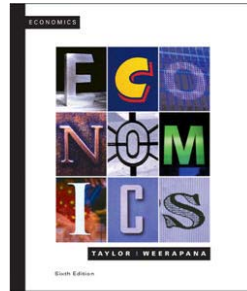


Economics 202 Principles Of Macroeconomics

Professor Yamin Ahmad

Lecture 1: Introduction

- Syllabus
- Definition and Tools in Economics
- Introduction to Macroeconomics



Syllabus



- Aplia Website:
 - <http://econ.aplia.com>
 - Use course code:
 - ECON 202-01 (Meets MWF 9:55am in HH2101): **SBVL-PB8U-3EFR**
- Textbook:
 - Taylor and Weerapana (2009), Economics, 6th Edition, Houghton Mifflin
- Course Homepage:
 - <http://facstaff.uww.edu/ahmady/courses/econ202/>

Note: These notes are incomplete without having attended lectures

2

Requirements

- **Homework Assignments, Experiments**
- **Two in-class midterm exams**
 - Multiple choice and short answer questions
 - Cumulative
- **One Final Exam**
 - Cumulative
 - Multiple choice questions

Note: These notes are incomplete without having attended lectures

3

Grades

- Best Homeworks and Experiments = 15%
- Option A:
 - Midterms 25% Each
 - Final 35%
- Option B:
 - Best Midterm 35%
 - Final 50%

Note: These notes are incomplete without having attended lectures

4

Grades on Quizzes/Exams

- Note: **Each individual midterm or exam is not assigned a letter grade**
- Grade for course depends on which grading scheme awards you the **higher** score
- “Approximate” letter grades on quizzes/exams:
 - “A”: $\geq 86\%$ “C+”: 66% - 69%
 - “A-”: 82%-85% “C”: 62% - 65%
 - “B+”: 78% - 81% “C-”: 56% - 61%
 - “B”: 74% - 77% “D”: 50% - 55%
 - “B-”: 70% - 73% “F”: $< 50\%$

Note: These notes are incomplete without having attended lectures

5

Extra Credit

Extra Credit will be available during the semester in two forms:

- Additional Extra Credit problem sets on Aplia
 - These are used to replace low scoring problem sets
 - Count only towards the “homework” part of the course score
- Participation in the UW-Whitewater Economics Club
 - Limited number of spots available (sign up today)
 - Requires participation and attendance at **all** Econ Club events
 - 5 bonus points added to your final course score

Note: These notes are incomplete without having attended lectures

6

Success in an (Any!) Economics Course

To do well in Economics, you need to be able to do 3 things well (in conjunction):

1. Think Mathematically: Don't be afraid of equations!
2. Think graphically!
3. Abstract Logic! (Often the hardest part)

Note: These notes are incomplete without having attended lectures

7

The Keys to Success in this Course...

- Read lecture notes and textbook on topics ahead of time
 - Think about “what happens if ... ?” It's the only real way to grasp concepts in economics – **and economics itself!**
- Don't be shy!
 - Come to class ready to ask questions! Use lecture time to “fill in the gaps”
- Practice and Discuss!!!
- Utilize my office hours!!
 - Come chat with me about concepts you are having trouble with, ideas you haven't grasped fully etc.

Note: These notes are incomplete without having attended lectures

8

A Definition of Economics

- **Economics** is the study of the use of scarce resources to satisfy unlimited human wants

Note: These notes are incomplete without having attended lectures

9

Big Ideas of Economics

- **Microeconomics**
 - Tradeoffs
 - Margins and incentives
 - Voluntary exchange is efficient
 - Market failures
- **Macroeconomics**
 - For the whole economy: expenditure = production
 - Productivity
 - Inflation
 - Unemployment

Note: These notes are incomplete without having attended lectures

10

Microeconomics

- **Microeconomics** is the study of the decisions of individual people and businesses and the interaction of those decisions in markets
- **Studies:**
 - Prices and Quantities
 - Effects of Regulation and Taxes

Note: These notes are incomplete without having attended lectures

11

Macroeconomics

- **Macroeconomics** is the study of the national economy and the global economy
- **Studies:**
 - Average prices and total employment, income and production
 - Effects of taxes, government spending, budget deficit on total jobs and incomes
 - Effects of money and interest rates

Note: These notes are incomplete without having attended lectures

12

Economics... Science or Art?

- **Theory**
 - Model of how the world works
 - Assumptions
 - Equations represent real world ideas
 - e.g. minimum wage causes unemployment
- **Empiricism**
 - Use statistics, data, computers to measure and test theory
 - e.g. see if states with higher minimum wage have higher unemployment

Note: These notes are incomplete without having attended lectures

13

Positive vs. Normative Statements

- **Positive statements** are about *what is*
 - Can be proven right or wrong
 - Can be tested by comparing it to facts
- **Normative Statements** are about *what ought to be*
 - Depends upon personal values and cannot be tested
- Example: Global Warming
 - “Our planet is warming up because of increased CO₂ in the atmosphere”
 - “We ought to cut back on our use of carbon-based fuels such as coal and oil”

Note: These notes are incomplete without having attended lectures

14

Obstacles and Pitfalls in Economics

- Unscrambling Cause and Effect
 - *ceteris paribus*: all other things being equal
- **Fallacy of Composition**
 - False statement that what is true of the parts is also true of the whole & vice versa
- **Post Hoc Fallacy**
 - “after this, therefore because of this”
 - Error of reasoning that a first event *causes* a second event
- **Correlation vs. Causation**

Note: These notes are incomplete without having attended lectures

15

To refresh your memories...

- Review Key concepts from Micro: (see lecture 2)
 - Scarcity and Opportunity Cost
 - PPF
 - Marginal Cost, Marginal Benefits
 - Absolute Advantage, Comparative Advantage, Gains from Trade
- Review Demand and Supply: (see lecture 3)
- Review Market Equilibrium: (see lecture 4)

Note: These notes are incomplete without having attended lectures

16

Some Key Macroeconomic Questions...

- Will tomorrow's world be more prosperous than today?
- Will jobs be plentiful?
- Will the cost of living be stable?
- Will the government and the nation go into deficit again?

Note: These notes are incomplete without having attended lectures

17

Introduction to Key Macro Concepts

- Economic Growth and Fluctuations
- Jobs and Unemployment
- Inflation
- Surpluses and Deficits
- Macroeconomic Policy Tools

Note: These notes are incomplete without having attended lectures

18

Origins and Issues of Macroeconomics

- Economists began to study economic growth, inflation, and international payments during the 1750s
- Modern macroeconomics dates from the **Great Depression**, a decade (1929-1939) of high unemployment and stagnant production throughout the world economy.
- John Maynard Keynes book, *The General Theory of Employment, Interest, and Money*, began the subject.

Note: These notes are incomplete without having attended lectures

19

Origins and Issues of Macroeconomics

Short-Term Versus Long-Term Goals

- Keynes focused on the *short-term*—on unemployment and lost production.
- “In the long run,” said Keynes, “we’re all dead.”
- During the 1970s and 1980s, macroeconomists became more concerned about the *long-term*—inflation and economic growth.

Note: These notes are incomplete without having attended lectures

20

Economic Growth and Fluctuations

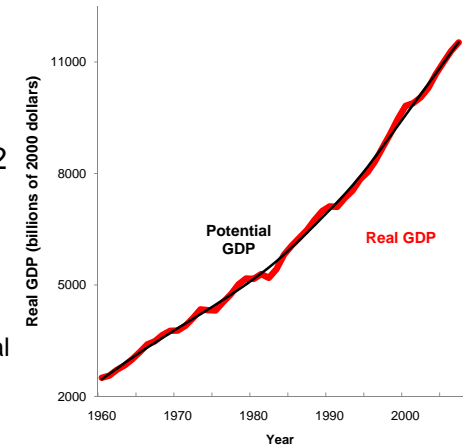
- **Economic growth** is the expansion of the economy's production possibilities—an outward shifting *PPF*.
- We measure economic growth by the increase in real GDP.
- **Real GDP—real gross domestic product**—is the value of the total production of all the nation's farms, factories, shops, and offices, measured in the prices of a single year.

Note: These notes are incomplete without having attended lectures

21

Economic Growth and Fluctuations

- Economic Growth in the United States
 - Figure 1 on the right shows real GDP in the United States from 1962 to 2007.
- The figure highlights:
 - Fluctuations of real GDP
 - Smoother growth of potential GDP



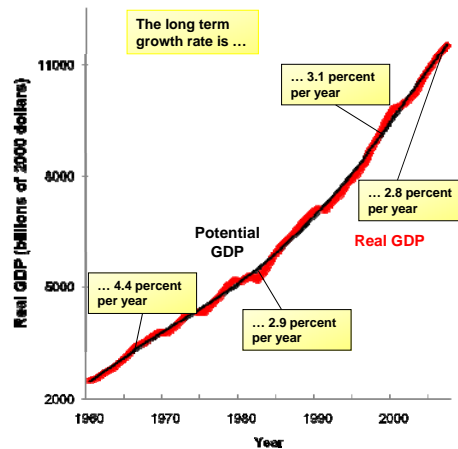
Source: Bureau of Economic Analysis

Note: These notes are incomplete without having attended lectures

22

Economic Growth and Fluctuations

- **Potential GDP** is the value of real GDP when all the economy's labour, capital, land, and entrepreneurial ability are fully employed.
- During the 1970s and early 1980s, real GDP growth slowed—a **productivity growth slowdown**.



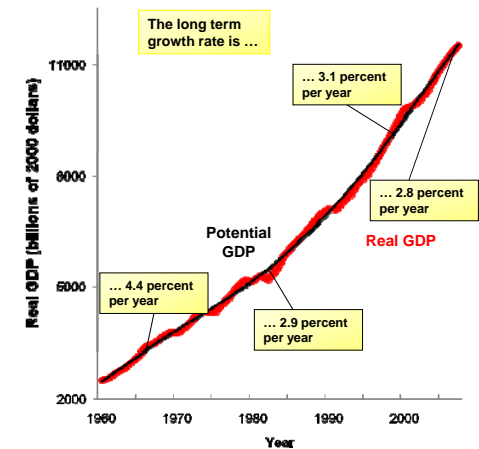
Source: Bureau of Economic Analysis

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23

Economic Growth and Fluctuations

- Real GDP fluctuates around potential GDP in a **business cycle**
 - a periodic but irregular up-and-down movement in production.



Note: These notes are incomplete without having attended lectures

24

Economic Growth and Fluctuations

Every business cycle has **two phases**:

1. A recession
2. An expansion

and **two turning points**:

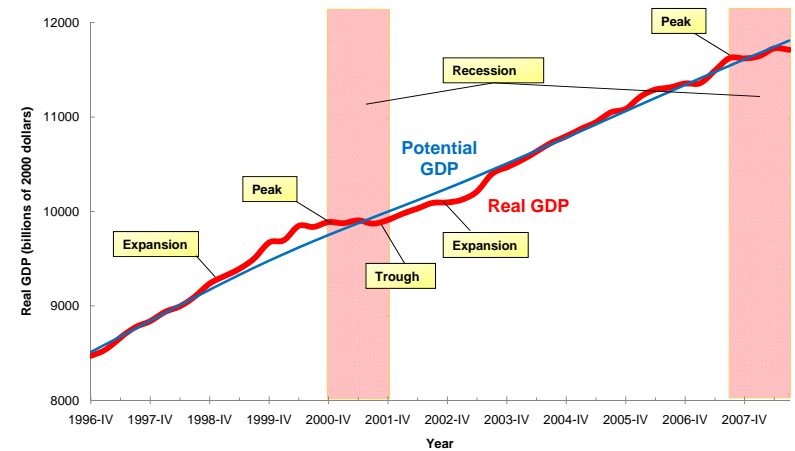
1. A peak
 2. A trough
- A **recession** is a period during which real GDP decreases for at least two successive quarters.
 - An **expansion** is a period during which real GDP increases.

Note: These notes are incomplete without having attended lectures

25

Economic Growth and Fluctuations

- This figure shows the most recent U.S. cycles.

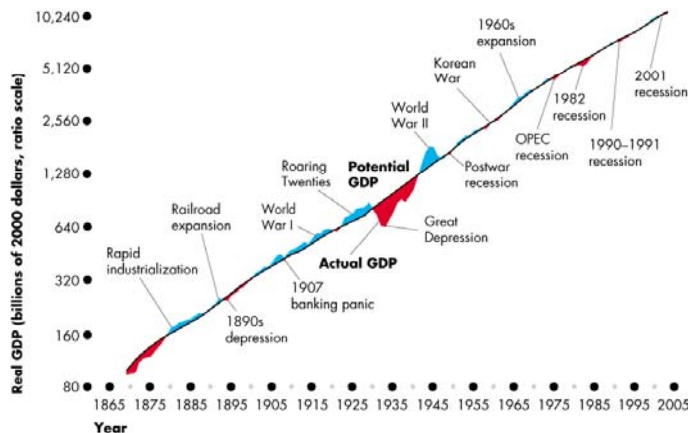


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26

Economic Growth and Fluctuations

- Figure 2 shows the long-term growth trend and cycles



Note: These notes are incomplete without having attended lectures

27

Recent News

- As of December 2007, the US has entered a recession.
- Several other countries around the world, including most of the G7 countries are also experiencing a recession, e.g. Japan, the UK, several European countries.
- This has led to a global recession.

Note: These notes are incomplete without having attended lectures

28

Quick Exercise

- For the real GDP numbers to the right, calculate the percentage change in real GDP between the current year and the prior year.
- Is there any indication of a recession for any of these years?

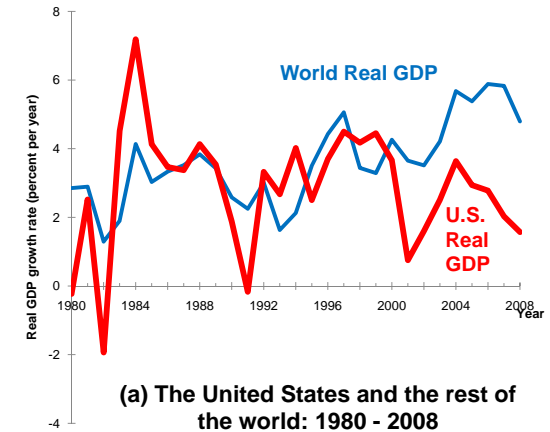
Year	Real GDP	Percentage Change
1988	6742.7	
1989	6981.4	3.54
1990	7112.5	1.88
1991	7100.5	-0.17
1992	7336.6	3.33
1993	7532.7	2.67
1994	7835.5	4.02

Note: These notes are incomplete without having attended lectures

29

Economic Growth and Fluctuations

- Economic Growth Around the World
 - Figure 3(a) shows the growth rate of real GDP in the United States alongside that of the world average growth rate.



Source: IMF World Economic Outlook Database, October 2008

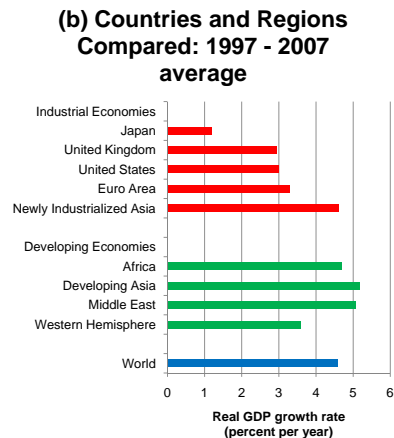
Note: These notes are incomplete without having attended lectures

30

Economic Growth and Fluctuations

- Economic Growth Around the World

- Figure 3(b) compares the growth rate of real GDP in the United States with those of other countries and regions.
- The economies of Asia have grown persistently faster than those of the rest of the world.
- Industrialized countries are growing relatively slower than developing countries

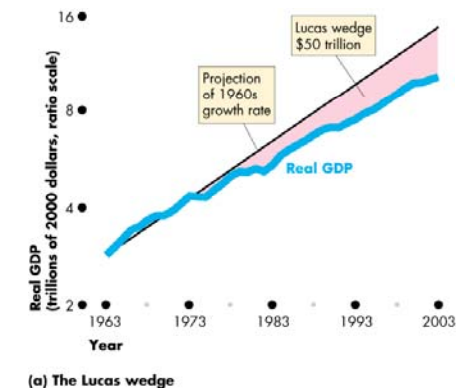


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31

Economic Growth and Fluctuations

- The Lucas Wedge
 - The **Lucas wedge** is the accumulated loss of output from a slowdown in the growth rate of real GDP per person.
 - Figure 4(a) shows that the U.S. Lucas wedge is some \$50 trillion or five year's GDP.

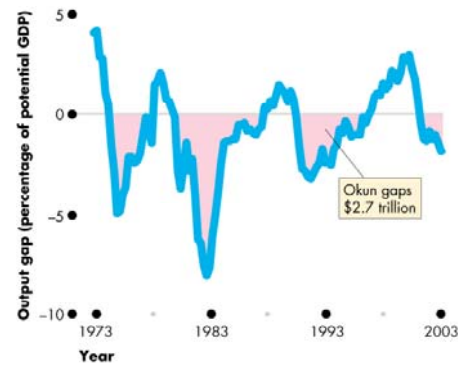


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32

Economic Growth and Fluctuations

- The Okun Gap
 - The **Okun gap** is the gap between potential GDP and actual real GDP and is another name for the **output gap**.
 - Figure 4(b) shows that the Okun gaps since 1973 are \$2.7 trillion or about 3 months real GDP.



(b) The Okun gap

33

Note: These notes are incomplete without having attended lectures

Benefits and Costs of Economic Growth

- The main benefit of long-term economic growth is expanded consumption possibilities, including more health care for the poor and elderly, more research on cancer and AIDS, more space exploration, better roads, more and better housing, and a cleaner environment.
- The costs of economic growth are forgone consumption in the present, more rapid depletion of nonrenewable natural resources, and more frequent job changes.

34

Note: These notes are incomplete without having attended lectures

Production (Real GDP) as a Benchmark

- In Macroeconomics, we compare what happens to different variables in terms of how it relates to production in the economy (i.e. how does inflation, or unemployment relate to real GDP?)
- Definition:
 - **Procylical**: the variable moves with the business cycle (i.e. it *increases* when production *increases* and vice versa)
 - **Countercyclical**: the variable moves in the opposite direction of the business cycle (i.e. it *increases* when production *decreases* and vice versa)
 - **Acyclical**: does not move with the business cycle

35

Note: These notes are incomplete without having attended lectures

Introduction to Key Macro Concepts

- **Economic Growth and Fluctuations**
- Jobs and Unemployment
- Inflation
- Surpluses and Deficits
- Macroeconomic Policy Tools

36

Note: These notes are incomplete without having attended lectures

Jobs and Unemployment

- Jobs (Job Creation)
 - The U.S. economy created around 2 million jobs a year, on average during the 1990s.
 - However, this number fluctuates a lot and since 2001 the pace of job creation has been slow. Since the beginning of 2000, the U.S. economy has created approximately 720 thousand jobs a year on average

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37

Unemployment

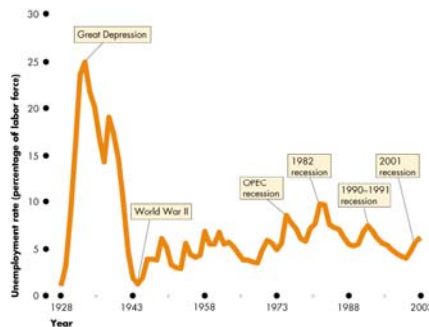
- **Unemployment** is a state in which a person does not have a job but is available for work, willing to work, and has made some effort to find work within the previous four weeks.
- The **labor force** is the total number of people who are employed and unemployed.
- The **unemployment rate** is the percentage of the people in the labor force who are unemployed.
- A **discouraged worker** is a person who available for work, willing to work, but who has given up the effort to find work.

Note: These notes are incomplete without having attended lectures

38

Jobs and Unemployment

- Unemployment in the United States
 - Figure 5 shows the unemployment rate in the United States since 1926.
 - During the 1930s, the unemployment rate hit 25 percent
 - The lowest rate occurred during World War II at 1.2 percent

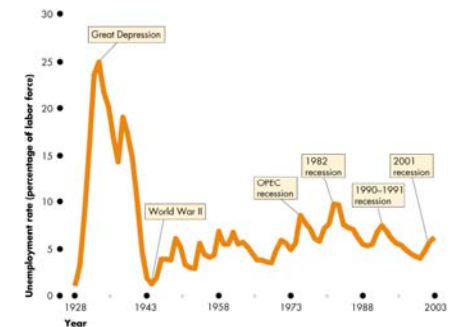


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39

Jobs and Unemployment

- During recent recessions, the unemployment rate increases
- The unemployment rate has averaged 6 percent since World War II

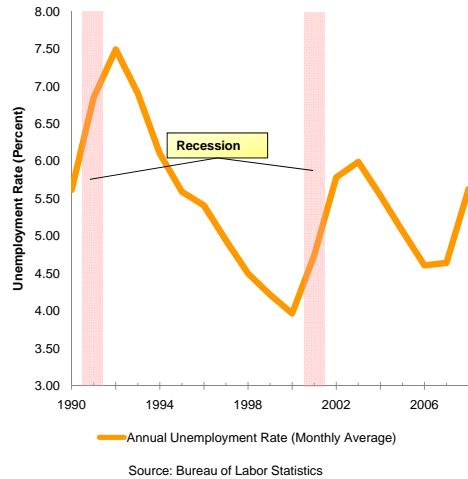


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40

Jobs and Unemployment

- In this latest 2008 recession, the unemployment rate (as of December 2008) was at 6.7 percent.
- The figure to the right shows how the unemployment rate has changed over the most recent cycle.

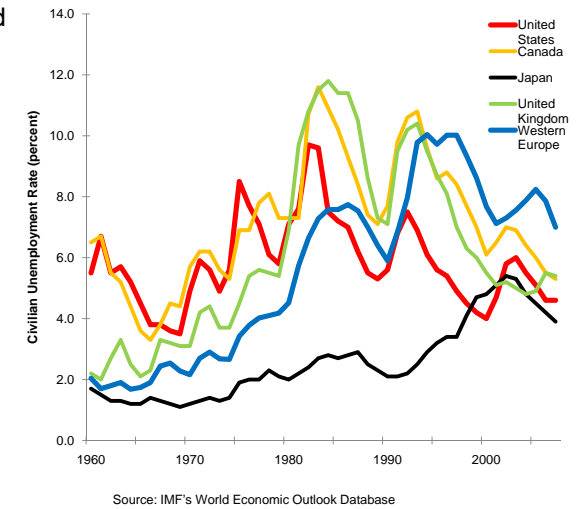


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41

Jobs and Unemployment

- Unemployment Around the World
 - Figure 6 compares the unemployment rate in the United States with those in Western Europe, Japan, Canada and the United Kingdom.
 - In the 1960's – 1970's, U.S. unemployment, on the average, was higher than the other countries shown.
 - More recently, US unemployment has declined relative to the other countries.



Note: These notes are incomplete without having attended lectures

42

Jobs and Unemployment

- Why Unemployment Is a Problem
- Unemployment is a serious economic, social, and personal problem for two main reasons:
 - Lost production and incomes
 - Lost human capital
- The loss of a job brings an immediate loss of income and production—a temporary problem.
- A prolonged spell of unemployment can bring permanent damage through the loss of human capital.

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43

Introduction to Key Macro Concepts

- Economic Growth and Fluctuations
- Jobs and Unemployment
- Inflation
- Surpluses and Deficits
- Macroeconomic Policy Tools

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44

Inflation

- **Inflation** is a process of rising prices.
- We measure the **inflation rate** as the percentage change in the **average** level of prices or the **price level**.
- The Consumer Price Index — the CPI — is a common measure of the price level used to calculate inflation.
- An alternative measure of inflation, called “**core inflation**” uses the CPI in its construction, except the price index used to construct core inflation does not include any food or energy prices (which tend to be fairly volatile).

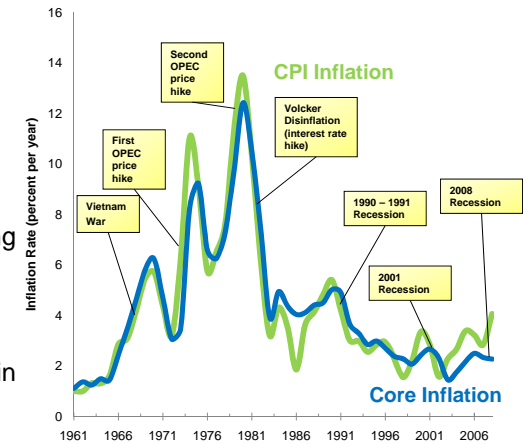
Note: These notes are incomplete without having attended lectures

45

Inflation

- Inflation in the United States

- Figure 7 shows the inflation rate in the United States since 1961.
- Inflation was low during the 1960s
- Inflation increased during the 1970s
- Inflation was lowered in two waves during the 1980s and 1990s



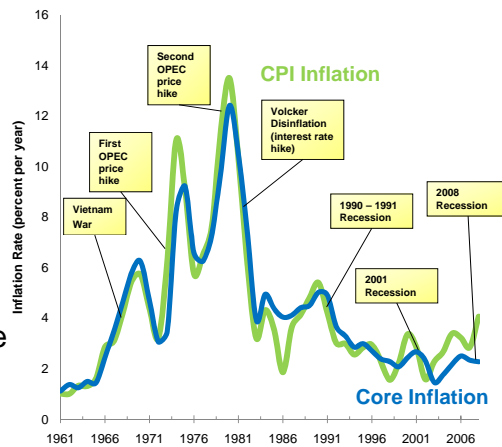
Source: FRED - St. Louis Fed Economic Data

46

Note: These notes are incomplete without having attended lectures

Inflation

- The inflation rate fluctuates, but it is always positive — the price level has not fallen during the years shown in the figure.
- A falling price level — a negative inflation rate — is called **deflation**.



Source: FRED - St. Louis Fed Economic Data

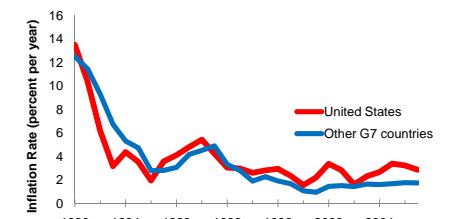
47

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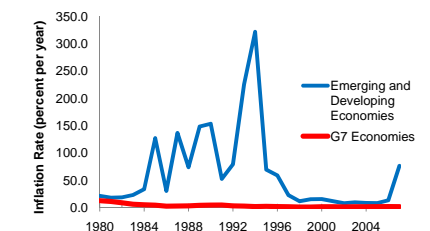
Inflation

- Inflation Around the World
 - Figure 9 shows the inflation rate in the United States compared with other countries.
 - U.S. inflation has been similar to that in other industrial countries
- U.S. inflation has been much lower than that in developing countries

(a) United States and Other Industrialized Countries



(b) Developing Economies versus G7 Economies



Source: IMF's World Economic Outlook Database

48

Note: These notes are incomplete without having attended lectures

Inflation

Is Inflation a Problem?

- Unpredictable changes in the inflation rate are a problem because they redistribute income in arbitrary ways between employers and workers and between borrowers and lenders.
- A high inflation rate is a problem because it diverts resources from productive activities to inflation forecasting.
- Eradicating is costly because it brings a period of greater than average unemployment.

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49

Introduction to Key Macro Concepts

- Economic Growth and Fluctuations
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50

Surpluses and Deficits

Domestic/Government Budget Surplus and Deficit

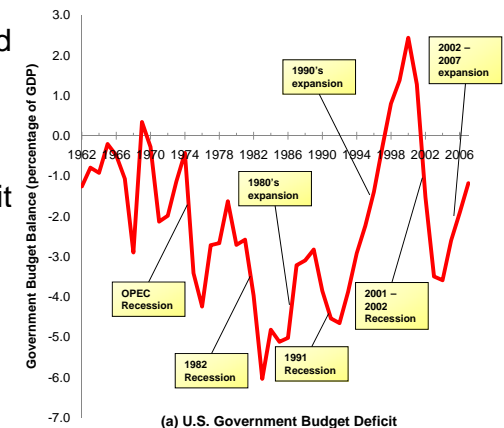
- If a government collects more in taxes than it spends, it has a **government budget surplus**.
- If a government spends more than it collects in taxes, it has a **government budget deficit**.

Note: These notes are incomplete without having attended lectures

51

Surpluses and Deficits

- Figure 10(a) shows the changing surplus and deficit of the federal and provincial governments in the United States since 1971.
- Persistent federal deficit during the 1970s through 1990s.
- Surplus from 1998 to 2001
- More deficits following.



Source: Congressional Budget Office

Note: These notes are incomplete without having attended lectures

52

Surpluses and Deficits

International Surplus and Deficit

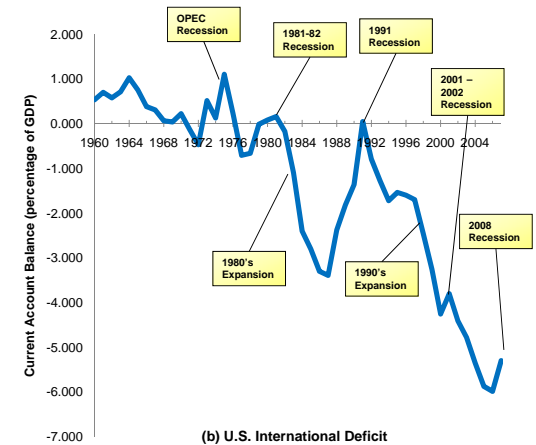
- If a nation **imports** more than it **exports**, it has an **international (trade) deficit**.
- If a nation **exports** more than it **imports**, it has an **international (trade) surplus**.
- The **current account** deficit or surplus is the balance of exports minus imports plus net interest paid to and received from the rest of the world.

Note: These notes are incomplete without having attended lectures

53

Surpluses and Deficits

- Figure 10(b) shows The U.S. current account balance since 1960.
- Persistent current account deficit since 1983
- The deficit has swollen during the past few years



Source: Bureau of Economic Analysis

54

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Introduction to Key Macro Concepts

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55

Macroeconomic Policy Challenges and Tools

Five widely agreed policy challenges for macroeconomics are to:

1. Boost economic growth
2. Keep inflation low
3. Stabilize the business cycle
4. Reduce unemployment
5. Reduce government and international deficits

Note: These notes are incomplete without having attended lectures

56

Macroeconomic Policy Challenges and Tools

Two broad groups of macroeconomic policy tools are :

- **Fiscal policy**—making changes in tax rates and government spending
- **Monetary policy**—changing interest rates and changing the amount of money in the economy

Review Questions:

1. What is Economic Growth and how is the long term growth rate measured?
2. What is the difference between real and potential GDP?
3. What is a Business Cycle and what are its phases?
4. What is a recession?
5. What is unemployment?
6. What are the main costs of unemployment?
7. What is inflation and how does it influence the value of money?
8. How is inflation measured?
9. What determines a country's budget deficit? What determines its international deficit?
10. How do the unemployment rate, inflation rate, and the deficits move with regards to the Business Cycle?