Difficulties of the Product Method

The following difficulties arise while estimating national income by the product method:

1. Prices are not stable. These change frequently. In such situations, finding value of inventories becomes quite difficult.
2. It is difficult to determine the prices of goods which do not enter market and are kept for self-consumption. For instance, the value of owner-occupied buildings or imputed rent cannot be easily determined.
3. A clear cut distinction between the intermediate goods and the final goods is always not possible. Final goods for some may be intermediate goods for others.
4. In case the value of a capital good rises or falls due to changes in market conditions, it becomes difficult to estimate the depreciation.
5. It is still not clear whether services should be included in national income or not.
6. Lack of adequate and reliable data particularly in the unorganized and unincorporated enterprises is also a major problem in measurement of national income by value added method.

Questions for Review

1. Explain value-added method of estimating national income.
2. What is double counting? How can it be avoided?
3. What are transfer payments? How are they treated in the estimation of national income?
4. What are the components of net factor income from abroad?
5. Does transfer earning enter into national income?
6. What are final products?
7. Define value of output.
8. How is the value of gross output different from gross value added?
9. Distinguish between intermediate products and final products.
10. What is meant by value added?
11. Does the household sector produce goods and services?
12. Explain the problem of double counting.
13. Show how the sum of value added is equal to sum of factor incomes.

16 MEASUREMENT OF NATIONAL INCOME—INCOME METHOD

We know that factors of production viz., land, labour, capital and organization assist in production and get reward for their factor services. The reward that the factors of production receive for their services is called ‘factor income’. The factors receive payments both in cash and kind. This is factor cost to the producer, which is equal to the factor income received by the factors of production.

The income method measures national income at the point of factor payments made to primary factors for the use of their services in the production process. In other words, national income is measured by taking sum total of all the incomes arising to primary factors of production. Thus, national income is the sum of rent, wages, interest and profits.

The *steps* to be followed while calculating national income by income method are explained briefly as below:

1. *Identification of production units and classifying them into industrial sectors:* The first step is to identify producing enterprises which employ factor services and classifying them into various industrial sectors such as primary, secondary and tertiary.
2. *Classification of factor incomes:* The factor incomes are classified into three categories—compensation of employees, property income and mixed incomes. Compensation of employees includes payments made by producers to their employees in the form of wages and salaries — both in cash and in kind, and contribution towards social security schemes. Property income is the income paid for the ownership and control of capital such as dividend (part of company’s profit distributed to shareholders), undistributed profits (part of profit retained by companies for their development and other activities), corporate taxes (taxes levied on companies’ income), interest, rent, royalties (payments made for the use of mineral deposits, use of patents, copyrights, trade marks etc), profits etc. Mixed income is the combination of wage and property incomes of self-employed (those who provide their own labour and capital services) people such as doctors, lawyers, shopkeepers, farmers, barbers, etc.
3. *Estimation of domestic factor income:* Domestic factor income is obtained by adding up the incomes generated in each industrial sector. In other words, the sum total of compensation of employees, property income and mixed incomes by all the production

units in the domestic territory of the economy during an accounting year gives the value of domestic factor income.

4. *Estimation of net factor income from abroad:* The last step is to estimate net factor income from abroad and add it to the net domestic product to get national income.

Precautions in the Estimation of National Income by Income Method

As already stated, income received from sale and purchase of second hand goods should not be included but commission earned in such transactions is to be included as this is new income generated in the economy. Transfer payments which do not generate income are to be excluded from the measurement of national income. Incomes from gambling, smuggling etc are not to be included as these are illegal activities. Windfall profits or gains are sudden incomes arise due to favourable conditions at certain times such as income from lotteries etc. These are not hard earned income. Such income is not included in the national income. Income from interest on national debt is also not included in the national income. Income from interest on national debt is the income from financial capital, which are only paper claims and they do not generate any new income. These are merely transfer of money from public to government.

Items to be included	*Items to be excluded*
1. Value of production for self consumption, such as agricultural products. 2. Imputed rent of owner occupied houses.	1. Income received from sale and purchase of second hand goods. 2. Income received from sale and purchase of bonds and shares. 3. All transfer payments like pensions, scholarships, subsidies. 4. Illegal incomes such as income from smuggling, gambling etc. 5. Corporation taxes. 6. Interest on national debt. 7. Wealth Tax, Death Duties, Gift Tax. 8. Windfall gains, such as income from lotteries.

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The table above shows items to be included and excluded while calculating national income by income method.

Difficulties of the Income Method

The following difficulties arise while estimating national income by the income method:

1. To estimate mixed income of self employed people is not an easy task. It is difficult to get reliable information from unincorporated sector/unorganized sector.
2. Some economists opine that interest on national debt is used for productive purposes and therefore its value should be included. Thus, there is controversy whether to include it or not.
3. Income tax returns (account of incomes of an individual) are the basis of calculation

of income received in the country. In underdeveloped countries a very small proportion of income earners actually pay taxes. Therefore, income method may be of limited use in such countries.

Questions for Review

1. What precautions are necessary while estimating national income by income method?
2. What are the steps in the computation of national income by income method?
3. What is double counting? How can it be avoided?
4. What are transfer payments? How are they treated in the estimation of national income?
5. Why is the money received from the sale of shares not included in domestic capital factor income?
6. Can income from smuggling be included in national income accounting?
7. Is the expenditure on research and development an example of intermediate consumption?
8. Is windfall profit a part of national income?
9. What is meant by mixed income of the self-employed?
10. How is income generated in the production process?
11. State five precautions to be taken while estimating national income by income method.
12. What is GNP deflator?
13. Give reasons for not including leisure in GNP.
14. Does GNP measure national welfare?

17 MEASUREMENT OF NATIONAL INCOME—EXPENDITURE METHOD

Expenditure method measures national income at the disposition stage/spending point. It measures national income by computing final expenditure on gross domestic product by households, government and private sector.

COMPONENTS OF FINAL EXPENDITURE

The final expenditure in gross domestic product consists of the following:

(i) *Private final consumption expenditure:* It includes expenditure on goods and services by the households and private non-profit institutions such as schools, clubs etc.

(ii) *Government final consumption expenditure:* It includes expenditure on administration, defence, maintenance of law and order, education etc.

(iii) *Gross domestic capital formation:* It consists of expenditure on capital goods by the producers. It increases capital stock in the economy.

(iv) *Net exports of goods and services:* The value of import of goods and services minus the value of export of goods and services is called net exports.

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The *steps* to be followed while calculating national income by expenditure method are explained briefly as below:

1. *Estimation of private final consumption expenditure*: To get final consumption expenditure by households and non-profit institutions serving as households, volume of goods and services on which money is spent is multiplied with their retail prices.
2. *Estimation of government final consumption expenditure*: Government final consumption expenditure is calculated in terms of the cost to the government as government services have no market price. This is because general government does not sell goods in the market. Therefore, cost to the government is the sum total of compensation of employees and the cost of the goods and services purchased by the government. Thus, government final consumption expenditure includes compensation of employees (wages and salaries) and net value of goods and services purchased by the government both in domestic and international market.

Ref – Intro to Economics, By *Dutta*, New Age Pub

3. *Estimation of gross domestic capital formation:* It comprises expenditure on construction, machinery and equipments and changes in stocks.
4. *Net exports:* The last step is to find the value of net exports i.e., exports value minus imports value of goods and services.

The sum total of private and government final consumption expenditure, gross domestic capital formation and net exports gives us GDP at market prices. To get NNP at factor cost or national income, we have to deduct depreciation and net indirect taxes from GDP at market prices and add net factor income from abroad to it.

Precautions in the Estimation of Expenditure

The items to be included and excluded while estimating national income by expenditure method are as follows:

(1) Expenditure on secondhand goods should not be included because they are the part of the stock of goods produced in the past.

(2) Expenditure on the purchases of shares, bonds, etc., should not be included because these are paper titles, which only represent the ownership of property. No material things are produced through the purchase/sale of shares, bonds, etc.,

(3) Expenditure on pensions, scholarships, unemployment allowance, etc., should not be included because these are transfer payments.

(4) Expenditure on intermediate goods or semi-finished goods should be excluded to avoid double counting.

REMEMBER

1. To find 'net' from 'gross' aggregates, deduct depreciation;
2. To find measures at 'factor cost' from 'market' prices, deduct the value of net indirect taxes;
3. To estimate 'domestic' measures from 'national' measures, deduct the amount of net factor income from abroad.

Questions for Review

1. Describe the expenditure method of the estimation of national income and also explain the difficulties in using this method.

2. Define consumption of fixed capital.

3. How is capital loss different from the consumption of fixed capital?

4. Is the expenditure on research and development an example of intermediate consumption?

5. Name two types of expenditure that are included in the expenditure method.

6. Explain the meaning of non-market activities.

7. Explain the following terms:

(a) Business fixed investment (*b*) Inventory investment

(*c*) Residential construction investment (*d*) Public investment