ECON3102-005

Chapter 1: Introduction

Neha Bairoliya

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What is Macroeconomics?

- Macroeconomics studies the aggregate behavior of economic agents.
  - Consumers, firms, governments, countries...
- Using models to explain macroeconomic phenomena.
  - overall economic well-being, inflation, unemployment...
  - long-run growth and business cycles.
- The approach in this book is to build up macroeconomic analysis from microeconomic principles.

GDP, Economic Growth, and Business Cycles

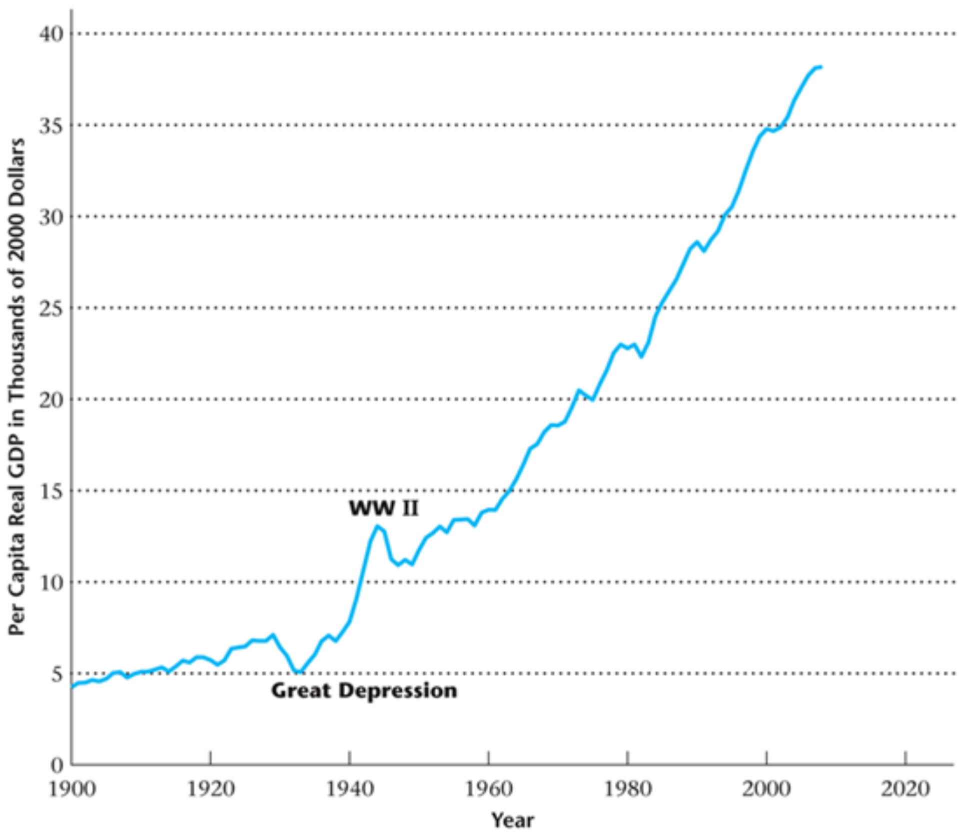
- Gross Domestic Product (GDP): the quantity of goods and services produced within a country's borders over a particular period of time.

- GDP also represents the quantity of income earned by those contributing to domestic output.

  - nominal GDP and real GDP

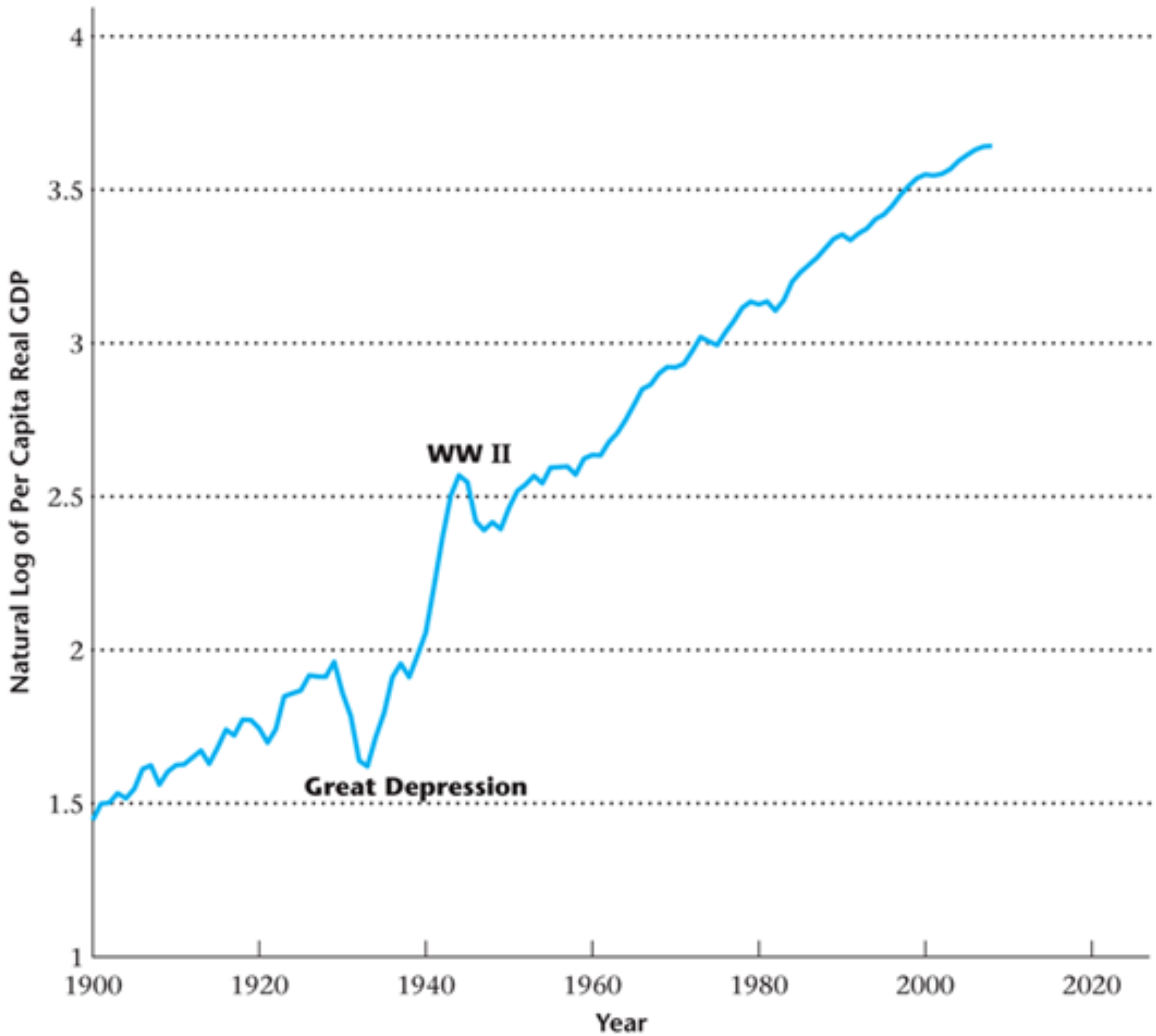
- The time series of GDP can be separated into trend and business cycle components.

Per Capita Real GDP (in 2000 dollars) for the United States, 1900-2008



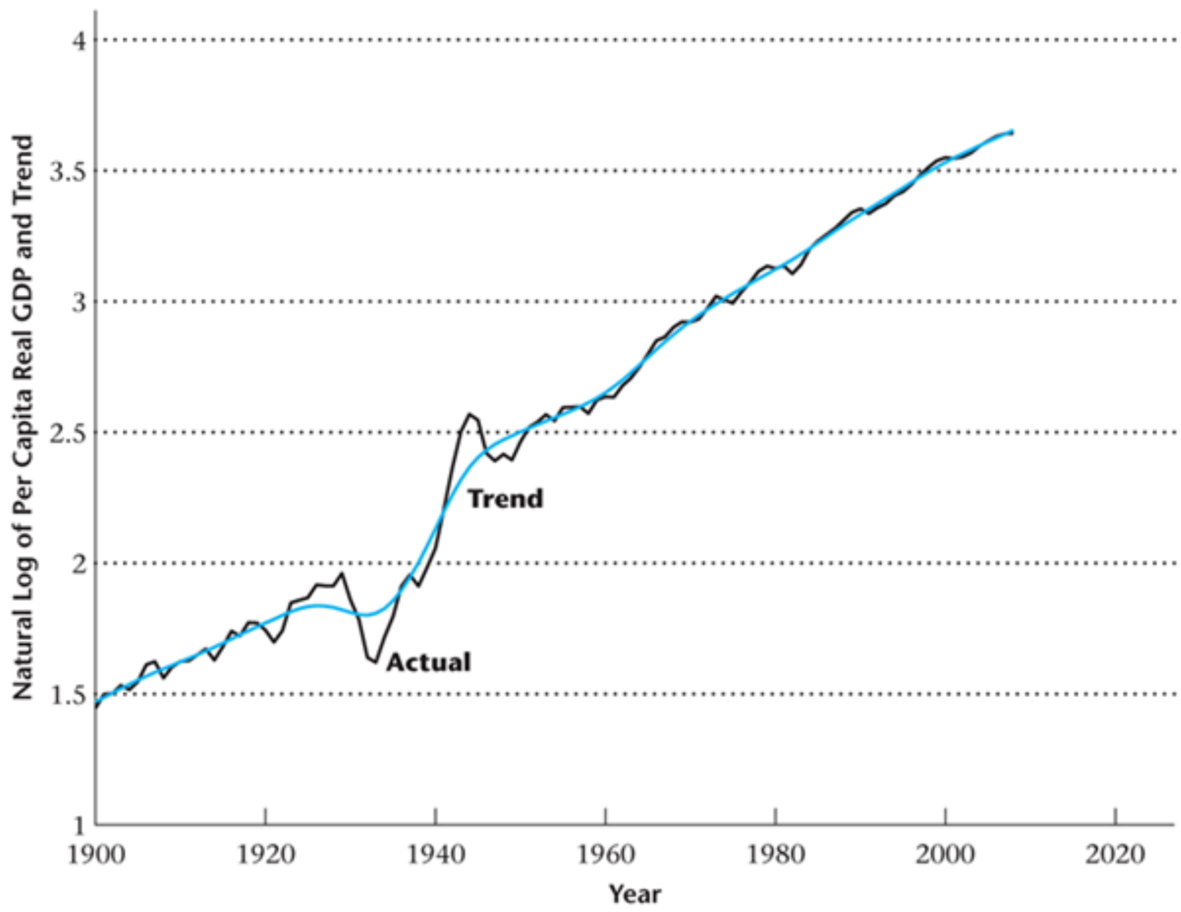
- **substantial long-run growth**
- **short-run ups and downs (business cycles)**

Natural Logarithm of Per Capita Real GDP



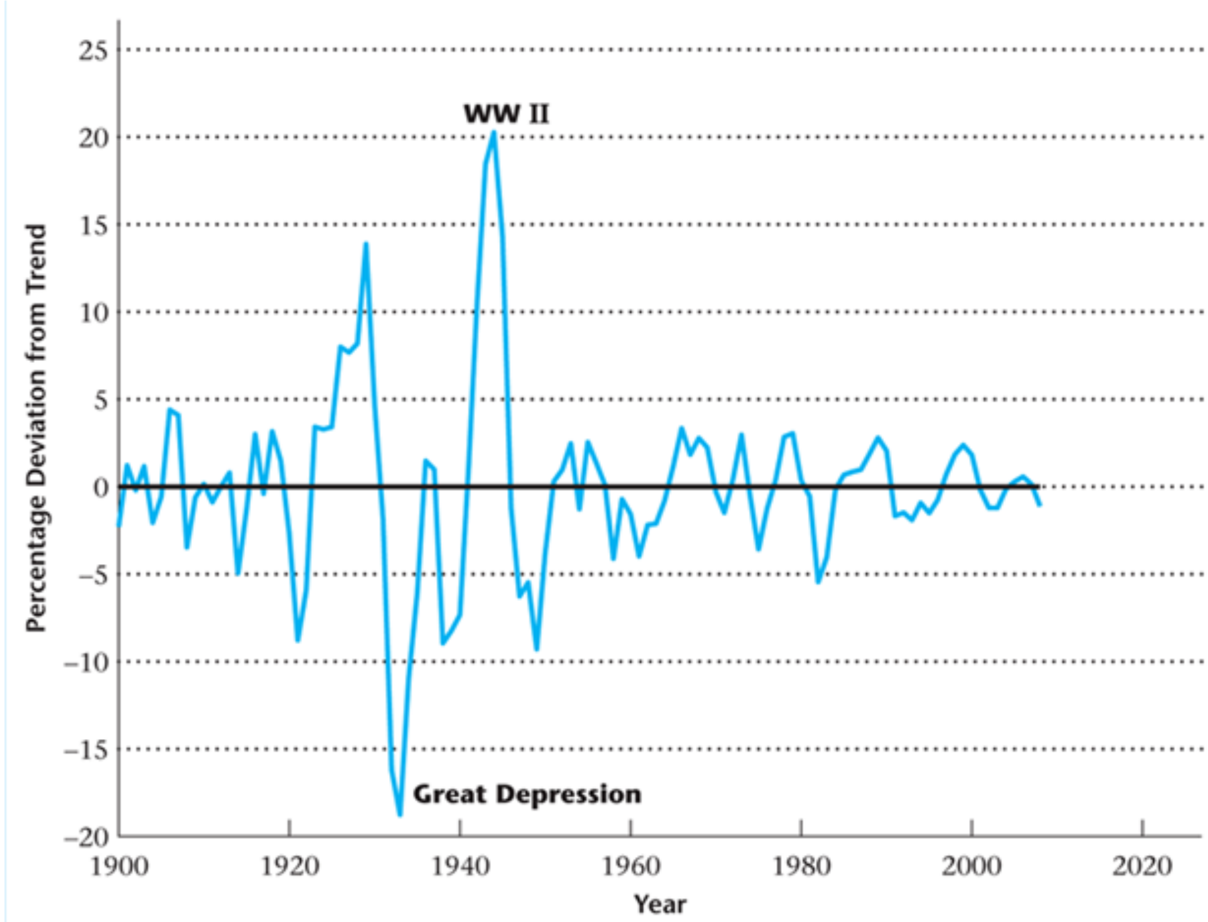
- The slope of the natural log of real per capita GDP is approximately the growth rate of real per capital GDP.

Separate long-run growth and business cycle



- The business cycle component is the deviation of real per capita GDP from a smooth trand fit to the data.

Separate long-run growth and business cycle



- The business cycle component is the deviation of real per capita GDP from a smooth trand fit to the data.

Macroeconomic Models

- Models are substitutes to experiments for studying aggregate behaviors of an economy.
- A macroeconomic model captures the essential features of the world needed to analyze a particular macroeconomic problem.
- Macroeconomic models should be simple, but they need not be realistic.

Basic Structure of a Macroeconomic Model

- Agents: Consumers and firms
- The set of goods that consumers consume
- Consumers' preferences
- The production technology
- Resources available

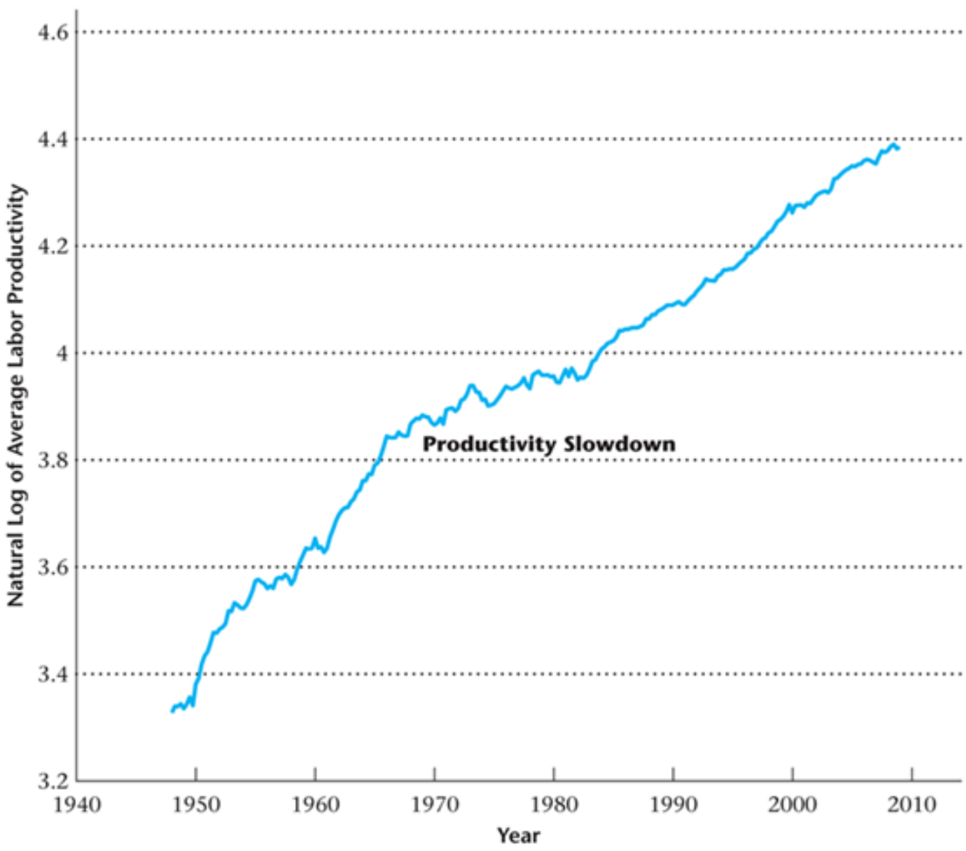
In addition, we make two basic assumptions: 1) consumers and firms optimize, and 2) the economy must be in equilibrium.

- Competitive equilibrium: consumers and firms are price-takers.

Typical Macroeconomic Events (1)- Aggregate Productivity

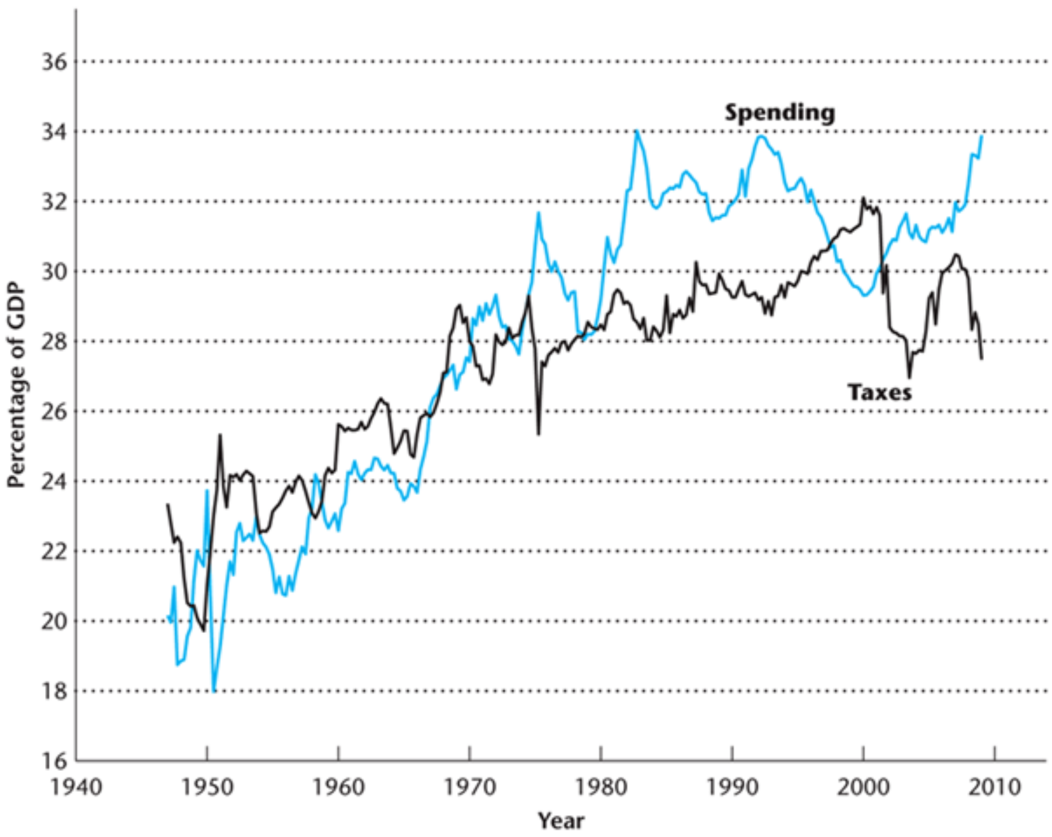
- Growth in aggregate productivity determines long-run economic growth.
- Measurement: average labor productivity is the total quantity of output produced by per worker.

Natural Logarithm of Average Labor Productivity



- Average labor productivity grew at a high rate during the 1950s and most of the 1960s.
- Productivity slowed down from the late 1960s to the early 1980s.
- The productivity growth increased in the mid-1980s.
- One possible explanation: the costs of adjusting to new technology.

Typical Macroeconomic Events (2)-Government Deficit

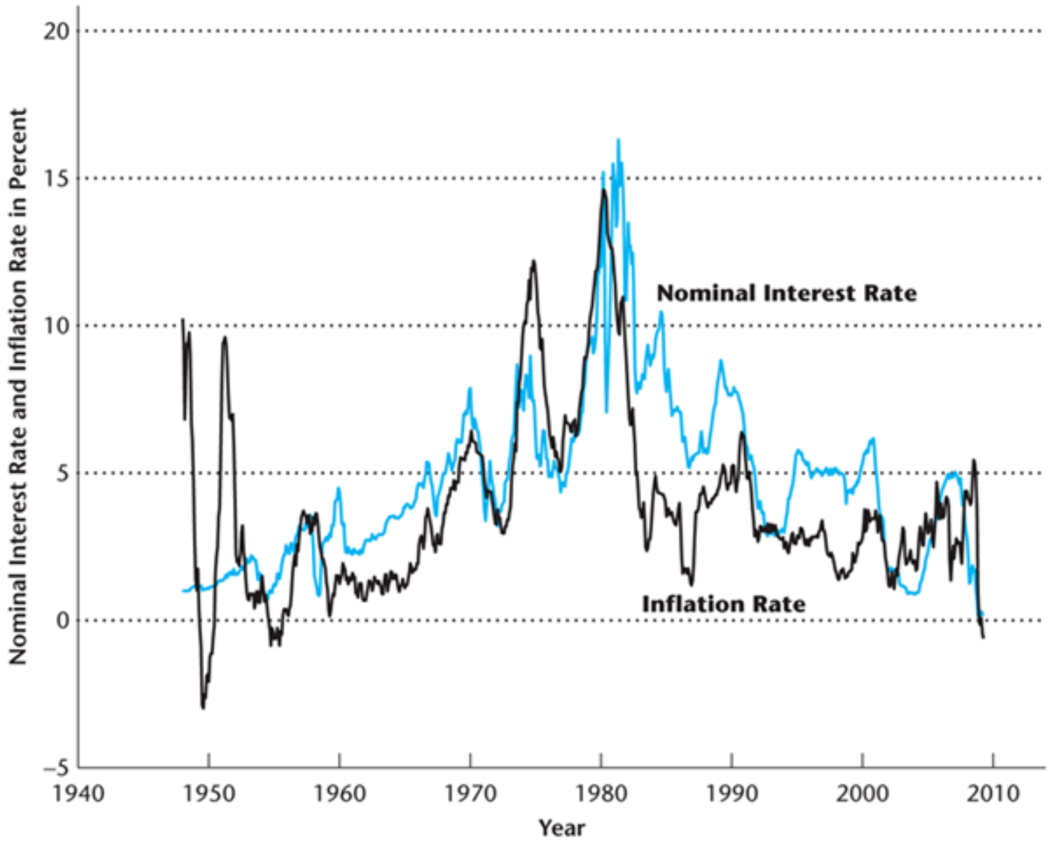


- Taxes, government spending and government deficit

  Government Surplus=T-G

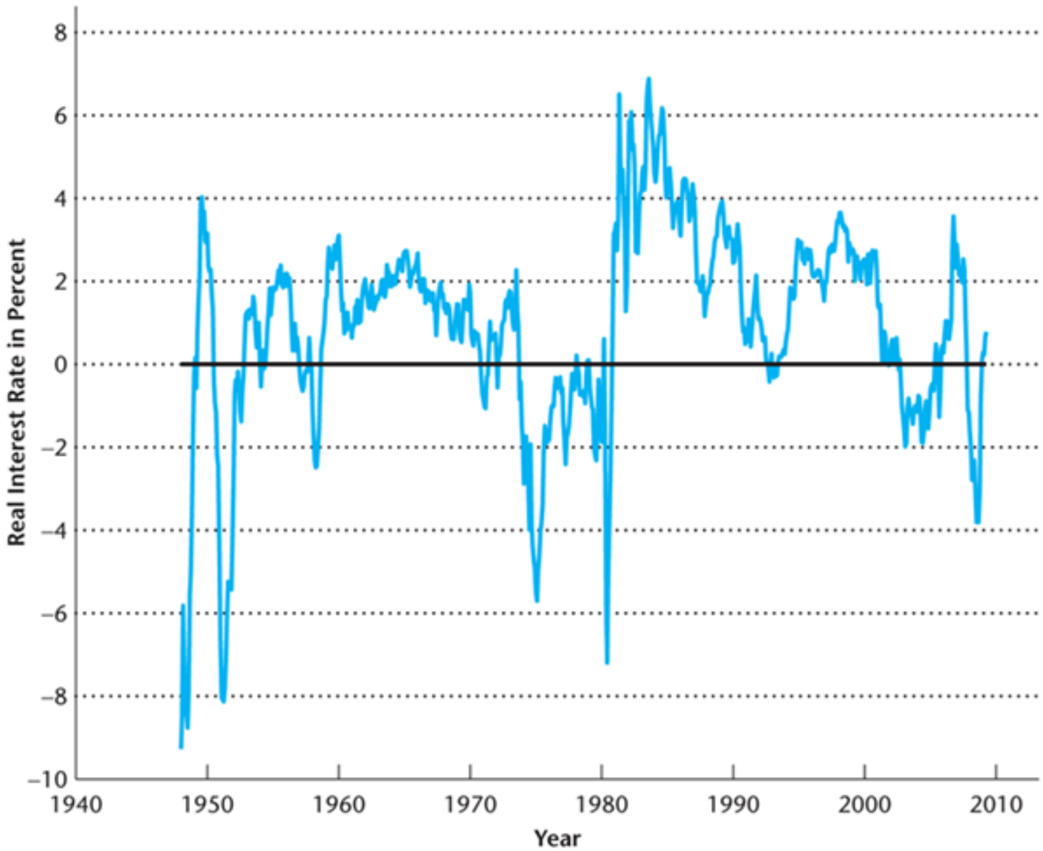
  Government Deficit=G-T

Typical Macroeconomic Events (3)-Interest Rate



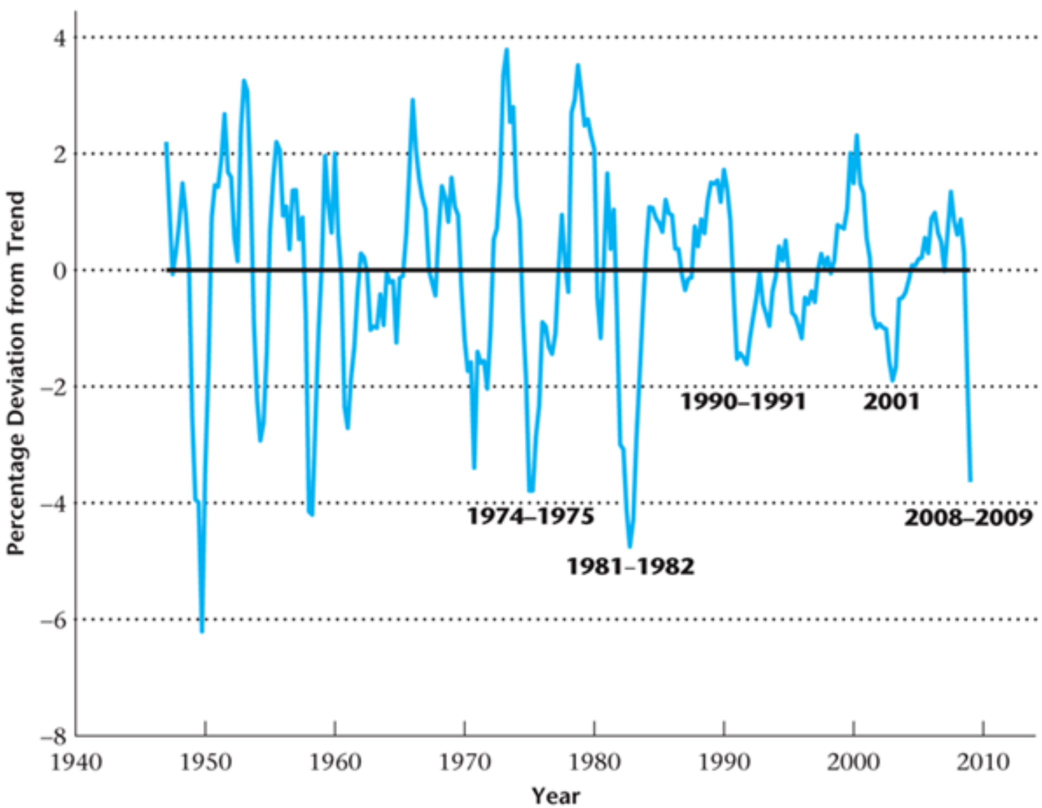
- Nominal interest rates move with inflation rates.
- Economic decisions are based on real interest rates = nominal interest rate - expected rate of inflation.

Typical Macroeconomic Events (3)-Interest Rate



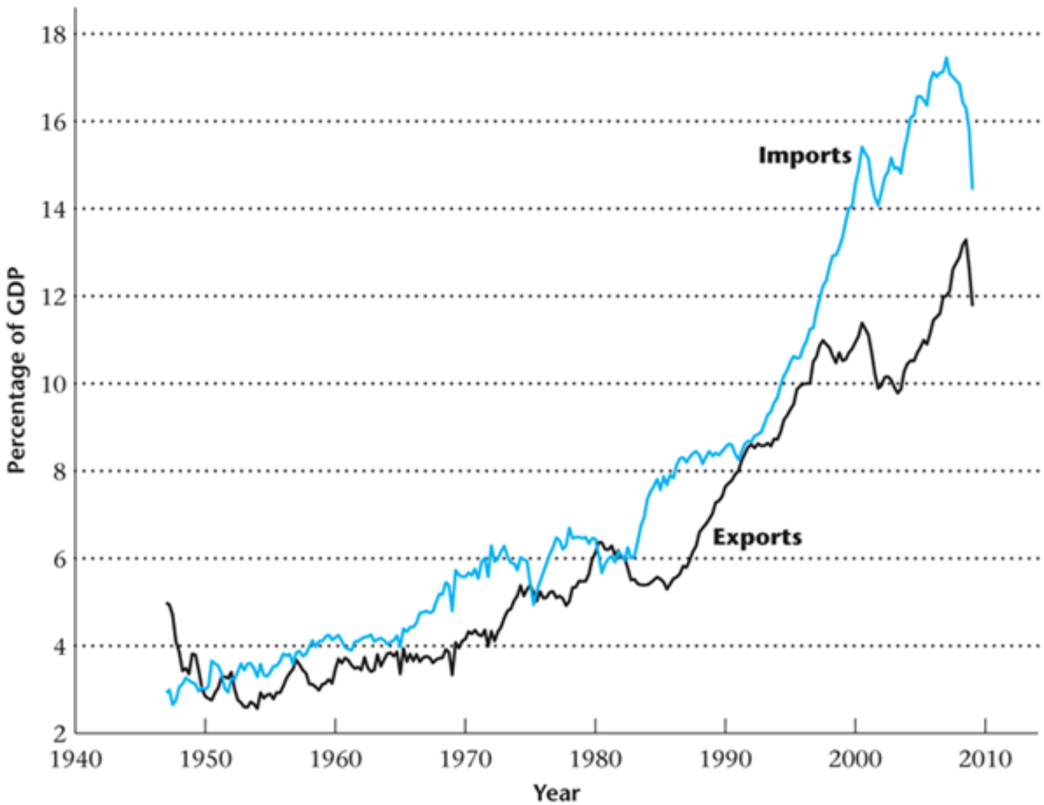
- Plotted: real interest rate = nominal interest rate - actual inflation rate

Typical Macroeconomic Events (4)- Business cycles in the United States



- Increase in energy price $\rightarrow$ the 1974-1975 recession.
- High inflation $\rightarrow$ contractionary monetary policy (Fed, Paul Volker) $\rightarrow$ the 1981-1982 recession.
- The 1991-1992 recession: increase in energy price during the Gulf War?
- Change in expectations of the economy $\rightarrow$ the 2001 recession.
- Collapse of the housing market, financial market crisis, the Great Recession (2008-2009).

Typical Macroeconomic Events (5)-Current Account Surplus



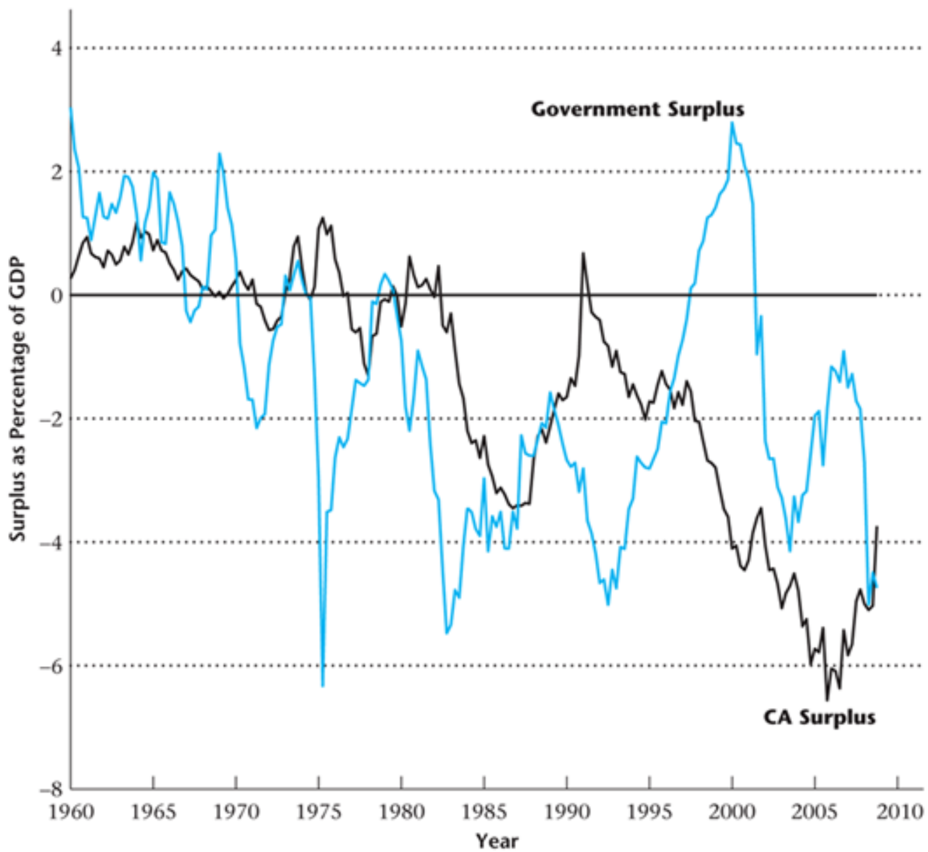
- Current account surplus and government surplus

Current Account Surplus=X-M

Current Account Deficit=M-X

- Current account deficit implies that the US residents are borrowing abroad.

Typical Macroeconomic Events (5)-Current Account Surplus



- **Twin Deficits** occur when both $X - M < 0$ and $T - G < 0$.
- Happens when the government borrows from the rest of the world in order to finance G.

Typical Macroeconomic Events (6)-Unemployment