

Introduction to Macroeconomics

Introduction to Macroeconomics – Study Guide

1. What Is Macroeconomics?

- **Definition:** The branch of economics that examines the performance, structure, and behavior of an economy as a whole.
 - **Scope:** National income, output, unemployment, inflation, fiscal and monetary policy, international trade, and economic growth.
 - **Contrast with Microeconomics:**
 - *Micro:* Decisions of individuals, households, and firms.
 - *Macro:* Aggregate outcomes and the interactions among sectors of the entire economy.
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2. Core Macro?Variables

Variable	What It Measures	Typical Unit	Why It Matters
Gross Domestic Product (GDP)	Total market value of all final goods & services produced within a country in a given period	Billions of dollars (real or nominal)	Primary indicator of economic activity and living standards
Unemployment Rate	Share of the labor force that is jobless and actively seeking work	Percent	Reflects labor market health; linked to social welfare & fiscal pressure
Inflation Rate	Rate at which the general price level rises	Percent (CPI, PPI)	Affects purchasing power, interest rates, and real wages
Price Level Index (CPI, PPI)	Weighted average of prices for a basket of goods & services	Index number	Basis for measuring inflation and adjusting wages/benefits
Balance of Payments	Record of all economic transactions with the rest of the world	Dollars (surplus/deficit)	Shows external stability and exchange?rate pressures

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Interest Rate (policy rate)	Cost of borrowing money, set by the central bank	Percent	Influences investment, consumption, and inflation

3. Major Macroeconomic Models

Model	Key Idea	Main Equations / Relationships
Aggregate Demand and Aggregate Supply (AD-AS)	Interaction of total demand for goods/services with total supply determines price level and output.	AD: $(Y = C(Y,T) + I(r) + G + NX(e))$ AS (short-run): $(Y = \bar{Y} + \alpha (P - P_e))$
Keynesian Cross	Planned expenditure determines actual output; government spending can fill demand gaps.	$(Y = C + I + G + NX)$ (equilibrium when planned = actual)
IS-LM Model	Goods market (IS) and money market (LM) simultaneously determine equilibrium output and interest rate.	IS: $(Y = C(Y,T) + I(r) + G)$ LM: $(M/P = L(Y, r))$
Solow Growth Model	Long-run economic growth driven by capital accumulation, labor growth, and technological progress.	$(\Delta k = s f(k) - (n + \delta)k)$
Phillips Curve	Short-run trade-off between unemployment and inflation; long-run vertical at natural rate of unemployment.	$(\pi_t = \pi_{t-1} - \beta (u_t - u^*) + \varepsilon_t)$

4. Policy Tools

Policy Type	Authority	Main Instruments	Typical Objectives
Fiscal Policy	Government (legislature & treasury)	- Government spending (G) - Taxation (T)	Stabilize output, reduce unemployment, influence distribution
Monetary Policy	Central		