

Chapter 1 Introduction (latest revision August 2004)

As we begin our study of Macroeconomics, the 20th century has recently come to an end. And what a century it was! So many of the most wonderful and horrible events that occurred in the 20th century were economic events. And so many of the wonderful and horrible non-economics events were influenced by economic ones. Therefore, in order to understand the history of the 20th century, we need to understand these economic events.

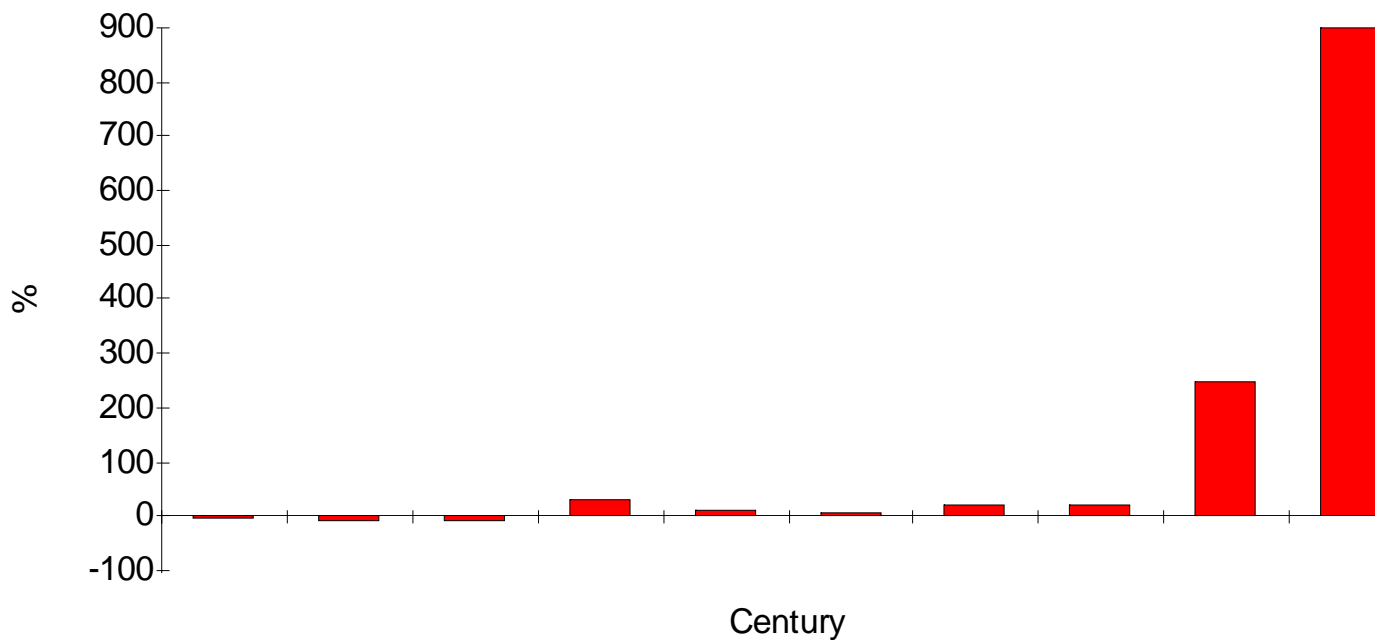
This course is called **Principles of Macroeconomics**. Macro refers to “large”. In this course, **we will discuss large groups of people and things**. So we will not ask the question “what determines your standard of living or my standard of living?”. But we will ask the question “what determines the standard of living of the entire nation?”. We will not ask the question “do you have a job?”. But we will ask the question “how many Americans have jobs and how many are unemployed?”. We will not ask the question “what affects the price of a product such as gasoline?”. But we will ask the question “what affects the prices of all products sold in the United States?”. Our focus will be on these large groups, which we call **“aggregates”**. By focusing on these aggregates --- the overall standard of living, overall employment and unemployment, overall prices, and others --, we will be examining the principles by which economies operate. And by doing this, we will also be focusing on those events that we need to consider to understand much of the history of the 20th and early 21st centuries. Let us examine some of these events briefly.

1. Growth in the Standard of Living

Perhaps the most significant story of the 20th century was the enormous growth in the ability to produce goods and services, which determines our standard of living. Let us first look at some numbers. The bar graph on Page 2 shows that the ability to produce goods and services around the world grew very little between the year 1000 and the year 1800. Then, it grew about 250% in the 19th century, a remarkable performance. But in the 20th century, production of goods and services increased 900%. This means that every person on the planet had nine times more goods and services in the year 2000 than in the year 1900. This economic performance is absolutely astonishing. If we focus just on the United States, the result is even more striking. The total production of goods and services rose from approximately \$350 billion in 1900 to over \$9,000 billion at the end of 1999 (measured in the constant prices). *We produce more than twenty-five times the amount we produced a century ago.* And the average work year to produce these goods has fallen from over 3,100 hours to about 1,730 hours, allowing people much more time for leisure pursuits. *It takes less than 1/5 the amount of work time to feed a family as it did 100 years ago.*

Let us examine the meaning of these numbers. Imagine a very rich person a century ago. This person would have a very large home, perhaps with ten or more rooms. There might also be a summer home. And the person might have several servants. But there would be no central heating. Every room would be heated from its own fireplace. There would be no electric lights. There would be no telephones and obviously no Internet. Travel would be by coach and would be very slow. A trip across the country would take a week by rail in each direction. Access to health care would be very limited. And a trip to the hospital was more

Growth in World Production Per Person,



likely to create illness than to cure it. A male born in 1900 would expect to live into his late forties while a female would expect to live into her early fifties. (In 1900, only half of a birth cohort would be alive at age 40, compared to 95% today.) In 1900, 92% of males age 60 to 64 and 80% of males age 65 and over were still working. Today, these figures are 50% and 14%. For entertainment, one would either have to go to a live performance or one would have to play a musical instrument at home – activities available only to the richest people. *The 20th century is remarkable not only for the enormous number of new goods developed* --- improved health care (allowing many more people to live to an advanced age), radio, television, automobiles, airplanes, central heating, electric power, stereo systems, computers, and on and on. *The 20th century is also remarkable in the way that these goods have become available to people of all income groups.* Indeed, only the richest 10% of the population in 1900 had incomes that exceeded the poverty line of today. The story of this growth in the ability to produce goods and services is the topic of Chapter 2.

Growth in the ability to produce goods and services, which had been quite rapid, slowed considerably in the 1970s and 1980s. People who had gotten used to rapid rises in their incomes now saw their incomes rise slowly, if at all. In response, the lifestyles of Americans changed dramatically. *First, American families became more likely to have several wage earners.* One enormous social change of the past thirty years was the dramatic increase in the proportion of wives, and especially mothers of small children, in the labor force. *Also, as incomes increased less than they expected, Americans have saved less of their incomes, become deeper in debt, married later in life, and had fewer children.* The difficulties that people felt as a result of incomes increasing less than expected formed the heart of the winning campaign for the Presidency of Bill Clinton in 1992 (“I feel your pain.”) This slowdown in the growth in the standard of living will also be considered in Chapter 2.

2. Recessions and Depressions

While Americans experienced remarkable growth in their standards of living in the 20th century, this growth did not occur evenly throughout the century. Instead, Americans experienced periods of rapid growth in their standards of living followed by periods of decline --- a phenomenon known as **the business cycle**. *A period during which production (and therefore the standard of living) is increasing is known as an expansion.* The expansion that began in March of 1991 and lasted until March of 2001, is the longest expansion in American history. Expansions are periods in which incomes are rising and unemployment is declining. *The end of an expansion is known as a peak. Following the peak, there has commonly been a period during which production declines. This period is known as a recession.* If the decline in production is especially severe, the period is known as a **depression**. In Chapter 13, we will discuss the **Great Depression of the 1930s**. In 1932, production in the United States was only about three-fourths of the amount that had been produced in 1929. As we will see later, most recessions are relatively short; the typical recession lasts for less than one year. But in the 1930s, production in the United States remained at a low level for the entire decade. As you might guess, recession and depression are associated with declining incomes and increased numbers of unemployed people. Indeed, in 1932, fully one-fourth of American workers were unemployed. As we will see, unemployment causes enormous problems not only for those who experience the unemployment but for the rest of the society as well. *In the decade of the 1990s, unemployment fell to very low levels. Since 2001, unemployment has risen.* The unemployment rate stood at 5.6% in June of 2004. This is above the rate that existed in 2000 (4%) but well below the rate that existed in 1932 (25%). The business cycle and the experience of unemployment are the topics of Chapter 3.

3. Inflation

Inflation refers to a period during which prices in general are rising. Goods and services that you would have paid \$190 to buy in 2004 would have cost you only \$9.80 in 1913. Someone who had an income of \$37,000 in 2004 would actually be able to buy no more than someone who had an income of only \$6,000 in 1965.

Inflation is the topic of Chapter 4. There, we will evaluate the measures of inflation. You may be concerned about trying to compare 2004 to 1913 or to 1965. After all, people buy so many things that didn't even exist in these earlier years. And some of the products we buy today, such as televisions and automobiles, are so much better than similar products in earlier years. In Chapter 4, we will see how the government tries to provide valid measures of the rise of prices in general. We will also evaluate just how successful the government has been. Based on the government's measures, we will examine the record of inflation in the United States over the 20th century. Two points will be significant when we examine this record. *First, while prices in the United States rarely rose by very much, they have risen steadily.* Indeed, since 1954, there is no year in which prices in general in the United States actually fell. *And second, there was one period during which prices rose very rapidly. This was the decade of the 1970s (actually 1969 to 1981).*

You might be wondering why we should consider inflation as a problem. After all, even though prices are higher, Americans are obviously better off now than they were in the 1960s.

Chapter 4 will consider this issue as well. There you will see that inflation has had some major effects on American life. The American economy performs much better when inflation is low or non-existent. The United States would be better-off today had we never experienced the inflations of the past. Later chapters will examine the reasons for the existence of inflation and the policies that were undertaken to reduce it.

4. Globalization

The opening of the United States to the rest of the world was another of the major events of the second half of the 20th century. In fact, there had been some considerable opening to the rest of the world in the last part of the 19th century. But this was reversed, and the American economy was quite cut off from the rest of the world for the first half of the 20th century. In the early 1950s, only about 3% of all goods and services produced in the United States were **exported**, that is sold to people in other countries, compared to about 12% today. Indeed, exports of goods grew from about only \$10 billion in 1950 to about \$700 billion today. American producers of goods are much more likely to be affected by events occurring around the world than was true earlier.

The story for imports is even more dramatic. Imports have grown more than 100 fold. Today, approximately 70% of American companies that produce goods face some significant competition from companies in other countries. One other point is significant. In 1950, American exports exceeded American imports. This was indeed true for most of the years of the 20th century up to the late 1970s. *Since the late 1970s, however, Americans have spent more on goods from other countries than has been earned by selling goods to people in these other countries. This is called a trade deficit.* Indeed, in 2004, the United States had a whopping trade deficit of more than \$400 billion. If you or I have a deficit (meaning that one spends more than one earns), you or I would make up the difference by borrowing. So it has been for the United States; *to pay for its trade deficits, the United States has borrowed greatly from people in other countries.* The causes of these trade deficits and the problems to the American economy that result from them will be considered several times throughout the course, but especially in Chapter 8 and Chapter 26.

Another aspect of globalization has been the increase in foreign direct investment. This means that one company owns and controls a company located in a foreign country. In the 1950s and 1960s, there were a large number of American companies who owned companies in other countries. For example, General Motors has been the largest producer of automobiles in Great Britain, France, and Mexico. McDonalds is located on the Champs Elysee in Paris and on the Ginza in Tokyo. Disney has theme parks in Europe and in Japan. And so on. In the 1980s, the situation reversed. Many foreign companies located in the United States. Honda opened a company in Ohio to make Accords while Nissan opened a company in Tennessee. Sony is located in San Diego as are several Japanese banks. Nintendo bought the Seattle Mariners baseball team. There was an outcry by Americans in the 1980s. But that seems to have subsided as foreign direct investment has declined. Whether foreign direct investment is a good thing or a bad thing for the American economy or for other economies will be considered in Chapter 26.

A final aspect of globalization has been the rise in the importance of international institutions. Many of these institutions have been the subject of much controversy. For example, in November of 1999, many people protested vigorously in Seattle against the **World Trade Organization (WTO)**, the successor to the **General Agreement on Trade and Tariffs (GATT)**. In early 2000, people were seen protesting in Washington D.C., this time against the **International Monetary Fund (IMF)** and the **World Bank**. For much of the postwar period, the world has been greatly influenced by the **European Economic Community (EEC)**, which later evolved into the **European Union (EU)**. We will consider the important role played by each of these institutions throughout this course, but especially in Chapters 26 and 28.

5. The Increase in the Role of Government in the Economy

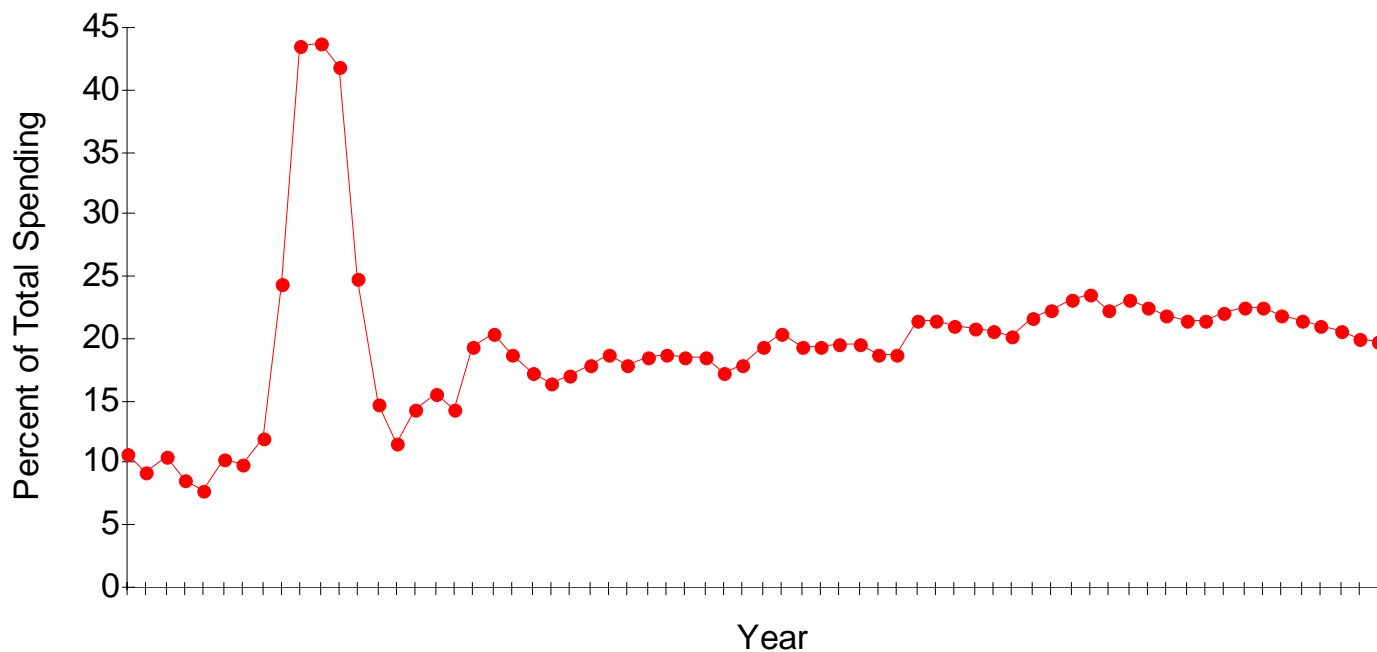
One of the most significant political changes of the 20th century was the increased responsibility of the federal government for the performance of the American economy. Economic problems existed, of course, in the 19th century. But people didn't blame the government for them and didn't expect the government to fix them. Economic problems were treated much as we would treat natural disasters or diseases today.

The change in the role of government began with the Great Depression of the 1930s. *First, the government has come to have a larger presence in the economy.* Examine the chart below. In 1930, only about 10% of all of the goods and services produced in the United States were bought by a government agency. During World War II, this rose to nearly 45% before falling back. But following the end of World War II, there was a steady rise in the proportion of goods and services produced in the United States that were bought by government agencies. This proportion reached its peak of over 23% in the middle 1980s. Since then, this proportion has declined, but very slightly.

The rise of government spending as a percent of total spending by Americans reflects two important changes. *One is the rise in the importance of spending for defense during the period of the Cold War. The other is the rise, beginning in the 1930s, of what has been called the "welfare state".* In Chapter 17, we will examine government spending and especially the two largest programs of the "welfare state": **Social Security** (the program of income protection for retirees as well as some others) and **Medicare** (the program to pay for health care for people over age 65). As late as 1959, spending on Social Security was less than \$10 billion and Medicare did not exist. In 2000, the federal government spent \$406 billion on Social Security and another \$202 billion on Medicare.

The growing importance of government spending naturally led to a growth in the means to pay for this spending --- taxes. At the beginning of the 20th century, there was no income tax and no Social Security tax. The federal government received over 90% of its revenues from tariffs --- taxes on imported products --- and excise taxes on selected products such as alcohol and tobacco. *As late as the mid 1930s, only about five cents of every dollar earned by Americans went to the federal government in taxes. Today, about twenty cents of every dollar earned goes to the federal government in taxes (and an additional ten to fifteen cents of every dollar earned goes to state and local governments in taxes).* The tax system has

Government Spending 1934-2000



become extremely important in people's lives. In Chapter 18, we will examine the federal income tax and the Social Security tax in some detail. We will also describe some recent reforms of the tax system. We will see that reform of the tax system was a major part of the economic policies of President Reagan (1981 – 1989). Notable changes to the tax system also occurred in 1964, under President Kennedy, in 1968, under President Johnson, in 1975 under President Ford, in 1990, under President Bush, in 1993, under President Clinton, and in 2001 and 2003 under President George W. Bush.

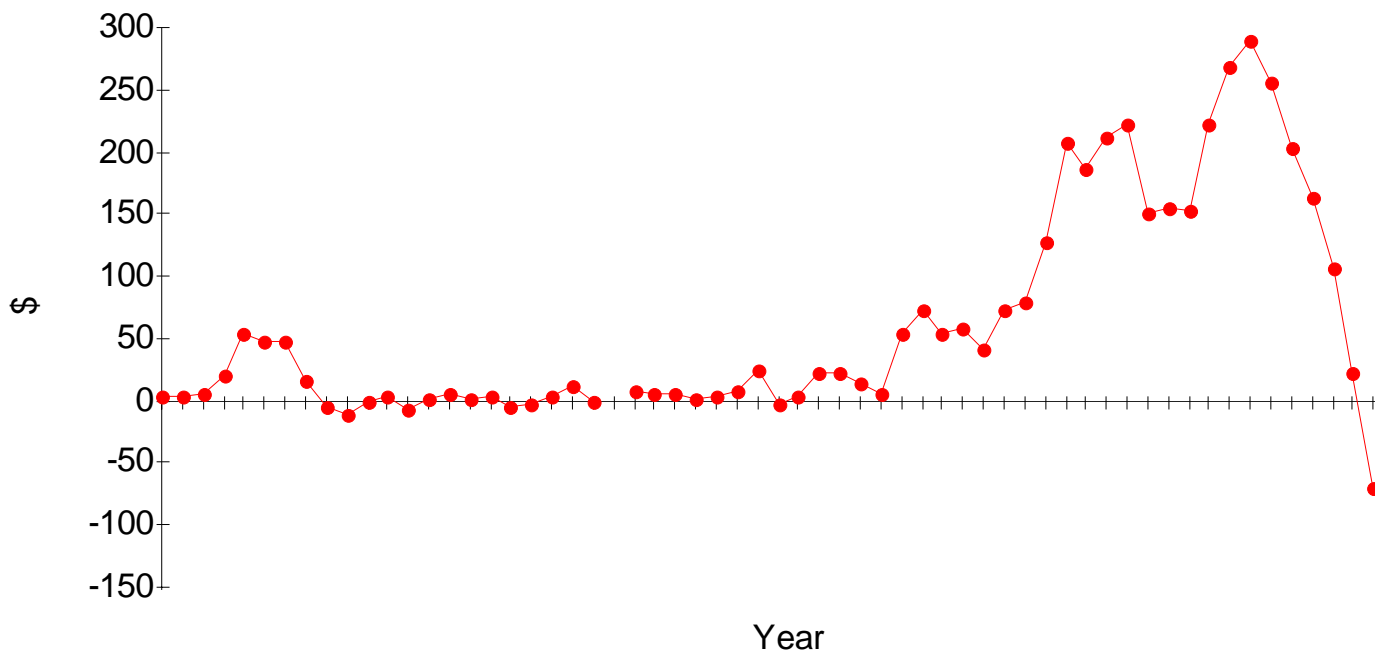
In the election of 1932, an incumbent President (Herbert Hoover) was defeated as a result of the poor state of the American economy. The new President (Franklin Roosevelt) assumed responsibility for getting the country out of the Great Depression. Since that time, governments have been charged with the responsibility of maintaining good economic performance. Presidents are given credit when economic performance is good and are blamed when it is bad. The tool that the government has to bring about good economic performance is called **fiscal policy**. "Fiscal" is from the Latin word for government. *Actually, there are two kinds of fiscal policy. First, there is a deliberate change in government spending to try to eliminate recessions or inflations. And second, there is a deliberate change in the tax system to try to eliminate recessions or inflations.* The use of fiscal policy was, and still is, controversial. It took until the election of President Kennedy in 1960 for fiscal policy to be attempted in the United States. The Kennedy tax decrease of 1964, a case we will examine, was considered a great success. In the mid 1960s, it was believed by many economists that fiscal policy could be used to assure that recessions would never occur again. Unfortunately, the record for fiscal policy since 1965 is not a good one. Major recessions occurred in 1969, in 1974, in 1980, in 1990, and again in 2001. And as noted above, there was a huge problem

of inflation throughout the 1970s and early 1980s. Fiscal policy was either impotent to solve these problems or was used ineptly. Today, economists have much less faith in the ability of the government to manage the economy through fiscal policy so that we can avoid the problems of recession or inflation.

Perhaps the greatest failure of fiscal policy was the persistence of **budget deficits**. *The government has a budget deficit when it spends more than it takes in as tax revenue.* Examine the chart on the next page. There you will see that the government had a budget deficit every year from 1961 to 1998 (except for a very small surplus in 1969). These budget deficits grew very large in the early 1980s. In 1982, the budget deficits exceeded \$100 billion for the first time. The largest budget deficit of that period was incurred in 1992 --- over \$290 billion. Like you or me, if the government spends more than it takes in, it must make-up the difference by borrowing. However, unlike you or me, the government has not had to actually pay back its borrowing. *Instead, the borrowing accumulates into what is called the national debt.* The national debt is not the debt of the nation; instead, it is the debt of the federal government. At the end of World War II, this debt totaled \$260 billion. By 1980, the national debt had risen to \$900 billion. As of 2004, the national debt was about \$7.3 trillion. So over 80% of the national debt arose from borrowing that took place since 1980. *From 1998 to 2001, the federal government had budget surpluses. This means that the government spent less than it took in.* What to do with these surpluses was a major subject of debate in the 2000 election. But since 2001, the budget deficits have reappeared. Indeed, the budget deficit for the year ending in September 2004 is expected to be an all-time record of well over \$400 billion. In Chapter 19, we will examine why the budget deficits occurred so consistently, why these budget deficits might have been harmful to the American economy, and whether the national debt is something that we need to be concerned about. The budget deficit of 2004 should be a subject of debate in the 2004 election.

As with the changes in the role of the federal government, the 20th century had enormous changes in the financial system of the entire world. *When the century began, many countries of the world, including the United States, were on what was called the Gold Standard.* In this system, the number of dollars in existence (called the “*money supply*”) was directly related to the amount of gold held by the United States. The United States went off of the Gold Standard in 1934. *After World War II, a new system was substituted in its place, the Bretton Woods System* (named for the small New Hampshire resort where the system was developed). But this too was forced out of existence in 1973. In Chapters 12 and 20, we will examine what these systems were, why they had to be eliminated, and what has replaced them. To understand the changes in the financial system, we need to explain what money is, how it is created, and why it is so important. These are the subjects of Chapter 21. *We especially need to examine the institution that has become the most important in the world in determining economic performance --- the Federal Reserve System (known as the “Fed”).* Chapter 21 will consider how the Federal Reserve System is organized. Chapters 22, 23, and 27 will show how the Federal Reserve System grew in importance throughout the 20th century and will examine the behaviors of the Governors of this system. These behaviors are called “*monetary policy*” – *changing the money supply (the number of dollars in existence) in order to influence the performance of the economy.*

Budget Deficits



6. The Changes in Economic Thinking Over the 20th Century

Economists have thought about the manner by which capitalist economies operate for a long time. This thinking has greatly influenced the policies of Presidents and Congresses. *From the beginning of the century up to the Great Depression, economic thinking was dominated by the views of people we call the Classical economists.* Their ideas had actually originated in the 18th century. *Classical economists believed that an economy has ways to cure itself of recession or inflation in a short time if simply left alone.* Their views are analogous to your body's ability to rid itself of the common cold if you simply rest. Just as you don't need to go to a doctor to get rid of a cold, the economy did not need any action on the part of government in order to cure itself of recession. These views will be discussed in detail in Chapter 12.

The beliefs of the Classical economists became hard to accept as a result of the Great Depression of the 1930s. Here was a severe economic problem that did not go away on its own. The Depression period lasted more than twelve years and was not over when America entered World War II. In the 1930s, and *especially from 1940 to 1970, American economic policy came to be dominated by the views of a British economist, John Maynard Keynes (pronounced "Canes").* Those who have followed his ideas are called *Keynesians*. Keynes argued that the ability of an economy to cure itself of recession no longer operated. *If an economy entered a recession, the recession could go on and on, and perhaps even worsen, much as a cancer will grow if left untreated. Government action would be necessary to end the recession. And this government action relied on fiscal policy --- changes in government spending or in taxes.* Most Democrats and Moderate Republicans hold to some version of the Keynesian view. The period from 1945 to 1970 is the heyday of the Keynesian view,

known as the *Keynesian Revolution*. The Keynesian approach will be explained in detail in Chapters 14 through 19.

After World War II, it seemed as though the views of the Classical economists had been disproved. But they have been resurrected. *One aspect of the Classical view reappeared as what is called “Monetarism”*. Monetarism began in the middle of the 1950s. But it did not become influential until the early 1970s. From 1970 until the 1990s, however, it was of major importance in understanding the policies that were undertaken. Monetarism stresses the importance role played by the money supply in determining economic performance. Because of Monetarism, economists now agree that the most powerful people in affecting the American economy (and indeed the world economy) are those in charge of the Federal Reserve System. Monetarism will be explained in Chapters 23 and 24. *Another aspect of the Classical view reappeared as Supply-side Economics*. This view, largely associated with the policies of President Reagan, but also important to the policies of President George W. Bush, involves the idea that production will increase greatly if the tax system is changed so that taxes are lower. Monetarism and Supply-side Economics are ideas held exclusively by political conservatives. They desire to see a reduced role for the government in the economy. However, the holders of these ideas often differ greatly among themselves.

The policies undertaken during the 20th century and early 21st century were greatly influenced by debates between holders of these various views (Marxist views will not be considered in this course). Today, there is more consensus about the ways by which economies operate than was true in the past. However, we simply don't know enough to resolve all of the disagreements. Disagreements among ways of looking at the American economy will continue to be important in American policy discussions for years to come.

Summary and Plan of the Book

The 20th century was one of the most remarkable periods in human existence. And many of the aspects that made it remarkable concerned Economics. The 20th century was a period in which the growth of people's standard of living greatly exceeded any previous period. People of “modest means” today have a standard of living well beyond that of wealthy people one hundred years ago. Economic growth has come to be taken for granted. When this growth slowed in the 1970s and 1980s, people's lifestyles changed in very dramatic ways. The 20th century was also a period in which the United States (and indeed the world) experienced deep recessions, including a Great Depression, in which large numbers of people suffered from unemployment. It was a century that saw a dramatic period of inflation that still greatly influences policy-makers. It was a century in which we moved from national economies to a global economy. The American economy is connected to the economies of other nations to a far greater extent than it has ever been before. And it was a century in which the role of government in the American economy increased substantially. Government has been given great responsibility for the performance of the economy. At times, government has handled this responsibility well. At other times, it has not. The growing importance of government has been the source of the main economic controversies of the century. Liberal people (Keynesians) are generally supportive of the government having greater responsibility

for the performance of the economy. Conservative people (Monetarists and Supply-siders) are generally opposed to the large role now played by the government.

This chapter has described the main topics of this course. The remainder of Part I will examine the economic problems of the 20th century in more detail. Chapter 2 will examine the growth in the standard of living and its slowdown in the 1970s and 1980s. Chapter 3 will examine the business cycle and especially the problem of recession and high unemployment. And Chapter 4 will examine the problem of inflation.

Part II of the book involves the tools necessary to analyze the ways by which economies operate. The principles explained there give the course its name: “Principles of Macroeconomics”. Part III of the book involves the period from 1900 to the end of World War II in 1945. It describes the history of the pre-Depression period and the Great Depression. In this part, the views of the Classical economists are explained. Part IV of the book involves the history of the period of the Keynesian Revolution from 1945 to 1970. In this part, the Keynesian approach to economic thinking will be developed in detail. Part V of the book involves the history of the period from 1970 to 1990. In this part, the conservative approaches to economic thinking, Monetarism and Supply-side Economics, are explained. Finally, Part VI of the book involves the history of the 1990s and considers where we are as the 21st century begins. Both Parts V and VI examine the growing globalization of the economy.

Test Your Understanding

This is an introductory chapter. All of the points in this chapter will be developed in later chapters. There are no In-Class or Homework Assignments to go with this chapter. However, this chapter has introduced several new words. In studying, you should explain the meaning of each of the following terms:

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|------------------------------|----------------------------|
| 1. Aggregates | 11. Budget Deficit |
| 2. Economic Growth | 12. National Debt |
| 3. Business Cycle | 13. Gold Standard |
| 4. Recession (or Depression) | 14. Money Supply |
| 5. Expansion | 15. Federal Reserve System |
| 6. Globalization | 16. Monetary Policy |
| 7. Trade Deficit | 17. Classical Economics |
| 8. Foreign Direct Investment | 18. Keynesian Economics |
| 9. Welfare State | 19. Monetarism |
| 10. Fiscal Policy | 20. Supply-side Economics |

How to Use This Textbook

You are probably familiar with the American system of Higher Education. In our system, the responsibilities of the teacher and the student are quite different from those found in high schools. A three-unit class meets for three class hours each week (a class hour is 50 minutes). This is a short amount of time. So, the teacher uses the time to explain the material that the student is responsible to know. The teacher also provides reading and practice assignments to help the student learn the material and assesses how well the student has learned the

information. *But the responsibility for the learning rests with the student.* In a three-unit class, you are expected to spend six hours at home each week teaching yourself the material of the course. This textbook is designed so that you can make the most efficient use of this time at home.

Each chapter of this text is designed to go with one class meeting of 1 ½ class hours. *It is absolutely essential that you read and learn the material of the chapter before coming to the class meeting.* Each chapter has between 8 and 20 pages of text and begins with a statement of Objectives. *Before you read the chapter, read the Objectives carefully.* They may not mean much to you on your first reading, but they will guide your reading. That is, they will tell you what you are looking for as you read. Each chapter will define certain new terms. Like all disciplines, Economics has its own language. *Definitions of new terms will always be found in italics and in red.* Each chapter will be concerned with one or more issues of Macroeconomics. *Major statements concerning these issues will always be highlighted in bold type and in blue.* The use of italics and bold type, as well as red and blue colors, should focus your attention and should allow you to go back to find information quickly.

It is important that you interact with the textbook. At various places in each chapter, you are assessed on your learning. **Test Your Knowledge** will be followed by questions that relate to the important concepts of the chapter. Try to answer these questions. If you cannot answer a question, look up the answer in the reading preceding it. *Do not read on until you can successfully answer all of the questions.* **Test Your Understanding** will be followed by questions that require analysis and application of the concepts. Again, do all of these questions before reading on. If you cannot answer a question, feel free to ask the instructor in person or by E-mail. *Be sure that you can do all of these analysis questions before you take the quiz on the chapter.* Once you have come to the end of the chapter, go back to the Objectives on the first page. Answer all of the questions listed there. If you cannot answer a question, go back to the text to find the answer. At this point, it is a good idea to work with one or more members of the class if you can. *When you can answer all of the points in the Objectives without looking up the answers, you are ready to take the Practice Quiz.*

Macroeconomics is a technical subject which many students find difficult. But if you follow these procedures, you should have little trouble succeeding in the course. You will also not need to spend more than the amount of time you are expected to study for this course. And, hopefully, you will have learned much about the way to prepare yourself for other classes. Good luck!