

DETERMINATION OF NATIONAL INCOME

List of Important Formulas

$$(1) \text{GDP}_{MP} = \text{CY}_{Qty} \times \text{CY}_{Price} \rightarrow \text{Nominal GDP}$$

$$(2) \text{Real GDP} = \text{CY}_{Qty} \times \text{BY}_{Price} \rightarrow \text{Real}$$

$$(3) \text{Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

$$(4) \text{Inflation Rate} = \text{Deflator} - 100$$

Note :- $\oplus$ answer = Inflation

$\ominus$ answer = Deflation

(5) Nominal GDP can be calculated as follows

$$\text{Nominal GDP} = \text{Real GDP} + \text{Inflation Rate}$$

or

$$\text{Nominal GDP} = \text{Real GDP} \times \text{Deflator \%}$$

$$(6) \text{NDP}_{MP} = \text{GDP}_{MP} - \text{Depreciation}$$

$$(7) \text{GNP}_{MP} = \text{GDP}_{MP} + \text{NFIA}$$

$$(8) \text{NFIA} = \text{FIFA} - \text{FITA}$$

$$(9) NNP_{MP} = GNP_{MP} - Dep$$

$$(10) NNP_{MP} = GDP_{MP} - Dep + NFIA$$

$$(11) NNP_{MP} = NDP_{MP} + NFIA$$

$$(12) Gross = Net + Depreciation$$

$$(13) Net = Gross - Depreciation$$

$$(14) \text{Format For Factor Cost}$$

Factor Cost

Land $\rightarrow$ Rent $\rightarrow$ xxx

Labour $\rightarrow$ Wages $\rightarrow$ xxx

Capital $\rightarrow$ Interest $\rightarrow$ xxx

Organization $\rightarrow$ Profit $\rightarrow$ xxx

FACTOR COST xxx

(+) Indirect Tax xxx

(-) Subsidy (xxx)

MARKET PRICE xxx

$$(15) \text{Factor Cost} = \text{Market price} - \text{Ind. Tax} + \text{Subsidy}$$

$$(16) GDP_{FC} = GDP_{MP} - NIT +$$

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$$(17) \text{NIT} = \text{ITax} - \text{Subsidy}$$

$$(18) \text{GDP}_{\text{FC}} = \text{Compensation to employees} \\ (+) \text{Operating Surplus (Rent + Int + Profit)} \\ (+) \text{Mixed Income of self employed} \\ (+) \text{Depreciation}$$

$$(19) \text{GNP}_{\text{FC}} = \text{GDP}_{\text{FC}} + \text{NFIA}$$

$$(20) \text{GNP}_{\text{FC}} = \text{Compensation to employees} \\ (+) \text{Operating Surplus (RIP)} \\ (+) \text{Mixed Income of self employed} \\ (+) \text{Depreciation} \\ (+) \text{NFIA}$$

$$(21) \text{GDP}_{\text{FC}} = \text{NDP}_{\text{MP}} + \text{Dep} - \text{NIT}$$

$$(22) \text{GDP}_{\text{FC}} = \text{NNP}_{\text{MP}} + \text{Dep} - \text{NFIA} - \text{NIT}$$

$$(23) \text{GNP}_{\text{FC}} = \text{GDP}_{\text{MP}} + \text{NFIA} - \text{NIT}$$

$$(24) \text{GNP}_{\text{FC}} = \text{GNP}_{\text{MP}} - \text{NIT}$$

$$(25) \text{GNP}_{\text{FC}} = \text{NDP}_{\text{MP}} + \text{Dep} + \text{NFIA} - \text{NIT}$$

- ②⑥ $NDP_{FC} = GDP_{FC} - \text{Depreciation}$
or
- ②⑦ $NDP_{FC} = \text{Compensation to employees}$
(+) Operating Surplus (RIP)
(+) Mixed Income of self employed.
or
- ②⑧ $NDP_{FC} = GDP_{MP} - \text{Depreciation} - NIT$
- ②⑨ $NDP_{FC} = GNP_{MP} - \text{Depreciation} - NFIA - NIT$
- ③⑩ $NDP_{FC} = NDP_{MP} - NIT$
- ③⑪ $NDP_{FC} = NNP_{MP} - NFIA - NIT$
- ③⑫ $NDP_{FC} = NNP_{FC} - NFIA$

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- ① Gross $\rightarrow$ Net $\Rightarrow (-)$ Depreciation
- ② Domestic $\rightarrow$ National $\Rightarrow (+)$ NFIA
- ③ MP $\rightarrow$ FC $\Rightarrow (-)$ NIT

$$(33) \text{NNP}_{FC} = \text{GNP}_{FC} - \text{Dep}$$

or

$$(34) \text{NNP}_{FC} = \begin{aligned} &\text{Compensation to employees} \\ &(+)\text{ Operating Surplus (RIP)} \\ &(+)\text{ Mixed Income of self employed} \\ &(+)\text{ NFIA} \end{aligned}$$

$$(35) \text{NNP}_{FC} = \text{GDP}_{FC} - \text{Dep} + \text{NFIA}$$

$$(36) \text{NNP}_{FC} = \text{NDP}_{FC} + \text{NFIA}$$

$$(37) \text{NNP}_{FC} = \text{NNP}_{MP} - \text{NIT}$$

$$(38) \text{NNP}_{FC} = \text{NDP}_{MP} + \text{NFIA} - \text{NIT}$$

$$(39) \text{NNP}_{FC} = \text{GNP}_{MP} - \text{Depreciation} - \text{NIT}$$

$$(40) \text{NNP}_{FC} = \text{GDP}_{MP} - \text{Depreciation} + \text{NFIA} - \text{NIT}$$

$$(41) \boxed{\text{Factor cost} + \text{Production Tax} - \text{Production Subsidy}}$$

↓
Basic Price

$$(42) \boxed{\text{Basic Price} + \text{Product Tax} - \text{Product Subsidy}}$$

↓
Market Price

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$$(43) \text{ Disposable Income} = \text{Income} - \text{Tax} - \text{Compulsory Payment}$$

or

$$(44) \text{ Disposable Income} = \text{Consumption} + \text{Savings}$$

$$(45) \text{ Per capita Income} = \frac{\text{Total Income in a year}}{\text{Total population in a}}$$

$$(46) \text{ Personal Income} = \text{National Income}$$

(+) Income Received but not earned.

(-) Income earned but not received

$$(47) \text{ National Income} = \text{Personal Income}$$

(+) Income earned but not received.

(-) Income received but not earned.

$$(48) \text{ Value added method}$$

$$\text{GDP}_{\text{MP}} = \text{Output value} (-) \text{Intermediate Consumption}$$

or

$$\text{GDP}_{\text{MP}} = (\text{sales} + \text{change in stock}) (-) \text{Intermediate Consumption}$$

④ Income Method

National Income = Compensation to employees
(+) Op. Surplus (RIP)
(+) M.I. of self employed
(+) NFIA

⑤ Expenditure method

$$GDP = \boxed{C} + \boxed{GDFC} + \boxed{NX}$$

$\downarrow$ Consumption $\downarrow$ Gross Domestic Fixed Capital Formation $\downarrow$ Net exports