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Some Aspects of National Prosperity

BY DR. H. M. TORY, F.R.S.C.

VICE-PRESIDENT SMITH:—Gentlemen, I need take very little time to introduce Dr. Tory. He is very well known to the Canadian Club of Toronto and indeed to audiences throughout the whole of Canada. As President of the University of Alberta he was leader of a group of men who in an amazingly short time, as such things go, created one of the great provincial universities, which is now a very important factor in the life of the western province. In his new position as President of the National Research Council we are quite confident he will have equal or even greater success.

Dr. Tory is going to speak on "Some Aspects of National Prosperity", and I hope in the course of these remarks he finds some time to tell us about the intimate relation of scientific research, fostered by both national and provincial governments, to that prosperity. Dr. Tory.

DR. TORY:—Mr. President and gentlemen, I had some doubt as to the subject upon which I was to speak to you. As a matter of fact I have spoken so often on the scientific subject that I have almost become loath to speak about it to a public audience for fear I will be regarded as a bore. So I was rather happy to be able to suggest a change of subject and, even though I have made that change, it would appear from the President's remarks that you expect me to say something at least about the work of the National Scientific Research.

Now the topic I suggested, "Some Aspects of our National Prosperity", perhaps came to me as a result of things that have taken place recently and as a result of a very

unpleasant memory that I have of certain things that took place some years ago. I remember in the year 1907 when I first went to Western Canada, when the panic of 1907 had passed through the United States and reached Canada, that a very gloomy prospect faced me. I went at the beginning of the year 1908 to undertake the organization of the University of Alberta. I carried with me in addition to the ticket I purchased to take me to Edmonton, a check for \$250 to meet current expenses as I went along, and when I deposited that check in a bank in Edmonton the bank manager came out to see me and to thank me for making that deposit. I have since had interviews with bank managers where I did not receive the same cordial reception. But the panic of that year was so great that it had created such a lack of floating funds that even that \$250, deposited in an important branch bank of one of the great Canadian banks, was regarded as a welcome deposit.

In 1929 a similar sort of thing might have occurred and the only reason it has not occurred was because conditions under which the work of the business world is carried on have changed enormously since 1907. I have no doubt, for example, had the federal reserve bank been in existence in 1907, with its scheme of co-operation with the smaller banks, and the easy methods it has since devised of distributing the financial strength of the country over the various units of the country, that a good portion at least of the panic of 1907 might have been averted.

Well, that led me to ask myself this question: Is it possible that we may have something in the way of a great permanent basis for prosperity? Are we in a position to say that if common sense and good judgment were applied that these extreme positions in which we found ourselves occasionally might be avoided? That led me to make a little inquiry for my own satisfaction, primarily as to the sources upon which it is possible to found national prosperity and the possibility of so regulating the business and industrial processes of the country that we may hope for substantial steady growth and development in our country without panic. So I asked myself, what are the things necessary to the founding of permanent prosperity? Now when one asks oneself that question, the first thing you have

to look at is the normal reserve conditions of your country. Some years ago I made a little study viewing it from a historical point of view of the things that were essential if a country was to reach a reasonable stage of civilization at all, and I put these things in tabulated form and I propose reading them to you. I have no explanation for the reasons. I think most of them will be apparent to you. The question I asked myself was: have we in Canada the national conditions to make a civilization? I say, have we the natural conditions that lead us to suppose we might be in a permanent position of a people normally prosperous and advancing stage by stage. And the second thing I asked was, have we these things in such abundance that we can hope to enter into keen competition with the world of today in commercial and industrial matters with fair and reasonable hope of success, holding our own on a basis of honest business against other peoples of the world? And when I asked the question I said, there are certain things we need, and I will just mention them, and you will find that we have them in abundance.

A country to be prosperous must be far advanced in industrial life and in control of the markets of the world, and even if she were advanced in industrial life and had control, the changing policies of governments are so constant that the control of the markets of the world cannot be guaranteed to any nation. I say she must have land upon which to grow all her food supplies; the climate necessary to produce these supplies; the natural resources of mine and forest capable of supplying the necessities, with a surplus capable of being turned into wealth; a country large and varied enough, and with population sufficient to create internal competition that makes culture possible; and to be so situated as to have communication between the parts; and a people virile enough to use what they have, intelligent enough to make themselves independent and progressive enough not to fall behind in the race for and use of knowledge. I mention those merely to emphasize the fact that these things belonging to nature, which every country must possess if she is to have the possibility of a normal natural progressive development, are really within the reach of us as Canadian people. And in making a comparison of the

significance of these from the point of view of our competition with other nations, I am convinced myself, and I believe I could convince you, that with a reasonable use of intelligence, with a constructive attitude toward the use of our natural resources, we are in a position to enter into competition for the things which we produce with any people in any part of the world. Whether we do that or not is a matter which really must in the long run rest with us as a people.

And then if I were to inquire if we have the virile stock, I know at once I am on rather delicate ground and I feel like paraphrasing a remark made by the Prince of Wales the other day in the address at the dinner to the V.C's. He said, "It is not our custom to bring men together to tell them how brave they are," and I am sure if I paraphrase that and say, "It is not our custom to bring Canadians together to tell them what virile fine fellows they are", you will agree it is wise not to do that. But any man familiar with the history of Canada, with the history of Ontario, the banner province of this country, who recalls what has been accomplished in the last one hundred and fifty years in this country; when we think of the forests that have been turned into meadows, the schools, the churches, the towns, the cities, the farms, the civilization that has been developed in this country in a short period of one hundred and fifty years, at least we can say this, that the founders of the civilization represented here today were men whose traditions we can hope for nothing better than that we should be worthy of. And if we are worthy of them, if we will add to the heritage that we have, as they added to the heritage which came to them, then there is not the slightest doubt but we will show the kind of spirit which will enable us in the competition with the world, to hold our own and keep our place. If we look back over the years, we have had a phenomenal development of prosperity on the North American continent and if you ask yourself what were the causes that led to this prosperity, which we shared a little later than our American friends but which today we are sharing a little greater than they are, you will find there were certain forces at work. Of course the United States inherited the tremendous industrial development that the

war gave her and she started in 1921 with her new development in an enormously strengthened position financially in competition with the world. She found herself from being a borrowing nation practically to being a great lending nation and that is seen by the fact that today they are seeking widely to carry investments into foreign countries. But the fact remains that there was a certain psychology at work which led to a certain kind of development that has been abnormal in the United States, in any civilization. I would refer to the enormous expansion of business and of employment that grew out of the great capital expenditures that had taken place in the United States of recent years and in Canada since 1921.

I just put down a few figures to show you what this amounts to. The total value of capital expenditure in building in the United States in 1914—I am taking the American figures because tabulated figures are more easily obtained, but the Canadian figures run parallel—the total capital expenditure was \$720,000,000; in 1922 it was \$3,350,000,000—it increased four times. In 1927 it was \$5,040,000,000. In other words it had gone up about nine times over 1914 by 1927 when a slight recession began and a slight falling off in total capital expenditure on residential and commercial and industrial building. In public works in 1914 various governments in the United States were spending about \$400,000,000; in 1927 they spent \$1,000,000,000—or two and one-half times as much. The road program in America in 1914 of all states of the union, together with the municipalities and various organizations, was \$240,000,000. In 1927 it was \$1,200,000,000, or five times the amount. I made an estimate that in the change in the road program alone in the United States in 1927 it was possible to employ all the year round approximately 1,000,000 men more than they had in 1914, an indication of the value of capital expenditure in bringing about employment. After all prosperity is nothing more than giving to the people of the country such useful employment as will give them an adequate return by which they can comfortably live, and that is all that prosperity means. Some people get a little more than that and some get a little less, but if we can strike that average, year after year, by stimulating our industries and

our resources, we can have prosperity in such abundance that we would not have to be comparing ourselves with others. In the road program there were employed one million men more than in 1914.

Then, as far as governments are concerned, there has been an enormous expansion in capital expenditure on all sorts of things, as shown by the growth of national debt. The total national debt of all the States of the Union was \$350,000,000; in 1927 it was \$1,500,000,000, four and one-half or five times. The total debt of all the States, including federal government and municipalities, three billions in 1914; in 1922 thirty billions; in 1927 slightly less than thirty billions. In 1914 the per capital debt of the United States was \$18.30 and in 1927 \$225 per head of population. The debt of the civil government in 1914 was three billions; in 1927 ten billions. Now the growth of the national debt in these communities all represents capital expenditures, giving employment for the time being to large numbers of people and bringing about a prosperity which, if it be not related to productive uses, will ultimately bring about a condition of panic again. In other words the relation of capital expenditures to production must be maintained. Now during that period the taxation in all the countries of the world has increased enormously and we have been at much pains at times discussing the various forms of taxation and raising our voices greatly against them, if they affected us personally.

Now when I turn from American to Canadian figures, while the statistics are not as complete for Canada, nevertheless there are complete enough figures to show us how we have been going on. Unfortunately we have no figures of the bonded indebtedness of the provinces before 1927. But they have grown some one hundred and fifty millions since 1923. The interest payments that we had to meet on capital debt for all provinces, in 1923 were \$6,196,000,000; in 1927 \$39,899,000,000, or they have grown about six times. In 1921 all our municipalities in Canada owed a total of \$795,000,000; today we owe \$1,100,000,000, a considerable increase. Our capital debt has increased, taking Canada as a whole, to something like \$450 per head, from a very moderate amount in 1916. Now these capital ex-

penditures indicate that there has been an enormous expenditure of money on this continent, capital expenditure giving employment and bringing about a prosperity which, as I said before, being unrelated to the ultimate requirements of the country, means a break down of the system of prosperity which we have; and I would suggest to you one of the things which the economists of the country should study carefully, which the business men should study carefully, is the relation that should exist, taking the normal conditions of our lives, between capital expenditure and production that is the result of capital expenditure.

I will give you an illustration. About 1909 in Western Canada there was started an increase in the price asked for land, and by 1913 this had grown to enormous proportions, and in a city like Edmonton, fully one-half of the land that had been subdivided and sold had been sold and paid for or partially paid for by people as far east as the wise old city of Toronto, and the land could not be and never was put to productive uses. The result was that investments could not yield any return to the persons purchasing, and as there was no possibility of it being used by anybody else the value fell out, and today Edmonton owns for taxes at least 49 per cent of the total assessment of the city. I was foolish enough to let a friend persuade me to buy one of these pieces of land and jointly we paid \$2,000. Inside of five years I was paying taxes on an assessment of \$35,000 and the other day I let it be sold for taxes, an illustration of the excessive use of capital where no possible income could be derived and the natural panic and depression that follows from such use. There is a definite relation between capital expenditure and the productive requirements of a country and a careful study of the statistics would give us some clue to the possibility of overdoing capital expenditure in certain circumstances and bringing about a depression which must rest upon us until capital investments begin again to make proper returns. It would appear at present that the capital expenditures in the United States of business and governments are all making such an adequate return that there is no general problem of unemployment and a happy and prosperous country has resulted. And I would like to say that I think the same thing applies

to Canada. Present conditions would indicate that, provided we can keep ourselves to the forefront in the markets of the world. In the United States they have made a desperate effort to expand their foreign trade to take care of their surplus production and they are making a great effort to hold their own markets for themselves. We have had a phenomenal expansion of foreign trade and that has helped to maintain the general level of our prosperity, but I think we will reach the stage when we had better ask ourselves whether we can continue such excessive development of capital expenditures with sure certainty that a return will come and constant steady prosperity will be in our possession.

One word about taxation. A similar thing has taken place in regard to taxation. The growth of taxation in America and the Dominion of Canada has been on a very great scale. Of course one of the largest items has been the result of the great war. But I think we are justified in saying that if there is any surprise it has been that Canada was able to bear the additional expenditure from the war and still have prosperity. We have really been so averse to paying taxes and so inclined to think that governments ought to get money to spend without taxation, and if there was any way of blinding ourselves to the taxation we paid, we always encouraged governments to do that, because we seemed to think we were not paying them. The greatest surprise is that we were well enough off to stand this growth of expenditure without feeling the pinch of it. Now in the future we shall have to consider how far we would like taxation to be outlined for the purposes of framing the general welfare. I have no doubt but that will become a vital question at every session of parliament as the expansion goes on, but I would respectfully make this suggestion to you, that so long as taxation is bearable, so long as it is being spent wisely in public services, so long as it is being used in the general development of the country and we are not feeling the pinch of it more than we can bear, taxation in that sense which is being wisely used is for the general benefit of the country as a whole. I know that is a dangerous doctrine to expound to any group of taxpayers but until we feel the pinch we should be willing to

do our share in paying, if the money is being used in the interests of the general prosperity of the country.

But there are other things we should take into consideration with respect to the position of our general and continued prosperity, and one of these is the relation of the influx of foreign money to the long-run prosperity of a country. I think that a country as great in natural resources as Canada has to look for the incoming of foreign money, but I would respectfully suggest that the form that it should come in should be not in the form over which we ourselves have no control, and I would point out the distinction in investments from Britain and America. British money comes in by the sale of bonds, which does not carry with it any internal control so long as the bonded interest is paid. Speaking broadly moneys come from the United States in the form first of bonds but secondly and largely in the form of purchase of stocks which does carry control, and I conceive there to be no greater danger to the ultimate prosperity of a country than that the money which controls its industry should be controlled by other than the people of the country themselves.

An illustration. Some years ago there was in the city of Montreal a very large business that found itself in competition with a small business in the province of Nova Scotia. Now you would have thought competition within our country was wise and a good thing but the men in Montreal felt they wanted to get rid of the opposition of this little concern in Nova Scotia so they sent a very distinguished diplomat down to see what could be done to purchase the plant and in the course of two or three weeks the news came that the great concern in Montreal had purchased this plant in Nova Scotia. Three weeks after came out the very sad news that they had closed the plant in Nova Scotia and the men that had been employed were out of work. From the point of view of business that may be sound and good business, but from the point of view of the general prosperity of the country, from the point of view of maintaining the unity of our national life it was a crime. If that could happen within our country the importance of the other consideration becomes more apparent. Let us consider a set of circumstances that brings a depres-

sion in one country heavily invested in industries. And what would be the attitude of the man whose interests lie elsewhere. His normal attitude would be to slack up where his interest is low and press on the side where his interest is large. And if it should come to pass that the industries of our country ultimately were in the control of a people of any foreign country, and that includes Great Britain, the United States or any other country, the time might come when that very control might be exercised to stabilize life in another country and bring depression in our own. That is why I think it is a very important thing for our business men and business communities to consider how far we ought to allow the control of the financial interests that lie behind our investments to be in a foreign country.

Another suggestion, and here I know I am on delicate ground. There is a very great disposition in Canada today to sell out our interests in our businesses to larger businesses in other countries. It is going on as between ourselves and Great Britain and ourselves and the United States and our businesses are bought up. I know one business that was established sixty years that passed out of the hands of the man who had built it up and controlled it into the hands of a foreign firm, and his three sons are now out of the business which he took many years to build up. I do say it ought to be possible for men of our quality to carry on our own businesses as successfully as other men can carry it on for us and I conceive it to be almost an act of cowardice on the part of a man to sell out because it is going to give him an easier life. That is not the kind of mentality that makes a great race of men. It is not the kind of mentality that took Ontario out of the woods and made a civilization such as we see today, and I respectfully suggest that one of the things we want to consider is how far we are to allow foreign money to come into possession of the business of the country, the profits going to other peoples and we ourselves being the hewers of wood and drawers of water.

We are looking in the Ontario Research Foundation, in the National Research Council, for men to do our scientific work. We are looking for the assistance of business organizations. A statement was made to me, "Oh we are not concerned with helping your particular work because we get

our scientific work done in another country, and for our purposes that is all that is required." I respectfully suggest to you, that is not a healthy state of affairs. That means that if that kind of thing is permitted to go on indefinitely it means the brightest and best and most brilliant young men of our country will be drawn into these organizations in a foreign country instead of in our own organization; and one of the things we have aimed at more than any other is to train groups of scientific workers to be employed, and to find employment for them in the technical industries, and we do not want to find ourselves handicapped by being told we are not interested in taking men into our industry because the scientific work is being done for us elsewhere. I respectfully suggest that any effort or appeal which the educational authorities are making for the building up of scientific training should have the support and backing of the public of Canada. It is not good enough that when we want to have a man trained for a specific business and work that we have to send out of the country and bring a man in, and much as we may pride ourselves on our independence, on our position within the Empire, on our position of equality within the Empire, we will never reach that position of equality either within the Empire or in the world until we do our own intellectual work with our own brains and until we provide our industries of learning with the facilities to train these men and until the business men of the country are sufficiently seized with it as a patriotic duty that they will see the value of employment of technical men in their industry. We called for tenders last week for our new laboratories in Ottawa and I hope by the middle of January we shall begin to build. Our aim is to put behind the industries of Canada—by the industries I mean agricultural and manufacturing industries—the last word that science can give them, that we may enter into competition in the markets of the world on an equal basis of intelligence. My judgment growing out of many years of study is that we shall never maintain the position we occupy today unless we fulfil our obligations in that regard. I long to see the time when the brightest and best of our young men will find their way into the occupations of our own country, and we can do it if we are seized with the interest and the will to have it done.

THE PRESIDENT :—May I take my cue from the applause and express to you the very hearty thanks of the Canadian Club for your very thoughtful address. Under your extremely energetic leadership I am quite confident that the National Research Council will produce, not miracles, because science is an affair of patience, but will produce scientists and scientific research helpful to this national prosperity of which you have spoken so eloquently.