

ECON3102-005

CHAPTER 1: INTRODUCTION

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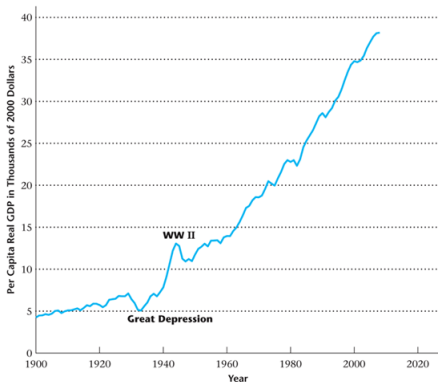
WHAT IS MACROECONOMICS?

- 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

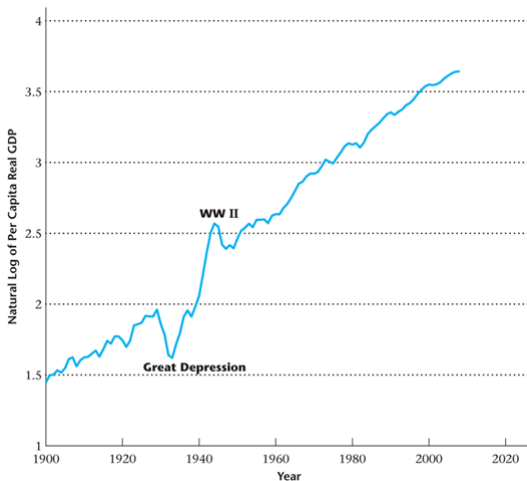
- Gross Domestic Product (GDP): the quantity of goods and services produced within a country's borders over a particular period of time.
- GDP also represents the quantity of income earned by those contributing to domestic output.
 - nominal GDP and real GDP
- The time series of GDP can be separated into trend and business cycle components.

PER CAPITA REAL GDP (IN 2000 DOLLARS) FOR THE UNITED STATES, 1900-2008



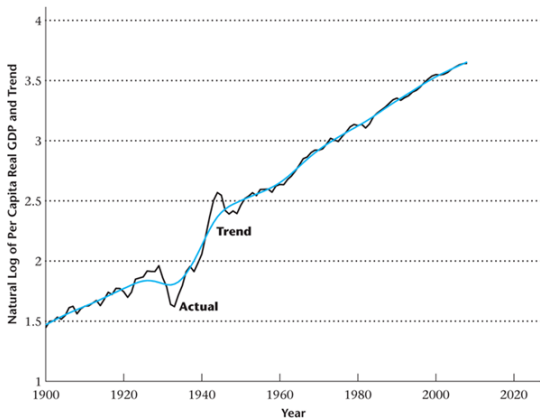
- substantial long-run growth
- short-run ups and downs (business cycles)

NATURAL LOGARITHM OF PER CAPITA REAL GDP



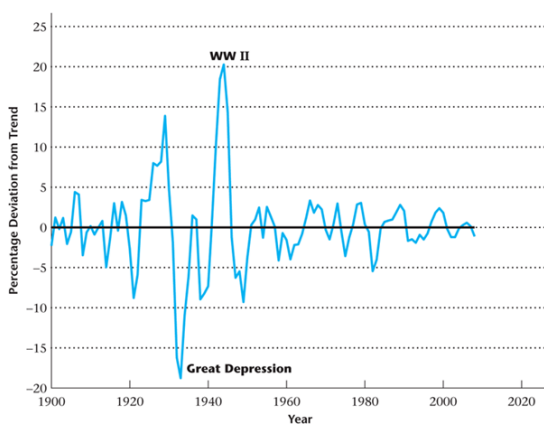
- The slope of the natural log of real per capita GDP is approximately the growth rate of real per capital GDP.

SEPARATE LONG-RUN GROWTH AND BUSINESS CYCLE



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

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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

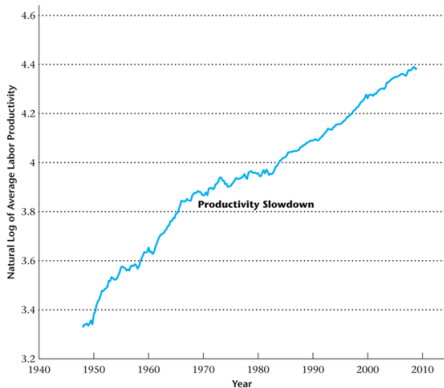
In addition, we make two basic assumptions: 1) consumers and firms optimize, and 2) the economy must be in equilibrium.

- 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.

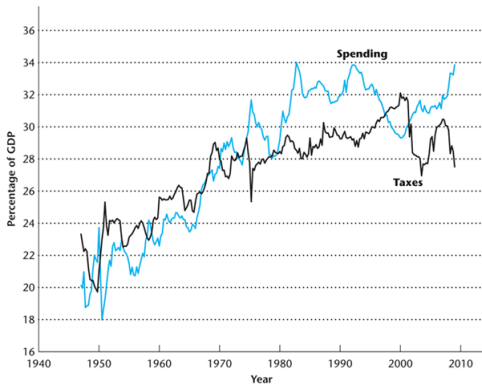
NATURAL LOGARITHM OF AVERAGE LABOR PRODUCTIVITY



- 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

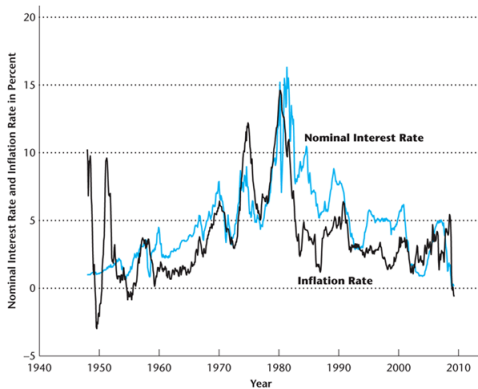


- Taxes, government spending and government deficit

Government Surplus= $T-G$

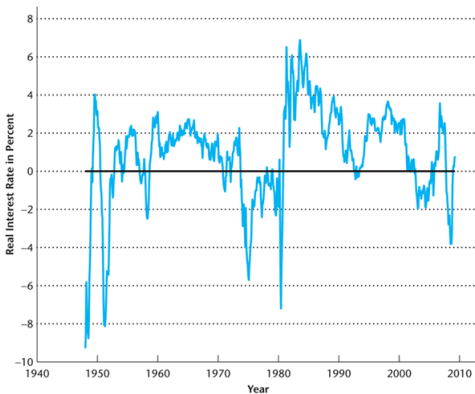
Government Deficit= $G-T$

TYPICAL MACROECONOMIC EVENTS (3)-INTEREST RATE



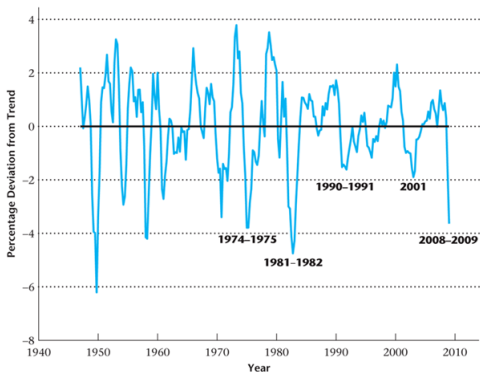
- Nominal interest rates move with inflation rates.
- Economic decisions are based on real interest rates = nominal interest rate - expected rate of inflation.

TYPICAL MACROECONOMIC EVENTS (3)-INTEREST RATE



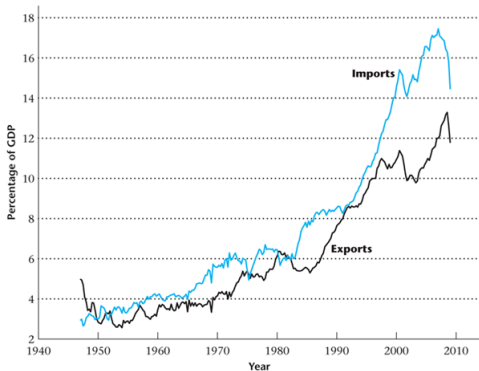
- Plotted: $\text{real interest rate} = \text{nominal interest rate} - \text{actual inflation rate}$

TYPICAL MACROECONOMIC EVENTS (4)- BUSINESS CYCLES IN THE UNITED STATES



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

TYPICAL MACROECONOMIC EVENTS (5)-CURRENT ACCOUNT SURPLUS



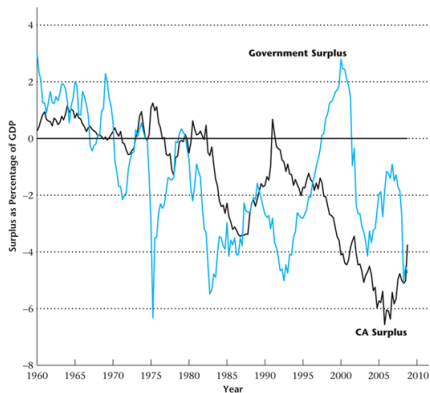
- Current account surplus and government surplus

$$\text{Current Account Surplus} = X - M$$

$$\text{Current Account Deficit} = M - X$$

- 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

