

Basic concepts

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1. Micro and macroeconomics; capitalist, socialist and mixed economies
2. Sectors of the economy: primary, secondary and tertiary; organised and unorganised
3. Goods, capital and the circular flow: final and intermediate goods, stocks and flows, leakages and injections
4. Keynesian income determination: consumption function, multiplier and the paradox of thrift

1 Micro and macroeconomics; capitalist, socialist and mixed economies

Microeconomics studies individual decision-makers and markets, macroeconomics studies the economy as a whole, and an economic system decides who owns resources and who answers the three central questions of production.

Core facts

- **Microeconomics:** behaviour of a single consumer, firm or market; price of one good; demand and supply.
- **Macroeconomics:** aggregates of the whole economy: national income, employment, inflation, money, government budget, balance of payments.
- Macroeconomics became a separate branch after **J.M. Keynes**, *The General Theory of Employment, Interest and Money* (**1936**), written in the wake of the **Great Depression** (1929 onwards).
- **Three central problems** of every economy: **what** to produce, **how** to produce, **for whom** to produce.
- **Capitalist (market) economy:** private ownership; prices and profit decide. Adam Smith is its classical father (*The Wealth of Nations*, 1776).
- **Socialist (command) economy:** state ownership; a central authority plans output and prices. Karl Marx is the main thinker; the Soviet Union was the model.
- **Mixed economy:** both private and public sectors work together. **India** is a mixed economy.
- The word "**socialist**" entered the Preamble through the **42nd Amendment (1976)**.

Explained

Micro versus macro

Basis	Microeconomics	Macroeconomics
Unit	Household, firm, one market	Whole economy
Typical topics	Price of wheat, firm's cost, consumer choice	GDP, inflation, unemployment, deficit
Key idea	Price mechanism allocates resources	Aggregate demand and supply decide output

- The terms *micro* and *macro* were popularised in economics by **Ragnar Frisch** (1930s).
- Macro variables are **aggregates**. What is true of one unit may not be true of all: a person saving more is good for her, but if everyone saves more, total income can fall (see the paradox of thrift, ECO-BC-04).

Types of economic systems

Feature	Capitalist	Socialist	Mixed
Ownership of means of production	Private	State	Both
Main driver	Profit and price signals	Central plan	Market plus state plan
Weakness	Inequality, cycles	Inefficiency, no incentive	Needs balance between both
Example	USA (broadly)	USSR, pre-1978 China	India, France, most countries today

- In practice no economy is pure. Most "capitalist" countries have public goods, taxes and welfare; most "socialist" countries have allowed markets.
- **Welfare state:** a capitalist economy where the state provides health, education and social security.

India's choice

- After 1947 India chose a **mixed economy** with **planning** (1950 onwards) and a large **public sector**.
- **Industrial Policy Resolution 1948** laid the foundation of the mixed economy. **IPR 1956** divided industries into three schedules and gave the state the "commanding heights". It became the basis of the Second Plan.
- Since **1991** reforms, the private sector's role has expanded, but India remains a mixed economy with a strong role for the state in regulation, welfare and infrastructure.

Deeper

- **Classical versus Keynesian macro.** Classical economists, following **Say's law** ("supply creates its own demand"), believed full employment is the normal state because prices and wages adjust. Keynes argued that **effective demand** can be too low and the economy can stay at **less than full employment** for long. So he supported government spending in a slump.
- **Positive versus normative.** Positive economics says *what is*; normative economics says *what ought to be*. A statement on how much GDP fell is positive; a statement that the state should raise subsidies is normative.
- **Market failure.** Markets fail with public goods, externalities, monopoly and information gaps. This is the case for a state role even in a market economy.
- **Planning versus market.** The Indian view, from the Nehru–Mahalanobis period, was that the market alone could not raise saving, build heavy industry or reduce poverty quickly. The reform view after 1991 was that over-regulation (the licence-permit system) had reduced efficiency.
- **Partial versus general equilibrium.** Micro analysis often studies one market while holding others constant (partial). Macro studies how all markets interact (general).

Common traps

X "Macroeconomics began with Adam Smith." ✓ As a separate branch it began with **Keynes** (1936). Smith's *Wealth of Nations* is 1776.

X "India adopted a socialist economy with all industries in state hands." ✓ India chose a **mixed economy**; private enterprise stayed in most sectors.

X "The word 'socialist' was in the Preamble from 1950." ✓ Added by the **42nd Amendment, 1976**.

X "Price of one commodity is a macroeconomic question." ✓ It is **microeconomics**. Inflation, a general price level, is macro.

X "The three central problems are production, distribution and exchange." ✓ They are **what, how and for whom** to produce.

Quick revision

- Micro: single unit and market. Macro: whole economy.
- Keynes' *General Theory* = 1936; Great Depression background.
- Central problems: what, how, for whom.
- Capitalist: private ownership. Socialist: state ownership. Mixed: both.
- India = mixed economy; planning from 1950; IPR 1948 and 1956.
- "Socialist" added to Preamble in 1976 (42nd Amendment).
- 1991 reforms widened the private sector's role.

2 Sectors of the economy: primary, secondary and tertiary; organised and unorganised

Economic activity is grouped into primary, secondary and tertiary sectors by what is produced, and into organised and unorganised sectors by how enterprises are run and regulated.

Core facts

- **Primary (agriculture and allied):** uses natural resources directly: farming, dairy, fishing, forestry, mining.
- **Secondary (industry):** turns raw materials into other goods: manufacturing, construction, electricity, gas and water supply.
- **Tertiary (services):** activities that support production and provide services: trade, hotels, transport, communication, banking, insurance, real estate, public administration, education, health, IT.
- The three-sector classification is credited to **Colin Clark and A.G.B. Fisher**.
- **Organised sector:** registered with the government, follows rules (such as the Factories Act), has regular hours, job security and social security.
- **Unorganised sector:** small, scattered units, often outside government control; low and irregular pay, little security.
- About **nine in ten** Indian workers are in the unorganised sector (NCEUS, 2007: about 92 per cent).
- In India, the **tertiary sector** is the largest sector of GDP; the **primary sector** still employs the largest share of workers, though its share of GDP is much smaller.

Explained

The three sectors

- Dairy counts as primary because it depends on natural, biological processes. Cotton is primary; cloth is secondary. Selling the cloth is tertiary.
- The secondary sector is called **industrial** in common usage. In national accounts the industry group includes mining, manufacturing, electricity-gas-water and construction. NCERT treats mining as primary; some national account tables place mining in industry. Read the question's source.
- **Quaternary and quinary** are extensions: knowledge work (research, IT) and top decision-making.
- Tertiary activities are not "producing goods" but help the other sectors. Transport and storage carry goods; banks provide credit.

Structural change in India

- Over time, the **share of agriculture in GDP falls**, industry rises and then flattens, and **services rise**. India skipped a long, large industrial phase: services overtook both.

- NCERT's comparison of **1977-78 and 2017-18** shows the tertiary sector had replaced the primary sector as the largest producer.
- **Employment lags output:** the primary sector still employs a far larger share of workers than its share of GDP. This is the problem of **disguised unemployment** in agriculture.

Organised and unorganised

Feature	Organised	Unorganised
Registration	Registered	Mostly unregistered
Pay and hours	Regular, fixed	Irregular, long hours
Benefits	Pension, PF, leave	Few or none
Examples	Government, large firms	Street vendors, farm labour, small shops

- Under the **Factories Act, 1948**, a factory is a unit with **10 or more workers with power** (or **20 or more without power**). The Act is now subsumed in the **Occupational Safety, Health and Working Conditions Code, 2020** (in force from 21 November 2025), which raises these thresholds to **20 with power** and **40 without power**.
- Public sector and private sector are classified by *ownership*. Organised and unorganised are classified by *regulation*. They are not the same thing.

Deeper

- **NCEUS definition (2007).** The *unorganised sector* is unincorporated private enterprises owned by individuals or households, engaged in sale or production of goods and services, with **fewer than 10 workers**. *Unorganised workers* are those without employment or social security benefits from employers. **Informal employment** can exist inside the formal sector (contract workers).
- **NCEUS** was headed by **Arjun Sengupta**.
- **Why services lead.** India's growth was led by IT and business services, telecommunications and finance after 1991, driven by skills, English and exports of services. Critics say this has created **jobless growth**, because services are skill-heavy.
- **The 'missing middle'.** Manufacturing in India has stayed near the mid-teens as share of GDP for decades, unlike East Asia where it reached 25–30 per cent. The National Manufacturing Policy (2011) targeted raising the share to 25 per cent.
- **Measurement.** Since the 2015 series, CSO/NSO measures the informal sector through surveys (NSS Enterprise surveys, now the ASUSE) as well as Annual Survey of Industries data for the formal sector.
- **Employment measure.** The Periodic Labour Force Survey (PLFS) is the main source of data on formal and informal jobs.

Common traps

✗ "Mining is a secondary activity." ✓ Under the usual textbook classification mining is **primary** (extracting natural resources). National accounts may group it under industry.

✗ "Organised sector means the public sector." ✓ It is about **registration and regulation**. A government job is organised, but so is a large private firm.

✗ "Tertiary activities produce goods." ✓ They produce **services**, which support goods production.

✗ "Agriculture is the largest contributor to GDP today." ✓ The **tertiary** sector is the largest.

✗ "The Factories Act covers all units with 5 workers." ✓ It covered **10+ with power, 20+ without power**; the OSH Code, 2020 that replaced it uses **20+ with power, 40+ without**.

Quick revision

- Primary: nature. Secondary: manufacturing. Tertiary: services.
- Clark–Fisher classification.
- Organised = registered and regulated; unorganised = scattered, no security.
- About 92 per cent of workers are unorganised (NCEUS, 2007).
- Tertiary is largest in GDP; primary is far larger in employment than in output.
- Factory: 10+/20+ workers (Factories Act 1948); 20+/40+ under the OSH Code 2020.

3 Goods, capital and the circular flow: final and intermediate goods, stocks and flows, leakages and injections

National income accounting separates final goods from intermediate goods, stocks from flows, and tracks how income circulates between households, firms, government and the rest of the world, with savings, taxes and imports leaking out and investment, government spending and exports flowing in.

Core facts

- **Final goods:** goods meant for final use, either consumption or investment. They are not used again in production.
- **Intermediate goods:** goods used up in producing other goods, or resold. Their value is **not counted** in GDP, to avoid **double counting**.
- **Consumption goods:** bought by households for final use (food, TVs, cars, haircuts).
- **Capital goods:** machines, tools and buildings that help produce other goods. They are **final goods** because they are not used up in one year. Their wear and tear is **depreciation** (consumption of fixed capital).
- A good can be final or intermediate depending on its **use**, not its type. Tea leaves bought by a household are final; bought by a tea stall, intermediate.
- **Stock:** a quantity measured **at a point in time** (capital stock, wealth, money supply, foreign exchange reserves).
- **Flow:** a quantity measured **over a period** (income, investment, saving, GDP, exports).
- **Investment** (in accounting) = addition to the capital stock: new machines, buildings and **change in inventories**.
- **Leakages:** saving, taxes, imports. **Injections:** investment, government expenditure, exports.

Explained

Types of capital

- **Physical (fixed) capital:** machinery, plant, buildings, roads.
- **Working capital:** raw materials and cash held to keep a business running. Stock of inputs is working capital, not fixed capital.
- **Human capital:** skills and health of workers.
- **Intangible capital:** patents, software, brand value.

Investment and capital formation

- **Gross investment = net investment + depreciation.**

- **Net investment** = addition to the capital stock in the year. It is a flow; the capital stock is the matching stock.
- **Planned** investment: what firms intend. **Unplanned** change in inventories: when sales fall short, unsold goods pile up.
- Purchase of a **new house** by a household counts as investment. Purchase of **shares or a second-hand car** is only a transfer of ownership and is not counted.

What is not counted in GDP

- Intermediate goods; **transfer payments** (pensions, scholarships, unemployment allowance, gifts); sale of second-hand goods; sale of shares and bonds; illegal activity; and unpaid household work.
- **Interest on the national (public) debt** is treated as a transfer, not a factor income, when moving from National Income to Personal Income (NCERT).

Circular flow

- **Two-sector (households and firms):** households supply factors and get income; they spend it on firms' output. Income = output = expenditure. No leakage.
- **Three-sector:** adds government. Taxes are a leakage; government spending is an injection.
- **Four-sector (open economy):** adds the rest of the world. Imports are a leakage; exports are an injection.
- **Equilibrium:** total leakages = total injections: $S + T + M = I + G + X$.
- A **closed economy** has no foreign trade (no X or M). An **open economy** has trade.

Factor payments

Factor	Reward
Land	Rent
Labour	Wages
Capital	Interest
Entrepreneurship	Profit

Deeper

- **Why stock versus flow matters.** Wealth (stock) is built from past saving (flow). Confusing the two is a common exam trap. Example: saving is a flow, savings balance in a bank is a stock.
- **Depreciation estimation.** In India, consumption of fixed capital is estimated by the perpetual inventory method, using assumed asset lives. It is not a direct observation.
- **Ex ante and ex post.** *Ex ante* is planned or expected; *ex post* is realised. In a closed economy, saving always equals investment *ex post* (an identity). *Ex ante* saving and investment may differ, and that gap drives income changes in the Keynesian model.
- **Inventory as a shock absorber.** If output is unsold, the unsold amount is counted as inventory investment, so the accounts balance even in a slump.
- **Value added.** Gross value added = value of output minus value of intermediate consumption. Net value added also subtracts depreciation. Summing value added across stages equals the final good's value,

avoiding double counting.

- **Leakages to the foreign sector.** Remittances, factor incomes from abroad and capital flows complicate the open-economy circular flow. They enter net factor income from abroad and the capital account.

Common traps

✗ "Capital goods are intermediate goods." ✓ They are **final goods**, because they last more than a year and are not used up in one production cycle.

✗ "Pensions and scholarships are included in GDP." ✓ They are **transfer payments** and are not counted.

✗ "Buying shares is investment in national income accounting." ✓ It is a **financial transaction**. Investment means new capital goods and stock changes.

✗ "Exports are a leakage." ✓ Exports are an **injection**; **imports** are the leakage.

✗ "Money supply is a flow." ✓ It is a **stock** (measured at a point in time).

✗ "Depreciation is part of net investment." ✓ **Gross investment = net investment + depreciation.**

Quick revision

- Final goods: consumption and capital goods. Intermediate goods are not counted.
- Same good can be final or intermediate depending on its use.
- Stock = at a point in time. Flow = over a period.
- Gross investment = net investment + depreciation.
- Transfers, second-hand goods and share trading are not in GDP.
- Leakages: S, T, M. Injections: I, G, X.
- Equilibrium: $S + T + M = I + G + X$.

4 Keynesian income determination: consumption function, multiplier and the paradox of thrift

In the simple Keynesian model, with prices fixed and spare capacity, output is decided by aggregate demand, and a change in autonomous spending changes income by a multiple.

Core facts

- **Keynes (1936):** output and employment depend on **effective (aggregate) demand**. The economy can settle below full employment.
- **Consumption function:** $C = \bar{C} + cY$, where $\bar{C}$ is **autonomous consumption** and c is the **MPC**.
- **MPC** (marginal propensity to consume) = $\Delta C / \Delta Y$. **MPS** = $\Delta S / \Delta Y$.
- **MPC + MPS = 1.**
- **APC** (average propensity to consume) = C / Y . **APC + APS = 1.**
- **Investment multiplier (k)** = $1 / (1 - \text{MPC}) = 1 / \text{MPS}$.
- **Higher MPC → higher multiplier.** If $\text{MPC} = 0.8$, $k = 5$.
- **Equilibrium income:** where planned aggregate demand equals output, or planned saving equals planned investment.
- **Paradox of thrift:** if everyone tries to save more, total saving in the economy does not rise (and income falls).

Explained

Aggregate demand

- In an open economy with government: **$AD = C + I + G + (X - M)$** .
- Equilibrium: **$Y = AD$** . In the two-sector model: $Y = \bar{C} + cY + \bar{I}$, so $*Y| = (\bar{C} + \bar{I}) / (1 - c)^{**}$.
- Assumptions: prices are fixed, supply of final goods is **perfectly elastic** at that price, and there is idle capacity. Then output is demand-determined.
- Investment is treated as **autonomous** (fixed) in the simplest model. Of the components of AD, investment is the most unstable (NCERT).

Adjustment to equilibrium

- If AD is less than output, firms see **unplanned inventory accumulation** and cut production.
- If AD exceeds output, inventories fall below plan and firms raise production.
- *Ex ante* = planned; *ex post* = realised. In equilibrium the two coincide.

The multiplier

- A rise in autonomous spending ΔA raises income by **$\Delta Y = k \times \Delta A$** .
- Process: initial spending becomes someone's income; a fraction c is spent again; and so on. Total = $\Delta A (1 + c + c^2 + \dots) = \Delta A / (1 - c)$.
- With government and a proportional tax rate t : $k = 1 / [1 - c(1 - t)]$.

- **Government expenditure multiplier** = $1 / (1 - c)$. **Tax multiplier** = $-c / (1 - c)$. It is negative and smaller in size than the expenditure multiplier.
- **Balanced budget multiplier** (equal rise in G and T) = **1**.

Paradox of thrift

- If households raise the savings rate, consumption falls, AD falls and output falls. With investment fixed, total saving ends up **unchanged or lower**, even though each household tried to save more.
- It works when there is unemployed capacity; it does not work at full employment.

Term	Meaning	Value
MPC	Extra consumption per extra rupee of income	Between 0 and 1
MPS	Extra saving per extra rupee	$1 - \text{MPC}$
Multiplier	Income change per unit autonomous spending	$1 / \text{MPS}$

Deeper

- **Fallacy of composition.** The paradox of thrift is a standard example: what is rational for one person (saving more) is harmful in aggregate.
- **Keynes' fundamental psychological law.** As income rises, consumption rises, but by less than the increase in income ($0 < \text{MPC} < 1$). So, with positive autonomous consumption, APC falls as income rises ($\text{MPC} < \text{APC}$).
- **Leakages reduce the multiplier.** Taxes and imports act like saving: the larger the leakage rate, the smaller the multiplier. An import-heavy economy has a smaller domestic multiplier.
- **Multiplier works both ways.** A fall in investment lowers income by a multiple; the "reverse multiplier" operates in a recession.
- **Limits of the simple model.** It fixes prices and interest rates. The **IS-LM** model (Hicks, 1937) adds the money market. Crowding out, expectations and supply constraints can reduce the real-world multiplier. Estimates for India's fiscal multiplier depend on the model and period; capital expenditure is usually said to have a larger multiplier than revenue expenditure.
- **Effective demand versus Say's law.** Keynes rejected the classical idea that supply creates its own demand.

Classical versus Keynesian theory of employment

- **Classical view: Say's law** (J.B. Say): supply creates its own demand, so general overproduction cannot last. Flexible wages clear the labour market, and a flexible interest rate keeps saving equal to investment. Full employment is the normal state; any unemployment is voluntary or frictional and temporary.
- **Keynesian view:** employment depends on **effective demand**, the point where the aggregate demand price equals the aggregate supply price. Money wages are sticky downwards, and saving depends mainly on income, not on the interest rate. Equilibrium can therefore persist **below full employment** (involuntary unemployment).
- **Policy:** classical economists trusted *laissez-faire*; Keynes argued for public spending to raise effective demand in a depression.

Point	Classical	Keynesian
Normal equilibrium	Full employment	Can be below full employment
Saving–investment equality	Rate of interest	Changes in income
Wages	Flexible	Sticky downwards

Propensities: average and marginal

- **APC** = C / Y and **APS** = S / Y , so **APC + APS = 1** (because $Y = C + S$).
- **MPC** = $\Delta C / \Delta Y$ and **MPS** = $\Delta S / \Delta Y$, so **MPC + MPS = 1**.
- Under the psychological law, MPC is below APC and APC falls as income rises. APC can exceed 1 at very low income (dissaving); MPC lies between 0 and 1.
- Example: if Y rises from 1,000 to 1,200 and C from 800 to 950, APC at 1,200 = 0.79 (rounded), $MPC = 150 / 200 = 0.75$ and $MPS = 0.25$.

Investment: MEC and the rate of interest

- Keynes: a firm invests until the **marginal efficiency of capital (MEC)** equals the **rate of interest**. MEC is the rate of discount that makes the present value of a capital asset's expected yields equal to its supply price (replacement cost).
- MEC falls as more capital is installed (lower expected yields, higher supply price of machines), so the investment demand curve slopes downward. MEC depends heavily on business expectations, which is why investment is volatile.
- **Autonomous investment** does not depend on income (public projects, inventions); **induced investment** rises with income or with the change in income.

The investment multiplier

- $k = \Delta Y / \Delta I = 1 / (1 - MPC) = 1 / MPS$. With MPC 0.75, $k = 4$, so a rise of 100 in investment raises income by 400.
- Assumptions: constant MPC , idle capacity, a closed economy and no induced investment. **R.F. Kahn** (1931) first set out an employment multiplier; Keynes built on it for investment.

The accelerator

- **Acceleration principle** (J.M. Clark, 1917): induced net investment depends on the **change** in output (or consumption), not on its level.
- If the **capital–output ratio** (accelerator, v) is fixed, the capital stock required is $K = vY$, so **net induced investment** $I_t = v (Y_t - Y_{t-1})$. Gross investment = net investment + replacement.
- Example: $v = 3$ and output rises from 500 to 540: induced investment = $3 \times 40 = 120$.
- Output must keep **rising** to keep net investment positive; if output growth slows, net investment falls, and if output falls, net investment turns negative. Gross investment cannot fall below zero.
- Assumptions: no idle capacity, a fixed capital–output ratio, a permanent rise in demand, and capital goods and credit easily available. Excess capacity weakens it.

Multiplier–accelerator interaction (Samuelson, 1939)

- The multiplier turns a change in investment into a larger change in income; the accelerator turns that change in income into further (induced) investment. Together they produce cumulative expansion and contraction, i.e. **trade cycles**. The combined effect is also called the **leverage effect**.
- Samuelson's model: $Y_t = G_t + C_t + I_t$, with $C_t = c Y_{t-1}$ and $I_t = v (C_t - C_{t-1})$. Depending on the values of c and v , income may move smoothly to a new level, fluctuate in damped, constant or explosive cycles, or rise explosively without cycles.
- **Super-multiplier** (Hicks): when induced investment is added, $k = 1 / (1 - c - i)$, where i is the marginal propensity to invest; it is larger than the simple multiplier.
- Contrast: the **multiplier** links $\Delta I \rightarrow \Delta Y$; the **accelerator** links ΔY (or ΔC) $\rightarrow I$.

Common traps

✗ "Multiplier = $1 / \text{MPC}$." ✓ Multiplier = $1 / (1 - \text{MPC}) = 1 / \text{MPS}$.

✗ "MPC + MPS can be greater than 1." ✓ They always add to 1.

✗ "A higher MPC lowers the multiplier." ✓ A higher MPC **raises** the multiplier.

✗ "In the paradox of thrift, saving rises because people save more." ✓ Total saving **stays the same or falls**, as income falls.

✗ "Tax multiplier is positive." ✓ A tax **increase** lowers income, so the tax multiplier is **negative**.

✗ "Keynes wrote his *General Theory* in 1929." ✓ It was published in **1936**.

Quick revision

- $C = \bar{C} + cY$; $\text{MPC} + \text{MPS} = 1$.
- Multiplier = $1 / (1 - \text{MPC}) = 1 / \text{MPS}$.
- MPC 0.8 gives a multiplier of 5.
- Equilibrium: $Y = AD$, or planned $S = \text{planned } I$.
- Unplanned inventories signal AD below output.
- Tax multiplier is negative; balanced budget multiplier = 1.
- Paradox of thrift: more saving by all lowers income, not raising total saving.