

sellors need specialized information which can be provided only by employment services, professional associations, unions, and industries. After graduation from school and college young people encounter unforeseen problems, they themselves are changed by their experiences, and further help is needed in finding suitable employment, in obtaining additional training, in adjusting to new working conditions, or in developing attitudes which make it easier to find success and satisfaction in one's work. Human beings and human society are dynamic:

life adjustments cannot all be made while in school. Employment services, social agencies, and consultation services, necessarily have an important and a permanent role to play in improving vocational adjustment. A society in which occupational and social mobility for the best possible use of human resources are a goal, must therefore be one in which educational institutions and social agencies are equipped with the personnel, the information, the instruments, and the philosophy of vocational guidance.

## The Effect of Public Policy on Personal Income Distribution in Canada

By L. M. READ,

"Any city, however small, is in fact divided into two, one the city of the poor, the other of the rich."—*Plato's Republic*.

That individuals and families differ widely with respect to the amount of income at their disposal is one of the most evident, as well as ancient, of social facts. The question, "Why are the rich so rich, and, why are the poor so poor?", has long evoked the attention of social moralists and apologists. Reformers have vented their wrath upon the inequities of co-existent riches and poverty and the exploitation of the poor by the rich. Conservatives have eulogized the contribution of leadership, means and culture of the affluent and have regretted the incapacities of the poor. In the economic world at least men are not equal.

The fathers of modern economics, as economists, were concerned to lift the problem of income distribution out of its moral setting. Their ambition was to state the laws of the economic world that determine the flow of income to the

various factors of production. In their emphasis upon distribution by factos shares, concern with the results in terms of personal incomes fell somewhat into the shadow.

The twentieth century, however, has brought in its wake political, social and economic problems which have evoked a new orientation toward the problems of distribution. Trends toward business combination and labour unionization have brought into being new forces whose primary purpose is to maximize the returns of one or other of the factors of production. Periodic industrial crises and especially the experience of the great depression of the 1930's have stimulated concern not only with the problem of scarce resources but also with the scarce use of available resources. Much current diagnosis focuses attention on the tendency of savings to outrun investment—or on its corollary a low propensity to consume. Since personal income-size distribution is one of the key factors determining the pattern and level of consumption and savings, the nature and effects of unequal distribution are being subjected to more careful scrutiny.

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In the realm of government the retreat of the philosophy of laissez-faire and the growth of government activities have brought in their train many problems related to income distribution. There is the problem of who shall bear the costs of increased public services—shall taxes be assessed equally, proportionately according to property, income or expenditure, or more than proportionately for those with greater financial means? There is the problem of public provision for those who for one reason or another—age, health, unemployment, etc.—are economically unable to provide for themselves, the problem of business combination and labour unionization and the refereeing of labour-management disputes, the problem of price controls, and the redistribution of income which rapid inflation or deflation of prices involves. And there is the overall problem of whether government should assume a greater responsibility for maintaining a high and stable level of income and employment and whether this can be implemented by measures such as supplementing private investment or bolstering consumer demand with family allowances, and other social securities.

Whatever one's opinion may be concerning the possibility, advisability or desirability of altering the pattern of personal income-size distribution, government action has, in recent years, tended to make some definite adjustments in its nature.

It is with the extent of the redistribution effected by some of the fiscal measures of the Dominion Government in recent years that we shall here concern ourselves.

### Personal Income Tax

During the Second World War the federal tax on personal incomes reached unprecedented levels. In 1944 income tax collections soared to over \$800 million. This compares with the pre-war all-time high of \$46 million collected in 1937. The phenomenal increase in collec-

tions represents the twin effects of a very rapid increase in national income and the imposition of a much stiffer tax by lowering the level of exemptions and raising the rate of tax at all levels of incomes.

The federal government first entered the personal income tax field in 1917 motivated by war-time budget needs. The tax structure erected in these years was not fundamentally disturbed up to the onslaught of the Second World War. The rate structure was lowered somewhat in the 'twenties but raised somewhat during the 'thirties. A comparison of the rate structure in 1946 with the rate structure in 1919, the first year to follow the First World War, thus gives us some basis for assessing the change in onus of the personal income tax.

**Table 1**

#### **Dominion Personal Income Tax Payable by Married Men Without Dependents**

Income	Average Tax per Taxpayer and Tax as a Per Cent of Income		1919		1946	
	\$	%	\$	%	\$	%
1,500.....					84	5.6
2,000.....					194	9.7
3,000.....	40	1.3	491	16.4		
4,000.....	80	2.0	810	20.2		
5,000.....	120	2.4	1,158	23.1		
8,000.....	370	4.6	2,314	29.1		
15,000.....	1,230	8.2	5,820	38.8		
50,000.....	9,190	18.4	28,353	56.7		
100,000.....	31,190	31.2	64,837	64.8		

Source: "Personal Income Taxes," Reference Book for Dominion-Provincial Conference on Reconstruction, 1945.

Taking for illustration a married man without dependents, we find that in 1946 as compared with 1919 our taxpayer at the \$100,000 level now pays over twice as much tax, at the \$50,000 level over three times as much tax, and at the \$5,000 level almost 10 times as much tax. The effective tax rate as a proportion of income is increased at the \$100,000 level from 31% to 65%, at \$50,000 from 18% to 57%, and at \$5,000 from less than 3% to 23%.

The table below presents an overall comparison of the average tax paid or

payable by income classes in 1936-38, 1942 and 1946 for all taxpayers combined. It must be borne in mind that in the lower income brackets all income recipients are not taxable and due to

changes made in the exemption provisions the proportion of taxpayers to non-taxpayers in most brackets below \$5,000 in 1942 and 1946 are quite different from 1936-38.

**Table 2: The Dominion Personal Income Tax, Average Tax per Taxpayer by Income Classes, 1936-38, 1942 and 1946**

	All Taxpayers			All Taxpayers		
	Average Tax per Taxpayer			Tax as a Per Cent of Income		
	1936-38	1942	1946	1936-38	1942	1946
	\$	\$	\$	%	%	%
500- 750.....		12	12	....	1.7	1.7
750- 1,000.....		31	47	....	3.6	5.4
1,000- 1,250.....		55	79	....	4.8	6.9
1,250- 1,500.....		49	74	....	3.6	5.4
1,500- 1,750.....		62	104	....	3.8	6.4
1,750- 2,000.....		81	141	....	4.3	7.6
2,000- 2,500.....	21	121	208	1.0	5.5	9.4
2,500- 3,000.....		187	321		8.5	14.5
3,000- 5,000.....	54	351	595	1.5	9.4	16.0
5,000-10,000.....	252	989	1,668	3.8	14.8	25.0
10,000-25,000.....	1,356	3,208	5,395	9.4	22.3	37.6
Over 25,000.....	13,890	15,299	27,107	28.9	31.9	56.5

Source: Author's estimate based on taxation statistics of the Taxation Division, Department of National Revenue, Ottawa.

The pre-war tax on incomes below \$2,000 was negligible and even from \$2,000-\$3,000 the tax was insignificant when considered in terms of current tax levies. The average tax paid by the pre-war taxpayer in the income class \$3,000-\$5,000 was in 1946 exceeded by the single taxpayer with an income of \$900. If we take into account the very substantial increase in prices and cost

of living which has taken place over the same period the contrast in rates is further emphasized. The 1946 average tax at the \$3,000-\$5,000 level is over ten times that of pre-war days (1936-38). At higher income levels there was a substantial income tax even before the war. The average tax in the \$10,000-\$25,000 interval was \$1,360 in 1936-38 as compared with \$5,400 in 1946. The tax

**Table 3: Percentage Distribution of Income Recipients and Aggregate Personal Income Assuming Different Tax Rates**

Income Class (before tax)	Distribution of Aggregate Personal Income				
	Distribution of Income Recipients 1942	Before Tax 1942		After Tax	
		%	%	Assuming 1936-38 Rates	Actual 1942 Rates
			%	%	%
Under 1,000.....	44.8	16.7	17.0	17.6	18.4
1,000-2,000.....	37.8	39.9	40.4	41.2	42.3
2,000-5,000.....	15.6	30.0	30.3	29.7	29.5
Over 5,000.....	1.8	13.4	12.3	11.5	9.8

Source: Author's estimate. For personal income-size distribution in 1942 (ex agriculture and the armed services) see the appendix, "National Accounts, Income and Expenditure, 1938-45," Dominion Bureau of Statistics, Ottawa.

Note: The effect of the 1936-38 rates is exaggerated in the above since the higher exemption limits in these years was disregarded in making the computations.

at this level was multiplied by about four times, increasing from 9.4% of income to 37.6%.

Table 3 attempts to portray the effect of the change in tax rates on the distribution of aggregate income (except agriculture and the armed services).

In 1942 the 45% of all income recipients with income under \$1,000 received 16.7% of aggregate personal income before tax and 17.6% after tax; while the less than 2% of recipients with incomes over \$5,000 received 13.4% of all income before tax and 11.5% after tax. If 1946 rates had been effective, the share of those under \$1,000 would have been increased to 18.4% and those over \$5,000 reduced to 9.8%. Expressed in other words the 1936-38, the 1942, and the 1946 tax rates applied to the 1942 distribution increase the relative share of aggregate income going to those with incomes under \$1,000 by approximately 2%, 5% and 10% respectively and reduce the relative share going to those with incomes over \$5,000 by approximately 8%, 14% and 27% respectively.

Generally speaking when personal income is increased personal expenditure on necessities such as food are not increased proportionately while outlays on luxuries such as travel, education and savings are increased more than proportionately. For simplicity of reference we may call outlays of the first type, such as food, "regressive," and outlays of the second type, such as savings, "progressive." Likewise when personal income is reduced personal outlays such as food are not reduced proportionately as much as outlays on luxuries or savings. Thus in terms of personal expenditures the highly progressive nature of the present personal income tax structure will tend to reduce progressive outlays such as savings to a much greater extent than regressive outlays such as food. The potential effect on savings is emphasized by the very high degree of concentration of aggregate savings outlays in the higher income brackets. It may be pointed out, however, that the progressive in-

cidence of personal income tax is probably appeased by a progressive rate of tax avoidance. The lower and middle income classes are largely wage and salary earners and the opportunities to minimize their accounting of income for tax purposes are negligible as compared with the imaginative treatment possible for the businessman, professional, and agrarian.

### Other Fiscal Measures

In addition to the personal income tax there are many other public measures which directly or indirectly affect income-size distribution. Some of these measures affecting income-size distribution most directly are briefly discussed below.

*Indirect Taxes:* An indirect tax which falls on a progressive outlay such as jewellery, will tend to have the effect of a progressive tax. An indirect tax which falls upon a regressive outlay such as tobacco will have the effect of a regressive tax. It would take a thorough study of Canada's indirect tax structure to determine whether as a whole its net effect is regressive or progressive. The importance of this matter is emphasized when it is observed that receipts of indirect taxes by the Dominion Government alone in 1946 substantially exceeded the receipts of personal income taxes.

*Subsidies:* Subsidies which fall on progressive outlays have the effect of being progressive subsidies, while subsidies which fall on regressive outlays have the effect of being regressive subsidies. Since an appreciable portion of the \$200 million or more of Government subsidies paid in 1945 fell on outlays such as milk, butter and flour, it is possible that the net effect of war-time subsidy payments was regressive, i.e., that subsidies contributed proportionately more to the lower income groups. To the extent that this is so the non-progressive effects of indirect taxes may be partially offset.

*Transfer Payments:* (i) Interest on National Debt: Though there is no de-

tailed evidence showing the holdings of Government bonds at various personal income levels, there is a very high concentration of holdings in the higher income classes. To the extent, therefore, that the national debt is held directly by individuals the payment of interest is highly progressive, i.e., payments to the higher income classes are proportionately very much greater. Since the holding of national debt by individuals in Canada increased sevenfold during the war years, the progressive nature of this payment takes on new significance. Over one-third of the direct funded debt of the federal government is now held by individuals in Canada.

(ii) Family allowances, old age pensions, mothers' allowances, etc.: The payment of family allowances in 1946 was something in the vicinity of \$250 million. These payments are without a doubt highly regressive as are also the other social welfare payments. These payments, therefore, to a certain extent at least tend to offset the progressive incidence of interest payments on government debt.

*Corporate Taxes and Other Taxes on Property Returns:* Corporate profits taxes in recent years have netted almost as much as personal income taxes. Corporate income and excess profits taxes in 1946 will account for something in the vicinity of 40 to 45% of net corporate profits. Since the ownership of corporate shares is highly concentrated in the higher income groups, the effect of high corporate income tax is to reduce property earnings of the higher income classes and thus to have a highly progressive tax effect. In addition to the corporate profits taxes, there has existed a 4% surtax on receipts of interest and dividends in excess of \$1,500 per taxpayer.

Offsetting these progressive features of taxation of property returns might be placed a consideration of the fact that property earnings are accounted, for tax purposes, after allowing for current depreciation of the property while labour income is assessed for tax purposes with-

out allowance for the fact that normally within 30 or 40 years these earning powers will be exhausted. If the assessment of property income allowed for the exhaustion of property values within say 40 years, then at an interest rate of 3%, assessed property earnings would be accounted at a level over 40% higher. In this sense, therefore, the present method of taxing property income has a regressive effect. This point is illustrated in the following table assuming interest receipts from the ownership of bonds of \$2,000 at rates of 3, 4 and 5 per cent.

Table 4

Item	Interest Rate		
	3%	4%	5%
1. Present value of bond.....	\$66,667	\$50,000	\$40,000
2. Annual receipt of interest.....	2,000	2,000	2,000
3. 40-year annuity purchasable by bond.....	2,884	2,526	2,331
4. Tax on Item 3 in 1946*.....	339	233	197
5. Tax on Item 2 in 1946*.....	156	156	156
Difference in tax			
6. (Item 4-5).....	\$183	\$77	\$41

\*Tax for married person with one dependent including surtax in Item 5 and excluding surtax in Item 4.

Item 3 indicates the "income" value of the property source of the \$2,000 interest income if it is assumed that the income is to last only 40 years. Item 4 shows the amount of tax which would be levied on this income value (Item 3) if the same amount were received in salary. Item 5 shows the actual tax which would be levied on the interest receipts (Item 2). Item 6, the difference between these two tax levies indicates, therefore, the very substantial concession which is granted this type of property income when regarded from this point of view.

### Non Fiscal Measures

Some non-fiscal aspects of government policy either in commission or omission are equally important in shaping income distribution. One of the most important of these is price control. There is no economic event which alters the structure of income distribution more rapidly than an inflationary boom. Entrepreneurs and property owners—generally the highest income classes—and marginal workers, workers who might otherwise not be employed—generally the lowest

income classes—receive a more than proportionate increase in income. The great middle group of established wage and salary earners receive a less than proportionate increase. Community savings are greatly inflated not only because of the disproportionate swelling of incomes at savable-income levels, but also because of the great reduction in dis-savings at the lowest income levels. Price control may do more than income taxes or family allowances in assuring a more equitable distribution of income.

## The Population of Canada in 1971

H. LUKIN ROBINSON

THE population of Canada is getting older. The birth rate is going down. The death rate is also going down, but not as fast as the birth rate. There are the three basic trends in the field of population and vital statistics at the present time.

What will happen if these trends continue? In the spring of 1946, the Dominion Bureau of Statistics published Bulletin F-4, "The Future Population of Canada," in which estimates of the population up to 1971 are presented. Briefly, it estimated that the population of Canada, (9 provinces exclusive of the Territories) will increase from 11,490,000 in 1941 to 12,943,000 in 1951, to 13,963,000 in 1961 and to 14,606,000 in 1971. That is, in the present decade it will increase by 1,450,000, in the next decade by 1,020,000 and in the following decade by 643,000. "If the trend towards smaller families continues, and no large scale immigration occurs, the population will reach a maximum of about 15 million towards the turn of the century, and thereafter will begin to decline." (p.32).

When the birth rate falls more quickly than the death rate, the rate of natural increase goes down. This article will deal briefly first with the growth of the Canadian population, and then discuss the age-distribution of the population as it will be in 1971, compared to 1941 and 1911.

In estimating the future population, estimates must be made of the deaths by which the present population will be reduced, and of the births by which it will be replaced. Estimates of the future deaths can be made with reasonable confidence; estimates of future births are a good deal more shaky, and should be taken with a grain of salt. Apart from migration, the main error of the estimates is likely to be in the young population which will be under 25 years in 1971. The estimates for these age groups should be considered as approximations only, subject to a wide margin of error. The actual number in 1971 may well be as much as 750,000 higher or lower and it would be a case of luck if the difference turned out to be less than 250,000. These are errors of 5 to 15% of the estimated population under 25 years, and of 2 to 5% of the population as a whole.

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