

## INTERNATIONAL ECONOMIC RELATIONS

Because nations have different resource endowments and capital and labour are not perfectly mobile between them, world production can be increased by national specialization and international trade. World production can be increased still further if knowledge is quickly diffused among nations and labour and capital are able to move across national boundaries to their most productive uses. Canada has gained enormously in the past, and will continue to gain in the future, from foreign trade, imported knowledge, immigration, and by supplementing Canadian resources with those of other nations when Canadian resources are fully employed.

Close international economic ties between nations create problems as well as confer advantages. When domestic output fluctuates, imports and exports can adjust in a compensatory fashion and mitigate the domestic instability. But it is also possible for the domestic economy to be disturbed directly or indirectly by external changes that are difficult to offset by domestic policy. The free movement of capital may make it possible to sustain higher rates of economic growth without inflation; but speculative international movements of capital can result in wildly fluctuating exchange rates or reserves that require the adoption of policies inappropriate to the prevailing domestic economic conditions. Foreign investment may bring "know-how" and access to markets; it also brings foreign ownership and control that are often thought to be undesirable.

We have found it necessary to restrict our examination of the broad and complex issues involved in Canada's international economic relations to those questions that are immediately relevant to the main interest of our inquiry.

We have not attempted to examine Canada's tariff policy, but we have tried to take it into account. If present Canadian tariff policy represents Canadian opinion, Canadians are willing to sacrifice the higher per capital incomes that would result from a more internationally specialized economy, for a more urban, more industrialized, and more densely populated nation. We shall not belabour

here the advantages of international specialization nor question the choice that has been made, although we shall return to this point briefly later in the chapter. In what follows we shall assume that, to the extent policy is changing, it is changing in the direction of freer trade, and that there is no desire to reduce Canada's exports or imports as a percentage of national output.

We have not tried to evaluate the wisdom of adopting a fixed exchange rate. Whatever its advantages or disadvantages, Canada has adopted such a policy and we have taken it as a given condition for our purposes. Adopting a fixed exchange rate does not mean, of course, that it can never be changed. Exchange rate adjustments are permissible under the International Monetary Fund Charter and ought to be used if a fundamental conflict exists between the achievement of our domestic growth and stabilization objectives, and the maintenance of balance-of-payments equilibrium. We do not see such a conflict at the present time.

We have not attempted to assess the adequacy of monetary policy in maintaining Canada's exchange reserves under a fixed exchange rate, but we do consider the consequences for fiscal policy. In this area we have relied heavily on the work of the Royal Commission on Banking and Finance. We accept the proposition advanced in its Report that most of the time monetary policy will be adequate to the task, but that a fixed exchange rate throws a heavier burden on fiscal policy if there is a conflict between the monetary policy required to stabilize foreign exchange reserves and the monetary policy that would be appropriate to meet prevailing domestic economic conditions.

The objectives to be sought in Canada's international economic relations are those specified in Chapter 1: full employment, relatively stable prices, and an efficient allocation of resources. We considered but rejected the idea of including in our list of objectives one that explicitly dealt with maintaining international balance-of-payments equilibrium. In our view, the full-employment, price stability, and efficient allocation objectives have primacy of place. Balance-of-payments equilibrium should be considered as a constraint on the realization of these objectives rather than an objective in its own right.

We have had some difficulties with the foreign ownership and foreign control objective set for us by the terms of reference, because it appears to have prejudged this particular issue. We would have preferred to have been asked to consider whether there was a net economic benefit from foreign ownership and how the net economic benefit from foreign direct investment in Canada might be increased, rather than how Canadian ownership might be encouraged. However, the qualification included in our terms of reference, that our recommendations should not reduce foreign investment in Canada, requires us to consider the wider question.

#### BASIC CONCEPTS

International economic transactions occur when residents of one country sell goods, render services or transfer rights to or interests in property to residents of another country. The international balance of payments of a country is a record of the value of these international transactions over a period of time. In principle at least, the balance-of-payments accounts are formulated on the basis of the conventions of double entry bookkeeping. Each transaction between a resident and a non-resident requires both a positive entry and an equal negative entry in the accounts of each nation. If all transactions are recorded and the two entries are made for each transaction, the accounts must balance in the sense that for each nation the sum of the positive entries will equal the sum of the negative entries.

The accounts consist of two parts: a current account and a capital account. Roughly speaking, the current account records as a positive entry the expenditures by non-residents that generate income for residents (Canadian exports of goods and services), and as a negative entry the expenditures by residents that generate income for non-residents (Canadian imports of goods and services) 1/. Imports and exports are defined broadly to include interest, dividends and other payments for the services of capital. Thus, Canadian exports include not only the value of Canadian goods and tangible services sold to non-residents, but the payments non-residents make to Canadians for the services of Canadian capital. Similarly, Canadian imports include not only the value of foreign goods and

tangible services bought by Canadian residents, but all the payments Canadians make to non-residents for the services of foreign capital.

The first part of the capital account records the changes in the claims between residents and non-residents of such things as foreign bank deposits, foreign bonds and foreign equities. Increases in residents' claims against non-residents, or reductions in the liabilities of residents to non-residents (outflows of capital from Canada), are recorded as negative entries. Conversely, reductions in residents' claims against non-residents, or increases in the liabilities of residents to non-residents (inflows of capital to Canada), are recorded as positive entries. The second part of the capital account records changes in official holdings of gold and foreign exchange and changes in Canada's net position with the International Monetary Fund.

A deficit on current account is necessarily associated with a capital account surplus of equal size; for if Canada pays more for goods and services than it receives, it must increase its liabilities to, or reduce its claims against, non-residents by an offsetting amount. Canada has to borrow from foreigners or reduce its loans to foreigners. There must be a capital inflow. Similarly, a current account surplus would be associated with a capital account deficit to reflect the fact that, when the value of Canadian exports exceeds the value of its imports, the difference must be financed by a capital outflow. That is, Canada must lend to non-residents or reduce its liabilities to non-residents.

Finally, it should be noted that the current account of the balance of payments is a component of gross national product (GNP). Exports, because they give rise to income for residents, are included in GNP as a positive item. Because the data do not permit estimates of the expenditures of Canadian residents on the goods and services currently produced by Canadians by type of expenditure, aggregate imports are deducted from GNP as one item.

A current account deficit means that there is a net leakage of purchasing power from Canada. If there is unemployment, Canadian income and employment would be increased if foreigners would buy more from Canada, or Canadians would buy more from Canadians and less from foreigners 2/. However, when all resources in Canada

are fully employed, a current account deficit means that Canadians are supplementing domestic resources with foreign resources. Were it not for the capital inflow (borrowing from foreigners), Canadians would have to consume less or reduce the rate of capital formation.

Because each country has its own medium of exchange, and because the residents of a country usually want to command goods in their own country, there has to be a mechanism by which an exporter can receive payment in domestic purchasing power and by which an importer can make payments to his supplier in foreign purchasing power. The foreign exchange market serves this function. In this market the accounts receivable of one nation are exchanged for the accounts receivable of another. The rate of exchange, the price of one currency in terms of another, is determined by supply and demand, as are other prices, although supply and demand in this market are often influenced by government transactions made for this purpose. If the value of a country's imports exceeds the value of its exports, the residents of other countries must increase their claims against, or reduce their liabilities to, the residents of the country with the current account deficit. The price of the claims of the deficit country must be such, relative to the prices of the claims of other countries, that non-residents will hold the additional claims against the deficit country or the residents of the deficit country will hold fewer claims against other countries.

If the situation is not as described above, that is, if what we may call autonomous transactions on current and capital accounts do not just offset one another, some adjustment must take place. With a flexible exchange rate the relative value of currencies is normally the first thing to alter. When Canada was on this system, a depreciation of the dollar normally brought in an inflow of speculative capital to finance the temporary deficit. Ultimately, the lower foreign-currency prices of Canadian goods, compared to those produced abroad, would bring about a more permanent adjustment, unless the situation altered again.

With fixed exchange rates, the government of the deficit country must initially maintain the value of its currency by supplying foreign exchange from

its reserves. If the drain on reserves persists, that government will ultimately wish to adopt fiscal, monetary, or exchange rate policies to encourage exports and capital inflow and to discourage imports and capital outflows.

FULL EMPLOYMENT, PRICE STABILITY  
AND THE BALANCE OF PAYMENTS

In the past, foreign trade has had a stabilizing rather than a destabilizing influence on the Canadian economy 3/. This statement seems paradoxical in the light of the fact that the direction and timing of the cyclical fluctuations in the Canadian economy have been very close to those of the United States economy, although the cyclical fluctuations in the Canadian economy have been less extreme 4/. It might be assumed that if the timing and the direction of the changes in activity in these two economies are similar, the fluctuations in the Canadian economy must be "caused" by our trade links with the United States economy. The paradox largely disappears when it is recognized that there are many economic, social and cultural links between the two nations that have apparently played a more important role than the trade link. The stabilizing role of the foreign sector of the Canadian economy is attributable to the marked sensitivity of Canadian imports to changes in the rate of increase of GNP when the Canadian economy is operating relatively close to its potential. It is true that fluctuations in the United States economy create fluctuations in Canada's exports, and these in turn bring about fluctuations in Canadian GNP. However, within the range of fluctuations in Canadian GNP that have taken place, when there is a slow-down in the growth of GNP for any reason, imports decline more rapidly than GNP. Foreign suppliers suffer a disproportionately large share of the decline in activity. When the Canadian economy is pressing against capacity, Canadian imports rise more rapidly than GNP as Canada draws on the resources of other nations.

While Canada thus achieves an approximate balance of trade over the business cycle, the non-trade components of the current account of the balance of payments, the so-called invisibles, such as interest and dividends, are persistently in deficit; but the deficit on invisibles does not fluctuate markedly with

fluctuations in the level of economic activity. Therefore, Canada has a persistent deficit on current account, which increases in periods of expansion and declines in periods of contraction.

#### The Stabilizing Role of the Foreign Sector

The stabilizing fluctuations in the current account balance are only possible because there are increases in the net capital inflow when the deficit increases, and vice versa. If this were not the case there would be violent changes in the exchange rate (under a flexible exchange rate system) that would tend to reduce the stabilizing changes in the current account, or there would be sharp changes in the exchange reserves (under a fixed exchange rate system) that might force devaluation or appreciation of the exchange rate as the Canadian economy moved from periods of full utilization of capacity to periods of slack. Because the net capital inflow does not necessarily smoothly adapt itself to finance the changes in the current account deficit, the fact that the stabilizing fluctuations in the current account deficit have occurred suggests two points:

1. The periods of buoyancy in the Canadian economy have been brought about by high rates of capital formation financed to a significant extent by foreign direct investment in Canada.
2. It has been possible through the use of monetary policy to maintain a differential between Canadian and United States interest rates that increased foreign portfolio investment in Canada during periods of rapid expansion and reduced it during periods when Canada had excess capacity.

Therefore, any attempt that is made to escape the effects of fluctuations in other economies through increasing Canada's self-sufficiency by shifting resources from the production of exports to the production of import-competing goods is unlikely to be successful. Indeed, the presumption is just the opposite. Canada "exports" unemployment when domestic economic activity is declining and "exports" inflation when the Canadian economy is pressing against capacity. Reduced dependence on trade would force Canada to keep these

undesirable "commodities" at home.

We do not wish to imply that Canada should trade with other nations in order to increase the stability of the Canadian economy. Canada must trade so that it can specialize in the production of the goods and services it produces most efficiently and thereby increase the real income of Canadians and others. But we wish to emphasize that, in our view, there is no basic conflict between domestic stability and heavy reliance on foreign trade as such 5/. It is often overlooked that, if Canada were completely isolated economically from the rest of the world, the Canadian standard of living would be immensely lower and the economy would still be as unstable or more unstable than it is now.

#### The Potential Conflict

The devaluation crisis of 1962 in this country and the more recent struggle of the United States to eliminate its persistent balance-of-payments problem are reminders that the maintenance of stable and viable economic relations between countries is difficult, and that the efforts to achieve external stability may limit a country's ability to maintain internal stability.

To reduce complex issues to their simplest terms, when there is less than full employment, Canada needs monetary and fiscal ease and, when there is a danger of rapidly rising prices, monetary and fiscal tightness are needed. If the current account deficit behaves over the business cycle as it often does, with larger deficits at the peaks and smaller deficits at the troughs, monetary and fiscal tightness at the peaks will tend to induce a larger net capital inflow to finance the larger deficit; monetary and fiscal ease at the trough will tend to reduce the net capital inflow as the deficit is reduced.

Under a Flexible Exchange Rate. With a flexible exchange rate, if the net capital inflow increases by more than enough to finance the increased trade deficit at the peak of the business cycle, the value of the Canadian dollar will tend to rise relative to that of other currencies. Similarly, if the net capital inflow falls by more than enough to offset the reduced trade deficit at the trough, the value of the Canadian dollar will tend to depreciate. These changes in the exchange rate will complement rather than frustrate domestic stabilization policies by changing the relative prices of imports and exports 6/.

Under a Fixed Exchange Rate. With a fixed exchange rate the disequilibrium between changes in the current account deficit and changes in the net capital inflow bring about changes in the exchange reserves. There is no automatic equilibrating mechanism. If tight money at the peak of the business cycle induces an increased inflow of portfolio investment and this, together with the growth-oriented inflow of foreign direct investment, is greater than that required to finance the trade deficit, the government must buy foreign exchange to hold down the value of the Canadian dollar. If these purchases of foreign exchange are not financed through an increase in the domestic money supply, Canadian interest rates will rise, and a greater portfolio inflow will be generated which will require continuing purchases of foreign exchange. If foreign exchange control, changes in commercial policy, and appreciation of the dollar are ruled out, the government can only escape from this dilemma by adopting an easier monetary policy, perhaps at a time of actual or incipient inflation, and rely upon a tight fiscal policy to curtail the increase in domestic demand. In the short run, it can do virtually nothing directly to encourage greater imports and reduced exports, although this result will be brought about if Canadian prices rise more rapidly than foreign prices.

Easy money at the trough of the business cycle can also create difficult problems with a fixed exchange rate. If the net capital inflow falls more sharply than the current account deficit, Canada's exchange reserves will decline. If the loss of reserves is sufficiently rapid and persistent, the monetary authorities will be forced to tighten credit conditions to encourage a greater capital inflow at a time when low interest rates are needed to stimulate capital formation. Here, too, there must be great weight put on expansionary fiscal policy; for fiscal policy must compensate for the depressing effects of monetary policy. It should also be recognized that the more successful the expansionary fiscal policy the greater the trade deficit will become, the greater will be the pressure on the exchange reserves, and the higher interest rates will have to be to bring about an increase in the capital inflow, unless one can count on the expansion itself to attract direct investment.

However, because some of the portfolio inflows are sensitive to the differential between Canadian and United States interest rates, and because fluctuations in the two economies often occur at the same time and are in the same direction, when Canada adopts a restrictive monetary policy to contain the expansion, the resulting high interest rates in Canada will frequently coincide with high interest rates in the United States. A similar situation holds when expansionary monetary policies are adopted. Thus, the danger of a conflict between external and internal stabilization goals is less probable than would appear to be the case when Canadian stabilization problems are considered in isolation. Only when Canadian and United States internal stabilization problems differ in direction or degree is a major conflict likely.

#### Problems Created by the Ceiling on Exchange Reserves and the United States Guidelines

We have described the conflict that may arise from an inordinate increase in Canada's foreign exchange reserves if tight monetary and fiscal policies are adopted to reduce the rate of increase of aggregate demand. Monetary policy may have to be relaxed to reduce the capital inflow, thus throwing a heavier burden on tight fiscal policies. This potential conflict is made much more pressing, although it is not changed in essence, if a ceiling on Canada's exchange reserves is adopted. With an exchange reserve ceiling, monetary policy may have to be relaxed more quickly and more completely than would be the case if the reserves could be allowed to vary within wide limits. In such a situation, fiscal policy will have to react quickly to prevent inflation.

The Canadian government accepted a ceiling on its exchange reserves as the price of obtaining exemption from the United States interest equalization tax imposed in 1963. It is not obvious why the United States government would have wanted to apply the interest equalization tax to Canada. Canada had not been accumulating exchange reserves and even if it had been, there is no doubt that the reserves would have been held in the form of United States dollars rather than in gold, and it is the loss of gold that is the concern of the United States. Only if Canada borrows in the United States and then lends United States dollars to, say, Europe is the United States gold position likely to be threatened. In

fact, Canada has been a large net provider of foreign exchange to the United States for a number of years.

Without entering into a full discussion of the reasons for the decision of the Government of Canada to seek an exemption, had Canada not obtained exemption from the interest equalization tax, Canadian equity markets would have been subject to extreme pressures and an exchange crisis would have been difficult, if not impossible, to avert. Certainly Canadian interest rates would have had to have been significantly higher than they were to maintain the net capital inflow from the United States since 1962. Given the imperfections in the Canadian capital market, in particular, the 6 per cent interest ceiling on bank loans, much higher domestic interest rates probably would have had disruptive effects on the allocation of capital. Higher interest rates in Canada undoubtedly would have been inconsistent with the need throughout the early part of this period for a rapid rate of capital formation in Canada to move closer to potential GNP. Nevertheless, acceptance of the limitation on the reserves intensified the difficulty of achieving simultaneous domestic and external stability.

The foreign investment guidelines adopted by the United States in February and December 1965 changed the nature of the problem. The guidelines of February 1965 extended the voluntary guidelines programme and the December programme made those guidelines, particularly as they pertained to industrial institutions, more detailed and stringent. The February guidelines had the two following effects upon Canadian capital inflows:

1. Short-term loans to Canadian residents, and the purchase of new Canadian issues by United States banks, were allowed to increase only slightly relative to earlier levels, while United States corporations were urged to repatriate liquid assets.
2. The purchase of new long-term Canadian issues by United States non-bank financial institutions was restricted only by Canada's commitment to hold its foreign exchange reserves below a stipulated level.

The December guidelines were more stringent, and coupled with the interest equalization tax and the foreign exchange reserve ceiling, would have meant that

the increase in foreign direct investment by United States corporations would have been limited relative to earlier levels. The limitation was on a world-wide basis and it is difficult to know how it would have affected Canada. However, the meeting of the Canadian and United States Ministers in Washington, in March 1966, made it clear that the direct investment provisions of the December guidelines were not intended, or are not now intended, to alter the normal business behaviour of United States subsidiaries operating in Canada. If Canada can quickly obtain adequate information from the Canadian subsidiaries of United States parent companies to ensure that these companies are, in fact, behaving in accordance with this agreement, the Canadian situation will be approximately as it was prior to the announcement of the December guidelines. The ministerial agreement is thus of great importance.

The February and December United States guidelines are extremely crude instruments for controlling international capital flows, and it is difficult to predict the extent to which they would have reduced the inflow of United States direct and short-term portfolio investment into Canada. Had the agreement not been reached it is possible, but unlikely, that they would have been so effective that there would have been a loss of Canadian exchange reserves, which would have compelled Canada to raise its interest rates to maintain an adequate inflow of long-term portfolio investment. If this had happened, Canada would have been confronted with three alternatives: high interest rates in Canada despite the interest equalization tax exemption; adoption of a much more restrictive domestic fiscal policy; or devaluation of the Canadian dollar.

The important point to be borne in mind is that had the ministerial agreement not been reached and had Canada decided to forgo the interest equalization tax exemption (and superficially this would have seemed a sensible thing to do if Canadian interest rates were going to be high in any event), Canada would not have escaped the discipline of the exchange reserve ceiling. Under these circumstances, the United States presumably would have restricted purchases of Canadian securities by United States non-bank financial institutions which would have virtually closed off the inflow of United States capital into Canada at any interest rate.

The adoption of the fixed exchange rate, the acceptance of a ceiling on our exchange reserves, and, to a limited but uncertain extent, the new United States foreign investment guidelines, have greatly increased the need for strong, reliable and readily implemented instruments of fiscal policy to make up for the possible preoccupation of monetary policy with the maintenance of external equilibrium. We have discussed in Chapter 5 some of the instruments of fiscal policy that are available for this purpose and how they might be used. We return to a discussion of the guidelines as they relate to foreign ownership and control later in this chapter.

#### TAXATION AND CANADA'S INTERNATIONAL COMPETITIVE POSITION

At the time this Commission was established there was general concern about the decline in Canada's international competitive position. The view was frequently expressed that the Canadian tax system was responsible 7. Many of the briefs submitted to us put forward this point of view. As the effects of the devaluation of the Canadian dollar prior to May 1962 were felt, this criticism of the tax system greatly diminished. It is now generally acknowledged that the problem arose essentially because of the overvaluation of the Canadian dollar and that taxes played little, if any, part in the deterioration. We are in complete agreement with this diagnosis.

We will not discuss why the Canadian dollar was overvalued, for that has already been ably done by the Royal Commission on Banking and Finance. We would, however, like to make some general observations about the effects of taxes on Canada's international competition and report upon the results of our enquiries into some of the specific complaints that we received against the tax system.

#### Analysis of the Problem

The fact that a country has inefficient labour and capital, poor resources, and backward technology relative to other countries will mean that its people will be relatively poor but it does not mean that the goods and services produced in the country cannot be traded internationally. If the country's relative

inferiority is not the same in all lines of production, there is some exchange rate at which trade can take place. If trade does not take place it is a clear indication that an adjustment of the exchange rate is required.

It is possible for a nation's general international competitive position to deteriorate over a period of time relative to some previous position. This is to be distinguished from the constantly changing international competitive positions with respect to the particular goods produced by particular countries that result from changing relative prices for goods in all countries as a result of market forces. Changes in a nation's general competitive position will result from changes in:

1. The general level of prices relative to the price levels in other countries.
2. The exchange rate.
3. Trade barriers in the country itself or in the countries with which it trades.

Changes in the level of taxes, in the domestic economy or in other economies, undoubtedly can change the relationship between general price levels in different countries. However, it is by no means obvious that higher taxes will increase the general level of prices. Furthermore, a change in relative price levels resulting from changes in tax levels need not be compensated for by changing taxes, whether this means offsetting domestic tax increases of one kind by tax cuts of another kind, or by matching foreign tax cuts with domestic tax cuts 8/. The presumption is that if a general price level change is initiated by a permanent tax change, the best permanent adjustment is a change in the exchange rate.

While it is through their effects on costs and prices that taxes would directly affect a nation's international competitive position, it is sometimes argued that taxes have an indirect effect by reducing effort, initiative, risk taking, the rate of capital formation, and technical progress. We accept the proposition that the structure of taxes can have deleterious effects on productivity. The more slowly Canada's productivity increases relative to that of other countries, and the more rapidly wages rise relative to productivity at given levels of employment, the more difficult it will be to prevent a persistent

deterioration in Canada's international competitive position. To prevent such a deterioration would require a correspondingly slower rate of price level increase than in other countries. This would probably mean acceptance of a higher rate of unemployment and the associated slower rate of economic growth, that would be in addition to the slower growth that would result directly from the low rate of productivity gain. As we emphasized in the previous chapter, we believe that Canada can, through reform of its tax system, improve the allocation of resources and increase the rate of increase of Canadian productivity. Our detailed proposals are designed to achieve these results while improving the fairness of the system.

We have been unable to find support, however, for the proposition that the level, as distinct from the structure, of taxes has had, or is likely to have, deleterious effects on Canada's international competitive position that cannot be offset by adjustments of the exchange rate or other policies. We have no intention of entering into a debate about the virtues and vices of "big" government, but we have found no evidence that Canada cannot attain its domestic objectives through increased government expenditures without necessarily suffering a decline in its international competitive position. International comparisons reveal no systematic association between tax burden, rates of growth, inflation, and trade position.

Our research staff made extensive and intensive international tax comparisons. The results can be briefly summarized.

1. There was no indication that Canada's competitive position deteriorated in the 1950's as a result of any cause other than the level of the exchange rate that existed prior to the devaluation of the Canadian dollar or other factors over which Canada had no control. The Economic Council of Canada suggests that, for the more recent period, Canada's international competitive position has been reasonably well maintained 9/.
2. The overall level of taxation in Canada was neither particularly high nor rising rapidly in relation to other countries in the period covered by the studies made for us. But, as we have explained, we are sceptical that these

sorts of comparisons are meaningful. Certainly the fact that a country has high or rapidly rising taxes does not necessarily imply that its competitive position must deteriorate. Moreover, it does not follow that taxes should be lowered or the rate of increase of taxes reduced because a country's competitive position deteriorates. More effective and less painful adjustments may be possible.

3. For the period examined by our staff, there was no evidence that Canada's reliance on direct, rather than indirect, taxes was unusually high.
4. It was discovered, however, that while Canada's reliance on direct taxes was not out of line with other countries, its reliance on corporate income taxes was unusually heavy relative to its reliance on other direct taxes. Corporate income tax revenues are high relative to total taxes, and relative to GNP compared with most other countries. Corporate income tax revenues as a proportion of total tax revenues have been declining in Canada as they have in most other countries. However, the decline has been more dramatic in the United States with the result that Canada now draws a larger proportion of her revenues from this source than does the United States.

#### Corporate Taxes

An analysis of the "effective marginal rate" <sup>10/</sup> of tax on corporate income in Canada and the United States disclosed that, while the effective marginal rate in Canada in 1964 was slightly higher than it was in 1951, the United States effective marginal rate fell dramatically from 1951 to 1964 and declined still further in 1965. Canada's effective marginal rate was much below that of the United States rate in 1951; by 1964 the effective marginal rate in the United States was about the same as in Canada. The decline in the United States effective marginal rate was to a large extent attributable to the introduction of generous depreciation rules and investment allowances.

The relatively heavy weight Canada places on corporate income tax revenues, and the relative increase in the effective marginal rate of corporate income tax in Canada compared with the United States warrant concern, but not because these

factors have directly worsened our international competitive position. Most of the changes in the effective marginal rate of Canadian corporate income tax came about prior to the devaluation of the Canadian dollar, which began in 1960 and culminated in the establishment of the fixed rate in 1962. We believe the devaluation swamped the adverse effective marginal corporate income tax rate changes which, after all, have to be substantial to have an appreciable effect on prices. Rather, our concern is with the heavy weight of taxes on some kinds of Canadian corporate source income. This reduces after-tax rates of return to Canadians on Canadian equities, reduces the rate of domestic capital formation, and distorts the allocation of capital in Canada. As we discuss in Chapter 4, we believe our proposal to integrate corporate and personal income taxes for resident Canadian shareholders would overcome these adverse effects, while maintaining Canadian corporate income tax rates. It must be borne in mind that a large proportion of Canadian corporate income flows to non-residents who, at least in the case of corporations resident in the United States, can usually offset most of their Canadian corporate income taxes against their domestic tax liabilities. Under these circumstances, Canadian corporate income tax cuts are of reduced significance because much of the impact would be on foreign treasuries rather than on foreign corporations and their shareholders.

#### Sales Taxes

It was represented to us in a number of submissions that the manufacturer's sales tax has the effect of discriminating in favour of imports and against the production of competing domestic goods by depriving the domestic producers of part of the protection that the tariff would otherwise afford them 11/. In contrast, two submissions alleged that the manufacturer's sales tax had the opposite effect of encouraging domestic production at the expense of imports 12/. The basis of these opposing contentions is that imports are subject to tax on their duty-paid value, whereas domestically produced goods are taxed on the manufacturer's selling price to wholesalers, actual or notional. If the domestic price of a good contains elements of cost, such as expenses for advertising and administration, that are excluded from duty-paid value because they are borne subsequently by the importer, the sales tax base for the importer may be less

than that for the domestic manufacturer. In addition, costs of transportation are not all included in duty-paid value, and so tax on them may be avoided by importing assembled products rather than parts for assembly. On the other hand, the Department of National Revenue gives a variety of tax discounts to domestic producers who compete against imports sold directly to retailers or consumers. These discounts are never given on imported goods.

We have investigated in detail all cases of alleged favourable treatment of imports brought to our attention, and such other cases as appeared to exist. In some instances we found that the case put to us was based on partial information and distorted the true outcome. We found also that the Department of National Revenue has been exercising its administrative discretion with the utmost diligence, flexibility, and ingenuity to avoid favouring imports. At the same time, we have the impression that the administration of the Excise Tax Act is so complex that neutrality between imports and domestic production is impossible to achieve, and that cases of favouritism for both imports and domestic production are not unusual. Implementation of our recommendation that sales taxes should be imposed at the retail level and that producer goods should be exempt should effectively remove any deleterious effects that sales taxes may have on Canada's international competitive position.

#### Export Incentives

It has also been submitted to us that exporters in other countries receive special tax reliefs that give them a competitive advantage over Canadian exporters 13/. On investigation, we found that such export incentives do in fact exist. None seem to be of great significance, some of them are in the process of being dismantled, and the continuation or expansion of others would be a violation of the letter or spirit of international agreements. Canada, and fifteen other countries 14/ are now bound under article XVI:B:4 of the General Agreement on Tariffs and Trade not to use any direct or indirect export subsidies that would result in the sale of other than primary products in foreign markets "at a price lower than the comparable price... in the domestic market". In addition, all signatories of the General Agreement on Tariffs and Trade are under obligation

to report any export subsidies. Whether or not subsidies are reported, countries injured by them may institute discussions or consultations, or even impose a countervailing duty upon the subsidized goods. Also, the signatories of the European Free Trade Association Convention and the European Economic Community Treaty, most of whom are committed to article XVI:B:4 of the General Agreement on Tariffs and Trade, are bound by similar provisions of their respective treaties. In all these contexts, export subsidies are defined to include both the remission of direct taxes or social security charges calculated in relation to exports, and the remission of indirect taxes in excess of those actually collected at one stage or at several stages on the goods exported.

Despite treaty obligations, we found it extremely difficult to obtain official information on export subsidies, other than those on agricultural products and shipping that were only incidentally related to taxation. A recent Canadian Tax Foundation survey reports that "A diligent survey involving a great deal of correspondence with many countries and agencies showed that specifically labelled incentives to exports are few" 15/. Some such incentives were, nevertheless, reported in this survey or mentioned elsewhere. The Japanese and French schemes of corporate income tax reductions related to exports were among the more important general tax incentives offered to exports. The Japanese scheme was terminated in March 1964 prior to Japan's joining the Organization for Economic Co-operation and Development. The form of the French incentive was to give firms an acceleration of straight-line depreciation related to the fraction of their output exported. It therefore lapsed at the end of 1964 when straight-line tax depreciation ceased to be available for tax purposes in that country. Australia, too, reduces pay-roll and corporate taxes for exporters 16/.

We are inclined to the view that such general export incentives are not a serious threat to competitors. Something in the nature of specific, or at least non-uniform, tax incentives to exports may be involved in the practice of many European countries of refunding multiple stage indirect taxes on exports. It was not possible to ascertain definitely whether or not these refunds are, in

fact, excessive and so constitute an incentive to exports 17/. The European Economic Community Commission has expressed concern about this problem and is now dealing with it. It is not clear, however, whether its standards of fair play in the matter will also be applied to non-members of the Community.

We conclude that while export incentives through the tax system do exist abroad, they are not likely to constitute a major or increasing problem 18/. Nevertheless, we recommend that Canada work, particularly through the international agencies of which she is a member, to secure the highest attainable standard of compliance with both the letter and the spirit of international agreements in these matters.

Incidental benefits to exporters may also result from favourable tax treatment of investment abroad, foreign branch income, and special status corporations in various countries. Even more important may be the special treatment accorded particular industries such as mining and oil, that happen to be major export producers.

We would urge that Canada should not seek taxation incentives deliberately designed to stimulate exports. Quite apart from the fact that these would be incompatible with international obligations that are clearly in the country's broadest interests to uphold, they are undesirable on other grounds. Tax remissions are bound to create inequities in the treatment of taxpayers, and can be presumed to result in a misallocation of resources, permanent reductions in output, and possibly a lower growth rate. General export subsidies are an inefficient means of improving a country's current account balance because they encourage only the expansion of exporting and not of import-competing industries. The encouragement of specific exports is obviously much more damaging in this respect.

#### ECONOMIC GROWTH AND THE BALANCE OF PAYMENTS

The rate of growth of the Canadian economy is vitally affected by its economic relations with other countries. International specialization, access to technical advances made elsewhere in the world, and the ability to draw on

the resources of other countries, including skilled manpower, can all contribute to a higher rate of growth of potential GNP and a more rapidly rising real income for Canadians. Greater independence, whether in trade, knowledge, or in the use of resources, will impose a cost in terms of lower living standards. International economic interdependence exacts a price too. When Canada imports goods and capital, it imports, to some extent, a style of life and restrictions on its actions that may be abhorrent to some and uncongenial to many. Because there is no unequivocal measure of the benefits from and costs of international economic interdependence, because there are divergent individual tastes and preferences about the values that should be assigned to economic benefits and social-political costs, and because beliefs about national identity and national interdependence are held with deep conviction, there is fertile ground for conflicts about policies. We frankly admit that we have found no magic touchstone nor have we developed new information that will dispel the uncertainties that obscure the debate. We have, however, tried to sort out the issues that arise as a result of foreign capital inflows and to present our point of view as clearly as we can with an indication of the alternatives.

We are not concerned here with the fluctuations in the inflows of foreign saving that we discussed above, but with the persistent net capital inflow and the associated current account deficit by which the real transfer of resources takes place. It is assumed that full employment and price stability will be maintained.

In the simplest terms, a persistent net capital inflow and the associated current account deficit mean that Canada is consuming and investing not only its own resources but some part of the resources of other countries. The larger the net inflow, the higher can be the rate of capital formation without reducing current consumption. To put the matter the other way, the larger the net inflow, the less Canadians have to reduce their consumption to achieve a given rate of capital formation. The converse is true for a low rate of net capital inflow.

If Canadians consumed an unusually high proportion of their current output it might be argued that they were discounting the future too heavily, and that

they should be forced or induced to consume less now in order to consume more in the future out of the increased future output resulting from the higher rate of capital formation, made possible by increased domestic saving. In fact, however, Canadians save a high proportion of their national income relative to other countries. The suggestion that Canadians should save more in order to reduce or eliminate the current account deficit, implies that Canadians should discount the future less than other peoples do. While this is a perfectly legitimate preference, it is a matter of preference, not of logic or fact.

The proposition that Canadians should reduce their rate of capital formation to the rate of domestic saving, without reducing the rate of consumption, is tantamount to saying that Canada should accept a slower rate of growth of potential GNP. It is true that drawing on foreign saving now gives non-residents a greater command over future Canadian output, but there is no doubt that Canadian output expands as a result of this inflow of resources by more than the increase in its future payments to non-residents for the use of their saving. Unless foreign saving and investment merely replace domestic saving and investment, and the high rate of Canadian saving suggests that this has not taken place, the reliance on foreign saving increases the capital stock, the productivity of Canadian labour and resources, and Canadian incomes. The reliance on net foreign saving is not in conflict with the goal of economic growth; indeed, with full employment, the higher the rate of net capital inflow the higher the growth rate of Canadian income is likely to be.

Just as we do not believe it is part of our task to establish a target growth rate for the economy and then design a tax system that would bring it about, so we do not feel compelled to establish the target rate of net capital inflow. Canadians may become dissatisfied with the rate of growth that would result from maintaining full employment through a more effective fiscal policy and by a more efficient allocation of resources brought about by the adoption of the tax reforms we recommend. In that case, they may be prepared to reduce their current consumption and accept the sacrifice of an unusually high rate of domestic saving in order to increase the rate of growth, and we see no overwhelming technical obstacles that would prevent them from doing so. The net

capital inflow is not large relative to the level of Canadian consumption, and a programme designed to eliminate gradually Canadian reliance on foreign saving over a three- or four-year period probably would not be unduly onerous. Assuming full employment existed at the outset, the following steps would achieve this result:

1. Establish a target full-employment growth rate.
2. Devalue the Canadian dollar to the level where the full-employment current account deficit at that growth rate would be eliminated.
3. Tighten fiscal policy to offset the expansionary effects of the devaluation on employment and prices, that is, increase the rate of saving at full employment.
4. As the current account deficit declined, and the need to induce a capital inflow therefore declined, reduce interest rates to stimulate the rate of domestic capital formation.

We do not recommend such a policy for we have no fault to find with the rate at which Canadians are saving and we can see no virtue in maintaining the growth rate by forcing Canadians to increase their rate of saving. But we think it useful to draw attention to this alternative.

Thus far we have been speaking principally about the effects of net capital inflows on Canada's economic growth. Gross capital flows also have growth effects. It is quite possible to have no net inflow but substantial gross capital flows when foreign investment by Canadians just matches the investment in Canada by non-residents. When these flows take the form of direct investment, that is, investment that gives control over enterprises to those who make them, the host country can benefit through the availability of such things as new technology, managerial ability, access to markets, and increased competition. Foreign investment can, and almost certainly has, increased Canadian productivity and economic growth. Whether Canada could have obtained an even greater net economic benefit by changing the form of foreign investment, and whether the net economic benefit of foreign investment is enough to offset what are thought to be the social-political costs, are the questions to which we now turn.

## FOREIGN INVESTMENT

From the point of view of the world as a whole, the free movement of capital among nations will lead to a more efficient allocation of capital and greater world production. With greater world production, all nations can be better off. This is obviously the goal toward which Canada should work; equally, obviously it is a goal that cannot be realized in the near future because it would require each nation to surrender virtually all of its fiscal sovereignty. All nations would have to have identical tax systems, and there would have to be tax agreements reached between them such that the tax burden on individuals and families would not be affected by the nationality of the recipient of income, or the geographic location of the assets from which the income was derived. While there are some encouraging signs that some nations are becoming more prepared to surrender some of their sovereignty for their mutual benefit, the day seems infinitely remote when all nations will adopt common tax bases and rates, reach universal agreements on the sharing of taxes on international income flows, and develop methods of redistributing world income so that those nations that gain from the free flow of capital can compensate the losers.

The problem is to develop a tax system for Canada that is not inconsistent with the gradual realization of these world objectives while recognizing the following points:

1. In a world with a multitude of different national tax systems perfect tax neutrality for any one country is impossible.
2. Unilateral action by Canada toward greater international tax neutrality may simply shift a benefit from the Canadian treasury to the treasuries of one or more other countries who are no more "deserving", with no improvement in the international allocation of capital.
3. The opportunity to tax the income generated by foreign capital invested in Canada is a major advantage Canada derives from such investments 19/.
4. Foreign investment by Canadians may confer a net economic benefit on Canada, but the presumption is that the direct benefit is relatively small.

5. Virtually any change in Canadian taxation will affect non-residents and, because of the differences between national tax systems, will have a different impact on residents and non-residents, and on non-residents of different countries.
6. Capital inflows can, as we have discussed, increase the difficulties of carrying out an effective stabilization policy and could adversely affect Canada's terms of trade.
7. The initial transfer of capital and the later returns on capital can give rise to balance-of-payments adjustment problems.
8. There is some feeling in Canada against foreign ownership and control of Canadian businesses and resources.

These considerations would seem to suggest that, despite the world gains to be had from free international capital flows, Canada should take a hard line toward foreign investment in Canada, at least in the near future. However, we believe it would be a mistake to proceed as though these were the only considerations.

#### The Net Economic Benefit from Foreign Investment in Canada

The revenue obtained from taxing the income generated by foreign capital invested in Canada is only one of the benefits Canada derives from such investment. If Canada were to tax such income flows so as to maximize its tax revenues rather than to maximize the total net benefits from foreign investment, it would probably incur an economic loss. We have not tried to measure the net economic benefit from foreign investment and we doubt that such an investigation would yield definitive results. But logic, the available evidence, and expert opinion all support the view that foreign investment, whether direct or portfolio, whether gross or net, whether it results in new fixed capital formation or "take-overs", confers a net economic benefit on the host country. If Canada were to reduce the inflow of foreign capital (we are not speaking here of the need to regulate the inflow for stabilization purposes), we are convinced that, from an economic point of view, Canadians would be less well off. This does not mean that Canada should not strive to increase the net economic benefit; nor does it mean that Canadians are not at liberty to forgo a net economic

benefit in order to achieve more fully some other objective. It does mean that there is a cost to reducing foreign investment and that this cost should be borne in mind in reaching a decision.

#### Changing the Form of Foreign Investment in Canada

It has been claimed that Canada's net economic benefit from foreign investment could be increased if a larger proportion of the capital inflow took the form of debt rather than equity investment. The rate of return on bonds is less than the rate of return on equities, and if Canadians were to buy more Canadian equities and non-residents were to buy more Canadian bonds, Canada's future payments to non-residents for the use of their capital would be less, and the income of Canadians would be greater. This argument has an element of truth but requires careful qualification. Foreign direct investment often brings with it knowledge, skills, and access to markets. The rate of return on equity should be considered as the price paid for the whole package of inflows, not just for capital. In addition, much foreign direct investment in Canada has been made to finance the development of sources of raw materials for United States producers. The Canadian subsidiary has a guaranteed market in the United States parent company. Without a guaranteed buyer, a "truly Canadian" enterprise would face greater risks, and therefore would have to expect a higher rate of return than the United States parent would accept to warrant proceeding with a project. Consequently, investments are made as a result of the tie-in with the United States parent which otherwise might not be undertaken. Finally, if a foreign investment is unsuccessful or, because of a sharp decline in general business activity, is unprofitable for a period of time, payments need not be made to non-resident equity holders. With the sale of debt to non-residents, payments of interest and principal must be made under all circumstances.

We could be reasonably certain that the net economic benefit from foreign investment would be increased by a policy that resulted in a substitution of debt for equity investment only if the following conditions were met:

1. There were no offsetting reduction in the inflow of foreign "know-how", access to markets, and so on.
2. There were no reduction in direct foreign investment in projects that would not be undertaken by Canadians.
3. There were no offsetting balance-of-payments adjustment costs as the result of increasing Canada's fixed obligations to non-residents.
4. The policies would not give rise to retaliatory actions by other governments that imposed greater costs elsewhere in Canada's foreign economic relations.

It is our view that the present tax system discriminates against equity investment by Canadians, and we are convinced that the implementation of our reforms, particularly the full integration of corporate and personal income taxes for resident shareholders, would reduce the cost of equity capital in Canada. Because our proposals would not make foreign direct investment in Canada less attractive to non-residents, but would provide an inducement to foreign-controlled companies to sell shares in Canada, we think our reforms would increase Canada's net economic benefit from foreign investment. How great an impact our proposals would have in this respect is impossible to say, but we are satisfied that the change would be in the right direction.

#### The Determinants of Foreign Investment in Canada

The studies conducted by our research staff confirm the findings of others that portfolio (debt) inflows of capital into Canada are responsive to the volume of new Canadian issues and the relevant interest rate differentials between Canada and the United States. The short-term capital flows, at least to some extent, seem also to have been affected by stabilizing expectations about exchange rate changes when the rate was free to change.

It is much more difficult to explain the changes in foreign direct investment. Foreign direct investment to finance real capital formation seems to be

responsive to the level of economic activity in Canada, expectation about the future performance of the United States and Canadian economies, and the search for markets and sources of supply. Foreign direct investment to finance "take-overs" of Canadian companies is probably also related to the search for markets and sources of supply, but these flows are not closely related to the current level of economic activity in Canada.

The rapid increase in foreign direct investment in the early 1950's was probably attributable to an exaggerated fear in the United States that there would be a world shortage of raw materials, to the high growth rate of the Canadian economy (that was itself attributable to foreign direct investment in no small degree), to the political stability of the Canadian government relative to the governments of other countries, and possibly to the low effective marginal rates of tax on corporate income in Canada relative to those in the United States. The sharp reduction in the rate of increase of foreign direct investment after 1956 was probably the result of the growing awareness that the raw materials shortage had been exaggerated, of the unsatisfactory performance of the Canadian economy, and of the competing attraction of investments in other countries, particularly the common market countries and Japan. The gradual increase in the effective marginal rate of Canadian corporate income tax relative to the United States rate, as a result of United States tax changes, may also have played a part.

There was a sharp drop in foreign direct investment again in 1963 and 1964 and a correspondingly large increase in foreign portfolio (debt) investment.

The Supplementary Budget of 1960. The Canadian tax treatment of foreign investment changed little in the decade preceding December 1960. The Supplementary Budget of December 20, 1960 contained a number of provisions designed to influence Canadians to invest in their own country rather than abroad, and to seek domestic rather than foreign sources of finance. It also offered some deterrents to the foreign investor, or, as the Minister put it, withdrew some of the special attractions and incentives to invest in Canada.

Two specific measures were aimed at encouraging Canadian persons and institutions to invest in domestic securities. First, the 4 per cent surtax on investment income was repealed for income derived from sources in Canada. Second, registered pension plans and investment companies enjoying special tax treatment were to be required to derive 90 per cent of their income and 85 per cent of their gross revenue, respectively, from "sources in Canada", that is, investments in Canadian securities.

Another set of provisions was designed to raise withholding taxes on incomes paid to non-residents to a uniform level of 15 per cent. Interest on Government of Canada bonds and interest payable in foreign currency had previously been exempt, and interest on provincial government bonds, except those payable in foreign currency, had been taxable at 5 per cent. All these reduced rates were abolished for new issues of securities; however, in 1966 some of these exemptions were restored. The 5 per cent withholding rate on dividends paid by Canadian subsidiaries to their non-resident parents was also withdrawn. A parallel tax of 15 per cent was imposed upon the uninvested profits of branches of foreign corporations.

While the Minister stressed that foreign investment in Canada was still welcome and necessary, he also drew attention to the fact that in the economic conditions then prevailing, net capital imports were unnecessary and harmful in their effect upon the exchange rate and, indirectly, on income and employment 20/. He looked especially to the increased withholding taxes on interest to reduce incentives to borrow abroad 21/.

The Budgets of 1963 and 1964. The 1963 Budget contained two major provisions of importance to international capital flows. The first of these, which was subsequently withdrawn, provided for a tax of 30 per cent on the value of Canadian-controlled companies taken over by non-residents 22/. The second established the concept of a corporation "having a degree of Canadian ownership", roughly, at least 25 per cent. Only such corporations could avail themselves of the general provisions for accelerated depreciation, and dividends paid by them to non-residents were to bear withholding tax at the reduced rate of 10 per cent. The withholding tax on dividends paid to non-residents by other corporations was

to rise to 20 per cent, beginning in 1965, but this provision was repealed in 1964.

Two other changes were made in the withholding tax on income received by non-residents. First, interest on new issues of Canadian bonds paid to institutions exempt from income tax in their country of residence was exempted from the withholding tax. Second, payments of profits masquerading as management fees were to be taxed at 15 per cent 23/.

In introducing his legislation, the Minister once again stressed the importance and desirability of continuing foreign investment in Canada. But he also stressed the importance of appropriate conduct by foreign-controlled companies. The tax measures proposed, especially the first two, were intended to discourage two sorts of departures from such conduct: "take-overs" which the Minister said "rarely confer any benefit on the Canadian economy", and failure to accept significant Canadian minority participation. The exemption of tax-free institutions from withholding tax was designed to encourage a desirable sort of foreign investment, and the taxation of pseudo-management fees, to close a technical loophole 24/.

The 1964 Budget, as already mentioned, proposed a repeal of the increase in withholding tax from 15 per cent to 20 per cent on dividends paid to non-residents by companies not having a degree of Canadian ownership. There were also complex technical changes in the definition of companies having a degree of Canadian ownership designed to alleviate unintended hardships and prevent corporations from meeting the letter of the requirement while violating its spirit 25/. The Minister explained that with the lowering of the rates of corporate income tax in the United States, the 15 per cent withholding tax should prove a sufficient inducement to foreign corporations to make equities available to Canadians 26/.

Our research staff was unable to determine the effects on foreign investment of these tax changes. They could not detect any immediate changes in income flows. While there may have been some effects on the underlying capital flows, other changes, such as the moral suasion of the Bank of Canada in 1960 to induce Canadians to reduce their foreign borrowing, the United States interest equalization tax introduced in 1963, and the United States guidelines set forth

in February and December of 1965 in particular, make it virtually impossible to disentangle the impact of the foregoing Canadian tax changes. The evidence is not inconsistent with the interpretation that the 1961 and 1963 tax changes led to some loss of confidence on the part of foreign direct investors that only gradually returned following the modifications of 1964. However, it is also possible that excess productive capacity overhung the market in Canada in 1963 and 1964, and that with the return of Canadian prosperity in 1965 the fundamental deterrent to foreign direct investment was removed.

One of the purposes of the 1963 tax changes was to induce foreign-controlled subsidiaries in Canada to offer shares in the Canadian market. Whatever the results achieved by these measures to date, their impact has been extremely modest. There is no way of knowing the extent to which the decisions of the few companies that offered shares in the Canadian market were influenced by the differential withholding tax 27/.

#### Foreign Confidence

Canada's geographic position, political history, and institutional arrangements make it an attractive country in which to invest when foreign investors are convinced that they will be fairly treated. As shown by the substantial rate of foreign investment in the past, the level of confidence in Canada as a place in which to invest has been relatively high. However, confidence is a perishable commodity that can be spoiled with words as well as deeds. Unlike many variables that affect the economy, it is not a matter of nicely substituting a little more of something else for a little less confidence. A change in policy that is of little consequence in and of itself, or a sequence of small events that may be taken to indicate a trend, can result in major changes in investor expectations. Because it is impossible to estimate reliably how heavily the camel is loaded at any point in time, the policy maker can never be sure if the straw he is about to add will be the last one. Pushed to the limit, a desire to avoid disturbing confidence can be completely debilitating; no changes can be made for fear of engendering collapse. On the other hand, to proceed as though investor confidence could never be shaken is dangerous.

If the tax changes made in 1960 and 1963 shook the confidence of foreign investors, it is reasonably certain that confidence was restored by subsequent events. Because we are convinced that Canada requires continued foreign

investment, and because we are concerned with the cumulative impact of a sequence of relatively insignificant events on the confidence of foreign investors, we emphasize the necessity of weighing carefully the potential gains from changes in tax policies that affect the foreign investor against the potential losses that could result from a loss of confidence. Frequent minor changes in tax policy, even though each of them might bring about small increases in the net benefit Canada derives from foreign investment, probably should not be attempted. In this area it is important to seek the maximum long-term net benefit, and that will often mean forgoing short-run advantages. We do not wish to imply that tax changes cannot be made. Indeed, we recommend many sweeping reforms. What we advocate is that Canada should seek to establish a system of taxing foreign investment that is consistent with its best long-run interests and then hold to it. We believe that this requires a tax system that is fair to non-residents as a group and one that reflects Canada's desire to encourage the free flow of goods and capital in the world. No country has more to gain than Canada from a world where that goal is gradually realized.

#### Foreign Retaliation

The extent to which Canada can tax the income flowing to non-residents from their investments in Canada without reducing the inflow of foreign capital, depends on the way foreign governments treat the Canadian taxes borne by their citizens. If foreign governments give their residents credit for Canadian taxes, Canada can raise its taxes up to the limit of the amounts for which credit can be obtained without deterring foreign investment. However, if foreign governments should decide that the credits now given against Canadian taxes should be reduced, the optimum tax that Canada could impose on Canadian income flowing to foreigners in an attempt to maximize the net economic benefits from foreign investment, also would be reduced.

"Discriminatory" taxation of foreign investment by Canada could produce retaliation. If Canada were to refuse to give Canadian residents credit for the foreign taxes paid on Canadian capital invested abroad, Canada would obviously be in a weak position if it asked foreign governments to give credit for Canadian taxes paid by the residents of foreign countries who have invested in Canada.

If Canada creates barriers to foreign portfolio investments by Canadians, foreign governments can retaliate by making the purchase of Canadian securities by their residents unattractive, or impossible. Canada has benefited substantially in the past from the generous tax treatment of foreign investment by other countries, in particular the United States. It would be foolish to risk a severe retaliatory move in the search for small advantages.

Canadian Share Offerings by  
Non-Resident-Controlled Corporations

The 1963 Budget provisions sought to put pressure on Canadian subsidiaries of foreign corporations to offer 25 per cent of their equity shares in Canada.

Four reasons have been advanced in support of such a change:

1. The foreign parent corporations would be more likely to take Canadian interests into account if there were minority shareholdings in Canada.
2. The net economic benefit from foreign direct investment would be increased if Canadians were able to share in the high returns flowing to equity interests.
3. The Canadian capital market would be broadened if there were more new equity issues available, and this would enable greater portfolio diversification and so lessen the overall riskiness of Canadian securities.
4. Subsidiaries of foreign companies would be required to publish annual financial reports.

The 1963 Budget provisions took the form they did because of the following two factors:

1. It was thought to be impossible to change the federal and provincial Companies Acts to bring about the same result in another way.
2. It was thought that if Canadian subsidiaries were induced or compelled to make 25 per cent of their equity shares available to Canadians this would not significantly reduce the attractiveness of direct investment in Canada by foreigners. In other words, it was expected that the net economic benefit to Canada would be increased because the inflow of knowledge, skills, and access to markets would not be reduced. Foreign parent companies

were expected to proceed, as they had in the past, in undertaking new projects. The 25 per cent mark was selected as the point at which the net benefit to Canada would be maximized.

We accept the proposition that it is possible that the directors of the parent company would be more likely to be aware of Canadian interests if Canadians had minority holdings in foreign-controlled Canadian companies. We agree that the Canadian capital market would benefit from more new equity issues. As we have said above, we accept the view that under some conditions a substitution of foreign portfolio investment for foreign direct investment would increase the net economic benefit from foreign investment in Canada. While we have additional reasons, which will be given later in the Report, our criticisms of the differential withholding tax provisions are given below.

1. The original proposal to worsen the position of non-resident direct investment by increasing the withholding tax if shares were not offered to Canadians could only be interpreted by non-residents as a desire by Canadians to reduce foreign direct investment, unless Canadians were allowed to share in the equity ownership. We do not think Canada should adopt positive tax provisions to attain this goal.
2. In a perfect capital market, a reduction in withholding tax would increase the market value of the shares of those companies affected. Part of the capital gain to foreign investors resulting from the capitalization of the decrease in withholding tax would be taxable only by foreign treasuries. To this extent there is a shift of tax revenues from Canada to foreign treasuries. The net economic effect referred to would therefore have to be reduced by this amount.
3. The 25 per cent Canadian interest requirement was quite arbitrary. It was and is impossible to say with the information available whether the more stringent original proposal would have increased or decreased the net economic benefit from foreign investment; for no one can estimate the sensitivity of foreign direct investment to a reduction in the expected rate of return. We are convinced that there is an alternative approach that does not require such arbitrary judgments because it makes the sale of equities in Canada more attractive and does not penalize those foreigners who control Canadian subsidiaries.

In the light of these criticisms, and because we have an alternative method that could accomplish the same objective without posing the same problems, we recommend withdrawal of the 25 per cent Canadian ownership provisions and the differential withholding tax rates.

It is desirable to make corporate decision makers more conscious of the Canadian public interest; the more aware the Canadian public is of the alternatives available to, and the choices made by, corporations, the better. The idea that the competitive forces in the market are now so strong that companies do not have any discretionary decisions is, we believe, false. But this problem is not confined to foreign-controlled corporations in Canada; it is true of all corporations. To improve Canadian capital markets and to help ensure that corporations act more in the public interest, it is necessary that all substantial Canadian corporations publish detailed financial statements and possibly also issue shares in the Canadian market. While we are well aware that it will be difficult to accomplish, the federal government should revise its own Companies Act and try to persuade the provinces to revise their acts to require all substantial private corporations to publish their financial statements. We would apply the same requirement to foreign-controlled and domestic-controlled corporations.

The United States government often knows a great deal more about the activities of Canadian subsidiaries of United States parent companies than does the Canadian government. In our view, this indicates a real need for a careful appraisal of the information that is needed about all substantial corporations operating in Canada or controlled from Canada followed by the enactment of laws that would ensure its disclosure 28/. The need for more information on the activities of Canadian subsidiaries of United States parent companies has been increased by the understanding reached by the Canadian and United States ministers in Washington in March 1966 with respect to the application of the United States guidelines to Canada.

While more information is essential, the best guarantee that the Canadian public interest will be served is an increase in competition where possible, and government regulation or control where necessary. We return to this matter later in this chapter.

## Criticisms of Foreign- Controlled Corporations

Parent companies are subject to the laws and policies of the countries in which they are resident. Subsidiaries and branches are, by definition, controlled by their parents. It is hardly surprising that foreign-controlled subsidiaries and branches in Canada are under the influence of foreign governments. When there is a conflict of interest between the Government of Canada and the government of the country of residence of the parent, or when the policies of the two governments are different, it seems inevitable that foreign-controlled subsidiaries will sometimes make decisions that are more in accordance with the wishes of the foreign government than the Canadian government.

With whole sectors of the Canadian economy dominated by Canadian corporations controlled by United States parent companies, the likelihood that United States policy will override Canadian policy where there is a conflict of national interests is profoundly disturbing to many Canadians. They see in foreign ownership and control of Canadian businesses an inevitable loss of Canadian sovereignty.

Within recent years there have been a few obvious conflicts between Canadian and United States government policies. Some years ago there was the question of trade with Red China and Cuba. This affected few Canadian companies and then only in a trivial way. More recently the attempts by the United States government to reduce its capital outflow to attain balance-of-payments equilibrium without devaluation of the United States dollar have had, or were expected to have, important effects on many large United States controlled Canadian companies. The guidelines announced by the United States government in December 1965 sought, among other things, to reduce foreign direct investment of United States corporations; and unlike the earlier guidelines did not exclude Canada, except for the specific exemption of the major automobile companies. Had the application of these December guidelines to Canada not been withdrawn as a result of the meeting of ministers in Washington in March 1966, there would have been substantial pressure on United States parent companies to increase the dividend pay-outs of their foreign subsidiaries, and to finance a larger part of the

expansion of their foreign subsidiaries by selling bonds or shares outside of the United States. Both actions would have reduced Canada's capital inflow, put pressure on Canada's domestic capital markets, and required difficult balance-of-payments adjustments for Canada. A tug-of-war for foreign exchange between Canada and the United States, if it were to develop, would be an excellent example of the conflict of policies where Canadian subsidiaries would probably act in a manner that was in the interest of the United States, rather than of Canada.

The particularly disturbing feature of the new United States guidelines was the pressure on foreign subsidiaries to purchase United States goods and services and to sell abroad rather than in the United States. If these features of the guidelines had led Canadian subsidiaries to purchase goods and services from their parents at higher prices than they would have paid for equivalent goods and services in Canada, the United States government would have been forcing the shareholders of the United States parent company to bear the costs of a United States export subsidy. If the Canadian subsidiaries were deterred from selling goods and services in the United States market that are competitive there, the United States government would in effect have increased its tariffs. In short, some features of the new United States guidelines, if effective, would have constituted substantial barriers to trade between Canada and the United States. The fact that they would have been indirect rather than direct would not have changed their nature.

The United States government may have used the foreign subsidiaries of United States parent companies as agents for the achievement of United States economic policy in the past. However, the above features of the new guidelines are so all-pervasive and so fundamental as to constitute an important new problem had the meeting of ministers in March 1966 not brought about a softening of United States policy toward Canada.

Economic Interdependence. The issue that the guidelines debate brings to the fore is whether reducing or containing United States control of Canadian industry would eliminate the problem of Canadian economic interdependence with the United

States. As long as trade with the United States constitutes a substantial part of Canadian trade, and as long as trade constitutes a substantial part of Canadian GNP, the Government of the United States can, through a variety of techniques, exert economic pressure on Canada. Indeed, given the economic power of the United States throughout the world, even if Canada did not trade with the United States directly, the United States government could bring economic pressure to bear on Canada indirectly through its influence on other countries.

We have no doubt that, when there is a conflict of interest between the United States and Canadian governments, the United States government seeks its own interests, just as we would expect the Canadian government to further its own interests. But some Canadians see an intention to dominate Canada in every change in United States policy. The difference in relative power between the two countries is so great that this fear is understandable, and no doubt at times justified. Canada came into being as a nation to establish an identity separate from that of the United States; if the United States government could control all our major economic decisions, Canada's *raison d'être* would be destroyed. But Canadians must recognize that just as our freedom of action is circumscribed by our economic interdependence with the United States, so United States freedom of action is circumscribed by its economic interdependence with the rest of the world and its desire to maintain its high level of aid to foreign countries.

The United States government is faced with a balance-of-payments problem because other nations are unwilling to hold United States dollar deposits. They are unwilling to accept the United States as the world's banker, and the United States is unwilling to devalue its dollar. This is partly for reasons of national prestige, and partly because of a deep sense of international responsibility; for some believe that a devaluation of the United States dollar would have serious destabilizing effects on international trade and international finance at a time when, generally speaking, the economy of the world is working well. The increasingly pressing problems created by a world money supply that is not growing rapidly enough to finance expanding world commerce will probably force the United States government to surrender

some of its sovereignty by entering into international monetary agreements with other nations that will circumscribe its action, but further the common interest of all trading nations including the United States.

This brings us to an important point. No nation has complete freedom of action, however big and powerful it may be. Economic interdependence between nations makes a higher standard of living possible for all, but it also imposes constraints that are repugnant to national pride and may prevent the realization of national goals. Canadians can choose to pay the cost of a reduced standard of living resulting from greater self-sufficiency, in respect of goods and services as well as capital, in order to achieve a goal that they value more highly. Life is full of these painful conflicts and the "best" resolution depends upon the collective tastes and preferences of all Canadians. Because the costs of self-sufficiency are heavy we would urge that Canadians carefully weigh the alternatives. Clearly, Canadians should specify the goals they want to achieve, and compare the benefits that would accrue if they were attained against the benefits they would have to forgo to realize the goals. Even if there were less foreign ownership and control of Canadian business and resources, it is not obvious that Canadians would be appreciably less at the mercy of United States economic policies. The United States government could resort to other instruments to achieve many, if not all, of the same purposes.

This, we believe, is the crux of the matter. Eliminating or reducing United States ownership and control of Canadian corporations would not substantially reduce the power of the United States government to affect the Canadian economy. However, it would force the United States administration to take overt action. Overt actions that are not in the Canadian interest might be difficult to push through the United States Congress, but this, of course, depends on the mood of the Congress. There have been times when the United States administration has done good works for Canada without publicity.

Consider the December 1965 guidelines announced by the United States government. The fact that there are United States subsidiaries in Canada

makes it possible for the United States government to impose export subsidies and higher tariffs indirectly by putting pressure on the parent companies to act in a non-economic manner. Reducing the role of United States subsidiaries in Canada would preclude this form of United States interference, but it would not preclude direct action by the United States that had the same result. Admittedly it would be easier to gain support for a Canadian complaint against a direct and obvious increase in United States trade barriers. It would be more difficult to prove that the Canadian complaints against some aspects of the guidelines were equally demanding of support. Fortunately the agreement reached by the ministers in Washington in March 1966 has made this unnecessary.

In our view the United States guidelines would have constituted a hidden export subsidy and a higher tariff. The Canadian government's success in obtaining the removal of these provisions for Canada was a significant victory. However, we think it is of great importance that the Canadian public not confuse the issue by assuming that the problem was basically one of foreign control of Canadian industry.

The Problem of Inadequate Competition. The United States guidelines pose a new problem, or intensify an old problem, to such an extent that it should be treated as a new problem. But the criticism of the economic behaviour of United States subsidiaries in Canada developed long before the guidelines were announced. It has been claimed that they do not do enough research to develop techniques and products adaptable to Canadian conditions. It has been argued that they import goods and services that are available at competitive prices in Canada. Their apparent reluctance to compete for foreign markets against their parent company, or other subsidiaries of the same parent, has often been attacked. The productive facilities of many foreign-controlled subsidiaries in Canada seem to be miniature versions of the facilities of the parent. With a smaller market in Canada this dooms the Canadian companies to small runs and high costs. There

is an unwillingness to specialize in producing a few items in Canada and to export some of this production to the parent company while importing other items from the parent. These are, we believe, real and serious problems that should be tackled with vigour and with a sense of urgency.

We doubt, however, that the main source of these problems is foreign ownership and control as such. More important, at least in some respects, is the lack of price competition among the few dominant corporations in some of the industries in the United States, and the existence of a Canadian tariff structure that simultaneously induces these companies to establish subsidiaries in Canada and protects them from international competition in Canada 29/. We would suggest Canada seek a solution to this problem through changes in tariffs and by extending and enforcing anti-monopoly laws to maintain domestic competition where international competition cannot do so, or where public policy dictates that high protective tariffs must be maintained for particular industries. If this did not succeed, there would be no alternative to government ownership. Attacking foreign ownership and control is a roundabout and probably ineffective way of making Canadian industry more efficient.

#### EFFECTS OF THE PROPOSED TAX SYSTEM

We believe that the implementation of our recommendations would increase the demand for Canadian equities. This in turn would lower the cost of raising equity capital in Canada, and would make it more attractive to non-residents to raise some of their equity capital in Canada. The features of our proposals that would encourage ownership of Canadian equities by residents can be briefly summarized:

1. Full integration of personal and corporate income taxes for resident shareholders.
2. Liberal treatment of business and property losses.
3. Special incentives for new, small ventures.

In itself, the full taxation of capital gains that we also recommend would have an unfavourable effect on Canadian equity ownership. But, we are convinced the net effect of all of these reforms would be positive. Canadians would

find investing in foreign countries less attractive. Because equity investment in Canada would have a higher return to residents than to non-residents, foreign direct investment in Canada should show some decline: with higher prices for equities in Canada, it would be more attractive for foreign subsidiaries to issue equities in the Canadian market. In addition, with a lower cost of equity capital in Canada, Canadians would proceed to develop projects that were previously unattractive to them. Implementing our proposals would not drive out foreign direct investment; it would make Canadian equity investment by Canadian residents more attractive.

The above results would be a by-product of proposals that were developed and are recommended for essentially domestic reasons. We think these by-products would be desirable and we put forth our recommendations in full knowledge of them. However, we want to emphasize that we do not advocate any Canadian tax changes that would worsen the absolute position of foreign investors in Canada, or of Canadian investors abroad, except to eliminate some blatant tax avoidance schemes and to remove inefficient industry incentives.

It can be argued, of course, that the adoption of full personal and corporate income tax integration and full taxation of capital gains would be a movement away from international tax neutrality. In some senses this is true; but it is also true that to avoid this charge it would be necessary for Canada to adopt the lowest common denominator of the tax systems imposed by all other countries, or at a minimum a tax system virtually identical to that in force in the United States. If the United States system were the ideal tax system, we would have no hesitation in doing so. We certainly do not advocate difference for the sake of difference. Indeed, many of our proposals are quite close to features of the United States tax system. But the United States tax system as a whole is far from ideal, as all United States tax authorities acknowledge and as their frequent attempts at tax reform attest. The United States tax system enshrines social attitudes and a reconciliation of competing political pressures that have been unsuccessfully attacked time after time. For Canada to adopt the United States tax system seems to us too high a price to pay for an artificial version of international tax neutrality. Canada should adopt the best national

tax system it can devise. If Canada avoids making non-resident investors absolutely worse off, and does not make foreign investment by Canadians absolutely less attractive, we believe the inevitable claim that Canada is discriminating against foreign direct investment (in either direction) could be disregarded.

#### CONCLUSIONS AND RECOMMENDATIONS

1. National specialization of production and international trade increases economic well-being. Canada has gained enormously from foreign trade, and from the inflow of knowledge, capital, and people from other countries, and will continue to do so.
2. Close international economic ties also create problems, however. Fluctuations in Canada's exports can lead to domestic instability; speculative international capital flows can force Canada to make difficult balance-of-payments adjustments; and foreign direct investment in Canada raises the spectre of loss of sovereignty.

#### FULL EMPLOYMENT, PRICE STABILITY AND THE BALANCE OF PAYMENTS

3. Because Canadian imports are so sensitive to changes in GNP, the foreign trade sector of the economy has exerted a stabilizing influence in the past. A reduced dependence on foreign trade might well increase the instability of the Canadian economy.
4. With a fixed exchange rate there can be serious policy conflicts. The policies needed to maintain full employment and stable prices in Canada may be inconsistent with the policies required to stabilize Canadian foreign exchange reserves. When these conflicts arise, monetary policy will be preoccupied with controlling the net inflow of capital from abroad. A greater burden may be placed on fiscal policy. In periods of economic slack the monetary authorities may be required to raise interest rates to induce a greater inflow of capital, and fiscal policy will have to be even more expansionary to offset the adverse effects of tight money when there is

inadequate demand. Similarly, in a period of incipient inflation, the monetary authorities may be obliged to reduce interest rates to curtail the capital inflow when tight money would be appropriate from a domestic point of view. Fiscal policy will have to be that much tighter to offset the expansionary effects of monetary policy. Debt management may be able to mitigate the conflict between monetary and fiscal policies to a limited extent.

5. Acceptance of a ceiling on Canadian foreign exchange reserves in order to be exempt from the United States interest equalization tax has intensified the potential conflict between monetary and fiscal policy. Monetary policy has less manoeuvring room, and this means that changes in fiscal policy have to be made more quickly and with greater finesse.

#### TAXATION AND CANADA'S INTERNATIONAL COMPETITIVE POSITION

6. The decline in Canada's international competitive position in the late 1950's and early 1960's was largely attributable to the overvaluation of the Canadian dollar. Since the devaluation prior to May 1962, this problem has disappeared.
7. Tax changes at home or abroad can affect relative price levels between nations that can make it more difficult to sell goods and services to foreigners and can increase import competition from foreigners. While changes in taxes can create such a problem it does not follow that the best solution is through an adjustment of the tax system. A permanent tax change that hurts Canada's competitive position probably should be offset by a permanent adjustment of the exchange rate.
8. There is no evidence that nations with high taxes, however defined, grow less rapidly, or have more inflation, or are at a competitive disadvantage in world trade.
9. With one exception, we found no evidence that Canada's taxes were "too high", were increasing more rapidly, or had a significantly different mix between direct and indirect taxes, relative to other developed countries.

10. Largely because of a reduction in the effective marginal rate of corporate income tax in the United States, the difference between the effective marginal rate of corporate tax in Canada and in the United States, which had been very favourable to Canada in the early 1950's, had disappeared by about 1964. This development may explain, in part, the heavy capital inflow from the United States in the 1950's and the reduced inflow of direct investment more recently. We doubt that this change had a significant effect on the competitive position of Canadian corporations. Such effects would have been swamped by the favourable effects of devaluation in any event.
11. Abandoning the manufacturer's sales tax and moving the federal sales tax to the retail level, with the exemptions we recommend, should eliminate any of the adverse effects of sales taxes on the competitive position of particular producers and dealers in Canada.
12. Export incentives in the tax systems of other countries are probably not a significant problem for Canada. However, we strongly recommend that Canada should avoid offering such incentives and work toward their elimination in other countries.

#### ECONOMIC GROWTH AND THE BALANCE OF PAYMENTS

13. Adopting a fixed exchange rate does not mean it can never be changed. Under the International Monetary Fund Charter changes are permitted if a fundamental conflict exists between domestic growth and stabilization objectives on the one hand, and the maintenance of balance-of-payments equilibrium on the other. We do not believe such a conflict now exists for Canada.
14. Because the Canadian saving rate is at least as high as those of most other developed countries, and because with full employment the net inflow of foreign capital increases the rate of growth of Canadian incomes, there is no economic reason why Canada should adopt a policy that would gradually reduce our use of foreign saving. Canada could maintain its present rate

of economic growth by substituting greater domestic saving for foreign saving. There are policies that would bring about this result. Whether Canada should adopt these policies is essentially a question of preferences and not of facts or logic. We would prefer no change that would force a reduced reliance on foreign saving.

15. Reducing or eliminating Canadian reliance on foreign saving, which means reducing or eliminating the long-term deficit on current account, would not necessarily reduce foreign ownership and control of Canadian industry. This depends on gross, not net, international capital flows.

#### FOREIGN INVESTMENT

16. Evidence, logic, and expert opinion support the contention that the host country obtains a net economic benefit from foreign investment, and in particular from direct investment.
17. Substituting foreign portfolio investment for foreign direct investment could increase Canada's net economic benefit from foreign investment, although there are the several important qualifications we have specified.
18. Foreign direct investment decreased sharply in 1963 and 1964 but increased again in 1965. We have been unable to determine whether or not this was the result of the tax measures introduced with respect to foreign investment in late 1960, in 1963 and 1964. Too many other changes took place at the same time. We think, however, that the differential withholding tax to induce foreign-controlled corporations to offer shares in Canada should be abandoned because our integration proposal should bring about the same result in a more acceptable way.
19. We are opposed to tax changes that seek to increase the short-run net economic benefit of Canadians from foreign investment at the expense of non-residents. The cumulative effect of such changes, even though individually of little importance, could destroy foreign confidence in Canada. Canada's long-run interest is in the free flow of capital and goods throughout the world. Canada must avoid creating the impression that it is hostile to foreign capital.

20. Part of the net benefit from foreign investment in Canada is the revenue obtained from taxing the Canadian income of non-residents. Canada has been able to raise substantial revenue from taxing such income because the United States government gives its corporate residents credit for foreign taxes paid up to the amount of their United States tax liabilities. It is of vital importance that Canada avoid taking actions that would lead the United States and other foreign governments to reduce their foreign tax credits, for this would force Canada to reduce its tax revenue from this source if it wanted to maintain the capital inflow.
21. It would be desirable if all substantial Canadian corporations were required to publish detailed annual financial statements. Possibly all of the larger corporations should be required to make shares available in the market. Whatever is done, the same rules should apply to foreign-controlled and domestic-controlled corporations. The best way to achieve this result would be by amending federal and provincial Companies Acts, and by strengthening the Corporations and Labour Unions Returns Act. We recommend that such amendments should be sought by the federal government, although we recognize that this will be a slow and difficult process.
22. The United States government can and probably does influence the behaviour of the Canadian subsidiaries of United States parent companies. When the policies or interests of the governments of Canada and the United States are in conflict it seems to us inevitable that these Canadian companies will sometimes act in a manner that is inconsistent with the Canadian public interest. This understandably annoys and frightens Canadians. What is often overlooked, however, is the fact that, because there is a high degree of economic interdependence between nations, and because of its greater relative economic power, the United States government could exert great economic influence on Canada even if there were no United States foreign subsidiaries here. Reducing United States foreign direct investment in Canada would not necessarily make Canada more independent; and it could make Canadians poorer. Furthermore, just as Canadian actions are constrained by United States policies, so are the actions of the United

States constrained by the policies of Canada and other nations, as their balance-of-payments problem attests.

23. One provision of the December, 1965, United States guidelines would have required United States shareholders to subsidize United States exports to Canada. Another would have been equivalent to an increase in United States tariffs on imports from Canada. Fortunately, as a result of the meeting of ministers in Washington in March 1966, these guidelines will not apply to Canada. The guidelines dramatized Canada's vulnerability to United States economic policies. However, it is essential that Canadians recognize that while Canadian subsidiaries of United States parent companies can provide the vehicle by which the United States government implements tactics to help itself at Canada's expense, that government could adopt a direct policy to the same end even if there were no United States subsidiaries in Canada.
24. Many of the complaints about the inefficient economic behaviour of foreign subsidiaries in Canada are misdirected. The major problem is not foreign control as such but the absence of effective competition. This results from Canada's tariff structure and the monopolistic character of United States industry.

#### EFFECTS OF THE PROPOSED TAX SYSTEM

25. Rather than attempting to drive foreign direct investment out of Canada, we recommend a tax system that would encourage Canadian equity investment by Canadian residents. If our reforms have the impact we expect, Canadians would pre-empt more of the opportunities for profitable investment in Canada that have been attracting the equity capital of non-residents. This would be a by-product of the tax system we propose for essentially domestic reasons; but it would be a valuable by-product.

## REFERENCES

- 1/ These are the national accounts definitions of exports and imports of goods and services. These differ from the Canadian Balance of International Payments definitions of "current receipts" and "current payments". The national accounts definitions exclude mutual aid to North Atlantic Treaty Organization countries, inheritances and immigrants' funds; the balance-of-payments definitions do not.
- 2/ A diversion of domestic expenditures from imported to domestic goods will only increase Canadian income and employment if exports are maintained. A movement from a current account deficit to a current account balance, therefore, is not necessarily expansionary: it depends on the level of imports and exports at which the balance is achieved.
- 3/ See R. Robinson, Foreign Trade and Economic Stability, a study published by the Commission.
- 4/ However, the gap between actual and potential output has probably been greater in Canada than in the United States.
- 5/ The existence of trade increases the built-in stability of the economy, but foreign investment made in Canada to produce goods for export may, of course, fluctuate substantially and thereby indirectly increase the instability of the economy.
- 6/ See Royal Commission on Banking and Finance Report, Ottawa: Queen's Printer, 1964, Chapters 23 and 24, for a more complete discussion of monetary and fiscal policy under fixed and flexible exchange rates.
- 7/ For evidence on the matters discussed in this section see C. E. Forget, International Tax Comparisons, a study published by the Commission.
- 8/ This is not to suggest that the consequences of tax changes on the exchange rate should be ignored, but rather that an exchange rate should not be treated as immutable.

- 9/ Economic Council of Canada, Second Annual Review, Ottawa: Queen's Printer, 1965, pp. 20-26.
- 10/ As distinct from nominal marginal rates that do not reflect the fact that the tax system affects the corporate income tax base.
- 11/ Particularly the submissions of the King's Way Lamp and Manufacturing (1960) Ltd., The Diversey Corporation (Canada) Ltd., the Canadian Automotive Wholesalers' and Manufacturers' Association, the Canadian Electrical Distributors Association, and The Rubber Association of Canada.
- 12/ Volkswagen Canada Ltd., and Canadian Importers Association Incorporated.
- 13/ For example, by The Canadian Export Association, the Canadian Importers Association Incorporated, and the Electronic Industries Association of Canada.
- 14/ Austria, Belgium, Denmark, France, Federal Republic of Germany, Italy, Japan, Luxembourg, The Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States.
- 15/ A. M. Moore, Taxes and Exports, Toronto: Canadian Tax Foundation, 1963, p. 1.
- 16/ Greece, Mexico, Uruguay, Iran, and Eire also remit profits taxes on exports in whole or in part, but are hardly important as competitors with Canadian exports. See Moore, ibid., for details of the Japanese, French and Australian schemes.
- 17/ This problem would disappear if the European Common Market countries are successful in their move to replace these cascade or turn-over taxes with the value-added form of taxation.
- 18/ But see the later discussion of the indirect export subsidy that is involved in the foreign investment guidelines adopted by the United States in December 1965. This is not the result of the United States system, however.

- 19/ G. D. A. MacDougall, "The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach", Economic Record, Vol. 36, 1960, pp. 13-35; reprinted in Bulletin of the Oxford University Institute of Statistics, Vol. 22, 1960, pp. 187-212.
- 20/ House of Commons Debates, Budget Speech, December 20, 1960, p. 1002.
- 21/ Ibid., p. 1009.
- 22/ The budget provision applied only to listed public companies, but the Minister stated that he was considering measures to make it applicable to other companies as well, and warned these not to take anticipatory action. House of Commons Debates, June 13, 1963, pp. 1007, 1013 ff.
- 23/ There seemed at first to be some uncertainty whether or not "genuine" management fees also were taxable. But this was gradually cleared up. See Department of National Revenue, Information Bulletin No. 23, 27 January 1964.
- 24/ House of Commons Debates, June 13, 1965, pp. 1000, 1001, 1006.
- 25/ House of Commons Debates, March 16, 1964, pp. 978 and 984-986.
- 26/ Ibid., pp. 978 and 985-986.
- 27/ Without the ministerial agreement reached in Washington in March 1966, the application of the United States guidelines to direct investment in Canada after December 1965 might have served to depress the inflow of United States direct investment in the future. They might have brought about, therefore, the shift from direct to portfolio investment that the Canadian tax changes of 1963 sought to achieve, although for entirely different reasons.
- 28/ Revising the Corporations and Labour Unions Returns Act, S.C. 1962, Chapter 26, probably would be a useful first step.
- 29/ See H. E. English, Industrial Structure in Canada's International Competitive Position: A Study of the Factors Affecting Economies of Scale and Specialization in Canadian Manufacturing, Montreal: Private Planning Association, 1964.

## CHAPTER 6

### FISCAL POLICY FOR THE REDISTRIBUTION OF INCOME

Taxes and government expenditures including transfer payments alter the allocation of resources not only among alternative uses but also among individuals and families. It is our belief, as we have stated, that the tax-expenditure system should be used to increase the resources available to those who have the least economic power and the heaviest obligations and responsibilities. The extent to which the system should redistribute resources among individuals and families is ultimately a question of judgment. A compromise must be reached between perfect equality of income and the continuation of differences in income that reflect differences in personal capabilities and effort. Without these differences in income, incentives to efficiency would be reduced. With reduced efficiency the rate of growth of future output also would be reduced. Greater equality now could mean less for everyone in the future.

In our view it is possible to achieve a substantial degree of redistribution without sacrificing economic growth; many of the disincentive effects of redistribution can be compensated for within the system. However, consistent with the objective of equality of opportunity for all Canadians, we would recommend tax measures that redistribute income in favour of those at the bottom of the income scale even if this necessitated some sacrifice of future growth. The question is not whether we should have a system that redistributes resources in favour of the poor, but concerns the degree to which redistribution should take place.

In order to decide what should be done in the future, it is essential that we know the redistributive effects of the present allocation of taxes, transfer payments, and benefits from government expenditures. In the following section we summarize the results of a study of the effective degree of progression and redistribution that has resulted from the fiscal operations of the government sector 1/. On the basis of this information we then discuss

how we could change the degree of redistribution by altering tax bases, by varying tax rates, by offering tax credits, and by devising new systems of transfer payments.

For the reasons given later in this chapter, the incidence of all taxes and all government expenditures cannot be estimated on a comparable basis for families and unattached individuals with incomes of \$10,000 or over, except as a group. This is a serious limitation because, as the data given in the "Introduction" (Volume 1) show, direct taxes are virtually proportionate to income for upper income taxpayers as a group. Because the consumption expenditures of upper income families and unattached individuals are at most a constant proportion of income, and probably decline as a proportion of income as income rises, indirect taxes are certainly not progressive for upper income taxpayers either. It follows that the tax system as a whole is not progressive throughout the "\$10,000 and over" income class. This result should be borne in mind in interpreting the findings of the study reported in this chapter. Many of our major recommendations are designed to eliminate this departure from taxation according to ability to pay by broadening the base of personal income taxes.

Chapter 36 provides detailed estimates of the incidence of the present and proposed income tax systems for narrowly defined upper income classes.

#### THE INCIDENCE OF THE PRESENT FISCAL SYSTEM

Imagine for a moment that a community exists without a government sector, and that a government is then introduced. As a result, each individual will find that his economic position relative to others will be altered both by the tax payments he makes, and by the benefits he receives from transfer payments and other government expenditures. This change in the relative position of each individual, measured against his original position, is defined as fiscal incidence.

It is important to note that this change in relative position is the composite result of changes on the tax side of the government sector and changes on the expenditure side of the government sector. It is necessary to reject the notion that income redistribution effected by the government sector can be examined by analyzing only those relative changes in economic position brought about by changes in tax payments. While it is difficult to derive reliable estimates of the benefits from transfer payments and government expenditures, a complete and consistent theory of the government sector must explain the role of both taxes and public expenditures. Taxes are the means by which command over resources is transferred from the private sector to the public sector in order to provide certain goods and services, and transfer payments. Consequently, a thorough analysis of the government sector would have to allow for both sides of the fiscal system. If the effect of government expenditures were omitted in estimating fiscal incidence it would be the same as implicitly assuming that these expenditures were distributed in a particular manner.

It is not possible to make estimates of the numerical values of fiscal incidence as just defined for each individual in Canada, but it is possible to derive an approximate measure of incidence by modifying the definition. First, instead of considering individuals, families can be grouped together and individuals considered only when they are separate from any family unit. Secondly, families and unattached individuals can be grouped by size brackets of actual money income. For example, all families and individuals in Canada who had a money income of \$4,000 to \$4,999 are grouped together. Thirdly, money income falls short of an appropriate definition of economic position because many persons derive an increase in economic power that does not take the form of money directly received, for example, a shareholder's portion of the retained earnings of corporations and a policyholder's share of life insurance company income. Estimates were made of such receipts and these were distributed among the various money income classes in order to determine a more comprehensive income base.

Having determined the base, the next step in the analysis is to allocate to each family money income class the proportion of total taxes paid and the value of benefits received by that class. These figures, when expressed as a percentage of the income base in a class, yield the measure of incidence that follows. Clearly, the allocations can only be in average terms. As an example, take the distribution of the selective excise tax on tobacco products. Survey data show how much the average family with a money income of between \$4,000 and \$4,999 spends for tobacco products, and knowing the taxes on tobacco it is an easy matter to express that excise tax as a percentage of income base of the class, and thus derive a "tobacco excise tax incidence". The answer can only be an average incidence because there will be some families in the group who do not buy tobacco products and some families who buy more than others.

The analysis takes into account taxes imposed and expenditures incurred by the federal, provincial, and municipal levels of government. The Commission was not invited to recommend changes in the tax or expenditure structures of the provincial or municipal governments in order to attain any of the objectives set forth in its terms of reference. On the other hand, excluding the provincial and municipal governments would have made the examination of fiscal incidence meaningless. Fiscal incidence is not determined by the level of government imposing a tax or producing a public service; it is determined by the change in relative positions of families and individuals as the result of all taxes and public expenditures. Furthermore, if different patterns of incidence occur at the different levels of government, it may be impossible for the federal government alone to bring about a "desired" degree of total income redistribution. It thus seems preferable to examine the incidence of taxes and government expenditures at all levels of government.

It should be pointed out that the taxes of all provinces have been aggregated and treated as if they were imposed at a uniform central rate.

This was the only feasible method of dealing with regional taxes within the context of an estimate of the total tax distribution. However, because some variation does exist in rates among provinces, an attempt to apply the total provincial tax incidence to any particular province will be subject to error. To the extent that a province receives a greater than average amount of tax revenue from one of the clearly regressive or clearly progressive taxes, that province will have a tax system that is more regressive or more progressive than the average.

#### The Incidence of Taxes

The taxes levied are presented in Table 6-1. The data are for 1961, the last year available at the time the study was made, and include all revenues except minor items such as fishing licences, and revenues from the sale of goods and services that cannot be readily allocated. In addition, taxes levied on income paid to foreigners (largely interest and dividends), and taxes paid by Canadians to foreign governments are ignored. Another adjustment concerns those tax payments that can be assumed to be exported to foreigners. This adjustment has two aspects. First, the proportion of corporate income taxes that is assumed to fall on the shareholder is divided into a foreign share and a domestic share, depending on the proportion of non-resident ownership of investment in Canadian companies 2/. Second, the taxes on sales of goods that are passed on to the foreign buyer has also been estimated according to the proportion of total sales that are made to foreigners. Both of these exported tax shares are excluded from the computations of tax incidence shown in column (3) of Table 6-1. A description of the assumptions by which the taxes were allocated among the different family money income classes is given in the study 3/.

Before examining the evidence, some qualifications are necessary. First, while the results are presented as percentage rates it would be misleading to interpret the numerical magnitudes as other than average rates applicable to their respective income classes.

Second, because the data on family consumption expenditures treat the income class "\$10,000 and over" as one class, it is not possible to estimate total tax incidence for income classes within this open-ended class on the same basis as for the income classes within the "below \$10,000" class. At most the evidence given in the study suggests the degree of tax incidence between the aggregate "under \$10,000" class and the aggregate "\$10,000 and over" class. Such a comparison is made later in this chapter.

TABLE 6-1

## TOTAL TAX PAYMENTS, 1961

Revenue Source	Total Tax Payments		Total Tax Payments Exclusive of Taxes Exported to Foreigners	
	(millions of dollars)	(per cent)	(millions of dollars)	(per cent)
	1	2	3	4
1. Individual Income Tax	2,137	21.4	2,137	22.9
2. Corporate Income Tax	1,610	16.1	1,191	12.8
3. Succession Duties	151	1.5	151	1.6
4. General Sales Taxes	1,400	14.0	1,400	15.0
5. Selective Excises	1,482	14.8	1,440	15.4
6. Import Duties	535	5.3	535	5.7
7. Property Tax	1,399	14.0	1,300	13.9
8. Social Security	600	6.0	600	6.4
9. Other Taxes	<u>676</u>	<u>6.8</u>	<u>575</u>	<u>6.2</u>
10. Total Taxes	<u>\$ 9,990</u>	<u>100</u>	<u>\$ 9,329</u>	<u>100</u>

Note: Details may not add to totals due to rounding.

Source: W.I. Gillespie, The Incidence of Taxes and Public Expenditures in the Canadian Economy, a study published by the Commission, Table 2.1.

The pattern of total tax incidence for the year 1961 is presented in Table 6-2 and illustrated in Chart 6-1. The estimates show that the total tax structure is regressive over the first three income classes up to an income level of \$4,000, slightly progressive up to an income level of \$10,000, and more progressive beyond \$10,000. Because the income bracket is open-ended above \$10,000, it is impossible to say anything about the degree of progression for families and individuals within this class except in aggregate.

The federal tax structure is slightly regressive over the first two brackets and progressive beyond those brackets. This pattern, in the main, is the result of several conflicting forces. The individual income tax is progressive throughout the entire income range. The corporate income tax is regressive up to an income level of \$5,000 and progressive beyond; such regressiveness over the lower income brackets is partially explained by that portion of the tax that is assumed to be shifted forward in the prices of goods. The general sales tax, selective excises, and import duties all exhibit regressiveness over the first two brackets, an erratic pattern that is neither clearly progressive nor regressive from an income level of \$3,000 to \$10,000, and regressiveness beyond \$10,000. The evidence seems to suggest, therefore, that while taxes on consumption are regressive over the lower and upper income brackets, there is no clear pattern of regressiveness or progressiveness over the middle income range.

The provincial and municipal tax structure is regressive over the first three income brackets and mildly progressive beyond. The element of progressiveness is inserted by the individual income tax and the corporate income tax over the last two income brackets, although these taxes do not bear nearly the weight in the provincial and municipal tax structure that they do in the federal tax structure (as of 1961). Sales taxes, excise taxes, and property taxes largely explain the regressive nature of the total provincial and municipal tax structure over the lower income brackets. The property tax is very regressive up to an income level of \$5,000 and

TABLE 6-2

EFFECTIVE TAX RATES FOR THE TOTAL TAX STRUCTURE, 1961  
(see Chart 6-1)

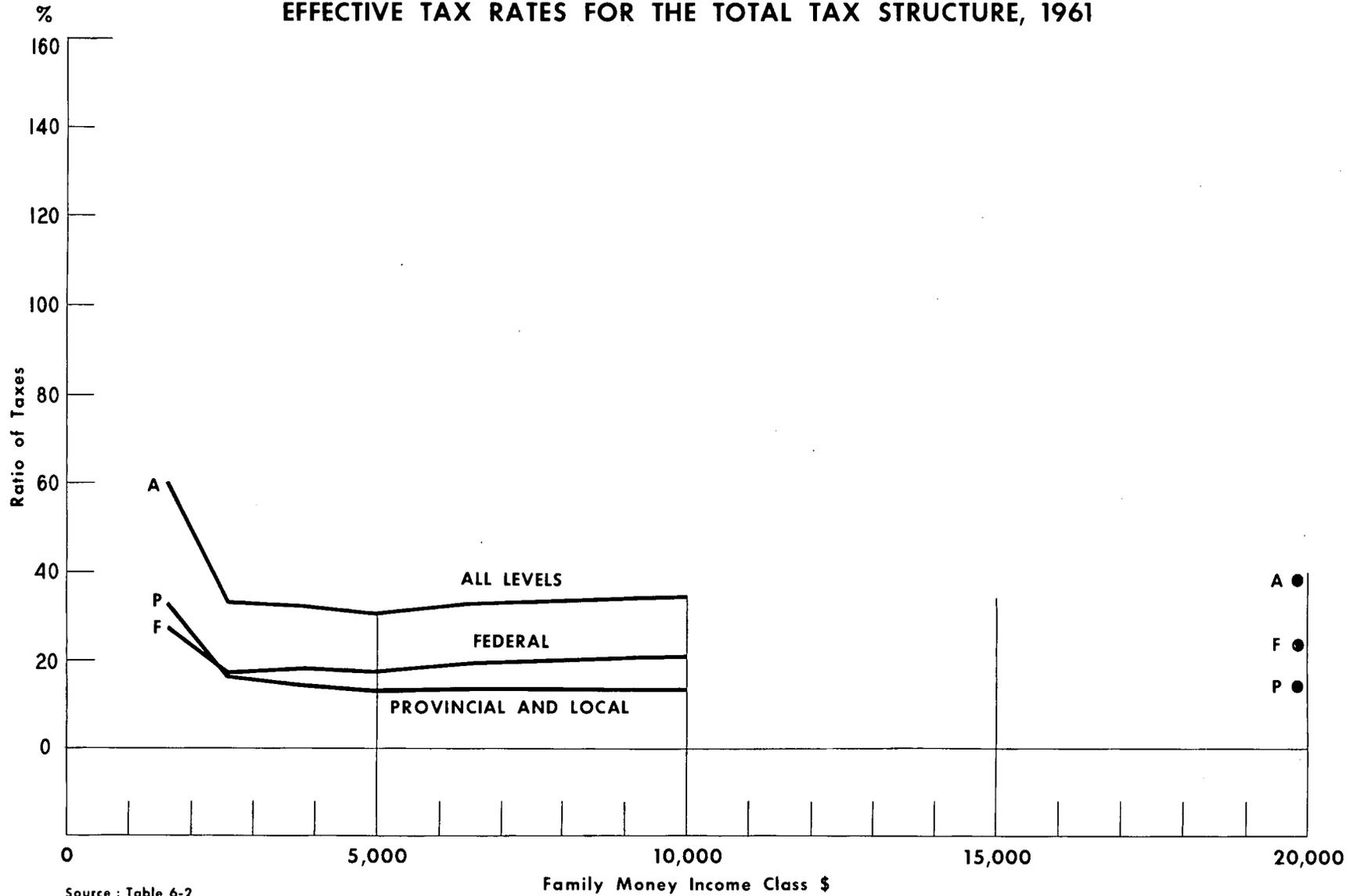
Line	Tax Source	Family Money Income Class						Total	
		Under \$2,000	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 6,999	\$7,000- 9,999		\$10,000 and Over
					(per cent)				
1.	FEDERAL TAXES, TOTAL	<u>27.3</u>	<u>16.9</u>	<u>18.0</u>	<u>17.3</u>	<u>19.3</u>	<u>20.7</u>	<u>23.8</u>	<u>20.2</u>
2.	Individual Income Tax	1.1	1.9	3.3	4.5	7.2	8.8	10.4	6.9
3.	Corporation Income Tax	6.5	3.4	2.8	2.3	2.4	2.7	6.1	3.4
4.	Sales Tax	8.0	4.2	4.2	3.7	4.0	4.1	2.7	3.9
5.	Selective Excises	4.3	2.6	2.6	2.3	2.5	2.4	1.5	2.3
6.	Import Duties	4.7	2.3	2.2	1.9	2.0	2.0	1.3	2.0
7.	Estate Duties	-	-	-	-	-	-	1.4	.3
8.	Social Security Contributions	2.7	2.5	2.9	2.6	1.2	.7	.5	1.5
9.	PROVINCIAL AND LOCAL TAXES, TOTAL	<u>32.7</u>	<u>16.0</u>	<u>14.2</u>	<u>13.1</u>	<u>13.5</u>	<u>13.5</u>	<u>14.6</u>	<u>14.5</u>
10.	Individual Income Tax	.1	.3	.5	.7	1.1	1.4	1.6	1.1
11.	Corporation Income Tax	2.0	1.1	.9	.7	.7	.8	1.9	1.0
12.	Sales and Excises	8.2	4.5	4.6	4.3	4.7	4.5	3.0	4.4
13.	Succession Duties	-	-	-	-	-	-	1.5	.3
14.	Hospital Insurance Premiums	2.6	.9	.7	.5	.4	.3	.1	.5
15.	Property Tax	16.3	6.8	5.4	4.8	4.3	4.0	3.8	4.8
16.	Other Taxes	2.7	1.6	1.4	1.3	1.4	1.5	2.2	1.6
17.	Social Security Contributions	<u>.8</u>	<u>.7</u>	<u>.8</u>	<u>.8</u>	<u>.9</u>	<u>.9</u>	<u>.5</u>	<u>.8</u>
18.	TOTAL TAXES, ALL LEVELS	<u>60.0</u>	<u>32.9</u>	<u>32.2</u>	<u>30.5</u>	<u>32.8</u>	<u>34.2</u>	<u>38.4</u>	<u>34.7</u>
19.	NUMBER OF FAMILIES	22.0	12.1	13.5	14.5	21.2	11.6	5.1	
20.	CUMULATIVE NUMBER OF FAMILIES	22.0	34.1	47.6	62.1	83.3	94.9	100.0	

Note: Details may not add to totals due to rounding.

Source: W. I. Gillespie, The Incidence of Taxes and Public Expenditure in the Canadian Economy, a study published by the Commission.

Chart 6-1

### EFFECTIVE TAX RATES FOR THE TOTAL TAX STRUCTURE, 1961



Source : Table 6-2

proportional beyond. Hospital insurance taxes are regressive over the entire income range, but their weight is minor within the provincial and municipal tax structure.

These results depend upon, among other factors, the underlying shifting assumptions that are used to allocate the various taxes to factor incomes or particular consumer outlays. However, in the study various alternative assumptions were employed, and it was found that there was no significant change in the general pattern of total tax incidence.

To sum up, given certain assumptions as to the incidence of each tax, the evidence, with due allowance for some unquantifiable margin of error, suggests that the distribution of effective tax rates is regressive up to an income level of at least \$4,000 and progressive beyond. It is this element of regressiveness of the tax structure that is important when considerations of tax fairness and equity are involved. In total, about one third of all families and unattached individuals are affected by the regressiveness over the first two income classes.

#### The Incidence of Public Expenditures

Under this subheading are presented estimates of the incidence of the expenditures side of the fiscal system. The expenditures considered are presented in Table 6-3. When the expenditures side of the public sector is examined it is possible to distinguish between transfer payments to families, and government expenditures on goods and services. Transfer payments are similar to negative taxes and they can be analyzed in much the same way as taxes.

Public expenditures on goods and services affect the distribution of income to the extent that they confer benefits on families that are not equally distributed throughout the income scale. The examination of these benefits is not as straightforward as the determination of the incidence of transfer payments. The approach adopted was to examine the cost to the

government of providing each public expenditure on goods and services, and this cost was considered to be incurred on behalf of those families who stand to benefit from the provision of the goods or services. For example, if a public expenditure is provided that solely benefits families whose members are over 65 years of age, it was assumed that the costs of the public expenditures were "incurred on behalf of" those families. The actual estimates of total incidence of expenditures on goods and services were made by determining the following:

1. Those beneficiary groups on whose behalf the public expenditure is made.
2. The average cost of providing each group with the service.
3. The distribution, by family money income class, of the families within each beneficiary group.

TABLE 6-3  
TOTAL GOVERNMENT EXPENDITURES, 1961

Expenditure Item	Total Expenditures (millions of (per cent) dollars)		Total Expenditures Net of Exported Share (millions of (per cent) dollars)	
	1	2	3	4
Specific Expenditures				
1. Highways	1,062	8.8	1,000	8.5
2. Other Transportation	311	2.6	311	2.6
3. Education	1,820	15.2	1,820	15.5
4. Health and Sanitation	1,212	10.1	1,202	10.2
5. Social Welfare and Payments to Veterans	2,730	22.7	2,730	23.2
6. Agriculture	372	3.0	372	3.2
7. Interest Payments	837	7.0	546	4.6
8. "General" Expenditures	<u>3,790</u>	<u>30.4</u>	<u>3,790</u>	<u>32.2</u>
9. Total Expenditures	<u>\$12,134</u>	<u>100</u>	<u>\$11,771</u>	<u>100</u>

Note: Details may not add to totals due to rounding.

Source: W.I. Gillespie, The Incidence of Taxes and Public Expenditures in the Canadian Economy, a study published by the Commission, Table 3.1.

The above approach works well if the beneficiaries of public expenditures are clearly delineated groups within the economy; in other words, it is an appropriate method of dealing with "specific" public expenditures. However, there are some public expenditures that are impossible to allocate by specific beneficiary groups. For example, national defence and justice are services that are clearly indivisible among families because they exist in the same amount for all. However, any estimation of the effect of all public expenditures on the distribution of income depends upon the distribution of the benefits from "general" public expenditures among families. We have chosen to distribute such general expenditures as a flat percentage of income under our definition of income 4/.

Before examining the evidence two qualifications must be made. First, the degree of variation about the estimated average effective rates of expenditure incidence is probably much greater than the degree of variation about the average effective rate of tax incidence. While almost no families can escape the major tax payments, a considerable number of families do not receive direct benefits from such public expenditures as social welfare and payments to veterans. Therefore, the average effective rate of expenditure incidence will be smaller by an unknown amount for a family that did not receive such social security benefits.

This is an extremely important qualification that greatly affects the meaning that can be attached to the estimates of expenditure incidence, and ultimately to the estimates of fiscal incidence. Within each income class there are families and unattached individuals with widely divergent social-economic characteristics. The lower income classes include, for example, the aged-retired, the temporarily unemployed, the disabled, young persons who have just entered the labour force, and persons with low lifetime incomes. Government welfare expenditures are not evenly distributed among low income families and unattached individuals with these characteristics. For example, the temporarily unemployed, the disabled, the elderly and families with

many children benefit from specific government programmes. But there are some families and unattached individuals who do not fall into one of these categories, in particular, those who have just entered the labour force and those who are physically able and employed but have low lifetime incomes. These families and individuals receive few government benefits. The expenditure incidence of each income class, because it is the average for the class, masks all of these differences by averaging those who receive little with those who receive much.

The second qualification results because the estimates presented here are based on the distribution of the average costs incurred in providing public goods and services for various families. They are not, strictly speaking, estimates of benefits received from the provision of public goods by all families. In other words, some public services provided for a specific group of beneficiaries may confer benefits on families other than the basic group. Except in the case of "general" expenditures we have not attempted to assess the distribution of these "external benefits".

The distribution of effective expenditure incidence is presented in Table 6-4 and illustrated in Chart 6-2. The magnitudes represent the costs incurred on behalf of families in each family money income class as a percentage of the income base within each class. A word of warning is necessary concerning the high absolute values for some rates in the lowest brackets: these should not be taken to indicate a high level of public economic welfare. In fact, as the income base approaches zero, the effective expenditure incidence will approach infinity. All that can be said is that, for an "average" family in the lowest income bracket, public expenditures have a greater effect relative to income than for an "average" family in the next higher income bracket.

The distribution of government expenditures for all levels of government is clearly favourable to the lower income brackets; the effective rate of expenditure incidence decreases as income increases over the entire income

TABLE 6-4

THE INCIDENCE OF ALL EXPENDITURES, 1961  
(see Chart 6-2).

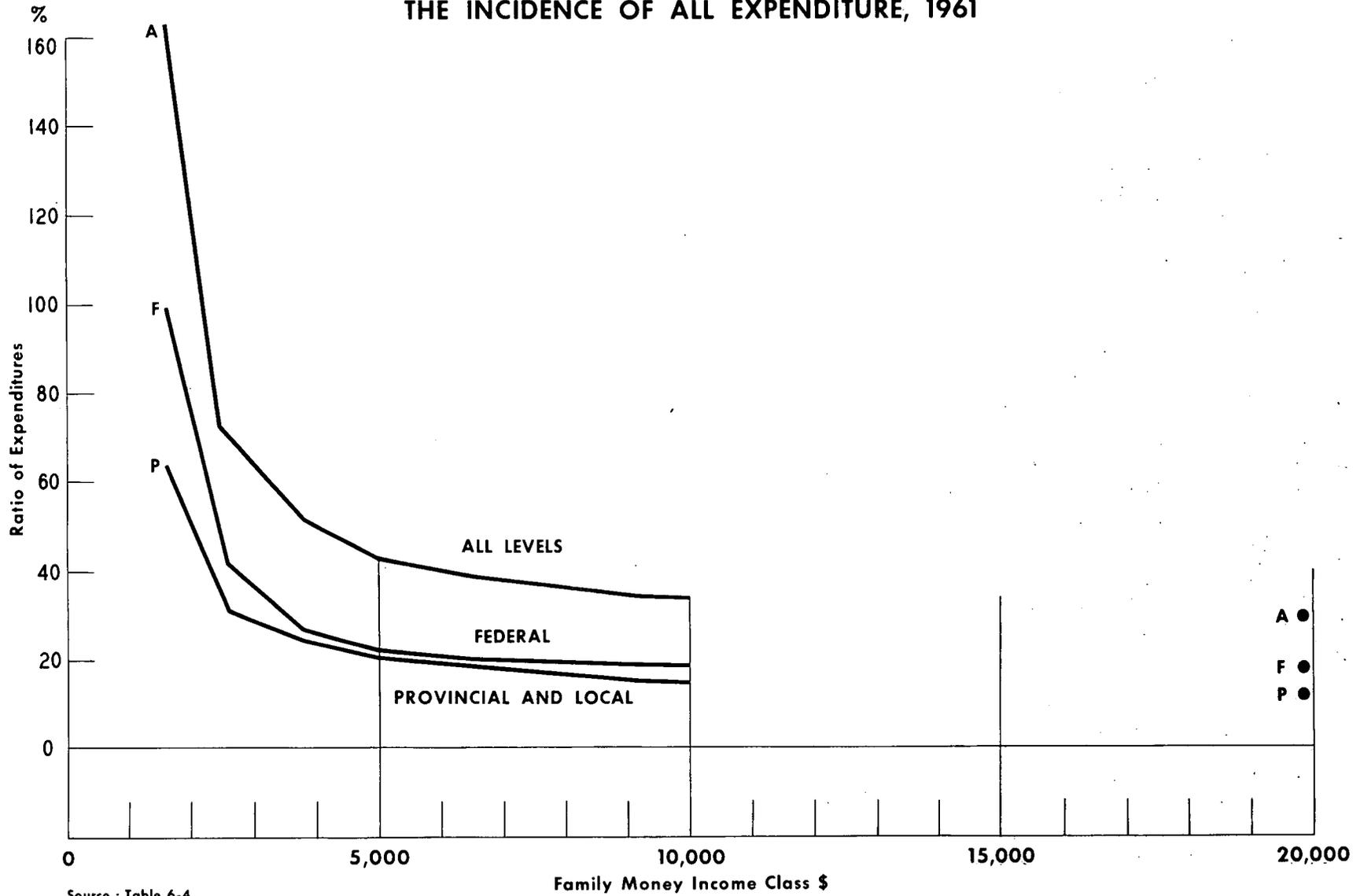
Line	Public Expenditures	Family Money Income Class						Total	
		Under \$2,000	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 6,999	\$7,000- 9,999		\$10,000 and Over
					(per cent)				
1.	FEDERAL EXPENDITURES, TOTAL	<u>99.3</u>	<u>41.6</u>	<u>27.0</u>	<u>22.2</u>	<u>20.1</u>	<u>18.9</u>	<u>17.7</u>	<u>24.2</u>
2.	Highways	.5	.3	.3	.3	.3	.3	.2	.3
3.	Other Transportation	2.7	1.3	1.2	1.0	1.1	1.3	.9	1.2
4.	Education	.7	.5	.4	.4	.3	.3	.3	.3
5.	Public Health and Sanitation	7.0	2.6	2.0	1.5	1.2	.8	.4	1.4
6.	Agriculture	3.4	3.1	1.8	1.0	.7	.6	.8	1.1
7.	Social Welfare and Veterans' Payments	70.4	21.7	10.2	7.2	5.7	4.6	2.1	8.4
8.	Interest Payments on the Public Debt	4.9	2.2	1.3	1.0	.9	1.2	3.1	1.7
9.	"General"	9.7	9.9	9.8	9.9	9.8	9.8	9.8	9.8
10.	PROVINCIAL AND LOCAL EXPENDITURES, TOTAL	<u>63.6</u>	<u>31.2</u>	<u>24.4</u>	<u>20.5</u>	<u>18.6</u>	<u>15.3</u>	<u>11.5</u>	<u>19.6</u>
11.	Highways	5.6	3.2	3.3	3.4	3.7	3.6	2.7	3.4
12.	Education	18.3	11.4	9.5	7.7	6.5	4.3	2.5	6.4
13.	Public Health and Sanitation	17.8	6.2	4.5	3.4	2.7	1.8	.8	3.1
14.	Agriculture	3.8	.9	.4	.2	.1	.1	.0	.3
15.	Social Welfare	13.0	4.8	2.1	1.4	1.1	1.1	.5	1.7
16.	Interest Payments on the Public Debt	1.0	.5	.3	.2	.2	.3	.7	.4
17.	"General"	4.1	4.2	4.2	4.3	4.3	4.2	4.3	4.2
18.	TOTAL EXPENDITURES, ALL LEVELS	<u>162.9</u>	<u>72.8</u>	<u>51.4</u>	<u>42.7</u>	<u>38.7</u>	<u>34.2</u>	<u>29.2</u>	<u>43.8</u>

Note: Details may not add to totals due to rounding.

Source: W. I. Gillespie, The Incidence of Taxes and Public Expenditures in the Canadian Economy, a study published by the Commission.

Chart 6-2

### THE INCIDENCE OF ALL EXPENDITURE, 1961



Source : Table 6-4

scale. While it is difficult to determine the degree of continued decline in this rate within the upper income bracket, it does seem that there is some decline from the "under \$10,000" income class to the "\$10,000 and over" income class.

The distribution of public expenditures for the federal government is favourable to the lower income brackets up to an income level of approximately \$5,000; beyond this level the effective rate of expenditure incidence is almost proportional. This "favourable to the lower income earners" aspect is most noticeably affected by social welfare payments and payments to veterans that are all heavily weighted toward families in the lower income brackets. The major category at the federal level-- "general" expenditures-- has no effect on the distributive pattern because it was allocated as a flat percentage of income. The remaining expenditures are relatively, insignificant, both in their weight within the federal expenditure structure and in their effect on the distribution of income.

The distribution of public expenditures for provincial and municipal governments is favourable to the lower income brackets throughout the entire income scale, although it is more favourable over the first two income brackets than elsewhere. The three major public expenditures which bring about this distributive pattern are public health and sanitation, social welfare, and education. The incidence of public health and sanitation expenditures is extremely favourable to the lower income earners over the first two income brackets and less favourable throughout the rest of the income distribution. Two factors account for this pattern. First, hospital insurance expenditures are allocated to families and the bulk of families are located in the lower income brackets. Second, sanitation expenditures are incurred on behalf of all housing units and therefore are also predominantly weighted toward the lower income brackets. The incidence of social welfare is favourable to the lower income earners up to an income of \$7,000, beyond which it is almost proportional and negligible. The weight of these payments is relatively minor in the total provincial and local expenditure structure,

but has a noticeable effect on the distribution of income because of the old age pension and direct relief components which are mainly incurred on behalf of lower income earners. The incidence of education expenditures is fairly favourable to the lower income earners throughout the entire lower income scale, although it is most significant up to an income level of \$3,000. This pattern of expenditure incidence is caused by the heavy weight of the distribution of elementary and secondary school children in the lower income brackets. The standard pattern of expenditure incidence of education expenditures can be summed up as being fairly favourable to the lower income earners and as becoming progressively less favourable as we move up the income scale.

#### The Fiscal Incidence of the Public Sector

The next step is to determine the fiscal incidence of the public sector, by subtracting the distribution of effective tax rates from the distribution of effective expenditure rates. The result is a measure of the net benefits or burdens received by the various income classes from the tax and expenditure structures.

It must be pointed out first that during 1961 the revenues and expenditures of the public sector as used in the analysis were not balanced. Moreover, the imbalance was not made up solely of what is ordinarily called a deficit. A "deficit" also appears in the calculations when it is necessary to exclude from the investigation a greater amount of revenues than of expenditures. For example, the methodology underlying the analysis resulted in the value of exported taxes exceeding the value of exported government expenditures; this adds considerably to an overall net residual expenditure benefit. The accompanying study presents estimates of the effect upon net fiscal incidence of eliminating the deficit, but they are not presented here. The estimates presented show a net residual expenditure benefit incidence. This means that the point at which the net benefit changes from positive to negative occurs at a higher income level than if the deficit had been taken into account.

The distribution of fiscal incidence is presented in Table 6-5 and illustrated in Chart 6-3. The general pattern for all levels of government combined is clearly favourable to the lower income brackets, and becomes less favourable as income increases. The lower income classes experience a net benefit in their relation with the public sector and this net benefit continually decreases as a proportion of the income base as the base increases, until it becomes a net burden in the upper income ranges.

TABLE 6-5

EFFECTIVE FISCAL INCIDENCE, 1961  
(negative numbers indicate net contribution)

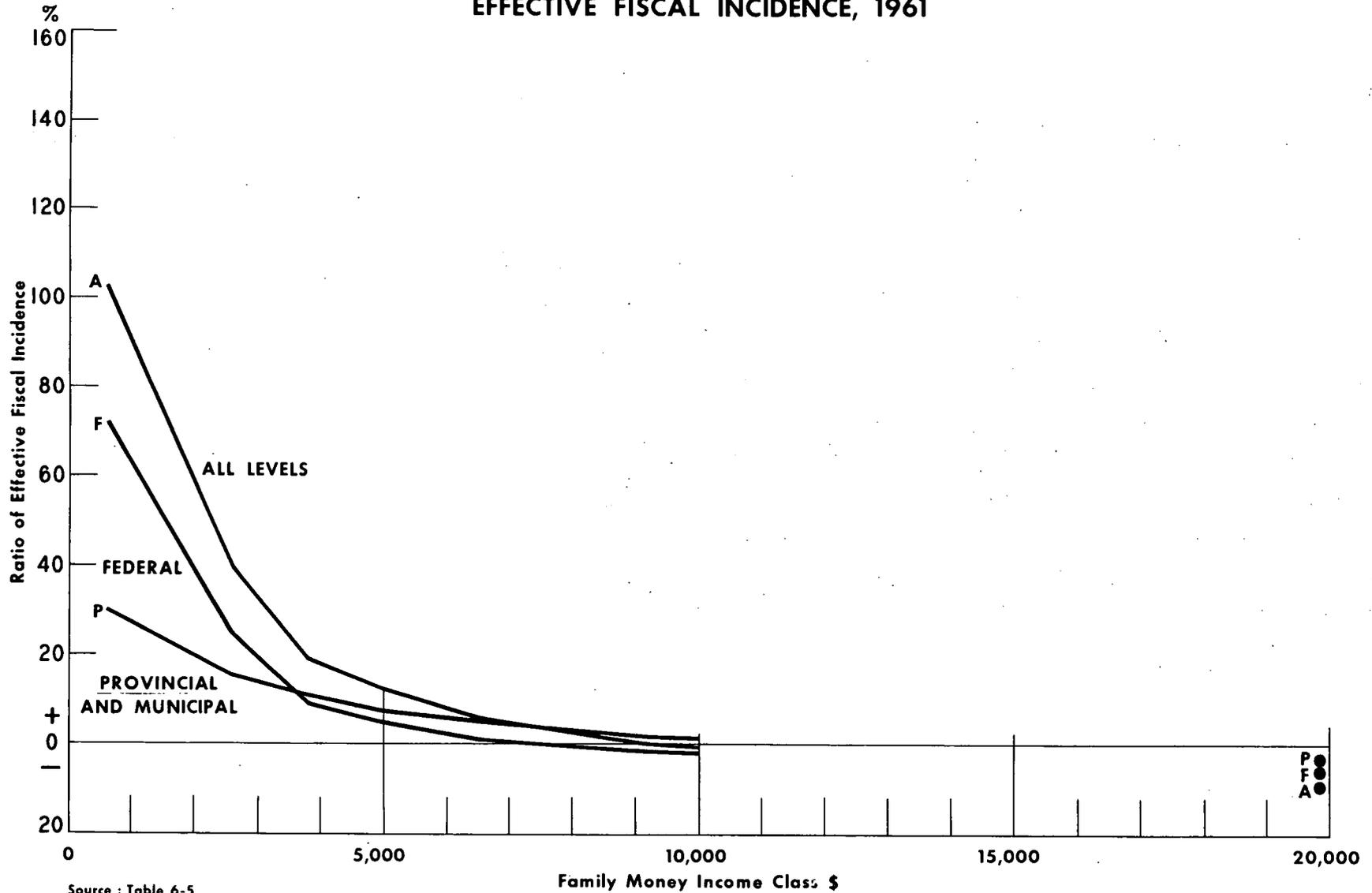
<u>Family Money Income Class</u>	<u>Federal Level</u>	<u>Provincial and Municipal Levels</u>	<u>Totals All Levels</u>
	(Percentages)		
Under - \$2,000	72.0	30.0	102.8
\$ 2,000 - 2,999	24.6	15.3	39.9
3,000 - 3,999	9.0	10.1	19.1
4,000 - 4,999	4.9	7.4	12.3
5,000 - 6,999	0.8	5.1	5.9
7,000 - 9,999	-1.8	1.8	0.0
10,000 and over	-6.0	-3.2	-9.2
TOTAL	4.0	5.1	9.1

Note: Details may not add to totals due to rounding.

Source: Table 6-4 minus Table 6-2.

The empirical results support the conclusion that under the 1961 fiscal system there was redistribution from the upper to the lower income classes. It is also apparent that the net benefit by income class decreases relatively as income increases, although the point where net benefits cease and net burdens begin cannot be exactly specified. There are, of course, various

Chart 6-3  
EFFECTIVE FISCAL INCIDENCE, 1961



Source : Table 6-5

errors associated with the basic pattern. However, one cannot plead complete ignorance. The best that can be concluded is that the redistribution of income moves from positive to negative within the income range \$4,500-\$7,000. Again, it must be emphasized that these figures relate to the average fiscal incidence within an income group. Individuals within a group might well have a net benefit or burden that differs considerably from this average.

The patterns of fiscal incidence for the federal, provincial and municipal levels of government follow the same general shape, and give rise to the same conclusions. There is, however, some difference in degree. The federal pattern of fiscal incidence is more sharply "favourable to the lower income brackets" than the provincial and municipal pattern. This is explained by the concentration of social welfare public expenditures at the federal level.

It is useful to compare the effective tax rates, expenditure incidence, and net fiscal incidence for families with money incomes below \$10,000 with families with money incomes of \$10,000 or more. The basic data are presented in Table 6-6. The data given in the table show that the total effective tax rate for all levels of government is not much higher for families with money incomes of \$10,000 or more relative to those with income below \$10,000: 38.4 per cent for the former and 33.8 per cent for the latter. What little progressiveness there is results almost entirely from federal taxes. Provincial taxes are about the same proportion of income for both groups.

The incidence of all government expenditures is substantially more progressive than the incidence of taxes. Expenditures are about 47 per cent of the income base for those families with money incomes less than \$10,000 and about 29 per cent for families with greater money incomes. When \$10,000 is used as the dividing line, provincial expenditures are more progressive than federal expenditures, that is, they are concentrated more heavily than federal expenditures on those families with money incomes of less than \$10,000.

TABLE 6-6

EFFECTIVE FISCAL INCIDENCE, 1961, FOR  
FAMILIES WITH INCOMES UNDER  
AND OVER \$10,000

	<u>Family Money Income Class</u>	
	<u>Under \$10,000</u>	<u>\$10,000 and over</u>
Thousands of families	4,954	263
Total income (millions of dollars)	21,700	5,212
Average income (dollars)	4,380	19,817
Taxes (millions of dollars)		
Federal	4,188	1,239
Provincial-Municipal	<u>3,138</u>	<u>764</u>
Total	7,326	2,003
Expenditures (millions of dollars)		
Federal	5,581	924
Provincial-Municipal	<u>4,667</u>	<u>599</u>
Total	10,248	1,523
Effective tax rates (per cent)		
Federal	19.3	23.8
Provincial-Municipal	<u>14.5</u>	<u>14.6</u>
Total	33.8	38.4
Effective incidence all expenditures (per cent)		
Federal	25.7	17.7
Provincial-Municipal	<u>21.5</u>	<u>11.5</u>
Total	47.2	29.2
Effective fiscal incidence (per cent)		
Federal	+ 6.4	- 6.0
Provincial	<u>+ 7.0</u>	<u>- 3.2</u>
Total	+13.4	- 9.2

Source: W.I. Gillespie, The Incidence of Taxes and Public Expenditures  
in the Canadian Economy, a study published by the Commission.

Combining both taxes and expenditures to obtain the effective fiscal incidence of the government sector as a whole reveals that the average family with an income below \$10,000 receives a net benefit of about 13 per cent of its comprehensive income. The average family with an income of \$10,000 or more makes a net contribution equal to about 9 per cent of its comprehensive income. Slightly more than one half of the net benefit received by the average family at the lower end of the income scale comes from provincial and municipal governments; slightly less than two thirds of the net contribution of those at the top of the income scale is made to the federal government.

#### IMPLICATIONS

The evidence suggests that there is a positive redistribution of income from the higher to the lower income classes brought about by the present tax-expenditure system. While this is as it should be, we are not satisfied that the present tax system achieves vertical equity.

1. There are wide variations about the average tax and expenditure incidence estimates for each income class. There are "non-average" families and individuals in each class who pay above-average taxes and receive below-average benefits. There are some low income families and individuals who are not receiving enough transfers and other benefits to offset their taxes. This is particularly likely to be the situation for those with low lifetime incomes. It is no consolation for these people that those who temporarily have low incomes are net beneficiaries under the present fiscal system. The system should be fair to every man not only the average man. As long as there are gaps in the transfer system so that some families and unattached individuals with permanently low incomes do not receive adequate benefits, we cannot be satisfied with a tax system that is regressive at the bottom of the income scale. It would be irresponsible for us to ignore the regressiveness of the tax system on the grounds that it could be offset by revolutionary changes in the transfer system.

2. Even if the "ideal" system of transfer payments were instituted, Canada could not achieve an equitable fiscal system by reducing the progressiveness of the tax system and substituting a more progressive allocation of benefits. A fiscal system in which taxes were proportionate to income and redistribution was achieved solely through the provision of relatively greater benefits to those with low incomes would be unfair. Such a system could achieve a redistribution of benefits from those families in the upper income classes to those in the lower income classes, but the net contributions of families with very high incomes would be virtually a constant proportion of income, and therefore not in accordance with their ability to pay. Vertical equity would be achieved over the lower and middle income classes but not over the upper income classes. Vertical equity cannot be achieved without progressive tax rates to ensure that the net contribution of a man with a comprehensive tax base of \$50,000 is a larger proportion of his base than are the taxes of a man with a comprehensive tax base of \$15,000 5/. Achieving this aspect of vertical equity is just as important as achieving a net redistribution from all of those with a comprehensive tax base above, say, \$7,000 to all of those below that figure.
3. As we have said, the data available precluded an analysis of fiscal incidence by income class above \$10,000 on a comparable basis. This is a most unfortunate limitation, because as we have shown in the "Introduction" (Volume 1), and present in detail in Chapter 36, except for those in receipt of large salaries or very substantial professional income, the net contribution of upper income individuals and families is not an increasing proportion of comprehensive income under the present system, despite the high nominal marginal rates. Indeed, taxes now are probably a decreasing proportion of comprehensive income for upper income individuals and families.

We do not believe that the net fiscal system is a reflection of the considered preferences of the majority of Canadians with respect to the ideal degree of redistribution, but is rather the end product of a multitude of unrelated decisions by many governments over many years. We see no reason to treat it as sacrosanct. Consequently we will recommend reforms that would reduce the regressiveness of the present tax system for those with low comprehensive incomes and increase the effective progressiveness of the tax system on many of those with large comprehensive incomes.

In the balance of this chapter we comment briefly on some aspects of the present system of transfer payments and then present some general observations on devices for achieving greater progressiveness in the total tax system.

#### TRANSFER PAYMENTS

A cursory examination of the present system of transfer payments shows that the purpose of many of these transfer programmes is to help maintain adequate living standards for those who, for reasons beyond their immediate control, have suffered a reduction in income or are faced with substantial non-discretionary expenses.

Before the welfare state had been contemplated by most people in this country, poor individuals and families who were subject to reductions in income or suffered catastrophic expenses were aided by charity. They received gratuitous transfers of purchasing power (or benefits in kind) either directly from other individuals or indirectly through private organizations. The entry of the state into this transfer process has meant that (except for private charity) the government stands between the transferor and the transferee. The tax structure rather than personal benevolence largely determines who contributes and how much. The law, regulations, and rules under which the particular programmes operate, rather than the tastes and preferences of

private benefactors, determine who is eligible for benefits and the amounts to which they are entitled. As a result, transfer programmes contributions are now a matter of legal obligation and benefits are a matter of right.

The peculiar feature of the present tax-expenditure system is that Canada now has many programmes and a wide variety of complicated financing arrangements to achieve the relatively straightforward objective of a redistribution of purchasing power. It is true, of course, that the existing programmes do not guarantee that individuals will not suffer hardships. In particular, the man with a small income and few assets, who therefore does not qualify as an indigent, but who has particularly heavy expenses, for example, medical expenses, can be very badly off indeed. Perhaps it is public policy that some of these gaps exist, but the apparent enthusiasm for some form of medicare, to cite the issue of the moment, suggests that not all the gaps are accepted by many Canadians. If, as we are inclined to believe, many of the gaps exist only because the transfer problem has been approached on an ad hoc basis, there is much to be said for a complete re-appraisal of what we in Canada are doing to redistribute income and how we are doing it.

We urge the federal government, with the participation of the provincial governments, to make a full and careful evaluation of the present transfer system. The study should have the widest possible terms of reference so that consideration could be given to all existing programmes. This examination should explicitly take into account both the numerous suggestions that are now current for "negative income taxes" and "cash tax allowances", and the net redistributive effect of the whole tax-expenditures system, including the rate structure that we are recommending. Under our terms of reference we are restricted to making recommendations for only half of the coin.

#### Financing Government Transfer Payments

The study of government transfers should also encompass the methods used to finance them.

With the exception of family allowance payments financed out of general revenues, the major federal transfer programmes are financed through special, earmarked taxes, although the levies may be designated in a different manner. Moreover, many of the schemes are at least partly funded. The earmarked taxes are established so that over a given period of time each programme is, at least to some extent, self-financing, although this approach is not rigidly adhered to.

It is often claimed that earmarked taxes have two advantages. It is said that the public will more readily accept a specific tax that is to be used to finance a particular benefit they are going to obtain, than an equivalent increase in the general level of taxation, even though the proceeds are going to be applied in the same way. It is further argued that when particular taxes and particular benefits are tied together the demand for increases in benefits is reduced. Both assertions may be true, but it is virtually impossible to test them. It is difficult, however, to accept the second proposition in the light of the fact that old age security benefits have grown more rapidly than family allowance benefits, although old age security pensions are financed by earmarked taxes while family allowances are not.

Be that as it may, the taxes earmarked for transfer payments are probably at best proportionate and possibly regressive, depending upon one's assumptions regarding shifting. Pay-roll taxes, proportionate income taxes with dollar limits, and consumption taxes are unlikely to fall relatively more heavily on those in the upper income groups. By relying on these kinds of taxes to finance its transfer programmes the effective progressiveness of the Canadian system has been reduced, while its apparent progressiveness is maintained through continued adherence to the personal income tax rate structure. Whether or not this has been desirable depends on one's views as to the appropriate degree of redistribution that should be achieved through the tax-expenditure system. Much of the present system involves transfers from those with small incomes to those with less.

It would take us too far afield to attempt to evaluate systematically the pros and cons of funding government transfer programmes. We should, however, like to record some of our doubts on the merits of the funding approach.

Many of the transfer programmes cannot be "actuarially sound" because it is impossible to determine the probability of the contingencies for which they provide. The word "insurance" is used too loosely when applied, for example, to the unemployment insurance programme. Under a true insurance approach the amount of premium is related to risk; when a programme is compulsory there is no necessary connection between the two. High risk participants are frequently subsidized by low risk participants compelled to participate in the programme. This transfer probably is eminently desirable; but it would be more straightforward to acknowledge that this is a form of income redistribution rather than a form of insurance. Having gone this far the irrelevance of a fund is apparent.

Under some funded programmes, funds will be accumulated rapidly in the early years. The Canada Pension Plan is the most obvious example 6/. It should be recognized that the so-called contributions are really taxes and are a form of forced saving. If governments borrow these funds at lower rates of interest than they would otherwise have to pay, contributors are forced to subsidize the government, and hence non-contributors. This is not to say that a more generous pension is undesirable; we merely raise doubts about the terms on which it is being financed.

But the greatest danger of a funded scheme, as we see it, is the rigidity it builds into the system. There is a real possibility that some benefits will be curtailed below socially desirable levels because it will be argued that they cannot be "afforded" if the funds are not to go bankrupt. On the other hand, some programmes will not be abandoned when they should be because it will be claimed that people have a right to specified benefits because of their contributions. In our view these secondary considerations inhibit con-

centration on the main issues. Who should have their purchasing power increased? By how much? If we have full utilization of resources, who should give up purchasing power to those in need? By how much?

Here, too, the questions go far beyond our terms of reference and we do not believe we should make recommendations that would attempt to implement our ideas. We are convinced, however, that these questions deserve much more public discussion than they have received.

#### REDUCING THE REGRESSIVENESS OF THE PRESENT TAX SYSTEM

Of the major taxes imposed by all levels of government only the personal income tax is not regressive for those individuals and families with low incomes. We believe that the more the regressive features of the present tax system could be reduced the more equitable the tax system would be. Each of the following changes would move in this direction:

1. Increase the weight of personal income taxes and reduce the weights of other taxes in the mix.
2. Increase the effective progressiveness of the personal income tax.
3. Allow credits against personal income tax liabilities for other taxes paid.

We comment briefly below about each of these methods of reducing the regressiveness of the tax system.

#### Increasing the Relative Importance of Personal Income Taxes

Because personal income tax revenues increase more rapidly than other tax revenues as the economy grows, if all tax rates and bases were held constant the relative importance of personal income taxes in the mix would gradually increase. However, over a period of time any one of the following conditions could lead to a gradual reduction in the relative importance of

personal income taxes. Personal income taxes could be reduced from time to time to stimulate the economy. The personal income tax system could be left unchanged while other taxes were raised because it was considered desirable to finance particular expenditures on a fee-for-service basis, for example, head taxes to finance hospital care. Other taxes could be raised because they were thought to be more "popular", or because a particular level of government requiring additional revenues was unable to raise personal income taxes for any one of a multitude of reasons. In our opinion a gradual reduction in the relative importance of personal income taxes would be an inequitable result. We recommend that a policy of gradually raising the relative importance of income taxes in the revenue mix should be adopted.

#### Increasing the Effective Progressiveness of the Personal Income Tax

The personal income tax could be made more effectively progressive in the following ways:

1. Broadening the base to include all increases in economic power.  
Most of the present exclusions benefit top income taxpayers more than low income taxpayers.
2. Reducing the marginal rates applied to low income individuals and families.
3. Increasing the exemptions or credits that offset the personal income tax liabilities of the bottom income brackets.
4. Allowing more generous deductions for the expenses of earning employment income.
5. Increasing effective marginal rates on the top income brackets.

For reasons we have given in this chapter, and on which we will elaborate later in this Report, we think the change suggested by item 5 would be unwise.

The present personal rate schedule has a top marginal rate of about 80 per cent. In our view it has only been possible to keep such a rate on the statute books because it has been simple for most high income individuals to avoid it, usually by transforming "income" into tax-free "capital gains". The effective marginal rates on top income individuals are much less than the nominal or statutory marginal rates. The potential disincentive effects of marginal rates of up to 80 per cent applied to a comprehensive tax base are far too great to be acceptable. We will, in fact, recommend a top marginal personal rate of 50 per cent. This lower rate would reduce the degree of progressiveness of the income tax system for a few individuals who are now paying higher rates; but for most well-to-do taxpayers, the net effect of broadening the tax base and lowering the top statutory rates would be to increase the effective progressiveness of the income tax system.

#### Credits Against Personal Income Tax Liabilities for Other Taxes

If corporate income taxes are fully shifted forward they become, in effect, sales taxes without exemptions. Because low income individuals spend a larger part of their incomes than middle and upper income individuals, a fully shifted corporate tax becomes a regressive tax.

If corporate income taxes are not shifted, the demand for shares will fall. The tax will be capitalized in lower share prices. The price will fall to the point where the market is willing to hold the existing supply of shares. This will be a price at which the "average" investor obtains an after-tax rate of return (at the reduced price) equal to the rate of return he could obtain on other assets of comparable risk. Because the relative decline in after-tax earnings per share will be greater for taxpayers with below average marginal rates than for those with above average marginal rates, the after-tax rate of return at the new share price will be permanently reduced for low rate and permanently increased for high rate shareholders if an unshifted tax is imposed. Low rate shareholders will find

it advantageous to realize their losses on such shares and buy other assets. High rate shareholders will find it advantageous to accept the share losses resulting from the unshifted corporate income tax and sell other assets to buy more shares. Low income shareholders who continue to hold shares or acquire shares after the imposition of the unshifted corporate tax will be relatively worse off as a result of the unshifted corporate tax than upper income shareholders. Our proposal that resident shareholders be given full credit for corporate income taxes on a grossed-up basis would generally reduce regressiveness. This would occur in those cases where the tax had been shifted and where some reverse shifting would occur when the full credit for corporate income taxes is provided. If there has been no shifting, the burden of tax on low income shareholders would be greatly reduced by our integration scheme. Upper income shareholders would receive a much smaller benefit.

The regressive characteristics of the present sales taxes could be reduced, and perhaps eliminated, by providing refundable credits against personal income tax liabilities for arbitrary amounts related to the estimated sales tax borne by low income individuals and families. An alternative would be to exempt from sales tax all "necessities", and all the goods and services required to produce "necessities". We would prefer the former approach, but we will recommend that the latter be adopted initially.

It is less obvious that credit should be given for property taxes. There are two reasons for this. First, to the extent that property taxes constitute fees for services rendered by the municipality to the taxpayer, these taxes should not be deducted from personal income tax liabilities. The payments for many municipal services are, in essence, consumption expenditures. If the provinces take over a larger and larger part of the burden of education from the municipalities, and this seems to be the trend, the fee-for-service element in property taxes will increase. Second, it is difficult to devise a system of credits for property taxes against personal

income tax liabilities that would be equitable between those who own their homes and those who rent from others. Therefore, we would not recommend that credit for property taxes be given against personal income taxes.

#### CONCLUSIONS AND RECOMMENDATIONS

1. To be equitable, the tax-transfer-expenditure system should be used to redistribute income. The question is how much redistribution, not whether redistribution.
2. The present tax system (the data are for 1961) is regressive for low income individuals and families, and slightly progressive for middle and upper income individuals and families as a group. The lack of available data makes it impossible to estimate on a comparable basis the progressiveness of the tax system for those with incomes above \$10,000, except as a group. However, an examination of the personal income taxes paid by families and individuals within the "\$10,000 and over" class shows that the average effective rate of tax, based on a comprehensive definition of income, is less for families and individuals at the upper end of the class than it is for those at the lower end of the class.
3. The distribution of transfers and the benefits of government expenditures is highly advantageous to some low income individuals and families. But because of the gaps in the transfer system the regressive taxes on some low income families and individuals probably are not offset by transfers and benefits.
4. The net effect of the whole fiscal system is a redistribution of income from those with incomes above \$4,500 to \$7,000 to those below.
5. A comparison of the fiscal incidence for families and unattached individuals with money incomes of less than \$10,000 with those with money incomes of \$10,000 or more shows the following results:

- a) The average net benefit of those below \$10,000 is about 13 per cent of the average comprehensive income base.
  - b) The average net contribution of those with a money income of \$10,000 or more is about 9 per cent of the average comprehensive income base.
  - c) Slightly more than one half the net contribution received by families and individuals at the lower end of the scale comes from the provinces and municipalities.
  - d) Two thirds of the net contribution made by those at the upper end of the scale goes to the federal government.
6. For those at the bottom end of the income scale the equity of the fiscal system could be improved by either of the following changes:
- a) By adopting a more comprehensive system of transfer payments that would ensure that the regressive taxes on low income families and individuals were invariably more than offset; or
  - b) By reducing effective tax rates on those with low incomes, broadly defined.

A study of the first alternative lies outside our terms of reference. Until such a study is completed we recommend the second alternative.

7. Vertical equity at the lower end of the income scale conceivably could be achieved by substituting a more comprehensive and progressive system of transfer payments for a less progressive tax system. But transfer payments are, and are likely to remain, a small proportion of income for those with larger incomes. Without a progressive tax system, that is, progressive rates applied to a broadly defined income base, the net contributions of those with relatively large incomes would be approximately a constant proportion of income.

We believe that this would be unfair. The greater the income the greater should be the relative net contribution of the family or individual.

8. We recommend that a study be made of the whole question of re-distribution with terms of reference broad enough to allow consideration to be given to all existing transfer payment programmes. This examination should encompass consideration of "negative income taxes", "cash tax allowances", and the methods that are used to finance transfer programmes.
9. Many of our existing transfer programmes are financed by regressive taxes that tend to offset their redistributive effect.
10. The regressiveness of the present tax system could be reduced or eliminated by one or all of the actions listed below:
  - a) Increase the weight of personal income taxes in the revenue mix.
  - b) Increase the effective progressiveness of the personal income tax by:
    - i) broadening the base;
    - ii) reducing marginal rates on the bottom income brackets;
    - iii) increasing the exemptions or credits, which would have a relatively greater effect on the personal income tax liabilities on the bottom income tax brackets;
    - iv) allowing more generous deductions for the expenses of earning employment income;
    - v) increasing effective marginal rates on the top income brackets.

- c) Allow credits against personal income tax liabilities for:
    - i) corporate,
    - ii) sales, and
    - iii) real property taxes.
  - d) In lieu of (c)(ii), it would be possible to broaden sales tax exemptions to exclude more "necessities" from tax.
11. For the reasons we have given in this chapter, and on which we will elaborate later in the Report, we would reject increasing the statutory marginal rates on the top income brackets, and allowing credits for sales taxes and real property taxes. We will recommend, however, that all the other steps be taken to reduce the regressiveness of the tax system.

## REFERENCES

- 1/ W.I. Gillespie, The Incidence of Taxes and Public Expenditures in the Canadian Economy, a study published by the Commission.
- 2/ It was assumed that corporate taxes were partially shifted, that is, that a portion was passed on to the consumer while the balance was borne by the shareholder. Alternative shifting assumptions are examined in the study. It was found that the results are not materially affected by alternative assumptions.
- 3/ Briefly the major shifting assumptions are as follows: the individual income tax is assumed to remain unchanged; one half the corporate income tax is assumed to be shifted forward to consumers of corporate products, the remainder resting on shareholders; general sales taxes are assumed to be shifted forward to the consumers of taxed products, and a selective excise tax is assumed to be borne by the consumer of the taxed product.
- 4/ "General" expenditures are allocated alternatively, in the study, among families and unattached individuals by a distribution of income as we have defined it, by a distribution of capital or investment income, and by a distribution of disposable income. The use of any one of the alternative assumptions, with a partial exception, does not significantly alter the general pattern of total expenditure incidence set forth in Table 6-4. The exception occurs for the "\$10,000 and over" income class when "general" expenditures are allocated by capital income.
- 5/ The concept of the comprehensive tax base is explained in detail in Chapter 8.
- 6/ Although we do not define the Canada Pension Plan as a transfer programme, our views on funding apply to it.

APPENDIX A

THE RELATIONSHIP BETWEEN UNEMPLOYMENT AND INFLATION

The relationship between the unemployment rate and changes in the price level is shown in Chart A-1. December-to-December changes in the consumer price index are plotted against the annual average unemployment rate. When the unemployment rate is above 4 per cent there appears to be little relationship between price changes and the unemployment rate.

With the exception of 1950, which was affected by the rapid rise in prices brought about by the start of the Korean War, the percentage increase in the consumer price index did not exceed 2.5 per cent when the unemployment rate was above 3.5 per cent.

The two years of sharp inflation in this period, 1948 and 1951, were both years when the unemployment rate was at or below 2.5 per cent.

Average rates of inflation and of unemployment over the three post-Korean War business cycles were also calculated. The following results were obtained:

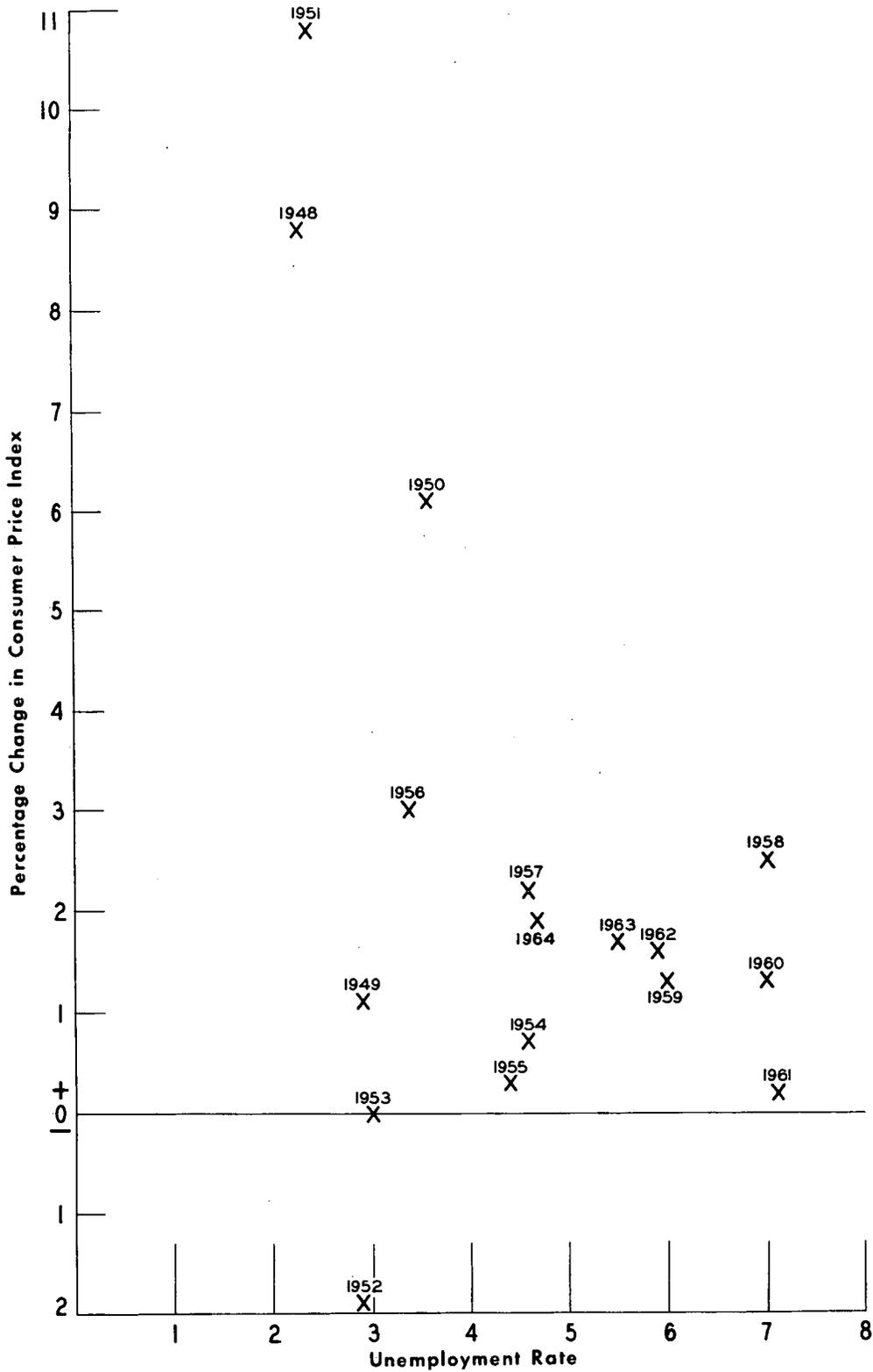
<u>Period</u>	<u>Average Unemployment Rate</u> (per cent)	<u>Annual Average Change in Consumer Price Index</u> (per cent)	<u>Changes in GNE Deflator 1/</u> (per cent)
1953-57	4.0	1.2	2.4
1957-60	6.1	1.8	2.0
1960-64	6.1	1.4	1.5

These results indicate that little, if any, reduction in the rate of inflation occurred in the two recent cycles although the average unemployment rate was 2.1 percentage points higher than in the first post-Korean War cycle.

REFERENCE

- 1/ Factor used to adjust current gross national expenditure (GNE) to obtain GNE in constant dollars.

Chart A-1  
 THE RELATIONSHIP BETWEEN UNEMPLOYMENT AND INFLATION



Source : Table A-1

TABLE A-1

## PRICES AND UNEMPLOYMENT RATES

<u>Year</u>	Percentage Change in Prices <u>December-to-December</u>	<u>Average Annual Unemployment Rate</u>
1948	8.8	2.5
1949	1.1	2.9
1950	6.1	3.6
1951	10.8	2.4
1952	-1.9	2.9
1953	0.0	3.0
1954	.7	4.6
1955	.3	4.4
1956	3.0	3.4
1957	2.2	4.6
1958	2.5	7.0
1959	1.3	6.0
1960	1.3	7.0
1961	.2	7.1
1962	1.6	5.9
1963	1.7	5.5
1964	1.9	4.7

Source: Consumer Price Index, 1948-64, Canadian Statistical Review Annual Supplement, 1964, p. S-10-0.

Unemployment rate, 1948-50, Bank of Canada Statistical Summary, 1963 Supplement, p. 131; 1951-64, Ibid., 1964 Supplement, p. 121.

## APPENDIX B

### REGIONAL STRUCTURE OF UNEMPLOYMENT

The estimates given in the text are based on regression equations fitted to annual data for the 1948-57 period which relate each regional unemployment rate to the national rate. These functions predicted the regional rates quite well for the 1958-62 period.

An alternative set of estimates was obtained by simply calculating average regional rates over the 1951-55 period when the national rate averaged 3.5 per cent <sup>1/</sup>. These estimates were as follows:

Atlantic Provinces	5.5 per cent
Quebec	4.5 per cent
Ontario	2.7 per cent
Prairie Provinces	2.2 per cent
British Columbia	4.0 per cent

They are very close to the estimates in the text.

Finally, as a check on this procedure, we examined the regional pattern for the period September to November 1965 when the national unemployment rate again averaged 3.5 per cent.

The following was the regional structure of rates for this period:

Atlantic Provinces	5.8 per cent
Quebec	5.1 per cent
Ontario	2.3 per cent
Prairie Provinces	2.1 per cent
British Columbia	4.0 per cent

These three alternative estimates indicate that the regional structure of unemployment rates at a given level of national unemployment has been remarkably stable.

#### REFERENCE

<sup>1/</sup> Dominion Bureau of Statistics, Unemployment in Canada, Occasional.

APPENDIX C

FULL-EMPLOYMENT SURPLUS, REVENUE DRAG  
AND DISCRETIONARY FISCAL POLICY

NOTES ON THE FULL-EMPLOYMENT SURPLUS

The full-employment surplus used is based on the series of potential or full-employment output prepared for the study Sources of Economic Growth 1/. The details of the estimation procedures are described in the technical appendix to that study prepared by R. G. Scott.

Given the estimates of full-employment gross national product (GNP), the estimation of the full-employment revenues and expenditures of the government involved the following steps:

1. Deciding the revenues and expenditures that are sensitive to GNP.
2. Estimating the elasticity of the revenue or expenditure "base" to GNP.
3. Estimating the elasticity of the tax to the revenue base.
4. Given these estimates, blowing-up each revenue and expenditure sensitive to GNP to its full-employment value by the formula:

$$\Delta^F \text{Tax}(i) = \frac{\Delta^F \text{GNP}}{\text{GNP}} \text{Et}(i) \text{Eb}(i) \text{Tax}(i)$$

where

$\Delta^F$  is the full-employment value minus the actual value,

$\text{Et}(i)$  is the elasticity of Tax  $i$  to its base,

$\text{Eb}(i)$  is the elasticity of the tax base of Tax  $i$  to GNP,

$\text{Tax}(i)$  is the actual revenue raised by Tax  $i$ .

5. Full-employment values of revenues and expenditures which are not sensitive to GNP are assumed equal to the actual values.

Full-employment revenue is the sum of the full-employment estimates of all the revenue categories; full-employment values of expenditure are the sum of all the full-employment estimates of the expenditure categories; and the full-employment surplus is simply the difference between the two estimates.

The categories used are the major categories of revenue and expenditure in the national income accounts. The full-employment surplus is thus the surplus on a national accounts basis. This is the most appropriate budgeting concept for purposes of analyzing the income effects of fiscal policy 2/.

The following revenue items were adjusted:

1. Personal income taxes.
2. Corporate income taxes.
3. Customs duties.
4. Indirect taxes other than customs duties.
5. Unemployment insurance contributions.

The remaining revenue items were assumed to be invariant with respect to the level of current output. These are: other personal direct taxes (mainly succession duties), withholding tax on payments to foreigners, and investment income.

The only expenditure item that appeared sensitive to changes in income was unemployment insurance benefit payments. The remaining expenditure items were assumed to be insensitive to the level of current output 3/.

The details of the estimating procedure for each of the revenue categories are as follows:

#### Personal Income Taxes

Tax Base. Personal income as reported in the national accounts was chosen because various attempts to adjust the base to exclude non-taxable or lightly taxed sources of income did not lead to improvements in the predictive power of the regression equations explaining personal taxes.

Elasticity of Tax Base on GNP. Percentage changes in personal income were regressed on percentage changes in GNP. The short-run elasticity of personal income on GNP obtained from this equation was 0.67. This indicates that personal income responds sluggishly to changes in GNP, which is largely a

reflection of the great sensitivity of corporate profits to changes in GNP, and the inverse sensitivity of unemployment benefits.

Elasticity of Tax-on-Tax Base. A linear regression equation predicting personal income tax payments from personal income, a weighted average of statutory tax rates, and a variable reflecting average exemptions allowable for the population as a whole yielded an average elasticity of 1.82. Although this elasticity varied somewhat over the period, equations with different functional forms yielded divergent movements. We therefore decided to use the average elasticity.

#### Corporate Income Taxes

Tax Base. Net corporate profits as reported in the national accounts was used as the tax base. The use of the alternative tax base of reported profits of profit companies in Taxation Statistics would have required a reconciliation with the national accounts estimates.

Elasticity of Tax Base on GNP. A regression of percentage changes in net profits on percentage changes in GNP yielded an estimated short-run elasticity of 2.51.

Elasticity of Tax-on-Tax Base. A variety of regressions designed to incorporate the dual progressive feature of the corporate tax base did not yield better results than more simple formulation that ignored the progressivity. If anything, the regression results as a whole suggest that the elasticity of corporate taxes on corporate profits is slightly less than one. This is a reflection of the effect of income changes on the ratio of losses to gross profits (which affects effective tax rates), and on firms' decisions that affect the timing of capital consumption allowances and other deductions. Corporate taxes were, therefore, assumed to have an elasticity of one with respect to net profits.

#### Indirect Taxes

Tax Base. GNP itself was chosen as the tax base because apparently better

specified tax bases did not yield any better results, and because the use of GNP as a base eliminated the need to establish a link between the tax base and GNP.

Elasticity of Tax on GNP. A straightforward regression of these tax payments on GNP, and on a tax rate index constructed from the estimates presented in the budget speeches of the Minister of Finance produced unsatisfactory results. Subsequent experimentation with a regression model linking these tax payments to this tax rate index, real GNP, and the implicit deflator, indicated that because of intercorrelation among these variables, sensible results could only be obtained by constraining some of the coefficients.

On the basis of this experimentation, together with a priori considerations of the nature and relative importance of the various taxes included, an elasticity of 0.80 was selected.

Regressions predicting percentage changes in indirect taxes (after adjusting for the discretionary changes reported in the budget speeches of the Minister of Finance) on percentage changes in GNP, which were run subsequent to the completion of the full-employment surplus estimates, yielded an estimated elasticity of 1.02. This estimate, however, was not statistically significantly different from 0.80. This, together with the fact that the effect on the overall full-employment surplus estimates would be quite small, argued against revising the estimates.

#### Customs Duties

A regression of percentage changes in customs revenues (adjusted for discretionary changes) on percentage changes in GNP yielded an elasticity estimate of 2.38. What these indicate is the response of these revenues under typical expansion conditions. When we consider a situation with unemployment, however, one must ask: "How will the expansion take place?" If expansionary monetary policy is used, for example, the devaluation of the exchange rate will dampen the increase in imports that

would otherwise accompany the increase in income. On the other hand, from the multiplier analysis presented in Appendix D to this Volume, implicit estimates of imports at full employment may be obtained. These estimates, which are based on the assumption that federal government expenditures, exports, and net investment are given, yield an implicit elasticity with respect to GNP of slightly less than one. It was therefore decided to adopt the simple expedient of assigning customs duties an elasticity of unity, which means that the surplus at full employment is estimated with the existing ratio of imports to GNP  $\frac{4}{5}$ .

Like all summary measures, the full-employment surplus is an oversimplification. Clearly, the level of revenue from each source at full employment will depend on the composition of output and of income as well as upon their level. However, it is more difficult to predict the composition, as opposed to the level, of output and income at full employment. Because changes in composition were ignored, errors will be introduced into the estimates.

For most of the tax revenues adjusted these effects will be minor. Moreover, for the revenues raised from domestic sources they will be self-cancelling to some extent, for example, if the distribution of income at full employment shifts in favour of profits, the tax gain in profit taxes is offset, to some extent, by tax losses on other forms of income.

For revenue from customs duties, the problem is more serious. Not only will customs duties receipts be subject to erratic fluctuations in the same way as the other revenues, they are also influenced by policy decisions affecting the balance of payments. Furthermore, the revenue lost from a reduction in imports may not be offset at all by revenue gains elsewhere because imports are not a component of value added, as are corporate profits and personal income  $\frac{5}{6}$ .

However, because these revenues are relatively small, the use of alternative estimates would not alter the overall full-employment surplus series very much in any case.

The estimates of full-employment revenues, expenditures, and surplus obtained by these procedures are presented in Table C-1. Actual and full-employment surpluses are shown in Chart C-1.

DISCRETIONARY FISCAL POLICY, AUTOMATIC  
FISCAL POLICY AND REVENUE DRAG

Overall fiscal policy may be conveniently divided into two parts:

1. The effect of expenditures and revenues at some target level of GNP.
2. The responsiveness of expenditure and revenue to changes in GNP.

The first may be viewed as a measure of "discretionary fiscal policy", although it must be remembered many of the expenditure and revenue items may be effectively committed prior to the budget, and therefore may not be subject to manipulation for stabilization purposes.

The second may be described as automatic fiscal policy. This term is preferable to the more common "built-in stability" or "built-in flexibility" because it encompasses such possibilities as "formula flexibility", which are more properly regarded as a means of enhancing the responsiveness of fiscal policy to changes in GNP (or other target variables), rather than as discretionary policy per se. Automatic fiscal policy is explored further in Appendix D to this Volume.

In a dynamic economy, the target level of GNP will change over time. If the preference function of society for the different stabilization goals (avoidance of inflation, maintenance of external stability, and full employment) does not change, and if the trade-off function linking these target variables remains unchanged, then the target level of GNP will grow at the same rate as the growth of potential GNP.

The selection of the appropriate target level will depend on the relative importance attached to avoiding inflation on the one hand, and increasing output and employment on the other (leaving aside exchange rates and balance-of-payments problems). Given these weights or preferences, this target will change if the trade-off function linking unemployment and price inflation shifts.

TABLE C-1

## ACTUAL AND FULL-EMPLOYMENT SURPLUS, FEDERAL GOVERNMENT 1953-63

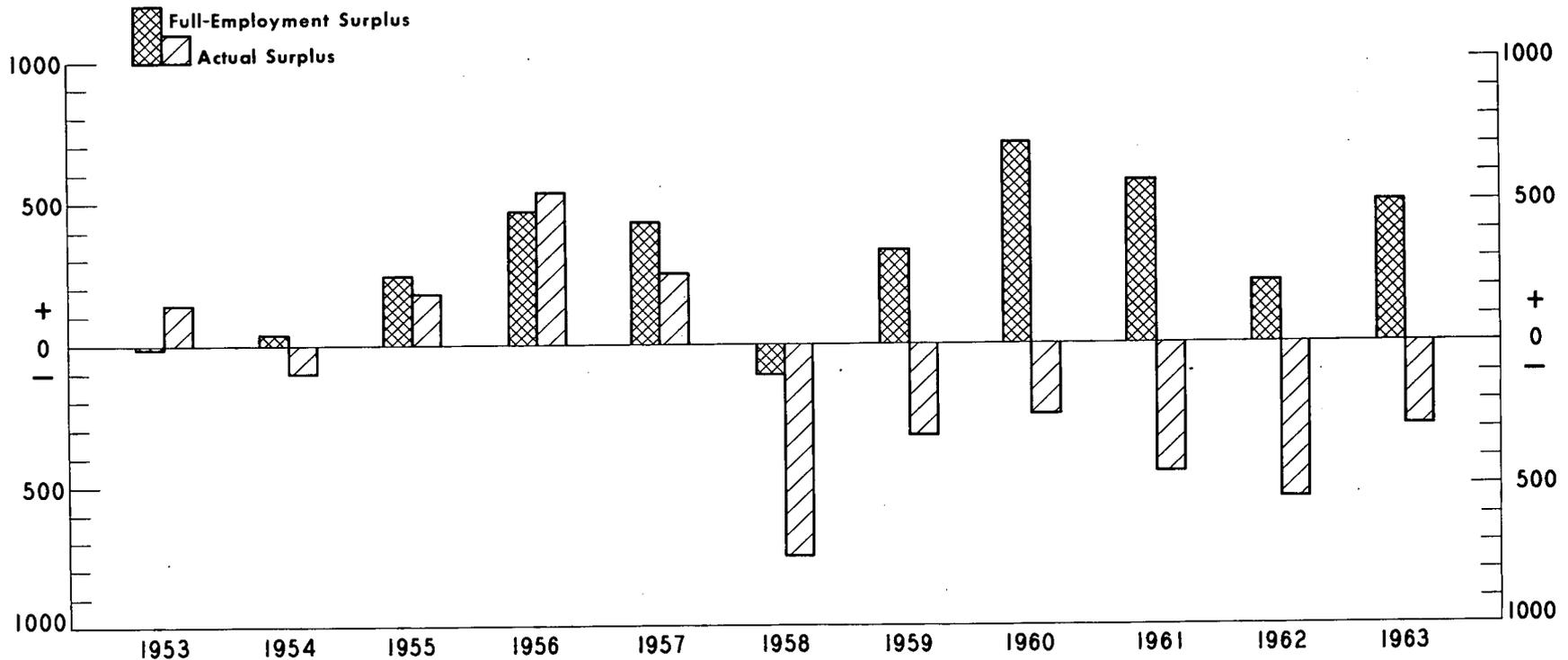
(millions of dollars)

YEAR	REVENUES			EXPENDITURES			SURPLUS	
	Actual (1)	Adjustment for Full Employment (2)	Full- Employment Estimate (3)	Actual (4)	Adjustment for Full Employment (5)	Full- Employment Estimate (6)	Actual a/ (7)	Full- Employment Estimate b/ (8)
1953	4,726	-146	4,580	4,584	+13	4,597	142	-17
1954	4,528	73	4,601	4,628	-70	4,558	-100	43
1955	4,937	11	4,948	4,761	-57	4,704	176	244
1956	5,578	-83	5,495	5,034	-05	5,029	544	466
1957	5,588	98	5,686	5,339	-83	5,256	249	430
1958	5,334	388	5,722	6,091	-255	5,836	-757	-114
1959	6,043	486	6,529	6,370	-175	6,195	-327	334
1960	6,411	713	7,124	6,662	-245	6,417	-251	707
1961	6,668	771	7,439	7,123	-258	6,865	-455	574
1962	6,851	595	7,446	7,395	-171	7,224	-544	222
1963	7,163	648	7,811	7,455	-147	7,308	-292	503

a/ Column (1) minus column (4)

b/ Column (3) minus column (6)

Chart C-1  
**FEDERAL GOVERNMENT SURPLUS ON A NATIONAL ACCOUNTS BASIS :**  
**ACTUAL AND AT FULL EMPLOYMENT**  
 Millions of Current Dollars



Source : Table C-1, columns(7) and(8)

In Chapter 3, a target of 3.5 per cent unemployment was selected which corresponds to the measure of potential GNP. The more ambitious 3.0 per cent target selected by the Economic Council reflects their assumption that manpower policies, and policies aimed at mitigating regional disparities in unemployment levels, will be reasonably effective over the next 4 or 5 years rather than the fact that they attach relatively more weight to the employment goal and less weight to the price stability goal.

Our researches 6/ and those of others 7/ suggest that the maintenance of a 3.5 per cent level of unemployment, provided sectoral bottlenecks are avoided and cost pressures (both from foreign prices and from the exercise of market power by trade unions and giant firms) are moderate, is consistent with a rate of inflation of about one and one-half per cent in the consumer price index (CPI), a slightly higher rate for the gross national expenditure (GNE) deflator, and near stability for wholesale prices of domestic goods.

Because the target level of real income is rising over time, and because a mild rate of increase of prices is implicit in the targets we have adopted, the revenue generated by a given tax structure will also grow. This rate of growth depends on the following factors:

1. The rate of growth of money GNP at full employment.
2. The rate of growth of the population, which affects personal tax yields via exemptions.
3. The income elasticity and relative importance in the overall revenue scheme of the various taxes used.

The absolute rise in full-employment revenue that is automatically generated by the growth of current dollar potential GNP will be described as the revenue drag exerted by the tax system.

As is explained in Chapter 3, unless this drag is offset by expenditure increases, increased transfers to or tax abatements for the provinces, or tax rate cuts, fiscal policy will tend to exert a deflationary influence over time.

By discretionary changes, we refer to the estimated impact at the current full-employment level of income of the sum of the following:

1. Increases in federal transfers to provinces.
2. Increases in other federal expenditures.
3. Reductions in federal tax revenues.
4. Increases in federal tax abatements for the provinces.

If discretionary changes so defined approximately offset the drag, the fiscal policy will be described as neutral. If discretionary changes exceed the drag, fiscal policy is expansionary, and if the drag exceeds discretionary changes, fiscal policy is contractionary.

Algebraically, the relationships between the full-employment surplus, revenue drag, discretionary changes, automatic policy and the actual surplus on a national accounts basis are as follows:

1. Full-employment surplus  
    + Automatic fiscal policy  
    = Actual surplus,
2.  $\Delta$  Full-employment surplus  
    = Revenue drag  
    - Discretionary increases in expenditures, provincial transfers and abatements and discretionary reductions in taxes.

There are two ways we can estimate revenue drag. Directly, by applying long-run income elasticities of taxes to the growth of current dollar full-employment GNP and adding in the observed changes of revenue items not sensitive to fluctuations in GNP. Indirectly, by estimating the revenue effects of the discretionary changes in taxes and abatements and adding these and the observed changes in expenditures to the changes in the full-employment surplus.

In Chapter 3 are presented the estimates obtained by the latter method, which are forced to be consistent with the estimates of the full-employment

surplus and of the magnitude of discretionary changes. Here, both are presented because the discrepancies between the two series will give some indication of the reliability of the estimates.

Estimates of discretionary changes and the two estimates of the revenue drag are presented in Table C-2. Table C-3 presents the details of the estimates of the discretionary tax changes. The discrepancies between the two estimates of revenue drag for the ten-year period as a whole are quite small, being about 1.0 per cent of the estimated revenue drag.

The average of the absolute deviations in each year was \$66 million. This is small in relation to full-employment revenues, but fairly large in relation to the typical annual drag. The signs of the larger discrepancies alternate. This suggests that the estimated timing of the effects of the discretionary tax changes may be in error. In addition, the two procedures rest on different implicit assumptions about the composition of full-employment income which is subject to moderate taxation, and farm income, which is lightly taxed. The residual estimates implicitly allow for changes in the composition of full-employment income. The direct estimates do not. The volatility of both corporate profits and farm income (at full employment) may, therefore, account for some of the discrepancies between the two series.

Finally, the estimated elasticities and the estimated full-employment output series are subject to error, and errors in these estimates will generally affect the two revenue drag estimates differently.

#### THE ANALYSIS OF FISCAL POLICY

The full-employment surplus and related series can be used in two ways to examine the appropriateness of fiscal policy. If there is full-employment surplus, it indicates that on balance the federal government is exerting deflationary or contractionary pressure on the private sector at full employment. If the surplus is negative, that is, if there is a full-employment deficit, an inflationary or expansionary pressure is exerted at full employment.

TABLE C-2

ESTIMATES OF REVENUE DRAG AND DISCRETIONARY  
CHANGES <sup>a/</sup>: POST-KOREAN WAR PERIOD

(millions of dollars)

Year-to- Year Changes (calendar years)	Change in the Full- Employment Surplus (1)	Discretionary Tax Policy		Discretionary Expenditure Policy		Total Dis- cretionary Changes (6)	Revenue Drag		Discrepancy (9)
		Abatements to Provinces (2)	Rate and Base Changes (3)	Change in Transfers to Provinces (4)	Change in Other Fed- eral Ex- penditures (5)		I (7)	II (8)	
1953-54	+ 60	- 13	-129	- 19	+ 58	-103	163	150	+ 13
1954-55	+201	- 14	-145	- 15	-131	-305	506	444	+ 62
1955-56	+222	0	- 82	- 33	-292	-407	629	634	- 5
1956-57	- 36	-125	- 39	- 29	-198	-391	355	369	- 14
1957-58	-544	- 52	-288	-135	-445	-920	376	462	- 86
1958-59	+448	0	+235	-216	-143	-124	572	437	+135
1959-60	+373	0	+ 98	-106	-116	-124	497	556	- 59
1960-61	-133	0	-109	-133	-315	-557	424	314	+110
1961-62	-352	-333	- 21	+ 5	-364	-713	361	506	-145
1962-63	+281	- 44	-123	- 27	- 57	-251	532	573	- 41
1953-63	-	-	-	-	-	-	4,415	4,445	- 30

<sup>a/</sup> Minus sign indicates expansionary change.

TABLE C-2

Notes

Column 1: Table C-1, year-to-year changes in column (8).

Column 2: Estimates prior to 1956 are taken from worksheets prepared by James Lynn. [See J.H. Lynn, Federal-Provincial Fiscal Arrangements, a study published by the Commission.] Estimates for 1956-63 are based upon national accounts data. For years when changes in either corporate or personal income tax abatements occurred, the effect was estimated as follows:

$$\text{Abatements}(t) = P_t - \frac{P_{t-1}}{P_{t-1} + F_{t-1}} \cdot (P_t + F_t)$$

where  $P_t$  = provincial revenues from the tax

$F_t$  = federal revenues from the tax

Column 3: These estimates are based upon the estimated impact of tax changes published in the budget speeches of the Minister of Finance. Changes adopted were allocated to calendar years by taking into account the date of the tax change together with estimates for the current fiscal year and full year effects of the tax changes presented in the budget speeches.

The effect of the temporary increases in customs duties enacted in 1962 was estimated as follows: the ratio of customs duties revenues to imports for 1961 was multiplied by imports in 1962 and 1963 to obtain estimates of "normal" customs revenues. The difference between the observed values and these estimates was assumed to be due to the imposition of the special levies. Their imposition in 1962 and removal in 1963 were treated as part of discretionary tax policy. See also Table C-3.

Column 4: National Accounts, Table 37, line 17.

Column 5: Minus year-to-year changes in column (6) Table C-1 minus column (4) Table C-2

Column 6: Column (2) + column (3) + column (4) + column (5).

Column 7: Column (1) - column (6).

Column 8: Direct estimates of revenue drag for each of the income sensitive taxes were obtained by applying the following long-run elasticity estimates to the percentage change in money GNP at full employment:

Personal income tax	1.82 on per capita GNP change 1.00 on population change
Corporate income tax	1.00
Customs duties	1.00
Other indirect taxes	0.80

To these were added the actual changes in all the other revenue items and the change in the full-employment estimates of unemployment insurance contributions.

TABLE C-3  
 ALLOCATION TO CALENDAR YEARS OF REVENUE EFFECTS OF DISCRETIONARY TAX RATE  
 AND TAX BASE CHANGES 1953-65 NATIONAL ACCOUNTS BASIS a/

(millions of dollars)

Budget	Allocation	Personal Income Tax	Corporate Income Tax	Sales and Excise Taxes	Old Age Security Tax and Customs Duties	Totals	Calendar Year Impact of Discretionary Tax Changes f/	
1953	Full Year	-185	-119	- 40	- 2	-346		
	53	- 92	-119	- 33	nil	-244		
	54	- 93	nil	- 7	- 2	-102		
1954	Full Year	nil	nil	- 36	- 1	- 37	-129	
	54	-	-	- 27	nil	- 27		
	55	-	-	- 9	- 1	- 10		
1955	Full Year	-128	- 43	- 37	nil	-208	-145	
	55	- 64	- 43	- 28	-	-135		
	56	- 64	nil	- 9	-	- 73		
1956	Full Year	nil	nil	- 12	nil	- 12	- 82	
	56	-	-	- 9	-	- 9		
	57	-	-	- 3	-	- 3		
1957 b/	Full Year	- 80	nil	- 45	- 3	-128	- 39	
	57	nil	-	- 34	- 2	- 36		
	58	- 80	-	- 11	- 1	- 92		
1957 (Dec.)	Full Year	-156	- 12	- 20	- 6	-194		
	58	-156	- 12	- 20	- 4	-192		
	59	nil	nil	nil	- 2	- 2		
1958	Full Year	- 5	- 6	- 8	- 2	- 21	-288	
	58	nil	nil	- 4	- 1	- 5		
	59	- 5	- 6	- 4	- 1	- 16		
1959 c/	Full Year	+ 54	+ 56	+ 43	+199	+352	+235	
	59	+ 27	+ 56	+ 32	+138	+253		
	60	+ 27	nil	+ 11	+ 61	+ 99		
1960	No changes in regular budget.							+ 98
1960 (Dec.)	Full Year	- 11	- 49	nil	nil	- 60		
	60	nil	nil	-	-	-		
	61	- 11	- 49	-	-	- 60		
1961	Full Year	- 15	- 20	- 66	nil	-101	-109	
	61	nil	- 10	- 39	-	- 49		
	62	- 15	- 10	- 27	-	- 52		
1962	Full Year	- 35	- 88	- 2	- 5	-130	- 21	
	62	- 19	- 22	- 2	- 3	- 46		
	63	- 16	- 66	nil	- 2	- 84		
1963 d/	Full Year	nil	-100	+385	+100	385	-123	
	63	-	- 20	+ 47	+ 13	40		
	64	-	- 80	+144	+ 50	114		
	65	-	nil	+ 94	+ 37	131		
October 1, 1963. Changes in Old Age Security Tax on Personal Incomes e/								
	Full Year	-	-	-	108	108		
	63	-	-	-	13	13		
	64	-	-	-	95	95		

TABLE C-3

Notes

- a/ Because corporate income tax payments are on an accrual basis in the national accounts, changes in corporate tax retroactive to January 1 were allocated wholly to the calendar years, and changes which affected the timing of corporate tax payments were not taken into account.
- b/ The personal income tax changes in the 1957 Budget involved changes in the treatment of pensions and the adoption of the standard deductions. These were allocated wholly to the 1958 calendar year.
- c/ The change in old age security taxes and customs duties in 1959 was allocated as follows:

	<u>Personal Tax</u>	<u>Corporate Tax</u>	<u>Sales Tax</u>	<u>Old Age Security Tax</u>	<u>Customs Duties</u>	<u>Old Age Secur- ity and Customs Duties</u>
Full Year	75	28	93	196	3	199
1959	57	28	70	155	3	138
1960	38	nil	25	61	nil	61

- d/ The calendar year allocation of sales tax changes is based on the Budget of June 15 as modified subsequently [House of Commons Debates, July 8, 1963, p. 1952]. The acceleration of corporate tax payments, which was estimated to increase receipts from this source by \$165 million, was not included. [See Note a/ above.]
- e/ The full-year impact of the increased old age security tax rates on personal income is one quarter of old age security tax receipts from personal income tax for 1964 as shown in the budget papers of 1965. The allocation of \$13 million for 1963 is based on estimates presented at the time of the change. [House of Commons Debates, September 30, 1963, p. 3130.]
- f/ 1962 and 1963 include the effect of the imposition and removal of special customs duties. These amounted to an increase in revenues by \$77 million in 1962, followed by a \$79 million reduction in 1963.

One procedure is to compare the surplus in each year with the performance of the economy as indicated by the target variables. This is done in Chart C-2.

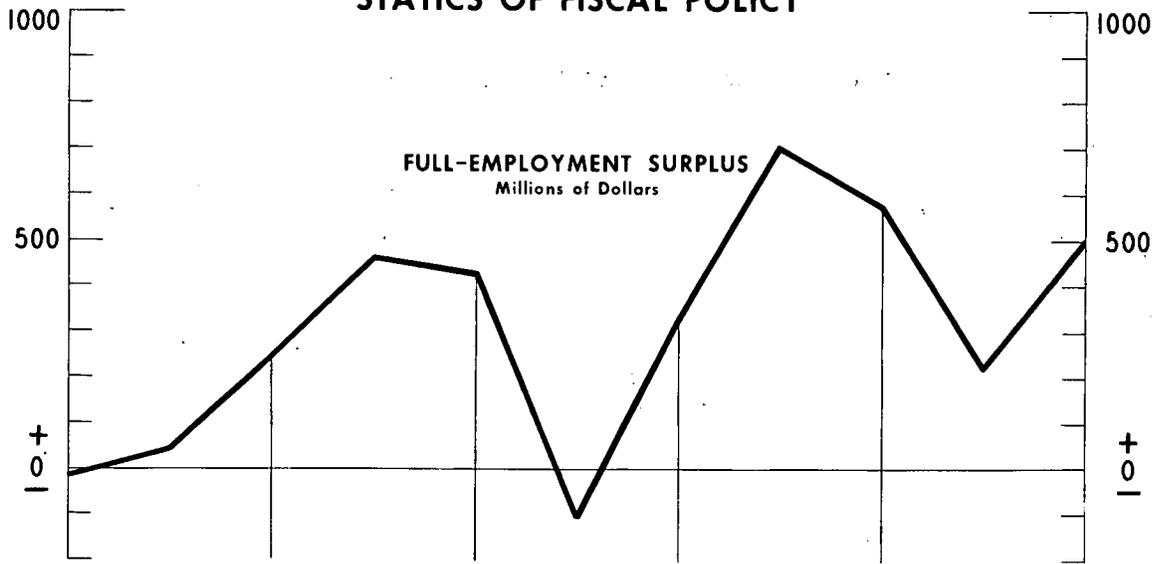
This chart confirms the statement made in Chapter 3 that on the whole fiscal policy was too tight after 1956. Despite a substantial worsening of the performance of the economy in relation to the unemployment target, a full-employment surplus was budgeted for, a surplus, moreover, that was typically higher both absolutely and in relation to GNP than the average surplus for the four preceding years of lower unemployment 8/.

Perhaps a more revealing approach is to analyze the changes in the system in relation to the performance on a year-by-year basis, taking into account the situation immediately preceding the federal budget. After all, while it is unreasonable to demand that fiscal policy be perfect, it is reasonable to demand that the adjustments made be in the right direction and that their magnitude be somehow related to the gap between the target and the realized levels of unemployment.

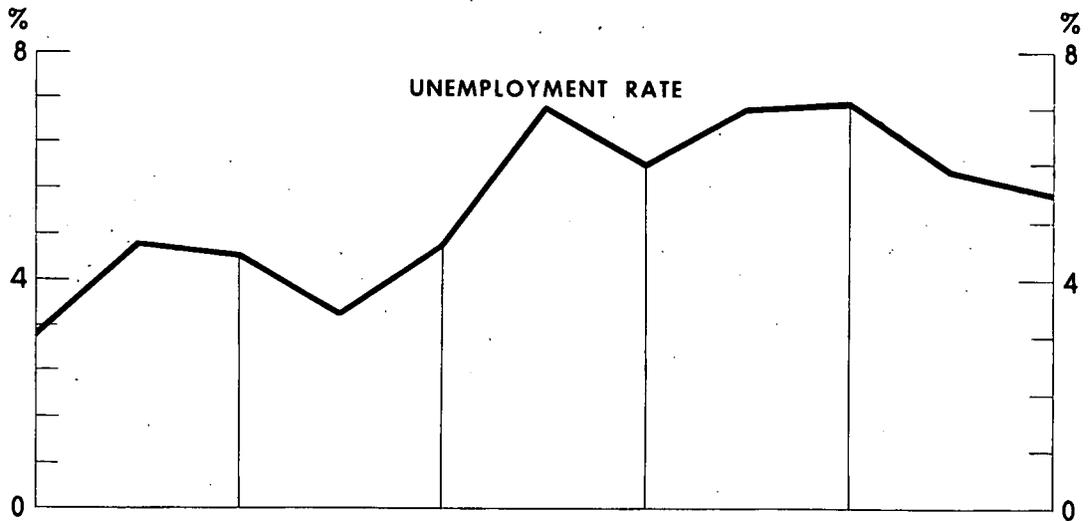
The results of this analysis are presented in Chart C-3 below, which compares the estimates of the change in the full-employment surplus and in discretionary actions (as defined above) with the performance of the economy as indicated by the unemployment and inflation target variables. Table C-4 supplements this analysis by including data on the unemployment situation and outlook at the time of the budget, and includes a qualitative description of the tone of fiscal policy and a comparison of the actual tone with that desired in the light of the unemployment and inflation targets. This analysis underpins the evaluation of fiscal policy in the text.

Chart C-2

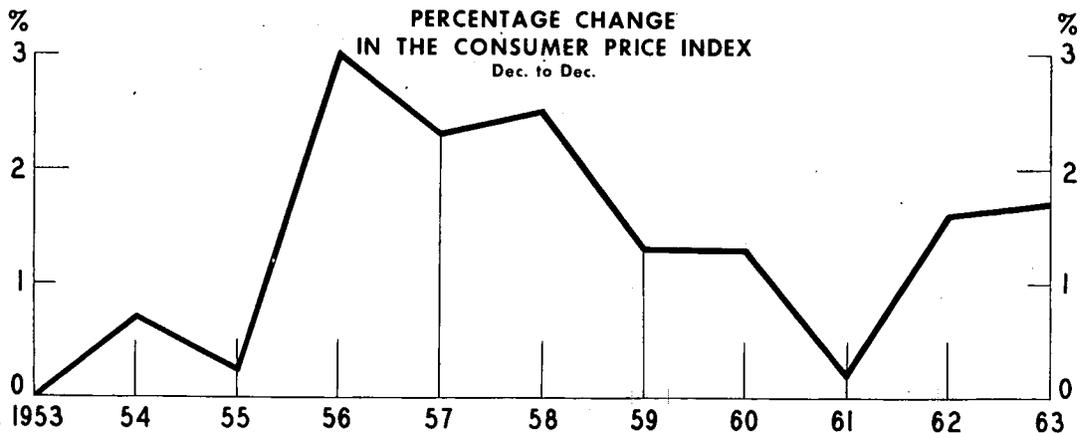
**STATICS OF FISCAL POLICY**



Source : Table C-1, column (8)

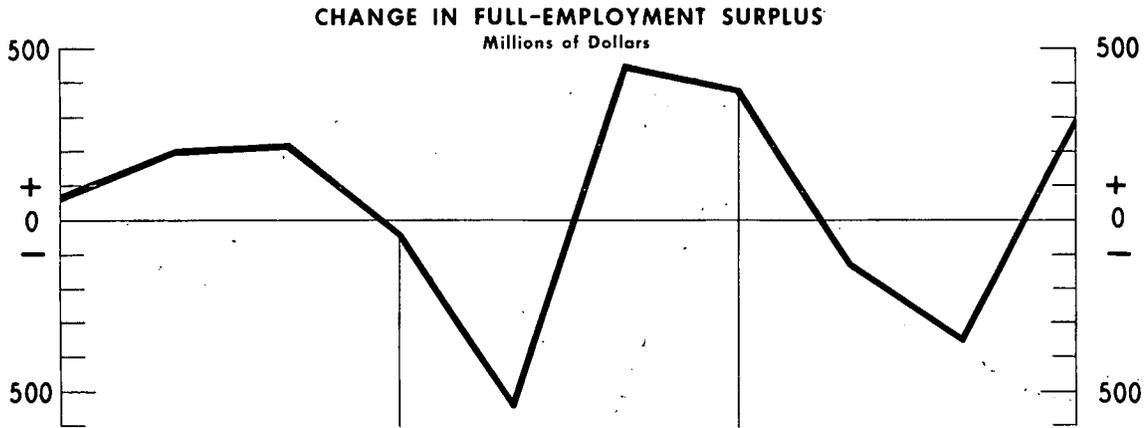


Source : Table A-1

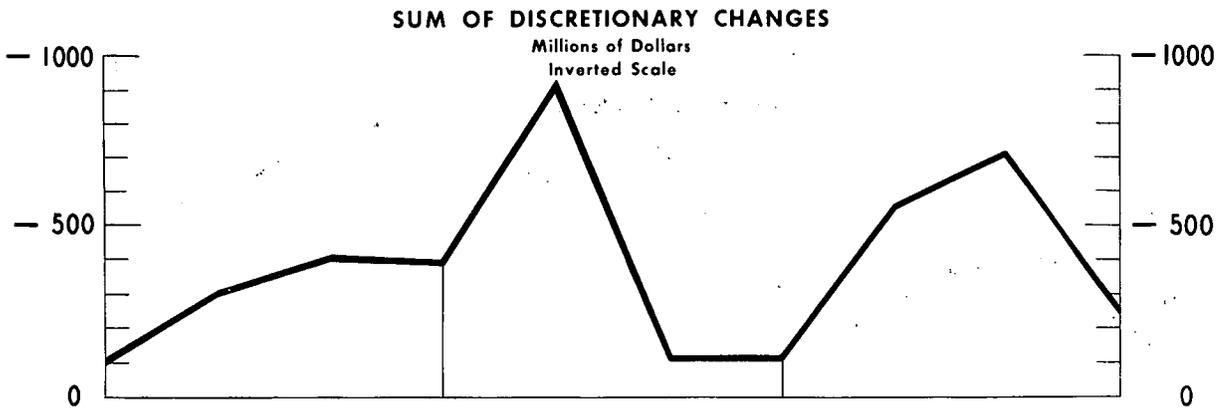


Source : Table A-1

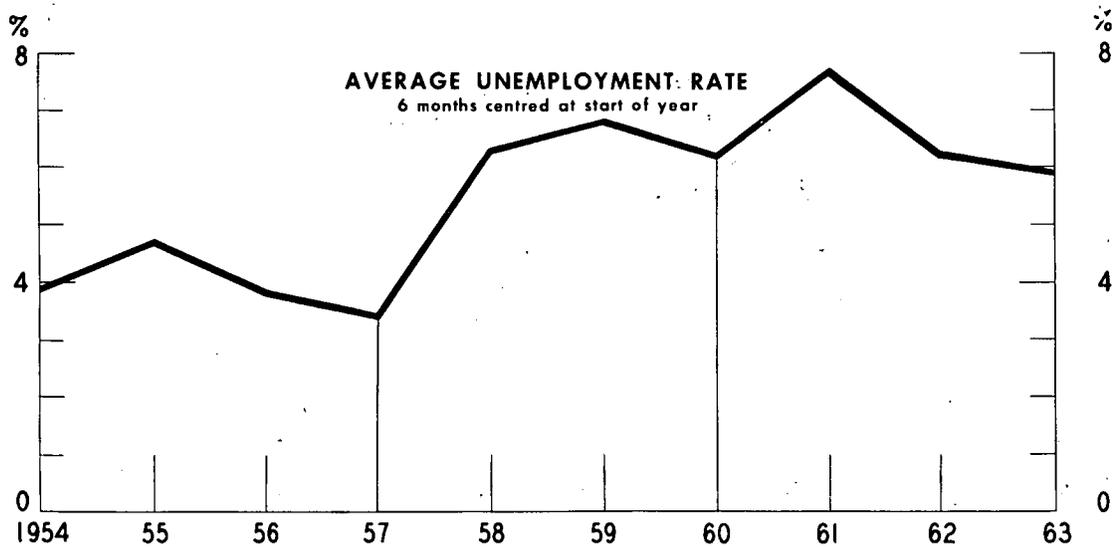
Chart C-3  
**DYNAMICS OF FISCAL POLICY**



Source : Table C-2, column (1)



Source : Table C-2, column (6)



Source : Table C-4, column (3)

TABLE C-4

## DYNAMICS OF FISCAL POLICY

Year	Change in Full-Employment Surplus a/	Sum of Discretionary Changes a/	Average Unemployment Rate (6 months centered at start of year)	Date of Relevant Budget	Average Unemployment Rate (5 months prior to the budget)	Unemployment Behaviour (6 months following the budget)	Desired Policy (in retrospect)	Actual Policy
1954	+ 60	-103	3.9	Apr '54	4.0	Increased	Mild Expansion	Neutral
1955	+201	-305	4.7	Apr '55	4.7	Declined	Neutral	Mild Restriction
1956	+222	-407	3.8	Mar '56	3.7	Declined	Restriction	Neutral b/
1957	- 36	-391	3.4	Mar '57	3.5	Increased	Mild Expansion	Neutral
1958	-544	-921	6.3	Dec '57	5.5	Increased	Strong Expansion	Strong Expansion
1959	+448	-123	6.8	Apr '59	6.3	Declined	Strong Expansion	Strong Restriction
1960	+373	-124	6.2	Mar '60	6.3	Increased	Strong Expansion	Strong Restriction
1961	-133	-557	7.7	Dec '60	7.4	Steady	Strong Expansion	Mild Expansion
1962	-352	-713	6.2	Apr '62	6.0	Declined	Strong Expansion	Expansion
1963	+281	-251	5.9	Jun '63	5.7	Declined	Expansion	Mild Restriction

a/ Minus sign indicates expansionary changes.

b/ Fiscal policy was designated as neutral in 1956 because the observed increase in the full-employment surplus was largely a result of the inflation that occurred in that year.

## REVENUE DRAG AND OFFSETTING POLICIES

The government acted vigorously to counteract the 1957-58 recession. Tax cuts larger than in any other year of the post-Korean War period were enacted. Against a background of sharply rising government expenditures, this converted the full-employment surplus on a national accounts basis of \$430 million in 1957 into a modest full-employment deficit of \$114 million in 1958.

Unfortunately, the vigorous use of expansionary policy in 1957-58 was followed by two years of perverse fiscal policy. The full-employment surplus rose to \$334 million in 1959 and to \$707 million, its highest post-Korean War level, in 1960. Subsequent budgets reduced but did not eliminate the full-employment surplus, which was estimated to be \$503 million in 1963.

If we compare 1963 with 1958 the full-employment surplus had risen substantially. Yet discretionary tax changes over this period would account for an increase in the surplus of only \$80 million. Despite the fact that federal expenditures rose substantially and substantial increases in transfers to and tax abatements for the provinces occurred, the full-employment surplus rose by \$618 million. This is a concrete illustration of the powerful revenue drag exerted by the federal tax system.

Hence, a policy of apparent neutrality in taxes combined with substantial increases in expenditures represented in fact a contractionary fiscal policy in our dynamic economy.

Table C-5 presents a more detailed analysis of this five-year period when the full-employment budget moved from a moderate deficit to a substantial surplus.

TABLE C-5

## REVENUE DRAG AND OFFSETS, 1958-63

(millions of dollars)

Revenue Drag I (residual estimates)	2,386	
Revenue Drag II (direct estimates)	2,386	
<u>Offsets to Drag</u>		<u>Percentage of Revenue Drag</u>
Increased Federal Expenditures (except transfers to provinces)	994	42
Increased Transfers to Provinces	477	20
Increased Tax Abatements	377	16
Tax Reductions	-80	-3
Residual Fiscal Drag	618	26

It is noteworthy that a substantial part of the offset to the drag over this period was accounted for by direct transfers to and abatements for the provinces. These transfers were very large both in relation to provincial expenditures and in relation to their level at the start of the period. The estimated increase in abatements and direct transfers was one and one-half times their level in 1958, and amounted to about one sixth of provincial expenditures at the end of the period.

Whether equivalent federal expenditure increases or tax reductions would have been made to offset the drag had the growth of transfers to the provinces been more moderate is an interesting question. To the extent that policy makers regarded a reduction in the deficit as a desirable goal, it is unlikely that expenditure increases or tax reductions would have offset any reduction in the growth of transfers to the provinces. The generally inadequate fiscal policy over this period, together with the observation that the large increase in abatements in 1962 was accompanied by a substantial reduction in the full-employment surplus, provide support for this view.

On the other hand, policy makers may have regarded the size of the actual deficit as a constraint on their actions, perhaps because of fears about losing foreign confidence, but may not have regarded a reduction in the deficit as being desirable per se. If such were the case, then perhaps expenditure increases or tax reductions equal to any reduction in the growth of transfers to the provinces would have been made. Policy makers may have felt so constrained in 1963.

## REFERENCES

- 1/ T.A. Wilson and N.H. Lithwick, Sources of Economic Growth, a study published by the Commission.
- 2/ See R.M. Will, The Budget as an Economic Document, a study published by the Commission.
- 3/ Except, of course, in so far as they were changed as a result of deliberate policy moves.
- 4/ For the 1953-64 period, with the exception of the years 1955-57, which were characterized by a strong investment boom, imports ranged between 22.4 per cent and 23.4 per cent of GNP. Dominion Bureau of Statistics, National Accounts Income and Expenditure, Ottawa: Queen's Printer, 1926-56, 1962 and 1964, Analytical Tables, "Percentage Distribution of Gross National Expenditure."
- 5/ In addition, the effect of increases in import duties upon domestic activity may be very different from the effect of other taxes. For example, suppose the price elasticity of demand for imports is unity. Then an increase in the tariff will raise revenues, but will not have any effect on the aggregate demand for domestic products. If the price elasticity of demand is greater than unity, increases in customs duties may increase revenues and stimulate aggregate demand. If the price elasticity of demand is less than unity, increases in customs duties will increase revenues and reduce aggregate demand.
- 6/ See Appendix A to this Volume.
- 7/ The relationship between domestic wages and prices and unemployment rates and foreign prices has been estimated in G.L. Reuber, The Objectives of Monetary Policy, a working paper prepared for the Royal Commission on Banking and Finance, December 1962. Using his equations, we have estimated the rate of increase in consumer prices that would occur if the unemployment rate were maintained at 3.5 per cent, if the rate of increase in foreign prices were at the annual average rate of 1 per cent (excluding exchange rate changes) observed for the 1953-64 period, and if the exchange rate remains fixed. The estimated rate of inflation obtained was 1.7 per cent a year.

The table below shows the rate of inflation of consumer prices in Canada under assumed variations in unemployment and foreign prices as revealed by Reuber's findings.

Rate of Inflation of Consumer Prices at Alternative Levels  
of Unemployment and Rates of Change of Foreign Prices

<u>Unemployment Rate</u> <u>(per cent)</u>	<u>Rate of Change of Foreign Prices</u>		
	<u>0 per cent</u> <u>per year</u>	<u>1 per cent</u> <u>per year</u>	<u>2 per cent</u> <u>per year</u>
4	0.5	1.2	1.8
3.5	1.0	1.7	2.3
3	1.7	2.3	3.0

8/ With the single exception of 1958.

## APPENDIX D

### BUILT-IN STABILITY, TAX LEAKAGES, MULTIPLIERS AND LAGS

Two sets of calculations were carried out relating to the built-in stabilizing power of the tax system. The first is simply an estimate of the proportion of a change in gross national product (GNP) "absorbed" by different tax and transfer payment changes. As explained in Chapter 3, taxes, like imports, are an important "leakage" whereby purchasing power is siphoned away from the private domestic sector. The calculation of the proportion of GNP absorbed by tax revenue changes is a direct measure of the rate of tax leakage.

Whether provincial and municipal taxes ought to be treated as leakages is an interesting question. In the very short run it is unlikely that a change in provincial expenditure would result from an unexpected change in revenues. Over the long run, it appears reasonable to regard these governments as having a marginal propensity to spend of one. What is a tax leakage and hence a contribution to built-in stability in the short run should not be so treated for changes which persist over longer periods. Leakages were therefore calculated both with and without the provincial and municipal tax responses included.

The calculation of tax leakages does not require the use of an explicit income determination model. The advantage of this is that the leakage estimates can be used, without being wedded to any particular theory of income determination, to determine whether a particular tax system makes a greater or lesser contribution to stability than some alternative, and to get a rough idea of the importance of taxes in this respect. The disadvantage is that the tax leakages do not directly measure the extent to which the response of the economy to impulses in demand has been dampened by the tax system. Neither do they take into account the fact that the propensities to spend out of different sources of income is likely to differ, particularly in the short run.

In order to do both, tax and expenditure multipliers, based on a simple income determination model, were calculated. This appendix describes in detail the methods used in calculating each of the sets of estimates presented in the text.

The calculation of tax leakages is based largely on the full-employment surplus estimates for 1963. (See Appendix C to this Volume.) For each income-sensitive federal tax and transfer, the following ratio was used as an estimate of the tax leakage on GNP:

$$\frac{\text{Tax}_{i(F)} - \text{Tax}_{i(A)}}{\text{GNP}_{(F)} - \text{GNP}_{(A)}}$$

where the subscripts A and F stand for "actual" and "full employment" values respectively, and GNP is measured in current dollars. (For transfers, the sign of the numerator was reversed.)

The resulting estimates are presented in Table D-1, and the sum of these is the net leakage of the federal tax-transfer system.

Provincial and municipal tax leakages were obtained on the following assumptions:

1. The elasticity of provincial corporate and personal income taxes was the same as that of their federal counterparts.
2. Provincial and municipal indirect taxes had an average elasticity of 0.38. 1/
3. Profits of provincial and municipal government enterprises had an elasticity of 0.32. 2/
4. All other provincial and municipal expenditures and revenues had an income elasticity of zero.

Given these assumptions, the calculations were straightforward

$$\Delta^F \text{Provincial Tax}_1 = E_1 \frac{\Delta^F \text{GNP}}{\text{GNP}} \cdot \text{Provincial Tax}_1$$

where  $E_1$  is the elasticity of the tax with respect to changes in GNP.

The total provincial tax leakage is simply:

$$\frac{\sum_1 \Delta^F \text{Provincial Tax}_1}{\Delta^F \text{GNP}}$$

The multipliers used are based on the following assumptions on the expenditures side:

1. Net investment, exports, and federal government expenditures (excluding unemployment insurance payments) are exogenous.
2. Provincial and municipal expenditures are treated alternatively as exogenous and as determined by provincial and municipal revenues. These alternatives correspond to the alternative leakage estimates described above.
3. Replacement investment is treated alternately as exogenous and as determined by capital consumption allowances, which move in proportion to GNP.

The time period allowed for the multiplier process to work itself out is clearly important. Later in this appendix findings are presented that bear on the question of the speed with which fiscal measures, once undertaken, affect the economy. The present analysis largely abstracts from this problem. Because lags are not allowed for in either the consumer expenditure response to income changes or in the production response to consumer expenditure changes, these are effectively short-run equilibrium multipliers. The adjective "short-run" is required because assumption 1 above would not be valid in the long run.

The usefulness of these multipliers for practical purposes depends on whether the multiplier process works itself out quickly enough  $\frac{3}{4}$ .

The model was derived as follows:

1. Import responses to changes in different categories of final demand were obtained from an updated 1959 input-output table.

2. The marginal propensity to consume out of disposable income was set at 0.925, <sup>4/</sup> slightly below the average propensity to consume of 0.94 for the postwar period.
3. Profit responses to GNP and retained earnings responses to profits were based upon fitted regression equations.
4. Tax leakages for the federal and other levels of government were drawn from the calculation of tax leakages described above.

The results obtained are summarized in Table D-2 and the various steps in this procedure are described in the notes to that table.

The above multiplier calculations are valid only if the multiplier process works itself out fairly quickly. The next question to answer is how quickly the multiplier process operates.

Quarterly consumption equations were fitted to predict expenditures by consumers on non-durable goods, durable goods, and services. It was found that equations with non-farm disposable income gave better results than equations with disposable income. This no doubt reflects the inadequacies of the quarterly data on farm income <sup>5/</sup>.

These equations are as follows:

$$CND_t = 69.7 + .138 \Delta NFY_t + .080 NFY_{t-1} + .733CND_{t-1}$$

$$CD_t = -8.5 + .238 \Delta NFY_t + .031 NFY_{t-1} + .793CD_{t-1}$$

$$CS_t = 9.3 + .088 \Delta NFY_t + .028 NFY_{t-1} + .906CS_{t-1}$$

where CND, CD, and CS stand for consumer expenditure on non-durable goods, durable goods, and services (in per capita constant dollars), and NFY stands for non-farm disposable income.

The overall long-run marginal propensity to consume derived from these equations is quite low, about 0.75. This reflects the fact that farm income grew less rapidly than non-farm income over the postwar period as a whole. When account is taken of these divergent trends, the estimated long-run marginal propensity to consume out of total disposable income is close to the value of 0.925 obtained by fitting an aggregate equation to annual data (using total disposable income as the dependent variable).

The quarterly equations were therefore adjusted to make them consistent with these results, and the following equations were obtained:

$$CND_t = A_1 + .171 \Delta DY_t + .099 DY_{t-1} + .733CND_{t-1}$$

$$CD_t = A_2 + .294 \Delta DY_t + .038 DY_{t-1} + .793CD_{t-1}$$

$$CS_t = A_3 + .109 \Delta DY_t + .035 DY_{t-1} + .906CS_{t-1}$$

where  $A_1$ ,  $A_2$  and  $A_3$  are constants which do not enter the multiplier calculations, and  $DY$  is disposable income.

These equations indicate that the response of consumer expenditure to a change in disposable income is quite quick, particularly for durable goods. On the average, 62 per cent of the consumer expenditure response is achieved within the quarter. By the end of the first year 76 per cent of the adjustment has been made. (See Table D-3).

Is the response to tax-induced changes in income similar to the response to disposable income changes generally? To test this, the tax rate on personal income was introduced as a separate variable. No significant coefficient was obtained, indicating that consumers respond to tax changes in the same way as to changes in disposable income generally. However, the tax changes have not been sufficiently large to warrant attaching very much significance to this result. On the basis of previous experience with tax changes, individuals should expect them to remain in effect for at least four quarters, and should therefore be expected to respond more quickly to tax-induced changes than to ordinary changes which may be more temporary. However, the assumption will be used that the consumer response to a tax-induced change is the same as to an ordinary change in income 6/.

While these consumption functions shed some light on the speed with which discretionary tax changes can affect the economy, a more complete assessment requires information on the response of production to changes in demand.

For services, production and consumption are synchronous events. Here the lag is zero. For the production of goods, however, producers need not respond immediately to changes in demand because they can sell products out of inventory. Evidence for the United States suggests that the response of production to changes in sales is quite quick 7/. Even for consumer durable

goods, 60 per cent of the adjustment is obtained within one quarter and a full 80 per cent after two quarters have elapsed.

In addition to the response of production to changes in consumption, it would be most desirable to have estimates of the responses of firms' order-placing and inventory-stocking behaviour, because these can significantly affect the speed with which impulses in demand are transmitted through the economy.

In the absence of any reliable aggregative function for inventory behaviour and with little information about the determinants of new orders, the lag pattern derived for two models based on a mixture of the empirical estimates and a priori specifications was examined.

In the first model, the production of services is assumed to be synchronous with consumer expenditures on services, but production of both durable and non-durable goods lags a full quarter behind consumption. Because both inventory and order-placing responses are ignored, these must be regarded as the most conservative estimates of the speed of reaction of the economy to changes in fiscal policy.

In the second model, the planned inventory, actual inventory and implied production responses were based on an adaptation of an inventory equation fitted by Courchene 8/. This model is as follows:

$$\begin{aligned}
 S^*_{t+1} &= S_t \\
 \Delta \text{Inv}^P_{t+1} &= .1825 S^*_{t+1} - .3487 \text{Inv}_t \\
 \Delta \text{Inv}_{t+1} &= -.2977 \Delta S_{t+1} + .1825 S_{t+1} - .3487 \text{Inv}_t
 \end{aligned}$$

where  $S$  stands for consumer purchases of goods,  $S^*$  represents expected sales,  $\text{Inv}^P$  represents planned or intended inventory investment,  $\text{Inv}$  stands for actual inventory investment, the symbol  $\Delta$  indicates "a change in" the affixed variable and the subscript  $t$  identifies the relevant time period.

The estimates of the response patterns based on these two models is presented in Table D-4. The results indicate that the response of the economy

to tax changes is quite quick, particularly when allowance is made for some kind of inventory reaction. Without inventory responses, 58 per cent of the adjustment is achieved within one year. With inventory adjustment, 66 per cent of the ultimate GNP adjustment will be achieved in that period.

This finding is in accordance with the available empirical evidence for the United States economy. In his recent analysis of the United States tax cut, Okun has presented estimates of the response path of United States GNP 9/. These have been adjusted to make them comparable in timing with those presented in this appendix; they are presented at the bottom of Table D-4.

Okun's estimates are consistent with those presented here, particularly when one takes into account the fact that 20 per cent of the United States tax cut was in corporate income taxes, which affect the economy with a longer lag. Moreover, a portion of the corporate income tax cut did not go into effect for ten months.

The fiscal policy experiments carried out through the simulation of a simple income determination model by Duesenberry, Eckstein and Fromm provides additional evidence that the response of GNP to a tax change is rapid 10/.

These findings have an obvious implication for fiscal policy. The response of the economy to fiscal stimulus is sufficiently rapid that accurate long-run forecasting is not required for the operation of short-run fiscal policy. If reasonably accurate forecasting two to four quarters ahead can be attained, a reasonably effective stabilization record is achievable, provided that the inside lag of fiscal policy is sufficiently short.

The evidence available suggests that forecasting two to four quarters

ahead is reasonably accurate. Mistakes will be made, particularly near turning points in the business cycle, but a policy geared to both the current situation and to short-run forecasting of the output, employment, and price level targets should permit stabilization policy to achieve a much better record in the future than in the past.

TABLE D-1

## TAX AND TRANSFER LEAKAGES AND CORPORATE RETENTIONS

<u>Variable</u>	<u>Income Elasticity a/</u>	Estimated Change to Attain Full-Employment Value (1963) (\$ millions)	Ratio to Change in GNP
GNP	1.00	3,446	1.00
Customs Duties	1.00	46	
Other Federal Indirect Taxes	0.80	120	
Total Federal Indirect Taxes		166	.048
Federal Corporate Income Taxes	2.51	272	.079
Federal Personal Income Taxes	1.22	205	.059
Total Federal Taxes	—	<u>643</u>	<u>.186</u>
Unemployment Insurance Contributions	Implicit	7	
Unemployment Insurance Benefits (Reduction)	Implicit	147	
Unemployment Insurance System		154	.045
Federal Tax-Transfer System	—	<u>797</u>	<u>.231</u>
Provincial and Municipal Indirect Taxes	.38	104	
Profits of Provincial and Municipal Enterprises	.32	22	
Provincial Corporate Income Tax	2.51	93	
Provincial Personal Income Tax	1.22	38	
Total Provincial and Municipal Revenues		<u>257</u>	<u>.075</u>
Total Government Taxes and Transfers		<u>1,054</u>	<u>.306</u>
Net Corporate Retentions b/		<u>326</u>	<u>.095</u>

a/ These income elasticities are those used to obtain the full-employment surplus estimates and their derivation is explained in Appendix C to this Volume.

b/ The change in net corporate retentions was estimated as follows. The change in before-tax corporate profits was obtained using an income elasticity of 2.51. The estimated change in federal and provincial corporate taxes was deducted. The change in net retentions was estimated to be .75 times the estimated change in after-tax profits. The coefficient of .75 was based on the following dividend function (fitted to annual data for the period 1948-61):

$$D_t = -59.59 + .5961 D_{t-1} + .2442 \Pi$$

where  $D_t$  = Dividends

$\Pi_t$  = Corporate Profits

TABLE D-2  
SUMMARY MULTIPLIER TABLE

Multiplier "A"					
<u>Policy or Exogenous Variable Change</u>	<u>First Round Effect on GNP a/</u>	<u>Total Effect on GNP</u>	<u>Induced Change in Federal Revenues b/</u>	<u>Induced Change in Provincial Revenues b/</u>	<u>Net Change in Federal Deficit</u>
Increase of \$1 in Federal Expenditure	.890	1.443	.365	.136	.635
Personal Income Tax Cut of \$1	.743	1.205	.305	.113	.695
Increase of \$1 in Exports	.873	1.416			
Increase of \$1 in Investment	.697	1.131			

Multiplier "B"					
<u>Policy or Exogenous Variable Change</u>	<u>First Round Effect on GNP a/</u>	<u>Total Effect on GNP</u>	<u>Induced Change in Federal Revenues b/</u>	<u>Net Change in Federal Deficit</u>	<u>Induced Change in Provincial Revenue and Expenditure b/</u>
Increase of \$1 in Federal Expenditure	.890	1.906	.482	.518	.179
Personal Income Tax Cut of \$1	.743	1.591	.403	.597	.150
Increase of \$1 in Exports	.873	1.869			
Increase of \$1 in Investment	.697	1.492			

a/ Except for personal income tax changes, these are simply  $(1 - m_1 x)$ . Where  $(m_1 x)$  is the direct and indirect import requirements per dollar of final demand for expenditure category "x". For personal income tax changes, the first round effect is  $mpc (1 - m_1 c)$ .

b/ These indirect revenues are slightly greater than would be obtained by applying the tax-transfer leakage rate of Table D-1, because the income normally allocated to capital consumption allowance is here allocated in part to tax and other revenues. See note below.

## Detailed Notes for Table D-2

	( <u>\$ millions</u> )
1. Total Tax-Transfer and Retention Leakages for Multiplier Analysis:	
Total Tax-Transfer Leakages from Table D-1	1,054
Net Retention Leakage from Table D-1	326
Allocation of Capital Consumption Allowance to Leakages When Gross Investment Is Held Constant	<u>290</u>
Total	<u>1,870</u>
Ratio to GNP Change	<u>.485</u>

2. The allocation of the change in income normally going into capital consumption is necessary since gross investment is held constant.

All of this income allocated to governments and to before-tax profits was treated as a leakage. All of the income allocated to individuals and unincorporated enterprise was treated as an increment to personal income. Of the total income increase of \$413 million, \$290 million was treated as a leakage of one type or another.

The details of the allocation are as follows:

	( <u>\$ millions</u> )
Estimated Change to Full Employment in Capital Consumption Allowance Income (based on GNP elasticity of unity)	413
Allocated to	
Gross Corporate Profits	227
of which: a/ Corporate Retentions	149
Federal Corporate Tax	58
Provincial Corporate Tax	20
Government Enterprise Profits	43
Personal Income	<u>143</u>

a/ This allocation was made as follows. One quarter of the income was assumed to be claimed as capital consumption allowance and hence was allocated directly to corporate retentions. Of the remaining increase in profits, a portion was allocated to federal and provincial corporate income taxes and to retentions on the basis of the average effective tax rates. The remainder was allocated to retentions, that is, it was assumed that none of the income would be paid in dividends.

(\$ millions)

of which: b/ Federal Personal Income Tax	17
Provincial Personal Income Tax	3
Disposable Income	123

3. Summary Table: Tax, Transfer, and Retention Leakages used in multiplier calculations:

Federal	.253
Provincial and Municipal	.094
Corporate Retentions	.138

4. Calculation of Multiplier factor to be applied to first round effects of changes in expenditures and taxes for multiplier "A":

$$K_A = \frac{1}{1 - mpc (1 - ml) (1 - mic)}$$

where  $K_A$  = multiplier factor

mpc = marginal propensity to consume out of disposable income

ml = marginal tax-transfer-retention leakage rate

mic = import requirements per dollar of final demand for consumer goods and services

mpc = .925 (see Reference 4)

ml = .485, see above, note 1

mic = .197 (this is based on the updated 1959 input-output table prepared for the Commission by J. A. Sawyer)

$K_A$  is therefore 1.622.

This factor may be applied to the estimated first round effects of a change in expenditures or taxes to obtain the multipliers. The direct effects and the total effect on GNP, together with estimates of induced changes in federal and provincial revenues and the resulting effect on federal deficit are presented in part "A" of Table D-2.

5. As is explained in the text, multiplier "B" differs from multiplier "A" in that provincial and municipal expenditures and replacement investments are assumed to respond to a change in GNP.

b/ Using the elasticity of personal taxes on personal income of 1.82, \$20 million of this income was allocated to personal income taxes.

Under these assumptions the multiplier factor becomes -

$$K_B = \frac{1}{1 - [\text{mpc} (1-\text{ml}) + \text{mI} + \text{mG}] + [\text{mic} \text{mpc} (1-\text{ml}) + \text{miI} \text{mI} + \text{miG} \text{mG}]}$$

where ml = the marginal tax-transfer-retention leakage rate

mI = ratio of replacement investment to GNP

mG = marginal provincial and municipal expenditures response  
(equal to marginal tax response) to GNP

miI = direct and indirect import requirements per dollar of  
investment expenditures

miG = direct and indirect import requirements per dollar of  
government expenditures.

For this model:

$$\text{mI} = .120$$

$$\text{mG} = .075$$

$$\text{miI} = .303$$

$$\text{miG} = .110$$

ml, mic, mpc are the same as those used in multiplier "A".

$$K_B = 2.141$$

This factor was used to obtain the multiplier and revenue effects  
presented in part B of Table D-2.

TABLE D-3

RESPONSE OF CONSUMER EXPENDITURE  
TO A CHANGE IN DISPOSABLE INCOME

Consumer Expenditure on:	<u>Quarters Following Change of \$1 in Disposable Income</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Equilibrium</u>
Non-Durable Goods	.171	.224	.263	.292	.371
Durable Goods	.294	.272	.253	.240	.185
Services	<u>.109</u>	<u>.134</u>	<u>.158</u>	<u>.176</u>	<u>.369</u>
Total Consumer Expenditure	<u>.574</u>	<u>.629</u>	<u>.673</u>	<u>.707</u>	<u>.925</u>
Percentage of Ultimate Response	<u>62</u>	<u>68</u>	<u>73</u>	<u>76</u>	<u>100</u>

Note: These are based on the adjusted equations explained in the text.

TABLE D-4

## DYNAMIC RESPONSE PATTERNS

Percentage of Ultimate GNP Adjustment Attained by Middle of  
Quarter Specified Following the Tax Cut

	Quarters			
	1	2	3	4
Model I:				
No Inventory Adjustment	12	41	51	58
Model II:				
Inventory Adjustment based on Courchene's Equation	34	54	62	66

Comparison with Okun's Analysis of GNP Response  
to Recent United States Tax Cut

	Percentage of Ultimate GNP Adjustment Attained			
	Quarters			
	1	2	3	4
Pure Consumption Model	20	33	47	55
Consumption and Induced Investment Model	13	27	41	53

Note: Because the United States tax cut went into effect two thirds of the way through the first quarter of 1964, Okun's tables were adjusted to make them comparable to those presented above. This involved adding in the value for the month prior to the start of the quarter and subtracting the value for the end month of the quarter. The values for these end months were estimated by linear interpolation.

## Detailed Notes to Table D-4

1. Consumer expenditures were disaggregated into non-durable goods, durable goods and services. Consequently, marginal indirect tax leakages and marginal import leakages were based on estimates for "direct" indirect taxes and input per dollar of final demand for these categories from the updated input-output table. The overall tax leakage per dollar of investment expenditure implied by this approach is very close to the leakage estimated by aggregative techniques in Table D-1.
2. Only "first round" consumption effects of current income were taken into account in each quarter, that is, the simultaneity of consumption and income was ignored. This is to assume that consumers temporarily save whatever extra disposable income is generated by income-induced changes in current expenditures during the quarter.
3. The inventory equation taken from Courchene's work is his aggregative equation for total manufacturing; which is as follows:

$$\Delta H_t = -70.5U + .1653 U_t - 2 + .1530 NO_t \\ + .1825 S_t - .2977 \Delta S_t - .3487 H_t - 1$$

where H = Inventory Stock (at end of quarter)

S = Sales

NO = New Orders

U = Unfilled Orders (at end of quarter)

Because the production of consumer goods is largely production to stock rather than production to order, the unfilled orders and new orders terms were ignored. Planned inventory investment was assumed to be based on expected sales next period (which are equal to current sales in Courchene's model), and past inventory investment, that is,  $I_{t+1}^P = .18255S - .3487H_t$ . This, together with observed sales, was used to generate production. The actual inventory change was obtained from the equation above.

The use of this equation is not particularly appropriate since the manufacturing sector includes industries that do not produce consumer goods. In addition, final demand for consumer goods includes some wholesale and retail trade content. Whether or not trade inventory behaviour can be approximated by this equation cannot be determined.

## REFERENCES

- 1/ The elasticity of 0.38 was obtained as follows. Provincial and municipal indirect taxes were divided into three groups according to whether the assumed elasticity were unity, one half or zero. This classification is as follows:

Assumed Income Elasticity:	
Unity.	Retail sales taxes Amusement taxes Miscellaneous taxes on national resources Corporation taxes (Not on income)
One half.	Gasoline taxes Miscellaneous taxes
Zero.	Licences, fees and permits Real property taxes

A weighted average of these elasticities (using revenues in 1963 from each tax as weights) is 0.38.

- 2/ This elasticity was obtained from a regression of per cent changes in these revenues on per cent changes in GNP.
- 3/ Note that all investment, including inventory investment, is treated as exogenous in these calculations. Consequently, the calculation of "instantaneous" multipliers (rather than short-run multipliers based on distributed lag consumption functions and cyclical import functions) may compensate in part for the omission of inventory investment (which presumably has a rapid response to changes in income) from this analysis.
- 4/ This estimate was obtained by fitting the following regression function to annual data for the period 1948-62:

$$C_t = 9.68 + .925 \Delta DY_t + .751 DY_{t-1} + .188 C_{t-1}$$

where  $C_t$  = Per capita real consumption

$DY_t$  = Per capita real disposable income

- 5/ Errors of measurement in the exogenous variable of a model which includes a lagged dependent variable will typically bias the coefficient in the exogenous variable (income in this case) downwards and the coefficients of the lagged dependent variable (consumption in the previous quarter)

upwards. These biases cause an apparent lengthening of the response of consumption to income.

Since we were informed that the quarterly estimates of farm income are tenuous, and since the equations with non-farm disposable income as the independent variable yielded more accurate predictions, we decided to base our dynamic response estimates on the latter equations.

- 6/ Okun has tested this assumption for the case of the recent United States tax cut. M. Okun "Measuring the Impact of the 1964 Tax Reduction", a paper presented to the American Statistical Association, Philadelphia, September 1965 (Mimeo).
- 7/ A. Ando and E.C. Brown, "Lags in Fiscal Policy", Commission on Money and Credit Stabilization Policies, Englewood Cliffs, N.J.: Prentice-Hall, 1963, pp. 141-142.
- 8/ T.J. Courchene, "Inventories in the Canadian Manufacturing Sector. A Theoretical and Empirical Analysis by Stage of Fabrication", a paper presented to the Econometric Society, New York, December 1965 (Mimeo).
- 9/ Arthur M. Okun, op.cit.
- 10/ J. Duesenberry, O. Eckstein, and G. Fromm, "A Simulation of the United States Economy in Recession", Econometrica, Vol. 28, 1960, pp. 749-809. A comparison of Table I (p. 756) with Table IX (p. 770) reveals that 48 per cent of the ultimate response to a tax cut is achieved by the second quarter, and over 100 per cent by the end of a year. This latter result is no doubt due to the oscillatory behaviour of inventory investment.

APPENDIX E

PROPOSAL FOR STANDBY AUTHORITY TO  
OPERATE STABILIZING FISCAL MEASURES

Should Parliament decide that standby authority is necessary and should be given to the Governor in Council in order to reduce delays in applying discretionary economic stabilizers, a method of granting such authority and its use is set out in this appendix.

1. The Governor in Council would be given the authority to raise or lower personal income tax rates up to 15 per cent across the board. This authority would be restricted to across-the-board percentage tax changes applicable to the federal portion of personal income taxes, and would be restricted to one change in either direction within a year. At current tax yields this would represent a change in tax burden of \$300 million on an annual basis. While larger than any of the peacetime personal income tax changes enacted in the regular budget, even this might prove inadequate. If more far-reaching measures were required the normal parliamentary processes should be used.
2. The change would take effect on income tax withholding at the beginning of the month following the announcement.
3. The exercise of discretionary tax power by Order in Council would be subject to approval by Parliament:
  - a) within one month if Parliament is in session; or
  - b) within three months if Parliament is not in session at the time of the Order in Council, or within one month of the opening of Parliament, whichever is earlier.

If parliamentary approval is not forthcoming the tax change would be null and void, and tax deductions for the balance of the year would be changed accordingly.

4. Executive tax changes approved by Parliament would remain in effect until the next (regular or supplementary) budget is brought down, at which time they would be superseded by the tax rates announced in the budget.
5. The exercise of discretionary power would be permitted only if:
  - a) the seasonally adjusted unemployment rate had averaged 4.5 per cent or more over the past three months; or
  - b) the consumer price index and the wholesale price index, both on a seasonally adjusted basis, had risen at annual average rates in excess of 3 per cent for the past six months; 1/ or
  - c) the Minister tables a report in Parliament justifying the action for reasons of national emergency other than those related to prices and employment.
6. As long as the price or unemployment conditions in (a) and (b) prevailed the Minister would be required to make a report to Parliament on the economic situation whether or not the executive tax authority was being exercised. If Parliament was in session this report should be tabled:
  - a) when executive tax action if any is taken; or
  - b) when a supplementary budget is introduced; or
  - c) within one month of the publication of the figures indicating that the targets have not been met, whichever came first, and thenceforth a similar report should be tabled in each quarter.

If Parliament was not in session, a report would be tabled within one week of the opening of Parliament, unless the opening of Parliament was within 3 weeks of the publication of the figures in which case the above requirements would be in effect.

7. The following features of the proposal would prevent the arbitrary use of this power:
- a) The restriction to a percentage change in personal income tax rates.
  - b) The requirement that there be parliamentary approval within a time period.
  - c) The limitation of the power to a period during which the performance of the economy has been unsatisfactory in relation to price, output, and employment targets.
  - d) The requirement of a public report by the government.

#### REFERENCE

- 1/ At present, seasonally adjusted price indices are not published. The government should undertake a study of the most appropriate seasonal adjustment procedures to be used. It would be particularly desirable to eliminate the effect on food prices of weather conditions. Also, the Dominion Bureau of Statistics would be required to report price indices and unemployment rates for a particular month before the end of the following month.

## APPENDIX F

### TAX PROGRESSIVENESS AND PERSONAL SAVING

From the 1959 consumer expenditure survey data, together with unpublished data on mean income of families in each income class, it is possible to estimate the marginal propensity to save of the high and high-middle income groups.

These estimates show that the marginal propensity to save (MPS) of the highest income group is 0.258.

It is noteworthy that the typical cross-section estimate of the MPS for the lower and middle income groups is about 0.20. This reflects the fact that there is an upward bias to the MPS estimated from cross-section data, resulting from transitory income and relative income effects. Consequently, the typical cross-section value of the MPS is well above the value usually obtained from time series studies.

It follows that the estimate of 0.258 given above is likely to overstate the MPS of the higher income groups.

On the assumption that the MPS of taxpayers with income above \$8,000 is 0.26 and the MPS of all other taxpayers is 0.05 (which is slightly less than the overall average personal saving rate reported in the National Accounts), we shall estimate the effect upon personal saving of a redistribution of the personal income tax burden by abolishing progressiveness in the tax rate schedule altogether, while leaving exemptions and deductions unchanged. The calculations are shown in Table F-1.

TABLE F-1

ESTIMATED CHANGE IN PERSONAL SAVING  
UNDER A PROPORTIONATE INCOME TAX

TAXATION YEAR 1961

(millions of dollars)

	Taxpayers With Income <u>Below \$8,000</u>	Taxpayers With Income <u>Above \$8,000</u>	All Tax- payers
Income Assessed	\$15,677	\$3,925	\$19,602
Taxable Income	7,424	2,999	10,423
Tax Payable	1,173	737	1,910
Effective Tax Rate	.1580	.2458	.1832
Tax Paid if Taxed at Average Effective Rate for All Taxpayers	1,361	549	1,910
Change in Average After-Tax Income	\$-188	\$+188	nil
Change in Average Saving	\$ -9	\$ +49	\$+40

Source: Department of National Revenue, Taxation Statistics, 1963,  
Ottawa: Queen's Printer, 1963, Table 2.

APPENDIX G

PROOF THAT A SHIFT FROM DIRECT TO INDIRECT TAXES  
IS EQUIVALENT TO A CHANGE IN THE INTEREST RATE

For simplicity, consider an indirect tax that is shifted forward, and a direct tax that is not shifted.

1. Under an indirect tax system, the real value of a savings dollar  $N$  years later is:

$$(1 + r)^N$$

where  $r$  is the rate of interest.

With an indirect tax shifted forward, the real value of the saving will be:

$$(1 + r)^N \left[ \frac{1}{1 + t_I} \right]$$

where  $t_I$  is the tax rate on consumption goods.

Under a direct tax system, the money and real value of a savings dollar  $N$  years later is:

$$[1 + r(1 - t_D)]^N$$

where  $t_D$  is the direct tax rate.

Now consider an individual deciding whether or not to save a given amount of real income.

A dollar of forgone consumption under the direct tax system is equivalent to  $(1 + t_I)$  dollars under the indirect tax system. Therefore the real value of a given amount of real saving at the end of  $N$  years is:

$$(1 + r)^N$$

under the indirect tax system; and

$$[1 + r(1 - t_D)]^N$$

under the direct tax system.

Hence, a change from indirect to direct taxes amounts to a decrease in the rate of interest.

2. The above analysis is based on the following assumptions:
  - a) The tax changes are expected to be permanent.
  - b) There is no money illusion.
  - c) Saving is for the purpose of future consumption, or for wealth accumulation measured in terms of consumer goods.
3. Given these assumptions, it is impossible to say a priori whether a change from a direct tax to an indirect tax (with the same incidence by income class, that is, abstracting from changes in progression) will increase or decrease saving. Since such a shift is equivalent to a rise in the rate of interest, the substitution effect will be in favour of saving. The income effect, however, may be either in favour of saving or in favour of consumption.
4. The available empirical evidence does not indicate that there is much response, one way or the other, of personal saving to changes in interest rates. It would follow that a permanent change to indirect taxes on consumption which are equivalent in magnitude to interest rate changes achieved in the past will be unlikely to have much effect on personal saving.

A shift from a 20 per cent income tax to a sales tax on consumption goods that raised the same revenue would be equivalent to an increase in the rate of interest from 4 per cent to 5 per cent. This is well within the observed range of fluctuations in interest rates.
5. It is worth noting that a change to a general sales tax levied on capital goods as well as consumer goods will likely have an adverse effect on investment and saving. Such a general sales tax is equivalent to a flat income tax with no allowance for depreciation of capital goods.

6. It may be that more substantial changes in tax rates will encourage saving. For example, a shift from a progressive income tax to a progressive expenditure tax would involve very large changes in tax rates for individuals now in the high income bracket, that is, such tax changes would be equivalent to very large interest rate changes.
7. If increased deductions for retirement saving, or analogous changes, stimulate saving, it is more likely to be a result of these deductions encouraging individuals and organizations to set up pension plans to take advantage of the tax features, than to any direct effect of the change on the effective rate of interest earned.
- Professor Cagan's recent finding that saving through pension plans is complementary to, rather than substitutable for, other saving suggests there may be an important "threshold effect" for low or middle income savers <sup>1/</sup>. Setting up a pension plan forces these individuals to consider the future. Such a lengthening of the time horizon of the individual will encourage him to save more.
8. The following is an arithmetic example of an individual who saves 10 per cent of his income under two alternative tax systems.

	<u>Money Income</u>	<u>Direct Tax</u>	<u>Dis- posable Money Income</u>	<u>Price of Consumer Goods</u>	<u>In- direct Taxes</u>	<u>Money Saving</u>	<u>Real Value of Saving</u>
Direct Tax of 20 per cent	100	20	80	1.00	nil	8	8
Equivalent In- direct Tax	100	nil	100	1.25	20	10	8

The value in current prices of present saving 25 years hence at a 5 per cent money interest is given in the following example.

	<u>Money Value</u>	<u>Real Value</u>
Direct Tax	8 x (1.04) <sup>25</sup>	8 x (1.04) <sup>25</sup>
Equivalent Indirect Tax	10 x (1.05) <sup>25</sup>	8 x (1.05) <sup>25</sup>

#### REFERENCE

- <sup>1/</sup> P. Cagan, Effects of Pension Plans on Aggregate Saving, Occasional Paper No. 95, New York: National Bureau of Economic Research, 1965.

I N D E X

A

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ABILITY TO PAY, as basis for taxation, 10-13.

APPEALS, JUDICIAL, taxpayers' rights, 14-15.

AREA DEVELOPMENT INCENTIVES, see TAX INCENTIVES, also DESIGNATED AREAS.

AREA DEVELOPMENT INCENTIVES ACT, 135, 175.

ATLANTIC DEVELOPMENT FUND, 115.

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AUTOMATIC FISCAL POLICY, see also FISCAL POLICY and BUILT-IN STABILITY;  
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