

eco

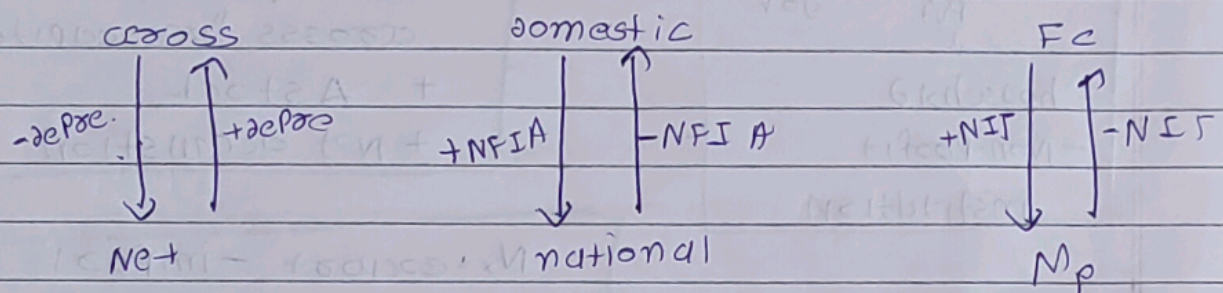
6. determination of national income

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→
$$\text{CPI deflator} = \frac{\text{price index}}{\text{Real GDP}} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

→
$$\text{inflation rate} = \frac{\text{CPI deflator of 2nd year} - \text{CPI deflator of 1st year}}{\text{CPI deflator of 1st year}} \times 100$$

* conversion rules



$$- \text{NIT} = \text{Net indirect tax} = \text{Tax} - \text{subsidy}$$

- FFA = Foreign income from Abroad
- FTA = foreign income to Abroad
- NFIA = Net factor income from abroad
- $$\text{NFIA} = \text{FFA} - \text{FTA}$$

→
$$\text{National income} = \text{NDP}_{\text{FC}}$$

* calculation of National income

1) income method

→
$$\text{NDP}_{\text{FC}} = \text{compensation to employ} - \text{salary, Bonus etc.} \\ + \text{operational surplus} = \text{Rent} + \text{Int.} + \text{Profit} + \text{royalty} \\ + \text{mixed income of self employed.}$$

↳ Labour + capital income

→
$$\text{profit} = \text{corporate tax} + \text{dividend} + \text{undistributed profit}$$

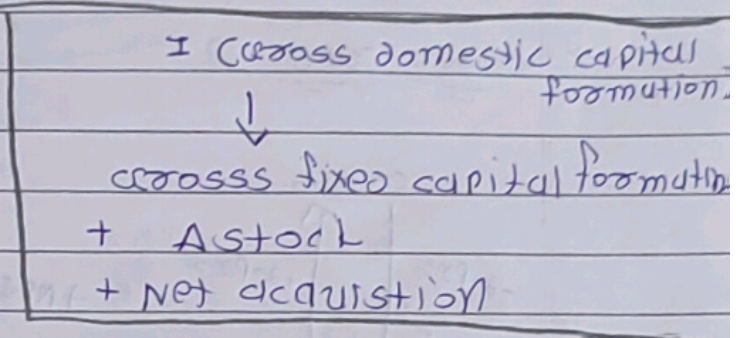
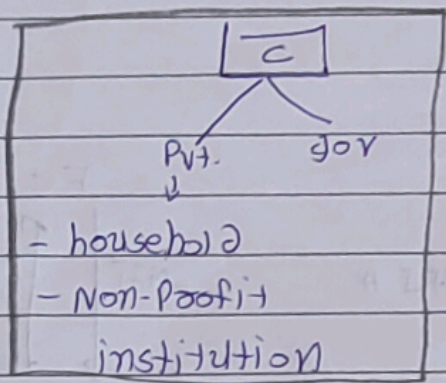
national income concept

- Simon Kuznets
- Richard Stone

2) Expenditure method:

$\rightarrow GDP_{mp} = \text{total expenses of country} = \text{Aggregate demand}$

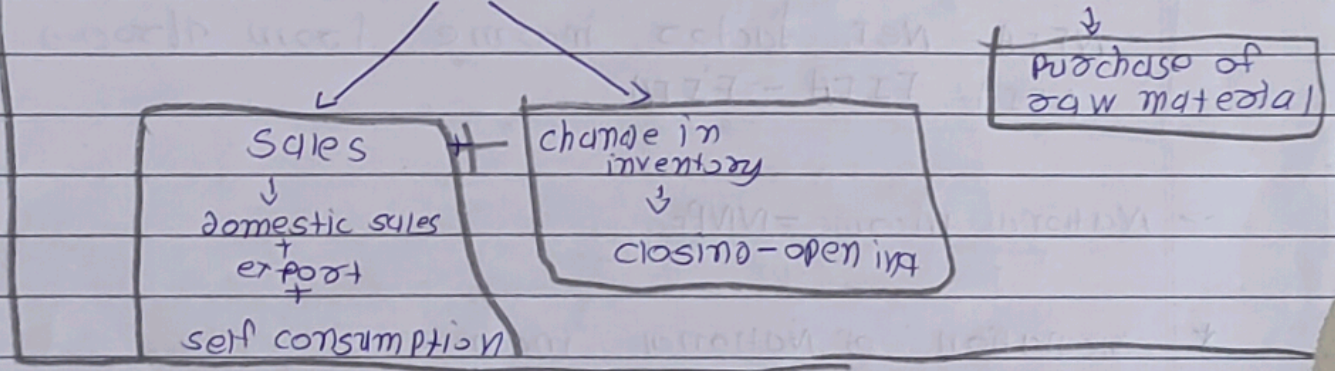
$\rightarrow GDP_{mp} = C + I + N_x$



$N_x = \text{export} - \text{import}$
 Net import $\rightarrow N_x = - \text{Net import}$

3) Value added or product method

$\rightarrow \text{value added} = \text{value of output} - \text{intermediate cost}$



$\rightarrow GDP_{mp} = \text{value of output} - IC$

$\rightarrow GDP_{mp} \rightarrow \text{considered as } GDP_{mp}$

★ disposable income

disposable income = income - tax + transfer income

→ Net National Disposable Income (NNDI)
= NI + Net current transfers

→ GNDP = NNDI + Depreciation

→ consumption of fixed assets = depreciation

★

NDP_{FC}

- domestic income accruing to gov. sector

domestic income accruing to Pvt. sector

+ NFIA (if NMP_{FC} given, NFIA not required)

+ Net current transfer from rest of world

+ Net current transfer from gov.

+ National debt interest

Private income

- corporation tax

- undistributed profit

Personal income

= Personal taxes

= Non tax payments

disposable Personal income

Direct tax

-> actual ex post - present - unplanned

-> expected ex ante - ~~intend~~ planned

* 4 sectors -> household, firm, government, foreign

-> $C = \bar{c} + MPC \cdot y$ -> $C = a + by$

-> income y
 $C = a + by$
 $y = (y - T + TR)$

-> $S = -a + (1-b)y$ -> $S = -\bar{s} + MPS \cdot y$

a = autonomous consumption | saving (intersects)

MPC = Marginal Propensity to ~~save~~ consumption

MPS = Marginal Propensity to save

b = slope

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

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

-> $APC + APS = 1$

$MPS = \frac{\Delta S}{\Delta Y}$

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

-> $MPC + MPS = 1$

-> 2 sectors => $AD = C + I$

-> 3 sectors => $AD = C + I + G$

-> 4 sectors => $AD = C + I + G + N_x$

3 sectors

$NNP = NDP + NFI$

$NNP = NDP + 0$ (NO foreign)

$NNP = NDP$

* equilibrium

$AD = AS$

$C + I = S + G$

$I = S$

* multiplier

2 sectors

$k = \frac{\Delta Y}{\Delta I}$

$k = \frac{1}{MPS}$

$k = \frac{1}{1-MPC} = \frac{1}{1-b}$

3 sectors

$k = \frac{1}{1-b}$

if tax

$k = \frac{1}{1-b(1-t)}$

4 sectors (foreign multiplier)

injection -> investment - export - exp.

$k = \frac{1}{1-b+m}$

leakage -> saving - import - tax