Dominion Bureau Of Statistics.

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NET NATIONAL INCOME AT FACTOR COST

- AND -

GROSS NATIONAL EXPENDITURE AT MARKET PRICES

IN CANADA.

Tentative Statement

by

Inter-departmental Committee
on Income and Expenditure Concepts.

Ottawa, 1945.

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INTRODUCTION

Systematic studies in the field of national income were begun by Mr. S.B. Smith, of the Dominion Bureau of Statistics, in 1925. The first estimate was published in that year and the series has been carried up to the present time with periodic revisions. These estimates were based chiefly on the "income produced" method. During the 1930's the Bank of Nova Scotia began publication of a separate series, also based on the "income produced" method. Requirements of the Rowell-Sirois Commission on Dominion Provincial Relations called for estimates based on income paid out, and a series based on this method was prepared by the staff of the Commission and published in 1939.

In recent years there has been increasing realization that a national budget - a set of accounts for the whole economy - can be a most important tool in the development of economic policy. Problems involved in the planning of a maximum war effort have emphasized the need of knowledge of the size, structure and distribution of the national income; of the relation of net national income to gross national product; and of the distribution of national expenditure - as between different sectors of the economy, as between consumption and investment, and as between war and non-war. Planning for full-employment and social security in the post-war will require similar information.

The usefulness of comprehensive studies in this field is by no means confined to government alone, for similar needs have been expressed on many sides. With the growing complexity of business problems, data of national income and expenditure will facilitate the study of markets, the structure of costs, the relationships of firm to industry and of particular industries to the economy as a whole.

The urgency of these needs has led to the decision to review the concepts on which the Dominion Bureau of Statistics' national income series has been based and to institute preparation of a new set of national accounts, comprising in the first instance estimates of gross national product and national expenditure as well as of net national income - later to be expanded into other detailed accounts.

The preliminary step in this revision was taken in the Fall of 1944. At the request of the Dominion Statistician an inter-departmental committee was formed to consider the concepts on which the new series should be based. Under the general direction of Mr. Herbert Marshall (Assistant Dominion Statistician) this committee comprised the late Mr. George Luxton (who had been appointed shortly before his death as Senior Economic Statistician of the Dominion Bureau of Statistics), Dr. Claude M. Isbister (now Senior Economist of the Dominion Bureau of Statistics), Mr. Simon Goldberg (Dominion Bureau of Statistics Central Staff), Mr. M. C. Urquhart (Department of Reconstruction), and Mr. Walter Duffett and Miss Agatha Chapman (Bank of Canada.) This present report has received benefit from others too numerous to mention, but it would be incomplete without particular acknowledgment of the part played by Miss Chapman.

In September, 1944, a series of meetings took place in Washington with a view to attaining a greater degree of comparability in the national income estimates of the United Kingdom, the United States, and Canada. These meetings were attended by Mr. Richard Stone (of the United Kingdom Central Statistical Office), Mr. Milton Gilbert and other members of the United States Department of Commerce working on national income statistics, and Mr. George Luxton of the Dominion Bureau of Statistics. The inter-departmental committee working on the Canadian estimates has been guided as far as possible by the conclusions reached in Washington at that time. It has also benefitted considerably from the experience and advice of the United Kingdom and United States estimators and particularly from the opportunity to consult with Mr. Richard Stone during his visit to Ottawa.

This present report of the inter-departmental committee is purposely tentative in form and is to be used as a working memorandum within the Dominion Bureau of Statistics. One result of this is that space is allotted in proportion to the complexity of the problem, rather than its magnitude, an important although conceptually simple concept such as salaries and wages requiring very little discussion. The statement of concepts contained herein is printed for limited circulation, in the hope that those who are interested in the subject will give it critical consideration.

Estimates from the year 1938 to date based on these concepts will be published later in the summer. This new series will be subjected to continuous improvement resulting from research and experience. The present series of National Income Estimates, therefore, will be superceded shortly by a new series.

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NET NATIONAL INCOME AT FACTOR COST is defined as the aggregate of the net earnings paid or accruing in a given year to individuals who are resident in Canada, or temporarily abroad, and to governments and other public agencies in Canada, as a return for their participation in production. The contributions made to current production by labour, management, enterprise and property are, in effect, evaluated in this total through the remuneration they receive as factors of production.

Following this definition dividends paid abroad are excluded but in a closely related case an exception is made, namely to include the accrual in Canada to residents of other countries of profits which are undistributed and to include the accrual to this same group of profits which are required for withholding tax and corporate profits taxes.

In addition to cash incomes, the procedure is broadened in several instances to include earnings from current production received "in kind," valued at prices the recipient would otherwise have had to pay for them. Certain products retained by producers for their own consumption, such as food grown and consumed on farms, are also included, valued at the prices for which they could otherwise have been sold. Items of both these types will be noted in what follows. Pending a fuller statement of problems in this sector, it may be emphasized that to assign a money value to every type of income in kind would place too great a burden on the judgment of the individual investigator and is not to be undertaken.

The products of what may be called the household economy (as distinct from the market economy) are in no case to be appraised as additions to income where these are consumed within the immediate household. As an example of this the services of housewives are not taken into the accounts.

In the above definition the term "net" refers to the fact that components of investment income are reckoned after deduction of sums allowed for depreciation.

The net national income at factor cost does not involve in principle the measurement of capital gain or loss.

NET NATIONAL INCOME BY FACTOR SHARES is the procedure by which net national income at factor cost is duly allocated amongst principal factors of production.

	Salaries, wages and supplementary labour income.
plus	Military pay and allowances.
plus	Investment income.
plus	Net income of unincorporated individual enterprise, agricultural and other.
equals	Net national income at factor cost.

This division of net national income into factor shares will reveal interesting aspects of the operation of the Canadian economy and available statistical sources can be adapted to its compilation. The total of net income at factor cost measures the net value of production and as this total fluctuates from year to year it is perhaps the best single indicator of economic conditions. Analysis of its division between current consumption and net additions to the national stock of capital equipment is of urgent importance, in view of current discussions of employment and production problems.

Although technical difficulties will delay, for some little time, the compilation of aggregate personal incomes and of income size distributions, it is of interest to see in what way these can be derived. From net national income at factor cost must be deducted all those elements of earnings which are not paid to individuals, composed principally of investment income accruing to governments and the undistributed profits of corporations. To be added on the other hand are transfer payments properly so-called, defined as those elements of personal income which are not emoluments of productive services. Since inter-personal transfers cancel out in their effect on aggregate personal income they can be ignored. A sufficient adjustment is then made by adding transfer payments received by persons from governments, of which a principal element is interest on government bonds. The aggregate of personal income payments is then obtained as the resultant of these adjustments. It is the disposal of this total which makes up consumer expenditures, personal savings and taxes levied on personal incomes in any year.

GROSS NATIONAL EXPENDITURE AT MARKET PRICES is the second of the aggregative concepts for which direct statistical estimation is contemplated in the immediate future. This total, which is sometimes referred to as gross national product at market prices, is the gross value of consumer goods and services and capital goods whether purchased from business enterprises or produced by government agencies, the latter valued at market cost. Capital equipment is included in toto with no deduction for its current consumption in productive processes. The value of materials and services produced by private industry and consumed in the productive process is already included in the value of finished goods and need not be counted again.

	Government expenditure on goods and services.
	(a) War.
	(b) Non-war, current and capital.
plus	Gross private investment expenditure.
plus	Personal expenditure on consumers' goods and services.
equals	Gross national expenditure at market prices.

It is necessary to note that neither from net national income at factor cost nor from gross national expenditure at market prices does there emerge any estimate of governmental savings based on the comparison of revenues and expenditures. Further, there is no negative adjustment introduced for governmental services to business, nor is there any assumption made that these services can be measured by business taxes. The methods to be adopted by the Dominion Bureau of

Statistics are thus to be contrasted with those of Dr.Simon S. Kuznets of the National Bureau of Economic Research.

It is doubly useful to reconcile the two projected methods of direct statistical estimate, this serving as a numerical check on accuracy and - more important - shedding additional light on the nature of the economic process.

Reconciliation.

Net national income at factor cost.

plus Indirect taxes.
minus Subsidies.
plus Bad debt allowances.

equals Net national income at market prices.

Net national income at market prices.

plus Current accounting allowances for depreciation.
plus For insurance against fire and other damage to business property (including housing), premiums in excess of sums needed to meet insurance company expenses.

equals Gross national expenditure at market prices.

COMPONENTS OF NET NATIONAL INCOME BY FACTOR SHARES.

1. Salaries, wages and supplementary labour income.

1.(a) Salaries and Wages

Cash earnings of employees before deduction of income taxes and social security contributions paid by themselves. Cash bonuses are included and retroactive wage increases in the year in which awarded.

1.(b) Supplementary Labour Income.

1.(b) (i) Employer contributions to unemployment insurance and other government contributory social security schemes are regarded as supplements to wages.

Employer contributions to Workmen's Compensation funds, to provide for loss of earnings (loss of time plus impaired earning power), are to be included at the time of contribution to the fund. A portion of these contributions, calculated to be for medical aid and hospitalization, is to be excluded.

Where governmental agencies make such contributions on behalf of their own employees, these are to be included at the time of payment into the fund, as in the case of any other employer.

Non-contributory social security payments, other than employee pensions, are regarded as transfer payments and excluded.

1.(b) (ii) Employer contributions to private industrial pensions whether through life insurance companies or through self-insurance.

> If a special fund exists in any of the instances included in 1.(b)(i) or 1.(b)(ii) its interest income should be included with personal investment income.

1.(b)(iii) Non-contributory pensions to employees paid out by industry or government.

1.(b) (iv) Board and other allowances.

Board and other allowances in cash or kind except to "no-pays" working for family enterprise, e.g. farming.

The total non-cash items under this heading are added to gross national expenditure - item 1(c). Income produced by "no-pays" in family enterprises is implicitly included with the net income of individual enterprise - item 4 herein.

> As data becomes available, items are to be included such as -

- Meals of restaurant, hospital and other workers.
- Insurance provided free to insurance company employees.
- Discounts on employee purchases of consumer goods.
- Medical care provided free of charge, excluding treatment for industrial accidents, disease or injury.
- Recreation facilities for employees.
- Free passes to transportation employees.

Excluded are items such as -

- Food eaten on the farm, included under item 4.
- Income in kind of Armed Forces appearing below in 2(b).

2.(a) Military Pay and Allowances.

Cash payments to members of the Armed Forces in Canada and overseas which are interpreted as compensation for services rendered. To be included are military pay, dependents' and subsistence allowances, all clothing allowances and the rehabilitation grant, i.e. the 30 days' extra pay and one month's extra dependents' allowances upon discharge. The rehabilitation grant is analogous to the discharge pay granted by some firms.

War service gratuities and all post-discharge re-establishment benefits are excluded as transfer payments. Were they to be regarded as payments for services rendered, it would not in any case be feasible to allocate them back to the particular years in which the service was rendered.

2.(b) Issues in kind.

It would be desirable to include all issues in kind, food, clothing, shelter and medical and dental care. It is possible to include only the estimated value of food and clothing issues. Results of this procedure have the advantage of comparability with the Department of Commerce and the Central Statistical Office estimates in the United States and Great Britain.

No evaluation is made of reductions in railway fares to members of the Armed Forces. Reductions on short leaves are made by the railway companies themselves without compensation from the government and are not included in the national income. The government does subsidize travelling-warrants on annual furloughs home. Such trips are not regarded as additions to personal earnings.

2.(c) Regular Army Pensions.

An attempt might be made to estimate governmental contribution to a hypothetical regular army pension fund. In practice, because the amount involved is so small, this contribution is to be calculated by deducting current employee contributions from the annual out-payment.

Excludes pensions for death or disability attributable to war service.

3. Investment Income.

This includes returns to enterprise and property, loaned and invested, in the categories of interest, dividends, rent and profit.

3.(a) Interest and Rents.

Net interest and rents received by corporations are already included with other corporate net income as dividends, undistributed profits and corporate profits taxes. They are to be eliminated here.

Interest earned in financing production by resident individuals and by governments is included as well as all interest from abroad. Interest received by private non-commercial institutions and by those financial intermediaries which are treated as "associations of individuals" (see note on financial intermediaries) are treated as accruing to individuals. All interest payments made abroad are excluded.

Interest payments on federal, provincial and municipal debt not regarded as earnings on productive assets are taken as transfer payments and excluded.

This approach renders necessary a special computation of interest on productive assets of federal, provincial and municipal governments. This is essentially a process of imputation and raises some difficulty. The decision as to whether or not a certain asset is productive will be based on its usefulness in the current period. War assets will thus be regarded as productive during the war period but afterwards only if they can be used in peace-time. The current rate of interest on the long-term debt of the government in question will be applied to the valuation of productive assets in the public accounts.

On the assumption that governmental debt held abroad finances productive assets, interest paid abroad on such debt is to be deducted from the last-mentioned total of interest on governmental productive assets. An additional justification for this treatment is that interest paid abroad represents a claim by foreigners against the current productive earnings of residents and cannot therefore be treated as a transfer payment.

The term rent is here used in its familiar commercial sense to comprehend net earnings accruing to capital assets such as land and buildings, including farm and non-farm residences, and real estate whether industrial, commercial or non-commercial.

In owner-occupied homes and the owned real estate of private non-commercial institutions net rents are received not in cash but as a real service. The estimated value of the latter is included as imputed rent and an equal amount appears in 12.(c).

Note on Consumer Debt Interest.

Net interest on consumer debt is excluded from net national income at factor cost although expenses of handling and administering it are included. All consumer outlay is treated as current consumption except for outlay on housing which is regarded as capital. Noting this single exception, since consumer goods cannot give rise to investment income, it is clearly necessary to exclude interest on the debt which finances such goods. The administrative expenses which are incurred in rendering services to borrowers are added to item 12.(b).

This treatment does not apply to the financing of business (including landlord) purchases of consumer goods.

3.(b). Dividends received by individuals.

All dividends are regarded as earnings from productive activities. In national income will appear dividends, whether from home or abroad, received by resident individuals, governments, private non-commercial institutions and those financial intermediaries which are treated as "associations of individuals". Dividends paid abroad are to be excluded along with dividends paid to corporations.

Patronage dividends paid by consumer cooperatives are regarded as price rebates and not to be included in investment income.

Note on Financial Intermediaries.

The institutions which fall under this title are mainly engaged in the transfer and investment of capital. Unlike most manufacturing and service enterprises, their receipts and payments are not to be identified with sales and costs respectively. These intermediaries fall into two main groups - investment trusts, life insurance companies, banks, loan and trust companies on the one hand, and fire insurance companies, casualty insurance companies, security dealers and personal loan companies on the other. In the first group especially is it true that services are rendered largely to persons and that these services are not usually exchanged for a specific and identifiable fee. The value of these services must in consequence be made the subject of special estimates.

Treatment of the first group above involves the concept of an "association of individuals" which may be illustrated by the hypothetical example of an investment trust whose shares are entirely held by individuals. Its treatment in the national accounts would be as follows:-

Net national income		Gross national expenditure	
Gross personal investment income	100	Interest and dividend payments by borrowers (in price of goods)	100
Costs of administration	2	Value of investment trust services	2

Interest and dividend payments to the trust are derived from sales of goods and services by the borrowing business enterprises, hence are included as above on the expenditure side. The shareholders of the trust are regarded as an "association of individuals," pooling their capital in order to obtain diversification and to purchase from the management of the trust special investment supervision. Consequently the entire income derived from this investment is regarded as first accruing to the shareholders, who thereupon disburse a portion of it to the management of the trust as a fee. In the absence of any other basis, the amount of this fee is to be measured by the salaries and other operating costs of the trust. What is involved here is the necessity of imputing a value since no specified cash transaction takes place and there is an implicit assumption regarding the nature of the benefits rendered by the trust. The purchase of services by the investors is shown in expenditure and the expenses of the trust appear on the income side.

The alternative to this "association of individuals" approach would have been to argue that the investment trust renders its services to individuals as purveyors of capital who are performing a business function. The service of the trust would thus be a business service and not a final consumer service to be recorded in the national expenditure.

A further example may be given, this time dealing with life insurance companies. These latter combine the type of business described above (an association of individual investors) with the sale of protection against premature death. The level annual premium system involves the accumulation of large investments as reserves and the gross return on these accrues to the benefit of policy-holders. The services of the companies are not sold to the public for a specific fee which can be listed in national expenditure, item 12(b), because payments by the public are largely contributions of capital with a small service fee included. It is proposed, consequently, to measure the service of life insurance companies to individuals by the costs of operation of the insurance company, including profits to shareholders and allocation to reserves. These include both investment and insurance costs.

3.(c) Corporate Profits Taxes and Withholding Tax on Interest and Dividends.

Taxes on corporate net profits and the withholding tax on interest and dividends paid to non-residents are treated as direct taxes and included in national income at factor cost under investment income. Since labour income and entrepreneurial income are included before tax, it is desirable for reasons of comparability to treat the factor share accruing to capital in a similar manner. In the case of the withholding tax, the interest and dividends on which the tax is levied are excluded from national income (after deduction of the tax) since they are paid to non-residents. The tax itself is to be included, since it is retained in the country.

3.(d) Undistributed Profits.

Undistributed profits are the remainder of corporate net income after deduction of dividends paid and corporate profits taxes. A portion of this figure will represent undistributed profits accruing to non-residents of Canada, which theoretically should be excluded from Canadian national income. In the absence of any basis for estimating the amount accruing to non-residents, it is necessary to neglect this adjustment.

The figure of undistributed profits is calculated after deduction of current allowances for depreciation but before deduction of depletion charges (see note on depreciation). Charges to other reserves which are deductible for purposes of calculation of normal corporate tax are treated as a current expense. Such charges are not large in magnitude, but in so far as they can be estimated (e.g. bad debt allowances) they are to be added in the reconciliation between net national income and gross national expenditure.

Capital outlays which have been charged to current expense should not be allowed as an expense for calculation of the undistributed profits figure. Presumably they will not in most cases be allowed for income tax purposes and the problem will not arise. If the amount of capital outlays charged to current expense could be ascertained, the ideal solution would be to replace this amount in operating expenses with the appropriate depreciation charge on the capital expansion involved. The same figure would, of course, be included in the estimate for depreciation in the reconciliation between net national income and gross national expenditure.

Treatment of inventories and its implications for the factor share profits is dealt with in 3.(e).

3.(e) Inventory Revaluation Adjustment and comments thereon.

Two related problems are involved in the handling of inventory figures for national income purposes:-

(1) Whether to include in national income the change in total value or the current value of the physical change.

(2) The handling of inventory reserves (which are to some extent a method of adjustment for accounting techniques which allow price change of existing stocks to enter into current profits).

(1) If the change in total value of inventories is reflected in profits in the national income and in investment in the national expenditure, then appreciation or depreciation in value of already existing stocks is included in national income for the current year.

If national income estimates are to arrive at earnings from the current production of goods, then it is desirable that the goods taken out of inventory should be costed as close to their current value as possible. Similarly, it is desirable that investment in inventories should measure the current value of the physical change.

Distortion becomes important only if the first-in-first-out method is commonly used as the basis of inventory accounting. The last-in first-out and base-stock methods do in effect come close to taking into operating expenses the current value of goods withdrawn from inventory. While information is lacking as to the prevalence of the various methods of inventory accounting, it would appear that first-in-first-out (or some approximation to it) is the method generally used.

It is proposed that there should be a special item in net national income next to "undistributed profits" showing "inventory revaluation adjustment". A portion of the revaluation figure will actually relate to unincorporated enterprise. Since the portion of inventories (ex. farm inventories) held by unincorporated enterprise is very small as compared with that held by corporate enterprise, it is considered justifiable to show the adjustment as though it relates entirely to corporate enterprise. In gross national expenditure investment in inventories will be shown after adjustment for revaluation.

Calculation of the adjustment is difficult in that it requires an appropriate price index, knowledge of prevalent methods of inventory valuation and knowledge of the rate of turnover of inventories. In spite of the fact that adequate information on these points is not now available, it is agreed that an attempt to approximate the adjustment should be made. Adjustment is not necessary in the case of farm inventories, since the method of computation here is to calculate the physical change during the year and value this change at the average price for the year.

(2) Inventory reserves are essentially a method of provision against contingencies such as falling prices. The necessity of such provision assumes importance chiefly in the case of first-in-first-out methods of accounting, where otherwise inventory profits or losses would enter into current operating profits. If an overall adjustment is made for inventory revaluation, then we should not also use a figure for profits from which charges to inventory reserves have been deducted. Canadian income tax regulations allow charges to inventory reserve as a deduction for excess profits tax purposes only (since 1941); allocations to inventory reserves cannot be deducted from profits in calculation of normal corporate income tax. Since figures for undistributed profits are based on normal tax, they will automatically show profits before deduction of allocations to inventory reserves. If the amount of inventory reserves can be approximated, the figures will be shown in a footnote.

4. Net Income of Unincorporated Individual Enterprise, Agricultural and Other.

This separate classification is called for because it includes a mixture of salaries, wages, withdrawals, savings and investment income on owned capital, which could be broken down and distributed among other headings only with great difficulty and on a completely arbitrary basis.

It covers those salaries and withdrawals of working proprietors which are obtained from their own businesses. Any earnings they derive from other sources are included under the headings of salaries and wages and investment income. Imputed rent of owner-occupied land and productive buildings (farms, factories, etc.) is implicitly included here.

Imputed rent on owner-occupied houses is not shown here because it is included in investment income. Other elements of income of individual enterprisers which it would be desirable to separate are withdrawals and savings, but this is not practicable.

The most important class of individual enterprise is agriculture. Here are excluded non-income items, such as receipts under the Prairie Farm Income Act, which are not primarily for productive service. Subsidies which can be regarded as payments for productive service (Wheat Acreage Reduction Act and government payments to maintain prices) are included.

The Prairie Farm Adjustment Act is treated as a special case, analogous to unemployment insurance in the case of employees; farmers' receipts from wheat are to be shown before deductions for P. F. A. A. Payments to farmers by the Wheat Board on participation certificates are to be included at the time of payment. It would be possible to take these payments back to the crop year to which they apply but this would be a distortion of the idea of income since the value of participation certificates is indeterminate for a considerable time after the crop year has ended.

Deductions are made for farm expenses, including paid rent and provision for depreciation, and adjustment is made for changes in inventory.

Food eaten on the farm is added at farm prices since sale at farm prices would have been its only alternative use.

Note on Government Contribution to National Income.

Government contribution to the national income is estimated on the basis of the amount paid for productive services rendered by governments, i.e., net national income at factor cost includes wages, salaries and rent paid by governments and the imputed interest on government productive assets but does not include government saving or dissaving. This differs from the "payment-price" approach used by Kuznets, where government services are valued according to the current payments by the community through taxes, fees, etc. In the latter, income from government equals government payments for wages, salaries, rent and net interest on national debt plus government saving or dissaving (as measured by the difference between current revenues and total of current expenditures plus non-current expenditures for non-productive assets). Were this method to be adopted national income would vary according to whether government expenditures were financed by taxation or by borrowing. It is felt that for this reason the productive services of government are better valued at cost.

As stated above interest paid on direct federal, provincial and municipal debt is treated as a transfer payment and therefore excluded from net national income. The reason is that a large part of such debt, incurred for example from unemployment relief or during past wars, finances no productive service in the current period. Insofar as government debt does finance productive assets, it will be included in the national income through an estimate of the imputed return on them.

A further justification for this procedure is found by making a comparison with private business where interest paid constitutes part of the earnings from the use of productive services. The level of interest proper is determined by contract but if it is more than it should be in an economically sound project, the return to equity capital is correspondingly decreased and, in fact, the interest itself may fail to be paid. In any event, the total return on property is determined by market demand for the product and the willingness of capital to enter or stay in the industry. The total return to property, of which interest is a part, is thus determined not by any contractual agreement but by economic factors affecting general business conditions. In the case of government debt the interest is determined solely by a contractual arrangement and has no necessary relationship to return on productive assets.

Business enterprises owned by governments (e.g. Post Office, C.N.R., Ontario Hydro) are to be included with business corporations in general and given identical treatment. Their net savings or dissavings can be included with those of the private sector. This would appear to be more useful than the alternative method of including such business enterprises with the government sector, in which case their net profits or losses would be treated respectively as indirect taxes or as subsidies. Insofar as the losses of these enterprises are covered by direct government expenditures, the amounts should be removed from the private sector and shown as government subsidies.

Note on Non-Commercial Institutions.

Non-commercial institutions are defined as those whose service charges are not customarily calculated to cover expenses, e.g., hospitals, charitable institutions, etc. Measurement of their contribution to the national income presents a special problem.

The revenue of non-commercial institutions consists of fees, of gifts from government, business and individuals, and of investment income. Unlike ordinary business institutions, the value of their services is not fully reflected in the fees they charge. Nor is it logical to assume that the value of their services is equivalent to the total of fees and gifts received, since the amount of gifts does not correspond in any sense to current services rendered to the donor or to the community as a whole.

The solution is to measure the services provided by non-commercial institutions by their expenses. This involves regarding individuals as paying out of personal incomes the expenses of non-commercial institutions. Gifts from governments and from business, except when the latter are properly treated as business costs, are looked upon as transfers.

Since fees and gifts received by non-commercial institutions are regarded as transfer expenditures out of other incomes, they will not be included specifically in national income at factor cost. Investment income of these institutions is treated as accruing directly to individuals and is therefore included specifically under investment income.

Current and capital expenditures of non-commercial institutions will be included in (11) and (12). Fees and gifts from individuals to non-commercial institutions will not be included under personal expenditure since they are regarded as transfers.

Components of Reconciliation Between Net National Income at Factor Cost and Gross National Expenditure at Market Prices.

5. Indirect Taxes.

Indirect taxes represent a part of the market prices of goods which does not appear in factor costs.

The distinction between these and direct taxes is that the latter are levied on income, corporate or personal. This operational distinction is not based on any assumption regarding shifting and ultimate incidence of taxes of different types. Business accounting procedures will provide a guide as to whether a tax is direct or indirect. Thus all taxes which are treated as costs by business, such as real property taxes, should be taken as indirect. Those levied as a percentage of net profit should be regarded as direct taxes.

In the case of corporate profits taxes, different approaches have been used. The U. K. Central Statistical Office includes corporate profits before tax in national income at factor cost, thus regarding them as direct; the Department of Commerce excludes them. The former method is analogous to the inclusion of other factor incomes before tax and is accepted as preferable here.

Another case which requires consideration is that of sales taxes which are not included in market prices as reported by retailers. These are to be treated as indirect taxes and retail sales as reported by retailers adjusted by their amount for inclusion in national expenditure.

Real property taxes are treated as indirect whether on owner-occupied or on rented property. Since treatment of imputed rent of owner-occupied property involves regarding the owner-occupier in the dual role of landlord and tenant, this procedure is not inconsistent.

Government license fees, service charges, etc., paid by business are treated as indirect taxes only where the government organization levying such charges is not included with the business sector. Postal charges, for example, should not be included with indirect taxes since the post office can be treated as a business concern.

6. Subsidies.

To be included in the reconciliation are amounts paid by governments in participation in the current costs of producers. Excluded are (1) subsidies from one government to another, (2) Government payments for which no productive service is rendered, i.e. transfer payments and (3) subsidies for capital improvement or expansion, which are capital transfer payments.

7. Bad Debt Allowances.

Bad debt allowances must be included in the reconciliation because they enter into the market prices of goods and services in national expenditure but do not represent income of any factor of production. The figures used should, of course, be the amount included by businesses themselves in operating costs.

8. Current Accounting Allowances for Depreciation

An estimate of current consumption of capital must be added to net national income at factor cost to arrive at gross national expenditure. In view of the impossibility of arriving at a figure of the true economic consumption of capital, it is necessary to use current accounting allowances for depreciation and obsolescence as a basis for the estimate, although these may vary widely from actual physical capital consumption. Use of a different figure would not, of course, result in any different total for gross national expenditure since the figure for undistributed profits in (3) would be adjusted accordingly; the difference would affect the total of net national income at factor cost.

Special consideration must be given to cases where depreciation accounting is not practised. The railways are a case in point, although in recent years they have changed over to a more comprehensive depreciation basis. In some cases, replacements may be charged directly to operating expenses. If such replacement charges do not vary widely over a period from those which would have been made under the depreciation method, they can be included without adjustment in the estimate for depreciation. In some cases capital outlays which have no relation to the wearing out or replacement of equipment are charged to current expense. Theoretically such capital outlays should be added back to profits and replaced by the relevant amount of depreciation, the latter being included in the general estimate for depreciation.

Depreciation on government assets should be included to the extent that it can be estimated.

Write-offs of capitalized mine development are to be included with depreciation since they represent a charge against current production which is analogous to depreciation in that it covers consumption of capital.

Depletion charges are not to be included with depreciation since they are extremely arbitrary and represent a completely inadequate approximation to current consumption of natural resources. The figure for profits in net national income at factor cost is calculated before deduction of current accounting allowances for depletion.

Provision for losses from fire and other insurable risks is analogous to depreciation and is included in a separate heading (9) which is to follow this in the projected statistical tables.

COMPONENTS OF GROSS NATIONAL EXPENDITURE AT MARKET PRICES

10. Government Expenditure on Goods and Services.

10.(a) War and 10.(b) (i) Non-war Current.

This comprises only items which represent purchase of newly produced goods and services, including capital goods. Transfer payments, loan repayments and payments to sinking funds are all excluded. Subsidies representing payments for current productive services are excluded since they appear in the reconciliation.

Only expenditures in connection with activities which are strictly governmental in nature are included. Expenditures of government enterprises which charge fees for services to the general public, such as Post Office, C.N.R. and Ontario Hydro, are treated as business expenses and deducted from their revenues.

Interest on government debt is excluded since it is already noted as a transfer payment. It is replaced here by the figure used to represent the return on productive assets of governments in (3).

Government expenditures are divided between war and non-war, and the latter subdivided between current and capital. War expenditures cover expenditure of the Defence Departments prior to 1939 and during the war include items connected with financing of allied nations (.e.g. F.E.C.B. sterling accumulations, official repatriation, etc.) and with war relief (e.g. UNRRA) as well as the war appropriation. The distinction between capital and current non-war expenditures is discussed under the heading of investment; it is felt that no such distinction can be drawn for war expenditures.

10.(b) (ii) Non-war Capital

Capital expenditure includes the outlay by the government on new, physical, durable assets, the physical change in government-held inventories and, in the case of the foreign account, the net change in government-held foreign assets. Under government will be included only capital expenditures of those government enterprises which perform a strictly governmental function (e.g. construction by government departments, investment in stocks of wheat through the Wheat Board, etc.); capital expenditures of commercial enterprises owned by governments (e.g. C.N.R., Ontario Hydro, etc.) will be included with private investment.

The criterion as to what is a capital item will not depend upon whether the item is charged to capital account by the government but rather on the nature of the particular assets concerned. The breakdown between current and capital is to be obtained by a detailed study of the Public Accounts.

Government expenditure on construction and machinery and equipment in gross national expenditure includes only outlay on new items. It does not include land and does not include purchases of used plant and equipment from the private sector of the economy. The transfer of capital assets between the private sector of the economy and the government is to be shown in a footnote to the general table.

The net changes in government inventories will be treated in a manner similar to private inventories noted in (11).

Net foreign investment or disinvestment on government account cannot at the present time be properly separated from net private foreign investment or disinvestment, owing to the fact that information on certain items entering into the government's position is not available.

11. Private Investment Expenditure

In gross national expenditure gross investment outlay will be shown. Depreciation and obsolescence are entered in the reconciliation between gross national expenditure and net national income.

11.(a) Gross Construction

Gross capital outlay on construction should be valued so as to fit in best with the treatment of profits in national income. Items charged to repair and maintenance account by business should not be included if the companies' statements of operating profits have been taken as stated by them. Except where data are available on which to base corrections, it will be necessary to accept business practice.

All housing is to be treated as a capital item.

11.(b) Purchases of Producers Durable Goods

Producers durable equipment is so defined as to include only business (including landlord) property. Consumer movable property in the hands of consumers is treated as consumer goods; if in the hands of business, including landlords, it is treated as producer goods.

11.(c) Net Change in Business Inventories

Net change in business inventories includes change in agricultural as well as general business inventories. The change shown is to be the gross change adjusted for price increase or decrease during the year, in other words the physical change valued at current prices. In net national income this will be taken care of in 3(e).

For purposes of analysis, investment in inventories should be divided between the net change in inventories of government enterprise and of strictly private enterprise. Inventories of government enterprise included in the private sector will include only those of commercial undertakings owned by governments.

Care will be taken to ensure that no duplication occurs as between the figure of net investment in inventories and items entering into the balance of payments on current account (and therefore affecting the estimate of foreign net investment).

11.(d) Net Private Foreign Investment or Disinvestment, including Net Exports of Gold whether Monetary or Non-monetary

The estimate of net private foreign investment or disinvestment is obtained by taking the balance of international payments on current account and adjusting as far as possible for that part covered by government lending abroad or borrowing from abroad. As noted under 10(b) (ii), full adjustment for government transactions cannot be made at the present time.

12. Personal Expenditure on Consumers' Goods and Services

This comprises personal expenditure of Canadian residents, including implied expenditure out of income in kind, on consumers' goods and services. It includes expenditures of Canadian residents temporarily abroad (e.g. tourists, members of the armed forces), and excludes expenditures of foreign residents temporarily in Canada.

12.(a) Purchases of New Consumers' Goods

For estimates of personal expenditure goods are valued at sales prices, no reduction being made for bad debt allowances.

Goods sold on installment plans are included at the total amount paid, i.e. the original price of the goods plus installment charges. Ideally the interest portion of installment charges (as distinct from the service portion) should not be included since interest on consumer debt is to be excluded from national income totals. Statistics on retail sales available at the present time do not enable separation of the installment charges from cash sales figures. Insofar as installment sales are financed through finance companies rather than by retail stores themselves, inclusion of installment charges will result in an unbalance as between the income and expenditure tables since consumer debt interest earned by the finance companies will be excluded from national income. It is likely that the resulting discrepancy will not be large.

Goods sold through cooperatives are included after deduction of rebates to members. Cooperative rebates are not considered as money income to the members. Since they result in a reduction in cost of goods purchased, it is considered that they should be reflected in this way in gross national expenditure.

12.(b) Purchases of Services

This includes value of services rendered directly to individuals as distinct from those rendered to business. Items under this section include:-- mark-up on second-hand goods; gross rent paid by tenants for the use of houses; taxes, gross insurance premiums and mortgage interest paid on owner-occupied residential property and other expenses on such property insofar as these are included among services (service of owner-occupied houses, i.e. net rent, is included under Income in Kind, Item 12.(c).); service portion of insurance premiums paid by individuals, except in connection with housing where the gross premiums are included elsewhere; operating expenses of investment associations of individuals, and of non-commercial institutions (such as hospitals, universities, etc.), as a measure of the services of these institutions. Interest on consumer debt is excluded but expenses (not already included in the price of goods) of agencies handling consumer debt is included as a measure of the services of these agencies.

12.(c) Income in Kind

This comprises implied expenditure out of income in kind, e.g. food eaten on the farm, imputed rent of owner-occupied houses, and board and lodging supplied to wage earners. For food eaten on the farm and for board and lodging supplied to wage earners the same figures will be included as in national income. For imputed rent of owner-occupied houses, the figure included will be net rent plus depreciation.

12.(d) Net Private Gifts to Abroad

This comprises the net of gifts out of Canadian incomes to non-residents which result in expenditure outside of Canada, and gifts to

Canadian residents from abroad which result in expenditure in Canada from non-Canadian incomes, e.g. remittances to or from relatives abroad. If this item should be consistently negative, i.e. if gifts from abroad should be higher than gifts to abroad, it would be better placed on the income side as a special item of income.

Included also are items which neither have been included in the current balance of payments figures nor appear in retail sales, e.g. shipments of Red Cross goods to foreign countries.

c 3