fiscal policy is primarily oriented unlike the Weintraub proposal, at the demand side of the economy).

In advocating standby fiscal powers to be exercised within a limited range on a discretionary basis, we are endorsing the view that on balance a well-run discretionary monetary-fiscal policy is likely to outperform a policy based on automatic rules, as suggested by some. Moreover, this suggestion together with our earlier recommendation for more stable and predictable monetary-fiscal policies rather implies an argument for greater flexibility in fiscal policy and less variability in monetary policy than we have had during the past decade. It implies furthermore that such flexibility, as is provided in both fiscal and monetary policy will be geared to longer-term prospects and potentials and not exclusively to the immediate situation.

g) Direct controls:

All the options so far discussed are conventional in the sense that they are market-oriented. The main alternatives to such measures are non-market measures that attempt to exercise direct control on prices paid in product and factor markets. Proposals based on direct controls take a variety of forms and differ greatly in the range of product and factor markets to be encompassed by such controls. One such proposal has recently been placed before this Committee by Sir Roy Harrod and the arguments against such measures have also been stated before this Committee by the Chairman of the Economic Council, among others. We do not propose to review these arguments here. Suffice it to say that we seriously question the usefulness of direct controls in an open economy such as the Canadian, except perhaps on a short-term basis to meet a particular emergency such as a major war. Given what we see as a long-run problem of reconciling full employment with more stable prices, we doubt the effectiveness of such controls in achieving their objective. Furthermore, such controls in our view would mean substituting one set of policy problems for another and possibly more difficult set of policy problems. In addition, as matters stand constitutionally, it would not be feasible for the Federal Government to impose such controls in many areas exhibiting large price and wage increases; and we can discern no disposition on the part of Provincial Governments to collaborate in implementing price and wage controls.

There are two areas, however, where the Federal Government might fairly readily impose wage and price controls: on the wages and salaries paid out of Federal Government funds and, secondly, on prices charged by regulated industries and public services.

For the Government to penalize those groups that are directly within its jurisdiction without being able to exert corresponding authority elsewhere would over time result in a deterioration in the quality of public service employees and the services provided by regulated industries. Such a deterioration would have little or no justification and we would oppose such policies.

Assuming that the constitutional obstacle could be surmounted - and

that is a very big assumption - direct controls on prices and wages in our view could only be justified in industries where for political or economic reasons it proved impossible to develop reasonably competitive markets. On this basis, the case for direct controls is reduced to the classical case for regulating prices in so-called "natural" monopolies, such as public utilities - perhaps extended to what we might call "natural oligopolies". This leads into a highly complicated set of issues that cannot be pursued here. In general, the regulation of natural monopoly attempts to achieve the level of output and prices that would be justified by market-efficiency criteria rather than by monopoly criteria. But there is no suggestion even in these cases of regulating prices simply to hold prices down irrespective of economic efficiency. We would venture the judgement that there probably is limited scope in Canada for direct controls to improve successfully economic efficiency - given the openness of the economy, the competition that already exists and the possibilities of opening up markets to greater competition.

h) Voluntary Incomes Policy:

For reasons explained at greater length elsewhere,²⁶ we believe that voluntary incomes policies such as those developed by the Prices and Incomes Commission in this country and by corresponding agencies in other countries at best are ineffective and they may even be harmful from the standpoint of stabilization policy as well as other objectives of policy. Such policies, in effect, attempt to levy a voluntary tax which is used to subsidize prices. Not only does this lead to gross inequities, but also it is likely to be highly ineffective. If such taxes are to be levied, they should be universal and mandatory and it may be questioned whether the proceeds should be employed to subsidize the price of the product of the tax-payer. Moreover, such measures are naive in implying that anyone in a responsible position in either business or the trade unions would voluntarily accept them, knowing full well the influence of international prices and other influences on Canadian wages and prices as well as the high probability that many other sectors of the economy will not accept them.²⁷ Furthermore, such measures, by holding out the mirage of

something being done, may well forestall more useful policies from being implemented and may indeed generate expectations that enhance rather than alleviate the difficulties facing the economy. Finally, by pursuing incomes policy through a vigorous public relations job, the PIC may, in effect, create "money illusion" which, far from ameliorating the adverse effects of inflation by having the public correctly anticipate it, enhances these effects by temporarily misleading the public into incorrectly anticipating more stable prices than is justified by underlying economic conditions.

Rather than rehearse these and many other arguments, it may be more interesting to refer to a recent column by Eric Jacobs commenting on the now-abandoned Prices and Incomes Board in the U.K., of which he was a member.²⁸ "Looking back to that June night six years ago", he concludes "it all seems a sad waste of effort". Looking at David C. Smith's review of incomes policies elsewhere, it is difficult to be more sanguine about the prospects for incomes policies in this country.²⁹

4. Some Related Issues

a) Is There a Stable Trade-Off Relation?

Reference was made to this question earlier. The issue is whether there exists a trade-off relationship such as depicted in Figure 1 above that is stable enough to be useful for policy purposes. Suppose the Government were to aim at point 1 in the Figure, why would not the public eventually come fully to anticipate the implied rate of inflation? This in turn would result in an upward shift in the curve, leaving the rate of unemployment unchanged at its "natural" level. Thus, there would not be a long-run price-unemployment trade-off: the curve, in other words, would be vertical up and down.³⁰

On theoretical grounds it is apparent that either outcome is possible. "New" neoclassical arguments, which deny the existence of a long-run trade-off, place little or no weight on market imperfections and emphasize the speed and ease with which expectations develop and markets adjust.³¹ Those who believe the trade-off notion is useful for policy purposes emphasize the importance of

market imperfections and argue that the relationship shifts very slowly.³²

Empirically, the issue is also in doubt for the medium and long-term. Virtually everyone finds evidence of a short-run relationship. Virtually everyone also finds evidence of a relationship between earlier price changes and current price changes implying that expectations based on previous experience do affect current price movements. Similarly, virtually everyone finds that external price changes are a major determinant of domestic price changes in Canada and that unemployment levels affect the rate of wage change which, in turn, affects the rate of price change. What remains unclear is the speed with which expectations adjust - estimates range from less than a year to several decades - and whether, after the adjustment has been completed, the curve has become completely vertical - implying no trade-off between the level of aggregate demand and prices - or whether some slope remains - implying that there is a trade-off.³³

Conventional policies followed in most countries since World War II imply that in their hearts the authorities in most countries also believe in a trade-off, some of their words notwithstanding. Most countries have followed aggregate demand management policies based on the view that reducing aggregate demand reduces upward pressures on prices and wages and vice versa. This approach makes little sense under the "new" neoclassical view of the trade-off since, according to this view, as people gain experience with demand management policies geared to a trade-off, their expectations will adjust. As a result, aggregate demand management policies under such a view are rendered ineffective except perhaps in the very short-run: unemployment will in any event tend to settle at its "natural" rate and money income changes will be determined by the rate of increase in the money supply.

Without pursuing this matter further, we side with those who believe there is some value from a policy standpoint in the notion of a trade-off relationship between the rate of price change and the level of aggregate demand. Without denying in any way that price expectations develop that affect current price changes, we question whether markets are so free of imperfections - such

as money illusion, institutional rigidities and uncertainty - as to result in a highly unstable relationship which rapidly moves to a vertical curve. Furthermore, given the strong empirical evidence of a relationship between the level of unemployment and wage changes and between foreign price changes and domestic price changes, we question whether the curve in any event will move to a fully vertical position even if price changes are correctly anticipated.

b) Regional Policies and the Regional Impacts of Policies:

From the standpoint of assisting the less prosperous regions of Canada, the most powerful policy is to maintain a high level of demand in the country nationally and low national levels of unemployment. We can think of no regional policies that will be as helpful from the standpoint both of assisting factor mobility and of maintaining strong demand for the output of these regions which, in turn, will lead to greater investment and higher incomes in these regions. Moreover, a high level of national demand is probably a prerequisite for any significant success for most types of regional policies. Without this prerequisite, most regional policies are likely to be relatively ineffective.

Although national policies designed to regulate aggregate demand are likely to have differing regional impacts, it is doubtful whether anything realistically can or should be done about redesigning aggregate monetary and fiscal policies - which already are hard pressed to cope with national problems of aggregate demand management - to cope with regional problems as well. On the other hand, this approach does not in any way rule out specially designed programmes to foster development in backward areas. Such programmes, as mentioned earlier, do nevertheless have implications for national policy and need to be co-ordinated closely with national stabilization policy.

Although we have not examined regional development policies in this country in any detail, we have gained the distinct impression that they have not always been closely co-ordinated with national development objectives, that in some cases they have not been geared to development objectives at all but rather to the provision of services, income support, and the relief of poverty

in the region, and that on occasion political considerations have been at least as important as economic considerations.

The unfortunate fact is that, despite much discussion and research, relatively little is known about what constitutes a good regional development policy in this country consistent with our national objectives. This is an area demanding much greater information than is now available and more intensive study.

c) Wage Determination:

Lurking behind much of the foregoing discussion is the sensitive but central question of what factors determine wages in Canada. In particular, to what extent does the recent rapid increase in wages and salaries reflect the play of market forces, allowing for a lag, and to what extent does it reflect labour market imperfections and/or monopoly power over the supply of labour exercised by the trade unions? The broad factual picture is reasonably clear. Canada has had unemployment rates in excess of 4½ per cent since 1968. During the period since then wages and salaries have increased rapidly by historical standards and considerably more than productivity. These rates of increase have also been more rapid than in the U.S. and Western Europe where unemployment levels have been lower. (Tables 3 and 7). A further characteristic of this period has been the rapid increase in wages in the mining and construction sectors, the latter being labour intensive compared to the manufacturing and service sectors. (Table 8). Moreover, the disparity in wage changes among these sectors has been greater since 1965 than from 1960 to 1965. Prima facia, at least, this general picture seems inconsistent with what one would expect to find in strongly competitive labour markets. Rapidly rising wages and salaries in an open economy in the face of widespread unemployment not only make the employment situation worse but also seem to indicate serious malfunctions in the labour market.

It is widely recognized, of course, that the connection between changes in aggregate demand and wages is very loosely geared in this country because of the heterogeneous and regional nature of labour and product markets.

Despite this, there is considerable evidence to indicate that wages in general and in particular industries are influenced by demand conditions.³⁴ Moreover, in some industries such as construction, the variability of demand, characteristic of the past, has tended to enhance wage fluctuations.³⁵ All the same, there is no reason to believe that the efforts of trade unions to increase wages are entirely useless. There is some fairly strong evidence for the U.S. to indicate that the main effect of their activities is to increase the wages of union members at the expense of non-union workers.³⁶ The extent to which union activity increases the overall money level of wages remains very much in doubt. In any event, the evidence is consistent with the view that unions may have succeeded in pushing up wages in some manufacturing industries and especially in the construction industries. Their power to do so in many industries seems to be relatively limited, however, when compared to the wage change experience in sectors where union power is relatively weak, e.g., the manufacturing sector versus the service sector. On the face of things, the effect of union power on wages is probably most evident in the construction sector, where wages have risen substantially more than wages in the manufacturing and services sectors, and within the manufacturing sector in such industries as automobiles, electrical apparatus, chemicals and paper.

Further evidence suggesting market imperfections and/or monopoly power is provided by studies on the effect of taxation on wage changes.³⁷ According to this evidence, tax increases, direct and indirect, have been partially passed on in the form of higher money wages and salaries in a number of sectors. Wage negotiations in some cases, implicitly or even explicitly, seem to be based on after-tax income.

These various pieces of evidence reinforce the notion that market imperfections and/or monopoly power are of some importance in the labour market. Precisely what these imperfections are and how best they might be reduced remains somewhat unclear, however, and warrants more attention than it has received up to now.

d) Lags in Policy Responses and in Economic Responses to Policy Changes:

For analytical purposes a distinction is frequently made between two types of lags: the "inside" lag - the lag between the appearance of the need for policy action and the taking of action; and the "outside" lag - the lag between the taking of action and the realization of its effects on the economy.

Given the variety of objectives to be considered by policy makers, ambiguity and uncertainty about the current state of the economy, further uncertainty about the optimum combination of policies to cope with whatever current circumstances are, and the time required to implement these policies once they are decided upon, it is evident that the "inside" lag can easily extend to a year or more, assuming, as is normally the case, that marginal adjustments are in question. Once a change in policy has been implemented a further substantial "outside" lag is likely as the effects of the change in policy gradually percolate through the economy. Hence it may be two to three years later when the effects of policy changes made in relation to initial circumstances are felt. But by this time, current circumstances are likely to be quite different and the effects of the change in policy are just as likely as not to be inappropriate as appropriate to the later-prevailing circumstances.

Reasoning along this line, some economists have argued that it is unhelpful to gear policy too closely to short-term circumstances. Instead policy should take a somewhat longer view and should rely more heavily on allowing the economy to make necessary short-term adjustments on its own.

While one may sympathize with this more relaxed and detached view of short-term stabilization policy, it is doubtful whether, in terms of practical politics, any Government could pursue such a policy very far in view of the high and rising standards of policy performance demanded by the public. On past experience most Governments are likely to respond because of political pressures and the question is how their policy response might be improved.

One part of the answer seems to try to limit the degree of response

to some circumscribed range in order to reduce the possibility of overshooting and undershooting targets too greatly. A second part of the answer is to try to reduce the length of both the "inside" and "outside" lags of policy.

As far as the "inside" lag is concerned this means doing everything possible to produce more and better up-to-date economic information, improving our forecasts and our understanding of how the economy works, and establishing more closely integrated administrative arrangements to arrive at decisions more promptly. It may also mean arming the authorities with more discretionary powers - to change taxes for example - which would make it feasible to implement policy changes more quickly and directly. Even with such improvements, however, an "inside" lag of significant duration will remain.

Improving factor and product market performance is likely to result in a reduction in the length of the "outside" lag. The creation of a more stable and predictable policy-framework will have the same effect by reducing uncertainty in the minds of private decision-makers. In addition, by allowing prices, interest rates and exchange rates to respond more fully to underlying circumstances than in the past, the adjustment process is likely to be speeded up and because of this may well be less than if spread out over time through policy interference. For example, to the extent that incomes policy has an effect, it may only extend the length of the lag in the adjustment process and as a consequence make things worse. Similarly, by intervening actively in the bond and foreign exchange markets to curb other than day-to-day fluctuations in the level of interest and foreign exchange rates, the lags in the economy may simply be stretched out, which in turn may complicate things even more. But even if steps are taken to reduce the "outside" lag of policy, it is important to recognize that a lag of significant dimensions will necessarily remain.

e) Current Policy:

Having said all this, one is left with the question of what to do now.

If the foregoing analysis is broadly correct, it is important that a variety of measures be adopted as soon as possible to improve market per-

formance in labour and product markets, to improve policy co-ordination and efficiency in the public sector and other longer-term measures. However, even if effective policies are adopted in these areas, the results of such policies are likely to manifest themselves slowly. Meanwhile the Government faces the question of what to do now in terms of monetary-fiscal-exchange rate policy.

Although we have not made a detailed and careful examination of immediate term prospects, we are prepared to accept the widely-held view that the economy is again in an expansionary phase, in part because deflationary policies have been relaxed.³⁸ We also accept the forecast that the rate of increase in wages is likely to be somewhat less over the next few years. With no further change in policy, unemployment also seems likely to diminish but is unlikely to fall much below 5 per cent in the next year or so.

In these circumstances a case can be made for a moderately expansionary fiscal policy. We would favour implementing such a policy through reductions in personal income and especially indirect taxes for several reasons: such reductions seem likely to reduce some of the upward pressure on wages and prices; Canadian taxes at present are high by historical standards and relative to taxes in the U.S.; important tax reforms are imminent and better reforms can be more easily implemented if they are combined with tax reductions; tax reductions will add to the pool of private domestic savings and hence decrease local dependence on foreign savings, and such a reduction would offset to some extent the incidence of inflation on private incomes because of progressive income taxes.

If we assume an expansionary fiscal policy brought about by tax reductions and an orderly and consistent change in the money supply related to changes in output and unaffected by the policy changes in fiscal policy, what are the consequences likely to be for GNP and the exchange rate? The direct effect of a reduction of taxes will be to increase private spending and thence to increase imports and weaken the exchange rate. At the same time, lower taxes will increase the size of the government deficit, which will

have to be financed by additional borrowing, which in turn will raise interest rates. Under a flexible exchange rate, this increase in domestic interest rates will increase capital inflows, thereby putting upward pressure on the exchange rate - in opposition to the downward pressure emanating from the expansionary expenditure effects of the tax reduction. Since, however, capital inflows are not completely elastic with respect to interest rates and are themselves sensitive to exchange rates, the expansionary effects of fiscal policy will be only partially offset: the policy, on balance, will remain expansionary.³⁹

Given the countervailing monetary and expenditure effects of easier fiscal policy on the exchange rate, is the rate likely to appreciate or depreciate, assuming a given monetary policy? Though the answer is necessarily uncertain, evidence from the 1952-61 floating rate period suggests that initially the rate may tend to appreciate somewhat relative to what it would otherwise be, but that after a time the size of the expenditure effects outrun the size of the monetary effects of the tax change and the rate will tend to depreciate. Moreover, if as some evidence suggests interest rate expectations are closely geared to U.S. rates, downward pressure will be exerted on the exchange rate in the short run as well as in the long.

The practical importance of this is to suggest that it is doubtful whether one can validly argue against an expansionary fiscal policy at present on the ground that the resulting budgetary deficit will result in an increase in interest rates that, either directly or indirectly through exchange rate effects, will offset the expansionary expenditure effects of the policy, even if no adjustments are made in monetary policy.

There is, of course, no reason why within limits adjustments should not be made in monetary policy to reinforce the expansionary effects of fiscal policy. In our view, however, these adjustments should normally be more moderate than they have been in the past, as reflected by the wide range of fluctuation in the rate of increase in the money supply. In addition to establishing a more stable monetary framework, such a policy would call into play the exchange rate as a useful corrective device to regulate the level of demand and the rate of increase in domestic prices.

FOOTNOTES

We are indebted for comments and suggestions on an earlier draft of this Brief to C. S. Clark, T. J. Courchene and J. Fried, as well as to two other individuals who, because of their positions, must unfortunately remain anonymous. Sole responsibility for what is said rests, as always, with the authors.

1. Inflation, The Present Problem, (Paris: O.E.C.D., 1970).
2. Richard E. Caves and Grant L. Reuber, Capital Transfers and Economic Policy: Canada, 1951-62, (Cambridge: Harvard University Press, 1971) Chap. 3; see also Stephen J. Turnovsky, "The Expectations Hypothesis and the Aggregate Wage Equation: Some Empirical Evidence for Canada", Working Paper Series 4012, University of Toronto. Turnovsky finds that U.S. expectations data are reasonable proxies for Canadian price expectations in explaining changes in Canadian wages and that they work better for Canada than for the United States (Turnovsky, p. 24).
3. According to DBS National Accounts data, corporate profits before taxes increased 9.9 per cent from 1967 to 1968, 5.5 per cent from 1968 to 1969 and decreased 6.2 per cent from 1969 to 1970.
4. Charles L. Schultze, "Recent Inflation in the United States", Study Paper No. 1, prepared for the Joint Economic Committee of the United States Congress, Study of Employment, Growth, and Price Levels (Washington: U.S. Government Printing Office, 1959).
5. Thomas J. Courchene, "An Analysis of the Price-Inventory Nexus with Empirical Application to the Canadian Manufacturing Sector", International Economic Review, X(October, 1969) pp. 359-62.
6. Ibid.
7. The National Finances: 1970-71, (Toronto: Canadian Tax Foundation, 1970) pp. 9 and 13.

9. Perspectives 1975, Sixth Annual Review, Economic Council of Canada, (Ottawa: Queen's Printer, 1969) Chap. 3.
10. In accordance with "balanced-budget" multiplier principles.
11. Indeed, one can argue that a rising rate of taxation may generate "tax-push" inflation. See John H. Hotson, "Adverse Effects of Tax and Interest Hikes as Strengthening the Case for Incomes Policies - or a Part of the Elephant", paper read to the June, 1970 meetings of the Canadian Economics Association in Winnipeg. While the argument is strongest as applied to a rising rate of indirect taxation, it can be applied, with less force, to a rising rate of taxation of personal and corporation incomes.
12. Grant L. Reuber, "Incomes Policy: Canada's Experiment with Organized Voluntarism to Curb Price Inflation", Research Report 7003, The University of Western Ontario, pp. 7-11.
13. Reuber, op. cit. pp. 3-11.
14. See Reuber, op. cit. for a more detailed discussion of these factors.
15. Bodkin is somewhat less critical of the average degree of stimulus during the period 1965-1970, as he feels that deflationary forces were still evident in the private economy. However, he agrees with the criticisms that both monetary and fiscal policy were too variable during this period. Indeed, there is some (non-statistical) basis for believing that a steady state trade-off curve would be more favourable than those estimated from real world data by standard econometric techniques. (This argument, in fact, is developed below.)
16. Robert A. Gordon, in his book The Goal of Full Employment, puts heavy stress on what he calls "Manpower Policy" as a means of making the goals of full employment and stable prices more compatible.
17. Similar recommendations are contained in the O.E.C.D. report on inflation, op. cit., pp. 45-7.

18. Grant L. Reuber, brief presented to the Special Joint Committee of the Senate and House of Commons on Consumer Credit (Prices), February 9, 1967. Table II.
19. Thomas J. Courchene, "Interprovincial Migration and Economic Adjustment", Canadian Journal of Economics, III (November, 1970) pp. 550-576. Also, Thomas J. Courchene, "Unemployment Insurance in Canada: Some Implications of the Present System and an Evaluation of the White Paper Proposals", Research Report 7025, The University of Western Ontario.
20. Some of this apparent slow rate of productivity growth may be a difficulty in accurately measuring output growth in the service sectors, as Richard Ruggles has pointed out on several occasions.
21. For a further discussion of this mechanism, see Caves and Reuber op. cit. In this context we are intrigued by the following statement by the Governor of the Bank of Canada "...it has been proper...to ease the upward pressure on the exchange rate by encouraging credit conditions in Canada which reduce the incentives for Canadian borrowers to go abroad for funds and for non-residents of Canada to employ their funds in Canada". Canadian Club of Vancouver, April 28, 1971, p. 8.
22. E.g. G. L. Reuber, "The Objectives of Monetary Policy", Working Paper prepared for the Royal Commission on Banking and Finance, (Ottawa: Queen's Printer, 1962) Chap. V.
23. A few years ago, a discussion paper by a political scientist from the University of Rochester (Gerald Kramer) suggested that, in the U.S. context, the political penalties of foregone output growth and unemployment were far greater (on a per unit basis in the relevant range) than the penalties associated with a rising price level.
24. April 24, 1971.
25. Sidney Weintraub, "A Feasible Anti-Inflation Incomes Policy", Lloyd's Bank Review, (January, 1971).

26. Reuber, "Incomes Policy" op. cit.
27. Leo Durocher used to say, "Nice guys finish last." The existence of voluntary incomes policies would appear to guarantee this outcome, as only the angels will accept the invitation to become the sacrificial lambs on the altar of price level stability. If intervention is decided upon, a law with mandatory provisions would seem, in our view, far more acceptable.
28. The Sunday Times, April 18, 1971.
29. Incomes Policies - Some Foreign Experiences and their Relevance for Canada, Economic Council of Canada (Ottawa: Queen's Printer, 1966).
30. A tremendous literature has developed on this issue over the years, some of which is reviewed in R. G. Bodkin, E. P. Bond, G. L. Reuber and T. R. Robinson, Price Stability and High Employment - The Options for Canada, Economic Council of Canada (Ottawa: Queen's Printer, 1966). Two interesting recent empirical papers relating to Canada are by Turnovsky op. cit. and J. Vanderkamp, "Wage Adjustment, Productivity and Price Change Expectations", mimeographed.
31. E.g., M. Friedman, "The Role of Monetary Policy", American Economic Review, 58 (March, 1968).
32. Charles C. Holt, "Improving the Labour Market Trade-Off Between Inflation and Unemployment", American Economic Review, Papers and Proceedings LIX (May, 1969) pp. 135-146.
33. Looking at a monetarist econometric model of the U.S. economy, Andersen and Carlson, in "A Monetarist Model for Economic Stabilization," Federal Reserve Bank of St. Louis Review, Vol. 52, No. 4 [April, 1970], pp. 7-25, conceded that there was a short-run trade-off curve. Unlike other monetarists, however, Andersen and Carlson attempted to measure the length of time required for the economy to converge to its neo-classical growth path. The results are interesting: the various simulations suggested that such a convergence would take 19 to 35 years! In the meantime, if

one opted for eventual price stability, there would be considerable foregone output and unemployment, to say nothing of induced social tensions.

34. Grant L. Reuber, "Wage Adjustments in Canadian Industry", The Review of Economic Studies, XXXVII (October, 1970) pp. 449-468.
35. This point has been emphasized for some time by the Economic Council of Canada.
36. Harry G. Johnson and Peter Mieszkowski, "The Effects of Unionization on the Distribution of Income: A General Equilibrium Approach", The Quarterly Journal of Economics LXXXIV (November, 1970) pp. 539-561.
37. D.A.L. Auld, "The Impact of Taxes on Wages and Prices in the Canadian Economy 1949-1968", mimeographed. See also the discussion above in Section 2d.
38. The Vice-Chairman of the Economic Council recently predicted that over the next year output is likely to increase $5\frac{1}{2}$ per cent and prices $3\frac{1}{2}$ per cent.
39. For a more detailed discussion and empirical evidence for the 1952-61 flexible rate period, see Caves and Reuber, op. cit., especially Chap. 8.

A P P E N D I X

Table 1

CANADA'S CIVILIAN LABOUR FORCE, 1950-80

	<u>Average annual percentage change</u>					
	<u>1950/5</u>	<u>1955/60</u>	<u>1960/5</u>	<u>1965/70</u>	<u>1970/5</u>	<u>1975/80</u>
Total	1.7	2.7	2.2	3.2	2.7	2.3
male	1.4	1.8	1.3	2.2	2.3	2.1
female	2.7	5.5	4.6	5.3	3.6	2.7

Source: Economic Council of Canada, Fourth Annual Review, p. 72

Table 2

CIVILIAN LABOUR EMPLOYMENT 1950-70

	<u>Average annual percentage change</u>				<u>Total percentage change</u>
	<u>1950/5</u>	<u>1955/60</u>	<u>1960/5</u>	<u>1965/70</u>	<u>1960/70</u>
Canada	1.6	2.2	3.0	3.0	32.1
U.S.	1.1	.9	1.6	2.1	19.5
U.K.	.9	.6	.9	-.6	2.6
France	-	-	.9	.5 ^{a)}	6.7 ^{a)}
Germany	2.8	2.3	.6	-.3	1.5
Italy	-	.7	-1.0	-.5	-6.6
Sweden	-	-	1.3	.3 ^{b)}	7.4 ^{b)}

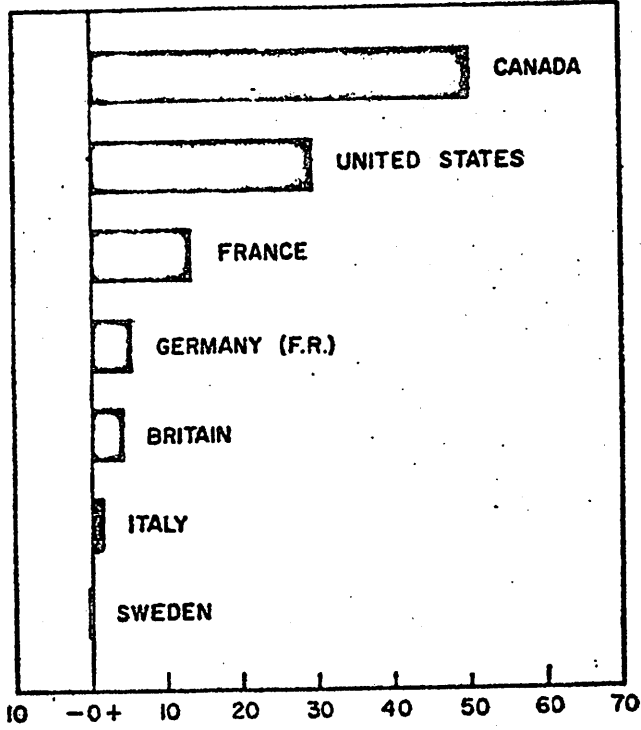
a) last available date 1968

b) last available date 1969

Source: O.E.C.D. Labour Force Statics and General Statistics

Chart 1

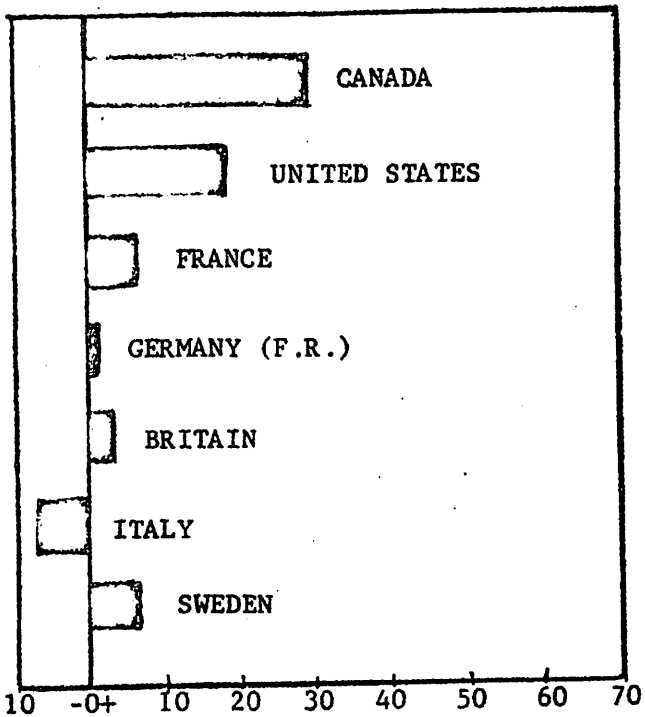
CHANGE IN CIVILIAN LABOUR FORCE
IN SELECTED COUNTRIES, 1965-80
(TOTAL PERCENTAGE CHANGE)



Source: Based on data from *Demographic Trends 1965-80 in Western Europe and North America*, Organization for Economic Co-operation and Development, Paris, 1986; and estimates by Economic Council of Canada.

Chart 2

CHANGE IN CIVILIAN LABOUR FORCE
IN SELECTED COUNTRIES, 1960-1970
(TOTAL PERCENTAGE CHANGE)



SOURCE: OECD LABOUR FORCE STATISTICS
AND GENERAL STATISTICS

Table 3

UNEMPLOYMENT LEVELS IN CANADA AND OTHER SELECTED COUNTRIES
SELECTED YEARS, 1960 - 1970

	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Correction Factor</u> (b)
Canada	7.0	3.9	3.6	4.1	4.8	4.7	5.9	---
United States	5.5	4.5	3.8	3.8	3.6	3.5	4.9	1.00
United Kingdom	1.7	1.5	1.6	2.5	2.5	2.5	2.7 ^(a)	1.51
France	---	.7	.7	1.0	1.3	1.1	---	1.93
Netherlands	1.2	.7	---	2.0	1.9	1.4	1.2 ^(a)	?
Germany	1.2	.6	.7	2.1	1.6	.8	.6 ^(a)	.73
Sweden	1.4	1.2	1.6	2.1	2.2	1.9	1.5 ^(a)	1.20
Belgium	5.4	2.4	2.7	3.7	4.5	3.7	3.1 ^(a)	?
Italy	4.2	3.6	3.9	3.5	3.5	3.4	3.2 ^(a)	.51
Japan	1.1	.8	.9	1.2	1.2	1.1	1.1 ^(a)	1.11

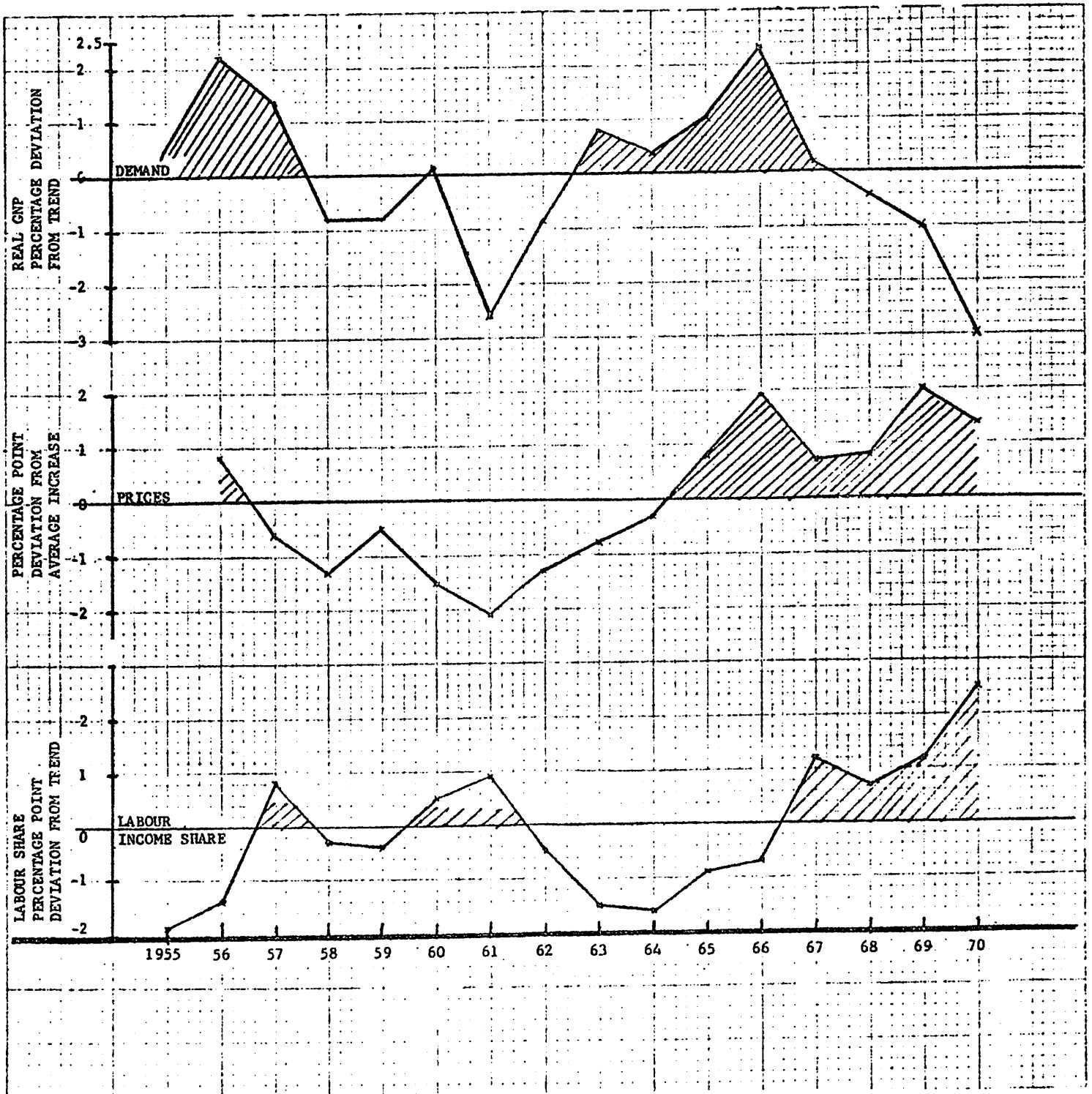
a) Averages of available figures for 1970

b) Unemployment data for Canada and the U.S. are approximately comparable; the data for other countries are not directly comparable. For a review of this matter, see Bodkin, Bond, Reuber, Robinson, op.cit. pp. 34-37. The correction factors shown indicate roughly the amount by which one needs to inflate or deflate reported rates in the country indicated to derive estimates comparable with Canadian rates. These correction factors were estimated by R. J. Meyers, cited by Bodkin et.al.

Source: United Nations, Monthly Bulletin of Statistics, January 1971

Chart 3

DEVIATIONS FROM TREND IN CANADIAN DEMAND PRESSURES,
PRICE CHANGES AND LABOUR INCOME SHARE
1955-70



Source: Inflation: The Present Problem, O.E.C.D. (Paris, Dec. 1970) p. 20.
Updated to 1970.

TABLE 4

PERCENTAGE CHANGES IN CANADIAN AND U.S. PRICES, 1965-70

	Percentage change in consumer price index		Percentage change in implicit GNP price index	
	<u>Can.</u> (end of year)	<u>U.S.</u>	<u>Can.</u> (av. of year)	<u>U.S.</u>
1966/5	3.6	3.3	4.6	2.8
1967/6	4.1	3.1	3.4	3.2
1968/7	4.1	4.7	3.5	4.0
1969/8	4.6	7.9	4.7	4.7
1970/69	1.5	5.5	4.1	5.3
1970/65	19.1	26.8	22.0	21.6
Annual rates	(end of quarter)		(av. of quarter)	
1968 II/I	3.7	4.7	2.0	4.2
III/II	4.7	4.3	4.6	4.1
IV/III	4.0	4.9	3.6	4.4
1969 I/1968 IV	3.0	6.2	5.8	4.7
II/I	8.8	6.4	8.2	4.8
III/II	2.2	5.3	.9	5.5
IV/III	4.1	6.1	3.1	4.8
1970 I/1969 IV	3.1	5.7	7.7	6.3
II/I	3.1	6.3	2.7	4.2
III/II	.9	4.1	3.3	4.5
IV/III	-1.2	5.4	.3	5.8
1971 I/1970 IV	4.6	1.0*		

* Based on February 1971 C.P.I.

TABLE 5

PERCENTAGE CHANGE IN CANADIAN CONSUMER PRICE INDEX

	<u>Total Index</u>	<u>Food</u>	<u>Goods excl. Food</u>	<u>Shelter</u>	<u>Services excl. Shelter</u>
1960/65	8.4	11.3	3.3	9.9	16.8
1965/66	3.7	6.4	2.0	3.1	4.4
1966/67	3.6	1.3	3.7	4.7	6.2
1967/68	4.1	3.3	3.7	6.1	4.4
1968/69	4.5	4.2	2.7	6.8	6.9
1969/70	3.4	2.3	2.1	6.5	5.0
1965/70	20.8	18.6	14.9	30.3	29.9

Source: Bank of Canada, Statistical Summary, March 1971 and Statistical Summary 1969 Supplement.

TABLE 6

SELECTED DATA ON UNEMPLOYMENT, OUTPUT AND FISCAL AND MONETARY POLICY, 1965-69

Annual	Unemployment Percentage (seasonally adj.)	Percentage Change in Real Domestic Product (a)	Net Government Savings (Dissaving) (\$ millions at annual rate)(b)	Percentage Change in Money Supply (c) (% per year)	Nominal Rates (d)		Real Rates of Interest (%) (e)		
					Federal	Total	3 mos. treas. bill	3-5 yr. govt. bond	3 mos. treas. bill
1965	3.9	7.1	625	11.9	4.0	4.9	1.7	2.6	3.4
1966	3.6	7.0	164	6.7	5.0	5.5	1.9	2.4	3.4
1967	4.1	3.2	(85)	14.0	4.6	5.6	1.1	2.1	3.6
1968	4.8	4.9	(33)	13.7	6.3	6.7	2.6	3.0	4.2
1969	4.7	4.6	773	5.6	7.2	7.7	3.2	3.7	4.8
1970	5.9	2.9	(12)	10.0	6.0	7.1	2.1	3.2	5.3
1970/65		24.6		79.8					
<u>Quarterly (at annual rates)</u>									
1968 I	4.6	2.8	152	9.8	6.7	6.8	3.4	3.5	4.4
II	4.9	8.0	(460)	13.6	6.8	6.9	3.4	3.5	4.6
III	5.0	3.8	(68)	18.4	5.7	6.3	2.5	3.1	4.7
IV	4.8	7.7	244	9.9	5.8	6.7	1.9	2.8	4.2
1969 I	4.4	7.1	572	13.5	6.5	7.1	2.5	3.1	4.3
II	4.7	0.0	816	5.7	6.9	7.5	1.3	1.9	3.0
III	4.9	.2	676	-2.7	7.7	7.8	3.1	3.2	4.3
IV	5.0	7.2	1028	5.5	7.7	8.2	3.2	3.7	4.6
1970 I	4.9	2.8	20	0.4	7.5	7.9	2.5	2.9	4.3
II	6.1	1.2	(284)	10.8	6.4	7.3	2.8	3.7	5.6
III	6.8	1.5	276	7.6	5.5	7.1	1.3	2.9	5.0
IV	6.6	4.7	(60)	19.9	4.6	6.2	1.1	2.7	5.5
1971 I	6.1	1.8(f)		18.3	3.9	5.4			

a) Seasonally adjusted at annual rates.

b) Seasonally adjusted, National Accounts.

c) Total currency outside banks and chartered bank Canadian dollar deposits: annual, year end to year end; and quarterly, average of Wednesdays, last month of previous quarter to last month of current quarter, seasonally adjusted.

d) Annual or quarterly averages.

e) Nominal rates minus the rate of average increase in the GNP implicit price index over the preceding three years and the current year.

f) Based on January and February figures for 1971.

Table 7

PRICE^(a) AND WAGE^(b) CHANGES IN CANADA AND OTHER SELECTED COUNTRIES, 1960-70

	<u>1960-65</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>	<u>1968/69</u>	<u>1969/70</u>
CANADA						
Prices	8.4	3.7	3.5	4.2	4.5	3.4
Wages	19.8	5.5	7.0	7.3	8.3	7.9
UNITED STATES						
Prices	6.6	2.9	2.8	4.2	5.4	5.9
Wages	15.2	4.7	3.6	6.1	6.6	5.3
UNITED KINGDOM						
Prices	19.0	3.9	2.49	4.7	5.5	5.7(c)
Wages	24.6	6.0	4.33	8.0	5.8	3.8(c)
FRANCE						
Prices	20.3	2.7	2.7	4.6	6.4	4.9(c)
Wages	43.5	5.9	6.0	12.4	11.3	8.1(c)
NETHERLANDS						
Prices	19.4	5.4	3.4	4.1	7.1	4.0(c)
Wages	58.0	10.2	6.4	8.0	9.3	8.4(c)
GERMANY						
Prices	14.9	3.5	1.5	1.8	2.7	3.7(c)
Wages	57.6	7.3	3.9	4.3	9.1	9.3(c)
SWEDEN						
Prices	19.6	6.4	4.3	1.9	2.7	6.5(c)
Wages	49.4	7.6	9.5	6.5	8.1	11.9(c)
BELGIUM						
Prices	13.4	4.2	2.9	2.7	3.8	3.8(c)
Wages	42.9	9.2	6.9	5.0	7.5	3.6(d)
ITALY						
Prices	27.1	2.4	3.2	1.4	2.6	4.9(c)
Wages	64.1	3.8	5.2	3.6	7.5	17.0(c)
JAPAN						
Prices	34.0	5.2	4.0	5.4	5.2	7.0(e)
Wages	61.8	11.6	13.2	14.9	16.4	2.0(e)

a) The C.P.I., all goods and services

b) An index of average hourly earning in manufacturing

c) 1970 figures were not available for these countries. An average of however-many monthly figures were available for these countries. The source of data was the United Nations Monthly Bulletin of Statistics, January 1971. The data for the C.P.I. was consistent with the O.E.C.D. data. However, excepting the U.K. and the Netherlands, the data on earnings in manufacturing were not. For other countries, this change figure is: (the approximation for 1970) → (the U.N. data for 1969).

d) Only two quarterly figures for 1970 were found - in O.E.C.D. General Statistics, No. 10, 1970.

Sources: O.E.C.D., Main Economic Indicators: Historical Statistics, 1959-69

Bank of Canada, Statistical Summary, March 1971

U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, March 1971

TABLE 8

CHANGES IN AVERAGE HOURLY EARNINGS - CANADA, 1960-70

	<u>1960/65</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>	<u>1968/9</u>	<u>1969/70</u>	<u>1965/70</u>	<u>1968/70</u>
Mining	16.3	7.0	9.2	8.1	6.8	13.1	52.7	20.9
Manufacturing	18.4	6.1	6.7	7.5	8.1	7.9	42.0	16.7
Construction	24.6	10.7	11.4	6.7	11.4	13.8	66.8	26.7
Services a)	21.3	6.4	7.7	8.7	7.5	7.4	43.9	15.5

a) Average of earnings in Urban Transit; Highway and Bridge Maintenance; Hotels, Restaurants, Taverns; and Laundries, Cleaners and Pressers.

Source: D.B.S. Review of Man-Hours and Hourly Earnings, 1967-68 and Man-Hours and Hourly Earnings, January 1971