1. Demand–Supply & Elasticities

- **Law of Demand**: $Q_d = f(P) \downarrow$; **Law of Supply**: $Q_s = f(P) \uparrow$.
- Market equilibrium where $Q_d = Q_s$; surplus if $P > P_e$, shortage if $P < P_e$.
- Elasticities: $E_p = \frac{\%\Delta Q}{\%\Delta P}$, $E_I = \frac{\%\Delta Q}{\%\Delta I}$, $E_{xy} = \frac{\%\Delta Q_x}{\%\Delta P_y}$.
- Tax incidence: steeper curve bears more; deadweight loss increases with elasticity.
- Consumer surplus = area under demand curve above P_e; producer surplus is symmetric.

2. Firm Costs & Market Structures

- **Short-run**: some inputs fixed; **Long-run**: all inputs variable.
- **Breakeven**: $P = ATC_{\min}$, **Shutdown**: $P < AVC_{\min}$ (SR).
- Cost curves: MC cuts ATC/AVC at minima; LRATC shows economies (↓) & diseconomies (↑).
- Structures (number of firms, entry barriers, pricing power): Perfect Competition, Monopolistic Competition, Oligopoly, Monopoly.
- Lerner Index: $\frac{P-MC}{P}$ gauges market power.

3. GDP, Inflation & Unemployment

- Expenditure approach: $Y = C + I + G + X - M$; Income = wages + rent + interest + profit.
- Nominal vs. Real (deflator): Real = $\frac{\text{Nominal}}{\text{GDP Deflator}} \times 100$.
- CPI inflation: $\pi_t = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}}$; core excludes food & energy.
- Unemployment types: frictional, structural, cyclical; $NAIRU$ = natural rate of unemployment.

4. Business Cycles & Indicators

- Phases: recovery → expansion → slowdown → contraction.
- **Leading** (new orders, stock prices), **Coincident** (employment, income), **Lagging** (unit labor cost, inventory/sales).
- Output gap: $\frac{Y_{\text{actual}} - Y_{\text{potential}}}{Y_{\text{potential}}}$ guides policy stance.
- Inventory/sales ratio tends to rise before a recession.

5. Monetary Policy Framework

- Tools: open-market ops, policy rate, reserve req.
- Transmission: rate → lending/FX/expectations/asset prices.
- Taylor rule: $i = r_n + \pi + 0.5(\pi - \pi^*) + 0.5(\text{gap})$.
- Neutral real rate ≈ trend real GDP growth.
- Contractionary if $i_{policy} > i_{neutral}$; liquidity trap when $i \approx 0$.

6. Fiscal Policy & Multipliers

- Budget balance: $T - G$; cyclical vs. structural deficit.
- Multiplier (no tax): $\frac{1}{1-MPC}$; with proportional tax t: $\frac{1}{1-MPC(1-t)}$.
- Automatic stabilizers: progressive taxes, unemployment benefits.
- Ricardian equivalence: debt-financed tax cut is saved ⇒ no aggregate demand change.

7. International Trade Theory

- Absolute vs Comparative advantage (opportunity cost basis).
- Terms of trade = $\frac{P_{export}}{P_{import}}$; gains if ¿ pre-trade ratio.
- Trade restrictions: tariffs, quotas (quota rent), export subsidies; DWL triangles.
- Regional blocs hierarchy: FTA → Customs Union → Common Market → Economic → Monetary.

8. FX Markets & Parity

- Quotes: direct (home/foreign), cross rate via triangular arbitrage.
- IRP (covered): $F = S \cdot \frac{1+i_d}{1+i_f}$; PPP (absolute & relative): $S = \frac{P_d}{P_f}$.
- Fisher: nominal ≈ real $+\pi_e$; Intl. Fisher: $i_d - i_f = \pi_{e,d} - \pi_{e,f}$.
- FX swap points: $F - S$; premium if domestic $i < i_f$.

9. Exchange-Rate Regimes

- Impossible trinity: free capital, fixed FX, independent policy (choose two).
- Systems: hard peg (dollarisation, currency board), adjustable peg, crawling band, managed float, free float.
- Reserve adequacy key for defending peg; speculative attacks when mis-aligned.

10. Economic Growth & Development

- **Solow Model**: $\frac{\Delta Y}{Y} = \frac{\Delta A}{A} + \alpha\frac{\Delta K}{K} + (1-\alpha)\frac{\Delta L}{L}$.
- **Convergence Hypothesis** (β-convergence): weaker when accounting for human capital & institutions.
- **Government Policies**: property rights, education, infrastructure, and openness foster long-term growth.

11. Geopolitics & Globalisation

- Integration drivers: trade liberalization, technology, capital mobility.
- Risks: tariffs, sanctions, wars, supply-chain shifts; actors: states vs. non-state entities.
- Assessment: event-driven, exogenous, thematic; signposts & scenario analysis.

12. Capital Flows & Balance of Payments

- BoP identity: Current + Capital + Financial = 0.
- Saving–investment identity: $(S - I) = (X - M) + (T - G)$.
- Twin deficits: budget deficit → current account deficit, depending on marginal propensities.
- Capital controls: taxes, quantity limits; pros (stability) vs. cons (cost, evasion).