ECC2010 Intermediate Macroeconomics

Exam Study Guide

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Topic 1: Introduction to Macroeconomics

Macroeconomics

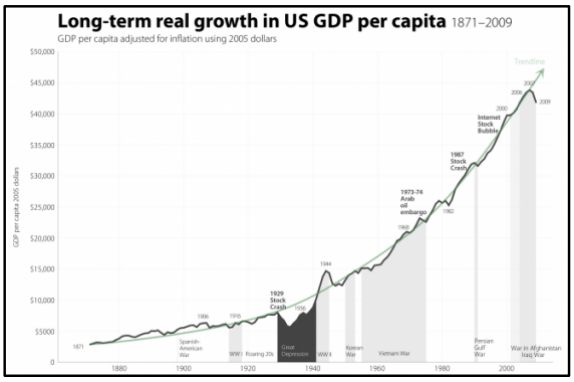
- *The study of the structure and performance of national economies and of the policies that governments use to try to affect economic performance*

Main Macroeconomic Issues

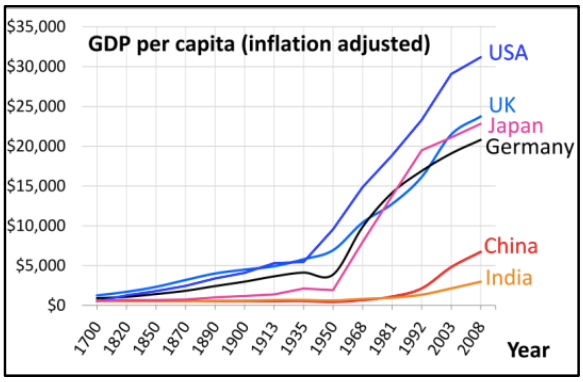
- Economic growth
- Economic fluctuations
- Unemployment
- Inflation
- Globalisation
- Optimal policy (fiscal + monetary)

1.1 Recent Trends in Macroeconomic

GDP per capita Growth in the US:

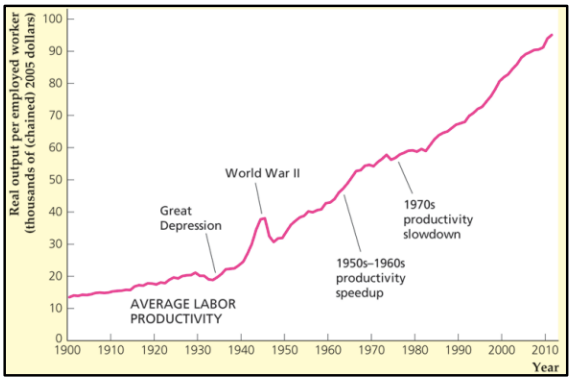


Growth across various Countries:

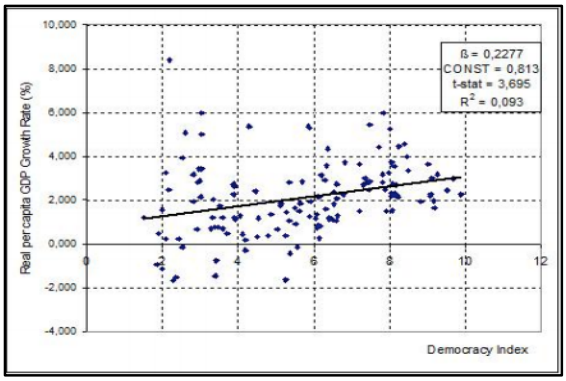


1.2 Drivers of growth

Factor 1: Technological Progress



Factor 2: Democracy



Factor 3: Demographics

- Population growth → Labour force growth
  - Higher number of Entrepreneurs (growth at extensive margin)
  - Higher levels of Investment (growth at intensive margin)
- Gender Ratio Imbalance
  - 120 men:100 woman in China → pressure on men to save more → growth

1.3 Introduction to Macroeconomic Concepts

Business Cycle

- Used to describe short-run, but sometimes sharp, contractions and expansions in economic activity
- Upwards phase: Expansion
- Downwards phase: Recession
- Related closely to unemployment
  - Expansion → Unemployment falls
  - Recession → Unemployment rises

Unemployment

- *The number of people who are available for work and are actively seeking work but cannot find jobs*
- Never reaches zero
- Unemployment Rate= Unemployed/Total Labour Force
- Total Labour Force: Employed + Unemployed

Inflation

- *When the prices of most goods and services are rising over time*, the economy is said to be experiencing inflation
- Falling prices → Deflation
- Healthy Inflation
  - 2-3%
  - Cause: If you forecast the economy will be good, you expect demand for your goods to increase, you will set higher prices for your goods
- Unhealthy Inflation
  - Cause: radical change in exchange rates
  - Results: menu costs, uncertainty, altered consumption behaviour, economy runs less efficiently

Economic Models

- Purpose
  - explain economy's behaviour
  - devise policies to improve economic performance
- Variables
  - Endogenous: internal cause
  - Exogenous: external cause

- Normative vs. Positive Analysis
  - Normative: tries to determine whether a certain policy should be used
  - Positive: examines the economic consequences of a policy
- 3 models to be studied in this unit
  1) Labour Market
  2) Goods Market
  3) Asset Market

1.4 Gross Domestic Product

Gross Domestic Product (GDP)

- *the market value of all final goods and services newly produced within a nation during a fixed period of time*
- "Market Value"
  - price at which goods and services are sold in the market
  - only market transactions are included; exclusion of nonmarket transactions (eg. voluntary work, in-house labour, cash economy)
- "Final"
  - only final goods/services are included; exclusion of intermediate goods/services (used up in the production of other goods and services)
- "Newly"
  - exclusion of goods/services produced in previous periods
  - Example: During the purchase of a house in 2018 that was built in 2000, the purchase amount is not included; real estate agent fee is included (current service)

GDP Identity

- Y=C+I+G+NX
- Variables
  - Y= GDP
  - C= Consumption
  - I= Investment
  - NX: Net Exports (Exports-Imports)

Measuring GDP: (1) The Expenditure Approach

$$GDP=Y=C+I+G+NX$$

Consumption (C)

- *Spending by households on domestic goods and services*
  1. Durable Goods: long-lived consumer items (eg. car, furniture)
  - Note: does not include houses/apartments (residential investment)
  2. Nondurable Goods
  - short-lived items (eg. food, clothing)
  3. Services
  - (eg. Education, Transportation, Health Care)

Investment (I)

- *Spending for new capital goods and inventory investment*
  1. Business Fixed Investment: spending by businesses on structures and equipment (eg. factories, warehouses, machinery)
  2. Residential Investment: Spending on the construction of new houses/apartments
  3. Inventory Investment: Increase in firm's inventory holdings

Government Expenditures (G)

- *Government purchases of newly produced goods and services*
- Does not include government transfers or interest payments on national debt

Net Exports (NX)

- *Difference between Exports and Imports*

Application: Effect of $6 billion spending by households on Swedish furniture

- Consumption rises by $6 billion
- Imports rise by $6 billion
- GDP remains unchanged

Measuring GDP: (2) The Income Approach

GDP=Compensation of Employees + Proprietors Income + Rental Income + Corporate Profits + Net Interest + Taxes on Production and Imports + Business Current Transfer Payments + Current Surplus of Government Enterprises + (Statistical Discrepancy + Depreciation + Net Factor Payments)

Compensation of Employees

- Worker income (eg. wages, salaries, employee benefits)
- Excludes income of self-employed workers

Proprietors Income

- The excess of revenue over explicit production cost of owner-operated businesses (includes payments for labour, capital, land, entrepreneurship)

Rental Income

- Money collected by a landlord from a tenant in exchange for the use of a space

Corporate Profits

- The remains of corporate revenues after wages, interest, rent and further costs have been paid

Net Interest

- The difference between interest earned by individuals minus interest paid by individuals

Taxes on Production and Imports

- Levied by governments

Business Current Transfer Payments

- Payments made by businesses to individuals, governments or foreigners that are not wages or taxes (includes: charitable donations, insurance payments, legal settlements)

Current Surplus of Government Enterprises

- Profit of businesses owned by governments (eg. water, rubbish, electricity)

Measuring GDP: (3) The Product Approach

Sum of the value added by producers

1.5 Wealth and Savings

Wealth

- Value of assets minus value of liabilities
- A country's economic wellbeing depends on income and wealth
- Wealth is determined by savings

Savings

- National savings: flow of additions to the stock of national wealth
  - sum of Private Savings and Government Savings
  - (Y-C-G)
- Private Savings
  - Private disposable income minus consumption (Y-T-C)
- Public/Government Savings
  - Government receives minus government expenditures (T-G)

1.6 Inflation and Price Indices

Calculating Inflation

- *A general rise in price level*
- Inflation Rate: *percentage rate of increase in the price level over a given period*

$$\pi = \frac{P_{t+1} - P_t}{P_t}$$

Real vs. Nominal GDP

- Real GDP
  - measures DGP using the prices of a base year; adjusted for inflation
  - used for comparison over various years
- Nominal GDP
  - measures GDP using current prices

Real vs. Nominal Interest Rate

- r= real interest rate
- i=nominal interest rate
- π= inflation rate

$$r = i - \pi$$

Price Indices

1. GDP Deflator
    - Measures the overall levels of prices of goods and services included in the GDP

$$Real\ GDP = \frac{Nominal\ GDP}{GDP\ Deflator/100}$$

2. Consumer Price Index (CPI)

- Measures the weighted average of prices of a typical basket of consumer goods and services

1.7 Explore Lesson Notes

Consumer Prices

- Prior to WW2: rose during wars and fell during peacetime
- Since WW2: have risen steadily

Trade

- Trade Deficit: Exports < Imports
- Trade Surplus: Exports > Imports
- US Trade
  - 1900-1970 Trade Surplus
  - since 1970 Trade Deficit

Average Labour Productivity

- Average Labour Productivity=Output/Number of Employed Workers

Steps in Developing and Testing Economic Models or Theories

1. State the research question
2. Make provisional assumptions
3. Work out implications of the theory
4. Conduct empirical analysis to compare implications of the theory with the data
5. Evaluate the results of the comparison

Stagflation

- A period of high inflation combined with high unemployment
- 1970s
- Discredited Keynesian economics