



ECON 310 - MACROECONOMIC THEORY

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Disclaimer

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Chapter 1: Introduction

- Introduction to intermediate macroeconomics
- Look at some stylized facts

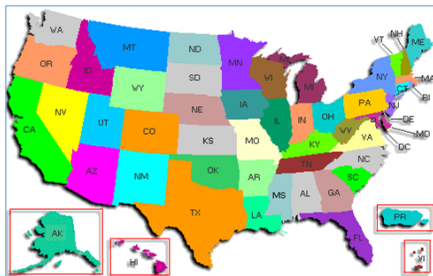
“The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions”
John Maynard Keynes

Topics

- 1 Key macroeconomic phenomena: GDP, economic growth, business cycles.
- 2 What is macroeconomics?
- 3 Macroeconomic models.
- 4 Understanding recent and current macroeconomic events.

Considering the biggest economy in the world

Figure 1: The United States of America

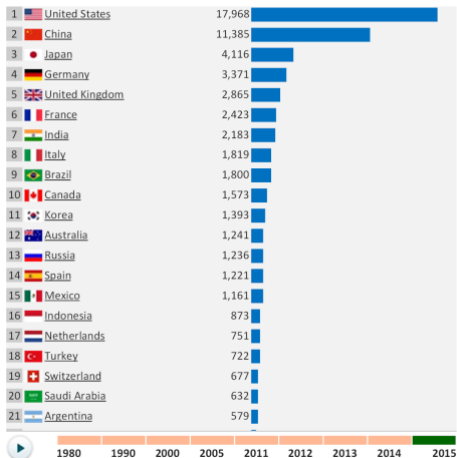


Quick Facts

- Land area: 3,500 mil square miles
- Population: 320 mil people
- ~113 mil households
- ~27 mil firms
- GDP: \$18.222 trillion (in 2016 USD)
- GDP per capita: \approx \$55,000 (in 2016 USD)
- Gross Domestic Product (GDP): the quantity of goods and services produced within a country's borders over a particular period of time

GDP

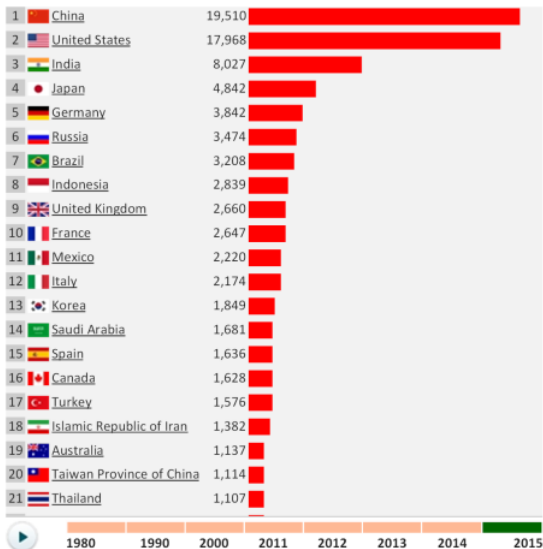
GDP, current prices (billion USD)



Source: [IMF World Economic Outlook \(WEO\)](#), October 2015

GDP - Purchasing Power Parity (PPP) Adjusted

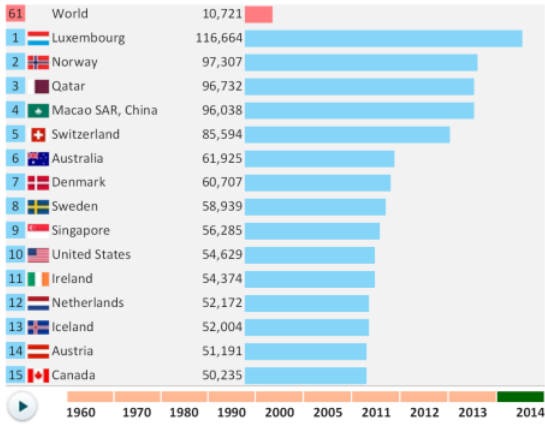
GDP based on PPP valuation (billion current international dollars)



GDP - Per Capita

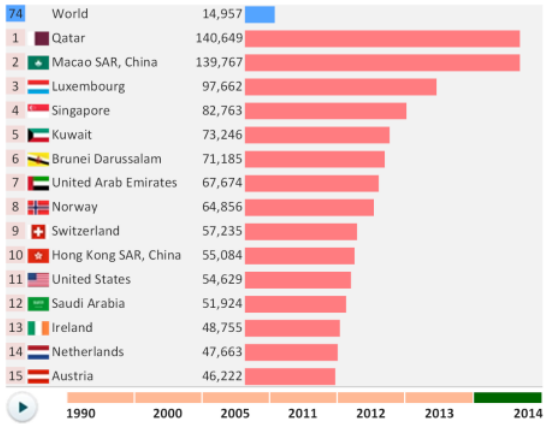
GDP per capita, current prices

US dollars per capita

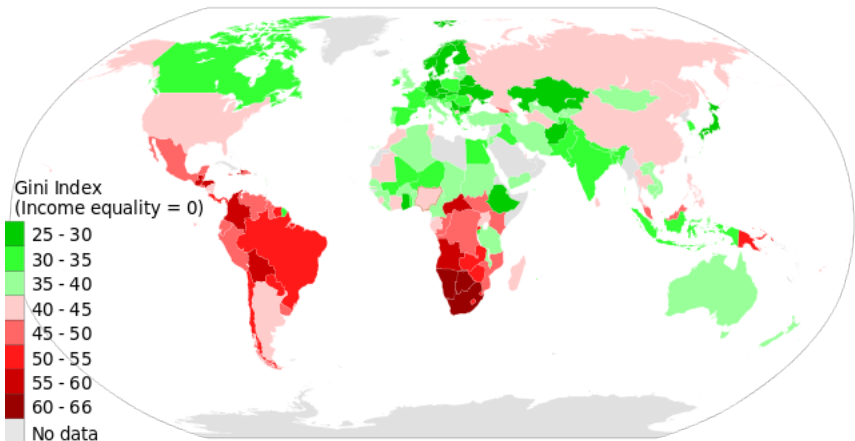


GDP - Per Capita PPP Adjusted

GDP per capita based on PPP *current international \$*



Gini Index



Gini Index

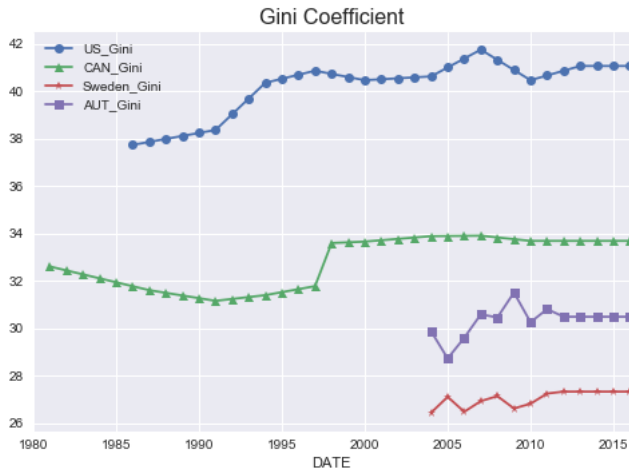


Figure 2: Per Capita Real GDP (2000 USD)

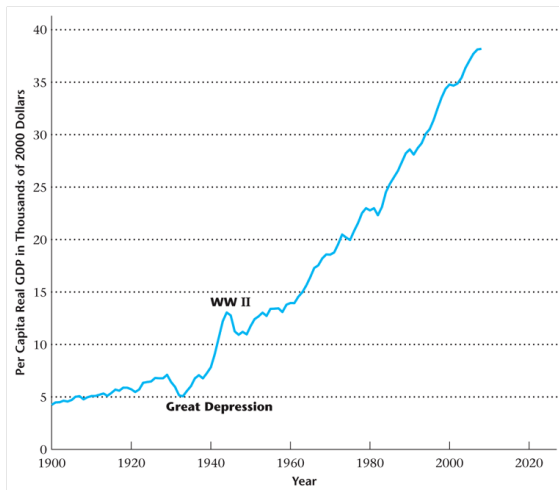


Figure 3: Natural Log of Per Capita Real GDP

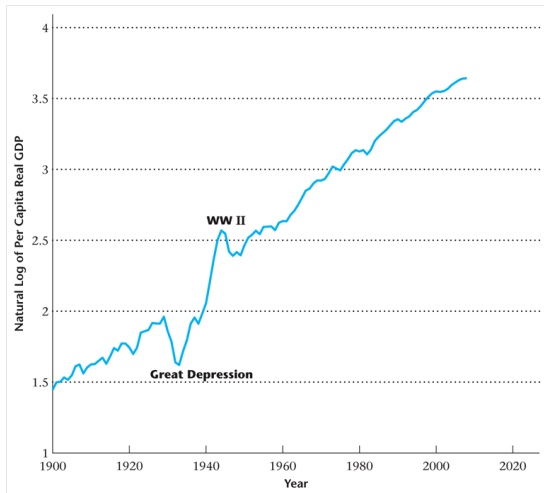


Figure 4: Natural Log of Per Capita Real GDP and Trend

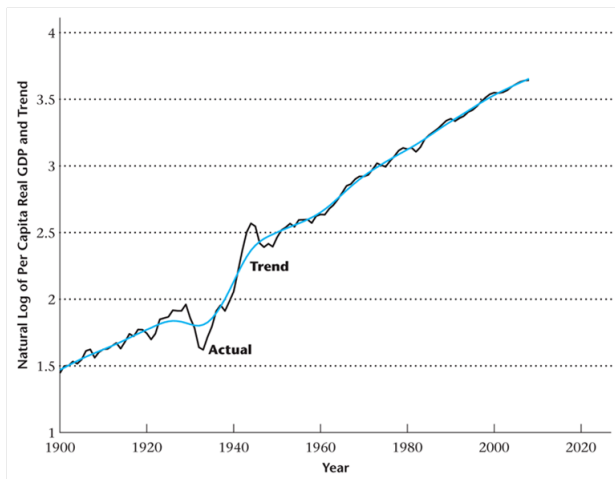
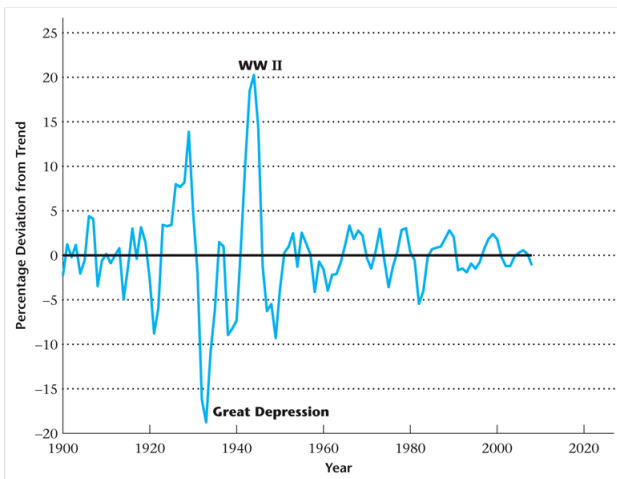
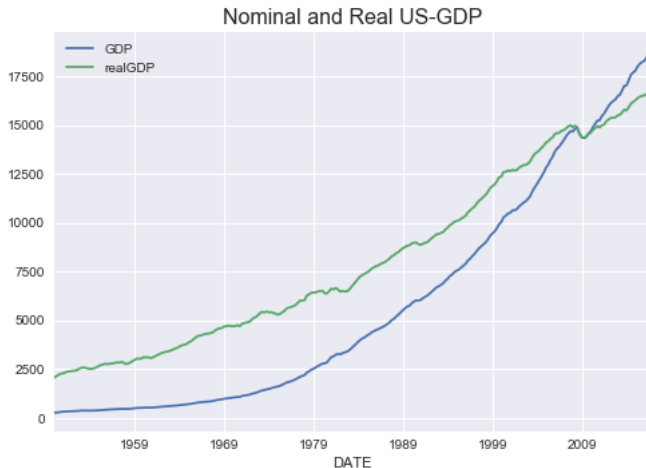


Figure 5: Percentage Deviations from Trend in Per Capita Real GNP

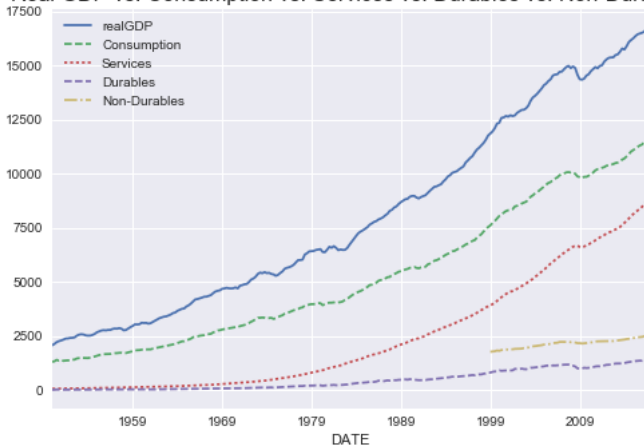


Real GDP (2009 USD)



GDP and Consumption (2009 USD)

Real GDP vs. Consumption vs. Services vs. Durables vs. Non-Durables



What Is Macroeconomics ?

- Models built to explain macroeconomic phenomena.
- The important phenomena are *long-run growth* and *business cycles*.
- Approach in this course is to build up macroeconomic analysis from microeconomic principles.

Some fundamental macro questions

- 1 What causes sustained economic growth?
- 2 Is economic growth indefinite *i.e.* limit to growth?
- 3 Can governments (policymakers) alter the rate of growth?
- 4 What causes business cycles?
- 5 Can the booms (expansions) and busts (recessions) be repeated?
- 6 Should governments (policymakers) smooth business cycles?

Macroeconomic Models

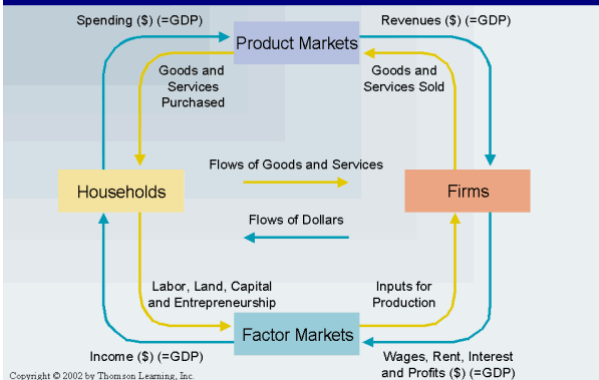
- A macroeconomic model
 - captures the essential features of the world needed
 - to analyze a particular macroeconomic problem.

- A macroeconomic model
 - should be simple,
 - but they need not be realistic (think about the car map example).

Basic Structure of a Macroeconomic Model

- 1 Agents: consumers and firms that interact in the economy.
- 2 Set of goods that consumers wish to consume.
- 3 Preferences: consumers' preferences over goods.
- 4 Technology: production methods available to firms for producing goods.
- 5 Endowment: resources available.

The Circular Flow Model of Income and Output



What we Learn from Macro Analysis

- 1 Production and consumption is jointly determined by economy's productive capacity and preferences of consumers
- 2 In free market economies, there are strong forces that tend produce social efficient outcomes
- 3 \uparrow standard of living are a result of LR technological progress
- 4 A tax cut is not a free lunch
- 5 Consumer and firm expectations are important for current macroeconomic events
- 6 Money takes many forms, it is better to have it. Changing its quantity ultimately does not matter
- 7 Business cycles may seem similar but they have different causes

What we Learn from Macro Analysis (cont.)

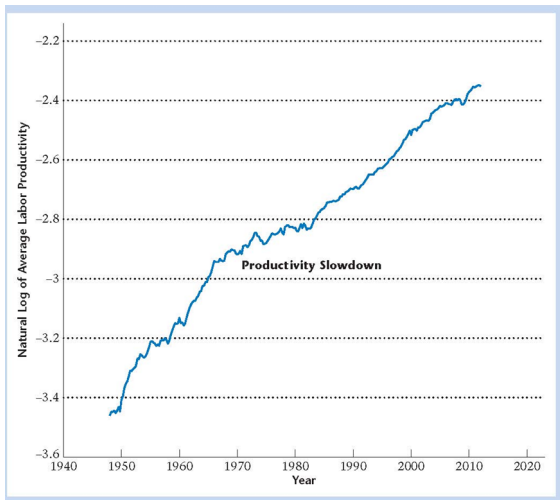
- 8 Gains from trade between countries but trade is source of shocks for the economy
- 9 In the LR, inflation is caused by growth in the money supply
- 10 Unemployment is painful for the individual but it is necessary evil
- 11 Significant short-run trade-offs between output (Y) and inflation (π) In LR no trade-off other than inefficiencies caused by LR inflation.

Recent and Current Macroeconomic Events

- **Average labor productivity:** productivity slowdown (cause?)
- **Taxes, Government Spending, and Deficits:** crowding out, Ricardian Equivalence
- **Interest Rates:** nominal vs. real interest rates
- **Current Account and Government Surplus:** twin deficits
- **Inflation:** correlation with money growth rate
- **Unemployment:** 1) 1970 spike 2) volatile 3) tend increase until 80's drop then increase again

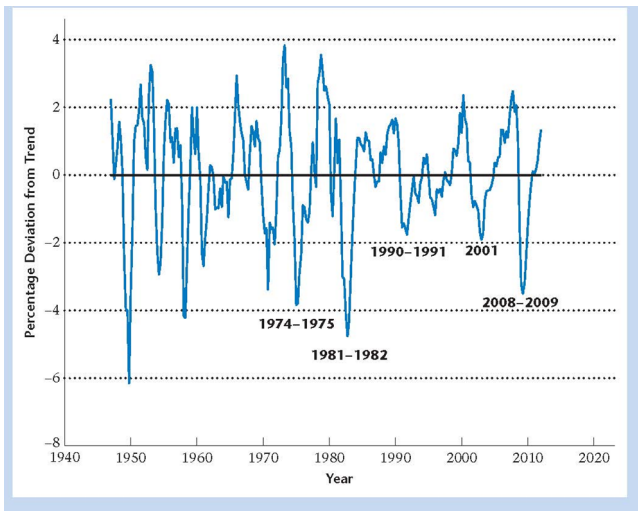
Figures

Figure 6: $\log(\text{Average Labor Productivity})$



Figures

Figure 7: Percentage Deviation from Trend in Real GDP, 1947-2009



Recessions

- 1 1974 – 1975: Oil price shock caused by OPEC restrictions
- 2 1981 – 1982: Fight inflation using monetary policy i.e. high interest rates (Volcker rule)
- 3 1990 – 1991: Gulf War, oil price high again
- 4 2001: Burst of Dot.com bubble and loss of optimism → start of housing bubble (Greenspan rule)
- 5 2008 – 2009: Burst of Housing bubble and financial crisis
- 6 1982 – 2008: The Great Moderation → macro aggregates become less volatile

Figures

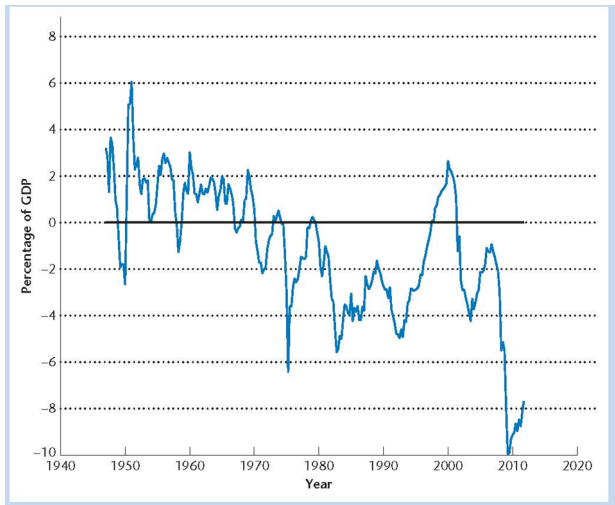
Figure 8: Total Taxes and Total Government Spending



Figures

Figures (cont.)

Figure 9: Government Surplus (Deficit) as fraction of GDP



Figures (cont.)

Figure 10: Nominal Interest Rate and Inflation Rates

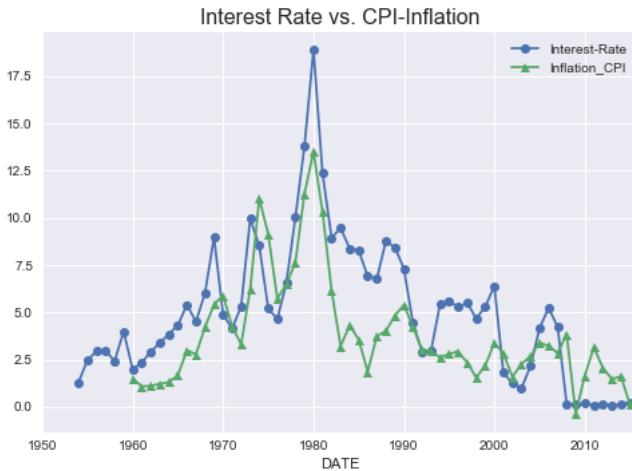


Figure 16: Deviations from Trend in the Unemployment Rate and Percentage Deviations from Trend in Real GDP

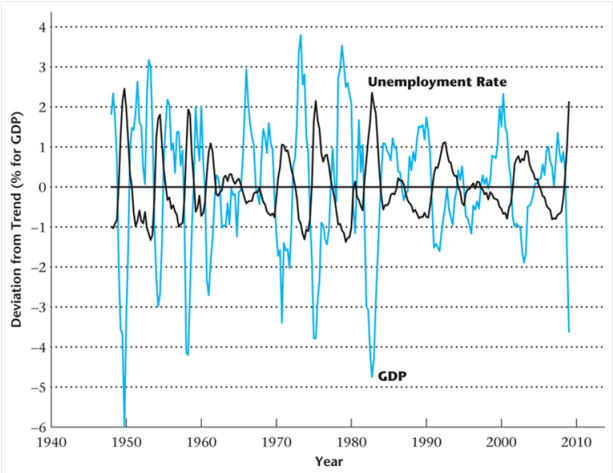
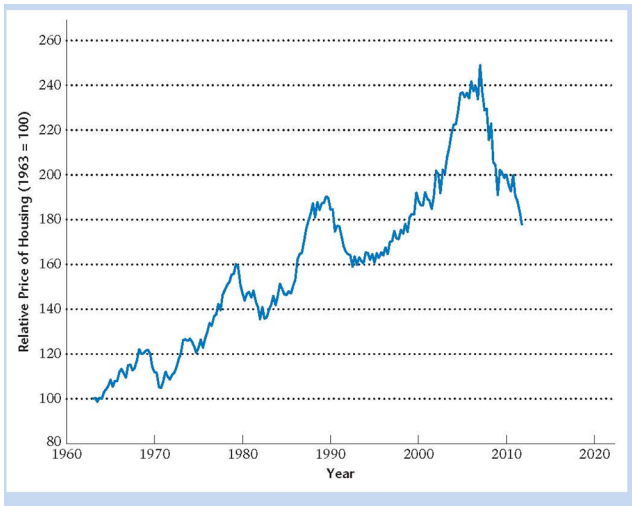
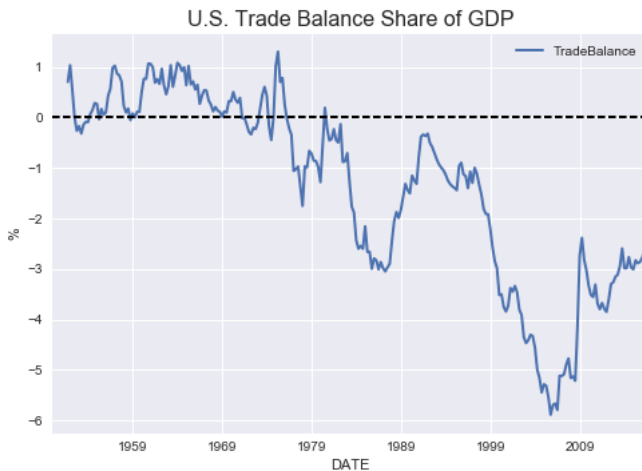


Figure 17: Relative Price of Housing



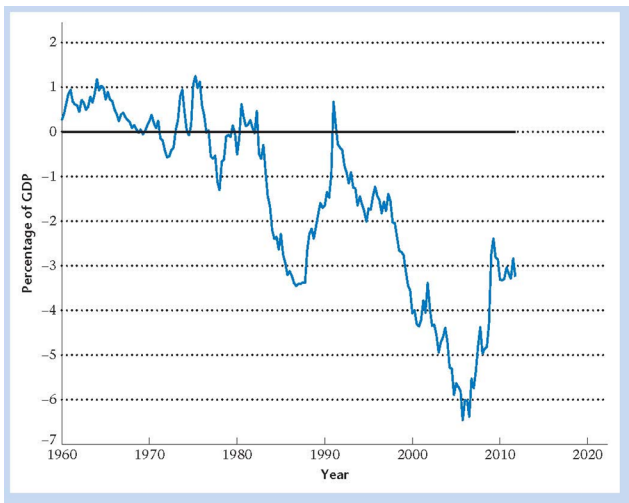
U.S. Exports and Imports Shares of GDP





■ Note: Trade Balance = $NX = Ex - Im$

Figure 18: The Current Account Surplus



■ Note: $CA = NX + NFP$