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Ch-6 National Income Accounting NNP_{fc}

- The Central Statistical Organisation (CSO) in the ministry of statistics and Programme implementation (MoSPI) is responsible for compilation of National Accounts, Statistics.
- NNP_{fc} is the money value of Final Goods and services produced by Normal Resident within domestic Territory or outside produced within accounting year.

Final Goods \div Capital Goods, used by producer for further production are Final Goods.

but Goods in which Value addition is done are intermediate goods.

Intermediate goods are consumed in same year but if remains more than 1 year, then treated as Final Goods.

Normal Resident \div refers to individual or an institution who ordinarily resides in india, and whose center of economic interest also lies in that country.

Center of Economic Interest \div

- 1) Resident lives with domestic territory
- 2) Resident carries out basic economic activities of earning, spending & accumulation from that location.

- Because/that
Economic Int is in
their
country
- Ex - Foreign staff of Embassies of Foreign Country]
 - Member of armed forces of " "]
 Both are Not Normal Resident.
 - International Organisations like UNO, WTO are Not NR

Exception - If Employee work more than 1 year in international Institutions is considered as normal Resident.
 only
 - WHO, UNO

Domestic Territory just these 2

- * Include only Indian Embassies, Indian Ship/Aircraft operating outside India.
- * Exclude foreign Embassies, International Institutions
- * Include other all things operating inside geographical boundary.

Gross Domestic Product or GDP GDP Deflator = $\frac{N}{P} \times 100$

1) Nominal GDP is GDP at Current price

$$\text{Nominal GDP} = \frac{\text{GDP Deflator} \times \text{Real GDP}}{100}$$

* Nominal GDP increase due to change in Prices, Inflation

2) Real GDP is GDP at Constant/base Price

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}} \times 100$$

* In case base of Price index is not given, let it be 100.
 GDP Deflator

National Income (NNP_{fc})

- (-) Income Accrue to "Govt Sector", Ex-Railway
- (-) Saving of Non Departmental Enterprise Ex- LIC/ICAI
- ① ⇒ Factor Income Accrue to "Private Sector"
- (+) Transfer Income (Non factor Income)
- ② ⇒ Private Income
 - (-) Corporate Tax
 - (-) Retained Earning / undistributed Profit
- ③ ⇒ Personal Income
 - (-) Personal Tax (Income Tax) Direct Tax
 - (-) Fines / Penalty
- ④ ⇒ Personal Disposable Income

* Transfer Income → Net Current Transfer Income from Govt
 → Net Current Transfer from rest of world
 → National Debt, Interest *

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* PDI is the Income left with household for Consumption & Savings.

* National Income is (not) the sum of personal Incomes because personal Income includes Transfer, Payments

① (Net) National Disposable Income
 $NDY = NNP_{fc} + NIT + \text{Net Current transfer from the rest of the world.}$

② Gross NDY = Net NDY + Depreciation

→ Circular Flow of Income (Int NEXT UNIT)

Methods of Measurement of National Income in India.

① Value added @ Product Method @

- Inventory
- Net output
- Industrial Origin
- Commodity Service

$$\text{GDP}_{MP} = \text{Value of Output} - \text{Intermediate Consumption}$$

@
GVA_{MP}

* Value of Output = Sales + change in Stock (CS - OS)

$$\begin{array}{c} \text{Domestic Sales} + \text{Exports} \\ \text{Imports} \end{array}$$

* Intermediate Consumption

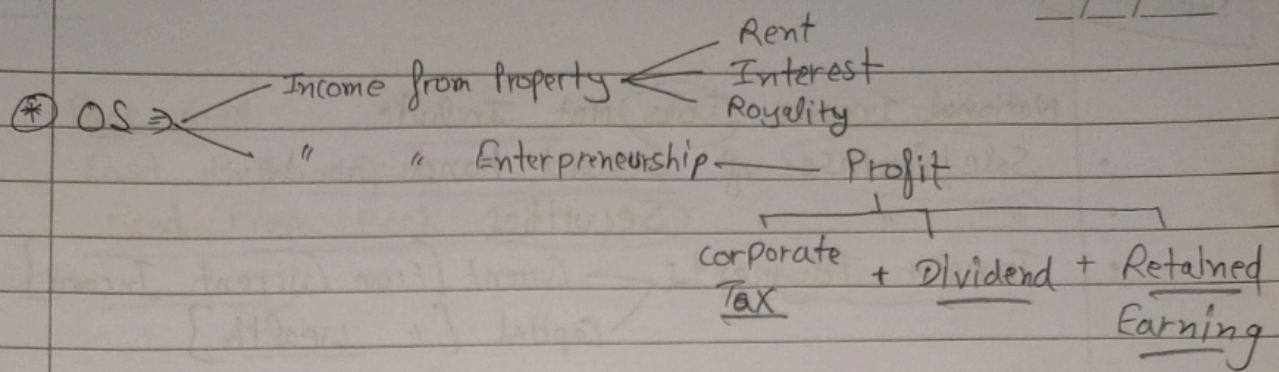
$$\begin{array}{c} \text{Domestic Purchase} + \text{Imports} \end{array}$$

② Income Method @ factor Payment @ Distributed Share

$$\text{NDP}_{FC} = \text{Compensation of Employee} + \text{Operating Surplus} + \text{Mixed Income of Self Employed.}$$

* COE

- salary/wages in Cash
- " " " Kind
- Contribution of Employer to Social Security



③ Expenditure Method

$$GDP_{MP} = \text{Private final consumption Exp} + \text{Govt final consumption Exp} + \text{Gross Domestic Capital Formation} + \text{Net Exports}$$

$$= PFCE + GFCE + GDGF + NE$$

• Except house purchase / constructed

• GFCE ⇒ Except Infrastructure Development like Dams / Bridges

• GDGF ⇒ $\frac{\Delta \text{ in stock}}{(CS - OS)} + \text{Gross (fixed) Capital Formation}$

Business Residential Govt

• $NE = \text{Export} - \text{Imports}$

Estate Duty }
Income Tax } are Direct Tax .

Excise Tax } indirect

National Income Does Not Include

- Sale/Purchase of Second hand Goods
- " " " Securities
- Transfer Payments
 - ← Current [From Current Income]
 - ← Capital [" wealth"]

* Broker Service will be included even on Sale/Purchase of second hand Goods.

Gross Investment

→ Purchase of Fixed Asset + CS

Net = Gross - Dep

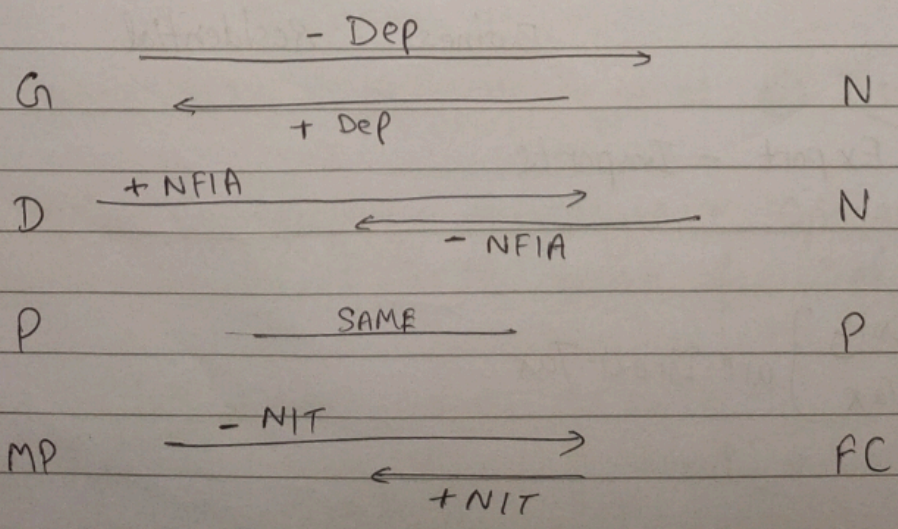
NIT (Net Indirect Tax)

NIT = IT - Subsidies

By *Gautam Gogia*

NFIA (Net Factor Income from abroad)

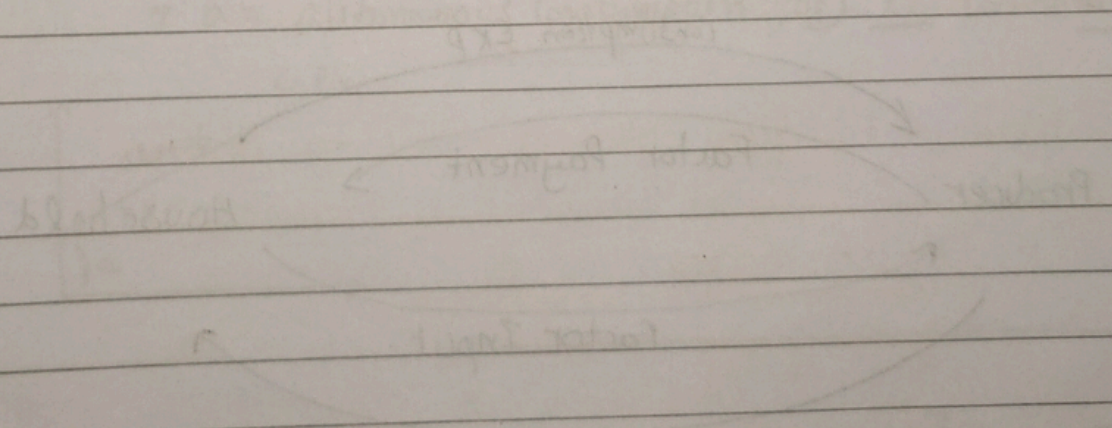
NFIA = FI from Abroad - FI to Abroad



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Last three topics
Read From Book

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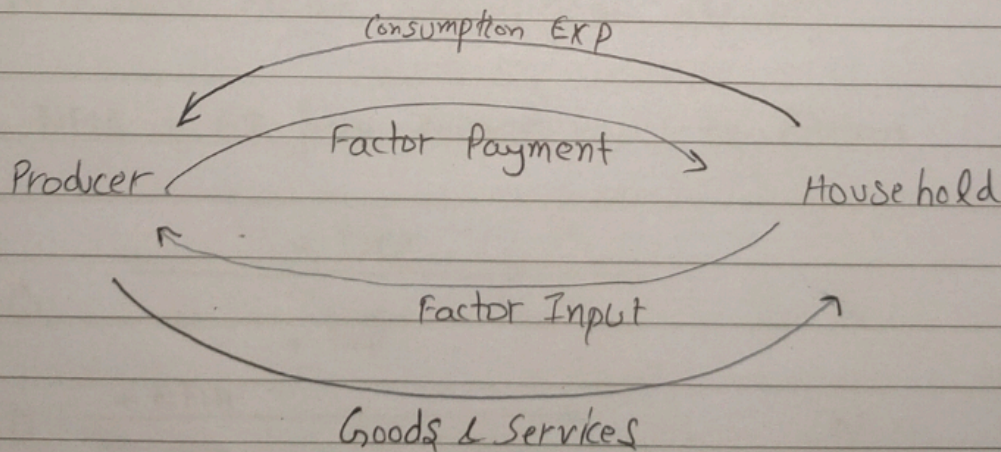
- * Closed Economy
- * No savings
- * Spent factor income
- * Factor payment = House hold income = $H \cdot E \cdot X \cdot P = T \cdot P \cdot Q$

UNIT-2

The Keynesian theory of Determination of National Income

- * "Income Determination" was first put forward by the British economist "John Maynard Keynes" in his masterpiece, "The General Theory of Employment Interest & Money", Published in 1936.
- * Great Depression of 1930's was the greatest economic crisis, the western world had experienced.

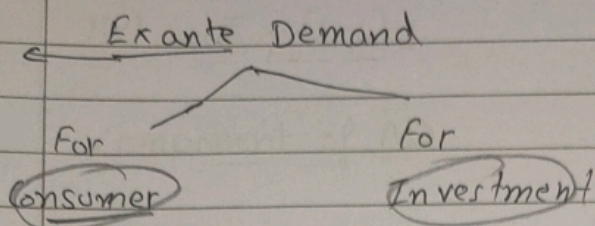
Circular Flow in a Simple two sector Model



- * Closed Economy
- * No Savings
- * Spend Entire Income
- * $\text{Factor Payment} = \text{Household income} = \text{H. Exp} = \text{Total Receipt of Firm} = \text{Value of Output}$

AD Function

Planned,
~~Not~~
actual



$$\underline{AD = C + I}$$

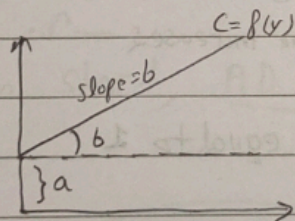
Consumption Function $C = f(Y)$

Proportionate Inc in Consumption $<$ Prop inc in Income

$$\boxed{C = a + bY} \quad \text{Consumption function}$$

$$* b = \frac{\Delta C}{\Delta Y} = \text{MPC}$$

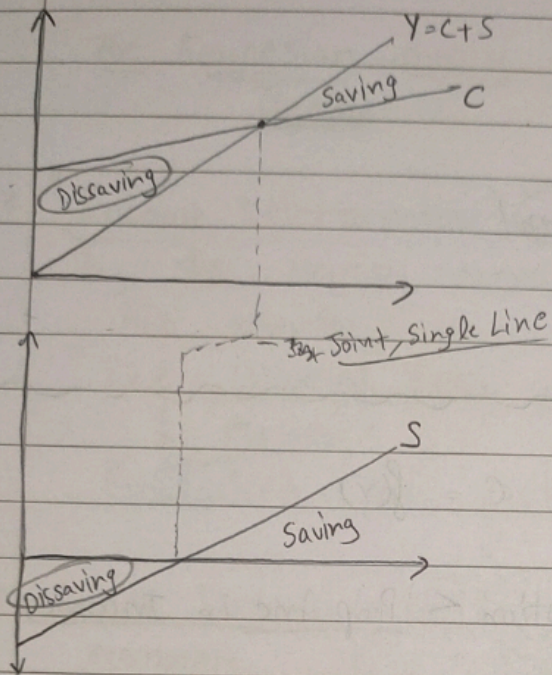
* $a =$ autonomous consumption, (or) \bar{C} [It is always fixed]



$$APC = \frac{C}{Y} \quad [APC \text{ decreases, as } Y \text{ increases}] \quad \checkmark$$

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Relationship B/w Income, Consumption & Saving



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$$MPS = \frac{\Delta S}{\Delta Y} = 1 - b$$

$$APS = \frac{S}{Y}$$

can never be 1
 can be 0 & Negative
 APS inc & Income increases \rightarrow

$$APC = \frac{C}{Y}$$

can be more than or equal to 1
 can't be 0

$$MPC = \frac{\Delta C}{\Delta Y}$$

can be 0 & 1
 can't be more than 1

	MPS	More than 1	1	0	negative
$\frac{S}{Y}$	APS	x	x	✓	✓
$\frac{\Delta S}{\Delta Y}$	MPS	x	✓	✓	x
$\frac{C}{Y}$	APC	✓	✓	x	x
$\frac{\Delta C}{\Delta Y}$	MPC	x	✓	✓	x

Saving Function

$$f(r) = -\bar{c} + (1-b)y$$

Consumption Function

$$f(c) = \bar{c} + by$$

Component of AD

C @ P

Private Final Consumption Exp [Household]

I

Investment Expenditure \Rightarrow Capital formation

Fixed
Cap

Δ in
Inventory

It is assumed that, Investment Exp in Autonomous
Fixed

G

Govt Exp

Consumer Goods

Capital Goods

(X-M)

Net Exports

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In short, $AD = C + I + G + (X-M)$

Two Sector
Model

$$AD = C + I$$

* $C = \bar{c} + by$

* $S = I$

* $AD = AS(y)$ ★

★ MCQ

Three sector Model [Diagram 6.55]

$$AD = C + I + G$$

CASE I

Tax (T) amount is given

$$C = \bar{C} + b(Y - T)$$

or

$$C = \bar{C} + bY_d$$

* $(Y - T) =$ Disposable Income
 (Y_d)

CASE II

Tax (T) Function is Given

$$C = \bar{C} + b(Y - T)$$

* $T = \bar{T} + ty$
Income
Autonomous Tax
Tax Rate in decimal

CASE III

Tax + Transfer Payment

Here, $Y_d = (Y - T + T_r)$

★

In 3 sector, $K = \frac{1}{1 - b(1-t)}$

MCQ

Four Sector Model

$$Y = C + I + G + (X - M)$$

1) Deflationary Gap

when, AD goes Less than Full Employment level of output

Deflationary or recessionary Gap, also known as Contractionary Gap

2) Inflationary Gap (or) Demand Pull Inflation

when AD is greater than Full Employment level of output

* It is a "Demand Pull Inflation"

By Investment Multiplier (K) $\left\{ \begin{array}{l} \text{MPC (direct relation)} \\ \text{MPS (inverse)} \end{array} \right\}$ Gogia

Due to, ΔI , Y incr Multiple times

$$K = \frac{\Delta Y}{\Delta I} = \frac{1}{1 - MPC} = \frac{1}{MPS}$$

Max, $K = \infty$, when $MPC = 1$ $MPS = 0$

Min, $K = 1$, when $MPC = 0$ $MPS = 1$

$$\frac{1}{1} = 1 \quad \frac{1}{0} = \infty$$