

Chapter 1 · National Income and Related Aggregates

CBSE Class 12 Economics (030) · Part A Macroeconomics · Unit 1 = 10 marks · Ultimate Revision Sheet

60-SECOND RECALL

3 methods	Value Added (Product) · Income · Expenditure — all give the same answer
Domestic → National	+ NFIA (Net Factor Income from Abroad)
Gross → Net	– Depreciation (Consumption of Fixed Capital)
MP → FC	– NIT (Net Indirect Tax = Indirect Tax – Subsidy)
National Income	= NNP_{FC}
Real vs Nominal	Real at base year prices · Nominal at current prices

1. Basic Concepts

Term	Meaning
Final goods	Bought for final use — consumption or investment. Included in national income.
Intermediate goods	Bought for resale or for further production in the same year. Excluded (avoids double counting).
Consumption goods	Satisfy human wants directly — durable, semi-durable, non-durable, services.
Capital goods	Fixed assets used in production — machinery, buildings.
Stock	Measured at a point of time . Eg: capital, wealth, money supply, inventory.
Flow	Measured over a period of time . Eg: income, investment, exports, depreciation.
Gross Investment	Net Investment + Depreciation
Depreciation	Normal wear and tear + expected obsolescence. Not loss by accident.

THE TEST FOR FINAL vs INTERMEDIATE It depends on the **USE**, not the good itself. Milk bought by a **household** = final. The same milk bought by a **sweet shop** = intermediate. Always ask who buys it and for what.

2. The Aggregates — the conversion map

THE THREE MOVES — learn these and every conversion follows

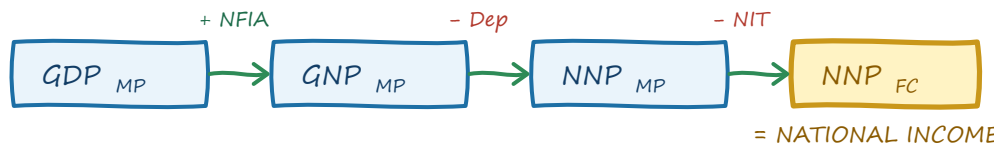
Domestic → National: ADD NFIA (National → Domestic: subtract NFIA)

Gross → Net: SUBTRACT Depreciation

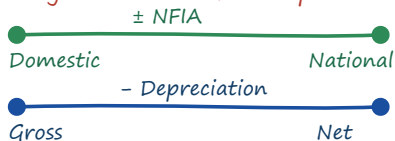
Market Price → Factor Cost: SUBTRACT Net Indirect Tax

NIT = Indirect Taxes – Subsidies

NFIA = Factor income earned from abroad – Factor income paid to abroad



Only three levers exist — pull them in any order:



Eight aggregates, but only three moves. Any aggregate reaches any other by pulling some of these three levers.

THE EIGHT AGGREGATES

From	To	Operation
GDP_{MP}	NDP_{MP}	- Depreciation
GDP_{MP}	GNP_{MP}	+ NFIA
GDP_{MP}	GDP_{FC}	- NIT
NDP_{FC}	= Domestic Income	
NNP_{FC}	= NATIONAL INCOME	

WORKED CONVERSION $GDP_{MP} = ₹1,000$, Depreciation = ₹100, NFIA = -₹20, Indirect Tax = ₹80, Subsidy = ₹30.

$$NIT = 80 - 30 = ₹50$$

$$NNP_{FC} = 1,000 - 100 + (-20) - 50 = ₹830$$

So National Income = ₹830.

3. Method 1 — Value Added (Product) Method

FORMULAS

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

$$\text{Value of Output} = \text{Sales} + \text{Change in Stock} \text{ (or Quantity} \times \text{Price)}$$

$$\text{Change in Stock} = \text{Closing Stock} - \text{Opening Stock}$$

$$NVA_{FC} = GVA_{MP} - \text{Depreciation} - NIT$$

$$\text{National Income} = \sum NVA_{FC} \text{ of all sectors} + NFIA$$

EXCLUDE THESE • Intermediate consumption (double counting)

- Sale of second-hand goods — but the commission on it IS included
- Sale of shares/bonds — a financial transaction, not production; the brokerage IS included
- Own-account production of services by households (a housewife's services)

INCLUDE: own-account production of goods, imputed rent of owner-occupied houses, and goods produced for self-consumption.

4. Method 2 — Income Method

FORMULA

$NDP_{FC} = \text{Compensation of Employees} + \text{Operating Surplus} + \text{Mixed Income of Self-Employed}$

$\text{Operating Surplus} = \text{Rent} + \text{Royalty} + \text{Interest} + \text{Profit}$

$\text{Profit} = \text{Corporate Tax} + \text{Dividend} + \text{Undistributed Profit (Retained Earnings)}$

$\text{National Income (NNP}_{FC}) = NDP_{FC} + NFIA$

EXCLUDE THESE — the exam always plants two or three • Transfer payments — old-age pension, scholarship, unemployment allowance, gifts, donations. No production, so no income.

- Windfall gains — lottery, betting.
 - Capital gains — profit on sale of land or shares.
 - Illegal income — smuggling, black-marketing.
 - Indirect taxes and corporate savings tax are already inside; do not add separately.
- NOTE:** Retirement pension is a factor income (deferred wage) and IS included. Old-age pension is a transfer and is NOT.

5. Method 3 — Expenditure Method

FORMULA

$GDP_{MP} = C + I + G + (X - M)$

C = Private Final Consumption Expenditure · I = Gross Domestic Capital Formation · G = Government Final Consumption Expenditure · $X - M$ = Net Exports

$\text{Gross Domestic Capital Formation} = \text{Gross Fixed Capital Formation} + \text{Change in Stock}$

$\text{National Income} = GDP_{MP} - \text{Depreciation} - \text{NIT} + NFIA$

EXCLUDE Expenditure on intermediate goods, second-hand goods, financial assets, and all transfer payments by government.

6. Real vs Nominal GDP & Welfare

FORMULAS

Real GDP = Quantity of current year × Price of BASE year

Nominal GDP = Quantity of current year × Price of CURRENT year

GDP Deflator = (Nominal GDP ÷ Real GDP) × 100

Real GDP = (Nominal GDP ÷ GDP Deflator) × 100

Real GDP is the better indicator of welfare because it removes the effect of price change and reflects an actual change in output.

GDP AND WELFARE — the 4-marker Higher GDP does **not** always mean higher welfare, because it ignores:

1. **Distribution of income** — GDP may rise while inequality widens.
2. **Non-monetary exchanges** — household services, barter, are not counted.
3. **Externalities** — pollution and environmental damage are not deducted.
4. **Composition of output** — a rise driven by arms production does not raise welfare.

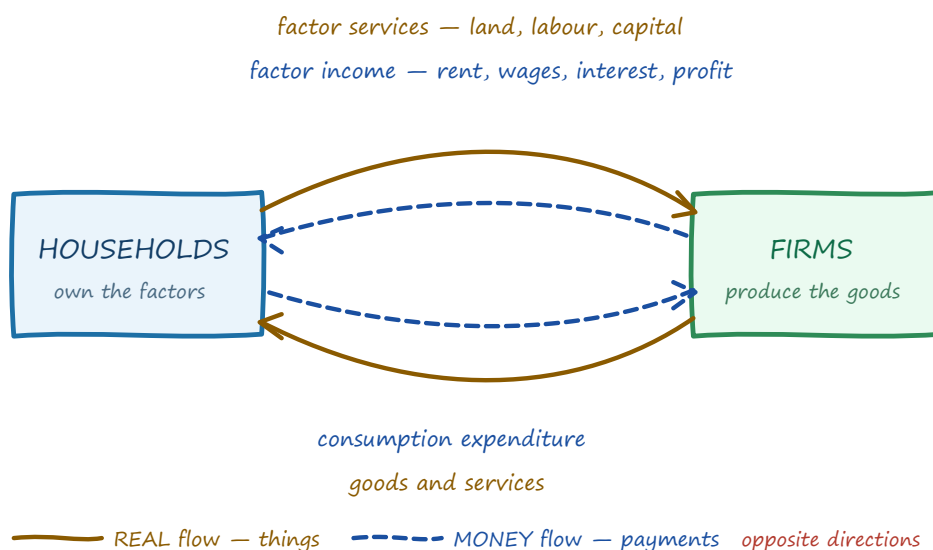
7. Circular Flow of Income (Two-Sector Model)

Two sectors: **households** and **firms**. Households supply **factor services** and receive **factor income**; firms supply **goods and services** and receive **consumption expenditure**.

THE IDENTITY Real flow = flow of goods and services and factor services.

Money flow = flow of factor payments and consumption expenditure.

In equilibrium: **Total Production = Total Income = Total Expenditure**. This is exactly why the three methods give the same answer.



Two sectors, two loops. Production = Income = Expenditure because it is one circle measured at three points.

8. Question Triggers **include or exclude?**

Item in the question

Treatment

Old-age pension, scholarship, unemployment allowance

EXCLUDE — transfer payment

Retirement pension paid by an employer	INCLUDE — factor income
Sale of an old car	EXCLUDE ; broker's commission INCLUDE
Purchase of shares / debentures	EXCLUDE ; brokerage INCLUDE
Lottery win, capital gain on land	EXCLUDE
Services of a housewife	EXCLUDE — no market transaction
Imputed rent of an owner-occupied house	INCLUDE
Vegetables grown and consumed by a farmer	INCLUDE — own-account production of goods
Wheat bought by a flour mill	EXCLUDE — intermediate
Wheat bought by a household	INCLUDE — final
Expenditure on a machine by a firm	INCLUDE — investment
"at current prices"	Nominal GDP
"at constant / base year prices"	Real GDP

MOST-ASKED BOARD QUESTIONS

1. [4-6M] Calculate National Income by the income / expenditure / value added method.
2. [3-4M] Distinguish between Real and Nominal GDP; calculate the GDP deflator.
3. [3-4M] "Is a higher GDP always a sign of higher welfare?" Explain.
4. [3M] Will the following be included in National Income? Give reasons. (list of 3)
5. [1M] Define NFIA. → **Factor income from abroad – factor income to abroad**
6. [1M] National Income is which aggregate? → NNP_{FC}

THE HABIT THAT SCORES — For every "include or exclude" item, **write the one-line reason**: "Excluded — it is a transfer payment, no production takes place." The mark is for the reason, not the verdict.