

National Wealth and Income of Canada

Methods of Estimating Wealth and Income—Total Wealth of Canada Near Seventy Billions—Income Probably Two and One Half Billions—Methods Adopted in Other Countries and Results Reached

BY R. H. COATS

BACK of the entire reconstruction and rehabilitation problem stands the financial problem: how can we produce and save sufficient surplus wealth to liquidate the obligations of the war. That we have also still to liquidate a good many of the obligations incurred during the decade of "boom" preceding the war—the fundamental or governing factor in which was our flotation of nearly three billions of foreign loans for industrial equipment—adds to the task.

The problem, of course, depends on the nature and extent of the national wealth and income. Our information on the point is rather out of date, especially in view of the revolutionary rise in prices and values during recent years. Nevertheless, as demands are being increasingly made for an appraisement of the kind, it may be of interest to throw together some rough figures and estimates based on the latest data available.

Methods of Estimating National Wealth.

Several methods are employed by statisticians in estimating the national wealth of a country. The two most commonly in use are, first, the so-called "inventory" method, which consists of totalling the amounts known through the Census and other inquiries to be invested in agriculture, manufactures, dwellings, etc., etc.; and second, the method of working back through income tax returns to the capital from which the income is derived—a method available only in countries where incomes are rather thoroughly appraised for taxation purposes; as yet we have nothing of the sort to work upon in Canada. A third method is the estimation of wealth from probate returns. Still another is termed the "Census" method; it is perhaps the best of all, as it is based on a canvass of the individual, but it has peculiar difficulties, though it has been applied successfully within the past three years in Australia.

Inventory of the National Wealth of Canada.

Attempting the first of the above mentioned methods, we may bring together in the accompanying table (Table I) the various items which are usually taken as representative of the national wealth. The figures are from various sources,

but are based in large part on the Census and other materials in the Dominion Bureau of Statistics. Several of them contain a considerable element of estimate, but they are perhaps as near as they can be brought with the data now in hand.

It is inexpedient within the space of the present article to explain the method by which each item in the table is arrived at. In view, however, of the importance of the item "current agricultural production" (fifth from the bottom in the table), the manner in which the estimate is arrived at is shown in a

Table I.—Inventory of the National Wealth of Canada.

Items.	Estimated Present Value.
Agriculture—Improved lands	82,792,229,000
Buildings	927,548,000
Implements	387,079,000
Live stock	1,102,261,000
Fishing—Total capital invested.....	47,143,125
Mines—Value of buildings and plant.....	110,000,000
Manufactures—Plant and working capital.....	2,000,000,000
Railways	2,000,000,000
Street Railways	160,000,000
Canals	123,000,000
Shipping	35,000,000
Telegraphs	10,000,000
Telephones	95,000,000
Real estate and buildings in cities and towns (based on assessments of 110 localities).....	3,500,000,000
Clothing, furniture and personal effects.....	800,000,000
Coin and bullion—Held by Receiver General.....	119,000,000
Specie in banks.....	82,000,000
Value of token currency.....	7,500,000
Imported merchandise in store.....	250,000,000
Current production—Agriculture.....	1,621,028,000
Fishing.....	39,000,000
Forestry.....	175,000,000
Mining.....	190,000,000
Manufacturing.....	2,400,000,000
Total	\$19,002,788,125

Table II.—*Estimated Gross Total Value of Agricultural Production in Canada, 1915, 1916 and 1917.

	1915.	1916.	1917.
Field Crops	\$825,371,000	\$886,195,000	\$1,114,637,000
Farm Animals:			
Horses exported	1,842,000	4,701,000	4,385,000
Beef cattle, 20 p.c. of estimated total value.....	30,500,000	41,300,000	51,119,000
Sheep, 20 p.c. of estimated total value.....	3,262,000	4,200,000	7,115,000
Swine: Number, plus 16 p.c. for animals born and slaughtered within the year, 125 lb. meat per animal (1915, 8½ cents per lb.; 1916, 12 cents per lb.; 1917, 17.33 cents per lb.)	38,354,000	60,000,000	90,950,000
Wool: 12 million lb., 28 cents, 1915; 37 cents, 1916; 59 cents, 1917.....	3,360,000	4,440,000	7,000,000
Factory cheese and creamery butter.....	51,482,000	62,179,000	74,487,000
Dairy butter: Quantity estimated on basis of Census, 1911; price, 25 cents per lb. in 1915; 27 cents per lb. in 1916; 30 cents per lb. in 1917.....	15,000,000	47,000,000	103,072,000
Home-made cheese: Quantity estimated on basis of Census of 1911; price, 15 cents per lb. in 1915; 18 cents per lb. in 1916.....	278,000	351,000	263,000
Whole milk: Quantity estimated in Census Report of August 23, 1917; price at 6 cents per quart, 1915 and 1916; 7.5 cents per quart, 1917.....	49,245,000	42,586,000	55,000,000
Fruits and Vegetables, say	35,000,000	35,000,000	40,000,000
Poultry and Eggs, say	35,000,000	35,000,000	40,000,000
Gross Total Value.....	\$1,118,691,000	\$1,223,952,000	\$1,621,627,000

*The above estimates represent the gross value of field crops and animal products and take no account of the use of a product as a material for other production nor of the costs of production.

second table (Table II), which may have an intrinsic interest independently from its present bearing.

It will be found that Table I adds up to a total of over nineteen billion dollars. There is, however, some overlapping among the items which would reduce this considerably. For instance, the item "Real estate and buildings in cities" reproduces a part of the item "Plant" under the heading "Manufactures." The statistics given to current manufacturing production in the final item of the table also fails to take into account the repetition of the value of raw materials in the addition of such items as wheat, flour, bakery products, etc., and of such items as iron ore, pig iron, steel ingots, bars, wire, etc. It is thought that between sixteen and seventeen billions would be an outside figure to set down as the total capital invested in Canada.

Probate Returns.

The estimating of wealth from probate returns has never been attempted here. In Ontario, in 1915, in which the number of deaths was 33,291, the probate returns amounted to \$64,363,201.25. This would work out at over fifteen billions for the Dominion.

The National Income.

As above stated, we have nothing in Canada corresponding to the data yielded by income tax administration in Great Britain, and it will be some time before the want is supplied. The method accordingly of estimating national wealth from income tax, made familiar in the Old Country by Sir Robert Giffen (land being capitalized at 26 times its annual yield,

Table III.—Incomes of those on Salaries and Wages.

	—Reported—		
	Number.	Ttl. Earnings.	Average.
Males	1,124,383	\$666,478,400	592.75
Females	243,174	76,142,200	313.12
Total	1,367,557	\$742,620,600	543.10
	—Estimates—		
	Number.	Earnings.	
Males	203,947	\$120,887,200	
Females	56,769	17,775,500	
Total	260,716	\$138,662,700	
	—Total—		
	Number.	Earnings.	
Males	1,328,330	\$787,365,600	
Females	299,943	93,917,700	
Total	1,628,273	\$881,283,300	

houses at 15 times, railroads at 28 times, etc., etc.) is not possible here. In the Census of 1911, however, every individual on salary or wages was asked to state his or her total earnings during the preceding year. A question of this kind, requiring the exercise of memory, and in many cases involving calculation, does not always yield satisfactory information. The results, however, may be briefly analyzed:

Replies were received in the case of 1,367,557 of age 15 or over (1,124,383 male, 243,174 female), their total earnings

Table IV.—Estimates of Wealth of United States for 1912, 1904 and 1900.

Form of Wealth.	1912.	1904.	1900.
Total	\$187,739,071,090	\$107,104,192,410	\$88,517,306,775
Real property and improvements taxed	98,362,813,569	55,510,228,057	46,324,839,234
Real property and improvements exempt	12,313,519,502	6,831,244,570	6,212,788,930
Live stock	6,238,388,985	4,073,791,736	3,306,473,278
Farm, implements and machinery	1,368,224,548	844,989,863	749,775,970
Manufacturing machinery, tools and implements	6,091,451,274	3,297,754,180	2,541,046,639
Gold and silver coin and bullion	2,616,642,734	1,998,603,303	1,677,379,825
Railroads and their equipment	16,148,532,502	11,244,752,000	9,035,732,000
Street railways, etc.:			
Street railways	4,596,563,292	2,219,966,000	1,576,197,160
Telegraph systems	223,252,516	227,400,000	211,650,000
Telephone systems	1,081,133,227	585,840,000	400,324,000
Trains and cars not owned by railroads	123,262,701	123,000,000	98,836,600
Shipping and canals	1,491,117,193	846,489,804	537,849,478
Irrigation enterprises	360,865,270		
Private owned waterworks	290,000,000	275,000,000	267,762,468
Municipally owned central electric light and power stations	2,098,613,122	562,851,105	402,618,653
A. Other:			
Agricultural products	5,210,019,651	1,899,379,652	1,455,069,323
Manufactured products	14,693,861,489	7,409,291,668	6,087,151,108
Imported merchandise	826,632,167	495,543,685	424,970,592
Mining properties	815,552,233	408,066,787	326,851,517
Clothing and personal adornments	4,295,068,593	2,500,000,000	2,000,000,000
Furniture, carriages and kindred property	8,463,216,222	5,750,000,000	4,880,000,000

(a) Includes wireless systems.

being \$742,620,600, an average of \$592.75 for each male and \$313.12 for each female. For some 260,716 additional individuals on salaries and wages (203,947 male, 56,769 female) the information was not useable. Estimating for these, however, on the same basis, additional earnings of \$138,662,700 are shown, or a grand total of \$881,283,000 (see Table III).

Table V.—Estimate of the Private Wealth of Australia as at 30th June, 1915, based on the Inventory Method of Estimation.

Class of property.	Amount.
Land and improvements	£1,105,637,000
Live stock	100,391,000
Agricultural, dairying and pastoral implements and machinery	22,799,000
Manufacturing plant and machinery	40,040,000
Mining properties (including plant and machinery)	41,319,000
Coin and bullion	44,379,000
Private railways and tramways	11,735,000
Shipping	13,331,000
Agricultural and pastoral products	59,465,000
Locally manufactured products	54,347,000
Mining products (other than gold)	2,354,000
Imported merchandise	31,782,000
Clothing and personal adornments	14,851,000
Furniture and fittings, books, pleasure vehicles, etc.	77,087,000
Total	£1,619,517,000
Mean population for 1915	4,950,200
Private wealth per head	£327

The above accounts only for those on wages and salaries. There remains to estimate for persons operating on their own account, whose earnings take the form of profits, professional fees, etc. First, as to their number; the total male population in 1911 was 3,821,995, of whom 1,198,175 were under 15 years of age. Deducting the latter, and also the total males on salaries and wages as above, the remainder, 1,295,490, represents the number on their own account, a total including Indians and Eskimos and a certain proportion of dependents. Of females operating on their own account no record has been compiled, but their numbers would doubtless bring the total to 1,300,000.

As to the income of these, no estimate is possible. It would seem natural to place it higher per capita than that of the salaried and wage-earning class. At \$800 per year, the total would be over \$1,000,000,000. Altogether a national income approaching two billions would seem a not unfair estimate for 1911. The rise in wages and prices would probably bring this to \$2,400,000,000 in 1918.

Other Countries.

Statistics of the above kind have their interest enhanced by comparison with other countries. The results of the

"inventory" method as applied to the United States and Australia by their respective Census Offices are brought together in Tables IV. and V.

For other countries the available figures are less definite and up to date. In the case of Great Britain several estimates have been made in recent years. In 1905 Sir Robert Giffen placed the total at £15,000,000,000, using the income tax returns as basis. The wealth of Canada he estimated at the same time as £1,350,000,000, and that of the British Empire as a whole as £22,250,000,000. The figures for Great Britain were criticized as high at the time, but certainly the

estimates of Mr. Haultain and Mr. J. H. Mallet, based on private returns for 1908, were not too low. Sir Leo Chiozza Money's 1908 estimate of capitalizing income, arrived at a total of £15,000,000,000 or nearly \$70,000,000,000, confirming Giffen. In 1910 Jean Edmond Thery estimated the national wealth of France at \$55,000,000,000, while Karl Helfferich in 1910 appraised that of Germany between \$70,000,000,000 and \$100,000,000,000. The Statistical Year Book of Paris for 1911 placed the wealth of that state alone as \$28,000,000,000.

Canada's Financial Future

No Need For Pessimism as to Outlook For Our Industry and Trade—Achievements of War Have Developed Our Capacity For Production—Great Britain Will Soon Have New Capital, Part of Which Can Be Used By Canada.

B. W. W. SWANSON

CANADA'S economic future depends upon the skill, foresight and determination with which the problems of readjustment are attacked. Pessimists are to be found in all nations, afflicted by the war, predicting panics, industrial depression and a prolonged period of business lassitude following upon the fever induced by the world war. If the right measures be taken, however, and the same intense activity exhibited in industry and agriculture, as has been displayed during the war, there is no reason whatever to believe that the volume of Canada's trade will be diminished in any particular, or that employment for the country's productive labor power will not be assured. Indeed, it may be said that, although a crisis will have been reached in the industrial life of the nations with the termination of hostilities, it need not be either acute or prolonged. The transformation from the activities of peace to the industrial work of war presented far more serious obstacles than those that lie in our path at the present time; and concerted action, determination and wise leadership will remove these as they overcome the others.

With the entrance of the United States into the conflict Canada was thrown upon its own financial resources, although the nation had been cut off from accustomed supplies of capital practically since the declaration of war. At the outbreak of hostilities the Dominion owed abroad, principally to the United Kingdom, a sum estimated by Sir George Paish at not less than \$3,000,000,000. At the time of writing the results of the last Victory Loan are not available, but if the maximum of \$500,000,000 is reached the country will have an outstanding bonded indebtedness, on war account alone, of not less than \$1,250,000,000, the interest upon which will absorb \$67,000,000 of the annual income of the people. Add to this \$30,000,000 on pensions account, and it will be seen that the people of Canada must hand over to the government at least \$100,000,000 before they begin to take up the burden of other necessary, normal, national expenditures. This has been sufficient to cause alarm in certain quarters, especially in view of the fact that immigration has been practically at a standstill since 1914, and the population of the country even reduced on account of war losses in Europe. Nevertheless, a survey of the whole situation, in its economic aspects, gives firm ground for confidence that Canada's record in the next decade will surpass anything achieved in its past history.

Canadian Banks are Sound.

The chartered banks have never been in such a strong position, nor reflected greater prosperity in the country as a whole. The September report shows demand deposits at \$588,840,110, and deposits after notice of \$1,037,468,920, with current loans of \$942,802,018. Contrast this situation in the banking field in the Dominion with that in the United States. In the republic credit is strained to the limit, the banks belonging to the Clearing House Association of New York City alone showing outstanding loans of \$700,000,000 in excess of deposits. During the past few months hundreds of millions of dollars in rediscounts have been effected through the Federal Reserve banks, indicating clearly enough that the industrial burden on war account, together with the last huge Liberty

Loan, pressed heavily upon the financial resources of the United States. When it is recalled that during the year ending with the prolongation of war, contracts to the extent of \$2,000,000,000,000 were to have been completed in the United States, it becomes perfectly clear what a truly colossal business has been conducted in America since the outbreak of the war. The policy of the republic upon the United Kingdom has been to supply capital to aid in the development and expansion of the resources of the nation.

Relatively, too, the financial position of the Dominion, in the brief time on account of war, has not been so greatly affected in the country. The chartered banks, however, have suffered conspicuous, even brilliant successes, in their operations in Canadian industry and in aiding in the financing of the war in our loans. Although Canada, not so much in her own interests as a matter of prudence, was obliged to suspend payments at the outbreak of hostilities, there has never been a moment, for a moment, any doubt or suspension at length, of the stability of the paper currency of the government and the chartered banks. It is well to recall that the banks of Canada shared this triumph at a period when British banks were not directly affected by the war, passed through a severe financial and currency crisis.

Fundamental Industries Have Made Good.

The maintaining of the country's credit on a firm and sound basis has been made possible by the prodigious efforts put forth by the nation in manufacturing and agriculture. The figures for the year ending March 31, 1918, show a total external trade of \$2,500,000,000, yielding a favorable balance of \$500,000,000, primarily on account of the exigencies of war and the balance against the nation at the outbreak of hostilities. During this period the total exports of manufactures amounted to \$800,000,000, agricultural products to \$700,000,000. The data available at present indicate that Canada has not only met, but has, for the twelve months ending September 30, 1918, of \$2,000,000,000, comprising exports of \$1,400,000,000, and imports of \$600,000,000. Agricultural exports were well maintained, amounting to \$520,000,000, which, in turn, were well exceeded by an amount approximating \$880,000,000. The dependence of the Dominion's external trade upon the United Kingdom, and the dependence of British dependence upon the Dominion, are not confined to Europe, and in part rest upon the trading of industrial commodities of the West. Nevertheless, the Dominion's economic position, in view of the fact that the country, at the moment of writing, has not only met, but has, for the year ending September 30, 1918, of \$2,000,000,000, comprising exports of \$1,400,000,000, and imports of \$600,000,000, is a clear indication of the success of the Dominion's fundamental industries during the war.

Labor Conditions Have Improved.

It is not only the fundamental industries that have made good, but the laboring classes have also benefited. The fact that the Dominion's external trade has not only met, but has, for the year ending September 30, 1918, of \$2,000,000,000, comprising exports of \$1,400,000,000, and imports of \$600,000,000, is a clear indication of the success of the Dominion's fundamental industries during the war.