

ST01-1

Government Expenditures

As we noted in [Chapter 6](#), total government spending (federal, state, and local) sums to approximately 36 percent of the U.S. economy. The size of government has grown substantially over the past 85 years. Measured as a share of GDP, total government spending rose from less than 10 percent in 1930 to a little more than 30 percent in 1980 and nearly 40 percent in the aftermath of the 2008 recession. Approximately three-fifths of the spending by government now takes place at the federal level. Federal expenditures on just four things—

- (1) income transfers (including Social Security and other income-security programs),
- (2) health care,
- (3) national defense, and
- (4) net interest on the national debt—accounted for 88 percent of federal spending in 2015.

(See [Chapter 6, Exhibit 2](#).) This means that expenditures on everything else—the federal courts, national parks, highways, education, job training, agriculture, energy, natural resources, federal law enforcement, and numerous other programs—were less than 14 percent of the federal budget. Major spending categories at the state and local level include education, public welfare and health, transportation and highways, utilities, and law enforcement.

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Federal Spending Per Person, 1792–2015

Article 1, Section 8, of the U.S. Constitution outlined a limited set of functions that the federal government was authorized to perform. These included the authority to raise up an army and navy, establish a system of weights and measures, issue patents and copyrights, operate the post office, and regulate the value of money that it issued. Beyond this, the federal government was not authorized to do much else. The founders of the United States were skeptical of governmental powers, and they sought to limit those powers, particularly those at the federal level. (See the quotation by Thomas Jefferson at the beginning of this feature.)

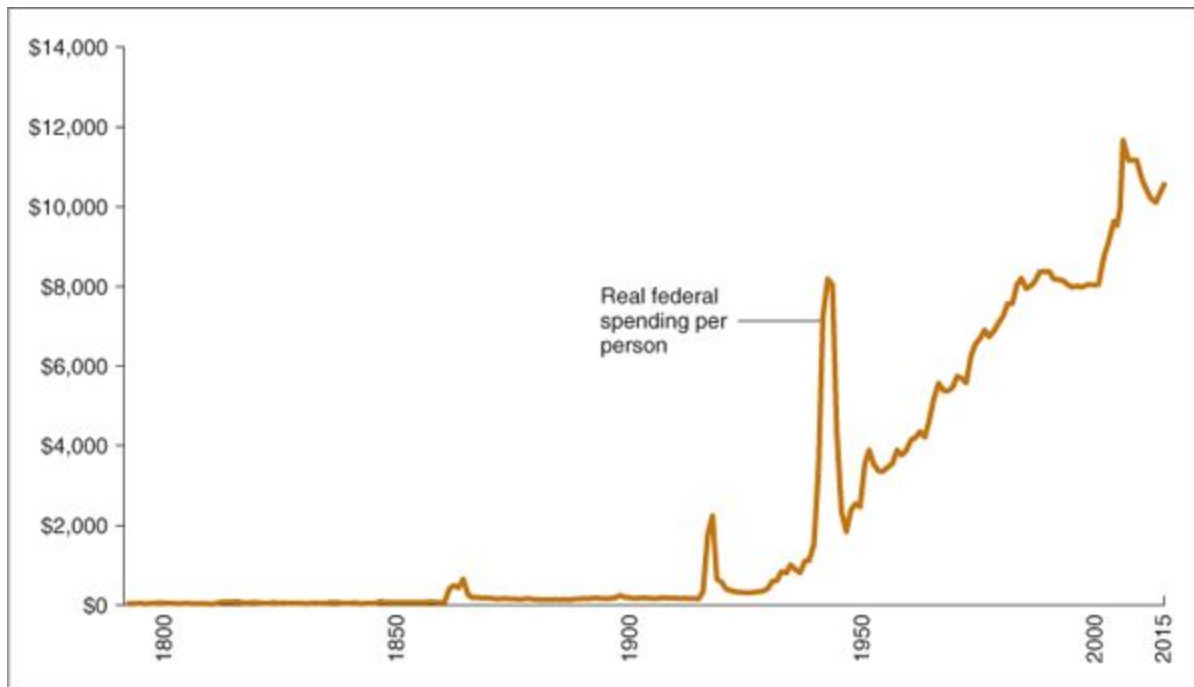
During the United States' first 125 years, the constitutional limitations worked pretty much as planned; the economic role of the federal government was quite limited, and its expenditures were modest. In the nineteenth century, except during times of war, most government expenditures were undertaken at the state and local level. The federal government spent funds on national defense and transportation (roads and canals) but not much else.

[Exhibit 1](#) presents data on real federal spending per person (measured in terms of the purchasing power of the dollar in 2010). Just before the Civil War, real federal expenditures were \$60 per person, not much different than the \$50 figure of 1800. Federal spending per person rose sharply during the Civil War, but it soon receded and remained in a range between \$125 and \$200 throughout the 1870–1916 period. Thus, before World War I, federal expenditures per person were low and the growth of government was modest.

Exhibit 1

Real Federal Expenditure per Capita: 1792–2015

Real federal spending per person (measured in 2010 dollars) was generally less than \$50 before the Civil War, and it ranged from \$125 to \$200 throughout the 1870–1916 period. However, beginning with the spending buildup for World War I in 1917, real federal spending per person soared, reaching \$10,557 in 2015—almost 75 times the level of 1916.





Source: U.S. Census Bureau, *Historical Statistics of the United States* (Washington, DC: U.S. Dept. of Commerce, U.S. Bureau of the Census, 1975); *Economic Report of the President* (Washington, DC: U.S. Government Printing Office, 2016); and Bureau of Labor Statistics.

Beginning with the World War I spending of 1917, however, the situation changed dramatically. Federal spending remained well above the prewar levels during the 1920s and rose rapidly during the 1930s. It soared during World War II, and after receding at the end of the war, federal spending continued to grow rapidly throughout the 1950–1990 period. After a brief reduction during the 1990s, per capita real federal spending began to trend upward again, with a spike after the 2008 recession. Whereas per capita federal spending fell by 4.6 percent during the 1990s, it increased by 40 percent during 2000–2010. In 2015, it amounted to \$10,557, roughly 75 times the \$142 figure of 1916. The additional government expenditures came with a cost. On average, Americans pay more federal taxes in one week today than they would have during the entire year in 1916. Based on current budget projections, the federal tax burden will continue to grow.

ST01-1b

The Changing Composition of Federal Spending

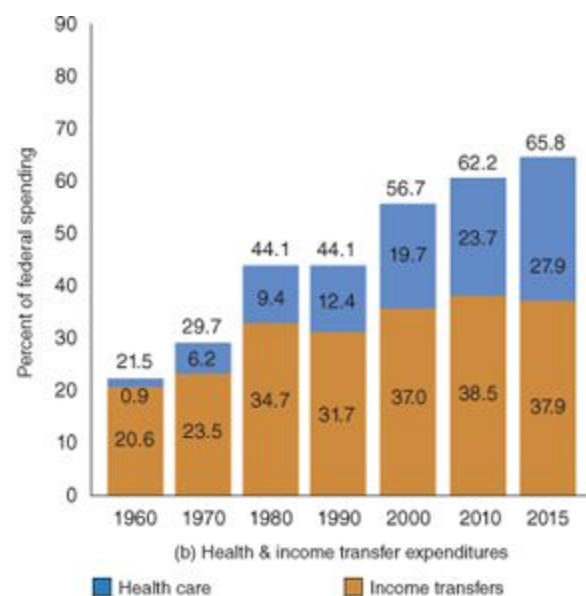
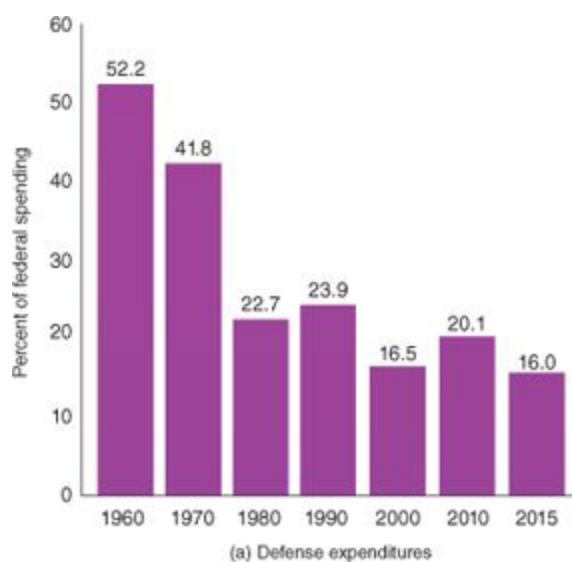
Not only has federal spending grown rapidly, but also there has been a dramatic shift in the composition of that spending. Since 1960, spending on defense has fallen as both a share of the budget and as a share of the economy, whereas expenditures on health care, transfer payments, and subsidies have soared.

As [Exhibit 2](#) illustrates, defense expenditures constituted more than half (52.2 percent) of federal spending in 1960. By 2015, defense spending was only 16 percent of the federal budget. Government expenditures on income transfers (including Social Security and other transfer programs) and health care (primarily Medicare and Medicaid) have soared during the past half century. As [Exhibit 2](#) shows, income transfers and health care expenditures rose from 21.5 percent of the federal budget in 1960 to 65.8 percent in 2015.

Exhibit 2

The Changing Composition of Federal Spending

In 2015, national defense expenditures accounted for 16.0 percent of the federal budget, down from 52.2 percent in 1960. In contrast, spending on income transfers and health care rose from 21.5 percent of the federal budget in 1960 to 65.8 percent in 2015.





Source: *Economic Report of the President* (Washington, DC: U.S. Government Printing Office, 2016).

Thus, there has been a dramatic change in the composition of federal spending during the last five decades. In contrast with earlier times, national defense is no longer the primary focus of the federal government. In essence, the federal government has become an entity that taxes working-age Americans in order to provide income transfers and health care benefits primarily for senior citizens. Furthermore, spending on the elderly is almost certain to increase as the baby-boomers move into the retirement phase of life during the next two decades.

ST01-2

Taxes and the Finance of Government

Government expenditures must be financed through taxes, user charges, or borrowing. * Borrowing is simply another name for future taxes that will have to be levied to pay the interest on the borrowed funds. Thus, it affects the timing but not the level of taxes. In the United States, taxes are by far the largest source of government revenue. The power to tax sets governments apart from private businesses. Of course, a private business can put whatever price tag it wishes on its products, but no private business can force you to buy its goods. With its power to tax, a government can force citizens to pay, whether or not they receive something of value in return. As government expenditures have increased, so, too, have taxes. Taxes now take approximately one-third of the income generated by Americans.

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Types of Taxes

Exhibit 3 indicates the major revenue sources for the

- (1)federal and
- (2)state and local levels of government.

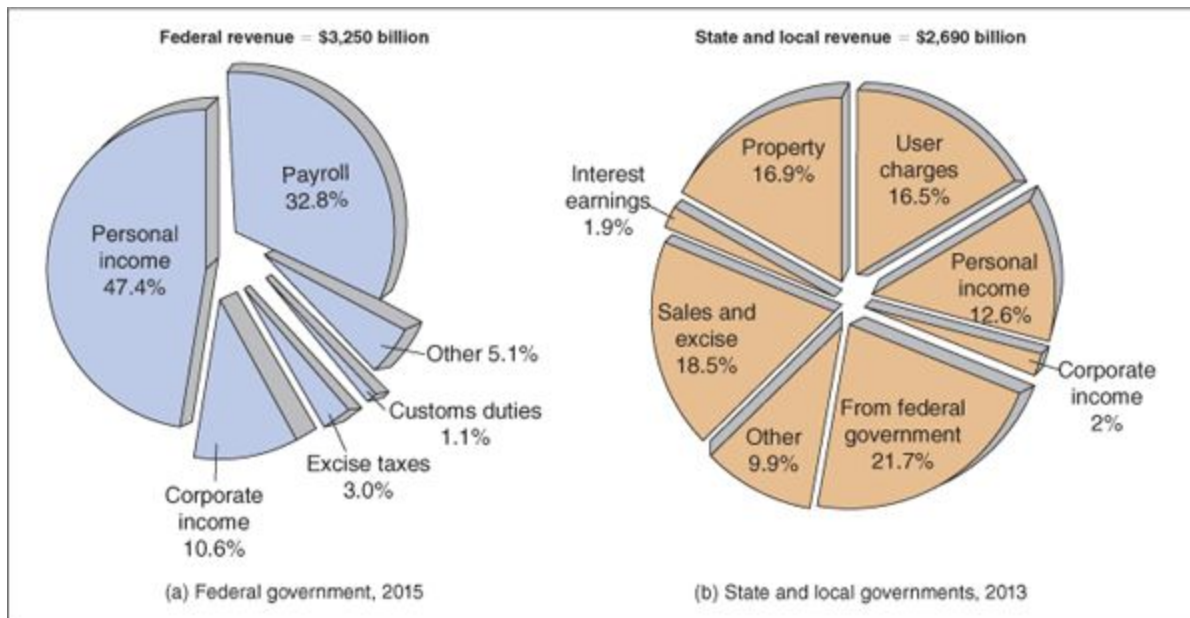
At the federal level, the personal income tax accounts for more than 47 percent of all revenue. Although income from all sources is covered by the income tax, only earnings derived from wages and salaries are subject to the payroll tax. Payroll taxes on the earnings of employees and self-employed workers finance the Social Security and Medicare programs. The payroll tax accounts for about 33 percent of federal revenue. The remaining sources of revenue, including the corporate income tax, excise taxes, and customs duties, account for a little less than 20 percent of federal revenue.

Exhibit 3

Sources of Government Revenue

The major sources of government revenue are shown here. More than 47 percent of federal revenues are derived from the personal income tax. The share of federal revenue derived from the payroll tax is only slightly less. The major revenue sources of state and local governments are sales and excise

taxes, personal income taxes, user charges, grants from the federal government, and property taxes.



Source: *Economic Report of the President* (Washington, DC: Government Printing Office, 2016) and U.S. Census Bureau, *State and Local Government Finances*, 2013.

Both sales and income taxes are important sources of revenue for state governments. A sales tax is levied by 45 of the 50 states (Alaska, Delaware, Montana, New Hampshire, and Oregon are the exceptions). State and local governments derive about 18.5 percent of their revenue from this source. Personal income taxes are imposed by 41 states (Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming are the exceptions), and they provide approximately 13 percent of state and local government revenue. * Property taxes (levied mostly at the local level), grants from the federal government, and user charges (prices for government services) also provide substantial revenues for state and local governments.

ST01-3

Taxes and the Cost of Government

There are no free lunches. Regardless of how they are financed, activities undertaken by the government are costly. When governments purchase resources and other goods and services to provide missiles, education,

highways, health care, and other goods, the resources used by the government will be unavailable to produce goods and services in the private sector. As a result, private-sector output will be lower. This reduction in private-sector output is an opportunity cost of government. Furthermore, this cost will be present whether government activities are financed by taxes or borrowing.

Moreover, a tax dollar extracted from an individual or a business ends up costing the private economy much more than just one dollar. There are two main reasons why this is the case. ***First, the collection of taxes is costly.*** The administration, enforcement, and compliance of tax legislation require a sizable volume of resources, including the labor services of many highly skilled experts. The IRS itself employs more than 100,000 people. In addition, an army of bookkeepers, tax accountants, and lawyers is involved in the collection process. According to the Office of Management and Budget, each year individuals and businesses spend more than 6.6 billion hours (the equivalent of 3.3 million full-time year-round workers) keeping records, filling out forms, and learning the tax rules and other elements of the tax-compliance process. * More than half of U.S. families now retain tax-preparation firms like H&R Block and Jackson Hewitt to help them file the required forms and comply with the complex rules. Businesses spend roughly \$5 billion each year in tax-consulting fees to the four largest accounting firms, to say nothing of the fees paid to other accounting, law,

and consulting firms. In total, the resources involved amount to between 3 percent and 4 percent of national income (or 12 to 15 percent of the revenues collected). If these resources were not tied up with the tax-collection process, they could be employed producing goods and services for consumption.

Second, taxes impose an additional burden on the economy because they eliminate some productive exchanges (and cause people to undertake some counterproductive activities). As we noted in [Chapter 4](#), economists refer to this as an *excess burden* (or *deadweight loss*) because it imposes a burden over and above the tax revenue transferred to the government. It results because taxes distort incentives. When buyers pay more and sellers receive less due to the payment of a tax, trade and the production of output become less attractive and decline. Individuals will spend less time on productive (but taxed) market activities and more time on tax avoidance and untaxed activities such as leisure. Research indicates that these deadweight losses add between 9 percent and 16 percent to the cost of taxation. ✪ This means that \$1 in taxes paid to the government imposes a cost of somewhere between \$1.20 and \$1.30 on the economy. Thus, the cost of a \$100-million government program financed with taxes is really somewhere between \$120 million and \$130 million. As a result, the government's supply of goods and services generally costs the economy a good bit more than either the size of the tax bill or the level of government spending implies.

When considering the cost of taxation, it is also important to recognize that all taxes are paid by people. Politicians often speak of imposing taxes on “business” as if part of the tax burden could be transferred from individuals to a nonperson (business). This is not the case. Business taxes, like all other taxes, are paid by individuals. A corporation or business firm might write the check to the government, but it merely collects the money from someone else—from its customers in the form of higher prices, its employees in the form of lower wages, or its stockholders in the form of lower dividends—and transfers the money to the government.

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How has the Structure of the Personal Income Tax Changed?

The personal income tax is the largest single source of revenue for the federal government. The rate structure of the income tax is progressive; taxpayers with larger incomes face higher tax rates. During the past half century, the structure of the rates has been modified several times. In the early 1960s, there were 24 marginal tax brackets ranging from a low of 20 percent to a high of 91 percent. The Kennedy–Johnson tax cut reduced the lowest marginal rate to 14 percent and the top rate to 70 percent. The rate reductions during the Reagan years cut the top marginal rate initially to 50

percent in 1981 and later to approximately 30 percent during the period 1986–1988. During the 1990s, the top rate was increased to 39.6 percent, but the tax reductions during the administration of George W. Bush rolled back the top rate to 35 percent. The top rate was increased back to 39.6 percent beginning in 2013.

Thus, since the late 1980s, Americans with the highest incomes have paid sharply lower top marginal tax rates—rates in the 30 to 40 percent range, compared to top rates of 91 percent in the early 1960s and 70 percent before 1981. These reductions in the top rate make it tempting to jump to the conclusion that high-income Americans are now getting a free ride—that they now shoulder a smaller share of the personal income tax burden than in the past. But such a conclusion would be fallacious.

[Exhibit 4](#) presents the Internal Revenue Service data on the share of the personal income tax paid by various classes of high-income taxpayers, as well as those in the bottom half of the income distribution, for the years 1963, 1980, 1990, 2010, and 2013. These data show that the share of the personal income tax paid by high-income Americans has increased substantially since 1963, and the increase has been particularly sharp since

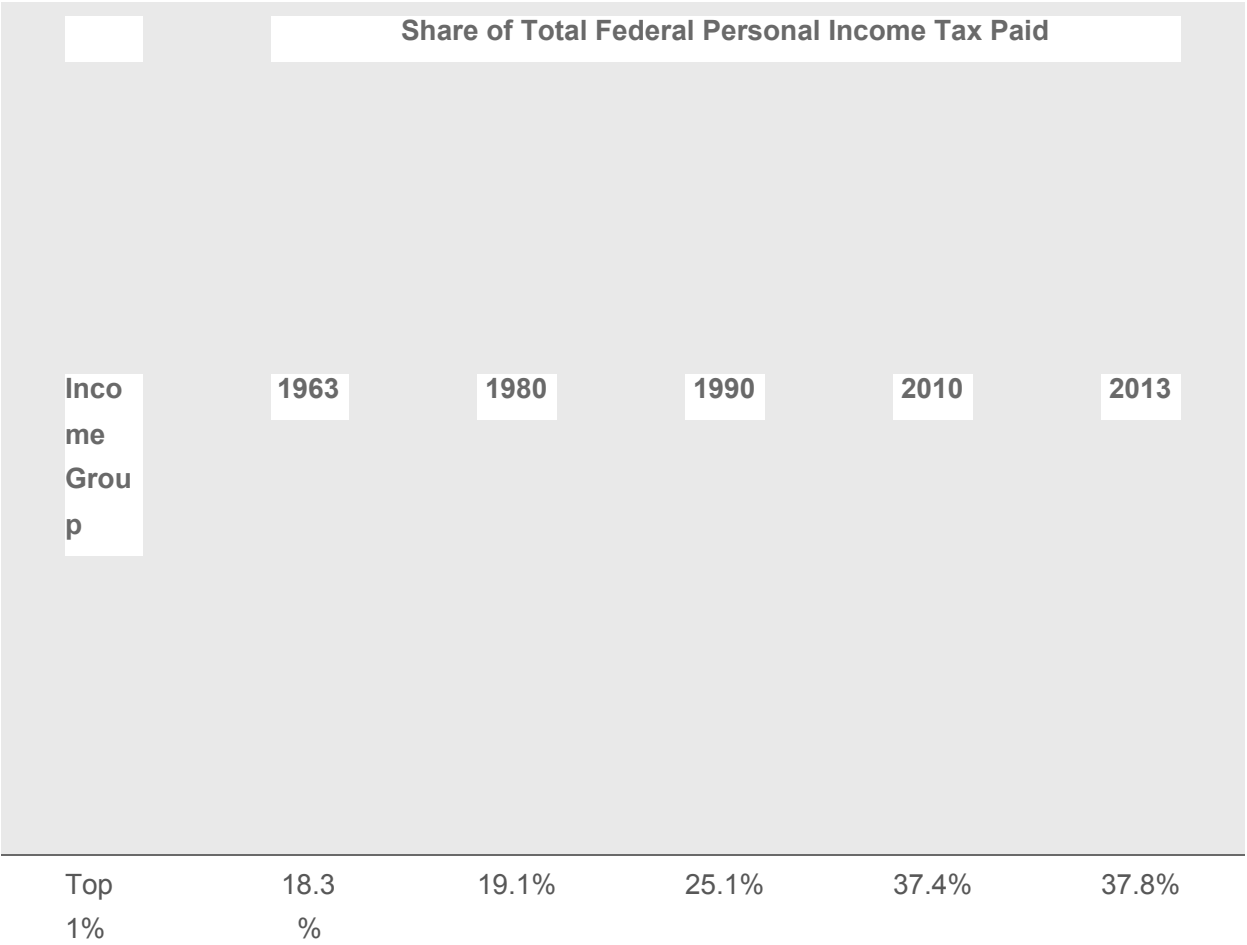
1980. For example, the top 1 percent of earners paid 37.8 percent of the personal income tax in 2013, up from 19.1 percent in 1980 and 18.3 percent in 1963. The top 10 percent of income recipients paid 69.8 percent of the personal income tax in 2013, compared to 49.3 percent in 1980 and 47 percent in 1963. At the same time, the share of the personal income tax paid by the bottom half of the income recipients has steadily fallen from 10.4 percent of the total in 1963 to 7.1 percent in 1980 and 2.8 percent in 2013.

Exhibit 4

Share of Federal Income Taxes Paid by Various Groups, 1963–2013

Even though marginal tax rates have been reduced substantially during the past three decades, upper-income Americans pay a much larger share of the federal income tax today than was previously the case. In 2013, the richest 1 percent of Americans paid 37.8 percent of the federal income tax, up from 18.3 percent in 1963 and 19.1 percent in 1980. The 5 percent of Americans with the highest incomes paid more than half of the

personal income tax, whereas the entire bottom half of the income distribution (the bottom 50 percent) paid only 2.8 percent of the total.



Top 5%	35.6 %	36.8%	43.6%	59.0%	58.6%
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Top 10%	47.0 %	49.3%	55.4%	70.6%	69.8%
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Top 25%	68.8 %	73.0%	77.0%	87.1%	86.3%
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Top 50%	89.6 %	93.0%	94.2%	97.6%	97.2%
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Bottom 50%	10.4%	7.1%	5.8%	2.4%	2.8%
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Source: Internal Revenue Service (also available online at the Tax Foundation's Web site: www.taxfoundation.org/).

What is going on here? How can one explain the fact that high-income Americans are now paying more of the personal income tax even though their rates are now sharply lower than those in effect before 1981? Two major factors provide the answer. First, when marginal rates are cut by a similar percentage, the “incentive effects” are much greater in the top tax brackets. For example, when the top rate was cut from 91 percent to 70 percent during the Kennedy–Johnson years, high-income taxpayers in this bracket got to keep \$30 out of every \$100 of additional earnings after the tax cut, compared to only \$9 before the rates were reduced. Thus, their incentive to earn additional income increased by a whopping 233 percent (30 minus 9, divided by 9)! Conversely, the rate reduction in the lowest tax bracket from 20 percent to 14 percent meant that the low-income taxpayers in this bracket now got to keep \$86 of each additional hundred dollars that they earned compared to \$80 before the tax cut. Their incentive to earn increased by a

modest 7.5 percent (86 minus 80, divided by 80). Because the rate reductions increased the incentive to earn by much larger amounts in the top tax (and therefore highest-income) brackets, the income base on which high-income Americans were taxed expanded substantially as their rates were reduced. As a result, the tax revenues collected from them declined only modestly. In the very highest brackets, the rate reductions actually increased the revenues collected from high-income Americans. (See Laffer curve analysis of [Chapter 4](#).) In contrast, the incentive effects were much weaker in the lower tax brackets and, as a result, rate reductions led to approximately proportional reductions in revenues collected from low- and middle-income taxpayers. This combination of incentive effects shifts the share of taxes paid toward those with higher incomes, the pattern observed in [Exhibit 4](#).

Second, both the standard deduction and personal exemption have been increased substantially during the last couple of decades. This means that Americans are now able to earn more income before they face any tax liability. In 2013, for example, 36 percent of those filing an income tax return either had zero tax liability or actually received funds from the IRS as the result of the **Earned Income Tax Credit**. This change in the structure of the personal income tax explains why people in the bottom half of income now pay such a small percentage of the personal income tax: 2.8 percent in 2013 compared to 10.4 percent in 1963. *

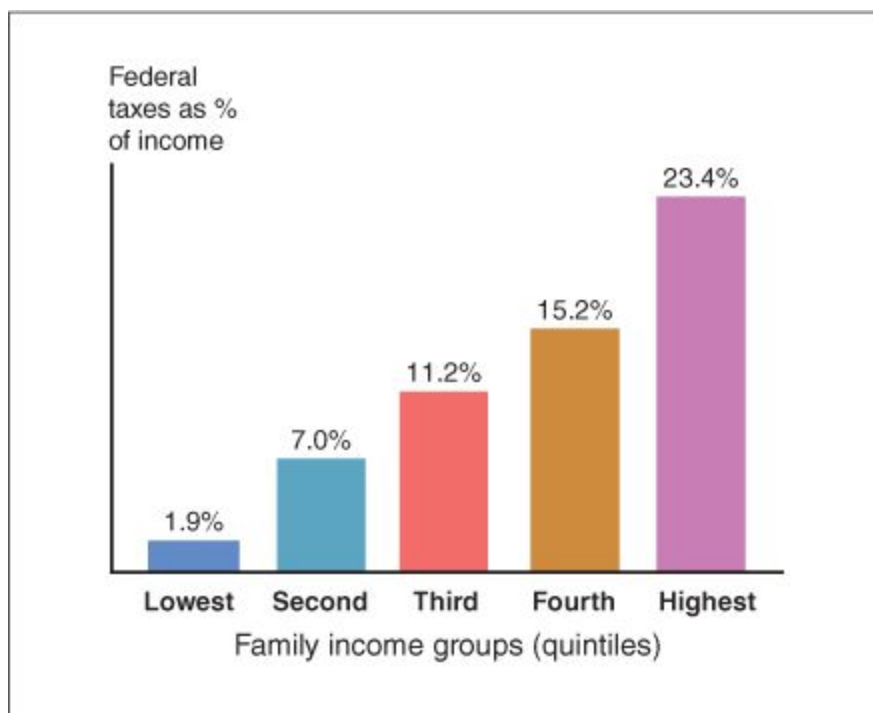
Income Levels and Overall Tax Payments

In addition to the personal income tax, the federal government also derives sizable revenues from payroll, corporate income, and excise taxes. How is the overall burden of federal taxes allocated among the various income groups? [Exhibit 5](#) presents Congressional Budget Office estimates for the average amount of federal taxes paid in 2011 according to income. On average, the top quintile (20 percent) of earners are estimated to pay 23.4 percent of their income in federal taxes. The average federal tax rate for the quintile with the next-highest level of income falls to 15.2 percent, and the average tax rate continues to fall as income declines. The average tax rate of the bottom quintile is 1.9 percent, less than one-tenth the average rate for the top quintile of earners. Clearly, the federal tax system is highly progressive, meaning that it takes a larger share of the income of those with higher incomes than from those with lower income levels.

Exhibit 5

Total Federal Taxes as a Share of Income, 2011

Federal taxes are highly progressive. In 2011, federal taxes took 23.4 percent of the income generated by the top quintile (20 percent) of earners, compared to 11.2 percent from the middle-income quintile and 1.9 percent from the lowest quintile of earners.



Source: Congressional Budget Office, The Distribution of Household Income and Federal Taxes 2011 (<http://www.cbo.gov/publication/49440>). Total federal taxes include income, payroll, and excise taxes.

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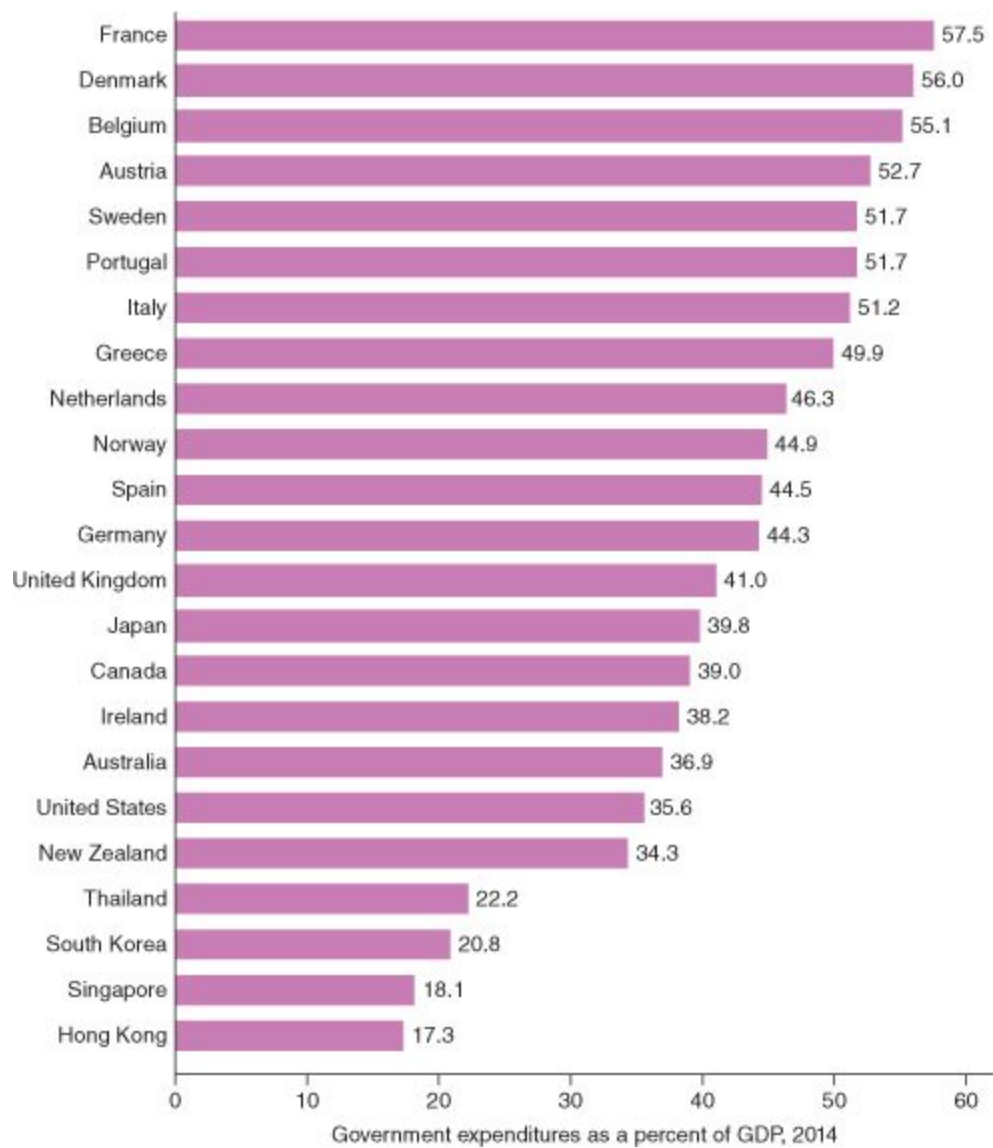
Size of Government: A Cross-Country Comparison

There is substantial variation in the size of government across countries. As [Exhibit 6](#) illustrates, the relative size of government in most other high-income industrial countries is greater than that of the United States. In 2014, government spending summed to more than 50 percent of the economies of France, Denmark, Belgium, Austria, Sweden, Portugal, and Italy. Government spending as a share of the economy in New Zealand and Australia was similar to that of the United States, about 35 percent. Interestingly, the size of government was substantially smaller in South Korea, Singapore, Thailand, and Hong Kong—four Asian nations that have achieved rapid growth and substantial increases in living standards during the last four decades.

Exhibit 6

The Size of Governments—An International Comparison

The size of governments varies substantially across countries. In France, government spending sums to more than 57 percent of the economy, compared to 35.6 percent in the United States and roughly 20 percent or less in Hong Kong and Singapore.



Source: International Monetary Fund, World Economic Outlook Database (April 2016).

How does the Size of Government Affect Economic Growth?

Throughout this text, we have analyzed how governments influence the efficiency of resource use and the growth of income. It is clear that a legal environment that protects people and their property and provides for the impartial enforcement of contracts is vitally important. So, too, is a monetary and regulatory environment that provides the foundation for the smooth operation of markets. As we discussed in [Chapter 5](#), there are also a few goods—economists call them *public goods*—that may be difficult to provide through markets. National defense, roads, and flood-control projects provide examples. Because they generate joint benefits and it is difficult to limit their availability to paying customers, sometimes they can be provided more efficiently through government. But public goods are rare, and the market can often devise reasonably efficient methods of dealing with them. If resources are going to be allocated efficiently, government spending on provision of public goods will generally be only a small share of the economy.

As governments expand beyond these core functions, however, the beneficial effects wane and eventually become negative as government

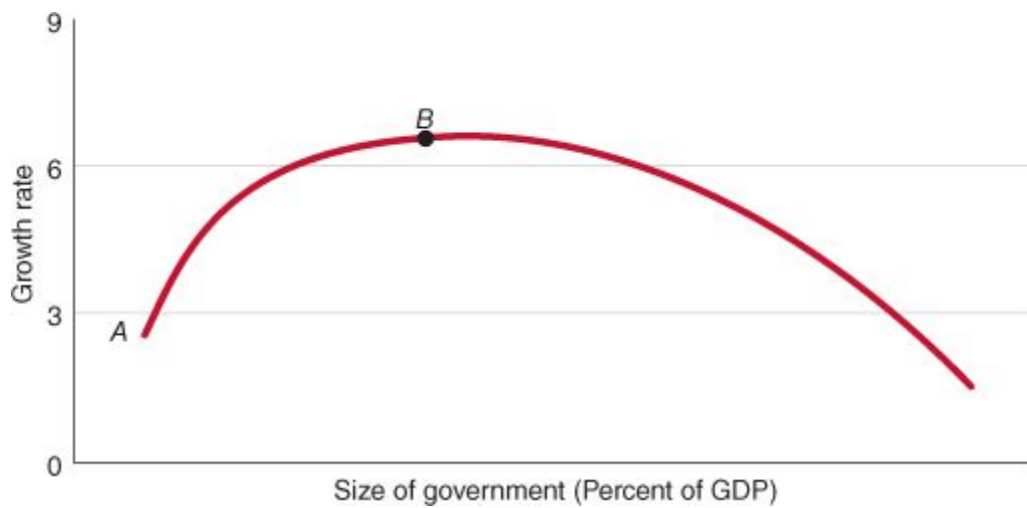
moves into areas ill suited for political action and in which the political process works poorly. Thus, expansion of government activities beyond a certain point will eventually exert a negative impact on the economy.

Exhibit 7 illustrates the implications with regard to the expected relationship between the size of government and economic growth, *assuming that governments undertake activities based on their rate of return*. As the size of government, measured on the horizontal axis, expands from zero (complete anarchy), initially the growth rate of the economy— measured on the vertical axis—increases. The *A* to *B* range of the curve illustrates this situation. As government continues to grow as a share of the economy, expenditures are channeled into less-productive (and later counterproductive) activities, causing the rate of economic growth to diminish and eventually to decline. The range of the curve beyond *B* illustrates this point. ✱ Thus, our analysis indicates that there is a set of activities and size of government that will maximize economic growth. Expansion of government beyond (and outside of) these functions will retard growth.

Exhibit 7

Economic Growth Curve and Government Size

If a government undertakes activities in the order of their productivity, its expenditures will promote economic growth (the growth rate will move from *A* to *B*). Additional expenditures, however, will eventually retard growth (the growth rate will move along the curve to the right of *B*).



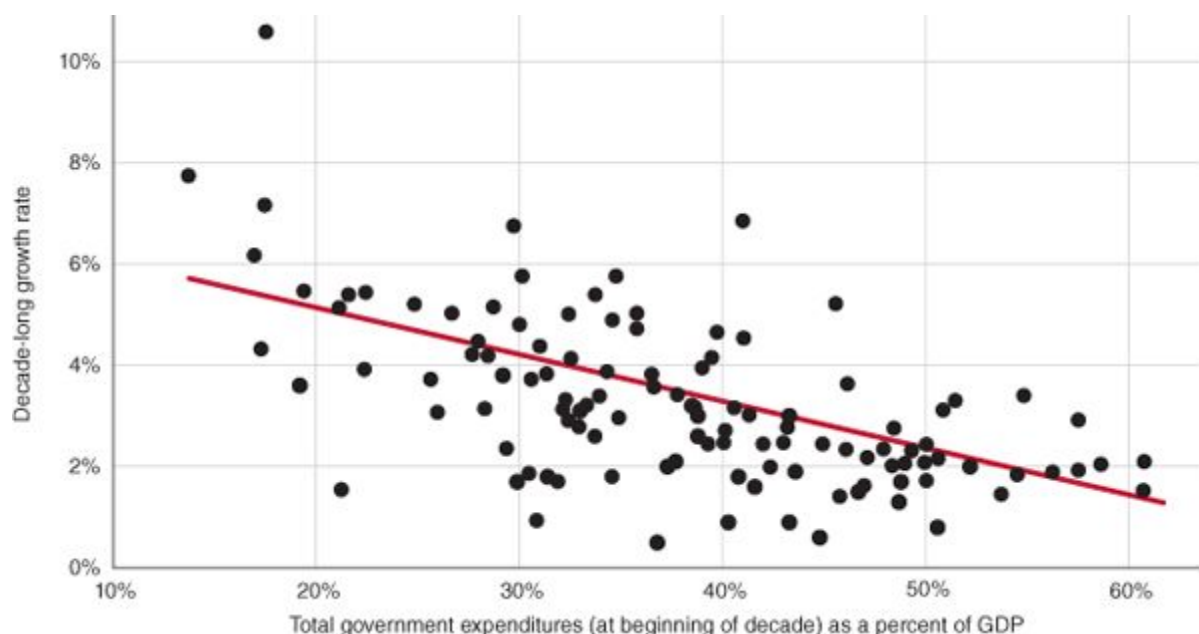
How large is the growth-maximizing size of government? Do large governments actually retard economic growth? These are complex questions, but they have been addressed by several researchers. [Exhibit 8](#) sheds light on these issues. This exhibit presents data on the relationship between size of government (x-axis) and economic growth (y-axis) for the twenty-three long-standing members of the Organisation for Economic Co-operation and Development (OECD). The exhibit contains five dots (observations) for each of the 23 countries—one for each of the five decades during the period 1960–2009. Thus, there are 115 total dots. Each dot represents a country's total government spending as a share of GDP *at the beginning of the decade* and its accompanying growth of real GDP *during that decade*. Government expenditures ranged from a low of about 15 percent of GDP in some countries to a high of more than 60 percent in others. As the plotted line in the exhibit shows, there is an observable negative relationship between size of government and long-term real GDP growth. Countries with higher levels of government spending grew less rapidly. The line drawn through the points of [Exhibit 9](#) indicates that a 10-percentage-point increase in government expenditures as a share of GDP leads to approximately a 1-percentage-point reduction in economic growth.

✱

Exhibit 8

Government Spending and Economic Growth Among the Twenty-Three OECD Countries: 1960–2009

Here we show the relationship between size of government and the growth of real GDP for the 23 longtime OECD members during each decade since 1960. The data indicate that a 10 percent increase in government expenditures as a share of GDP reduces the annual rate of growth by approximately 1 percent. The data also imply that the size of government in these countries is beyond the range that maximizes economic growth.





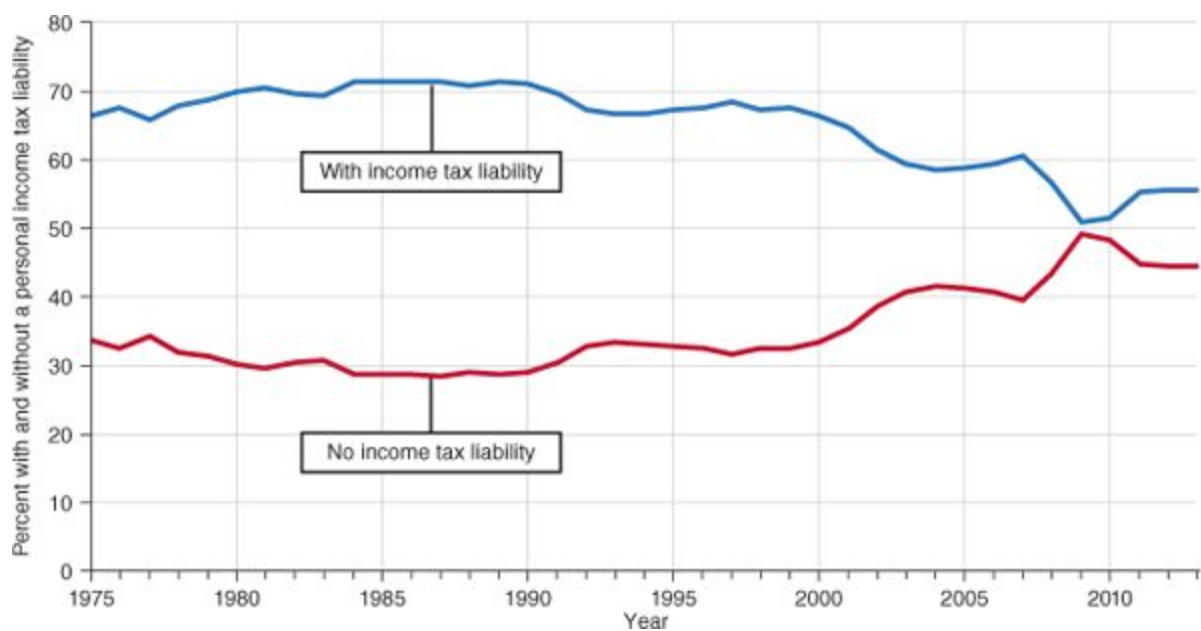
Source: OECD, *OECD Economic Outlook* (various issues), and the World Bank, *World Development Indicators* (various issues).

Exhibit 9

Share of Population 18 and Older with and without a Personal Income Tax Liability 1975—2013

The percent of the population age 18 and older with and without a personal income tax liability is shown here. Note how the share paying income taxes fluctuated between 66 percent and 71 percent throughout 1975–2000. Over the same period, the share with no income tax liability was about one-third of

the adult population. Since 2003, however, 60 percent or less have had an income tax liability. In 2013, 55.6 percent of Americans had an income tax liability, while 44.4 percent did not.



Source: Internal Revenue Service and *Economic Report of the President* (various issues). The number of persons with an income tax liability was derived by summing (1) the joint returns with a tax liability times two and (2) the number of individual returns with a tax liability. This figure was then divided by the population age 18 and older to derive the percentage of the 18 and older population with a tax liability.

Time series data for specific countries have also been used to investigate the link between size of government and growth. Edgar Peden estimates that for the United States, the “maximum productivity growth occurs when government expenditures represent about 20% of GDP.” Gerald Scully estimates that the growth-maximizing size of government (combined federal, state, and local) is between 21.5 percent and 22.9 percent of the economy. Although the methodology of these studies differs, they do have one thing in common: They indicate that in the ranges observed, high levels of government spending tend to retard economic growth. ✳ They also indicate that the size and scope of most governments around the world are larger than the size that would maximize the income growth of their citizens. Moreover, the estimates imply that the recent expansion in the size of the government sector in the United States is likely to reduce the growth of income in the years immediately ahead.

Expenditures, Taxes, Debt Finance, and Democracy

Exhibit 9 presents data on the percent of persons age 18 and older with and without a personal income tax liability. During the quarter of a century before 2000, the share of Americans paying income taxes fluctuated within a narrow range between 66 percent and 71 percent. However, the share paying income taxes has declined sharply during the past decade. Since 2003, 60 percent or less has had an income tax liability. In 2013, only 55.6 percent of Americans paid any federal income tax.

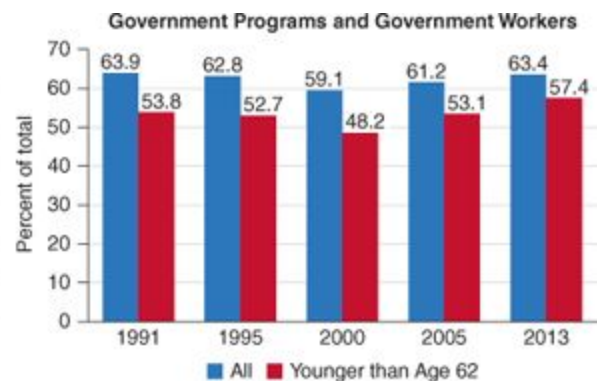
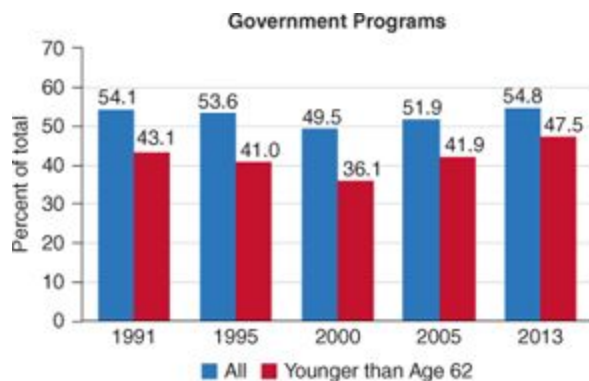
On the other hand, the percent of the population paying no income tax has risen sharply. Throughout 1975–2000, approximately one-third of Americans had no income tax liability. But the legislation passed under the administration of George W. Bush increased the “no tax” income threshold and doubled the child tax credit. These changes eliminated the income tax liability of many Americans. By 2010, nearly half of the population paid no income taxes. While many without an income tax liability are responsible for payroll taxes, the payroll tax is directed toward only two programs: Social Security and Medicare. Thus, payroll taxes do not contribute to the finance of government in other areas.

While the share of people paying taxes has declined sharply since 2000, the share benefiting from transfers has been rising. However, a little more than half of American families derive income from transfer programs. As [Exhibit 10](#) shows, the percent of families receiving transfers from at least one program fell from 54.1 in 1991 to 49.5 percent in 2000, but the figure has risen to 54.8 percent in 2013. When income from government employment is included, approximately two-thirds of all families benefit from government spending. In 2013, 63.4 percent of families derived income from either transfer programs or government employment. If the people employed by businesses with government contracts and those receiving subsidies (for example, the producers of ethanol, sugar and several other agricultural products, and wind and solar energy) were also included, the share of Americans heavily dependent on government would be even larger.

Exhibit 10

Share of Families Deriving Income from Government, 1991–2013

More than half of American families derive income from transfer programs. The percent of families receiving transfers from at least one program fell from 54.1 percent in 1991 to 49.5 percent in 2000, but by 2013 the figure had risen to 54.8 percent. When income from government employment is also included, 63.4 percent of American families now derive income from the government. When only families with individuals younger than age 62 are included, the percentage receiving transfers is somewhat lower, but the pattern over the past two decades is the same.



Source: These figures were derived from the Current Population Survey data. The following income transfers were included: Medicare, Medicaid, food stamps, unemployment compensation, school lunch program, housing subsidies, Social Security, and welfare.

One might think that the large share of Americans receiving transfers is driven by the Medicare and Social Security retirement programs. In order to shed light on this issue, the share receiving transfers for families with only individuals younger than the age of 62 was derived. The pattern for this group was essentially the same as for all families. In 1991, 43.1 percent of the younger family group were recipients of transfer payments. While this figure declined to 36.1 percent in 2000, by 2013 it rebounded to 47.5 percent. When government employees are included, more than 57 percent of the families with individuals younger than 62 derived income from the government.

What are the implications of these patterns of tax payments and government spending? People who are not paying taxes have little reason to resist increases in government spending because they are not paying for them. In fact, they have every incentive to pressure politicians for more government services and transfers because someone else will be covering their cost. Similarly, people who are dependent on government spending for a sizable

share of their income will be more supportive of government spending than those who derive their income from private-sector activities.

Debt financing is also related to the observed pattern of taxing and spending. Borrowing makes it possible for politicians to provide voters with current benefits without having to impose a parallel visible cost in the form of higher taxes. This enables elected officials to increase the number of people dependent on government spending without having to increase current taxes.

To a large degree, the modern democratic political process has become a game in which politicians seek to use the fiscal powers of government to assemble a political majority. Is this a dangerous trend that may undermine democracy and lead to fiscal collapse? Eighteenth-century Scottish philosopher Alexander Tytler warned of this possibility:

A democracy cannot exist as a permanent form of government. It can only exist until the voters

*discover that they can vote themselves largesse from the public treasury. From that moment on, the majority always votes for the candidates promising the most benefits from the public treasury with the result that a democracy always collapses over loose fiscal policy. **

Is Tytler correct? Are the spending, taxing, and debt financing policies of the United States taking the country down a dangerous path? We do not know the answer to this question, but there are some troubling signs.

Measured as a share of GDP, total government expenditures are now about 3 to 4 percentage points higher than during the 1990s. During 2009 and 2010, the federal government financed approximately 40 percent of its expenditures by borrowing. The huge deficits of recent years have pushed the federal debt to over 100 percent of GDP, a level not seen since the aftermath of World War II. Moreover, the unfunded future benefits promised to senior citizens under the Social Security and Medicare programs are another form of debt, and these liabilities are more than two times the size of the official national debt. As the baby boomers move into the retirement

phase of life during the next decade, if Social Security and Medicare are not reformed, then spending on these programs will far outstrip the revenues for their finance.

Several members of the European Union (EU), including Greece, Portugal, Italy, and Spain, followed a similar path and have been experiencing a debt crisis since the end of 2009. Their exceedingly high debt levels and prior commitments to voters made it difficult for them to reduce government spending. So-called "austerity" measures implemented in Greece in 2010, for example, resulted in large-scale riots and protests throughout the country. The fiscal irresponsibility of these governments has put them in the middle of a crisis that has led to unemployment rates over 25 percent, hundreds of thousands of private companies going bankrupt, and large declines in the purchasing power of citizens. To date, a few international organizations and other EU countries with marginally stronger government finances have been willing to provide emergency loans and other assistance. But this is not a long-run solution. The United States appears to be headed down the same path. There are steps that could be taken, but special interest politics and the myopic nature of the political process may make them untenable. We are in the midst of an interesting, though unattractive, experiment in political economy as Western democracies face troubled fiscal waters in the years immediately ahead.

ST02-1

Why is Social Security Headed for Problems?

The flow of funds into and out of a pay-as-you-go retirement system is sensitive to demographic conditions. The Social Security system enjoyed a period of highly favorable demographics between 1990 and 2010. The U.S. birthrate was low during the Great Depression and World War II. As this relatively small generation moved into the retirement phase of life during 1990–2010, the number of Social Security beneficiaries grew slowly. At the same time, the large baby-boom generation born following World War II was working and pushing the revenues flowing into the system upward. Thus, the payments to Social Security recipients increased at a modest rate, while the tax revenues grew rapidly during the two decades following 1990.

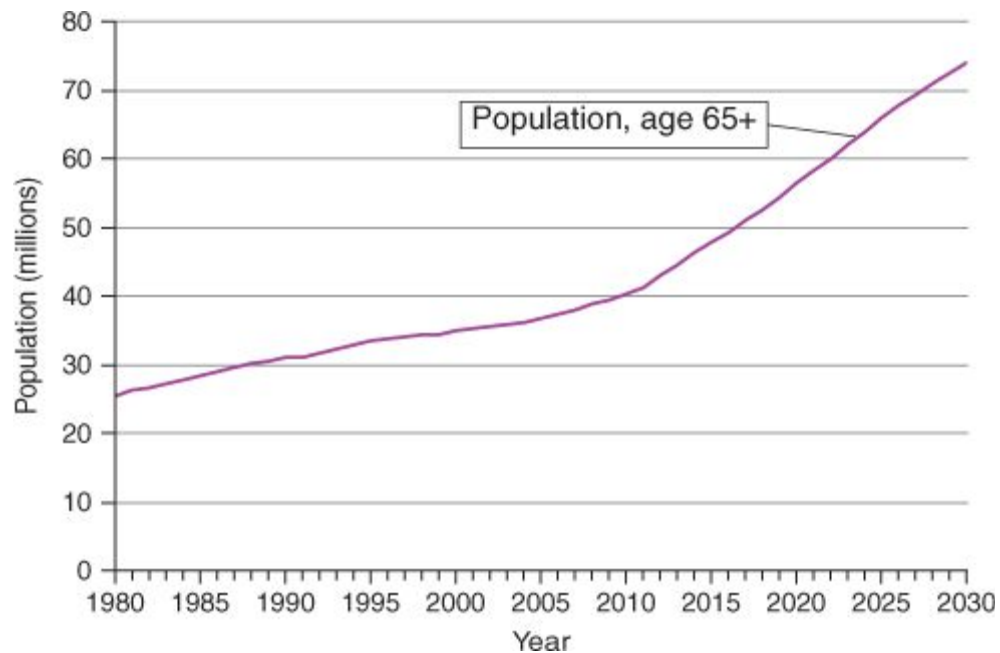
However, as [Exhibit 2](#) shows, the situation is going to change dramatically in the years immediately ahead. The retirement of the large baby-boom generation, along with rising life expectancies, will lead to a rapid increase in senior citizens during the next fifteen years. The number of people age 65 years and older will soar from 48 million in 2015 to 74 million in 2030. As a

result, the number of workers per Social Security retiree will fall from today's 2.8 to only 2.2 in 2030.

Exhibit 2

U.S. Population Age Sixty-Five and Over, 1980–2015, and Projections to 2030

As shown here, the growth rate of the elderly population will continue to accelerate rapidly as the baby-boomers move into the retirement phase of life as they have since 2010. This will place strong pressure on both the Social Security and Medicare programs.



Source: www.census.gov.

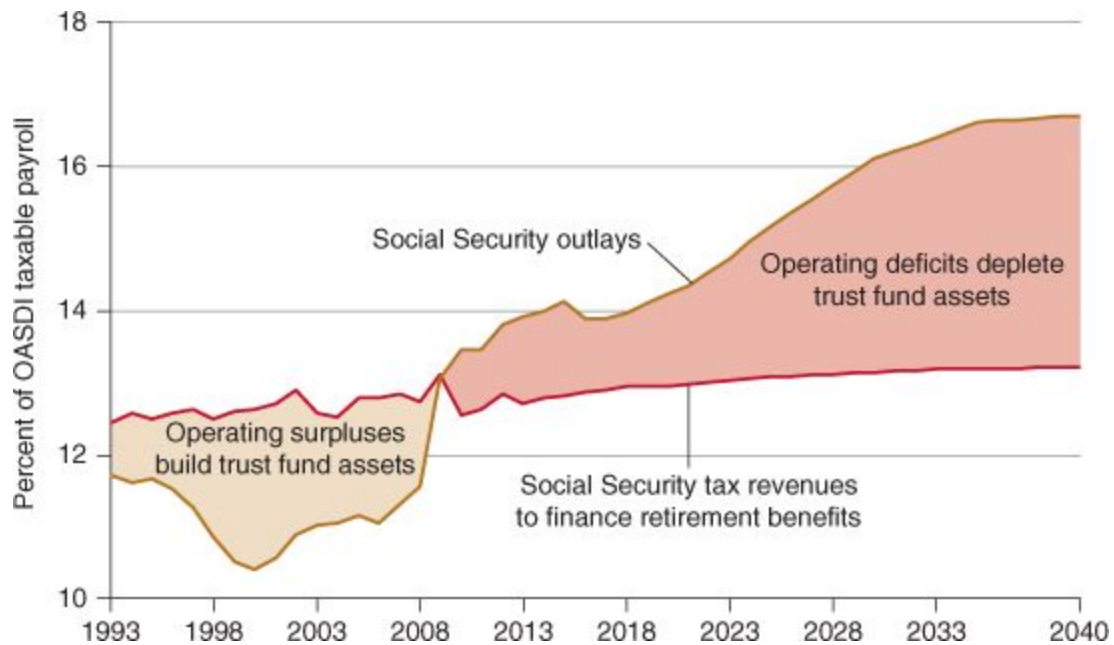
Exhibit 3 illustrates the impact of these demographic changes on the pay-as-you-go Social Security system. Between 1984 and 2009, the funds flowing into the system (pushed up by the large baby-boom generation) exceeded the expenditures on benefits to retirees (pulled down by the small Great Depression/World War II generation). But the retirement of the baby-boomers that began in 2010 will push the future expenditures of the system upward at a rapid rate. The deficit of revenues from the payroll tax

relative to retirement benefits will grow larger and larger as the number of beneficiaries relative to workers continues to grow in the decades ahead.

Exhibit 3

The Deficit between Payroll Tax Revenues and Benefit Expenditures

Given current payroll taxes and retirement benefit levels, the system will run larger and larger deficits in the years ahead.



Source: Social Security Administration *2015 OASDI Annual Trustees Report*, www.ssa.gov.

What happened to the 1984–2009 surpluses of Social Security receipts relative to expenditures? Congress spent the surpluses, and the U.S. Treasury issued a special type of IOU, nonmarketable bonds, into the Social Security Trust Fund (SSTF). The future deficits of the system will draw down these bonds and are projected to deplete them by 2034.

Will the Trust Fund Make it Easier to Deal with the Retirement of the Baby-Boomers?

Perhaps surprising to some, the answer to this question is “No.” Unlike the bonds, stocks, and physical assets of a private pension fund or insurance company, the SSTF bonds will not generate a stream of future income for the federal government. Congress has already spent the funds, so there is no “pot of money” set aside for the payment of future benefits. Instead, the trust fund bonds are an IOU from one government agency, the Treasury, to another, the Social Security Administration. The federal government is both the payee and recipient of the interest and principal represented by the SSTF bonds. *No matter how many bonds are in the trust fund, their net asset value to the federal government is zero!*

Thus, the number of IOUs in the trust fund is largely irrelevant. * The size of the trust fund could be doubled or tripled, but that would not give the federal government any additional funds for the payment of benefits. Correspondingly, the trust fund could be abolished and the government would not be relieved of any of its existing obligations or commitments. In order to redeem the bonds and thereby provide the Social Security system

with funds to cover future deficits, the federal government will have to raise taxes, cut other expenditures, or borrow from the public. Neither the presence nor the absence of the trust fund will alter these options.

As we indicated in [Chapter 6](#), politicians have an incentive both to spend on programs providing highly visible benefits and conceal the burden of taxes. The Social Security Trust Fund has helped them do this. During the last two decades, the government has spent the entire surplus and even borrowed beyond these amounts. Moreover, as Congress and several presidents were spending the surpluses on current programs, most political leaders projected the view that funds were being set aside for the future retirement of the baby-boomers. Given the structure of political incentives, this art of deception should not be surprising.

ST02-3

The Real Problem Created by the Current System

The payroll tax revenues flowing into the Social Security system are now less than the benefits paid out to current retirees, and this deficit will become larger and larger in the future. Under current law, revenues will be sufficient to pay only about four-fifths of promised benefits by 2030, and less in later years. If benefits are reduced, then current beneficiaries and people near retirement will—quite understandably—feel that a commitment made to them has been broken.

There are only four ways to cover future shortfalls:

- (1) cut benefits,
- (2) increase taxes,
- (3) cut spending in other areas, or
- (4) borrow.

None of these options is attractive, and, regardless of how the gap is filled, there is likely to be an adverse impact on the economy. Moreover, not even

robust economic growth will eliminate the future shortfall. Retirement benefits are indexed to average growth in nominal wages. If higher productivity enables *real* (inflation-adjusted) wages to rise quickly, so will future Social Security benefits. For example, if inflation is zero and real wages start growing at 2 percent a year instead of their previous level of 1 percent, then the formula used to calculate Social Security benefits will also begin to push those benefits up more rapidly. Higher economic growth may temporarily improve Social Security's finances, but under current law the improvement will not last. *

ST02-4

Does Social Security Help the Poor?

Social Security has gained many supporters because of the belief that it redistributes wealth from the rich to the poor. The system is financed with a flat tax rate up to the cutoff limit, but the formula used to calculate benefits disproportionately favors workers with low lifetime earnings. * However, other aspects of the system tend to favor those with higher incomes. First, workers with more education and high earnings tend to live longer than those with less education and lower earnings. As [Exhibit 4](#) shows, the age-adjusted mortality rate of people with less than a high school education is 8 to 10 percent higher than the average for all Americans. As years of schooling increase, mortality rates fall. The age-adjusted mortality rate of

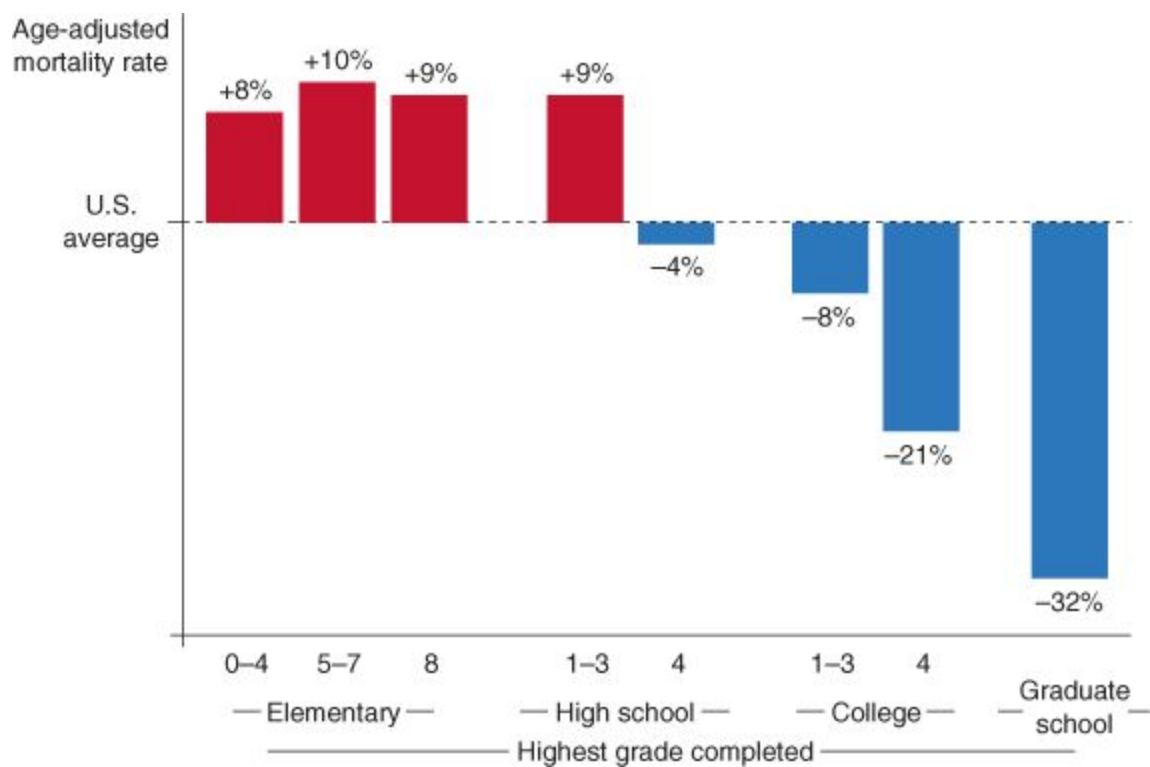
college graduates is 21 percent below the average for all Americans, whereas the rate for people with advanced degrees is 32 percent below the average. * Given the strong correlation between education and earnings, the age-adjusted mortality figures indicate that, on average, Americans with higher earnings live longer than their counterparts with less education and lower earnings. As a result, high-wage workers will, on average, draw Social Security benefits for a longer period of time than will low-wage workers. Correspondingly, low-wage workers are far more likely to pay thousands of dollars in Social Security taxes and then die before, or soon after, becoming eligible for retirement benefits.

Exhibit 4

Mortality Rates by Level of Education

As shown here, the age-adjusted mortality rates are lower for those with more education. Because of the close link between education and income, people

with higher incomes tend to live longer and, therefore, draw Social Security benefits for a lengthier time period than those with less education and income.



Source: Center for Data Analysis, Heritage Foundation.

Second, low-wage workers generally begin full-time work at a younger age. Many work full time and pay Social Security taxes for years, while future high-wage workers are still in college and graduate school. Low-wage workers generally pay more into the system earlier and therefore forgo more interest than do high-wage workers.

Third, labor participation tends to fall as spousal earnings increase. As a result, couples with a high-wage worker are more likely to gain from Social Security's spousal benefit provision, which provides the nonworking spouse with benefits equal to 50 percent of those the working spouse receives.

Two studies taking these and other related factors into consideration suggest that Social Security may actually transfer wealth from low-wage to high-wage workers. A research project using data from the Social Security Administration and the Health and Retirement Study found that when Social Security benefits are assessed for family units rather than for individuals, the progressivity of the system disappears. Another study adjusted for differences in mortality rates, patterns of lifetime income, and other factors. It found that if a 2 percent real interest rate (discount rate) is used to evaluate the pattern of taxes paid and benefits received, the redistributive effects of

Social Security are essentially neutral. However, at a 4 percent real interest rate, Social Security actually favors higher-income households. *

ST02-5

Social Security and the Treatment of Blacks and Working Married Women

When Social Security was established in 1935, the population was growing rapidly, only a few Americans lived to age 65, and the labor-force participation rate of married women was very low. Social Security was designed for this world. But today's world is dramatically different. Several aspects of the system now seem outdated, arbitrary, and in some cases, unfair. Let's consider a couple of these factors.

ST02-5a

Social Security Adversely Affects Blacks and Other Groups with Below-Average Life Expectancy

Currently, the average retiree reaching age 65 can expect to spend 18 years receiving Social Security benefits, after more than 40 years of paying into the system. But what about those who do not make it into their eighties or even to the normal retirement age of 65? Unlike private financial assets, Social Security benefits cannot be passed on to heirs. Thus, those who die before age 65 or soon thereafter receive little or nothing from their payroll tax payments.

Social Security was not set up to transfer income from some ethnic groups to others, but under its current structure it nonetheless does so. Because of the shorter life expectancy of blacks, the Social Security system adversely affects their economic welfare. Compared with whites and Hispanics, blacks are far more likely to pay a lifetime of payroll taxes and then die without receiving much in the way of benefits. Thus, the system works to their disadvantage. In contrast, Social Security is particularly favorable to Hispanics because of their above-average life expectancy and the progressive nature of the benefit formula. As a result, Hispanics derive a higher return than whites and substantially higher than blacks. *

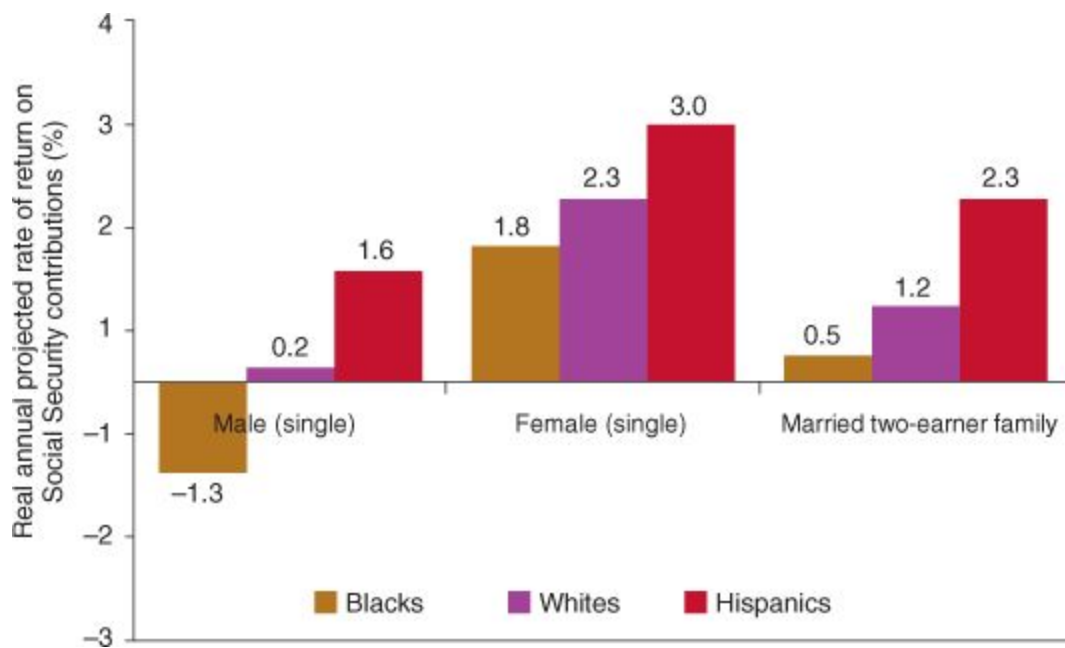
Exhibit 5 presents the expected real returns for those born in 1975, according to gender, marital status, and ethnicity. * Single black males born in 1975 can expect to derive a real annual return of negative 1.3 percent on their Social Security tax payments, compared with returns of 0.2 percent for single white males and 1.6 percent for single Hispanic males. Similarly, a two-earner black couple born in 1975 can expect a real return of 0.5 percent, compared with returns of 1.2 percent and 2.3 percent for white and Hispanic couples born during the same year. A similar pattern exists when comparisons are made for those born in other years.

Exhibit 5

Rates of Return by Gender, Marital Status, and Ethnicity

The earnings of blacks are lower than whites, but blacks have a shorter life expectancy. The latter effect dominates, and therefore blacks derive a lower rate of return from Social Security than whites. In contrast, Hispanics have

both lower earnings and a little longer life expectancy than whites. Thus, their returns from Social Security are higher than whites and substantially higher than blacks.



Source: Center for Data Analysis, Heritage Foundation

The Social Security retirement system also works to the disadvantage of those with life-shortening diseases. People with diabetes, heart disease, AIDS, and other diseases often spend decades paying 10.6 percent of their earnings into the system only to die with loved ones unable to receive benefits from the Social Security taxes they have paid. (People with life-shortening diseases may receive disability insurance, but if they die before retirement they collect nothing from their payments into the retirement system.)

ST05-5b

Discrimination Against Married Women in the Workforce

When Social Security was established, relatively few married women worked outside the home. Therefore, individuals were permitted to receive benefits based on either their own earnings or 50 percent of the benefits earned by their spouse, whichever is greater. This provision imposes a heavy penalty on married women in the workforce. In the case of many working married women, the benefits based on the earnings of their spouses are approximately equal to, or in some cases greater than, benefits based on their own earnings. Thus, the payroll tax takes a big chunk of their earnings without providing them with any significant additional benefits.

Is The Structure of Social Security Suitable for the Twenty-First Century?

When the number of retirees grows more rapidly than the number of workers, pay-as-you-go financing does not work well. The return retirees can expect from their tax payments into the system will be low. As we mentioned, today's typical worker can expect a return of only 2.0 percent from the taxes paid into the Social Security system. By way of comparison, stock market investments have averaged a real return of approximately 7 percent annually for more than a century. Furthermore, when regular investments are made into a diverse holding of stocks, the variation in the return has been relatively low. ✱ Mutual funds now make it feasible for even a small novice investor to invest in a diverse stock portfolio while still keeping administrative costs low. (See [Special Topic 3](#), a feature on the stock market.)



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As a result of the changing demographics, the Social Security and Medicare programs now confront huge **unfunded liabilities**, shortfalls between promised future benefits and the revenues that can be expected at current tax rates. The trustees of these two programs project that the unfunded liability of Social Security is \$11 trillion, whereas that of Medicare is estimated to be

\$28 trillion. ✱ The sum of these figures is more than three times the current size of the U.S. economy. Predictably, deteriorating financial conditions will lead politicians to look for ways of dealing with this situation. Thus, a combination of factors—low returns from Social Security, a structure that seems outdated, and deteriorating financial conditions—may virtually force Congress to seriously consider modifications in the future.

From an economic viewpoint, the most viable option would be some form of **personal retirement accounts (PRAs)** that would incorporate savings and investment into the financing of retirement. In varying degrees, several countries have already moved in this direction. Beginning in the early 1980s, Chile shifted to a retirement system based on saving and investing through PRAs rather than pay as you go. The Chilean plan was so successful that other Latin American countries, including Mexico, Bolivia, Columbia, and Peru, adopted similar plans in the 1990s. High-income countries have also moved in this direction. In 1986, the United Kingdom began allowing workers to channel 4.6 percentage points of their payroll tax into PRAs in exchange for acceptance of a lower level of benefits from the pay-as-you-go system. The PRA option is currently chosen by nearly three-fourths of British workers. Other countries that now permit at least some substitution of PRAs for payroll taxes and pay-as-you-go benefits include Netherlands, Australia, Sweden, Hungary, Poland, and Germany.

Ownership rights exert a powerful impact on incentives. Personal retirement accounts would provide workers with a property right to the funds contributed into their accounts. The funds paid into a PRA could be passed along to heirs. In contrast with higher taxes, payments into a personally owned investment account that would enhance one's retirement income would not exert a harmful impact on the incentive to work and earn. Furthermore, PRAs would encourage saving and investment, which would help to promote economic growth. They would also reduce the dependency of senior citizens on political officials. There are numerous ways to structure personal retirement accounts. Several plans have already been put forth, and others may arise in the future.

Political debate about the structure of Social Security and how to plan for retirement will continue in the years ahead. This debate is particularly important for younger people because the way it is handled will exert a major impact on their future tax liability and the quality of their life during retirement.

