

UNIT 1: Basic Economic Concepts

Scarcity & Opportunity Cost

- Scarcity: unlimited wants, limited resources
- Opportunity Cost = next best alternative forgone
- All choices involve trade-offs

Production Possibilities Curve (PPC)

- Shows max output with fixed resources
- ON curve = efficient | INSIDE = inefficient
- OUTSIDE = unattainable (currently)
- Bowed-out shape = increasing opportunity costs
- Shifts outward: more resources, better tech

Comparative vs. Absolute Advantage

- Absolute: produce MORE with same resources
- Comparative: produce at LOWER opportunity cost

Trade based on COMPARATIVE advantage!

Economic Systems

- Market: private ownership, price signals
- Command: gov't controls production
- Mixed: combination of both

UNIT 2: Economic Indicators

Gross Domestic Product (GDP)

$$\text{GDP} = C + I + G + (X - M)$$

- C = Consumer | I = Investment | G = Gov't
- X - M = Net exports
- Only FINAL goods, CURRENT year production

Real vs. Nominal GDP

$$\text{Real GDP} = (\text{Nominal} / \text{Price Index}) \times 100$$

- Nominal = current prices (includes inflation)
- Real = adjusted for inflation (base year)

Use REAL GDP to measure actual growth!

Unemployment Types

$$\text{U-Rate} = (\text{Unemployed} / \text{Labor Force}) \times 100$$

- Frictional: between jobs (short-term)
- Structural: skills mismatch
- Cyclical: due to recession
- Natural Rate = Frictional + Structural

Full employment = cyclical unemployment = 0

Inflation

$$\text{Inflation} = [(CPI_2 - CPI_1) / CPI_1] \times 100$$

- Demand-pull: too much money chasing goods
- Cost-push: higher production costs

UNIT 3: AD-AS Model

Aggregate Demand (AD)

- Downward sloping: wealth, interest, FX effects
- Shifts RIGHT: higher C, I, G, NX
- Shifts LEFT: lower C, I, G, NX or higher taxes

Aggregate Supply

- SRAS: upward sloping (short-run)
- LRAS: vertical at full employment (Yf)
- SRAS shifts: input prices, productivity
- LRAS shifts: resources, technology

AD-AS Outcomes

Recessionary Gap: $Y < Y_f$ (high unemployment)

Inflationary Gap: $Y > Y_f$ (rising prices)

- Long-run: SRAS adjusts, returns to Y_f

Fiscal Policy

- Expansionary: higher G, lower T (recession)
- Contractionary: lower G, higher T (inflation)

Multiplier Effects

$$\text{Spending Mult.} = 1/MPS = 1/(1-MPC)$$

$$\text{Tax Multiplier} = -MPC / MPS$$

- $MPC + MPS = 1$ (always)
- Spending multiplier > Tax multiplier

Balanced budget multiplier = 1

UNIT 4: Financial Sector

Functions of Money

- Medium of exchange | Unit of account | Store of value
- M1: cash + checking | M2: M1 + savings

Money Market

- MS: vertical (set by Fed)
- MD: downward sloping (inverse to interest rate)
- Higher MS -> lower r -> higher I -> higher AD

Federal Reserve Tools

EXPANSIONARY: Buy bonds, lower discount/RR

CONTRACTIONARY: Sell bonds, raise discount/RR

Money Multiplier

$$\text{Money Mult.} = 1 / \text{Reserve Ratio}$$

$$\text{Change MS} = \text{Deposit} \times \text{Money Mult.}$$

- Banks create money through lending

Loanable Funds Market

- Supply: savings | Demand: borrowing
- Price = real interest rate
- Gov't borrowing -> higher r -> crowding out

UNIT 5: Long-Run Consequences

Phillips Curve

- Short-run: inverse (unemployment vs inflation)
- Long-run: vertical at natural rate (no trade-off)
- Stagflation: high unemployment AND inflation

SRPC shifts with expected inflation

Crowding Out Effect

- Higher Gov't borrowing -> higher real r
- -> Lower private investment
- Limits effectiveness of fiscal policy

Deficits & National Debt

- Deficit: $G > T$ (annual shortage)
- Surplus: $T > G$ (annual excess)
- National Debt: accumulated deficits
- Automatic stabilizers: UI benefits, taxes

Economic Growth

- Measured by Real GDP per capita
- Sources: labor, capital, tech, human capital
- Supply-side: higher productivity, shift LRAS

Growth = PPC outward = LRAS right

UNIT 6: International Trade & Finance

Balance of Payments

- Current Account: trade balance (NX), income
- Capital Account: investment flows

Current Acct + Capital Acct = 0

- Trade deficit -> capital account surplus

Exchange Rates

- Appreciation: currency gains value
- Depreciation: currency loses value
- Strong \$: cheap imports, expensive exports
- Weak \$: expensive imports, cheap exports

FOREX Market

- Higher r -> higher demand \$ -> \$ appreciates
- Higher inflation -> lower demand \$ -> \$ depreciates
- Higher income -> more imports -> \$ depreciates

Policy Effects on Exchange Rates

Expansionary -> lower r -> \$ depreciates -> higher NX

Contractionary -> higher r -> \$ appreciates -> lower NX

EXAM TIPS

- Always identify: recessionary vs inflationary gap
- Draw graphs clearly: label axes, curves, equilibrium
- Fiscal policy = G and T (Congress decides)
- Monetary policy = MS (Fed decides)
- Short-run is NOT Long-run (SRAS adjusts)
- Real interest rate affects investment
- Check signs on multipliers
- Know the chain: MS -> r -> I -> AD -> Y, PL
- FOREX: think about demand for currency
- Phillips Curve mirrors AD-AS model

KEY FORMULAS

GDP:	$C + I + G + (X - M)$
Real GDP:	$(\text{Nominal GDP} / \text{Price Index}) \times 100$
Unemployment Rate:	$(\text{Unemployed} / \text{Labor Force}) \times 100$
Inflation Rate:	$[(\text{CPI}_2 - \text{CPI}_1) / \text{CPI}_1] \times 100$
Spending Multiplier:	$1 / \text{MPS}$ or $1 / (1 - \text{MPC})$
Tax Multiplier:	$-\text{MPC} / \text{MPS}$
Money Multiplier:	$1 / \text{Reserve Ratio}$
MPC + MPS:	$= 1$ (always)

GRAPH CHECKLIST

- ✓ Label axes (Price Level, Real GDP)
- ✓ Label all curves (AD, SRAS, LRAS)
- ✓ Show initial AND new equilibrium
- ✓ Use arrows to show shifts
- ✓ Mark Y_f on x-axis
- ✓ Identify the gap type