Investment and Prosperity

By O. J. Firestone

COUCHED in the terms "full employment" and "social security" the problem of postwar reconstruction in Canada has received considerable public discussion. Nor has it been unobserved by the Dominion Government, as can be seen from the Speech from the Throne on January 27, 1944, which declared for "useful employment for all who are willing to work, standards of nutrition and housing adequate to ensure the health of the whole population; and social insurance against privation resulting from unemployment, from accident, from the death of the bread-winner, from ill-health and from old age." The legislation passed in Parliament during the last session, both in the economic field (Export Credit Insurance Act, Industrial Development Bank, National Housing Act) and in the social field (Family Allowance Bill), provides at least part of the framework for a postwar economic policy designed to assure a National Minimum for the Canadian people. Accompanying the legislative program of the Dominion Government has been increased activity on the part of provincial governments, which, within the sphere of their responsibility, have been lining up programs designed to improve the well-being of their citizens, to enlarge the existing public facilities, and to conserve the natural wealth of the areas under their jurisdiction.

That all this activity found the approval of the overwhelming majority of the Canadian people is perhaps best illustrated by the results of a recent Gallup Poll which revealed that 65 percent of Canadians interviewed were of the opinion that government (Dominion, provincial and municipal) "should take the lead in setting up and carrying out plans to provide postwar employment" only 23 per cent said that industry and business should take the lead and 12 per cent were undecided. But this does not necessarily imply that there is little need for individual planning by private citizens in all walks of life. On the contrary, such planning has to go hand in hand with official preparations if a continuing expansion of the Canadian postwar economy is to be assured. Fortunately this view is finding increased recognition by all groups, including industry, the professions and labour.

Although there is general agreement on the desirability of raising the general standard of living in Canada and of assuring a steadier level of employment in the future than was experienced before the war, the best means of achieving this goal has, of course, been the subject of some controversy. The pointed remark has been made recently, for example, that the problem is not entirely, and indeed may not even be mainly, one of economic analysis; the most important question may be a social or political one—whether the desire for full employment is so compelling that people will be willing to subordinate personal and group interest sufficiently to achieve it.[1]

Is Productivity the Key?

In the field of economic policy it may well be asked whether full employment and social security are our only major objectives, or whether by concentrating our energies on these two aims alone we may lose sight of another goal with which the first two mentioned are closely connected and which is not less important.

Social security, as interpreted by modern economists, goes beyond the narrow conception of social insurance against privation. It is, as was pointed out recently, directed at a National Minimum—seeing that no citizen is al-

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1. J. R. Beattie, *Some Aspects of the Problem of Full Employment*, Canadian Journal of Economics and Political Science, Toronto, August, 1944, p. 328.

lowed, for any reason, to fall below a standard of welfare defined, in the main, in terms of food, housing, education and health and, for the rest, in terms of cash income.[1] Full employment aims at a desirable and steady level of employment and a full use of our human and natural resources. It depends on the regularity of the national income, which is conditioned by adequate social security provisions and a steady level of investment. But increasing **productivity**—that is, increasing output per manhour—is also needed if there is to be a steadily rising standard of living for everybody in the country. This fact is clearly recognized in Great Britain and finds expression in the White Paper on Employment Policy: "to maintain and improve our standard of living there must be steady progress in the efficiency of our industry as a whole."

If the re-distribution of the national income necessary to guarantee social security were to be provided, not out of an increment of prosperity but out of the present standards of the majority of the people, real social security would be very difficult to achieve. Similarily, in planning for full employment, we must bear in mind that we do not want to achieve it at the price of a high standard of living. It can be argued, of course, that this situation is not likely to arise simply because in peace-time we never made full use of our human and natural resources for any length of time. And during the last few years our civilian needs were produced by a smaller number of people than before, with perhaps 1.7 to 2 million persons being in the Armed Forces or working either directly or indirectly on war requirements. When these people are put to work on civilian production, they will contribute to an increase of our peace-time output.

Nevertheless, we must not lose sight of the third goal which has been called that of increasing productivity, or more simply that of increasing wealth. Past ages have regarded it as being in itself the whole of the economic problem. Our more complex age has raised the other two almost to the same level of importance —"almost but not quite, for wealth is the essential prerequisite for full employment or the National Minimum."[2] This argument holds good perhaps more for Great Britain than it does for Canada and the United States. The United Kingdom has suffered great physical destruction and, as pointed out later, has, if compared with the United States, remained behind in industrial development in the past few decades. However, no country is in the position to maintain its industrial progress if it does not keep its productive equipment intact and endeavour to expand it. If, therefore, full employment and social security are to come within the reach of the next generation, there is need for a "policy of wealth" directed at assuring that the quality of goods produced and consumed be as high, and the quantity as large, as possible.

Productivity Differentials

The question is often asked why the average worker in one country produces more in one hour than a fellow worker in another country. Many answers are given, most of which, though they may have some bearing on the degree of productivity, are far removed from the fundamentals of wealth-creating activity. The availability of natural resources, the size of the domestic market, transportation facilities, climate and national characteristics are among the reasons given. It is frequently overlooked, however, that the most important factor determining a country's wealth is the quantity of real capital available, that is the machinery, technical equipment, factories, hydro electric development, and transportation facilities (railways, shipping, docks and harbours, roads and bridges, airports,

1. *A Policy for Wealth,* The Economist, London, August 19, 1944, p. 236.

2. *The Economist*, op. cit., p. 237. For a very lucid discussion of the various problems involved, see also the issues of August 26, Sept. 2, 9, 16, 23, 30, Oct. 7 and 14, 1944.

etc.) This in reality determines the quantity and quality of goods and the time within which a nation as a whole can produce all it requires to achieve a desirable standard of living. There is general agreement, for example, that the enormously greater productivity of the Britain of 1944 as compared with the Britain of 1744 is due to the great accumulation of productive capital in the last two hundred years; in the United States the Industrial Revolution has been carried even further than in Great Britain; and the Soviet Five-Year Plans are nothing but an immensely accelerated and intensified application of the Industrial Revolution to a country that it had passed by. The poverty of India and China is at least in part to be explained by the fact that there man labours almost totally unaided by the machine. "The formula Horse-Power per head-Wealth per head may not be strictly accurate; but it is a most enlightening first approximation."[1]

British, American and Canadian Experience

That great productivity differentials exist even among highly industrialized nations, there is no doubt. For the past decade or so, productivity per man hour increased in Great Britain by an average of 1.5 per cent annually as against 2.5 per cent in the United States.

While no comparable figures are available at present for Canada, national income on a per capital basis can be used as a rough gauge of differentials in output between this country and its neighbour to the south. In 1939, the last pre-war year, when we used only about three-quarters of our productive capacity, national income per capita amounted to $404 in Canada as against $541 in the United States. Even if account is taken of differentials in purchasing power, the average share of the American in his country's output was more than one-quarter larger than that of his Canadian neighbour.

1. "The Origins of Productivity," *The Economist*, London, August 25, 1944, p. 269.

The Impact of the War

Since the outbreak of war, Canada's industrial efficiency has increased at a rate unsurpassed in her history. Because of the efficient use of new machinery, equipment and plants, the practically unlimited supply of electric power, and a rapidly increasing skilled labour force, Canada has, at least in some industrial fields such as chemicals, and certain instruments, equalled the United States in increased productivity.

A measurement, though admittedly rough, of our war-time increase in industrial efficiency can be gained from a comparison of changes in employment with those in the volume of output. During four years of war, for example, the index of manufacturing went up by 178 per cent while employment rose in the same period by only about 99 per cent. This means that while there were, in September, 1943, almost twice as many people employed as in September, 1939, the volume of goods produced in the former month was nearly three times as much as that of the latter.[1] Of course, increases in the number of hours worked were an important factor, but modern equipment and proper training of workers were of no lesser significance.

Since much of this advancement has been brought about by the exigencies of war, it will be no easy task to carry it over to post-war years; and yet, while Canada can well be proud of her war-time industrial accomplishments, there will even be a need for encouraging further productivity increases, in order to assure as high a degree of production after the war as skilled hands, trained brains, up-to-date machinery and productive facilities will permit.

Investment and National Income

If we agree that a rising standard of living depends to a great extent on our ability to use all our resources and increase the productivity of the nation and that

1. *Industrial Reconversion*, Engineering and Contract Record, Toronto, December 29, 1943, and January 5, 1944.

the latter can be accomplished by increased investment in machinery and productive facilities to be used by a labour force whose efficiency and skill can be improved by proper training, then there remains to be examined the role of investment as a factor influencing the level of our national income ("national income" is used here in the sense of real national income—the sum total of all goods produced and services rendered). The term investment as used here denotes in the first place production of capital goods such as equipment, machinery, building, etc., but it includes also an increase in inventories of commodities either in process of production or held as stock for future sales. Other forms of real investment, often not recognized as such because they are intangible, are outlays on education and health measures which can be important factors in improving production. Social security provisions, perhaps with the exception of old age pensions, tend all in the same direction. It is important to realize that besides its social aspects, social security is an investment in the well-being of the people of the country, aiming at making them better and more efficient citizens.

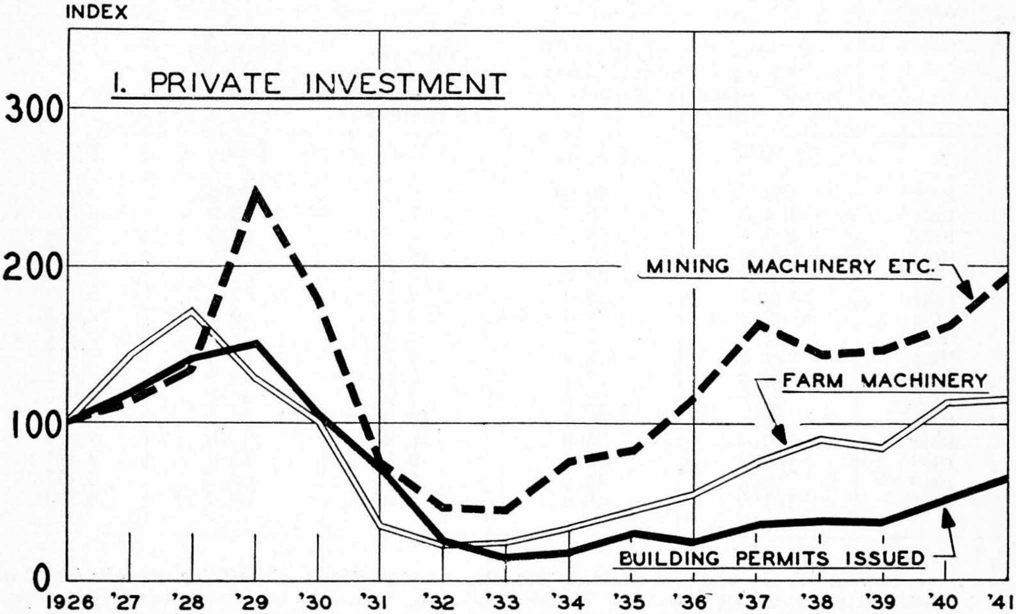
Private and Public Investment

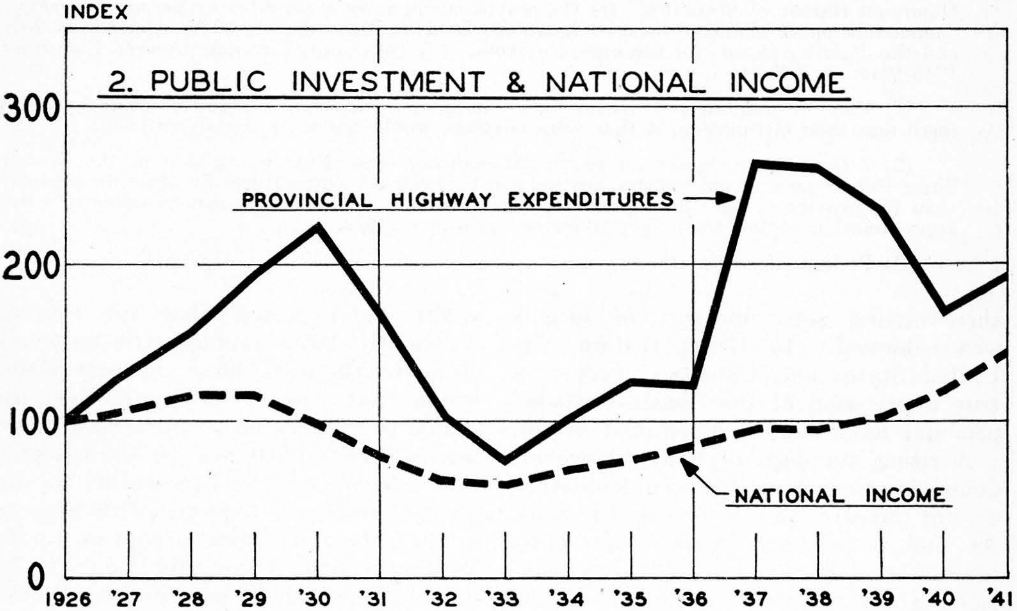
Real investment in private industry does not take place at a constant rate. It is subject to arbitrary changes, its level being determined by future expectations and not necessarily by present business activities. (Social security which is an important element in setting the level of consumption, would mean an assurance of a steadier market for a number of commodities than businessmen could anticipate hitherto.) In the absence of an assured market an arbitrary decline of real investment is unavoidable with the result that our whole economy is affected and business conditions are depressed.

In this respect, our experience in Canada in the last two decades has been similar to that of other countries which have made great industrial progress, including Great Britain, the United States, Sweden and Germany. Investment outlay fluctuated greatly and was accompanied by substantial changes in the level of the national income and employment. This is also illustrated by sample figures assembled in Table 1. Construction activity (as indicated by the value of building permits issued in 58 cities) declined in 1933 to about one-tenth of the level of 1929. Internal supply (i.e., the aggregate of domestic production and imports minus exports) of farm and mining machinery declined in the same period to about one-fifth. As private investment declined, public investment followed suit, as illustrated by figures on highway expenditures which fell to somewhat more than one-third of their former level in four years (see Figure I). The result was that our national income was, in 1933, about half that of 1929. Even if account were taken of price changes in this four-year period, the situation had greatly deteriorated because our population was increasing by about 100,000 persons per year and the smaller output had to be divided among more people. The recovery phase from 1934 onwards is characterized by a complete reversal of the trend—increased investment outlay accompanied by a constant though hesitant rise in the level of national income.

Public investment, as illustrated by the figures in Table 1, has in the past followed closely the pattern of private investment, and has accentuated the booms and slumps of our economy by contributing to a too rapid expansion of capital equipment in prosperous times and to a falling off of capital development in times of business slump. It is clear, then, that if we are to mitigate the effects of depression in the future we must adopt a public investment policy which aims at keeping total capital development (public plus private) as steady as possible, by decreasing public investment when private investment expands too rapidly, and increasing it when private investment falls off. In countries like Sweden and Denmark, where actual attempts were made in this direction in

FIGURE I. TRENDS OF PRIVATE AND PUBLIC INVESTMENT AND NATIONAL INCOME, CANADA: 1926-1941





The two figures illustrate in a convincing way the statistics given in Table 1. The method of index numbers is used, the situation in 1926 being taken as a basis for comparison and set at 100. The curves show the deviation from the basic year.

TABLE 1. TRENDS OF PRIVATE AND PUBLIC INVESTMENT AND NATIONAL INCOME IN CANADA, 1926-1941

Year	PRIVATE INVESTMENT			PUBLIC INVESTMENT	NATIONAL INCOME
	Value of building permits issued in 58 cities[1]	Internal supply of farm machinery tractors and wagons	Internal supply of mining machinery and equipment	Provincial highway expenditures[2]	
	$ Mill.	$ Mill.	$ Mill.	$ Mill.	$ Mill.
1926	156.4	40.0	6.1	36.5	4,507
1927	184.6	56.7	7.0	45.9	4,738
1928	219.1	68.1	8.3	57.3	5,269
1929	234.9	51.7	15.1	70.5	5,273
1930	166.4	40.6	10.9	81.9	4,452
1931	112.2	13.4	4.7	61.6	3,580
1932	42.3	8.6	2.9	38.1	2,813
1933	21.8	9.4	2.8	27.6	2,723
1934	27.5	13.2	4.7	36.6	3,147
1935	46.6	17.1	5.1	45.8	3,371
1936	41.3	22.0	7.2	45.0	3,827
1937	55.8	30.5	10.0	96.4	4,368
1938	60.8	35.9	8.8	95.0	4,291
1939	60.3	33.8	9.1	85.9	4,554
1940	80.3	45.0	9.9	62.2	5,404
1941	101.0	46.6	12.0	69.9	6,500[3]

Source: (*a*) On value of building permits, *Annual Report of Building Permits issued in Canada*, 1943, Dominion Bureau of Statistics, Ottawa, 1944. (*b*) On farm machinery, tractors and wagons, mining machinery and equipment, by courtesy of Business Statistics Branch, Dominion Bureau of Statistics. (*c*) On provincial highway expenditures, *Report of the Royal Commission on Dominion-Provincial Relations*, Ottawa, December 1, 1938, Appendices B-K, and the *Public Accounts* for the nine provinces. (*d*) On national income, *Canada Year Book*, 1943-1944, p. 797.

(1) Value of building permits for public buildings included in this series is comparatively small and their elimination, if that were possible, would not alter the above trend.

(2) Although the figures on provincial highway expenditures available in the Rowell-Sirois Report provide only partial coverage in that related expenditures by other departments than the provincial highway departments are often not included, they can be taken as a first approximation of the trend of provincial highway outlays.

(3) Preliminary estimate.

the "thirties, some measure of success was achieved. In Great Britain, the United States and Canada, however, a true application of the "balance-wheel" principle has not been attempted as yet.

A rising standard of living, however, demands more than this complementary use of private and public investment. As our population grows, both must increase together to give a steady expansion of the capital equipment of the country.

A nation can increase its capital equipment by investing funds borrowed abroad or by investing domestic savings. It might be expected that in Canada sufficiently large savings will be available after the war. Every measure which would put them to productive use should be encouraged. Appropriate measures in the fiscal field (e.g., ample depreciation allowances, tax concessions for industrial research, together with changes in the rate of taxation according to the level of economic activity) and in the monetary field (e.g., easy credit facilities for new industries) would go far to encourage increased private investment. Social security provisions which, by way of assuring a National Minimum, create a larger demand for consumer goods, thus expanding the market for the producers and the distributors of these goods, would also have some stimulating effect on private investment.

Another potent measure for directing the savings of the nation into productive channels is the use of *public investment.* It is mainly applied for the creation of durable or capital goods. While their production may not result in more employment than the production of consumer's goods, it is widely assumed that investment in capital goods has a more lasting effect on the productiveness of the country.

Public investment financed by borrowing would provide more stimulus to employment in the economy than a simila rinvestment financed through taxation. The degree of difference of the stimulus provided would depend on how much of the taxes imposed for investment purposes would be paid out of what otherwise would have been saved. In Canada, the view is held, particularly in the provincial and municipal fields, that it is legitimate to finance capital outlay of a long-term nature by borrowing. This view is shared by a number of economists, who believe that the financing of public words by borrowing is desirable, especially when business conditions are depressed.

Most people think of public investment only in the narrow sense of public works. Unfortunately the term "public works" has been associated with the makeshift projects of the depressed 'thirties, so that its use in connection with public investment gives rise immediately to hostile associations, and tends to discredit a priori the virtues of a public development program and to obscure its necessity as part of a broad scheme aimed at stabilizing the economy *and* improving the standard of living.

Sometimes private investment is classified as "productive" and public investment as being largely "unproductive." Investment in machines, equipment and plants is said to be more productive than public investment in, say, slum clearance, hospitals, roads, and better educational facilities. The view is held that the latter may be useful in themselves, but do not enhance the wealth-producing capacity of the community. From a long-term point of view, however, this argument does not necessarily apply. One has just to imagine the plight of our economy if we had no roads, or if we had no schools in which to educate the men and women who produce the wealth of the community. That poor housing and lack of health facilities undermine the worker's ability to produce, has been established by many investigations. The real measure of whether an investment expenditure is productive or not, is not dependent on considerations of immediate financial returns but rather on the actual contribution to enhance the productive capacity of the economy. Thus public investment if made wisely can be just as "productive" as private investment.

It is sometimes said that an important difference between business expenditures and governmental expenditures is that the former are self-sustaining while the latter are not. This assertion, however, is not true. No private business can sustain its sales volume unless the outlays of other businesses and the government continue to feed the income stream. Nor is private business as a whole self-sustaining. The sales receipts of private business, no less than the tax receipts of government, depend upon the maintenance of a high national income. And the outlays of government can and do contribute to a sustained national income, no less than the outlays of private business.[1]

One of the main purposes of a public investment program, then, should be to improve the physical assets of the country, including, besides roads and public buildings, extensive air transport facilities, irrigation and power development schemes, rural electrification, reforestation and soil conservation, housing and slum clearance, hospitals and health centres, educational and community facilities.

It is true that in mapping out an investment program for the immediate post-war period, priority considerations may arise because of possible shortages of some materials and skilled workers. The need for certain types of capital investment such as the construction of military hospitals and the reconversion of plants, will be immediate. But projects of a long-term nature, even if on first sight they may not appear as urgent as the others, must not be neglected. For by making at least a start on several long-term projects such as slum clearance, irrigation and reforestation, we would then find it very much easier to expand activity to the desired level if considerations of a full employment policy make it necessary to increase substantially investments in this type of project.

Balance Between Investment and Consumer Outlay

In looking at the development of our economy from a long-term point of view, some economists maintain that opportunities for new investment of a desirable type in Canada, both private and public, are not likely to be large enough to absorb the total savings of the community, and that this will have depressing effects on the employment situation in the future. The solution to this so-called "mature economy" problem is, it is said, to devise ways and means of decreasing total savings. Social security measures, for example, can "restore the balance" both by redistributing income (family allowances) and by lessening the need for saving (health insurance and old age pensions). In this way total investment as a proportion of national income will be reduced—although it might be still larger in absolute terms—and consumption correspondingly increased. The "mature economy" thesis, then, can give strong support to other arguments for the subsistence minimum.

Insofar as the argument is used in this way it is constructive, but the dangers of overstressing it must not be overlooked. It is theoretically possible, of course, to visualize a state of affairs where, assuming consumer behaviour remains stable, there would not be enough avenues for investment, both private and public, simply because we have all the up-to-date machinery, plants, transportation and other facilities we need to produce all the consumer goods required, and that it would, therefore, be necessary to induce the community to consume more and save less. But in reality such a state of affairs is not likely to be faced in Canada for a good many years to come. If it were true that there are not available sufficient outlets for new net investments, both private and public (net investment equals total investment minus replacement in-investment) then all efforts to maintain employment at a desirable level *and* to expand the standard of living for the whole community would have very little prospect of success.

It is important to get our postwar perspectives straight. The contributions which a comprehensive social security program can make toward the achievement of full employment has rightly been stressed. There is no doubt that besides social considerations many of the economic arguments brought forward in its favour hold good, and that every effort should be made to make social security provisions as comprehensive as possible; but a social security program does not preclude preparations for an extensive investment program, both private and public, as further means of obtaining and maintaining full employment. There is little doubt that our utmost efforts must be directed towards both ends if full employment in peacetime is to be accomplished at all.

Our present standard of living has been attained through the years only by a gradual process of growth through capital accumulation and technological development. Care will have to be taken that this trend is maintained.