CANADA'S ECONOMIC GROWTH IN THE SIXTIES

Remarks by
Mr. J. E. Coyne, Governor of the Bank of Canada,
prepared for delivery at a Conference on Canadian
Studies at Bishop's University, Lennoxville,
March 17th, 1961

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The theme of this Conference at Bishop's University is "Canada in the Fifties", but it was agreed that I might also attempt to peer through the mists of the future and consider what might be the economic situation in Canada during the sixties, and what amount and kind of economic growth we might have by 1970.

Our development in the sixties will to a large extent be conditioned by our development in the fifties either as a direct outgrowth from, or as a reaction against, certain features of the fifties. Our development in the fifties in turn was influenced by events of the forties and the thirties. The decade of the thirties was a long, abysmal period of economic depression, with a slower rate of growth and a higher rate of unemployment than industrial countries had ever endured for such a long period of time, or will ever tolerate again. A considerable amount of invention and discovery and technological development proceeded throughout the period but we seemed to be incapable of making the necessary arrangements in private business, in government and in society as a whole to take anything like full advantage of our economic potential. What recovery was made in the late thirties, ironically enough, appears to have been based largely upon European re-armament in preparation for the second World War. This was particularly evident in the growth of Canadian exports to Europe during the latter half of the thirties. Despite this, commodity prices remained at a very low level and there were large surpluses of wheat and other agricultural and industrial raw materials as well as large surpluses of labour.

The war changed all of this, although it took two years before the North American economy was fully employed. The war presented a big enough challenge and created a sufficient sense of urgency to induce an all-out effort on the part of all of us, organized for a vital national purpose. It was, we must all agree, the most horrible way by which a strong co-operative united national effort could be induced, but it is no wonder that contemplation of what nations can do and have done in war time has prompted some observers to conclude that a nation must find in peace time an equally strong drive and motivation, which has been called the moral equivalent of war, if it is to make consistent progress in fully developing its material and human potential. History records many cases where aspirations for national development have provided an effective dynamic. The building of a nation, a new kind of nation and a better kind of nation, is what has inspired the United States, as it has from time to time inspired the people of Great Britain and France and of each of the other industrialized countries of the world.

During the war Canada went through a phase of large-scale industrial development, as well as enlisting, training and sending abroad hundreds of thousands of soldiers, sailors and airmen. We developed a large surplus of production over our own requirements and exported capital to our Allies in the form of mutual aid, gifts and loans. Studies made towards the end of the war indicate that there was probably no decline in the average standard of living in Canada and the United States despite the magnitude of the war effort. There was, of course, a very considerable reduction in dispersion around the average. Those who were above the average had by reason of taxes and price increases a fall in their standard of living, while those who were below the average had in many cases by the substitution of employment for unemployment and by wage and salary increases which exceeded the amount of price increases, an improvement in their standard of living. In the aggregate, our war effort on the economic side came almost entirely through a taking up of the slack which previously existed plus taking full advantage of opportunities for increased productivity plus some increase in most people's hours of work and in the number of persons entering the labour force who would not normally have been interested in taking employment.

The tremendous expansion of industrial production, largely for purposes of the war effort, offered Canada an opportunity for further progress after the war in the field of modern industry and technology, provided a satisfactory change-over could be made from production for war purposes to production for civilian requirements in peace time. As the war drew to an end many viewed the prospects of such a transition with some anxiety, accompanied as it was by the problem of finding gainful employment for hundreds of thousands of demobilized servicemen. Comprehensive government programmes were adopted to facilitate the transition, and private business and society as a whole co-operated in what turned out to be a remarkably successful transformation of the economy to a state of full employment at a high level of production under peace time conditions, prior to renewed outbreak of war in Korea.

The problems of transition were, of course, even greater in Western Europe where the economies of our Allies had been much more severely disrupted by war, to say nothing of the burden imposed by the need to replace facilities destroyed. The magnificent act of enlightened generosity by which the United States through the medium of the Marshall Plan and in other ways made available to countries of Europe huge supplies of goods out of its own abundant production, together with Canada's contributions by way of post-war gifts and loans subsequent to the long period of Mutual Aid, were an important factor in enabling the transition from war conditions to peace conditions to be made both in Europe and in North America. The countries of Europe, nevertheless, had to overcome in the course of their reconstruction and recovery much greater difficulties in the way of re-establishing their ability to pay for supplies of necessary imports with which to re-organize their own productive facilities, and experienced considerably more inflation of prices than we had to face here. These developments came to a climax in the autumn of 1949 when the United Kingdom devalued the pound sterling by 30% and most other European countries followed suit, although not always by the same percentage.

In Canada we had looked forward to a gradual transition from controlled prices to freed prices without too much inflation. When it appeared that the de-control of prices was going to be made much more rapidly in the United States, and that United States prices and world prices were going to increase to a much greater degree than had earlier been hoped, the Government took the step in 1946 of increasing the value of the Canadian dollar by 10% so as to restore it to the position of parity with the United States dollar existing prior to the 10% exchange depreciation in September 1939. In September 1949, however, it was felt that Canadian export-import trade would be too severely dislocated by the very large depreciation of sterling and other European currencies unless the Canadian dollar were also depreciated to some extent, and the decision was taken---although with reluctance---to depreciate the Canadian dollar again by 10%.

It will be recalled that two years before this, late in 1947, we had gone through an exchange crisis, when it seemed for a time that our exchange reserves might become completely exhausted. The underlying reason for this development was not that we had at the time a deficit in the current account of our balance of payments---in fact we had a surplus, though a decreasing one---but that the amount of gifts and loans which we had extended to our European friends were drawn down at a rate faster than the Canadian economy could provide by way of an export surplus. At that time no change was made in the exchange rate but certain steps were taken by way of temporary import restrictions and by way of stimulus to Canadian production of goods which were being imported in large volume, together with the raising of a loan from the United States Government's Export-Import Bank, which was refinanced one year later from the proceeds of a public issue of Government of Canada bonds in New York. These measures served their purpose, and prior to the depreciation of sterling in 1949 there was reason to hope that the Canadian economy and its balance of payments were in a satisfactory, stable position on the basis of which we could look forward to great economic progress in the decade of the fifties.

The United States economy suffered a recession in 1949 of moderate dimensions which made little impression on Canada and from which recovery had already made substantial progress by the time of the outbreak of war in Korea in June 1950. This was a basic turning point in world affairs and gave a different direction to developments in the post-war period and subsequently. The tremendous increase in defence expenditures on the part of the United States, Canada and Western European countries to which the Korean war gave rise, and from which there has been little reduction since, had important implications for the pattern of economic activity in many countries and especially in Canada. It also imposed a permanently much higher level of taxation than would otherwise have been thought to be conceivable, and for a time threatened by its inflationary pressures a further great loss of the purchasing power which remained in the currencies of the world after the inflation induced by World War II and its aftermath.

The immediate effect on Canada was to increase the demand for our exports and to increase the attractiveness of our reserves of undeveloped natural resources. It gave rise to the tremendous increase in the inflow of foreign capital which became the distinctive and indeed the dominant characteristic of our economy in the fifties. This inflow started immediately after the outbreak of the Korean war, assisted by speculation that the changed situation meant that the Canadian dollar would soon go back to parity with the United States dollar. In October 1950 the Government suspended the fixed rate of exchange and the rate was left free to fluctuate in response to market forces of supply and demand in both the current account and the capital account of the balance of payments.

This new method of dealing with the value of the Canadian dollar, involving the suspension of the Government's commitment to maintain the value of the Canadian dollar at any fixed level, was not too well received by world opinion, but the International Monetary Fund agreed not to regard this as an action requiring any form of counter-measures. By January of 1952 the Canadian dollar, after some months of fluctuation, had returned to parity with the United States dollar, and continued appreciating until it reached a premium of 4% in September 1952.

The very great inflow of capital into Canada continued to increase after the termination of active hostilities in Korea and reached an extraordinarily high level in 1956 from which it has receded very little in the following four years. Resource development continued to be greatly stimulated in Canada at least until the end of the 1955-57 boom. The Canadian dollar continued to fluctuate for the most part at a premium over the U.S. dollar, - sometimes, as in mid-1953 and the end of 1955, returning to parity, but then going into a further period of from 3% to 5% appreciation as in late 1954, mid-1957 and late 1959. There can be little doubt that the inflow of capital and the associated rise in the value of the Canadian dollar encouraged the very great rise which took place in the volume of imports into Canada, and contributed to the deficit in the current account of our balance of international payments which we have had every year since 1949 except for a small surplus in 1952. This deficit reached $700 million in 1955, doubled to $1,400 million in 1956, and has continued since then in the region of $1,100 million to $1,500 million per annum.

We had during the fifties an extraordinarily high rate of capital formation, that is, of the construction and installation of new productive facilities and housing, and new Government projects. In total these have run at the rate of 24% of gross national product in Canada, as compared with only 18% in the United States. Despite this very much greater rate of physical investment in new plant and equipment, we have not achieved significantly better results by way of increased production in Canada than has been achieved in the United States. For the decade as a whole gross national product increased slightly more than in the United States, but since 1956 slightly less than in the United States, and gross national product per head of population has increased less in Canada than in the United States. On the other hand, personal incomes have increased more and personal expenditures on consumption have increased more in Canada than in the United States over the decade. The explanation presumably is associated with the fact that we have developed a very large surplus of imports over exports taking account of both merchandise trade and non-merchandise receipts and payments, and that some part of this increased volume of imports (which we have financed by incurring additions to our foreign debt) has gone to support a somewhat higher level of consumption of goods and services than Canadian production alone (at the actual level attained) would have provided. During this period, of course, Canadian production has increasingly lagged behind our productive capacity, partly because productive capacity increased in some fields of export production beyond the level of export sales which could be achieved, but more generally because the Canadian economy as a whole has failed to adjust itself to, and put into useful production, the continuing increase in the labour force.

Looking back on the decade as a whole it would almost seem that the strong growth which had been envisaged at the start had petered out. Certainly the results in recent years have been disappointing. During the ten years from the end of 1950 to the end of 1960 our population increased by 30%, of which 22% was due to natural increase and 8% to net immigration (the number of immigrants less the number of emigrants) which, however, ceased to be an important factor after 1958. The rapid rise of population, of course, gave a strong stimulus to housing construction and urban development, but the amount of new employment in all forms of activity did not keep pace with the increase in the labour force and there has been what now appears as a persistent upward trend in unemployment ever since 1950. As in the United States, but to a greater degree in Canada, each succeeding wave in the alternation of up-swings and down-swings of the business cycle has ended with a higher level of unemployment than the previous wave whether it is measured at the top or at the bottom level or on the average.

The statistical results for the decade may be summarized as follows: Population increased 30%, the labour force 24%, and employment 20% (1960 average compared with 1950 average). Employment of women increased 47% and employment of men increased 12%. Gross National Product in constant (1949) dollars increased by 45% from \$17½ billion in 1950 to \$25 billion in 1960. Gross National Product per person employed, sometimes called productivity, increased 21% from 1950 to 1956, and thereafter showed little change. Gross National Product per head of population increased 16% by 1956 and has since declined about 5%. Personal incomes before tax (in constant dollars) increased by 57%, and consumer expenditure on goods and services of all kinds increased by 51%.

Increased employment in Canada during the fifties appeared chiefly in the service industries rather than in the goods-producing industries and associated with this it is found that increased employment in Canada appeared more in the case of female employment than male employment.

Undoubtedly one important reason for the slow rise of employment in goods-producing industries, and the decrease in the case of agriculture, has been the great input of capital in the form of machinery and equipment --- the familiar process of mechanization and automation. Unfortunately for employment in Canada, a very high proportion of such machinery and equipment has been imported from other countries, instead of being researched, developed and produced in Canada and providing a "growth industry" for Canada in terms of employment and technological progress. The net import into Canada in 1959 of commercial motor transport, construction machinery, farm machinery, electrical machinery and other kinds of machinery and equipment and parts --- the excess of imports over such limited exports as we can achieve in these fields --- was valued at $1,020 million (at wholesale or manufacturers' prices and before addition of customs duties and excise and sales taxes where applicable). Of this total, net imports of such goods from the United States accounted for $890 million.

A review of developments during the so-called "fabulous fifties" leads to the question, "What went wrong?". With one-third more capital investment each year in proportion to gross national product than in the United States, why did our gross national product not increase significantly more than in the United States? Why did our unemployment rise from a level below that of the United States to a level above that of the United States? Why did we have a continuing balance of payments deficit on a scale no other country in the world has ever experienced? Why did net foreign investment in Canada quadruple from four billion dollars at the end of 1949 to seventeen billion dollars at the end of 1960? Why did our costs of production in secondary industry rise more than costs of production in secondary industry in the United States? Why has secondary industry in Canada producing for domestic consumption languished while a tremendous increase occurred in our imports of the products of secondary industry abroad?

To some extent these questions no doubt suggest their own answers. I have discussed them at somewhat greater length in my Annual Report for 1960. I should like at this time to mention only three or four points in this connection. For one thing, it cannot be said that the failure of Canadian development to keep step with our potential, or to match that of the United States in relation to the amount of new capital employed, was due to inadequate monetary expansion or inadequate size of Government deficits in Canada. From 1949 to 1954 our monetary expansion matched that of the United States and since 1954 we have had an increase of 35% in the money supply in Canada (currency in circulation plus total bank deposits, net of float) as compared with an increase of only 21% in the United States (using the Canadian definition of money supply). In the latter half of the fifties we have also had substantially higher government deficits---combining all levels of government---than in the United States. I cannot believe that anything more massive in the way of monetary and fiscal stimulation of an overall character would have been justifiable or would have been effective in the decade just past, or would be effective or justifiable in dealing with the situation we are faced with in 1961.

Undoubtedly the tendency of the exchange rate to go to a premium over the American dollar has been a factor encouraging increased importation and discouraging Canadian production in the field of secondary industries. It is an extraordinary thing that Canada is the largest market in the world (with the exception of the United States) for other countries' exports of manufactured goods. In per capita terms, of course, our imports of manufactured goods far exceed those of the United States, being $230 per person in Canada in 1959 as compared with $40 in the case of the United States, and $55 in the case of the United Kingdom.

An important element in the total capital inflow which induced the premium on the Canadian dollar and the high level of imports into Canada has been the amount of borrowing of foreign funds by Canadian provinces and municipalities and their agencies amounting to several hundreds of millions of dollars for a number of years in succession. Such borrowings were very small in the second half of 1960 and it is to be hoped will not recur again. The Canadian dollar declined from a premium of 5% in March, 1960, to $1\frac{3}{4}$% in mid-year, rose to 3% in October, but had declined to less than 2% again before the budget of December 20th, and has since fluctuated at a premium of between 1% and $1\frac{1}{2}$% for the most part.

A continuing and growing factor in the capital inflow is the volume of funds coming into Canada for direct investment both in resource industries and in secondary industries, including the buying up on a large scale of existing businesses in Canada which were previously under Canadian ownership and control. The net capital inflow of this character has normally been greater than the amount of funds raised by Canadians borrowing abroad, and in 1960 rose to the extraordinarily high figure of $605 million. This inflow for direct investment has recently been the chief factor influencing the exchange rate. It is too soon to say whether it will be importantly affected by the budgetary changes of last December 20th. This kind of capital inflow is little affected by relative levels of interest rates, and the view sometimes expressed that Canadian interest rates should be lower in order to discourage borrowing abroad would have little effect on this type of capital inflow, the largest of all.

We have not yet come to grips with our very serious balance of payments problem. I mentioned earlier that we have had a balance of payments deficit every year since 1949 with the exception of 1952, that the deficit reached $700 million in 1955, doubled to $1,400 million in 1956 and has continued since then in the region of $1,100 million to $1,500 million per annum. In my Annual Report for 1956 I commented on this development and said, "A smaller total investment programme could be carried out with less reliance on foreign capital and on imports of goods and services, and without any necessary reduction in overall employment in Canada. Apart from physical considerations, an import surplus or balance of payments deficit of the present size is the product and symptom of an excessive rate of spending in the economy, not just of a reasonable rate of real growth. It would be disturbing to think of an import surplus of such magnitude continuing for an indefinite period." It is even more disturbing now, when we find for the sixth successive year an almost equally great import surplus continuing at a time when the Canadian economy is far from fully employed, at a time when we have unemployment of such magnitude that we are lagging in actual production below our potential by more than the surplus of goods imported from abroad. Our problem is no longer excessive total spending, nor on the other hand are monetary or fiscal measures holding down total spending, but rather that too much of our spending, in the aggregate, is spent on goods and services produced outside Canada and providing employment outside Canada instead of in Canada.

The problem of the balance of payments has recently come into prominence in the United States, which has experienced a gold outflow amounting to $5 billion in the last three years. A Report of a special task force commissioned by President-elect Kennedy under the chairmanship of Mr. Allan Sproul, a former President of the Federal Reserve Bank of New York, reviewed developments over the past eleven years. The United States balance of payments problem is of a very different character from ours, and of much less magnitude. For the eleven-year period as a whole, what we would call the balance of payments deficit, namely that arising on current account in connection with merchandise exports and imports and other current international payments, as distinct from capital transactions, was $1 billion. (On non-government account there was actually a surplus of $48 billion, but United States military expenditures abroad of $27 billion and United States Government grants to foreign countries of $22 billion converted this into a deficit of $1 billion with the world as a whole.) During this period, however, the United States had a surplus with Canada on current account amounting to $12 billion. The distinctive feature of the United States balance of payments on current account has been not an over-all deficit with the whole world (as in Canada's case) but a deficit with the world ex-Canada, which was offset almost entirely by a surplus with Canada. In the field of capital transactions, the United States has been a large exporter of capital, particularly of long-term capital, and as the current account was virtually in balance, or in a slight deficit, the export of long-term capital and the export of short-term capital by Americans had to be balanced by an import of short-term capital by foreigners or by an outflow of gold. During the eleven-year period covered by the Sproul Report there was an outflow of mainly long-term investment capital of $ 20 billion. This, of course, was not a loss to the United States but resulted in a very large increase in the foreign assets of the United States, chiefly private foreign investments owned by United States corporations and other investors, and to a considerable extent this took the form of an increase in United States investments in Canada. The total outflow of investment capital, which gave the United States a large increase in relatively high-earning assets abroad, was in the aggregate financed or balanced by other items on the capital account, namely as to $ 6 billion by sales of gold to foreign central banks and as to $ 15 billion by a rise in the holdings of foreigners (mainly Europeans) of United States dollars in the form of bank deposits and other short-term assets and United States Government securities.

In Canada's case, our large balance of payments deficit with the United States represented not a merely regional phenomenon but an over-all deficit on Canada's part with the whole world. Our deficit with the United States in the eleven-year period from 1950 to 1960 was $ 12 billion, which was offset as to only $ 3 billion by a surplus with other countries, mainly in the earlier years of the period.

If the United States had had the same over-all deficit as Canada in proportion to Gross National Product they would have had a net deficit on current account during this period of $ 125 billion instead of an actual figure of $ 1 billion. For the most recent five-year period 1956 through

1960 Canada's deficit on current account with the world as a whole has averaged $ 1,340 million ($ 1,400 million with the United States alone), which is the equivalent in the United States terms of $ 19 billion every year, or as much each year as the total size of the United States gold reserves. We have financed this tremendous deficit in our current account by an equally tremendous increase in our net international indebtedness, to use the official phrase, one effect of which has been to add very greatly to the payments which we must make each year by way of interest and dividends payable to foreign investors. It is very important to realize, in connection with the Canadian trade and payments problem, that it will not be enough for us merely to achieve balance in merchandise trade alone. We have to develop a large surplus of exports over imports in order to meet the deficit in our non-merchandise transactions, including travel, freight, various business services, and interest and dividends payable to foreign investors. The total by which our payments of this character exceed our receipts of the same character (plus our receipts from new gold production) has increased every year since 1949, is now over $ 1,100 million a year, and is almost sure to go on increasing. Certainly the net amount of interest and dividends payments will continue to increase.

I have been a long time in getting to my taking off point for a look at the prospects for economic growth in Canada during the sixties. Before considering what might be regarded as a normal and readily achievable rate of growth throughout the period, it may be useful to consider the initial gap which exists between the level of our production today -- or let us say in the final quarter of 1960 -- and the potential production which should be possible with our labour force and physical capacity under conditions of reasonably full employment. This subject has recently been discussed in some detail in relation to the United States by Mr. Walter Heller, the new Chairman of the Council of Economic Advisors, in evidence which he gave before the Joint Economic Committee of the United States Congress. He considers that in the final quarter of 1960 with a seasonally adjusted rate of unemployment of 6.4% of the labour force, G.N.P. in the United States was 8% lower than would have been the case if the unemployment ratio had been only 4% of the labour force. I will not go into the various elements of increased productivity which Mr. Heller thought would operate if unemployment were reduced to 4%.

In Canada we had in the final quarter of 1960 a seasonally adjusted unemployment rate averaging more than $7\frac{1}{2}$%. If Mr. Heller's calculations were applied to Canada, it would seem that a starting point for estimating growth in the sixties would be a taking-up of the slack existing at the end of 1960 amounting to approximately 10% of G.N.P. or $3,500 million per annum.

In addition to this, the normal rate of growth at reasonably full employment should average in Canada somewhat more than 4% per annum compounded over 10 years, so that the total output of the Canadian economy by 1970 could be of the order of 70% greater than the rate of output in the final quarter of 1960. Contributing to this increase in output is a probable increase of about 2% per year in the total population and a slightly larger rate of increase in the labour force, combined with a rather moderate estimate of possible increase in overall productivity, that is, output per person employed. At reasonably full employment this could average 2% per annum in Canada. This is also the rate of increase in productivity which is contemplated as a normal and achievable goal for the United States in the next decade or two.

The increase of overall productivity comes from a number of related developments. It is partly a question of expanding total productive capacity in the more advanced types of industry with high productivity per person employed. Of equal importance is the replacement of old productive facilities in all industries with newer, more efficient facilities, for which there is very great scope even on the basis of technological developments already incorporated in recent new capital investment. In addition, further increases in productivity can come from new technological progress, much of which already exists in the laboratory and on the engineer's drawing board, at least in other countries if not to the same degree in Canada. Failing adequate development in Canada itself, we shall have to draw upon the technological resources of other countries, as we have in the past. Finally, and according to some studies perhaps the most important factor of all, there is the question of the human element, the productive capacity of the people engaged in economic activity of all kinds, to which I shall refer later.

In the economy of 1970, with our population 21% greater than in 1960 and with an increase in the rate of total output of say, 70% (as compared with a rise of 45% in the fifties), the average family income would be higher by more than one-third. Total consumption of consumer goods and services would be at least 60% greater in physical volume, or over 30% higher per person, than in 1960. Private capital expenditure each year on new fixed assets including plant, equipment and housing could be expected to rise 55% or more above the 1960 level. Our total exports and other current international receipts might be 60% higher and be able to balance our imports and other international payments combined at a level 37% higher than in 1960, without any net import of foreign capital. As payments of dividends on foreign investments already existing in Canada are expected to rise substantially in the years ahead and other payments of a non-merchandise character may also rise by considerably more than 37%, the achievement of balance in our international payments may require that imports of goods should not rise as much as 37%, although some rise in total imports is to be expected.

If these forecasts or assumptions about the distribution of the increased output were realized and there was a normal growth of inventories, the remaining major category of expenditure, the combined current and capital expenditures of all levels of governments would be 50% to 60% higher than in 1960. The tax system as a whole---federal, provincial and municipal combined--- is such as to produce a large increase in revenues under conditions of full employment and rising G. N. P., so that by 1970 there should be scope for balanced budgets or a moderate surplus at the assumed level of expenditures after some reduction of average tax rates.

Can we in fact achieve such goals? A preliminary question of course is whether Canada can achieve by its own efforts adequate savings to provide the annual additions to fixed capital investment that would be a necessary factor in increasing productivity. I think it is quite clear that so far as mere quantity of saving and investment is concerned, this is well within the capacity of the Canadian economy as evidenced over the past ten years. The rate of saving in the Canadian economy has been about 21% of G. N. P. or somewhat more than the aggregate rate of saving in the United States. It is true that our rate of personal saving has been 1% or more below the rate in the United States, but when all forms of saving including corporation undistributed profits and depreciation allowances earned by industry are included, the Canadian rate of savings in the aggregate has been somewhat greater than in the United States. Moreover, as is well known, the United States devotes some of its savings towards providing capital for various other parts of the world. So far as increased productivity is dependent upon additions to capital investment at home, therefore, we are in a definitely better position than in the United States to expect to achieve an annual increase in the rate of productivity of the order of 2% --- all by ourselves, without requiring or relying on any net import of capital provided from abroad out of the savings of other people. The adequacy of the Canadian rate of saving to contribute to productivity increases and overall production increases at least as great as in the United States cannot be doubted.

There is, however, a further factor which may well be of greater importance than mere additions to physical productivity capacity. This has to do with the abilities and talents and technical training of human beings, the stock of human capital as it is usually called, as measured by not just so many units of population but by the capacity to participate in modern industrial production. Here it seems probable that we have lagged seriously behind the United States in the past, and should make an all-out effort to keep pace or if possible close the gap in the future. This requires a comprehensive improvement in the quality of education and technical training at various levels, --- the provision of a better general education to a more advanced age for all sectors of the population, and the provision of university education and technical education for a much larger percentage of those reaching the relevant age than we have ever achieved in the past. The number of young people receiving university education in the United States, for example, is three times as great in relation to population as the corresponding number in Canada.

We have also lagged seriously behind in industrial and scientific research, particularly applied research. Canadian government bodies have endeavoured to overcome some of this disparity, and about as much is done (proportionately) in Canada under government auspices as is done in the United States and the United Kingdom under government auspices. Private industry in Canada, on the other hand --- and it must be remembered that the great majority of our largest companies are owned and controlled in the United States and other countries outside Canada---has not in many cases done very much in the way of research in Canada whether in respect of materials,or processes,or the development of new machinery,or technology generally. Private industry's total expenditures for research and development are estimated to be only one-quarter as much, in proportion to national income, as expenditures of this character by industry in the United States or in the United Kingdom. We do not, indeed, produce in Canada very much of the modern machinery and equipment or develop much of the technology upon which we must depend for increasing productivity in our industry. We need more research, more product engineering, and a vast development in the capital goods, machinery and scientific equipment industries and many other fields of manufacturing. All of this requires a forthcoming attitude on the part of private business---foreign-controlled as well as domestic --- and the stimulus of market opportunities and an overall economic policy suitable for the job which needs to be done. We need a great expansion in employment opportunities for young Canadians who are best fitted to take an active and leading role in scientific development and its application to industrial processes, and in the responsibilities of management, --- and we need the kind of atmosphere of encouragement, approval and indeed of excitement in such fields of employment which will attract more and more of the best qualified and trained Canadians into making their career in such occupations.

These developments will not come about by accident. They require forward-looking action on the part of all of us, private individuals, business enterprises and government bodies of all kinds. They cannot be achieved unless Canadians resolve to take their destiny into their own hands, and put an end to the kind of trends which were increasingly prominent during the fifties and which, if they continue, threaten to bring about even greater subordination of Canadian industry to foreign ownership and control and the channelling of our economic development along whatever lines seem most to suit the interests of the foreign owners.

I am ending as I began on a note of nationalism. Canada was established as a nation, not as a natural economic unit. The very idea of Canada implies nationalism at its root, and nationalism is nothing if it is not an expression of emotion. Nationalism is not inconsistent with internationalism, any more than strong family ties are inconsistent with nationalism, but nationalism is a vital force in its own right as well as a valuable force for bringing about more international understanding and co-operation throughout the world.

Most Canadians are firm believers in the adage of Abraham Lincoln that self-government is better than good government. In economic and social terms, self-development is better for the rounded life and continued vigour of a nation like Canada, and will do more to satisfy national aspirations of every kind, than the most ideal kind of purely economic development, if the latter involves perpetuation of large deficits in our balance of payments, continued reliance on endlessly growing foreign debt, and a continuously shrinking proportion of industry under domestic ownership and control. To achieve our goals we must solve our balance-of-payments problem with the outside world, and especially with the United States, and rely on our own resources, not only material factors, but resources of the human mind and spirit, in order to build our own economic future and our own expression of national independence.

If we wish, we can undertake and bring to a successful conclusion a concerted national effort to restore growth, flexibility and progress to the Canadian economy --- to achieve greater diversification of Canadian industrial and technological output --- to bring about an increase in employment of sufficient degree to absorb the present number of unemployed and the continuing additions to our labour force year by year in the future --- to maintain the soundness and real value of our currency --- and to renew and increase a progressive upward trend in the standard of living of the Canadian people.

The fundamental question which we must decide one way or the other for ourselves, is whether we are prepared as a nation to live by our own exertions, to save out of income what we think we need for future growth and development, and to finance and control our own development to such a degree that the Canadian interest in Canadian industry shall in future increase, instead of continuing to decrease. Adherence to such principles is not in any way prejudicial to full employment or to a steady rise in the standard of living. There is nothing foolish or sacrificial of our own best interests in pursuing policies which may be called living within our means, or standing on our own feet, or some other homely phrase based on hard work, frugality, self-respect and pride in maintaining our independence and being master in our own house. It is a personal question for decision by all Canadians. It is a question which I believe goes to the heart of the effort which our predecessors started so many years ago, --- to establish, develop and safeguard a nation, extending across the northern half of this continent, which, while living in the greatest friendship and harmony with our neighbours to the south, would yet remain independent, vigorous and self-confident in all aspects of national life.