☐ National Income (NI) ⟶ National Income is also known as National Income at factor-cost.

National Income at factor Cost means the sum of all income earn by resources supplies for their contribution of land, labor, capital and organization ability which goes into the years net production.

Hence, The sum of the income received by factors of production in the form of rent, wages, interest and profit is called National income

Mathematically —

$$NI_{FC} = NNP + Subsidies - Indirect\ taxes$$

or, $NI = GNP - Depreciation + Subsidies - Indirect\ taxes.$

☐ PI (Personal income) ⟹ PI is the total income which is actually received by individuals or households in a country during the year from all resources (such as Salaries, wages, and bonus received from employment or self employment; dividends and distribution received from investment etc) before direct taxes —

PI = National Income - Undistributed corporate profit - profit tax - Social Securities Contribution + Transfer payment + interest on public debt.

☐ DPI (Disposable personal income) ⟹ The whole of personal income is not available for consumption as peronal direct taxes have to be paid. Income left after payment of personal ~~income~~ direct taxes (including property taxes, insurance payments) from personal income is call Disposable personal income. Thus –

$$DPI = \text{personal income} - \text{personal direct taxes}$$

The disposable personal income may be spent fully or save. Thus, it is not the entire DPI spent on consumption. A part of it may be saved there fore DPI is

$$DPI = \text{Consumption} + \text{saving}$$

What remains after saving is called the personal outlay, which represents the community demand for goods and ~~services~~

$$\text{personal outlay} = DI - \text{saving}$$

☐ PCI (per capita income) ⟹ per capita income of a country is derived by dividing the national income of the country by the total population of a country thus –

$$PCI = \frac{\text{National income}}{\text{total National population}}.$$

Methods of Measurement of National Income

There are three common approaches to the measurement of National Income —

1) product/output method
2) Income method
3) Spending/Expenditure method
    a) value added method
    b) Mixed method.

1) product output method ⇒ This approach is also Called the output method / The inventory method / Goods flow method / The census method —

The method measures NI by considering the total sum of the market value of all final goods and services produced in the produced in the production unit in an economy in a given period.

It is realy indicates the GDP. It includes final goods and services and exclude the intermediate goods and services.

$$NI = \sum_{i=1}^{n} Q_i P_i \quad (I) \qquad S = Q P - (II)$$

where, S = market value of output in sector

q = quantity of output in the sector

p = market price of output in the sector

i = different sectors in the economy i.e - 1, 2, 3 ... n

n = total number of sectors in the economy.

2) Income Method $\Rightarrow$ A method of computing NI that measures the income (wages (W), Rents (R), interest (I), and profits (P)) earned by all factors of production in producing final goods and services in a given period.

profit ~~can~~ Can be owner income and Corporate profits (corporate income tax, dividends, Retained earning)

A Summation all the factor income over a period of time is known as NI (e.g - GDP) at factor cost

$GDP = (W + R + I + P)$

$NDP = (W + R + I + P) - D$ (D = Depreciation)

$GNP = (W + R + I + P) + NFIA$

$NNP = [(W + R + I + P) + NFIA] - D$

GNDI (Gross National Disposable Income)

$= [(W + R + I + P) + NFIA] + (Y_{re} - Y_{er})$

Y_{re} = income Received but not earn

Yes = Income earned but not received.

3) Expenditure approach ⟹ A method of computing NI that measures the amount spent on all final goods and services a given period.

The expenditure in the economy can be broadly divided into four types as –

i) House holds (consumption expen. (C)
ii) Business (Investment Expenditure) (I)
iii) Government (Government Expenditure) (G)
iv) foreigners (export (X) and import (M)) of goods and services

Trade balance = $(X - IM)$

Thus,

A summation of all the expenditure over a period of time is known as NI (GDP in an open economy)

$$GDP = C + I + G + (X - IM)$$

$$GNP = \underbrace{C + I + G}_{GNE \text{ (gross national expenditure)}} + \underbrace{(X - IM)}_{TB \text{ Trade balance}} + \underbrace{(X - IM)}_{NFSA}$$

$$Y = (C+I+G) + (X-IM) + (X-IM) + (Y_{re} - T_{er})$$

$\downarrow$
GNDI

GNE

TB

NFIA

NUT
(Net unilateral transfer)

for a closed economy

$$EX = IM,$$

$$GDP = GNP = C+I+G$$

$$GNDI = C+I+C+(Y_{re}-T_{er})$$