



Research Article

THE APPROACHES USED IN MEASURING OR ESTIMATING NATIONAL INCOME OF A NATION

Journal Website:
<https://frontlinejournal.s.org/journals/index.php/fmmej>

Submission Date: March 26, 2022, **Accepted Date:** April 03, 2022,

Published Date: April 16, 2022

Crossref doi: <https://doi.org/10.37547/marketing-fmmej-02-04-02>

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ABSTRACT

The research focus on the approaches used on measuring and estimating national income of a nation. National income is the money value of the end result of all economic activities of a nation. Economic activities generate a large number of goods and services, and make a net addition to the national stock of capital. These together constitute the national income of a closed economy, I.e an economy which has no economic transaction with the rest of the world. In an open economy, national income includes also the net results of a nations transaction with the rest of the world (I.e export less imports). National income is alternatively called national products. Incomes are earned by producing goods and services. This value of products represents incomes to producers in the form of wages, salaries, rent, interest, or profits. Thus the total of all incomes must be exactly identical with the value of all goods and services produced in an economy within the particular year.

KEYWORDS

Estimating, National, Measuring, Use, Approaches, Income, Nation.

INTRODUCTION

National income refers to the market value of all goods and services produced in an economy during a particular period of time, usually a year. Alfred Marshall defined national income as the aggregate net product of the sole sources of payment for all the agents of production. Dr Umar Mohammed Ali defined national income is the collection performance of a goods and services produced In the country for a particular period of time usually a year .

Consequently, national income is the money value of the end result of all economic activities of a nation. Economic activities generate a large number of goods and services, and make a net addition to the national stock of capital. These together constitute the national income of a closed economy, I.e an economy which has no economic transaction with the rest of the world. In an open economy, national income includes also the net results of a nations transaction with the rest of the world (I.e export less imports). National income is alternatively called national products. Incomes are earned by producing goods and services. This value of products represents incomes to producers in the form of wages, salaries, rent, interest, or profits. Thus the total of all incomes must be exactly identical with the value of all goods and services produced in an economy within the particular year.

National income concepts.

In treating national income accounting in economics, we frequently come across a number

of concepts. These concepts are so interesting that, except one gets the meaning of each very clearly, they are bound to cause confusion. To avoid such confusion, we shall define the major national income concepts in the following order.

Gross national product (GNP).

The gross national product (GNP) is defined as the value of all final goods and services produced during a specific period of time, usually one year , plus the difference between foreign receipts and payments. The GNP so defined is identical to the concept of gross national income (GNI). Thus $GNP = GNI$. The difference between the two is only of a procedural nature. While the GNP is estimated on the basis of products flows, the GNI is estimated on the basis of money income flows (I.e. wages, profits, rent, interest, etc.) Thus $GNP = M + X$ where M stands for imports and X for exports.

Gross domestic product (GDP).

This is the value of total output of goods actually produced in the whole economy over some period of time, usually a year. It is gross because allowances has not been made for the consumption of fixed capital used up in the production. When the value of the production is measured at the market price. When the value of the gross domestic product (GDP) is at factor cost, it is referred to as gross domestic product at factors cost. The difference between the two is that GDP at factor cost excludes the excess of

indirect taxes over subsidies that may have been levied on the goods and services, while the other does not.

Net national product. incomes accruing to factors of production that are supplied by the residents of a given country over period of time, usually a year, after deducting depreciation. You may likely ask, what constitutes depreciation? Depreciation means the value of wear and tear of capital and machinery replacement after the year of use.

Therefore, $GNP - Depreciation = NNP$. Put differently,

$NNP = GNP - Depreciation$.

Depreciation is thus that part of total productive assets which are used to replace worn out capital in the process of creating the GNP. Briefly speaking, in the process of producing goods and services (including capital goods), a part of total stock of capital is used up. Depreciation is then the term used to denote the worn out or used up capital. An estimated value of depreciation is deducted from the GNP to arrive at The NNP.

The NNP, as defined above, gives the measures of net output available for consumption by the society. The NNP is the same as the national income at factor cost. It should be noted that the NNP is measured at market prices, including direct taxes and indirect taxes deducted. Thus, $NNP - \text{indirect taxes} = \text{national income}$

Personal income.

Personal income is given by the total national income of a particular country or total GNP less pay of indirect taxes, less undistributed profits, less profits of public parastatals plus transfer payment (I.e. by government and business organisations), such as social security allowance, unemployment benefits etc. Personal income implies the income accruing to individual which can be used for paying taxes, consumption and savings. It refers to the rewards earned by individual due to their contribution to the productive sector of the economy.

Disposable income.

This is the income from all sources that accrues to households and private non-profit institutions after deducting direct taxes and other transfer from them. Thus, disposable income is income minus direct taxes and other transfers. Disposable income constitutes that amount which an individual can use for the purpose of goods and services and also for savings. It is presented in a frugal economy as $Y = C + S$.

National income: some accounting relationship

Box

Relations at market price

$GNP = GNI$ (gross national income)

$GDP = GNP$ less net income from abroad

$NNP = GNP$ less depreciation

NDP (Net domestic product) = NNP less net income from abroad

Relations at factor cost

GNP at factor cost = GNP at market price less net indirect taxes

NNP at factor cost = NNP at market price less net indirect taxes

NDP at factor cost = NNP at market price less net indirect taxes

NDP at factor cost = GDP at market price less depreciation

THE NEED FOR NATIONAL INCOME ANALYSIS IN BUSINESS ORGANISATIONS.

National income and its related conceptual framework as seen in the presentation above is directly related to business organisations as it reflects the extent to which goods and services are valued in monetary terms.

National income measures the entire value of goods and services produced in an economy over a particular period of time (usually a year). This concept can be seen from either the GDP, GNP or NNP viewpoint, as highlighted above. Looking at these concepts from the business perspective one can rightly observe that national income explains the performance of business organisations which constitute the unit that produces goods and services. Considering national income from the GPN perspective enables the management of a business to appreciate the contribution of

different sectors of the economy with a view to devising suggestions on the way forward through identifying their areas of weaknesses or the contributory forces to their poor performance. Also, the GDP will explain the overall contribution of the various business.

APPROACHES USED IN MEASURING NATIONAL INCOME

The following are the conventional methods used in measuring national income:

Income approach

National income can be measured through the income approach by adding up all the incomes earned by the factors of production during the course of a year. In other words, it is the sum of all incomes received by households for their services to production. These include all wages and salaries, income earned by professionals. Farmers, and armed forces personnel, as well as undisputed business profits and incomes earned by the citizens from abroad. From this total we deduct incomes paid to expatriates from the economy, as well as all transfer payments like interest paid on the national debt or to persons. National income can then be seen also as the summation of the reward accrued to the factors of production (land, labour, capital, and the entrepreneur) as a result of their contribution to production.

Problems of this approach

To measure the national income of an economy through the income approach, requires a lot of

consideration relating to which factors to be taken into consideration and which not to.

The problems of the approach in estimating the national income include the following.

Not all income earned by the firm is distributed as dividends; very often, a substantial portion is retained and ploughed back. This means that in some businesses the owners tend to plough back their profits, i.e. to reinvest what they have realized instead of sharing it as a profit. For this reason, to measure the national income through this approach may be misleading as a lot or major part of the profit cannot be calculated. Hence it represents a shortfall in the level of net national income.

A house occupied by its owner attracts no rent. This leads to underestimation. Another source of underestimation of the national income is through disregarding the importance of some activities that should command value economically. This can be seen from observing the fact that there are some goods and services that are produced and consumed by a person himself, e.g. occupation of a Hauser by the owner himself, in which its opportunity cost may be the rent accrued to the person (owner) if he rented it out to another person.

Individuals who are self-employed do not claim any definite wages or salaries. Self-employed person compares people who are not under the control of any other person, or who are not employed by another individual on a wage/salary basis. These types of people do earn incomes which cannot be classified as either a

profit (reward to the entrepreneur) or a wage (reward to labour), hence complicating the procedure and leading to underestimating.

Output approach

The output approach of the measurement of the national income involves estimating the national income as the sum of the market values of all goods and services produced in the economy. To avoid double counting, only the value of the final goods is used. To this we add subsidies, and subtract the value of indirect taxes.

PROBLEMS ASSOCIATED WITH OUTPUT APPROACH

To calculate the national income, using the output approach, a number of problems are encountered. Salient among them are:

Risk of double counting. This problem arises due to the Interrelationships between and among commodities whereby some firms, outputs are the inputs of other firms. In this situation, there is always a tendency for counting the value of some commodity in excess, i.e. more than one time. This is why we call this the problem of double counting.

Omission of unpaid services. Some activities, especially services whose value is supposed to be incorporated, are mostly neglected, e.g. the value of the services of a housewife which should be taken into consideration by the national income analyst but it also neglected. However, this sort of service commands a value and deserves to be considered.

Self service activities. The identification of some self service activities is too difficult to be realised. Hence, to try and determine the extent and their level and consequently to value them in monetary terms will not be an easy task. Hence the income approach always leads to underestimate of the actual figure.

Expenditure approach

The expenditure method, also known as the final method, measures national income at the final expenditure stages. In estimating the total national expenditure, any of the following two methods are followed: firstly, all the money expenditure at market price are computed and added up together; and secondly, the value of all the products finally disposed of are computed and added up, to arrive at the total national expenditure. The items of expenditure which are taken into account under the first method are: (a) private consumption expenditure; (b) direct tax payments; (C) payment to non-profit making institutions and charitable organisations like schools, hospitals, orphanages, etc; and (d) private savings. Under the second method, the following items are considered: (a) consumer goods and services; (b) private investment goods; (c) public goods / services; and (d) investment abroad. The second method is more extensively used because the requisite data required by this method can be collected with greater ease and accuracy. This approach involves estimating the sum of all consumption expenditure, investment expenditure, government expenditure and export expenditure.

PROBLEMS ASSOCIATED WITH THE EXPENDITURE APPROACH

It is technically difficult to isolate intermediate products from final products, to obtain actual factor price is an impossible task, particularly in less developed countries. The identity of output, income and expenditure In all national income accounting, the basic overall aggregate being measured is the total value of output at factor cost (either in constant or at current market prices). This can be looked at directly in terms of the output itself, O , or the income it generates, Y , or the independent information, the totals do not, since the three are defined so that they are identical: $Y = O = E$. The danger of double counting, i.e. via including transfer payments, prices of intermediate goods, you may want to ask what constitutes transfer payments and prices of intermediate goods.

By transfer payments, we mean the payment on income received by an individual which is not a reward for his own labour, e.g. bonuses, and charity. All these should be excluded from the overall national income estimate.

Equally the prices of intermediate goods, which are semi-finished goods, should be excluded they are regarded as intermediate or semi-finished because they may likely be used to produce other products (final goods), which when considered will represent double counting of the commodity (as input and as output).

Treatment of depreciation. Depreciation, as seen in the previous unit, refers to wear and tear

valuation. It remains a problem especially with respect to the expenditure approach

Treatment of illegal activities like prostitution and gambling which are not included in national income, where as they are services and generate income. Since they generate income, such activities ideally are supposed to form part of the national income as they represented earnings. But because they're considered in society as a taboo/I'll, they are not included. This negligence of those activities may tremendously render national income estimation insufficient.

The problem of what to include and what to exclude, for instance the service of the housewife, which are economically valuable. Since all economic activities are supposed to assume value, the negligence of services such as those of the housewife represents a serious underestimation of the real value of the national income.

USES OF NATIONAL INCOME ESTIMATES

The estimate of the national income is used in the following ways.

The gross national product indicates the overall economic performance of a country, it tells whether the national output is growing or declining.

This is because an increase in the national income is a measure of the value of total national output, an increase represents growth in the national product.

income estimates help us know the contribution made by each sector of the economy to national output. Since the national income is a representation of sectoral contributions, an analysis of the various contributions of different sectors of the economy is presented. This provides a basis for understanding the different sectoral contributions, and helps determine the rate at which each sector is growing or declining.

National income figures indicate the standard of living through showing the per capita income (PCI) where $\text{PCI} = \text{GNP} \div \text{population}$. This measure, i.e. the per capita income explains the income per person, and the income per person indicates the standard of living of the income per person, and the income per person indicates the standard of living of the people in a country. The higher the per capita income the higher the standard of living and vice versa. If the national income of a country seen through the GNP increases, then with a constant population size, the standard of living of the country is expected to rise and vice versa.

It is used to compare the standard of living in different countries through the use of per capita income. The standard of living of different countries will enable a country to assess its performance in relation to other countries of the world. With the determination of its position in relation to other countries of the world, a particular country could determine the steps it could take to raise the standard of living of her citizens to match that of the other nations citizens.

National income statistics are used in determining how much a country should contribute to international organisations, e.g. the United Nations, I.M.F., World Bank, African Union (AU), etc. you may ask, how and why? These agencies are specialised international bodies that perform different tasks and activities which are of global benefits and, naturally, being organisations charged with particular responsibilities, they need to be sponsored through different ways. The extent to which a particular country can contribute often depends on the level of her resources.

CONCLUSION

National income refers to the market value of all goods and services produced in an economy during a particular period of time, usually a year.

GDP means more of the goods and services we measure. It means more jobs and more income. And most people seem to place a high value on these things. For all its faults, GDP measures the production of most goods and services. And goods and services get produced, for the most part, because we want them. We might thus be safe in giving two cheers for GDP - and holding back the third in recognition of the conceptual difficulties that are inherent in using a single number to summarize the output of an entire economy.

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