Chapter 1 provides an overview of how governments in the United States spend the taxpayer's money and how they collect the revenue they need to carry out these functions. Our objective in this chapter is to establish a mental "picture" of the government sector: what government is, how big the different levels of government are, how much they spend and collect in taxes overall, the composition of government spending, and the composition of tax revenue. Such a picture cannot be established by simply memorizing the dollar numbers. Billions of dollars are not amounts that most of us have everyday experience with, and the numbers change every year anyway. For this reason we focus on comparative amounts, usually expressed as percentages. That is, we seek to answer questions such as: How much is government spending compared with (as a percentage of) Gross Domestic Product, the standard measure of the size of the economy? What percentage of total government spending is spent by the federal government versus the state and local governments? What percentage of federal spending is for Social Security? What percentage of total tax revenue is collected in the form of income taxes?
How do these percentages compare with those of other countries or the United States in the past?

Chapter 1 also explains the government budget process. Some types of government spending, called discretionary spending, require annual appropriation bills. Other types, called entitlement spending, do not. In addition the government can “spend” money in ways that are not transparent in the budget, including guaranteed loans, tax expenditures, and regulations and mandates. If the government spends less than it collects in revenue, the government has a budget surplus. The chapter explains how the government surplus is measured and how the excess funds are used.
Consider just part of a day in the life of a typical American family. The family awakens at 6:30 A.M. and showers with water provided by the city utility and heated by electricity from a government-built hydroelectric facility. Breakfast includes food products inspected by the Department of Agriculture and cooked on a stove meeting standards set by the Consumer Product Safety Commission. While eating breakfast, one of the parents scans the reports from the stock markets, regulated by the Securities and Exchange Commission. The children go to a public school where, if the family were poor enough, they would get breakfast and lunch courtesy of the National School Lunch and Breakfast Programs. Fortunately, our typical family is not poor. Both parents have good jobs, thanks in part to their college degrees from the state university.

One parent is late for the city bus today, so she drives to work on the city streets. Her car satisfies government fleet mileage standards and has government-mandated seat belts required by the National Highway Traffic Safety Administration and emissions controls required by the Clean Air Act. On the way to the expressway, she tunes in National Public Radio for the news. But first she must stop for gas, which is reformulated to reduce pollution by government fiat, and then at the bank to withdraw money from her federally insured bank account.

The other parent arrives at his place of employment, inspected for safety by the Occupational Safety and Health Administration, just in time for another meeting on the new pharmaceutical product developed by the company. The firm has been waiting over a year for approval by the Food and Drug Administration. After lunch, he is scheduled to fly to Washington, on a plane inspected according to standards set by the Federal Aviation Authority. On the way to the government-run airport, he glances at the clock on the city hall. He has worked nearly three hours and has just started to work for himself today. Three hours of his earnings are needed just to pay the taxes on his daily income. The sight of city hall reminds him that he must see about a permit for that new addition to his home.

As this vignette indicates, the impact of government on the life of a typical family is both pervasive and important. Although we take many government functions and services for granted, our lives would be much different if the government were suddenly to shut down. In fact, when the federal government shut down for a few
weeks in 1996 because of the budget impasse, relatively few services were stopped because “essential” services were continued. Still, the inconvenience of the stoppage was enough that voters’ anger soon caused the politicians to find a solution to the budget impasse.

Public finance, also known as public economics, is the study of how the government carries out its functions through spending and regulatory programs, and the tax policies the government uses to raise the revenue it needs to finance its programs. Because it is a field of economics, public finance utilizes the theories and methods of this discipline to examine and explain the effects of government programs and policies on the national economy. These include the effects of government-provided goods and services, such as national defense and schools; government transfer programs, such as Social Security and welfare; government regulations, such as environmental and safety regulations; and government revenue policies, such as the income tax and sales tax systems.

WHAT IS THE GOVERNMENT?

Like every major industrial country, the United States has a mixed economy. In a mixed economy, decisions about which goods and services are produced, and how the income needed to purchase them is distributed across the population, are made by both the private (market) sector and the public (government) sector. For example, consumers in the private sector decide how to spend their incomes on goods like cars, food, and clothing, whereas private businesses determine the amounts of different goods and services to produce and how to produce them. Governments decide how to spend public funds on goods like national defense, schools, and space stations and how to collect the tax revenue needed to finance government spending.

Like the national economy, the government economy is complex, multifaceted, and pluralistic. In addition to the federal government and the 50 state governments, there are more than 87,500 city, county, and district governments. There are also scores of government agencies, commissions, and corporations with alphabet soup names like NASA, FTC, and FDIC. In 1999, all governments combined employed over 20 million people (not counting 1.4 million military personnel), or about 15% of the employed nonfarm, civilian labor force. The occupations of government employees range from air traffic controllers at the nation’s airports to zoologists at the nation’s zoos.

What distinguishes government institutions from private ones? In some cases, such as a state-run research university and a private university, public and private institutions seem scarcely different. In general, government differs from private institutions in the following ways:

- **Government has coercive power.** Governments can force people to do things, unlike private institutions that must rely on voluntary arrangements. The most important exercise of the government’s coercive power is its power to tax the population to finance its programs. Unlike a private company, which can only entice us to buy its products, the government can force us to pay for schools, roads, and national defense. The government’s coercive power is also apparent in its regulatory activities. Because of the dangers of coercive power, the government is subject to constitutional and electoral constraints.
The main decision makers in government are popularly elected. Government decisions on spending, regulating, and taxing are made by politicians who are elected by the adult population or by government officials who are appointed by the politicians. By contrast, the chief executive officer of a private company is typically chosen by its board of directors. Even where decision makers are elected in the private sector, the voters are from a relatively small interest group.

Government is not run for profit. Although some private firms are not for profit, the objective of most private businesses is to maximize profit. Profit, which is the surplus of revenue over cost, is not the objective of government. One difficulty in analyzing government is identifying exactly what its objective is. Also, government may not have a single objective. In some cases we will find it useful to assume that the objective of government is the welfare of the society, or social welfare. In many cases, we assume that the objectives of government are the private objectives of the politicians or the voters who elect them.

Government has an obligation to serve all members of society. Since government is of the people and for the people, it has an obligation to serve everyone in its jurisdiction. Government must be impartial. One reason the government often involves so much red tape is to ensure that it does not treat certain groups better than others. Although private firms cannot overtly discriminate against certain groups, they are under less obligation to be impartial. Private firms care mostly about their shareholders. For instance, if they do not find it profitable to serve consumers in a particular community or region, they will not do it. In contrast, the U.S. Postal Service has an obligation to deliver mail everywhere in the country.

THE SIZE AND GROWTH OF GOVERNMENT

In 1999, the combined spending of the federal, state, and local levels of government in the United States amounted to $2620 billion on the National Income and Product Accounts (NIPA) basis. The NIPA basis zeros out all intergovernmental financial flows because they simply move cash from one pocket of the government to another. The NIPA also measures government spending on an accrual rather than a cash flow basis, although this has a relatively minor impact on the amount recorded at the present time.

“Big government” is a common enough expression, but most of us find it difficult to imagine how big government is because “billions of dollars,” the units in which government spending is measured, are not units that we encounter in our own lives. One way to appreciate the size of the U.S. government is to compare it with something else. For one thing, the $2620 billion spent by governments in the United States in 1999 is more than the entire gross domestic product (GDP) of

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1 This number is somewhat smaller than the dollar amount spent according to government financial records, because the financial records include amounts spent by one government that are received by another level of government or by a government agency or trust fund like the Social Security trust fund.
Germany, the world's third-largest national economy. GDP is the total value of final goods and services produced in an economy. In other words, governments in the United States spend enough to purchase the entire output of final goods and services produced by 40 million German workers.

Of course, one reason government spending in the United States is so large is the colossal size of the economy, so government spending is best compared with the nation's GDP. The GDP of the United States in 1999 was $9250 billion; thus government spending amounted to 28 percent of this GDP.³

While government spending is about 28% of the country's GDP, this does not mean that they produce 28% of the GDP. In fact, the GDP of the government sector in the United States is quite small—less than 11 percent of the total GDP, or about $1020 billion. This amount includes goods and services produced by the government such as education, police and fire protection, and national defense. Even then, many of the goods and services purchased by the government are produced by private commercial firms. For example, the government provides national defense, but most defense hardware, such as Seawolf submarines and B2 bombers, is produced for the government by private firms.

Most government spending, about $1600 billion, is transfer spending. With transfer spending, the government gives money, like Social Security benefits, to people who then spend it on their own consumption. With transfer spending, the government does not control the use of economic resources. Control remains in the private sector, and the government simply redistributes the command over purchasing power from one group of people to another.

In other words, the statement that governments in the United States spend an amount equal to one-third of the GDP is simply a ratio that measures the size of one thing in terms of another. It is a crude but readily obtained measure of the importance of government in the economy. Measuring government spending relative to GDP is not fully informative, however. What we'd really like to know is whether a government that spends such an amount is considered big or small. To do this, we can compare the ratio of government spending to GDP in the United States with that in other countries and with the United States in other years.

Government Spending in Other Countries

Given the size of government spending in the United States, it is surprising to discover that some people think of the United States as a "small-government" economy. The reason is shown in Figure 1.1, which shows government spending as a percentage of GDP for the world's seven largest economies. Among these, the United States has the lowest ratio of government spending to GDP. The average for all seven countries is about 43.5 percent of GDP, which is nearly 12 percentage points greater than that of the United States. Relative to GDP, spending by government in the United States is among the lowest in the industrialized world. When we broaden our scope beyond the "big seven" economies, we find even

³GDP is now the preferred measure of the size of the economy. Earlier, a slightly different measure, gross national product—which subtracts from GDP incomes paid to foreigners and includes incomes of Americans earned abroad—was commonly used. In the United States, GDP and GNP are almost the same.
greater variation in the ratio of government spending to GDP. In Sweden, government spending is over 60% of GDP; in Turkey, government spending is only about 24% of GDP.

Although Figure 1.1 suggests the relative importance of government in different countries, we must be careful in interpreting it. For one thing, as mentioned, there are different types of government spending, and they are not comparable in terms of the extent of government intervention in the economy. For instance, suppose that government spending is a third of GDP in two countries, but in one country the government spends everything on transfer payments to persons, while in the other the government spends everything on military goods. In the first country, the government redistributes purchasing power but leaves decisions about the allocation of resources in the hands of private individuals; all of GDP is used for private consumption and investment. In the second country, the government reallocates a sizable fraction of the economy’s resources away from satisfying private needs and uses them to purchase goods and services that individuals would not purchase for themselves.

Another reason the ratio of government spending to GDP is an inadequate measure of government intervention in an economy is that the government can interfere in an economy in ways that do not show up as budgeted spending. We discuss some of these ways later in this chapter.

**The Growth of Government**

As a percentage of GDP, spending by all governments in the United States was relatively stable—between 32 and 34%—between 1975 and 1995. Since 1995, it has declined to 28%. Over the twentieth century as a whole, government spending has grown more rapidly than the economy, and similar trends are found in all of the major industrial economies. Figure 1.2 plots government spending in the United
States as a percentage of GDP. At the beginning of this century, government spending was only about 7% of the country’s national product; it grew to one-third of GDP by the early 1970s. During World War II, the most expensive conflict in American history, government spending temporarily approached half of GDP.

Several points about the growth in government are shown in Figure 1.2. First, the most rapid growth in the federal government occurred between 1935 and 1945, largely because of military spending during World War II. Second, from 1945 to 1955, government spending fell as a percentage of GDP, but it did not fall to prewar levels. After 1960, government again grew relative to GDP. This time both the federal and the state governments grew.

Why did government grow so much in the last century? Economists, other social scientists, and historians have been asking this question for years and will ask it for many more. It is an especially interesting question because growth in government happened in all major industrial countries, so the causes are not restricted to the United States. People who study this question cannot agree on a single cause.

One possible cause is growth in income. For this to explain growth in government relative to GDP, we must assume that the things government provides with its spending are highly income-elastic; that is, as people’s incomes grow, their demand for the things that governments provide grows even faster. A second possible cause is the extension of voting rights to nearly all people. At the beginning of the century, many people—for example, women—could not vote, and low-income people were precluded by poll taxes. By the end of the century, everyone age 18 and older could vote. Extending suffrage may have created increased demands for government spending, in particular for transfer spending such as welfare and Social Security, because low-income people pay a small fraction of the taxes that finance the spending. A third possibility is the great improvement in the government’s ability to tax the population. To spend an amount equal to a large fraction of GDP, the government must be able to tax very effectively. The ability to tax has grown over the century because of increases in information processing and, in the United States, changes in the law. The modern income tax was not levied until 1913, and it is hard to imagine how the government could raise large sums of money without it.
THE COMPOSITION OF GOVERNMENT SPENDING

Not only has the size of government changed over time, but so has the composition of government spending. *Composition of spending* means relative spending on different functions performed by government, such as defense and income security.

**Government Spending by Function**

To understand what government does in the economy, we must know what the government spends money on as well as how much it spends. Table 1.1 shows percentage shares of spending on different functions for all levels of government combined for the years 1952 and 1993. The function of government spending is defined by the purpose or principal need that the spending serves. The functional classifications in Table 1.1 are those used by John E. Dawson and Peter J. E. Stan of the RAND Institution, from whose study this table is taken.³

From Table 1.1, we see that how government spends has changed remarkably between 1952 and 1993. In 1993, the last year in Dawson and Stan’s study, the largest fraction of government spending was on programs that provide income support for individuals. These programs, which account for 21% of government spending, include Social Security and federal, state, and local welfare programs. By comparison, in 1952 half of government spending was for national defense. In 1952, the Cold War had begun and the Korean conflict was still under way, so the largest part of spending by the federal government was military spending. The share of government spending on national defense declined steadily after 1952, while the share of “social spending” rose.

**Table 1.1 Government Spending (All Levels Combined) by Function**

<table>
<thead>
<tr>
<th>Function</th>
<th>Percent of Total Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1952</td>
</tr>
<tr>
<td>National defense</td>
<td>50.0%</td>
</tr>
<tr>
<td>Other international</td>
<td>2.5</td>
</tr>
<tr>
<td>Education</td>
<td>9.8</td>
</tr>
<tr>
<td>Health</td>
<td>3.5</td>
</tr>
<tr>
<td>Transportation</td>
<td>5.8</td>
</tr>
<tr>
<td>Civilian safety</td>
<td>2.3</td>
</tr>
<tr>
<td>Support of individuals</td>
<td>10.4</td>
</tr>
<tr>
<td>Support of the economy</td>
<td>3.8</td>
</tr>
<tr>
<td>Support of the labor force</td>
<td>1.7</td>
</tr>
<tr>
<td>Utilities and commercial activities</td>
<td>1.8</td>
</tr>
<tr>
<td>Net interest</td>
<td>4.9</td>
</tr>
<tr>
<td>Other</td>
<td>3.8</td>
</tr>
</tbody>
</table>


³Elsewhere in this chapter, we make use of the functional classifications in the NIPA. Dawson and Stan (1995) explain the shortcomings of the NIPA classifications in their study.
By 1993, national defense accounted for only 14.5%, the fourth-largest share after support for individuals, health, and education. The shift of government spending from defense to social programs is sometimes called the "peace dividend."

Among social programs, the fraction spent on health by government grew the most over the four-decade interval. In 1993, spending on health was more than 16% of total government spending, the second-largest share; in 1952 it had been less than 4%. Table 1.1 shows that the things government spent revenue on were very different in 1952 than they were in 1993. Since 1993, the last year of the DAWSON and Stan study, national defense has continued to decline as a percentage of total spending, and health has continued to increase.

**Government Spending by Jurisdiction**

The United States does not have a single (or unified) system of government but is a federal system that has many governments, including those at the state and local levels. In 1999, 67% of all government spending was done by the federal government. We include in federal spending the $224 billion the federal government gives to state and local governments as grants-in-aid. **Grants-in-aid** are transfers by the federal government to states and localities to help them fund shared spending on programs such as highways, education, and health.

The growth of government spending relative to national product and the division of spending among federal, state, and local governments are shown in Figure 1.3. This figure omits the years of World War II, when federal government spending increased drastically to fight the war. As the figure indicates, spending by all levels of government increased as a percentage of GDP, but federal and state spending grew more rapidly than local spending. In 1902, federal spending accounted for only about a third of total government spending. At that time, more than half of government spending was done by local governments such as cities, counties, and districts. Over

![Figure 1.3](image)

**Figure 1.3**

Growth in Federal, State, and Local Government Spending as Percent of GDP

Excluding the years of World War II, the steady rise in government spending over time is more apparent. We also see that the growth in government spending as a percentage of GDP has come mainly at the federal and state level. At the local level, government spending as a percentage of GDP has declined slightly.

Source: Statistical Abstracts of the United States, various years.
the century, spending by federal and state governments grew more rapidly than spending by local governments, so the relative size of local government decreased. We also see that the most rapid growth in the size of the federal government relative to GDP occurred before 1955, and that the most rapid growth in the size of the state governments occurred after that.

The change in the composition of spending by level of government reflects mainly changes in the things government does. At the turn of the century, the main functions of government were to meet local needs such as schools and police and fire protection. While local governments still perform these functions, relative demand for them has not grown appreciably over the twentieth century. Rather, it is the demand for government spending on health care, Social Security, and national defense that has grown, and since these functions are in the realm of the federal government, it has grown accordingly.

Different levels of government spend on different things. As Figure 1.4 shows, federal spending is concentrated on national defense, international affairs,
agriculture, and social and income security, whereas state and local spending is concentrated on education, civilian safety, and transportation. In part this reflects the division of powers between the federal government and the states under the U.S. Constitution, although federal government spending accounts for part of total spending in all the major functional classifications. In Figure 1.3, federal grants-in-aid to state and local governments are counted as spending by the federal government, not as state and local spending.

FINANCING GOVERNMENT SPENDING

Governments obtain the funds they need by levying taxes, charging user fees for government goods and services, and borrowing in financial markets. Figure 1.5 shows sources of finance for various years. Three sources of government funds are indicated: receipts of the federal government, receipts of state and local governments, and net borrowing by combined governments. Receipts of state and local governments are from their own sources only and exclude funds they receive from the federal government. In 1999, about 69% of total government spending was financed by receipts of the federal government and 34% by receipts of state and local gov-
Governments from their own sources. Unlike in past years, governments did not finance any spending by borrowing. In 1999, governments ran surpluses of about 3% of total spending. This surplus is shown as a negative source of funds in Figure 1.5.

As you can see from Figure 1.5, the share of receipts of state and local governments has remained relatively constant over the postwar period, at around a third of combined government spending. Before World War II, receipts by state and local government financed over half of government spending. During the postwar period, the share of federal receipts declined from a high of more than 80% in 1950, while the share of borrowed funds increased until the late 1990s. The rise in borrowed funds was due mainly to the increased use of deficit financing by the federal government between 1965 and 1995.

Nearly 90% of the current receipts of the government are obtained from taxes. Current charges (user fees), such as post office revenue, university tuition, charges for utilities, and fees for airports and parks, account for the balance. State and local governments rely on current charges more than the federal government does, but they too derive most of their revenues from taxes.

Many different types of taxes are levied, but most can be classified as taxes on incomes, taxes on goods, and taxes on wealth and property. The term **tax structure** means the shares of total tax revenue collected by the different types of taxes. Tax structures for different levels of government are shown in Table 1.2 for 1996. This table shows that income taxes are by far the most important element of the overall tax structure, accounting for 70% of all tax revenue. Note that the federal government relies almost entirely on income taxes, collecting 92% of its tax revenue.
Table 1.2 Percentage of Tax Revenue by Type (1996)

<table>
<thead>
<tr>
<th></th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
<th>All Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Income</td>
<td>45.2%</td>
<td>23.8%</td>
<td>5.8%</td>
<td>35.4%</td>
</tr>
<tr>
<td>Social Insurance (Payroll)</td>
<td>35.1%</td>
<td>14.4%</td>
<td>0.0</td>
<td>25.9%</td>
</tr>
<tr>
<td>Corporate Income</td>
<td>11.8%</td>
<td>5.2%</td>
<td>2.0%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Total Income and Payroll</td>
<td>92.1%</td>
<td>43.5%</td>
<td>7.7%</td>
<td>70.3%</td>
</tr>
<tr>
<td>General Sales</td>
<td>0.0%</td>
<td>24.8%</td>
<td>11.7%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Excises and Duties</td>
<td>3.7%</td>
<td>11.8%</td>
<td>5.2%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Total Goods Tax</td>
<td>3.7%</td>
<td>36.6%</td>
<td>16.8%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Property</td>
<td>0.0%</td>
<td>1.8%</td>
<td>72.9%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Other</td>
<td>4.2%</td>
<td>18.2%</td>
<td>2.6%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Total Own-Source Tax</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


from them. Federal income taxes include the familiar personal income tax (which makes April such a busy month for accountants), the Social Security and Medicare taxes on payrolls, and the corporate income tax.

State and local governments rely less on income taxes as a source of revenue than the federal government does. A significant share of state revenue is obtained from taxes on goods and services, such as the retail sales tax levied in most states. While most states levy both a sales and an income tax, there is much variation in the relative importance of the two from state to state. For instance, seven states have no personal income tax, and five have no sales tax.

Taxes on property and wealth are relatively unimportant in the United States, except at the local level. Local governments obtain 70% of their revenue from property taxes, mainly from real estate taxes. This reliance reflects the fact that real property is immobile and cannot move from local jurisdiction to local jurisdiction in response to differences in local tax rates.

The tax structure, like spending, has not remained static over time. Figure 1.6 shows shares of federal tax revenue collected from personal incomes, corporate incomes, and excises and duties, for selected years since 1955. The most notable change is the large increase in the share from insurance trust, which comes mainly from payroll taxes. In 1955, payroll taxes accounted for less than 12% of federal revenue, but by 2000 they accounted for nearly 34%. This rapid growth in payroll taxes occurred because they are used to fund the rapidly growing Social Security and Medicare programs. The share of personal income taxes has remained relatively constant, at around 48%, while the share of corporate income taxes has declined from 26.5% in 1955 to 10.1% in 2000.

Government in the United States relies less than governments in other countries on taxes on the consumption of goods and services, and more on taxes on income and payrolls. As shown in Figure 1.7, taxes on goods and services account for over 32% of government revenue averaged over all members of the Organization for Economic Cooperation and Development (OECD), but for only about
The Composition of Government Spending

Figure 1.6
The federal tax structure has changed over time. Notable is the rise in the importance of payroll taxes and the decline in the importance of corporate income taxes since 1955.

Figure 1.7
Tax Revenue Shares by Type of Tax, 1996
The tax structure in the United States differs from that of other industrial countries. Notable is the greater reliance on income and payroll taxes and the lesser reliance on goods and services taxes.
17% in the United States. On the other hand, taxes on personal incomes collect a larger share of revenue in the United States than in the other countries.

ACCOUNTING FOR GOVERNMENT

Section 9 of Article I of the U.S. Constitution requires that money drawn from the Treasury be a “consequence of Appropriations made by Law,” and that a “regular Statement and Account of the Receipts and Expenditures . . . be published from time to time.” It is hard to believe that such a simple, direct constitutional requirement lies behind the massive, detailed federal budget that appears each year, not to mention the fierce and protracted negotiations between the administration and Congress that bring forth the budget.

Understanding the budget is important for two reasons. First, the budget is the means by which the government sets its priorities. In this regard, the government budget is similar to a household’s budget. Each year, a prudent household examines how much it expects to earn and decides how much it can spend on different goods and services like food, shelter, clothing, and entertainment. Similarly, each year the government determines how much it will receive in revenue and decides how much to spend on different government functions like defense, Social Security, and education. Second, the information in government budgets is an important source of data for public finance economists and other analysts who study government. Understanding what the budget reports and does not report about government activities is essential for understanding and evaluating the impact of government on the economy. As we shall see, the government can achieve its objectives in ways that may not even appear in the budget, such as through regulation and “hidden” spending (sometimes called “backdoor spending”).

The Unified Budget

The budget transactions of the federal government are reported in the unified budget, published annually by the Office of Management and Budget (OMB) as the Budget of the United States Government. The unified budget reports the cash outlays, receipts, and borrowing of the federal government, including federal trust funds. A government trust fund is a separate account for funds collected and disbursed for certain programs, like Social Security, Medicare, and unemployment insurance. The trust funds must be kept separate from general funds, and the revenue collected must be used for the designated purpose. The receipts of these funds are not part of the federal funds, for which other, nontrust programs can compete under the appropriations process.

Although the unified budget includes outlays and receipts of the government trust funds, when the budget total is calculated a trust fund can be excluded by designating it “off budget.” In other words, a receipt or outlay of the federal government can be counted in the unified budget and designated off budget at the same time. In fiscal year 2000, $336 billion of federal outlays were designated off budget, as were $465 billion of receipts. The most important off-budget item in the
unified budget is Social Security. Spending on this program, and the receipts from the Social Security payroll tax, is almost entirely off budget. Only the administrative costs of the program are on budget. The budget of the U.S. Post Office is also off budget.

There is no unambiguous rule of accounting that determines whether a program is designated on or off budget. Ultimately, whether an item is put on or off budget is a political decision and reflects an agreement as to whether to count it when determining the official budget surplus or deficit, which is the difference between on-budget outlays and on-budget receipts.

The Budget Enforcement Act
An important part of the law controlling the budget process is the Budget Enforcement Act (BEA) of 1990, which was amended and extended in 1993 and 1995. The BEA divides federal spending into a discretionary type and a mandatory type (also called “direct spending”). Discretionary spending requires Congress to enact and the president to sign an appropriations bill authorizing the spending. In other words, the Congress and the president must take actions each year for the government to spend money on discretionary spending programs. These programs include national defense, foreign aid, highway construction, housing, and science. Permanent laws authorize mandatory spending. Such spending includes entitlements such as Social Security, Medicare, and Veterans’ benefits. An entitlement is a program
that requires the government to pay benefits to all persons who satisfy the eligibility requirements specified in the program legislation. It is sometimes called "uncontrollable spending," although it is not strictly uncontrollable because Congress and the President can change the amount spent by changing the law. The point is that they don't have to act. Failure to act means that the amount spent is determined by the existing legislation.

One type of mandatory spending is practically uncontrollable—interest on the national debt. If the government failed to pay interest on the national debt, it would be in default. This is such a serious breach of government trust that it is considered unthinkable except in a dire national emergency.

Since 1965, mandatory spending as a percentage of total federal spending has risen steadily. In 1965, 45% of federal spending was mandatory. In 1999, mandatory spending accounted for more than 70% of federal spending. In part, this is because of the declining percentage of defense spending, which is discretionary and was by far a much larger fraction of federal spending in 1965.

The BEA imposed a cap or upper limit on annual discretionary spending through fiscal year 2002. The Federal Budget for 2001 recommends revising and extending the caps until 2010. The purpose of the cap was to limit spending to reduce the deficit and to prevent the surplus from being reduced. The BEA also requires that changes in legislation that increase mandatory spending be offset by cuts in other spending or by raising additional taxes. This requirement is called PAYGO, for "pay-as-you-go." Like the cap on discretionary spending, PAYGO is intended to prevent new spending that would increase the deficit or reduce the surplus. Such spending would increase taxes on future generations, hence the term "pay-as-you-go." Together these requirements form a "Social Security solvency lockbox" to protect the surplus of Social Security taxes over benefits from being spent on other spending programs. Diverting the Social Security surplus to other spending implies higher taxes in the future when the baby boomers retire. (These issues are discussed at greater length in Chapters 9 and 16.)

**Budget Surpluses and the Solvency of Social Security**

If government receipts (revenue) exceed its outlays (spending), the government has a budget surplus. If outlays are greater than receipts, it has a budget deficit. The unified budget surplus in 1999 was $124 billion, which is equal to $1827 billion in receipts less $1703 billion in outlays. The entire surplus in 1999 is off budget because it is equal to the excess of Social Security taxes over Social Security spending. The on-budget receipts and outlays of the federal government were in balance (equal to each other) in 1999. For the 30 years before 1998, the federal government had budget deficits.

The unified budget surplus is approximately equal to the amount of the net national debt that the government retires (or pays down) in the year. The net national debt is the outstanding value of Treasury securities (government bonds) held outside the federal government. It is roughly equal to the accumulated unified budget deficits less surpluses over the country's history. At $3600 billion (end of 1999), the net
national debt is somewhat less than the gross national debt, which is equal to $5606 billion. The difference is the amount of Treasury securities held by the federal government itself. The bulk of this government-owned debt is in the Social Security Trust Fund, which by law must invest its accumulated surplus in government securities. Analysis focus on the net national debt because the rest is owed by one pocket of government to another pocket of government. In 1999, the net national debt was equal to about 40% of GDP, which is down from a high of 49% in the mid-1990s but up from a post-World War II low of 24% in the mid-1970s.

The Office of Management and Budget projects unified budget surpluses to continue over the next decade. This means that the net national debt falls in dollar terms and falls sharply as a percentage of GDP as GDP continues to grow. Since the unified budget surpluses are off budget, the securities purchased back from the private sector will end up in the Social Security Trust Fund, which will increase by about the same amount that the net national debt declines. If the on-budget receipts and outlays remain in balance, the gross national debt will remain roughly constant. The interest payments on the Treasury securities in trust fund will also accumulate, pushing the trust fund balance to over $3000 billion by 2015. This “nest egg” will finance the Social Security deficit that will emerge when the baby boomers retire and the trust fund sells the bonds back to the private sector.

**Governing Without Spending**

Spending money is the most visible way the government carries out its functions, whether it is writing Social Security checks to retirees or purchasing a new aircraft carrier. Indeed, the entire budget process that controls what the government spends and ensures accountability for what is spent is based on the assumption that the implementation of government programs requires the appropriation and outlay of funds. However, the government can carry on some functions and achieve some objectives in ways that do not show up as budget spending. We will discuss three such methods: (1) tax expenditures, (2) loans and guarantees, and (3) regulations and mandates.

**TAX EXPENDITURES.** The main way the government “spends without spending” is by giving special tax breaks and preferences to persons, firms, and other governments. Such tax breaks are called **tax expenditures.** The term is meant to indicate that the government can make “expenditures” by using the tax system to give special tax breaks for certain economic activities or to certain taxpayers.

To illustrate, suppose that the federal government finds it difficult to attract a sufficient number of men and women into the armed forces. One way to solve this problem is to raise military pay to make enlisting more attractive. This solution means that more funds must be obtained for defense through the appropriations process, resulting in a bigger defense budget and higher government spending overall if other programs are maintained. The population must pay more taxes to achieve the government’s objective.

Another way to accomplish the same objective, however, is to exempt military pay from the income tax. This raises the take-home pay of military personnel and
makes enlisting more attractive. But this solution does not show up as increased
government spending. Instead, it shows up as reduced government revenue. If the
government maintains expenditures on other programs, it must raise taxes on every-
one else to make up for the tax relief given to armed forces personnel. Again, the
population pays more taxes to achieve the government's objective even though
the government achieves its objective without increasing budgeted spending.

The functional equivalence of using budgetary expenditures and tax expendi-
tures to achieve government objectives suggests they should be treated equiva-
ently. However, the two methods are dealt with quite differently in the budget
process. Budgetary expenditures involve appropriations and oversight, and the
amounts are reported in the budget. Tax expenditures are forgone tax revenue and
are neither reported in the budget nor subject to the appropriations process. Tax
expenditures are reported in a separate tax expenditure budget that documents
government functions carried out through the special provisions in the tax code
and reports the revenue lost.

The dollar value of a tax expenditure is estimated by finding the revenue lost
as a result of it. In 2000, the total of all tax expenditures in the federal income tax
system amounted to over $600 billion. This included revenue losses of $56 billion
for the mortgage interest deduction, which is a subsidy for home ownership;
$81 billion for exempting employer-paid health insurance from income tax, which
is a subsidy for health insurance; and $26 billion for the charitable gifts deduction,
which is a subsidy for private philanthropy. We discuss these and other tax expendi-
tures in more detail in Chapters 13 and 14.

LOANS AND LOAN GUARANTEES. By the end of fiscal year 1999, the outstanding
direct and guaranteed loans of the federal government amounted to $1210 billion.
This does not include the larger amount of guaranteed loans issued by government-
sponsored enterprises (GSEs) like the Federal National Mortgage Association
(Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac).
Each year the government makes or guarantees billions of dollars in new loans to
private individuals and firms.

Some direct government loan programs are like government spending because
the money is lent at below-market interest rates. Parents often help their adult chil-
dren by lending money to them without interest, or at a low interest rate. Most
people would consider this act partly a form of "spending money on their chil-
dren." In the same way, the government can spend money on agriculture by
extending loans to farmers at interest rates below market rates through the Rural
Electrification Agency or the Farmers Home Administration. The government also
makes hidden expenditures on defense and commerce by extending low-interest
loans to foreign governments to help them purchase exports of American military
and nonmilitary goods.

Loan guarantees are another indirect form of government spending, and the
implicit spending component is difficult to quantify. Consider a commercial firm
that is having trouble borrowing money on its own account, perhaps because it is
very risky or verging on bankruptcy. If private lenders are willing to lend to the firm
at all, they would demand a very high interest rate. Suppose the government wants to give the firm aid. One way is simply to give the firm a grant or subsidy. This requires appropriating the necessary funds and writing a check to the firm. The resulting outlay is recorded as a government expenditure in the unified budget. Another way to help the firm is for the government to guarantee its loan. Since the loan is backed by the government, the firm can borrow at a lower interest rate. The lenders no longer view the loan to the firm as risky, because the default risk has been transferred from them to the nation's taxpayers. If the firm fails, it won't be the lender that loses—it will be the taxpayers.

Sometimes you hear that a loan guarantee does not cost the taxpayer a cent. A good example is the $1.5 billion loan guarantee given to the Chrysler Corporation in 1979. This guarantee allowed the company to borrow enough to retool its product line, restore its profitability, and repay its debt. Had Chrysler fallen into bankruptcy, the taxpayers would have had to come up with $1.5 billion. In the end, the federal government did not have to make good, so no cash expenditure was needed. Nevertheless, there was an indirect government expenditure because the taxpayers, through the government, underwrote the risk. This example points out the difficulty of quantifying the amount of indirect government spending associated with a loan guarantee. It is difficult to agree on the cost of this bailout to the taxpayers.

Was it the difference between the interest cost Chrysler would have had to pay without the guarantee and what it did pay, or the expected cost to the government if Chrysler had defaulted?

Since 1992, the Federal Credit Reform Act has required that the costs of federal credit programs be estimated and budgeted. Specifically, the full cost of the subsidy associated with the loan or guarantee must be recorded as an obligation when the government makes the loan or commits to the guarantee. In 1999, the cost of federal direct and guaranteed loans was estimated at $80 billion. This does not include the subsidy cost of guaranteed loans issued by GSEs.

REGULATIONS AND MANDATES. Regulation is one way the government can achieve objectives such as improving environmental quality, protecting consumers, ensuring workplace safety, and providing accessibility in public places for the disabled, to mention only a few. In general, regulations and mandates are described as the **command and control** policies of the government, in contrast to taxing and spending. Just as tax expenditures and government lending can be considered hidden forms of government spending, command and control policies can be considered a hidden form of taxing and spending. Rather than taxing the population to purchase the resources needed for its objectives, the government forces firms and individuals to provide them directly.

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4 The cost of the subsidy implicit in federal loans is calculated as the “present value of the expected cash outflows for the government and the present value of the expected cash inflows” (see Office of Management and Budget, *The Budget of the United States Government, 2000. Analysis Perspectives*). The concept of present value is discussed in Chapter 6; for now, just think of it as the sum of present and future costs associated with the loan.
Government regulation in the American economy is pervasive and costly. In 1998, the federal government alone had over 128,000 full-time positions and spent $17.9 billion on administering regulatory programs. The budgetary cost of regulation is just the tip of the iceberg. Regulations impose costs on private individuals who must comply with them and can also cause inefficiency costs if they lead to a misallocation of the economy’s resources. The Office of Management and Budget (OMB) estimates that the monetized costs of major federal social regulations as of 1999 are between $185 billion and $250 billion. Some nongovernment analysts argue the cost is much higher. One study claims that the cost of federal regulation in 1998 was $737 billion.6

To illustrate the hidden cost of regulation, consider the Americans with Disabilities Act (ADA), signed into law by President Bush on July 26, 1990. Title I of the ADA requires that employers make the workplace accessible to employees with disabilities. Title III requires that owners of places of public accommodation, such as hotels, office buildings, restaurants, and buses, provide accessibility to the disabled by installing ramps, widened aisles, restroom facilities, automatic doors, elevators, and Braille signs. Across the nation, the cost of such facilities amounts to billions of dollars.

Although the government requires firms to provide the resources needed for accessibility, the objectives of the ADA could have been attained through taxing and spending. The government could tax the population (or the firms) and appropriate the funds needed to provide accessibility. Either way, the objective—accessibility—is achieved, and the costs are borne by private individuals. But with a tax and spending policy, the government’s activity is measured and reported in the budget as tax receipts and spending on publicly provided goods. With the ADA, no government tax or spending is recorded, except the budget of the regulatory agency.

Again, the point is not that the ADA and other forms of regulation are good or bad; it is that the government can achieve objectives through regulation or through taxing and spending policies. If, as studies indicate, federal regulations impose hundreds of billions of dollars in costs on the private sector, the effect of the federal government on the economy is larger than the measured government spending. The fact that reported government spending is less when it resorts to regulation does not mean that the government is any less intrusive in the economy. It is just less visible.

Note that, ultimately, both spending and regulation rely on the government’s power to coerce the private sector. In the ADA, the power to coerce is direct. The government makes it compulsory for private firms to provide the resources needed for accessibility, or face punishment (usually fines). In a government spending program, the resources needed to provide accessibility are acquired through voluntary exchange, but the money needed to buy them is coerced from the taxpayers. People must pay their taxes, or the government can seize their assets or garnish their wages. In extreme cases, it can send them to jail.

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1.2 Is the Government "Insolvent"?

Most analysts agree that the government budget presents only a partial picture of government activity. One reason is that it does not report hidden taxes and spending in the same way as conventional receipts and outlays. Another reason is that it fails to account for the accruing assets and liabilities of the government, like government investment and federal employee pension and Social Security obligations.

A proposed solution is to report a government balance sheet, similar to that reported by businesses to shareholders. In addition to an income statement that reports receipts and outlays over its fiscal year, businesses also report the level and composition of their assets and liabilities at the end of each year in a balance sheet. The purpose is to provide shareholders with more information about the firm's operations so they can evaluate the firm's asset management (stewardship and efficiency) and solvency (ability to meet present and future payment obligations). Although the government does not have shareholders, the citizens can be considered "stakeholders" who have an interest in its operations.

The Treasury Department and the Office of Budget and Management (OMB) both produce rudimentary federal balance sheets. The assets and liabilities on the federal government's balance sheet (in trillions of dollars) are shown in the table below. Also shown are the assets and liabilities calculated by the Citizens for Budget Reform (CBR), a public interest group.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Assets</td>
<td>5.1</td>
<td>$2.3</td>
<td>$22</td>
</tr>
<tr>
<td>Liabilities</td>
<td>3.8</td>
<td>5.7</td>
<td>44</td>
</tr>
<tr>
<td>Assets Less Liabilities</td>
<td>(3.7)</td>
<td>(3.4)</td>
<td>(22)</td>
</tr>
</tbody>
</table>


As we see, the government's liabilities exceed its assets on all three balance sheets. The Treasury includes only the financial assets and liabilities of the government, such as cash on hand and the net national debt. The OMB also includes the physical assets of the government such as its land, inventories and structures, and non-debt liabilities like insurance and employee pension obligations. The CBR goes further and includes the value of future taxes as asset (although it seriously underestimates it) and obligations to pay future Social Security and Medicare benefits as liabilities. Most economists are skeptical about the usefulness of a government balance sheet. Some suggest an alternative method of judging the government's ability to fulfill future obligations, called generational accounting (this is explained in Chapters 11 and 16). With this in mind, critically analyze and discuss the following list:

A business balance sheet, along with the income statement, is used by shareholders to evaluate the profitability of business investments. Given that the government investments are not based on profit, but presumably on the public good or interest, would a government balance sheet be useful for the purpose of judging government asset management? The government's main source of revenue is taxes, not income-earning assets. Given this fact, which of the balance sheets in the previous list item is best in principle (disregard accuracy) for determining whether the government can fulfill future spending obligations like Social Security? The OMB argues that the government is not insolvent (unable to fulfill future spending obligations) despite the fact that liabilities exceed assets by any measure. It offers as proof the fact that the government can borrow at a low, risk-free interest rate, which would not be the case if it were insolvent. Do you think this means that the government will have sufficient revenue to pay future Social Security obligations at current tax rates? Why or why not?

"It may help you to read "Stewardship: Toward a Federal Balance Sheet" in The Budget of the United States for Fiscal Year 2001, which you can get at http://fiscgop.gov/usbudget/index.html."
CONCLUSION AND SUMMARY

This chapter has introduced various facts about government spending and tax policies to show how government intervenes in the American economy and by how much. We have seen that measured government spending is just one way the government achieves its objectives. In Chapter 2 we turn to a more abstract question: What functions should government perform in an economy? What determines whether a particular activity is best performed by private firms or the government?

- The United States has a mixed economy in which the allocation of resources is determined both by decisions made by private households and firms and by decisions made by governments.
- The combined government spending in the United States was about 28% of the gross domestic product (GDP), or about $2620 billion in 1999. As a percentage of GDP, government spending is smaller in the United States than in many other industrialized countries.
- The absolute and relative size of government grew rapidly during the twentieth century. Most of the growth relative to GDP occurred before 1970.
- The composition of government spending has changed markedly over the last four decades. In particular, national defense has shrunk in importance, while Social Security, health, and education have increased.
- The government obtains most of its revenue from taxes. The federal government relies heavily on income taxes, whereas state and local governments rely more heavily on sales and property taxes, respectively.
- The amounts collected and spent by the federal government and its trust funds are reported in the unified budget. However, the government can implement its policies and affect the economy in ways that do not show up as budgeted spending. These include hidden spending, such as tax expenditures and loan guarantees, and regulations.

QUESTIONS FOR DISCUSSION AND REVIEW

1. Often, government provides goods and services also provided by private businesses. For example, many communities have both for-profit hospitals and state hospitals. In this chapter we considered four different ways in which government differs from private business enterprises. How are the differences between government and business likely to be reflected in the service provided? For example: fees charged, access, waiting time, and number of patients per doctor?

2. Do you favor increasing or decreasing government spending relative to GDP? What types of spending would you change? How would your answer affect the relative size of federal and state and local governments?

3. Fees charged by the federal government for goods and services the consumer can choose to buy (like national park fees) are not counted as government revenue in the budget. Rather, they are subtracted from the outlays of the department or agency collecting the fee. Nonetheless, the revenue is deposited in federal funds and can be appropriated as Congress sees fit. With this in mind, do you think that
budget outlays on National Parks accurately reports the amount government spends for this purpose?

4. In the United States, government increases the availability of health insurance to households by exempting employer-paid insurance from income taxation (a tax expenditure), whereas most other countries have government-financed health insurance. How does this bias the measures of the size of government relative to GDP reported in Figure 1.1?

5. The term “peace dividend” refers to the hope that the government can spend more on social programs as world tensions subside and defense becomes a less pressing need. Some people argue that the peace dividend has mostly been spent. Explain this argument, using Table 1.1.

6. Governments help finance college education in at least three ways: (a) funding public universities, (b) making loans to students, and (c) not taxing “qualified” scholarships as income. Match these three to the following categories of government spending: (i) tax expenditures, (ii) budgeted spending, (iii) off-budget (or hidden) spending.

7. Evaluate: “One way to reduce the size of government is to reduce defense spending by reintroducing the military draft (which would allow reduced military pay).”

8. Internet Exercise. Although it is common to measure government spending relative to GDP, it is also useful to know what has happened to the level of real government spending (that is, government spending measured in dollars of constant purchasing power). Use the statistical tables from latest version of The Economic Report of the President to calculate a series on the level of spending in constant dollars by the federal and state and local governments from 1965 to the latest year available. Chart these series using the chart function on your spreadsheet. Currently (March 2000), the 2000 edition of the ERP is available at http://w3.access.gpo.gov/cop/. The tables in spreadsheet format are at http://w3.access.gpo.gov/usbudget/fy2001/maindown.html. You will need tables B-58 for consumer prices and tables B-82 and B-83 for federal and state and local government spending.

9. Internet Exercise. Although it is somewhat dated, try the budget simulation site provided by Berkeley’s Center for Community Economic Research at http://garnet.berkeley.edu:3333/budget/budget.html. This site allows you to vary different categories of federal spending and tax expenditures and then calculates the impact on total government spending, tax expenditures, and the budget surplus or deficit. Using the long version, increase outlays in a way you think appropriate while keeping the budget deficit unchanged by decreasing tax expenditures. How do total budget outlays change? Can you conclude that government is bigger?

SELECTED REFERENCES

USEFUL INTERNET SITES

