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Revised Notes

Methods Of National Income And How To Determine National Income By Income Method And Its Numericals, Steps And Precaution:

There are three methods of calculating national income.

These are:

- (a) Income Method
- (b) Expenditure Method
- (c) Value Added Method/Product Method/Output Method

National Income determination under income method:

- (a) "Production creates income". If we want to calculate National Income by Income method, then we have to add different factor incomes from the economy.
- (b) The addition of all these factor incomes gives us the calculation near by the National Income, i.e., Net Domestic Product at FC (NDP_{fc}).
- (c) Components of Income Method

1. Compensation Of Employees (COE)/Emoluments of employees: The amount earned by employees from their employers, whether in cash or in kind or through any other social security scheme is known as compensation of employees.

This is broadly divided into the following three components:

(a) Wages and Salaries payable in Cash:

- (i) Wages and salaries receivable by the employees in respect of their work.
- (ii) Special allowances for working overtime.
- (iii) Cost of travel to and from work, and car parking.
- (iv) Bonuses

(v) Commissions, gratuities, tips, cost of living (i.e., dearness allowance paid in our country) honorarium, vacation, sick leave allowance etc.

(vi) Pensions at the time of retirement (Deferred Wage): Pensions at the time of retirement are related to factor services rendered by recipient prior to their retirement. It is also known as deferred wage. Any expenses incurred by the employees and thereafter reimbursed by the business enterprise should be excluded from Compensation Of Employees (COE) as such expenses are part of intermediate consumption of business enterprise.

(b) Wages and Salaries in Kind: Remuneration in kind consists of goods and services that are not necessary for work and can be used by employees at their own discretion, for the satisfaction of their needs or wants or those of other members of their households. It includes:

- (i) Meals and drinks including those consumed when travelling for business.
- (ii) Accommodation.
- (iii) The services of vehicles or other durables provided for the personal use of the employees.
- (iv) Goods and services produced as outputs from the employer's own process of production such as free travel for the employees of railways or airlines, or free coal for miners.
- (v) Sports, recreation or holiday facilities for employees and their families.
- (vi) Creches for children of employees.
- (vii) Value of the interest foregone by employers when they provide loans to employees at reduced, or

even zero rates of interest for the purposes of buying houses, furniture or other goods and services. It should be kept in mind that it does not include any facilities which are necessary for work and in which employees do not have any discretion.

For example, uniforms or other forms of special clothing to be used for work only. Examples are uniforms for police, uniforms of drivers, uniforms for nurses in the hospital. It's so because such payments are intermediate consumption of business enterprises.

(c) Employers' Contribution to Social Security Schemes: Employers' make payments to social security schemes like life insurance, causality insurance, pension schemes etc. For example, there is a Contributory provident Fund Scheme for employees of educational institutions and public sector undertakings. The contribution made by the employers for such schemes is a part of compensation of employees.

The thing which has to be remembered is that, employers' contribution towards social security scheme should be included whereas employees' contribution towards Social Security Scheme should not be included as COE is that what the employer pays to employee and if anything borne by employee himself should not be included under COE.

2. Operating Surplus: The CSO (Central Statistical Organization) has defined operating surplus as "value of gross output less the sum of intermediate consumption, compensation of employees, mixed income, depreciation and NIT."

Operating Surplus = GVOMP – Intermediate consumption – COE – Mixed Income – Depreciation – NIT

In other words, it is the sum of income from property and income from entrepreneurship. Operating surplus have the following two components:

(a) Income from property: It is the income which has been arisen from rent, interest and royalty.

It is divided into three components:

(i) Rent: The income arising from ownership of land and building is known as rent. It also includes imputed rent. If a person living in his own house, then it is assumed in an economy that he is paying rent to himself. This concept is known as imputed rent.

(ii) Royalty: Royalties are the payments made for the use of mineral deposits such as coal, oil, etc. or for the use of patents, copyrights, trademarks, etc.

(iii) Interest: It is the amount earned for lending funds to the production units. It also includes imputed interest of funds provided by entrepreneur. But interest income includes interest on loan taken for productive services only.

The following categories of interest should not be included :

- Interest on national debt or interest paid by government on nation debt should not be included as it is assumed that such interest is paid on loan taken for consumption purpose.
- Interest paid by one firm to another firm as it is already included in the profit of the firm which pays it.

(b) Income from entrepreneurship: It is a return of entrepreneur after paying all the other factors of production. It is of the following three types:

(i) Distributed Profit (Dividend): It is that part of total profit which is given to shareholders.

The thing to be noted here is that profit earned by one firm to another should not be included under this head because it is already included in the profit of the firm which pays it.

(ii) Undistributed Profit (Saving of private corporate sector or Retained Earnings):

It is that part of total profit which is not given to shareholders and kept as a reserve for future uncertainties.

(iii) Corporation Tax (Profit Tax): It is that part of total profit which is given by a firm to the government as Tax.

The concept of operating surplus is applicable to all producing enterprises, whether they belong to the private sector or to the government. The government enterprises also are expected to earn reasonable rate of profit on the funds invested.

But, operating surplus does not arise in the general government sector as they produce goods and services for the social welfare of the country and not for profit motive i.e., why rent, interest and profit are zero in general government sector.

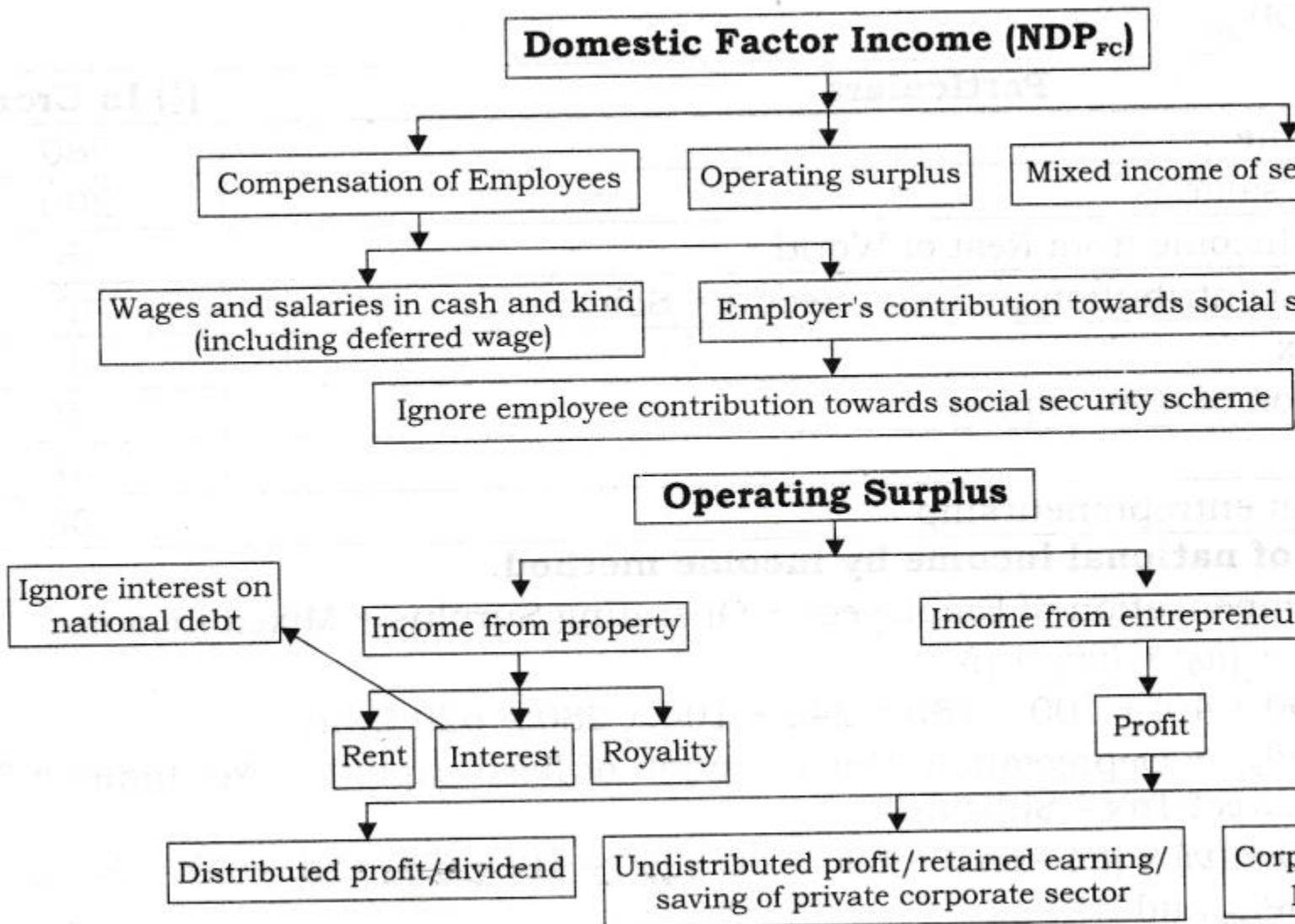
3. Mixed Income: Income of own account workers (like farmers, doctors, barbers, etc.) and unincorporated enterprises (like small shopkeepers, repair shops) is known as mixed income. They do not maintain proper accounts. They do not generally hire factor services from the market rather use their own resources like land, labour, funds, etc. As the result of, it becomes difficult to classify their income distinctly among rent, wages, interest and profit.

NDPFC Compensation of employees (COE) + Operating surplus (OS) + Mixed Income (MY)

Method For Calculating National Income By Income Method:

If we want to calculate National Income by Income method, we have to add different factor incomes from the economy.

The addition of all these factor incomes gives us the calculation near by the National Income, i.e. Net Domestic Product at FC (NDPFC).



Important Note:

1. Profit earned by one firm to another should not be included because it is a part of intermediate consumption.
2. If Profit after tax is given and corporate tax is given, then by adding them we get profit. Profit after tax = 1000
Corporate tax = 100 Profit = 1100
3. If Profit before tax and corporate tax are given, then ignore corporate tax.

Profit before tax = 1000

Corporate tax = 100 Profit = 1000

Steps for calculating national income by income method:

Step 1: To identify enterprises which employ primary factors (Land, Labour, Capital, enterprise).

Step 2: To classify various types of factor income like:

(a) Compensation of employees: The amount earned by employees from their employer, whether in cash or in kind or through any other social security scheme is known as compensation of employees.

(b) Operating Surplus: It is the sum of income from property and income from entrepreneurship.

(c) Mixed Income: Income of own account workers (like farmers, doctors, barbers, etc.) and unincorporated enterprises (like small shopkeepers, repair shops) is known as mixed income.

Step 3: To estimate amount of factor payments made by each producing unit.

Step 4: To add all factor incomes / payments within domestic territory to get domestic income, i.e., NDP_{FC} .

NDP_{FC} = Compensation of employees + Operating Surplus + Mixed Income
Step 5: Addition of NFIA to NDP_{FC} to get NY, i.e., NNP_{FC} .

$$NNP_{FC} = NDP_{FC} + NFIA$$

Precautions of income method.

(a) Avoid transfers: National income includes only factor payments, i.e., payment for the services rendered to the production units by the owners of factors. Any payment for which no service is rendered is called a transfer, not a production activity. Gifts, donations etc. are main examples. Since transfers are not a production activity it must not be included in national income.

(b) Avoid capital gain: Capital gain refers to the income from the sale of second hand goods and financial assets. Income from the sale of old cars, old house, bonds, debentures, etc. are some examples. These transactions are not production transactions. So, any income arising to the owners of such things is not a factor income.

(c) Include income from self-consumed output: When a house owner lives in his house, he does not pay any rent. But in fact he pays rent to himself. Since, rent is a payment for services rendered, even though rendered to the owner itself, it must be counted as a factor payment.

(d) Include free services provided by the owners of the production units: Owners work in their own unit but do not charge salary. Owners provide finance but do not charge any interest. Owners do production in their own buildings but do not charge rent. Although they do not charge, yet the services have been performed. The imputed value of these must be included in national income.

How To Determine National Income By Expenditure Method And Its Numericals, Steps And Precautions:

National income determination by Expenditure method:

(a) "Production creates income, income creates expenditure". If we want to calculate National Income by this method, we have to add different final expenditures from an economy.

(b) The addition of all those final expenditure gives us the calculation near by the National Income, i.e. GDP_{MP} .

Components of Expenditure Method

1. Government Final Consumption Expenditure (GFCE): The expenditure made by a general government on current expenditure on goods and services like public health, defence, law and order, education, etc. These goods and services generate no income because it is produce by a general government without any profit motive.

These goods and services are valued at their cost to the government as they are not sold to the citizen and have been produced for the social welfare of the citizens. So, $GFCE$ = Intermediate consumption of government + Compensation of employees (wages and salaries in cash and in kind) by government + Direct purchases made abroad by government (purchases made by embassies and

consulates located in foreign countries) + Consumption of fixed capital (depreciation) – Sale of goods and services by government.

2. Private Final Consumption Expenditure (PFCE): Private final consumption expenditure is defined as consumption expenditure by consumer households (household final consumption expenditure) and private NPISH (Non-profit Institution serving households) on all types of consumer goods.

PFCE = Household final consumption expenditure + Private non-profit Institution serving households final consumption expenditure.

The value of following items is measured for getting private final Consumption Expenditure.

(a) Purchases of currently produced goods and services in the domestic market by consumer households and NPISH.

(b) Direct purchases made abroad by resident households are added but direct purchases in domestic market by non-resident households and extra territorial bodies are deducted.

PFCE = Purchases of currently produced goods and services in the domestic Market by consumer households and NPISH households + direct purchases made abroad by resident households – direct purchases in domestic market by non-resident households.

Note: If in the examination problem household final consumption expenditure is not given, it can be calculated as under

Household Final Consumption Expenditure = Personal disposable income – Personal (Household) Saving

3. Gross Domestic Capital Formation or Gross Investment or Investment Expenditure:

It refers to additions to the physical stock of capital during a period of time. It includes building machinery, Housing construction, construction of factories, etc. It has been classified into the following categories.

(a) Gross Domestic Fixed Capital Formation (GDFCF): It is the expenditure incurred on purchase of fixed assets. It is of three types:

(i) Gross Business Fixed Investment: It is the amount that the business units spend on purchase of newly produced capital goods like plant and equipments. Gross business fixed investment is the gross amount spent on newly produced fixed capital goods. When depreciation is deducted from it, we obtain Net Business fixed Investment.

Gross Business Fixed Investment = Net Business fixed Investment + Depreciation

(ii) Gross Residential Construction Investment: This is the amount spent on construction of flats and residential houses. The investment is said to be gross when depreciation is not deducted and Net when depreciation is deducted.

(iii) Gross Public Investment: This includes capital formation by government in the form of building of roads, bridges, schools, hospitals, etc. This investment is called Gross when depreciation is not deducted and Net when depreciation is subtracted.

(b) Change In Stock (Closing Stock – Opening Stock) Or Inventory Investment: It is the net change in inventories of final goods, finished goods, semi-finished goods and raw material. These are included as they represent currently produced goods, which are not included in the current sale of final output. It is a difference between closing stock and the opening stock of the year.

(c) Net Acquisition Of Valuables: These are those high value durable goods like gold, silver, antiques, etc. which are taken at market price.

GDCF = Gross domestic fixed capital formation (GDFCF) + Change in Stock (Closing Stock – Opening Stock) + Net acquisition of valuables

Or

GDCF = Gross Business Fixed Investment + Gross Residential Construction + Gross Public Investment + Inventory Investment + Net Acquisition of Valuables

4. Net Export (Export – Import): It shows the difference between Domestic spending on foreign goods (i.e., imports) and foreign spending on domestic goods (i.e., exports).

Thus, the difference between exports and imports of a country is called Net Exports.

Net Exports = Export – Import

GDPMP = Government final consumption expenditure + Private final consumption expenditure + Gross domestic capital formation + Net export

Numerical Problems on Expenditure Method

