NATIONAL INCOME

NATIONAL INCOME- Sum total of factor income (rent ,wages,intrest ,profit) earned by normal residents of a country during a period of one year.

CONSUMPTION GOODS :
Those goods which satisfy human wants directly. Example: Food, cloth, car.

CAPITAL GOODS :
Those final goods which help in production. These goods are used for generating income. Example: Machine, highway, plants, tools.

FINAL GOODS:
Are those goods which are used either for final consumption by consumers, or for investment by producers.

INTERMEDIATE GOODS:
Refers to those goods and services which are used for further production or for resale. These goods do not fulfill needs of mankind directly. Example: Wheat purchased by flour mill, yarn purchased by cloth mill.

DEPRECIATION :
Is expected fall in value of fixed capital goods due to normal wear and tear and obsolescence.

GROSS INVESTMENT :
Total addition of capital goods to the existing stock of capital during a time period including depreciation..

NET INVESTMENT :
It is a measure of net availability of new capital or new addition to capital stock excluding depreciation in an economy.
Net Investment = Gross investment – Depreciation.

STOCK VARIABLES:
Variables whose magnitude is measured at a particular point of time are called stock variables. Example: 100 crore population of India in 2001.

FLOWS :
Variables whose magnitude is measured over a period of time are called flow variables. Example: Monthly wages of a worker, production of cloth during a year.

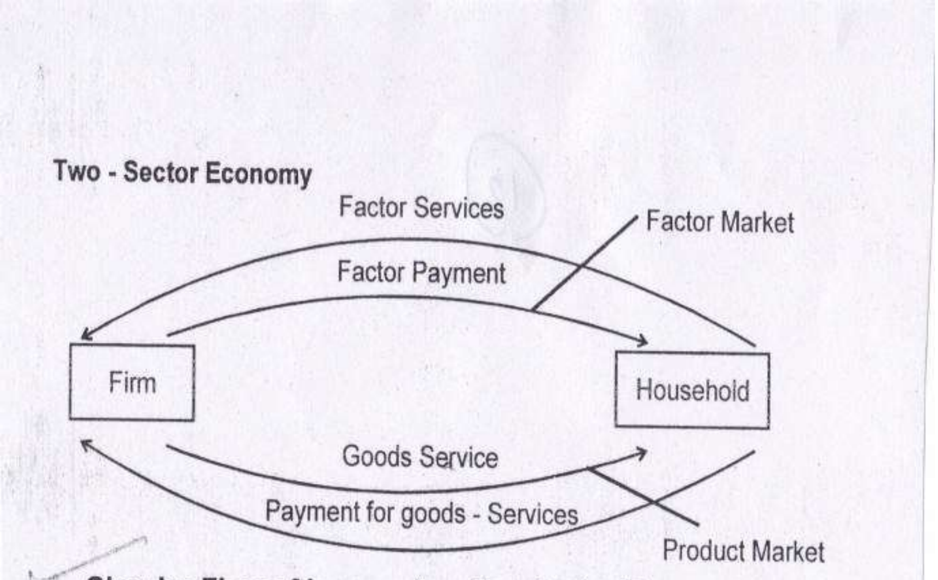
DOMESTIC TERRITORY OF A COUNTRY
Domestic Territory is the geographical territory administrated by a Government within which persons, goods, and capital circulate freely.

DOMESTIC TERRITORY INCLUDES :
(a)Political frontiers including territorial waters and airspace.
(b)Embassies, consulates, military bases etc. located abroad.
(c)Ships and aircraft operated by the residents between two or more countries.
(d)Fishing vessels, oil and natural gas rigs operated by residents in the international waters.

NORMAL RESIDENT OF A COUNTRY : A person or an institution who ordinarily resides in a country and whose center of economic interest lies in that country.

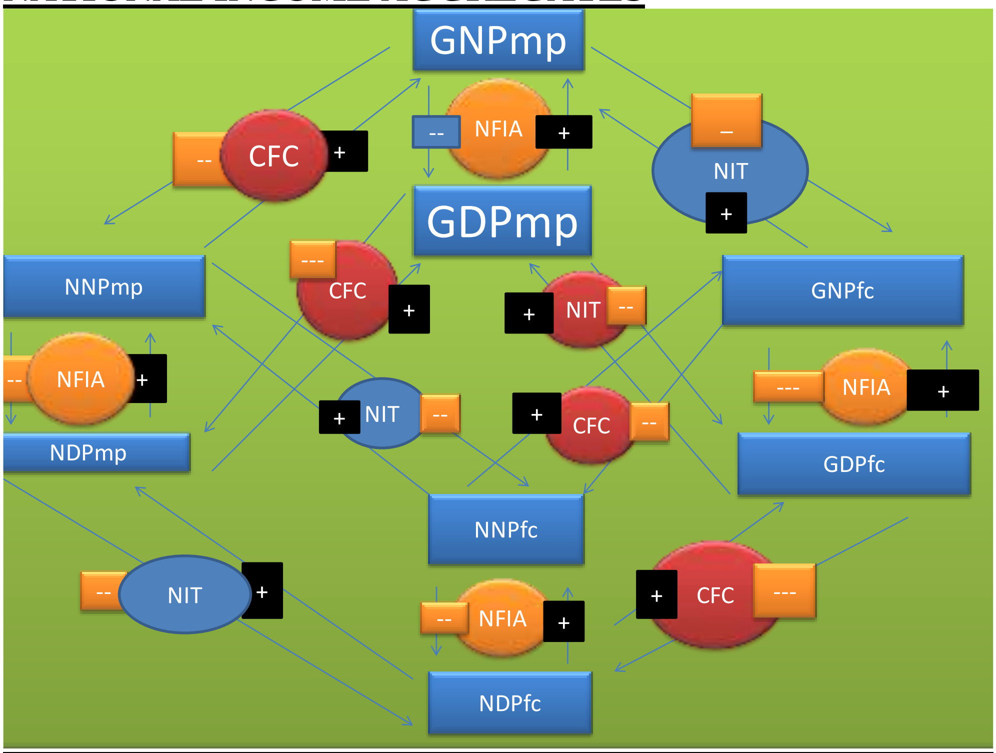
CIRCULAR FLOW OF INCOME IN TWO SECTOR ECONOMY:

1. The circular flow in two sector economy will keep on flowing without end as there is no leakage from and injection in the income stream.
2. Whatever is produced by firms is consumed by the household sector.
3. Factor payments by firms is equal to factor incomes to household sector.
4. Whatever is the factor income of the household sector is spent on consumption.



Circular Flow of Income in a Two Sector Economy

NATIONAL INCOME AGGREGATES



DOMESTIC AGGREGATES

Gross Domestic Product at Market Price: (GDP_{MP}) is the market value of all the final goods and services produced by all producing units located in the domestic territory of a country during a financial year.

Net Domestic Product at Market Price (NDP_{MP}) :NDP_{MP}= GDP_{MP}– Depreciation (consumption of Fixed capital)

Domestic Income : (NDP_{FC}) :It is the factor income accruing to ownersof factors of production for supplying factor services with in domestic territory during an accounting year.

AGGREGATES RELATED TO NATIONAL INCOME

Gross National Product at Market Price (GNP_{MP}): It is the market value of all the final goods and services produced by all producing units (in the domestic territory and abroad) of a country during a financial year.

GDP_{MP}+ NFIA = GNP_{MP}

National Income (NNP_{FC}) : It is a measure of factor earnings of the residents of a country both from economic (Domestic) territory and from abroad during an accounting year.

NNP_{FC} = NDP_{FC}+ NFIA= National Income.

National Income at Current Prices (Nominal National Income) :

It is the money value of all final goods and services valued at current prices produced by normal residents of a country over a particular period of time.

National Income at Constant Prices (Real National Income):

It is the money value of all final goods and services valued at constant prices produced by normal residents of a country.

Value of Output :

Market value of all goods and services produced by an enterprise during an accounting year.

Value added : It is the difference between value of output of a firm and value of inputs bought from the other firms during a particular period of time.

Value Added= Value of output- Intermediate cons.

Double Counting :

Is used for Counting the value of a commodity more than once while estimating national income is called double counting.

Ways to solve the problem of double counting.

(a)By taking the value of only final goods.

(b)By taking value added.

CALCULATION OF NATIONAL INCOME (NNP)FC

1. Production Method
2. Income Method
3. Expenditure Method

1. PRODUCTION METHOD (Value Added)

GVA $_{MP}$= Gross value of output at Market price(Sales + change in stocks)- Intermediate consumption

NVA at FC=GVA mp – Depriciation – net indirect tax

Steps Involved:

1. Identify all the producing units in the domestic economy and classify them into three industrial sectors such as Primary sector, Secondary sector,Tertiary sector.
2. Estimate net value added at FC by each producing unit.
3. Estimate net value added of each industrial sector by summing up net value added at FC of all producing units.
4. By adding up NVA at FC of all industrial sectors, we get domestic income.
5. By adding NFIA to domestic income, we get National Income.

Precautions:

Value of following items should be included:

a. Imputed rent of owner occupied houses.
b. Imputed value of goods and services produced for self consumption or for free distribution.
c. Value of own account production of fixed assets by enterprises, government and households.
d.Value of following items should be excluded:

a. Sale and purchase of second hand goods.
b. Sale of bonds by a company
c. Income of smuggler.

2. INCOME METHOD

Sum of total factor Payments:

- Compensation of employees
- Rent and Royalty
- Interest
- Profit mixed income
- Net factor income from abroad

Steps Involved:

1. Identify enterprises which employ factor of production(Land, Labour, Capital and Enterprise).
2. Classify factor payment like rent, wages, interest, profit and mixed income.
3. Sum up all factor payments made within domestic territory to get domestic income(NDP at FC).
4. By adding NFIA to domestic income, we get National Income.

Precautions:

1. Only factor incomes are included.
2. All types of transfer income are not included.
3. Sale and purchases of second hand goods are not included.
4. Imputed rent of owner occupied dwellings and value of production for self consumption are included.
5. Income from illegal activities like smuggling, black marketing, etc. as well as wind fall gains(Example: from lotteries) are not included.
6. Direct taxes such as income tax which are paid by the employees from their salaries are included.

3. EXPENDITURE METHOD

Sum of total final expenditure:

- Private final consumption expenditure +
- Govt. consumption expenditure +
- Gross domestic capital formation +
- Net exports

$=GDP_{MP}$

- (-) Net Indirect taxes (-) Depreciation (+) Net factor income from abroad.
  $= NNP_{FC}$

Steps Involved:

1. Identification of economic units incurring final expenditure, e.g., household sector, firm sector and government sector.
2. Classification of final aggregate expenditure into following components:
    a. Private Final Consumption expenditure.
    b. Government Final Consumption expenditure.
    c. Gross Fixed Capital Formation.
    d. Change in stocks.
    e. Net Exports
    By Summing up of all the 5 components, we get GDP at MP.
3. By deducting NIT and depreciation from GDP at MP , we get NDP at FC.
4. By adding NFIA to NDP at FC, we get National Income.

Precautions:

1. To avoid double counting, expenditure on all intermediate goods and services is not included.
2. Government expenditure on all transfer payments is not included.
3. Expenditure on purchase of second hand goods is not included.
4. Expenditure on purchase of old shares/bonds or new shares/bonds etc. is not included.

GDP And WELFARE:

1. Welfare means the sense of well-being among the people.
2. Welfare affected by economic factors like income, consumption etc. is called economic welfare. Economic factors are the factors which can be expressed in terms of money.
3. Welfare affected by non-economic factors like law and order, pollution etc. is called non-economic welfare. Non-economic factors cannot be expressed in terms of money.
4. Real GDP per capita at the most may indicate economic welfare with the following limitation.

a. GDP does not include many goods and services which contribute to welfare.
b. GDP does not take into account the externalities, i.e. harmful and beneficial effects of production influencing welfare.
c. Changes in inequalities in the distribution of income on account change in GDP influence welfare.
d. All products included in GDP may not contribute equally to economic welfare.
e. Contribution of some products included in GDP may be to reduce welfare.

GNP DEFLATOR = $\frac{\text{Nominal GNP}}{\text{Real GNP}} \text{X} 100$

QUESTIONS

Calculate Value Added at factor cost from the following.

	ITEMS	Rs. CRORES
a.	Purchase of raw materials	30
b.	Depreciation	12
c.	Sales	200
d.	Excise tax	20
e.	Opening stock	15
f.	Intermediate consumption	48
g.	Closing stock	10

Ans: Sales + Δ in stock = value of output
200 + (cl. St – op. st)
200 + (10 -15)
= 200 -5=195

Value of output – intermediate consumption
= value added at MP
195-48 = 147
V.A at FC = V.A at MP – Net indirect tax
147 – 20
127 crores

Calculate Gross Domestic Product at Market Price by
(a) Production Method and (b) Income Method

	ITEMS	**Rs. crores**
a.	Intermediate consumption by	
	i) Primary sector	500
	ii) Secondary sector	400
	iii) Tertiary sector	400
b.	Value of output by	
	i) Primary sector	1000
	ii) Secondary sector	900
	iii) Tertiary sector	700
c.	Rent	10
d.	Compensation of employees	400
e.	Mixed income	550
f.	Operating surplus	300
h.	Net factor income from abroad	(--)20
i.	Interest	5
j.	Consumption of fixed capital	40
k.	Net indirect taxes	10

Ans: GDP $_{MP}$ by <u>production method</u>
(b) (i) + (ii) + (iii) – a (i) + (ii) + (iii) = value added
(1000+ 900 + 700) – (500 -400-400)
2600 – 1300 = 1300 crores Value added at MP (GDP $_{MP}$)

<u>Income method</u>

Compensation of employees + operating surplus + mixed income = NDP $_{FC}$
= 400 + 300 + 550 = 1250 crores
GDP $_{MP}$ = NDP $_{FC}$ + conspn of fixed capital + net In. tax
= 1250+ 40 + 10
GDP $_{MP}$ =1300

Estimate national income by (a) expenditure method (b) income method from the following data:

Items	**Rs. in crores**
1. Private final consumption expenditure	210
2. Govt: final consumption expenditure	50
3. Net domestic capital formation	40
4. Net exports	(-) 5
5. Wages & Salaries	170
6. Employer's contribution	10
7. Profit	45
8. Interest	20
9. Indirect taxes	30
10. Subsidies	05
11. Rent	10
12. Factor income from abroad	03
13. Consumption of fixed capital	25
14. Royalty	15

Ans: National Income (NNP FC)

Expenditure Method

(1) + (2) + (3) + (4) = NDP $_{MP}$

210 + 50 + 40 + (-5) = 295

NNP FC = NDP MP + factor Income from abroad – net Indirect tax (Indirect tax – subsidy)

295 + 3 – (30 -5)

295 + 3 – 25

= 298 – 25 = 273

NNP FC= 273 crores

Income method:

(5) + (6) + (7) + (8) + (11) + (15)

170 + 10 + 45 + 20 + 10 + 15

= 270 (NDP $_{FC}$)

NDP $_{FC}$ = NDP $_{FC}$ + FIFA = 270 + 3= 273 crores

1. Goods that are ready for use by final users and consumers are their final users are called
   - (i) Intermediate goods (ii) final goods
   - (iii) capital goods (iv) final consumer goods
2. Which of the following is the causes of expected obsolescence?
   - (i) natural calamities (ii) change in demand
   - (iii) change in technology (iv) both (ii) and (iii)
3. Quantities measured at a particular point of time is called
   - (i) flow variable (ii) stock variable
   - (iii) fixed inventory (iv) none of the above
4. Gross investment is equal to
   - (i) net investment – depreciation (ii) net investment X depreciation
   - (iii) net investment + depreciation (iv) net investment / depreciation]
5. Which of the following is an example of normal resident of India?
   - (i) Foreign worker working in WHO located in India
   - (ii) The German working as director in IMF office located in India
   - (iii) Ambassador in India from rest of the world
   - (iv) Ambassador of India in rest of the world
6. A transfer is:
   - a. Gift b. Charity
   - c. Tax d. All the above
7. National disposable income is different from national income because it also takes into account:
   - a. Current transfers b. Capital transfers
   - c. Both a and b d. Neither a nor b
8. Disposable income at the national level is:
   - a. GNPmp + net current transfers
   - b. GDPmp-net current transfers
   - c. GNPmp- net current tranfers to the rest of the world
   - d. GDPmp+net current tranfers to the rest of the world
9. Given private income=70, Direct tax=10, Personal tax=5 and retained earnings=5, what is personal income:
   - a. 50 b. 55
   - c. 60 d. 65
10. Welfare of the people of country is determined by:
    - a. Nominal GDP b. Real GDP
    - c. Per capita real GDP d. Per capita real GDP and host of others factors
11. Real GDP is:
    - a. Nominal GDP/nominal GDP b. Price index/nominal GDP
    - c. a*100 d. b*100

12. Production of petrol and diesel driven vehicles:

a. Raises welfare | b. Reduces welfare
c. Both a and b | d. Has no effect on welfare

13. Reduction in production of junk food:

a. Reduces welfare | b. Increases welfare
c. Both a and b | d. Has no effect on welfare

Distinguish between GDP_{Mp} and GNP_{FC}.

Ans. The difference between both arise due to (1) Net factor income from abroad. and 2) Net indirect taxes. In GDP_{Mp} Net factor income from abroad is not included but it includes net indirect taxes.

GNP_{FC} = GDPMp + net factor income from abroad – net indirect taxes

Distinguish between personal income and private income

Ans. <u>Personal income</u>: -It is the sum total of earned income and transfer incomes received by persons from all sources within and outside the country.

Personal income = private income – corporate tax –corporate savings (undistributed profit)

<u>Private income</u> consists of factor income and transfer income received from all sources by private sectors within and outside the country.

Distinguish between nominal GNP and real GNP

Ans. Nominal GNP is measured at current prices. Since this aggregate measures the value of goods and services at current year prices, GNP will change when volume of product changes or price changes or when both changes.

Real GNP is computed at the constant prices. Under real GNP, value is expressed in terms of prices prevailing in the base year. This measure takes only quantity changes. Real GNP is the indicator of real income level in the economy.

What are the precautions to be taken while calculating national income through product method (value added method)

a) Avoid double counting of production, take only value added by each production unit.
b) The output produced for self-consumption to be included
c) The sale & purchase of second hand goods should not be included.
d) Value of intermediate consumption should not be included
e) The value of services rendered in sales must be included.

Precautions to be taken while calculating national income through income method.

a) Income from owner occupied house to be included.
b) Wages & salaries in cash and kind both to be included.
c) Transfer income should not be included
d) Interest on loans taken for production only to be included. Interest on loan taken for consumption expenditure is non-factor income and so not included.

Precautions to be taken while calculations N.I under expenditure method.

a) Avoid double counting of expenditure by not including expenditure on intermediate product
b) Transfer expenditure not to be included
c) Expenditure on purchase of second hand goods not to be included.

'Machine purchased is always a final good' do you agree? Give reason for your answer

Whether machine is a final good or it depends on how it is being used (end use). If machine is bought by a household, then it is a final good. If machine is bought by a firm for its own use, then also it is a final good. If the machine is bought by a firm for resale then it is an intermediate good.