U.S. Politics and the American Macroeconomy

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Abstract

This book considers the interrelation among macroeconomic politics, macroeconomic policymakers, macroeconomic policies, and macroeconomic performance. This interaction is examined using the expectational Phillips curve model, which measures macroeconomic outcomes in terms of inflation and unemployment. In this book, the subject of macroeconomic politics mainly focuses on voter behavior, presidential re-election ambition, and political party priorities. These factors influence the macroeconomic policy actions of the president, Congress, and the central bank. This analysis takes into account both fiscal and monetary policies. Our examination of citizen sentiment is based on rational voter theory and the median voter model. We compare the effects of macroeconomic farsightedness versus shortsightedness among voters. We also contrast the conservative versus liberal perspectives on macroeconomic policy and performance. The empirical component of our analysis examines the electoral and partisan political business cycle effects upon the U.S. economy, and we find evidence of idiosyncratic effects during the time frame of 1961 through 2014. Finally, we discuss macroeconomic influence on various measures of voter sentiment, such as presidential job approval as well as presidential and congressional election outcomes.

Keywords

Contents

Acknowledgments

CHAPTER 1

Introduction: Political Macroeconomy

Macroeconomics and National Politics

This book will discuss some of the major concepts, issues, and evidence on the interrelation between American national politics and the U.S. macro-economy. We will focus on two main politico-macroeconomic subjects. The first subject pertains to the influence of electoral, partisan, and other political pressures upon macroeconomic policy and performance. The second subject involves the reverse effect. This relates to the influence of macroeconomic policy and macroeconomic performance upon electoral outcomes, partisan pressures, and other political factors.

   The political macroeconomy may be expressed in terms of a triangle-flow diagram. This mechanism consists of three elements: (1) macroeconomic politics, (2) macroeconomic policy, and (3) macro-economic outcomes. Figure 1.1 shows the triangle-flow diagram.

Macroeconomic policies: Fiscal and monetary policies. Fiscal policy consists of taxes and government spending. Monetary policy consists of money supply and interest rates.

Macroeconomic politics: The policymakers consist of the president, Congress, and the Fed. Partisan, electoral, and other political pressures affect the actions of the macroeconomic policymakers.

Political macroeconomy

Macroeconomic performance: GDP, unemployment, inflation, interest rates, and so forth.
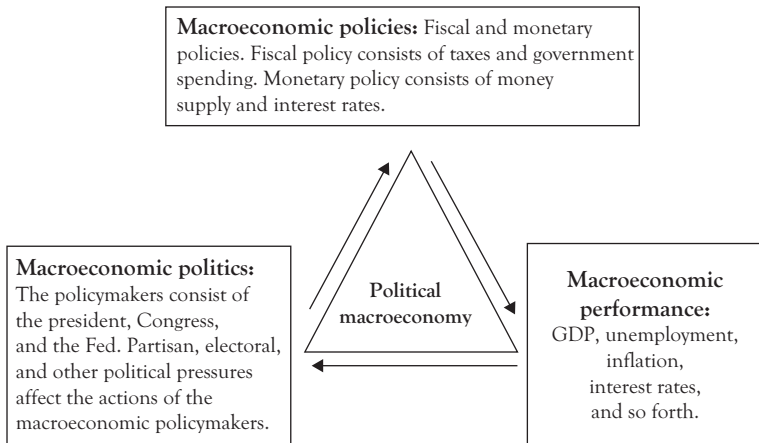
Figure 1.1 Triangle flow of the political macroeconomy

The politics, policy preferences, and interactions among the macroeconomic policymakers determine the macroeconomic policies. These policies, in the form of fiscal and monetary measures, affect the performance of the macroeconomy in terms of gross domestic product (GDP), unemployment, inflation, interest rates, and other economic indicators. As a feedback-loop mechanism, the condition of the economy then impacts the macroeconomic preferences, opinions, and priorities of the macroeconomic policymakers.

Macroeconomic Politics Influence Macroeconomic Policies

Macroeconomic politics refer to national political pressures that affect the macroeconomic policy actions of elected politicians and the central bank (Federal Reserve or Fed). The three main policymakers consist of the president, Congress, and the Fed. Throughout this book, we will emphasize two main types of political pressures upon macroeconomic policy. The two categories of political influence consist of electoral politics and partisan politics.

- *Electoral macroeconomic politics*: The public exerts political pressure on the presidency and Congress to adopt macroeconomic policies that attain the economic interests of voters. Electoral influence occurs through the voting process as well as public opinion. Some factors that weigh upon citizen sentiment and voting behavior include media activity and the views of opinion leaders in society. The incumbent in the White House as well as Congressional legislators typically seek reelection. In determining macroeconomic policy, elected officials take into account the macroeconomic preferences of voters in order to improve their reelection prospects.
- *Partisan macroeconomic politics*: Politicians tend to support the preferred macroeconomic policies of their political parties. Political parties exert pressure upon member politicians to adhere to partisan economic policy platforms. According to partisan influence theory, the Republican Party is relatively inflation averse in its macroeconomic policy preference, while the Democratic Party is relatively unemployment averse.

Electoral and partisan political pressures impact the macroeconomic policy preferences and the actions of the macroeconomic policymakers. Macroeconomic policies consist of both fiscal measures and monetary measures. Fiscal policy mainly consists of the influence of taxes and government spending upon macroeconomic outcomes. Fiscal policy also affects the government budget deficit and the national debt. Fiscal policy is determined through the government budgetary process by the political interaction between Congress and the president. This takes place in the context of the macroeconomic policy agendas of the conservative and liberal political parties. The president and Congress thus take into consideration voter economic attitudes as well as the partisan macroeconomic platforms of the two main political parties when implementing the direction and level of fiscal policy.

Monetary policy occurs through the actions of the Fed, also referred to as the central bank or the monetary authority. The Fed chairman and the Federal Open Market Committee within the Fed are the main monetary policymakers. Monetary policy refers to the influence of money supply and interest rates upon the macroeconomy. A simplifying assumption that is often made in political macroeconomic analysis is that monetary policy tends to coincide with the macroeconomic preference of the president. The realism of this assumption will be discussed in Chapter 9.

In particular, two key political influences occur regarding the monetary policy actions of the central bank. The two factors consist of the presidential appointment of the Fed chairman as well as periodic Congressional hearings that involve testimony from the Fed chairman. Additionally, monetary policy decisions are susceptible to political pressure from financial special interests, the media, opinion leaders, and public sentiment.

Macroeconomic Policies Impact Macroeconomic Performance

Chapter 2 will discuss some of the main macroeconomic indicators such as GDP, inflation, unemployment, and interest rates. An understanding of the main macroeconomic measurements provides a foundation for a subsequent consideration of politico-macroeconomic effects. We will also review the phases of the business cycle in Chapter 2.

The business cycle refers to the up-and-down pattern of macroeconomic performance over time. An economic expansion or boom in the business cycle signifies a growing economy in terms of rising real GDP (RGDP) and declining unemployment. Conversely, a recession in the business cycle signifies a declining economy in terms of decreasing RGDP and worsening unemployment. The performance of inflation during the up-phase versus the down-phase of the business cycle depends on the underlying macroeconomic supply and demand factors that will be discussed in Chapter 3.

In Chapter 3, we will consider the theoretical interrelation among the three variables of inflation, unemployment, and real economic growth in the short run and in the long run. The theoretical framework that we will use to examine political macroeconomic influences is the expectations-augmented Phillips curve model. This macroeconomic theory focuses on the cause–effect linkages between inflation and unemployment. We will also discuss the empirical relation of Okun's law. This relation expresses the connection between GDP and unemployment. The three indicators of GDP, unemployment, and inflation are relevant to political macroeconomic analysis because these variables influence voter sentiment as well as presidential and Congressional election outcomes. These three economic variables are also important factors regarding the preferred macroeconomic agendas of the left and right political parties.

Through legislation such as the *Employment Act of 1946* and the *Full Employment and Balanced Growth Act*, the federal government has the responsibility to promote strong macroeconomic performance. Three major measures of a strong economy include high RGDP growth, low unemployment, and low stable inflation. Chapter 4 covers the subject of macroeconomic policy, also called stabilization policy. Macroeconomic policy affects macroeconomic performance, as measured in terms of inflation, unemployment, economic growth, as well as the overall pattern of the business cycle.

The direction of macroeconomic policy may be either expansionary or contractionary. Expansionary policy focuses on the attainment of the two goals of high RGDP and low unemployment. These two macroeconomic objectives are generally compatible with each other. High economic growth tends to occur alongside low or declining unemployment as employers hire more workers to produce more goods and services.

A macroeconomic trade-off, however, sometimes occurs regarding inflation. In some circumstances, the two goals high economic growth and low unemployment conflict with the other objective of low inflation. It is not always possible to simultaneously achieve low inflation along with high economic growth and low unemployment. The two goals of low unemployment and high economic growth may come at the long-run economic expense of greater inflation. For example, during the Kennedy–Johnson period of the 1960s, expansionary policy led to a decrease in unemployment from 6.7 to 3.6 percent, while inflation rose from 1.1 to 4.2 percent.

The opposite of expansionary policy is contractionary policy. The main goal of contractionary policy is to decrease inflation. This objective, however, may occur at the short-run expense of declining real economic growth and worsening unemployment, possibly even a recession. Policymakers do not wish for higher unemployment. However, in some instances higher unemployment is unavoidable in order to reduce inflation. For example, in the early 1980s, during the first term of President Reagan, the Fed sought to curb high inflation that was inherited from the two oil shocks of the 1970s. Through contractionary macroeconomic policy, inflation fell from around 10 percent in 1981 to about 3 percent in 1983. This, however, came at the cost of a severe recession and a rise in unemployment from approximately 7½ percent to more than 9½ percent during the same period.

Macroeconomic Performance Impacts Macroeconomic Politics

The condition of the macroeconomy has repercussion effects on voter attitudes and behaviors in several ways, such as:

- Presidential election outcomes
- Congressional election outcomes
- Presidential job approval
- Voter participation rates
- Macropartisanship
- Societal happiness index
- Consumer sentiment

These various measures of voter sentiment will be discussed in Chapter 10. For instance, through the democratic process of voting, the public holds the president and Congress accountable for the condition of the economy. The conventional theory (*responsibility hypothesis*) asserts that a strong economy tends to boost presidential popularity, which improves the likelihood that the incumbent or the candidate from the incumbent political party will gain reelection to the presidency. If the sitting incumbent is retiring from the White House and not seeking reelection (perhaps because of the two-term limit rule), then a strong economy improves the likelihood that the new presidential candidate from the incumbent party will win the White House. Three theories of macroeconomic influence on presidential job approval and presidential election results will be discussed in the chapter.

The incumbent political party, or the in-party, refers to the party that has control of the White House prior to a presidential election. The opposition political party, or the out-party, is the one that is not in control of the White House. If a Democratic president is in the White House preceding an election, then the Democratic Party would be the in-party or incumbent party. If a Republican is in the White House prior to an election, then the Republican Party would be the in-party.

According to the responsibility hypothesis, a weak economy tends to lessen the prospect that the in-party will win reelection to the White House. Citizens are inclined to penalize the in-party with a low level of reelection votes if a sluggish economy takes place. The in-party consequently has a strong motivation to promote policies that achieve strong economic performance in order to improve reelection chances.

Intersection Between Macroeconomic Performance and Macroeconomic Politics

The subject of the political macroeconomy may be illustrated in terms of a Venn diagram. Figure 1.2 shows the union and intersection of the political and economic spheres of the political macroeconomy.

Macroeconomic policy occurs at the intersection between the political and macroeconomic domains of the political macroeconomy. Macroeconomic politics—in the form of electoral and partisan pressures—impact
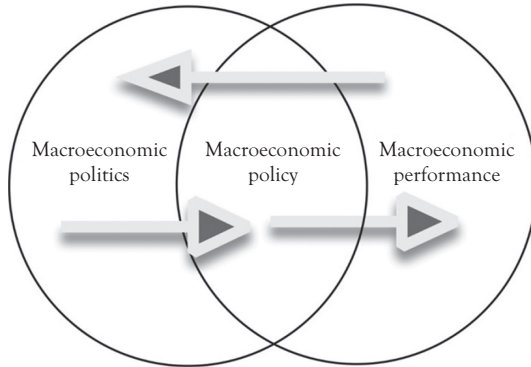
Figure 1.2 Intersection and union of the two spheres of the political macroeconomy

the macroeconomic policy decisions made by the president, Congress, and the Fed. Macroeconomic policies subsequently influence macroeconomic events such as GDP, unemployment, and inflation, as well as the up-and-down pattern of the business cycle.

Macroeconomic policy may be expansionary or contractionary depending on whether the main objective of the policymakers (as influenced by partisan and electoral pressures) is to reduce unemployment or fight inflation. The level of macroeconomic performance impacts voter attitudes, election results, and partisan economic priorities, which then influences the next round of macroeconomic policy decisions by policymakers.

Political Macroeconomy of Peace and Prosperity Versus War and Poverty

Another type of politico-macroeconomic effect involves the relation between the economic conditions of a country versus its political stability. Although not an absolute generalization for all circumstances, the greater the economic prosperity in a nation, the stronger the probability for political tranquility. Correspondingly, international economic prosperity among nations increases the likelihood for peaceful relations among those countries.

For instance, the economic advancement and corresponding international trade and financial flows among western industrialized countries in the post-World War II era played a major role in the relatively peaceful

relations among those nations. Countries that conduct substantial international commerce with one another are less likely to go to war against one another. The reason is essentially economic in nature. The destructiveness of war disrupts the profitable flow of economic activity among nations.

Besides the positive connection between economic prosperity and political peace and stability, a reverse effect also occurs. Economic crises, income inequality, and poverty tend to worsen political discontentment and civil strife. Economic plight is also a contributing factor to terrorism and war. A classic example of this generalization was the economic collapse and hyperinflation of Germany in the aftermath of World War I. As a result of the 1919 Treaty of Versailles and the 1921 London Ultimatum, Germany was economically penalized for initiating World War I. War reparations and other stringent measures were placed upon Germany as a retribution.

As a strategy to manage the heavy war debt, Germany monetized much of its financial obligations. This action of excessive printing of money (monetization) to pay international war debt caused hyperinflation and economic breakdown in Germany in the early 1920s. Additionally, the subsequent worldwide Great Depression of the early 1930s compounded Germany's economic turmoil.

This economic catastrophe fueled a political climate of fascist extremism in Germany and elsewhere in the world (e.g., Italy, Japan). As a result of this unstable economic and political environment, Hitler was able to seize political and military power in Germany. This series of economic and political crises ultimately led to the Nazi war machine and the outbreak of World War II in Europe.

In summary, economic prosperity tends to promote political stability and peace while poverty and economic collapse often breed social dissatisfaction and even war. This interconnection between macroeconomic well-being and political stability is summarized in Table 1.1.

Table 1.1 Peace and prosperity versus war and poverty

Economic condition	Political consequence	Politico-macroeconomic outcome
Economic prosperity	Political stability and tranquility	Peace and prosperity
Economic breakdown	Political instability and discontent	War and poverty

Macroeconomic Perspectives, Political Ideologies, and Political Parties

Two main perspectives occur with respect to the macroeconomy. The two theories consist of Classicalism versus Keynesianism. These two competing economic viewpoints perceive the role of market forces versus the role of government in fundamentally different ways. In subsequent chapters, we consider some implications of these two economic perspectives upon political ideology, macroeconomic policy and performance, political party preferences, and voter behavior. For example, the two macroeconomic viewpoints of Classicism versus Keynesianism tend to be associated with the two opposing political ideologies of conservatism versus liberalism.

The classical macroeconomic perspective asserts that unhindered market forces tend to be relatively stable, efficient, and flexible. According to this view, market forces normally yield an efficient equilibrium that enables economic participants to become better off through mutually beneficial and voluntary transactions of money in exchange for products. If unimpeded by government action that distorts the economy, market forces usually create win-win or positive-sum results for both purchasers and producers. Any market failures that may arise, according to the classical view, are generally short-lived. Flexible prices and competition among suppliers in the market system will normally remedy any economic inefficiency that could temporarily take place.

The classical macroeconomic perspective asserts that government economic policy is often inefficient, even if well-intentioned. Government economic activism frequently produces unforeseen and adverse economic consequences, according to the classical view. The government is usually not sufficiently well-informed to recognize what is best for economic society. Even if the government possesses altruistic economic motives, the policy actions that take place often create harmful unintended consequences.

According to classical macroeconomic sentiment, the state is less capable than decentralized market forces in knowing and implementing what is economically best for society. The flexibility inherent in decentralized market forces is more efficient than the blunt instrumentality of government controls over the economy.

The possibility of negative unforeseen consequences from an activist government upon the macroeconomy is referred to as government failure. For example, the state could mistakenly or shortsightedly pursue policy actions that overstimulate the macroeconomy in an attempt to increase economic growth or reduce unemployment. The negative result, however, could be higher inflation with no lasting benefit on economic growth. In addition, excessive governmental controls could end up overregulating, overtaxing, or otherwise overconstraining the economy in various ways, which could lead to sluggish economic growth.

According to the classical view, the role of the government in the economy should be relatively minor. This perspective prescribes low taxes, low government spending, and minimal government regulation of the business, labor, financial, and consumer sectors. Citizens with an economic perspective corresponding to the classical *laissez-faire* outlook tend to identify with the political ideology of conservatism. This viewpoint is generally consistent with the economic platform of the Republican Party and other conservative political movements, such as libertarianism.

In contrast to the classical outlook, the other main macroeconomic theory is Keynesianism. This macroeconomic viewpoint is named after John Maynard Keynes, the famous 20th century British economist. Keynes is well-known for advocating activist fiscal policy to address the Great Depression of the 1930s. According to Keynesianism, government intervention in the macroeconomy is sometimes necessary to resolve inefficiency that arises from imperfections in market forces. This is referred to as market failure as opposed to government failure.

According to Keynesianism, market forces may sometimes become unstable, inflexible, and inefficient. This perspective maintains that the private sector periodically experiences market failures, especially in the labor and financial markets. Disequilibrium may take place as a result of economic rigidities, bottlenecks, uncertainty, speculation, or excessive risk aversion. These market deficiencies sometimes produce detrimental macroeconomic consequences, including the episodic occurrence of severe recessions. The standard example of a major market failure, according to the Keynesian view, was the Great Depression of the 1930s. In contrast, many Classicists would argue that mismanagement of monetary policy by the Fed was a major cause of the Great Depression.

According to Keynesians, the government has a duty to intervene in the economy through macroeconomic policies in an attempt to resolve recessions that otherwise could end up being long and severe. To remedy the market failure of recession, the Keynesian view prescribes expansionary macroeconomic policies to boost macroeconomic demand, also referred to as aggregate demand. Keynesian macroeconomic stimulus seeks to create jobs and raise GDP.

For example, higher government spending, lower taxes, and reduced interest rates are standard Keynesian techniques aimed at remedying weak macroeconomic performance. Generally, citizens with a Keynesian macroeconomic outlook tend to identify with the liberal political ideology and the Democratic Party in the United States.

The conservative and liberal political parties thus adhere to differing partisan macroeconomic agendas. In Chapter 7, the partisan influence model will address some of these issues as well as the related matter of liberal and conservative partisan cycle effects in the macroeconomy. In particular, conservative presidencies tend to emphasize minimal government intervention in the economy, as well as macroeconomic policies that emphasize low stable inflation. Liberal presidencies, in contrast, tend to promote activist government macroeconomic policies that emphasize low unemployment.

The interconnection among the macroeconomic perspectives, political ideologies, political party preferences, and the roles of government versus market forces are summarized in Table 1.2.

Table 1.2 Classical view versus Keynesian view

Macro-economic perspective	Political ideology	Political party affiliation	Impact of market forces	Impact of government economic activism	Partisan macro-economic priority
Classical view	American political conservatism (also libertarianism)	Republican Party	Market forces generally efficient, if unimpeded by government	Government failure that worsens the economy	Low inflation emphasis
Keynesian view	American political liberalism	Democratic Party	Periodic market failures, such as recessions	Government activism can remedy market failures	Low unemployment emphasis

Median Voter Model and Political Business Cycle Effects

Chapter 5 discusses the theory of rational voter behavior, including the implications of the median voter model. The median voter model of citizen and policymaker behavior asserts that government actions (including macroeconomic policy) tend to align with the median voter's most preferred political or economic outcome. This outcome develops as a result of vote-maximizing behavior on the part of political candidates and political parties.

In connection with voter opinions and policymaker actions, we will consider political influence on macroeconomic policy and the corresponding pattern of the business cycle. In particular, chapters 6 and 7 will focus on the two main political business cycle (PBC) effects in the American macroeconomy. The two PBC effects consist of the electoral cycle and the partisan cycle. The electoral cycle effect refers to presidential manipulation of macroeconomic policy to create a transitory economic boom in an election year as an attempt to increase reelection votes. The partisan cycle, in contrast, refers to the effects of the differing macroeconomic agendas of the left and right political parties upon the business cycle.

Chapter 8 examines inflation and unemployment data in the U.S. economy for evidence of these two PBC effects during the half-century from 1961 to 2014. The results suggest that the partisan cycle effect occurred during Democratic presidencies. Macroeconomic outcomes during most Republican administrations, on the other hand, were compatible with the electoral cycle effect.

Chapter 9 considers some additional issues concerning the American political macroeconomy. For example, one of the key assumption of the partisan and electoral cycle theories is that the president is able to control and manipulate macroeconomic policy. We will examine the realism of this assumption. We also discuss the subject of macroeconomic predictability in response to stabilization policy. Finally, we will consider the issue of independence of the Fed.

Chapter 10 briefly surveys the subject of economic influence on voter opinions and behaviors, as well as other measures of citizen sentiment.

Table 1.3 National politics and the U.S. macroeconomy

Macro-economic performance and theory	Macro-economic policies	Macro-economic politics	PBC effects	Macroeconomic influence upon public sentiment
Inflation, unemployment, GDP (Chapter 2)	Fiscal policy: taxes, government expenditures (Chapter 4)	Voter preferences: presidential election influence (Chapters 5, 6)	Electoral cycle (Chapters 6, 8)	Presidential job approval, consumer expectations (Chapter 9)
Expectational Phillips curve framework (Chapter 3)	Monetary policy: money supply, interest rates (Chapter 4)	Political party preferences: partisan influence (Chapters 5, 7)	Partisan cycle (Chapters 7, 8)	Presidential vote, congressional vote (Chapter 9)

We consider macroeconomic influence upon the presidential vote, the congressional vote, and presidential approval. We also discuss economic influence upon other measures of public opinion and behavior such as macropartisanship, the voter participation rate, the social happiness index, and consumer sentiment. Finally, Chapter 11 summarizes the main ideas of this book and provide some concluding remarks on the American political macroeconomy.

Table 1.3 shows a chapter-by-chapter breakdown of the political macroeconomy topics that will be covered in this book.

CHAPTER 2

Macroeconomic Measurements and the Business Cycle

Introduction

This chapter will review some of the key indicators of macroeconomic performance. A strong grasp of these basic concepts is the first step toward an understanding of the interrelation between macroeconomic politics and the U.S. economy. Some of the main macroeconomic measurements include inflation, unemployment, interest rates, and gross domestic product (GDP) along with its underlying components. The business cycle is also an important aspect of the macroeconomy, which is discussed in this chapter. Additionally, this chapter reviews Okun's law, which denotes the inverse correlation between unemployment and GDP.

In connection with a review of the basic macroeconomic measurements, the next chapter will examine the theoretical cause–effect interrelation among the key macroeconomic variables. In the subsequent chapters, we will consider some of the major linkages between U.S. politics and the American macroeconomy.

Inflation

The inflation rate refers to the average percentage rate of change in prices during a particular time interval, such as one year. The federal government through the Bureau of Labor Statistics (BLS) estimates various categories of inflation. For example, different measures of inflation relate to the average price of consumer goods, the average price of producer goods, and the average price of all goods produced in the economy. The inflation

rate is determined by calculating the percentage rate of change in the corresponding price index. The price index is an estimate of the average price level of goods (www.bls.gov).

In the U.S. economy, consumer product price inflation over the last several decades since the early 1980s has been relatively mild, typically at a level of less than 5 percent. Low inflation is referred to as creeping inflation or walking inflation or mild inflation. The opposite of mild inflation is hyperinflation. This extreme inflation refers to a very severe rate of 1,000 percent or more in a one-year period. Hyperinflation is caused by massive printing of money by the central bank. This extreme inflation occurs as a result of monetization (printing money) to pay off high amounts of government debt, often associated with heavy war expenses.

Generally, inflation occurs in an economy when the central bank expands money supply at a rate that is substantially greater than the real economic growth rate. In the case of hyperinflation, money supply growth occurs at a percentage rate of many hundreds or even thousands of times greater than real economic growth. Although high monetization reduces the government debt burden, the hyperinflation that develops will tend to cause economic breakdown, often leading to recession or even a depression. Business production declines as a result of extremely high and unstable inflation. Business calculations become difficult and risky under conditions of hyperinflation, leading to substantial inefficiency and reduced economic activity.

Between the two outcomes, hyperinflation and mild inflation, is the effect of galloping inflation. An inflation rate of 100 percent per year, for example, would classify as galloping inflation. This high degree of inflation is also attributable to excessive printing of money by the central bank to pay off government debt, but the result is not as severe as hyperinflation.

Another type of inflation is the effect of disinflation. This refers to a declining inflation rate. Disinflation, for example, would occur if the inflation rate were to fall from 5 to 3 percent. Sometimes, the alternative term of *deflation* is used to mean the same thing as *disinflation*. However, a more correct usage of the term of deflation would refer to an overall decline in the average price level, or in other words negative inflation.

For example, deflation would take place if the inflation rate were to decline from 3 to –1 percent. Average prices become cheaper if deflation occurs. Deflation, however, does not normally take place in a growing economy because increasing demand for goods will pull average prices upward.

Nominal GDP Versus Real GDP

Probably the most important indicator of overall national economic performance is GDP. This measurement indicates the total volume of production of new goods and services in the macroeconomy. GDP equals the sum of economic expenditures on new final goods and services that are produced across all industries and throughout all geographic regions in a country. In the United States, GDP is estimated on a quarterly basis and an annual basis by the federal government through the Bureau of Economic Analysis (www.bea.gov).

GDP is measured in nominal terms as well as real terms. Nominal GDP (NGDP) denotes the dollar value of all new production of goods and services throughout the national economy based on the actual prices of the new products that are bought and sold. In other words, NGDP equals the quantity of all new final products multiplied by the respective prices of the goods and services.

The measurement of real GDP (RGDP), on the other hand, corrects for the distorting effect of changes in product prices over time (inflation) upon total output. In particular, NGDP tends to rise over time. This result, however, is attributable to two factors. NGDP rises partly because of more production of goods and services, and partly because of increasing product prices, in other words, inflation.

RGDP takes into account the effect of inflation and adjusts for its distorting impact on the measurement of total production in the economy. RGDP is essentially a quantity measurement for the total amount of new final goods and services that are produced. Mathematically, RGDP equals NGDP divided by the average price level (price index) of new goods and services. The price index for the whole economy is called the GDP deflator.

$$RGDP = NGDP \div GDP\ Deflator$$

If, for instance, NGDP were $20 trillion and the price index were equal to 150, then RGDP would be $13.33 trillion (=$20/1.5). To calculate RGDP, the price index is converted into decimal format, so that 150 becomes 1.5.

Correspondingly, the GDP growth rate denotes the percentage rate of change in GDP over a particular time interval, such as on an annual basis. Just as the GDP level is measured in nominal terms and real terms, GDP growth is also calculated in nominal terms and real terms. For most purposes, RGDP growth offers a better measure for the strength of the macroeconomy than NGDP growth. Similar to the calculation for the RGDP level, the RGDP growth rate discounts for the change in product prices over time. Mathematically, RGDP growth equals NGDP growth minus inflation:

$$RGDP \ growth = NGDP \ growth - inflation$$

Let us suppose that NGDP growth were equal to 6 percent. This nominal value denotes the percentage growth in new macroeconomic expenditures as measured in terms of the prices of goods. Let us also suppose that product prices were to rise by 6 percent. RGDP growth, in this case, would be equal to zero. The 6 percent increase in NGDP growth would be completely attributable to the 6 percent rise in prices. Consequently, the actual amount of new goods and services produced in the economy would remain unchanged. As a further example, let us suppose that inflation were 2 percent and NGDP growth were 6 percent. RGDP growth would consequently be 4 percent. Production of new goods would rise by 4 percent, while prices would increase by 2 percent.

RGDP growth provides an estimate of the percentage change in the quantity of new goods and services generated in the economy. Positive RGDP growth indicates an expanding or growing economy, while negative GDP growth indicates a contracting economy, usually associated with an economic recession.

Potential RGDP and the RGDP gap are two additional indicators of overall macroeconomic performance. Potential RGDP denotes the level of output that would occur if the macroeconomy were functioning at potential capacity and efficiency corresponding to full utilization of

all economic resources, including full employment of labor and capital. The RGDP gap, on the other hand, indicates the percentage difference between potential RGDP and the actual level of RGDP.

RGDP Gap = 100 × (Potential RGDP − Actual RGDP) ÷ Potential RGDP

For example, if potential RGDP were $20 trillion and actual RGDP were $19 trillion, then the RGDP gap would be 5 percent (=100 × (20 − 19)/20). This outcome would signify 5 percent inefficiency in the macroeconomy. Alternatively, let us suppose that the actual macroeconomy were operating at potential RGDP so that labor utilization was at full employment. Actual RGDP would therefore be equal to potential RGDP, and the RGDP gap would be zero. The economy would be efficient.

For a sluggish economy, the RGDP gap becomes a positive value. This occurs because actual RGDP would be less than potential RGDP. Conversely, if actual RGDP were temporarily greater than potential RGDP, then an overheated economy would occur. The RGDP gap would be negative in this instance. An overheated economy tends to cause higher inflation because strong macroeconomic demand drives up prices. The outcome of a negative RGDP gap, however, is a temporary phenomenon and cannot be sustained. Potential RGDP denotes the maximum level of RGDP than can be maintained over an extended period of time. Actual RGDP can only occur above potential RGDP for a relatively short time span, perhaps one year or so, until market forces cause actual RGDP to decline to the potential level.

Components of GDP

GDP equals the sum of four basic elements of macroeconomic activity. The four sectors consist of consumption expenditure (C), gross domestic private investment (I), government spending (G), and net exports (NX):

$$GDP = C + I + G + NX$$

Table 2.1 indicates NGDP and its four components.

Table 2.1 Components of Nominal GDP

	2012	2013	III 2013	IV 2013	I 2014	II 2014	III 2014
GDP (billions of dollars)							
Gross domestic product	16163.2	16768.1	16872.3	17078.3	17044	17328.2	17599.8
Personal consumption expenditures	11083.1	11484.3	11518.7	11653.3	11728.5	11870.7	12002
Goods	3741.9	3851.2	3865.3	3886.1	3890.6	3964.5	4011.5
Durable goods	1192.1	1249.3	1252.4	1261.5	1262.3	1298.4	1320.2
Nondurable goods	2549.8	2601.9	2612.9	2624.6	2628.4	2666.1	2691.3
Services	7341.3	7633.2	7653.4	7767.2	7837.8	7906.2	7990.4
Gross private domestic investment	2479.2	2648	2708.9	2745.2	2714.4	2843.6	2905.1
Fixed investment	2414.3	2573.9	2598.1	2654.6	2674.3	2743.4	2810.6
Nonresidential	1972	2054	2060.2	2118.7	2134.6	2191.2	2244.3
Structures	446.9	457.2	463	481.7	487.9	504.4	513.3
Equipment	904.1	949.7	948.8	980	979.5	1008.6	1038.2
Intellectual property products	621	647.1	648.4	657	667.2	678.2	692.7
Residential	442.3	519.9	538	535.9	539.7	552.2	566.4
Change in private inventories	64.9	74.1	110.7	90.5	40.1	100.3	94.5
Net exports of goods and services	−568.3	−508.2	−509.9	−462.9	−538	−549.2	−516.5
Exports	2194.2	2262.2	2268.4	2324.6	2284.7	2344.3	2366.5
Goods	1527.2	1562.8	1565.7	1614	1575.3	1623.3	1645
Services	667	699.4	702.7	710.7	709.5	721.1	721.4
Imports	2762.5	2770.4	2778.3	2787.5	2822.7	2893.5	2883
Goods	2306	2302.3	2308.6	2309.7	2341.5	2405.6	2393.7
Services	456.4	468.1	469.7	477.8	481.2	487.9	489.3
Government consumption expenditures	3169.2	3143.9	3154.7	3142.7	3139.1	3163.1	3209.3
Federal	1291.4	1231.5	1233.9	1216.2	1208.1	1210.5	1241.3
National defense	818	769.9	774.9	757.5	749.9	754.6	784
Nondefense	473.4	461.6	459	458.7	458.2	455.9	457.3
State and local	1877.8	1912.4	1920.7	1926.5	1931	1952.6	1968

Source: BEA

The table shows the level of NGDP in billions of dollars. Each of the four main components and various subcomponents of NGDP are also shown in the table. For example, during the third quarter of 2014, NGDP was about $17.6 trillion ($17,599.8 billion). Of this total amount, consumer spending was about $12 trillion, investment was $2.9 trillion, the level of net exports was about –$.517 trillion, and government expenditure was $3.21 trillion.

Consumer Spending and the Consumption Function

The largest component of NGDP is personal consumption expenditures, also referred to as consumption or consumer spending. This sector makes up nearly 70 percent of GDP in the U.S. economy (0.68 = 12/17.6). Consumption consists of three subsectors: durable goods, nondurable goods, and services. Durable goods are products that tend to last for a relatively long period of time. Some examples include automobiles, household appliances, furniture, and computers. Nondurable goods are products that are perishable. Examples of nondurable goods include food, clothing, and gasoline.

Services are consumption-related activities that are performed or provided by individuals rather than material products. Examples of consumer services include the service received from dining at a restaurant, watching a movie in a theater, or education in schools. Services are the largest subsector of consumer expenditures. The economy is therefore sometimes referred to as a service economy.

The most important determinant of consumption spending is disposable income. Disposable income is the level of household income that is available for spending and saving after all taxes are subtracted and all government transfers (such as social security and unemployment benefits) are added. The part of disposable income that is not spent goes to saving. The greater the level of income, the higher the level of consumer spending. The lower the level of income, the smaller the amount of consumer expenditures.

The relation between consumption and disposable income exhibits a stable pattern and is referred to as the consumption function. This relation is illustrated in Figure 2.1.
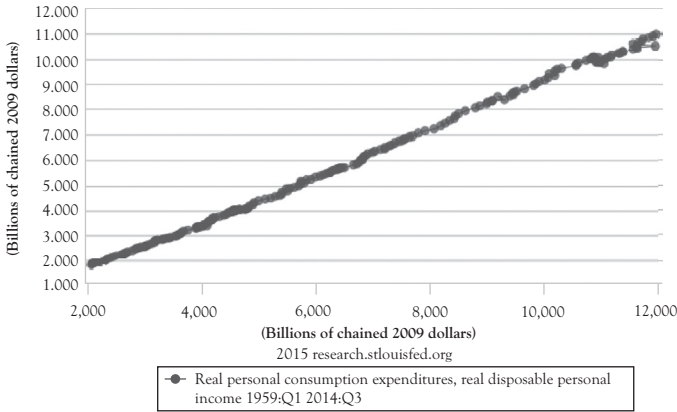
Figure 2.1 Consumption function

Source: Federal Reserve Economic Data (FRED)

In Figure 2.1, consumer spending is depicted along the vertical axis, while disposable income is displayed along the horizontal axis. The chart displays an upward-sloping linear pattern for consumption relative to income. In addition to income, some other determinants of consumer spending include wealth, household debt, and consumer confidence.

Economic Investment Versus Financial Investment

Two general categories of investment occur in the economy. They consist of economic investment and financial investment. These two kinds of investment are sometimes confused with each other. These two categories of investment are distinct, but interrelated. Economic investment is directly included in the GDP measurement and is referred to as gross private domestic investment. Financial investment, on the other hand, is not included in the GDP measurement. However, financial investment functions as a major source of funds used by firms to purchase economic investment.

Financial investment consists of financial assets that serve as a store of wealth from a saving perspective. Some examples of financial investment include stocks, bonds, government securities, and bank account deposits. The main purpose of financial investment from a saving point of view is to increase income and wealth through interest earnings, dividends, and capital gains.

From a business perspective, economic investment or real investment refers to the use of funds associated with financial investment for the purpose of buying new plant, equipment, and tools to increase production capacity. For example, businesses sell stocks and bonds to the public as a source of funds to purchase plant and equipment. Economic investment is an economic resource, along with labor and natural resources. Financial investment, however, is not a resource but it is a funding method used to purchase the resource of economic investment.

Gross Private Domestic Investment and Investment Demand

Gross private domestic investment is an important component of GDP regarding future economic growth. Investment, however, is a smaller element of GDP than the larger sector of consumption expenditures. Additionally, economic investment fluctuates up and down to a greater degree than consumer spending. Economic investment is often considered as the engine for economic growth. This is because investment directly affects production capacity. When economic investment is strong, the total amount of the capital stock resource in the economy rises, which adds to production potential. When economic investment is high, the capital stock increases substantially, and the economy grows rapidly. When investment is low, the capital stock rises more slowly, and the economy tends to be sluggish or even contract. Essentially, the total capital stock equals the accumulation of economic investment over time, excluding the effects of depreciation (the wearing out) of capital. Correspondingly, economic investment equals the change in the total capital stock, excluding the effects of depreciation.

Figure 2.2 shows the up-and-down pattern of real economic investment in relation to RGDP.

The dashed line shows the economic investment growth rate while the solid line shows RGDP growth. The graph indicates that a strong level of investment tends to pull economic growth upward. A low level of investment, on the other hand, drags RGDP growth downward, sometimes into the recession range of negative RGDP growth. The vertical shaded regions in the graph denote periods of economic recession.
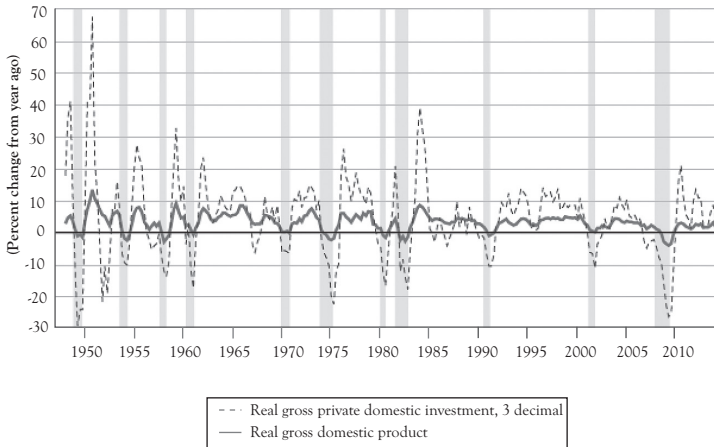
Figure 2.2 Relation between gross private domestic investment and GDP

Source: FRED

Total private domestic investment consists of three main types of expenditures, as expressed in Table 2.1. They consist of nonresidential investment (or business investment), residential investment, and the change in business inventories. Business investment refers to new plant, equipment, factories, building, structures, and other construction as well as tools that are used by firms in the production of goods and services. Residential investment refers to the construction of housing, apartments, and other residential structures. The change in business inventories is also included in investment. Inventories refer to unsold goods that firms intend to eventually sell. The change in inventories will often rise when businesses sell less than expected, which is frequently a signal that the economy is growing less than anticipated. The change in inventories often decreases when sales are greater than expected, which often suggests the economy is growing faster than anticipated.

A major determinant of economic investment is interest rates. Both business and residential investments are inversely related to interest rates. When interest rates are high, the cost of borrowing rises. Economic investment consequently declines as firms borrow less funds for purchases of new plant and equipment. If interest rates are low, then the cost of borrowing decreases. Consequently, economic investment and economic
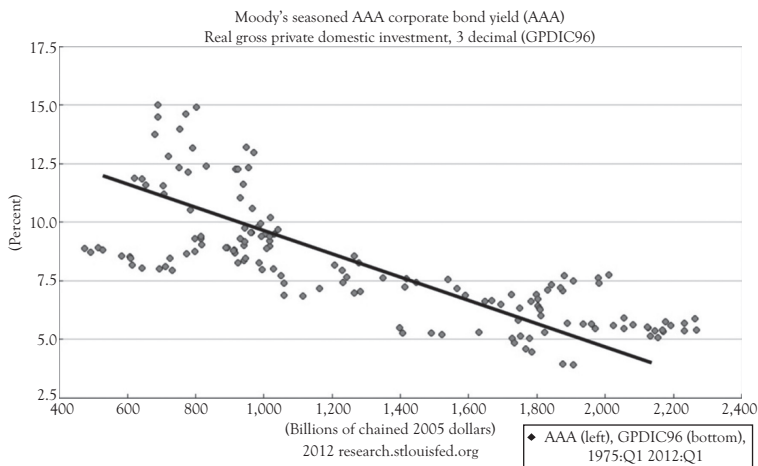
Moody's seasoned AAA corporate bond yield (AAA)
Real gross private domestic investment, 3 decimal (GPDIC96)

Figure 2.3 Relation between investment and the interest rate

Source: FRED

growth tend to rise as firms borrow more funds to purchase more new plant and equipment. The relation between economic investment and the interest rate is sometimes referred to as the investment demand relation.

Figure 2.3 shows the inverse correlation between the AAA corporate bond interest rate and economic investment.

The AAA corporate bond rate is measured along the vertical axis, and the real gross domestic investment is indicated along the horizontal axis. The downward pattern of the data, although not perfectly correlated, shows a general inverse correlation between the interest rate and investment. The downward sloping line may be referred to as the investment demand curve. The reason that the observation points do not fall perfectly on the investment demand line is because other factors besides the interest rate also affect investment, such as profitability, business expectations, technology, taxes, and government regulation of business.

Government Expenditures

Government expenditures make up almost one-fifth of GDP (0.18 = 3.21/17.6 from Table 2.1). The largest category of government spending at the federal level consists of military purchases, which was

approximately $784 billion in the third quarter of 2014. Some examples of government spending at the state and local levels include public education, law enforcement, and social welfare. Government spending also includes health care expenditures relating to the Medicaid and Medicare programs.

One category of government activity that is not directly included in GDP is government transfer programs. This is because no direct government purchases are involved. Transfer payments consist of a movement of funds from taxpayers to transfer recipients. Transfers do not appear in GDP until after the transfer income is spent on new goods and services by the recipients.

Social security is an example of a transfer program because the activity involves a transfer of income from wage earners in the form of a tax. The funds are transferred to retirees in the form of retirement income. If social security recipients then spend their social security income on new goods, such as food and clothing, then this economic activity will be included in GDP as consumption expenditure.

For many nations, government spending constitutes a larger share of GDP than the United States. This occurs because many countries such as Canada and the countries of western Europe have a more expanded system of government-provided health care than the United States. The issue of government spending and the corresponding issue of taxation and their impact on the macroeconomy is referred to as fiscal policy, which will be discussed in Chapter 4.

Net Exports or the Trade Balance

Net exports is also referred to as the trade balance. Net exports is the fourth major category of GDP. Net exports (NX) equals total exports (X) minus total imports (M). Since the mid-1970s, the level of net exports in the United States has been negative, indicating a trade deficit. Table 2.1 shows that the trade deficit was –516.5 billion dollars in the third quarter of 2014. Of this amount, total exports of goods and services were 2.3665 trillion dollars, while total imports were 2.883 trillion dollars ($NX = X - M = -0.5165$ trillion dollars = 2.3665 trillion dollars minus 2.883 trillion dollars).

Some other important indicators of international economic activity besides the trade balance include exchange rates, international investments, and the balance of payments. These international economic considerations, however, are not directly included in GDP, and are therefore excluded from our analysis of the political macroeconomy.

Unemployment

The unemployment rate provides an estimate for the percentage of the labor force who are jobless. Unemployed persons consist of individuals who do not currently have jobs, but who are actively seeking work through job applications, resumes, interviews, and so forth. The total labor force equals the summation of all persons who are working either full-time or part-time plus the number of individuals who are unemployed.

The unemployment rate measurement, however, excludes persons who are outside of the labor force. The out-of-the-labor-force category consists of individuals who are unable to work for various reasons combined with people who are capable of work but who choose not to seek employment. Some examples of persons who are out of the labor force include retired individuals, stay-at-home parents, children, institutionalized or disabled persons who are unable to work, and individuals incarcerated in prisons.

Approximately half of the population in the United States is in the labor force while about half of the population is out of the labor force. The unemployment rate, as estimated by the BLS, probably underestimates the full extent of the unemployment problem. For example, the BLS unemployment calculation does not take into account the effects of underemployment and discouraged workers.

Underemployment refers to individuals who are working only part time, but who would prefer to work full time. Additionally, the unemployment rate does not take into consideration whether employees are working in their preferred or trained occupations or not. Discouraged workers, on the other hand, denote individuals who are really unemployed, but who gave up actively searching for work out of frustration because of low prospects for jobs. Consequently, discouraged workers are excluded from the unemployment statistic, as measured by the BLS, until they begin to actively search for employment.

Natural Unemployment Rate: Structural Unemployment plus Frictional Unemployment

If the macroeconomy is operating at full efficiency and peak capacity at potential GDP, then all economic resources including labor would be fully and effectively utilized. Full employment of labor, however, does not mean that actual unemployment becomes zero. Even in a best-case scenario, some amount of unemployment is inevitable. This is because of the short-term effect of individuals who are temporarily out of work and between jobs because of job firings as well as job quits.

Instead, full employment of labor corresponds to what is called the natural unemployment rate. This is equal to approximately 5 to 6 percent. The natural unemployment rate denotes the efficient level of unemployment. The natural rate of unemployment is often referred to as NAIRU, which stands for the nonaccelerating inflation rate of unemployment.

The natural unemployment rate equals the sum of two subcategories of unemployment, which consist of structural unemployment plus frictional unemployment. Structural unemployment equals between 2½ and 3 percent, while frictional unemployment also equals about 2½ to 3 percent. This yields a natural unemployment rate of 5 to 6 percent.

$$\text{Natural Unemployment} = \text{Structural Unemployment} + \text{Frictional Unemployment}$$
$$(5 \text{ to } 6 \text{ percent}) = (2\tfrac{1}{2} \text{ to } 3 \text{ percent}) + (2\tfrac{1}{2} \text{ to } 3 \text{ percent})$$

Structural unemployment denotes the percentage of the labor force who are jobless because they lack sufficient job skills relative to the employment opportunities available. Lack of basic proficiency in reading, writing, math, and computer skills, as well as insufficient education or training are among the underlying causes of structural unemployment.

Because of intense competition in the global economy, many U.S. semiskilled workers in manufacturing industries have lost jobs as domestic factories have closed and relocated to developing countries with cheaper wages. Some laid-off factory workers fall under the category

of structural unemployment if they lack adequate work skills to be re-employed in other jobs. Structurally unemployed individuals often experience long-term joblessness because of insufficient work skills. Some structurally unemployed persons may face long periods of time without work, until they attain the necessary occupation skills to regain employment.

Besides structural unemployment, the other category of unemployment is frictional. This type of unemployment corresponds to individuals who are temporarily out of work, but who possess sufficient job skills to be rehired in a relatively short period of time, usually within a few weeks or a few months. Frictional unemployment actually has a beneficial effect upon the economy. Frictional unemployment contributes to labor productivity. This kind of unemployment signifies flexibility in the labor market. Frictional unemployment helps facilitate a better match between employers and employees, which promotes greater labor productivity and more efficiency.

Frictional unemployment refers to individuals who either quit or are fired, but subsequently are rehired within a short duration of time because of strong job skills. As a result, frictionally unemployed persons may obtain a better fit with the next employer in terms of job requirements and career interests. The greater is the compatibility between employee and employer, the higher will be the labor productivity and economic efficiency in the workplace.

Cyclical Unemployment or the Unemployment Gap

If the actual unemployment rate ends up being higher than the natural unemployment rate, then the labor market and therefore the macroeconomy would be in a state of inefficiency. The gap between actual unemployment and natural unemployment is called cyclical unemployment or the unemployment gap.

Cyclical unemployment provides a measure for the amount of slack or inefficiency in the labor market. Let us suppose that the actual unemployment rate were 7 percent while the natural unemployment rate is 5 percent. In this case, cyclical unemployment would be equal to 2 percent. Alternatively, let us suppose that the economy were operating

efficiently at the natural unemployment rate of 5 percent. In this instance, the unemployment gap and cyclical unemployment would be zero.

The actual unemployment rate is equal to the sum of structural unemployment, frictional unemployment, and cyclical unemployment.

$$
\begin{aligned}
\text{Actual Unemployment} &= \text{Natural Unemployment} \\
&\quad + \text{Cyclical Unemployment} \\
&= \text{Structural Unemployment} \\
&\quad + \text{Frictional Unemployment} \\
&\quad + \text{Cyclical Unemployment} \\
&\quad \text{or} \\
\text{Cyclical Unemployment} &= \text{Actual Unemployment} \\
&\quad - \text{Natural Unemployment} \\
&= \text{Unemployment Gap}
\end{aligned}
$$

Business Cycle

The business cycle refers to the up-and-down pattern of macroeconomic performance over time. Business cycle fluctuations may be expressed in terms of various macroeconomic indicators, such as the level of RGDP, the RGDP growth rate, unemployment, or even inflation or interest rates.

Figure 2.4 depicts the business cycle pattern in terms of the RGDP level over time.

Figure 2.4 illustrates the dynamics of the business cycle. The wavelike pattern, as shown by the curved line, depicts business cycle fluctuations. The up-and-down movement of macroeconomic performance consists of three main elements. They include economic expansions, economic recessions, and the economic growth trend or the secular growth trend. Periods of upward movement in RGDP indicate economic expansions while episodes of declining RGDP signify economic contractions or recessions. A macroeconomic expansion refers to the time frame in which RGDP is rising. In contrast, an economic recession corresponds to a time frame when RGDP is declining. In the U.S. economy, expansions often last for five to six years or sometimes longer. Economic recessions, on the other hand, occur for shorter durations of time, frequently between one and two years.
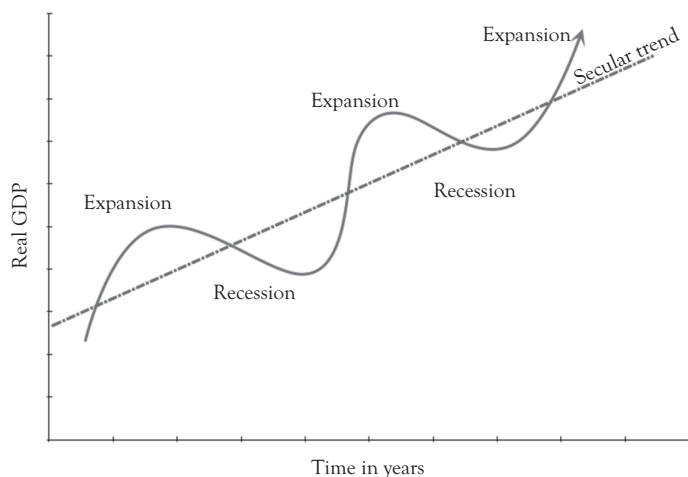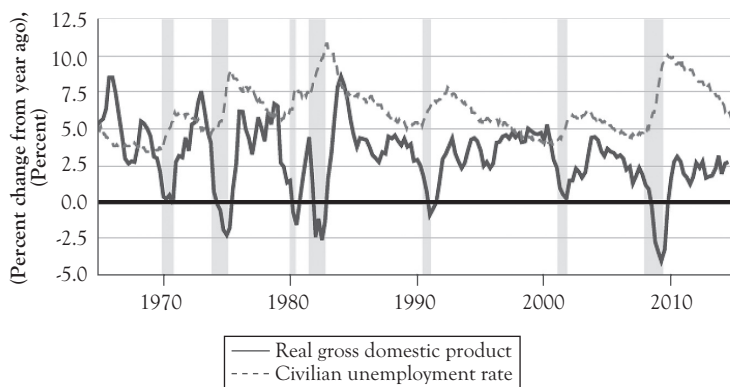
Figure 2.4 Business cycle pattern

Figure 2.5 Unemployment and RGDP growth

Source: FRED

The secular trend is shown as the upward sloping straight line, and indicates the average growth rate for the macroeconomy. In the U.S. economy, the average RGDP growth rate is approximately 2½ to 3 percent per year. This upward trend of macroeconomic growth occurs as a result of advancements in commercial technology as well as from increasing economic resources such as labor and capital. In subsequent chapters, we will consider the issue of political influences upon the business cycle.

Figure 2.5 shows the actual business cycle pattern for the United States in terms of RGDP growth and the unemployment rate. These two

macroeconomic variables are measured along the vertical axis in the chart. The unemployment rate is indicated as the dashed line while RGDP growth is shown as the solid line. Time in years from 1965 to 2014 is measured along the horizontal axis. The shaded regions indicate episodes of economic recession, while the other time periods are associated with economic expansion or growth.

The chart displays up-and-down variations in RGDP growth and unemployment over the past several decades. The graph shows that periods of high RGDP growth are often associated with episodes of declining unemployment. When economic growth is strong, firms tend to hire more workers in order to produce more goods, and consequently the unemployment rate declines. Conversely, periods of low RGDP growth are often associated with the gray shaded regions in the graph that depict economic recessions and rising unemployment. When economic growth is weak, firms employ fewer workers because of reduced production of goods and services, and consequently unemployment tends to worsen.

Okun's Law

A positive unemployment gap (positive cyclical unemployment) occurs when actual unemployment is greater than natural unemployment. Correspondingly, actual GDP is likely to be less than potential GDP. The empirical correlation between unemployment and GDP is called Okun's law, which is named after the late American economist Arthur Okun. Okun's law may be expressed as the inverse empirical correlation between RGDP growth and the change in the unemployment rate. When GDP growth rises, unemployment tends to fall, and *vice versa*.

Figure 2.6 illustrates Okun's law in terms of RGDP growth and the change in unemployment.

RGDP growth is measured along the vertical axis while the change in the unemployment rate is indicated along the horizontal axis. The downward sloping line depicts the inverse correlation between the change in unemployment and real RGDP growth. Although the empirical correlation between RGDP growth and unemployment is not exact, the chart shows a general pattern of declining RGDP growth alongside periods of
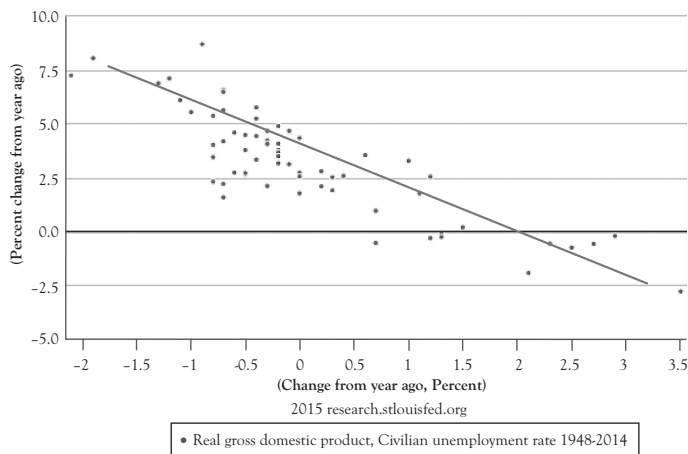
Figure 2.6 Okun's law

Source: FRED

rising unemployment. The unemployment rate and real economic growth tend to move in opposite directions.

Okun's law may also be articulated in terms of the GDP gap and unemployment. The greater the GDP gap (the percentage difference between potential GDP and actual GDP), the higher the unemployment rate tends to be. To illustrate this effect, Figure 2.7 shows a line chart of potential GDP, actual GDP, and the unemployment rate across the time frame from 2002 to 2014.

The solid line is potential GDP; the dashed line is actual GDP; and the dotted line depicts unemployment. The gray shaded region corresponds to the Great Recession from December 2007 to June 2009. Prior to the Great Recession, the dashed line was approximately even with the solid line, indicating an efficient economy. The GDP gap was approximately zero. Alongside this GDP effect, unemployment declined as shown by the decreasing dotted line. During this timeframe, business firms hired more workers in order to produce more goods associated with strong GDP.

Prior to the Great Recession, actual unemployment declined to about 4½ percent, which is below the natural unemployment rate of around 5 to 6 percent. This unemployment outcome indicates macroeconomic overheating. An unemployment rate that falls below the natural unemployment rate because of strong macroeconomic demand cannot be
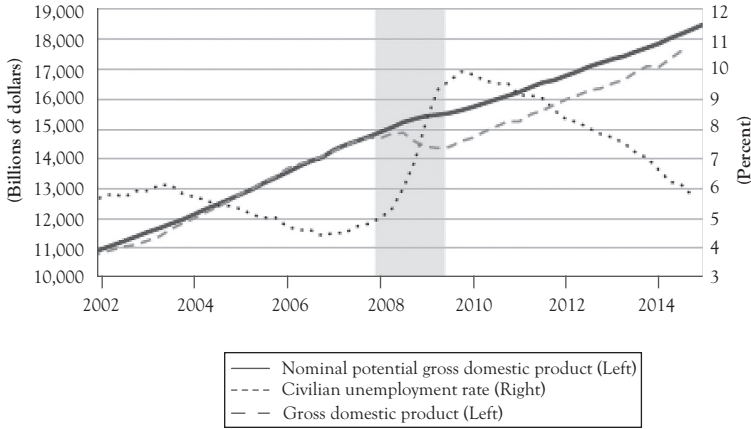
Figure 2.7 GDP gap and unemployment

Source: FRED

sustained, and will likely lead to rising inflation. Figure 2.8 shows the pattern of inflation in association with actual and potential GDPs.

The dashed and solid lines once again denote actual and potential GDPs. Additionally, the dotted line is the inflation rate, based on the consumer price index. Prior to the Great Recession, inflation rose from below 2 percent in 2002 to above 4 percent by 2008. This inflationary result took place because of strong macroeconomic demand, which drove prices upward.

During the Great Recession, the dashed line fell below the solid line. In other words, actual GDP dropped below potential GDP. This macroeconomic effect is indicative of a positive GDP gap or a recessionary gap. The inefficiency of the Great Recession was associated with weak macroeconomic demand, and therefore, less production of goods and services.

As predicted by Okun's law, unemployment worsened alongside the widening gap between potential and actual GDPs. Unemployment, in this period, rose from around 5 percent to nearly 10 percent, as shown in Figure 2.7. During the Great Recession, fewer workers were employed by firms because of a drop in the amount of goods and services that were produced.

In addition, Figure 2.8 shows that inflation fell as actual GDP dropped below potential GDP following the start of the Great Recession.
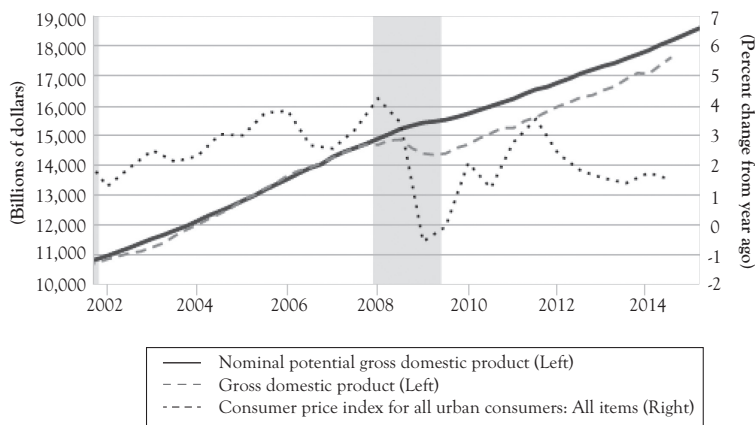
Figure 2.8 GDP gap and inflation

Source: FRED

This recessionary gap led to declining inflation because of reduced macro-economic demand. During the Great Recession, inflation fell from about 4 to –0.5 percent. In other words, deflation briefly occurred during the Great Recession. In the next chapter, we discuss in detail the theoretical cause–effect interrelation among inflation, unemployment, and RGDP.

CHAPTER 3

Mainstream Macroeconomic Theory and the Expectational Phillips Curve Model

Introduction

An economic model is a mathematical or graphical representation of a theory. Economic models and theories seek to explain and predict important cause–effect behavioral patterns among key economic variables. Theories or models, however, are not perfect predictors of economic outcomes. Predicting events with accuracy and precision, especially in the soft sciences, is often difficult.

The characteristics of individual behavior, including economic actions, will naturally vary from person to person. Consequently, economic analyses focus on the law of averages across a large sample or an entire population rather than attempting to predict the behavior of any specific person. Predicting the economic actions of individuals is problematic because of the wide range of personal tastes and preferences. On the other hand, predicting the average or total economic behavior across a large number of economic participants is more accurate. Even when considering average or total economic behavior, however, some margin of error between the economic predictions and the actual economic events is inevitable. The closer the economic predictions to actual economic outcomes, the stronger the theory. The less accurate the economic predictions relative to the actual economic events, the weaker the theory or model.

A number of different models consider various aspects of macroeconomic activity. A useful theory from a political macroeconomy perspective

is the expectational Phillips curve model. This framework explains and predicts the interrelation between inflation and unemployment in the short run and the long run. The expectational Phillips curve model is relevant to the study of the political macroeconomy because inflation and unemployment are major factors that affect electoral and partisan political behaviors. In terms of electoral politics, inflation and unemployment are important influences upon presidential approval, presidential votes, and congressional votes. In terms of partisan politics, inflation and unemployment are significant considerations upon the partisan macroeconomic agendas of the right and left political parties.

According to the expectational Phillips curve framework, a trade-off occurs between inflation and unemployment in the short run, but not in the long run. The theory predicts a short-run inverse relation between inflation and unemployment. If inflation rises, then unemployment tends to decline in the short term. If inflation decreases, then unemployment rises. However, in the short run, business productivity and resource costs, including labor expenses, are assumed to remain constant.

In the long term, these factors will adjust through the interaction of market forces. Consequently, unemployment will move toward full-employment equilibrium in the long run. This process is called the self-correcting mechanism. Full employment, as was discussed in Chapter 2, occurs at the natural unemployment rate. A major controversy in macroeconomics concerns the length of time that is required for the economy to automatically adjust through market forces from a situation of short-run inefficiency to that of long-run equilibrium. If the self-correcting mechanism of market forces is slow in adjusting to full employment, then government macroeconomic policy in the form of fiscal and monetary measures may be called upon as an attempt to remedy the macroeconomic sluggishness. Conversely, if market forces operate efficiently in a timely manner to remedy unemployment, then government macroeconomic policy becomes unnecessary, and could even become counterproductive.

Okun's law is a further macroeconomic consideration. As discussed in Chapter 2, this relation refers to the inverse correlation between real economic growth and unemployment. The expectational Phillips curve model combined with Okun's law provides a framework for examining

the interconnection among inflation, unemployment, the real GDP level (RGDP), and RGDP growth in the short and long run.

From a theoretical perspective, the macroeconomy may be expressed in terms of two general markets, which consist of the product market and the resource market. The product market refers to macroeconomic performance associated with RGDP and product price inflation. The product market is analyzed in terms of macroeconomic supply and macroeconomic demand. Macroeconomic demand is also called aggregate demand while macroeconomic supply is referred to as aggregate supply.

The resource market takes into account the three main resources or economic factors of production, which consist of land or natural resources, labor, and capital. Many macroeconomic frameworks, including the expectational Phillips curve model, emphasize the labor market. The labor market is examined in terms of labor supply and labor demand. Labor market performance is measured in terms of the average worker wage rate and the unemployment rate. Figure 3.1 shows the circular flow of the resource market and the product market in the economy.

Economic resources, such as labor, are employed by business firms to produce and supply goods and services to households. Households supply or sell economic resources, such as labor, to business firms in the resource market. Households receive resource payments from business firms, such as wages for the work supplied. Correspondingly, households purchase products, such as consumer goods, from business firms. Households pay for the economic goods and services they purchase based on the product prices.
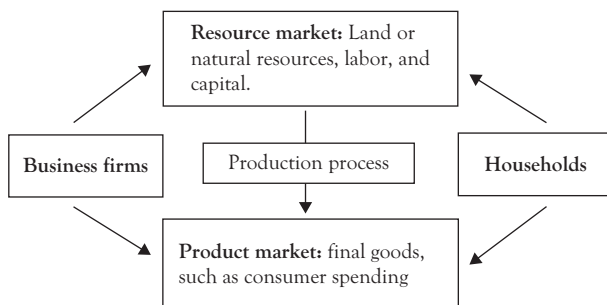

Figure 3.1 Circular flow of the product market and the resource market

Overall, firms supply goods in the product market and demand labor in the resource market while households demand goods in the product market and supply labor in the resource market. In the resource market, money flows from firms to households in the form of worker wages, whereas in the product market money flows from households to firms in the form of product prices.

Macroeconomic Efficiency Versus Inefficiency

The impact of market forces is an important consideration for an analysis of the political macroeconomy. Market forces denote the summation and synergy of commercial transactions among buyers and sellers in the private sector of the economy (excluding government economic activity). The market mechanism of demand and supply occurs as buyers and sellers interact with one another while exchanging money for economic goods and services through the price mechanism. Economic efficiency occurs at the equilibrium point where supply equals demand. At this position, the quantity of a product that buyers seek to purchase equals the quantity of economic goods that suppliers wish to sell. For efficiency and therefore equilibrium to come about, the market price for a product must adjust flexibly so that the market clears. If a market is efficient, then the price of a good adjusts to the level where the quantity supplied of the product equals the quantity demanded of the product. Neither shortage nor surplus takes place in an efficient market. More generally, efficiency occurs if the economy employs all of its resources in a least-cost method of production that provides the best combination of goods and services for the society.

For macroeconomic efficiency and long-run macroeconomic equilibrium to occur, prices in the product market and wages in the labor market must take place at equilibrium level where supply matches demand. This occurs when actual GDP equals potential GDP in the product market, while at the same time the actual unemployment rate equals the natural unemployment rate in the labor market. Both the unemployment gap and the GDP gap are equal to zero in an efficient macroeconomy. As discussed in Chapter 2, the unemployment gap refers to the difference between actual unemployment and the natural unemployment rate,

while the GDP gap refers to the difference between actual GDP and potential GDP.

Short-run macroeconomic performance, on the other hand, indicates inefficiency in the labor and product markets. Macroeconomic performance does not occur at the natural unemployment rate and potential GDP. The GDP gap and the unemployment gap are nonzero. Two types of macroeconomic inefficiency may arise, which consist of insufficient macroeconomic demand and excess macroeconomic demand. In a circumstance of inadequate macroeconomic demand, a recessionary gap takes place. A shortage of goods occurs in the product market while a surplus of labor (high unemployment) occurs in the labor market. The economy experiences sluggish RGDP performance, perhaps a recession. Actual GDP is less than the potential level while unemployment is greater than the natural rate.

Apart from a recessionary gap, the other inefficient macroeconomic outcome is an inflationary gap. This occurs if actual unemployment is temporarily less than the natural rate while actual GDP is temporarily greater than potential GDP. An inflationary gap tends to cause rising inflation. A GDP level that is greater than potential output cannot be sustained and will cause macroeconomic overheating. Excessive demand in the macroeconomy pulls product prices upward at an increasing rate.

Table 3.1 summarizes the characteristics of long-run macroeconomic efficiency and the two types of short-run macroeconomic inefficiency.

Table 3.1 Long-run and short-run macroeconomic outcomes

Economic markets	Long-run equilibrium: macroeconomic demand equals macroeconomic supply	Short-run disequilibrium: insufficient macroeconomic demand	Short-run disequilibrium: excess macroeconomic demand
Product market	Actual GDP equals potential GDP	Recessionary gap: actual GDP is less than potential GDP	Inflationary gap: actual GDP is greater than potential GDP
Labor market	Unemployment equals the natural rate	Unemployment is greater than the natural rate	Unemployment is less than the natural rate

Macroeconomic Supply and Demand

The theory of aggregate supply and demand is used to examine outcomes in the product market such as GDP and product price inflation. Aggregate demand refers to expenditure patterns associated with the four main components of GDP. As discussed in Chapter 2, the four major components of GDP are consumption, investment, net exports, and government purchases. Any underlying determinant that affects the demand for any of these four elements of GDP will similarly impact the overall level of macroeconomic demand. For example, suppose that consumption were to increase because of the underlying determinant of optimistic consumer sentiment. Macroeconomic demand would likewise expand because consumer spending is a direct component of GDP.

Macroeconomic supply, in contrast, relates to factors that affect production and pricing behavior from a business firm perspective. Some of the determinants of macroeconomic supply are resource costs, resource productivity, and government involvement in the business sector. Some types of government intervention include business taxes, business subsidies, and government regulations on business. For instance, suppose that production costs were to rise, such as energy prices. Macroeconomic supply would decline. Business firms would reduce employment and production as a cost-cutting measure to partially offset the increased expenses of high oil prices.

Short-run macroeconomic inefficiency often arises as a result of shocks to either macroeconomic demand or macroeconomic supply. Some examples of macroeconomic shocks include major changes in energy prices, bursting of financial bubbles, major natural disasters, inefficient government economic policies, and wars. A macroeconomic shock causes unemployment to diverge from the natural rate, and actual GDP to deviate from potential GDP. As a result of a macroeconomic shock, worker wages in the labor market are not fully adjusted to changes in prices in the product market. The labor market is in disequilibrium. However, if wages and prices adjust flexibly in the product and labor markets, then the macroeconomy will move toward long-run equilibrium at potential GDP and the natural unemployment rate.

Expected Inflation, Wage Inflation, and Long-Run Equilibrium

The concept of expected inflation is a major element in modern macro-economic theory. Expected inflation is the level of inflation that businesses and labor anticipate will occur over the next year or so, based on their best calculations and estimates. Worker wages are based on expected inflation. Workers and employers take into account expected inflation when nego-tiating worker wage contracts and other labor agreements. For instance, if product prices are expected to rise, then wages would likely rise to a similar degree in order to compensate. Expected inflation affects what households think they will be able to afford over the next year. If workers anticipate high inflation, then they will seek higher wages from employers to have suf-ficient income to pay for more expensive products. If inflation is expected to be low, workers will be less demanding of higher wages from employers.

Let us assume that product price inflation is expected to be 3 percent over the next year. Through labor market negotiations and market forces among employers and employees, worker wages would also rise by 3 percent (assuming worker productivity remains constant). If workers anticipate price inflation will be 3 percent, then they would seek a wage increase of 3 percent to maintain their standard of living. Employers, correspondingly, would be willing to pay the higher wage rate to work-ers because firms anticipate being able to sell products at higher prices, which would yield greater sales revenues. Expected inflation affects busi-ness forecasts of sales. Based on expected inflation, firms anticipate the level of revenues they will earn. Based on inflationary expectations, firms also determine the level of wage they can afford to pay employees.

If the expected inflation rate held by workers and firms is accurate, then expected inflation becomes equal to actual inflation. Consequently, the labor and product markets are in long-run equilibrium. For example, let us once more assume that expected inflation and wage inflation equal 3 percent. If actual inflation is also 3 percent, then the economy is in long-run equilibrium and efficient. The wage occurs at the equilibrium level, and the labor market clears at the natural unemployment rate. Wage inflation is fully adjusted to price inflation because inflationary expecta-tions are realized. Correspondingly, actual GDP equals potential GDP in the product market.

Unexpected Inflation and the Short-Run Macroeconomy

Macroeconomic inefficiency arises if inflationary expectations are inaccurate. This happens when expected inflation differs from actual inflation. The economy, consequently, is in a short-run situation, such as a recession. Unexpected inflation is the gap between actual inflation and expected inflation. If unexpected inflation is zero, then expected inflation is fully adjusted to and equal to actual inflation. The labor and product markets are correspondingly in long-run equilibrium.

Expected inflation and actual inflation, however, are not always equal. The labor market is not always in equilibrium. Let us suppose that the macroeconomy is in a short-run situation. Business and worker expectations about inflation would be either higher or lower than actual inflation. Unexpected inflation would develop, and an unemployment gap and a GDP gap would take place. The greater is the level of the unexpected inflation, the larger will be the unemployment gap and the GDP gap.

Let us imagine that actual inflation is less than expected. Negative unexpected inflation therefore occurs. Firms must sell products at a lower price than originally envisioned. Businesses respond to this outcome by reducing employment and selling a lesser amount than initially planned. This cost-cutting strategy partially offsets the reduced revenues caused by lower prices than anticipated. A recessionary gap occurs. Actual unemployment rises above the natural rate and actual GDP falls below potential.

Alternatively, suppose that actual inflation is greater than expected. Positive unexpected inflation therefore develops, and an inflationary gap arises. Higher inflation than expected means that firms can sell products at a higher price than originally intended. Firms sell more goods at the higher price to earn greater revenues and profits. Businesses expand employment and produce more goods than initially planned. This revenue-enhancing strategy of supplying more goods at a higher price generates greater profitability, assuming average production costs remain unchanged. As a result, actual unemployment temporarily falls below the natural rate and actual GDP temporarily rises above potential GDP.

Table 3.2 Characteristics of long-run and short-run macroeconomic performance

Long-run equilibrium	Short-run inflationary gap	Short-run recessionary gap
Actual inflation equals expected inflation	Actual inflation is greater than expected inflation	Actual inflation is less than expected inflation
Zero unexpected inflation	Positive unexpected inflation	Negative unexpected inflation
Worker wages are fully adjusted to product prices	Worker wages are not fully adjusted to product prices; wages must increase to compensate for higher than expected prices	Worker wages are not fully adjusted to product prices; firms will reduce real wages to compensate for lower than expected prices
Zero unemployment gap	Negative unemployment gap	Positive unemployment gap
Unemployment equals the natural rate	Unemployment less than the natural rate	Unemployment is greater than the natural rate
Labor market in equilibrium	Labor market in disequilibrium	Labor market in disequilibrium
Actual GDP equals potential GDP	Actual GDP is greater than potential GDP	Actual GDP is less than potential GDP
Zero GDP gap—product market in equilibrium	Negative GDP gap—product market is in disequilibrium	Positive GDP gap—product market is in disequilibrium

Table 3.2 summarizes the short-run and long-run effects of unexpected inflation.

Self-Correcting Mechanism: Rational Expectations Versus Adaptive Expectations

The economy in the long run experiences full utilization of resources, including full employment in the labor market. Macroeconomic performance through the interaction of market forces, if efficient, will adjust from a short-run disequilibrium toward long-run equilibrium.

This market adjustment process is called the self-correcting mechanism. Through this market process, expected inflation adjusts toward actual inflation. The wage rate, which is based on expected inflation, adjusts toward the equilibrium level in the labor market. Unemployment accordingly moves toward the natural rate as worker wages efficiently

respond to expected inflation and actual inflation. Worker wages, in the long run, become fully adjusted to product prices and the labor market moves to equilibrium. Expected inflation and wage inflation, in the long run, adjust toward actual inflation through the self-correcting mechanism of labor market forces.

The speed of adjustment of expected inflation toward actual inflation is a point of controversy. The dispute concerns the amount of time that is involved for expected inflation and wages to fully adjust to actual infla-tion. There are two main macroeconomic perspectives with respect to this controversy. The first perspective is the classical macroeconomic view and the theoretical construct of rational inflationary expectations. The rational expectations perspective tends to be associated with conservative political ideology. The other macroeconomic perspective is Keynesianism and the theoretical construct of adaptive expectations. The adaptive expectations theory tends to be associated with liberal political ideology. (Refer to Chapter 1 for a brief discussion of the classical view versus the Keynesian view).

The classical view asserts that the adjustment of expected inflation and wages toward actual product price inflation to reach long-run equilib-rium occurs relatively fast and efficiently through a rational expectations mechanism. Inflationary expectations held by labor and management are assumed to be rational and well informed. Expected inflation is on aver-age equal to actual inflation, with only small random differences in most instances. Excluding surprise economic shocks, inflationary expectations closely reflect actual inflation.

According to rational expectations, the macroeconomy generally occurs in long-run equilibrium or close to it, in the absence of inefficient government policies that create shocks that disrupt economic expecta-tions and economic markets. The classical view proposes that government intervention in the product and labor markets frequently causes ineffi-ciencies and unintended economic consequences. Government economic activism should therefore be minimal. The classical perspective and ratio-nal expectations correspond with the conservative political ideology that argues for a small role of government in the economy.

Besides rational expectations, the alternative view on the self-correcting mechanism is adaptive expectations. This hypothesis asserts that expected

inflation and wages partially or gradually adjust to product prices after a time lag of perhaps one year or even longer. The wage adjustment mechanism is slow because of rigidities, bottlenecks, uncertainties, and other inefficiencies associated with wage contracts and other negotiations between labor and management. A corresponding gradual adjustment process occurs as actual unemployment incrementally moves toward the natural rate. Actual GDP also gradually adjusts toward potential GDP through a partial adjustment mechanism. The economy is often sluggish in moving toward long-run equilibrium because of imperfections in market forces.

The Keynesian view argues that government has a responsibility to adopt stimulative macroeconomic policies to steer the labor market toward full employment and alleviate the possibility of persistent macroeconomic sluggishness. The Keynesian view and adaptive expectations correspond with the liberal political ideology that calls for a relatively large role for the government in the economy.

Table 3.3 summarizes the characteristics and differences between the classical and Keynesian perspectives on the self-correcting mechanism.

Table 3.3 Classical and Keynesian views on the self-correcting mechanism

Macroeconomic views	Classical perspective	Keynesian perspective
Self-correcting mechanism in the labor market	Relatively fast and efficient adjustment toward full employment	Gradual process of adjustment to full employment
Product market implications	Relatively fast and efficient adjustment toward potential GDP	Gradual process of adjustment toward potential GDP
Adjustment process	In the absence of government policies that distort economic markets, rapid adjustment of expected inflation to actual inflation through a rational expectations mechanism	Because of market rigidities, gradual adjustment of expected inflation to actual inflation through an adaptive expectations mechanism
Type of inflationary expectations	Rational expectations	Adaptive expectations
Macroeconomic perspective	Classical macroeconomic view	Keynesian macroeconomic view
Ideological perspective	Conservative political view	Liberal political view

Short-Run Effects of Shifts in Macroeconomic Demand and Supply

This section briefly discusses the short-run effects associated with changes in macroeconomic demand and supply upon inflation, unemployment, and RGDP. In the next section, we will discuss the long-run effects of the self-correcting mechanism in connection with changes in macroeconomic supply and demand.

An increase in expenditures relating to any of the four main components of GDP will cause an increase in macroeconomic demand (i.e., consumption, investment, government purchases, or net exports). A high rate of macroeconomic demand causes product prices to rise, which is called demand-pull inflation. An increase in macroeconomic demand signifies that buyers wish to increase spending, and consequently, they are willing to pay a higher price for products. In addition to higher inflation, a high rate of macroeconomic expenditures leads to higher RGDP, stronger real economic growth, and lower unemployment. From a supply perspective, business firms employ more workers to produce a greater amount of goods and services to satisfy the increased macroeconomic demand for products.

Conversely, a decrease in the rate of macroeconomic expenditures will cause a decline in aggregate demand. This causes lower inflation, higher unemployment, and lower RGDP growth. A decline in macroeconomic demand means that buyers intend to purchase fewer products at their given prices. Firms are consequently compelled to reduce the rate of prices to induce purchasers to buy goods. Additionally, businesses decrease the rate of production because of the reduced demand for goods. Firms accordingly hire fewer workers and the unemployment rate worsens.

Besides macroeconomic demand-side effects, shifts in macroeconomic supply also have short-run consequences upon inflation, economic growth, and unemployment. Shifts in macroeconomic supply occur from production-related determinants such as commercial technology, resource productivity, production costs, and government intervention upon businesses. For example, cost-saving commercial technology causes an increase in macroeconomic supply, which leads to declining inflation, higher RGDP growth, and lower unemployment. Commercial technology boosts business productivity, which often yields lower production

costs. This allows business firms to employ more workers to produce more goods at cheaper prices. Other factors that cause a decline in production costs, such as lower energy prices, will also yield lower inflation, higher real economic growth, and declining unemployment.

An increase in production costs, on the other hand, causes the opposite result. Macroeconomic supply decreases. This shift of supply leads to higher inflation, lower real economic growth, and worsening unemployment. An increase in production costs will cause business firms to supply a lesser amount of goods and services. The higher production costs are then partially shifted to buyers in the form of higher product prices, which is called cost-push inflation. The higher input costs will compel businesses to reduce the rate of production to minimize financial losses. Firms consequently end up hiring fewer workers and unemployment worsens because of a decrease in macroeconomic supply.

The determinant of expected inflation is primarily an aggregate supply-side effect. For example, an increase in expected inflation causes workers to demand higher wages to compensate. Workers seek higher wages to pay for the higher expected prices of goods. An increase in worker wages causes production costs to go up and macroeconomic supply declines. Firms consequently supply less products and hire fewer workers as a cost-cutting strategy to partially counteract higher wage costs. Economic growth therefore declines, unemployment rises, and higher inflation occurs as a result of higher expected inflation and the corresponding decrease in macroeconomic supply.

Alternatively, a decrease in expected inflation leads to a decrease in wage inflation. Workers are willing to accept a lower real wage because they anticipate a decrease in the rate of product prices. This causes a decrease in real production costs and an increase in macroeconomic supply. Firms supply more goods because real production costs go down as real wages decrease. Economic growth consequently goes up, unemployment declines, and inflation drops. Inflation goes down as cheaper production costs are passed along to buyers in the form of a decrease in the rate of prices. Table 3.4 summarizes the short-run macroeconomic supply and demand effects upon inflation, unemployment, and real economic growth.

Table 3.4 Short-run macroeconomic demand and supply effects

Short-run macroeconomic effects	Short-run effect on inflation	Short-run effect on RGDP growth	Short-run effect on unemployment
Increase in macroeconomic demand (caused by an increase in consumption, investment, government spending, or net exports)	Increase in inflation because buyers wish to purchase more goods and are willing to pay a higher price	Increase in real economic growth because buyers wish to increase expenditures	Decrease in unemployment because firms hire more workers to increase production
Decrease in macroeconomic demand (caused by a decline in consumption, investment, government spending, or net exports)	Decrease in inflation because buyers wish to buy less goods, which forces firms to reduce the rate of product prices	Decrease in real economic growth because buyers wish to reduce their rate of spending	Increase in unemployment because firms hire fewer workers as they reduce production
Increase in macroeconomic supply (caused by lower production costs, lower expected inflation, and commercial technology)	Decrease in inflation because lower production costs allow for lower prices	Increase in real economic growth because firms can produce more goods at lesser costs	Decrease in unemployment as firms employ more workers to sell more goods
Decrease in macroeconomic supply (caused by higher production costs, and higher expected inflation)	Increase in inflation because higher resource costs are shifted to buyers in the form of higher prices	Decrease in real economic growth because firms cut the rate of production to offset higher resource costs	Increase in unemployment as firms employ fewer workers and sell less goods

Expectational Phillips Curve Model

The expectations-augmented Phillips curve theory depicts the short-run and long-run interrelation between inflation and unemployment.* The expectations-augmented Phillips curve is also called the expectational Phillips curve. This model is named after the late economist William

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* For example, refer to Dornbusch, Fischer, and Startz (2011) for an intermediate level discussion of the expectations-augmented Phillips curve model.

Phillips (1958), who did pioneering research on the empirical correlation between unemployment and wage inflation. The expectational Phillips curve theory depicts an inverse relation between inflation and unemployment in the short run, but not in the long run.* The expectations-augmented Phillips curve framework is relevant to the study of the political macroeconomy because the two variables of inflation and unemployment that are represented in the model are important factors that relate to political macroeconomic effects. In chapters 6, 7, and 8, we will look at the political macroeconomic effects of the electoral cycle and the partisan cycle using expectational Phillips curve model.

Figure 3.2 shows the expectational Phillips curve framework.

Inflation is measured along the vertical axis and the unemployment rate is indicated next to the horizontal axis. The vertical line is the long-run Phillips curve, which corresponds to the natural rate of unemployment. We will assume that the natural unemployment rate is 5 percent. The downward sloping curve labeled S1 is the short-run Phillips curve.
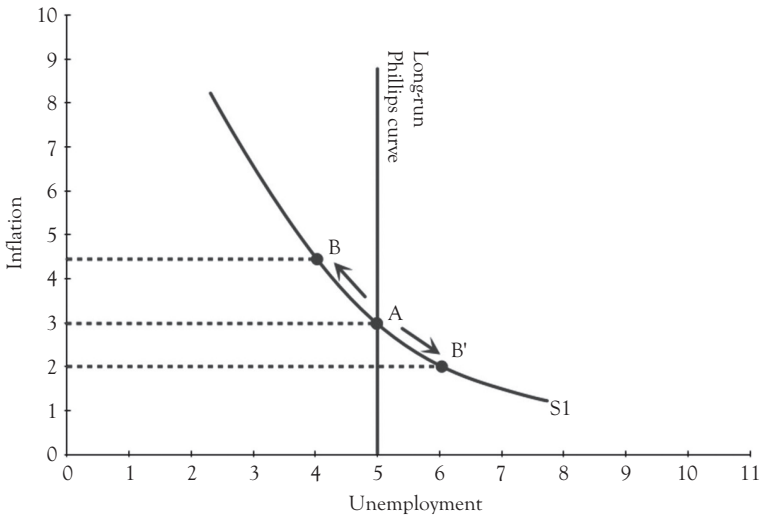
Figure 3.2 Expectational Phillips curve

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* Milton Friedman (1968) emphasized that expected inflation plays a major role in the relation between inflation and unemployment in the short run and the long run. The concept of expected inflation has become widely accepted in the modern macroeconomics literature.

This curve indicates short-run macroeconomic supply in terms of unemployment and inflation. The downward slope of the curve illustrates the short-run inverse relation between inflation and unemployment. In the short run, an increase in inflation is associated with a decline in unemployment, and *vice versa*. Any movement along the curve S1 expresses the short-run trade-off. For example, a movement from A to B indicates rising inflation and falling unemployment. A movement from A to B′, on the other hand, indicates falling inflation and rising unemployment.

The level of expected inflation is determined by the intersection between the short-run and long-run Phillips curves. In Figure 3.2, expected inflation equals 3 percent. The cross between the short-run and long-run Phillips curves denotes a point of long-run equilibrium. This position is marked as point A in the diagram. If actual macroeconomic performance occurs at point A, then expected inflation and worker wages are fully adjusted to product price inflation. Consequently, the economy is efficient. Expected inflation is equal to actual inflation of 3 percent. The wage rate is at the equilibrium level, and the labor market clears at the natural unemployment rate. If expected inflation is not fully adjusted to actual inflation, however, then unexpected inflation occurs and unemployment would not be at the natural rate.

Any change in inflation (due to a shift of macroeconomic demand) will lead to a movement along the short-run Phillips curve. Any change in expected inflation, however, causes the curve to shift. A change in expected inflation causes wage inflation and production costs to change, which causes the curve to shift. The short-run Phillips curve shifts either to the left or the right based on whether expected inflation falls or rises. If expected inflation increases, then worker wages and production costs go up at a faster rate, and the short-run Phillips curve shifts right. If expected inflation declines and real wages go down, then the short-run Phillips curve shifts leftward.

Short-Run and Long-Run Effects of an Increase in Macroeconomic Demand

Let us consider the impact of an increase in macroeconomic demand using the expectational Phillips curve framework. Figure 3.3 shows the effects.
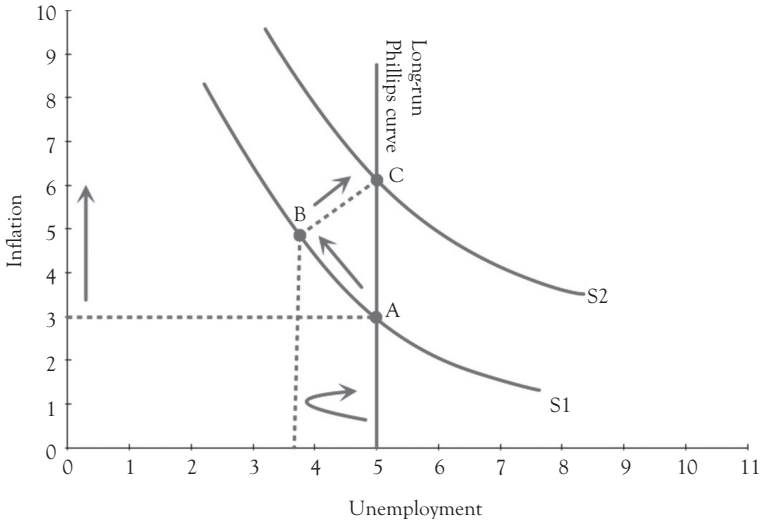
Figure 3.3 Increase in macroeconomic demand

Suppose the economy is initially in long-run equilibrium at point A. Expected inflation and wage inflation are fully adjusted to actual inflation at 3 percent, and unemployment occurs at the natural rate. Now, assume that macroeconomic demand increases. This is shown as a movement up and to the left along the short-run Phillips curve from long-run point A to the short-run outcome at point B. This movement assumes expected inflation is unchanged at 3 percent. This movement along the curve leads not only to more jobs, but also to higher inflation. Product price inflation rises from 3 to about 5 percent, while unemployment declines from the natural rate of 5 percent to around 3.67 percent. Point B is a short-run macroeconomic outcome because unemployment is less than the natural rate.

This increase in aggregate demand could arise from expansionary macroeconomic policy that aims to reduce unemployment and increase RGDP growth. Inflation, however, worsens as a side effect of higher macroeconomic demand. An increase in macroeconomic demand means that buyers wish to increase spending, which drives up product prices and causes rising inflation.

At point B, unexpected inflation is approximately 2 percent (2 = actual inflation − expected inflation = 5 − 3). Prices rise up higher than anticipated. Producers are therefore able to sell their goods at a higher price

than originally planned. Actual inflation rises to around 5 percent while expected inflation remains at 3 percent. Unemployment correspondingly declines from the natural rate of 5 percent to around 3.67 percent. Firms decide to produce more goods and hire more workers because higher than expected prices yield greater opportunity for sales revenues and profits. Firms supply more goods to earn greater revenues and profits at the higher price. This enables firms to hire more labor as long as wages remain unaffected by the increase in aggregate demand.

In the long run, however, a decrease in macroeconomic supply occurs through the self-correcting mechanism in response to the expansion in macroeconomic demand. The short-run Philips curve shifts to the right from S1 to S2. This occurs because workers increase their inflationary expectations in response to higher actual inflation. Workers demand higher wages to offset higher product prices. Expected inflation and the wage rate rise and adjust toward actual inflation through the self-correcting mechanism. Firms then shift the higher labor costs along to buyers in the form of higher product prices. This leads to a further rise in inflation. In addition, firms reduce the number of workers employed to partially offset the higher labor costs.

Through the self-correcting mechanism, the macroeconomy moves from the short-run equilibrium at point B to the long-run equilibrium at point C. This corresponds to a rightward shift of the short-run Phillips curve from S1 to S2. Inflation rises further from 5 to 6 percent, while unemployment adjusts from 3.67 percent back to the natural unemployment rate at the new long-run equilibrium at point C.

In summary, the movement along the curve is caused by greater macroeconomic demand. This is followed by a rightward shift of the curve. This indicates macroeconomic overheating. Assuming the economy is initially at potential, an increase in macroeconomic demand causes only a temporary improvement in unemployment alongside a rise in inflation.

Short-Run and Long-Run Effects of a Decrease in Macroeconomic Demand

Let us next consider the short and long-run implications of a decline in macroeconomic demand using the expectational Phillips curve framework. Figure 3.4 shows the effects.
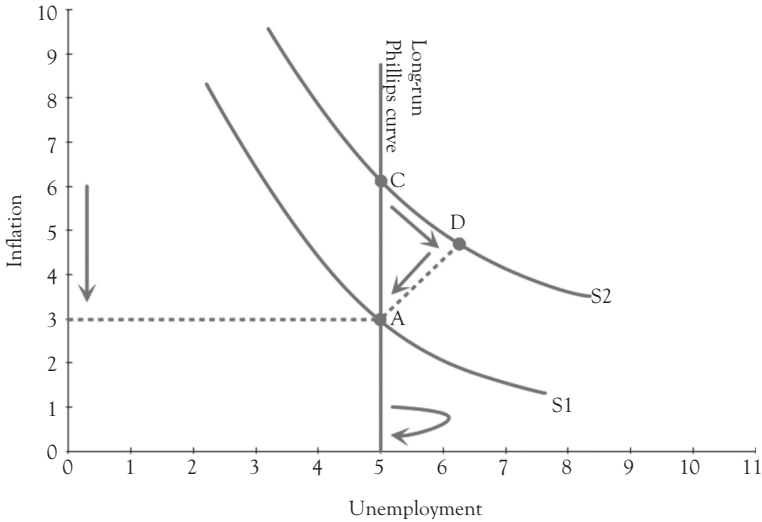
Figure 3.4 Decrease in macroeconomic demand

Suppose that the economy is initially in long-run equilibrium at point C. Both actual and expected inflation are relatively high at about 6 percent. Now, let us assume that macroeconomic demand decreases, perhaps from contractionary government policy aimed at reducing inflation. The macroeconomy consequently moves down and to the right along the short-run Phillips curve S2 from long-run point C to a short-run position at point D. The decrease in macroeconomic demand is associated with less spending on goods and services, less employment, and a decline in inflation.

Actual inflation falls from 6 to about 5 percent, while expected inflation remains at 6 percent. This indicates negative unexpected inflation of –1 percent (= 5 – 6). Prices end up lower than originally expected. Producers must sell products at a lower price than initially anticipated to induce buyers to purchase products. Firms receive less revenues and profits than originally planned. Businesses consequently decide to reduce production as a cost-cutting measure. Firms therefore employ fewer workers, and the unemployment rate rises above the natural rate from 5 to 6 percent at point D. Firms reduce production in order to meet the reduced level of desired spending in the macroeconomy. Since these results are in the short run, we assume that production costs, including labor wages and expected inflation, temporarily remain constant.

In the long run, however, the self-correcting mechanism of market forces will cause the economy to adjust back toward long-run equilibrium at the natural unemployment rate. The short-run Phillips curve consequently shifts to the left from S2 to S1, and the economy moves from point D to point A. Because of a decline in inflation from the decrease in macroeconomic demand, firms are compelled to reduce the rate of wages so as to minimize the adverse effect of lost revenues. Workers, correspondingly, are willing to accept lower real wages because the decrease in inflation makes products more affordable.

In the long run, the decline in real wages causes real production costs to decrease. This supply-side effect enables business firms to raise output and to rehire workers. Business firms respond to lower resource costs by producing more goods to earn more revenues and profits. Lower production costs also lead to a further decline in product price inflation. The lower production costs enable firms to sell products at lower prices. The economy consequently adjusts back to long-run equilibrium at the natural unemployment rate at point A.

This macroeconomic pattern of short and long-run effects from a decline in aggregate demand is descriptive of a disinflationary economic contraction. Assuming that the economy is initially in long-run equilibrium, a decline in macroeconomic demand causes unemployment to temporarily worsen while inflation declines in both the short run and the long run.

Overall Business Cycle Pattern in the Phillips Curve Framework

Figure 3.5 shows the full spiral pattern of the business cycle in terms of unemployment and inflation using the expectational Phillips curve framework. This diagram combines the macroeconomic demand and supply effects of Figure 3.3 and Figure 3.4.

Assuming the economy initially occurs at point A, suppose that an increase in macroeconomic demand takes place. This causes a movement along the short-run Phillips curve S1 from point A to point B. Next, the self-correcting mechanism causes the short-run Phillips curve to shift to the right from S1 to S2. This occurs as expected inflation and wage inflation rise to coincide with the increase in actual inflation. The economy therefore moves from point B to point C.
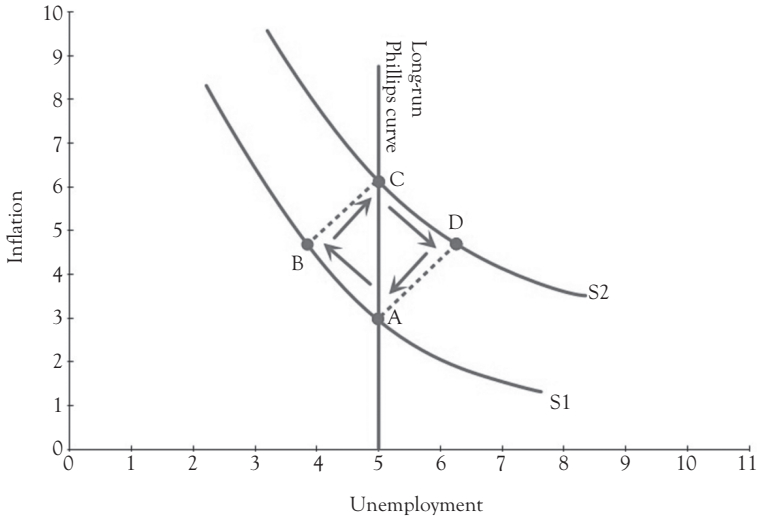
Figure 3.5 Business cycle in terms of inflation and unemployment

At point C, let us assume that a decrease in macroeconomic demand arises. This causes a movement from point C to point D along the short-run Phillips curve S2. Inflation falls while unemployment worsens. At point D, the self-correcting mechanism causes the macroeconomy to adjust back toward the natural unemployment rate. The short-run Phillips curve shifts left from S2 to S1 as business firms reduce the rate of wages in response to a decrease in expected inflation. Expected inflation falls to correspond with the decrease in actual inflation. The economy therefore moves to point A in long-run equilibrium at the natural unemployment rate.

A clockwise business cycle pattern occurs as the macroeconomy moves from point A to point B to point C to point D and finally back to point A. The actual performance of inflation and unemployment in the real economy, however, may not always follow this idealized pattern as shown by the expectational Phillips curve model in Figure 3.5. Economic rigidities, imperfections, unexpected economic shocks, uncertainties, and other factors can cause the macroeconomy to deviate from the predicted outcomes. Figure 3.6 shows a sample of actual business cycle performance in the American economy.

The chart shows the pattern of unemployment and inflation in the U.S. economy over the time period from 1961 to 1984. Although the

Consumer price index for all urban consumers: All items (CPIAUCSL)
civilian unemployment rate (UNRATE)
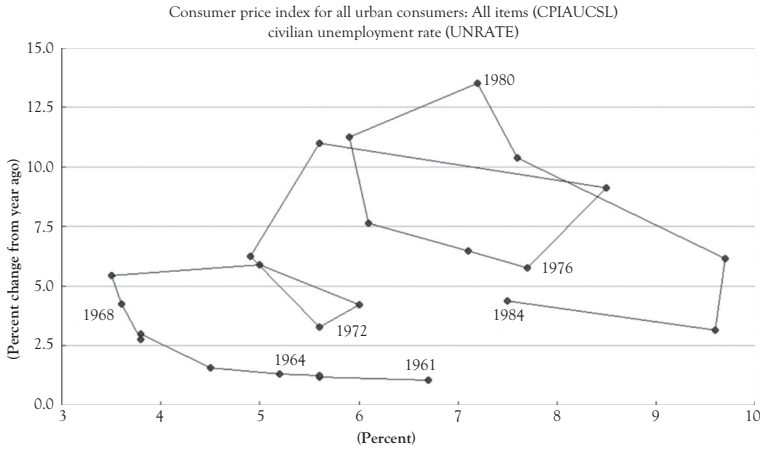
Figure 3.6 U.S. business cycle pattern

Source: Federal Reserve Economic Data (FRED)

actual macroeconomic outcomes do not perfectly match the symmetrical clockwise cyclical effect in Figure 3.5, Figure 3.6 nevertheless illustrates a general clockwise spiral pattern. The highlighted years in the chart denote the presidential election years during the timespan.

Resolving a Recession: The Classical View Versus the Keynesian View

As discussed previously, two opposing macroeconomic outlooks occur on the role of government activism versus market forces. The two perspectives consist of the classical view and the Keynesian view. The two perspectives recommend differing approaches for resolving a macroeconomic recession.

The classical outlook advocates a small role for the government in the economy and thus a large role for market forces. According to this perspective, a small level of government allows for a larger and more efficient private sector to flourish. The classical macroeconomic perspective corresponds with the ideology of American political conservatism. The Keynesian view, on the other hand, advocates a greater role for the government in the macroeconomy, especially in the case of long-lasting or severe recessions. The Keynesian perspective corresponds with the

ideology of American political liberalism, which recommends a more activist role for the government in society.

Figure 3.7 illustrates the Keynesian approach versus the classical approach for resolving a macroeconomic recession using the expectational Phillips curve model.

Let us imagine that the economy initially occurs in a recessionary gap at point 1. Unemployment is equal to about 6 percent, which is greater than the natural rate of 5 percent. Product price inflation is equal to about 4½ percent while expected inflation is 6 percent. The expected inflation rate of 6 percent corresponds to the intersection between the vertical long-run Phillips curve and the short-run Phillips curve S2.

The Keynesian approach to cure a recessionary gap involves an activist government policy. Through expansionary macroeconomic policy, aggregate demand increases and the economy moves upward from the short-run outcome at point 1 to the left along the short-run Phillips curve S2 toward the long-run equilibrium at point 2. The increase in macroeconomic demand facilitates greater purchases of goods and services, as well as more employment to produce an increased quantity of goods.

The expansionary macroeconomic policy resolves the recessionary gap. This remedy, however, occurs alongside a trade-off of higher
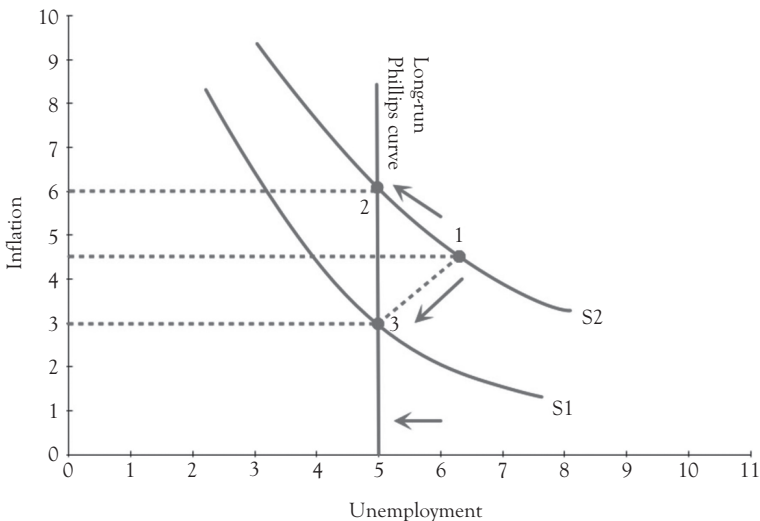
Figure 3.7 Two approaches for resolving a recessionary gap

inflation. Stronger macroeconomic demand means that buyers seek to raise their expenditures, and they are willing to pay a higher price for products. Accordingly, inflation rises from 4½ to 6 percent as the economy adjusts from point 1 to point 2. The negative side effect of higher inflation from expansionary macroeconomic policy is one of the main criticisms against activist government policy from the point of view of classical macroeconomics.

The classical macroeconomic perspective maintains that the self-correcting mechanism of market forces (compared to activist government policy) is a better remedy for a recession in most instances. The self-correcting mechanism refers to the automatic adjustment process of expected inflation and wage inflation toward actual inflation through market forces. At point 1, expected inflation equals 6 percent, which is more than the actual inflation rate of 4½ percent. Negative unexpected inflation of −1½ percent occurs (−1½ = 4½ − 6). Employees and employers consequently reduce their inflationary expectations to coincide with actual inflation, and the real wage declines. Real production costs correspondingly decrease as real wages fall, and the short-run Phillips curve shifts to the left from S2 to S1.

In particular, businesses are forced to reduce the worker wage rate as a cost-cutting devise because product prices end up lower than anticipated. In the long run, as real wage costs fall, businesses are able to rehire laid-off workers. Through this self-correcting mechanism, the economy improves and settles at the long-run equilibrium at point 3. Unemployment declines from 6 percent to the natural rate of 5 percent, thereby alleviating the recessionary gap. Correspondingly, inflation declines from 4½ to 3 percent because of the fall in the real wage rate. A major advantage of the classical approach for curing a recession is that both inflation and unemployment decrease through the self-correcting mechanism.

The main criticism against the classical approach from the Keynesian point of view is that the adjustment process of labor market forces may be slow. The automatic adjustment of the economy from point 1 to point 3 may require a long period of time, according to Keynesians. The Keynesian perspective asserts that an expansionary macroeconomic policy

is often able to alleviate a severe unemployment problem more quickly than the self-correcting mechanism.

Impact of Energy Prices Upon the Macroeconomy

Let us consider the influence of energy prices (such as fossil fuels) upon macroeconomic performance using the expectational Phillips curve framework. This issue has historically been important because of U.S. dependency on foreign oil, particularly in relation to the OPEC cartel. The impact of the price of oil on the U.S. economy has at times been quite substantial, particularly during the two oil shock episodes of the 1970s. These two oil crises were followed by a major decline in oil prices throughout much of the 1980s, with some up-and-down price fluctuations since that time.

Oil is a primary source of energy for the U.S. economy, and has a major effect upon macroeconomic supply. The cost of oil is a macroeconomic supply-side determinant because of its influence upon production costs. If oil prices were to increase, especially a dramatic rise, then stagflation would likely develop. Stagflation consists of a simultaneous worsening of both inflation and unemployment. If energy costs rise, then macroeconomic supply declines and both inflation and unemployment increase. This effect is shown in Figure 3.8.

Suppose that the economy is initially at point A in long-run equilibrium at the natural unemployment rate. A substantial increase in the price of oil causes a decrease in macroeconomic supply and the short-run Phillips curve shifts to the right from S1 to S2. The macroeconomy consequently adjusts from point A to point B. Product price inflation rises from 3 to 5 percent as higher energy costs are shifted to consumers in the form of higher product prices. Unemployment meanwhile rises from 5 to 7 percent as firms cut production and reduce employment as a cost-cutting strategy to minimize the adverse impact of higher oil prices upon production expenses.

Let us next consider the opposite result of a major decrease in oil prices. If oil prices were to decline substantially (perhaps from the modern mining technique of hydraulic fracturing or fracking), then lower
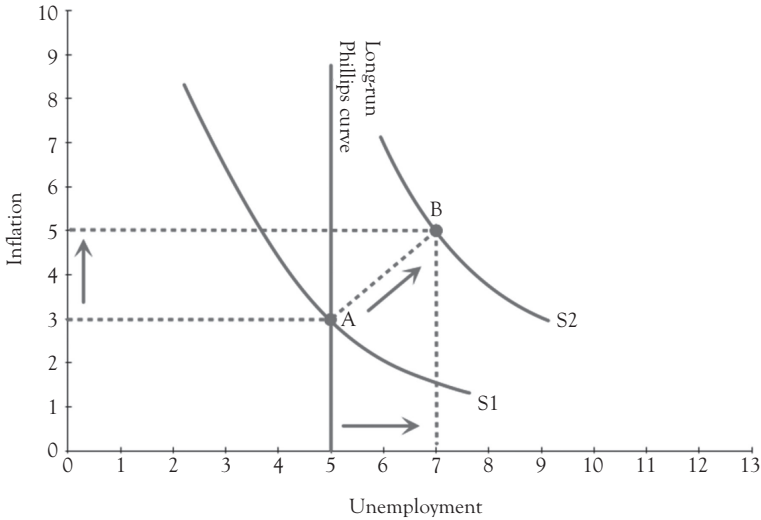
Figure 3.8 Short-run effects of a substantial increase in the price of oil
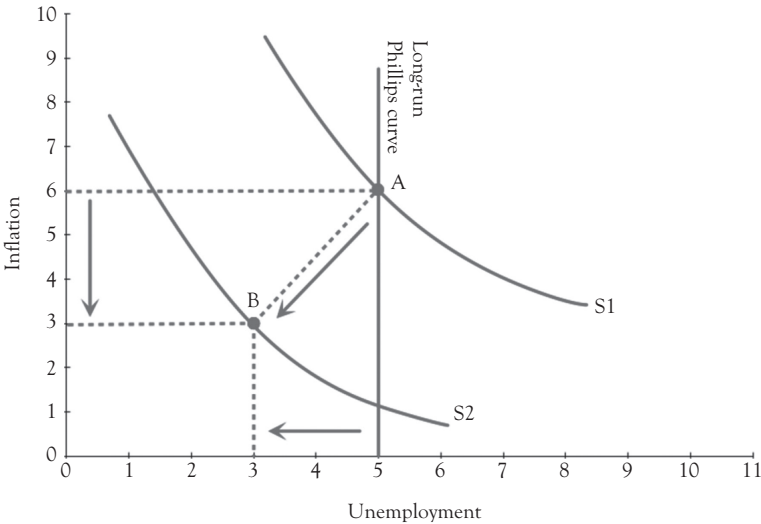
Figure 3.9 Short-run effects of a substantial decrease in the price of oil

inflation and lower unemployment would likely develop. This effect is illustrated in Figure 3.9.

Let us assume that the macroeconomy is initially at point A in long-run equilibrium at the natural unemployment rate. Next, let us assume that the price of oil decreases substantially. This causes an increase in

macroeconomic supply and the short-run Phillips curve shifts to the left from S1 to S2. The economy consequently adjusts from point A to point B.

Business firms respond to lower oil prices by expanding production and lowering the rate of product prices. Inflation declines from 6 to 3 percent as lower energy costs are passed along to consumers in the form of lower prices. Additionally, unemployment falls from 5 to 3 percent. This occurs because lower oil prices cause production costs to decline, which makes hiring additional labor more affordable. Business firms thus employ more workers.

Actual oil prices, in fact, have fluctuated up and down over time. The overall trend, however, has been a rise in oil prices over the last several decades. Figure 3.10 shows the pattern of oil prices since the mid-1940s.

In this chart, oil prices are measured in nominal and real terms (see Chapter 2 for a discussion of real versus nominal values). The chart shows that for several decades from 1946 to the early 1970s, the inflation-adjusted price of crude oil (in real terms) hovered around $20 per barrel. However, during the mid- and late-1970s, oil prices spiked upward twice. These two events denote the first and second oil shocks. The first oil shock occurred in 1973 and the second was in 1979.

Both oil shocks had a dramatic adverse impact upon the U.S. macro-economy. Stagflation developed, which consisted of rising inflation and worsening unemployment. This occurred as the result of a decrease in macroeconomic supply caused by high oil prices. During the 1980s and throughout the 1990s, on the other hand, real oil prices fell. Since the
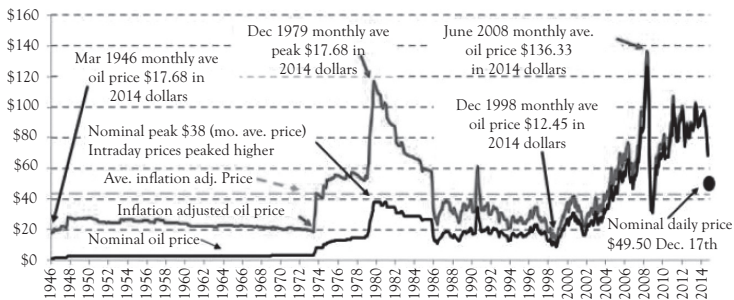
Figure 3.10 Crude oil prices, 1946–2014

Source: www.InflationData.com; www.bls.gov; www.PlainsAllAmerican.com

year 2000, however, oil prices have exhibited a gradual, but fluctuating upward trend.

The rate of change in oil prices has a major influence upon overall inflation in the American economy, as demonstrated from a theoretical perspective in Figure 3.8 and Figure 3.9. Figure 3.11 shows the empirical pattern of oil price inflation in comparison with general inflation in the U.S. economy.

The percentage change in the price of oil is measured alongside the left vertical axis while overall price inflation is measured next to the right vertical axis. Oil price inflation is shown as the solid line, while general price inflation is indicated by the dashed line. Time in years is depicted along the horizontal axis. This graph shows a positive correlation between oil price inflation and overall price inflation. During the time periods when oil prices rose dramatically, general inflation also tended to increase. This effect was particularly evident during the two energy crises of 1973 and 1979. In both instances, stagflation took place. The two oil shocks led to high inflation as well as recessions in the U.S. economy. The vertical shaded areas in the chart denote the recessions.

Conversely, when oil prices fell, general inflation likewise went down. For example, Figure 3.11 shows that declining inflation occurred along-side decreasing oil prices throughout the first half of the 1980s. This result
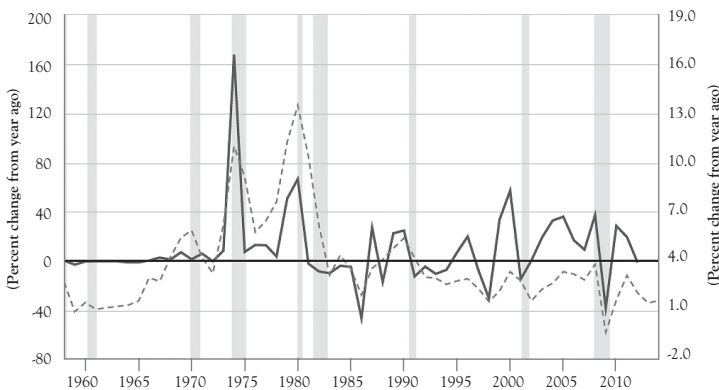
Figure 3.11 Relation between oil prices and inflation

Source: FRED

was in stark contrast to the high oil prices and high general inflation corresponding to the two oil shocks of the 1970s.

The issue of oil prices has political macroeconomy ramifications because of the substantial impact of energy costs upon the U.S. economy, especially during the Nixon–Ford, Carter, and Reagan presidencies. Later, in Chapter 8, we will consider the influence of oil prices upon political macroeconomic effects during those presidencies.

CHAPTER 4

Fiscal and Monetary Policies

Introduction: Expansionary and Contractionary Polices

The government uses macroeconomic (stabilization) policies to help stabilize and improve macroeconomic performance. Stabilization policies focus on macroeconomic goals such as high real GDP (RGDP) growth, low unemployment, and low stable inflation. To achieve these objectives, macroeconomic policies may be expansionary or contractionary. The purpose of expansionary policy is to remedy macroeconomic sluggishness or recession, in other words a recessionary gap. As was briefly discussed in Chapter 3, the use of expansionary policy corresponds with the Keynesian approach for resolving a recession (we also discussed the classical approach for resolving a recessionary gap in Chapter 3, which relies on the self-correcting mechanism).

Let us review the effects of expansionary policy on the macroeconomy. Figure 4.1 shows the impact of expansionary stabilization policy using the expectational Phillips curve framework.

Suppose that the macroeconomy is initially at point 1. The economy is in a recessionary gap. Unemployment is equal to 6 percent, which is greater than the natural unemployment rate of 5 percent. Additionally, inflation is initially equal to about 2 percent at point 1. Now let us assume that the government policymakers attempt to remedy the recessionary gap through expansionary macroeconomic policy. This causes an increase in macroeconomic demand, which leads to higher RGDP growth and a reduction in the unemployment rate.

Macroeconomic performance therefore moves up and to the left along the short-run Phillips curve S1 from point 1 to point 2. The recessionary gap is alleviated as unemployment declines from 6 percent toward the natural rate of 5 percent. The expansionary macroeconomic
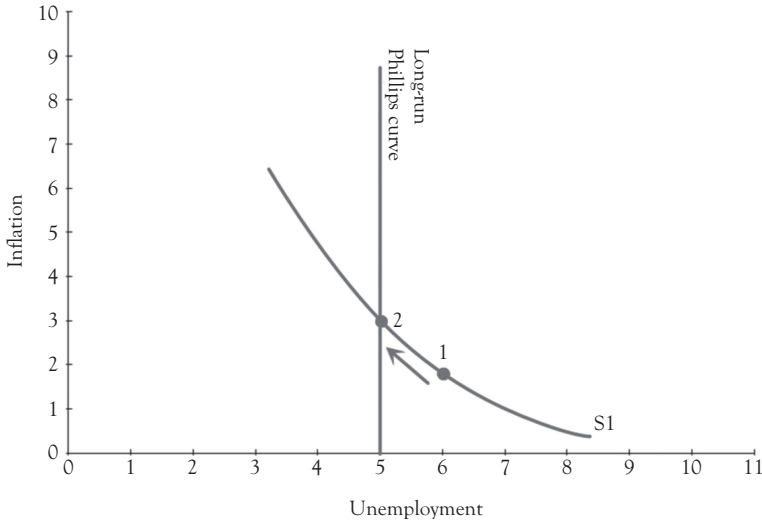
Figure 4.1 Expansionary macroeconomic policy

policy, however, generates the side effect of higher inflation. In particular, demand-pull inflation occurs as buyers increase their spending and are willing to pay higher prices. Inflation rises from 2 to 3 percent as the economy moves from point 1 to point 2. Given the initial recessionary gap, the economic effects of expansionary policy consist of lower unemployment and an increase in inflation.

Besides expansionary policy to remedy a recessionary gap, let us next review the effects of contractionary macroeconomic policy. This type of stabilization policy causes a decrease in aggregate demand to alleviate an inflationary gap. The macroeconomic problem that contractionary policy therefore seeks to resolve is high inflation in the economy.

Figure 4.2 shows the effects of contractionary stabilization policy using the expectational Phillips curve model.

Let us assume the macroeconomy is at point A. The economy is in an inflationary gap because unemployment is equal to about 4 percent, which is less than the natural unemployment rate of 5 percent. The economy is overheated. If unemployment occurs below the natural rate, such as at point A, then excess macroeconomic demand occurs. This causes relatively high or rising inflation. Inflation is equal to about 4.5 percent
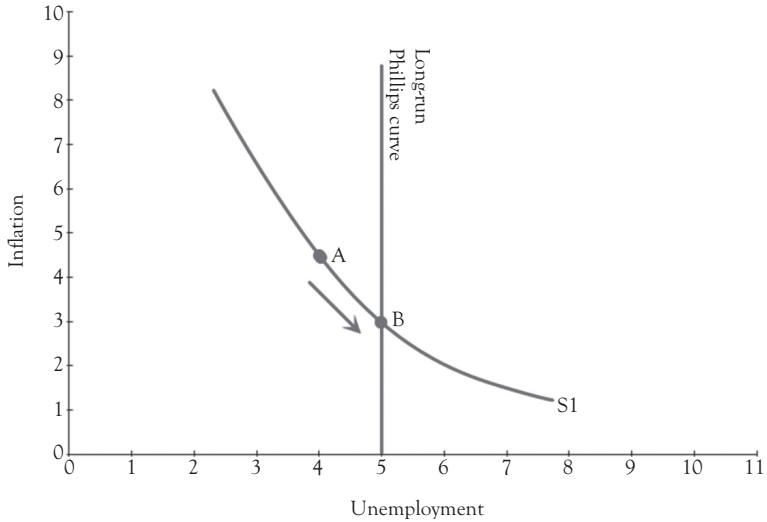
Figure 4.2 Contractionary macroeconomic policy

at point A. If the excess macroeconomic demand is left unchecked, then inflation would be expected to rise even further.

Now, let us assume that the policymakers (the president, Congress, and the Federal Reserve) seek to resolve the inflationary gap by adopting a contractionary policy. Macroeconomic demand consequently decreases, and the economy moves down and to the right along the short-run Phillips curve S1 from point A to point B. The inflationary gap is resolved as a result of the decline in macroeconomic demand, and inflation decreases from 4.5 to 3 percent. In resolving the inflationary gap, the contractionary policy causes unemployment to increase to the natural rate. Figure 4.2 shows that unemployment rises from 4 percent to the natural rate of 5 percent. The contractionary policy alleviates macroeconomic overheating, and the economy moves to a long-run position of efficiency at point B (Point B is efficient since it occurs on the long-run Phillips curve).

Two general types of macroeconomic policy may be used for expansionary and contractionary purposes. They consist of fiscal policy and monetary policy. Fiscal policy will be discussed in the next section, followed by a discussion of monetary policy.

Fiscal Policy: Government Spending and Taxes

Fiscal policy refers to the influence of government expenditures and taxation upon macroeconomic demand and macroeconomic performance, as measured in terms of RGDP, unemployment, inflation, and interest rates. Some of the main kinds of government taxation include personal and corporate income taxes, social security taxes, sales taxes, property taxes, and excise taxes. Some of the main types of government expenditure include national defense, government-provided health care such as Medicare and Medicaid, public education, and interest payments on the government debt (also referred to as national debt or the public debt).

The government budget equals total government spending minus total taxes. A government budget deficit arises when government spending is greater than total taxes. A government budget surplus occurs when total government spending is less than total taxes. A balanced budget takes place if total government spending equals total taxes.

Let us consider three scenarios on the interconnection among government spending, government taxes, the government budget deficit, and the national debt. In our first scenario, let us assume that total government spending exceeds total taxes. A government budget deficit consequently occurs and the government debt rises. The government budget deficit is approximately equal to the increase in total government debt. In other words, the government finances its budget deficit spending by borrowing additional funds from the public. This occurs as the treasury prints new government securities that are sold to the public (i.e., individuals, businesses, banks, and even foreign governments). The government borrows funds by selling Treasury bonds (T-bonds). From the public's perspective, however, the purchase of T-bonds is considered to be financial investment. Correspondingly, the total amount of government debt is closely related to the summation of all of the government budget deficits that have arisen over time.

Some amount of the national debt, however, may be reduced through the process of printing new money by the central bank. This may be referred to as monetization of the national debt. Essentially, the Fed buys T-bonds from the public and pays for the purchases by issuing (printing)

new currency. This causes money supply in the economy to rise. The national debt held by the public consequently declines by the amount of T-bonds that the Fed purchases from the public.

As a second case, let us assume that the reverse happens. Suppose that government taxes are greater than government spending. In this instance, a government budget surplus develops. The total level of government debt consequently decreases by an amount approximately equal to the government budget surplus. This occurs assuming that the government uses the surplus budgetary funds to pay off T-bonds that are held by the public. Finally, as a third example, let us assume that government spending exactly equals government taxes. In this instance, a balanced budget takes place. The size of the government debt therefore remains largely unchanged because neither a deficit nor a surplus occurs in the government budget.

Expansionary Fiscal Policy: Higher Government Spending and Lower Taxes

Fiscal policy may be either expansionary or contractionary, depending on whether unemployment or inflation is the primary concern of the policymakers. Expansionary fiscal policy focuses on increasing economic growth and reducing unemployment. An expansionary fiscal policy makes use of two different tools, which consist of tax cuts and increased government spending.

The first instrument of expansionary fiscal policy is a decrease in taxes. A decline in income taxes leads to a higher after-tax income available to business firms and households. An increase in after-tax household income, also referred to as disposable income, facilitates more consumer spending. An increase in after-tax business income, such as retained corporate earnings, leads to more business investment. Tax cuts thus indirectly yield greater macroeconomic expenditures through the intermediate impact of tax cuts on after-tax household and business income.

Besides the indirect influence of tax cuts upon macroeconomic expenditures, the other instrument of expansionary fiscal policy is an increase in government purchases. This tool of expansionary policy creates a direct impact upon macroeconomic expenditures. An increase in government

spending directly adds to macroeconomic demand because government expenditure is a direct component of GDP (as discussed in Chapter 2). The objective of expansionary fiscal policy is to expand macroeconomic demand in order to raise RGDP and reduce unemployment. This intended macroeconomic result, however, may occur alongside the adverse side-effect of worsening inflation, particularly if higher government spending or lower taxes create a long-lasting and overly-expansive impact on macroeconomic demand beyond the level of potential GDP. The economic effects of expansionary fiscal policy are illustrated as the movement from point 1 to point 2 in Figure 4.1. As discussed previously, fiscal policy impacts the size of the government budget deficit and the national debt. Therefore, an adverse macroeconomic side-effect of expansionary fiscal policy (from greater government spending or lower taxes) is a worsening government budget deficit and a higher level of national debt.

In terms of ideology, the classical macroeconomic perspective generally advocates tax cuts as the appropriate expansionary fiscal policy. A tax-cut policy reduces the role and size of the government in the economy, which enables a stronger role for market forces. The classical outlook asserts that the private sector should play a very dominant role in the economy. Classicalism emphasizes private enterprise because of the perceived efficiency and flexibility of competitive and decentralized supply and demand market forces. The classical view maintains that government spending is usually less inefficient and effective than private sector spending. According to this view, households and private firms know better how to spend their own money than the government knows how to spend other peoples' money.

In contrast to the classical preference for tax cuts, the Keynesian perspective often advocates an increase in government expenditures as a more effective approach to expansionary fiscal policy. An increase in government expenditures, according to Keynesianism, is sometimes necessary to counteract economic sluggishness in the private sector, especially during recessions. If private sector spending is weak, government expenditures should step in to make up the difference. The Keynesian outlook contends that market forces are sometimes myopic and rigid. Keynesianism asserts that market forces periodically fail, in contrast to the classical view which perceives market forces as normally flexible, well informed,

and efficient. Classicalism argues that the government is more likely to fail than the market place.

Keynesianism asserts that an increase in government spending often generates a stronger, quicker, more reliable, and more direct influence upon the macroeconomy than tax cuts. A decline in taxes causes a direct increase in after-tax income, which then yields an indirect and less certain effect upon spending in the economy. Tax cuts, for example, could lead to more saving rather than more spending, which would reduce or negate the impact on macroeconomic demand. Government expenditure, on the other hand, has an immediate influence on macroeconomic demand and GDP, according to Keynesians. Overall, Keynesians frequently advise higher government spending because of concern about the potential for market failures, whereas Classicalism usually advocates tax cuts because of worry about government failure.

Crowding-out Versus Crowding-in Effects

Another major controversy regarding expansionary fiscal policy relates to the crowding-out effect. The classical perspective emphasizes the detrimental effect of crowding out in their opposition against high government spending. The crowding-out effect refers to the possible adverse impact of high government expenditures upon the government budget deficit and private economic investment. According to the crowding-out effect, an increase in government spending causes the budget deficit to worsen, assuming that taxes remain unchanged. An increase in the government budget deficit, in turn, may cause interest rates to rise. This occurs because increased government borrowing associated with a larger government deficit competes directly with private-sector borrowing.

An increase in the demand for borrowing (i.e., the demand for loanable funds) caused by greater government debt may bid up the cost of borrowing. The interest rate is the cost of borrowing. As government spending and the budget deficit rise, interest rates may rise. If this happens, then business sector borrowing to finance real investment in plant and equipment becomes more expensive. Business firms consequently reduce their borrowing to fund capital investment. Business investment

decreases and is crowded out because of higher interest rates and increased lending to finance more government debt.

If crowding out is full or complete, then any increase in government spending is completely offset by an equivalent decline in private investment spending, leaving GDP essentially unchanged, but with higher interest rates and greater government debt. Alternatively, a decrease in deficit-financed government spending will lead to an equivalent rise in private investment spending. A decrease in the government deficit will reduce the demand for loanable funds, which enables interest rates to drop. The lower interest rates will then motivate business firms to increase borrowing to finance new economic investment in plant and equipment.

Crowding out, however, is more likely to be partial rather than full. An increase in government spending may be associated with some decline in private economic investment, but the effect probably does not completely cancel out. As a hypothetical example, an increase in government spending of $100 billion may cause interest rates to rise and private sector investment to fall by $25 billion (rather than $100 billion, which would take place if complete crowding out were to occur).

In contrast to the crowding-out effect is the crowding-in effect. This refers to the possibility that an increase in government expenditures may trigger an even greater expansion in macroeconomic demand through the *spending multiplier*. According to the crowding-in effect, an initial increase in government expenditure will lead to a further increase in consumer spending and ultimately an even higher increase in the level of GDP. Suppose that government spending were to rise by $100 billion. This yields a direct impact on GDP of $100 billion because government purchases are a direct component of GDP. In addition, this increase in government spending generates a rise in income of $100 billion to the sellers or suppliers of government goods. They, in turn, spend a portion of their new income, perhaps $75 billion on consumer goods. This secondary round of spending causes GDP to go up by $75 billion. This leads to additional income, this time to the sellers of consumption goods. They, in turn, increase their expenditures, perhaps by $60 billion. This leads to yet another round of new income and subsequent spending. Through this multiplier process, an increase in government expenditures will ultimately generate an even greater influence upon macroeconomic demand and

GDP. Essentially, one person's spending becomes income to someone else, which leads to more spending and income to yet others. A ripple effect of multiple rounds of income and spending takes place in response to the initial rise in government purchases. If overall macroeconomic demand were to expand by $250 billion in response to an increase in government purchases of $100 billion, then the spending multiplier would be equal to 2.5. Keynesians tend to emphasize the crowding-in or spending multiplier effect of government spending upon GDP. The classical macroeconomic perspective, on the other hand, emphasizes the crowding-out effect of increased government spending upon higher interest rates and reduced economic investment.

Contractionary Fiscal Policy: Lower Government Spending and Higher Taxes

In addition to expansionary fiscal policy, government spending and taxation may be used for contractionary macroeconomic purposes. Contractionary fiscal policy may be implemented in two ways. The two approaches consist of higher taxes or lower government spending. The main goal of contractionary fiscal policy is to reduce inflation by lowering macroeconomic demand. This objective, however, may come at the cost of a decline in real economic growth and an increase in unemployment, possibly even a recession. This outcome occurs because of the short-run inflation-unemployment trade-off (as discussed in Chapter 3). Contractionary policy brings about lower inflation, but also less spending in the economy and therefore fewer jobs.

A beneficial side effect of contractionary fiscal policy is that the size of the government budget deficit declines. An increase in taxes or a cut in government spending causes the government budget deficit to shrink. Moreover, a decline in total national debt may be possible if a government budget surplus arises from increased taxes or decreased government purchases. A budget surplus causes the national debt to decrease if the surplus government funds are used to pay off principal on T-bonds held by the public.

The first type of contractionary fiscal policy is higher taxes. An increase in taxes reduces the amount of after-tax income to households and firms.

Less funds are therefore available for business investment and household consumption. A lower level of after-tax income causes businesses and households to spend a lesser amount and consequently macroeconomic demand goes down. The second type of contractionary fiscal policy tool is a decrease in government purchases. A cut in government expenditure causes a direct decrease in macroeconomic demand and GDP because government spending is a GDP component.

The classical macroeconomic perspective on contractionary fiscal policy generally advocates lower government spending (as opposed to higher taxes) to resolve an inflationary problem. A decline in government expenditure reduces the role of the state in the economy, which is a key objective of the classical view. Political conservatism tends to align with the classical macroeconomic perspective. In addition, the political conservative outlook tends to advise cuts in government social programs rather than cuts in national defense for contractionary fiscal policy.

This conservative priority on government spending is largely motivated by two principles, which consist of economic self-reliance and strong national security. According to the principle of economic self-reliance, poverty alleviation can only be truly realized through individual economic self-sufficiency. According to this view, a counterproductive outcome often occurs from government subsidies and programs to address poverty. Government spending to assist the poor often inadvertently perpetuates economic dependency by the poor upon the state. This occurs based on the generalization that state subsidies to an economic activity tend to encourage more of that activity. Government programs to alleviate poverty could unintentionally perpetuate poverty because of a dependency incentive that is created. Political conservatism advocates that the government should instead adopt policies that encourage economic self-reliance. According to conservatism, market forces are the strongest incentive for economic self-reliance. Capitalism rewards individuals and businesses with income based on their productivity or contribution to the economy.

Because of the economic inefficiencies and dependencies that government social programs may create, the conservative outlook often advocates cuts in social spending as the appropriate contractionary fiscal policy rather than an increase in taxes. A decrease in social welfare spending

will motivate recipients to more actively seek work and become more self-reliant, according to conservatism. The difficulty with this approach, according to Keynesians and political liberals, however, is that cuts in antipoverty programs are likely to worsen poverty among those who fall through the cracks of the market system. Reduced social spending will motivate some social welfare recipients to obtain employment. Those who do not or cannot find work, however, will find that their poverty situation worsens because of reduced social welfare programs.

The second conservative principle in relation to contractionary fiscal policy stresses the importance of strong national security. A strong level of national security promotes a safe, secure, and stable social and economic environment in which the private sector can thrive. The conservative political view therefore tends to oppose military spending cuts as a contractionary fiscal policy approach to reduce inflation. A high level of national defense spending is necessary to maintain a strong degree of national security. Political conservatism tends to endorse the military hawkish sentiment that the best way to prevent war is to prepare for war.

Some Keynesians may also advocate a cut in government spending as an appropriate contractionary fiscal policy to alleviate inflation. The Keynesian motivation for this approach is that government expenditures have a larger, more direct, quicker, and more reliable impact upon macroeconomic demand than tax policy. A decrease in government spending causes an immediate and direct decline in macroeconomic demand. Taxes, on the other hand, indirectly and secondarily affect GDP through the intermediate step of disposable income. Taxes directly affect disposable income, which then may have an uncertain effect on consumption spending.

This uncertainty occurs because some portion of after-tax income goes to saving instead of consumer spending. An increase in taxes could conceivably have a less than anticipated impact on macroeconomic demand because of the leakage of saving. Households could respond to higher taxes by saving less rather than spending less. Macroeconomic demand would consequently be unchanged. In this case, consumer spending would remain the same while saving decreased because of higher taxes.

In contrast to political conservatism, the political liberal view tends to oppose a contractionary fiscal policy of government spending cuts in

social safety net programs such as Medicaid and social welfare. The liberal concern is that reduced social spending would worsen poverty. Although government social programs may not remedy the underlying root causes of poverty, social safety net programs provide basic economic needs that otherwise would not be available for many of the poor. Antipoverty programs are designed to provide short-term relief of basic economic needs. Short-term antipoverty programs, however, should be supplemented with long-term incentives to promote economic self-reliance.

Rather than cuts in social safety-net programs, the political liberal perspective would, in many instances, recommend decreased military spending as a more suitable contractionary fiscal policy to address high inflation. Many social liberals adhere to the military dovish sentiment that countries that overprepare for war are more likely to become trigger-happy and go to war. To remedy inflation, many political liberals would therefore advocate a contractionary fiscal policy of reduced military spending as opposed to decreased social welfare spending.

Other political liberals, however, would likely recommend a contractionary fiscal policy of higher taxes, especially higher progressivity of individual and business income taxes. The main motivation for this liberal prescription is fairness in economic outcomes. For contractionary fiscal policy, the political left generally advocates a greater marginal income tax rate upon higher-income households and businesses in order to promote greater economic equality in disposable income across the socioeconomic spectrum. The income tax rate, according to political liberalism, should be higher upon upper-income households and firms based on the ability-to-pay principle. Tax rates should correspondingly be smaller upon lower-income individuals and businesses because of lesser ability to pay.

In summary, Keynesians and political liberals are likely to recommend higher progressivity of income taxes or cuts in military spending as appropriate contractionary fiscal policies to alleviate high inflation. The classical macroeconomic view and social conservatism, on the other hand, are likely to advise lower government spending on social programs as the appropriate contractionary fiscal policy to remedy high inflation.

The economic and political characteristics of expansionary and contractionary fiscal policies are summarized in Table 4.1.

Table 4.1 Characteristics of expansionary and contractionary fiscal policies

Fiscal policy	Objectives	Possible macroeconomic side effects	Policy tools	Liberal political approach	Conservative political approach
Expansionary fiscal policy	Remedy recession or sluggish economic growth, reduce unemployment	Higher inflation; larger government budget deficit	Increase in government spending or decrease in taxes	Increase in government spending, especially social programs	Decrease in taxes
Contractionary fiscal policy	Remedy high inflation or economic overheating	Lower economic growth, higher unemployment, possibly recession; smaller government budget deficit	Decrease in government spending or increase in taxes	Increase in progressivity of taxes or reduction in military spending	Decrease in government spending on social programs

The political right and the political left diverge from each other on the most effective approach toward fiscal policy. This ideological divide occurs because of opposing perspectives on the role and effectiveness of market forces versus government activism in attaining a strong macroeconomy with low inflation. The political left tends to support macroeconomic Keynesianism, whereas the political right tends to adhere to Classicalism.

Political Checks and Balances in Fiscal Policy

Fiscal policy takes place primarily through the annual federal government budgetary process. Fiscal policy is determined by the political interaction and compromise between the president and Congress. This budgetary process also involves the conservative and liberal political parties since most of the fiscal policymakers (Congress and the president) are members of the two main parties. The interaction among the political participants involved in fiscal policy may be cooperative or conflictual. The outcome of fiscal policy that unfolds will partly depend on the distribution of political party control over the executive and legislative branches.

For example, if one political party controls both the legislative and executive branches of government, then the president and the in-party to

the White House would have a strong likelihood to achieve their intended fiscal policy. The fiscal policy process in this case (of a unified government) would be relatively cooperative between the president and Congress, because a single political party would dominate both government branches.

Suppose that the conservative political party controlled both the executive and legislative branches. This would occur if the president were a member of the conservative political party and a majority of legislators in Congress were also members of the conservative party. Fiscal policy, in this circumstance, would therefore end up being conservative in nature. A conservative fiscal policy emphasizes the goal of a relatively small size of government. This would occur in the form of reduced government spending (on social programs) for contractionary fiscal policy and decreased taxes for expansionary fiscal policy.

Alternatively, if the liberal political party controlled both the legislature and the presidency, then fiscal policy would be liberal in orientation. A liberal fiscal policy emphasizes a larger role for government in the economy. A liberal expansionary fiscal policy would stress greater government expenditures, especially social programs. A liberal contractionary fiscal policy would stress greater progressivity of income taxes upon businesses and households.

Conversely, let us suppose that a power split were to occur regarding political party control over the two branches of government. This would result in a divided government rather than a unified government. In a divided government, the president would be unlikely to fully attain the desired fiscal policy. Suppose, for instance, that the president is a Republican while most members of Congress are Democrats. Consequently, the outcome of fiscal policy would probably end up in political gridlock. The majority of members of Congress and the president would likely disagree on the level and distribution of government spending and taxes in the economy.

Monetary Policy: Money Supply and Interest Rates

The Federal Reserve is the central bank or monetary authority in the U.S. economy. This institution is responsible for monetary policy as

well as regulation of the banking system. Monetary policy refers to the control of money supply and interest rates. Monetary policy impacts aggregate demand in the macroeconomy, with short and long-run implications for unemployment, inflation, RGDP, and the dynamics of the business cycle. Monetary policy is primarily administered through open market operations (OMO) as well as through Fed purchases of long-term private assets, such as mortgage-backed securities (referred to as quantitative easing).*

The Federal Open Market Committee (FOMC) is the decision-making body of the Fed that is responsible for monetary policy. The FOMC consists of 12 members. The FOMC chairman is the chairman of the Board of Governors of the Federal Reserve System. The Fed chairman is appointed by the president to serve renewable four-year terms. The other FOMC members consist of six members of the board of governors, plus the president of the Federal Reserve Bank of New York, and four additional Federal Reserve district bank presidents who serve rotating one-year terms.

The purpose of this somewhat complex and rotating configuration of FOMC members is to promote diversity and plurality in the money supply decision-making process. This mechanism is a partial safeguard against excessive control over monetary policy by special interests, the president, Congress, and the political parties. Whether this goal is realized is a subject of controversy that will be addressed in Chapter 9.

Money Supply and Interest Rates

Money supply refers to the amount of cash held outside of banks plus bank account deposits. Most of the money supply is in the form of bank deposits, such as checking accounts, savings accounts, and bank certificates of deposit. The Fed uses several different definitions for measuring the quantity of money in the economy, such as M1, M2, M3, and L.

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* The discount rate and the reserve requirement also impact the money supply and interest rates. These two instruments, however, are not the main tools of monetary policy.

The M2 definition of money supply is a widely used measurement, which refers to cash held outside of banks plus checking and savings account deposits. Money supply is measured both nominally as well as in real terms. The nominal money supply denotes the total dollar value of the quantity of money that is in circulation in the form of cash and bank deposits.

The real money supply, on the other hand, provides a measure for the purchasing power of money. The real money supply indicates the value of money in relation to the prices of goods in the economy. In mathematical terms, the real money supply equals the nominal money supply divided by the aggregate price index. The aggregate price index is an indicator of the average price level of new products in the economy (see Chapter 2 for a discussion on nominal values and real values).

A cause-effect relation occurs between the real money supply and interest rates. According to monetary theory, an increase in the supply of real money in the economy tends to cause lower interest rates. Conversely, a decrease in the real money supply generally leads to higher interest rates. The price of money, at least from a borrower's perspective, may be thought of as the interest rate. The interest rate and interest payments on loans reflect the price or cost associated with borrowing money. According to economic market analysis, when the supply of an economic product increases, its price declines. Alternatively, when the supply of an economic good decreases, its price goes up.

Based on this concept, an inverse relation occurs between the real money supply and its price, which is the interest rate. A change in the real money supply affects the interest rate. An increase in the supply of real money causes its price, the interest rate, to go down. A decrease in the supply of real money causes its price, the interest rate, to go up. Figure 4.3 illustrates the general inverse pattern between real money supply and interest rates in the U.S. economy.

The scatter graph in Figure 4.3 shows the interest rate for AAA corporate bonds next to the vertical axis and the growth rate for the real M2 money supply along the horizontal axis. The economic data in the graph consists of monthly observations across the time frame from August 1992 to January 2015. The scatterplot illustrates a general
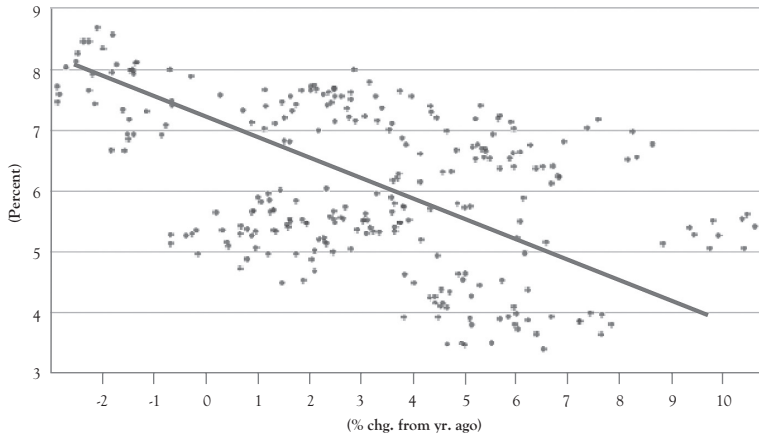
Figure 4.3 Real M2 money supply and the interest rate

Source: Federal Reserve Economic Data (FRED)

inverse effect as indicated by the downward trend line. As the growth rate of real money goes up, the interest rate goes down, and *vice versa*. This inverse pattern may be referred to as the money demand curve. The money demand pattern, however, is not perfectly correlated with all of the data in the graph. Many of the data points in the scatter graph occur above and below the trend line. This occurs because additional economic determinants (besides the interest rate) influence the demand for money.

Besides the interest rate, the most important economic factor that influences money demand is RGDP. RGDP has a positive impact upon both money demand and interest rates. An increase in RGDP causes an increase in the demand for money. This takes place because more money is needed in order to pay for greater expenditures associated with a grow-ing economy. This effect is called the transactions demand for money. An increase in money demand associated with a rise in RGDP tends to cause interest rates to rise. According to economic market analysis, an increase in the demand for an economic good causes its price to rise. The price of money is the interest rate. Consequently, an increase in the demand for money causes the price to go up, which is the interest rate. Alternatively, if RGDP declines, money demand decreases because of less macroeco-nomic expenditures, and interest rates tend to fall.

Open Market Operations

Monetary policy occurs through the process of open market operations (OMO). The OMO mechanism consists of central bank purchases and sales of government securities. This influences the level of money supply and interest rates. An expansionary open-market operation consists of Fed purchases of T-bonds. When the Fed buys T-bonds from the public through the secondary bond market, an injection of cash occurs in the economy and also in the banking system as bank reserves. Cash held by banks is referred to as bank reserves. Banks, as a result of expansionary OMO, have more funds or reserves available to lend to business and household borrowers. Consequently, bank loans increase.

Through this activity of lending, banks earn interest income. In the process of making more loans, banks typically must reduce interest rates in order to induce households and firms to borrow more funds for consumer spending, residential investment, and business investment. The increase in bank loans ultimately leads to an expansion in business and residential investments, as well as an increase in debt-financed consumer spending. In this way, expansionary or loose OMO policy leads to an expansion in macroeconomic demand in the form of higher consumer expenditure and more investment spending. RGDP therefore rises and unemployment declines as macroeconomic demand goes up. This macroeconomic outcome of higher RGDP and lower unemployment is the main objective of loose monetary policy. A negative side effect of expansionary monetary policy, however, is that inflation may worsen. Inflation probably increases because higher macroeconomic demand means that buyers are willing to pay higher product prices.

Similar to expansionary OMO, the central bank may engage in quantitative easing. This consists of Fed purchases of long-term private bonds in order to increase the money supply. In particular, the central bank may buy mortgage-backed securities, which has a similar effect as expansionary OMO upon money supply and interest rates. Central bank purchases of mortgage-backed securities lead to an injection of cash into the economy, which ultimately ends up in banks. These new bank reserves lead to more bank loans, and therefore an expansion of the money supply and a reduction in interest rates (particularly mortgage rates).

Contractionary or tight OMO has the opposite effect of loose OMO and quantitative easing. Contractionary OMO consist of the Fed selling T-bonds to the public in the secondary bond market. The Fed receives payments in the form of cash as it sells T-bonds to secondary bond dealers. This action causes cash to exit the economy into the vaults of the Fed. In other words, a leakage of cash occurs from the banking system. Consequently, less cash or reserves are available in banks to lend out to borrowers. Bank loans therefore decline and money supply ultimately decreases. This decline in money supply tends to drive up interest rates. The decrease in the supply of loanable funds causes its price to rise, which is the interest rate. The higher interest rate creates a contractionary demand effect upon consumer spending and economic investment. Higher interest rates make consumer and business borrowing more expensive. Debt-financed investment and consumption therefore decrease. As aggregate demand declines, inflation goes down. Lower inflation is the goal of tight monetary policy. However, a negative side effect of tight monetary policy is a decline in RGDP and an increase in unemployment. RGDP and unemployment likely worsen because of lower macroeconomic demand.

The characteristics of expansionary and contractionary monetary policies are summarized in Table 4.2.

Table 4.2 Expansionary and contractionary monetary policies

Type of monetary policy	Loose policy	Tight policy
OMO	Net purchase of T-bonds	Net sale of T-bonds
Effect upon bank reserves	Increase in bank reserves	Decrease in bank reserves
Effect upon bank loans	Increase in bank loans	Decrease in bank loans
Effect upon real money supply	Increase in real money supply growth	Decrease in real money supply growth
Effect upon interest rates	Decrease in interest rates	Increase in interest rates
Macroeconomic goals	Higher RGDP, lower unemployment	Lower inflation
Macroeconomic side effect	Higher inflation	Macroeconomic slowdown, possible recession
Macroeconomic problem that the policy addresses	Recession or slow macroeconomic growth	High inflation

An important aspect of the money supply process is the fractional reserve banking system. As discussed earlier, money supply increases through the process of bank loans. When an individual or business borrows funds from a bank, the money supply goes up by the amount of the loan or the debt. This implies that a large portion of the money supply is related to the amount of private debt in the economy. This characteristic of money creation through bank loans creates an economic vulnerability. Periodically, massive loan defaults occur in the economy, such as the mortgage loan financial crisis associated with the Great Recession of 2007–2009. When a large amount of loan defaults occur, the money supply declines proportionately, which can adversely affect interest rates, macroeconomic demand, GDP, and unemployment.

Monetary Policy Targeting of Inflation and Interest Rates

In determining monetary policy, the central bank will place targets (set goals) on inflation and interest rates (as well as other macroeconomic indicators). At different times, the Fed may emphasize one or the other macroeconomic targets. For example, the monetary policy goal of inflation targeting emphasizes a low and stable inflation level. The conservative political view and Classicalism often emphasize inflation targeting because of its implications for a stable business environment. A stable, low inflation rate promotes financial stability that helps market forces to flourish. The classical view argues that if market forces operate efficiently in a steady financial setting, then economic growth and unemployment will automatically adjust toward potential GDP and the natural unemployment rate through the self-correcting mechanism (as discussed in Chapter 3).

Besides inflation targeting, the other main emphasis is interest rate targeting. This focuses on maintaining low and stable interest rates. Low interest rates keep the cost of borrowing low, which enables greater economic investment and higher consumer spending. The purpose of targeting low interest rates is to promote stronger RGDP growth and declining unemployment. The liberal political perspective and Keynesianism tend to emphasize interest rate targeting, especially during periods of macroeconomic slowdown. According to this perspective, monetary policy

should actively intervene in the macroeconomy during episodes of recession by promoting low interest rates to foster greater economic growth and reduced unemployment. Macroeconomic intervention by the state is frequently necessary according to Keynesians because of episodic rigidities and inefficiencies of market forces.

Fiscal and Monetary Policy Coordination and Time Lags

Two additional issues are macroeconomic policy coordination and time lags in macroeconomic policy. The first issue is policy coordination. Depending on the macroeconomic preferences of the policymakers, the interaction between fiscal and monetary policies could either reinforce each other or alternatively the two types of macroeconomic policies may come into conflict and could even offset each other. In order for fiscal and monetary policies to reinforce each other, the three macroeconomic policymakers would need to agree on the policy direction. The Fed, the president, and Congress would need to agree on whether macroeconomic policies should be expansionary or contractionary. For example, a coordinated set of expansionary macroeconomic policies would consist of tax cuts or an increase in government spending as worked out by the president and Congress combined with an increase in money supply and lower interest rates as implemented by the central bank.

Alternatively, the three macroeconomic policy players could end up in disagreement on the direction of stabilization policy. The macroeconomic policy direction would consequently be in gridlock. For instance, fiscal policy as determined by Congress and the president could be expansionary, while monetary policy as determined by the central bank could be contractionary. The two policies would therefore oppose each other and the net effect upon the macroeconomy could cancel out.

The other issue is time lags associated with fiscal and monetary policies. Fiscal policy tends to have a faster impact upon the macroeconomy than monetary policy. Tax cuts and increased government spending tend to have a quicker influence upon expenditures in the economy than is the case for increased money supply and lower interest rates.

The full impact of increased government spending or tax cuts upon RGDP and unemployment often occurs over a period of several months. Changes in government spending have an immediate and a direct effect on GDP. As soon as government spending takes place, an effect upon GDP immediately arises since government spending is a GDP component. The impact of taxes on the economy, however, is somewhat slower and more uncertain. This occurs because taxes affect disposable income directly, whereas the influence of disposable income on spending and saving occurs subsequently.

The full effect of monetary policy upon macroeconomic performance, on the other hand, may require one year or longer to occur. For monetary policy, several linkages must take place over time. First, OMO policy will cause changes in the amount of money reserves held in banks. This affects the money supply as banks alter the amount of loans. Correspondingly, the change in the money supply influences interest rates. The change in interest rates impacts consumer and business borrowing. This then affects the amount of debt-financed consumer spending and business investment spending, the level of GDP, and finally the unemployment rate.

CHAPTER 5

Voter Rationality and Macroeconomic Preferences

Introduction: Rational Voting, Rational Ignorance, and Political Parties

According to rational voter theory, citizens cast their ballots based on a rational decision-making process (Downs 1957). The voter opinion-making process involves a cost–benefit comparison of the different policy platforms among the various political candidates and political parties. According to this mechanism, citizens vote for the politician who embraces the policies that provide the greatest political net benefit. Individuals vote for the political candidate whose policies most closely resemble their own political preferences. A citizen's political preference may also be referred to as the person's most preferred political outcome.

However, the process of becoming informed on political and economic issues, and then developing well-thought-out opinions is time consuming and costly to voters. Individuals often do not possess sufficient time and other resources to become fully informed on all of the relevant politico-economic issues that affect them. Rational ignorance consequently occurs. Rational ignorance refers to a voter's decision to remain partially uninformed on some political issues because the costs of becoming more politically aware exceed the added benefits from gaining a more informed opinion.

Political parties play a key role regarding rational ignorance. In particular, some voters choose to vote for the candidate who belongs to their preferred political party as a shortcut alternative to developing fully informed political opinions. A voter's preferred political party refers to the party that exhibits the general ideology that most closely aligns with the voter's overall political perspective. This political party approach to voting

is less costly to citizens than the method of becoming knowledgeable of all issues and all political candidates.

Normal Distribution of Voter Preferences: Partisan Model Versus the Median Voter Model

One of the most important theories of political behavior regarding citizen sentiment is the median voter model. The median voter model assumes voter rationality and takes into account the role of political parties and the objective of politicians to win in elections. The median voter refers to the middle or central voter within the overall range of citizen political preferences. According to the median voter framework, the public policies that are promoted by politicians tend to adjust over time toward the median voter's most preferred political outcome. This tends to occur regardless of the particular politician or political party in power.

Figure 5.1 shows the dynamics of the median voter model with respect to left and right political parties.

The bell-shaped curve in Figure 5.1 signifies the distribution and range of voter preferences regarding a particular public policy, such as
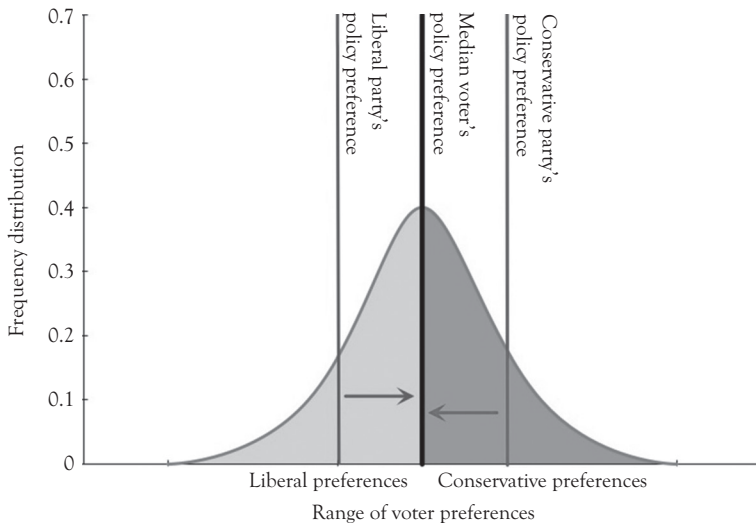
Figure 5.1 Political party platforms and the median voter model

macroeconomic policy. In this diagram, we assume a normal distribution of voter preferences as demonstrated by the bell-shaped curve. The frequency distribution of voter preferences is measured along the vertical axis while the range of citizen preferences is shown next to the horizontal axis. Voters with political preferences toward the right side of the horizontal axis are relatively conservative in political orientation. Voter preferences toward the left side of the horizontal scale are relatively liberal. Therefore, moving from left to right along the horizontal axis, voter preferences become increasingly conservative. Moving from right to left, voter preferences become more liberal. The vertical line intersecting the peak in the center of the voter preference distribution denotes the median voter's most preferred political outcome.

Partisan Influence Model and the Macroeconomy

Let us assume that the two vertical lines to the right and left of the median voter's preference signify the initial policy positions of the conservative and liberal political parties, respectively. These two policy platforms correspond to the preferences of the core constituencies of the conservative and liberal political parties.

Now let us suppose that the left and right political parties seek to maximize the financial support and approval from their core constituencies. Consequently, the policy stances of the two political parties remain stable at the left and right vertical lines. According to the partisan influence model, a conservative macroeconomic preference places a strong emphasis on attaining low inflation relative to unemployment. A liberal macroeconomic preference, in contrast, focuses more on attaining low unemployment compared to inflation. Based on partisan macroeconomic theory, the president promotes macroeconomic policies that accomplish the partisan macroeconomic preference. Democratic presidents promote policies that emphasize low unemployment. Republican incumbencies promote policies that focus on low inflation. In the partisan model, politicians place greater priority upon partisan-related interests than the overall sentiment of voters. The partisan influence model will be discussed in more detail in Chapter 7.

Median Voter Model and the Macroeconomy

Let us next consider the median voter model in the context of a normal distribution of citizen preferences. Given the initial political party preferences at the right and left vertical lines in Figure 5.1, let us assume that the conservative political party seeks to increase its vote share in an upcoming election. The conservative party vote share refers to the fraction of the two-party vote in favor of the conservative political candidate in an election. The liberal party vote share refers to the fraction of the two-party vote in favor of the liberal candidate in the election. The two-party vote equals the sum of votes for the conservative candidate plus the liberal candidate.

As a strategy to increase the vote share for the conservative candidate, the conservative party shifts its policy stance to the left toward the median voter's preference. The conservative political party, in this way, induces some centrist voters to switch their vote from the liberal candidate to the conservative politician. The liberal political party, however, will observe this strategy, and will likely respond by shifting its policy position more to the right toward the median voter so as not to lose votes. A political competition thus ensues between the two parties as each side seeks to increase its vote share. Each political party moves its policy position closer toward the center until both political parties end up with similar policies coinciding with the median voter's preference.

In the long run, the political party and the candidate who is elected become largely irrelevant in a competitive political market. In order to maximize votes and approval ratings, the two major political parties and the corresponding political candidates end up adopting analogous policies corresponding to the median voter's most preferred outcome. As an example, let us consider the median voter model with respect to macroeconomic policy. The median voter's macroeconomic preference denotes the median person's opinion regarding ideal macroeconomic performance. This preference consists of an unemployment target and an inflation target that identifies the median citizen's opinion of ideal unemployment and ideal inflation.

Suppose that the median voter's preference consists of an inflation target of 3 percent and an unemployment target of 5 percent. If actual macroeconomic performance ends up being equal to this preferred outcome, then the median voter's well-being is maximized. If, however,

the economy ends up deviating from the median preference, then the median individual's macroeconomic satisfaction would decline. As a result, the White House is motivated to promote policies that achieve the median voter's inflation and unemployment targets. The incumbent's macroeconomic program thus aligns with the median voter's preference as a strategy to maximize approval ratings and increase reelection prospects.

Time-Consistent Macroeconomic Preference

According to the median voter model, the president promotes fiscal and monetary policies that achieve the median voter's macroeconomic preference. The median preference, however, may be either time consistent or time inconsistent. A time-consistent macroeconomic preference is also referred to as being dynamically consistent. A dynamically consistent macroeconomic preference is consistent with the long-run structure of the macroeconomy. The macroeconomic preference is farsighted and is therefore sustainable. A sustainable unemployment target equals the natural unemployment rate, which denotes the lowest level of unemployment that the economy can maintain over an extended period of time.

Let us assume that the median voter's preference consists of an unemployment target that is equal to the natural rate (of say 5 percent) combined with an inflation target of 3 percent. This is illustrated as point A in Figure 5.2. This point occurs at the intersection between the long-run Phillips curve and the short-run Phillips curve, S1. The median voter's macroeconomic preference is dynamically consistent and is sustainable because it occurs at a point on the long-run Phillips curve. The economy is able to maintain this level of performance in the absence of economic shocks. If the median voter model holds, then the incumbent would maximize popularity and reelection votes by promoting macroeconomic policies that achieve point A.

Time-Inconsistent Macroeconomic Preference

Let us next consider what would occur if the median voter's macroeconomic preference is dynamically inconsistent. In this case, the preference is incompatible with the long-run capabilities of the economy. Dynamic
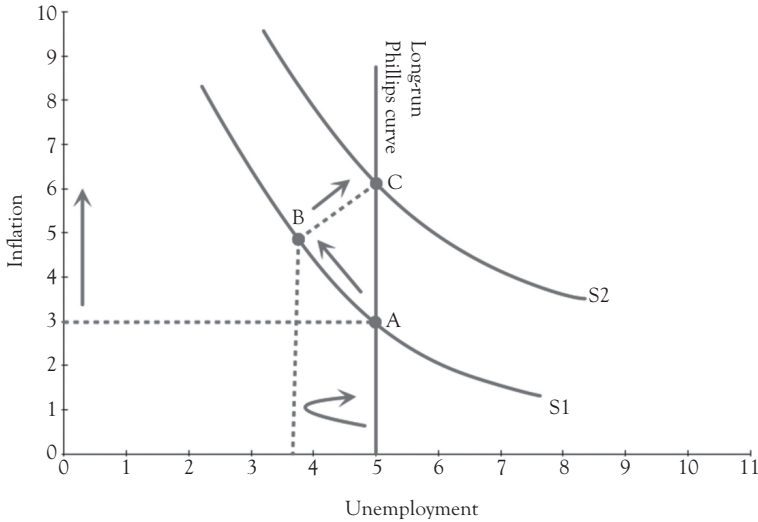
Figure 5.2 Macroeconomic time consistency versus inconsistency

inconsistency arises if the median voter's unemployment target is less than the natural unemployment rate. An unemployment target that is less than the natural rate is unsustainable. The underlying cause for dynamic inconsistency may be that the median voter has incomplete information regarding the long-run structure of the economy. The median voter may be uninformed about the level of macroeconomic performance, which is possible over the long term.

Let us suppose that the median voter model holds. The incumbent promotes policies to achieve the median voter's inconsistent macroeconomic preference. However, stabilization policy that seeks to maintain an unemployment target that is less than the natural rate is not feasible, and would trigger economic overheating and rising inflation. A time-inconsistent macroeconomic preference is short sighted. Let us assume that the economy initially occurs at point A in Figure 5.2. Let us also assume that the median voter's macroeconomic preference (which is dynamically inconsistent) consists of an unemployment target of 3.75 percent and an inflation target of 5 percent. This inconsistent macroeconomic preference is shown as point B in Figure 5.2.

Through expansionary stabilization policy, this level of macroeconomic performance may be attained in the short run, but not over an

extended time period. As a result of expansionary policy, macroeconomic performance moves up and to the left along the short-run Phillips curve S1 from point A to point B where the inconsistent preference is realized. Point B, however, is a temporary outcome that cannot be sustained. In particular, pressures in the labor market build up, which causes inflationary expectations and the wage rate to rise. Workers seek and receive higher wages to compensate for higher product prices associated with the movement from point A to point B. As wage costs go up, the Phillips curve shifts to the right from S1 to S2, and the macroeconomy adjusts to point C in the long term. The higher labor costs cause firms to reduce jobs and unemployment consequently rises and returns to the natural rate of 5 percent. Additionally, firms shift the burden of the higher labor costs to buyers in the form of higher product prices and inflation rises to about 6 percent at point C.

Table 5.1 summarizes the characteristics of macroeconomic consistency versus macroeconomic inconsistency.

Macroeconomic Inconsistency and the Electoral Cycle

The concept of macroeconomic inconsistency has implications for the electoral political business cycle effect. The median voter's macroeconomic preference is assumed to be dynamically inconsistent according to electoral cycle theory. The unemployment target is less than the natural rate. Consequently, the incumbent has an incentive to adopt an opportunistic strategy to increase reelection votes by promoting macroeconomic

Table 5.1 Dynamic macroeconomic consistency and inconsistency

Median voter's macroeconomic preference	Median voter's unemployment target	Macroeconomic results
Time-inconsistent macroeconomic preference	Unemployment target is less than the natural unemployment rate	Unsustainable unemployment target; economic overheating and rising inflation occur; the unemployment rate returns to the natural rate in the long run
Time-consistent macroeconomic preference	Unemployment target is equal to the natural unemployment rate	Unemployment target is sustainable in the long run

policy that temporarily reduces unemployment below the natural rate in an election year. According to the electoral cycle, the president engineers an economic boom just prior to a presidential election so as to increase reelection votes. This short-term favorable macroeconomic outcome, however, comes at the cost of greater inflation after the presidential vote.

If, however, the median voter's macroeconomic preference is time consistent and far-sighted, then the opposite electoral result would occur. A decline in unemployment below the natural rate prior to an election would lead to a decrease (rather than increase) in the presidential reelection vote share. In this case, overly expansive macroeconomic policy would be recognized as a short-sighted attempt to create a temporary economic boom that comes with the detrimental effect of higher inflation after the election. If the median voter's macroeconomic preference is farsighted, then macroeconomic opportunism by the president would fail to increase reelection votes. We discuss the electoral cycle in more detail in Chapter 6.

Bimodal Distribution of Preferences, Protest Vote Abstention, and the Partisan Influence Model

According to partisan theory, the liberal and conservative political parties adopt policies that occur to the left and right of the peak of the voter preference distribution (as in Figure 5.1). The peak corresponds to the median voter's most preferred political outcome. The partisan divide takes place because the two main political parties adopt policy platforms that appeal to their core constituencies rather than the median voter's preference.

In addition to the partisan model based on a normal distribution of voter preferences (as in Figure 5.1), the partisan model may also occur from a bimodal voter preference distribution. In this scenario, two peaks or modes take place within the range of voter preferences. The two peaks in the voter preference distribution correspond to the policy preferences of the liberal and conservative core constituencies. Voter sentiment, in this case, is split into two major camps corresponding to the two modes to the left and right of the median voter's preference.

The partisan influence model based on bimodal distribution of voter macroeconomic preferences is shown in Figure 5.3.
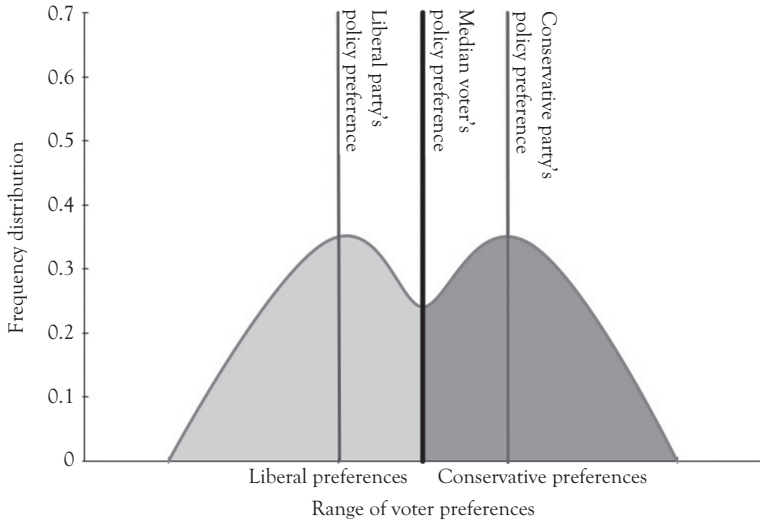
Figure 5.3 Bimodal distribution of voter preferences

In a bimodal voter preference distribution, the policy platforms of the left and right political parties may not necessarily converge to the center as predicted by the median voter model. Instead, the political party policy platforms remain stable at the two modes in the preference distribution. In Figure 5.3, the conservative party preference occurs at the right vertical line and the liberal party policy preference occurs at the left vertical line. In a bimodal voter preference distribution, nonconvergence to the median voter's preference is likely to occur, assuming that protest vote abstention takes place. Protest vote abstention refers to the outcome that far-wing citizens abstain from casting ballots in elections as a sign of protest against their political parties.

Protest vote abstention may take place if a citizen's preferred political party moves its policies too close to the center. Some right-wing voters abstain from voting if the conservative party moves its policy too far to the left. Similarly, some left-wing voters refrain from voting out of protest if the liberal political party shifts its policy platform too far to the right. In order to prevent a loss of votes from far-wing supporters, the two main political parties may decide to position their policy platforms at the two peaks to the left and right of center in the bimodal distribution of citizen preferences.

Rational Vote Abstention

In addition to protest vote abstention, a related issue is rational vote abstention. According to this effect, some citizens refrain from voting if they think their ballot is inconsequential in an election outcome. Some voters choose not to vote because the costs of becoming more informed and then voting outweigh the perceived influence upon an election result. The total effect of rational vote abstention may or may not impact an election outcome. If rational vote abstention occurs evenly across the spectrum of voters on the political right and the political left, then the overall effect will likely not impact an election outcome.

If rational vote abstention is concentrated across a narrow range of voters, however, then the effect could bias an election result. Suppose that rational vote abstention occurred mainly among liberal citizens. The election outcome, as a result, would be swayed in favor of the conservative candidate. Alternatively, if rational vote abstention primarily occurred among conservative citizens, then the election result would be biased in favor of the liberal candidate.

Conclusion

This chapter has briefly reviewed the subject of voter rationality and the role of political parties in the context of the median voter model. We discussed the effects of dynamic consistency versus dynamic inconsistency regarding macroeconomic performance using the expectational Phillips curve model. We briefly examined the implications of the median voter model and dynamic inconsistency with respect to the electoral effect. We considered the normal distribution and the bimodal distribution of voter preferences with respect to the partisan macroeconomic model. Finally, we briefly discussed the possible influence of protest vote abstention and rational vote abstention upon election results. Chapter 6 presents in more detail the electoral cycle model, while Chapter 7 discusses in more detail the partisan influence model. Chapter 8 examines the U.S. business cycle for evidence of partisan cycle and electoral cycle effects from 1961 to 2014.

CHAPTER 6

Electoral Political Business Cycle

Introduction: Political Business Cycle Effects

The political business cycle (PBC) literature examines the influence of electoral, partisan, and other political effects upon macroeconomic policy and the business cycle. In particular, PBC analysis emphasizes the issue of presidential manipulation of the macroeconomy for political purposes, especially incumbent reelection ambition and incumbent pursuit of partisan macroeconomic goals.

The simplest form of political macroeconomy influence is the median voter effect, as was discussed in Chapter 5. According to this effect, the president promotes stabilization policies that move the economy toward the median voter's preference. In addition to the median voter effect, two major PBC influences may occur. The two effects are the electoral cycle and the partisan cycle. This chapter focuses on the electoral cycle while the next chapter considers the partisan cycle. Chapter 8 examines inflation and unemployment in the U.S. macroeconomy for evidence of electoral and partisan PBC effects during Democratic and Republican presidencies. Later, Chapter 9 discusses in more detail the issue of macroeconomic influence upon various indicators of voter behavior and attitudes, such as the presidential vote, presidential job approval, on-term and midterm congressional election outcomes, voter turnout, macropartisanship, consumer sentiment, and societal happiness.

Macroeconomic Time Inconsistency and the Electoral Cycle

According to the median voter framework, election votes tend to be highest for the political candidate whose policy platform most closely aligns

with the median voter's macroeconomic preference. The macroeconomic outcome that develops from the median voter model may be either efficient and farsighted or inefficient and shortsighted. The result depends on whether the median macroeconomic preference is dynamically consistent or dynamically inconsistent (see Kydland and Prescott 1977, for a discussion of macroeconomic time inconsistency). The macroeconomic preference is either consistent or inconsistent depending on the unemployment target, which denotes the median voter's perception of the optimal unemployment rate.

The ideal outcome would be for the median voter's preference to be time consistent. The median voter, in this scenario, is macroeconomically well-informed and farsighted. The median citizen understands the structure of the macroeconomy. The median voter exhibits a preference that corresponds with optimal long-run macroeconomic performance. The median voter's expectations of the macroeconomy are realistic. If the median voter's unemployment target equals the efficient level of unemployment, then the macroeconomic preference is far-sighted, efficient, and dynamically consistent. The efficient level of unemployment is the natural unemployment rate, which is approximately 5 to 6 percent. If the median voter's macroeconomic preference is dynamically consistent (the unemployment target equals the natural rate), then democratic elections will lead to optimal long-run macroeconomic performance.

The other possibility is that the median macroeconomic preference is dynamically inconsistent. The median voter, in this scenario, is uninformed regarding the macroeconomic structure. The median voter's macroeconomic expectations are unrealistic and naïve. The median voter overestimates macroeconomic potential. An inconsistent macroeconomic preference occurs if the median unemployment target is less than the natural unemployment rate. Government policy that seeks to attain an inconsistent macroeconomic preference will lead to a temporary decline in unemployment, but with higher inflation and no permanent reduction in unemployment below the natural rate in the long term.

The electoral cycle effect occurs from presidential manipulation of stabilization policy to create a transitory macroeconomic boom in an election year. The median voter's macroeconomic preference must be dynamically inconsistent in order for the electoral cycle policy to succeed

in its aim of presidential reelection. In this case, the median citizen is shortsighted and willing to support a policy that achieves a temporary decline in unemployment prior to the presidential vote that cannot be sustained afterwards. The median voter is also uninformed regarding the adverse effect of higher long-term inflation that develops from opportunistic macroeconomic policy.

However, if the median voter's preference is dynamically consistent, then macroeconomic overstimulation in an election year causes the presidential reelection vote share for the in-party to decline. Farsighted voters oppose opportunistic policy because of the economic distortions that occur. Farsighted citizens vote against the in-party if the incumbent pursues an electoral-cycle macroeconomic policy.

The question of whether the median voter is macroeconomically shortsighted or farsighted is ultimately an empirical matter. This hypothesis may be tested by estimating the presidential vote equation as well as other empirical equations of citizen sentiment. The issue of estimating whether the median voter's macroeconomic preference is dynamically consistent or inconsistent will be discussed in Chapter 10. The characteristics of macroeconomic time consistency versus macroeconomic time inconsistency in relation to the electoral cycle are summarized in Table 6.1.

Table 6.1 Opportunistic policy and macroeconomic inconsistency

Median voter's macroeconomic preference	Median voter's unemployment target	Macroeconomic outcomes	Impact of opportunistic policy upon presidential reelection votes
Time-inconsistent macroeconomic preference	Unemployment target is less than the natural unemployment rate	Unemployment target is unsustainable; economic overheating and inflation will occur	Opportunistic policy causes an increase in the vote share for the incumbent party
Time-consistent macroeconomic preference	Unemployment target equals the natural unemployment rate	Unemployment target is sustainable; economic overheating will not occur	Opportunistic policy causes a decrease in the vote share for the incumbent party

Electoral Cycle: Asymmetric Information and the Principal-Agent Problem

Some of the early proponents of this electoral cycle effect include Nordhaus, (1975), Lindbeck (1976), McRae (1977), and Tufte (1978). The electoral cycle assumes macroeconomic ignorance or short-sightedness by voters combined with opportunistic stabilization policy orchestrated by the president. The possibility for an electoral cycle occurs because of asymmetrical macroeconomic information between the in-party versus the general public. The president and the in-party are more macroeconomically informed than the general populace. The incumbent (mis)uses this informational advantage to manipulate short-term macroeconomic performance in order to boost approval ratings and gain more reelection votes. The lopsided information disparity between the incumbent political party versus the voters forms a principal–agent problem. The incumbent is the principal while the voters are the agents. The economic manipulation of less-informed agents (voters) by the more-informed principal (incumbent and in-party) for political gain forms the basis for the electoral cycle.

The electoral cycle pattern occurs in two stages. The two phases consist of short and long-run macroeconomic effects. The first phase refers to the political motivations and economic effects of pre-election opportunistic macroeconomic policy. The second phase of the electoral cycle refers to the political motivations and economic effects of postelection macroeconomic policy. In the second phase, the short and long-run macroeconomic effects occur from postelection contractionary policy that is adopted to alleviate inflation caused by pre-election macroeconomic overstimulus. Figure 6.1 illustrates the dynamics of the two phases of the electoral cycle pattern using the expectational Phillips curve model.

Suppose that the economy initially occurs in long-run equilibrium at point A. This position takes place at the intersection between the short-run Phillips curve, S1, and the vertical long-run Phillips curve. Unemployment is initially at the natural rate (of say 5 percent) while inflation is about 3 percent.
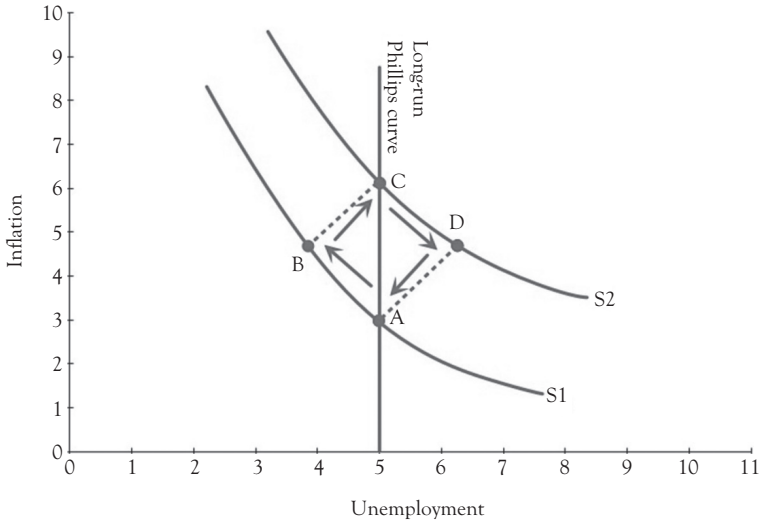
Figure 6.1 Electoral cycle

Short-Run and Long-Run Effects in Pre-election Phase

In the first stage of the electoral cycle, the incumbent engineers an expansionary stabilization policy toward the end of a four-year presidential term, especially in the election year. The expansionary policy may consist of fiscal measures or monetary measures or both. It should be noted that presidential manipulation of macroeconomic policy is partial and indirect. As discussed in Chapter 4, the president in association with Congress and the political parties determine fiscal policy while the central bank directly determines monetary policy. An expansionary fiscal policy consists of either an increase in government spending or a decrease in taxes, or both. Higher government expenditure directly adds jobs and output to the economy. Tax cuts, on the other hand, indirectly create jobs. Tax cuts lead to more household and business after-tax income, which enables greater consumer and business expenditures. An expansionary monetary policy consists of an increase in real money supply growth accompanied by a decline in interest rates. This loose monetary policy spurs business and residential investment, as well as consumer spending because of cheaper borrowing costs.

The expansionary macroeconomic policies generate an increase in aggregate demand and a pre-election macroeconomic boom toward the end of a four-year presidential term. Real economic growth rises and unemployment declines. The macroeconomy consequently moves upward to the left along the short-run Phillips curve, S1, from point A to point B in the election year. As shown in Figure 6.1, unemployment falls to around 4 percent. This macroeconomic expansion improves the economic well-being of the populace. The reelection vote share for the incumbent therefore increases (or for the presidential candidate from the in-party if the incumbent president is retiring from the Oval Office).

If the economy grows sufficiently through expansive macroeconomic policies at the end of a presidential term, then the in-party is able to gain reelection to the White House as intended by the opportunistic policy. Rising inflation, however, occurs alongside declining unemployment, as shown by the movement from point A to point B in Figure 6.1. Inflation rises from 3 percent to about 5 percent. The increase in macroeconomic demand from expansionary policy leads to greater expenditures upon goods and services, which drives up product prices.

In the long run of the first stage of the electoral cycle, the Phillips curve shifts rightward from S1 to S2, and the economy moves from point B to point C. This occurs through the self-correcting mechanism of market forces. Much of this adjustment takes place subsequent to the election. In particular, the labor market responds to the economic overheating caused by pre-election expansionary measures. Workers increase their expectations of inflation and demand higher wages in order to pay for higher product prices caused by higher macroeconomic demand. Business firms, in turn, react to the higher labor costs by cutting employment and production. Unemployment consequently rises and adjusts back toward the natural unemployment rate at 5 percent. Additionally, inflation goes up further to about 6 percent as the higher labor costs are pushed on to buyers in the form of higher product prices. The long-run adverse effects of electoral cycle policies consist of higher inflation with no permanent decline in the unemployment rate below the natural rate.

Short-Run and Long-Run Effects
in the Postelection Phase

Following the presidential election, contractionary policy is necessary to alleviate the macroeconomic overheating and higher inflation caused by the pre-election economic overstimulus. A contractionary fiscal policy consists of either higher taxes or a decrease in government spending or both. A tight monetary policy consists of a decrease in money supply growth combined with an increase in interest rates, which leads to a decline in debt-financed consumption and investment expenditure. Contractionary stabilization policies cause macroeconomic demand to decrease. This is shown as a movement down and to the right along the short-run Phillips curve, S2, from point C to point D in Figure 6.1. Inflation therefore decreases from 6 percent to about 4½ percent. The decline in macroeconomic demand compels producers to reduce prices in order to induce buyers to purchase products.

Correspondingly, a postelection macroeconomic slowdown occurs. Unemployment rises from 5 percent to around 6½ percent as shown by the movement from point C to point D. Anti-inflationary stabilization policies thus come at the expense of a postelection economic slump. Unemployment worsens because of decreased macroeconomic expenditures associated with contractionary stabilization policy. In the long run of the second phase of the electoral cycle, the short-run Phillips curve shifts left from S2 to S1 and the economy moves from point D to point A. Inflation thus continues to decrease from around 4½ percent to about 3 percent as the short-term economic slump is eventually alleviated through the self-correcting mechanism.

In particular, the labor market reacts to the drop in macroeconomic demand caused by contractionary policy. Workers reduce their inflationary expectations and reduce their demand for higher wages because of the slowing rate of product price inflation. The decrease in real wages, in turn, enables business firms to increase output, leading to greater employment. In the long run, unemployment eventually returns to the natural rate of 5 percent.

Summary of the Electoral Cycle

In the initial stage of the electoral cycle, lower unemployment occurs prior to a presidential election, along with some rise in inflation. The decline in unemployment causes the in-party presidential reelection vote share to increase. These effects occur because of opportunistic macroeconomic policy. The economic gain of lower unemployment, however, is temporary. Unemployment eventually returns to the natural rate through the self-correcting mechanism. In the long run of the initial phase of the electoral cycle, inflation rises even further as higher wage costs are shifted to buyers in the form of higher prices.

In the later phase of the electoral cycle, inflation declines because of contractionary policy that is implemented to remedy pre-election macroeconomic overheating. This takes place alongside the short-term side effect of worsening unemployment. In the long run of the second phase, the self-correcting mechanism causes real wages and expected inflation to adjust downward to match the decline in actual product price inflation. This adjustment of wages to prices alleviates the economic slowdown and unemployment eventually returns to the natural rate.

Table 6.2 summarizes the short and long-run economic and political effects associated with the two phases of the electoral cycle.

Table 6.2 Electoral cycle effects

Electoral cycle stages	Timeframe	Macroeconomic policy	Objective	Short-run effects	Long-run effects
First phase	Prior to the presidential election	Expansionary macroeconomic policy	Improve economic performance and win presidential reelection	Rising economic growth, falling unemployment, rising inflation	Further increase in inflation, no permanent decline in unemployment
Second phase	Following the presidential election	Contractionary macroeconomic policy	Alleviate inflation caused by pre-election economic overheating	Disinflation, rising unemployment, declining economic growth	Further decline in inflation, unemployment falls and returns to the natural rate

In association with the electoral cycle in macroeconomic performance, a corresponding set of cyclical effects occur for fiscal and monetary policies. The electoral cycle model predicts that expansionary fiscal and monetary policies will take place prior to a presidential election. After the election, contractionary fiscal and monetary policies are predicted to occur.

The political budget cycle relates to fiscal policy. This refers to the pattern of government spending and taxation in relation to the electoral PBC effect (e.g., Rogoff 1990; Shi and Svensson 2006). The main prediction of the political budget cycle is that taxes decline and government spending increases in an election year in order to stimulate the macroeconomy. The budget deficit consequently tends to worsen prior to a presidential election as a result of expansionary fiscal policy. However, after the election, fiscal policy becomes contractionary to alleviate inflation. Consequently, government spending is predicted to decline while taxes go up. This reduces the government budget deficit.

The political monetary cycle refers to the pattern of money supply and interest rates in association with the electoral cycle (e.g., Abrams and Iossifov 2006; Grier 1989). The main prediction is that money supply growth will increase and interest rates will decline in an election year so as to boost the macroeconomy. However, after the election, contractionary monetary policy takes place. After the election, money supply growth is predicted to decline and interest rates are expected to rise in order to bring down inflation caused by the pre-election economic boom.

Implications of the Electoral Cycle

The electoral cycle distorts the macroeconomy and exacerbates swings in the business cycle (inflation and unemployment) before and after a presidential election. Rather than a steady pattern of macroeconomic performance, electoral cycle policies cause excessive macroeconomic demand prior to a presidential election, followed by inflation and contractionary policies and a decline in aggregate demand after the election. Societal economic interests would be served by minimizing or even eliminating the electoral cycle. A key factor is whether or not the median voter's macroeconomic preference is dynamically consistent. Several determinants

promote macroeconomic consistency. They include a more informed public, a vigilant media, farsighted sentiment by opinion leaders in society, and the *watchdog* effect of the out-party.

Dynamic consistency by the median voter does not imply a complete grasp of all aspects of the macroeconomy. Rational ignorance inhibits voters from attaining a total understanding of every facet of the economy (see Chapter 5 for a discussion of rational ignorance). In forming a perception of optimal macroeconomic performance, the median citizen relies on the reports and opinions of experts, the media, politicians, political parties, political pundits, think tanks, academics, social critics, and other elites.

Voters partially depend on the commentary of opinion leaders in society as to whether the economy is on the right track or not. Based on the influence of opinion leaders in combination with the voters' own perceptions, citizens form an attitude of either approval or disapproval about the performance of the economy, as well as regarding the job performance of the president. The rhetoric of opinion makers influences public attitudes. Depending on opinion maker characteristics, such as bias versus farsightedness, the opinion leader effect upon voter awareness could either motivate or dissuade the president in attempting election-year macroeconomic opportunism.

Suppose that the net impact of opinion leadership regarding the economy is naïve. Public attitudes would be swayed by opinion makers toward a dynamically inconsistent macroeconomic preference. This external influence of opinion makers would cause voter economic preferences to become biased or misinformed. The opinion leader effect would induce voter opinions toward unrealistic expectations of the macroeconomy. The president would therefore be motivated to adopt opportunistic macroeconomic measures in an effort to increase reelection votes. Citizens would naïvely support an incumbent's opportunistic policy agenda that overheats the economy in an election year.

In contrast to the possibility of a short-sighted opinion maker effect, consider the opposite scenario of farsighted opinion leader sentiment. Suppose that opinion-leader farsightedness occurs in combination with accurate economic news reporting about the dangers of the electoral

cycle. In this scenario, the media and opinion makers recognize and oppose electoral cycle policies because of the economic inefficiency and instability that the PBC effect creates. The actions of the out-party is an additional factor that could inhibit the electoral cycle. The out-party has an important role as a political watchdog to inform voters of the macroeconomic distortions caused by in-party electoral cycle policies. The out-party has an interest in opposing in-party macroeconomic opportunism. If macroeconomic overheating succeeds in increasing the in-party presidential reelection vote share, then the out-party presidential vote share would necessarily decline.

Suppose that the out-party effectively warns citizens about the economic distortions of the electoral cycle, and that this occurs in combination with a farsighted opinion leader effect and a vigilant media. Citizens would become more aware of the harmful effects of reelection-motivated macroeconomic overheating. Voter macroeconomic preferences would become more dynamically consistent. Voters would be swayed toward realistic expectations of the economy. Citizens would become more economically farsighted, and would be inclined to oppose opportunistic macroeconomic policies out of recognition that the economic gain in an election year is short lived.

The in-party to the White House would consequently have little or no incentive to implement manipulative macroeconomic measures in an election year because the policy would be unlikely to manipulate or fool voters. Any attempt by the incumbent to manipulate the economy for political gain would backfire. Electoral cycle policies would fail. Opportunistic macroeconomic policy would cause the in-party presidential reelection vote share to decline rather than increase, given that voters are aware of the manipulation. Because of farsightedness on the part of citizens, electoral cycle macroeconomic policies, if attempted, would lead to an increase in votes for the out-party candidate rather than for the in-party in a presidential election.

A vigilant media, farsighted opinion leadership, and the out-party watchdog effect help to reduce the principal–agent problem of a lopsided information disparity on the macroeconomy between the president versus the voters. In addition, an independent central bank and possibly a

monetary policy rule are factors that could inhibit the electoral cycle, as well as other politically inefficient influences on macroeconomic policy. These topics will be addressed in Chapter 9.

Recognition of electoral cycle policies should be a relatively straightforward matter in many cases. An electoral cycle is apparent in situations of excessive expansionary policies in an election year when the economy is already operating at economic potential and full employment. Suppose that unemployment is already at the natural rate in an election year and that expansionary macroeconomic policies are further increased, leading to a short-term decrease in unemployment below the natural rate. The opportunistic macroeconomic policies in an election year could be in the form of tax cuts, increased government spending, or a decline in interest rates.

This type of scenario would be indicative of electoral cycle manipulation. If the media, opinion leaders, and the out-party actively spoke out against opportunistic macroeconomic measures, then voters would be more informed of the adverse PBC effects, and they would be apt to oppose election-year macroeconomic manipulation. Electoral cycle policies would be less likely to occur. Policymakers would be compelled to consider the macroeconomic farsightedness of opinion leaders and voters. Policymakers would be politically pressured by a more informed citizenry to adopt time-consistent macroeconomic policies.

CHAPTER 7

Partisan Political Business Cycle

Introduction

Besides the electoral cycle, the second major political business cycle influence is the partisan effect (e.g., Hibbs 1982). According to the partisan model, presidential administrations embrace policies that achieve partisan macroeconomic goals. Two opposing partisan cycle effects may take place based on which of the two major political parties occupies the White House. A liberal partisan effect occurs for Democratic incumbencies and a conservative partisan cycle occurs for Republican presidencies. According to the partisan model, the president's policy preference diverges from the median voter's most preferred outcome.

Instead, presidential administrations promote a partisan macroeconomic agenda that conforms to the interests of their core constituencies. Partisan pressures affect the president's macroeconomic program. This occurs because of political party dependency upon campaign contributions from their core constituencies. Political parties must adopt policies that satisfy the economic interests of their main partisan supporters in order to maintain financial backing. If the political parties were to embrace policies that strayed from the interests of their core constituencies, then the partisan supporters would likely reduce their financial contributions.

The partisan influence effect yields suboptimal or inefficient macroeconomic results. This occurs because the liberal and conservative partisan preferences diverge from the median voter's preference. The partisan cycle generates shifting macroeconomic performance each time the political party in control of the Oval Office changes.

Distinct Macroeconomic Preferences for the Two Opposing Political Parties

The preferences of the liberal and conservative political parties occur to the left and right of the median voter's most preferred macroeconomic outcome. This partisan divide takes place because of the differing macroeconomic preferences of the core constituencies of the two opposing parties. Political candidates tend to promote macroeconomic policies that satisfy the economic interests of their partisan core constituencies, which are also their primary financial backers.

The conservative political party tends to be affiliated with business and financial interests, which typically place a strong emphasis upon maintaining low, stable inflation in the macroeconomy. The conservative party is consequently relatively inflation averse in its macroeconomic policies. The liberal political party tends to be associated with labor-related unions and organizations, which generally emphasize low unemployment as a major macroeconomic objective. The liberal political party is therefore relatively unemployment averse in its macroeconomic preference.

Partisan Rhetoric in the Median Voter Model

The main results of partisan macroeconomic theory differ from the median voter model (as discussed in Chapter 5). In order to maximize votes, the median voter model predicts that over time the stabilization policies of the two major political parties will converge toward the median voter's most preferred macroeconomic outcome. This occurs as a rational political strategy to maximize votes. The political party that adopts a policy platform that is nearest to the median voter's preference will tend to be the most popular among citizens and therefore win elections.

The median voter model thus conflicts with the outcome of differing partisan macroeconomic agendas of the two main political parties. Although the economic rhetoric differs between the two opposing parties, the median voter model predicts that the actual policies of the two parties will align with the median voter's preference.

How do we account for the differences in partisan macroeconomic rhetoric between the two main political parties in the context of the

median voter model? One explanation is that the opposing rhetoric of the two political parties mobilizes the political engagement of their core constituencies in the voting process and other political activity, such as financial support for electoral campaigns. Once a presidential candidate is elected to the White House, however, the actual implementation of macroeconomic policy, as well as other policies, will likely end up being more centrist than suggested by the pre-election partisan rhetoric. Based on the implications of the median voter model, the incumbent is likely to diverge from partisan promises and priorities and instead embrace policies that appeal to the median citizen in an attempt to raise presidential job approval.

Liberal Partisan Cycle

The partisan macroeconomic theory differs from the median voter model. According to partisan influence theory, the two political parties not only express opposing partisan rhetoric, but the two parties embrace opposing policies that diverge from the median voter's preference. The Democratic Party is relatively unemployment averse according to the partisan influence model. This occurs because the liberal party's core constituencies consist of labor-related organizations and affiliations. A high level of employment is a major economic priority for labor unions and other related interests. Liberal presidencies therefore tend to promote expansive fiscal and monetary policies as a means of job creation and economic growth. Activist government policies are motivated by the liberal perception of unstable market forces, including periodic economic recessions that threaten employment.

Stimulative macroeconomic policies are supported by political liberals and economic Keynesians as a means to achieve low unemployment. Expansive macroeconomic policies, however, often come at the cost of rising inflation later on. According to the partisan influence model, macroeconomic performance during a Democratic presidency will likely consist of a pattern of declining or low unemployment in the short run combined with rising inflation in the long run.

Figure 7.1 illustrates the liberal partisan cycle using the expectational Phillips curve model.
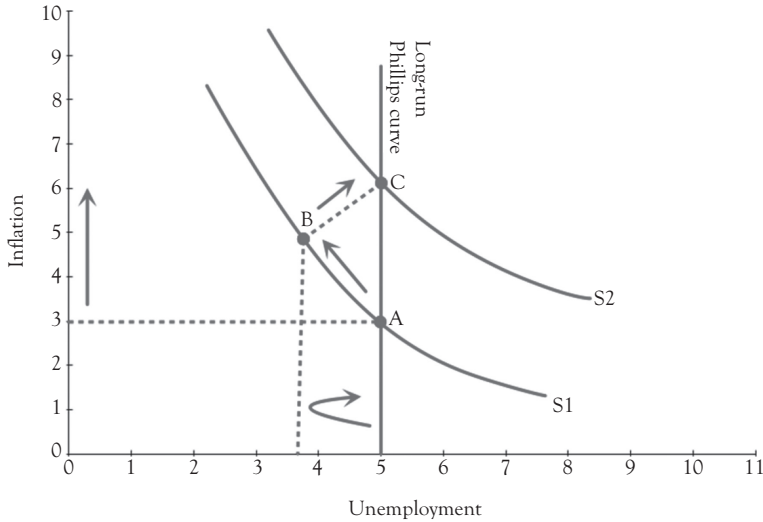
Figure 7.1 Liberal partisan macroeconomic cycle

In Figure 7.1, inflation is measured next to the vertical axis and unemployment is displayed along the horizontal axis. Suppose that the initial macroeconomic equilibrium occurs at point A, corresponding to the intersection between the short-run Phillips curve, S1, and the vertical long-run Phillips curve. The initial macroeconomic outcome consists of inflation of 3 percent and unemployment equal to the natural rate of 5 percent.

Now, suppose that a Democratic presidency is in power and that macroeconomic policy is expansionary and relatively unemployment averse based on the assumptions of the partisan model. Through expansive stabilization policies, macroeconomic demand rises and economic performance moves upward and to the left along the short-run Phillips curve, S1, from point A to point B. This short-run pattern consists of a temporary decline in unemployment below the natural rate combined with rising inflation. In the graph, the unemployment rate decreases from 5 percent to about 3.75 percent. Unemployment falls as business firms hire additional workers to raise production to meet the higher level of macroeconomic demand generated by expansionary policy. Inflation correspondingly rises because greater macroeconomic demand for goods and services bids up the prices of products. In the diagram, inflation rises from 3 to 5 percent.

In the long run of the liberal partisan cycle, the short-run Phillips curve shifts right from S1 to S2 and the macroeconomy moves from point

Table 7.1 Liberal partisan cycle

Liberal partisan cycle	Short-run result	Long-run result
Theoretical effects	Increase in macroeconomic demand from expansionary policy; this causes a movement up and along the short-run Phillips curve	Decrease in macroeconomic supply through the self-correction mechanism; the short-run Phillips curve shifts right as worker wages rise to adjust to higher product prices
Inflation	Increases	Further increase
Unemployment	Decreases	Increases to return to the natural rate
RGDP growth	Increases	Decreases to return to the natural RGDP growth rate

B to point C. Unemployment rises and returns to the natural unemployment rate through the self-correcting mechanism. In particular, workers adjust their inflationary expectations upward and seek higher wages to compensate for higher product prices caused by higher macroeconomic demand and expansionary policy. Business firms then respond to higher labor costs by reducing output and jobs, and unemployment returns to the natural rate as the short-run Phillips curve shifts rightward from S1 to S2. Correspondingly, business firms shift the higher labor costs along to buyers in the form of a further increase in product price inflation. Inflation rises from 5 percent to about 6 percent.

In the long-run of the liberal partisan cycle, unemployment rises to return to the natural rate combined with a further increase in inflation. The liberal partisan effect creates only a transitory decline in unemployment below the natural rate. The short and long-run outcomes of the liberal partisan cycle are summarized in Table 7.1.

Conservative Partisan Cycle

The conservative political party is relatively inflation averse according to the partisan cycle model. This partisan macroeconomic preference occurs because the Republican Party's core constituencies consist of pro-business and pro-banking affiliations. Low, stable inflation is a major objective

of business and financial interests. Low, stable inflation reduces business and financial risk. According to the partisan influence model, Republican presidencies promote disinflationary macroeconomic policies to maintain a low inflation level. Disinflationary policies, however, often come at the cost of greater short-term unemployment. Figure 7.2 illustrates the pattern of the conservative partisan macroeconomic cycle using the expectational Phillips curve framework.

Let us assume that the initial macroeconomic equilibrium occurs at point C, corresponding to the intersection between the short-run Phillips curve, S2, and the vertical long-run Phillips curve. The economy initially occurs at the natural unemployment rate of 5 percent combined with an inflation rate that is equal to about 6 percent. Next, suppose that the Republican Party occupies the White House and that macroeconomic policy is disinflationary. Based on the usual assumptions of partisan theory, a conservative presidency is relatively inflation averse. The Republican presidency consequently adopts contractionary stabilization policy and macroeconomic demand declines.

The macroeconomy therefore moves from point C to point D along the short-run Phillips curve, S2. This short-run macroeconomic effect consists of an increase in unemployment above the natural rate combined with a decrease in inflation. Unemployment rises from 5 to 6 percent
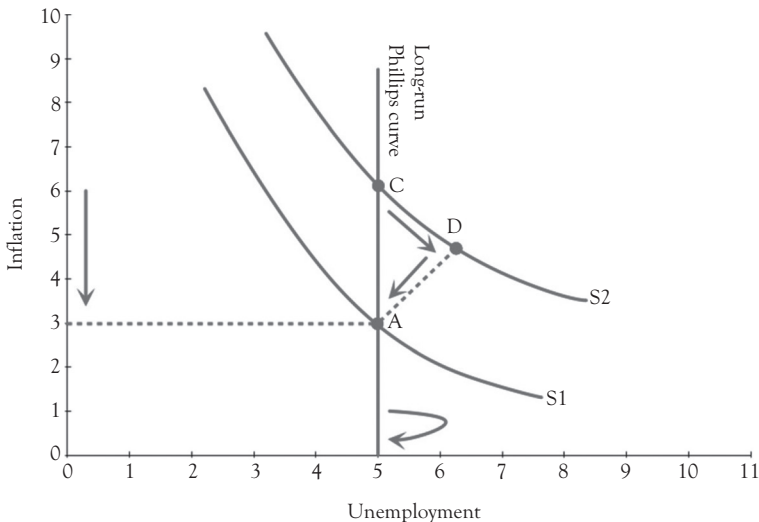
Figure 7.2 Conservative partisan macroeconomic cycle

while inflation declines from 6 to around 5 percent. For example, a contractionary monetary policy causes interest rates to rise. This, in turn, causes economic investment, consumer spending, and employment to decline, possibly creating a disinflationary recession. Inflation falls because the decline in macroeconomic demand from contractionary policy compels business firms to reduce product prices in order to induce buyers to purchase goods. Correspondingly, business firms reduce employment and production as a result of the decline in macroeconomic demand.

In the long run, the Phillips curve shifts leftward from S2 to S1 through the self-adjustment mechanism. The macroeconomy moves from point D to point A. This takes place as workers reduce their demands for higher wages in reaction to lower product price inflation caused by the decline in macroeconomic demand and contractionary policy. The reduced labor costs then allow business firms to decrease product prices even further. Lower real labor costs also enable firms to raise output and employment. The unemployment rate consequently decreases and returns to the natural rate combined with a further decline in inflation. Unemployment decreases from 6 to 5 percent while inflation falls further from about 5 to 3 percent.

The overall macroeconomic pattern of the conservative partisan cycle consists of declining inflation combined with rising unemployment

Table 7.2 Conservative partisan cycle

Conservative partisan cycle	Short-run results	Long-run results
Theoretical effects	Decrease in macroeconomic demand from contractionary policy; this causes a movement down and along short-run Phillips curve	Increase in macroeconomic supply through the self-correcting mechanism; the short-run Phillips curve shifts left as real wages decline in response to lower product price inflation
Inflation	Decreases	Further decrease
Unemployment	Increases	Decreases to return to the natural rate
RGDP growth	Decreases	Increases to return to the natural RGDP growth rate

in the short run. In the long run, unemployment falls and returns to the natural rate through the self-correcting mechanism of labor market forces. The short and long-run effects of the conservative partisan cycle are summarized in Table 7.2.

CHAPTER 8

Evidence of Electoral and Partisan Cycles

Introduction

The partisan and electoral cycle effects are a source of macroeconomic instability. The two political business cycle (PBC) effects exacerbate the up-and-down swings of the business cycle. This chapter examines the pattern of inflation and unemployment in the U.S. economy for evidence of electoral and partisan effects during Democratic and Republican presidencies across the half-century time period from 1961 to 2014. As discussed in Chapter 6, the electoral cycle refers to incumbent manipulation of the macroeconomy prior to an election as a strategy to increase presidential reelection votes (Nordhaus 1975; Nordhaus, Alesina, and Schultze 1989). The partisan effect, as discussed in Chapter 7, refers to incumbent manipulation of stabilization policy to achieve the partisan macroeconomic goals of the in-party throughout a presidential term (Alesina and Sachs 1988; Hibbs 1982).

Six-and-a-half Democratic terms and seven Republican terms occurred during the time frame from 1961 to 2014. An analysis of inflation and unemployment in this period suggests that liberal partisan cycle effects may have occurred during the Democratic presidencies. The evidence, however, appears mixed regarding PBC effects among the seven Republican presidential terms. Macroeconomic performance during five of the seven Republican presidencies seemed to exhibit electoral cycle characteristics. Of the two remaining Republican periods in the White House, one presidential term demonstrated a conservative partisan cycle pattern rather than the electoral cycle, while the other Republican presidential term showed no discernible PBC effect.

One possible explanation for the mixed PBC results across Democratic versus Republican incumbencies may be that a synthesis of partisan and electoral effects may have occurred for most of the presidencies. A partisan PBC effect may have developed during the first half of most presidential terms. In the latter stage of most presidential terms, however, macroeconomic policy may have shifted from partisan priority to an electoral cycle pattern. As presidential elections drew closer, administrations may have shifted from partisan economic goals to a strategy of unemployment reduction in an attempt to increase presidential reelection votes for the in-party.

Primary and Secondary Electoral and Partisan Effects

This section reviews the primary and secondary short-run predictions of the electoral and partisan PBC effects. The primary effects denote the macroeconomic goals of the PBC policies. The secondary effects of the PBC policies refer to the adverse macroeconomic consequences that may arise because of the short-run unemployment-inflation trade-off.

Voter behavior is a function of political and economic outcomes according to rational voter theory. Citizens cast their ballots for the candidate or political party that adopts policies that most closely align with the voters' most preferred outcomes. In this regard, a substantial body of research shows that a strong economy tends to increase presidential approval and boost presidential reelection votes for the candidate of the incumbent political party. A weak economy, on the other hand, diminishes presidential approval and reduces the in-party presidential reelection vote share (Chappell 1983; Fair 1978; Fox 2003, 2009, 2013; Hibbs 2008; Kernell 1978; Smyth, Taylor, and Dua 1999). The linkage between the economy and voter sentiment of the incumbent will be discussed in more detail in Chapter 10.

The main predictions of the electoral cycle occur in two successive stages. The first phase refers to pre-election macroeconomic policy and performance, and the corresponding impact on the presidential reelection vote share. The second phase of the electoral cycle refers to postelection stabilization policy and its macroeconomic effects, and the corresponding impact on presidential approval.

In the pre-election period of the electoral cycle, the incumbent promotes expansionary policy to create an economic boom toward the end of a presidential term. The primary prediction of pre-election macroeconomic policy consists of a pattern of declining unemployment toward the end of the four-year presidential term. However, because of the short-run inflation-unemployment trade-off, a secondary side effect of rising inflation may develop from the opportunistic macroeconomy policy. Much of this inflationary effect, however, is likely to occur after the election because of the macroeconomic time lag. Expansionary policy tends to create a more immediate influence upon short-term unemployment, which is the intention of the electoral-cycle policy. The long-run macroeconomic result of rising inflation, on the other hand, tends to take place more gradually, perhaps after a one-year time lag.

In the postelection phase of the electoral cycle, stabilization policy shifts from expansionary to disinflationary. This change in policy occurs in order to alleviate the inflation caused by the pre-election economic over-stimulus. The primary effect is a decline in inflation. The secondary effect of the postelection disinflationary policy, however, is an increase in short-term unemployment. This postelection economic slowdown tends to cause incumbent popularity to decline during the mid-part of a presidential term. Table 8.1 summarizes the primary and secondary electoral-cycle effects of the pre-election and postelection macroeconomic policies.

Let us next review the primary and secondary short-run predictions of the partisan PBC effect. According to this model, Republican presidencies are relatively inflation averse in their macroeconomic agenda. This occurs because their core constituencies consist of business and financial special

Table 8.1 Pre-election and postelection phases of the electoral cycle

Macroeconomic short-run effects of the electoral cycle	Pre-election expansionary macroeconomic policy	Postelection contractionary macroeconomic policy
Primary effect	Decrease in unemployment and increase in the presidential reelection vote share	Decline in inflation
Secondary effect	Increase in inflation	Increase in short-run unemployment and a decline in presidential approval

Table 8.2 Primary and secondary effects of the partisan cycle

Policies and effects	Republican presidencies	Democratic presidencies
Macroeconomic policy	Disinflationary policy	Expansionary policy
Primary effect	Reduction in inflation	Reduction in unemployment
Secondary effect	Increase in unemployment	Increase in inflation

interests that emphasize the goal of low inflation. Democratic incumbencies, on the other hand, are relatively unemployment averse in their macroeconomic preference. This occurs because the liberal party's core constituencies include labor-related special interests that emphasize high employment as a major macroeconomic priority. In other words, the conservative party is hawkish on inflation while the liberal party is dovish on unemployment.

The partisan model consists of two sets of short-run predictions. Each of the two sets of predictions includes primary and secondary effects. One set of predictions relates to Republican presidencies while the other set of macroeconomic predictions relates to Democratic presidencies. The primary short-run macroeconomic prediction for Republican incumbencies consists of disinflationary macroeconomic policy and a pattern of low or declining inflation throughout a presidential term. This may occur alongside a secondary result of rising unemployment. The primary macroeconomic prediction of the partisan model for Democratic presidencies consists of expansionary macroeconomic policy that creates a pattern of low or declining unemployment throughout a presidential term. This may take place alongside a secondary effect of worsening inflation.

Table 8.2 summarizes the primary and secondary partisan cycle effects for conservative versus liberal presidencies.

Evidence of PBC Effects During Democratic Presidencies

This section examines inflation and unemployment for evidence of PBC effects during the Democratic presidencies from 1961 to 2014.

Six Democratic periods occurred during this span. The presidencies consist of the two terms of Kennedy–Johnson, Carter's term, the first and second terms of Clinton, and the first term and half of the second term of Obama.

Figure 8.1 shows the inflation-unemployment pattern for each of the Democratic episodes in the White House. Inflation is measured along the vertical axis while unemployment is depicted next to the horizontal axis. Inflation is based on the consumer price index, while unemployment refers to the percentage of the labor force who are jobless. Both inflation and unemployment come from the Bureau of Labor Statistics (BLS).

Four trend lines are displayed in Figure 8.1. Each of the lines corresponds to the macroeconomy during each of the four Democratic periods in the Oval Office. In each of the episodes, the macroeconomic pattern appears generally consistent with the liberal partisan cycle predictions. Unemployment exhibited a downward trend for most of the years connected with each of the Democratic episodes in the White House. Inflation, on the other hand, ended up higher at the end rather than in the beginning of each of the Democratic time frames.

Macroeconomic performance during the Kennedy–Johnson period is indicated by the line connecting the circle markers (•) in the graph.
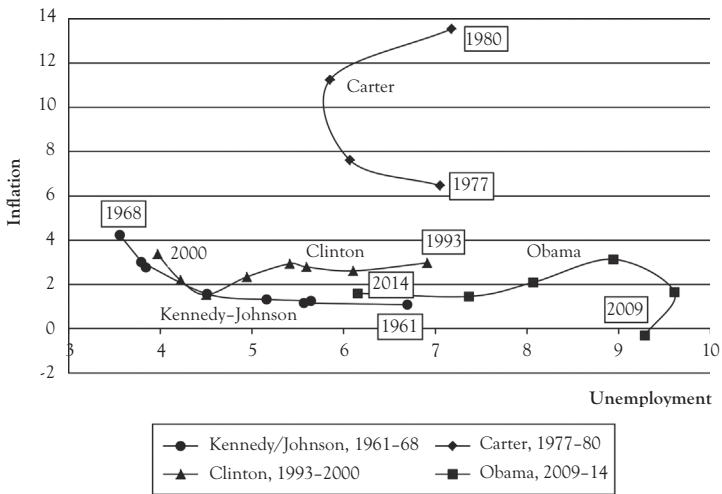
Figure 8.1 Macroeconomic outcomes during Democratic presidencies

Source: BLS

Across the eight-year interval from 1961 to 1968, the economy demonstrated a trend of declining unemployment combined with slightly rising inflation. Unemployment gradually fell from 6.7 to 3.6 percent, while inflation rose from 1.1 to 4.2 percent. This outcome matches the predictions of the liberal partisan cycle.

The economy during the Carter presidency is shown by the line connecting the diamond markers (♦) from 1977 to 1980. The economic pattern during the first three years of the Carter term consisted of declining unemployment and rising inflation. In this interval, unemployment fell from 7.1 to 5.9 percent, while inflation rose from 6.5 to 11.2 percent.

The macroeconomy, however, exhibited stagflation in the fourth year of the Carter administration. From 1979 to 1980, inflation continued to climb as predicted by the liberal partisan cycle. Inflation rose from 11.2 to 13.5 percent. The unemployment rate, however, also increased in 1980. Unemployment went up from 5.9 to 7.2 percent. This rise in unemployment contradicts the economic predictions of the liberal partisan cycle. The partisan model expects declining unemployment throughout a liberal presidency.

This stagflationary outcome in 1980, however, was at least partially attributable to the spike in oil prices associated with the energy crisis that occurred. The cost of crude oil shot up from $14.95 per barrel in 1978 to a high of $37.42 per barrel in 1980 (http://inflationdata.com/Inflation/Inflation_Rate/Historical_Oil_Prices_Table.asp).

This supply-side oil shock caused macroeconomic supply to decline. This led to a simultaneous increase in inflation and unemployment. In particular, the higher energy costs were passed along to buyers in the form of higher product prices. Correspondingly, business firms reduced production and employment as a cost-cutting devise in response to the higher energy expenses. Jimmy Carter consequently lost his 1980 reelection bid partially because of the high stagflation that arose in the final year of his presidency.

The energy crisis during the latter part of the Carter presidency could be seen as an exogenous event that worsened macroeconomic performance from what would otherwise have transpired. Both inflation and unemployment ended up being worse than what would have been the case had the oil shock not taken place. Because of the exogenous

spike in petroleum prices and its stagflationary impact on the economy, the final year of the Carter term (1980) could arguably be excluded from an analysis of PBC effects. If we consider the macroeconomy during only the first three years of the Carter presidency prior to the oil shock, then economic performance exhibited a pattern of rising inflation and decreasing unemployment as predicted by the liberal partisan cycle model.

Macroeconomic outcomes across the two terms of the Clinton presidency are shown by the line connecting the triangle markers (◆) in Figure 8.1. This time frame refers to the eight-year interval from 1993 to 2000. The economic trend across the two terms of the Clinton presidency consisted of declining unemployment and gradually rising inflation. During this period, unemployment fell from 6.9 to 4 percent, while inflation rose slightly from 3 to 3.4 percent. Interestingly, the trend of macroeconomic events throughout the eight years of the Clinton presidency closely mirrors the eight-year economic pattern of the Kennedy–Johnson time frame. The trend of macroeconomic conditions during the Clinton period is therefore compatible with the partisan model predictions for a presidency of the left political party.

The economy during the first term and half of the second term of the Obama presidency is depicted by the line connecting the square markers (■). Except for 2010, the macroeconomy exhibited a gradual decline in unemployment along with an increase in inflation. Unemployment gradually fell from 9.3 to 6.15 percent from 2009 to 2014. Additionally, inflation rose from –0.31 to 2.1 percent during the first Obama term, and was at 1.6 percent in 2014. This economic pattern is generally compatible with the partisan cycle predictions for a liberal incumbency. (The one inconsistent unemployment event in the first Obama term was the increase in unemployment in 2010. This, however, was at least partially attributable to the negative momentum of the Great Recession of 2007 to 2009).

Overall, the macroeconomic outcomes across the four Democratic periods in the White House show a pattern consistent with the predictions of the liberal partisan cycle. The evidence, on the other hand, appears weak for any occurrence of electoral cycle effects during the Democratic incumbencies. The electoral cycle model predicts declining

unemployment in election years, which indeed transpired for most of the Democratic presidencies. However, a general pattern of declining unemployment and rising inflation occurred for most of the years associated with each of the Democratic spans in the Oval Office, not just prior to elections. These macroeconomic results are more compatible with the liberal partisan cycle than the electoral cycle.

Evidence of PBC Effects During Republican Presidencies

Let us now consider the economy for evidence of partisan and electoral cycle effects during the Republican administrations from 1961 to 2014. Seven Republican terms occurred in this interval. The presidencies consisted of Nixon, Nixon–Ford, Reagan's first and second terms, G.H. Bush, and the two terms of G.W. Bush. Figure 8.2 shows the pattern of inflation and unemployment rates during the eight-year span from 1969 to 1976 corresponding to the two presidential terms of Nixon and Nixon–Ford.

Inflation is depicted along the vertical axis and unemployment is measured next to the horizontal axis. The line connecting the points denotes the economic events during the Nixon–Ford incumbencies. A clockwise spiral pattern occurred for macroeconomic performance during this
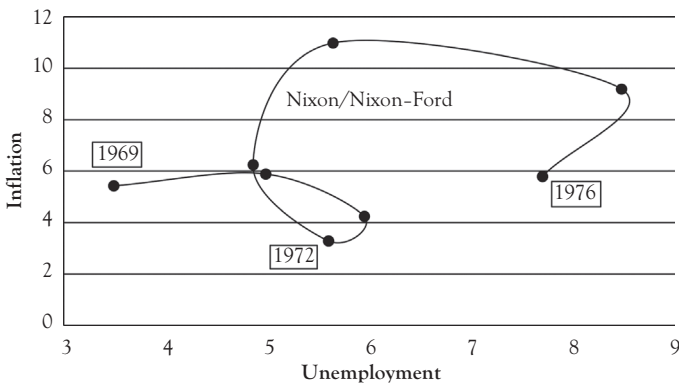
Figure 8.2 Macroeconomic performance during the Nixon–Ford presidencies

Source: BLS

period. This is generally consistent with the electoral cycle predictions. Disinflationary economic contractions occurred during the mid-part of each of the two terms, followed by macroeconomic recoveries in the election years, and rising inflation after the elections.

As predicted by the electoral cycle, the 1972 election-year economic recovery provided a boost to the presidential reelection vote share for the Republican Party, and Nixon easily won a second term in office. Following the 1972 vote, inflation rose during 1973 to 1974. This inflationary outcome was partially attributable to the pre-election opportunistic macroeconomic policy. Part of this inflationary pressure, however, was also due to an increase in oil prices associated with the 1973 Oil Embargo.

This postelection inflation problem was addressed by contractionary macroeconomic policy after the 1972 vote. This disinflationary policy, however, came at the economic cost of a 14-month recession from November 1973 to March 1975. Economic performance did improve somewhat by the time of the 1976 vote. Both unemployment and inflation declined in that election year as predicted by the electoral cycle. In this instance, however, the recovering macroeconomy in an election year was not substantial enough for the in-party to retain the White House. Instead, the Democratic challenger, Jimmy Carter, defeated the Republican incumbent, Gerald Ford, in the 1976 vote. After this election, inflation increased as predicted by the electoral cycle model. Although not shown in Figure 8.2, inflation rose from 5.8 percent in 1976 to 6.5 percent in 1977.

In summary, disinflationary macroeconomic slowdowns occurred during the middle of the Nixon and Nixon–Ford terms, followed by pre-election macroeconomic expansions and postelection rising inflation. These results are consistent with the electoral cycle hypothesis.

Let us next consider macroeconomic performance during the Reagan era from 1981 to 1988. Figure 8.3 illustrates the inflation-unemployment pattern for this time frame.

Inflation is measured along the vertical axis and unemployment is indicated along the horizontal axis. The line connecting the points in the chart denotes the economy across the two terms of the Reagan White House. The macroeconomic pattern in this period could be interpreted as being compatible with several electoral cycle predictions. In particular,
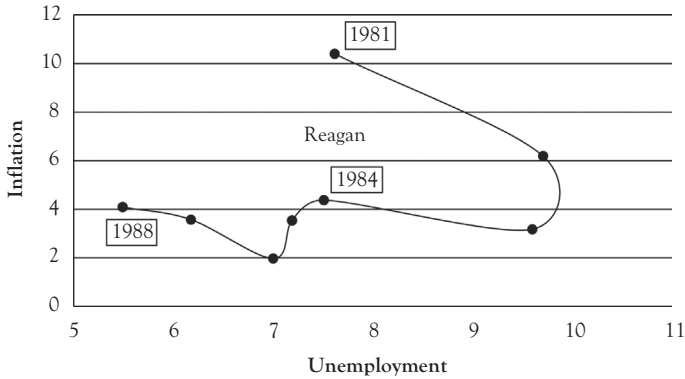
Figure 8.3 Macroeconomic performance during the Reagan administration

Source: BLS

disinflation took place during the middle part of each of the two presidential terms, followed by a substantial improvement in unemployment in the latter part of each of the two Reagan terms. The Republican Party consequently won reelection to the White House at the end of each of the two Reagan terms, partially because of the election-year economic booms.

The first Reagan term was from 1981 to 1984. A disinflationary recession arose in the first half of this term. The 1981 to 1982 economic slowdown was caused by contractionary monetary policy that was adopted to alleviate high inflation inherited from the 1970s. Much of this inflation was from economic overheating during the Carter presidency combined with high oil prices associated with the two energy crises of the 1970s. By 1983, inflation had subsided dramatically because of the tight monetary policy. The drop in inflation was also partially due to a decrease in oil prices beginning in the early part of the 1980s. By the time of the 1984 vote, monetary policy had shifted from contractionary to expansionary as predicted by the electoral cycle. Consequently, unemployment fell dramatically while inflation rose slightly in 1984. Reagan was subsequently reelected to the White House partially because of the recovering economy in the election year.

The second Reagan term was from 1985 and 1988. The electoral cycle effect in this period is not as clear as the earlier Reagan term. However, the macroeconomic conditions in the second Reagan term appear consistent

with some of the key predictions of the electoral cycle. The economy experienced disinflation during the first part of the second Reagan term from 1985 to 1986 as predicted by the electoral cycle. Inflation fell substantially while unemployment decreased slightly. The continuing low oil prices throughout the 1980s was a contributing factor to this favorable supply-side effect of declining inflation and unemployment. In the latter part of the second Reagan term, the economy exhibited a more expansionary turn as predicted by the electoral cycle. Unemployment declined markedly while inflation rose slightly from 1986 to 1988. The Republican Party was subsequently reelected to the White House in the 1988 vote, partially because of the low-unemployment economy. G.H. Bush (R) defeated Michael Dukakis (D) in that election.

The G.H. Bush presidency occurred from 1989 to 1992. Unlike the previous Republican administrations, the macroeconomic pattern in this period was more compatible with the conservative partisan cycle instead of the electoral cycle. During most of the G.H. Bush presidency, the economy exhibited a trend of declining inflation and rising unemployment. Figure 8.4 shows this pattern.

Inflation is shown along the vertical axis while unemployment is measured along the horizontal axis. The line connecting the points in the chart denotes macroeconomic outcomes across the G.H. Bush time frame. In the four-year time span from 1989 to 1992, inflation fell from 4.8 to 3.05 percent, while unemployment rose from 5.3 to 7.5 percent. These
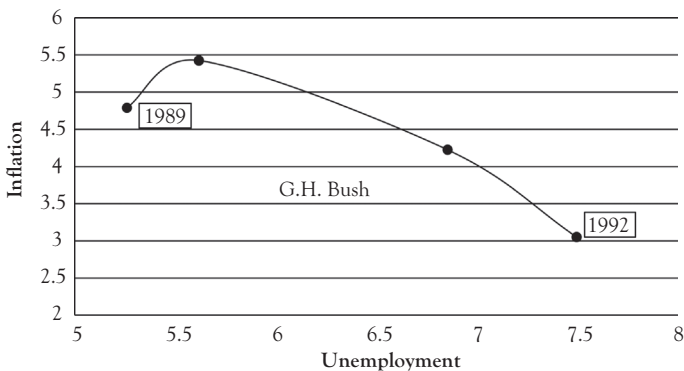
Figure 8.4 Macroeconomic performance during G.H. Bush presidency

Source: BLS

macroeconomic results are consistent with the partisan cycle predictions for a presidency of the conservative political party. The high unemployment prior to the presidential vote was a major cause for G.H. Bush's reelection defeat in 1992.

The G.W. Bush presidency occurred from 2001 to 2008. Figure 8.5 shows the macroeconomic outcomes across the two terms of G.W. Bush. Inflation is measured next to the vertical axis and unemployment is shown along the horizontal axis. The line connecting the points denotes the economic pattern. The macroeconomic trend during the first term could be interpreted as being compatible with some of the predictions of the electoral cycle. During the first part of the first G.W. Bush term, a contractionary macroeconomic effect occurred. This consisted of declining inflation along with rising unemployment. This economic contraction was followed by an expansionary turn in macroeconomic performance during the election year of 2004, wherein unemployment fell while inflation rose. G.W. Bush was subsequently reelected to the Oval Office, partially because of the decline in unemployment in that election year.

The second term of the G.W. Bush presidency was from 2005 to 2008. The macroeconomic pattern in this period, however, does not match the predictions of either the conservative partisan cycle or the electoral cycle. The economy demonstrated a pattern of rising inflation throughout the second term of the G.W. Bush presidency. Unemployment, on the other
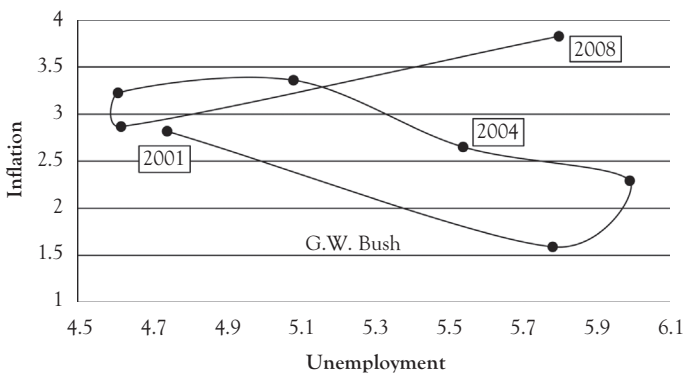
Figure 8.5 Macroeconomic performance during G.W. Bush presidency

Source: BLS

hand, fell during the first half of the second term, but then rose dramatically by the time of the 2008 vote. This spike in unemployment marked the beginning of the Great Recession of 2008 to 2009. The Republican Party lost the 2008 presidential election partially because of this worsening macroeconomic performance.

Summary of PBC Effects Across Political Parties and Presidencies

The pattern of inflation and unemployment across the half-century interval from 1961 to 2014 exhibited differing PBC characteristics for Democratic versus Republican incumbencies. A pattern of liberal partisan cycle effects seemed to occur for the Democratic presidencies. Seven Republican presidential terms occurred during this same time frame. Five of the seven terms exhibited a macroeconomic trend consistent with some of the main predictions of the electoral cycle. These administrations include Nixon, Nixon–Ford, the first and second Reagan terms, and the first G.W. Bush term.

Two of the seven Republican terms, however, did not exhibit an electoral cycle effect. These presidencies include G.H. Bush and the second G.W. Bush term. The G.H. Bush presidency demonstrated a macroeconomic pattern more in line with the conservative partisan cycle than the electoral cycle. Macroeconomic performance during the second term of G.W. Bush, on the other hand, was not compatible with either the partisan cycle or the electoral cycle. Table 8.3 summarizes the macroeconomic patterns and the PBC effects for the Republican and Democratic presidencies across the period from 1961 to 2014.

Synthesis of PBC Effects

A synthesis of the two PBC effects may be one way to reconcile the different macroeconomic patterns between the two opposing political parties. The PBC synthesis occurs in two phases. Partisan macroeconomic performance occurs in the first part of a presidential term. Administrations embrace policies to achieve the partisan macroeconomic interests of their core constituencies. Partisan macroeconomic performance is

Table 8.3 PBC effects between 1961 and 2014

Presidential term	Macroeconomic pattern	PBC effect
Kennedy–Johnson (D) *1961–1964*	Falling unemployment and rising inflation	Liberal partisan cycle
Johnson (D) *1965–1968*	Falling unemployment and rising inflation	Liberal partisan cycle
Nixon (R) *1969–1972*	Economic contraction followed by recovery in the election year	Electoral cycle
Nixon–Ford (R) *1973–1976*	Economic contraction followed by recovery in the election year	Electoral cycle
Carter (D) *1977–1980*	Falling unemployment and rising infla-tion (excluding 1980 oil shock)	Liberal partisan cycle
Reagan first term (R) *1981–1984*	Economic contraction followed by recovery in the election year	Electoral cycle
Reagan second term (R) *1985–1988*	Disinflation followed by economic expansion	Electoral cycle
G.H. Bush(R) *1989–1992*	Declining inflation and rising unem-ployment	Conservative partisan cycle
Clinton first term (D) *1993–1996*	Falling unemployment and slightly rising inflation	Liberal partisan cycle
Clinton second term (D) *1997–2000*	Falling unemployment and slightly rising inflation	Liberal partisan cycle
G.W. Bush first term (R) *2001–2004*	Economic contraction followed by recovery in the election year	Electoral cycle
G.W. Bush second term (R) *2005–2008*	Falling unemployment and then rising unemployment	No discernable PBC effect
Obama first term and half of second term (D), *2009–2014*	Falling unemployment and slightly rising inflation	Liberal partisan cycle

followed by a shift to opportunistic macroeconomic policies in the later phase of a presidential term. This occurs as a political strategy to increase the in-party presidential reelection vote share. Consequently, the PBC synthesis for Democratic presidencies resembles the liberal partisan cycle while the PBC synthesis for Republican incumbencies appears similar to the electoral cycle.

In Republican presidencies, disinflation occurs during the first half of a presidential term followed by an economic boom during the latter part of the term. In particular, conservative presidencies pursue the partisan

Table 8.4 Partisan-electoral PBC synthesis

Partisan-electoral synthesis	Democratic presidencies	Republican presidencies
Partisan macroeconomic policy during the first part of a term	Expansionary policy based on the liberal preference of relative unemployment aversion	Contractionary policy based on the conservative preference of relative inflation aversion
Opportunistic macroeconomic policy during the second part of a term	Expansionary policy to reduce unemployment in order to increase presidential reelection votes	Expansionary policy to reduce unemployment in order to increase presidential reelection votes

goal of low inflation in the initial phase of a presidency. In the later part of a conservative presidential term, however, macroeconomic policy shifts to expansionary measures to create an economic boom and reduce unemployment as an attempt to increase the presidential reelection vote share.

For Democratic incumbencies, the PBC synthesis resembles the liberal partisan cycle of unemployment aversion throughout a presidential term. A left-party incumbency adopts expansionary measures in the first part of a term based on the liberal macroeconomic objective of unemployment aversion. During the second part of the term, the liberal administration maintains expansionary policies based on the liberal agenda of unemployment aversion combined with electoral ambition to reduce unemployment in order to improve the presidential reelection vote share. Table 8.4 summarizes the PBC synthesis for Republican versus Democratic presidencies.

CHAPTER 9

Other PBC Considerations Regarding Macroeconomic Policy

Chapters 6, 7, and 8 examined some of the theoretical and empirical aspects of the electoral and partisan PBC effects. In this chapter, we will look at some additional issues regarding political influence on macroeconomic policy and performance. In particular, we will discuss the realism of the main assumptions of the electoral and partisan effects. We will also consider the issue of macroeconomic uncertainty and its impact on election outcomes. Finally, we will discuss the subject of central bank independence and the related issue of a monetary policy rule.

Presidential Intentionality, Controllability, and Predictability of Macroeconomic Policy and Performance

Three important assumptions underlie the electoral and partisan cycle effects:

- *Macroeconomic policy intentionality:* The electoral and partisan PBC effects assume the incumbent intends to manipulate macroeconomic policy for partisan macroeconomic goals or reelection ambition.
- *Macroeconomic policy controllability:* The electoral and partisan PBC effects assume the incumbent determines macroeconomic policy.
- *Macroeconomic performance predictability:* The electoral and partisan PBC effects assume the impact of macroeconomic policy upon macroeconomic outcomes is accurately predictable in terms of magnitude and timing.

Let us consider the realism of each of these assumptions.

President's Intention for Macroeconomic Policy

The president's policy intention refers to whether or not the incumbent seeks to manipulate the economy for electoral or partisan purposes. For example, if the median voter's macroeconomic preference is dynamically inconsistent, then the incumbent may be motivated to adopt an opportunistic macroeconomic policy as a strategy to gain reelection to the White House (see Chapter 6). The president, however, may choose not to pursue an electoral cycle strategy, even if the policy would be effective in increasing reelection votes. Ethical considerations, for instance, could cause an incumbent not to pursue an electoral cycle policy. The electoral cycle effect is a deceptive policy. According to the electoral cycle, voters are fooled into accepting fleeting economic gains that come at the expense of higher postelection inflation, which may be followed by a disinflationary recession.

Besides the moral implications, other factors may cause a president not to pursue PBC policies. The president could have a different macroeconomic agenda besides partisan priority or reelection ambition. A presidential administration may emphasize other economic-related priorities such as government debt, tax reform, health care, poverty, the trade deficit, education, national defense, environmentalism, and so on. The president, however, must be able to resist PBC pressures in order to pursue a distinct macroeconomic program. In reality, multiple motivations influence the economic agenda of an incumbent, such as political party platform, reelection strategies, fulfillment of campaign promises, and other concerns.

Macroeconomic Policy Controllability

A further issue regarding PBC effects is whether or not the president can actually determine macroeconomic policy. In fact, the incumbent does not have full control over macroeconomic policy. The president does not completely decide fiscal policy, and the president has only an indirect influence on monetary policy. A presidential administration is therefore not always able to attain their desired macroeconomic policy.

Monetary policy is directly determined by the Federal Reserve and not by the executive branch. In order to minimize undue political influence,

the Fed is not required to adhere to the political agendas of the president or Congress. The incumbent, however, may be able to indirectly impact the central bank's actions through the presidential appointment of the Fed chairman. The Fed chairman, for instance, may decide to support the incumbent's macroeconomic preference out of loyalty to the president or because of ambition to be reappointed as Fed chair after the four-year term expires. Fiscal policy is also not under the full control of the presidency. Fiscal policy is determined by the political compromise between the president and Congress and occurs mainly through the federal budget process. The fiscal policy process also involves the partisan economic platforms of the right and left political parties and their impact upon the president and Congress.

Presidential influence upon fiscal policy is likely to be substantial in the case of a unified government. A unified government takes place when one political party controls both the executive and legislative branches. This occurs when the in-party to the White House also possesses a majority of seats in the Senate and House. In a unified government, the number of in-party legislators is greater than the amount of out-party legislators. Consequently, the in-party legislators are able to outvote the out-party legislators in favor of the president's budget proposal and other fiscal policy initiatives by the administration. The president therefore has a relatively strong sway over the level and distribution of taxes and government expenditures.

A presidential administration is more likely to obtain their fiscal policy agenda under a unified government as opposed to a divided government. A divided government takes place when one political party controls the presidency while the opposing political party possesses a majority of seats in Congress. A divided government also arises if one party has a majority of seats in the House of Representatives while the opposing political party has a majority of seats in the Senate.

Partisan gridlock is likely to develop regarding fiscal policy in a divided government. In this scenario, the out-party in control of Congress is able to oppose the fiscal policy agenda of the in-party in control of the Oval Office. In a divided government, the out-party legislators in Congress are greater than the in-party legislators. The out-party legislators in control of Congress (who oppose the president's budget proposal) are able

to outvote the in-party legislators (who support the president's budget plan). The president consequently has weaker sway over fiscal policy in a divided government than a unified government. Under conditions of partisan gridlock, neither political party is able to achieve their preferred fiscal policy. Both political parties must compromise on issues of taxes and government spending. In particular, the political left and political right tend to clash on the role and size of government in the economy. Among other things, the liberal perspective usually advocates a relatively large role of government in the economy, whereas the conservative perspective generally favors a small role for government.

Another partisan-related effect is that the opposition political party may be inclined to oppose fiscal policy initiatives by the president that could boost the economy and improve reelection chances for the in-party. A strong economy tends to cause an increase in presidential and congressional votes for the in-party and a decrease in votes for the out-party candidates. Consequently, the out-party may cynically wish for a weak macroeconomy prior to a presidential vote. A slow economy in an election year tends to boost the presidential and congressional vote shares for the out-party political candidates and reduce the votes shares for the in-party political candidates.

Macroeconomic Unpredictability and the Policy Lag Effect

A further issue is the partial unpredictability of the economy in response to stabilization policy. The performance RGDP, unemployment, and inflation do not always respond to macroeconomic policy in terms of intensity or timing as intended by the policymakers. For example, suppose that the president manipulates macroeconomic policy for an intended electoral cycle effect. Opportunistic policy does not guarantee that the economy will react precisely as predicted. The macroeconomy does not always respond in the time frame nor to the extent that is intended by the policymakers.

An attempt by the incumbent to orchestrate an electoral effect (or a partisan effect) could be thwarted by uncertainty and unpredictability regarding the impact of macroeconomic policy on the economy.

In other words, fine-tuning of the economy through policy actions to create an intended PBC effect may be difficult to achieve. Macroeconomic policy could mistakenly overshoot or undershoot a desired electoral cycle effect. If opportunistic policy ends up being too weak, then the economy will not expand sufficiently prior to the election as planned by the incumbent. The administration, consequently, would not achieve their objective of a strong pre-election economic stimulus. The in-party could consequently lose reelection to the White House because of weaker than anticipated economic performance. Alternatively, if opportunistic macroeconomic policy ends up being too strong, then macroeconomic overheating in the form of rising inflation could develop prior to the presidential vote, which would also hurt reelection chances.

Besides uncertainty on the intensity of macroeconomic policy, the second issue concerning unpredictability is policy timing. A time lag occurs between the implementation of a macroeconomic policy and its subsequent influence on the economy. Because of policy lag uncertainty, macroeconomic policy could be inaccurately timed. Macroeconomic policy could impact the economy either too quickly or too slowly. Let us assume that the impact of an electoral-cycle policy ended up occurring too rapidly. Rising inflation would develop prior to the election rather than afterward as intended by the opportunistic policy. This unintended pre-election inflationary outcome could jeopardize reelection ambitions for the in-party.

Alternatively, suppose that the impact of an opportunistic policy occurred more slowly than predicted. The economic boom would end up taking place after the election rather than before. The in-party, as a result, could lose reelection votes because of the lagged response of the economy to the expansionary measures. The economy during the G.H. Bush presidency may have been an instance of the policy lag effect in connection with the 1992 presidential election. Macroeconomic performance throughout the G.H. Bush presidency of 1989 to 1992 exhibited a conservative partisan cycle pattern of disinflation combined with rising unemployment. This partisan macroeconomic effect was in contrast to the electoral cycle pattern that seemed to occur for most of

the other Republican incumbencies during the post-1960 time frame (see Chapter 8 for a discussion).

An examination of monetary policy during the G.H. Bush term, however, suggests that expansionary measures were taken prior to the 1992 presidential vote, perhaps as an attempt to create a pre-election economic stimulus. Monetary policy turned expansionary toward the end of the G.H. Bush term as predicted by the electoral cycle. M1 money supply growth was at low disinflationary rate of 3.6 percent during 1989 to 1990. Money supply then increased at 6 percent in 1991, and at an expansionary rate of 12.4 percent in the election year of 1992 (Federal Reserve Economic Data). This shift from disinflationary policy to expansionary policy toward the end of the G.H. Bush term, however, did not cause a decline in unemployment until after the 1992 presidential election, rather than prior to the vote as expected according to the electoral cycle. Unemployment remained high at 7.8 percent in 1992. In 1993, however, after the election, unemployment fell to as low as 6.5 percent (Bureau of Labor Statistics).

Expansionary monetary policy, in other words, may have had a slower than expected effect on the economy toward the end of the G.H. Bush term. The economy may have exhibited a failed electoral cycle during the G.H. Bush presidency. The weak economy during the election year of 1992 was a major cause for the reelection defeat of G.H. Bush. If unemployment had declined prior to the 1992 vote rather than afterward, G.H. Bush would likely have received a higher presidential reelection vote share.

Macroeconomic Shocks and Macroeconomic Uncertainty

Exogenous shocks are major external events that alter economic performance from its previous pattern. Shocks are an inevitable and periodic element of the macroeconomy and a source of uncertainty. Macroeconomic shocks may cancel out or amplify the effects of macroeconomic policies, including electoral-cycle reelection ambition or partisan economic agendas. Additionally, exogenous shocks may be either beneficial or detrimental for the economy. A beneficial shock improves macroeconomic performance and therefore likely boosts presidential approval and

the presidential reelection vote share. An adverse shock worsens economic performance, which weakens presidential approval and the presidential reelection vote share for the in-party.

Exogenous shocks may occur on either the supply side or demand side of the macroeconomy. On the supply side, two types of shock-related factors are commercial technology and resource costs, especially energy prices. For example, a sudden dramatic and sustained change in oil prices could either exacerbate or negate a PBC effect. A substantial decline in oil prices prior to the presidential vote could cause both inflation and unemployment to decline and economic growth to expand. This would magnify an electoral cycle effect. The political result of this positive supply-side shock would likely be an increase in presidential approval and presidential reelection votes.

An instance of this type of favorable supply-side effect was the drop in oil prices during the early 1980s. This positive supply-side result bolstered the economy toward the end of Reagan's first term in the White House. The decline in inflation and unemployment that occurred was a factor in Reagan's reelection victory in 1984. A similar politico-macroeconomic result was the decline in oil prices prior to the 2004 presidential vote. This favorable supply-side effect led to disinflation in the election year, which may have been a contributing factor to G.W. Bush's reelection victory.

Conversely, a substantial rise in oil prices could cause both inflation and unemployment to worsen prior to a presidential election. This could hurt the reelection hopes for the in-party presidential candidate. An example of this effect was the energy shock upon the 1980 presidential vote. The Oil Crisis of 1979 to 1980 occurred toward the end of the Carter presidency. This energy shock caused the macroeconomy to diverge from its previous liberal partisan cycle pattern of declining unemployment (see Chapter 8). As a result of the oil crisis, stagflation developed in the form of rising unemployment and worsening inflation. This took place prior to the 1980 vote, and was a major factor in the presidential reelection defeat of Jimmy Carter.

Besides supply-side shocks, macroeconomic shocks may occur on the demand side. An important demand-shock factor is of debt bubbles. An example of a debt bubble crisis was the real-estate and financial crash that lead to the Great Recession prior to the 2008 presidential vote.

The Great Recession began in the final year of the G.W. Bush presidency. In 2006 and 2007 prior to the financial crisis and the start of the Great Recession, a pattern of slight disinflation occurred, which could be interpreted as consistent with either an electoral cycle or a conservative partisan cycle. This macroeconomic pattern, however, was interrupted in 2008 by the shock of the Great Recession in the form of worsening inflation and unemployment. This stagflationary result was a key factor that led to the Republican loss of the White House in the 2008 presidential vote.

Macroeconomic Uncertainty and Presidential Reelection Vulnerability

Macroeconomic performance varies across presidencies. This occurs partly because of the complex interaction among the macroeconomic policymakers and the various factors that weigh upon stabilization policy decisions. The macroeconomic policymakers consist of the president, Congress, the Fed, and the indirect influence of the liberal and conservative political parties. These policymakers interact with one another to determine the direction and level of fiscal and monetary policies.

The cause–effect mechanism of macroeconomic policy and performance does not follow one simple pattern across all administrations. For example, in Chapter 8 we examined business cycle data and found evidence for differing PBC effects across Republican versus Democratic presidencies. Different policymakers have different macroeconomic priorities at different times. Macroeconomic policymakers also face differing economic circumstances at different times, such as periodic episodes of recession versus other periods of high inflation. These differing economic circumstances lead to different macroeconomic policies and outcomes across different incumbencies. Additionally, stabilization policy lag, exogenous economic shocks, and various macroeconomic uncertainties and rigidities are sources of unpredictability in the business cycle.

Because of macroeconomic uncertainty, a further political effect arises. The reelection prospects of a president are vulnerable to an uncertain

economy. An incumbent's chance of reelection is partly dependent on the fortune or misfortune of a partly unpredictable economy. The reelection fate of the in-party is subject to macroeconomic fickleness. On the one hand, the president may be able to orchestrate PBC policies for partisan or reelection purposes. But on the other hand, the partial unpredictability of the economy creates risk for an incumbent's reelection chances.

The unpredictability of the ups and downs of the business cycle affects whether or not the macroeconomy happens to be in a strong or weak position on election eve. The good luck or bad luck of the business cycle plays a role in determining presidential and congressional vote outcomes. The fortune or misfortune of the economy in an election year impacts which candidate and political party wins and who loses presidential and congressional elections.

The incumbent is held accountable to voters in elections based on how well the macroeconomy performs. This seems to occur regardless of whether or not the president is actually responsible for the economic events. The incumbent tends to be rewarded with a high reelection vote share when a strong economy occurs. This electoral result tends to take place irrespective of whether the administration creates the favorable macroeconomic outcomes or not. An incumbent might be reelected because of strong economic performance that is unrelated to the president's macroeconomic policies. Alternatively, a president tends to receive a low reelection vote share when a weak economy occurs. This tends to take place regardless of whether or not the administration's policies cause the poor economic performance. An incumbent might lose a reelection because of a weak economy that is beyond the control of the administration to prevent.

Central Bank Independence?

The Federal Reserve System is an independent government entity. The institution is set up to be insulated from excessive special interest influence and undue political and partisan pressures from the president and Congress. The independent nature of the central bank is based on the concept that monetary policy is too important to be left to political

pressures that may be unstable and inefficient. Monetary policy is set up to be autonomous and based on economic criteria rather than political winds. In the absence of an independent Fed, congressional and presidential politics could cause the central bank to adopt monetary measures based on popularity, special interests, partisanship, or political expediency rather than efficient economic considerations.

Macroeconomic circumstances, for example, may sometimes require that unpopular policy steps be taken by the monetary authority. In particular, tight monetary policy is sometimes necessary to remedy high inflation. Disinflation from a tight policy, however, may cause a short-term recession because of the short-run inflation-unemployment trade-off. While effective at reducing inflation, restrictive monetary measures could become controversial among voters because of the negative side effect of a recession. Citizen opposition to the central bank could consequently develop. This public discontentment could hinder monetary policy in the absence of an independent Fed.

Three Elements of Central Bank Independence

The independent nature of the Fed includes three main elements:

1. The Fed earns its own income rather than depending upon Congress for funding.
2. The Fed chair and the other members of the board of governors are appointed to serve terms that extend across multiple presidencies.
3. Monetary policy does not involve approval from Congress or the president.

The Fed is financially insulated from the partisan and electoral pressures of the executive and legislative branches. The Fed earns its own income rather than dependent upon Congress for funding through the federal budget. The central bank is not subject to the budgetary mechanism of political interaction among Congress, the presidency, and the political parties. The Fed does not depend upon taxes to finance its operations and activities. Instead, the Fed earns its own income through

bank fees, interest payments, and other charges for various services that it provides to member banks of the Federal Reserve System. The central bank, in this way, maintains financial freedom from the presidency and Congress. If the central bank relied upon Congress for funding, then the Fed could be pressured to acquiesce to Congressional preferences on monetary policy.

Besides financial independence, a second element of central bank independence is the appointment mechanism of Fed officials. The president appoints the seven members of the Board of Governors of the Fed. Each of the members serves for nonrenewable, staggered 14-year terms that span across multiple presidential administrations. For instance, one new board member is appointed to replace a retiring member every two years, thereby giving a staggered effect.

The president also appoints the chair and vice-chair of the board of governors. These appointments consist of renewable four-year terms. The chair, vice-chair, and other members of the board of governors, combined with 5 of the 12 Federal Reserve district bank presidents, constitute the Federal Open Market Committee (FOMC). The FOMC decides monetary policy and its influence on money supply and interest rates. The appointed Fed chairperson is particularly important in the monetary policy process. The Fed chair sets the monetary policy agenda for the FOMC.

Because of the appointment mechanism of Fed officials, the actions of the central bank are not subject to democratic elections. Electoral determination of Fed officials could conceivably compromise the economic integrity of monetary policy. If Fed policymakers were accountable through periodic elections, then the central bank could be inclined to adopt policies based on popularity or political expediency rather than economic criteria that may sometimes require unpopular, but necessary actions (such as tight policy to alleviate high inflation that could cause an unpopular short-term recession).

The third main element of central bank independence is that monetary policy does not involve approval from the president or Congress. Elected politicians, however, have a strong interest in Fed actions because of its impact on the economy and upon voter well-being, and

therefore upon election outcomes. Consequently, elected officials often express their opinions about the Fed and monetary policy. However, as part of the independent nature of the central bank, neither the executive nor legislative branches may mandate the direction of monetary policy actions.

Fed Independence Is Partial

The monetary authority, however, is not completely immune from political pressures associated with special interests, Congress, and the presidency. One special interest that influences central bank policy is the financial industry. Some Fed critics worry that the banking and financial industries have excessive impact on central bank decisions. The Fed may adopt policies that are more favorable toward financial institutions than the overall economy. Additionally, many of the members of the Board of Governors of the Fed have career connections to banking interests. These interconnections may create a conflict of interest.

The central bank could be pressured to implement monetary and regulatory policies that promote the profitability of Wall Street to the detriment of the total economy. In a worst-case scenario, a boom-and-bust economic cycle could develop that benefits financial markets and financial institutions. For example, the Fed might adopt excessively expansive monetary measures and lax banking regulations that boost the short-term profitability of financial firms in the form of a booming stock market and high returns on risky financial loans and bonds. Weak financial regulations could enable excessive unsafe loans combined with rapid money supply growth that keeps interest rates too low for too long.

Some Fed critics argue that this type of scenario played out with respect to the financial crisis from 2007 to 2008 and the Great Recession from 2007 to 2009. Prior to this crisis, a financial bubble arose in the form of high debt from risky mortgage loans combined with low interest rates and stock market speculation. This bubble eventually burst through risky loan defaults and a stock market crash. The economy then sunk into a severe recession. In the end, big banks and financial institutions were bailed out by the government because they were too big to fail.

Besides the influence of the financial industry, the Fed is partially subject to presidential and congressional political pressures. The Fed chairman, for example, must testify before Congress on a periodic basis regarding monetary policy and the state of the economy. The Fed chairman is not compelled to follow the recommendations of legislators in congressional hearings. The central bank, however, may experience informal intimidation to alter policy to accommodate congressional sentiment. Congress, for instance, could threaten to pass laws that interfere with monetary policy. In an extreme circumstance, Congress could even threaten impeachment of the Fed chairman if legislators considered central bank policies to be irresponsible.

Congressional influence on the central bank is a double-edged sword that could be either beneficial or harmful. If congressional pressure on the Fed is based on shifting and inefficient politics and partisanship, then congressional involvement with the monetary authority would be harmful. However, if congressional monitoring of central bank actions is based on reasonable analysis, then legislative oversight of the central bank would be advantageous. Besides Congressional pressure on the central bank, the greatest source of executive branch influence is the presidential appointment of the chairman of the central bank. An incumbent is likely to appoint a Fed chair who favors the same macroeconomic agenda as the administration. Out of loyalty, the Fed chair may then feel pressure to promote monetary policy that is consistent with the economic preferences of the president.

Executive branch influence on the central bank could be further exacerbated if the Fed chair seeks reappointment after the four-year term expires. In hopes of being reappointed to the position, the Fed chair may embrace monetary policies that are in line with the administration's macroeconomic program. Conversely, if monetary policy as promoted by the Fed chair conflicts with the administration's macroeconomic priorities, then the president may choose not to reappoint the Fed chair and instead assign a different member of the board of governors to the position. As a result of executive branch pressures on the central bank, PBC theories assert that monetary policy tends to follow the macroeconomic preference of the administration.

Besides financial interests and presidential and congressional pressures, the Fed is scrutinized by the media, various other special interests, opinion leaders, political parties, and the public. Of course, any individual or group may openly criticize the central bank if monetary policy is perceived to be either too expansionary or too contractionary, or if banking regulations are considered to be too weak or too restrictive. Likewise, any group or person may praise the Fed's actions if monetary policy and financial regulations are viewed as effective. Various political influences likely exert some impact upon the central bank. The exact magnitude of these external political pressures upon monetary policy is difficult to calculate. The net impact of outside political forces upon central bank policy could either be beneficial or detrimental based on the far or short-sightedness of the various pressures.

If the overall impact of politics upon the Fed is short-sighted, then monetary policy could conceivably be swayed to become either too contractionary or too expansionary. External political influence on the Fed, however, could be beneficial. From the congressional and presidential perspectives, the central bank should take into account their sentiments, which are a reflection of the attitudes of voters, political parties, and various interest groups. If the macroeconomic perceptions of Congress and the administration are enlightened and far-sighted, then their pressure upon monetary policy could be helpful. Enlightened political pressures could compel the monetary authority to adopt a more responsive policy.

Conversely, the independent nature of the Fed could have either a positive or negative overall effect. If the independent Fed adopts efficient monetary policy based on macroeconomic criteria as is intended, then central bank independence would be effective. Central bank independence, however, could conceivably be detrimental. A totally independent Fed could be potentially harmful if the central bank were not held accountable in some way for mismanagement of monetary policy decisions should they occur. Central bank independence could lead to policy actions that are out of touch with societal economic needs. Also, as discussed earlier, the central bank could end up pursuing short-term financial interests to the detriment of the overall macroeconomy. Excessive

banking deregulations or overly expansive monetary policies could cause financial bubbles to bulge and then burst.

Discretionary Monetary Policy Versus a Monetary Policy Rule

Macroeconomic policy occurs through the discretionary judgment of the government policymakers. The interaction between the president and Congress determines fiscal policy as manifest by taxation and government purchases of goods and services. The interaction between the Fed chairman and the other FOMC members of the Fed determines monetary policy as manifested by money supply and interest rates. Additionally, political pressure from voters, political parties, and special interests likely exerts some impact upon discretionary macroeconomic policy actions.

For example, the president as well as Congressional legislators may have difficulty gaining reelection to office if their stabilization policy actions do not reflect citizen opinions on the macroeconomy. In addition, elected officials may have difficulty obtaining sufficient financial backing for election campaigns if their policy platforms do not take into consideration the macroeconomic preferences of their own political party as well as special interest groups, such as business, finance, and labor. For monetary policy, the chairman of the Fed may have trouble gaining reappointment from the president if monetary policy actions do not take into consideration the macroeconomic preferences of the incumbent, voters, political parties, interest groups, and the media. However, political pressure from voters and other outside factors upon discretionary macroeconomic policy could be naïve, shortsighted, or biased. Policymakers could be influenced to adopt unsustainable policies that work against the long-term macroeconomic interests of society, such as the electoral and the partisan effects.

A monetary policy rule, although controversial, is one proposal for addressing the potential problem of shortsighted political influence upon discretionary monetary policy. According to this concept, a mathematical rule is set up to govern money supply. The fixed rule would be mathematically based on macroeconomic criteria in contrast to the current

system of discretionary judgment by the FOMC. One possible rule is that money supply growth would be equal to a constant rate plus some factor times the unemployment gap:

$$\text{Money growth} = \text{constant} + \beta \, (\text{actual unemployment rate} - \text{natural unemployment rate})$$

Money supply growth would be equal to a constant level (of say 3 percent) when the economy is operating efficiently at full employment. An efficient macroeconomy occurs when actual unemployment equals the natural rate. If the economy is inefficient at an unemployment level greater than the natural rate, then money supply growth automatically increases based on the parameters of the rule. Money supply growth would automatically rise so as to reduce interest rates and expand macroeconomic demand and reduce unemployment. Conversely, if unemployment is less than the natural rate, then money supply growth would automatically decrease based on the rule. As a result, interest rates would rise and macroeconomic demand would automatically decline so as to reduce inflationary pressures.

A criticism against the concept of a monetary policy rule is that the method may be too rigid in an environment of macroeconomic uncertainty. The economy could be adversely affected by a rigid policy rule that is inflexible to cope with changing macroeconomic circumstances. In particular, some uncertainty occurs regarding the structure of the macroeconomy. The natural unemployment rate could be greater or less than anticipated by the policy rule. A rule that is mistaken in its assumption of natural unemployment could cause money growth to be too strong or too weak.

A rule that overestimates the natural unemployment rate could cause money supply growth to occur too slowly. Consequently, the economy would recover too slowly from a recession. Alternatively, a policy rule that underestimates the natural unemployment rate could cause money supply growth to be too rapid and therefore create inflationary overheating. Some uncertainty also occurs concerning the magnitude of the impact of stabilization policy. A monetary policy rule that overestimates its impact could cause money growth to be too weak, which could lead to a slow

economic recovery. A rule that underestimates its impact on the economy might cause money growth to be too strong, which could trigger rising inflation.

In short, a policy rule that misgauges the macroeconomy could create adverse effects. Discretionary policy, of course, is also susceptible to inefficient misjudgments by policymakers that could detrimentally impact the macroeconomy. The Fed could erroneously adopt discretionary policy that is too weak, which could lead to slow economic growth. Alternatively, the central bank might mistakenly decide upon discretionary policy that is too strong, which could trigger rising inflation.

The current system of discretionary monetary policy, however, has one characteristic that may be advantageous over the policy rule. Discretionary policy is not locked in place in the same way that a mathematical policy rule is fixed. Discretionary policy has greater flexibility to respond to changing circumstances as well as to correct misjudgments about the macroeconomic structure. The Fed, through discretionary measures, can readily adjust money supply and interest rates as deemed necessary, based on new information, changing macroeconomic situations, or revised analyses.

A policy rule may also be revised, but the process is likely to be more complex than a change in discretionary policy. One of the main purposes of the policy rule approach, after all, is to make changes in policy more difficult to attain. The policy rule approach intentionally inhibits changes in monetary policy so as to minimize undue political interference. Modification of parameters in a policy rule might involve some type of legislative procedure and require a consensus among the policy-rule makers, presumably Congress or the Fed. The legislative and bureaucratic process to modify a policy rule would likely require more time to implement than discretionary policy actions. Shifts in discretionary policy can occur relatively fast based on the opinions of the policymakers. For these reasons, the flexibility of discretionary policy may be preferable to the more rigid policy rule method.

Economic Influence on Public Sentiment and Voter Behavior

Introduction

This chapter will examine in more detail the issue of macroeconomic influence upon citizen sentiment and voter behavior. The conventional view holds that the stronger the economy, the higher the public approval rating for the incumbent. In addition to presidential popularity, macroeconomic outcomes significantly influence the presidential vote, congressional house and senate election outcomes, the voter participation rate, macropartisanship, consumer sentiment, and the social happiness index.

Macroeconomic Accountability and Efficiency

Voters hold the president and the in-party to the White House accountable for the health of the economy. Macroeconomic outcomes, however, are not solely attributable to the policy agenda of the president and the in-party. The economy is influenced by the net impact of fiscal and monetary policies as determined by the political interaction among the three main macroeconomic policymakers, which consist of the president, Congress, and the central bank.

The president, in other words, does not fully determine the macroeconomic policies or macroeconomic outcomes that arise from those policies. Numerous factors play a role in determining economic performance. As discussed in Chapter 9, some of the factors that affect macroeconomic performance include energy costs, commercial technological progress, macroeconomic policy lag and uncertainty, business cycle

momentum, exogenous shocks and special interest influence on policy, as well as the possibility of political gridlock among the fiscal policymakers. The occurrence of war also impacts economic performance. Even the weather and natural disasters affect the economy, which lies beyond the control of the incumbent.

Regardless of the various influences on the economy, the president and the in-party to the White House are held accountable to voters for what happens. The president enjoys strong public approval when a strong economy occurs. This tends to take place regardless of whether or not the incumbent's policy platform causes the favorable macroeconomic results. Conversely, the president receives low approval ratings from the electorate when weak economic performance occurs. This tends to take place regardless of whether or not the weak economy is attributable to the policy actions of the president.

Electoral or democratic efficiency occurs to the extent that citizens vote for the political candidate whose policy agenda yields the greatest long-term economic net benefit for society. Actual voting outcomes, however, exhibit some degree of inefficiency. Electoral inefficiency occurs when citizens vote for a political candidate whose policy agenda does not create the greatest long-run economic benefit for society. Inefficiency takes place when citizens mistakenly support a president's policy that ends up making the economy worse. Voters, for example, may be fooled into supporting a policy of macroeconomic overstimulation that creates only a temporary improvement in unemployment that comes at the cost of greater inflation in the long-run (as in the electoral cycle).

Democratic inefficiency also occurs if voters approve of the president as the result of a strong economy that is not caused by the president's policies, but is due to other factors. Suppose, for example, that a strong economy arises because of commercial technological advancements or cheap energy costs rather than the macroeconomic program of the incumbent. Some citizens would be inclined to vote for the in-party, although the favorable economic outcomes are not attributable to the in-party's policies. Electoral inefficiency likewise develops if the public disapproves of a president's policy that actually yields the greatest long-run economic benefit for society. Some voters, for instance, may disapprove of a contractionary macroeconomic policy that creates a temporary

rise in unemployment, but ultimately makes voters better off because of a permanent decline in inflation.

Electoral inefficiency also develops if voters disapprove of a president because of a weak economy that is not the result of the administration's policies, but occurs because of other determinants. Suppose that slow economic performance arises because of an energy shock or a financial crisis rather than poor macroeconomic management by the in-party. Some citizens would vote against the in-party, although the declining economy was unrelated to the policies of the president.

Overall, electoral inefficiency takes place if the public mistakenly praises or condemns an incumbent for macroeconomic performance that is not due to the president's policy agenda. Voters may misjudge an incumbent for macroeconomic conditions that the administration is not responsible for creating. In this regard, some ambiguity occurs concerning the part of economic performance that is attributable to the president versus the portion of economic performance that results from other causes. Macroeconomic influence upon voter opinions and electoral outcomes is not a perfectly efficient process. Voters are not fully informed. Inefficiency occurs to the degree that voters cast their ballots based on the economic events that just happen to transpire, without recognizing whether the in-party's economic policies caused the results or not.

Some underlying causes for electoral inefficiency in voting behavior include balloting decisions based on habit, emotion, or bias. A vigilant media, farsighted opinion leaders, and a more informed public on macroeconomic matters would help alleviate electoral inefficiency. Perfect information, unfortunately, is costly to attain in the real world. Some degree of politico-macroeconomic inefficiency seems inevitable. Nevertheless, to the extent that voter behavior becomes more informed is the degree to which politico-macroeconomic efficiency will increase.

Economic and Noneconomic Influences on the Presidential Vote and Presidential Approval

Presidential job approval refers to the percentage of the citizenry who approve of the incumbent's handling of his or her job as president. Several organizations, such as the *Gallup Poll*, conduct regular surveys of

public opinion on the incumbent. Although presidential approval and the in-party presidential vote share are not identical measures of citizen preferences, the two are similar in that both reflect public perceptions on the effectiveness of the president. Several explanatory variables are therefore similar for both presidential approval and the presidential vote. Some of the determinants, however, are different between the two measures.

Economic Influence on the Presidential Vote and Incumbent Popularity

The economy impacts both presidential job approval and the presidential vote in a similar way. Three main theoretical approaches have been proposed regarding economic influence upon government popularity, the presidential vote, and presidential job approval (Carlsen 2000). The three models are the responsibility hypothesis, the issue hypothesis, and salient goal hypothesis.

Responsibility Hypothesis of Economic Influence on Voter Behavior

The conventional theory of economic influence on voter behavior is called the *responsibility hypothesis* (Carlsen 2000) or the *score model* (Swank 1990). This hypothesis asserts that the stronger the macroeconomic performance (usually in terms of unemployment, real economic growth, and inflation), the greater the presidential popularity, and the higher the in-party presidential vote share in an election. The weaker the economy, the lower the incumbent popularity, and the higher the vote share for the out-party presidential candidate in an election. The responsibility theory of voter behavior underlies the electoral PBC effect as discussed in Chapter 6.

The partisan PBC effect, as discussed in Chapter 7, is also compatible with the responsibility hypothesis. An important electoral implication, however, occurs regarding the partisan PBC effect. Let us assume that the median voter model holds (as discussed in Chapter 5). Any divergence of macroeconomic policy from the median voter's most preferred outcome causes a loss of reelection votes for the in-party. According

to the median voter model, reelection votes are maximized when the in-party adopts policy that aligns with the median voter's macroeconomic preference.

Let us suppose that the president promotes a macroeconomic policy based on partisan goals rather than the median voter's preference. As a result of this partisan economic strategy, the in-party's likelihood of reelection to the White House decreases. If the liberal political party is in control of the White House, then macroeconomic policy is relatively unemployment averse according to the partisan model. This policy takes the economy to the political left of the median voter's macroeconomic preference. Accordingly, macroeconomic overheating and rising inflation may eventually occur. If this develops prior to a presidential election, then the liberal party would end up losing reelection votes. This occurs because the liberal partisan priority of low unemployment combined with the side effect of rising inflation diverges too far to the political left from the median voter's macroeconomic preference. Democratic administrations in emphasizing unemployment-averse policies are at risk to lose reelections because of the long-run effects of high inflation from macroeconomic overstimulus. As liberal presidencies focus on the partisan objective of unemployment reduction, inflation will likely worsen and voters will increasingly prefer that a more conservative inflation-averse president be elected to the White House.

Alternatively, let us suppose that the conservative political party is in control of the Oval Office and stabilization policy is more inflation averse than the most preferred macroeconomic outcome of the median voter. As a result of this partisan strategy, the short-term problem of worsening unemployment and possibly a disinflationary recession may occur. If this takes place prior to the presidential election, then the conservative party would likely lose reelection votes because the contractionary policy takes the economy too far to the political right of the median voter's preference. Republican presidencies are at risk to lose reelections because of lingering short-run effects of high unemployment due to disinflationary policies. As conservative incumbencies focus on inflation reduction, the short-run effect of rising unemployment could induce voters to increasingly prefer that a more liberal unemployment-averse president be elected to the White House.

Evidence on Time Consistency: The Presidential Vote Versus
Presidential Approval

The issue of dynamic macroeconomic consistency relates to the responsibility hypothesis of economic influence upon voter behavior. As discussed throughout this book, the topic of macroeconomic consistency relates to voter perceptions of ideal macroeconomic performance. As discussed in Chapter 2, the efficient level of unemployment is equal to the natural rate of around 5 to 6 percent.

If the median voter is informed and far-sighted, then the median unemployment preference therefore equals the natural rate. The median voter's preferred outcome is dynamically consistent because the preference is consistent with what the economy may attain. If the median voter is misinformed or shortsighted, then the median unemployment preference is less than the natural rate. The preference is dynamically inconsistent in this case because the preferred outcome is not realistic with what the economy may achieve.

The research on presidential elections and presidential approval yields mixed results on whether the median voter's macroeconomic preference is dynamically consistent or dynamically inconsistent. Some of the empirical findings on the presidential vote imply that the median voter's macroeconomic preference is shortsighted and dynamically inconsistent (e.g., Fox 2013). These results suggest that citizens are willing to embrace a short-term improvement in the economy that comes at the cost of greater long-term inflation. The outcome of macroeconomic inconsistency by the median voter underlies the electoral cycle effect.

Some of the research in the presidential approval literature seems to support the reverse result. These empirical findings imply that the median macroeconomic preference may be farsighted and dynamically consistent (Fox 2003, 2009; Smyth and Dua 1989). This suggests that voters would oppose opportunistic policies that come at the cost of greater long-term inflation. In the case of dynamic consistency, opportunistic policies cause the presidential reelection vote share for the in-party to decline rather than increase.

Overall, the empirical results are mixed on the issue of macroeconomic consistency of the median voter. More research is needed in this area.

Clientele and Salient Goal Hypotheses of Economic Influence
on Voters

The second model for economic influence on the presidential vote and presidential approval is called the *clientele hypothesis* (Carlsen 2000) or the *issue model* or the *partisan vote model* (Swank 1990). According to this theory, voter actions take into account the different macroeconomic priorities of the left party and the right party.

The issue model asserts that citizens cast their votes based on which of the two main political parties is best suited to resolve the more important macroeconomic problem at a particular time, whether it is inflation or unemployment. Citizens vote for the left party when unemployment is high compared to inflation. High unemployment causes voters to prefer liberal presidencies because of the liberal party's reputation of unemployment aversion. This hypothesis of voting behavior is consistent with the partisan influence model that Democratic administrations are more unemployment averse than Republican presidencies.

If inflation is high compared to unemployment, then citizens support Republican administrations and vote for the Republican Party in presidential elections. This hypothesis of voter behavior is compatible with the partisan model that Republican administrations are more inflation averse than Democratic presidencies. According to the partisan model, the conservative party has a reputation for emphasizing low inflation in macroeconomic policy. According to the issue hypothesis, citizens will also vote for Republican presidential candidates when unemployment is excessively low. This occurs because of the threat of future inflation from macroeconomic overheating. The issue model is supported by the results of Swank (1995). His analysis found that high unemployment causes public approval to increase for Democratic presidencies, while high inflation causes popularity to increase for Republican administrations.

The third model for macroeconomic influence on presidential approval and presidential elections is the *salient goal hypothesis* (Carlsen 2000). This theory is also compatible with partisan macroeconomic theory. The *salient goal model*, however, yields the opposite result of the *clientele theory*. The *salient goal hypothesis* asserts that voters judge incumbencies by how well they attain their partisan macroeconomic goals.

Voters approve of presidencies that succeed in their partisan economic objectives. Citizens disapprove of incumbencies that fail in their partisan macroeconomic goals.

Voters weigh high unemployment more heavily against Democratic presidencies. Citizens disapprove of Democratic presidencies that fail in their liberal macroeconomic objective of unemployment aversion. Citizens weigh high inflation more heavily against Republican administrations. Citizens disapprove of Republican presidencies that fail in their partisan macroeconomic goal of inflation aversion.

Noneconomic Influences on the Presidential Vote and Incumbent Popularity

Several noneconomic factors affect voter sentiment on the incumbent. One of the most important is war. Two types of war effects occur upon voter attitudes. They consist of the soldier casualty effect and the war rally effect. The casualty effect denotes the adverse influence of soldier deaths upon citizen opinions toward the president. The greater the number of soldier casualties, the lower the incumbent approval rating and the lower the presidential vote share in favor of the in-party candidate in a presidential election.

The soldier casualty effect is more detrimental against presidents who are war initiators compared to presidents who are war inheritors (Fox 2013). A war initiator is a president who starts a major military conflict that ends up being long and costly in terms of military fatalities over time. A war inheritor refers to the subsequent president of the opposing political party who inherits a long military conflict from a war-initiator administration as the result of a presidential election. Voters penalize war-initiator presidencies with a greater casualty effect upon presidential approval and reelection votes than war-inheritor presidents.

An example of the war initiator effect was G.W. Bush and the Iraq War. As soldier casualties mounted during the Iraq War, presidential approval for G.W. Bush gradually declined, especially during his second term in office. The casualty effect became a major issue that contributed to the Republican loss of the White House in the 2008 presidential election. An example of the war inheritor effect was Barrack Obama and the

Iraq War that he inherited from G.W. Bush. Iraq war casualty deaths had a much smaller negative impact on presidential approval for Obama than G.W. Bush. Correspondingly, the war casualty effect had little or no adverse impact upon the 2012 presidential reelection victory for Obama.

The war rally effect is the second type of war-related influence on voter sentiment of the incumbent. War rallies refer to major war-related events that create a transitory boost in presidential approval. Two kinds of war rally effects may occur. The first type of effect is nationalistic support in favor of the president at the start of a war. The second type of war rally effect consists of transitory spikes in presidential approval connected with major military victories and other important war-related events. During the G.W. Bush incumbency, three war rally effects created transitory boosts in presidential popularity. The effects consisted of the 9/11 terrorist attack, the start of the Iraq War, and the capture of Saddam Hussein (Fox 2009). Overall, war rallies cause presidential approval to temporarily spike upward, but then gradually dissipate. In contrast, the accumulation of war casualty deaths causes presidential approval to incrementally worsen over time.

Another political influence on the in-party presidential vote share is political party duration. This refers to the length of time (the number of consecutive four-year presidential terms) that the in-party occupies the White House. After a political party controls the White House for two or more consecutive terms, voters increasingly prefer a change of the political party in the presidency (Fair 2009).

The party-duration effect on the in-party presidential vote share does not generally occur after just one term in office. Instead, a positive incumbency effect takes place in favor of the incumbent in presidential elections after just one term. Voters exhibit a small to moderate bias in support of the incumbent in presidential elections after one term in office, perhaps because of familiarity with the candidate. After two or more consecutive presidential terms for the in-party, the favorable incumbent effect fades and the negative party duration effect increasingly dominates public attitudes. Voters increasingly prefer to elect the presidential candidate from the out-party (Fair 2009).

In some instances, the adverse party duration effect could cancel out a positive economic effect in a presidential election outcome. This may have

been a factor in Al Gore's presidential election defeat in 2000. Although the economy was relatively strong at that time, many voters sought a change of the political party in the White House. In that instance, the Democrats had occupied the Oval Office for two consecutive terms under Bill Clinton. Despite the strong economy, G.W. Bush from the opposing Republican Party was elected to the presidency in 2000, partly as a result of the party-duration effect.

Three additional noneconomic determinants influence presidential approval, but have little impact on the presidential vote. These factors are the honeymoon effect, the scandal effect, and the opinion inertia effect. The presidential honeymoon occurs during the president's first year in office. According to the honeymoon effect, presidential popularity is relatively high immediately after an incumbent takes office following an election victory. Over a time period of about one year, however, the initial high approval rating gradually dissipates as the election victory euphoria fades (Smyth and Dua 1989).

Presidential scandals are another noneconomic influence on presidential popularity. For example, the Iran-Contra scandal affected Reagan's popularity, and the Lewinski scandal affected Clinton's job approval. The opinion inertia effect is a third noneconomic determinant on incumbent approval. As a result of opinion persistence among voters, the president's popularity tends to change gradually, rather than immediately in response to changes in the economy. For example, a sudden and sustained improvement in economic performance has a small initial impact on presidential approval. This small initial effect increases in magnitude over the subsequent months if the strong economy persists.

Congressional House and Senate On-term and Midterm Elections

The economy also influences Congressional House election results. The in-party Congressional House vote share denotes the percentage of the two-party vote in favor of in-party candidates in House of Representatives elections. Two types of Congressional House elections occur, which consist of on-term elections and midterm elections. The on-term

House vote refers to Congressional elections that take place in the same years as the presidential vote. The 2012 Congressional election was an on-term vote year because a presidential election took place that year. The midterm vote refers to Congressional House elections that occur between presidential elections. The 2014 Congressional vote was a midterm election because a presidential election did not take place that year.

The economy influences Congressional House election outcomes for both on-term and midterm elections. The influence of the economy, however, occurs differently for on-term elections versus midterm elections. Economic influence on the on-term House vote takes place through the presidential coattail. Economic influence on the midterm House vote occurs through the presidential approval effect.

The on-term House vote share in favor of in-party political candidates is related to the in-party presidential vote share. This effect is called the presidential coattail. If the in-party wins a presidential election because of a strong economy or other factors, then the in-party congressional vote share likewise tends to increase. The more votes in support of the presidential candidate from the incumbent party, the greater the in-party House vote share. If a low vote share occurs for the presidential candidate from the incumbent party because of a weak economy or other factors, then the in-party Congressional House vote share likewise tends to decrease. The House vote share, in other words, increases for the political party that wins the presidential election. If a Democrat wins the White House, then Democrats will likely gain votes and seats in the Congressional House of Representatives. If a Republican wins the presidency, then Republicans would likely gain votes and seats in the House.

For midterm elections, the economy indirectly impacts the in-party House vote share through the presidential approval effect. The stronger the economy, the greater the presidential approval rating, and the larger the vote share for in-party candidates during midterm House elections. The weaker the economy, the lower the presidential approval rating, and the lower the in-party midterm House vote share. For instance, if presidential approval for a Republican president is high because of a strong

economy, then Republicans would likely gain seats in the House during the midterm elections.

A noneconomic determinant upon midterm House elections is the balancing effect. This partially offsets the on-term presidential coattail. Through the coattail, the House vote share in on-term elections increases for the political party that wins the White House. For midterm elections, the in-party tends to lose House votes and seats as citizens reduce their support for the in-party. The public tends to vote for the out-party during midterm House elections because of the balancing effect, whereas in on-term elections, citizens tend to vote for candidates who belong to the political party that wins the Oval Office.

The economy impacts senate election outcomes similar to House elections. Campbell and Sumners (1990) found that the economy indirectly affects the in-party senate vote share in on-term elections through the presidential coattail. If the in-party wins the White House because of a strong economy, then the in-party senate vote share likewise increases. In addition, Abramowitz and Segal (1992) found that for midterm elections the economy indirectly affects senate election outcomes through the presidential popularity effect. For example, if the economy causes presidential approval to rise prior to the midterm vote, then the in-party's share of senate seats tends to go up in midterm elections. Their analysis also found a balancing effect for midterm senate elections similar to House elections. Other things held equal, the in-party tends to suffer seat losses in both the Senate and the House during midterm elections. This occurs because voters increase their support for the out-party during midterm elections.

Other Measures of Public Sentiment
Regarding the Economy

Besides economic influence on vote outcomes, macroeconomic events affect other indicators of citizen attitudes. Consumer sentiment, for example, is a measure of public perceptions and expectations about the health of the economy. The Survey of Consumer Sentiment by the University of Michigan is the most well-known. If consumer sentiment is high, based on survey responses from households, then consumer expectations

about the economy would be optimistic. If the consumer sentiment is low, based on survey responses, then consumer expectations about the economy would be pessimistic. Consumer sentiment is a function of economic performance, especially unemployment and inflation. The lower are unemployment and inflation, the higher and more optimistic the level of consumer confidence. The weaker the macroeconomic performance, the more pessimistic the level of consumer confidence among households.

Some other public sentiment indicators that are influenced by the economy include macropartisanship, voter turnout or the voter participation rate, and societal happiness. Macropartisanship is a political indicator of the distribution of aggregate voter partisanship across the population. This partisanship indicator measures the percentage of citizens who identify with each of the two major political parties. The fraction of voters who identify with the in-party tends to rise when the economy is strong. The percentage of the public who identify with the in-party tends to decline when economic performance is weak. If, for example, the president is a Democrat and the macroeconomy is strong, then the fraction of voters who identify with the Democratic Party would probably increase (MacKuen, Erikson, and Stimson 1989).

Voter turnout or the voter participation rate denotes the percentage of the adult populace who choose to vote in presidential (and other) elections. An economic determinant that influences voter turnout in presidential elections is unemployment. The lower the unemployment rate, the lower the level of voter turnout in presidential elections. The higher the unemployment, the higher the voter participation rate.

Low unemployment causes voters to feel satisfied with their economic circumstances. Consequently, they are less inclined to vote because of economic contentment. A high unemployment rate, on the other hand, causes political and economic dissatisfaction. The public therefore feels a greater urgency to vote to motivate politicians to improve their economic situation.

The social happiness index is another measure of public opinion affected by the economy. The social happiness indicator, based on survey responses from the public, provides an estimate for the level of general well-being felt by citizens. The higher the happiness index, the greater

the attitude of well-being among the population. A strong economy—particularly low unemployment, low inflation, and high income growth—tends to cause the happiness index to rise. A weak economy, high unemployment in particular, tends to cause the social happiness index to fall (Frey and Stutzer 2002).

CHAPTER 11

Conclusion

In this book, we have surveyed various issues, concepts, and data on the interrelation between politics and the macroeconomy in the United States. We have introduced some key ideas and definitions regarding the political macroeconomy. Some of the important elements of the political macroeconomy include macroeconomic partisanship, economic influence on voting and public opinion, special interest influence on macroeconomic policy, policymaker preferences, and the interconnection between political stability and economic prosperity. We discussed the influence of public sentiment, voting behavior, reelection ambition, and partisan pressures upon fiscal and monetary policies. We also considered the interactions among the president, Congress, and the central bank in the determination of fiscal and monetary policies.

Macroeconomic policies affect macroeconomic conditions while macroeconomic performance influences electoral and partisan politics. The health of the economy impacts citizen opinions, voter behavior, and partisan macroeconomic priorities. These factors influence the macroeconomic policy decisions of the president, Congress, and the monetary authority. We also addressed some of the linkages among macroeconomic politics, macroeconomic policies, macroeconomic policymakers, and macroeconomic events. We have discussed some of the characteristics and differences between the conservative versus liberal ideologies on the role of government and market forces in the economy. The conservative political view overlaps with the classical macroeconomic perspective. The liberal political perspective, on the other hand, exhibits similarities with the Keynesian macroeconomic outlook. A major theme of this book has focused on the conflicting ideologies between the political right versus the political left on macroeconomic policies.

Conservative sentiment advocates a small governmental role in the economy. The conservative perspective also recommends that

macroeconomic policies should generally focus on stable low inflation. A low-inflation policy creates a stable and predictable business and financial environment for market forces to thrive. Conservative presidencies tend to promote macroeconomic policies that are relatively inflation averse. According to the conservative view, a macroeconomic environment of stable low inflation enables the invisible hand of market forces to flourish, and consequently unemployment will automatically adjust to an efficient equilibrium through the self-correcting mechanism.

The liberal ideological view, on the other hand, advocates an activist governmental role in the economy. The liberal outlook argues that macroeconomic policy should actively stimulate aggregate demand so as to achieve low unemployment. Liberal presidencies tend to pursue macroeconomic policies that are relatively unemployment averse. Activist macroeconomic policies are necessary because of economic rigidities and inefficiencies that inhibit the self-correcting mechanism of market forces from reaching full employment in a timely manner.

Chapter 2 reviewed some of the main macroeconomic measurements. From a voter perspective, three of the most important macroeconomic indicators are real GDP growth, unemployment, and inflation. Understanding the interrelation among these macroeconomic variables lays the foundation for an examination of the politico-macroeconomic effects. We also discussed the up-and-down pattern of the business cycle, and considered the importance of the natural unemployment rate and potential GDP in an efficient macroeconomy.

Chapter 3 reviewed some of the basic elements of mainstream macroeconomic theory. We focused on the expectational Phillips curve model. This theoretical framework depicts the dynamics of the inflation-unemployment trade-off in the short run, and in association with long-run macroeconomic equilibrium at the natural unemployment rate. Okun's law was also discussed, which denotes the inverse empirical correlation between RGDP growth and the change in the unemployment rate. Through the theoretical framework of the expectational Phillips curve combined with Okun's law, the interconnection among inflation, RGDP growth, and unemployment are expressed. This macroeconomic interrelation is important because of the major impact of these three

macroeconomic variables upon citizen sentiment, voter behavior, and partisan macroeconomic priorities.

Chapter 4 looked at some of the characteristics of fiscal and monetary policies, and their influence on inflation and unemployment. Fiscal policy is determined by the political compromise between the president and Congress. Fiscal policy consists of the effects of taxes and government expenditures upon macroeconomic performance. Monetary policy, as determined by the Federal Open Market Committee of the Federal Reserve, mainly consists of the effects of money supply and interest rates upon macroeconomic performance. The influence of monetary and fiscal policies upon the economy in the short and long-run were modeled using the expectational Phillips curve framework.

Chapter 5 discussed rational voter theory. According to this political model, voter behavior consists of a rational decision-making process. Each citizen votes for the political candidate who promotes policies that align closest to his or her most preferred outcome. We also reviewed the median voter model. The median voter theory predicts that politicians and political parties will adopt policies that converge to the median voter's preference. This policy convergence arises as the two opposing political parties attempt to outcompete each other to maximize votes in an election.

We discussed some of the ramifications of the median voter model regarding the macroeconomy. In particular, we introduced the electoral cycle effect and its connection to macroeconomic inconsistency. We also discussed the opposite result of macroeconomic consistency. We then considered the issue of partisan macroeconomic influence, and its connection with the partisan PBC effect.

Various linkages occur between politics and the macroeconomy, including presidential manipulation of macroeconomic policies for either an electoral cycle or a partisan cycle or some variation of the two PBC influences. Chapters 6 and 7 discussed each of these two PBC effects in greater detail using the expectational Phillips curve model. Chapter 6 analyzed the connection between dynamic macroeconomic inconsistency and the short and long-run effects of the electoral cycle. According to the electoral PBC effect, the incumbent manipulates the macroeconomy to

create a pre-election economic boom in order to boost the presidential vote share for the in-party candidate.

However, if the median citizen's preference is dynamically consistent, then voters would disapprove of opportunistic economic policies. Any attempt by the incumbent to manipulate policy for a temporary economic gain would backfire and would cause a decrease in votes for the in-party in a presidential election. If macroeconomic farsightedness occurs, then voters would be aware of the negative consequences of opportunistic policy and would oppose macroeconomic manipulation.

Chapter 7 discussed in further detail the partisan PBC effect. In this case, the median voter model does not apply. The partisan model asserts that macroeconomic policies are based on the partisan agenda of the in-party to the White House (rather than the median voter's preference). Democratic presidencies are relatively unemployment averse. Republican administrations are relatively inflation averse. Chapter 8 examined some empirical data on unemployment and inflation for evidence of electoral and partisan PBC effects during presidential administrations over the time period from 1961 to 2014.

The two PBC effects seemed to occur idiosyncratically across different presidencies rather than systematically across all administrations. In particular, macroeconomic outcomes exhibited partisan cycle characteristics of unemployment aversion for Democratic presidencies. Macroeconomic performance during most of the Republican incumbencies, on the other hand, seemed to show an electoral cycle pattern of declining unemployment during election years, followed by rising inflation after elections.

A nuanced interpretation of the business cycle data, however, suggests that a combination of partisan and electoral effects may have transpired for most administrations. Partisan effects may have occurred during the first half of presidencies for both Democratic and Republican terms. In the latter part of presidential terms, however, the electoral cycle effect of pre-election macroeconomic stimulus may have occurred for both Democratic and Republican presidencies. In other words, administrations may have pursued partisan macroeconomic goals in the first part of a term, but then shifted to macroeconomic opportunism in the latter part of a term as an attempt to increase the in-party presidential reelection vote share.

Idiosyncratic PBC effects across presidencies should not be surprising. Many factors influence macroeconomic policy and the business cycle. The president's agenda is not the only determinant of macroeconomic policies and economic events. A single-cause behavioral explanation for macroeconomic policy and performance is too simplistic.

Chapter 9 discussed some other aspects on the interrelation between national politics and the American macroeconomy. We considered the issues of presidential intentionality and controllability of macroeconomic policy, as well as accurate predictability of the business cycle. For example, some uncertainty occurs regarding the fiscal and monetary policies that will unfold, based on the complex interaction among the president, Congress, the Fed, and the two main political parties.

Uncertainty also arises regarding predictability of macroeconomic events. Forecasting economic performance is not an exact science. Some ambiguity is inevitable. We also discussed some issues regarding political influence on the Fed. For instance, the executive and legislative branches, as well as financial interests, have some indirect impact on monetary policy decisions by the central bank. A simplifying assumption of PBC theory is that the president indirectly determines monetary policy. Criticisms of this assumption is one of the greatest challenges to the electoral and partisan PBC theories.

Besides macroeconomic vulnerability to electoral and partisan pressures, a reverse political effect occurs. The luck and partial unpredictability of the business cycle is a source of vulnerability for the reelection prospects of the in-party. The political fortune of elected officials is tied to the volatility, uncertainty, and partial uncontrollability of the economy. If the economy is in a slump on election eve that is unrelated to the policies of the president, then the incumbent stands a high chance of losing the reelection. Alternatively, if strong economic performance occurs in an election year that is unrelated to the policies of the president, then the incumbent nevertheless enjoys a high likelihood of winning the reelection.

In Chapter 10, we looked at some further issues on voter sentiment and behavior. We discussed macroeconomic and noneconomic influence on both the presidential vote and presidential approval. Although many of the economic and noneconomic influences on both the presidential

vote and incumbent approval are similar, the effects are not identical. Additionally, some research suggests that citizen macroeconomic preferences are dynamically consistent based on analysis of presidential approval, but dynamically inconsistent based on analysis of the presidential vote. Besides economic influence, we briefly considered some noneconomic factors upon presidential approval and presidential election outcomes such as war, presidential scandals, political party duration, voter opinion inertia, and the presidential honeymoon effect.

Chapter 10 also discussed economic influence upon the Congressional House and Senate election outcomes. The economy affects Congressional vote shares similar to the effect on the presidential reelection vote share. For example, if the economy causes the in-party presidential reelection vote share to increase, then the in-party House and Senate vote shares will likewise increase through the presidential coattail effect.

For midterm congressional elections, the economy indirectly affects the vote through the presidential approval effect. For instance, if economic performance causes presidential popularity to rise, then the in-party congressional House and Senate vote shares will also probably go up. In contrast to the presidential coattail, the House and Senate vote shares for the in-party tend to decline during midterm elections through the balancing effect. Besides voting behavior, Chapter 10 briefly considered some additional measures of public sentiment that are influenced by macroeconomic performance. These indicators include consumer sentiment, the social happiness index, voter participation rates, and macropartisanship.

In summary, this book has briefly looked at several ways in which macroeconomic performance, fiscal and monetary policies, political party economic preferences, politico-macroeconomic ideologies, special interests, voter behavior, reelection ambition, and various measures of citizen sentiment are interconnected in the political macroeconomic system. Partisan, electoral, ideological, and special interest factors impact the policy decisions of the fiscal and monetary policymakers. These policy actions affect macroeconomic performance and the momentum of the business cycle. Macroeconomic events then influence citizen opinions and their voting behavior in presidential and congressional elections.

To be reelected, the president and Congress must consider voter opinions about the economy. At the same time, the president and Congress

must take into account the partisan economic platforms of their political parties. The Fed chair, correspondingly, must consider the Congress and the presidency if he or she wishes to be reappointed to the position. Fed policy is also affected by financial interests. Various political factors affect macroeconomic policies and the condition of the economy, while the economy impacts citizen attitudes and their balloting choices. These politico-macroeconomic interactions are not completely deterministic and predictable, but take place in a fluid environment of political and economic uncertainty and idiosyncrasy.

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Index

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U.S. Politics and the American Macroeconomy
Gerald T. Fox

This book considers the interrelation among macroeconomic politics, macroeconomic policymakers, macroeconomic policies, and macroeconomic performance. This interaction is examined using the expectational Phillips curve model, which measures macroeconomic outcomes in terms of inflation and unemployment. The subject of macroeconomic politics mainly focuses on voter behavior, presidential re-election ambition, and political party priorities. These political factors influence the macroeconomic policy actions of the president, Congress, and the central bank; the analysis takes into account both fiscal and monetary policies.

The author's examination of citizen sentiment is based on rational voter theory and the median voter model. He compares the effects of macroeconomic farsightedness versus shortsightedness in voters and contrasts the conservative versus liberal perspectives on macroeconomic policy and performance. The empirical component of the analysis examines the electoral and partisan political business cycle effects upon the U.S. economy, and evidence of idiosyncratic effects during the time frame of 1961–2014 is found. Finally, the author discusses macroeconomic influence on various measures of voter sentiment, such as presidential job approval, and presidential and congressional election outcomes.

Gerald T. Fox received his PhD in economics from the University of Utah. He completed his undergraduate degree in economics at Brigham Young University. Professor Fox teaches macroeconomics and international economics at the Phillips School of Business at High Point University. His research interests include political macroeconomics, regional economic analysis, and globalism. Dr. Fox has published research articles in the *Journal of Conflict Resolution*, *Applied Research in Economic Development*, the *Journal of Macroeconomic*, and a book chapter with Nova Science Publishers Inc. He has presented his research for several prestigious associations and in 2007, he coauthored a major economic impact study on the furniture industry in North Carolina.

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