Part One

GETTING STARTED

People's political philosophies influence their views on the role of government. Some people hold individual freedom as a top priority; others place more emphasis on promoting the well-being of society as a whole. Philosophical differences can and do lead to disagreements on the appropriate scope for government economic activity.

However, forming intelligent opinions about public policy requires not only a political philosophy but also an understanding of what government actually does. Who has the legal power to conduct economic policy? What does government spend money on, and how does it raise revenue? Chapter 1 discusses how political views affect attitudes toward public finance, and outlines the operation of the US system of public finance. It provides a broad framework for thinking about the details of the public finance system that are discussed in subsequent chapters.

Chapters 2 and 3 present the analytical tools used by public finance economists. Chapter 2 focuses on the tools of positive analysis, which deals with statements of cause and effect. The question here is how economists try to assess the impacts of various government policies. However, we want to determine not only the effects of government policies, but whether or not they produce results that are in some sense good. This is the role of normative analysis, which requires an explicit ethical framework, because without one, it is impossible to say what is good. Chapter 3 covers this ethical framework.

Chapter One

INTRODUCTION

Public Finance is nothing else than a sophisticated discussion of the relationship between the individual and the state. There is no better school of training than public finance.

—FORMER CZECH PRIME MINISTER VACLAV KLAUS

The year is 1030 BC. For decades, the Israelite tribes have been living without a central government. The Bible records that the people have asked the prophet Samuel to "make us a king to judge us like all the nations" [1 Samuel 8:5]. Samuel tries to discourage the Israelites by describing what life will be like under a monarchy:

> This will be the manner of the king that shall reign over you; he will take your sons, and appoint them unto him, for his chariots, and to be his horsemen; and they shall run before his chariots... And he will take your daughters to be perfumers, and to be cooks, and to be bakers. And he will take your fields, and your vineyards, and your oliveyards, even the best of them, and give them to his servants... He will take the tenth of your flocks; and ye shall be his servants. And ye shall cry out in that day because of your king whom ye shall have chosen [1 Samuel 8:11–18].

The Israelites are undeterred by this depressing scenario: "The people refused to hearken unto the voice of Samuel; and they said: 'Nay; but there shall be a king over us; that we also may be like all the nations; and that our king may judge us, and go out before us, and fight our battles'" [1 Samuel 8:19–20].

This biblical episode illustrates an age-old ambivalence about government. Government is a necessity—"all the nations" have it, after all—but at the same time it has undesirable aspects. These mixed feelings toward government are inextricably bound up with its taxing and spending activities. The king will provide things that the people want (in this case, an army), but only at a cost. The resources for all government expenditures ultimately must come from the private sector. As Samuel so graphically explains, taxes can be burdensome.

Centuries have passed, mixed feelings about government remain, and much of the controversy still centers around its financial behavior. This book is about the taxing and spending activities of government, a subject usually called **public finance.**

public finance
The field of economics that analyzes government taxation and spending.

This term is something of a misnomer because the fundamental issues are not financial (that is, relating to money). Rather, the key problems relate to the use of real resources. For this reason, some authors prefer the label **public sector economics** or simply **public economics.**

public sector economics
See public finance.

public economics
See public finance.

We focus on the microeconomic functions of government—the way government affects the allocation of resources and the distribution of income. Nowadays, the macroeconomic roles of government—the use of taxing, spending, and monetary policies to affect the overall level of unemployment and the price level—are usually taught in separate courses.

The boundaries of public finance are sometimes unclear. Some policy goals that might be achieved by government spending or taxation can also be achieved by regulations. For example, if the government wishes to limit the size of corporations, one possible policy is to impose large taxes on big corporations. Another is to issue regulations making firms that exceed a particular size illegal. While corporate taxation is a subject of intense study in public finance, antitrust issues receive only tangential treatment in public finance texts and are covered instead in courses on industrial organization. While this practice seems arbitrary, it is necessary to limit the scope of the field. This book follows tradition by focusing on government spending and taxation, only occasionally touching on regulatory policies.

▸ PUBLIC FINANCE AND IDEOLOGY

Public finance economists analyze not only the effects of actual government taxing and spending activities but also what these activities ought to be. Opinions on how government should function in the economic sphere are influenced by ideological views concerning the relationship between the individual and the state. Political philosophers have distinguished two major approaches.

Organic View of Government

This view conceives of society as a natural organism. Each individual is a part of this organism, and the government can be thought of as its heart. Yang Chang-chi, Mao Tse-tung's ethics teacher in Beijing, held that "a country is an organic whole, just as the human body is an organic whole. It is not like a machine which can be taken apart and put together again" (quoted in Johnson [1983, p. 197]). The individual has significance only as part of the community, and the good of the individual is defined with respect to the good of the whole. Thus, the community is stressed above the individual. For example, in the *Republic* of Plato, an activity of a citizen is desirable only if it leads to a just society. Perhaps the most infamous instance of an organic conception of government is provided by Nazism: "National Socialism does not recognize a separate individual sphere which, apart from the community, is to be painstakingly protected from any interference by the State. . . . Every activity of daily life has meaning and value only as a service to the whole."[1]

The goals of the society are set by the state, which attempts to lead society toward their realization. Of course, the choice of goals differs considerably. Plato conceived of a state whose goal was the achievement of a golden age in which human activities would be guided by perfect rationality. On the other hand, Adolf Hitler [1971/1925, p. 393] viewed the state's purpose as the achievement of racial purity: "The state is a means to an end. Its end lies in the preservation and advancement of a community of physically and psychically homogeneous creatures." More recently, the Iranian Ayatollah Khomeini argued that "only a good society can create good believers." He wrote that "Man is half-angel, half-devil," and the goal of government should be to "combat [the devil part] through laws and suitable punishments" (quoted in Taheri [2003]).

[1] Stuckart and Globke [1968, p. 330]. (Wilhelm Stuckart and Hans Globke were ranking members of the Nazi Ministry of the Interior.)

A crucial question is how societal goals are to be selected. Proponents of the organic view usually argue that certain goals are *natural* for the societal organism. Pursuit of sovereignty over some geographical area is an example of such a natural goal. (Think of the Nazi drive for domination over Europe.) However, although philosophers have struggled for centuries to explain what natural means, the answer is far from clear.

Mechanistic View of Government

In this view, government is not an organic part of society. Rather, it is a contrivance created by individuals to better achieve their individual goals. As the American statesman Henry Clay said in 1829, "Government is a trust, and the officers of the government are trustees; and both the trust and the trustees are created for the benefit of the people." The individual rather than the group is at center stage.

Accepting that government exists for the good of the people, we are still left with the problem of defining just what *good* is and how the government should promote it. Virtually everyone agrees that it is good for individuals when government protects them from violence. To do so government must have a monopoly on coercive power. Otherwise, anarchy develops, and as the 17th-century philosopher Thomas Hobbes [1963/1651, p. 143] noted, "The life of man [becomes] solitary, poor, nasty, brutish and short." Hobbes's observation was confirmed in Tunisia in early 2011, when revolution forced the president and other political leaders to flee the country. In the absence of government and police, chaos ensued. Similarly, in *The Wealth of Nations*, Adam Smith argued that government should protect "the society from the violence and invasion of other independent societies," and protect "as far as possible every member of the society from the injustice or oppression of every other member of it" [1977/1776, Book V, pp. 182, 198].

The most limited government, then, has but one function—to protect its members from physical coercion. Beyond that, Smith argued that government should have responsibility for "creating and maintaining certain public works and certain public institutions, which it can never be for the interest of any individual, or small number of individuals, to erect and maintain" [1977/1776, Book V, pp. 210–211]. Here one thinks of items like roads, bridges, and sewers—the infrastructure required for society to function.[2]

At this point, opinions within the mechanistic tradition diverge. Libertarians, who believe in a very limited government, argue against any further economic role for the government. In Smith's words, "Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest his own way" [1977/1776, Book V, p. 180]. Libertarians are extremely skeptical about the ability of governments to improve social welfare. As Thomas Jefferson pungently put it in his first inaugural address,

> Sometimes it is said that man cannot be trusted with the government of himself. Can he, then, be trusted with the government of others? Or have we found angels in the forms of kings to govern him? Let history answer this question.

In contrast, those whom we might call social democrats believe that substantial government intervention is required for the good of individuals. These interventions can take such diverse forms as safety regulations for the workplace, laws banning racial and sexual discrimination in housing, or public provision of health care. Social democrats tend to believe that individual freedom is more than the absence of physical

[2] Some argue that even these items should be provided by private entrepreneurs. Problems that might arise in doing so are discussed in Chapter 4.

coercion. An impoverished individual may be free to spend his income as he pleases, but the scope of that freedom is quite limited. Between the libertarian and social democratic positions there is a continuum of views with respect to the appropriate amount of government intervention.

Viewpoint of This Book

The notion that the individual rather than the group is paramount is relatively new. Historian Lawrence Stone [1977, pp. 4–5] notes that before the modern period,

> It was generally agreed that the interests of the group, whether that of kin, the village, or later the state, took priority over the wishes of the individual and the achievement of his particular ends. "Life, liberty and the pursuit of happiness" were personal ideals which the average, educated 16th-century man would certainly have rejected as the prime goals of a good society.

Since then, however, the mechanistic view of government has come to exert a major influence on Anglo-American political thought. However, it is by no means totally dominant. People on both the left and the right regularly voice objections to the individualistic view. For example, in 2011 Democratic senatorial candidate Elizabeth Warren said, "There is nobody in this country who got rich on his own . . . [P]art of the underlying social contract is you take a hunk of that and pay forward for the next kid who comes along." And in 2012 Rick Santorum, who was seeking the Republican presidential nomination, stated, "Just as original sin is man's inclination to try to walk alone without God, individualism is man's inclination to try to walk alone among his fellows." Indeed, anyone who claims that something must be done in the "national interest," without reference to the welfare of some individual or group of individuals, is implicitly taking an organic point of view. More generally, even in highly individualistic societies, people sometimes feel it necessary to act on behalf of, or even sacrifice their lives for, the nation.

Anglo-American economic thought has also developed along individualistic lines. Individuals and their wants are the main focus in mainstream economics, a view reflected in this text. However, as stressed earlier, within the individualistic tradition there is much controversy with respect to how active government should be. Thus, adopting a mechanistic point of view does not by itself provide us with an ideology that tells us whether any particular economic intervention should be undertaken.[3]

This point is important because economic policy is not based on economic analysis alone. The desirability of a given course of government action (or inaction) inevitably depends in part on ethical and political judgments. As this country's ongoing debate over public finance illustrates, reasonable people can disagree on these matters. We attempt to reflect different points of view as fairly as possible.

▸ GOVERNMENT AT A GLANCE

We have shown how ideology can affect one's views of the appropriate role of government. However, to form sensible views about public policy requires more than ideology. One also needs information about how the government actually functions. What legal constraints are imposed on the public sector? What does the government spend

[3] This question really makes no sense in the context of an organic view of government in which the government is above the people, and there is an assumption that it should guide every aspect of life.

money on, and how are these expenditures financed? Before delving into the details of the US system of public finance, we provide a brief overview of these issues.

The Legal Framework

The Constitution reflects the Founding Fathers' concerns about government intervention in the economy. We first discuss constitutional provisions relating to the spending and taxing activities of the federal government and then turn to the states.

Federal Government Article 1, Section 8, of the Constitution empowers Congress "to pay the Debts and provide for the common Defense and general Welfare of the United States." Over the years, the notion of "general welfare" has been interpreted very broadly by Congress and the courts, and now this clause effectively puts no constraints on government spending.[4] The Constitution does not limit the size of federal expenditure, either absolutely or relative to the size of the economy. Bills to appropriate expenditures (like practically all other laws) can originate in either house of Congress. An appropriations bill becomes law when it receives a majority vote in both houses and the president signs it. If the president vetoes an expenditure bill, it can still become law if it subsequently receives a two-thirds majority vote in each house.

How does Congress finance these expenditures? Federal taxing powers are authorized in Article 1, Section 8: "The Congress shall have Power to lay and collect Taxes, Duties, Imposts and Excises." Unlike expenditure bills, "All Bills for raising Revenue shall originate in the House of Representatives" [Article 1, Section 7].

In light of the enormous dissatisfaction with British tax policy during the colonial period, it is no surprise that considerable care was taken to constrain governmental taxing power, as described in the following paragraphs:

1. "[A]ll Duties, Imposts and Excises shall be uniform throughout the United States" [Article 1, Section 8]. Congress cannot discriminate among states when it sets tax rates. For example, if the federal government levies a tax on gasoline, the *rate* must be the same in every state. This does not imply that the per capita *amount* collected will be the same in each state. Presumably, states in which individuals drive more than average will have higher tax liabilities. Thus, it is still possible (and indeed likely) that various taxes make some states worse off than others.[5]

2. "No . . . direct Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken" [Article 1, Section 9]. A direct tax is a tax levied on a *person* as opposed to a *commodity*. Essentially, this provision says that if State A has twice the population of State B, then any direct tax levied by Congress must yield twice as much revenue from State A as from State B.

In the late 19th century, attempts to introduce a federal tax on income were declared unconstitutional by the Supreme Court because income taxation leads to state tax burdens that are not proportional to population. Given this decision, the only way to introduce an income tax was via a constitutional amendment. The 16th Amendment, ratified in 1913, states, "Congress shall have power to levy and collect

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[4] Article 1 also mandates that certain specific expenditures be made. For example, Congress has to appropriate funds to maintain both an army and a court system.

[5] No tax law in history has ever been struck down for violating this clause. However, a close call occurred in the early 1980s. Congress passed a tax on oil that exempted oil from the North Slope of Alaska. A federal district court ruled that the tax was unconstitutional, but this decision was ultimately reversed by the Supreme Court.

taxes on incomes, from whatever source derived, without apportionment among the several states, and without regard to census or enumeration." Today the individual income tax is one of the mainstays of the federal revenue system.

3. "No person shall be . . . deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation" [Fifth Amendment]. From the point of view of tax policy, this clause means distinctions created by the tax law must be reasonable. However, it is not always simple to determine which distinctions are "reasonable" and doing so is an ongoing part of the legislative and judicial processes.

4. "No Tax or Duty shall be laid on Articles exported from any State" [Article 1, Section 9]. This provision was included to assure the southern states that their exports of tobacco and other commodities would not be jeopardized by the central government.

The federal government is not required to finance all its expenditures by taxation. If expenditures exceed revenues, it is empowered "to borrow Money on the credit of the United States" [Article 1, Section 8]. At various times over the past few decades, a constitutional amendment to require a balanced federal budget has received some support, but so far it has not passed.

State and Local Governments According to the 10th Amendment, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Thus, the Constitution gives state governments broad autonomy to spend and tax. However, the Constitution does limit states' economic activities. Article 1, Section 10, states, "No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports." Thus, the federal government controls international economic policy. In addition, various constitutional provisions have been interpreted as requiring that the states not levy taxes arbitrarily, discriminate against outside residents, or levy taxes on imports from other states. For example, in 2005, the Supreme Court declared unconstitutional laws in Michigan and New York that granted in-state wineries a competitive advantage over out-of-state wineries.

States can impose spending and taxing restrictions on themselves in their own constitutions. State constitutions differ substantially with respect to the types of economic issues with which they deal. In recent years, one of the most interesting developments in public finance has been the movement of some states to amend their constitutions to limit the size of public sector spending.

From a legal standpoint, the power of local governments to tax and spend is granted by the states. As a 19th-century judge put it:

> Municipal corporations owe their origin to, and derive their powers and rights wholly from, the [state] legislature. It breathes into them the breath of life, without which they cannot exist. As it creates, so it may destroy. If it may destroy, it may abridge and control [*City of Clinton v. Cedar Rapids,* 1868].

It would be a mistake, however, to view localities as lacking in fiscal autonomy. Many towns and cities have substantial political power and do not respond passively to the wishes of state and federal governments. For example, the state of California recently discarded plans to take gasoline tax revenues from local governments, due to forceful objections from local leaders [Steinhauer, 2009]. An interesting development in recent years has been the competition of states and cities for federal funds. The cities often are more successful in their lobbying activities than the states!

The Size of Government

In a famous line from his State of the Union address in 1996, President Bill Clinton declared: "The era of big government is over." Such a statement presupposes that there is some way to determine whether or not the government is "big." Just how does one measure the size of government?

One measure often used by politicians and journalists is the number of workers in the public sector. However, this can be misleading. Imagine a country where a few public servants operate a powerful computer that guides all economic decisions. In this country, the number of government employees certainly underestimates the importance of government. Similarly, it would be easy to construct a scenario in which a large number of workers is associated with a relatively weak public sector. The number of public sector employees is useful information, for some purposes, but it does not cast light on the central issue—the extent to which society's resources are subject to control by government.

A more sensible (and common) approach is to measure the size of government by the volume of its annual expenditures, of which there are basically three types:

1. Purchases of goods and services. The government buys a wide variety of items, everything from missiles to services provided by ecologists.
2. Transfers of income to people, businesses, or other governments. The government takes income from some individuals or organizations and gives it to others. Examples are welfare programs such as food stamps and subsidies paid to farmers for production (or nonproduction) of certain commodities.
3. Interest payments. The government often borrows to finance its activities and, like any borrower, must pay interest to its creditors.

unified budget

The document that includes all the federal government's revenues and expenditures.

The federal government itemizes its expenditures in a document referred to as the **unified budget.**[6] In 2011, federal expenditures (excluding grants made to state and local governments) were about $3.3 trillion. Adding state and local government expenditures made that year gives us a total of $5.41 trillion [*Economic Report of the President, 2012,* p. 415].[7] Figures on government expenditures are easily available and widely quoted. Typically when expenditures go up, people conclude that government has grown. However, some government activities have substantial effects on the economy even though they involve minimal government spending. For example, issuing regulations per se is not very expensive. The federal government devotes about $50.4 billion annually to developing and enforcing regulations, a figure that is not large relative to the size of the budget [Dudley and Warren, 2011]. But this estimate is only a small fraction of the full economic cost of regulations, which include the costs to businesses and individuals of complying with the rules as well as their effects on economic activity. Air bag requirements raise the cost of cars. Various permit and inspection fees increase the price of housing. Labor market regulations such as the minimum wage may create unemployment, and regulation of the drug industry may slow the pace of scientific development.

regulatory budget

An annual statement of the costs imposed on the economy by government regulations. (Currently, the government publishes no such budget.)

Some believe that the economic costs of government regulations should be published in an annual **regulatory budget.** Unfortunately, computing such costs is exceedingly difficult. For example, pharmaceutical experts disagree on what new cures would have been developed in the absence of drug regulation. Similarly, it is hard

[6] The publication of a budget document is constitutionally mandated: "a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time" [Article 1, Section 9].
[7] Federal grants to state and local governments were $493 billion in 2011.

to estimate the impact of government-mandated safety procedures in the workplace on production costs. In view of such problems, it is unlikely there will ever be an official regulatory budget.[8] Unofficial estimates, however, suggest that the annual costs of federal regulations may be quite high, perhaps over $1.75 trillion annually [Crain and Crain, 2010].

Some Numbers It is infeasible to summarize in a single number the magnitude of government's impact on the economy. That said, we are still left with the practical problem of finding some reasonable indicator of the government's size that can be used to estimate trends in its growth. Most economists are willing to accept conventionally defined government expenditure as a rough but useful measure. Like many other imperfect measures, it yields useful insights as long as its limitations are understood.

With all the appropriate caveats in mind, we present in Table 1.1 data on expenditures at all levels of US government over time. The first column indicates that annual expenditures have increased by a factor of over 18 since 1970. But this figure is a misleading measure of the growth of government for several reasons:

1. Because of inflation, the dollar has decreased in value over time. In column 2, the expenditure figures are expressed in 2011 dollars. In real terms, government expenditure in 2011 was about 34.9 times the level in 1970.
2. The population has also grown over time. An increasing population by itself creates demands for a larger public sector. (For example, more roads and sewers are required to accommodate more people.) Column 3 shows real government expenditure per capita. The increase from 1970 to 2011 is a factor of about 2.6.
3. It is sometimes useful to examine government expenditure compared to the size of the economy. If government doubles in size but at the same time the economy triples, then in a relative sense, government has shrunk. Column 4 shows government expenditure as a percentage of Gross Domestic Product

Table 1.1 **State, Local, and Federal Government Expenditures**
(Selected years)

	(1) Total Expenditures (billions)	(2) 2011 Dollars (billions)*	(3) 2011 Dollars per Capita	(4) Percent of GDP
1970	295	1,375	6,703	28.4
1980	847	2,007	8,815	30.4
1990	1,880	2,948	11,784	32.4
2000	2,906	3,712	13,155	29.2
2011	5,410	5,410	17,362	35.9

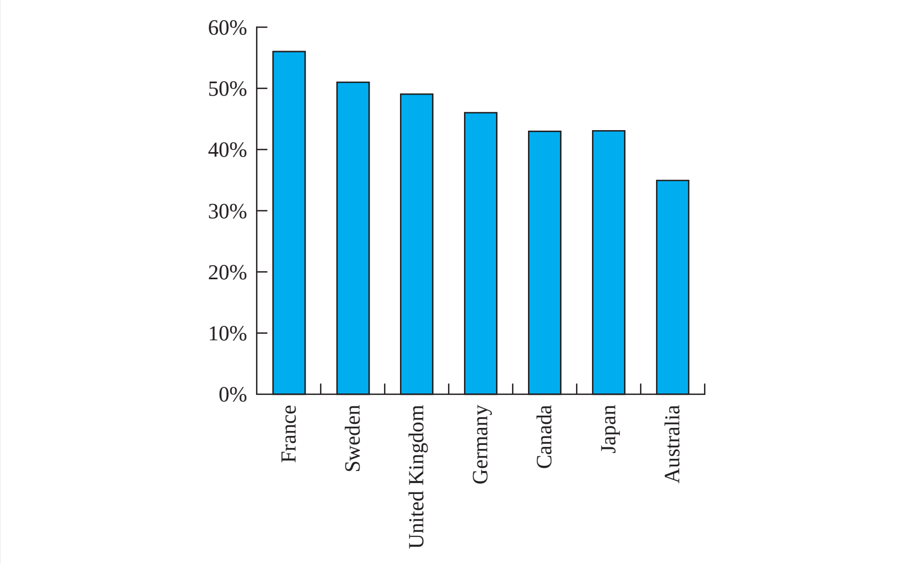
Source: Calculations based on the *Economic Report of the President, 2012* [pp. 316, 320, 359, 415].

*Conversion to 2011 dollars done using the GDP deflator.

Total government expenditures have increased by a factor of 18.3 since 1970. Real expenditures have increased by a factor of 3.9, and per capita real expenditures have increased by a factor of 3.9. In 1970, government expenditures were 28.4 percent of Gross Domestic Product; in 2011 they were 35.9 percent.

[8] Regulation is not necessarily undesirable just because it creates costs. Like any other government activity, it can be evaluated only by assessing the benefits as well as the costs. (Cost-benefit analysis is discussed in Chapter 8.)

Figure 1.1
Government expenditures as a percentage of Gross Domestic Product (2011, selected countries)
Compared to the United States, other developed countries have higher government expenditures as a percentage of Gross Domestic Product



Source: Organization for Economic Cooperation and Development, Paris, France, *OECD Economic Outlook, May 2012* (Annex Table 25). Figures are for 2011.

(GDP)—the market value of goods and services produced by the economy during the year. In 1970, the figure was 28.4 percent, and in 2010, it was 35.9 percent.

In light of our previous discussion, the figures in Table 1.1 convey a false sense of precision. Still, there is no doubt that in the long run the economic role of government has grown. With over a third of GDP going through the public sector, government is an enormous economic force.

Some international comparisons can help put the US data in perspective. Figure 1.1 shows figures on government expenditure relative to GDP for several developed countries. The data indicate that the United States is not alone in having a large public sector. Indeed, compared to countries such as France and Sweden, the US public sector is quite small. Although relative public-sector sizes differ across nations for many reasons, the ideological considerations discussed earlier in this chapter probably play an important role.

One explanation for the large public sector in Sweden, for example, is that the government pays for most of health care, which is thought of as a community responsibility. In the United States, on the other hand, health care is viewed as more of an individual responsibility, so a substantial share of health care expenditures are made in the private sector.

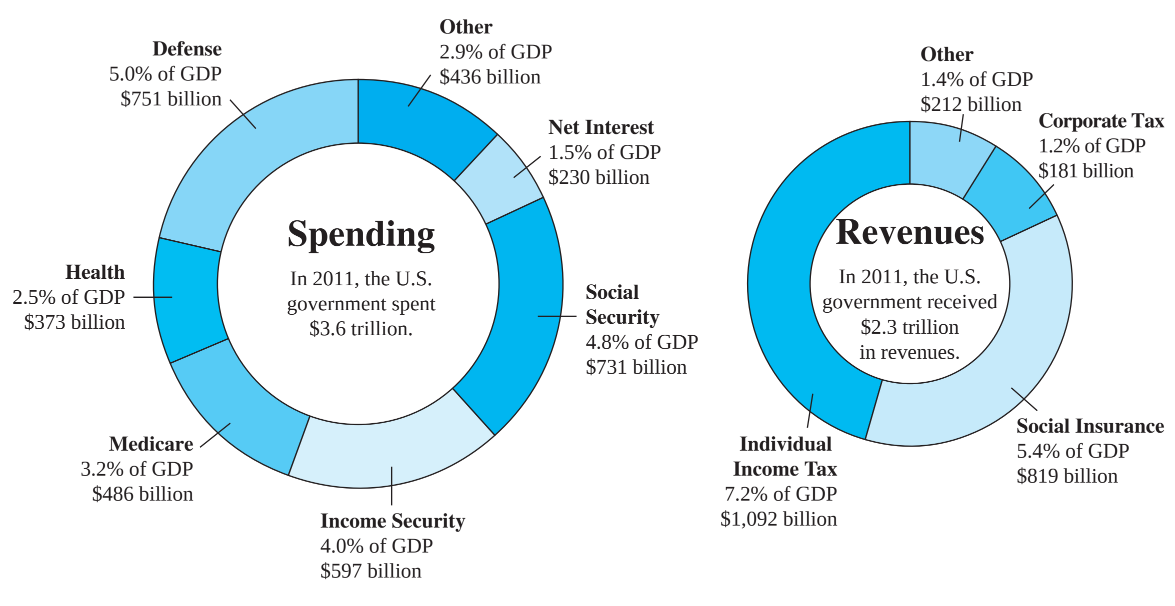
Expenditures

We now turn from the overall magnitude of government expenditures to their composition. It is impossible to reflect the enormous scope of government spending activity in a brief table. In the federal budget for fiscal year 2012, the list of programs and their descriptions required over 1,300 pages! (Details are provided at the Web site: www.gpoaccess.gov/usbudget/.)

The left panel of Figure 1.2 shows the major categories of federal government expenditures and the left panel of Figure 1.3 shows state and local expenditures.

Figure 1.2 Composition of federal expenditures and revenues (2011)

The federal government currently devotes 21 percent of its budget to national defense and 20 percent to Social Security. The personal income tax is the single most important source of federal revenue, accounting for nearly 50 percent of tax collections.



Source: *The Economic Report of the President, 2012* [p. 413].

Much of the government budget consists of so-called **entitlement programs,** which are programs whose cost is determined not by fixed dollar amounts but by the number of people who qualify. The laws governing Social Security, many public welfare programs, and farm price supports include rules that determine who is entitled to benefits and the magnitude of the benefits. Expenditures on entitlement programs are, therefore, largely out of the hands of the current government, unless it changes the rules. Similarly, debt payments are determined by interest rates and previous deficits, again mostly out of the control of current decision makers. According to most estimates, about 60 percent of the federal budget is relatively uncontrollable [Office of Management and Budget, 2012]. In Chapter 6, we discuss the political issues associated with the controllability of the federal budget.

entitlement programs

Programs whose expenditures are determined by the number of people who qualify, rather than pre-set budget allocations.

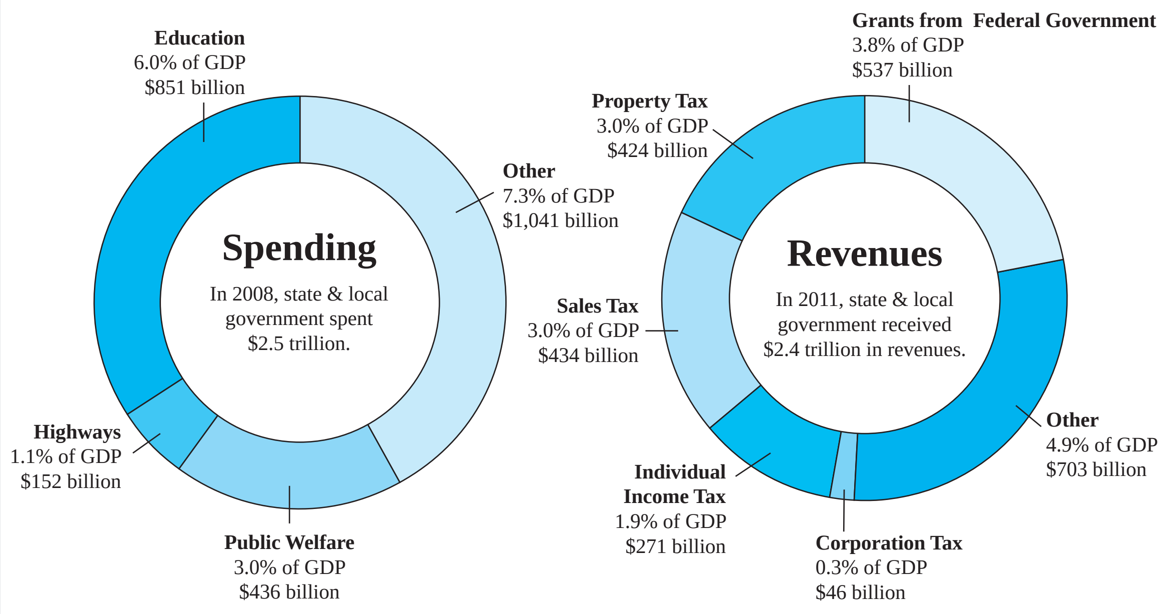
It is useful to break down total expenditures by level of government. The federal government accounts for about 60 percent of all direct expenditures, the states for 20 percent, and localities for 20 percent [Bureau of Economic Analysis, 2012]. State and local governments are clearly important players. They account for the bulk of spending on items such as police and fire protection, education, and transportation. Substantial public welfare expenditures are also made through the states. Chapter 22 discusses the complications that arise in coordinating the fiscal activities of different levels of government.

Revenues

The principal components of the federal tax system are depicted in the right panel of Figure 1.2; the state and local tax information is in the right panel of Figure 1.3. At the federal level, personal income taxation is currently the single most important source

Figure 1.3 Composition of state and local expenditures and revenues (2011)

State and local governments currently devote 34 percent of its budget to education and 18 percent to public welfare. Grants from the federal government are over 20 percent of revenues, and the sales tax is 18 percent of revenues.



Source: *The Economic Report of the President, 2012* [p. 419].

of revenue, accounting for about 47 percent of tax collections. Note the importance of the "Social Insurance" category in Figure 1.2. These are payroll tax collections used to finance Social Security and Medicare. They account for almost 40 percent of federal revenue collections. The corporate income tax only accounts for about 8 percent of federal revenues, which is much lower than in years past. In the state and local sector, grants from the federal government are over 20 percent of revenues, the sales tax is almost as large at 18 percent, and the property tax also makes up 18 percent, which is a significant decrease from earlier years.

It is important to note that the tax system, in addition to raising revenues, can also be a means of making expenditures. To see how, suppose that rather than spending $10 million on purchasing a new weapon, the federal government offers to reduce by $10 million the taxes owed by the manufacturer of the weapon. Although the two measures show up differently in the government accounts, their budgetary effect is the same—the government spends $10 million to acquire the weapon. We discuss such **tax expenditures** in greater detail in Chapter 17.

tax expenditures

A loss of tax revenue because some item is excluded from the tax base or accorded some other preferential treatment.

Changes in the Real Value of Debt In popular discussions, taxes are usually viewed as the only source of government revenue. However, when the government is a debtor and prices increase, changes in the real value of the debt may be an important source of revenue. To see why, suppose that at the beginning of the year you owe a creditor $1,000, which has to be repaid at the end of the year. Suppose further that during the year, prices rise by 10 percent. The dollars you use to repay your creditor are worth 10 percent less than those you borrowed from her. In effect, inflation has reduced the real value of your debt by \$100 (10 percent of \$1,000). Alternatively, your real income has increased by \$100 as a consequence of inflation. Of course, at the same time, your creditor's real income has fallen by \$100.[9]

At the beginning of fiscal year 2011, the federal government's outstanding debt was about \$13.5 trillion. During 2011, the inflation rate was about 2.1 percent. Applying the same logic as previously, inflation reduced the real value of the federal debt by \$284 billion (\$13.5 trillion × 0.021). In effect, this is as much a receipt for the government as any of the taxes listed in Figure 1.2. However, the government's accounting procedures exclude gains due to inflationary erosion of the debt on the revenue side of the account. We defer to Chapter 20 further discussion of issues related to the measurement of the debt and its economic significance.

Our Agenda

This section has set forth a collection of basic facts about governmental fiscal institutions, the size and scope of government spending, and the methods used by government to finance itself. Parts of the rest of this book are devoted to presenting more facts—filling in the rather sketchy picture of how our fiscal system operates. Just as important, we explore the significance of these facts, asking whether the status quo has led to desirable outcomes, and if not, how it can be improved.

[9] If the inflation is anticipated by borrowers and lenders, one expects that the interest rate will increase to take inflation into account. This phenomenon is discussed in Chapter 17 under "Taxes and Inflation."

Summary

- Public finance, also known as public sector economics or public economics, focuses on the taxing and spending of government and their influence on the allocation of resources and distribution of income.
- Public finance economists both analyze actual policies and develop guidelines for government activities.
- In an organic view of society, individuals are valued only by their contribution to the realization of social goals. These goals are determined by the government.
- In a mechanistic view of society, government is a contrivance erected to further individual goals. The government must somehow reconcile sometimes conflicting individual goals.
- Individual decision making is the focus of much economics and is consistent with the mechanistic view of society adopted in this book. This does not eliminate much controversy over the appropriate role of the government in our economy.
- The Constitution embodies constraints on federal and state government economic activity.
- The federal government may effectively undertake any expenditures it wishes and use debt and taxes to finance them. The federal government may not discriminate among states when choosing tax rates and may not place a levy on state exports. The 16th Amendment empowers the federal government to tax personal income.
- State governments are forbidden to levy tariffs on imports, discriminate against outside residents, or tax other states' products. Most states have balanced budget requirements.
- All common measures of the size of government—employees, expenditures, revenues, etc.—have some deficiency. In particular, these items miss the impact

of regulatory costs. Nonetheless, there is strong evidence that the impact of the government on the allocation of national resources has increased over time.

- Government expenditures have increased in both nominal and real absolute terms, in per capita terms, and as a percentage of Gross Domestic Product.
- Defense spending and Social Security are the largest components of the federal budget. They are followed closely by income security programs, Medicare, and then other health programs.
- Personal income and social insurance payroll taxes are the largest sources of federal government revenue.

Discussion Questions

1. Indicate whether each of the following statements is consistent with an organic or mechanistic view of government:
   a. "If you want to believe in a national purpose that is greater than our individual interests, join us" [Senator John McCain].
   b. "Freedom of men under government is to have a standing rule to live by, common to every one of that society, and made by the legislative power vested in it; a liberty to follow my own will in all things, when the rule prescribes not, and not to be subject to the inconstant, unknown, arbitrary will of another man" [British Philosopher John Locke].
   c. "The old values of individualism, capitalism and egoism must be demolished" [Venezuelan President Hugo Chavez].
2. Explain how you would expect a libertarian, a social democrat, and someone with an organic conception of the state to react to the following laws:
   a. A law prohibiting receiving compensation for organ donation.
   b. A law mandating helmet use for motorcyclists.
   c. A law mandating child safety seats.
   d. A law prohibiting prostitution.
   e. A law prohibiting polygamy.
   f. A law barring the use of trans fats in restaurants.
3. In 2011, Denmark introduced a tax on foods with more than 2.3 percent saturated fats. The goal was to reduce obesity. Is such a tax consistent with a mechanistic view of government?
4. In each of the following circumstances, decide whether the impact of government on the economy increases or decreases and why. In each case, how does your answer compare to that given by standard measures of the size of government?
   a. Normally, when employers offer health insurance benefits to their workers, these benefits extend to the spouses of the workers as well. Several years ago, San Francisco passed a law requiring firms that do business with the city to offer health and other benefits to both same- and opposite-sex unwed partners.
   b. The federal government bans the use of incandescent light bulbs.
   c. The ratio of government purchases of goods and services to Gross Domestic Product falls.
   d. The federal budget is brought into balance by reducing grants-in-aid to state and local governments.
5. During 2011, the inflation rate in the United Kingdom was about 3.6 percent. During that year, the national debt of the United Kingdom was about £940 billion. Discuss the implications of these facts for measuring government revenues in that country during 2011.
6. Consider two policies: 1) The government requires everyone to buy a standard health insurance policy that costs $5,000; 2) the government taxes everyone $5,000, but cuts taxes by $5,000 for anyone who buys the standard health insurance policy. Do these policies have different effects on the size of government?
7. From 1981 to 1985, the US federal government increased defense spending from $157.5 billion to $252.7 billion per year, while over the same period Gross Domestic Product rose from

$3.127 trillion to $4.218 trillion. From 2007 to 2011, the US federal government increased defense spending from $551.3 billion to $705.6 billion, while over the same period Gross Domestic Product rose from $14.029 trillion to $15.088 trillion. Which increase in defense spending was larger relative to Gross Domestic Product?

8. The following table shows the composition of US federal expenditures in 1997, 2001, 2007, and 2011.

   From 1997 to 2001, GDP went from $8.3324 trillion to $10.2862 trillion, the GDP price deflator (used to calculate inflation) went from 84.628 to 90.727, and the population went from 272.958 million to 285.225 million. From 2007 to 2011, GDP went from $14.028 trillion to $15.094 trillion, the GDP price deflator went from 106.231 to 113.338, and the population went from 301.696 million to 312.040 million.

   a. For the years 1997 to 2001 and 2007 to 2011, calculate the absolute change in federal expenditures, the change in federal expenditures in real (i.e., inflation-adjusted) terms, the change in real government expenditures per capita, and the change in expenditures per GDP.

   b. Which components of the budget had the largest relative increases from 1997 to 2001 and from 2007 to 2011? Which had the largest relative decreases?

Federal Expenditures ($ billions)

	1997	2001	2007	2011
Defense	$ 285.7	$ 321.2	$ 579.8	$ 751.3
Health	123.8	172.2	266.4	372.5
Medicare	190.0	217.4	375.4	485.7
Income security	235.0	269.8	366.0	597.4
Social Security	365.3	433.0	586.2	730.8
Net interest	244.0	206.2	237.1	230.0
Other	157.3	243.1	317.9	435.5
Total	$1,601.1	$1,862.8	$2,728.7	$3,603.1

9. The following table shows the composition of US federal tax revenues in 1997, 2001, 2007, and 2011.

   a. Using the information provided in question 8, for the years 1997 to 2001 and 2007 to 2011, calculate the absolute change in federal tax revenues, the change in federal tax revenues in real (i.e., inflation-adjusted) terms, the change in real tax revenues per capita, and the change in tax revenues per GDP.

   b. Which components of federal taxes had the largest relative increases from 1997 to 2001 and from 2007 to 2011? Which had the largest relative decreases?

Federal Taxes ($ billions)

	1997	2001	2007	2011
Individual income tax	$ 737.5	$ 994.3	$1,163.5	$1,091.5
Corporate tax	182.3	151.1	370.2	181.1
Social insurance	539.4	694.0	869.6	818.8
Excise tax	120.1	151.7	164.7	212.1
Total	$1,579.2	$1,991.1	$2,568.0	$2,303.5

Appendix

▸ DOING RESEARCH IN PUBLIC FINANCE

Throughout the text, we cite many books and articles. These references are useful if you want to delve into the various subjects in more detail. Students interested in writing term papers or theses on subjects in public finance should also consult the following journals that specialize in the field:

International Tax and Public Finance
Journal of Public Economics
National Tax Journal
Public Finance
Public Finance Quarterly

In addition, all the major general-interest economics journals frequently publish articles that deal with public finance issues. These include, but are not limited to:

American Economic Review
Journal of Economic Perspectives
Journal of Political Economy
Quarterly Journal of Economics
Review of Economics and Statistics

Articles on public finance in these and many other journals are indexed in the *Journal of Economic Literature* and can be searched on the Internet. Try *Google Scholar*.

In addition, students should consult the volumes included in the Brookings Institution's series *Studies of Government Finance*. These books include careful and up-to-date discussions of important public finance issues. The Congressional Budget Office also provides useful reports on current policy controversies. A list of documents is provided at its Web site, www.cbo.gov.

The working paper series of the National Bureau of Economic Research, available through university libraries, is another good source of recent research on public finance. The technical difficulty of these papers is sometimes considerable, however. Papers can be downloaded at its Web site, www.nber.org.

Vast amounts of data are available on government spending and taxing activities. The following useful sources of information are published by the US Government Printing Office and are available online as indicated:

Statistical Abstract of the United States (www.census.gov/compendia/statab/)
Economic Report of the President (www.gpoaccess.gov/eop/)
Budget of the United States (www.gpoaccess.gov/usbudget/)
US Census of Governments (www.census.gov/govs/www/)

All the preceding are published annually, except for the *US Census of Governments,* which appears every five years. *Facts and Figures on Government Finance,* published annually by the Tax Foundation, is another compendium of data on government taxing and spending activities. For those who desire a long-run perspective, data going back to the 18th century are available in *Historical Statistics of the United*

States from Colonial Times to 1970 [US Government Printing Office]. Readers with a special interest in state and local public finance will want to read the reports issued by the US Advisory Commission on Intergovernmental Relations.

A great deal of public finance data is available on the Internet. A particularly useful site is *Resources for Economists on the Internet* (www.rfe.org). It lists and describes more than 900 Internet resources. The home page of the US Census Bureau (www.census.gov) is also very useful. Finally, for up-to-date information on tax policy issues, consult the Web site of the University of Michigan's Office of Tax Policy Research (www.otpr.org) and the Urban-Brookings Tax Policy Center (www.taxpolicycenter.org/).