The Measurement of Rates of Return and Taxation from Private Capital in Canada

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ABSTRACT

The evaluation of any public project which retards the growth of private investment must consider the social opportunity cost of this forgone investment as a cost to the project. In the formulation suggested by Harberger for the evaluation of public capital expenditures the social opportunity cost of the funds (Expressed as a rate) used to discount the net benefits of the project. The discount rate is constructed as a weighted average of the rates of return from investments in private sectors which have given up funds of finance the public projects plus a weighted average of the rates of time preference for consumption in the sectors that have forgone consumption to release resources for the public project. The weight that the rate of return or time preference in a sector receives is equal to the proportion of the total funds that is obtained from the particular sector.

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Information on the rates of return and effective rates of taxation from capital in the private sectors of an economy are prerequisites for both rational public sector project evaluations and for the measurement of the degree of equity and excess burden resulting from the economy's taxation system. Yet in many countries accurate knowledge of the values of these variables is absent. The principal objective of this study is to overcome this dearth of information in the case of Canada.

The evaluation of any public project which retards the growth of private investment must consider the social opportunity cost of this foregone investment as a cost to the project. In the formulation suggested by Harberger[1] for the evaluation of public capital expenditures the social opportunity cost of the funds (expressed as a rate) is used to discount the net benefits of the project. The discount rate is constructed as a weighted average of the rates of return from investment in the private sectors which have given up funds to finance the public project plus a weighted average of the rates of time preference for consumption in the sectors that have foregone consumption to release resources for the public project. The weight that the rate of return or time preference in a sector receives is equal to the proportion of the total funds that is obtained from the particular sector.

In an alternative approach to project evaluation Feldstein[2] and Marglin[3] allow for the social opportunity cost of funds directly by deducting from the consumption benefits produced by the project the consumption foregone because of the transfer of funds from private to public use. This formulation discounts the net consumption benefits produced by the project by the social rate of time preference.

In either of these two approaches to project evaluation the gross rates of return from investment in the private sectors of the economy must be known before the social opportunity cost of funds can be evaluated. As is shown by the results of this study the non-neutrality of the taxation of

the income from capital between sectors is so significant that the use of any one rate of return from private investment will almost certainly lead to error.

For the analysis of the rates of return from capital a distinction is drawn between the private rate of return received by the owners of the capital stock, the income generated by the capital which is collected by governments through taxation, and the gross or social rate of return which is the total of the returns to the owner and the governments. A further breakdown of the tax payments to governments is carried out for the corporation income tax, the municipal property tax and sales taxes in order to evaluate the effective rates for each of these tax systems on the income from capital. In this paper the results of this analysis is reported annually for the period 1965 to 1969.[4]

Transformation of Accounting Measures into Economic Values

Any methodology designed to transform accounting data into economic values, as the case of estimating the economic rates of return from capital, will be somewhat specific to the way the accounting data exists for the country in question. However, the general principles involved will be applicable to all countries although the details of procedure may differ. In a sense the most difficult problems may not stem from the particular form of the accounting data but from the nature of particular sectors. Agriculture, residential housing and the resource industries are examples where the nature of the activity makes it extremely difficult to obtain reliable information even when the best techniques available are actually used. Therefore a systematic solution of the problem in the case of one country will provide useful guidelines whose applicability is more general.

The primary sources of data used in this study are the taxation and financial statistics for corporations published by Statistics Canada. Both of these data sets are disaggregated at the 2 and 3 digit standard industrial classification (S.I.C.) levels.[5] These sources give us a detailed breakdown of the corporation's balance sheets and profit and loss statements, but represent fiscal year-end values, which may or may not correspond to the values for the end of the calendar year.

A third source of data utilized is the estimates of the fixed capital flows and stocks for manufacturing and non-manufacturing industries that have been constructed by the Business Finance Division of Statistics Canada for the years

1926 to 1969. The values for the manufacturing variables and methodology are published and permission was granted to use the unpublished data for the non-manufacturing industries in this study.[6] These data are broken down into the standard industrial categories by establishment, which include both the corporate and non-corporate sectors. The estimates for the gross and net capital stocks are arrived at by a perpetual inventory process using annual data for gross investment from 1870 to 1969 and are recorded in original cost, current replacement, and constant dollar prices. Within each industrial classification separate estimates are made of the capital flows and stocks for building construction, engineering construction and machinery and equipment.[7]

Additional data sources have been used to estimate the current values of the capital stock, revenues, and expenses in the agricultural and residential housing sectors. This information will be discussed later when these sectors are analyzed.

The rates of return and taxation of capital in manufacturing are estimated using a breakdown of twenty major industrial divisions with a further disaggregation of five of these industries into a total of twelve sub-sectors. The non-manufacturing sector is initially divided into fourteen major industrial groups with a further breakdown in the case of seven of these groups into twenty industries. In most cases the disaggregated industries do not constitute the complete major industrial division but are the most important sub-sectors for our purposes.

Starting with the balance sheets and profit and loss statements for the corporations as presented in the taxation and financial statistics we find that the rules of accounting and taxation will create discrepancies between the accounting data and the economic values they would ideally measure. In this study there are seven basic adjustments which we are able to carry out with the accounting information to transform it into measures of economic values. These adjustments are summarized below, followed by the methodology used to implement them.

(1) The values of fixed assets are usually recorded in the accounts of corporations in original cost prices; therefore, inflation will lead to an increase in the nominal income of the firm while no adjustment would be made to the nominal value of the capital stock. From accounting data an inflation would make it appear that the rates of return on the capital stock were rising while in fact they were not. To correct this,

we have to adjust the value of the capital stock from original cost dollars to current replacement dollars so that both the nominal value of income and the capital stock reflect the existence of inflation.

Taxation laws have necessitated the use of arbitrary rules for the evaluation of depreciation expenses allowed for tax purposes each year. This value usually will not accurately measure the true economic depreciation of the fixed assets. Therefore, the valuation of the fixed capital stock must be made so as to reflect the true economic depreciation that has occurred.

(2) In the calculation of rates of return from capital in various economic activities it is the return from fixed assets and working capital required for the operation of the industry which we are interested in, and not the financial assets of non-financial industries which are held solely for their yield. To solve for the operational assets the value of the financial assets must be subtracted from the total value of assets in the industry.[8]

(3) Depreciation expenses allowed for income tax purposes will diverge from the true economic depreciation if either the rates allowed are incorrect or if changes occur in the cost of replacing the asset. As the taxation depreciation expense is based on the original cost of the asset, if the cost of replacing the assets increases then the gap between the true value of the economic depreciation of the asset and the taxation depreciation allowed will also increase. In order to measure the economic return from the capital stock of an industry its profits must be corrected to reflect the economic depreciation expense and not the depreciation expense calculated for taxation purposes.

(4) Debt charges, taxes, and charitable donations paid by the industry, even though they represent expenses from the equity holders point of view, are part of the value of the product produced by the capital of the industry; therefore, they should not be deducted as an expense when calculating the income generated by the capital stock of the industry.

(5) The financial data in the corporate profit and loss statements include income from financial assets as part of the firm's income. However, as these assets are not included as part of the capital stock of the industry we must not include the revenue generated by

these assets as part of the income of the industry's capital stock.

(6) In the Canadian economy a significant part of the government's revenues is collected through excise taxes. Provided that material inputs enter into their respective products in fixed proportion to output, then we can translate the excise tax on output as a tax on the gross value added of labour and capital. When different rates of excise taxes are present in an economy, or if the depreciation rates of the capital stock are not all the same, then the relative social rates of return from capital will be altered by the existence of excise taxes.[9]

(7) A final adjustment to the revenues of the industries is necessitated because of changes in the relative prices of the capital stocks of industries. These changes in the relative price represent accrued capital gains or losses to the industries which are not recorded as income in the financial statistics. A capital gain or loss which is unanticipated and not expected to be repeated will have a different behavioral effect on the industry than if the capital gain or loss is expected. For most purposes of analysis, these capital gains or losses should be included in the rates of return only when they become expected. In this study the rates of return are estimated (with a few exceptions) both including and excluding the accrued capital gains and losses; however, in the applications of the rates of return the accrued gains or losses are not included.

In deriving net current replacement values of the capital stock (adjustment 1) we run into the difficulty that the corporation financial and taxation data are not based on a comparable sample of firms each year: therefore, because of mergers and divisions of corporations, it is not possible to calculate values for gross investment by comparing the gross buildings and equipment and depreciation expenses for sequential years. It is at this point that the total industry estimates for the stocks of buildings and equipment are utilized.[10] If the assumptions are made that the historical timing of gross investment in the corporate and total industry sector has been approximately the same, differing only in scale, and that the economic lives of assets are the same in the corporate and non-corporate sectors of an industry, then the same relationship will exist between the net stock of buildings and equipment in current replacement dollars (K^n_{ct}) to the gross stock of buildings and equipment in original cost dollars (K^g_{ct}) in both the corporate (α) and total industrial

(r) sectors for each time period (t). The value of the gross stock of buildings and equipment for the corporate sector is given in the taxation and financial statistics for each industry, and is expressed in original cost dollars, $_{\alpha}K^{g}_{o}$. Using this information, along with the capital stock estimates for the total industrial sectors, the values of the net stock of buildings and equipment in current replacement prices are calculated for each industry each year as follows:

$$(1) \quad {}_{\alpha}K^{ni}_{ct} = \left(\frac{{}_{r}K^{ni}_{ct}}{{}_{r}K^{gi}_{ot}}\right)\left({}_{\alpha}K^{gi}_{ot}\right)$$

where:

${}_{\alpha}K^{ni}_{ct}$ - Net stock of buildings and equipment, corporate sector in current replacement cost dollars in the ith industry in time period t.

${}_{r}K^{ni}_{ct}$ - Net stock of buildings and equipment, for total sector in current replacement dollars in the ith industry in time period t.

${}_{r}K^{gi}_{ot}$ - Gross stock of buildings and equipment of total industrial sector in original cost dollars for the ith industry in time period t.

${}_{\alpha}K^{gi}_{ot}$ - Gross stock of buildings and equipment for the corporate sector in original cost dollars for the ith industry in time period t.

This procedure corrects the book value of the buildings and equipment in the corporate sector for changes in the nominal value of the assets due to inflation or shifts in relative prices as well as adjusting the gross value for the economic depreciation that has taken place. In the case of land where no depreciation takes place then the book values have to be corrected only for the changes in its price.

To make adjustment 2 the financial assets not held as working capital are excluded from the value of the capital stock as is the yield from these assets from the revenue of the industry. In this study the set of assets that constitutes the working capital of an industry includes cash, accounts receivable less accounts payable, inventories and prepaid expenses. Except for inventories these items are recorded in the corporation accounts in current dollars. In the case of inventories the widewpread use in Canada of the

procedure of recording the value of inventories on a first-in, first-out basis combined with only a moderate rate of inflation, implies that their value in the corporation accounts is very close to their true current value. Therefore, no adjustment of the value of inventories has been made.

After determining the value for the working capital in an industry the current value of the total capital stock in each industry is obtained by adding to the working capital the current value of the fixed assets. Included in the stock of fixed assets are the current value of land, the net current replacement value of buildings and equipment and net depletable assets. There are some kinds of investment expenditure which are generally expensed in the current period even though they may have a value beyond the period of investment. Examples of these are: exploration expenditures in the resource industries, research and development expenditures, advertising costs, and the costs borne by the industry for specific training of its labour force. When historical data for exploration expenditures are available, then the stock of exploration capital can be evaluated and included in the net depletable assets of the resource industry. If the income from capital is also adjusted for the depletion expenses then the bias in the rate of return caused by this depletable item will be eliminated. The stock of advertising is a more difficult variable to measure because of the different forms such expenditures can take. When such a stock of advertising does exist, a bias may result in our estimate of the rates of return when it is not included in the value of capital stock for the industry.[11]

Excluding the stock of human capital purchased by the industry from its stock of capital may also cause a discrepancy between the measured and true rate of return from capital. The sign of this bias will depend on the rate at which the human capital purchased by the industry is growing.[12]

Since depreciation expenses allowed for tax purposes diverge from the value of economic depreciation we must make a correction (adjustment 3) in the calculation of profits for this divergence. To find the value of the economic depreciation for the corporate part of an industry we again use the information in the estimates of the fixed capital flows and stocks prepared by Statistics Canada.[13] From these data we can obtain values for the economic capital consumption allowance in current dollars for the total industry (${}_{r}D^{e}_{ct}$). Using these values we can calculate the economic capital consumption allowance for the corporate part of an industry in current dollars (${}_{\alpha}D^{e}_{ct}$) as follows:

$$(2) \quad {}_{\alpha}D^{ei}_{ct} = ({}_{\tau}D^{ei}_{ct}) \frac{{}_{\alpha}K^{ni}_{ct}}{{}_{\tau}K^{ni}_{ct}}$$

where:

${}_{\alpha}D^{ei}_{ct}$ = Economic capital consumption allowance in current dollars for corporate part of industry i in year t.

${}_{\tau}D^{ei}_{ct}$ = Economic capital consumption allowance in current dollars for total industry i in year t.

${}_{\alpha}K^{ni}_{ct}$ = Net Capital Stock Corporate Sector Current Dollars in industry i for year t.

${}_{\tau}K^{ni}_{ct}$ = Net Capital Stock Total Industry Current Dollars in industry i for year t.

The adjustment to current profits due to the correction of the depreciation expense is derived as follows:

Adjustment to profits due to correction of depreciation expenses. = Depreciation expense allowable for taxation purposes. − Economic capital consumption allowance in current dollars for the corporate sector.

To solve for the total income from capital (adjustment 4) we start with the book value of profits adjusted to reflect the value of the economic depreciation expense. To this figure the income taxes paid, property taxes, mining and logging taxes, charitable donations, mortgage interest paid, bond interest paid and other interest paid are added. Also included as part of income are the realized gains from the sale of fixed assets. Since profits still include the income from financial assets this total will be larger than the final income we attribute to the capital stock of the industry. However, this income figure does not include the value of sales taxes produced by the value added of capital.

For the calculation of the income from capital we must subtract the income from financial assets, which are held primarily for their yield (adjustment 5). Financial income is here defined as the sum of mortgage interest received, bond interest received, other interest received, realized capital gains on financial assets, Canadian and foreign dividends received.

In Canada, sales and excise taxes are levied by both the provincial and federal governments. The primary sales tax of the federal government is the wholesale tax which is paid on a wide range of manufactured goods. Provincial governments traditionally have levied sales taxes at the retail level. From the Input-Output Division of Statistics Canada we were able to obtain the value of sales for 197 industries for 1961, and the value of the federal sales tax margins paid on the sales of 644 commodities produced by these industries.[14] Using the Statistics Canada industry commodity matrix, we were able to derive the dollar value of sales tax paid on the domestic output of the industry. Since we know the value of output for the corporate part of each industry for the years 1961 to 1969, we can estimate the amount of sales tax paid on corporate output by multiplying the total sales tax by the ratio of corporate output to total output in the industry.

For years other than 1961 the ratio of sales tax to commodity output is adjusted as the tax rates and base are changed. However, there have been few changes in the base and rates of this tax. For the years from 1959 to 1967 the general federal sales tax rate was 11 percent, and from 1967 to present it has been 12 percent.

In a recent revision of the Canadian National Accounts the value of provincial sales tax paid by commodity, and then values of sales for the commodities were estimated for the years 1947 to 1972.[15] In order to find the value of provincial sales tax paid on the corporate output the commodity groups are aggregated into industry divisions and the effective rates of sales taxes on total sales are estimated. By applying these rates to the domestically produced output of the corporate sector the total value of sales taxes paid by industry can be evaluated. The federal and provincial sales taxes paid on corporate output are added together for each industry and year. These sales taxes represent a tax both on the gross value added of labour and the gross value added of capital. Making the assumption that material inputs enter into the production in fixed proportion to output then the sales tax on output can be translated into a tax on the gross value added of labour and capital. The value of sales tax produced by the value added of capital is determined as follows:

$$(3) \quad S_K = \frac{V_K^n + \alpha D_C^e}{V_L + V_K^n + \alpha D_C^e} \times S_T$$

where:

S_K = the value of sales tax attributed to capital in corporate part of industry

S_T = total value of sales tax paid on output of corporate part of industry

V_K^n = net value added of capital

αD_C^e = economic depreciation expense of corporate part of industry in current prices

V_L = total value added of labour

A measure of the amount of the accrued capital gains and losses from changes in the value of the fixed capital stock can be made by comparing movements in the price index for the fixed capital stock of the industry with those of the gross national product deflator as follows:

$$(4) \quad G_t^i = (\dot{p}_{Kt}^i - \dot{p}'_{Qt}) \left(\alpha K_{ct-1}^{ni}\right)$$

where:

G_t^i = the value of the capital gains or loss in the ith industry during year t

$\dot{p}_{Kt}^i$ = the rate of change of the price index for the capital stock of industry i in year t

$\dot{p}'_{Qt}$ = the rate of change of the gross national product implicit price index in year t

αK_{ct-1}^{ni} = the net stock of fixed capital in the corporate sector of industry i in year t-1 in current replacement prices of year t-1

If all price indices do not move together during the business cycle then there may be transitory gains or losses

which are eliminated in another phase of the cycle making it difficult to split out the changes in relative prices from the adjustment of prices due to inflation. Taxes will also cause relative prices to change. The domination of capital gains from 1963 to 1965 can be attributed to the increases in the federal sales tax on production machinery to 4 per cent in January 1963, to 8 per cent in April of 1964 and then to 11 per cent in January of 1965. Similarly capital losses were experienced from 1967 to 1969 as this tax was lowered to 6 per cent in April 1967 and then decreased to zero in 1968.

Particular characteristics associated with certain sectors such as mining, mineral fuels, agriculture and residential housing will necessitate some modification of the above methodology in order to meet the requirements of the seven adjustments stated previously. A cursory description of the modifications in the above methodology for the analysis of these industries will be presented here.[16]

The mining and mineral fuel industries are somewhat unique because a significant portion of the value of their capital stocks is created by exploration and development expenditures which may be expensed for tax purposes during the period in which the exploration is conducted. Therefore, the taxation statistics will record a very small value for the stock of depletable assets which should equal the capitalized value of the exploration and development expenditures. To correct for this the historical exploration and development expenditures were accumulated and depreciated to obtain the current value of depletable assets. We also found that after we adjusted the value of net depletable assets as recorded in the financial statements of the corporations for inflation these two estimates of net depletable assets at current prices were quite close. The latter estimates for the depletable assets of mining and mineral fuels were used.

The mineral fuels industry is almost entirely concerned with the development and extraction of natural gas and crude oil, which are heavily concentrated in the Province of Alberta. This provincial government has very assiduously extracted revenue from the oil companies through a system of production royalties and mineral right sales. These provincial revenues are generally deductible from taxable income for federal income tax purposes and, therefore, involve a transfer of income tax revenue from the Federal Government to the provincial governments. A difficulty arises when we try to distribute these provincial revenues between payments made by the mineral fuels and petroleum refining industries as most companies engage in both activities. Also, the data

for revenues from the royalties and mineral rights are not broken down by industry. Therefore, after analyzing each industry separately before including the provincial revenues we aggregate the capital stock and income data for refineries and mineral fuels and construct the private and social rates of return for the combined sector.

Canadian agriculture has declined in relative size throughout the period 1953 to 1970, even though the government has continued to give it extensive assistance. At the present time the agricultural sector is completely dominated by the non-corporate form of organization with only two per cent of the assets owned by corporations. In this study we treat the entire agricultural sector as being non-corporate.

Most of the information that is required to estimate the rates of return in agriculture has been collected in their current values by the various statistical agencies in Canada. Current revenue, including income in kind and operating expenses, is available annually for the period 1953 to 1970. The income in kind includes the food, construction materials, and the imputed rental of houses that the agriculture sector produces for its own use.[17] The values of the capital stock, which include land, buildings, livestock, poultry, implements and machinery, are estimated by a semi-annual survey supplemented by the census of agriculture which is conducted every five years. All the capital stock data which are published are evaluated at current net replacement cost.[18]

Two serious deficiencies in the available information had to be corrected before the rates of return could be estimated. An evaluation of the total amount of direct subsidies given to agriculture did not exist and no valuation had been made of the social opportunity cost of the non-wage labour employed in agriculture. The latter creates a problem because, after deducting all operating and paid labour costs from the value of gross sales, the residual net income is partially produced by the capital of the owners along with the labour of the owners and non-wage family workers.

To solve this difficulty an upper and lower bound were estimated for the imputed income of non-wage labour in agriculture. As the number of man years of paid labour per year and total annual wages are known the annual income per paid labourer can be determined. To obtain the upper bound on the size of the imputed income to the non-wage labourers it was assumed that they earned an annual income equivalent

to that of the paid workers. As unpaid family workers, which includes part-time help from family members, constitute approximately 30 per cent of the total non-wage labour force, this estimate represents an over-estimate of the value of non-wage labour in agriculture. The low estimate for the value of non-wage labour in agriculture is constructed by imputing the paid workers' wages to the employers and owners of farms but a zero wage to the unpaid family workers. As the supply price of unpaid family labour is almost certainly greater than zero, this estimate of the value of non-wage labour should represent a lower bound for the value of this variable.

Support programs for agriculture have a long history of popularity in Canada.. In all, there are currently nine different legislative acts passed by the federal government to give assistance to the agriculture sector. Each one of these has been examined for the years 1965 to 1969 to determine the form the subsidy takes and to evaluate its direct financial benefit to the sector for each year.[19] With the total subsidy paid to agriculture each year we can estimate both the private and social rates of return from capital for the years 1965 to 1969.

To evaluate the private and social rates of return from owner-occupied and rental housing we use the estimates of gross imputed and gross paid rents made by the National Accounts Division of Statistics Canada. We were able to obtain from this source an unpublished breakdown of the housing expenses (property taxes, repairs and maintenance, insurance), with which we could calculate the net income accruing to the stock of residential housing. The current values of the stock of non-farm houses are obtained from estimates made by Statistics Canada along with their annual depreciation expense.[20] To obtain a separate series (required because of differential tax treatment) on the current value of the stock of owner-occupied and rental housing, we multiplied the current value of the total non-farm housing stock by the ratio of gross imputed rents from owner-occupied housing to the total rents (imputed plus paid) from residential housing. This provides us with an estimate of the current value of the owner-occupied housing stock.

The personal income tax in Canada does not cover the income accruing from the equity portion of owner-occupied dwellings. Because this income is exempt there is an implicit subsidy given to the purchase of housing services through the ownership of a dwelling rather than by renting. This subsidy is equal to the owner's marginal personal income tax rate times the amount of equity he has in his house, times the rate of return, in terms of housing services that he receives from the value of the equity. In this study we

make the assumption that the 'typical' taxpayer is in the 25 per cent marginal tax bracket, and that the owner's equity is equal to 50 per cent of the value of the non-rental housing stock. With these assumptions we obtain the rate of the subsidy as a percentage of the value of the owner-occupied housing stock.

Because of the way we break down the total stock of non-farm housing into rental and owner-occupied stocks, we are assuming that the private rates of return in the two categories are equalized. Nevertheless, the gross or social rate of return from the rental housing stock will be larger than the gross return from the owner-occupied stock by the amount of the implicit subsidy created by exempting the services of owner-occupied housing from taxable income.

The final point in the methodology is concerned with the extension of the analysis to the non-corporate part of industry sectors. After taking care of agriculture and residential housing very few other sectors are made up of a significant proportion of non-corporate firms except in the cases of the trade and service sectors.

Although no revenue or tax data exist for the non-corporate industrial sectors, the size of their capital stocks and their rates of return can be estimated from the corporate financial data and the existing estimates of the total capital stock for each industrial sector. The proportion of an industrial sector that is non-corporate can be determined by comparing the values of the gross capital stock at original cost dollars for the total industrial sector, as estimated by Statistics Canada, with this same variable for the corporate part of the sector as found in the financial statistics for the corporations. The value of the net capital stock of the total sector is then adjusted to include the working capital in the sector by using the assumption that the ratio of working capital to total fixed assets is the same in the corporate and non-corporate segments of an industry.

After estimating the size of the non-corporate capital stock, we are left with the problem of determining the correct rates of return to attribute to this part of the capital stock of each industry. Christensen, in his analysis of the rates of return from capital for the United States, found that the private rate of return in the non-corporate part of an industry has been approximately equal to the private rate of return in the corporate part.[21] Therefore, the social rate of return from the non-corporate part of an industry would

equal the social rate of return in the corporate sector minus the rate of corporate income tax paid on all assets. The private rate of return in the non-corporate sector is then easily determined by deducting the remaining taxes paid from the non-corporate social rate of return.

Estimates of Rates of Return and Taxation

By applying the methodology developed in the above section, the adjustments are made to the accounting data. The resulting information, which will be used to estimate the rates of return and taxation, is presented in Tables 2 through 7 of the appendix. Table 2 contains the values for the working capital and fixed assets of the sectors for the years 1965 to 1969. The values for the capital stocks are in net current replacement cost prices which reflect the transformations made to the data by adjustments 1 and 2.

The incomes generated by the capital stocks, which accrue to the private sector, are presented in Table 3. These values reflect adjustments 3, 4, and 5, except that they exclude taxes paid. Private income from the stock of capital includes both the interest paid on debt and any subsidies received by the industry.

Accrued capital gains and losses by sector are estimated following the procedure of equation 4 (adjustment 7) and are shown in Table 4. These values are also expressed in the current prices of the year in which they accrue. Tables 5 to 7, respectively, contain the values of property taxes, income taxes and sales taxes, paid by the income from capital.

From this information the private and gross or social income as well as the various taxes can be expressed as percentages of the stock of capital in a sector to derive rates of return and taxation. Some of the more important of these rates are presented in Table 1. The private rates of return excluding and including capital gains and losses are shown in columns 1 and 2 respectively. Excluding capital gains and losses we find the private rates of return in the manufacturing sector have averaged 6.4 per cent over the five year period 1965 to 1969. This is to be compared with a private rate of return in the non-manufacturing sector of 6.2 per cent and the weighted average of all activities of 5.8. The rather small range of values for the private rates of return contrasts with the values of the social rates of return that include all taxes (column 7), where the rate for manufacturing is 15.1 per cent, for non-manufacturing 9.7

For an estimation of the social opportunity cost of public funds or the social cost of private investment it is the value of the taxes and subsidies (columns 3 to 5) and the resulting social rates of return (column 7) that are of primary interest.

For most governments, the capital market is the marginal source of revenue when they are financing investment projects and in periods of a budgetary surplus, funds are made available to the capital market either by slowing down the rate of government borrowing or by diminishing the public debt. In this context it is appropriate to evaluate the social opportunity cost of public funds as the social value of these resources if they were used in the private sectors of the economy. When governments borrow they bid financing away from the private sectors in different proportions depending on the demand elasticities with respect to the cost of borrowing in the individual investment and consumption sectors. Following the method proposed by Harberger[22] for evaluating the social opportunity cost of a given amount of government borrowing, we weight the social return from investment and of the social rate of time preference for consumption in each of the non-government sectors by the proportion of the funds that was bid away from that sector. For funds bid away from investment in the private sectors the appropriate social returns to be weighted are those presented in column 7 of Table 1.

For Canada the supply of resources can also be increased through the borrowing of foreign savings; the social cost of these funds is measured as the real rate of interest that is paid on the securities sold abroad.

An accurate measure of the weights to give to each of the rates of return or time preferences in the private sectors would require information on the reaction of each of the private sectors to an increase in government borrowing. Using a somewhat less precise weighting scheme the author in a previous study[23] estimated the social opportunity cost of government borrowing to be approximately 9.5 per cent for Canada during the period 1965 to 1969. The weighting scheme used to give this estimate implied that of any increase in government borrowing 10 per cent was financed by capital inflows from foreign countries, 16 per cent was financed by a reduction of residential housing construction, 10 per cent came at the cost of domestic consumption, and the remaining 64 per cent was financed by a reduction of investments in the industrial sectors.

This has been but one example of the many applications that can be conducted with the information provided by this study. As was mentioned previously, any evaluation of the equity and efficiency of the taxation of the income from capital in Canada will require this information as will any method of project evaluation which takes into consideration the social opportunity cost of funds.

TABLE 1. Rates of Return and Taxation from Capital in Canada by Sector (Average, 1965-1969)

Industry	1 [d] Private rate of return Excluding Capital Gains and Losses	2 [e] Private Rate of Return Including Capital Gains and Losses	3 [f] Property Tax as a percentage of Net Fixed Assets and Working Capital	4 [g] Income tax as a percentage of Net Fixed Assets and Working Capital	5 [h] Sales Taxes as a percentage of Net Fixed Assets and Working Capital	6 [i] Gross Rate of Return Excluding Capital Gains and Losses and Sales Taxes	7 [j] Social Rate of Return Excluding Capital Gains and Losses Including Sales Tax
.. Foods and Beverages	7.99	7.21	.79	5.10	15.78	13.88	29.66
A. Food Industries	6.67	5.87	.77	3.49	.41	10.94	11.34
B. Soft Drinks	10.82	9.91	.91	5.82	5.06	17.25	22.30
C. Breweries and Wineries	11.57	10.88	.68	10.28	74.16	22.52	96.68
.. Tobacco Products	6.96	6.66	.37	6.41	119.27	13.73	133.00
.. Rubber Products	5.15	4.48	.41	3.31	2.54	8.86	11.41
.. Leather Products	5.19	4.91	1.06	2.69	3.54	8.94	12.48
.. Textile Mills	4.81	3.65	.51	2.31	1.40	7.62	9.01
.. Knitting Mills	6.21	4.87	.84	3.09	5.62	10.14	15.76
.. Clothing Industry	6.57	6.06	.88	2.99	4.47	10.44	14.92
.. Wood Industry	6.98	5.79	.51	2.90	.14	10.39	10.53
.. Furniture	6.62	5.95	1.26	2.75	4.61	10.63	15.23
.. Pulp and Paper and Allied Industries	4.65	3.63	.56	2.22	.21	7.44	7.65
A. Pulp and Paper Mills	4.56	3.17	.52	1.98	.11	7.07	7.17
B. Paper Boxes and Convertors	6.73	5.69	1.07	5.26	1.29	13.06	14.34
.. Printing and Publishing	9.49	8.76	.73	5.42	1.02	15.64	16.66
A. Commerical Printing	8.28	7.57	.78	3.39	1.86	12.45	14.31
B. Publishing	2.36	1.82	.33	1.54	.21	4.00	4.21
.. Primary Metals	6.02	4.92	.23	2.29	.27	8.53	8.79
.. Metal Fabricating	6.51	6.10	.67	3.77	.66	10.96	11.62
.. Machinery Industries	9.10	8.77	.45	4.61	1.58	14.17	15.75
.. Transportation Equipment	7.73	7.25	.59	5.39	9.34	13.71	23.04
A. Aircraft and Parts	4.22	3.89	.40	.66	.92	5.29	6.20
B. Motor Vehicles	11.45	10.59	.70	8.38	16.54	20.54	37.08
C. Miscellaneous Transportation	4.05	3.63	.65	3.80	1.14	8.50	9.65
.. Electrical Industries	6.37	5.82	.46	3.07	4.30	9.90	14.20
A. Electrical Industrial Equipment	5.54	4.98	.73	2.77	1.27	9.04	10.32
B. Other Electrical Products	7.03	6.43	.31	3.33	6.13	10.68	16.81
.. Non-Metallic Mineral Products	6.09	5.06	.46	2.39	.50	8.95	9.44
.. Petroleum and Coal Refineries	5.84	4.91	1.33	1.35	4.71	8.51	13.22
.. Chemical Industries	6.33	5.39	.45	4.26	.91	11.03	11.94
.. Miscellaneous Manufacturing	6.47	5.98	.72	5.10	3.32	12.29	15.61
.. Total Manufacturing	6.45	5.53	.61	3.32	4.77	10.38	15.14
.. Total Construction	6.54	6.24	.68	2.61		9.82	9.82
A. Building Contractors	4.92	4.79	.81	2.12		7.84	7.84
B. Highway and Bridge Construction	6.33	5.98	.41	2.76		9.50	9.50
.. Total Transportation	2.62	.59	.82	1.06		4.50	4.50
A. Air Transport	3.49	1.81	.36	.35		4.20	4.20
B. Water Transport	1.78	-.28	.27	.58		2.64	2.64
C. Railways	1.03	-1.00	.67	.90		2.60	2.60
D. Truck Transport	9.08	7.67	3.24	2.71		15.03	15.03
E. Pipelines	6.56	4.28	.64	1.92		9.12	9.12
.. Storage	4.00	4.14	1.33	1.18		6.50	6.50
A. Grain Elevators	3.27	3.41	.62	1.01		4.89	4.89
B. Storage and Warehouses	6.05	5.96	3.61	1.96		11.62	11.62
.. Communications	6.34	5.26	.84	2.63	.48	10.40	10.88
A. Radio and Television	5.71	4.56	.50	3.95		10.16	10.16
B. Telephones	7.00	5.29	.87	2.53	.53	10.41	10.94
.. Public Utilities	5.57	1.41	.91	1.79	.61	8.27	8.87
A. Electrical Power	4.97	.69	.81	2.00	.66	7.78	8.44
B. Gas Distribution	6.02	2.21	1.00	1.67	.58	8.89	9.47
.. Wholesale Trade	7.72	7.57	.76	3.61	3.65	12.09	15.73
.. Retail Trade	7.59	7.38	1.62	3.83	.44	12.73	13.17
.. Total Finance, Insurance, and Real Estate	4.22	4.21	.23	.39		4.84	4.84
A. Trust Companies	4.81	4.81	.04	.04		5.19	5.19
B. Mortgage and Loan Companies	5.16	5.17	.01	.20		5.27	5.27
C. Banking	3.20	3.29	.02	.41		3.73	3.73
D. Total Deposit Accepting Institutions	3.27	3.28	.02	.26		3.65	3.65
E. Total Investment Companies	4.89	5.26	.04	.25		5.17	5.17
*29. Total Finance, Insurance, and Real Estate	6.74	6.73	.90	1.52		9.16	9.16
*A. Trust Companies	6.54	6.67	.48	4.05		11.16	11.16
*B. Mortgage and Loan Companies	10.07	10.17	.17	2.17		12.41	12.41
*C. Banking	8.57	8.31	.38	9.02		17.96	17.96
*D. Total Deposit Accepting Institutions	7.51	7.55	.29	6.20		14.00	14.00
*E. Total Investment Companies	6.10	6.10	.06	.33		6.48	6.48
30. Total Services	9.88	9.83	1.46	2.24	.17	13.58	13.75
A. Services to Business and Management	17.42	17.07	1.05	7.34		25.82	25.82
B. Personal, etc., Serivces	9.43	9.53	1.46	1.65	.19	12.54	12.73
31. Total Non-Manufacturing	6.25	5.31	.95	2.01	.50	9.21	9.71
32. Mining	7.36	n.a.	.28	2.42		10.16	10.16
33. Mineral Fuels	4.94	n.a.	.42	.80		6.18	6.18
A. Mineral Products and Petroleum Refineries	5.34	n.a.	5.05	1.06	2.27	11.45	13.71
34. Agriculture	2.66	5.20	.80	-.63		2.83	2.83
*34. Agriculture	4.31	6.85	.80	-.63		4.48	4.48
35. Rental Housing	5.38	7.84	2.48	nil		7.86	7.86
36. Owner Occupied Housing	5.38	7.84	2.48	-.67		7.19	7.19
37. Trade (Non-Corporate)	7.34	7.19	1.13	nil	2.27	8.47	10.74
[c] 38. Total All Activities	5.82	n.a.	1.49	1.13	1.11	8.44	9.54

a. The rate of return and taxation in categories *29A through *29E for financial intermediaries are based on the value of equity in the sector and the private rates of return only include income accruing to the equity holders.
b. The rates for non-manufacturing exclude 29 but include *29 for financial intermediaries.
c. The rates of return for the total of all activities excludes categories 29 and 34 but includes *29 and **34.
d. (Table 3 + Table 2) X 100 and averaged over the five years 19[illegible]
e. (/Table 3 + Table 4/ + Table 2) X 100 and averaged over [illegible] 1965-1969.
f. (Table 5 - Table 2) X 100 and averaged over the five years 1965-1969.
g. (Table 6 - Table 2) X 100 and averaged over the five years 1965-1969.
h. (Table 7 - Table 2) X 100 and averaged over the five years 1965-1969.

TABLE 2. Net Fixed Assets and Working Capital: Current Cost Prices (in millions of dollars)

Industry	1965	1966	1967	1968	1969
1. Foods and Beverages	3367.0	3592.4	3758.1	3768.8	4051.5
A. Food Industries	2610.7	2699.6	2839.2	2806.4	3058.2
B. Soft Drinks	182.3	190.6	212.2	211.6	230.4
C. Breweries and Wineries	660.6	761.8	733.8	764.2	883.3
2. Tobacco Products	295.3	309.9	368.2	369.3	360.5
3. Rubber Products	430.9	520.0	547.8	590.6	637.3
4. Leather Products	147.0	178.8	172.6	187.0	223.0
5. Textile Mills	1227.8	1392.0	1453.2	1498.4	1518.3
6. Knitting Mills	170.2	167.7	175.0	165.3	197.6
7. Clothing Industry	360.7	453.2	383.5	395.0	414.9
8. Wood Industry	1208.2	1316.4	1367.0	1287.1	1436.6
9. Furniture	182.3	240.7	278.0	302.1	339.1
10. Pulp and Paper and Allied Industries	4498.7	4772.1	5224.0	5398.0	5634.5
A. Pulp and Paper Mills	4117.2	4186.4	4552.5	4679.6	5157.5
B. Paper Boxes and Convertors	381.3	421.3	467.3	483.8	477.2
11. Printing and Publishing	739.0	873.6	859.8	840.1	923.7
A. Commerical Printing	364.5	439.5	433.9	412.2	508.4
B. Publishing	299.2	343.1	327.5	322.8	238.0
12. Primary Metals	4915.2	5214.0	5211.3	5205.9	4385.7
13. Metal Fabricating	1676.0	1961.5	2108.7	2047.7	2267.8
14. Machinery Industries	1223.0	1531.5	1580.5	1591.7	1866.1
15. Transportation Equipment	1827.4	2496.8	2635.2	2668.6	3042.6
A. Aircraft and Parts	355.9	510.8	573.0	581.7	597.9
B. Motor Vehicles	1092.1	1224.4	1290.0	1298.7	1996.4
C. Miscellaneous Transportation	379.1	453.8	415.6	461.9	449.0
16. Electrical Industries	1349.2	1654.3	1756.1	1861.0	2019.6
A. Electrical Industrial Equipment	498.5	556.0	624.5	634.2	692.5
B. Other Electrical Products	850.6	1072.9	1063.8	1139.0	1327.3
17. Non-Metallic Mineral Products	1216.0	1420.7	1470.6	1451.3	1546.4
18. Petroleum and Coal Refineries	2858.5	3547.1	2540.2	2772.2	3252.6
19. Chemical Industries	1973.7	2285.2	2421.0	2530.6	2560.6
20. Miscellaneous Manufacturing	603.7	689.7	687.9	747.7	860.8
21. Total Manufacturing	30270.7	34618.1	34999.6	35679.3	37541.1
22. Total Construction	2499.6	2967.6	3163.0	3378.1	3903.4
A. Building Contractors	1169.2	1332.0	1390.6	1475.8	1840.9
B. Highway and Bridge Construction	465.6	478.5	509.7	518.0	579.9
23. Total Transportation	9732.6	10506.5	11104.9	11992.9	12885.6
A. Air Transport	313.9	358.1	464.5	628.4	844.2
B. Water Transport	n.a.	1140.0	1190.5	1316.8	1366.8
C. Railways	n.a.	6198.7	6438.8	6752.2	7167.2
D. Truck Transport	479.2	578.3	569.2	621.1	707.7
E. Pipelines	1725.1	1857.1	2039.3	2218.8	2486.3
24. Storage	437.5	412.9	424.5	497.4	457.5
A. Grain Elevators	301.9	298.4	314.5	389.9	349.7
B. Storage and Warehouses	124.9	105.3	100.6	101.1	101.7
25. Communications	3348.2	3821.6	4127.6	4428.5	4966.4
A. Radio and Television	277.7	282.6	306.9	345.8	400.9
B. Telephones	3054.4	3496.7	3767.8	4031.3	4593.1
26. Public Utilities	1828.6	2021.7	2227.0	2354.3	2548.1
A. Electrical Power	920.4	1028.8	1044.5	1062.3	1192.3
B. Gas Distribution	873.8	1067.9	1133.8	1203.3	1313.1
27. Wholesale Trade	4812.9	5483.2	6237.5	6777.2	7177.5
28. Retail Trade	3675.6	4304.3	4623.7	4909.6	5513.9
29. Total Finance, Insurance, and Real Estate	72369.8	72048.8	79977.0	90353.6	103454.0
A. Trust Companies	3532.5	3911.7	4318.4	9434.9	5744.8
B. Mortgage and Loan Companies	5214.5	5854.4	7530.8	8323.9	9524.5
C. Banking	n.a.	27578.2	30442.8	35027.7	40618.4
D. Total Deposit Accepting Institutions	34001.3	37344.5	42291.9	48285.6	55888.2
E. Total Investment Companies	14441.7	16926.8	18532.2	21023.9	23854.5
[a]*29. Total Finance, Insurance, and Real Estate	18167.7	19005.1	21115.8	23431.2	26270.7
*A. Trust Companies	295.5	346.1	359.5	409.5	435.2
*B. Mortgage and Loan Companies	503.1	548.5	640.4	698.4	834.6
*C. Banking	n.a.	1347.6	1476.6	1488.2	1748.2
*D. Total Deposit Accepting Institutions	2114.3	2242.3	2476.6	2595.3	3017.9
*E. Total Investment Companies	10939.3	12584.3	13899.6	15853.1	17230.7
30. Total Services	2719.8	3590.0	3741.5	4092.8	4862.3
A. Services to Business and Management	225.3	359.2	386.9	408.5	483.0
B. Personal, etc., Serivces	2573.6	3333.1	3447.7	3791.4	4501.7
31. Total Non-Manufacturing	47223.0	52113.2	56765.8	61862.3	68585.7
32. Mining	3542.7	3777.7	4185.9	4385.0	5713.0
33. Mineral Fuels	3023.1	3270.1	3921.5	4519.4	5072.5
A. Mineral Products and Petroleum Refineries	5881.7	6817.2	6461.8	7291.6	8325.1
34. Agriculture	17217.8	19062.6	20952.6	22452.3	23356.2
35. Rental Housing	15054.5	16930.6	18276.1	19876.4	22612.5
36. Owner Occupied Housing	32737.7	36143.5	38658.8	41451.7	46328.0
37. Trade (Non-Corporate)	2716.3	3132.0	3475.6	3739.8	4061.2
38. Total all Activities	151786.0	169048.0	181236.1	193166.4	213270.4

[a] The values for the capital stock of financial intermediaries in the total for category 29 and the subcategories 29A to 29E include all the fixed plus financial assets, while in the categories *29A through *29E the capital stock is taken to be the value of the equity of the corporation adjusted to reflect the current replacement values of the assets.

TABLE 3. Net Private Income (Excluding Capital Gains) (in millions of dollars)

Industry	1965	1966	1967	1968	1969
1. Foods and Beverages	269.1	282.2	268.5	301.5	363.4
A. Food Industries	180.2	187.3	162.0	175.5	230.0
B. Soft Drinks	19.5	20.6	27.0	22.3	21.5
C. Breweries and Wineries	69.5	74.6	81.9	105.1	111.2
2. Tobacco Products	19.3	23.3	26.5	23.9	25.5
3. Rubber Products	17.9	26.6	32.7	29.1	35.6
4. Leather Products	4.8	11.0	9.6	11.4	10.9
5. Textile Mills	63.2	76.7	56.8	66.8	82.3
6. Knitting Mills	9.0	10.4	11.8	11.3	11.8
7. Clothing Industry	19.8	23.9	27.4	28.3	32.6
8. Wood Industry	84.1	60.3	62.7	106.2	150.8
9. Furniture	11.1	19.8	16.8	24.6	15.6
10. Pulp and Paper and Allied Industries	269.2	271.1	175.5	161.8	294.1
A. Pulp and Paper Mills *	242.7	242.5	147.9	137.8	261.8
B. Paper Boxes and Convertors	26.3	28.5	27.6	31.3	36.4
11. Printing and Publishing	69.2	80.3	80.4	80.9	91.6
A. Commerical Printing	25.9	41.0	41.1	33.7	37.3
B. Publishing	7.7	5.3	7.1	7.0	10.0
12. Primary Metals	373.3	378.4	294.2	334.2	138.7
13. Metal Fabricating	106.6	135.1	127.5	130.9	158.2
14. Machinery Industries	102.3	143.2	149.9	138.8	178.6
15. Transportation Equipment	143.3	115.5	181.1	259.1	292.7
A. Aircraft and Parts	10.3	15.5	32.7	38.5	17.1
B. Motor Vehicles	114.7	82.8	139.8	202.6	270.9
C. Miscellaneous Transportation	18.6	17.2	8.6	18.0	25.1
16. Electrical Industries	86.9	114.7	105.8	103.7	139.3
A. Electrical Industrial Equipment	27.1	36.7	31.1	25.7	45.9
B. Other Electrical Products	59.7	78.1	74.5	77.8	93.3
17. Non-Metallic Mineral Products	85.2	94.8	80.0	70.6	100.1
18. Petroleum and Coal Refineries	151.1	207.0	143.3	182.1	190.2
19. Chemical Industries	157.3	149.8	127.1	140.7	161.2
20. Miscellaneous Manufacturing	18.6	37.3	53.8	58.4	70.8
21. Total Manufacturing	2061.3	2261.5	2029.4	2264.3	2544.0
22. Total Construction	129.6	226.6	234.4	219.9	232.1
A. Building Contractors	49.5	64.5	75.1	83.8	81.6
B. Highway and Bridge Construction	19.1	41.1	43.0	31.5	25.7
23. Total Transportation	256.1	290.2	267.6	313.0	248.0
A. Air Transport	24.5	20.3	9.4	9.8	3.4
B. Water Transport	n.a.	23.0	29.1	30.2	23.8
C. Railways	n.a.	35.9	-.9	24.6	184.3
D. Truck Transport	37.8	46.7	49.7	59.4	79.0
E. Pipelines	127.2	126.6	133.1	137.1	147.2
24. Storage	13.6	16.2	15.7	22.8	21.4
A. Grain Elevators	7.0	9.1	10.2	15.3	13.3
B. Storage and Warehouses	5.8	6.6	4.8	7.2	7.6
25. Communications	212.7	230.5	305.6	331.5	367.7
A. Radio and Television	16.6	14.6	17.0	15.8	29.2
B. Telephones	192.9	213.1	285.9	311.9	334.5
26. Public Utilities	92.3	115.7	124.2	137.5	143.9
A. Electrical Power	48.2	44.0	54.7	52.9	61.1
B. Gas Distribution	58.6	65.2	71.4	78.4	78.4
27. Wholesale Trade	369.9	430.8	458.7	503.7	592.0
28. Retail Trade	262.1	306.9	363.9	392.9	429.3
29. Total Finance, Insurance, and Real Estate	1904.8	2834.0	3295.6	4643.6	5435.7
A. Trust Companies	129.0	184.2	196.3	260.5	337.1
B. Mortgage and Loan Companies	258.8	302.3	385.2	449.1	491.4
C. Banking	n.a.	757.3	878.9	1195.3	1688.1
D. Total Deposit Accepting Institutions	384.2	1243.8	1460.6	1905.0	2516.7
E. Total Investment Companies	732.6	801.2	901.8	1064.4	1559.9
[a]*29. Total Finance, Insurance, and Real Estate	1033.7	1045.3	1250.1	2054.9	2056.9
*A. Trust Companies	20.6	20.8	23.4	26.3	31.7
*B. Mortgage and Loan Companies	54.1	63.4	70.7	75.2	51.8
*C. Banking	n.a.	117.2	124.8	147.8	124.1
*D. Total Deposit Accepting Institutions	68.1	201.3	219.0	249.3	207.1
*E. Total Investment Companies	648.6	674.0	773.7	897.0	1372.4
30. Total Services	247.5	336.2	354.4	423.1	541.0
A. Services to Business and Management	34.8	58.0	58.4	61.0	123.2
B. Personal, etc., Serivces	230.6	299.0	316.7	386.3	444.2
31. Total Non-Manufacturing	2617.5	2998.4	3374.6	4399.3	4732.3
32. Mining	241.0	277.8	307.7	397.3	356.1
33. Mineral Fuels	144.0	139.9	201.0	212.0	297.9
A. Mineral Products and Petroleum Refineries	295.0	346.9	344.3	394.1	488.1
34. Agriculture	594.4	819.5	575.6	453.7	156.6
[b]**34. Agriculture	901.1	1101.7	917.0	834.7	562.0
35. Rental Housing	806.9	885.4	977.7	1097.1	1232.3
36. Owner Occupied Housing	1754.7	1890.3	2068.2	2288.1	2524.8
37. Trade (Non-Corporate)	202.2	236.0	263.2	286.9	326.8
38. Total All Activities	8728.9	9791.2	10139.0	11779.9	12576.5

[a] Private income to capital from financial intermediaries in the categories *29 and *29A through *29B includes only income accruing to the equity holders of the companies.

[b] Private income to capital from agriculture in category 34 was estimated after assuming that all non-wage labor in agriculture received an income for their labor equal to that received by the hired workers. In category **34 it was assumed that only owners and employers in agriculture received a wage equal to that of the hired worker, and the labor of family help had a zero social opportunity cost.

TABLE 4. Capital Gains and Losses on Buildings and Equipment in Current Prices (millions of dollars)

Industry	1965	1966	1967	1968	1969
1. Foods and Beverages	71.7	.8	-141.9	-82.2	+3.6
A. Food Industries	54.8	.6	-107.8	-62.7	+2.7
B. Soft Drinks	4.3	.0	-9.3	-5.2	-.2
C. Breweries and Wineries	12.4	.1	-24.7	-14.2	-.6
2. Tobacco Products	3.5	.4	-6.0	-4.3	-.1
3. Rubber Products	7.8	.3	-16.3	-12.4	-1.0
4. Leather Products	2.1	.7	-3.2	-2.5	-.0
5. Textile Mills	16.5	-.9	-58.8	-38.7	-12.8
6. Knitting Mills	1.3	-1.5	-5.5	-3.1	-2.9
7. Clothing Industry	1.9	-1.2	-5.5	-3.4	-2.1
8. Wood Industry	11.5	-12.2	-20.8	-41.6	-16.9
9. Furniture	1.6	-.5	-3.8	-6.1	-2.0
10. Pulp and Paper and Allied Industries	114.7	-33.6	-218.9	-116.2	-33.2
A. Pulp and Paper Mills	107.0	-31.2	-202.5	-177.2	-31.0
B. Paper Boxes and Convertors	7.7	-2.3	-16.4	-13.1	-2.1
11. Printing and Publishing	24.8	9.3	-32.8	-26.8	-10.1
A. Commerical Printing	11.7	4.5	-16.0	-12.6	-5.3
B. Publishing	13.1	4.8	-16.7	-14.1	-4.7
12. Primary Metals	125.5	-4.8	-234.9	-164.1	-11.9
13. Metal Fabricating	34.4	5.9	-66.4	-36.3	11.5
14. Machinery Industries	24.2	3.6	-43.3	-25.3	8.3
15. Transportation Equipment	44.3	3.0	-93.7	-52.4	17.2
A. Aircraft and Parts	7.5	.5	-16.2	-8.7	2.6
B. Motor Vehicles	29.7	2.1	-65.3	-35.7	12.0
C. Miscellaneous Transportation	7.1	.4	-12.1	-7.9	2.5
16. Electrical Industries	21.1	-.9	-41.7	-32.3	-3.0
A. Electrical Industrial Equipment	7.7	-.3	-14.5	-11.5	-.1
B. Other Electrical Products	13.4	-.6	-27.2	-20.9	-1.9
17. Non-Metallic Mineral Products	30.7	-2.4	-61.4	-44.5	-4.4
18. Petroleum and Coal Refineries	71.7	-5.7	-99.0	-79.2	-5.9
19. Chemical Industries	53.8	-5.0	-77.1	-80.0	-21.4
20. Miscellaneous Manufacturing	8.9	1.2	-15.3	-12.9	-.9
21. Total Manufacturing	673.2	-43.4	-1247.1	-865.1	-96.1
22. Total Construction	-3.6	-17.5	-18.7	-3.5	-2.7
A. Building Contractors	-1.1	-5.7	-1.7	1.1	-.9
B. Highway and Bridge Construction	-1.2	-5.8	-1.7	1.0	-.7
23. Total Transportation	-182.2	-298.7	-287.2	11.2	-384.0
A. Air Transport	-3.5	-7.3	-10.9	-.3	-23.6
B. Water Transport	n.a.	-32.2	-31.8	.8	-40.9
C. Railways	n.a.	-177.7	-167.0	6.6	-214.1
D. Truck Transport	-2.4	-8.5	-13.9	-3.1	-15.2
E. Pipelines	-40.7	-61.3	-54.7	6.5	-83.1
24. Storage	12.7	5.8	-10.8	-8.3	2.8
A. Grain Elevators	7.8	4.3	-7.3	-6.1	1.9
B. Storage and Warehouses	4.2	.9	-3.3	-2.1	.7
25. Communications	15.3	-65.4	-134.7	-112.3	-64.7
A. Radio and Television	2.6	-2.1	-8.8	-7.8	-3.0
B. Telephones	13.4	-62.1	-125.4	-104.0	-61.4
26. Public Utilities	10.0	-81.7	-154.1	-173.7	-76.5
A. Electrical Power	5.1	-42.9	-74.5	-80.6	-36.7
B. Gas Distribution	4.6	-42.0	-77.6	-87.3	-38.7
27. Wholesale Trade	17.8	19.6	-37.7	-39.1	-20.1
28. Retail Trade	17.5	22.5	-39.5	-39.7	-21.0
29. Total Finance, Insurance, and Real Estate	215.3	178.9	-273.9	-229.3	27.5
A. Trust Companies	2.0	1.3	-2.0	-1.6	.2
B. Mortgage and Loan Companies	5.7	3.5	-5.0	-3.7	.4
C. Banking	n.a.	8.9	-13.7	-11.3	1.4
D. Total Deposit Accepting Institutions	21.1	13.8	-20.8	-16.7	2.1
E. Total Investment Companies	14.5	11.0	-16.3	-13.1	2.1
30. Total Services	80.1	62.1	-102.3	-90.7	1.4
A. Services to Business and Management	1.5	1.0	-4.5	-4.1	-2.8
B. Personal, etc., Serivces	89.4	71.3	-105.2	-90.5	12.8
31. Total Non-Manufacturing	183.2	-174.3	-1059.2	-685.7	-537.3
32. Mining					
33. Mineral Fuels					
A. Mineral Products and Petroleum Refineries					
34. Agriculture	484.9	586.5	906.6	71.7	499.5
35. Rental Housing	13.5	606.1	405.7	524.7	847.9
36. Owner Occupied Housing	29.4	1293.9	858.2	1094.3	1737.3
37. Trade (Non-Corporate)	11.3	13.4	-24.7	-25.2	-13.1

TABLE 5. PROPERTY TAXES PAID IN CURRENT PRICES (millions of dollars)

Industry	1965	1966	1967	1968	1969
1. Foods and Beverages	23.4	26.5	30.3	31.7	35.6
A. Food Industries	18.5	20.0	22.6	24.3	23.0
B. Soft Drinks	1.2	2.0	2.3	2.1	1.8
C. Breweries and Wineries	3.8	4.5	5.4	5.4	6.8
2. Tobacco Products	2.0	1.2	1.0	1.1	.8
3. Rubber Products	1.5	1.9	2.3	2.4	3.2
4. Leather Products	1.6	1.7	1.9	2.1	2.3
5. Textile Mills	5.6	5.6	6.8	9.5	8.6
6. Knitting Mills	1.2	1.1	1.3	1.8	2.0
7. Clothing Industry	2.5	3.3	3.2	3.7	4.9
8. Wood Industry	5.2	6.6	6.2	7.5	8.2
9. Furniture	1.5	2.6	3.3	5.9	4.3
10. Pulp and Paper and Allied Industries	24.8	26.7	28.5	34.8	28.7
A. Pulp and Paper Mills	21.6	22.3	23.1	28.2	23.0
B. Paper Boxes and Convertors	3.2	4.4	5.5	6.6	4.4
11. Printing and Publishing	5.2	5.7	5.5	7.1	7.3
A. Commerical Printing	2.9	3.2	3.1	3.7	3.9
B. Publishing	.2	.3	.4	.6	.3
12. Primary Metals	9.6	13.2	10.4	12.8	10.3
13. Metal Fabricating	10.1	12.6	14.1	15.0	16.2
14. Machinery Industries	5.4	6.5	6.0	8.8	8.8
15. Transportation Equipment	13.5	12.5	14.1	15.7	17.7
A. Aircraft and Parts	1.6	2.1	2.8	2.6	1.3
B. Motor Vehicles	9.9	8.1	7.9	9.7	11.6
C. Miscellaneous Transportation	2.0	2.3	3.4	3.3	3.1
16. Electrical Industries	6.3	7.1	7.8	8.8	9.7
A. Electrical Industrial Equipment	3.6	3.9	4.6	5.0	4.9
B. Other Electrical Products	2.7	3.3	3.1	3.9	4.1
17. Non-Metallic Mineral Products	5.3	5.8	7.9	6.6	7.4
18. Petroleum and Coal Refineries	49.0	51.4	22.3	24.3	55.7
19. Chemical Industries	7.8	10.3	10.4	12.0	12.3
20. Miscellaneous Manufacturing	4.4	3.5	4.8	6.1	7.3
21. Total Manufacturing	185.9	205.9	188.2	218.1	251.3
22. Total Construction	15.1	15.5	19.8	28.1	31.2
A. Building Contractors	9.2	8.6	11.4	15.7	13.4
B. Highway and Bridge Construction	1.6	1.9	2.2	2.2	2.7
23. Total Transportation	69.1	85.0	83.2	112.1	114.2
A. Air Transport	1.2	1.4	1.9	2.4	2.2
B. Water Transport	n.a.	2.4	2.5	2.9	2.4
C. Railways	n.a.	51.7	43.0	63.0	19.0
D. Truck Transport	7.7	14.6	19.2	25.7	32.4
E. Pipelines	14.8	10.3	11.5	13.2	16.2
24. Storage	4.1	4.9	5.0	8.5	7.4
A. Grain Elevators	1.4	1.4	1.6	3.4	2.7
B. Storage and Warehouses	2.7	3.5	3.4	5.1	4.2
25. Communications	30.7	22.4	26.4	44.5	51.9
A. Radio and Television	1.4	1.3	1.6	1.5	2.4
B. Telephones	29.3	20.9	24.8	43.0	49.3
26. Public Utilities	15.9	18.4	19.6	23.3	23.2
A. Electrical Power	7.5	8.6	8.2	9.3	8.5
B. Gas Distribution	8.3	9.5	11.2	13.3	14.0
27. Wholesale Trade	34.4	37.2	48.1	54.6	59.2
28. Retail Trade	50.1	67.8	74.9	81.3	103.1
29. Total Finance, Insurance, and Real Estate	133.4	163.8	203.0	234.6	250.9
A. Trust Companies	1.2	1.9	1.8	2.0	1.9
B. Mortgage and Loan Companies	.6	.6	1.0	1.0	2.8
C. Banking	n.a.	5.1	5.9	7.1	4.5
D. Total Deposit Accepting Institutions	1.8	7.6	8.7	10.1	9.2
E. Total Investment Companies	4.7	8.6	8.4	12.5	6.9
30. Total Services	38.0	46.3	53.4	65.4	76.8
A. Services to Business and Management	2.2	3.1	4.2	4.1	6.4
B. Personal, etc., Serivces	35.0	43.3	49.2	61.3	70.5
31. Total Non-Manufacturing	390.8	461.3	533.4	652.4	717.9
32. Mining	12.9	13.7	15.5	17.2	24.1
33. Mineral Fuels	9.0	6.7	17.3	35.3	18.9
A. Mineral Products and Petroleum Refineries	366.6	237.1	324.1	412.4	402.9
34. Agriculture	143.0	155.5	165.4	175.2	185.6
35. Rental Housing	353.7	399.5	464.2	512.8	585.6
36. Owner Occupied Housing	769.3	852.9	981.9	1069.4	1199.8
37. Trade (Non-Corporate)	27.0	33.6	39.3	43.4	51.9
38. Total all Activities	2200.3	2308.3	2689.8	3112.0	3382.5

TABLE 6. Income Taxes Paid in Current Prices (millions of dollars)

Industry	1965	1966	1967	1968	1969
1. Foods and Beverages	166.9	171.4	178.9	204.2	227.8
A. Food Industries	96.6	91.1	83.2	100.1	119.2
B. Soft Drinks	9.8	11.3	13.3	13.3	12.1
C. Breweries and Wineries	60.4	69.0	77.7	89.4	96.4
2. Tobacco Products	20.7	17.1	23.9	24.0	23.5
3. Rubber Products	10.8	14.5	19.2	23.2	24.3
4. Leather Products	4.2	4.4	3.3	6.1	6.6
5. Textile Mills	30.7	29.6	19.2	37.7	46.5
6. Knitting Mills	4.1	3.6	4.5	7.0	8.1
7. Clothing Industry	8.6	10.6	10.6	15.0	15.3
8. Wood Industry	23.8	22.4	27.0	54.3	66.9
9. Furniture	4.6	7.4	6.3	9.1	9.7
10. Pulp and Paper and Allied Industries	124.0	105.1	101.6	107.7	126.1
A. Pulp and Paper Mills	105.3	84.1	75.9	80.3	100.7
B. Paper Boxes and Convertors	18.8	29.0	25.7	26.7	25.5
11. Printing and Publishing	30.5	39.0	56.9	53.2	62.1
A. Commerical Printing	9.0	14.1	15.5	16.0	19.4
B. Publishing	2.9	4.2	5.6	5.8	6.5
12. Primary Metals	152.0	53.9	86.5	157.2	115.3
13. Metal Fabricating	68.2	75.8	69.9	75.5	89.0
14. Machinery Industries	60.7	68.9	65.1	73.0	91.4
15. Transportation Equipment	131.7	88.1	107.2	159.9	186.6
A. Aircraft and Parts	2.5	3.3	2.0	5.1	4.4
B. Motor Vehicles	117.0	72.1	86.7	135.8	162.2
C. Miscellaneous Transportation	12.0	12.7	18.7	19.0	19.9
16. Electrical Industries	48.1	64.9	48.2	45.2	54.5
A. Electrical Industrial Equipment	19.4	25.6	16.5	9.8	8.1
B. Other Electrical Products	28.7	39.3	32.1	35.4	46.5
17. Non-Metallic Mineral Products	33.8	34.1	28.0	34.0	39.1
18. Petroleum and Coal Refineries	38.3	55.8	28.0	41.3	40.1
19. Chemical Industries	83.2	93.2	92.8	120.4	112.9
20. Miscellaneous Manufacturing	28.7	31.6	34.1	40.1	50.2
21. Total Manufacturing	1073.8	991.4	999.2	1288.1	1396.1
22. Total Construction	48.5	66.2	94.1	106.9	106.5
A. Building Contractors	16.8	21.8	35.5	38.2	43.4
B. Highway and Bridge Construction	8.5	8.8	16.2	20.6	17.4
23. Total Transportation	106.0	137.1	116.6	116.1	117.2
A. Air Transport	.9	2.6	2.5	.6	.7
B. Water Transport	n.a.	7.2	9.0	7.6	10.1
C. Railways	n.a.	61.9	41.0	41.9	30.1
D. Truck Transport	9.0	16.5	17.1	18.2	20.3
E. Pipelines	35.6	40.6	36.8	37.9	45.7
24. Storage	4.4	5.8	6.8	4.7	4.3
A. Grain Elevators	3.7	4.2	4.9	1.8	1.3
B. Storage and Warehouses	.7	1.6	2.0	2.9	2.9
25. Communications	113.4	117.6	90.2	98.7	111.9
A. Radio and Television	9.7	10.4	11.7	13.4	19.7
B. Telephones	103.7	107.2	78.3	85.3	92.3
26. Public Utilities	31.1	36.9	40.4	43.8	40.0
A. Electrical Power	19.8	21.6	21.4	20.6	20.9
B. Gas Distribution	11.3	15.3	19.0	21.7	21.6
27. Wholesale Trade	168.4	211.8	211.4	248.9	261.0
28. Retail Trade	131.3	145.2	160.3	178.5	198.0
29. Total Finance, Insurance, and Real Estate	245.9	265.1	288.0	349.2	528.2
A. Trust Companies	13.9	14.8	12.3	14.6	18.6
B. Mortgage and Loan Companies	16.0	9.2	12.4	12.8	18.6
C. Banking	n.a.	98.4	107.8	120.2	234.1
D. Total Deposit Accepting Institutions	116.2	122.4	132.4	147.6	271.2
E. Total Investment Companies	35.2	33.6	39.6	64.7	62.9
30. Total Services	52.5	73.3	94.9	93.7	117.4
A. Services to Business and Management	16.7	28.3	27.0	27.6	37.2
B. Personal, etc., Serivces	35.8	45.0	67.9	66.1	80.2
31. Total Non-Manufacturing	901.5	1059.0	1102.7	1240.5	1487.5
32. Mining	89.9	89.9	91.9	111.5	144.9
33. Mineral Fuels	11.5	17.5	58.9	39.8	35.7
A. Mineral Products and Petroleum Refineries	49.8	73.3	86.9	81.1	75.8
34. Agriculture	-81.7	-68.4	-159.1	-187.9	-717.8
35. Rental Housing					
36. Owner Occupied Housing	-219.3	-234.9	-259.0	-286.0	-315.0
37. Trade (Non-Corporate)	nil	nil	nil	nil	nil
38. Total all Activities	1775.5	1854.3	1834.5	2205.9	2577.3

TABLE 7. Total Sales Taxes Paid on the Income From Capital (millions of dollars

Industry	1965	1966	1967	1968	1969
1. Foods and Beverages	441.4	486.8	610.8	675.8	731.1
A. Food Industries	9.3	10.0	12.0	12.4	13.0
B. Soft Drinks	7.1	8.4	11.0	12.2	13.6
C. Breweries and Wineries	424.8	468.2	587.7	651.0	704.4
2. Tobacco Products	332.9	375.0	433.7	439.6	453.7
3. Rubber Products	10.1	12.1	14.9	15.8	16.8
4. Leather Products	4.3	6.1	6.3	7.4	8.1
5. Textile Mills	15.9	18.1	19.6	21.9	23.6
6. Knitting Mills	7.0	8.8	10.1	11.3	12.0
7. Clothing Industry	13.5	18.3	17.6	19.0	21.2
8. Wood Industry	1.4	1.6	1.9	1.9	2.3
9. Furniture	7.9	11.4	12.9	13.8	15.9
10. Pulp and Paper and Allied Industries	8.5	9.1	11.3	11.6	12.9
A. Pulp and Paper Mills	4.1	4.2	4.9	5.3	6.0
B. Paper Boxes and Convertors	4.4	4.9	6.3	6.2	6.8
11. Printing and Publishing	6.5	7.7	9.3	9.3	10.7
A. Commerical Printing	5.9	7.1	8.6	8.6	9.8
B. Publishing	.4	.5	.6	.6	.8
12. Primary Metals	11.9	12.8	13.7	14.9	12.5
13. Metal Fabricating	10.3	12.2	14.1	14.3	15.8
14. Machinery Industries	19.4	23.2	26.0	25.7	28.7
15. Transportation Equipment	148.5	174.5	233.0	289.2	361.7
A. Aircraft and Parts	2.6	4.2	5.7	6.3	5.4
B. Motor Vehicles	144.8	165.4	221.4	276.3	349.2
C. Miscellaneous Transportation	.9	4.7	5.9	6.5	7.1
16. Electrical Industries	51.3	66.5	79.4	85.2	92.1
A. Electrical Industrial Equipment	5.9	6.8	8.2	8.0	8.9
B. Other Electrical Products	45.3	59.7	71.1	77.1	83.2
17. Non-Metallic Mineral Products	5.5	6.6	7.5	7.4	8.2
18. Petroleum and Coal Refineries	152.6	179.0	115.0	115.6	145.4
19. Chemical Industries	20.5	22.1	24.5	18.6	20.0
20. Miscellaneous Manufacturing	19.6	20.0	23.3	25.7	30.9
21. Total Manufacturing	1289.6	1472.6	1685.6	1824.6	2024.2
22. Total Construction					
A. Building Contractors					
B. Highway and Bridge Construction					
23. Total Transportation					
A. Air Transport					
B. Water Transport					
C. Railways					
D. Truck Transport					
E. Pipelines					
24. Storage					
A. Grain Elevators					
B. Storage and Warehouses					
25. Communications	9.8	16.4	21.9	26.7	29.3
A. Radio and Television					
B. Telephones	9.8	16.4	21.9	26.7	29.3
26. Public Utilities	11.9	9.5	13.9	14.5	18.6
A. Electrical Power	7.4	4.7	6.9	7.7	8.1
B. Gas Distribution	4.5	4.8	7.0	6.8	10.5
27. Wholesale Trade	149.3	196.9	244.2	249.4	283.3
28. Retail Trade	10.6	15.5	21.7	25.6	31.9
29. Total Finance, Insurance, and Real Estate					
A. Trust Companies					
B. Mortgage and Loan Companies					
C. Banking					
D. Total Deposit Accepting Institutions					
E. Total Investment Companies					
30. Total Services	4.4	6.0	6.6	7.7	9.2
A. Services to Business and Management					
B. Personal, etc., Serivces	4.4	6.0	6.6	7.7	9.2
31. Total Non-Manufacturing	186.0	244.3	308.3	323.9	372.3
32. Mining					
33. Mineral Fuels					
A. Mineral Products and Petroleum Refineries					
34. Agriculture					
35. Rental Housing					
36. Owner Occupied Housing					
37. Trade (Non-Corporate)	51.1	67.9	85.1	88.0	110.8
38. Total all Activities	1526.9	1784.9	2079.1	2236.6	2497.3

FOOTNOTES

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1. A. C. Harberger. "On Measuring the Social Opportunity Cost of Public Funds," The Discount Rate in Public Investment Evaluation, Denver, Western Agricultural Economics Research Council 1968.

2. M. S. Feldstein. "Net Social Benefit Calculation and the Public Investment Decision," Oxford Economic Papers, Vol. 16, March 1964, and M. S. Feldstein. "Choice of Technique in the Public Sector: A Simplification," Economic Journal, Vol. 20, December 1970.

3. S. A. Marglin. "The Opportunity Costs of Public Investment," Quarterly Journal of Economics, Vol. 77, May 1963.

4. Although the values for many of the variables can be derived from a much longer period of time it is only from 1965 to 1969 that complete information is available. The results, complete and incomplete, for the period 1953 to 1969 are presented in Glenn P. Jenkins, Analysis of Rates of Return From Capital in Canada, unpublished Ph.D. dissertation, University of Chicago, 1972.

5. Statistics Canada, Corporation and Labour Unions Return Division, Corporation Financial Statistics, 1965-1969. Catalogue No. 61-207 and Corporation Taxation Statistics, 1965-1969, Catalogue No. 61-208.

6. Statistics Canada, Business Finance Division, Fixed Capital Flows and Stocks, Manufacturing Canada 1926-1969, Catalogue No. 13-523.

7. In general, price indices have been constructed for the different categories of assets for each industry and estimates made of their length of economic life. Also price indices for industrial, agricultural and residential land were constructed. For a more complete discussion of the methodology used to construct price indices and length of life estimates

see: Glenn P. Jenkins, op. cit. pg. 6 to 16; T. K. Rymes, Fixed Capital Flow and Stocks Methodology Statistics Canada 1967; Jones, Constance M., "Price Indexes for Non-Residential and Engineering Construction," Canadian Statistical Review, January 1970, Volume 45, No. 1. Statistics Canada Catalogue No. 11-003. Murty, P. S. K., "Revised Price Indexes of Construction Expenditures for G. N. E. Deflation," Canadian Statistical Review, November 1970, Volume 45, No. 11. Statistics Canada Catalogue No. 11-003.

8. In the case of financial intermediaries where the portfolio of financial assets is necessary to carry out its economic function this adjustment does not apply. In this study the rates of return for this industry are estimated using two different assumptions about the composition of the capital stock: (a) capital defined inclusive of financial assets and (b) capital defined as the economic value of the equity.

9. Arnold C. Harberger. "The Measurement of Waste," American Economic Review, May 1964, pp. 58-76.

10. Buildings and equipment in the capital stock estimates prepared by Statistics Canada, Business Finance Division refer to building construction, engineering construction and machinery.

11. The direction of bias was evaluated theoretically and some empirical testing was conducted by: Stauffer, T. R. Measurement of Corporate Rates of Return, unpublished Ph.D. dissertation, Harvard University, 1971.

12. When the investment in specific training is not capitalized then the measured capital stock of the industry will be smaller than its true economic value. This will tend to bias the measured rate of return upward. However, the net income of the firm will also be decreased as the investment in this training each year is treated as a current expense and not depreciated through time. For the calculation of rate of return these two errors in measurement will tend to offset each other.

13. For a more complete description of the derivation of the economic life assumptions see: T. K. Rymes, op. cit. pp. 87-103.

14. The Input-Output Division of Statistics Canada has now constructed the federal sales tax margins by commodity from 1961 to 1967. However, except for 1961, they have been

15. These data were released to us by the National Accounts Division, Statistics Canada for use in this study. This information is not published.

16. For a more complete explanation of the methodology as related to mining, mineral fuels, agriculture and residential housing see: G. P. Jenkins op. cit. pp. 47 to 67, also Apprendices A, C, and D.

17. Statistics Canada, Farm Finance Section, Farm Net Income, Catalogue No. 21-202.

18. Statistics Canada, Agriculture Division, Quarterly Bulletin of Agricultural Statistics, Catalogue No. 21-003.

19. The agriculture labour force data, estimation of non-wage labour income, and the estimation of the value of subsidies given to agriculture are presented in Glenn P. Jenkins op. cit., Appendix D.

20. Statistics Canada, Housing and Building Permits Section, Canadian Housing Capital Stock, unpublished.

21. L. R. Christensen. "Entrepreneurial Income: How Does It Measure Up," American Economic Review, September 1971, Vol. 61 No. 4.

22. A. C. Harberger. "On Measuring the Social Opportunity Cost of Public Funds," op. cit.

23. G. P. Jenkins. op. cit. pg. 99.

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