THE TAX POLICY CENTER'S

Briefing Book

A citizen's guide to the fascinating (though often complex) elements of the federal Tax System.

Q. What are the sources of revenue for the federal government?

A. About 48 percent of federal revenue comes from individual income taxes, 9 percent from corporate income taxes, and another 35 percent from payroll taxes that fund social insurance programs (figure 1). The rest comes from a mix of sources.

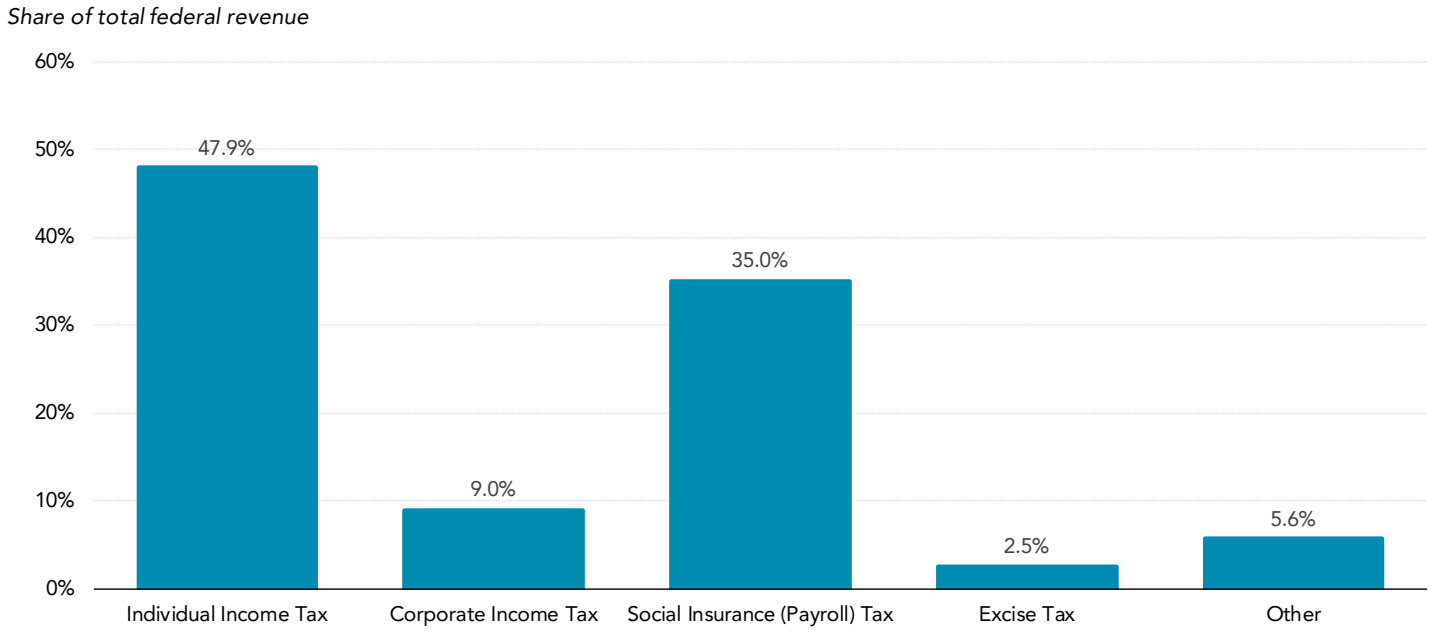
TOTAL REVENUES

The federal government collected revenues of $3.3 trillion in 2017—equal to about 17.3 percent of gross domestic product (GDP) (figure 2). Over the past 50 years, federal revenue has averaged 17.3 percent of GDP, ranging from 20.0 percent (in 2000) to 14.6 percent (most recently in 2009 and 2010).

FIGURE 1

Sources of Federal Revenue

Fiscal year 2017



Source: Office of Management and Budget. Historical Tables. Table 2.1, "Receipts by Source: 1934–2023."

Background

What are the sources of revenue for the federal government?

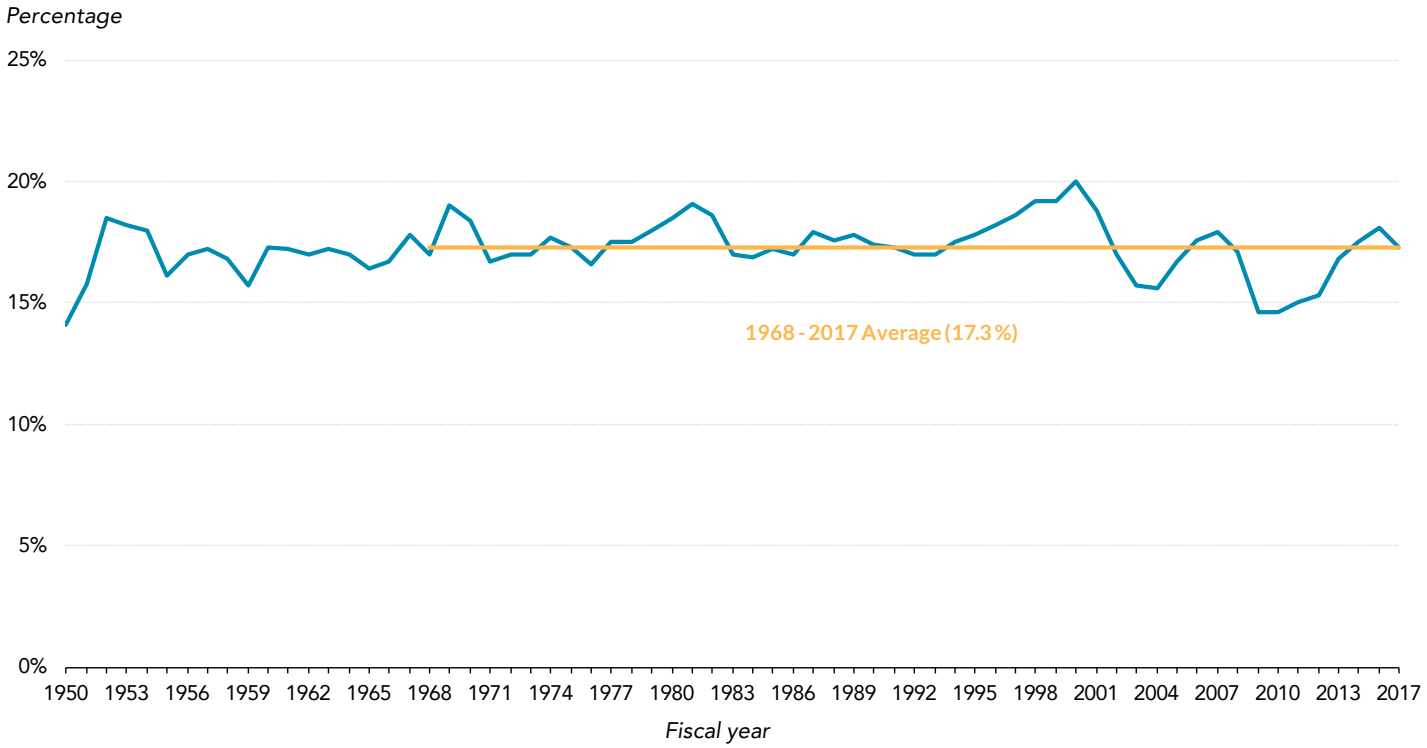
INDIVIDUAL INCOME TAX

The individual income tax has been the largest single source of federal revenue since 1950, amounting to about 48 percent of the total and 8.3 percent of GDP in 2017 (figure 3). In recent years, individual income tax revenue has climbed as high as 9.9 percent of GDP (in 2000) at the peak of the 1990s economic boom and dropped as low as 6.1 percent (in 2010) following the 2007–09 Great Recession.

FIGURE 2

Federal Revenue as a Percentage of GDP

Fiscal years 1950–2017



Source: Office of Management and Budget. Historical Tables.Table 2.3, "Receipts by Source as Percentages of GDP: 1934–2023."

SOCIAL INSURANCE (PAYROLL) TAXES

The payroll taxes on wages and earnings that fund Social Security and the hospital insurance portion of Medicare make up the largest portion of social insurance receipts. Other sources include payroll taxes for the railroad retirement system and the unemployment insurance program, and federal workers' pension contributions. In total, social insurance levies were 35 percent of federal revenue in 2017.

The creation of the Medicare program in 1965, combined with periodic increases in Social Security payroll taxes, caused social insurance receipts to grow from 1.6 percent of GDP in 1950 to 6.2 percent in 2009 (figure 3). A temporary reduction in employees' share of Social Security taxes—part of the stimulus program following the financial meltdown—reduced social insurance receipts to 5.3 percent of GDP in 2011 and 2012. Employees' share has since climbed back to 6.1 percent of GDP in 2017.

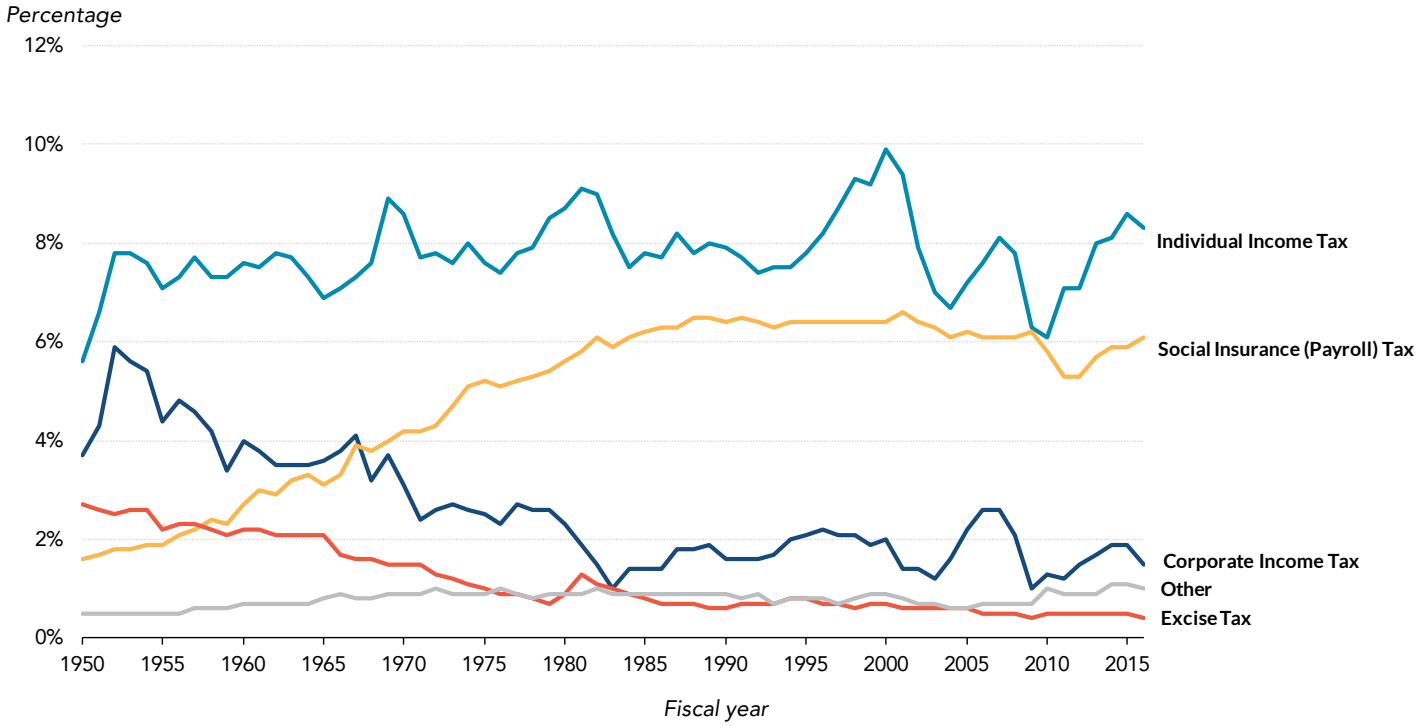
Background

What are the sources of revenue for the federal government?

FIGURE 3

Federal Revenue as a Percentage of GDP

Fiscal years 1950–2017



Source: Office of Management and Budget. Historical Tables.Table 2.3, "Receipts by Source as Percentages of GDP: 1934–2023."

CORPORATE INCOME TAX

The tax on corporate profits yielded 9 percent of government revenue in 2017, a revenue source that has been trending downward. Revenue from the tax has fallen from an average of 3.7 percent of GDP in the late 1960s to an average of just 1.7 percent of GDP over the past five years, despite ticking up to 1.9 percent of GDP in 2014 and 2015 (figure 3).

FEDERAL EXCISE TAXES

Taxes on purchases of goods and services, including gasoline, cigarettes, alcoholic beverages, and airline travel, generated 2.5 percent of federal revenue in 2017. But these taxes, too, are on the wane: excise tax revenues have fallen steadily from an average of 1.7 percent of GDP in the late 1960s to an average of 0.5 percent over 2012–17 (figure 3).

OTHER REVENUES

The federal government also collects revenue from estate and gift taxes, customs duties, earnings from the Federal Reserve System, and various fees and charges. In total, these sources generated 5.6 percent of federal revenue in 2017. They have averaged between 0.6 and 1.1 percent of GDP since 1965 (figure 3). In recent years, the figure has been on the high end of that range because of unusually high profits of the Federal Reserve Board related to its efforts to stimulate the economy since 2008.

Background

What are the sources of revenue for the federal government?

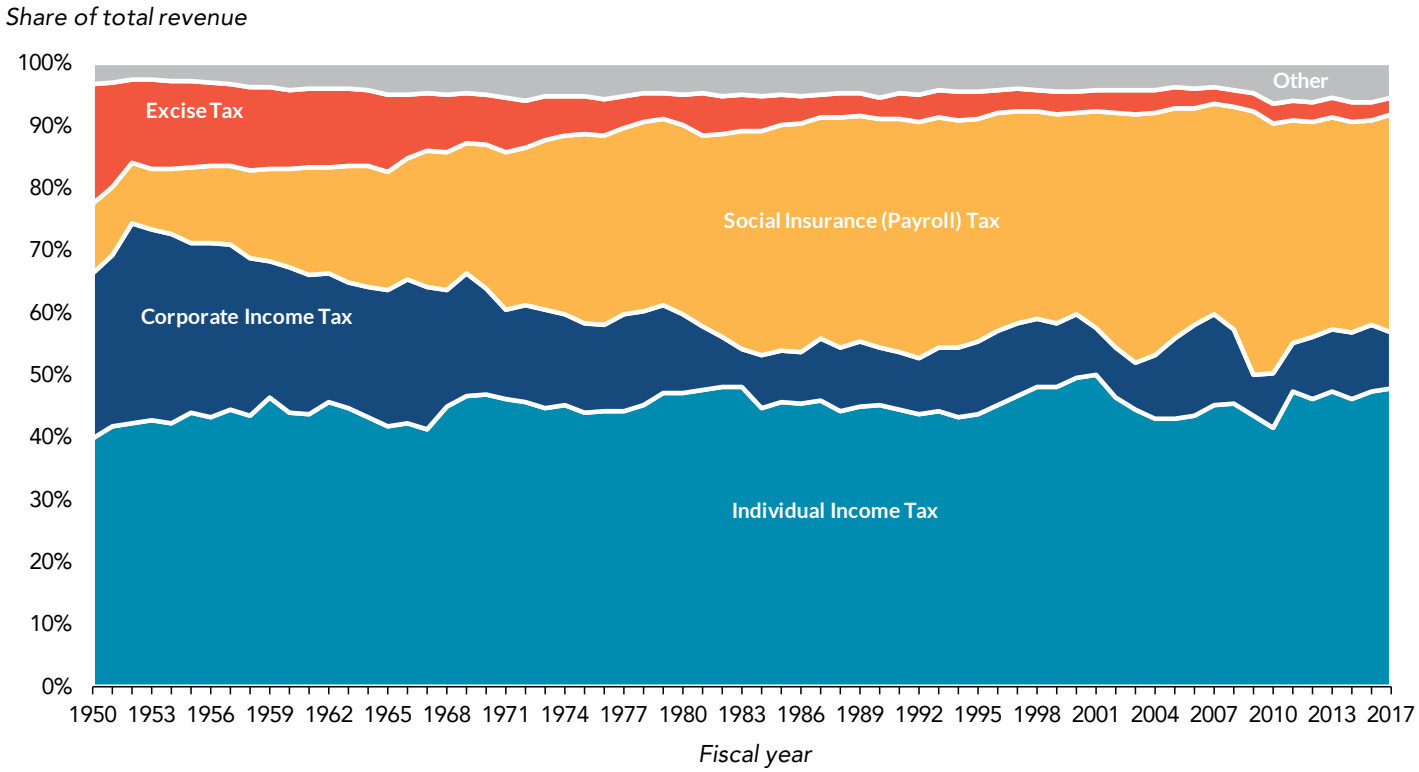
SHARES OF TOTAL REVENUE

The individual income tax has provided nearly half of total federal revenue since 1950, while other revenue sources have waxed and waned (figure 4). Excise taxes brought in 19 percent of total revenue in 1950, but only about 3 percent in recent years. The share of revenue coming from the corporate income tax dropped from about one-third of the total in the early 1950s to less than one-tenth in 2017. In contrast, payroll taxes provided one-third of revenue in 2017, more than three times the share in the early 1950s.

FIGURE 4

Sources of Federal Revenue

Fiscal years 1950–2017



Source: Office of Management and Budget. Historical Tables. Table 2.1, "Receipts by Source: 1934–2023."

Data Source

Office of Management and Budget. *Historical Tables*. Table 2.1, "Receipts by Source: 1934–2023," and Table 2.3, "Receipts by Source as Percentages of GDP: 1934–2023."

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Background

How does the federal government spend its money?

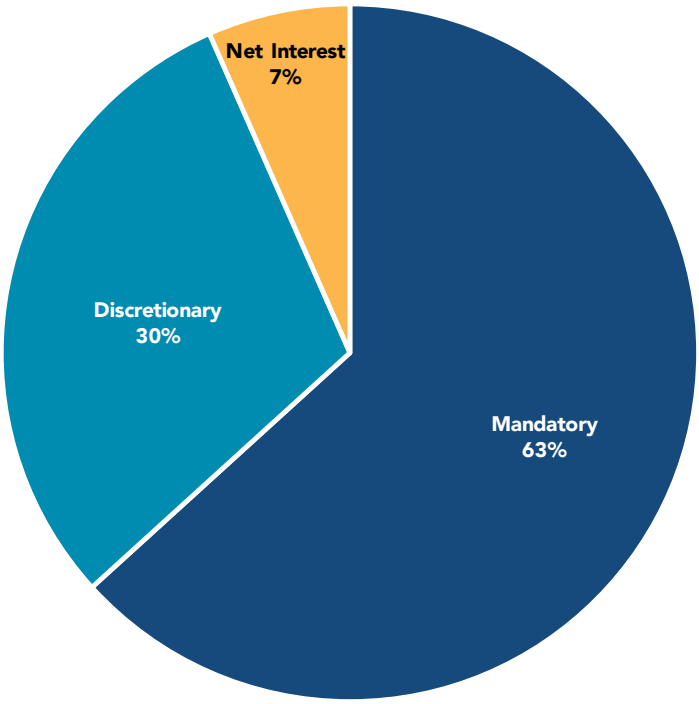
Q. How does the federal government spend its money?

A. About 63 percent of federal spending in 2017 was for programs not subject to regular budget re-view, while nearly 30 percent covered discretionary programs for which Congress must regularly appropriate funds. Seven percent went for interest on government debt (figure 1).

FIGURE 1

Composition of Total Federal Spending

Fiscal year 2017



Source: Congressional Budget Office (2018).

Background

How does the federal government spend its money?

MANDATORY SPENDING

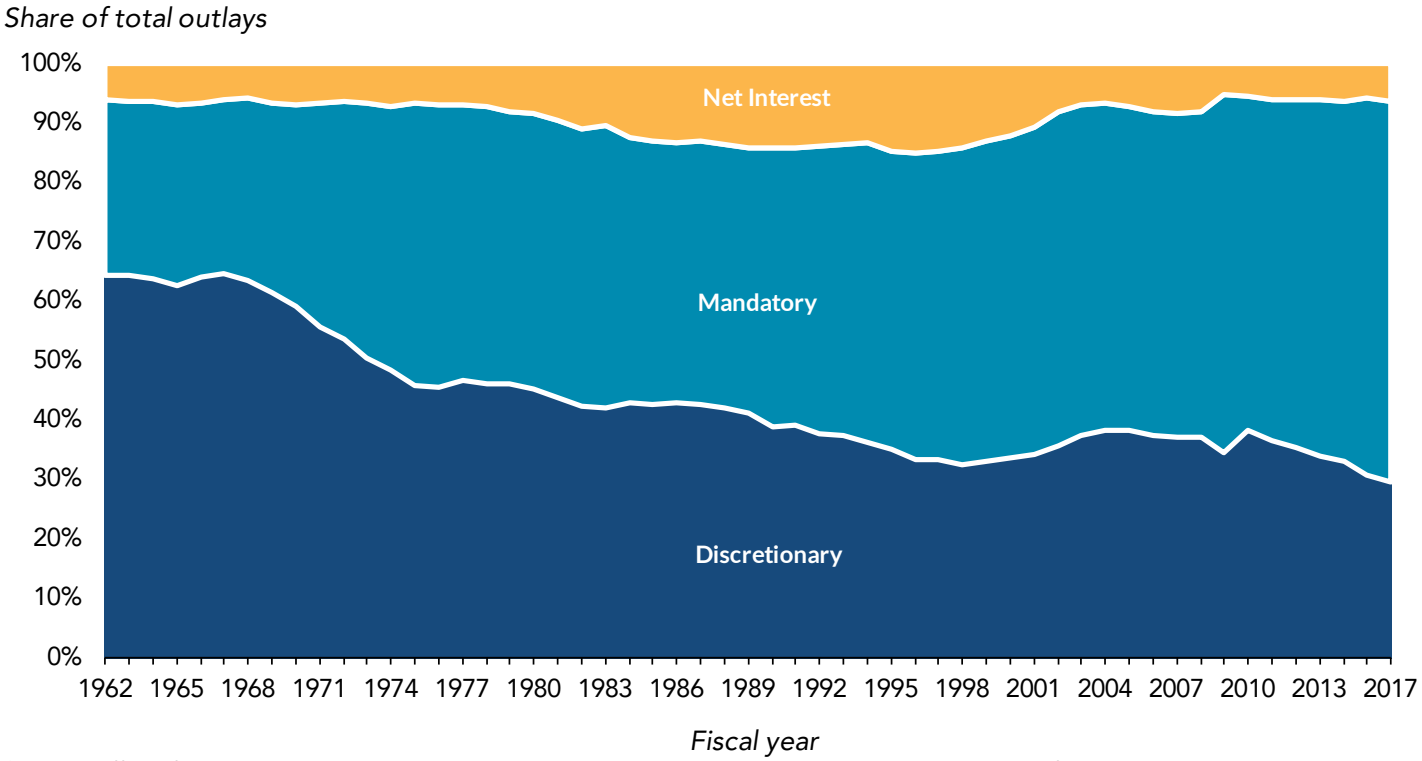
Mandatory spending covers outlays controlled by laws other than appropriations acts. Almost all such spending is for "entitlements," for which expenditures depend on individual eligibility and participation; they are funded at whatever level needed to cover the resulting costs. Mandatory spending has grown from about 31 percent of the budget in 1962 to nearly 66 percent in 2017 (figure 2). This is largely because of new entitlements, including Medicare and Medicaid (both of which started in 1965), the earned income tax credit (1975), and the child tax credit (1997). In addition, rapid growth of both the elderly and the disabled populations has contributed to increased Social Security and Medicare spending.

Nearly 60 percent of mandatory spending in 2017 was for Social Security and other income support programs (figure 3). Most of the remainder paid for the two major government health programs, Medicare and Medicaid.

FIGURE 2

Federal Spending by Type

Fiscal years 1962–2017



Source: Office of Management and Budget. 2018. Historical Tables. Table 8.1, "Outlays by Budget Enforcement Act Category: 1962–2023."

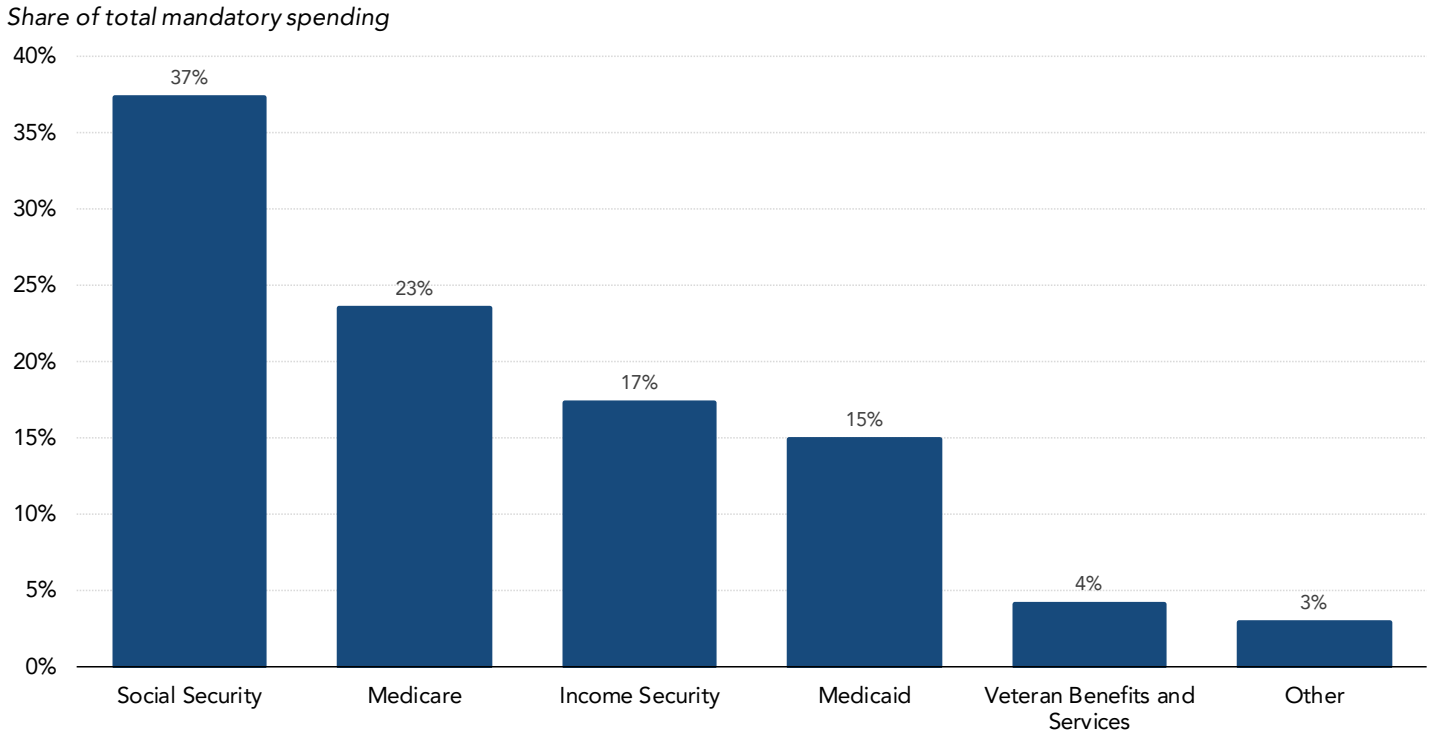
Background

How does the federal government spend its money?

FIGURE 3

Composition of Federal Mandatory Spending

Fiscal year 2017



Source: Office of Management and Budget. 2018. Historical Tables. Table 8.5, "Outlays for Mandatory and Related Programs: 1962–2023."

DISCRETIONARY SPENDING

Discretionary spending covers programs that require appropriations by Congress. Unlike mandatory spending, both the programs and the authorized levels of spending require regular renewal by Congress. The share of the budget going for discretionary spending has fallen from two-thirds in 1962 to about one-third now.

About half of FY 2017 discretionary spending went for national defense, and most of the rest for domestic programs, including transportation, education and training, veterans benefits, income security, and health care (figure 4). About 4 percent of discretionary spending funded international activities, such as foreign aid.

DEBT SERVICE

Interest on the national debt has fluctuated over the past half century along with the size of the debt and interest rates. It climbed from 6.5 percent of total outlays in 1962 to more than 15 percent in the mid-1990s, fell to 6.1 percent in 2015, but climbed back to 6.6 percent by 2017 (figure 2). In 2016 and 2017, historically low interest rates have held down interest payments despite the national debt reaching a peacetime high of nearly 77 percent of GDP, but interest payments as a share of outlays are projected to rise because of projected increases in both the national debt and interest rates.

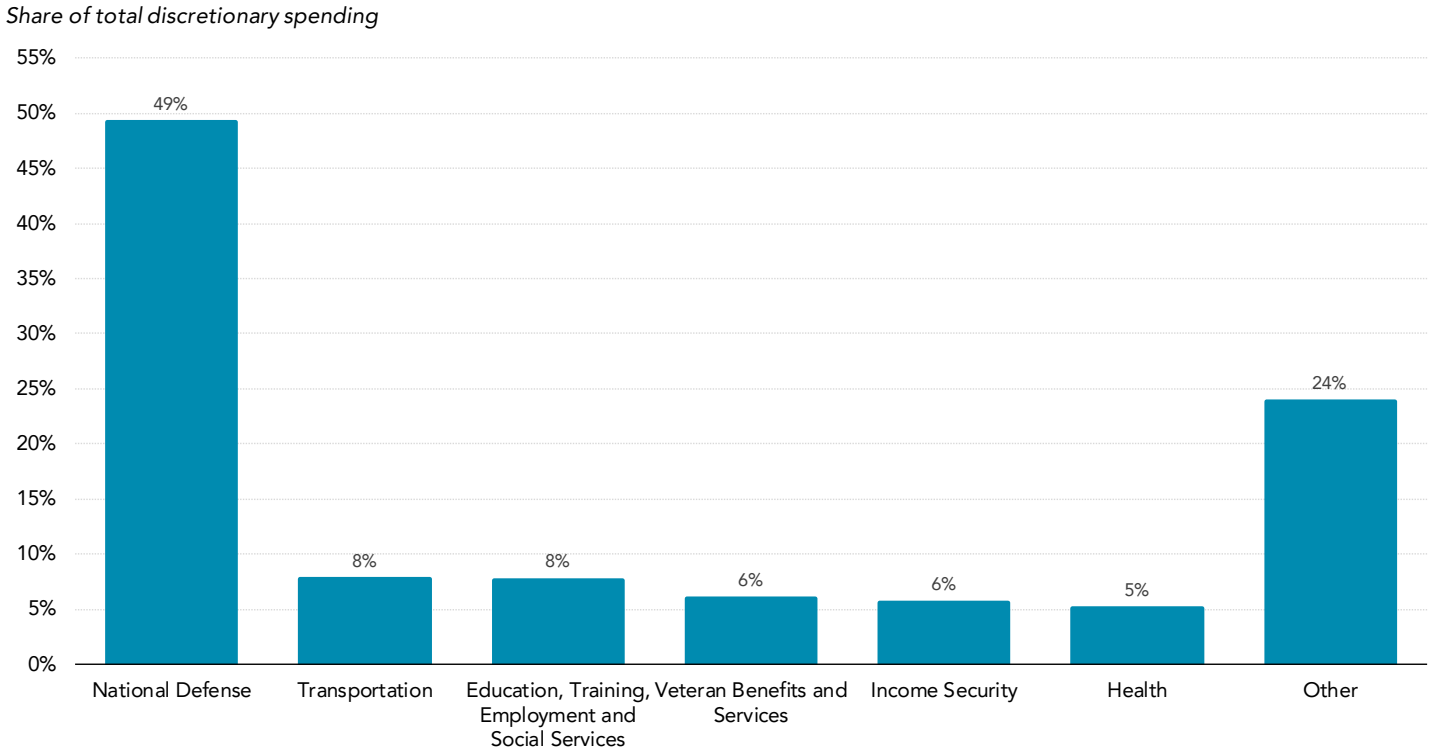
Background

How does the federal government spend its money?

FIGURE 4

Composition of Federal Discretionary Spending

Fiscal year 2017



Source: Office of Management and Budget. 2018. Historical Tables. Table 8.7, "Outlays for Discretionary Programs: 1962–2023."

Data Sources

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Office of Management and Budget. 2018. *Historical Tables*. Table 8.1, "Outlays by Budget Enforcement Act Category: 1962–2023," Table 8.5, "Outlays for Mandatory and Related Programs: 1962–2023," and Table 8.7, "Outlays for Discretionary Programs: 1962–2023."

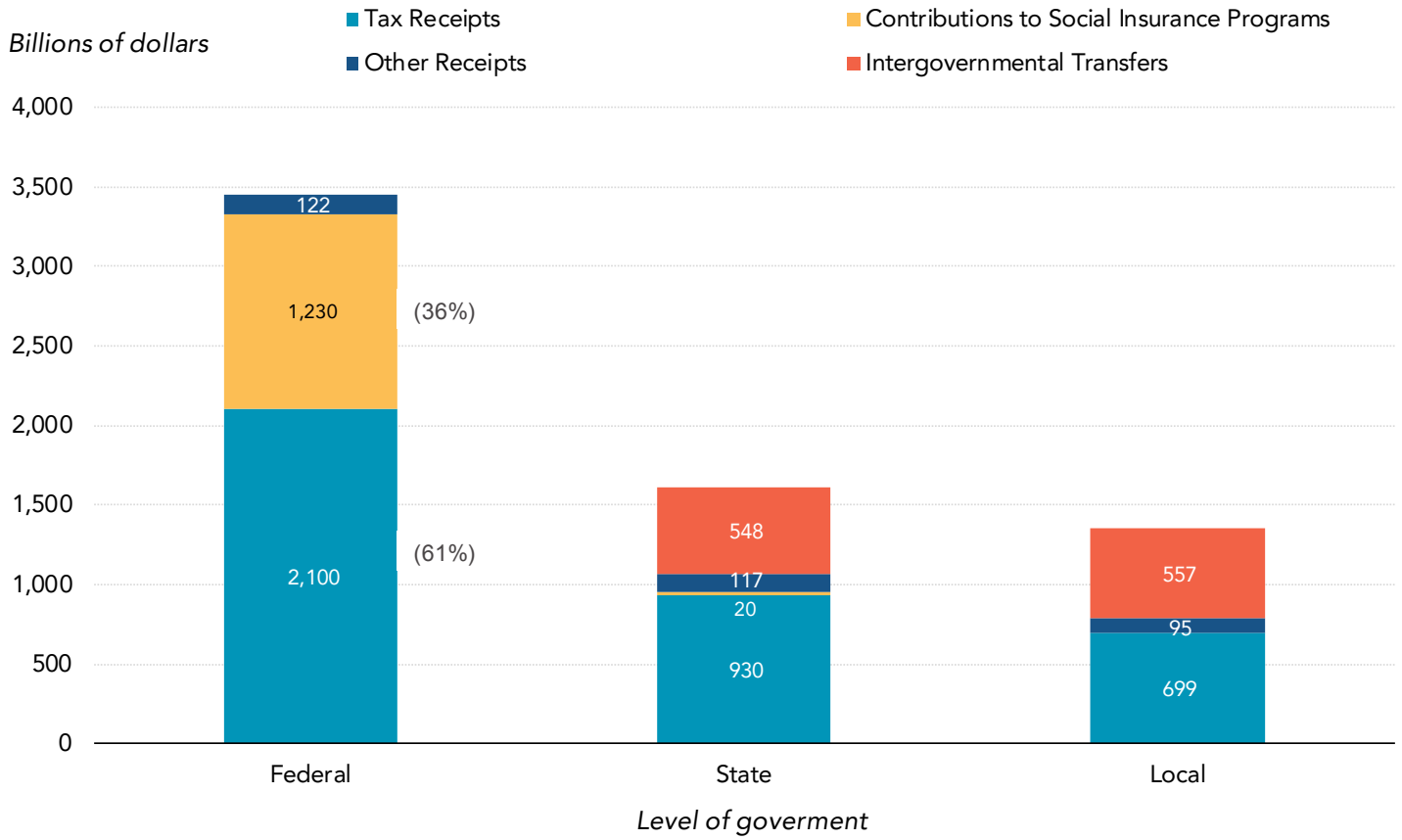
Q. What is the breakdown of revenues among federal, state, and local governments?

A. Federal, state, and local government receipts totaled $5.3 trillion in 2016. Federal receipts were 65 percent of the total, while state and local receipts (excluding inter-governmental transfers) were 20 percent and 15 percent, respectively.

FIGURE 1

Federal, State, and Local Government Current Receipts

Fiscal year 2016



Source: US Bureau of Economic Analysis. 2018. National Income and Product Accounts, Section 3: Government Current Receipts and Expenditures. Table 3.2, "Federal Government Current Receipts and Expenditures."

Background

What is the breakdown of revenues among federal, state, and local governments?

As shown in figure 1, federal government receipts were just under $3.5 trillion in 2016. Tax receipts were 61 percent of the total, contributions to government social insurance programs were another 36 percent, and receipts from other sources accounted for the remainder.

State current receipts were just over $1.6 trillion in 2016. Tax receipts were 58 percent of the total, contributions to social insurance programs were 1 percent, and other receipts were 7 percent. Thirty-four percent of states' current receipts ($548 billion) came from intergovernmental transfers, most of which ($533 billion) were from the federal government.

Local government current receipts were just under $1.4 trillion in 2016. Taxes were 52 percent of the total and other receipts were another 7 percent. A full 41 percent of local government revenues ($557 billion) came from intergovernmental transfers, most of which ($535 billion) were from state governments.

Data Sources

U.S. Bureau of Economic Analysis (BEA), National Income and Product Accounts, Government Current Receipts and Expenditures, Tables 3.1, 3.2, 3.20, and 3.21.

Q. How do US taxes compare internationally?

A. Total US tax revenue equaled 26 percent of gross domestic product, well below the 33 percent weighted average for developed countries.

TOTAL TAX REVENUE

US taxes are low relative to those in other developed countries (figure 1). In 2015, taxes at all levels of US government represented 26 percent of gross domestic product (GDP), compared with an average of 33 percent for the 35 member countries of the Organisation for Economic Co-operation and Development (OECD).

Among OECD countries, only Korea, Turkey, Ireland, Chile, and Mexico collected less than the United States as a percentage of GDP. Taxes exceeded 40 percent of GDP in seven European countries, including Denmark and France, where taxes were greater than 45 percent of GDP. But those countries generally provide more extensive government services than the United States does.

COMPOSITION OF TAX REVENUE

Income and Profits Taxes: Taxes on personal income and business profits made up 49 percent of US tax revenue in 2015, a higher percentage than in most other OECD countries, where such taxes averaged 34 percent of the total (figure 2). Australia, Denmark, and New Zealand topped the United States in this category, generating over half of their total revenue from such taxes. In the United States, taxes on income and profits of individuals alone generated 37 percent of total tax revenue, compared with 25 percent on average within the OECD.

Social Security Contributions: The United States collected slightly less revenue from retirement, disability, and other social security programs—24 percent of total tax revenue—than the 26 percent OECD average. Some countries were well above that average: the Slovak Republic, the Czech Republic, and Slovenia collected 40 percent or more of their revenue from that source.

Goods and Services Taxes: TThe United States relies less on taxes on goods and services (including both general consumption taxes and taxes on specific goods and services) than any other OECD country, collecting 17 percent of tax revenue this way compared with 32 percent for the OECD. The value-added tax (VAT)—a type of general consumption tax collected in stages—is the main source of consumption tax revenue. VAT is employed worldwide in 160 countries, including in all 34 OECD member countries except the United States. Most consumption tax revenue in the United States is collected by state and local governments.

Background

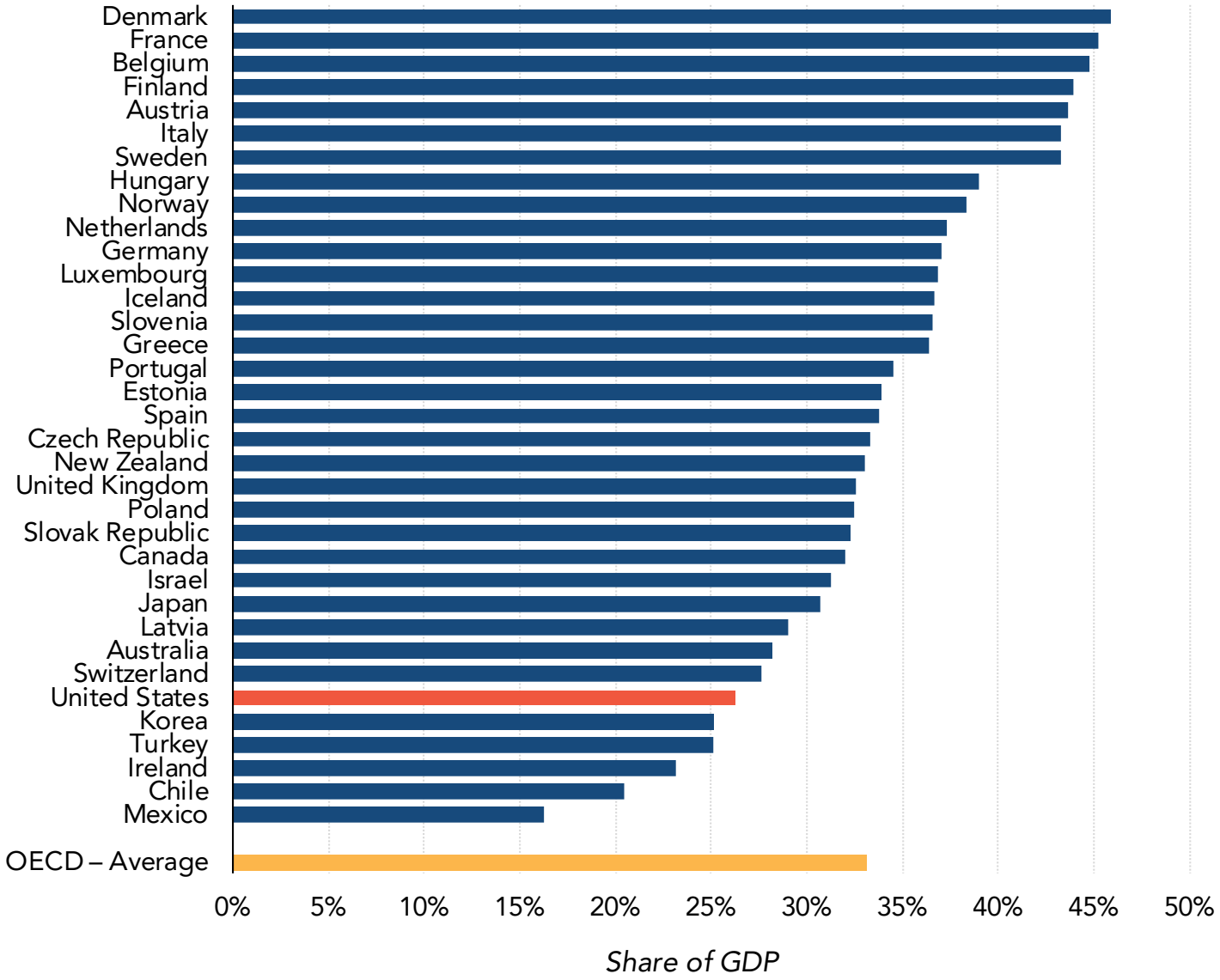
How do US taxes compare internationally?

Property Taxes: Property taxes provided almost twice as large a share of US tax revenue—10 percent in 2015—than the OECD average of 6 percent. Almost all revenue from taxes on property in the United States is collected by state and local governments.

FIGURE 1

Total Tax Revenue

Organisation for Economic Co-operation and Development (OECD) countries, 2015



Source: Organisation for Economic Co-operation and Development. 2015. OECD Tax Statistics. "Revenue Statistics: OECD Countries—Comparative Tables."
Note: The "OECD – Average" is a weighted average by GDP for all countries excluding the United States.

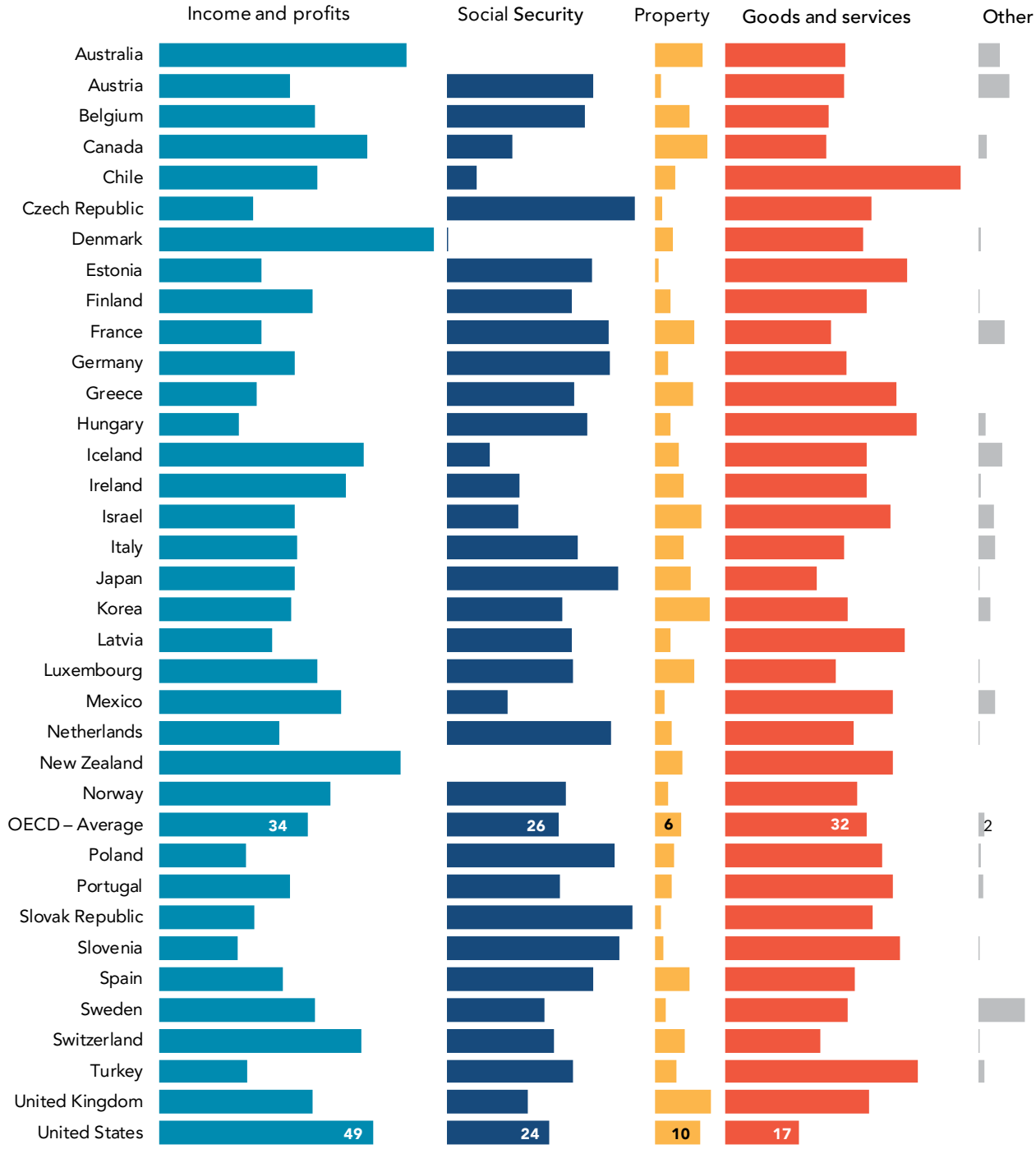
Background

How do US taxes compare internationally?

FIGURE 2

Taxes by Source as a Share of Total Tax Revenues

OECD countries, 2015



Source: Organisation for Economic Co-operation and Development. 2015. OECD Tax Statistics. "Revenue Statistics: OECD Countries—Comparative Tables."

Note: The "OECD – Average" is an unweighted average for all 35 countries; "Other" taxes include payroll taxes not classified as Social Security

Background

How do US taxes compare internationally?

Data Sources

Organisation for Economic Co-operation and Development. 2015. *OECD Tax Statistics*. "Revenue Statistics: OECD Countries—Comparative Tables."

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Further Reading

Congressional Budget Office. 2017. "International Comparisons of Corporate Income Tax Rates." Publication 52419. Washington, DC: Congressional Budget Office.

Hoo, Sonya, and Eric Toder. 2006. "The US Tax Burden Is Low Relative to Other OECD Countries." *Tax Notes*. May 8.

Q. How does the federal budget process work?

A. Ideally, following submission of the president's budget proposal, Congress passes a concurrent budget resolution setting total spending, revenue, and deficit targets for at least the next five years, and then passes annual appropriation bills to fund discretionary programs and legislation to enact changes to mandatory programs and taxes. The process has typically broken down at various points in recent years, however, with Congress failing to pass a concurrent resolution or completing action on appropriations.

THE PRESIDENT'S BUDGET

The congressional budget process begins each year with the president submitting a budget for the following fiscal year. The president's budget proposes spending levels for federal programs whose funding is determined annually (discretionary programs) and may recommend policy changes to ongoing programs that do not require annual appropriations (mandatory programs) and to the tax code.

CONGRESSIONAL BUDGET RESOLUTION

Within the six weeks following submission, the various congressional committees report to the House and Senate budget committees outlining how their spending and revenue proposals will differ from the president's budget. After each budget committee compiles this information, Congress is required to pass a concurrent budget resolution setting out total spending, revenue, and deficit targets for at least the next five years and more usually for 10 years. Concurrent resolutions are endorsed by both the House and the Senate, yet lack the force of law and do not require the president's signature—which, of course, implies that the president cannot veto them, either.

The budget resolution divides total spending among the main functions of government, such as defense, transportation, and health, through spending allocations to individual congressional committees. The House and Senate appropriations committees further divide their spending allocations among their subcommittees. The budget resolution allows individual congressional committees to decide the details of their budgets, program by program, consistent with the aggregate targets. In practice, however, the debate over the resolution often becomes a debate over individual program budgets and their implications.

In recent years the Senate and the House have had difficulty agreeing to a single budget resolution. In early 2015, they agreed to a resolution for fiscal 2016—the first time they'd been successful since fiscal 2010. For fiscal 2017 and 2018, they passed perfunctory resolutions for the sole purpose of repealing the Affordable Care Act and passing a tax cut and tax reform.

Background

How does the federal budget process work?

During 2018 neither house plans to even pass a budget resolution out of committee. It is the first time that has happened since the budget process was enacted in 1974.

Even when they pass a resolution, Congress frequently violates the resolution's spending and revenue targets.

THE APPROPRIATIONS PROCESS

After the budget resolution passes, the House Appropriations Committee may begin the appropriations process. If a budget resolution is not passed by May 15, the House Appropriations Committee may begin appropriations in its absence. There are 12 appropriations bills covering different parts of the government. Agencies that are not funded because their appropriations have not been passed by October 1 are funded under continuing resolutions. These typically cover spending for only part of a year, but Congress sometimes extends them to cover the whole fiscal year. Continuing resolutions often limit spending to last year's level. Recently, it has become more common for no appropriation bills to pass by October 1. Then the government is funded by an extremely complicated omnibus bill. This makes it difficult for legislators to implement a rational set of national priorities.

THE CONGRESSIONAL BUDGET OFFICE

The Congressional Budget Office provides Congress with technical, nonpartisan advice on budget matters. Every bill Senate and House committees report to the floor must include a Congressional Budget Office cost estimate that covers at least five years (more recently, 10 years).

RECONCILIATION

Congress occasionally uses a special procedure called reconciliation to fast-track revenue and entitlement spending legislation. The budget resolution instructs committees to implement certain targets for changing revenues and mandatory expenditures. The resulting reconciliation bill combines spending and revenue provisions into a single piece of legislation. Debate is limited and the bill cannot be filibustered in the Senate. The Senate's Byrd rule states that a reconciliation bill cannot contain items not germane to the budget and that the bill cannot increase the deficit beyond the budget horizon, usually 10 years.

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Q. What is the history of the federal budget process?

A. In 1972, President Richard Nixon impounded funds for various social programs. Nixon argued that because Congress lacked a process for controlling the federal budget, budget deficits might expand irresponsibly if the president lacked the power to block funding. Congress responded by establishing a formal budget process through the Congressional Budget and Impoundment Control Act of 1974.

Today's congressional budget process has its origins in the Congressional Budget and Impoundment Control Act of 1974. That law sought to create a coherent procedure for Congress's revenue and spending decisions, and to constrain a president's ability to impound funds appropriated by Congress.

In 1972, newly reelected President Richard Nixon refused to spend funds appropriated for various social programs. Although the Constitution provides that a president may not spend money without a congressional appropriation, it was less clear whether he was obliged to spend every dollar appropriated.

Prospective recipients quickly challenged Nixon's impoundments in court, and he lost every case at the appellate level except one. Before the Supreme Court could consider the issue, Congress moved explicitly to limit the president's power to impound funds.

But Nixon had an effective counterargument. He pointed out that Congress had no formal, orderly process of its own for adding up individual spending and revenue decisions, and for relating total spending to total revenue. Nixon argued that if the president lacked the power to impound spending, total spending might expand irresponsibly.

Congress realized that Nixon had won the substantive argument and that it could not limit the president's impoundment powers unless it created a formal budget process of its own. It responded by passing the Congressional Budget and Impoundment Control Act of 1974.

There was no way to take the politics out of politics, however: The designers of the new process were intent on avoiding any significant reduction in the powers of existing committees. With a few exceptions, the new budget process only established targets for aggregate spending and revenue totals. Traditional committees were left to determine the details. This compromise made the new process much more complicated than it would otherwise have been.

The budget process has evolved since. Originally, two budget resolutions were required; now, only one. Reconciliation was originally seen as a mechanism for reconciling the first budget resolution with the second.

Background

What is the history of the federal budget process?

Now it is a mechanism for expediting changes in entitlements and tax policy.

Further Reading

Schick, Allen. 1995. The Federal Budget: Politics, Policy, Process. Washington, DC: Brookings Institution Press.

Background

What is the schedule for the federal budget process?

Q. What is the schedule for the federal budget process?

A. The congressional budget process is meant to last from early February to the end of June, but recent years have seen delays at each stage, particularly in passing congressional budget resolutions and in completing action on appropriation bills.

The congressional budget process begins each year with the president submitting a budget for the following fiscal year. Usually, Congress receives the budget no later than the first Monday in February. The whole procedure is supposed to be completed by June 30, but that almost never happens.

Within the six weeks following submission, the various congressional committees report to the House and Senate budget committees, outlining how their spending and revenue proposals will differ from the president's budget. After each budget committee compiles this information, Congress is supposed to pass a concurrent budget resolution by April 15.

From fiscal 1976 (the first effective year of the budget process) through 1998, Congress successfully passed budget resolutions each year. Failure to pass a budget resolution has recently become more common, however. Indeed, the longest period without a budget resolution passed by the whole Congress lasted from fiscal 2011 through fiscal 2015.

After the budget resolution passes, the House Appropriations Committee may begin the appropriations process. If a budget resolution is not passed by May 15, however, the House Appropriations Committee may begin appropriations in its absence. All necessary appropriations bills are supposed to be passed by June 30 but seldom are.

Congress occasionally uses a special procedure called reconciliation to fast-track revenue and spending legislation. Reconciliation bills are supposed to be complete by June 15.

If appropriations are not complete by October 1—and that is common—federal agencies are funded under continuing resolutions. These typically cover spending for only part of a year but Congress sometimes extends them to cover the whole fiscal year. Continuing resolutions are generally understood to limit spending to last year's level, but specific programs can be adjusted up and down.

In 2018, neither house of the Congress plans any attempt to formulate a budget resolution for fiscal 2019. As noted above, the entire Congress has often failed to pass a resolution, but the Budget Committee of one house or the other has always approved a resolution. This is the first time since the budget process was enacted in 1974 that neither house has even attempted to work on one.

Background

What is the schedule for the federal budget process?

Further Reading

Schick, Allen. 1995. *The Federal Budget: Politics, Policy, Process*. Washington, DC: Brookings Institute Press.

Stone, Chad. 2014. "The Federal Budget Process." In *Public Economics in the United States*, vol. 2, edited by Steven Payson, 679–98. Santa Barbara, CA: Praeger.

Q. What is reconciliation?

A. Congressional budget committees use the reconciliation process to ensure tax laws and mandatory spending programs are revised according to the budget resolution's revenue and mandatory spending targets. Reconciliation is a way to fast-track revenue and spending legislation into becoming law.

Reconciliation legislation is passed through an expedited process. First, Congress passes a budget resolution containing "reconciliation instructions" telling congressional committees how much they need to change revenue and mandatory spending to conform to a new budget resolution. The committees' responses are then bundled by the House and Senate budget committees into a single reconciliation bill for consideration in each chamber.

Reconciliation bills are subject to special rules in the Senate. Debate on reconciliation bills is limited to 20 hours. If the law is free of points of order, it can be passed in the Senate by a simple majority; the 60 votes necessary to shut off a filibuster are not required. Any member, however, can raise a point of order against a reconciliation bill if it violates the spending and revenue targets in the budget resolution or other budget rules and laws. Sixty votes are needed to overcome a point of order. The House can set procedural rules on any legislation, including reconciliation bills, by adopting a special "rule" determined by the House Rules Committee. Debate is limited in the House to whatever time the Rules Committee allows.

The George W. Bush tax cuts of 2001–03 and the more recent tax cut and reform bill of 2017 were passed using reconciliation procedures. The content of reconciliation laws is limited in the Senate by the Byrd rule, which generally disallows items that do not affect outlays or revenue. The Byrd rule also prohibits initiatives that would increase the deficit beyond the fiscal years covered by the budget resolution.

EXAMPLES

Policymakers have passed 20 budget reconciliation bills since they first used the procedure in 1980. In 2001, for example, the Senate could not muster the 60-vote supermajority necessary to pass the Bush tax cuts. Instead, it passed the legislation as a reconciliation bill with 58 yea votes. However, to avoid abrogating the Byrd rule—which disallows bills that increase the deficit beyond the budget resolution's window—the tax cuts were scheduled to expire after 10 years. Reconciliation was again used to pass the tax cut and reform bill of 2017. Many provisions of the bill were made temporary to avoid violating the Byrd rule.

Background

What is reconciliation?

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Q. How is a budget resolution enforced?

A. Spending and revenue targets set in the annual budget resolution are enforced by points of order, which any member of Congress may raise against legislation inconsistent with those targets.

The House and Senate budget committees are responsible for calculating whether spending and revenue targets are being met. A House or Senate member may raise a point of order against a bill or an amendment if it violates the spending and revenue regulations contained in the most recent budget resolution or if it violates other budget laws and rules. If a point of order is sustained, the bill or amendment is ineligible for consideration.

In the House, the rules committee often reports a so-called special rule that sets aside one or more points of order. The House then votes on adoption of the special rule, which needs only a simple majority to pass. The House rules committee also determines what amendments can be offered during the budget resolution debate. Because the rules committee has immense power, the House budget committee has less influence in enforcing the budget resolution than its Senate counterpart.

In the Senate, if a point of order is lodged against a bill or an amendment, a supermajority vote of 60 senators is needed to overcome it. The chair of the House or the Senate budget committee, often with the concurrence of the ranking member, may threaten to lodge a point of order against a legislative initiative that seriously violates the budget resolution or an established budget rule, but this step may just start a bargaining process. Eventually, the member pushing the initiative may settle for a less egregious violation in return for withdrawing the threatened point of order.

Q. What is PAYGO?

A. A budget rule requiring that new legislation that affects revenues and spending on entitlement programs, taken as a whole, does not increase projected budget deficits.

OVERVIEW

PAYGO, which stands for "pay as you go," is a budget rule requiring that (using current law as the baseline) tax cuts, as well as increases in entitlement and other mandatory spending, must be offset by tax increases or cuts in mandatory spending. PAYGO does not apply to discretionary spending (spending that is controlled through the appropriations process).

HISTORY

The original PAYGO was part of the Budget Enforcement Act of 1990. In that year, President George H. W. Bush and congressional leaders painfully negotiated a large deficit reduction package combining spending cuts and tax increases. Having accomplished so much, Congress became concerned that future Congresses would reverse the agreement bit by bit. PAYGO helped prevent this, supplemented by caps on appropriations and outlays for discretionary spending programs. Budget experts generally agree that PAYGO worked extremely well from 1990 through 1997. In 1998, an unexpected budget surplus emerged and the discipline driven by PAYGO began to wane. The law officially expired at the end of fiscal 2002.

RECENT VERSIONS

The most recent version of the PAYGO rule was established in 2010: To the extent that legislation does not pay for increases in mandatory spending or for tax cuts, the cumulative amount of the projected increase in the deficit is averaged over two periods—5 years and 10 years. (Budget imbalances in the current budget year are included so in practice, the averaging is over 6 and 11 years.) To prevent manipulation of the rules, legislation subject to PAYGO cannot move costs outside the budget window (i.e., after 10 years) or move saving into the budget window from later years.

SEQUESTRATION

If the Office of Management and Budget determines that either the 5- or 10-year average cost is greater than zero when Congress adjourns, the president must sequester (apply an across-the-board spending cut) certain mandatory spending programs. The higher of the two averages determines the sequestered amount. Spending for each program is reduced by the same percentage for one year to offset the average projected deficit increase. Unless Congress acts to reduce or eliminate the projected deficit increase, there is another sequestration the following year.

Background

What is PAYGO?

Some programs are exempt from sequestration. Social Security and the postal service are exempt because they are classified as "off-budget" programs (although they are included in consideration of the unified budget). Moreover, numerous welfare and other safety net programs, such as Medicaid, the Supplemental Nutrition Assistance Program, and unemployment insurance, are also exempt. Medicare is subject to sequestration, but the spending reduction for Medicare is limited to 4 percent. If sequestration calls for an across-the-board reduction of more than 4 percent, the additional amount that would have come from Medicare is allocated proportionally to other programs.

ENFORCEMENT

The PAYGO rule has not been enforced consistently. For example, the 1997 budget act put in place a method, known as the SGR (the sustainable growth rate), for determining Medicare payments to physicians. Application of that formula threatened huge cuts in Medicare physician reimbursements. Congress prevented the payment rates determined by SGR from taking effect, but only for one year at a time. While Congress did pay for these one-year fixes, by limiting the fix to one year it did not need to pay the cost of the fix over the full budget window. When the Medicare Access and CHIP Reauthorization Act of 2015 replaced the SGR formula with a new system in 2015, Congress waived the PAYGO rules, exempting itself from paying for the entire cost of the new legislation. They again waived the PAYGO rules at the end of 2017 so that they did not have to pay for the 2017 tax cut and reform. It appears that PAYGO can no longer be considered an effective tool for imposing budget discipline.

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Q. What are rescissions?

A. The rescission process allows a president to avoid spending money on discretionary programs that has been appropriated by the Congress, but not yet obligated for the purchases of goods and services.

The Constitution is clear that a president cannot spend money without a Congressional appropriation. It is less clear whether a president must spend money that has been appropriated by the Congress. Various presidents had from time to time refused to spend appropriations, but it was very unusual and almost always involved small amounts. It was said that the president impounded the money.

President Nixon broke precedent when, fresh off an overwhelming electoral victory in 1972, he refused to spend money that had been appropriated for several social programs. He was immediately sued and lost all cases except one before the US Court of Appeals. The case never reached the Supreme Court because the Congress quickly moved to restrict a president's ability to impound funds in the Congressional Budget and Impoundment Control Act of 1974. That act also created the congressional budget process.

The Congress did not want to totally outlaw a president's ability to impound funds, so they created two processes: rescission and deferral. The latter was later ruled unconstitutional by the Supreme Court.

In the rescission process, the president sends the Congress a request to cancel specified appropriations that have not yet been obligated to fund the purchase of goods and services. The Congress has 45 days to consider—or ignore—the president's request. If the Congress votes to approve the request or any portion thereof, the spending is cancelled. If not, the president must spend the money.

Various presidents and numerous lawmakers have backed a reform called enhanced rescission. Under this approach, the Congress would not be able to ignore a president's rescission request. They would have to vote on it within 45 days. At first sight this sounds like a minor change, but it could greatly enhance the power of rescission requests. Lawmakers voting against the president's request would be saying that an activity the president deemed wasteful was, in fact, effective. That could be a hard vote. It is easier just to ignore the president.

Q. How accurate are long-run federal budget projections?

A. Some elements of spending—health care costs and interest on the federal debt—are difficult to predict. But even in the best scenarios, the debt will remain a significant problem.

The Congressional Budget Office (CBO) has been making periodic long-run budget projections since the 1990s. Since then, policies have changed—as have the economic and demographic assumptions underlying the analysis. But the lesson from these projections has remained the same: the United States is on an unsustainable fiscal path. That is to say, if policies are not reformed, the public debt will grow until no prudent investor will buy US Treasury securities.

CAUSES OF RISING PUBLIC DEBT

The most important underlying cause of our rising public debt is population aging. The result is pressure on Social Security, the largest program in the budget, and on Medicare and Medicaid, the largest health insurance programs. Aging is easy to forecast because life expectancy has increased steadily and current age demographics are well known. More difficult to forecast are birth rates and growth of the taxpaying population, but birth rates have remained low for a long time with no surprises.

Per person health costs have risen faster than incomes, after adjusting for the population aging that has driven the projected rise in total spending. But this "excess cost growth" is difficult to forecast. After constituting most total health cost growth for decades, excess cost growth slowed abruptly in the 2000s. And no one knows whether the slowdown will last or will be a one-time phenomenon.

Structural changes in the delivery of health care may hold down cost growth in the long run. On the other hand, excess cost growth might resume at historically familiar rates. In recent long-run projections, CBO has assumed that excess cost growth will indeed resume, but at a rate lower than the historical average.

MAJOR DISRUPTIONS TO THE GROWTH RATE OF PUBLIC DEBT

With Social Security and major health programs expected to grow faster than the economy and tax revenues, the deficit and public debt are expected to grow faster and interest on the debt to become a growing part of the budget problem. Over the twenty or so years that CBO has been making long-term budget projections, this basic story has held true. But three major surprises have caused the debt-GDP ratio to rise more slowly than predicted in some periods and faster in others.

The most important surprise slowing the growth of the debt-GDP ratio has been the dramatic fall in interest rates during the Great Recession. Despite a rise in the debt-GDP ratio from 39.3 percent in 2008 to 74.1 percent in 2014, the interest bill on the debt actually fell absolutely! The second surprise involved a huge

Background

How accurate are long-run federal budget projections?

surge in revenues related to the dot-com boom of the 1990s. It caused the debt-GDP ratio to fall from the mid-1990s to 2001, when the ratio was supposed to rise according to all long-term projections. The last surprise was the Great Recession that caused the debt-GDP ratio to rise far faster than could be explained by the increase in Social Security and health programs.

Despite the two big surprises the made the long-term outlook appear better than expected and the one surprise that made it look worse, the fundamentals of long-term projections have held true. Social Security and health programs have been on a strong upward trend propelled by aging and health costs, and there is little reason to expect this trend to evaporate. Because Social Security and health programs are therefore expected to become a greater and greater share of total spending, it is less and less likely that their effect on the deficit will be overwhelmed by surprises.

At the end of 2017 and the beginning of 2018, lawmakers faced with projections of ever-worsening deficits decided to cut taxes and increase previously legislated ceilings on discretionary spending. The long-term budget outlook took a very large step in a bad direction.

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Q. What have budget trends been over the short and long term?

A. Federal budget deficits are largely driven by external events—war, recession—in the near term and by demography in the long run. When events conspire to drive revenues above the trend, tax cuts usually bring them down with alacrity.

The budget deficit has been on a roller coaster in recent years because of the Great Recession and the subsequent recovery. (The federal budget deficit measures the amount by which total government outlays exceed total revenues in a given year.) In 2007, before the recession, the deficit had fallen to 1.1 percent of gross domestic product (GDP) despite the Afghan and Iraq wars and significant tax cuts earlier in the decade. Then the recession hit and the deficit soared to 9.8 percent of GDP by 2009, as tax revenues fell, automatic safety net programs kicked in, and hundreds of additional billions were spent to stimulate the economy. But the economic recovery and subsequent economic expansion quickly lowered the deficit again. By 2015 it was 2.4 percent of GDP.

Toward the end of 2017, the Congress passed a major tax cut that was not paid for. Then, in early 2018, they increased previously legislated caps on discretionary spending. This put the deficit on a steep upward trend and by 2020, it is expected to exceed $1 trillion for the first time since the Great Recession. Ultimately, budget projections have it growing to $1.5 trillion by 2028.

SHORT TERM

As the deficit rises above $1 trillion in 2020, The debt-GDP ratio is expected to grow from 77 percent in 2017 to 79 percent in 2020 and, ultimately, to 96 percent in 2028. This will be the highest debt-GDP ratio since shortly after World War II.

All categories of spending will rise. Recent policy changes have not affected mandatory spending significantly and it will continue its upward trend, rising 14 percent between 2017 and 2020. Discretionary spending will rise 12 percent, largely because of the legislated increase in spending caps. The interest bill on the debt will rise 84 percent because of the large increase in the debt and a forecasted increase in interest rates.

Tax revenue will fall as a percentage of GDP. The recent tax cut will lower tax revenue from 17.3 percent of GDP in 2017 to 16.7 percent in 2020. Under constant law, one would normally expect tax revenues to grow faster than GDP because real growth pushes people into higher tax brackets.

Background

What have budget trends been over the short and long term?

LONG TERM

Over the longer run, programs targeting the aged will hasten spending growth as baby boomers enter these programs in large numbers and expected life continues to increase. The main impact will be on spending for Social Security, Medicare, and Medicaid. Those three programs already accounted for over 50 percent of total spending in 2017 and are expected to continue to grow faster than the economy and tax revenues for the foreseeable future. Medicare and Medicaid face the added problem that even if the population were not aging, costs per recipient would be rising faster than incomes per capita after one adjusts for the effects of aging. This so-called excess cost growth slowed surprisingly after 2009. However, the Congressional Budget Office expects the growth of Medicare and Medicaid costs to reaccelerate, although not to the high levels experienced in recent decades.

The ratio of revenues to GDP has been remarkably constant over the past 50 years, almost always varying between 17 and 19 percent of GDP. Whenever the ratio has gone above 19 percent, a significant tax cut has followed. A surtax imposed during the Vietnam War pushed the ratio to 19 percent in 1969, but it was quickly removed. Rapid inflation again pushed the tax burden above 19 percent in 1981, provoking the large Reagan tax cuts. The Bush tax cuts of the early 2000s followed an enormous surge in revenues during the dot-com boom of the late 1990s that also pushed the tax burden above 19 percent.

The Great Recession was devastating to revenues and briefly brought them below 15 percent of GDP. Revenues recovered with the economy but in an unusual move, the government passed a major tax cut in 2017 when revenues were already near their historical lower bound of 17 percent. As a result, revenues are expected to drift slightly below 17 percent for the next few years. Excepting the Great Recession years, revenues only fell below 17 percent in four years between 1959 and 2017.

The inexorable growth of Social Security, Medicare, and Medicaid, combined with the reluctance to raise taxes, has been squeezing other entitlements and discretionary spending. Discretionary spending has been hit hardest, with defense falling from 9.1 percent of GDP at the height of the Vietnam War in 1968 to 3.1 percent in 2017. Nondefense spending has fallen somewhat more erratically to 3.2 percent of GDP in 2017 after reaching a 50-year high of 5.0 percent in 1978. The Congress was clearly reacting to these long-run declines when it significantly raised defense and nondefense discretionary spending in early 2018. It did not, however, pay for the increases with tax increases or other entitlement cuts.

The growth in Social Security and health spending combined with a near constant tax burden leads to the conclusion that the United States is on an unsustainable fiscal path. If these well-entrenched fiscal policies continue, the deficit will persist on an upward trend and the debt will continually grow relative to GDP. As a result, interest on the debt will become a major budget problem. Eventually, the system will explode into a fiscal crisis, and there will be no choice but to undertake painful spending and tax policy changes.

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Q. How much spending is uncontrollable?

A. Entitlement spending is generally said to be uncontrollable for political rather than legal reasons. It can always be controlled legally by reforming programs, but when an entitlement is extremely popular, reform may require more political courage than is readily available.

The federal budget divides government spending into three categories: discretionary spending, mandatory or direct spending, and net interest.

Discretionary spending, set in annual appropriations acts developed by the House and Senate Appropriations Committees, includes most defense programs as well as spending for education, transportation, environmental protection, law enforcement and border security, international assistance, and a host of other programs.

Mandatory spending, controlled by laws other than appropriations acts, includes spending on entitlement programs. This includes the big three—Social Security, Medicare, and Medicaid—and many smaller programs such as supplemental nutrition assistance, federal civilian and military retirement benefits, and unemployment insurance. Spending is also mandatory for items the government cannot avoid, such as bills from suppliers of goods and services and plaintiff awards from lawsuits.

Government spending on mandatory programs and net interest on the public debt are often described as "uncontrollable." Entitlements can be controlled legally by reforming them, but this can be highly unpopular politically. Interest costs can be controlled indirectly by curbing spending growth or raising revenues, but that is also difficult.

Uncontrollable spending has been growing much more rapidly than total spending and thus accounts for an ever-larger share of the total. However, most growth has been concentrated in entitlements that serve the elderly and in health insurance. The population has been aging rapidly, and that affects both Social Security and health programs. The latter have grown twice as rapidly because even after adjusting for aging, health costs per beneficiary have been growing faster than incomes per capita. Health cost growth has slowed recently, but the Congressional Budget Office expects it to reaccelerate in the long run. Social Security and Medicare, the largest health program, are among the most politically popular programs ever invented.

Whereas discretionary programs are funded by specific appropriations that generally last only one year, entitlement spending for Social Security and Medicare is ongoing and is not scrutinized as carefully or as often as discretionary spending. The laws establishing entitlements specify who is eligible and describe the benefits. The government then pays for as many eligible individuals as claim them. Thus, total

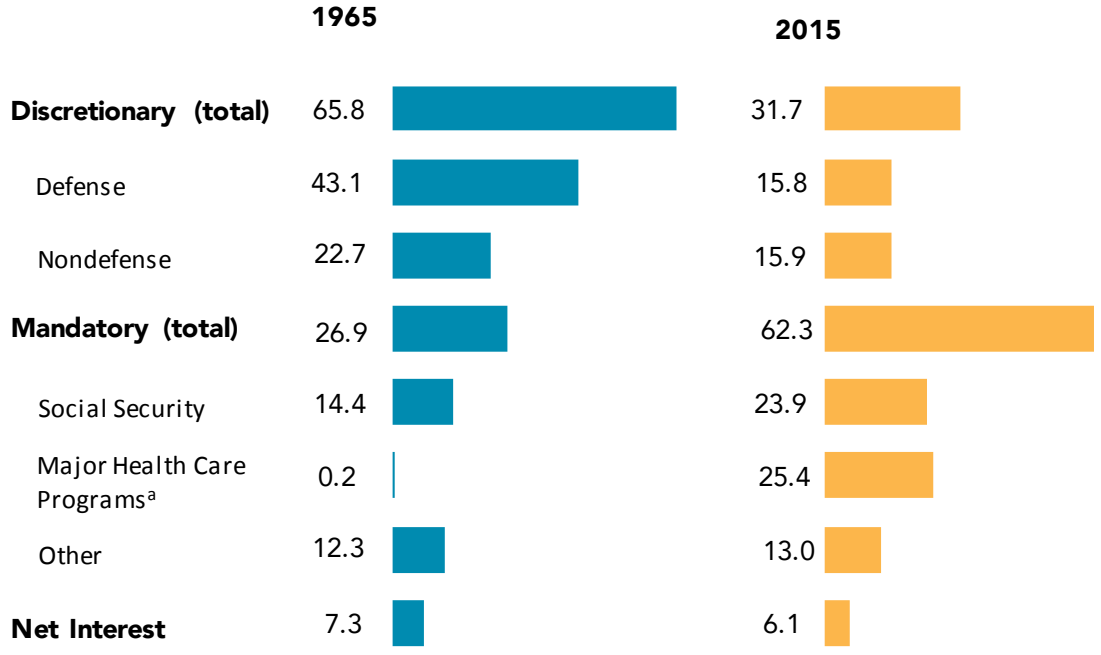
entitlement spending cannot be predicted with precision from year to year—and is, in this narrow sense, "uncontrollable."

As a matter of law, though, entitlement spending can be controlled in the long run by changing eligibility criteria or the generosity of benefits. This would require Congress to actively change the law, but as implied above, that is politically perilous. In contrast, a discretionary program, unless renewed, will automatically expire when its funding does. Discretionary spending is therefore often assumed to be easier to control than entitlement spending. But the difference should not be exaggerated: cuts in appropriations from year to year can also be highly unpopular and politically difficult.

FIGURE 1

Spending as a Percentage of Total Spending

1965 and 2015



Sources: Congressional Budget Office, Historical Budget Data, March 2016; author calculations.
(a) Spending on Medicare (net of offsetting receipts), Medicaid, the Children's Health Insurance Program, and subsidies offered through health insurance exchanges and related spending.

Background

How much spending is uncontrollable?

As shown in figure 1, mandatory spending has grown as a percentage of overall spending in the last 50 years. In fiscal 1965, mandatory spending plus net interest constituted 34.2 percent of total spending. By fiscal 2015 the share had doubled to 68.4 percent. Over the same period, Social Security's share of total spending rose from 14.4 percent to 23.9 percent. Medicare and Medicaid were created in 1965 and were responsible for a small portion of total spending throughout the rest of the 1960s. But by 2015 they and other health care programs consumed 25.4 percent of outlays. In contrast, defense discretionary spending fell over the same period from 43.1 percent of total spending at the peak of the Vietnam War to 15.8 percent in 2015. The percentage of total spending devoted to nondefense discretionary programs also fell from 22.7 percent in 1965 to 15.9 percent in 2015, but this has fluctuated significantly over the period.

Data Sources

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Q. What are tax extenders?

A. Several dozen temporary tax breaks expired at the end of 2017. They are often collectively known as the "tax extenders" because lawmakers likely will consider extending most or all of them. The temporary-but-not-temporary character of these provisions complicates tax policy and budgeting.

THE TAX EXTENDERS

Congress often enacts temporary tax provisions, almost all of which are tax cuts. Some are made temporary to force review when they're scheduled to expire, or "sunset." Some are temporary because Congress intended them to address temporary needs, such as recession, mortgage market collapse, or regional weather disasters. And some are temporary because proponents want them to be permanent but cannot muster the budgetary resources to offset the cost for more than a year or two at a time.

These temporary tax provisions are often known as the "expiring provisions," because they are scheduled to expire or, in some years, already have. Of particular importance are several dozen temporary tax cuts that expired at the end of 2017 and a few that expire at the end of 2018. Most reward business and consumer investments in energy efficiency and production, as well as use of alternative fuels. Other business provisions reduce taxes for auto racetracks and racehorses. The largest individual extender excludes mortgage forgiveness from income. These provisions are collectively known as the "tax extenders" because of the expectation that lawmakers will consider extending most or all of them, either this year or early in 2019.

THE 2015 DEAL ON TAX EXTENDERS

At the end of 2015, lawmakers made permanent many provisions that had previously been temporary. Those included the research and experimentation credit (which had been temporarily renewed 16 times since 1981), the "subpart F exceptions" that allow financial firms to defer tax on some international income (renewed seven times since 1998), the personal deduction for state and local sales taxes (renewed four times since 2004), and more than a dozen other expired provisions. The law also made permanent expansions of the Earned Income Tax Credit, the Child Tax Credit, and the American Opportunity Tax Credit that were scheduled to expire at the end of 2017. Originally enacted as part of the economic stimulus in 2009 and extended in the fiscal cliff deal at the close of 2012, these provisions help working families with kids, encourage work, reduce marriage penalties, and help with education expenses.

The law thus made permanent many of the largest and most politically important expiring provisions. Dozens of temporary provisions remain, but tax extender deliberations have lower stakes now than several years ago.

Background

What are tax extenders?

PROVISIONS EXPIRING IN THE FUTURE

More tax provisions are scheduled to expire in coming years. The 2019 cohort of expirations includes prominent tax breaks such as the Work Opportunity Tax Credit and the New Markets Tax Credit. But the most important expirations are scheduled for 2025, when key provisions of the 2017 tax bill expire. These include lower individual tax rates, the expanded Child Tax Credit, limits on the Alternative Minimum Tax, and the deduction for qualified pass-through business income.

POLICY IMPLICATIONS

Some tax provisions are temporary for good reasons. If Congress enacts tax cuts to soften the blow from disasters and recessions, it makes sense to limit their duration. Sunsetting tax breaks after several years can also inspire more congressional oversight than permanent features of the tax code may receive.

In practice, though, Congress often extends tax breaks a year or two at a time merely to meet the letter of the law governing congressional budget procedures. Budget rules often (but not always) require lawmakers to find offsetting revenue increases or spending cuts to pay for extending a tax break. Finding such offsets is easier for a temporary extension than for a permanent one.

It should be no surprise, then, that the number of expiring provisions snowballed, with more than 50 identified as extenders before the recent law and more than 30 still remaining. The large number makes Congress less likely to consider their merits as individual provisions.

BUDGET IMPLICATIONS

The Congressional Budget Office must assume that these temporary-but-not-temporary laws will expire as scheduled when it compiles the budget baseline that serves as a starting point for congressional budget deliberations. Such assumptions make the baseline unrealistic, since temporary tax laws are typically extended. Moreover, because most extenders involve tax cuts, the assumption that these provisions will expire leads the Congressional Budget Office to project higher than likely revenues. There is one exception to the rule: temporary taxes whose revenue is deposited in trust funds are assumed to continue.

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Q. What options would increase federal revnues?

A. Policymakers can directly increase revenues by increasing tax rates, reducing tax breaks, expanding the tax base, improving enforcement, and levying new taxes. They can indirectly increase revenues through policies that increase economic activity, income, and wealth.

Policymakers can raise revenues by modifying existing tax policy, enacting new taxes, and boosting economic activity.

MODIFYING EXISTING TAX POLICY

1. **Congress could increase the tax rates that apply to personal income, corporate income, payrolls, estates, and specific products like gasoline and cigarettes.** Higher rates almost always yield higher revenues, even if people and businesses do less of the taxed activity. Capital gains, which are currently taxed at a top rate of 23.8 percent, are one exception; some estimates suggest revenues may peak at rates around 30 percent but then decline at higher rates.

2. **Congress could scale back or eliminate the myriad tax breaks in the existing code.** Prominent personal examples include the exclusion of employer-provided health insurance, retirement saving incentives, and the exclusion of capital gains on sales of principal residences. Prominent business examples include expensing of new investments, low tax rates on overseas income, and the 20 percent deduction for qualified business income.

3. **Congress could apply existing taxes more broadly.** For example, it could reduce the standard deduction in the individual income tax, increase the cap on earnings subject to the Social Security payroll tax, or reduce the estate tax exemption.

4. **The federal government could strengthen enforcement.** The IRS estimates that the "tax gap"—the difference between taxes owed and those actually paid—averaged about $458 billion annually in 2008–10 and that enforcement efforts and penalties recovered about $52 billion. Better enforcement could further reduce the remaining $406 billion gap.

ENACTING NEW TAXES

Policymakers could also boost revenues by introducing new taxes. The largest potential revenue sources would be a value-added tax (already levied in every other developed nation) or a carbon tax (which would target the pollutants causing climate change). Other recent proposals include taxes on financial transactions, wealth, and unhealthy foods and drinks.

Background

What options would increase federal revenues?

BOOSTING ECONOMIC ACTIVITY

All else equal, a bigger economy generates more tax revenue. Policies that boost economic activity, incomes, and wealth can thus lift revenues as well. Examples include policies that increase the number of people in the labor force, the number of hours they work, and their skills. Policymakers can also modify the tax code to increase workers' physical and intellectual capital.

Immigration reform is one way to boost economic activity. Bringing new workers into the country would expand the labor force and attract new capital; allowing unauthorized workers to enter the legal workforce would boost their productivity and taxable wages.

Other policies that might boost economic activity include investing in infrastructure, education, and innovation; reforming the rules of social programs that discourage some people from working; and restructuring the tax code to encourage domestic investment. Actual economic gains depend on policy specifics; poorly designed investments and reforms could boomerang, reducing economic activity.

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Q. What does it mean for a government program to be off-budget?

A. The two Social Security trust funds and the postal service are "off-budget"—their spending and receipts are walled off from the rest of the budget. Putting Social Security and the post office off-budget shields them from some pressures, but policymakers often focus on the unified budget that includes them. A few other agencies are excluded because of their independence (e.g., the Federal Reserve) or private character (e.g., government-sponsored, privately owned entities and funds managed for private citizens).

OFF-BUDGET VERSUS ON-BUDGET ACOUNTING

The budget brings together the spending and receipts of virtually all federal activities, from paying doctors who treat Medicare patients to financing the Environmental Protection Agency to collecting income taxes to selling oil leases on federal land. In two cases, however, Congress has separated programs from the rest of the budget. The Postal Service Fund and the disability and retirement trust funds in Social Security are formally designated "off-budget," even though their spending and revenues are included in the unified budget.

Lawmakers created this special accounting to try to wall off these programs. For the postal service, the intent was to free the agency to pursue more efficient practices than the conventional budget process allows. But that has not helped the postal service avoid financial difficulties.

With Social Security, the intent was to protect any surpluses from being diverted into other programs. The two Social Security trust funds have accumulated large surpluses since 1983. Those will eventually be drawn down to pay benefits. Advocates therefore argued that those surpluses should be separated from budgeting for the rest of government. Congress hoped that this separation would induce greater fiscal discipline in the rest of the government.

RESULTS

This accounting has had mixed results. Congressional budget rules prevent spending reductions or revenue increases in Social Security from being explicitly used to pay for spending increases or tax cuts elsewhere. In that sense, off-budget accounting has protected the program. But high-level budget discussions focus on the unified budget deficit and thus ignore the off-budget versus on-budget distinction. As a result, Social Security surpluses have effectively helped finance deficits elsewhere in the government. Just how much is unclear, but in the almost three decades that Social Security has been off-budget, the rest of government has

Background

What does it mean for a government program to be off-budget?

run a surplus in only two years (1999 and 2000).

In any case, these arguments have less relevance today. Annual Social Security expenditures have exceeded noninterest income since 2010. The combined trust funds still run a surplus because of interest payments from the Treasury, but these payments are simply transfers from one government office to another and therefore do not affect the unified deficit.

THE FEDERAL RESERVE SYSTEM

The Federal Reserve System (the Fed) is part of the federal government but is explicitly excluded from the budget to shield monetary policymakers from political pressure. Other developed nations do the same. The Fed thus sets its own spending and finances itself from earnings on lending to banks and its financial assets. The Fed remits its profits to the Treasury each year, which the budget records as receipts, but the agency otherwise operates outside the budget.

OTHER ACTIVITIES OUTSIDE THE BUDGET

Some federal activities are outside the budget because the government plays a limited role in what is otherwise a private activity. The government manages various funds whose assets belong to Indian tribes, federal employees, copyright holders, and other private individuals. Spending from and receipts to those funds are generally not included in the budget.

Government-sponsored enterprises, such as the Federal Home Loan Banks, also fall outside the budget because they are privately owned and their debt does not bear the full faith and credit of the US government. However, most observers assume their close ties to the government would lead to a bailout if they got into financial trouble.

That assumption proved accurate for Fannie Mae and Freddie Mac, the giant mortgage finance enterprises. During the 2008 financial crisis, they received substantial financial assistance and were put into federal conservatorship. This has led to a dispute regarding their status. The Office of Management and Budget believes Fannie Mae and Freddie Mac are still sufficiently private to fall outside the budget. The Congressional Budget Office believes federal control is now so strong that the two entities are effectively federal agencies and their spending and receipts should be in the budget.

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Q. How did the TCJA affect the federal budget outlook?

A. The Tax Cuts and Jobs Act cut taxes substantially from 2018 through 2025. The resulting deficits will add $1 to $2 trillion to the federal debt, according to official estimates. The debt increase will be larger if some of TCJA's temporary tax cuts are extended.

At the start of 2017, congressional Republicans often spoke about revenue-neutral tax reform. The revenue losses from tax cuts would be offset by rolling back tax breaks or introducing other taxes, most notably a destination-based cash flow tax—sometimes called the border-adjusted tax. The destination-based cash flow tax attracted intense opposition from business groups, especially retailers, and was eventually dropped. Lawmakers then pivoted to a combination tax cut and reform. The Tax Cuts and Jobs Act (TCJA) was the result.

ESTIMATING TCJA'S BUDGET IMPACT

The Joint Committee on Taxation and the Congressional Budget Office have published several estimates of TCJA's expected budget impact. These estimates all show TCJA substantially reducing revenues and increasing deficits over its first decade. The specific amount varies—from about $1 trillion to $2 trillion—for three reasons.

First, the agencies estimated budget impacts using both conventional methods (which do not account for potential changes to the overall economy) and dynamic methods (which do). Second, the agencies originally estimated the budget impacts against a budget baseline established in 2017, when the act was debated and enacted. They later published updated figures using a 2018 baseline, which included new economic and budget information. Third, official scores typically do not include any new debt service costs resulting from tax cuts or spending increases. Projections for the entire budget, however, do include debt service.

CONVENTIONAL ESTIMATES

During legislative debate, the most-cited estimate was that the TCJA would increase deficits by about $1.5 trillion over 10 years. This figure comes from the Joint Committee on Taxation (JCT) and Congressional Budget Office's (CBO's) conventional score. JCT projected that the law would reduce revenues by $1.65 trillion from 2018 to 2027. That deficit increase would be partly offset, CBO and JCT projected, by $194 billion in reduced spending, primarily on health insurance.

In a subsequent update, CBO estimated the conventional budget effect at almost $1.9 trillion over the same period. That increase reflected an updated view of certain features of the law as well as new economic projections.

Background

How did the TCJA affect the federal budget outlook?

DYNAMIC ESTIMATES

JCT's original dynamic score found that the TCJA would boost economic activity (not growth) by an average of about 0.7 percent over the budget window. That growth would reduce the deficit impact by about $385 billion—a $451 billion boost to revenues, partly offset by $66 billion more in spending for higher interest rates. Including macroeconomic effects, TCJA would thus increase the deficit by slightly less than $1.1 trillion over a decade. CBO's 2018 update increased that figure to about $1.4 trillion.

DEBT SERVICE COSTS

To finance TCJA's tax cuts, the government will issue additional Treasury securities and pay additional debt service. Including that spending, the deficit effects of TCJA are larger. CBO's 2018 update, for example, puts the conventional deficit increase from TCJA at almost $2.3 trillion over its first decade. The corresponding dynamic score is a $1.9 trillion increase.

EXPIRING PROVISIONS

To satisfy budget process requirements, lawmakers decided to sunset some provisions of the TCJA. Most cuts to individual income taxes, for example, expire at the end of 2025. Business expensing for new investment is also temporary. As conventionally scored, the act thus increased deficits from 2018 through 2026 and decreased them thereafter. If lawmakers decide to extend all the expiring provisions, however, that would add about $480 billion to deficits through 2027 and a growing amount thereafter.

LATER DECADES

The TCJA was enacted under a process known as reconciliation. Among other things, reconciliation requires that a bill not increase the deficit beyond the 10-year budget window. At the time, JCT and CBO concluded that the act satisfied that requirement on a conventional scoring basis. Indeed, they found that the law reduced deficits starting in 2027. If TCJA's expiring provisions are eventually made permanent, however, deficits will be persistently higher.

HISTORICAL CONTEXT

Any way you slice it, the TCJA was a major tax reduction. Tax revenues will average just 16.7 percent of GDP from 2018 to 2022, according to CBO's latest projections. That's well below the 17.4 percent of GDP average from 1962 to 2016.

Revenues would rise to 18.5 percent of GDP by 2028 if all TCJA's temporary provisions expire as scheduled. Revenues would be 17.5 percent of GDP if those provisions are extended.

Those revenues are far below expected spending, which CBO sees rising from 20.6 percent of GDP in 2018 to 23.6 percent in 2028. Absent dramatic spending cuts, the public debt will continue to grow faster than the economy.

Background

How did the TCJA affect the federal budget outlook?

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Q. How do taxes affect the economy in the short run?

A. Primarily through their impact on demand. Tax cuts boost demand by increasing disposable income and by encouraging businesses to hire and invest more. Tax increases do the reverse. These demand effects can be substantial when the economy is weak but smaller when it is operating near capacity.

TAXES AND SHORT-RUN DEMAND

Economic activity reflects a balance between what people, businesses, and governments want to buy and what they want to sell. In the short run—focusing on the next one or two years—economic policy has greater impact on the demand side. When the economy is weak, for example, the Federal Reserve tries to boost consumer and business demand by cutting interest rates or purchasing financial securities. Congress, for its part, can boost demand by increasing spending and cutting taxes.

Tax cuts increase household demand by increasing workers' take-home pay. Tax cuts can boost business demand by increasing firms' after-tax cash flow, which can be used to pay dividends and expand activity, and by making hiring and investing more attractive.

MULTIPLIERS

How much tax cuts boost demand (or tax hikes restrain it) depends on the sensitivity of household and business behavior—for example, how households divide increased after-tax income between consumption and saving, and whether businesses choose to hire and invest more. Economists summarize these effects in a simple measure, the output multiplier, expressing how many dollars of increased economic activity result from a dollar reduction in taxes or a dollar increase in government spending. The Congressional Budget Office (CBO) has estimated such multipliers for a mix of tax and spending policies (table 1).

As these estimates suggest, the stimulus from tax cuts or spending increases depends on the strength of the economy. If it is operating close to potential and the Federal Reserve is not constrained by the zero lower bound on interest rates, fiscal policies will have a small short-run economic effect, largely because the Fed will offset fiscal stimulus with interest rate hikes. However, if the economy is far from potential and short-term interest rates are close to zero, fiscal stimulus can have significantly more impact because the Fed will not offset it. CBO estimates that fiscal multipliers are about three times larger when the economy is very weak than when it is strong.

Background

How do taxes affect the economy in the short run?

TABLE 1

Output Multipliers for Federal Fiscal Policies

	Economy Well Below Potential		Economy Close to Potential	
	Low	High	Low	High
Tax cuts				
Lower- and middle-income people, two years	0.3	1.5	0.1	0.5
Higher-income people, one year	0.1	0.6	0.0	0.2
First-time homebuyer credit, extension	0.2	0.8	0.1	0.3
Corporate tax provisions primarily affecting cash flow	0.0	0.4	0.0	0.1
Transfer payments				
Individuals	0.4	2.1	0.1	0.7
Retirees	0.2	1.0	0.1	0.3
Transfers to state and local governments				
Infrastructure	0.4	2.2	0.1	0.7
Other purposes	0.4	1.8	0.1	0.6
Purchases of goods and services	0.5	2.5	0.2	0.8

Source: Whalen and Reichling (2015).
Notes: If the economy is well below potential, output gains are spread over one (Low) to four (High) quarters. If the economy is operating close to potential, output gains are spread over one (Low) to three (High) quarters and are partly offset by output losses through the eighth quarter.

CBO's numbers illustrate substantial uncertainty in our understanding of how fiscal policies affect the economy. For a two-year tax cut aimed at lower- and middle-income households, for example, CBO's low estimate of the multiplier (0.3) is just one-fifth the size of its high estimate (1.5).

But some things are clear. CBO's estimates suggest that, dollar for dollar, tax cuts are often a less effective means of stimulus than are spending increases. If the federal government purchases goods and services itself (or helps state and local governments do so), most or all of the spending will boost demand. If the government cuts personal taxes, however, a substantial amount of the added spending power leaks into saving. That dampening effect can be moderated by targeting tax cuts to lower- and middle-income households, which are less likely to save.

OTHER SHORT-RUN EFFECTS

Tax policies can also affect the supply of labor in the short run. A cut in payroll taxes could bring some workers into the labor market or encourage those already working to put in more hours. Such supply changes have little effect on output if the economy is operating well below potential. Under those conditions, people have difficulty finding more work even if they want it. If the economy is operating near potential, however, increased labor supply can translate to increased output.

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How do taxes affect the economy in the short run?

THE TAX POLICY CENTER'S MODEL

The Tax Policy Center (TPC) model of short-run economic effects differs slightly in approach compared to CBO's but is designed to produce similar estimates. The CBO model estimates direct effects on demand based on generic policy types, as in table 1. The TPC model instead derives effects on after-tax incomes from TPC's distributional tables. TPC used this model to estimate the short-run economic and revenue effects of the Tax Cuts and Jobs Act.

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Q. How do taxes affect the economy in the long run?

A. Primarily through the supply side. High marginal tax rates can discourage work, saving, investment, and innovation, while specific tax preferences can affect the allocation of economic resources. But tax cuts can also slow long-run economic growth by increasing deficits. The long-run effects of tax policies thus depend not only on their incentive effects but also their deficit effects.

Economic activity reflects a balance between what people, businesses, and governments want to buy and what they want to sell. In the short run, demand factors loom large. In the long run, though, supply plays the primary role in determining economic potential. Our productive capacity depends on the size and skills of the workforce; the amount and quality of machines, buildings, vehicles, computers, and other physical capital that workers use; and the stock of knowledge and ideas.

TAX INCENTIVES

By influencing incentives, taxes can affect both supply and demand factors. Reducing marginal tax rates on wages and salaries, for example, can induce people to work more. Expanding the earned income tax credit can bring more low-skilled workers into the labor force. Lower marginal tax rates on the returns to assets (such as interest, dividends, and capital gains) can encourage saving. Reducing marginal tax rates on business income can cause some companies to invest domestically rather than abroad. Tax breaks for research can encourage the creation of new ideas that spill over to help the broader economy. And so on.

Note, however, that tax reductions can also have negative supply effects. If a cut increases workers' after-tax income, some may choose to work less and take more leisure. This "income effect" pushes against the "substitution effect," in which lower tax rates at the margin increase the financial reward of working.

Tax provisions can also distort how investment capital is deployed. Our current tax system, for example, favors housing over other types of investment. That differential likely induces overinvestment in housing and reduces economic output and social welfare.

BUDGET EFFECTS

Tax cuts can also slow long-run economic growth by increasing budget deficits. When the economy is operating near potential, government borrowing is financed by diverting some capital that would have gone into private investment or by borrowing from foreign investors. Government borrowing thus either crowds out private investment, reducing future productive capacity relative to what it could have been, or reduces how much of the future income from that investment goes to US residents. Either way, deficits can reduce

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How do taxes affect the economy in the long run?

future well-being.

The long-run effects of tax policies thus depend not only on their incentive effects but also on their budgetary effects. If Congress reduces marginal tax rates on individual incomes, for example, the long-run effects could be either positive or negative depending on whether the resulting impacts on saving and investment outweigh the potential drag from increased deficits.

PUTTING IT TOGETHER

That leaves open questions on how large incentive and deficit effects are, and how to model them for policy analysis. The Congressional Budget Office and the Joint Committee on Taxation each use multiple models that differ in assumptions about how forward-looking people are, how the United States connects to the global economy, how government borrowing affects private investment, and how businesses and individuals respond to tax changes. Models used in other government agencies, in think tanks, and in academia vary even more. The one area of consensus is that the most pro-growth policies are those that improve incentives to work, save, invest, and innovate without driving up long-run deficits.

The Urban-Brookings Tax Policy Center (TPC) has developed its own economic model to analyze the long-run economic effects of tax proposals. In TPC's model, simple reduced-form equations based on empirical analysis determine the impact of tax policy on labor supply, saving, and investment. TPC used this model to estimate the long-run economic and revenue effects of the Tax Cuts and Jobs Act.

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Q. What are dynamic scoring and dynamic analysis?

A. Tax, spending, and regulatory policies can affect incomes, employment, and other broad measures of economic activity. Dynamic analysis accounts for those macroeconomic impacts, while dynamic scoring uses dynamic analysis in estimating the budgetary impact of proposed policy changes.

BUDGET SCORING

The Congressional Budget Office (CBO) and the Joint Committee on Taxation (JCT) estimate the budgetary effects of tax, spending, and regulatory legislation. The resulting "scores" play a major role in policy deliberations because of congressional budget rules and public concern about the budget.

CBO and JCT recognize that households' and businesses' economic activity can be sensitive to changes in policy. An increase in the cigarette tax, for example, will reduce smoking, while new subsidies for health insurance will increase coverage. The agencies account for those behavioral responses in their estimates.

For many years, however, CBO and JCT budget scores did not account for the secondary impact on employment, gross domestic product, and other macroeconomic measures. The agencies often analyzed those macroeconomic impacts separately in what is called dynamic analysis, but did not include their feedback effects in official scores. An exception is immigration reform scoring: the effects on population and labor force are so direct that CBO and JCT did account for them.

In 2015, Congress adopted new budget rules that required dynamic scoring in certain cases. CBO and JCT now include macroeconomic feedback in official scores if proposed legislation has a sufficiently large budget impact (more than 0.25 percent of gross domestic product in any year in the budget window, equivalent to about $50 billion in 2018) or if a budget committee chair requests it. These rules cover major tax and mandatory spending proposals; an unresolved question is how these rules might also apply to investments, like infrastructure and education, funded through discretionary spending.

For dynamic scoring, CBO and JCT prepare conventional, nondynamic scores of proposed legislation and then use economic models to identify any short- or long-run effects on the overall economy. The agencies then estimate the budget effects of those macroeconomic feedbacks. The agencies have long done dynamic analyses of major legislation, using multiple models and parameter estimates. A major difference with dynamic scoring is that it distills multiple estimates down to the single set of estimates the budget process requires.

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What are dynamic scoring and dynamic analysis?

CASE STUDY: THE TAX CUTS AND JOBS ACT

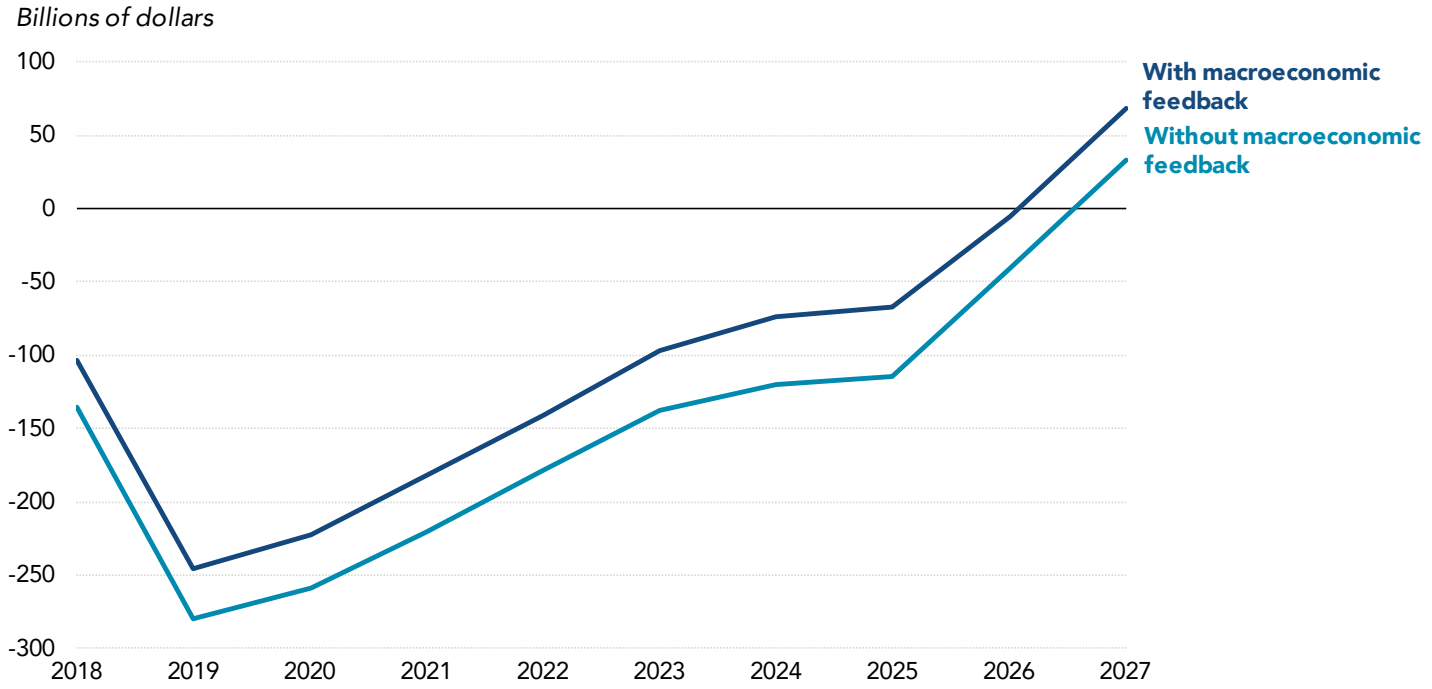
As mandated by the new budgetary rules, JCT analyzed the potential budget effects of the Tax Cuts and Jobs Act (TCJA). Including macroeconomic feedback, they estimated that the legislation would increase cumulative deficits by $1.1 trillion over the next decade. With conventional scoring, the estimated deficit increase would have been larger, $1.5 trillion (figure 1).

That difference arises because the agency's best estimates—subject, they emphasize, to significant uncertainty—suggest that the TCJA will expand economic activity. In the short run the law gives people more after-tax income, which increases demand for goods and services, boosting the economy. In the longer run, lower marginal tax rates on returns to saving and investment incentives will push up saving, investment, and the capital stock. Until many provisions expire after 2025, TCJA also lowers marginal tax rates on labor income, encouraging people to work more. JCT estimated that TCJA would boost the level of output by 0.7 percent, on average, over 2018–27. The larger output means more taxable income, generating additional revenue over the period—an effect slightly offset by higher interest rates, which raise projected interest payments on the national debt.

FIGURE 1

Estimated Budgetary Effects of the Tax Cuts and Jobs Act

By fiscal year



Source: Joint Committee on Taxation (2017).

Notes: Negative numbers correspond to an increase in the deficit.

The term "macroeconomic feedback" refers to the estimated effects on the federal budget that would arise from changes in economic output or other macroeconomic variables—such as changes in the number of hours that people work and in their aggregate compensation, which would change revenues, or changes in interest rates, which would change interest payments.

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What are dynamic scoring and dynamic analysis?

DYNAMIC ANAYLSIS BY THE TAX POLICY CENTER

Beginning in 2016, the Urban-Brookings Tax Policy Center has been publishing dynamic analyses of the tax plans of both presidential candidates and Congress. Those analyses generally found only modest dynamic effects on estimated revenue, largely because any incentive effects of lower tax rates were offset by increases in budget deficits. Most recently, the Tax Policy Center analyzed the dynamic effects of the TCJA, finding an initial boost to the economy that dwindled over time due to expiring provisions and rising debt.

CONTROVERSY OVER DYNAMIC SCORING

In principle, dynamic scoring should not be controversial. Policymakers and the public want to know how policy changes may affect the budget, whether through direct behavioral responses or macroeconomic feedback. In practice, however, dynamic scoring has been controversial: Advocates for a policy often hope that dynamic scoring will make enacting it easier. Opponents, however, fear the advocates will be right.

In reality, the effect will be more muted. Dynamic scores for tax cuts will include the pro-growth incentive effects that advocates emphasize. But dynamic scores will also account for offsetting effects, such as higher deficits crowding out investment or people working less because their incomes rise. The net of incentive and offsetting effects often yields smaller growth projections than advocates hope. Indeed, dynamic scoring sometimes shows that tax cuts are more expensive than conventionally estimated, usually when pro-growth incentives are not big enough to offset anti-growth effects.

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Q. Do tax cuts pay for themselves?

A. At current tax rates, the direct revenue loss from cutting tax rates almost always exceeds the indirect gain from increased activity or reduced tax avoidance. Cutting tax rates can, however, partly pay for itself. How much depends on how people respond to tax changes.

TAX RATES AND REVENUES

Economic activity generally responds to tax changes. If you increase the tax on cigarettes, people will smoke less and some will shift to illegal, untaxed cigarettes. Income taxes also trigger a response. If you increase the tax rate on wages and salaries, some people will work less. (Some will also work more to recoup lost after-tax income, but evidence suggests that the disincentive effect dominates.) Similarly, if you increase tax rates on returns to saving and investing, such as interest, dividends, and capital gains, some people will save and invest less. (Here too some people may save more to maintain the same after-tax savings, but evidence suggests that the disincentive effect, though small, still dominates.)

Meanwhile, people will also respond by trying to avoid the tax increase without changing their underlying work or saving behavior. For example, some may work off the books or reclassify earnings to lower-tax forms of income. And some will devote more effort to using tax-advantaged retirement savings, charitable deductions, and other tax breaks to cut their taxable incomes. All these responses reduce the potential revenue gain from increasing tax rates.

The same is true in reverse. If the government reduces tax rates on an activity, people will do more of it and will devote less effort to legal avoidance and illegal evasion. In principle, those responses could be so large that a tax increase would reduce revenue or a tax cut would increase revenue. In practice, however, these paradoxical effects are extremely rare. Cutting tax rates thus almost never pays for itself in full.

But cuts can and do pay for themselves in part. If a 10 percent reduction in a tax rate yields a 3 percent increase in taxable income, for example, revenues fall by only 7 percent. Taxpayer responses would thus pay for 30 percent of the tax cut. Real-world examples can be more complex; a change in income tax rates, for example, could affect both payroll and income tax receipts.

THE LAFFER CURVE

Economist Arthur Laffer helped popularize the idea that the revenue effects of tax changes depend on taxpayers' response. Figure 1 shows a hypothetical Laffer curve that tracks how revenues depend on the tax rate.

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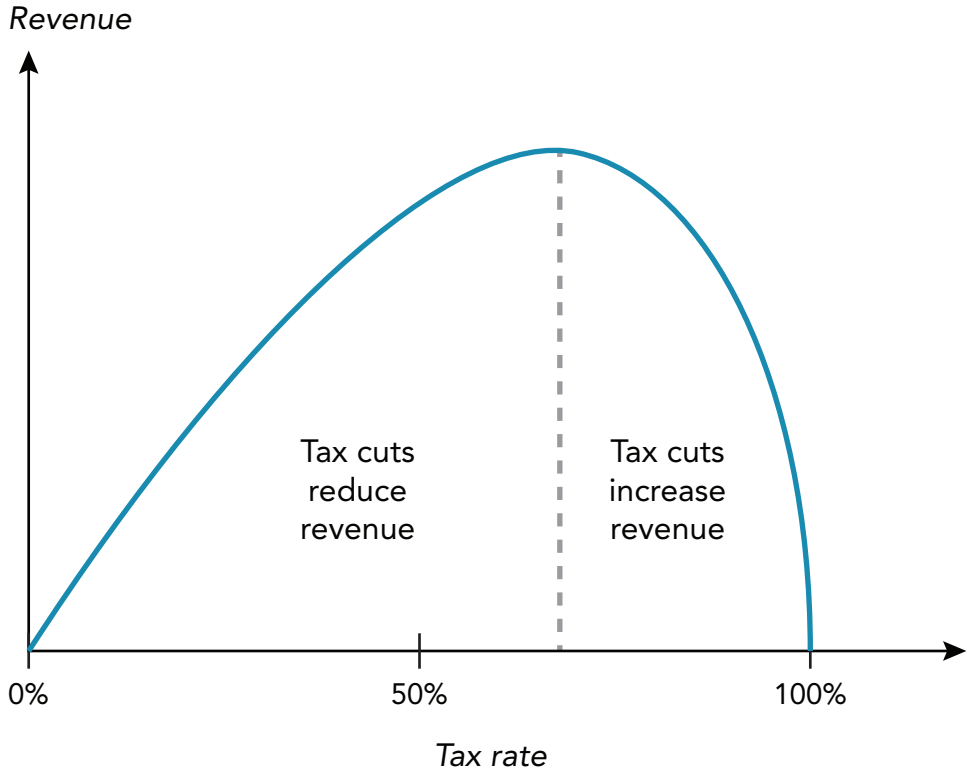
FIGURE 1

A Hypothetical Laffer Curve



We should expect that revenues would be very low when tax rates are close to either zero (when no revenue is raised regardless of the size of the tax base) or 100 percent (when there is an extreme disincentive to earn or report taxable income). At some point in between—65 percent in this hypothetical—revenues peak.

That much is uncontroversial. Debates often arise, however, about the shape of the Laffer curve and where on the curve current tax rates fall.

RESPONSIVENESS

A government's ability to raise revenues by raising tax rates is limited by how people respond. For example, a local government's ability to raise revenues by taxing hotel stays is limited by how easily potential hotel patrons can find accommodation in lower-tax communities. A state's ability to tax personal incomes, by the same token, is limited by taxpayers' willingness to move to lower-tax states to avoid the added levy. Likewise, the federal government's ability to tax corporations is limited by corporations' ability to move economic activity—in substance or merely in form—to lower-tax nations. And so on.

Responses depend on economic and policy conditions. A tax cut is a bigger deal, for example, when marginal tax rates are 70 percent than when they are 40 percent. Responsiveness also varies with the difficulty of changing behavior. Taxpayers can avoid capital gains taxes, for example, by holding appreciated stock and other assets until death or by donating them to charity. As a result, some analysts estimate that

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the Laffer curve for capital gains taxes peaks around a 30 percent federal rate. If the government scaled back those tax-reduction opportunities, however, taxpayers would have less ability to defer or avoid capital gains taxes and the peak rate would be higher.

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Q. On what do economists agree and disagree about the effects of taxes on economic growth?

A. Economists generally agree that people and businesses respond to taxes and that large tax changes can move the economy. But economists have not (and probably cannot) pin down exactly how the economy works and how responsive people and businesses are to policy changes. As a result, economists often disagree about what models and parameters to use to analyze tax policies. Those scientific disagreements are sometimes amplified by value judgments about appropriate policy.

AREAS OF AGREEMENT

Economists often agree about the general effects of tax policy. For example, they agree that people respond to incentives, taxes can change incentives, and therefore taxes can change behavior. A tax on cigarettes reduces smoking and shifts some purchases to untaxed markets. The Earned Income Tax Credit brings more low-wage single parents into the workforce. Investors are less likely to realize capital gains when tax rates are high. Businesses shift their legal structures, and sometimes the location of their activities, to lower tax burdens. When faced with a scheduled tax increase or decrease, people and businesses move income into the lower-taxed periods. And so on.

Economists also generally agree that large tax changes can move the economy. For example, tax cuts can temporarily stimulate economic activity by boosting demand. In the longer run, a tax system with low rates and a broad base is more likely to promote prosperity than one with high rates and a narrow base.

Within those broad areas of agreement, economists often disagree about the size and importance of potential effects.

THE LIMITS OF ECONOMIC SCIENCE

In practice, economics blends scientific rigor with value judgments. The science helps us understand how the economy works. The philosophy influences how we draw inferences about what better and worse policies may be.

The science part is incomplete. There is no consensus, for example, on what assumptions to use to analyze the macroeconomic effects of tax policy. The Congressional Budget Office (CBO) and the Joint Committee on Taxation, for example, each use multiple models with different assumptions of how forward-looking

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On what do economists agree and disagree about the effects of taxes on economic growth?

people are (ranging from complete myopia to perfect foresight), how the United States connects to the global economy, and other dimensions.

Even within a single modeling framework, moreover, there is significant uncertainty about the size of potential effects. In modeling the short-run consequences of fiscal policy, for example, CBO estimates that the fiscal "multiplier" for a two-year tax cut to lower- and middle-income households is 0.3 to 1.5—a fivefold difference. Such wide ranges exist because the evidence is inadequate to pin down key parameters. And the resulting uncertainty is amplified because there are good reasons to believe that the economy has changed sufficiently to make the past an imperfect predictor of the future.

VALUE JUDGMENTS

For those reasons, there is substantial scope for scientific disagreement about the economic effects of tax policy. But that is not the only reason economists disagree. Value judgments can also color views about tax policy.

In an IGM Forum survey of leading economists, 90 percent either agreed or strongly agreed that one "reason why economists often give disparate advice on tax policy is because they hold differing views about choices between raising average prosperity and redistributing income."

In principle, economists should be able to distinguish such value differences from objective analysis. In practice, however, the two blur. Opponents of redistributional policies often argue, for example, that the policies will have large negative side effects, while advocates often argue that those effects are small. Some of that difference is sincere. If you believe the negative side effects of a policy are large, it makes more sense to oppose it, and vice versa. However, the causality can also run the other way, with analysts emphasizing the estimates most consistent with their values.

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Q. How might the TCJA affect economic growth?

A. The Tax Cuts and Jobs Act will likely boost economic output modestly in both the short and the longer run, but not all those gains will flow to the incomes of Americans.

The Tax Cuts and Jobs Act (TCJA) reduced tax rates on both business and individual income, and enhanced incentives for investment by firms. Those features most likely will raise output in both the short run and the long run, but most analysts estimate the effects will be modest and will offset only a portion of revenue loss from the bill (table 1).

TABLE 1

TCJA Growth Effects

	Effect on Size of GDP (%)[a]			Ten-year Dynamic Revenue Feedback (%)
	2018–20	2018–27	2027	
TCJA as written				
Barro and Furman (with crowd out)	-	-	0.2	16.7[b]
Congressional Budget Office	0.6	0.7	0.6	31.0[c]
International Monetary Fund	0.8	0.6	-0.1	-
Mertens	0.3–2.4	-	-	-
Moody's	0.4	0.3	0.4	-
Penn-Wharton Budget Model (low return)	-	-	0.6	7.7
Penn-Wharton Budget Model (high return)	-	-	1.1	19.1
Tax Foundation	0.9	2.1	2.9	69.5
Tax Policy Center	0.7	0.5	0	12.8
TCJA extended				
Barro and Furman (with crowd out)	-	-	1	20.5[b]

Sources: Barro and Furman (2018); Congressional Budget Office (2018b); International Monetary Fund (2018); Mertens (2018); Zandi (2017); University of Pennsylvania (2017); Tax Foundation Staff (2017); Page et al. (2017).

(a) All figures are approximations

(b) Dynamic revenue effects do not incorporate crowd-out.

(c) Primary deficit effect.

Background

How might the TCJA affect economic growth?

Over the first year or two after enactment, the TCJA is likely to influence the economy primarily by raising demand for goods and services. Cuts to individual income taxes mean that most households will have more after-tax income, which they are likely to spend. In addition, provisions such as allowing the expensing of some capital investment are likely to increase investment spending by firms. As businesses see more of their goods being purchased, they will ramp up production, boosting economic output.

Those short-run effects are likely to be limited, however, for two main reasons. First, much of the tax cuts flow to higher-income households or to corporations, whose stock tends to be held by the wealthy. Higher-income households tend to spend less of their increases in after-tax income than lower-income households. Second, as of Fall 2018, unemployment is low and output is near its potential level. Therefore, any increase in demand will be offset by a tightening of monetary policy, as the Federal Reserve increases interest rates to avoid rising inflation.

In the longer run, the TCJA is likely to affect the economy primarily through increased incentives to work, save, and invest. Reductions in individual income tax rates mean that workers can keep more out of each additional dollar of wages and salary. That will encourage people to work more hours and draw some new entrants into the labor force. However, those reduced rates are scheduled to expire at the end of 2025; after that, there is little or no tax incentive to increase work.

Lower individual tax rates, a lower corporate tax rate, expensing of capital investment, and other reductions in business tax rates will increase the after-tax return to saving, encouraging households to save and reducing the cost of investment for firms. Those changes will lead to more investment, a larger capital stock, and higher output, by most estimates.

The increased investment must be financed by a combination of private saving, public saving (or government budget surpluses), and net lending from abroad (which could take the form of bond purchases, portfolio investment, or direct investment of physical capital). Most analysts, consistent with empirical research, estimate that private saving will rise only modestly in response to an increase in the after-tax rate of return. And the bill reduces public saving, by increasing the deficit. Therefore, much of any increase in investment from TCJA is likely to be financed by net foreign lending. That will increase the future interest and profit payments that flow to foreigners, reducing the resources available to Americans. For that reason, in examining the effects of TCJA it may be more illuminating to look at changes in gross national product (which subtracts that type of payment) rather than gross domestic product (which does not). For example, the Congressional Budget Office estimates that TCJA will boost GDP by 0.6 percent in 2027, but—taking account of increased payments to foreigners—GNP will be up by only 0.2 percent.

Background

How might the TCJA affect economic growth?

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Background

Q. What is the role of monetary policy in business cycles?

A. Economists view monetary policy as the first line of defense against economic slowdowns—the Federal Reserve can act faster than the president or Congress, and it is better equipped to judge the appropriate timing and magnitude of economic stimulus.

Monetary policy—adjustments to interest rates and the money supply—can play an important role in combatting economic slowdowns. Such adjustments can be made quickly, and monetary authorities devote considerable resources to monitoring and analyzing the economy. Monetary policy can offset a downturn because lower interest rates reduce consumers' cost of borrowing to buy big-ticket items such as cars or houses. For firms, monetary policy can also reduce the cost of investment. For that reason, lower interest rates can increase spending by both households and firms, boosting the economy.

The Federal Reserve can adjust monetary policy more quickly than the president and Congress can adjust fiscal policy. Because most contractions in economic activity last for only a few quarters, a prompt policy response is crucial. Yet fiscal policy in practice responds slowly to changes in economic conditions: it takes time first to enact a stimulus bill and then to implement it, and time for the spending increases or tax reductions to reach consumers' pockets. As a result, the effect of fiscal stimulus on household and business spending may come too late.

Whether and how much stimulus is needed depends on present economic conditions, on projections of future conditions, and on possible risks to both economic activity and inflation. Forecasting economic conditions—or even determining the current state of the economy—is inherently difficult, given limitations in the data available and in economists' understanding of the world. But the Federal Reserve's large and sophisticated team of analysts is better positioned to accomplish this task than any other agency of the federal government. In addition, the Federal Reserve staff carries out this work independent of political considerations.

The potential of monetary policy to combat extreme events is limited, however, because its primary tool is the short-run interest rate, and that rate can't fall below zero. That means that in a particularly severe downturn such as the recent Great Recession, the Federal Reserve will reduce the short-run interest rate to zero, after which the Fed can employ only less effective and well-understood policies such as asset purchases. Under those conditions, fiscal policy may complement monetary policy in boosting the economy.

Background

What is the role of monetary policy in business cycles?

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Q. What are automatic stabilizers and how do they work?

A. Automatic stabilizers are features of the tax and transfer systems that temper the economy when it overheats and stimulate the economy when it slumps, without direct intervention by policymakers.

Automatic stabilizers offset fluctuations in economic activity without direct intervention by policymakers. When incomes are high, tax liabilities rise and eligibility for government benefits falls, without any change in the tax code or other legislation. Conversely, when incomes slip, tax liabilities drop and more families become eligible for government transfer programs, such as food stamps and unemployment insurance, that help buttress their income.

Automatic stabilizers are quantitatively important at the federal level. A 2000 study estimated that reduced income and payroll tax collection offset about 8 percent of any decline in gross domestic product (GDP). Additional stabilization from unemployment insurance, although smaller than that from the tax system, is estimated to be eight times as effective per dollar of lost revenue because more of the money is spent rather than saved. Altogether, a 2016 study estimated that if transfer payments were reduced in size by 0.6 percent of GDP, US output and hours worked would be about 6 and 9 percent more volatile, respectively.

The Congressional Budget Office estimates that through increased transfer payments and reduced taxes, automatic stabilizers provided significant economic stimulus during and in the aftermath of the Great Recession of 2007–09, and thereby helped strengthen economic activity. That stimulus amounted to more than $300 billion annually in 2009 through 2012, an amount equal to or exceeding 2.0 percent of potential GDP in each year. (Potential GDP measures the maximum sustainable output of the economy.)

Automatic stabilizers also arise in the tax and transfer systems of state and local governments. However, state constitutions generally require balanced budgets, which can force countervailing changes in outlays and tax rules. These requirements do not force complete balance annually: they generally focus on budget projections rather than realizations, so deficits can still occur when economic conditions are unexpectedly weak. In addition, many governments have "rainy day" funds they can draw down during periods of budget stringency. Even so, most state and local governments respond to an economic slowdown by legislating lower spending or higher taxes. These actions are contractionary, working at cross-purposes with automatic stabilizers.

Background

What are automatic stabilizers and how do they work?

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Q. What characteristics make fiscal stimulus most effective?

A. Fiscal stimulus can raise output and incomes in the short run. To have the greatest impact with the least long-run cost, the stimulus should be timely, temporary, and targeted.

Fiscal stimulus, such as tax cuts or spending increases, can raise output and incomes in the short run by increasing overall demand. To have the greatest impact with the least long-run cost, the stimulus should be timely, temporary, and targeted. *Timely*, so that its effects are felt while economic activity is still below potential; when the economy has recovered, stimulus becomes counterproductive. *Temporary*, to avoid raising inflation and to minimize the adverse long-term effects of a larger budget deficit. And well *targeted*, to provide resources to the people who most need them and will spend them: for fiscal stimulus to work, it is essential that the funds be spent, not saved.

TIMELY

Making fiscal stimulus timely is especially challenging because it involves not just enacting tax cuts or spending but also implementing them. For example, even once enacted, increased government appropriations may not translate into actual spending for quite some time. Poorly timed fiscal policy can destabilize the economy, intensifying rather than damping the business cycle: If fiscal stimulus is enacted too slowly, it might fail to prevent a drop in output and incomes or arrive after recovery has begun, leading to overexpansion and higher inflation.

TEMPORARY

Fiscal stimulus should be temporary because, in the long run, the Federal Reserve generally keeps the economy operating close to full employment and full capacity through monetary policy. This means that, in the long run, fiscal stimulus would not increase output, but instead simply crowd out other economic activity or induce the Federal Reserve to tighten monetary policy to keep inflation down.

Over the long run, permanent tax cuts or increases in government spending that are not matched by changes on the other side of the ledger reduce national saving. The result is less investment or more foreign borrowing. This, in turn, diminishes economic growth and future national income. Also, larger expected budget deficits tend to push up long-run interest rates, which restrain investment and weaken net exports by pushing up the value of the dollar—effects that will undo part or all of the direct stimulative effects of lower taxes or higher government spending. Therefore, a temporary stimulus is likely to be more effective than a permanent policy change, and at a much lower long-run cost.

Background

What characteristics make fiscal stimulus most effective?

TARGETED

Fiscal stimulus should be well targeted in two ways. First, it should go to households or businesses most likely to raise spending in response to the stimulus and thus increase gross domestic product in the short run. Second, it should provide the greatest benefit to the people most adversely affected by the slowdown. These two aspects of targeting are complementary. Higher-income households can generally smooth their consumption over the business cycle by drawing down their savings or borrowing. Therefore directing resources to them will likely have little effect on consumer spending. In contrast, lower-income families are more likely to cut back their consumption in hard times. These families are likely to spend any additional money they receive from tax cuts or transfer payments, which helps protect them from the downturn while also boosting the economy.

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Q. How are federal taxes distributed?

A. Although enterprises (e.g., retailers, employers) are legally obligated to pay certain taxes, the burden of all taxes ultimately falls on households.

Individuals, businesses, and other entities may have the legal obligation to pay certain taxes, but the economic burden (or incidence) of all taxes ultimately falls on households. Households may feel this burden through a reduction in their income or higher prices for goods and services.

The incidence of taxes has been studied for decades, and experts now broadly agree on how the burden is distributed across households. The Urban-Brookings Tax Policy Center (TPC), in preparing standard distribution tables, assumes the following about federal taxes:

INDIVIDUAL INCOME TAX

Taxpayers (who either pay the tax directly or receive a refundable credit) bear the entire burden of the individual income tax.

PAYROLL TAXES

Employees (or self-employed people who pay both shares of the tax) bear both the employer and the employee shares of the Social Security and Medicare payroll taxes in the form of lower take-home income.

CORPORATE INCOME TAX

The corporate income tax reduces both wages and returns to capital. The allocation between the two is uncertain and differs in the short and long terms. TPC assumes that in the long-term, income from capital (e.g., dividends, rents, interest, and capital gains) bears four-fifths of the burden, with wages and other sources of labor income bearing the remaining fifth. TPC assumes that corporate shareholders bear the entire burden of a short-term corporate income tax change before investors have a chance to react.

ESTATE TAX

Estate tax costs are borne entirely by decedents.

EXCISE TAXES

Excise taxes also are assumed to reduce wages and returns to capital. They also increase the relative price of taxed goods and services, so households that consume more of the taxed items bear a higher burden.

Background

How are federal taxes distributed?

The Joint Committee on Taxation (JCT), the US Department of Treasury's Office of Tax Analysis, and the Congressional Budget Office make similar incidence assumptions in their analyses, but with a few differences. For instance, JCT assumes that the tax on individual income that represents a return to capital from noncorporate businesses, like partnerships, is borne in the same manner as the corporate income tax. Moreover, each group follows slightly different incidence assumptions for the corporate income tax, reflecting the uncertainty over its incidence.

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Q. Are federal taxes progressive?

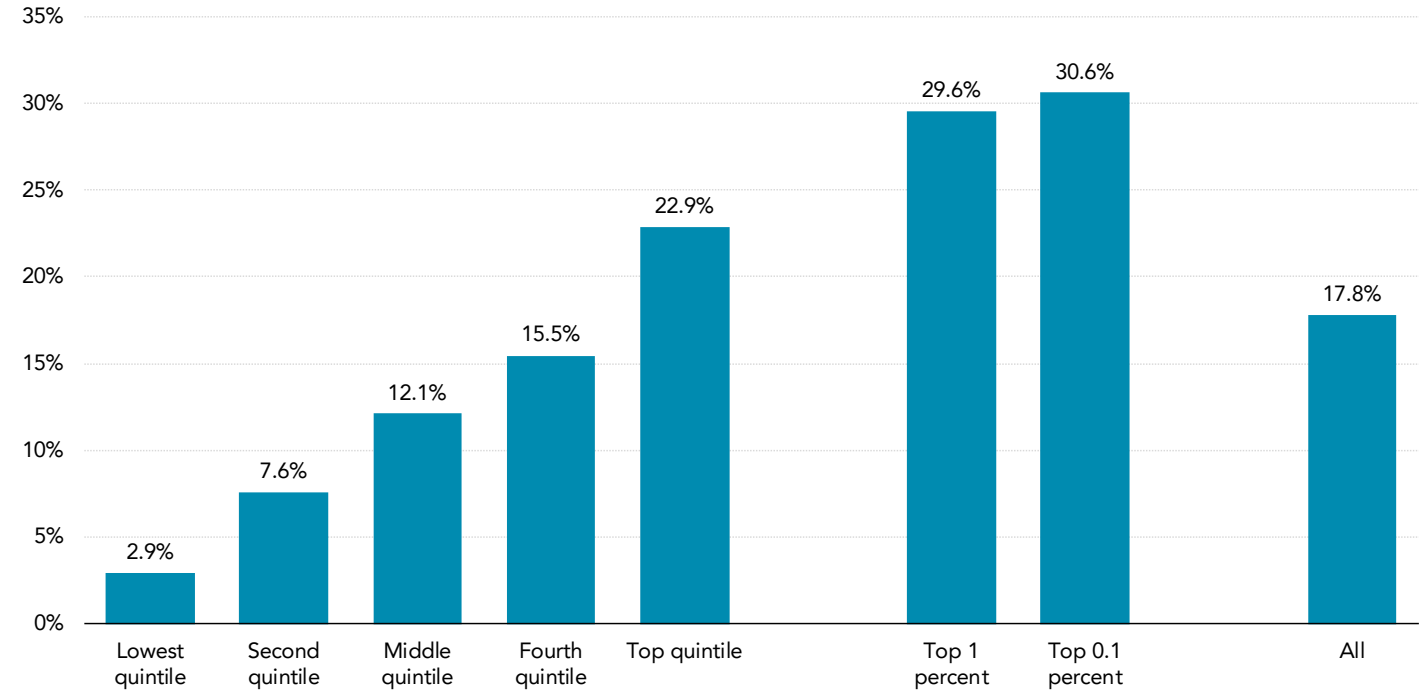
A. Overall, yes. But that's not the case for each tax.

The overall federal tax system is progressive, with total federal tax burdens a larger percentage of income for higher-income households than for lower-income households.

FIGURE 1

Average Effective Federal Tax Rates by Income Percentile

All federal taxes, 2018



Source: Urban-Brookings Tax Policy Center. T18-0083. "Effective Federal Tax Rates—All Tax Units, by Expanded Cash Income Percentile, 2018."
Notes: Individual income, payroll, corporate income, estate, and excises taxes are included. The average effective federal tax rate is the sum of individual and corporate income tax, payroll taxes for Social Security and Medicare, the estate tax, and excise taxes as a percentage of expanded cash income. For a description of expanded cash income, see Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center."

Background

Are federal taxes progressive?

Not all taxes within the federal system are equally progressive. Some federal taxes are actually regressive, as they make up a larger percentage of income for lower-income than for higher-income households.

The individual and corporate income taxes and the estate tax are all progressive. By contrast, excise taxes are regressive, as are payroll taxes for Social Security and Medicare. Regressivity can be seen over some range of income (figure 2).

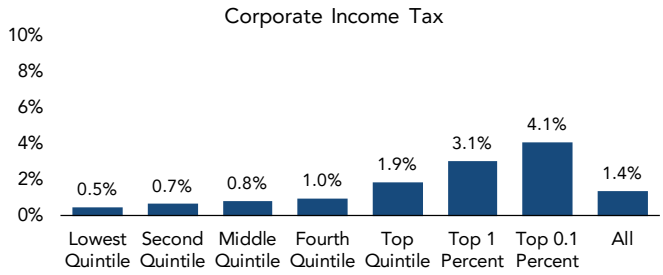
INDIVIDUAL INCOME TAX

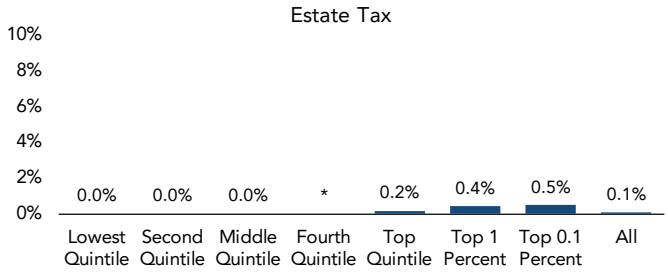
The individual income tax is progressive, thanks to the impact of refundable credits for lower-income households (average tax rates are negative for the two lowest income quintiles), the standard deduction (which exempts a minimum level of income from the tax), and a graduated rate structure (rates on ordinary income rise from 10 to 37 percent, with an additional 3.8 percent marginal tax on certain investment income of high-income households).

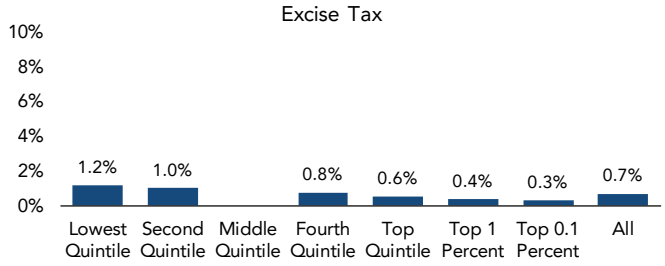
FIGURE 2

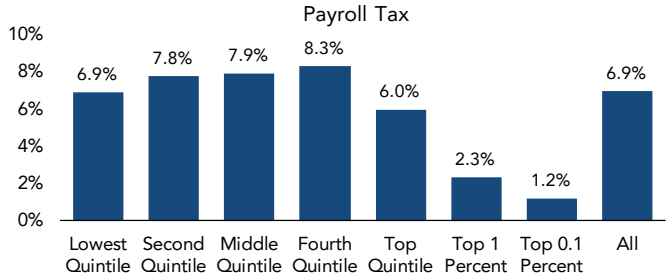
Average Effective Tax Rates by Type of Federal Tax

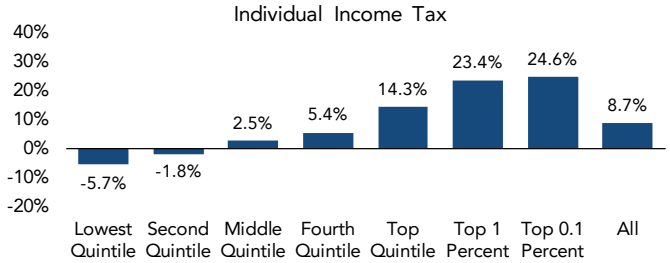
By income percentile, 2018











Source: Urban-Brookings Tax Policy Center. T18-0083. "Effective Federal Tax Rates—All Tax Units, by Expanded Cash Income Percentile, 2018.".
Note: For a description of expanded cash income, see Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center."
* = nonzero value rounded to zero

Background

Are federal taxes progressive?

CORPORATE INCOME TAX

The corporate income tax is progressive because most of its burden falls on income from dividends, capital gains, and other forms of capital income disproportionately received by high-income households.

ESTATE TAX

The estate tax is only imposed on households with high levels of wealth. Only wealth above an exemption amount is subject to the tax—that amount for those who die in 2018 is $11.18 million, and it is effectively double for married couples. High wealth is almost always commensurate with high income, so, when households are classified by income, virtually the entire estate tax burden falls on the very highest income households.

PAYROLL TAXES

The regressive nature of payroll taxes stems from two factors. First, the Social Security portion of payroll taxes is subject to a cap: in 2018, individuals will pay the tax on only their first $128,400 in earnings. Second, compared with lower-income households, higher-income households receive more of their income from sources other than wages, such as capital gains and dividends, which are not subject to the payroll tax. However, because wages rise as a share of income over the first four quintiles of the distribution, payroll taxes are slightly progressive until high income levels are reached.

EXCISE TAX

An excise tax increases the price of the taxed good or service relative to the prices of other goods and services. So households that consume more of the taxed good or service as a share of their total consumption face more of the tax burden from this change in relative prices. The regressivity of excise taxes is primarily the result of this relative price effect, because, on average, alcohol and tobacco represent a declining share of consumption as household income rises.

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Q. How should progressivity be measured?

A. A broad definition of progressivity, that tax burdens rise with household income, masks a host of ambiguities in measuring the effect of a tax change. The percentage change in after-tax income is the most reliable measure of the progressivity of such a change.

A tax is progressive if, on average, household tax burdens rise with incomes. This definition is generally considered too broad because "tax burden" can be defined in various ways. Table 1 helps illustrate the problem by analyzing a hypothetical proposal to reduce all individual income tax rates by 1 percentage point.

TABLE 1

Proposal to Reduce All Federal Individual Income Tax Rates by One Percentage Point
2018

Expanded cash income percentile	Baseline Distribution of Income and Federal Taxes				Measures of Change Due to Proposal				
	Average pretax income (dollars)	Average federal tax burden (dollars)	Share of total federal tax burden (percentage)	Average federal tax rate (percentage)	Average change in federal tax burden (dollars)	Change in federal tax burden (percentage)	Change in share of federal taxes (percentage points)	Change in average federal tax rate (percentage points)	Change in after-tax income (percentage)
Lowest quintile	$14,703	$440	0.7%	3.0%	-$7	-1.5%	0.0	0.0	0.1%
Second quintile	$37,736	$2,876	3.5%	7.6%	-$89	-3.1%	0.0	-0.2	0.3%
Middle quintile	$68,140	$8,415	9.4%	12.4%	-$296	-3.5%	-0.1	-0.4	0.5%
Fourth quintile	$119,310	$18,715	17.7%	15.7%	-$674	-3.6%	-0.1	-0.6	0.7%
Top quintile	$370,357	$86,643	68.5%	23.4%	-$2,280	-2.6%	0.2	-0.6	0.8%
All	$98,272	$17,879	100.0%	18.2%	-$517	-2.9%	0.0	-0.5	0.6%
Addendum									
80–90	$193,663	$36,222	14.7%	18.7%	-$1,229	-3.4%	-0.1	-0.6	0.8%
90–95	$276,551	$55,749	11.0%	20.2%	-$1,805	-3.2%	0.0	-0.7	0.8%
95–99	$474,518	$107,309	16.1%	22.6%	-$3,114	-2.9%	0.0	-0.7	0.9%
Top 1 percent	$2,405,950	$726,654	26.7%	30.2%	-$13,051	-1.8%	0.3	-0.5	0.8%
Top 0.1 percent	$11,814,173	$3,699,217	13.8%	31.3%	-$51,852	-1.4%	0.2	-0.4	0.6%

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Notes: The Proposal would reduce statutory individual income tax rates from 10, 12, 22, 24, 32, 35, and 37 percent to 9, 11, 21, 23, 31, 34, and 36 percent. The preferential rates on capital gains and dividends and the rates under the Alternative Minimum Tax would not be changed.

Background

How should progressivity be measured?

In this example, five possible measures of change in tax burdens might be used.

1. **The average change in tax burden (column 5, figure 1).** This is the change in the average dollar amount of the taxes borne by households in each income group. Because tax reductions increase with income, the proposal would seem to reduce progressivity. But higher-income groups have higher tax burdens before the change, which means that they are not disproportionately better off than lower-income groups, even though they receive larger tax cuts under the proposal. Therefore, the average change in tax burden is an ambiguous measure of progressivity.

2. **The percentage change in tax burden (column 6, figure 1).** This is the percentage change in the average dollar amount of the taxes borne by households in each income group. The lowest and highest income groups have the smallest percentage reduction in average tax burdens, implying that the proposal reduces progressivity at the low-income end and increases progressivity at the high-income end. But the burden that any dollar amount of taxes imposes on a household depends on the household's income; certainly, the burden of paying $100 of tax is much greater on a household with $10,000 of income than it is on a household with $1 million. Therefore, the percentage change in tax burden is an inadequate measure of progressivity.

3. **The change in share of federal taxes (column 7, figure 1).** This is the change in the percentage distribution of tax burdens across income groups. The change is zero for the "All" income group, because the percentage distributions under baseline (current) law and under the proposal both must add to 100 percent. For the proposal, this measure shows that the share of taxes paid by the top 1 percent of households would increase, while the share would decrease or remain unchanged for all other income groups, indicating that the proposal increases progressivity. But an increase in the share of tax burdens for high-income households does not necessarily indicate that high-income households have suffered disproportionately. Therefore, the change in percent of tax burden is not an unambiguous measure of progressivity, either.

4. **The change in average tax rate (column 8, figure 1).** Changing tax burdens as a percentage of pretax income reduces average tax rates the least for the bottom three income quintiles and even more for the top two quintiles. This suggests that the proposal somewhat reduces progressivity, at least at lower income levels. But relative changes in pretax income do not indicate how much households' relative well-being—their ability to consume currently or in the future (using savings)—is affected. Therefore, the change in average tax rate is an inadequate indicator of progressivity.

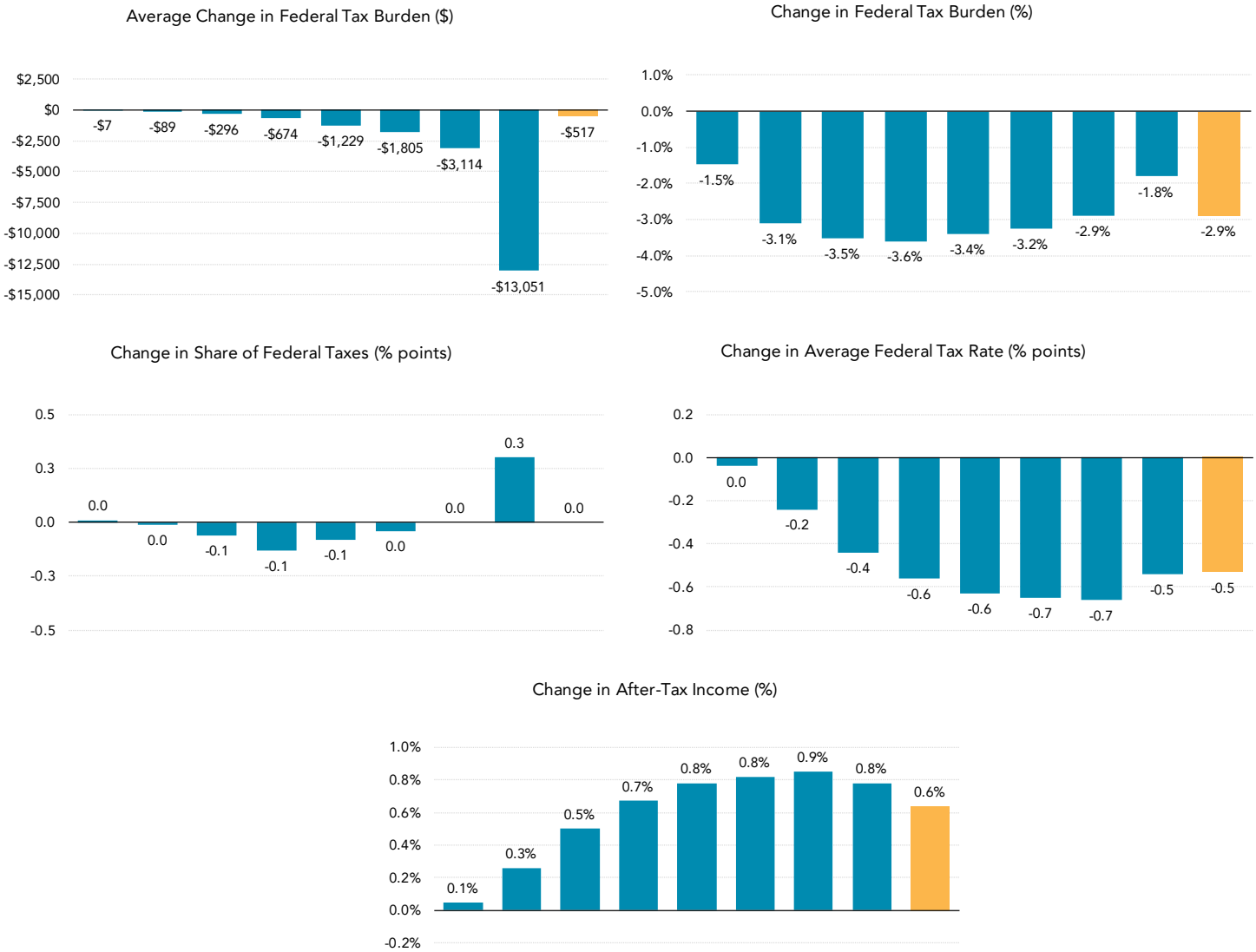
5. **The percentage change in after-tax income (column 9, figure 1).** This measure is the change in tax burdens as a percent of after-tax income (i.e., pretax income less current tax burdens). The proposal generally increases after-tax incomes by increasing percentages as income increases up to the top 1 percent of households (with the largest percentage increase for the 95th–99th percentiles), implying that the proposal reduces progressivity except at the very top of the income distribution. Because households' current and future consumption from current income can only be made from the amount left after paying taxes, the percentage change in after-tax income provides a direct measure of the effect of a tax proposal on households' welfare. It is therefore the most useful measure of progressivity.

Background

How should progressivity be measured?

FIGURE 1

Proposal to Reduce All Federal Individual Income Tax Rates by One Percentage Point



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

Background

How should progressivity be measured?

Data Source

Urban-Brookings Tax Policy Center. "Microsimulation Model, version 0718-1."

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Background

What is the difference between marginal and average tax rates?

Q. What is the difference between marginal and average tax rates?

A. Average tax rates measure tax burden, while marginal tax rates measure the impact of taxes on incentives to earn, save, invest, or spend.

The *average* tax rate is the total amount of tax divided by total income. For example, if a household has a total income of $100,000 and pays taxes of $15,000, the household's average tax rate is 15 percent. The *marginal* tax rate is the incremental tax paid on incremental income. If a household were to earn an additional $10,000 in wages on which they paid $1,530 of payroll tax and $1,500 of income tax, the household's marginal tax rate would be 30.3 percent.

Average tax rates are a measure of a household's tax burden; that is, how taxes affect the household's ability to consume today or (through saving) in the future. Marginal rates measure the degree to which taxes affect household (or business) economic incentives such as whether to work more, save more, accept more risk in investment portfolios, or change what they buy. Higher marginal rates reduce incentives to engage in a particular activity (such as work) or (in the case of sales taxes) consume a particular item.

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Background

What criticisms are levied against standard distributional analysis?

Q. What criticisms are levied against standard distributional analysis?

A. Economists disagree on which taxes to include, how to measure tax burdens, what to assume about tax incidence, how to measure income, what period of analysis to use, and whether to include outlays in the calculations.

Distributional analyses of tax burdens across income groups play an important role in debates over the tax system and how to reform it. Differences in the conceptual framework, underlying theoretical assumptions, and empirical implementation can all significantly affect the results of these analyses.

Here are some of the criticisms that have been levied against standard distributional analyses prepared by the Urban-Brookings Tax Policy Center (TPC), the Joint Committee on Taxation (JCT), Treasury's Office of Tax Analysis (OTA) and the Congressional Budget Office (CBO).

TAXES INCLUDED

Analyses often omit certain taxes. For example, TPC previously omitted excise taxes, and JCT and CBO omit estate and gift taxes. Many analyses make no provision for the impact of state and local taxes.

HOW TAX BURDENS ARE MEASURED

Households may adjust their behavior to avoid some of the burden of tax changes. JCT uses actual tax payments, which reflects avoidance behavior. But this measure understates the true tax burden because it ignores welfare loss. Conversely, TPC and OTA use a "static" (no behavior) assumption, which overstates true burdens. All groups use projected tax receipts to measure the burden of current-law taxes, and these receipts reflect households' behavioral responses, so these burdens are understated. Further, the inclusion of payroll taxes for Social Security and Medicare has been criticized on the grounds that the distributional impact of the associated benefits is omitted.

INCIDENCE ASSUMPTIONS

Uncertainty over the economic incidence of some taxes, especially the corporate income tax, leads some economists to criticize the specific assumptions made in distributional analyses.

INCOME MEASURE

Income is used in distributional analyses to rank households by their "ability to pay"; it is also used to provide measures of tax burdens such as taxes as a percent of income by income group. These methods are often criticized because different definitions and measurements of income can significantly affect distributional results.

Background

What criticisms are levied against standard distributional analysis?

In theory, a broad definition of income may appropriately rank families and measure tax burdens, but this definition can be too far removed from common understandings of income and difficult to employ because of gaps in available data.

Conversely, even a quite broad definition of income, such as TPC's "expanded cash income," can be criticized as being too narrow because it omits in-kind benefits such as Medicare, Medicaid, and housing assistance, which can significantly improve recipient households' well-being.

Some argue that consumption, rather than income, should be used to rank households and measure tax burdens. Income is either consumed currently or saved for future consumption. A household's current consumption measures current well-being. Savings, meanwhile, are included in the measure of future well-being, when the household withdraws savings to finance consumption. Focusing on current income overstates current savers' well-being of and understates the well-being of current dissavers.

PERIOD OF ANALYSIS

Most distributional analyses focus on a single year, but some tax provisions have effects over multiple years. For example, contributions to a traditional individual retirement account (IRA) are deductible when made but taxable when withdrawn, and the earnings IRAs accrue are not taxed. An annual measure of tax burdens would only capture the effect of the contribution in one of these years, rather than measure the multiyear consequences of the IRA contribution. TPC and OTA use alternative annual measures for some multiyear provisions in their distributional analyses, but these measures rely on uncertain assumptions, such as when taxable withdrawals begin and the rate at which to discount taxes paid in the future.

In addition, a tax proposal may have provisions that phase in or phase out over time, or that are only temporary. Standard distribution tables have represented such temporal issues in various ways. Economists have prepared analyses for each year (or perhaps the beginning and end year) of a phase-in, phaseout, or temporary provision, or have developed methods that reflect the present value of the provision over the budget period. These approaches are all open to criticism.

All four groups use annual income measures, which can be problematic because income is volatile: some normally high-income households will be counted among low-income households in a particular year, while some normally low-income households will appear to have higher incomes. Further, income for most individuals follows a "life-cycle" pattern—generally rising through about age 50 and then declining—so in any particular year, the distribution will underestimate the welfare of the young and old and overestimate the welfare of the middle-aged.

TAXES VERSUS SPENDING

The federal budget counts amounts paid as refundable credits on the expenditure side of the ledger, but all standard distributional analyses classify those amounts as (negative) taxes. Similarly, all analyses effectively reduce tax burdens by the special exemptions, deductions, tax rates, and credits that represent "tax expenditures," which arguably should be counted as budget outlays rather than as tax reductions. Including these outlays in the analyses understates the true burden of taxes.

Moreover, because standard distributional analyses omit the benefits from most government spending programs, these analyses do not reflect the overall effect of the federal budget on the well-being of

Background

What criticisms are levied against standard distributional analysis?

households.

EFFECTS ON THE DEFICIT AND SPENDING

All four groups ignore the effects of financing a tax cut, be it through reductions in current outlays, higher deficits, or higher debt (which eventually will require future tax increases or reductions in spending to repay). They also omit the opposite effects of a tax increase.

MACROECONOMIC EFFECTS

All four groups assume for purposes of distributional analyses that any tax change leaves economic aggregates (gross domestic product, employment, the price level, etc.) unchanged. Critics argue that tax reform could improve economic performance and thereby raise revenues while improving the well-being of many (if not all) households.

OTHER DIMENSIONS OF TAX POLICY

A frequent criticism of distributional analyses is that they focus on only one dimension of tax policy: vertical equity (fairness across income groups). Less attention is therefore paid to horizontal equity (fairness within income groups), simplification, economic efficiency, and how the tax system may finance worthy federal spending.

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Q. How should distributional tables be interpreted?

A. Distributional tables provide important and useful information, but keep six key questions in mind to correctly interpret the results.

1. **What taxes or tax changes does the analysis include?** If the table covers taxes under current law, note which taxes are included and which aren't. If the table shows the distributional impact of a tax change, particularly an extensive reform proposal, be sure to note which provisions are included or omitted.

2. **What is the baseline for a tax change?** Ordinarily, the baseline is current law, but not always. With the current temporary provisions of the Tax Cuts and Jobs Act of 2017, economists are uncertain about what "current law" will look like in the future. As a result, some distribution tables use a "current policy" baseline, which assumes that Congress will extend certain tax provisions that are scheduled to expire (or sunset) under current law.
3. **What is the income measure?** Income is used in distributional tables to rank households by their "ability to pay"; it is also used to measure tax burdens, such as taxes as a percentage of income by income group. Definitions and measurements of income can significantly affect distributional results, so be sure to note which income measure the table uses. Also, income used to rank households may be adjusted for family size to better compare ability to pay across households.
4. **What are the household units?** Note whether the table includes households that do not file income tax returns. Some distributional tables that rank by quintiles of income typically place a fifth of all taxpaying households in each quintile. But some tables—including those produced by the Urban-Brookings Tax Policy Center—place a fifth of the population in each quintile, altering the count of household units in each quintile.
5. **What period is covered?** Standard distribution tables cover a single year. But some policy changes may have effects over multiple years, and some may be phased in or phased out over multiple years, or be only temporary. Note how the table represents any phase-ins, phaseouts, and temporary provisions.
6. **What measures of tax burdens are included?** Distribution tables typically show alternative measures of "tax burdens." However, only the percentage change in after-tax income directly measures the effect of a tax proposal on households' well-being and therefore is a reliable measure of progressivity.

Background

How should distributional tables be interpreted?

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Background

Who bears the burden of the corporate income tax?

Q. Who bears the burden of the corporate income tax?

A. The burden is shared among stockholders and, unintuitively, among a broader group of workers and investors.

Shareholders bear some of the corporate income tax burden, but they aren't the only ones. Over time, others bear some of the burden because of a chain reaction that begins with the shareholders.

The corporate income tax reduces shareholders' after-tax returns, causing them to shift some of their investments out of the corporate sector. Shareholders will shift some investments to noncorporate ("pass-through") businesses and some to foreign businesses not subject to the US corporate income tax. The shift to these other sectors lowers the after-tax return on investments in these sectors. The shifting of investment out of the corporate sector continues until after-tax returns—adjusted for risk—are equalized in the corporate and noncorporate sectors. Thus, the corporate income tax reduces investment returns in all sectors.

Shifting investments to foreign businesses also reduces the amount of capital (machines, equipment, structures, etc.) complementing US workers, so their productivity, and therefore their wages and other compensation, fall.

In calculating distributional effects, the Urban-Brookings Tax Policy Center (TPC) assumes investment returns (dividends, interest, capital gains, etc.) bear 80 percent of the burden, with wages and other labor income carrying the remaining 20 percent. These assumptions reflect the full, long-term economic consequences of investors responding to changes in the corporate income tax, such as rate changes.

When analyzing the distributional effects of a short-term corporate income tax change before investors have a chance to react, TPC assumes that shareholders bear the entire burden. When analyzing corporate income tax changes that affect only the timing of payments, such as a change in depreciation allowances, TPC assumes that half the burden is on investment returns and half on wages and other labor income. The Joint Committee on Taxation, the US Department of the Treasury's Office of Tax Analysis, and the Congressional Budget Office use similar incidence assumptions.

Background

Who bears the burden of the corporate income tax?

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Background

Who bears the burden of the federal excise taxes?

Q. Who bears the burden of federal excise taxes?

A. Workers, owners of capital, and households that consume a disproportionate amount of taxed items all bear the burden of federal excise taxes.

Excise taxes create a wedge between the price the final consumer pays and what the producer receives. An excise can either raise the total price (inclusive of the excise tax) consumers pay or reduce the business revenue available to compensate workers and investors.

The burden of an excise can be separated into two pieces: (1) the reduction in real household income, which equals the gross revenue generated by the excise tax and (2) the increase in the price of the taxed good or service relative to the prices of other goods and services, which depends on the mix of consumption by each household and equals zero across all households. Importantly, the decline in real income is the same regardless of whether nominal incomes fall (holding the price level constant) or whether the price level rises (holding nominal incomes constant).

REDUCTION IN REAL INCOME

The reduction in real income is spread across wages, profits, and other returns to labor and capital. The reduction in wages, in turn, reduces both individual income taxes and payroll taxes. Likewise, the reduction in profits reduces corporate income taxes and individual income taxes on the profits of pass-through business (like partnerships) and other returns to capital. These "excise tax offsets" amount to about 22 percent of excise tax revenues and are considered in distributional analyses.

CHANGE IN RELATIVE PRICES

An excise tax also increases the price of the taxed good or service relative to the prices of all other goods and services. While the price of the taxed item rises, the prices of all other items may either remain unchanged as the overall price level rises or fall slightly if the price level remains unchanged.

Either way, this change in relative prices burdens households that consume a larger-than-average share of the taxed item. However, households that consume a smaller-than-average share of the taxed item, or do not consume it at all, benefit from this change in relative prices.

TIMING OF THE TAX BURDEN

This still leaves open the timing of the tax burden—that is, whether the burden is assigned when income is earned or when it is consumed. Some distributional analyses follow the latter approach and distribute excise taxes in proportion to current levels of consumption. Alternative analyses assign the burden based on current income. Under the income-based approach, one can think of excise taxes as a reduction in purchasing power

at the point income is earned. Of course, if all households fully consumed their income in each year, the two methods would yield identical results.

The Urban-Brookings Tax Policy Center distributes the burden of an excise tax when income is earned, taking into account the "offset" and the relative price effect. The US Department of the Treasury's Office of Tax Analysis, as described in Cronin (1999), distributes excise taxes in the same manner. The Joint Committee on Taxation and the Congressional Budget Office, however, distribute the entire burden of excises in proportion to consumption of the taxed goods and services.

DISTRIBUTION OF FEDERAL EXCISE TAXES

While the share of federal excise tax paid rises with income, federal excises are regressive. That is, the average federal excise tax rate (the excise tax burden as a percentage of pretax income) declines as income rises. The average tax rate falls from 1.2 percent in the bottom quintile, to 0.6 in highest quintile, and to 0.4 percent of income in the top 1 percent (table 1). (Each quintile contains 20 percent of the population, ranked by income.)

Federal excise taxes also account for a larger share of the total federal tax burden (including individual and corporate income taxes, payroll taxes, the estate tax, and excise taxes) for lower-income groups than for higher-income groups. In the bottom two quintiles, excise taxes are the second-largest source of the total

TABLE 1

Distribution of Federal Excise Taxes, 2018

Expanded Cash Income Percentile	Share of Total Excise Tax Burden (%)	Average Federal Excise Tax Rate (%)	Average Total Federal Tax Rate (%)
Lowest quintile	6.8%	1.2%	2.9%
Second quintile	12.2%	1.0%	7.6%
Middle quintile	16.6%	0.8%	12.1%
Fourth quintile	22.3%	0.8%	15.5%
Top quintile	41.8%	0.6%	22.9%
All	100.0%	0.7%	17.8%
Addendum (top quintile breakdown)			
80–90	14.2%	0.7%	18.4%
90–95	8.8%	0.6%	19.9%
95–99	10.4%	0.6%	22.1%
Top 1 percent	8.5%	0.4%	29.6%
Top 0.1 percent	3.4%	0.3%	30.6%

Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

federal tax burden, well behind payroll taxes. Those income groups have negative average income tax rates resulting from refundable income tax credits.

Federal excise tax revenues will total about $102 billion in fiscal year 2018, or 3 percent of federal tax revenues. Five categories of excise taxes—highway, tobacco, air travel, health, and alcohol—account for about 95 percent of total excise tax receipts.

The distributional burden varies somewhat across the different categories of excise taxes (table 2). The most noticeable is the tobacco excise tax, for which the share of tax paid varies the least across income quintiles. The bottom quintile pays 16 percent of tobacco taxes and 17 percent of penalties under the Affordable Care Act (ACA) (compared to 4 to 5 percent of other excises), while the top quintile pays 27 percent of tobacco taxes and 23 percent of ACA penalties (compared to about 45 to 50 percent of other excises). Tobacco taxes and ACA penalties are the most regressive of the major federal excise taxes. The remaining categories vary only modestly from each other. Excise taxes on air travel are tilted the most toward higher-income households, with 53 percent paid by households in the top income quintile.

TABLE 2

Distribution of Federal Excise Taxes

by Category of Excise Tax, 2018

Expanded Cash Income Percentile	Share of Total Excise Tax Burden (%)						
	Highway	Tobacco	Air Travel	Health	ACA Penalties	Alcohol	Other
Lowest quintile	4.2%	15.8%	4.5%	3.7%	16.9%	3.6%	4.1%
Second quintile	10.6%	19.2%	7.0%	10.3%	23.4%	9.1%	9.6%
Middle quintile	16.9%	17.7%	13.9%	16.5%	17.4%	17.3%	15.7%
Fourth quintile	23.1%	20.7%	21.5%	23.4%	19.0%	23.4%	22.6%
Top quintile	44.6%	26.7%	52.6%	45.7%	22.9%	45.5%	47.8%
All	100%	100%	100%	100%	100%	100%	100%
Addendum (top quintile breakdown)							
80–90	14.8%	9.2%	16.6%	15.0%	11.6%	15.2%	15.3%
90–95	9.1%	4.5%	11.8%	9.7%	5.3%	10.2%	10.1%
95–99	11.2%	6.0%	13.9%	11.4%	4.8%	11.3%	12.0%
Top 1 percent	9.5%	7.0%	10.4%	9.6%	1.2%	8.7%	10.2%
Top 0.1 percent	3.8%	3.3%	3.9%	3.8%	0.1%	3.5%	4.0%
Aggregate revenue ($ billions)	**$39.7**	**$13.5**	**$16.3**	**$16.3**	**$11.8**	**$8.7**	**$5.5**

Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

Background

Who bears the burden of the federal excise taxes?

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Background

How do financing methods affect the distributional analyses of tax cuts?

Q. How do financing methods affect the distributional analyses of tax cuts?

A. Tax cuts are financed through reductions in current outlays or higher government debt that will eventually have to be repaid. Distributional analyses omit this information as well as the effects of tax increases on current outlays and debt.

Distributional analyses omit the ways tax cuts and tax increases affect other government finances—through either lower (or higher) spending or higher (or lower) debt. These omissions implicitly assume that lost revenue from tax cuts is never paid and that additional revenue from tax increases simply disappears. No one believes these assumptions are realistic, but there is no generally accepted way to include these financing effects. Gale, Khitatrakun, and Krupkin (2017) shows that the distributional effects of the 2017 Tax Cuts and Jobs Act tax cuts are significantly altered if alternative financing effects are considered.

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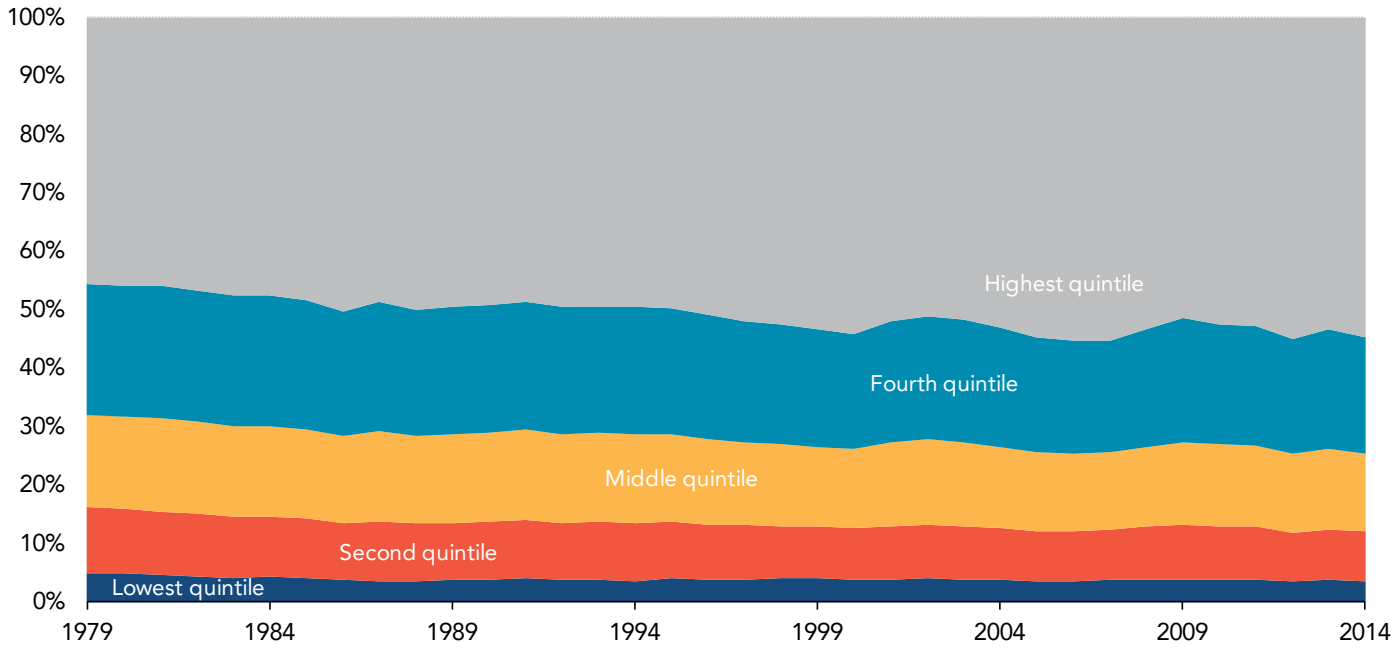
Q. How do taxes affect income inequality?

A. Because high-income households pay a larger share of their income in total federal taxes than low-income households, federal taxes reduce income inequality. But federal taxes have done little to offset increasing income inequality over the past 40 years.

FIGURE 1

Share of Before-Tax Income by Quintile
1979-2014

Percentage



Source: Congressional Budget Office (2018).

Background

How do taxes affect income inequality?

INCREASING INCOME INEQUALITY

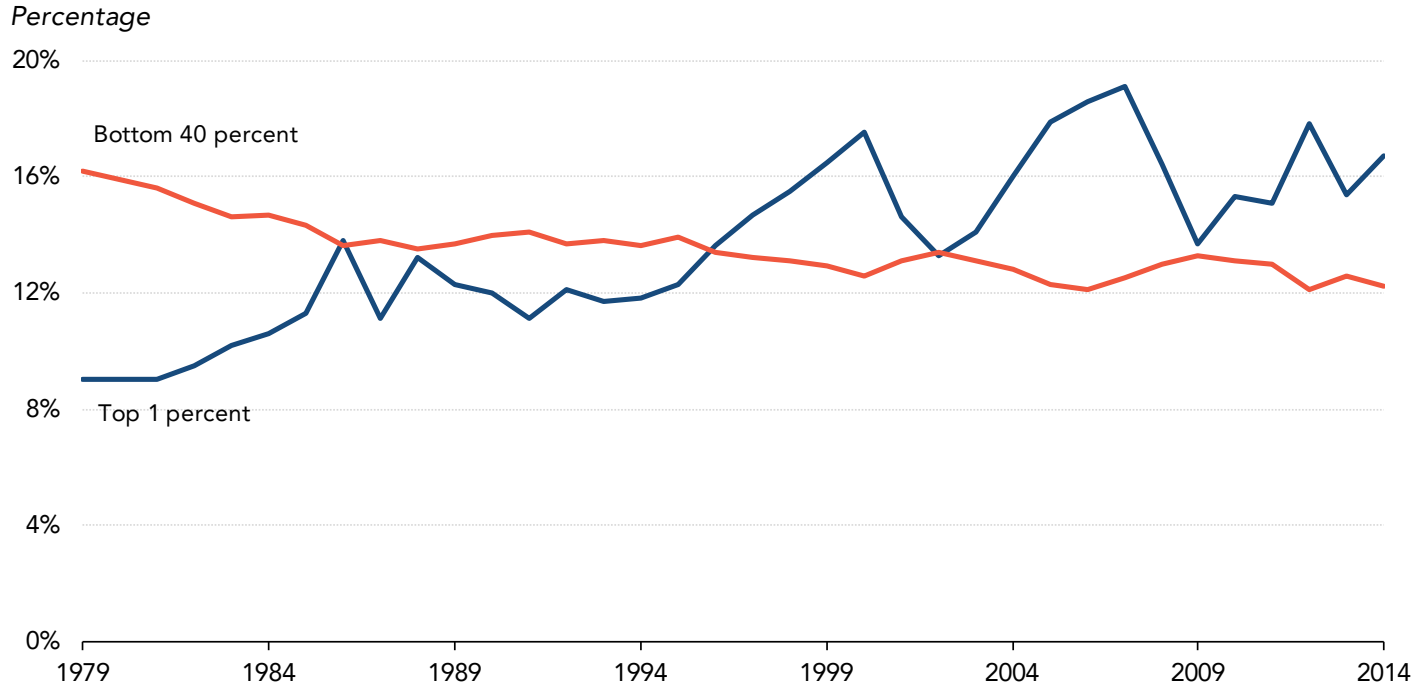
Income inequality has increased sharply over the past 40 years. A simple way to measure inequality is by looking at the share of income received by the highest-income people. Using a broad measure that includes labor, business, and capital income; government cash payments (such as Social Security); and the value of in-kind benefits from government programs (such as Medicare and Medicaid), the Congressional Budget Office finds that the fifth of the population with the highest income saw their share rise from 46 to 55 percent between 1979 and 2014 (figure 1). This increase in income inequality came about despite the growth in Social Security, Medicare, and Medicaid, which boost before-tax income for low- and middle-income households.

Much of the gain in the top income share went to the top 1 percent of the population. In 1979, they received 9 percent of all income. By 2014, their share grew to 17 percent, more than all the income received by the bottom 40 percent (figure 2). The income measure used in figures 1 and 2 includes realized capital gains, which are sensitive to business cycle fluctuations and to changes in tax rates. Because realized capital gains are a significant component of income for the top 1 percent, their income share is more volatile than that of other groups.

FIGURE 2

Share of Before-Tax Income for Top 1 and Bottom 40 Percent Income Groups

1979-2014



Source: Congressional Budget Office (2018).

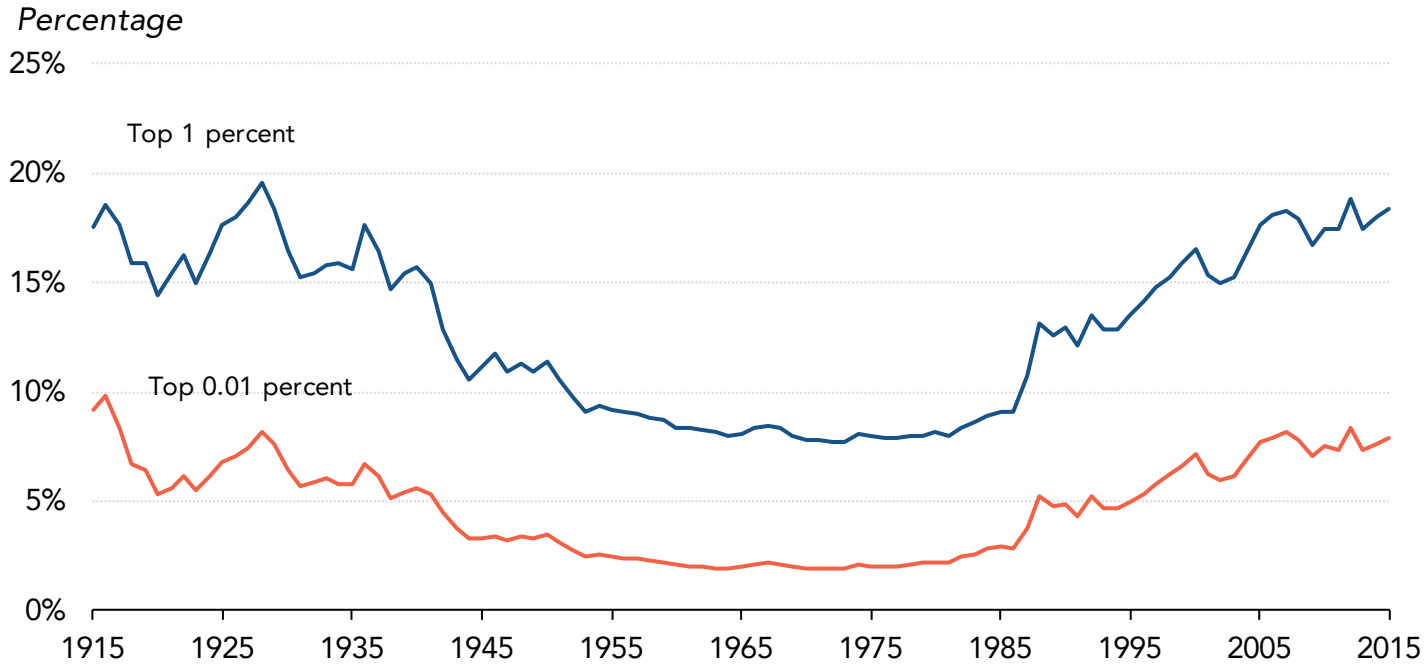
Background

How do taxes affect income inequality?

Top income shares have not reached these levels since the 1920s (figure 3). After falling precipitously during the Great Depression and World War II, the income share of the top 1 percent leveled off during the next three decades. It began climbing again in the 1980s, interrupted only by the 2001 and 2008–09 recessions. Since the stock market rebound, income shares for the top 1 percent have increased again.

FIGURE 3

Top Income Shares in the United States
1915-2015



Source: Saez (2016).
Note: Income is annual gross income reported on individual tax returns, excluding capital gains and government transfers (such as Social Security, unemployment benefits, and welfare payments) and before individual income taxes and employees' payroll taxes.

Background

How do taxes affect income inequality?

A WORLDWIDE PHENOMENON

The United States is not the only country with increasing income inequality. Most member countries of the Organisation for Economic Co-operation and Development have experienced the same phenomenon, though to a lesser degree than the United States (figure 4).

THE ROLE OF TAXES

The figures so far only consider income before taxes. What happens after we account for taxes?

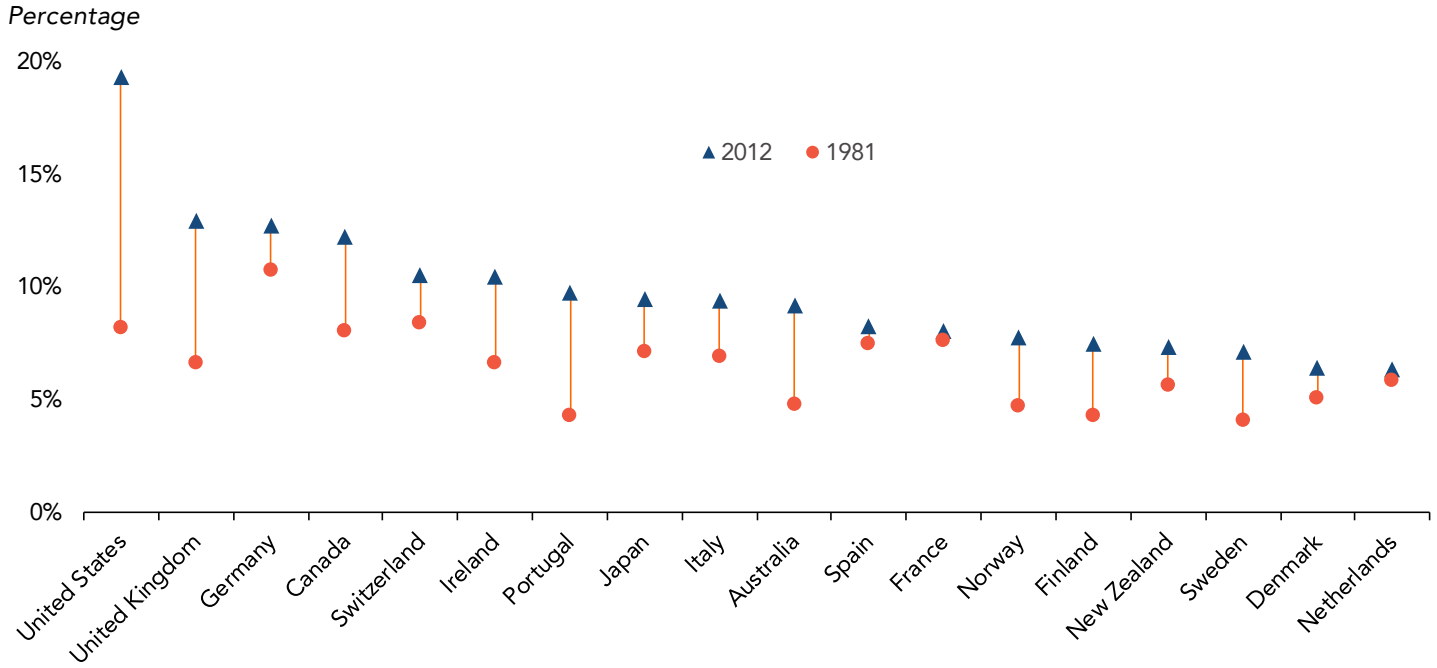
The US federal tax system is progressive. High-income households pay a larger share of their income in total federal taxes than low-income households (figure 5). State and local taxes, which are not included in this analysis, are much less progressive and some, such as sales taxes, are regressive (low-income households pay a higher share of their income in sales taxes than high-income households).

Because federal taxes are progressive, the distribution of after-tax income is more equal than income before taxes. High-income households have a slightly smaller share of total income after taxes than their share of income before taxes, while the reverse is true for other income groups (figure 6).

FIGURE 4

Share of Before-Tax Income for Top 1 Percent Income Group

1981-2012 (or closest)



Source: Organisation for Economic Co-operation and Development (2014).

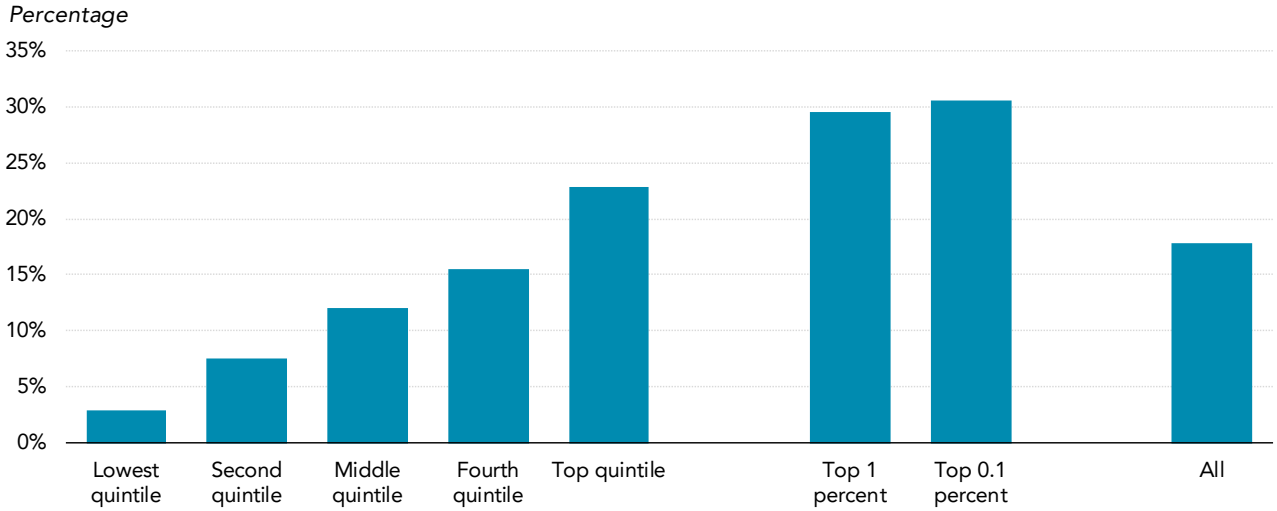
Note: Incomes refer to pretax incomes, excluding capital gains, except in Germany (which includes capital gains). Latest year refers to 2012 for the Netherlands, Sweden, and the United States; 2011 for Norway and the United Kingdom; 2009 for Finland, France, Italy, and Switzerland; 2007 for Germany; 2005 for Portugal; and 2010 for Australia, Canada, Ireland, Japan, New Zealand, and Spain.

Background

How do taxes affect income inequality?

FIGURE 5

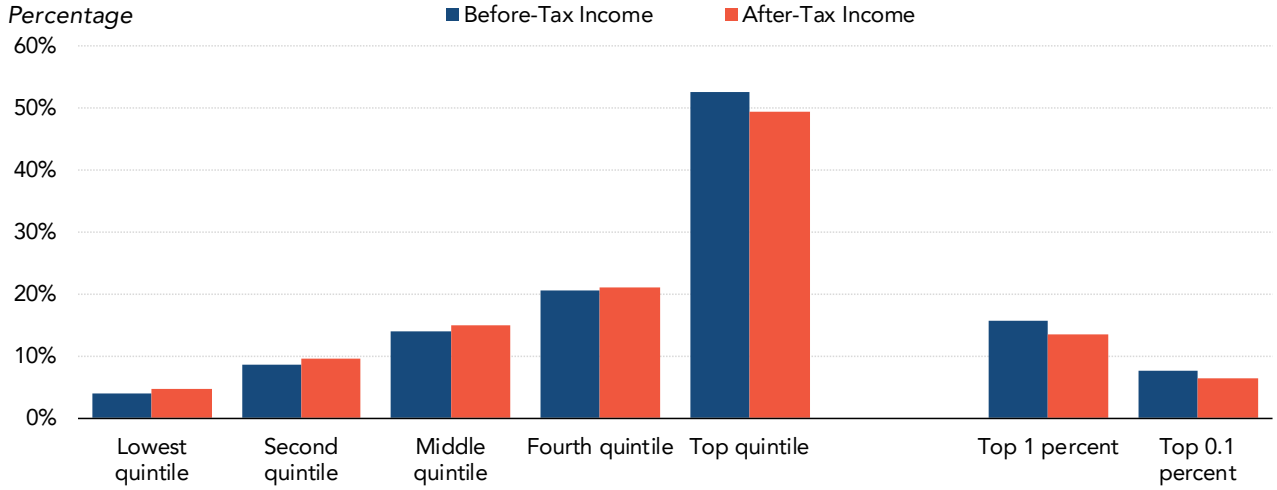
Average Effective Federal Tax Rates by Income Percentile
2018



Source: Urban-Brookings Tax Policy Center. 2018. T18-0083. "Average Effective Federal Tax Rates—All Tax Units, by Expanded Cash Income Percentile, 2018."
Notes: The average effective federal tax rate is the sum of individual and corporate income tax, payroll taxes for Social Security and Medicare, the estate tax, and excise taxes as a percentage of expanded cash income. For a description of expanded cash income, see Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center."

FIGURE 6

Shares of Before-Tax and After-Tax Income by Quintile
2018



Source: Urban-Brookings Tax Policy Center. 2018. T18-0064. "Baseline Distribution of Income and Federal Taxes, All Tax Units, by Expanded Cash Income Percentile, 2018."
Notes: Before-tax income is measured as expanded cash income. For a description of expanded cash income, see Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center." After-tax income is expanded cash income less individual income tax net of refundable credits, corporate income tax, payroll taxes (Social Security and Medicare), the estate tax, and excise taxes.

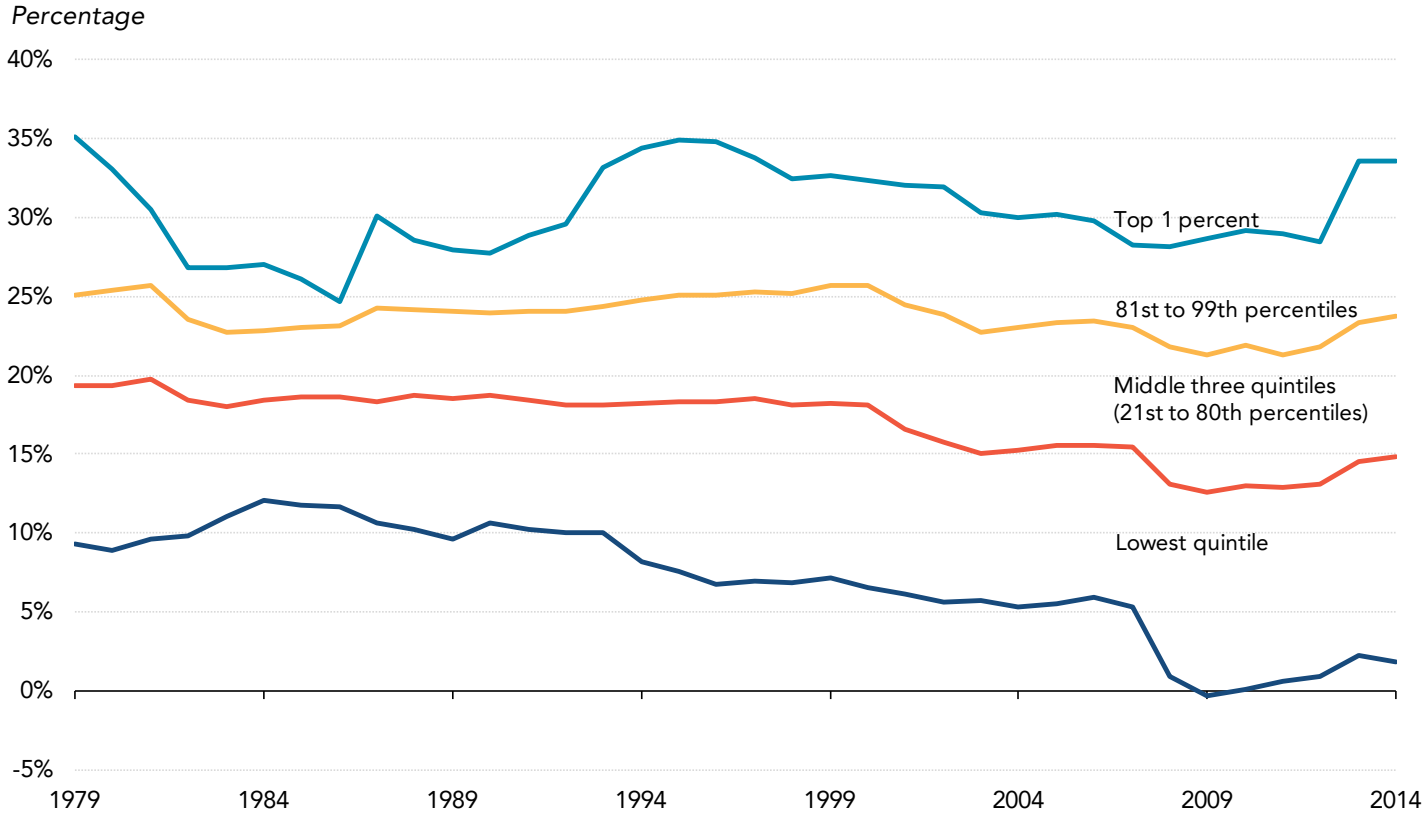
Background

How do taxes affect income inequality?

Federal taxes are more progressive than they were 35 years ago. Although the average tax rate for high-income households has varied, it is now nearly the same as at its peaks in 1977 and 1995. Meanwhile, the average tax rate for middle- and low-income groups dropped incrementally from the early 1980s through 2007 and then fell dramatically from 2007 through 2009 because of temporary tax cuts enacted in response to the Great Recession. Average rates rebounded as those tax cuts expired but, by 2014, rates remained well below their 1979 values for those groups (figure 7).

FIGURE 7

Average Federal Tax Rates by Income Group
1979-2014



Source: Congressional Budget Office (2018).

Background

How do taxes affect income inequality?

EFFECT OF TAXES ON INCOME INEQUALITY

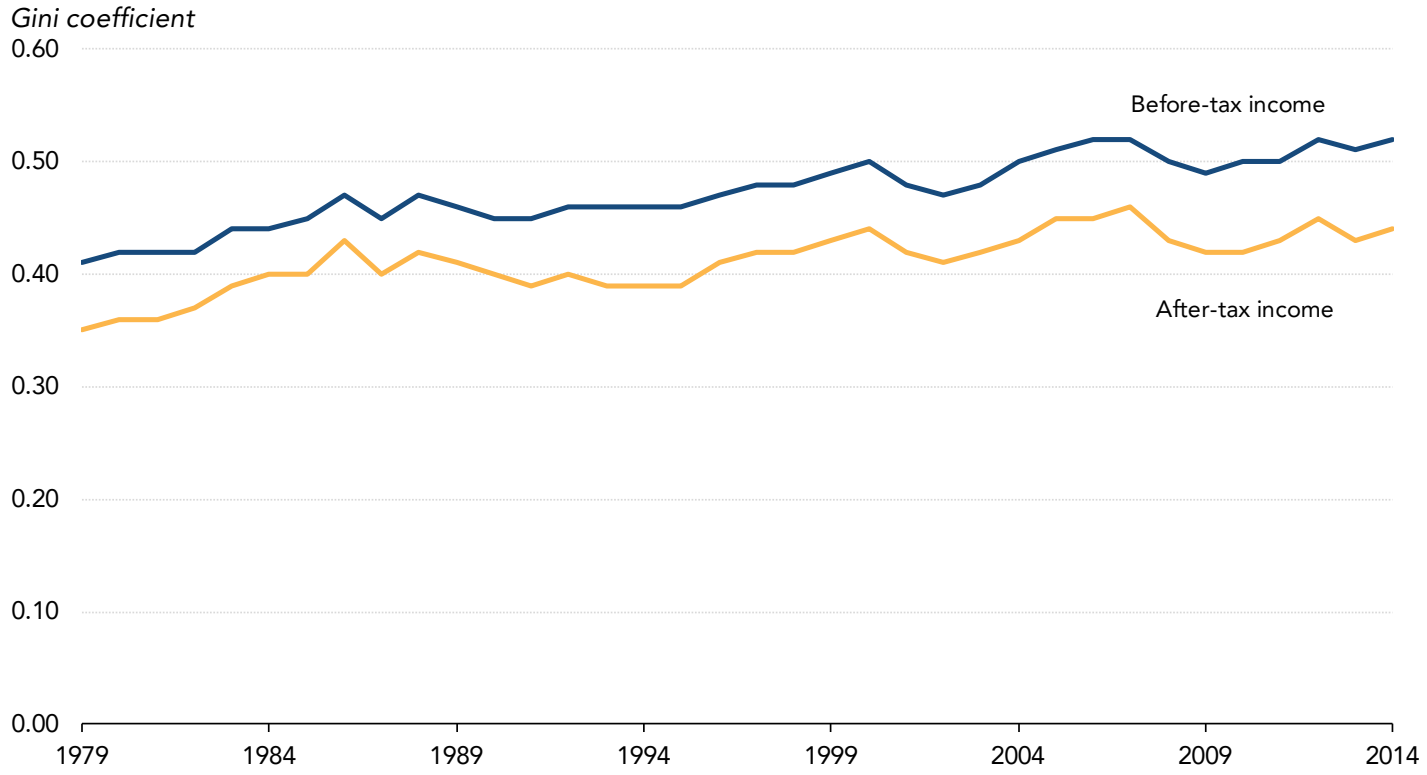
A more progressive tax system would reduce income inequality if nothing else changes. But while federal taxes have become more progressive, they also began shrinking in 2001 relative to before-tax income, thanks to tax cuts during the George W. Bush and Barack Obama administrations. A lower average tax rate offset the equalizing effect of increased tax progressivity, leaving the effect of federal taxes on income inequality little changed.

A widely used measure of income inequality is the Gini index. The index has a value of zero when income is distributed equally across all income groups and a value of one when the highest income group receives all the income. By this measure, inequality has been consistently lower for after-tax income than for before-tax income (figure 8).

FIGURE 8

Inequality Index for Before-Tax and After-Tax Income

1979-2014



Source: Congressional Budget Office (2018).

Note: The Gini index is a summary measure of income inequality based on the relationship between shares of income and shares of the population. It ranges in value from zero to one, with zero indicating complete equality (for example, if each fifth of the population received one-fifth of the income) and one indicating complete inequality (for example, if one household received all of the income).

Background

How do taxes affect income inequality?

The gap between the index for before-tax and after-tax incomes measures how much taxes reduce inequality. The bigger the difference, the more taxes equalize income. The gap narrowed during the 1980s as taxes relative to income fell more for high-income households than for low-income groups. But as federal taxes became more progressive starting in the 1980s, the gap between before-tax and after-tax income inequality widened. It remains at roughly the pre-1980 level.

The bottom line is that before-tax income inequality has risen since the 1970s, despite an increase in government transfer payments. Because high-income people pay higher average tax rates than others, federal taxes reduce inequality. But the mitigating effect of taxes is about the same today as before 1980. Thus, after-tax income inequality has increased about as much as before-tax inequality. Taxes have not exacerbated increasing income inequality, but have not done much to offset it.

Data Source

Urban-Brookings Tax Policy Center. Table T18-0064. "Baseline Distribution of Income and Federal Taxes, All Tax Units, by Expanded Cash Income Percentile, 2018."

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Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center."

Q. What are tax expenditures and how are they structured?

A. Tax expenditures are special provisions of the tax code such as exclusions, deductions, deferrals, credits, and tax rates that benefit specific activities or groups of taxpayers.

The Congressional Budget and Impoundment Control Act of 1974 defines tax expenditures as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability." These provisions are meant to support favored activities or assist favored groups of taxpayers. Thus, tax expenditures often are alternatives to direct spending programs or regulations to accomplish the same goals. The Office of Management and Budget (OMB) and the Congressional Joint Committee on Taxation (JCT) each year publish lists of tax expenditures and estimates of their associated revenue losses. The US Department of the Treasury prepares the estimates for OMB.

The key word in the definition of tax expenditures is "special." OMB and JCT do not count all exemptions and deductions as tax expenditures. For example, the agencies do not count as tax expenditures deductions the tax law permits to measure income accurately, such as employers' deductions for employee compensation or interest expenses. Similarly, OMB and JCT do not count standard deductions that differ by filing status as tax expenditures on the theory that exempting a basic level of income from tax and adjusting for family composition are appropriate in measuring a taxpayer's ability to pay.

More generally, both the decision to count a provision as a tax expenditure and the measurement of its size require that OMB and JCT define a normative or baseline system against which some provisions are exceptions. Both agencies include in the baseline system provisions that allow tax rates to vary by income and that adjust for family size and composition in determining taxable income. OMB and JCT also allow for a separate tax on corporate income. The baselines of the two agencies do differ in some details, however, which contribute to modest differences in their lists of provisions and their estimates of revenue losses.

TAX EXPENDITURES TAKE DIFFERENT FORMS

Deductions and *exclusions* reduce the amount of income subject to tax. Examples are the deduction for mortgage income on personal residences and the exclusion of interest on state and local bonds. Deductions and exclusions typically reduce tax liability more for higher-income taxpayers facing higher marginal income tax rates than for lower-income taxpayers in lower rate brackets, since a deduction is worth more at a higher rate and higher-income taxpayers often spend more on the subsidized item.

A special category of deductions, called *itemized deductions*, is valuable only to taxpayers whose sum of itemized deductions exceeds the standard deduction amounts available to all tax filers. The largest itemized

Background

What are tax expenditures and how are they structured?

deductions are those for home mortgage interest and charitable contributions. In 2017, only 26 percent of tax units (tax returns plus nonfiling units) claimed itemized deductions. Following the increase in the standard deduction and new limits on deductibility of state and local taxes in the Tax Cut and Jobs Act of 2017, only about 10 percent of tax units will claim itemized deductions in 2018. However, an itemized deduction claimed mostly by higher-income taxpayers is not necessarily unfair, if the standard deduction is worth more to lower-income taxpayers than claiming the deduction. Some itemized deductions may still be objectionable because they are inefficient or inappropriate as a matter of policy.

Credits reduce tax liability dollar for dollar by amount of credit. For example, the $1,000 child tax credit (current value) reduces liability by $2,000 per child for taxpayers eligible to use it fully. A special category of credits, called *refundable credits*, allows taxpayers to claim credits that exceed their positive income tax liability, thereby receiving a net refund from the Internal Revenue Service. The major refundable credits are the earned income tax credit and the health insurance premium assistance tax credit, which are fully refundable, and the child credit, which is refundable for those with earnings above a threshold amount.

Some forms of income benefit from *preferential rates*. For example, long-term capital gains and qualified dividends face a schedule of rates ranging from 0 to 20 percent, compared with rates on ordinary income, which range from 10 to 37 percent.

Finally, some provisions allow taxpayers to defer *tax liability*, thereby reducing the present value of taxes they pay, either because the taxes are paid later with no interest charge or because they are paid when the taxpayer is in a lower rate bracket. These provisions allow taxpayers to claim deductions for costs of earning income before the costs are incurred. Examples include provisions that allow immediate expensing or accelerated depreciation of certain capital investments and others that allow taxpayers to defer their tax liability, such as the deferral of recognition of income on contributions to and income accrued within qualified pensions and retirement plans.

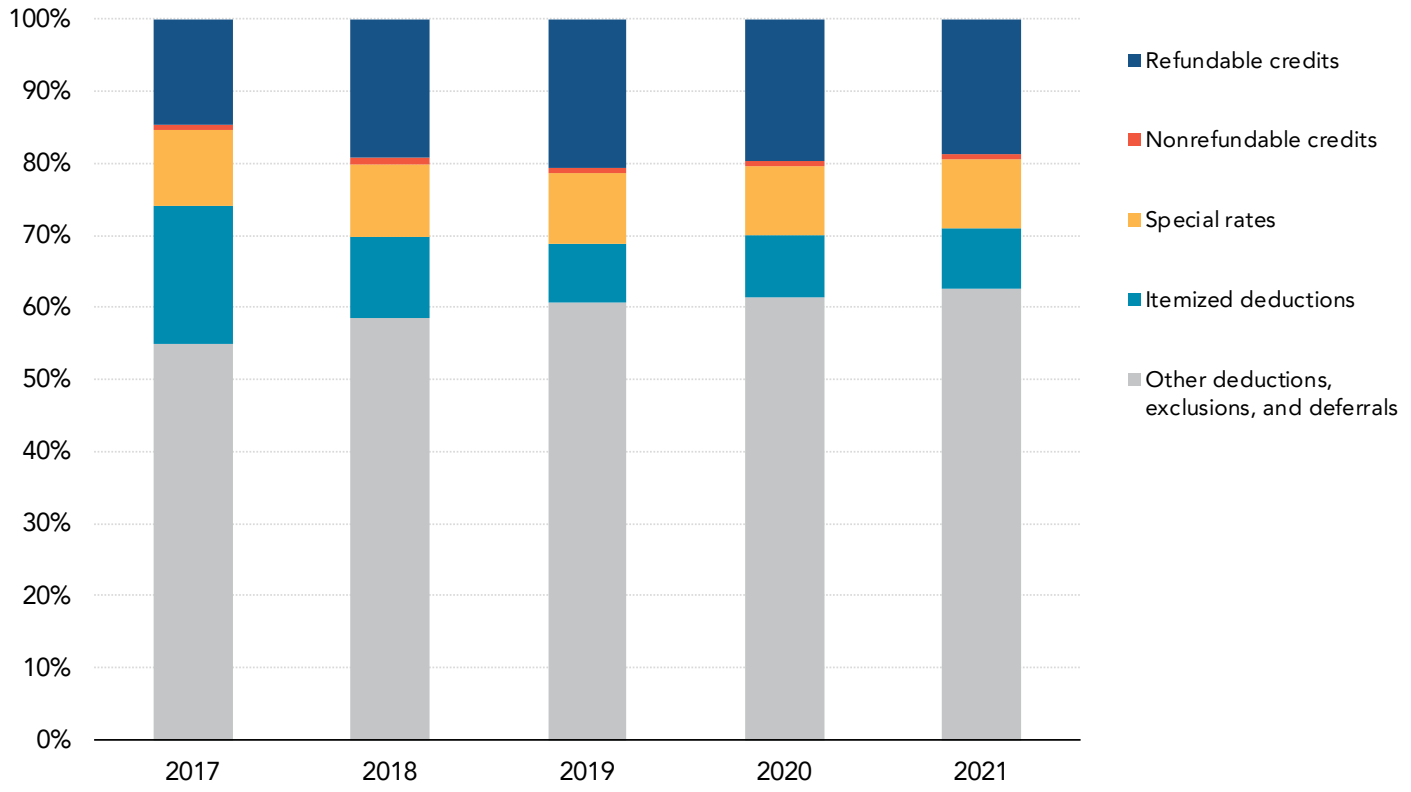
Exclusions, deductions, and deferrals of income recognition excluding itemized deductions will account for 61 percent of individual income tax expenditures in fiscal year 2019, refundable credits for 21 percent, special rates for 10 percent, itemized deductions for 8 percent, and nonrefundable credits for 1 percent. (figure 1).

Background

What are tax expenditures and how are they structured?

FIGURE 1

Shares of Individual Income Tax Expenditures
2017–21



Source: Joint Committee on Taxation (2018) and Tax Policy Center calculations.

Data Source

Joint Committee on Taxation. 2018. "Estimates of Federal Tax Expenditures for Fiscal Years 2017–2021." JCX-34-18. Washington, DC: Joint Committee on Taxation.

Q. What is the tax expenditure budget?

A. The tax expenditure budget displays the estimated revenue losses from special exclusions, exemptions, deductions, credits, deferrals, and preferential tax rates in federal income tax law.

Every year, the Office of Management and Budget (OMB) and the congressional Joint Committee on Taxation (JCT) publish lists of tax expenditures. These lists, sometimes called the Tax Expenditure Budgets, enumerate the estimated revenue losses attributable to preferences in the tax code the agencies describe as exceptions to "normal" or "reference" provisions of the income tax law (figure 1).

Tax expenditures reduce the income tax liabilities of individuals and businesses that undertake activities Congress specifically encourages. For example, the deduction for charitable contributions reduces tax liability for people who itemize on their tax returns rather than take a standard deduction and donate to qualifying charitable organizations. Tax expenditures can also reduce tax liability for individuals Congress wishes to assist. For example, a portion of Social Security benefits received by retired or disabled people is exempt from federal income tax.

The Congressional Budget and Impoundment Control Act of 1974 requires that the budget include estimates for tax expenditures, but only for provisions that affect the federal income taxes of individuals and corporations. The government could, but does not, provide lists of tax expenditures for payroll taxes, excise taxes, and other taxes, although OMB does estimate (in footnotes) the effects on payroll tax receipts of income tax expenditures. At one time, an estate tax expenditure budget was produced by the US Department of the Treasury and published by OMB.

Both the Office of Tax Analysis in the Treasury and the JCT estimate tax expenditures annually. The items included in each, along with their estimated values, are generally similar but do not always match. OMB publishes the Office of Tax Analysis's estimates in its Analytical Perspectives volume that accompanies each year's Budget of the US Government.

The budget generally treats tax expenditures as revenue losses instead of as spending. Accordingly, only the portion of refundable tax credits, such as the earned income tax credit, that offsets individuals' positive income tax liabilities are shown in OMB's tables as tax expenditures, while the portion that is refundable and exceeds tax liabilities is counted in spending. On the other hand, JCT's tables include both the revenue loss and outlay effects of refundable credits. Both OMB and JCT display the outlay effects in footnotes.

JCT's tax expenditures for fiscal 2019 (including outlay effects) added up to just under $1.5 trillion. The combined revenue loss for all provisions does not equal the sum of the losses for each provision because of how the provisions interact. For example, eliminating one exemption from taxable income would push

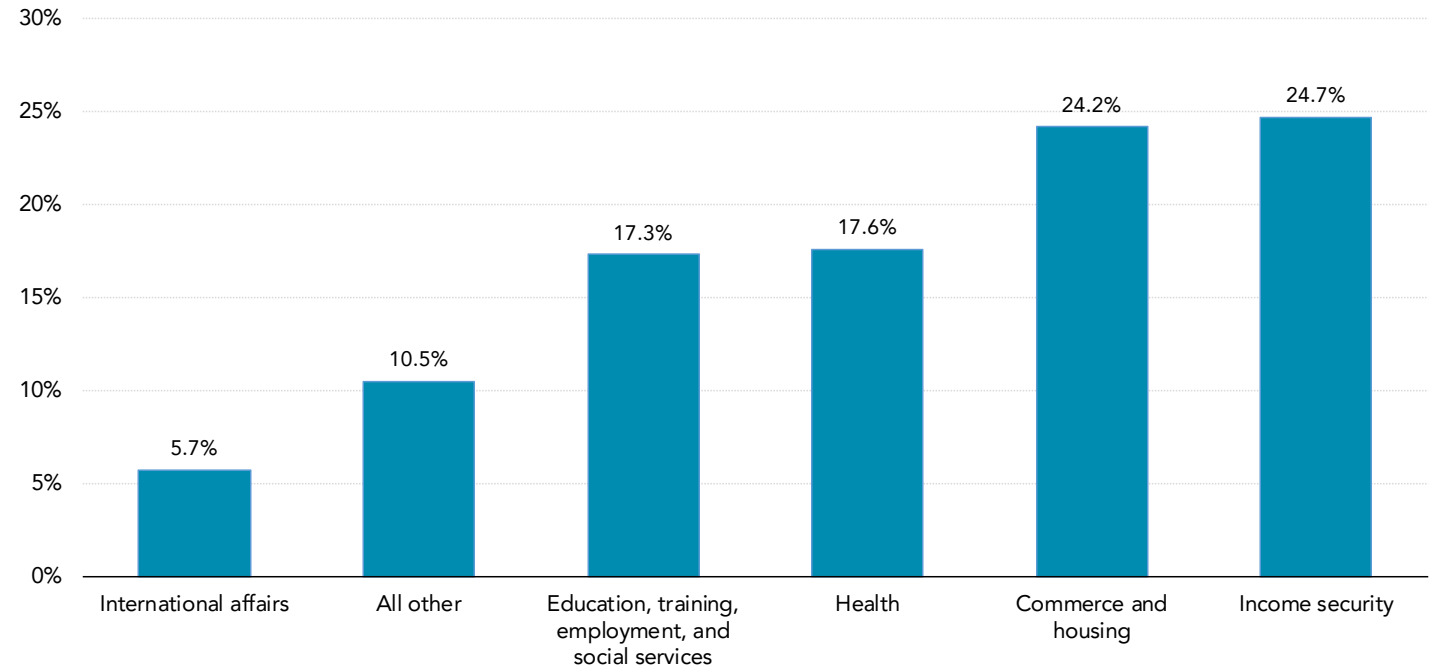
Background

What is the tax expenditure budget?

FIGURE 1

Shares of Tax Expenditure Budget

Fiscal year 2019



Source: Joint Committee on Taxation (2018).
Note: The "all other" category includes the following: general purpose, fiscal assistance, social security, general science, space and technology, national defense, veterans benefits and services, energy, transportation, community and regional development, agriculture, natural resources, and interest.

taxpayers into higher-rate brackets, thereby increasing the revenue loss from remaining exemptions. Toder, Berger, and Zhang (2016) estimated that the actual combined revenue loss from all individual tax expenditures in 2015 was about 6 percent larger than the amount computed by summing individual tax expenditures—though for one subcategory, itemized deductions, the total revenue loss is less than the sum of losses from the separate deductions.

Some tax expenditures effectively function like direct expenditures even though they appear as tax breaks, because programs with similar effects could be structured as outlays (Burman and Phaup 2011). An example is the tax credit for renewable energy investment, which could be structured as grants from the Department of Energy. Other expenditures have no direct spending analogy, but can instead be viewed as departures from an income tax with a comprehensive base. Marron and Toder (2013) estimate that provisions that could be viewed as spending substitutes have recently amounted to over 4 percent of gross domestic product.

Complicating matters is that the ideal administrative agency for a tax subsidy might or might not be the Internal Revenue Service (IRS), regardless of classification. Because the earned income credit is based largely on wage reporting, the IRS might serve appropriately as the administrative agency. Yet all the

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What is the tax expenditure budget?

subsidy, including the portion of the credit used to reduce tax payments, could still be classified as a direct expenditure.

Like most mandatory programs (or entitlements) on the spending side of the budget, most tax expenditures do not go through a direct appropriation process each year and are available with no budget ceiling to all who qualify. Expenditure costs change with the growth of the economy, changes in the quantities and prices of subsidized activities, and—for some provisions—changes in marginal tax rates applied to individual and corporate income. For example, the cost of the mortgage interest deduction varies with the volume of home mortgage debt outstanding, the level of interest rates, and marginal tax rates applied to the taxable income of borrowers.

Data Source

Joint Committee on Taxation. 2018. "Estimates of Federal Tax Expenditures For Fiscal Years 2017–2021." JCX-34-18. Washington, DC: Joint Committee on Taxation.

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Toder, Eric J., Daniel Berger, and Yifan Zhang. 2016. "Distributional Effects of Individual Income Tax Expenditures: An Update." Washington, DC: Urban-Brookings Tax Policy Center.

Q. Why are tax expenditures controversial?

A. To some, tax expenditures are spending items that do not belong in the tax code. To others, they are merely a way of reducing taxes, and repealing them would amount to a tax increase.

Most tax expenditures perform very much like spending programs, which means they may serve or harm the public depending on whether they serve a legitimate public purpose in the most efficient manner possible. But the identification and measurement of tax expenditures are controversial.

Subsidies and expenditures in the form of tax breaks reduce the measure of net tax revenue instead of increasing measured spending. Thus, they give the appearance of reducing government's size. For this reason, tax subsidies have strong political appeal. In fact, tax expenditures are an alternative way for government to intervene in the economy and, like direct spending, must be financed through higher taxes or reduced spending elsewhere.

Imagine, for instance, a new government program that provides tax credits for energy production at a cost of $5 billion per year, and finances it by raising income tax rates. To pay for the energy tax credit, the government would have to raise tax rates enough to collect an additional $5 billion—no different than what it would need to do if the subsidies for energy production were provided by a US Department of Energy grant instead of by tax credits.

Here's the conceptually tricky part: tax expenditures are defined as deviations from a baseline tax system. In the example above, it is straightforward to see the equivalence between an energy tax credit and a spending program. Often, however, the definition and estimated magnitude of tax expenditures are a matter of judgment because what belongs in the baseline tax system itself reflects the judgment of analysts.

Since the government began regular reporting of tax expenditures in the 1970s, the baseline against which tax expenditures are measured generally has been a version of a comprehensive income tax. But there have always been exceptions, often for income that is difficult to assess. For example, income often, but not always, has been counted only when realized, so that the deferral or exclusion from tax for unrealized capital gains is not counted, as a tax expenditure but some forms of deferral of receipts by business are. Also, the US Department of the Treasury, but not the congressional Joint Committee on Taxation (JCT), includes net imputed rental income from homeownership in its baseline used for estimating tax expenditures.

If the current income tax were replaced wholly or partly by a consumption tax, as some economists and political leaders favor, some provisions now classified as tax expenditures would no longer be regarded as such. For example, under a comprehensive consumption tax system, the tax base would be consumption, not income. Thus, the deferral of earnings contributed to retirement savings accounts and the exemption

Background

Why are tax expenditures controversial?

of income earned within those accounts would not be considered tax expenditures. Most other tax expenditures, however, including the deductibility of home mortgage interest, charitable contributions, and state and local taxes, as well as the exemption of employer contributions to health insurance plans, would still be so classified.

In other cases, estimating the size of a tax expenditure requires some judgment. For example, under an income tax, firms can recover the costs of capital investment over time with depreciation deductions that reflect the decline in the value of their assets. But what is the right measure of depreciation in an inflationary economy? For these and other items, the JCT and the Treasury use different definitions of what would be included in a normal or comprehensive income tax. Therefore their classification and measurement of some tax expenditures differ.

In addition, estimates by the Office of Management and Budget and the JCT can differ from each other depending upon when the two estimates were prepared. A special case occurred in 2018, when the JCT estimates (published in May 2018) included the effects of the 2017 Tax Cuts and Jobs Act, while the Office of Management and Budget estimates (published in February 2018, but based on Treasury estimates first released in October 2017) did not include changes from the act.

Data Source

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Q. What are the largest tax expenditures?

A. Tax expenditures make up a substantial part of the federal budget. Some of them are larger than the entire budgets of the programs or departments that spend money for the same or related purposes. For example, the value of the tax breaks for homeownership, although reduced by the latest tax bill, still exceeds total spending by the US Department of Housing and Urban Development.

Table 1 ranks the top 13 US tax expenditures, based on the 2018 estimates by the Joint Committee on Taxation (JCT). The Office of Management and Budget also publishes lists of tax expenditures based on estimates by the US Department of the Treasury, but the 2018 estimates were prepared before passage of The Tax Cuts and Jobs Act (TCJA) late in 2017.

The largest tax expenditure (an estimated $172.8 billion in fiscal year 2019) is the exclusion of employers' contributions for employees' medical insurance premiums and medical care. Under this provision of the tax code, contributions are excluded from an employee's gross income, while an employer may deduct the cost as a business expense.

The next-largest tax expenditure on the JCT list is the preferential rate structure for capital gains and dividends ($127.0 billion in 2019), which are taxed at rates ranging from 0 to 20 percent, as compared with individual income tax rates that range from 10 to 37 percent. Capital gains also benefit from the step up in basis at death ($34.0 billion in 2019), which permanently exempts all unrealized capital gains accrued during an individual's lifetime on assets that are passed on at death.

The third-largest tax expenditure is the credit for children and other dependents ($121.7 billion in 2019, up from $54.1 billion in 2017). TCJA doubled the child credit to $2,000 per qualifying child, increased the maximum refundable credit amount to $1,400, raised the income at which the credit begins to phase out to $400,000 for joint returns ($200,000 for single), and introduced a new $500 credit for nonchild dependents. At the same time, TCJA eliminated personal exemptions for taxpayers and dependents. JCT and Treasury, perhaps inconsistently, did not count the dependent exemption as a tax expenditure, so the tax expenditure budget accounts imply a greater increase in child benefits from the switchover than taxpayers realized on net.

The fourth- and fifth-largest tax expenditures are the benefits for tax-qualified retirement saving accounts. The tax on contributions, as well as the income earned within the accounts, is deferred until withdrawal begins at retirement. At that point, in addition to the benefits of the deferral, many taxpayers are in a lower bracket. Alternatively, some Roth retirement saving gets no deferral of tax on deposit, but complete

Background

What are the largest tax expenditures?

TABLE 1

Largest Tax Expenditures

Fiscal year 2019

Rank	Tax expenditure	Billions ($)
1	Tax exclusion for employer-sponsored health insurance	172.8
2	Reduced rates of tax on dividends and long-term capital gains	127.0
3	Credit for children and other dependents[a]	121.7
4	Tax benefits for employer defined contribution plans	121.5
5	Tax benefits for defined benefit plans	90.7
6	Earned income credit[b]	72.6
7	Reduced tax rate on active income of controlled foreign corporations	68.0
8	Depreciation of equipment in excess of alternative depreciation system	63.0
9	Subsidies for insurance purchased through health benefit exchanges	51.3
10	20 percent deduction for qualified business income	50.2
11	Exclusion of untaxed Social Security and railroad retirement benefits	37.0
12	Exclusion of capital gains on sales of principal residences	36.3
13	Exclusion of benefits provided under cafeteria plans	35.0

Source: Joint Committee on Taxation. 2018. "Estimates of Federal Tax Expenditures for Fiscal Years 2017–2021." JCX-34-18. Washington, DC: Joint Committee on Taxation.

Notes: JCT regards the exclusion of net imputed rental income as an administrative necessity, and does not classify it as a tax expenditure. However, it is included by the Treasury; in October 2017, before TCJA tax changes, the Treasury estimated that total income tax expenditures from the exclusion of net imputed rental income is $131.1 billion for FY2019 (US Department of the Treasury 2017).

(a) includes outlays of $48.5 billion.

(b) includes outlays of $64.9 billion.

Background

What are the largest tax expenditures?

exemption from tax of all investment returns on the saving. The revenue losses from retirement saving accounts in 2019, measured on a cash flow basis, are estimated to total $121.5 billion for employer-sponsored "defined-contribution" plans such 401(k) plans and $90.7 billion for traditional defined-benefit plans. There are additional losses from deductible individual retirement accounts ($17.7 billion), back-loaded (Roth) accounts ($7.7 billion), and plans for the self-employed ($14.7 billion).

The sixth-largest tax expenditure, the earned income credit ($72.6 billion in 2019), mainly benefits low-income families with children. The credit increases with family size and is phased out as income rises above a threshold amount. Most of the credit's budgetary cost comes from the portion that exceeds income tax liability and is therefore counted as outlays, rather than as a tax expenditure, in the Office of Management and Budget estimates.

In general, tax expenditures for individuals are larger than tax expenditures for businesses. Only two business tax expenditures made it into the list of the top 13: the reduced tax rate on active income of controlled foreign corporations ($68.0 billion in 2019) and accelerated depreciation of equipment in excess of the alternative depreciation system ($63.0 billion in 2019).

The seventh largest, the reduced tax rate on foreign income, replaces pre-TCJA rules that allowed companies to defer tax on most income accrued within controlled foreign corporations. The eighth largest, the tax subsidy for investment in equipment, was increased by a TCJA provision that allows firms to deduct purchases of qualifying equipment immediately (bonus depreciation) through 2022. Beginning in 2023, however, bonus depreciation is scheduled to phase out at a rate of 20 percent per year, reaching zero in 2027.

The ninth-largest tax expenditure is the subsidy for health insurance purchased through health benefit exchanges under the Affordable Care Act ($51.3 billion). A TCJA provision reduces this subsidy by eliminating a penalty tax on individuals who lack insurance coverage, effectively reducing the number of people who purchase subsidized insurance coverage. The JCT projects that the cost of the tax subsidy will decline to $44.3 billion by 2021.

The tenth-largest subsidy is the 20 percent deduction for qualified business income ($50.2 billion in 2019). This deduction, made newly available by the TCJA for tax years beginning in 2018, is available to individuals with income from self-employment and ownership of shares in pass-through businesses (partnerships and subchapter S corporations) but is partially limited for high-income individuals according to complex criteria based on the types of activities from which they earn income, the wages they pay to their employees, and the amount of capital they own.

The eleventh-largest tax expenditure is the exclusion of untaxed Social Security and railroad benefits ($37.0 billion). These benefits are partially or fully excluded from adjusted gross income for taxpayers whose incomes fall below threshold amounts.

The twelfth-largest tax expenditure is the exclusion of the first $250,000 of gains ($500,000 for joint filers) on sales of a principal residence ($36.3 billion). Homeowners also benefit from the home mortgage interest deduction ($33.9 billion in 2019). TCJA substantially reduced the benefit of the mortgage interest deduction by raising the standard deduction and setting a $10,000 limit on state and local income and property tax

Background

What are the largest tax expenditures?

deductions, so that many fewer taxpayers claim the remaining itemized deductions and many of those who do claim them receive much smaller benefits than before.

The thirteenth-largest tax expenditure is the exclusion of benefits under cafeteria plans ($35.0 billion in 2019). These are plans in which employers allow employees to set aside funds to purchase certain goods and services from pretax dollars. The biggest uses of cafeteria plans are for out-of-pocket health expenses (including the employee share of health insurance premiums) and dependent care expenses.

Two itemized deductions from earlier years have dropped off the top 10 list. The cost of the deduction of state and local income, sales, and property taxes will decline from $100.9 billion in 2017 to only $21.2 billion in 2019 because of the increase in the standard deduction and because the tax deduction is now limited to no more than $10,000 per tax return.

The cost of the charitable deduction will also decline, but the charitable deduction, although substantially reduced after TCJA, would have just made the top 13 list if JCT considered it a single tax expenditure item. Instead, JCT reports separate estimates for the charitable deduction for education ($7.3 billion), the charitable deduction for health ($3.3 billion), and the charitable deduction except for education and health (31.3 billion).

Data Source

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Q. How did the TCJA affect tax expenditures?

A. The TCJA reduced some tax expenditure provisions, eliminated others, and introduced and expanded still others. In addition to these direct changes in tax expenditure provisions, an increase in the standard deduction and lower individual and corporate tax rates reduced the number of taxpayers using tax expenditure provisions and the value of the tax benefits they receive.

While the Tax Cuts and Jobs Act (TCJA) reduced overall federal receipts by about $1.5 trillion over 10 years, it did modestly reduce the net revenue cost of tax expenditures. Comparing the most recent Joint Committee on Taxation (JCT) tax expenditure estimates to its last pre-TCJA estimates, the sum of the revenue losses for all tax expenditures for fiscal years 2018–20 (the years for which both JCT studies provide estimates) declined from $5.0 trillion to $4.5 trillion. (The total revenue losses from tax expenditures do not exactly equal the sum of losses from each provision because of interactions among the provisions, but studies by the Urban-Brookings Tax Policy Center have shown that the simple sum of revenue losses from separate provisions is a reasonably good approximation of the revenue loss of tax expenditures including these interactions.)

The TCJA eliminated and reduced some tax expenditures while introducing some new ones and increasing some existing ones. In addition, interactions between tax expenditures and changes in the law affected the number of taxpayers who benefit from tax expenditure provisions and the value of benefits they receive. The most important of these indirect effects comes from lower individual and corporate income tax rates, which reduce the value of many tax expenditures, and the increase in the standard deduction which reduces tax benefits from itemized deductions.

The tax expenditures that decline the most in fiscal years 2018–20 are the deduction of nonbusiness state and local income and property taxes, replacement of deferral by a reduced tax rate on the active income of controlled foreign corporations, deductions for mortgage interest on owner-occupied residences, subsidies for insurance purchased through health benefit exchanges, expensing of business depreciable property for small businesses under section 179, and the deduction for income attributable to domestic production activities (table 1).

The existing tax expenditures that increase the most are the credit for children and other dependents and depreciation of equipment in excess of the alternative depreciation system. The largest new tax expenditure is a 20 percent deduction for qualified business income (table 1).

Background

How did the TCJA affect tax expenditures?

TABLE 1

Largest Changes in Tax Expenditures

Fiscal years 2018-2020

Tax Expenditure Reductions	Total Change in Billions ($)
Deduction of nonbusiness state and local government taxes	-267.3
Reduced tax rate on active income of controlled foreign corporations (formerly deferral)	-147.2
Deduction for mortgage interest on owner-occupied residences	-123.0
Subsidies for insurance purchased through health benefit exchanges	-80.0
Expensing under section 179 of depreciable business property	-60.7
Deduction for income attributable to domestic production activities	-57.5
New and Increased Tax Expenditures	**Total Change in Billions ($)**
Credit for children and other dependents	187.4
Depreciation of equipment in excess of alternative depreciation system	175.5
20 percent deduction for qualified business income	142.6

Source: Joint Committee on Taxation, "Estimates of Federal Tax Expenditures for Fiscal Years 2017-21", JCX-34-18, and "Estimates of Federal Tax Expenditures for Fiscal Years 2016-20. JCX-3-17."

DIRECT CHANGES IN TAX EXPENDITURES

Most of the tax expenditures eliminated by TCJA were small. The principal exception is the deduction attributable to domestic production activities ($62 billion in 2018–20), which was 9 percent of taxable business income. (For large corporations, this was equivalent to a cut in the tax rate on profits from domestic production from 35 to 31.9 percent.) With the lower corporate tax rate, Congress believed this deduction was no longer needed to reduce the tax burden on domestic manufacturing.

TCJA raised much more revenue from reducing several large tax expenditures instead of eliminating them. It reduced the value of the nonbusiness state and local income, sales, and property tax deductions in fiscal years 2018–20 to less than one-quarter its former cost. This resulted from a combination of changes: a

Background

How did the TCJA affect tax expenditures?

$10,000 cap on the amount of taxes taxpayers could claim as a deduction; an increase in the standard deduction and reductions in other itemized deductions, which reduced the number of taxpayers claiming the deduction; and modestly lower individual income tax rates, which reduced the tax saving for taxpayers who claim it.

International provisions in the TCJA also reduced tax expenditures. The replacement of deferral of the profits of controlled foreign corporations until repatriation with a reduced tax rate on intangible profits accrued in low-tax countries will reduce tax expenditures in 2018–20 by $147 billion. JCT previously scored deferral as costing $365 billion over the three-year period, while the estimated revenue loss from the reduced tax rate on accrued profits (10.5 percent instead of 21 percent) is $218 billion.

The largest expansions were for the child credit and depreciation of equipment by businesses. The child tax credit was roughly doubled from a bit more than $1,000 to $2,000 per child. TCJA introduced a new $500 credit for dependents and other children receiving the regular child tax credit, it increased the income levels at which the credit phases out, and it increased the amount of the credit that could be refunded. These changes raised the 2018–20 revenue loss from the child credit by $187 billion.

The largest new tax expenditure, the 20 percent deduction for qualified business income received by owners of pass-through businesses (sole proprietorships, partnerships, limited liability companies, and subchapter S corporations), effectively reduces the top rate on qualified business income from 37 percent to 29.8 percent. On the business side, the largest change was the enactment of 100 percent bonus depreciation for five years beginning in 2018 (and then phasing out at 20 percent per year beginning in 2023). Bonus depreciation raised the cost of depreciation of equipment in excess of the alternative depreciation system (JCT's view of depreciation rules under the baseline income tax) by $174 billion between 2018 and 2020.

INDIRECT EFFECTS ON THE COST OF TAX EXPENDITURES

Lower marginal tax rates reduce the cost of tax expenditures that take the form of exclusions and deductions, because reducing taxable income provides smaller tax benefits at lower rates. TCJA modestly reduced the value of many individual tax expenditures by reducing the individual rate schedule from rates ranging from 10 to 39.6 percent to rates ranging from 10 to 37 percent.

The decline in the top corporate tax rate from 35 to 21 percent was much larger than the cut in the marginal individual rates. Most corporate tax expenditures are small, however, so the corporate rate cut per se did not change their total cost very much. Changes in what were the three largest corporate tax expenditures before the TCJA (deferral of income accrued in controlled foreign corporations, depreciation in excess of the alternative depreciation system, and the domestic manufacturing deduction) were largely or wholly the result of other changes in the legislation (replacement of deferral with a minimum tax on intangible income in low tax-countries, expensing of investment in equipment, and elimination of the domestic manufacturing deduction).

Other provisions of the legislation also had significant indirect effects on selected tax expenditures. The increase in the standard deduction significantly reduced the value of itemized deductions, which benefit taxpayers only to the extent that their sum exceeds the standard deduction. And the cap on the state and local deduction reduced the value of other itemized deductions, by also reducing the amount by which itemized deductions exceed the standard deduction.

Background

How did the TCJA affect tax expenditures?

For example, the cost of the mortgage interest deduction declined from $234 billion to $112 billion. Only a small portion of this decline came from the direct provisions affecting mortgage interest—the reduced ceiling on the size of new mortgages eligible for the deduction from $1 million to $750,000 and elimination of the deduction for up to $100,000 of home equity loans. Most of the saving is instead an indirect effect of the increase in the standard deduction, the $10,000 cap on state and local tax deductions, and lower marginal tax rates. The same indirect effects will reduce the cost of charitable deductions (other than for education and health) from $142 billion to $110 billion.

Indirect effects also reduced other tax expenditures. The Congressional Budget Office estimates that the elimination of the penalty tax on individuals without health insurance coverage will reduce the take-up rate for health insurance plans under the Affordable Care Act exchanges. The resulting reduction in coverage will reduce tax subsidies paid out by the exchanges by about $80 billion between 2018 and 2020. On the business side, the tax expenditure for small business expensing under section 179 will decline from about $100 billion to about $40 billion between 2018 and 2020, even though the amount of deductions taken was made more generous. The tax expenditure declines because with bonus depreciation in place, the additional benefit of allowing expensing under section 179 is much less than it would have been without bonus depreciation.

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Q. What is the tax gap?

A. The gross tax gap is the difference between total taxes owed and taxes paid on time.

The Internal Revenue Service (IRS) estimates that over the past 30 years, the tax gap has fluctuated in a narrow range—15 to 18 percent of total tax liability. Some view the tax gap as a possible major revenue source that could be used to close the federal budget deficit without raising taxes. In practice, though, the potential revenue gains from proposals to improve enforcement are quite limited.

The latest IRS tax gap report was prepared in 2016 and covered tax years 2008–10 (IRS Research, Analysis, and Statistics 2016). For those years, the IRS reported an average annual gross tax gap of $458 billion (slightly over 18 percent of tax liability). Of this, the IRS eventually recovered $52 billion through voluntary late payments and enforcement activities. That left a net tax gap of about $406 billion.

Failure to file a tax return (nonfiling) and underpayment of reported taxes account for just over 15 percent of the gross tax gap (figure 1). Underreporting on timely filed tax returns makes up the bulk of it: $387 billion, or 85 percent of the gross tax gap.

Underreporting on individual income tax returns alone (including self-employment tax) was $329 billion (figure 2), about 85 percent of the underreporting tax gap in 2008–10. Almost 60 percent of the underreported individual income tax is owed on business and self-employment income, which the IRS has no easy way to verify independently. About 11 percent of the underreporting gap is attributable to corporate income tax, and only 0.3 percent to the estate tax.

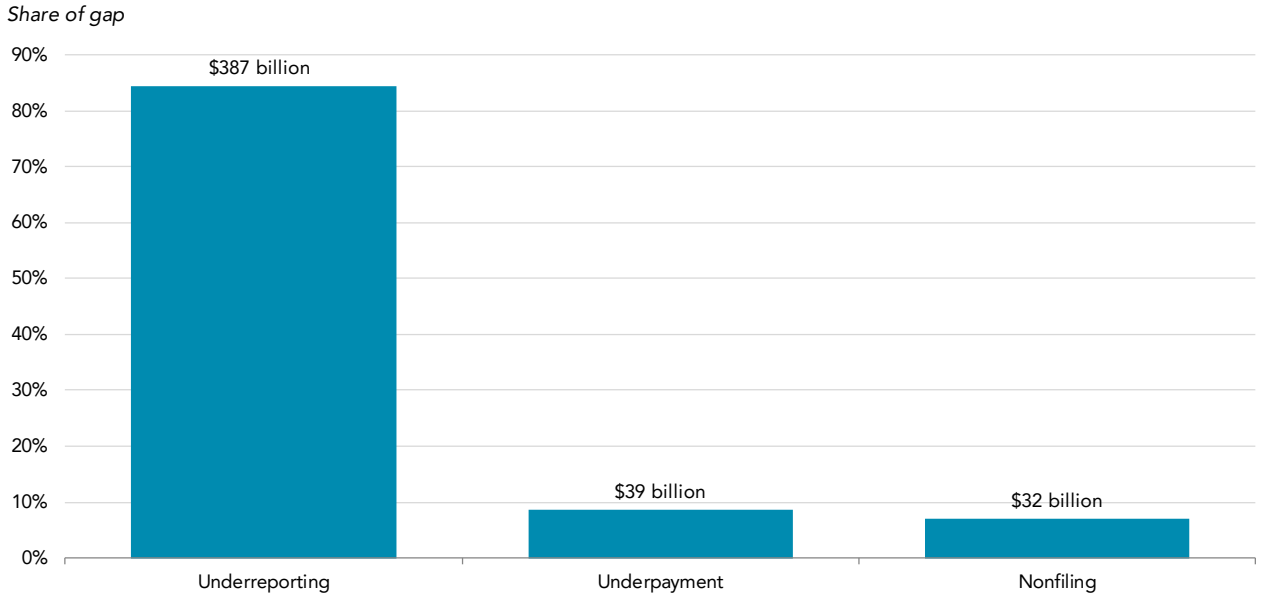
Individual taxpayers fail to report about 63 percent of income from sources for which there is no information reporting, such as sole proprietorships. In contrast, only 7 percent of income from easily verified sources—interest, dividends, and pensions—goes unreported. When income is subject to both information returns and tax withholding, as with wages, only about 1 percent goes unreported.

Background

What is the tax gap?

FIGURE 1

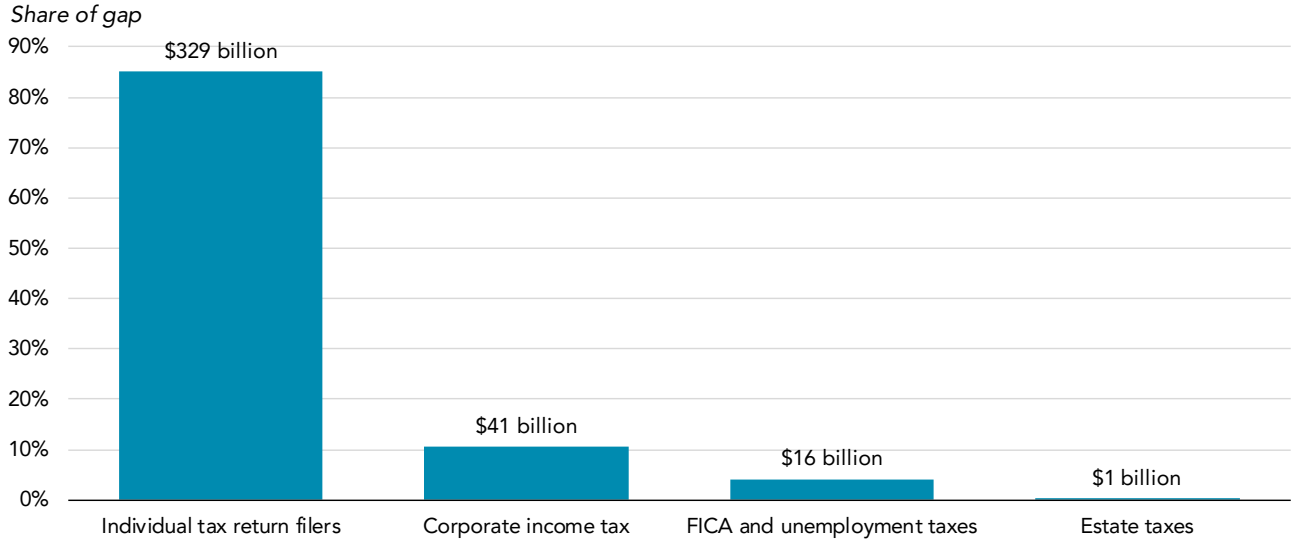
Components of the $458 Billion Gross Tax Gap
2008–10



Source: Internal Revenue Service, Research, Analysis and Statistics (2016).

FIGURE 2

Components of the $387 Billion Underreporting Gap
2008-10



Source: Internal Revenue Service, Research, Analysis and Statistics (2016).
FICA = Federal Insurance Contributions Act

Background

What is the tax gap?

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Q. What does the IRS do and how might it be improved?

A. The IRS administers the federal tax laws that the Congress enacts.

The Internal Revenue Service (IRS) administers the federal tax laws that Congress enacts. IRS performs three main functions—tax return processing, enforcement, and taxpayer service. In addition, the IRS conducts criminal investigations and oversees tax-exempt organizations and qualified retirement plans. The IRS budget and workforce have been shrinking, even as the tax law has become more complex and the agency has taken on new tasks.

IRS ACTIVITIES

Slightly over 40 percent of the IRS's $11.5 billion budget in 2017 went to enforcement (figure 1). About 84 percent of the enforcement budget was for examinations of taxpayer returns (audits) and collections. IRS spent the remainder on criminal investigations and regulatory activities, including monitoring tax-exempt organizations and qualified retirement plans.

About 36 percent of the budget funded operations support, including information technology, services, facilities, and organizational support. Another 21 percent supports taxpayer services, including prefiling taxpayer assistance and education and filing and account services. Finally, another 3 percent went to business systems modernization to upgrade information and technology services. These percentages have remained roughly stable in recent years.

THE DECLINE IN SPENDING AND WORKFORCE AND WHY IT IS A PROBLEM

The total IRS budget has been shrinking in real terms in recent years. Between 2010 and 2017, spending on the IRS declined by 15 percent from $13.6 billion to $11.5 billion in 2017 dollars. Over a longer time frame, IRS employment dropped by over 30 percent, from 112,000 full-time equivalents in 1995 to less than 77,000 in 2017 (figure 2).

While IRS resources have shrunk, the agency's workload has increased. With the taxpayer population increasing, the IRS must process more returns, administer more deposits and refunds, and expend more resources to keep taxpayers compliant. Changes in the economy and society have created other challenges for tax enforcement and compliance. These include the globalization of corporate activity, an increase in the share of income taxed through partnerships and other pass-through entities, and changes in family structure. The latter changes have made it harder for IRS to determine whether taxpayers are entitled to tax benefits based on complex criteria, including household living arrangements, family relationships, and support tests.

A major source of increased workload has been the IRS's expanded role in adminstering social programs. The IRS today manages a wide range of benefits for low- and middle-income families and families with children. These include the earned income credit, the child credit, the child and dependent care credit, tax subsidies

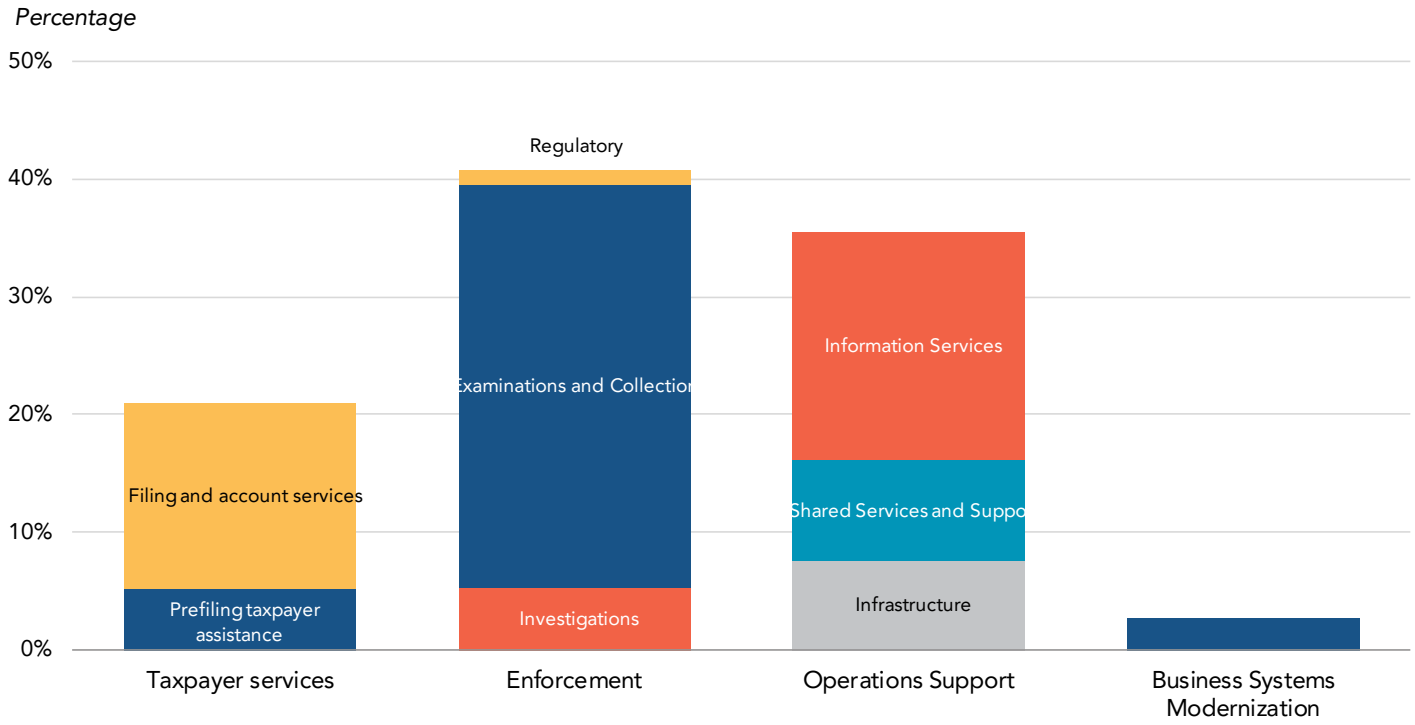
for higher education, and premium subsidies under the Affordable Care Act. When Congress creates new programs for the IRS to administer, it often does not provide additional funding to administer them.

The 2017 Tax Cuts and Jobs Act presents the IRS with new challenges. IRS will need to write new regulations to administer provisions that are ambiguous and sometimes contradictory. Some provisions that appear to be especially difficult are the new 20 percent deduction for income from pass-through businesses and the complex new international tax provisions. Congress is considering a supplemental appropriation to help IRS administer the new tax law, but that additional funding will not reverse the long-term decline in the IRS budget.

FIGURE 1

IRS Budget Shares by Activity

Fiscal year 2017



Source: Internal Revenue Service, Statistics of Income Division. Data Book, 2017. Table 28. "Costs Incurred by Budget Activity, Fiscal Years 2016 and 2017."

Background

What does the IRS do and how might it be improved?

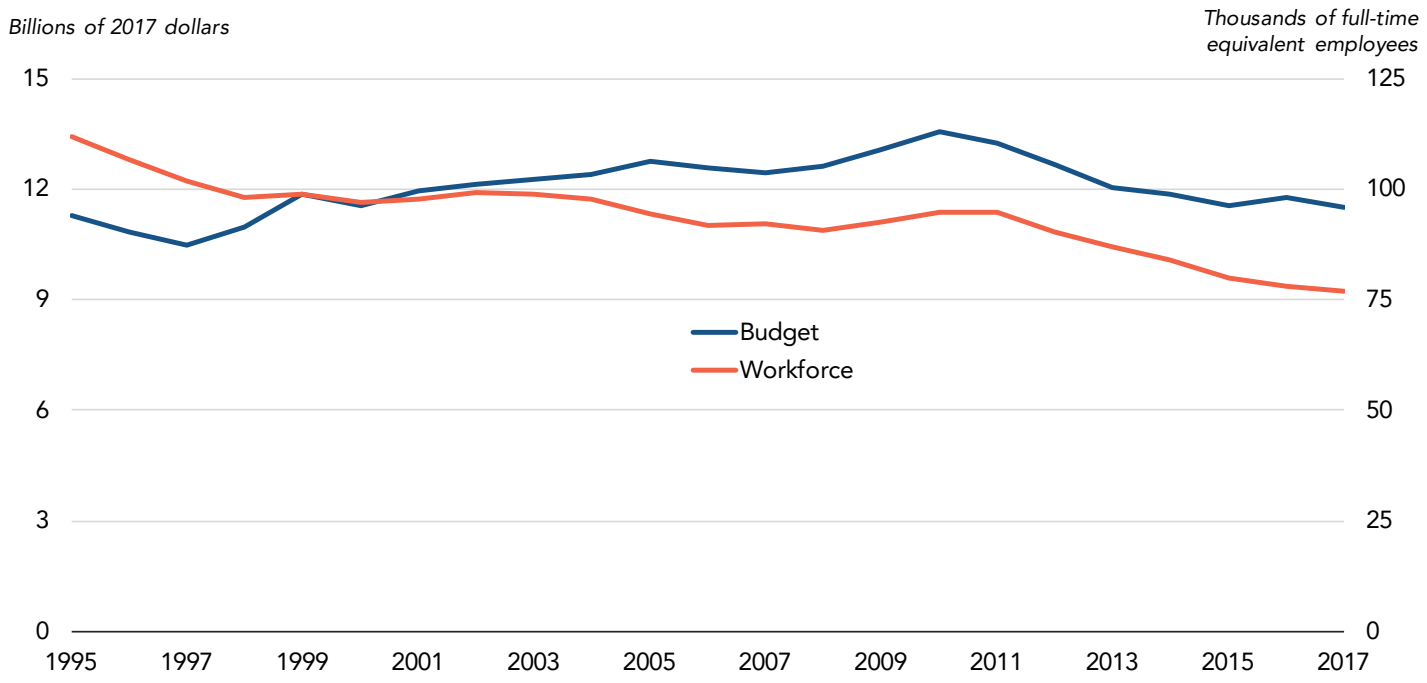
WHAT CAN BE DONE?

The IRS is a complex and unwieldy bureaucracy that cannot easily transform into a modern high-tech organization. Some measures, however, could improve tax administration. Congress could enact legislation to simplify the tax law, as the National Taxpayer Advocate and some reform commissions have proposed. Congress could increase funding to reverse recent budget cuts and prevent a steep drop in the agency's enforcement presence. More funds for enforcement could more than pay for themselves in increased revenue collections. Congress could also give the agency more flexibility in personnel management and additional resources to help modernize their information technology, including relaxing existing pay ceilings for top technology personnel.

FIGURE 2

IRS Budget and Workforce

Fiscal year 1995–2017



Source: Internal Revenue Service, Statistics of Income Division. Data Book, 2017. Table 29. "Collections, Costs, Personnel, and US Population, Fiscal Years 1988–2017."

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Background

What is a tax shelter?

Q. What is a tax shelter?

A. Tax shelters are ways individuals and corporations reduce their tax liability. Shelters range from employer-sponsored 401(k) programs to overseas bank accounts.

The phrase "tax shelter" is often used as a pejorative term, but a tax shelter can be a legal way to reduce tax liabilities. Someone who thinks a feature of the tax code giving taxpayers the ability to reduce taxes is not a good idea might label it a shelter. Someone else might call that feature of the tax code an incentive. And as the esteemed jurist, Learned Hand, explained: "Anyone may arrange his affairs so that his taxes shall be as low as possible; he is not bound to choose that pattern which best pays the treasury."

Individuals and corporations can reduce their final tax liabilities by allocating some portion of their incomes to tax shelters. Although they are classically associated with wealthy households and corporations who use anonymous Swiss bank accounts, tax shelters are more accessible and widespread than the usual association may suggest. For example, employer-sponsored 401(k) programs and individual retirement accounts are widespread and accessible ways individuals can "shelter" some of their income from taxation.

ABUSIVE TAX SHELTERING

But a tax shelter also may be defined narrowly, as a transaction or strategy that generates tax benefits unintended by the Congress or the IRS. Often a tax shelter relies on a literal interpretation of a statute to achieve a result that is "too good to be true." Professor Michael Graetz once defined a tax shelter as "a deal done by very smart people that, absent tax considerations, would be very stupid."

The Internal Revenue Service makes a distinction between tax sheltering (which encompasses legal forms of reducing tax liability, like retirement plans) and "abusive" tax sheltering (including tax evasion, which is illegal). One example of an abusive tax-sheltering scheme is the use of trusts to reduce tax liability by overclaiming deductions or even by hiding income and assets from taxation.

EFFECTS

Tax shelters are generally beneficial if considered from the individual or firm perspective. And tax shelters may also be desirable from an overall societal perspective. That is because the erosion of the tax base may be an acceptable loss for largely beneficial tax shelters (such as charitable contributions). Of course, some tax shelters have little to no social benefits or are even harmful.

Background

What is a tax shelter?

TAX HAVENS

"Tax havens" are a specific means of tax sheltering. A tax haven is a locality—be it a state, country, or region—that often has a lower corporate or personal income tax rate. Tax havens may also have other properties that make storing assets or income there desirable, such as bank secrecy laws, or ease of incorporation (for forming shell companies), or lack of transparency for business operations.

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Q. What did the 2008–10 tax stimulus acts do?

A. The 2008 and 2009 tax acts provided large temporary tax cuts to most households, with the goal of helping the economy recover from the Great Recession. The 2010 tax act extended specific provisions of the 2009 act through 2012, along with most of the 2001 and 2003 income tax cuts. It also replaced the Making Work Pay credit with a 2 percentage point reduction in the 2011 payroll tax rate for workers.

ECONOMIC STIMULUS ACT OF 2008

The Economic Stimulus Act of 2008 had three main parts: an individual income tax rebate sent in mid-2008 and two business provisions to encourage investment during 2008.

Tax Credits for Individuals

People who filed tax returns for either 2007 or 2008 could qualify for "recovery rebates." In total, the rebates lowered federal taxes by about 5 percent in 2008, reducing the estimated average effective federal tax rate from 19.6 percent to 18.6 percent and cutting federal revenue by nearly $120 billion in fiscal years 2008 and 2009.

Most tax filers received a basic credit of $600—or $1,200 for joint filers—up to their income tax liability before subtraction of child and earned income credits. Tax filers who qualified for less than $300 of the full basic credit ($600 for joint filers) could get $300 ($600 for joint filers) if they had either (1) at least $3,000 in earnings, Social Security benefits, and veteran's payments or (2) net income tax liability of at least $1 and gross income above specified thresholds.

Those thresholds equaled the sum of the applicable basic standard deduction plus one personal exemption (two personal exemptions for a joint return). That value was $8,750 in 2007 ($17,500 for joint filers and $11,250 for heads of household) and $8,950 in 2008 ($17,900 for joint filers and $11,500 for heads of household).

People who qualified for a basic credit could also receive an extra $300 credit for each child eligible for the regular child credit. The act also reduced the sum of the basic and child credits by 5 percent of the tax filer's adjusted gross income over $75,000 ($150,000 for joint filers).

Background

What did the 2008–10 tax stimulus acts do?

Investment Incentives for Businesses

Two provisions were designed to help businesses:

1. A one-year doubling of the limitation on expensing depreciable business assets (that is, deducting their full cost in the year the investment was made). This allowed firms to write off up to $250,000, reduced by the amount of qualifying investment over $800,000. After 2008 the limit reverted to $125,000 (indexed from 1997), reduced by the amount of qualifying investment over $500,000 (also indexed from 1997).
2. A "special depreciation allowance for certain property" allowed firms to claim an additional first-year depreciation of 50 percent of the cost of qualifying investments contracted for and placed in service during 2008 (in addition to the amount of investment firms could expense).

The estimated cost of the two provisions over 10 years: $7.5 billion. Specifically, the Joint Committee on Taxation estimated that revenues would drop $51 billion in fiscal 2008 and 2009, offset by $43.5 billion of additional revenue in subsequent years because firms would be unable to depreciate previously expensed investments.

AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

The American Recovery and Reinvestment Act reduced federal taxes by an estimated $287 billion over 10 years. Over 80 percent of the tax cuts—$232 billion—were for individuals; smaller cuts subsidized investment in renewable energy and a handful of provisions for businesses. The Urban-Brookings Tax Policy Center (2009) evaluated each of the act's major provisions, grading them on how large and quick a boost they would give the economy. Provisions that increased households' after-tax income quickly—and thus were most likely to increase spending quickly—received the highest grades. But no provision earned an A.

The "Making Work Pay" Tax Credit

Effective for 2009 and 2010, the Making Work Pay (MWP) tax credit accounted for half of individual tax cuts. The credit equaled 6.2 percent of earned income up to a maximum of $400 ($800 per couple) and phased out at 2 percent of income over $75,000 ($150,000 for couples). As a result, individuals with earnings between about $6,450 and $75,000 (between about $12,900 and $150,000 for couples) could get the maximum credit. Those with incomes exceeding $95,000 ($190,000 for couples) received no credit (Urban-Brookings Tax Policy Center 2009).

A nontax provision extended "economic recovery payments" to certain individuals who did not qualify for the MWP credit. Payments totaling an estimated $14.2 billion went to recipients of Social Security, supplemental security income, railroad retirement benefits, and veterans' disability compensation or pension benefits (Urban-Brookings Tax Policy Center 2009).

The Alternative Minimum Tax Patch

A one-year extension of the alternative minimum tax (AMT) "patch" temporarily raised the AMT exemption. The cost: about $70 billion over 10 years. The patch saved affected taxpayers an estimated average of about $2,400. Under permanent AMT law, roughly 30 million taxpayers would have owed the additional levy (Urban-Brookings Tax Policy Center 2009).

Background

What did the 2008–10 tax stimulus acts do?

Other Individual Tax Provisions

Other major provisions in the American Recovery and Reinvestment Act replaced the HOPE education credit with the more generous and more refundable American opportunity credit (at a 10-year cost of $14.8 billion), increased the refundability of the child credit ($13.9 billion), boosted the earned income tax credit (EITC—$4.7 billion), and temporarily suspended taxation of the first $2,400 of unemployment benefits ($4.7 billion). All gave taxpayers more money to spend and thus help boost the economy. Two other provisions—the automobile sales tax credit ($1.7 billion) and the homeownership tax credit ($6.6 billion)—subsidized the purchase of cars along with homes for first-time buyers, thus targeting benefits for two industries hit hard by the Great Recession (Urban-Brookings Tax Policy Center 2009).

Business Tax Provisions

A broad range of provisions included incentives for the production of "clean" energy ($20 billion), funding to finance infrastructure development ($19.6 billion), tax benefits for business investment ($8 billion), and other economic recovery tools ($6.5 billion). The largest single provision extended tax incentives to produce electricity from renewable fuels for three years at an estimated cost of $13 billion. Among a variety of infrastructure development tools, school construction bonds ($10 billion), Build America bonds ($4.3 billion), and help for financial institutions ($3.2 billion) provided the most assistance. Special allowances for business investment in 2009 ($6 billion) and provisions related to net operating losses ($3.2 billion) gave additional assistance to firms.

TAX RELIEF UNEMPLOYMENT INSURANCE REAUTHORIZATION AND JOB CREATION ACT OF 2010

Faced with the scheduled sunset of all provisions of the 2001 and 2003 Bush tax cuts and the 2009 stimulus act (as well as several other tax laws), and unable to agree on permanent changes, Congress temporarily extended many provisions in the Tax Relief Unemployment Insurance Reauthorization and Job Creation Act of 2010. The law had diverse effects on the tax code:

- It extended all of the 2001 and 2003 individual income tax cuts for two years through 2012.
- It extended selected provisions of the 2009 act for two years through 2012, including
  - the higher EITC phaseout threshold for married couples filing jointly ($5,000 above the threshold for single filers, indexed for inflation);
  - the 45 percent EITC phase-in rate for families with three or more children;
  - the $3,000 threshold (unindexed) for refundability of the child tax credit; and
  - the American Opportunity Tax Credit for higher education.
- It set an effective exemption of $5 million and a 35 percent tax rate for the estate tax for 2011 and 2012, and replaced the state death tax credit with a deduction.
- It reduced the Social Security tax rate on employees to 4.2 percent for 2011 and the self-employment tax rate by 2 percentage points for 2011. (However, the act did not reduce the amount of self-employment tax that taxpayers could deduct on their income tax returns.)
- It raised the AMT exemption to $47,450 for single filers and $72,450 for married couples filing jointly for 2010 and to $48,450 and $74,450, respectively, for 2011.
- It extended other expiring tax provisions, including the deduction for state and local general sales taxes, the above-the-line deduction for education expenses, and the educator expense deduction, through 2011.

Background

What did the 2008–10 tax stimulus acts do?

The temporary reduction in the Social Security tax effectively replaced the MWP credit from the 2009 stimulus. That swap reduced the tax savings for low-income workers—single people with earnings under $20,000 and couples with earnings under $40,000—and provided large new tax breaks for high earners. Recall that single workers with income over $95,000 and couples with income over $190,000 got no MWP credit. In contrast, the cut in the Social Security tax rate saved high earners—those with earnings at or above the $106,800 cap on earnings subject to the tax in 2011—$2,136 in payroll taxes and double that for high-earning couples.

A Tax Policy Center analysis showed that, while about two-thirds of households in the lowest income quintile (income under about $18,000) would have gotten either credit, their average MWP credit would have been twice their payroll tax savings—$371 versus $178. Meanwhile, nearly 90 percent of households in the top quintile (income over about $105,000) got an average payroll tax cut of about $2,250, compared with just 60 percent who would have gotten MWP credits averaging about $650.

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Q. What did the American Taxpayer Relief Act of 2012 do?

A. The American Taxpayer Relief Act of 2012 made permanent most of the income tax cuts enacted between 2001 and 2010 and extended other temporary tax provisions for between one and five years.

Numerous tax cuts enacted between 2001 and 2010 were scheduled to expire after 2012, part of the "fiscal cliff" that threatened to cut short nascent recovery from the Great Recession. The expirations involved four tax acts:

- The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) phased in income tax cuts for most taxpayers but scheduled all of the cuts to expire after 2010 to avoid conflict with Senate rules (Joint Committee on Taxation 2001).
- The Jobs and Growth Tax Relief Reconciliation Act of 2003 accelerated the phase-in of some EGTRRA provisions, but retained their expiration dates and lowered tax rates on capital gains and qualifying dividends, also with sunset dates (Joint Committee on Taxation 2003).
- The American Recovery and Reinvestment Tax Act of 2009 (Division B, Title I of the American Recovery and Reinvestment Act, or ARRA) provided a number of temporary tax cuts designed to stimulate the economy, all of which were to sunset by the end of 2010 (Altshuler et al. 2009).
- The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 extended most provisions of those three acts through 2012 (Urban-Brookings Tax Policy Center 2010).

(Another tax law, the Temporary Payroll Tax Cut Continuation Act of 2011, extended through 2012 a cut in employees' share of the payroll tax funding Social Security, from 6.2 percent to 4.2 percent. The American Taxpayer Relief Act did not extend that provision.)

The Tax Policy Center's analysis of the scheduled expirations found that failure to extend them (including the temporary payroll tax cut) would have raised taxes by more than $500 billion in 2013—an average of almost $3,500 per household. Roughly 90 percent of Americans would have seen their tax bills rise (Williams et al. 2012).

Congress passed the American Taxpayer Relief Act of 2012 (ATRA) early on January 1, 2013, to prevent most of the sunsetting tax cuts from expiring. Most 2001 and 2003 income tax cuts were made permanent for all but the highest-income taxpayers. ATRA extended three ARRA provisions through 2017, while permanent changes to the estate tax and the alternative minimum tax reduced the number of people affected and indexed those provisions for inflation.

Background

What did the American Taxpayer Relief Act of 2012 do?

TAX PROVISIONS MADE PERMANENT

Income Tax Provisions

- Tax Rates: ATRA maintained the basic marginal tax rate structure of 10, 15, 25, 28, 33, and 35 percent for taxable income under $400,000 ($450,000 for married taxpayers filing jointly); the thresholds were indexed for inflation after 2013. Taxpayers with taxable income above the thresholds face a 39.6 percent marginal tax rate.
- Pease and PEP: The limitation on itemized deductions (Pease) and the personal exemption phaseout (PEP) applies only to taxpayers with adjusted gross incomes of $250,000 or more ($300,000 for married taxpayers filing jointly); the thresholds are indexed for inflation after 2013.
- Child Credits: The child tax credit equals $1,000 per child and is refundable up to 15 percent of earnings above $10,000 (indexed for inflation after 2001). Another ATRA provision temporarily reduced the refundability threshold to $3,000. The child and dependent tax care credit rate begins at 35 percent on eligible expenses up to $3,000 per child (to a maximum of $6,000) and phases down to 20 percent between adjusted gross incomes of $15,000 and $43,000.
- Marriage Penalty: The standard deduction and the 10 percent and 15 percent brackets for joint filers equal twice those for single filers. (ATRA also temporarily extended the higher earned income tax credit phaseout threshold for joint filers.)
- Education Tax: ATRA maintained higher annual contribution limits for Coverdell education savings accounts and higher phaseout ranges for the student loan interest deduction.
- Capital Gains and Dividends: ATRA retained 15 percent tax rates on long-term capital gains and qualified dividends (0 percent for those who would otherwise be in the bottom two tax brackets) for taxpayers in all but the top income tax bracket; the law also sets a 20 percent rate for those in the top bracket.
- Alternative Minimum Tax: ATRA set the 2012 alternative minimum tax exemption at $50,600 ($78,750 for married taxpayers filing jointly) and indexes the exemption amount, the exemption phaseout threshold, and the future tax brackets for inflation.

Estate and Gift Taxes

ATRA sets a $5 million effective estate and gift tax exemption (indexed for inflation from 2011) and a top estate tax rate of 40 percent. A surviving spouse may claim any exemption not previously used by the deceased, a feature termed "portability."

EXTENSIONS OF TEMPORARY TAX PROVISIONS

Tax Extenders

Congress regularly renews a few dozen temporary tax provisions, known as extenders, for one or two years at a time. ATRA extended that group of tax provisions through 2013. Most extenders had expired at the beginning of 2012; their ATRA extensions were retroactive, making them effective for 2012.

Extension Through 2017 of Certain 2009 Tax Cuts

- The American opportunity tax credit, which replaced the HOPE education credit in 2009.
- The child tax credit is refundable up to 15 percent of earnings above $3,000 (not indexed for inflation), which is reduced from earnings above $10,000 (indexed for inflation from 2001).
- The earned income tax credit threshold for couples filing jointly is set at $5,000 (indexed from 2008) above the phaseout for single filers. The phase-in rate for families with three or more children is raised to 45 percent.

Background

What did the American Taxpayer Relief Act of 2012 do?

Further Reading

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Q. How did the Tax Cuts and Jobs Act change personal taxes?

A. The Tax Cuts and Jobs Act made significant changes to individual income taxes and the estate tax. Almost all these provisions expire after 2025, while most business provisions are permanent.

The new tax law made substantial changes to the tax rates and the tax base for the individual income tax. The major provisions follow, excluding those that only affect business income.

TAX RATES AND TAX BRACKETS

The Tax Cut and Jobs Act (TCJA) reduced statutory tax rates at almost all levels of taxable income and shifted the thresholds for several income tax brackets (table 1). As under prior law, the tax brackets are indexed for inflation but using a different inflation index (see below).

TABLE 1

Individual Income Tax Brackets and Rates
2018

Prior Law					Tax Cuts and Jobs Act				
Taxable Income ($)				Tax Rate (percent)	Taxable Income ($)				Tax Rate (percent)
Single Filers		Married Couples Filing Jointly			Single Filers		Married Couples Filing Jointly		
Over	But not over	Over	But not over		Over	But not over	Over	But not over	
0	9,525	0	19,050	10	0	9,525	0	19,050	10
9,525	38,700	19,050	77,400	15	9,525	38,700	19,050	77,400	12
38,700	93,700	77,400	156,150	25	38,700	82,500	77,400	165,000	22
93,700	195,450	156,150	237,950	28	82,500	157,500	165,000	315,000	24
195,450	424,950	237,950	424,950	33	157,500	200,000	315,000	400,000	32
424,950	426,700	424,950	480,050	35	200,000	500,000	400,000	600,000	35
426,700	and over	480,050	and over	39.6	500,000	and over	600,000	and over	37

Source: Gale et al. (2018)

Background

How did the Tax Cuts and Jobs Act change personal taxes?

FAMILY BENEFITS (PERSONAL EXEMPTIONS, CHILD CREDIT)

TCJA repealed personal and dependent exemptions. In place of personal exemptions, TCJA increased the standard deduction, discussed below. In place of dependent exemptions, TCJA increased the child tax credit (CTC) and created a new $500 tax credit for dependents not eligible for the child tax credit (table 2).

TCJA expanded the CTC in several ways. It doubled the maximum per child credit amount from $1,000 to $2,000 starting in 2018. It also increased the refundable portion of the credit but limited the maximum refundable credit to $1,400 per child in 2018. The maximum refundable amount limit is indexed for inflation but the maximum total credit amount is not. Unlike prior law, TCJA limited eligibility for the credit to children who have a valid social security number.

TCJA extended the CTC to higher-income families by substantially increasing the income thresholds at which the credit phases out. As under prior law, the income phaseout thresholds are not indexed for inflation.

TCJA created a new nonrefundable $500 credit for other dependents, including children who are too old to be eligible for the CTC, full-time college students, other adult members of the household for whom the taxpayer provides significant financial support, and children who would otherwise be eligible for the $2,000 child tax credit but lack a valid social security number. The $500 amount is also not indexed for inflation.

STANDARD AND ITEMIZED DEDUCTIONS

TCJA nearly doubled the standard deduction (table 3). As before, the standard deduction amounts are indexed for inflation. The larger standard deductions will substantially reduce the number of taxpayers choosing to itemize their deductions.

TABLE 2

Family Benefits

Prior Law	Tax Cuts and Jobs Act
Personal and dependent exemptions	
$4,150; indexed for inflation	Repealed
Child tax credit	
$1,000 per qualifying child under 17; phases out at AGI above $75,000 (single), $110,000 (joint); refundable portion equals 15 percent of earnings in excess of $3,000	$2,000 per qualifying child under 17, $500 for other dependents; phases out at AGI above $200,000 (single), $400,000 (joint); refundable portion equals 15 percent of earnings in excess of $2,500 up to a maximum credit of $1,400 per qualifying child; maximum refundable portion indexed for inflation; requires valid social security number

Source: Gale et al. (2018)

AGI = adjusted gross income

Background

How did the Tax Cuts and Jobs Act change personal taxes?

TCJA changed the structure of several major itemized deductions. Under prior law, itemizers could claim deductions for all state and local property taxes and the greater of income or sales taxes (subject to overall limits on itemized deductions). TCJA limited the itemized deduction for total state and local taxes to $10,000 annually, for both single and joint filers, and did not index that limit for inflation. As under prior law, taxpayers cannot claim a deduction for state and local taxes against the alternative minimum tax (AMT).

Under prior law, taxpayers could deduct interest on mortgage payments associated with the first $1 million of principal paid on debt incurred to purchase (or substantially renovate) a primary and secondary residence plus the first $100,000 in home equity debt. For taxpayers taking new mortgages after the effective date, TCJA limited the deductibility to the interest on the first $750,000 of loan principal and eliminated the deductibility of interest for home equity debt.

Previously, taxpayers could deduct out-of-pocket medical expenses (including costs for health insurance) above 10 percent of adjusted gross income (AGI). For 2017 and 2018, TCJA allowed deductions for out-of-pocket medical expenses above 7.5 percent of AGI. After 2018, the prior law 10 percent of AGI threshold applies.

TCJA repealed the phase-down of the amount of allowable itemized deductions (sometimes called the Pease provision). This limitation took effect at AGI above $266,700 for single filers and $320,000 for taxpayers filing joint returns.

CAPITAL GAINS, DIVIDENDS, AND THE ALTERNATIVE MINIMUM TAX

TCJA retained the preferential tax rates on long-term capital gains and qualified dividends and the 3.8 percent net investment income tax (NIIT). The NIIT applies to interest, dividends, short- and long-term capital gains, rents and royalties, and passive business income. TCJA separated the tax-rate thresholds for capital gains and dividend income from the tax brackets for ordinary income for taxpayers with higher incomes (table 4).

TCJA retained the individual AMT but raised the exemption levels and raised the income threshold at which the AMT exemption phases out, which will significantly reduce the number of taxpayers subject to the AMT. The exemption amounts and phaseout thresholds continue to be indexed for inflation.

ESTATE TAX

TCJA doubled the estate tax exemption to $11.2 million for single filers and to $22.4 million for couples, and continued to index the exemption levels for inflation (table 5). The top estate tax rate remains at 40 percent.

AFFORDABLE CARE ACT (ACA) PENALTY TAX

Starting in 2019, TCJA set the Affordable Care Act's (ACA's) individual mandate penalty tax to zero. Previously, households without qualifying health insurance were required to pay a penalty equal to the lesser of 2.5 percent of household income or $695 per adult and $347.50 per child, up to a maximum of $2,085. Under the new law, individuals who do not enroll in adequate health insurance plans will not face a penalty starting in 2019. Because fewer people will obtain free or subsidized coverage in the absence of the penalty tax, and the reduced costs of ACA premium tax credits and other subsidies and Medicaid benefits will far exceed the lost revenue from setting the penalty tax rate to zero, the net effect will be to reduce the federal budget deficit. This provision does not sunset.

Background

How did the Tax Cuts and Jobs Act change personal taxes?

INFLATION INDEXING

TCJA changed the measure used for inflation indexing, from the Consumer Price Index for All Urban Consumers (CPI-U) to the chained CPI-U. The chained CPI-U more accurately measures changes in consumer welfare resulting from price changes because it accounts for people finding substitutes for goods whose prices increase faster than others. The chained CPI-U thus generally increases at a slower rate than the traditional CPI-U, implying that individuals will end up in higher tax brackets and that indexed tax credits (like the earned income tax credit) will increase at slower rates than they would have under the old indexing system. The change in indexing is permanent.

TABLE 3

Standard and Itemized Deductions

Prior Law	Tax Cuts and Jobs Act
Standard deduction	
$6,500 (single), $13,000 (joint), $9,550 (head of household); indexed for inflation	$12,000 (single), $24,000 (joint), $18,000 (head of household); indexed for inflation
State and local tax deduction	
Real estate, personal property, and either income or sales taxes are deductible	Real estate, personal property, and either income or sales taxes are deductible; total deduction capped at $10,000
Mortgage interest deduction	
Interest payments on up to $1.1 million of debt (including $100,000 of home equity debt) are deductible; applicable to principal and one other residence	Interest payments on up to $750,000 of new acquisition debt are deductible; applicable to principal and one other residence
Medical expense deduction	
Out-of-pocket medical expenses in excess of 10 percent of AGI are deductible	Out-of-pocket medical expenses in excess of 7.5 percent of AGI are deductible in 2017 and 2018; reverts to 10 percent of AGI in 2019
Overall limit on itemized deductions	
Itemized deduction phases out at AGI above $266,700 (single), $320,000 (joint); amounts indexed for inflation	Repealed

Source: Gale et al. (2018)

AGI = adjusted gross income

Background

How did the Tax Cuts and Jobs Act change personal taxes?

SUNSETS

A notable feature of the individual tax and the estate tax provisions is that all of them expire after 2025, except the reduction of the ACA penalty tax, the change in inflation indexing, and several changes in the tax base for business income. Some provisions expire sooner (for example the increased deductibility of medical expenses applies only to tax years 2017 and 2018). In contrast, many of the business tax provisions do not sunset. Congress chose to make the individual provisions temporary to limit the revenue cost of the TCJA to a level consistent with the overall constraint on the 10-year revenue loss in the Congressional Budget Resolution and to comply with Senate budget rules under the process used to pass the tax act that require no increase in the federal budget deficit after the tenth year.

TABLE 4

Capital Gains, Dividends, and the Alternative Minimum Tax

Prior Law	Tax Cuts and Jobs Act
Tax rate on capital gains and qualified dividends	
Zero rate for taxpayers below the 25 percent tax bracket; 15 percent rate for taxpayers in the 25 to 35 tax brackets; 20 percent rate for taxpayers above the 35 percent tax bracket; 3.8 percent NIIT at AGI above $200,000 (single), $250,000 (joint)	Zero rate if taxable income is below $38,600 (single), $77,200 (joint); 15 percent rate if taxable income is between $38,600 and $425,800 (single) $77,200 and $479,000 (joint); indexed for inflation; 3.8 percent NIIT at AGI above $200,000 (single), $250,000 (joint)
Individual Alternative Minimum Tax	
AMT exemption equal to $55,400 (single), $86,200 (joint); phases out at AGI above $123,100 (single), $164,100 (joint); indexed for inflation	AMT exemption equal to $70,300 (single), $109,400 (joint); phases out at AGI above $500,000 (single), $1,000,000 (joint); indexed for inflation

Source: Gale et al. (2018)

AGI = adjusted gross income, AMT = alternative minimum tax, NIIT = net investment income tax

TABLE 5

Estate Tax

Prior Law	Tax Cuts and Jobs Act
Top rate of 40 percent on estates above $5.6 million (single), $11.2 million (joint); indexed for inflation	Top rate or 40 percent on estates above $11.2 million (single), $22.4 million (joint); indexed for inflation

Source: Gale et al. (2018)

Background

How did the Tax Cuts and Jobs Act change personal taxes?

Data Sources

Congressional Budget Office, "Cost Estimate for the Conference Agreement on H.R. 1, a Bill to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018," memo, December 15, 2017.

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Further Reading

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Q. How did the Tax Cuts and Jobs Act change business taxes?

A. The Tax Cut and Jobs Act made significant changes to the corporate income tax and taxes on pass-through businesses. Unlike almost all personal tax provisions, which expire after 2025, most corporate tax provisions are permanent.

CORPORATE TAX RATE AND CORPORATE ALTERNATIVE MINIMUM TAX

The Tax Cut and Jobs Act (TCJA) reduced the top corporate income tax rate from 35 percent to 21 percent, bringing the US rate below the average for most other Organisation for Economic Co-operation and Development countries, and eliminated the graduated corporate rate schedule (table 1). TCJA also repealed the corporate alternative minimum tax.

TAX BASE FOR CORPORATIONS AND OTHER BUSINESSES

TCJA allowed businesses to deduct the full cost of qualified new investments in the year those investments are made (referred to as 100 percent bonus depreciation or "full expensing") for five years. Bonus depreciation then phases down in 20 percentage point increments beginning in 2023, and is fully eliminated after 2026. Prior law allowed 50 percent bonus depreciation in 2017, decreasing the percentage in subsequent years and fully eliminating it after 2020.

TCJA doubled the Section 179 expensing limit for investments by small businesses from $500,000 to $1,000,000 for qualified property (sometimes called "small business expensing"). It also simplified accounting rules for smaller firms.

TCJA limited the amount of net business interest (interest paid less interest received) that businesses can deduct to 30 percent of business income before interest, depreciation, and amortization. Starting in 2022, the adjustment for amortization and depreciation will be removed from the limitation. Businesses with gross receipts below $25 million are exempt from the limitation. Previously, interest paid was generally fully deductible in computing taxable income for all businesses.

TCJA limited the deduction for net operating losses to 80 percent of taxable income. It also repeals carrybacks of losses, except for certain businesses, but allows taxpayers to carry forward losses indefinitely. Under prior law, net operating losses could offset 100 percent of taxable income and businesses could carry back unused losses for two years or carry them forward for 20 years.

The new law also eliminated the domestic production activities deduction (Section 199) and modified other smaller provisions such as the orphan drug credit, the deduction for Federal Deposit Insurance Corporation premiums, and the computations for life insurance reserves. In addition, starting in 2022, expenditures

for research and experimentation must be amortized over five years (15 years for offshore research and experimentation expenses) instead of being immediately deductible.

PASS-THROUGH BUSINESS INCOME DEDUCTION

Unlike C-corporations, pass-through firms such as sole proprietorships, partnerships, and S-corporations are not subject to the corporate income tax. Instead the owners include their share of profits as taxable income under the individual income tax.

In general, TCJA's changes to the business income tax base, including the limits on interest deductions and net operating losses, apply to pass-through businesses as well as to business subject to the corporate income tax. However, TCJA included changes specific to pass-through businesses (table 2). The pass-through businesses specific provisions are scheduled to expire after 2025.

TABLE 1

Corporate and Other Business Tax Changes

Prior Law	Tax Cuts and Jobs Act
Top corporate income tax rate	
35 percent	21 percent
Corporate Alternative Minimum Tax	
Yes	Repealed
New investment purchases	
2018: 40 percent bonus depreciation for qualified property; 2019: 30 percent bonus deprecation for qualified property; 2020: 20 percent bonus depreciation for qualified property; small business (section 179) expensing up to $500,000	2018-22: 100 percent bonus depreciation for qualified property; 2023: 80 percent bonus depreciation for qualified property; 2024: 60 percent bonus depreciation for qualified property; 2025: 40 percent bonus depreciation for qualified property; 2026: 20 percent bonus depreciation for qualified property; small business (section 179) expensing up to $1,000,000
Business interest deduction	
Fully deductible (generally)	Disallowed for net interest in excess of 30 percent of business income (excluding depreciation after 2022); exemption for businesses with gross receipts of $25 million or less
Net operating losses	
Fully deductible; unused losses can be carried back for 2 years or carried forward for 20 years	Deduction limited to 80 percent of taxable income; unused losses cannot be carried back but can be carried forward indefinitely

Source: Gale et al. (2018).

Background

How did the Tax Cuts and Jobs Act change business taxes?

TCJA introduced a complex new deduction for income from pass-through businesses. Under the new law, joint tax filers with taxable income below $315,000 ($157,500 for other filers) can deduct 20 percent of their qualified business income (QBI). The 20 percent deduction lowers the effective top individual income tax rate on business income from 37 to 29.6 percent.

If taxable income exceeds those thresholds, however, the deduction can be reduced depending upon the type of business, the wages paid, and the investment property owned by the business. For personal service businesses (such as law firms, medical practices, consulting firms, or professional athletes), QBI phases down on a pro rata basis. Once taxable income reaches $415,000 for joint filers ($207,500 for other filers), QBI is zero and there is no longer any deduction.

For all pass-through businesses, whether they are personal service firms or not, an additional two-part formula limits the deduction once taxable income exceeds the $315,000/$157,000 thresholds. Under the formula, the deduction is limited to the greater of either 50 percent of the wages the business pays its employees or 25 percent of wages plus 2.5 percent of the basis of the business' qualified property. Business owners compare those calculations to 20 percent of their QBI and may deduct only the smaller amount. The limit on the deduction phases in over the same income range as above.

LIMIT ON PASS-THROUGH BUSINESS LOSSES

A major advantage of organizing as a pass-through business rather than as a C-corporation is that pass-through business owners can use business losses to offset taxable income from other sources. TCJA limits the amount of active pass-through business losses that business owners can deduct against other income to $500,000 for joint filers ($250,000 for other filers). Unused losses, however, can be carried forward and used in future years (table 2).

TABLE 2

Tax Changes Specific to Pass-Through Businesses

Prior Law	Tax Cuts and Jobs Act
Income from pass-through businesses	
Taxed at ordinary income rates (maximum rate of 39.6 percent)	Provides 20 percent deduction for qualified business income (maximum rate of 29.6 percent); deduction limited for taxable income above $157,500 (single), $315,000 (joint)
Pass-through business losses	
Active losses fully deductible from other income	Deductible losses limited to $250,000 (single), $500,000 (joint); unused losses can be carried forward

Source: Gale et al. (2018).

Background

How did the Tax Cuts and Jobs Act change business taxes?

INTERNATIONAL ISSUES

The TCJA made sweeping changes to the treatment of foreign source income and international financial flows. Under prior law, the United States taxed the income of multinational firms on a worldwide basis, meaning that all income was taxed, regardless of where it was earned, less a credit for foreign taxes paid. However, the tax due on active foreign-source income of foreign subsidiaries of US multinationals was deferred until the income was made available to the US parent company.

The TCJA created a modified territorial tax system. US corporations continue to owe US taxes on the profits they earn in the United States. But TCJA exempted from taxation the dividends that domestic corporations receive from foreign corporations in which they own at least a 10 percent stake.

Under a pure territorial system, firms would have a strong incentive to shift real investment and reported income to low-tax jurisdictions overseas and to shift deductions into the United States. Several provisions were created as guardrails to reduce the extent to which companies take those actions.

The minimum tax on global intangible low-taxed income (GILTI) imposed a 10.5 percent minimum tax without deferral on profits earned abroad that exceed a firm's "normal" return (defined in the law as 10 percent on the adjusted basis in tangible property held abroad). Companies can use 80 percent of their foreign tax credits, calculated on a worldwide basis, to offset this minimum tax.

Whereas GILTI acts as a "stick" to prevent companies from making investments in intangible assets overseas, a deduction for foreign-derived intangible income (FDII) acts as a "carrot" to provide an incentive for firms to hold intangible assets in their US affiliates. FDII is income received from exporting products whose intangible assets are held in the United States. For example, a pharmaceutical company will be able to deduct some income from overseas drug sales if the patent on the drug is held in its US parent company.

TCJA also created a new base erosion and antiabuse tax (BEAT), which—not surprisingly, given the acronym—is another "stick." BEAT imposes a minimum tax on otherwise deductible payments between a US corporation and a related foreign subsidiary.

To transition to the new system, TCJA created a new deemed repatriation tax for previously accumulated and untaxed earnings of foreign subsidiaries of US firms equal to 15.5 percent for cash and 8 percent for illiquid assets. In 2015, it was estimated that US companies held more than $2.6 trillion in untaxed income in their foreign affiliates (Barthold 2016). Companies have eight years to pay the tax, with a back-loaded minimum payment schedule specified in the law.

Background

How did the Tax Cuts and Jobs Act change business taxes?

Data Sources

Congressional Budget Office, "Cost Estimate for the Conference Agreement on H.R. 1, a Bill to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018," memo, December 15, 2017.

Joint Committee on Taxation. 2017. "Estimated Budget Effects of the Conference Agreement for H.R. 1, The 'Tax Cuts and Jobs Act'." JCX-67-17.

Further Reading

Gale, William G., Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, and Eric Toder. 2018. "Effects of the Tax Cuts and Jobs Act: A Preliminary Analysis." Washington, DC: Urban-Brookings Tax Policy Center.

Thomas A. Barthold, "Letter to Kevin Brady and Richard Neal," Joint Committee on Taxation, August 31, 2016.

Q. What is the standard deduction?

A. The standard deduction reduces a taxpayer's taxable income. It ensures that only households with income above certain thresholds will owe any income tax.

Taxpayers can claim a standard deduction when filing their tax returns, thereby reducing their taxable income and the taxes they owe. In addition to the regular standard deduction, taxpayers can claim an additional deduction if they or their spouse are 65 or older or blind.

Rather than taking the standard deduction, taxpayers can choose to itemize their deductions. In the past, about 70 percent of taxpayers chose to take the standard deduction (figure 1). Most chose it because it was larger than the itemized deductions they could claim, but some did so because it was easier than identifying and totaling the expenses they could itemize or because they did not realize that itemizing would reduce their tax liability.

The Tax Cuts and Jobs Act (TCJA) increased the standard deduction amounts for 2018 well beyond what they would have been in that year, raising the deduction from $6,500 to $12,000 for singles, from $13,000 to $24,000 for married couples, and from $9,550 to $18,000 for heads of household. The additional deduction for those 65 and over or blind is $1,300 in 2018 ($1,600 if the person is unmarried and not filing as a surviving spouse). As under prior law, the deduction amounts are indexed for inflation.

By raising the standard deduction together with other restrictions on itemized deductions, TCJA will increase the percentage of taxpayers who will take the standard deduction. The Urban-Brookings Tax Policy Center estimates that about 90 percent of households will take the standard deduction rather than itemizing their deductions in 2018.

THE EFFECT OF TCJA ON TAXABLE INCOME THRESHOLDS

Before 2018, taxpayers could also claim a personal exemption for themselves and their dependents in addition to the standard deduction. Together, the standard deduction and personal exemptions created taxable income thresholds, ensuring that taxpayers with income below those thresholds would not pay any income tax.

For example, in 2017 the standard deduction was $12,700 for a married couple, $6,350 for a single filer, and $9,350 for a head of household and each personal exemption was $4,050. Thus, the taxable income threshold for a married couple without dependents was $20,800 (the standard deduction plus two personal exemptions) and the threshold for a single person was $10,400 (the standard deduction plus one exemption). Couples and singles with income below those amounts did not owe any income tax.

Key Elements of the U.S. Tax System

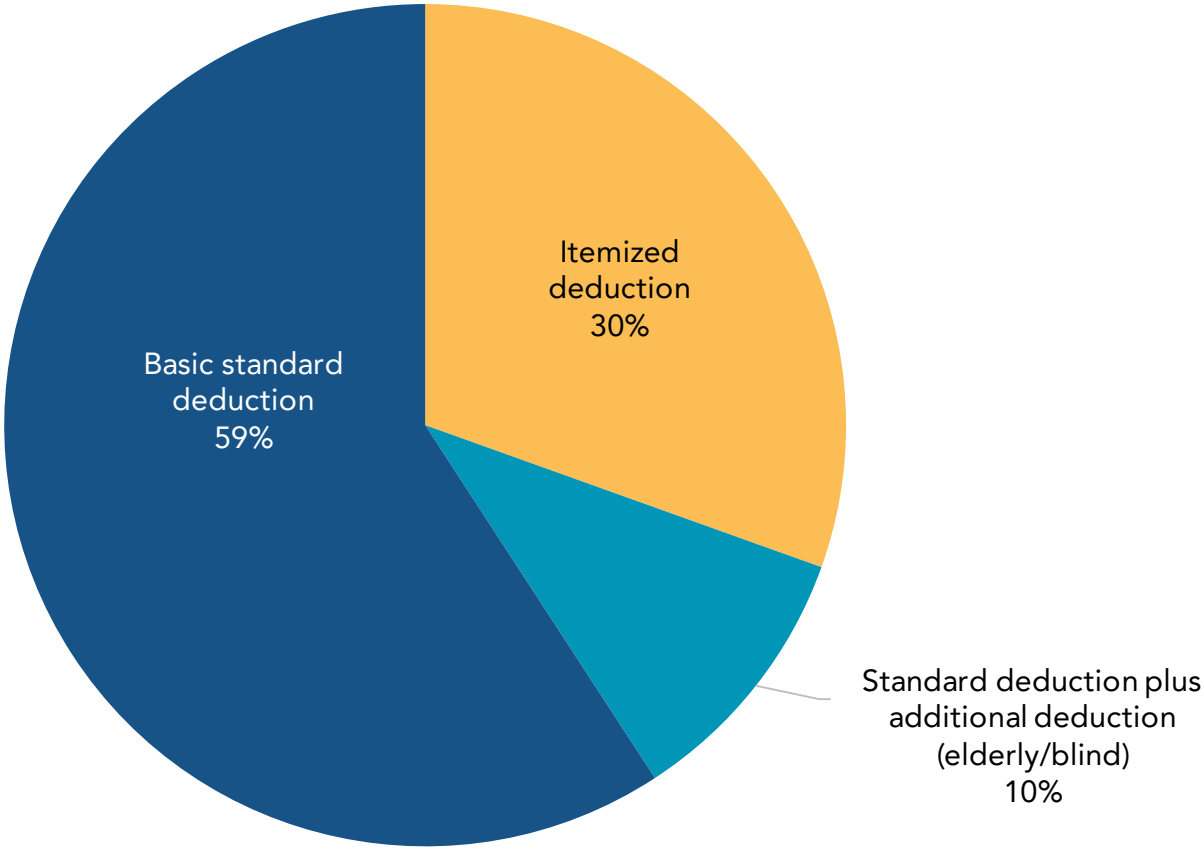
What is the standard deduction?

TCJA raised the stand deduction but also set the personal exemption amount, which would have been $4,150 in 2018, to zero. The loss of personal exemptions offset some of the gain from higher standard deductions, but the net result was a small increase in the taxable income threshold for both singles and couples (table 1). Because most of the individual income tax provisions of TCJA expire after 2025, the taxable income thresholds will revert to what they would have been under prior law unless Congress extends or makes permanent current law.

The zero personal exemption amount also applies to the exemptions taxpayers could claim for each of their dependents. However, TCJA also increased the child tax credit, which offset the loss of personal exemptions for many taxpayers with dependents. In many cases, taxpayers with income above the taxable income thresholds can still pay no income tax if they qualify for tax credits such as the child tax credit and the earned income tax credit.

FIGURE 1

Returns by Type of Deduction, Tax Year 2016



Source: Internal Revenue Service. Statistics of Income. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016.

Key Elements of the U.S. Tax System

What is the standard deduction?

TABLE 1

Taxable Income Threshold for a Single Filer and a Married Couple with No Dependents

Dollars, 2018

Status	Prior Law			Current Law (post-TCJA)		
	Standard Deduction	Personal Exemption	Taxable Income Threshold	Standard Deduction	Personal Exemption	Taxable Income Threshold
Single	6,500	4,150	10,650	12,000	-	12,000
Married Couple	13,000	4,150	21,300	24,000	-	24,000

Data Sources

Internal Revenue Service. *Statistics of Income*. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016; and Individual Income Tax Returns. Table 1.2. "All Returns: Adjusted Gross Income, Exemptions, Deductions, and Tax Items, by Size of Adjusted Gross Income and by Marital Status," Tax Year 2016.

Urban-Brookings Tax Policy Center. Table T18-0002. "Impact on the Number of Itemizers of H.R.1, the Tax Cuts and Jobs Act (TCJA), by Expanded Cash Income Percentile, 2018."

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Gale, William G., Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, and Eric Toder. 2018. "Effects of the Tax Cuts and Jobs Act: A Preliminary Analysis." Urban-Brookings Tax Policy Center.

Q. What are itemized deductions and who claims them?

A. Taxpayers can choose to itemize deductions on their tax returns in lieu of claiming a standard deduction. In recent years about 30 percent of taxpayers, mostly high income, have chosen to itemize, but increases in the standard deduction and limits to itemized deductions starting in 2018 will greatly reduce the number of itemizers.

Taxpayers can either take a standard deduction or itemize their deductions to reduce the taxable income on their federal income tax return. Taxpayers typically choose to itemize when the itemized deductions they can claim are greater than the standard deduction. In recent years, about 30 percent of taxpayers chose to itemize (figure 1).

The most common itemized deductions are those for state and local taxes, mortgage interest, charitable contributions, and medical and dental expenses. The revenue cost of those four deductions was just under $240 billion in 2017 (table 1).

THE EFFECT OF TCJA ON ITEMIZED DEDUCTIONS

The 2017 Tax Cuts and Jobs Act will significantly reduce the number of taxpayers who claim itemized deductions, because it substantially increased the standard deduction while also restricting or eliminating some itemized deductions in 2018 through 2025. The Urban-Brookings Tax Policy Center estimates that the percentage of all households that itemize (including nonfilers) will shrink from 26 percent in 2017 to about 10 percent in 2018.

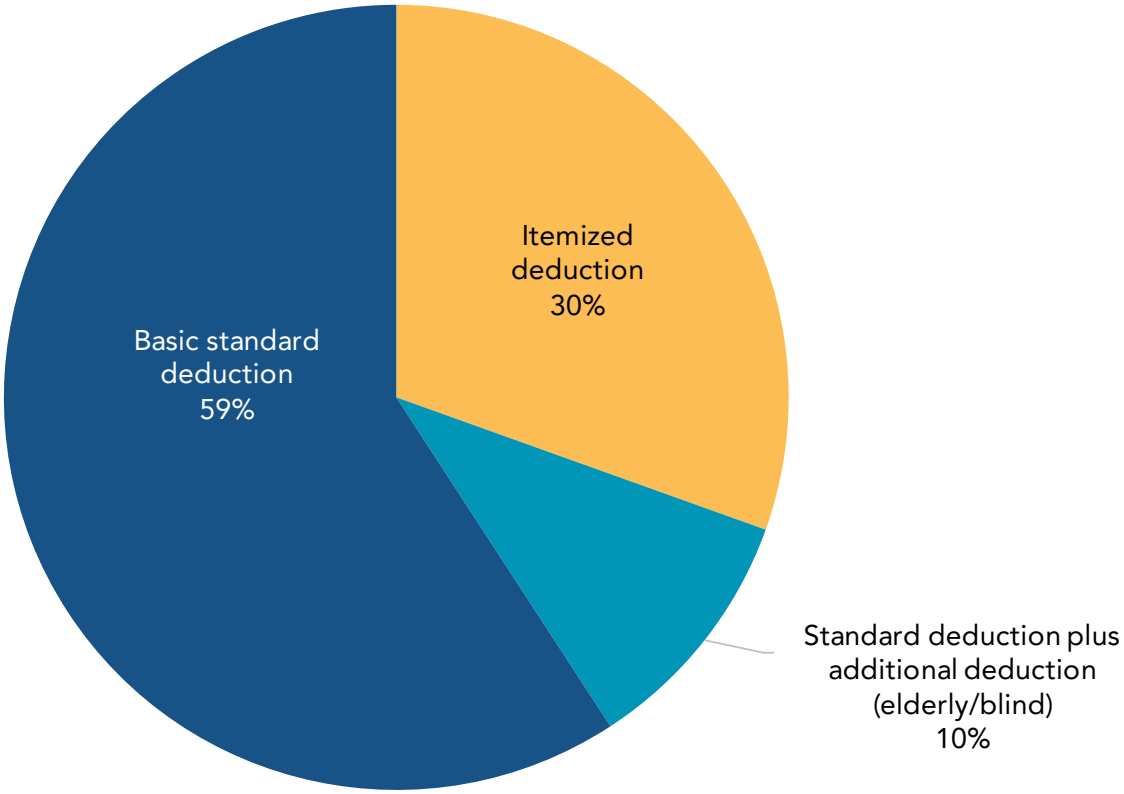
These changes also will substantially lower the revenue cost of all itemized deductions because fewer taxpayers will claim them and, in some cases, the amount they claim will fall. The revenue cost of the four largest deductions is estimated to fall by about $100 billion (table 1).

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

FIGURE 1

Returns by Type of Deduction, Tax Year 2016



Source: Internal Revenue Service. Statistics of Income. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016.

TABLE 1

Cost of Selected Itemized Deductions

Billions of dollars

Tax expenditure	FY 2017	FY 2018
Deduction for all nonbusiness state and local taxes	$100.9	$36.6
Deduction for mortgage interest on owner-occupied residences	$66.4	$40.7
Deduction for charitable contributions	$57.0	$54.3
Deduction for medical expenses and long-term care expenses	$13.8	$10.5

Source: Joint Committee on Taxation (2018).

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

WHO ITEMIZES?

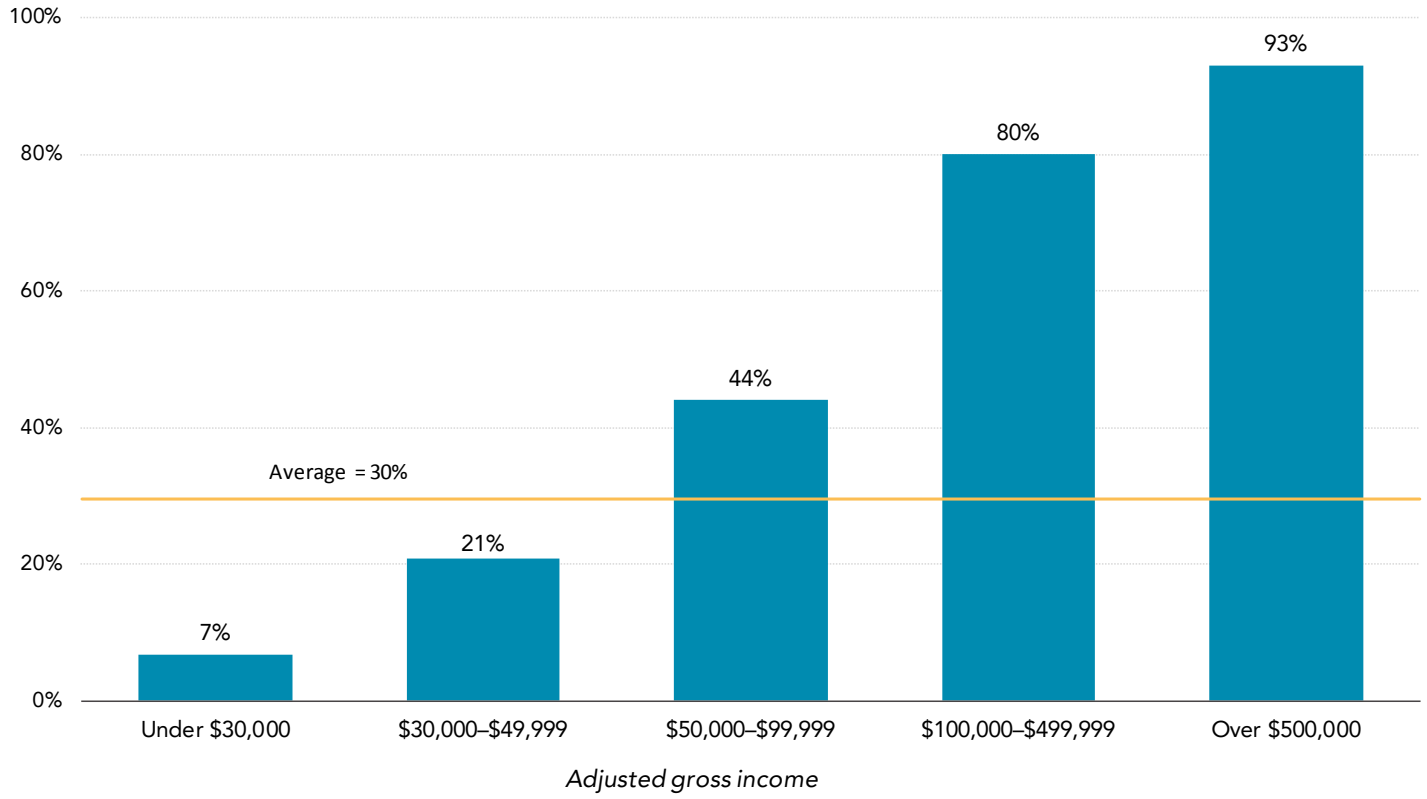
The following sections present 2016 Internal Revenue Service data reporting the percentage of taxpayers who itemized and the type and amount of itemized deductions they claimed. The changes made by the Tax Cuts and Jobs Act will significantly affect comparable estimates for 2018.

High-income taxpayers are much more likely to itemize. In 2016, more than 90 percent of tax returns reporting adjusted gross income (AGI) over $500,000 itemized deductions, compared with under half of those with AGI between $50,000 and $100,000 and less than 10 percent of those with AGI under $30,000 (figure 2).

FIGURE 2

Distribution of Returns Claiming Itemized Deductions

Share of All Returns in AGI Class, Tax Year 2016



Source: Internal Revenue Service. Statistics of Income. Table 1.2. "All Returns: Adjusted Gross Income, Exemptions, Deductions, and Tax Items, by Size of Adjusted Gross Income and by Marital Status," Tax Year 2016.

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

WHAT EXPENSES DO ITEMIZERS DEDUCT?

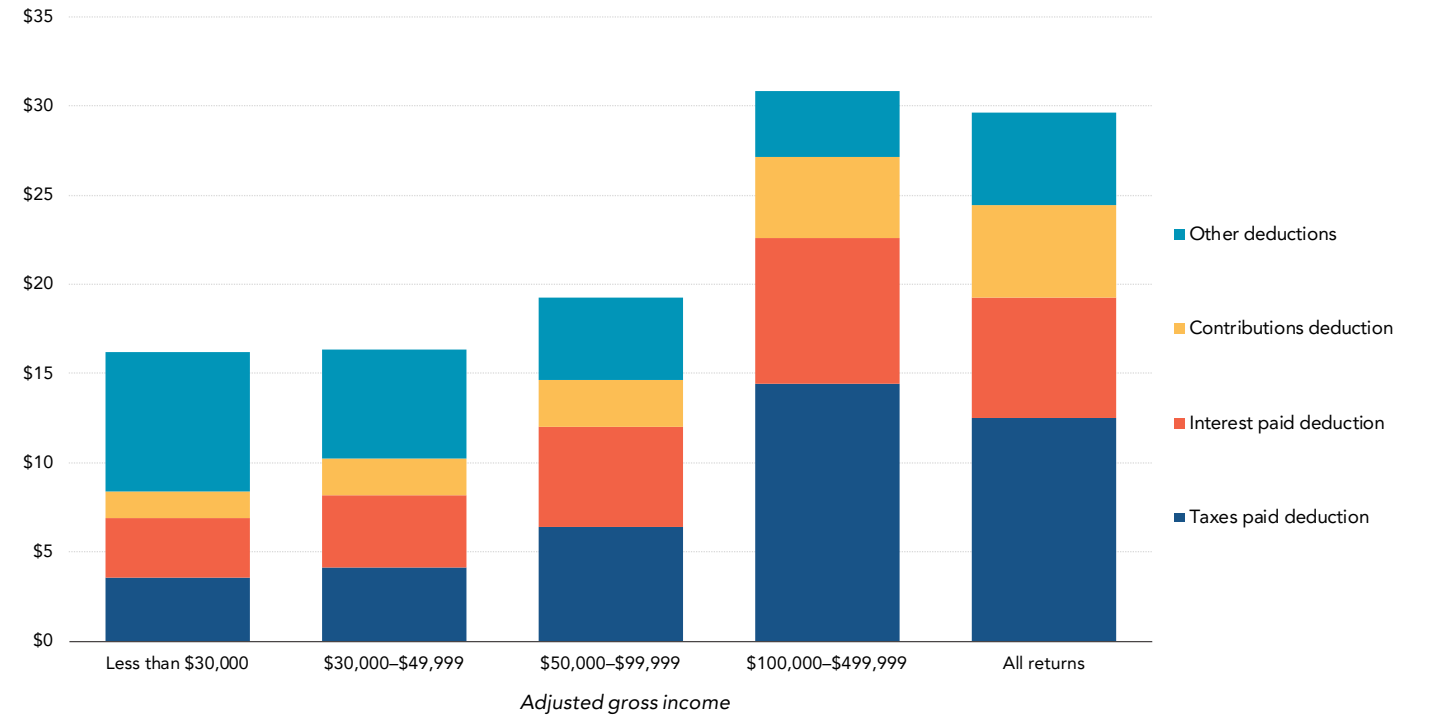
Itemized deductions averaged about $28,600 in 2016 for the 45 million tax units claiming them. The amount claimed rises with income, from about $16,000 for taxpayers with AGI under $50,000, to under $19,000 for those with AGI between $50,000 and $100,000, to over $30,000 for those with AGI between $100,000 and $500,000, to more than $206,000 for those with AGI over $500,000 (figure 3).

State and local taxes accounted for over 40 percent of average itemized deductions in 2016, or about $12,500. The mortgage and other interest deductions made up another 23 percent, averaging about $6,800. Charitable contributions and miscellaneous deductions averaged about $5,200 each, or about 18 percent of total itemized deductions (figure 3).

FIGURE 3

Average Itemized Deductions by Type and Adjusted Gross Income (AGI)

Thousands of dollars, tax year 2016



Source: Internal Revenue Service. Statistics of Income. Basic Tables: Exemptions and Itemized Deductions. Table 2.1. "Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items by Size of Adjusted Gross Income," Tax Year 2016.
Note: This figure omits the "over $500,000" AGI class due to scaling; average of total deductions for those with AGI over $500,000 exceeds $200,000.

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

HOW HAS THE SHARE OF ITEMIZERS CHANGED OVER TIME?

The share of returns that itemize deductions climbed from a low of 28 percent in 1994 to a peak of 36 percent in 2005 before dropping to 30 percent in 2016. A closer look at the three largest deductions—state and local taxes, home mortgage interest, and charitable contributions—helps explain why (figure 4.1).

- **State and local taxes**: Nearly all itemizers deduct state and local taxes. A 2004 law that allowed taxpayers to deduct state and local sales taxes in lieu of income taxes slightly increased the number of itemizers taking this deduction.

- **Home mortgage interest**: Before 2006, between 81 and 83 percent of itemizers deducted mortgage interest. But that share steadily dropped to a low of 73 percent in 2016, consistent with the decline in homeownership following the housing bubble collapse and falling mortgage interest rates. The amount of mortgage interest deducted by taxpayers increased sharply from 2004 to 2008 but fell through 2016 because of falling housing values and historically low mortgage rates.

- **Charitable contributions**: The share of itemizers reporting charitable contributions declined from 91 percent in 1988 to 82 percent in 2016. Much of that drop occurred between 2005 and 2007, after Congress required written confirmations of cash gifts and limited deductions for donations of clothing and used vehicles.

A change in any one of these deductions could affect the overall number of itemizers. For example, a decline in home mortgage interest might be enough to discourage a taxpayer from itemizing at all. Thus, the number of taxpayers itemizing state and local taxes or charitable contributions would also decrease.

FIGURE 4.1

Returns Itemizing Selected Deductions

Share of All Itemizers, 1988–2016

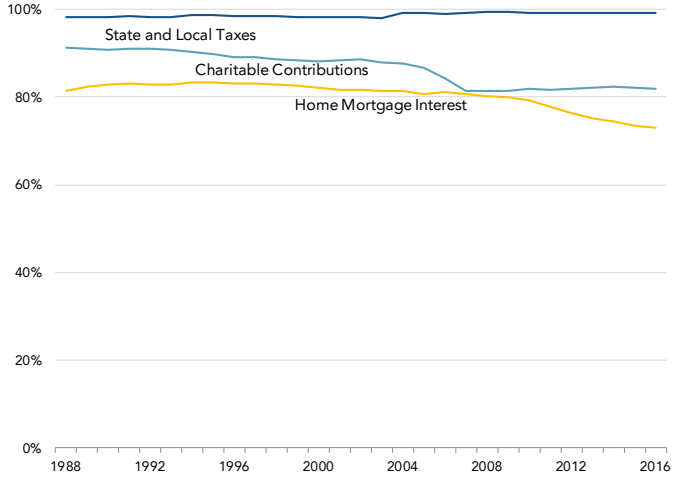
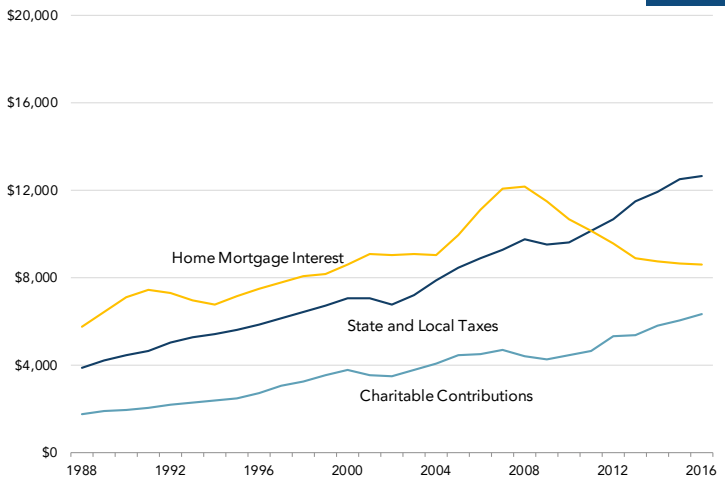


FIGURE 4.2

Average Amount Claimed of Selected Deductions

2016 dollars, 1988–2016



Source: Internal Revenue Service. Statistics of Income. Basic Tables: Exemptions and Itemized Deductions. Table 2.1. "Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items by Size of Adjusted Gross Income," Tax Year 2016.

Note: Real amounts are calculated using GDP deflators (Federal Reserve Bank of St. Louis, "Gross Domestic Product: Implicit Price Deflator," https://fred.stlouisfed.org/series/GDPDEF#0).

What are itemized deductions and who claims them?

Data Sources

Federal Reserve Bank of St. Louis. "Gross Domestic Product: Implicit Price Deflator."

Internal Revenue Service. *Statistics of Income*. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016; Individual Income Tax Returns. Table 1.2. "All Returns: Adjusted Gross Income, Exemptions, Deductions, and Tax Items, by Size of Adjusted Gross Income and by Marital Status," Tax Year 2016; Table 1.3. "All Returns: Sources of Income, Adjustments, Deductions, Credits, and Tax Items, by Marital Status," Tax Year 2016; and Basic Tables: Exemptions and Itemized Deductions. Table 2.1. "Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items by Size of Adjusted Gross Income," Tax Year 2016.

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President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*. Washington, DC: President's Advisory Panel on Tax Reform. (especially chapters 3 and 5)

Q. How did the TCJA change the standard deduction and itemized deductions?

A. The Tax Cuts and Jobs Act nearly doubled the standard deduction and eliminated or restricted many itemized deductions in 2018 through 2025. It also eliminated the "Pease" limitation on itemized deductions for those years.

THE STANDARD DEDUCTION

The Tax Cuts and Jobs Act (TCJA) increased the standard deduction from $6,500 to $12,000 for individual filers, from $13,000 to $24,000 for joint returns, and from $9,550 to $18,000 for heads of household in 2018. As before, the amounts are indexed annually for inflation. TCJA changed the measure used for inflation indexing from the consumer price index for all urban consumers (CPI-U) to the chained CPI-U—a more accurate measure but one that results in a smaller upward adjustment each year.

ITEMIZED DEDUCTIONS

TCJA eliminated or restricted many itemized deductions in 2018 through 2025. This, together with a higher standard deduction, will reduce the number of taxpayers who itemize deductions. TPC estimates that in 2018 the share of all households that itemize will shrink to 10 percent because of the tax overhaul.

State and local taxes (SALT). Taxpayers can still deduct state and local real estate, personal property, and either income or sales taxes in 2018, but TCJA capped the total SALT deduction at $10,000.

Mortgage interest. TCJA limited the deduction to the home mortgage interest on the first $750,000 of mortgage debt (reduced from the pre-TCJA limit of $1 million of mortgage debt) for mortgage loans taken out after December 15, 2017. In addition, homeowners may no longer deduct interest paid on home equity loans, which was allowed for loans up to $100,000 before TCJA, unless the debt is used to buy, build, or substantially improve the taxpayer's home that secures the loan. Homeowners may still deduct mortgage interest on their primary residence and a second home.

Charitable contributions. TCJA increased the limit on deductions for charitable contributions from 50 percent to 60 percent of adjusted gross income (AGI).

Medical expenses. Under the TCJA, taxpayers may deduct unreimbursed medical expenses that exceed 7.5 percent of their AGI in 2017 and 2018, rather than the pre-TCJA floor of 10 percent of AGI.

Key Elements of the U.S. Tax System

How did the TCJA change the standard deduction and itemized deductions?

Other itemized deductions. TCJA eliminated deductions for unreimbursed employee expenses, tax preparation fees, and other miscellaneous deductions. It also eliminated the deduction for theft and personal casualty losses, although taxpayers can still claim a deduction for certain casualty losses occurring in federally declared disaster areas.

Limitation on itemized deductions. TCJA eliminated the "Pease" limitation on itemized deductions. Before TCJA, taxpayers reduced their itemized deductions by 3 percent of every dollar of taxable income above certain thresholds. The total reduction was capped at 80 percent of the total value of itemized deductions.

THE EFFECT OF THE TCJA ON MAJOR ITEMIZED DEDUCTIONS

The TCJA will significantly decrease the number of taxpayers claiming itemized deductions and the average tax saving from claiming them. The following figures compare the estimated percentage of taxpayers with a tax benefit from the three major itemized deductions—state and local taxes, mortgage interest, and charitable contributions—and the tax saving from claiming them in 2017 and 2018, before and after the new law is in place. The tax benefit is measured as the reduction in tax liability from the deduction, which takes into account the applicable tax rates in each year, the effects of the alternative minimum tax (which disallows the SALT deduction), and the overall limit on itemized deductions (the "Pease" limit) that was in place in 2017 but eliminated for 2018 by TCJA.

The percentage of taxpayers with a tax benefit from the SALT deduction will fall from about 25 percent in 2017 to 10 percent in 2018, from 20 percent to 8 percent for the mortgage interest deduction, and from 21 percent to 9 percent for the charitable contributions deduction (figure 1).

The decline in the tax benefit from the deductions is even more dramatic. Measured as a percentage of after-tax income, the tax saving from the SALT deduction in 2018 will be about one-quarter of what it was in 2017 overall. For taxpayers in the top 1 percent of the income distribution, the tax saving in 2018 will be about one-tenth of the tax saving in 2017 (figure 2).

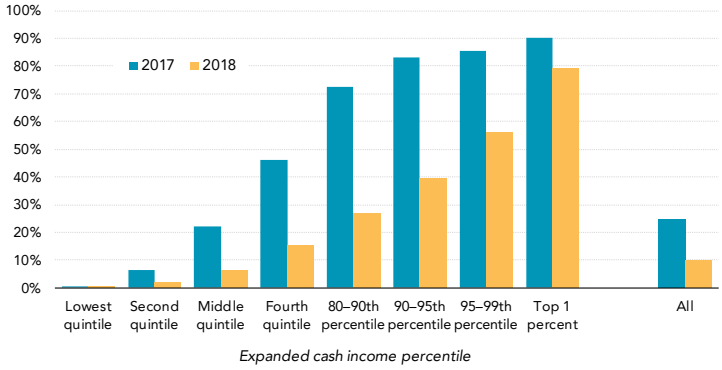
Key Elements of the U.S. Tax System

How did the TCJA change the standard deduction and itemized deductions?

FIGURE 1.1

Itemized Deduction for State and Local Taxes

Share of tax units with benefit, 2017 and 2018

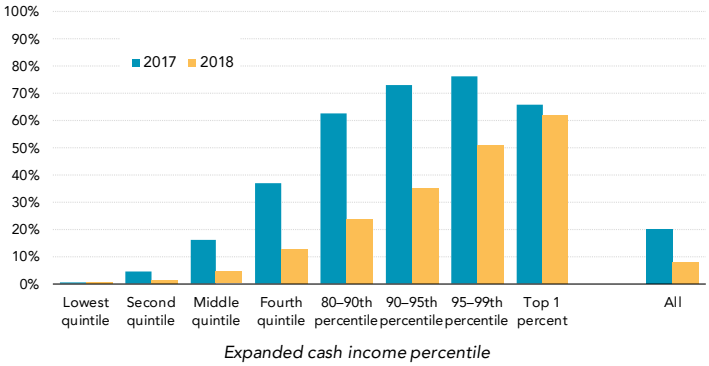


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 1.2

Itemized Deduction for Home Mortgage Interest

Share of tax units with benefit, 2017 and 2018

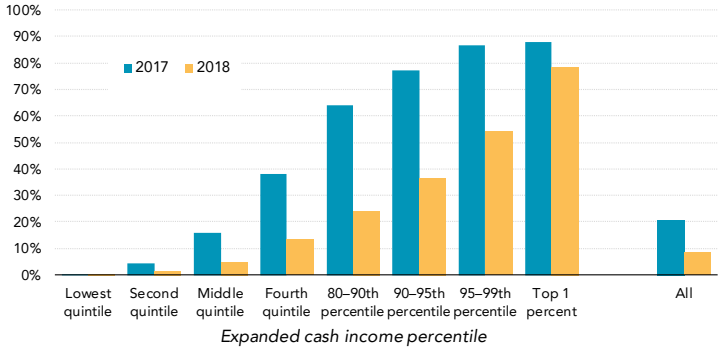


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 1.3

Itemized Deduction for Charitable Contributions

Share of tax units with benefit, 2017 and 2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

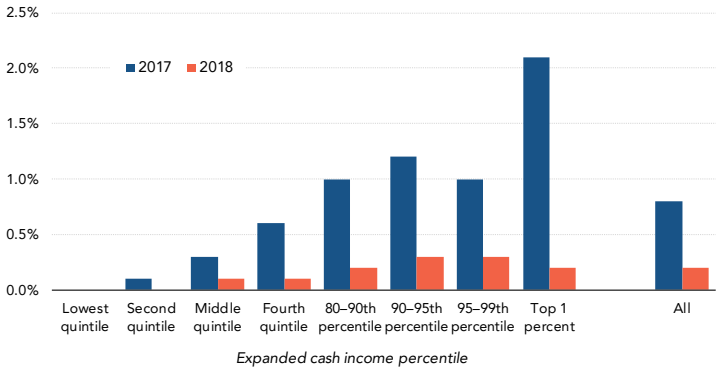
Key Elements of the U.S. Tax System

How did the TCJA change the standard deduction and itemized deductions?

FIGURE 2.1

Itemized Deduction for State and Local Taxes

Benefit as a share of after-tax income, 2017 and 2018

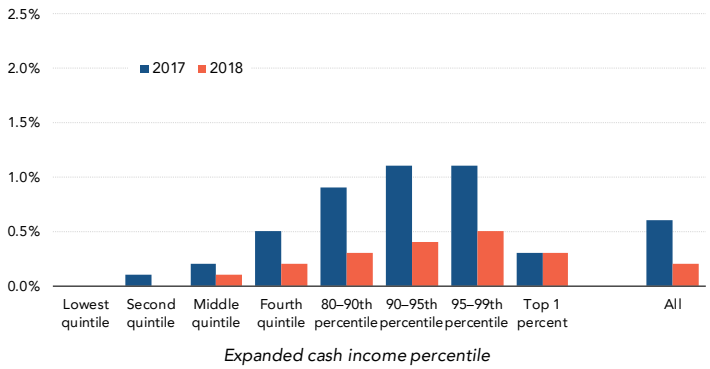


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 2.2

Itemized Deduction for Home Mortgage Interest

Benefit as a share of after-tax income, 2017 and 2018

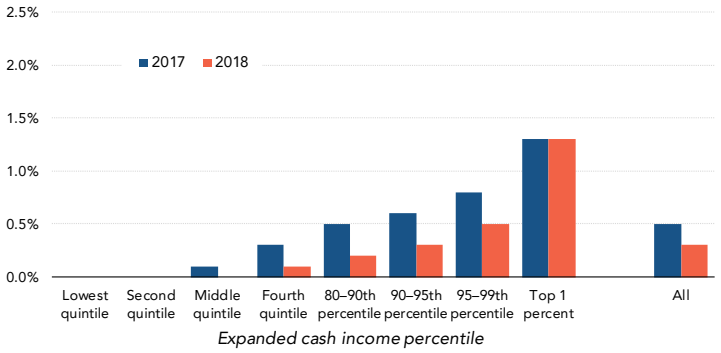


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 2.3

Itemized Deduction for Charitable Contributions

Benefit as a share of after-tax income, 2017 and 2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

Data Sources

Urban-Brookings Tax Policy Center. Table T18-0161. "Tax Benefit of the Itemized Deduction for State and Local Taxes, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2017"; Table T18-0163. "Tax Benefit of the Itemized Deduction for State and Local Taxes, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018"; Table T18-0169. "Tax Benefit of the Itemized Deduction for Home Mortgage Interest, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2017"; Table T18-0171. "Tax Benefit of the Itemized Deduction for Home Mortgage Interest, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018"; Table T18-0177. "Tax Benefit of the Itemized Deduction for Charitable Contributions, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2017"; and Table T18-0179. "Tax Benefit of the Itemized Deduction for Charitable Contributions, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018."

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Gale, William G., Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, and Eric Toder. 2018. "Effects of the Tax Cut and Jobs Act: A Preliminary Analysis." Washington DC: Urban-Brookings Tax Policy Center.

Q. What are personal exemptions?

A. Along with the standard deduction, personal exemptions provide that only income above a basic level is subject to tax, helping ensure that the poorest households are not subject to the income tax. They also link income tax liabilities to family size, reducing taxes for families with more dependents. The Tax Cuts and Jobs Act eliminated personal exemptions, but raised the standard deduction and the child credit as substitutes.

Before 2018, taxpayers could claim a personal exemption for themselves and each of their dependents. The amount would have been $4,150 for 2018, but the Tax Cuts and Jobs Act (TCJA) set the amount at zero for 2018 through 2025. TCJA increased the standard deduction and child tax credits to replace personal exemptions.

Personal exemptions have been part of the modern income tax since its inception in 1913. Congress originally set the personal exemption amount to $3,000 (worth more than $70,000 in today's dollars), so that very few persons were expected to pay the income tax. While the amount was substantially lower both in real terms and relative to average incomes by 2017, the tax code has added other features since 1913, such as the standard deduction and various tax credits, that have partly offset the exemption's decline in value.

In addition to helping ensure that very low income households do not pay income tax (and alleviating the administrative burden of collecting the tax on small amounts of income), personal exemptions also link tax liability to household size. For instance, in 2017 when the personal exemption amount was $4,050 and the standard deduction for a married couple was $12,700, a married couple with three children and income of $92,950 (before subtracting five personal exemptions and the standard deduction) and a married couple without dependents and $80,800 (before subtracting two personal exemptions and the standard deduction) were deemed to have the same taxable income—in this case, $60,000.

As with other deductions and exemptions, however, the tax benefit from personal exemptions depends upon a taxpayer's marginal tax rate. For instance, a single taxpayer in the 12 percent tax bracket would save $498 of taxes with a personal exemption of $4,150, whereas a single taxpayer in the 32 percent tax bracket would save $1,328. Thus, under a progressive income tax, exemptions are worth more to high-income taxpayers than to low-income taxpayers. In contrast, tax credits can have the same value for all taxpayers. By replacing personal exemptions for dependents with expanded child tax credits, TCJA moved toward equalizing the tax benefit for children and other dependents across households with different incomes.

Key Elements of the U.S. Tax System

What are personal exemptions?

There were certain limits on personal exemptions under prior law. Since 1990, personal exemptions phased out at higher income levels. In 2017, the phaseout began at $261,500 for singles and $313,800 for married couples filing a joint return. Personal exemptions were completely phased out at $384,000 for singles and $436,300 for married couples.

In addition, the alternative minimum tax denied taxpayers the use of personal exemptions, making larger families more likely to owe the alternative minimum than smaller families.

Data Source

Internal Revenue Service. *Statistics of Income, Appendix to Selected Historical and Other Data Tables*. Table 23. "US Individual Income Tax: Personal Exemptions and Lowest and Highest Bracket Tax Rates, and Tax Base for Regular Tax."

Further Reading

Carasso, Adam, and C. Eugene Steuerle. 2003. "Personal Exemption Not What It Used to Be." Tax Notes. April 28.

Q. How do federal income tax rates work?

A. The federal individual income tax has seven tax rates that rise with income. Each rate applies only to income in a specific range (tax bracket).

CURRENT INCOME TAX RATES AND BRACKETS

The federal individual income tax has seven tax rates ranging from 10 percent to 37 percent (table 1). The rates apply to *taxable income*—adjusted gross income minus either the standard deduction or allowable itemized deductions. Income up to the standard deduction (or itemized deductions) is thus taxed at a zero rate.

Federal income tax rates are progressive: As taxable income increases, it is taxed at higher rates. Different tax rates are levied on income in different ranges (or brackets) depending on the taxpayer's filing status. In 2018, the top tax rate (37 percent) applies to taxable income over $500,000 for single filers and over $600,000 for married couples filing jointly. Additional tax schedules and rates apply to taxpayers who file as heads of household and to married individuals filing separate returns. A separate schedule of tax rates applies to capital gains and dividends. Tax brackets are adjusted annually for inflation.

TABLE 1

2018 Tax Schedule and Rates

Single filers			Married couples filing jointly		
Taxable income ($)		Current marginal rate (%)	Taxable income ($)		Current marginal rate (%)
Over	But not over		Over	But not over	
0	9,525	10	0	19,050	10
9,525	38,700	12	19,050	77,400	12
38,700	82,500	22	77,400	165,000	22
82,500	157,500	24	165,000	315,000	24
157,500	200,000	32	315,000	400,000	32
200,000	500,000	35	400,000	600,000	35
500,000	and over	37	600,000	and over	37

Source: Internal Revenue Service. Rev. Proc. 2017-58: Inflation adjustments for 2018.

Key Elements of the U.S. Tax System

How do federal income tax rates work?

BASICS OF PROGRESSIVE INCOME TAX RATES

Each tax rate applies only to income in a specific tax bracket. Thus, if a taxpayer earns enough to reach a new bracket with a higher tax rate, his or her total income is not taxed at that rate, just the income in that bracket. Even a taxpayer in the top bracket has some portion of income taxed at the lower rates in the tax schedule. For example, a single filer with $50,000 in taxable income falls into the 22 percent bracket but does not pay tax of $11,000 (22 percent of $50,000). Instead, he or she pays 10 percent of $9,525 plus 12 percent of $29,175 plus 22 percent of $11,300 for a total of $6,939.50.

All tax brackets for married taxpayers are twice the size of those for singles, except for the penultimate bracket. This can cause a "marriage penalty" for some taxpayers in the highest tax bracket, as some couples pay more tax filing a joint return than they would if each spouse could file as a single person. Conversely, because most tax brackets for married couples are twice the size of those for singles, many married couples enjoy a "marriage bonus," paying less in tax by filing jointly than they would if each partner filed as a single person.

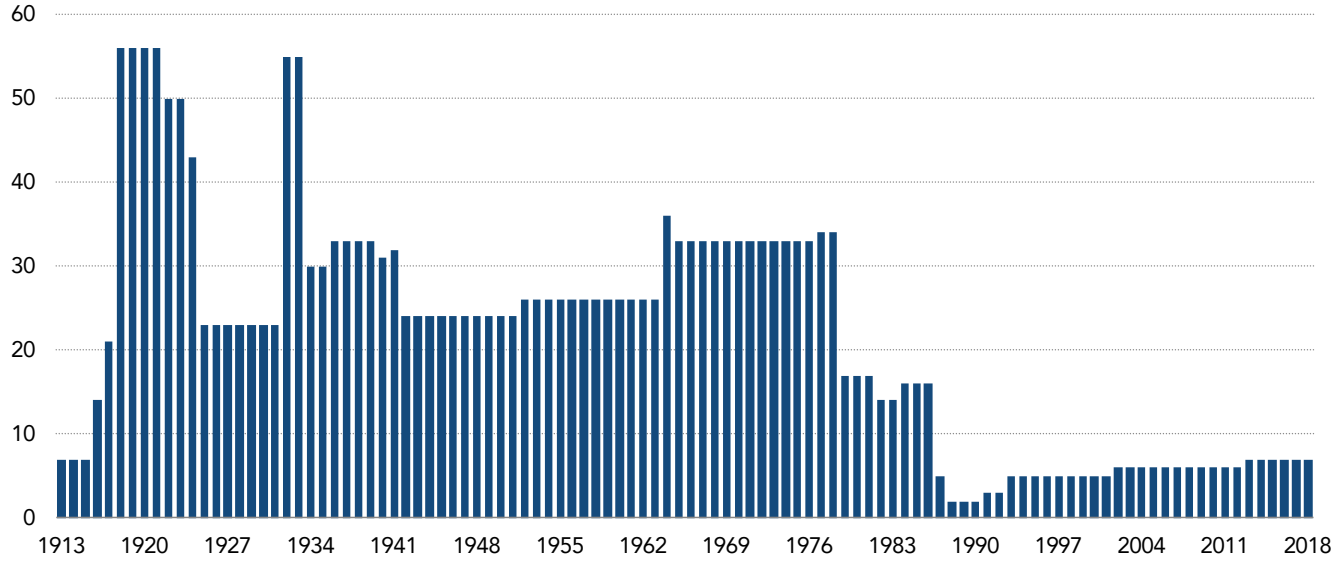
HISTORY OF FEDERAL INCOME TAX BRACKETS AND RATES

Over the 100-plus year history of the modern federal income tax (short-lived income taxes existed before Congress ratified the 16th Amendment in 1913), the number of brackets and rates have changed dramatically and frequently. The federal income tax began with seven brackets but that number exploded to more than 50 by 1920 (figure 1). From then until the late 1970s, there were never fewer than 20 brackets. The last major federal tax reform, the Tax Reform Act of 1986, reduced the number of brackets from 16 to two, but that number has crept up to the current seven over the last three decades.

FIGURE 1

Number of Federal Income Tax Brackets

1913–2018



Source: Tax Foundation. "US Federal Individual Income Tax Rates History, 1862–2013 (Nominal and Inflation-Adjusted Brackets)."
Note: The figure shows the largest number of tax brackets for any filing status in each year.

Key Elements of the U.S. Tax System

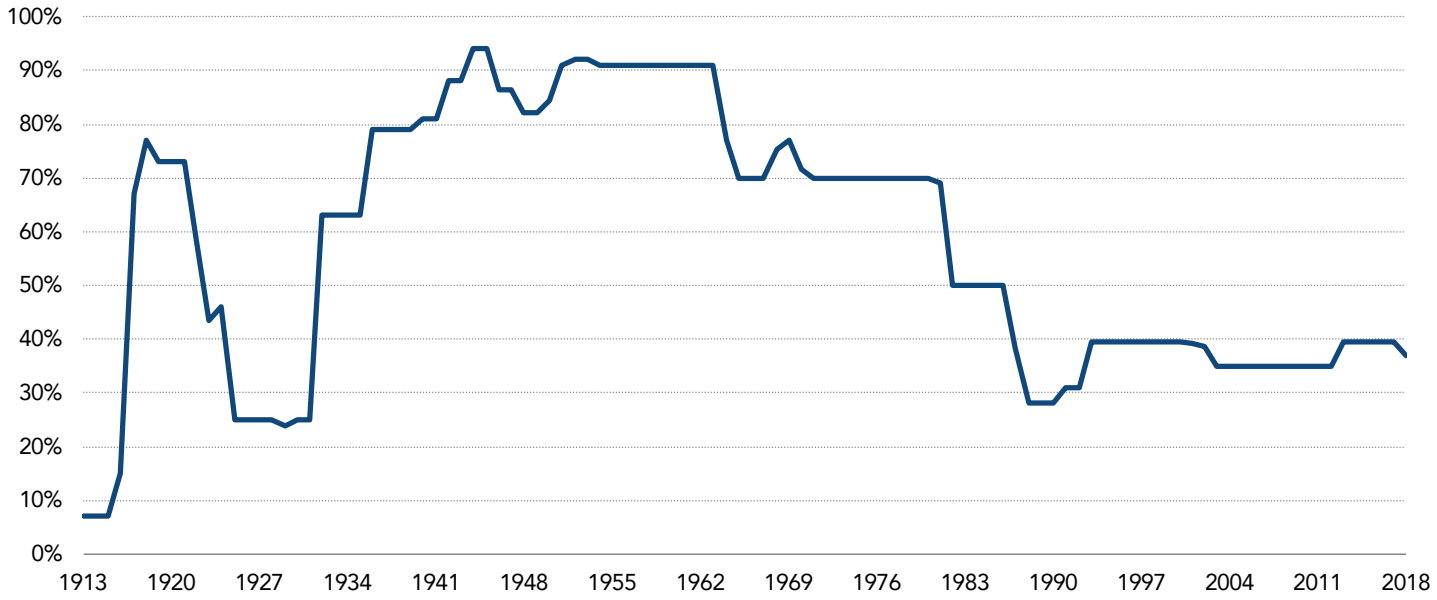
How do federal income tax rates work?

The top marginal federal income tax rate has varied widely over time (figure 2). The top rate was 91 percent in the early 1960s before the Kennedy/Johnson tax cut dropped it to 70 percent. In 1981, the first Reagan tax cut further reduced the top rate to 50 percent, and the 1986 tax reform brought it down to 28 percent. Subsequent legislation increased it to 31 percent in 1991 and to 39.6 percent in 1993. George W. Bush's tax cuts lowered the top rate to 35 percent, but it reverted to 39.6 percent when the American Taxpayer Relief Act of 2012 let the reduced top rate expire as scheduled. The Tax Cuts and Jobs Act lowered the top rate to 37 percent starting in 2018.

FIGURE 2

Top Marginal Federal Individual Income Tax Rates

1913–2018



Source: Urban-Brookings Tax Policy Center. Statistics. "Historical Individual Income Tax Parameters: 1913 to 2018."

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Urban-Brookings Tax Policy Center. *Statistics*. "Historical Individual Income Tax Parameters: 1913 to 2018."

Q. What are tax credits and how do they differ from tax deductions?

A. Credits reduce taxes directly and do not depend on tax rates. Deductions reduce taxable income; their value thus depends on the taxpayer's marginal tax rate, which rises with income.

TAX CREDITS

Tax credits are subtracted directly from a person's tax liability; they therefore reduce taxes dollar for dollar. Credits have the same value for everyone who can claim their full value.

Most tax credits are nonrefundable; that is, they cannot reduce a filer's tax liability below zero. As a result, low-income filers often cannot receive the full benefit of the credits for which they qualify. For example, the child and dependent care credit is nonrefundable, so a married couple with income under $24,000 in 2018 would not be able to use the credit because they have no income tax liability.

Some tax credits, however, are fully or partially refundable: if their value exceeds income tax liability, the tax filer is paid the excess. The earned income tax credit (EITC) is fully refundable; the child tax credit (CTC) is refundable only if the filer's earnings exceed a $2,500 threshold. The refundable portion of the CTC is commonly called the Additional Child Tax Credit.

MOST POPULAR TAX CREDITS

The EITC is the most commonly claimed credit, showing up on more than 18 percent of 2016 tax returns. The CTC is nearly as popular, claimed on about 15 percent of 2016 tax returns (figure 1).

The EITC is also the costliest tax credit, totaling about $67 billion in 2016. The CTC (including the refundable portion) was the next largest at roughly $52 billion (figure 2).

TAX DEDUCTIONS

Tax filers have the choice of claiming the standard deduction or itemizing deductible expenses from a list that includes state and local taxes paid, mortgage interest, and charitable contributions. In either case, filers decrease their taxable income by the amount of the allowed deduction.

Tax filers may claim some deductions in addition to the standard deduction or itemized deductions. These deductions (technically "adjustments to income") are sometimes called "above the line" deductions because they come before the line that determines adjusted gross income on tax return form 1040. Adjustments to income include contributions to individual retirement accounts, educator expenses, and interest on student loans.

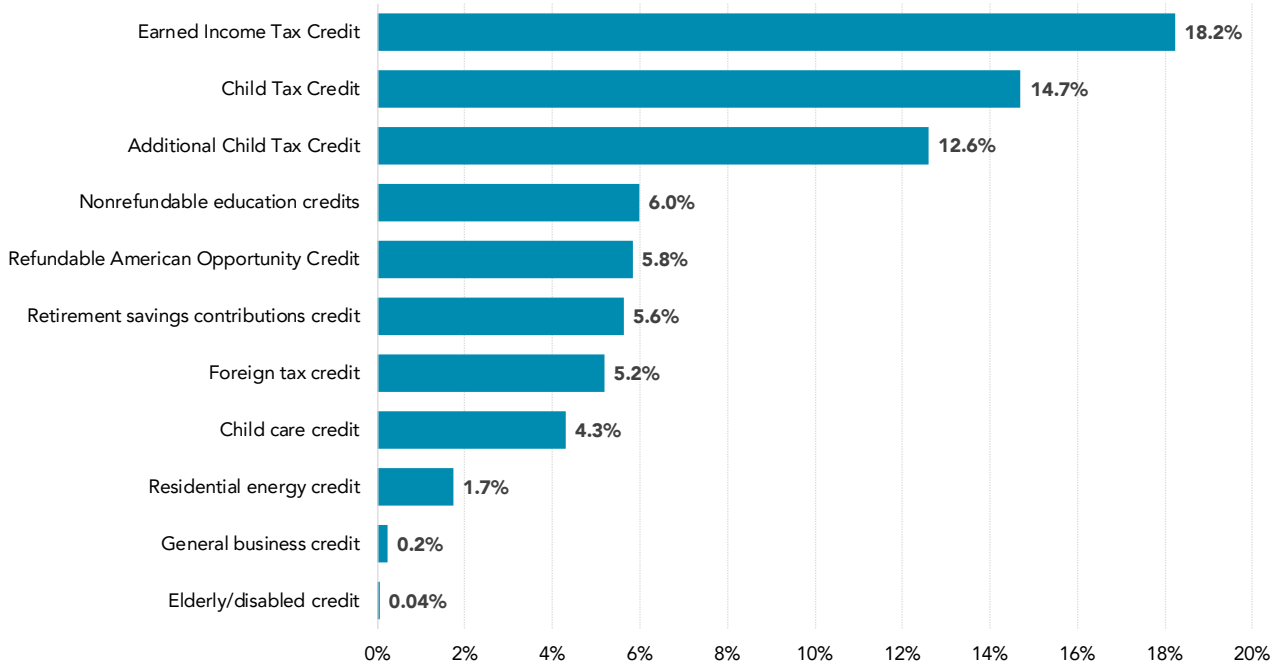
Key Elements of the U.S. Tax System

What are tax credits and how do they differ from tax deductions?

FIGURE 1

Total Returns Claiming Selected Credits

Share of all returns, tax year 2016

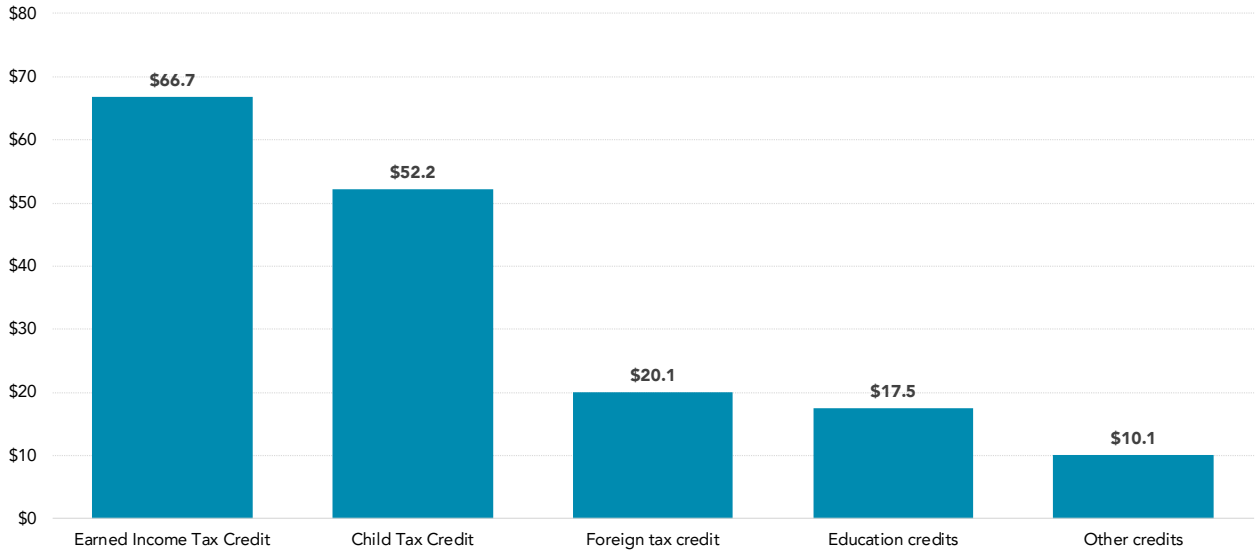


Source: Internal Revenue Service. Statistics of Income. Table A. "All Returns: Selected Income and Tax Items in Current and Constant Dollars," Tax Year 2016.

FIGURE 2

Total Amount Claimed for Selected Credits

Billions of dollars, tax year 2016



Source: Internal Revenue Service. Statistics of Income. Table A. "All Returns: Selected Income and Tax Items in Current and Constant Dollars," Tax Year 2016.
Note: "Child Tax Credit" = Child Tax Credit + Additional Child Tax Credit; "Education Credits" = Nonrefundable Education Credits + American Opportunity Credit; "Other Credits" = General Business Credit + Child Care Credit + Residential Energy Credit + Credit for the Elderly/Disabled.

Key Elements of the U.S. Tax System

What are tax credits and how do they differ from tax deductions?

The value of all deductions, itemized or otherwise, depends on the taxpayer's tax liability and marginal tax rate. A deduction cannot reduce taxable income below zero, so taxpayers lose the value of excess deductions once they reach that limit. Taxpayers can, however, carry over some unused deductions into future years. By reducing taxable income, a deduction lowers tax liability by the amount of the deduction times the taxpayer's marginal tax rate. Deductions are thus worth more to taxpayers in higher tax brackets. For example, a $10,000 deduction reduces taxes by $1,200 for people in the 12 percent tax bracket, but by $3,200 for those in the 32 percent tax bracket.

The alternative minimum tax (AMT) disallows the standard deduction and some itemized deductions. For example, AMT taxpayers may not deduct state and local tax payments. The AMT reduces but does not eliminate other deductions.

Data Sources

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Q. How do phaseouts of tax provisions affect taxpayers?

A. Many preferences in the tax code phase out for high-income taxpayers—their value falls as income rises. Phaseouts narrow the focus of tax benefits to low- and middle-income households while limiting revenue costs, but raise marginal tax rates for affected taxpayers.

Many preferences in the tax code phase out for higher-income taxpayers, meaning their value declines after income reaches a certain level. Phaseouts target tax benefits on middle- and lower-income households and limit the loss of revenue. Phaseouts, however, not only claw back benefits from the more affluent, but also increase the effective marginal tax rate these taxpayers face, decreasing the after-tax gains of earning more income.

Some taxpayers are affected by multiple tax provisions phasing out at the same time, compounding the negative impact on their earning incentives. More broadly, phaseouts complicate the tax code and make taxes more difficult to understand.

HOW DO PHASEOUTS WORK?

Phaseouts are structured in different ways and thus have different effects. Some reduce credits and thus have the same impact on all affected taxpayers. Others reduce deductions, in which case their dollar impact depends on the taxpayer's marginal tax rate: the higher the tax rate, the greater the value of the lost deduction.

Phaseouts reduce tax benefits at different rates depending on their structure and range. Most phaseouts reduce benefits at a constant rate over an income range; that rate depends on the width of the range. For example, for single tax filers, the American Opportunity Tax Credit phases out evenly over a $10,000 range, so the maximum $2,500 credit phases out at a 25 percent rate ($25 per $100 of income above the phaseout thresholds). In contrast, the adoption credit phases out over a $40,000 range, so the maximum $13,840 credit phases out at nearly a 35 percent rate ($34.6 per $100 of income above the threshold).

Some phaseouts, however, reduce benefits by a specified amount for each fixed increment of income. For example, the child tax credit decreases by $50 for every $1,000 or part of $1,000 in additional income above the phaseout threshold. Whether income exceeds the threshold by $1 or by $999, the credit falls by the same $50, so earning a few more dollars could make a taxpayer worse off.

Some phaseouts have more pronounced cliffs, so the benefit drops in large increments when income exceeds the threshold. For example, in 2018, the limit on the deduction for higher education tuition and fees drops

from $4,000 to $2,000 for a single tax filer whose income exceeds $65,000 by even $1. Then the limit drops to zero for filers whose income tops $80,000. Again, just a few dollars of additional income could leave a taxpayer whose income is near the cliff much worse off.

Many phaseouts are indexed for inflation so that the phaseout ranges remain fixed in real terms. Phaseouts that are not adjusted for inflation affect more taxpayers over time, as inflation raises nominal incomes and thus lifts more taxpayers above the phaseout thresholds.

In addition to phaseouts, the tax code also contains phase-ins. For example, a portion of Social Security benefits becomes taxable only when a taxpayer's income reaches certain thresholds, and the taxable portion increases (up to a maximum of 85 percent) as the amount by which income exceeds those thresholds increases.

TABLE 1.1

Family Benefits

Selected phase-ins and phaseouts in 2018 individual income tax code

Description	Effect on marginal tax rate	Filing status	Phaseout begins	Phaseout ends
Earned Income Tax Credit (EITC)[a]				
Credit phases in from first dollar of earnings; phase-in and phaseout rates vary with number of children.	Decreases by credit percentage during phase-in; increases at phaseout.	Single/HoH		
		No children	8,490	15,270
		One child	18,660	40,320
		Two children	18,660	45,802
		Three or more children	18,660	49,194
		MFJ		
		No children	14,200	20,950
		One child	24,350	46,010
		Two children	24,350	51,492
		Three or more children	24,350	54,884
		MFS	Credit not allowed	
Child Tax Credit (CTC)				
$2,000 credit for each qualifying citizen child; $500 credit for each other dependent.	Increases by 5 percentage points throughout phaseout range.	Single/HoH	$200,000	N/A
		MFJ	$400,000	N/A
		MFS	$200,000	N/A
Child and Dependent Care Credit				
Credit of up to $3,000 for each of up to two children; rate falls from 35% to 20% at rate of 1% for each $2,000 of income above threshold.	Increases by up to 3 percentage points, depending on number of children and spending on child care.	Single/HoH	$15,000	$43,000
		MFJ	$15,000	$43,000
		MFS	Credit not allowed	

Source: Various publications from Urban-Brookings Tax Policy Center; Congressional Research Service (2018); Internal Revenue Service (2018); Social Security Administration (2018); and Young (2007).

HoH = head of household; MFJ = married filing jointly; MFS = married filing separately; N/A = not applicable

a) indexed for inflation.

Key Elements of the U.S. Tax System

How do phaseouts of tax provisions affect taxpayers?

WHERE ARE PHASEOUTS MOST COMMON?

Phaseouts are most common in three areas of the tax code: family benefits, education provisions, and retirement savings provisions (table 1). The beginning and ending points of the phaseout range determine who is eligible for these credits or deductions. For example, the earned income tax credit (EITC) begins to phase out at income of $18,660 for single parents and at $24,350 for married couples with children, limiting EITC eligibility to low-income families. In contrast, the child tax credit (CTC) begins to phase out at income of $200,000 for single parents and at $400,000 for married couples with children, extending CTC eligibility to high-income families.

TABLE 1.2

Education Provisions

Selected phase-ins and phaseouts in 2018 individual income tax code

Description	Effect on marginal tax rate	Filing status	Phaseout begins	Phaseout ends
American Opportunity Tax Credit (AOTC)[a]				
Credit of 100% of first $2,000 and 25% of next $2,000 of eligible expenses, up to $2,500; cannot take both AOTC and LLC.	Increases by up to 25 percentage points (12.5 for MFJ), depending on expenses.	Single/HoH	$80,000	$90,000
		MFJ	$160,000	$180,000
		MFS	Credit not allowed	
Lifetime Learning Credit (LLC)[a]				
Credit of 20% of eligible expenses up to $10,000; cannot take both AOTC and LLC.	Increases by up to 20 percentage points (10 for MFJ), depending on expenses.	Single/HoH	$57,000	$67,000
		MFJ	$114,000	$134,000
		MFS	Credit not allowed	
Education tuition and fees deduction				
Maximum deduction of $4,000 below lower threshold; $2,000 between thresholds; zero above upper threshold.	Large discrete increases at each threshold income value.	Single/HoH	$65,000	$80,000
		MFJ	$130,000	$160,000
		MFS	Deduction not allowed	
Coverdell Education Savings Accounts				
Maximum contribution of $2,000, reduced evenly over phaseout range.	No effect on current tax rate, but increases if withdrawn funds not used for educational purposes or exceed qualified expenses.	Single/HoH	$95,000	$110,000
		MFJ	$190,000	$120,000
		MFS	$95,000	$110,000
Student loan interest deduction[a]				
Up to $2,500 of student loan interest deductible.	Increases by up to 16.7 percentage points (8.3 for MFJ) of statutory tax rate.	Single/HoH	$65,000	$80,000
		MFJ	$135,000	$165,000
		MFS	Credit not allowed	
Education Savings Bonds Program[a]				
Interest on savings bonds tax-free if used for higher education.	Depends on amount of interest on redeemed bonds and statutory tax rate.	Single/HoH	$79,700	$94,700
		MFJ	$119,550	$149,550
		MFS	Credit not allowed	

Source: Various publications from Urban-Brookings Tax Policy Center; Congressional Research Service (2018); Internal Revenue Service (2018); Social Security Administration (2018); and Young (2018).

HoH = head of household; MFJ = married filing jointly; MFS = married filing separately; N/A = not applicable

a) indexed for inflation.

TABLE 1.3

Retirement Provisions

Selected phase-ins and phaseouts in 2018 individual income tax code

Description	Effect on marginal tax rate	Filing status	Phaseout begins	Phaseout ends
Saver's Credit[a]				
Credit of up to $2,000 per taxpayer; credit rate falls in steps from 50% to 0%.	No effect on current tax rate, but increases when funds are withdrawn.	Single/MFS	$19,000	$31,500
		MFJ	$38,000	$63,000
		HoH	$28,500	$47,250
Roth IRA Contribution Limits				
Maximum $5,500 for all IRAs.	Increases by up to 20 percentage points (10 for MFJ), depending on expenses.	Single/HoH/MFS[a]	$120,000	$135,000
		MFJ[a]	$189,000	$199,000
		MFS (if lived together at all)	$0	$10,000
Traditional IRA Contribution Limits (own)				
Maximum $5,500 for all IRAs.	Increases by up to 25% of statutory tax rate.	Single/HoH/MFS[a]	$63,000	$73,000
		MFJ[a]	$101,000	$121,000
		MFS (if lived together at all)	$0	$10,000
Traditional IRA Contribution Limits (spouse)				
Maximum $5,500 for all IRAs.	Increases by up to 25% of statutory tax rate.	MFJa	$189,000	$199,000
		MFS (if lived together at all)	$0	$10,000

Source: Various publications from Urban-Brookings Tax Policy Center; Congressional Research Service (2018); Internal Revenue Service (2018); and Young (2018).

HoH = head of household; MFJ = married filing jointly; MFS = married filing separately; IRA = Individual Retirement Account; a) indexed for inflation.

PHASEOUTS CAN CREATE MARRIAGE BONUSES AND PENALTIES

Phaseouts can create both marriage bonuses and penalties. A marriage bonus reduces a couple's combined tax bill compared to what they would pay if they were not married and filed separate returns. For example, in 2018, phaseout of the CTC begins at $400,000 for married taxpayers and $200,000 for all other taxpayers. If one spouse in a couple with a child has $300,000 of income and the other has none, their combined income is under the joint filers' threshold for phaseout of CTC and they can claim a child tax credit. If they were not married, the higher-income spouse could not claim the CTC because his or her income was too high, and the lower-income spouse could not claim the credit because he or she had no income.

Before the TCJA, married couples faced significant marriage penalties because their phaseout range was less than twice that for single tax filers. Under TCJA, most phaseouts for joint filers are exactly twice that for single filers, so many of the marriage penalties are gone.

However, phaseouts still impose marriage penalties on low-income families, and those penalties are often a larger percentage of income than the marriage penalties caused by phaseouts for higher-income taxpayers. For example, in 2018, a single mother who earns $18,000 and has one child pays no income tax and

receives two refundable credits—a $1,400 CTC and a $3,461 EITC (table 2). (In 2018, a single parent with one child begins paying income tax (before credits) when his or her income exceeds $18,000—the standard deduction for a head of household.) If she marries a man making $40,000—whose 2018 income tax as a single person would be $3,170—she would lose all her EITC (the couple's income would cause the credit to phase out completely) but would get more CTC. (In 2018, CTC is worth up to $2,000 per qualifying child. The refundable portion of the credit is limited to $1,400.) Losing the EITC means that the couple would pay $1,699 in income tax when married, compared with receiving a net payment of $1,691 (her $4,861 combined credit minus his $3,170 tax) if they remained single. That difference is a marriage penalty of $3,390, or 5.8 percent of the couple's adjusted gross income.

TABLE 2

Marriage Bonus and Penalty Tax Calculator Example

2018

	Mother	Spouse	Couple
Adjusted gross income	**$18,000**	**$40,000**	**$58,000**
Standard deduction	$18,000	$12,000	$24,000
Taxable income	**$0**	**$28,000**	**$34,000**
Tax before credits	$0	$3,170	$3,699
Child Tax Credit	$1,400	$0	$2,000
Earned Income Tax Credit	$3,461	$0	$0
Tax net of credits	**-$4,861**	**$3,170**	**$1,699**

Tax as two individuals
-$1,691
Tax as a married couple
$1,699
Marriage penalty
$3,390
Difference as a percent of couple's AGI
5.8%

Source: Tax Policy Center Marriage Bonus and Penalty Calculator, 2018.

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Q. How are capital gains taxed?

A. Capital gains are profits from the sale of a capital asset, such as shares of stock, a business, a parcel of land, or a work of art. Capital gains are generally included in taxable income, but in most cases, are taxed at a lower rate.

A capital gain is realized when a capital asset is sold or exchanged at a price higher than its basis. Basis is an asset's purchase price, plus commissions and the cost of improvements less depreciation. A capital loss occurs when an asset is sold for less than its basis. Gains and losses (like other forms of capital income and expense) are not adjusted for inflation.

Capital gains and losses are classified as long term if the asset was held for more than one year, and short term if held for a year or less. Short-term capital gains are taxed as ordinary income at rates up to 37 percent; long-term gains are taxed at lower rates, up to 20 percent. Taxpayers with modified adjusted gross income above certain amounts are subject to an additional 3.8 percent net investment income tax (NIIT) on long- and short-term capital gains.

The Tax Cuts and Jobs Act (TCJA), enacted at the end of 2017, retained the preferential tax rates on long-term capital gains and the 3.8 percent NIIT. TCJA separated the tax rate thresholds for capital gains from the tax brackets for ordinary income for taxpayers with higher incomes (table 1). The thresholds for the new capital gains tax brackets are indexed for inflation, but, as under prior law, the income thresholds for the NIIT are not. TCJA also eliminated the phaseout of itemized deductions, which raised the maximum capital gains tax rate above the 23.8 percent statutory rate in some cases.

TABLE 1

Tax Rate on Long-Term Capital Gains
2018

Prior law	Tax Cuts and Jobs Act
Zero rate for taxpayers below the 25 percent tax bracket; 15 percent rate for taxpayers in the 25 to 35 pecent tax brackets; 20 percent rate for taxpayers above the 35 percent tax bracket.	Zero rate if taxable income is below $38,600 (single), $77,200 (joint); 15 percent rate if taxable income is between $38,600 and $425,800 (single), $77,200 and $479,000 (joint); 20 percent rate if taxable income is above $425,800 (single), $479,000 (joint).
3.8 percent NIIT at AGI above $200,000 (single), $250,000 (joint).	3.8 percent NIIT at AGI above $200,000 (single), $250,000 (joint).

AGI = adjusted gross income; NIIT = net investment income tax

Key Elements of the U.S. Tax System

How are capital gains taxed?

There are special rules for certain types of capital gains. Gains on art and collectibles are taxed at ordinary income tax rates up to a maximum rate of 28 percent. Up to $250,000 ($500,000 for married couples) of capital gains from the sale of principal residences is tax-free if taxpayers meet certain conditions including having lived in the house for at least 2 of the previous 5 years. Up to the greater of $10 million of capital gains or 10 times the basis on stock held for more than five years in a qualified domestic C corporation with gross assets under $50 million on the date of the stock's issuance are excluded from taxation. Also excluded from taxation are capital gains from investments held for at least 10 years in designated Opportunity Funds. Gains on Opportunity Fund investments held between 5 and 10 years are eligible for a partial exclusion.

Capital losses may be used to offset capital gains, along with up to $3,000 of other taxable income. The unused portion of a capital loss may be carried over to future years.

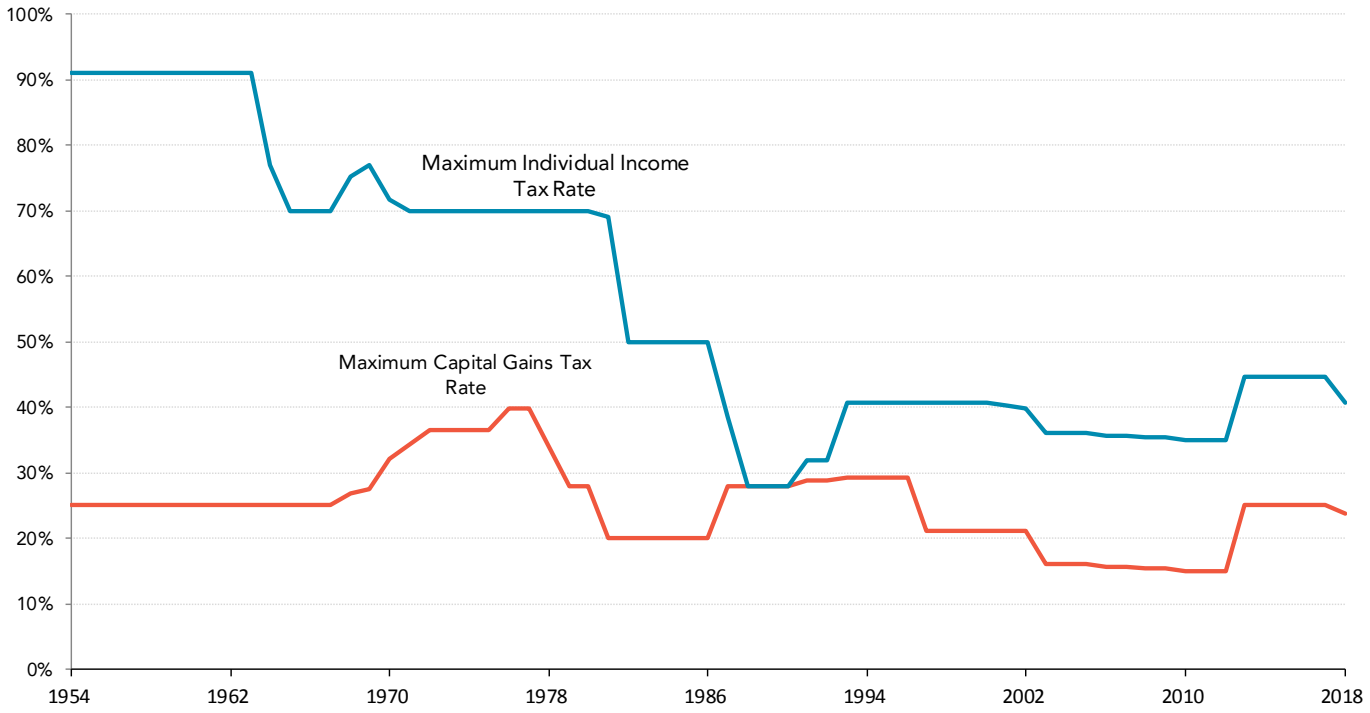
The tax basis for an asset received as a gift equals the donor's basis. However, the basis of an inherited asset is "stepped up" to the value of the asset on the date of the donor's death. The step-up provision effectively exempts from income tax any gains on assets held until death.

C corporations pay the regular corporation tax rates on the full amount of their capital gains and may use capital losses only to offset capital gains, not other kinds of income.

FIGURE 1

Maximum Capital Gains and Individual Income Tax Rate

Tax years 1954–2018



Sources: US Department of the Treasury, Office of Tax Analysis (2016); Urban-Brookings Tax Policy Center calculations.
Note: The maximum rates include the 3.8 percent tax on net investment income (2013-) and adjusts for the phaseout of itemized deductions (1991–2009, 2013–2017).

Key Elements of the U.S. Tax System

How are capital gains taxed?

MAXIMUM TAX RATE ON CAPITAL GAINS

For most of the history of the income tax, long-term capital gains have been taxed at lower rates than ordinary income (figure 1). The maximum long-term capital gains and ordinary income tax rates were equal in 1988–2000. Since 2003, qualified dividends have also been taxed at the lower rates.

Data Source

US Department of the Treasury, Office of Tax Analysis. 2016. "Taxes Paid on Capital Gains for Returns with Positive Net Capital Gains, 1954–2014." Washington, DC: Department of the Treasury.

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Q. What is the effect of a lower tax rate for capital gains?

A. It does not appear to spur economic growth significantly. But lower rates foster tax avoidance strategies and complexity.

Throughout the history of the income tax, capital gains have been taxed at lower rates than ordinary income. Since 2003, qualified dividends have also been taxed at the lower rates. Proponents of the tax preference argue that lower tax rates for capital gains and dividends offset taxes already paid at the corporate level, spur economic growth, encourage risk taking and entrepreneurship, offset the effects of inflation, prevent "lock-in" (the disincentive to sell assets), and mitigate the tax penalty on savings under the income tax. Critics, for their part, complain that the lower tax rate disproportionately benefits the wealthy and encourages tax-sheltering schemes.

The double-taxation argument goes only so far. Capital gains from the sale of stock are only about half of all capital gains. And even when a gain arises from the sale of corporate stock, corporate profits can often escape full taxation through business tax preferences.

ECONOMIC GROWTH

Do lower taxes on capital gains spur economic growth? Figure 1 shows the top tax rates on long-term capital gains along with real economic growth from 1954 to 2017. Of course, many factors determine growth, but the tax rate on capital gains does not appear to be a major factor.

Capital gains may arise from risky investments, and a lower capital gains tax rate might encourage such risk taking. Even without a tax preference, taxing gains while allowing full current deductions for losses on a symmetric basis would reduce risk by reducing after-tax variance of returns. However, deductibility of losses is limited, which limits the risk-reduction benefit of capital gains taxation for some taxpayers. Under current law, taxpayers can use capital losses to offset capital gains and, for noncorporate taxpayers, up to $3,000 of additional taxable income other than capital gains. Noncorporate taxpayers also can carry any remaining capital losses forward to future years indefinitely.

It is true that inflation causes part of almost any nominal capital gain. But inflation actually affects the returns on currently taxed assets (interest, dividends, rents, and royalties) more than it affects capital gains, which are taxed upon disposition.

BENEFICIARIES OF A LOWER TAX RATE

Critics are correct that low tax rates on capital gains and dividends accrue disproportionately to the wealthy. The Urban-Brookings Tax Policy Center estimates that in 2018, more than 70 percent of the tax benefit of the lower rates will go to taxpayers with incomes over $1 million (table 1).

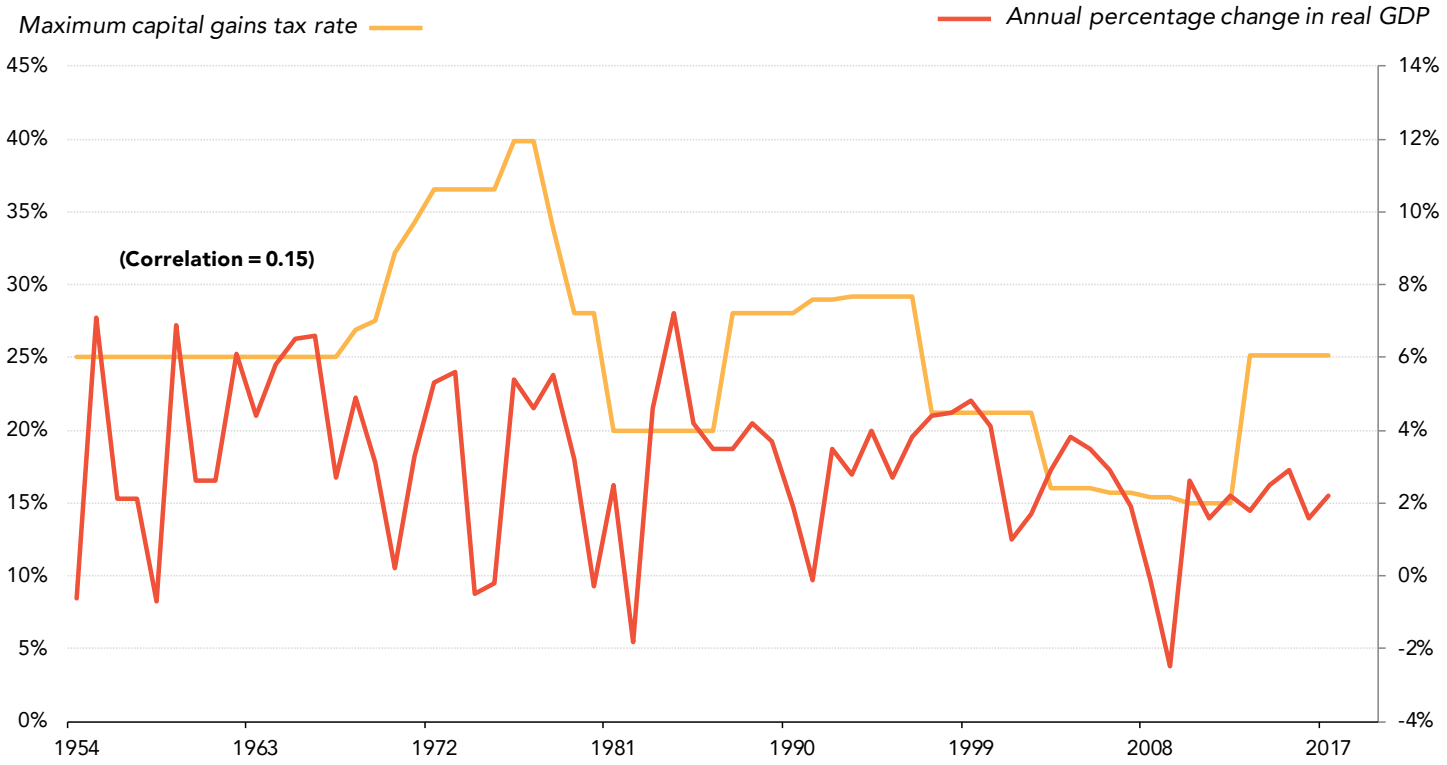
Key Elements of the U.S. Tax System

What is the effect of a lower tax rate for capital gains?

FIGURE 1

Maximum Capital Gain Tax Rate and Economic Growth

Tax years 1954–2017



Source: Urban-Brookings Tax Policy Center calculations; US Bureau of Economic Analysis, "National Economic Accounts"; and US Department of the Treasury, Office of Tax Analysis, "Taxes Paid on Capital Gains for Returns with Positive Net Capital Gains 1954–2014.".
Note: The maximum capital gains tax rate includes the 3.8 percent tax on net investment income (2013–) and adjusts for the phaseout of itemized deductions (1991–2009, 2013–2017).

Low tax rates on capital gains contribute to many tax shelters that undermine economic efficiency and growth. These shelters employ sophisticated financial techniques to convert ordinary income (such as wages and salaries) to capital gains. For top-bracket taxpayers, tax sheltering can save up to 17 cents per dollar of income sheltered. The resources that go into designing, implementing, and managing tax shelters could otherwise be used for productive purposes.

Finally, the low rate on capital gains complicates the tax system. A significant portion of tax law and regulations is devoted to policing the boundary between lightly taxed returns on capital assets and fully taxed ordinary income.

Key Elements of the U.S. Tax System

What is the effect of a lower tax rate for capital gains?

TABLE 1

Benefit of Lower Tax Rates on Long-Term Capital Gains and Qualified Dividends

Current law, 2018

Cash income level	Share of returns with tax benefit	Benefit as share of after-tax income	Share of total tax benefit	Average tax savings
Less than $10,000	0.0%	0.0%	0.0%	$0
$10,000 – $20,000	0.6%	0.0%	0.0%	*
$20,000 – $30,000	1.8%	0.0%	0.1%	$10
$30,000 – $40,000	3.0%	0.0%	0.1%	$10
$40,000 – $50,000	5.7%	0.1%	0.3%	$30
$50,000 – $75,000	10.1%	0.1%	1.2%	$70
$75,000 – $100,000	17.3%	0.2%	1.6%	$140
$100,00 – $200,000	25.3%	0.2%	5.4%	$260
$200,000 – $500,000	45.5%	0.6%	11.4%	$1,280
$500,000 – $1,000,000	73.1%	1.4%	8.3%	$7,260
More than $1,000,000	86.5%	6.7%	71.3%	$145,130
All	**13.0%**	**1.1%**	**100.0%**	**$820**

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
* Nonzero value rounded to zero.

Data Sources

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Q. How might the taxation of capital gains be improved?

A. Taxing capital gains at the same rates as ordinary income would simplify the tax system by removing major incentives for tax sheltering and other attempts to manipulate the system.

The Tax Reform Act of 1986, signed by President Ronald Reagan, raised tax rates on capital gains and lowered rates on ordinary income but set the same 28 percent top rate for both. The goal: reducing tax planning devoted to converting ordinary income to capital gains. The policy worked—briefly. Successive congresses raised the top rate on ordinary income (now 40.8 percent) and reduced the top rate on capital gains (now 23.8 percent). As the gap between the two rates grew, so did the incentives to manipulate the system. Now might be a good time to once again tax capital gains and ordinary income at the same rate, which could be higher than today's rate on capital gains but lower than the current rate on ordinary income.

In the 1980s, taxpayers exploited the ordinary income/capital gain gap by making investments that generated ordinary deductions—such as interest, lease payments, and depreciation—to reduce their current income tax liability. These taxpayers got their money back (and presumably more) in the form of long-term capital gains. The Tax Reform Act targeted these arrangements by limiting passive loss, interest, and accelerated depreciation deductions. Most importantly, it also eliminated the ordinary income/capital gain gap, thus making many tax shelter schemes unprofitable.

With the return of the ordinary/capital income tax differential, schemes to convert ordinary income into capital gains have followed. The Senate investigated one such scheme, basket options, which used the tax alchemy of derivatives to convert short-term into long-term capital gains. Private equity and other investment managers are often compensated with "carried interest," which allows them to claim long-term gains rather than salaries.

These planning opportunities are available only to the well-off, who hold the vast majority of capital assets and face the highest tax rates, thus deriving the most benefit from lower tax rates on capital gains (figure 1).

Some may object that reducing the tax rate on capital gains is necessary to prevent "lock in"—holding property to defer tax liability (perhaps until death, when the heirs can completely avoid taxation of accrued gains on inherited assets). But if Congress is concerned about the lock-in effect, it could either tax capital gains at death or instate carryover basis so that heirs retain the lower basis of inherited assets. Either step would reduce the tax incentive to keep assets until death—and could raise substantial revenue that would make it possible to reduce tax rates or the deficit.

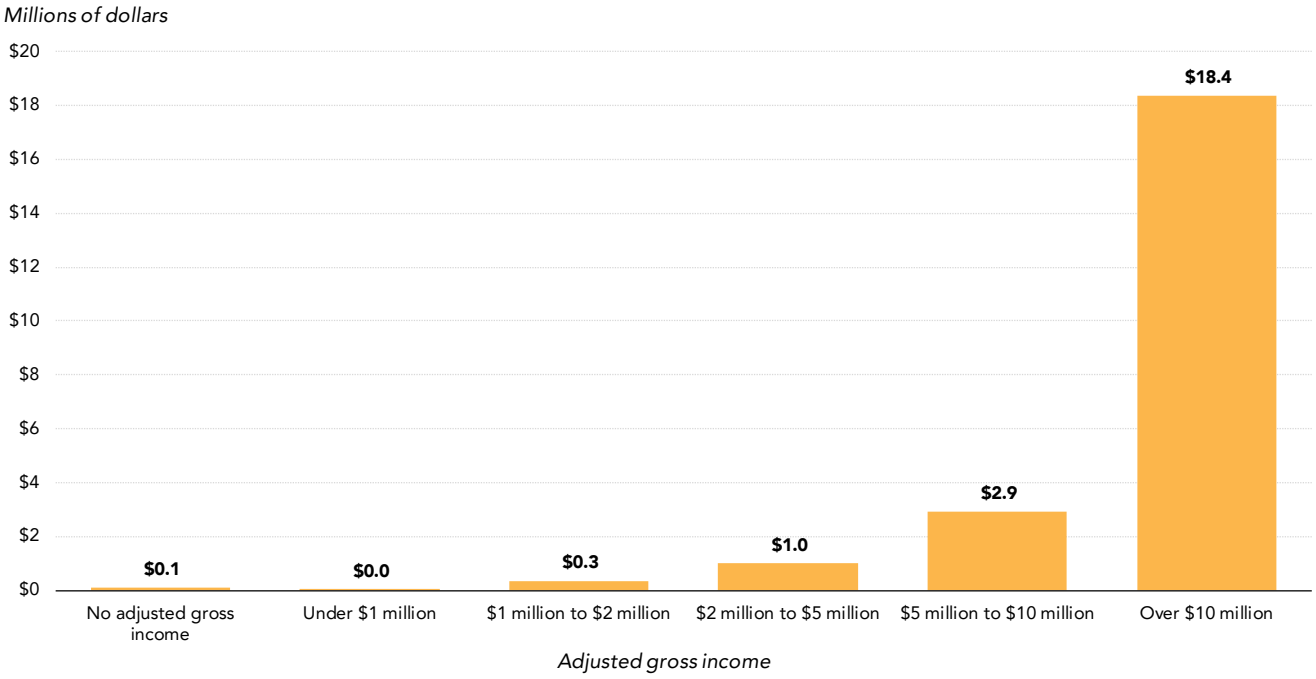
How might the taxation of capital gains be improved?

Finally, if Congress is concerned about the potential double taxation of corporate earnings, it might integrate the two levels of taxes on corporate income. That is, Congress could tax corporate earnings only once, taxing the corporation or its shareholders but not both. The US Department of the Treasury (1992) has laid out several options for such integration.

FIGURE 1

Average Taxable Net Gain from Sales of Capital Assets

Tax year 2016



Source: Internal Revenue Service. *Statistics of Income. Basic Tables: Returns Filed and Sources of Income.* Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," Tax Year 2016.

Data Sources

Internal Revenue Service. *Statistics of Income. Basic Tables: Returns Filed and Sources of Income*. Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," Tax Year 2016.

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Q. What is carried interest, and should it be taxed as capital gain?

A. Carried interest, income flowing to the general partner of a private investment fund, often is treated as capital gains for the purposes of taxation. Some view this tax preference as an unfair, market-distorting loophole. Others argue that it is consistent with the tax treatment of other entrepreneurial income.

Carried interest is a contractual right that entitles the general partner of an investment fund to share in the fund's profits. These funds invest in a wide range of assets, including real estate, natural resources, publicly traded stocks and bonds, and private businesses. Hedge funds, for example, typically trade stocks, bonds, currencies, and derivatives. Venture capital funds invest in start-up businesses. And private equity funds invest in established businesses, often buying publicly traded companies and taking them private.

Depending on the investment, the general partner's share of the profits can take a variety of forms: interest, royalties, long- or short-term capital gains, and dividends. There is ongoing debate about whether partners receiving long-term capital gains and qualified dividends as carried interest should receive the preferential tax rates accorded to regular investors.

The preferential tax rate is especially important for a private equity fund and its managers. A private equity fund typically uses carried interest to pass through a share of its net capital gains to its general partner which, in turn, passes the gains on to the investment managers (figure 1). The managers pay a federal personal income tax on these gains at a rate of 23.8 percent (20 percent tax on net capital gains plus 3.8 percent net investment income tax).

The general partner receives its carried interest as compensation for its investment management services. (Typically, the general partner also receives a separate annual fee based on the size of the fund's assets.) The limited partners receive the balance of the fund's profits in proportion to their capital investment. A typical division for a private equity fund is 20 percent of the profits to the general partner and 80 percent to the limited partners.

Private equity funds managed $2.8 trillion in 2017, a massive increase over the $100 billion managed in 1994. They use their capital to buy companies and improve their operations, governance, capital structure, and market positioning. Then they sell the companies and pass any profits to the partners.

Many commentators argue that it would be fairer and more efficient economically to tax carried interest like wage and salary income, which is subject to a top rate of 37 percent. They draw an analogy between the general partners and investment bankers, who pay tax at ordinary rates on their wages, salaries, and

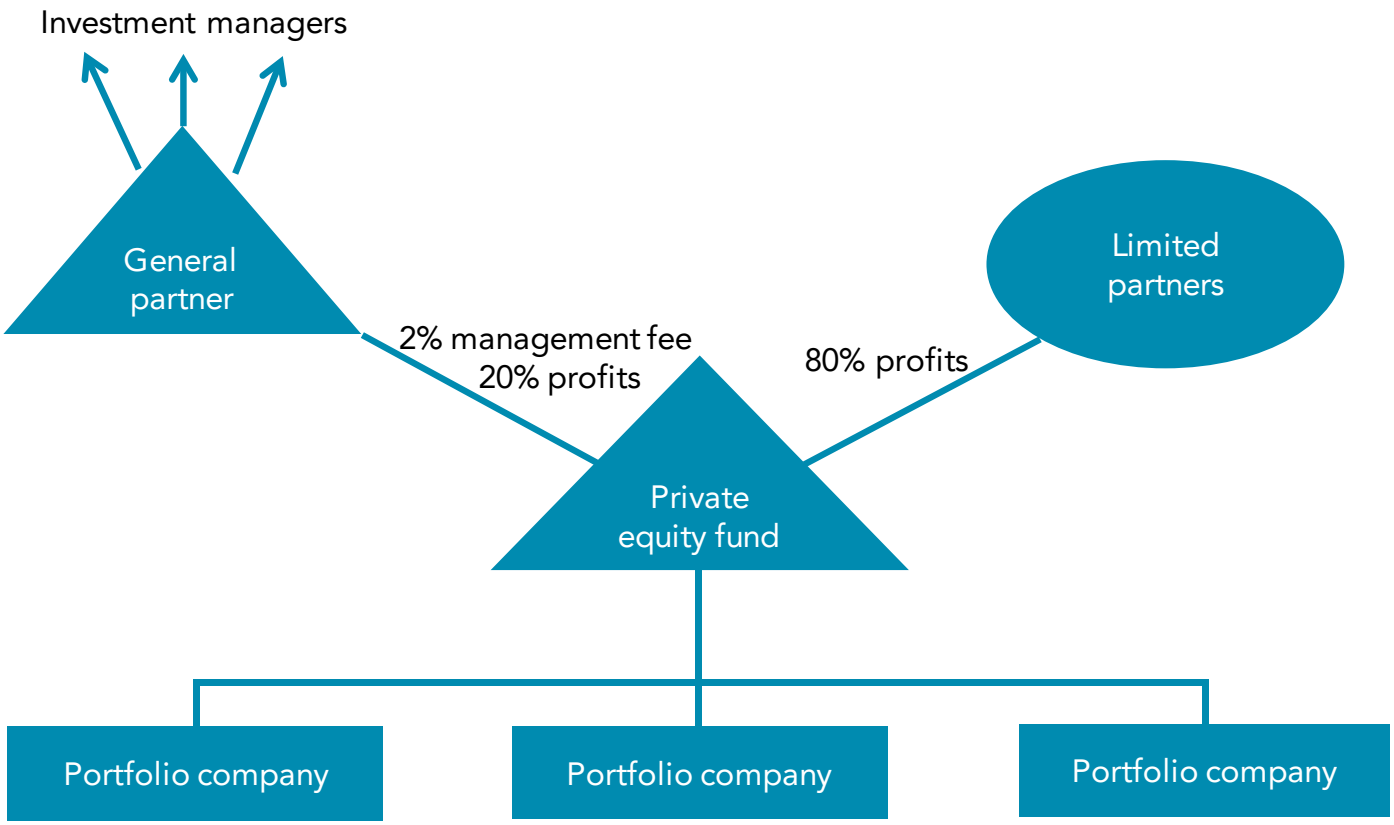
bonuses. They also object that most service providers are not able to treat their income as capital gains. Some commentators add, if we treat carried interest like wage and salary income for the general partners, we also should allow the limited partners to deduct the carried interest as an ordinary expense.

But others believe that the general partners are more like entrepreneurs who start a new business and may, under current law, treat part of their return as capital—not as wage and salary income—for their contribution of "sweat equity." Our tax system largely accommodates this conversion of labor income to capital because it cannot measure and time the contribution of the sweat equity.

The Tax Cuts and Jobs Act slightly curtailed the tax preference for carried interest, requiring an investment fund to hold assets for more than three years, rather than one year, to treat any gains allocated to its investment managers as long term. Gains from the sale of assets held three years or less would be short term, taxed at a top rate of 40.8 percent. However, most private equity funds hold their assets for more than five years, so the longer holding period requirement may not affect them much.

FIGURE 1

A Typical Private Equity Fund



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Q. What is the AMT?

A. The individual alternative minimum tax (AMT) operates alongside the regular income tax. It requires some taxpayers to calculate their liability twice—once under the rules for the regular income tax and once under the AMT rules—and then pay the higher amount. Originally in-tended to prevent perceived abuses by a handful of the very rich, the AMT affected roughly 5 million filers in 2017. The Tax Cuts and Jobs Act dramatically reduced the reach of the AMT, albeit temporarily, so that the tax will hit only 200,000 filers in 2018.

In January 1969, Treasury Secretary Joseph W. Barr informed Congress that 155 taxpayers with incomes exceeding $200,000 had paid no federal income tax in 1966. The news created outrage. That year, members of Congress received more constituent letters about the 155 taxpayers than about the Vietnam War. Congress subsequently enacted an "add-on" minimum tax that house-holds paid in addition to regular income tax. It applied to certain income items ("preferences") taxed lightly or not at all under the regular income tax. The largest preference item was the por-tion of capital gains excluded from the regular income tax.

Congress enacted the modern alternative minimum tax (AMT) in 1979 to operate in tandem with the add-on minimum tax. The main preference items, including capital gains, moved from the add-on tax to the AMT. Congress finally repealed the add-on tax, effective in 1983.

The original minimum tax and the AMT affected fewer than 1 million taxpayers annually through the late 1990s. In 2001, Congress passed the Economic Growth and Tax Relief Reconciliation Act, which substantially reduced regular income taxes but provided only temporary relief from the AMT. Over the following decade, Congress repeatedly passed legislation—often at the last possible moment—to temporarily "patch" the AMT by increasing the AMT exemption amount.

Although the patches prevented an AMT explosion, the number of taxpayers affected by the AMT continued to grow throughout the decade (figure 1) because (1) the regular income tax was indexed for inflation, but the AMT was not; and (2) Congress enacted substantial cuts to the regular income tax.

The American Taxpayer Relief Act of 2012 enacted a permanent AMT fix by establishing a higher AMT exemption amount, indexing the AMT parameters for inflation, and allowing specified tax credits under the AMT. As a result, the number of AMT taxpayers fell from 4.5 million in 2012 to about 4.0 million in 2013. That number grew modestly to 5.0 million in 2017.

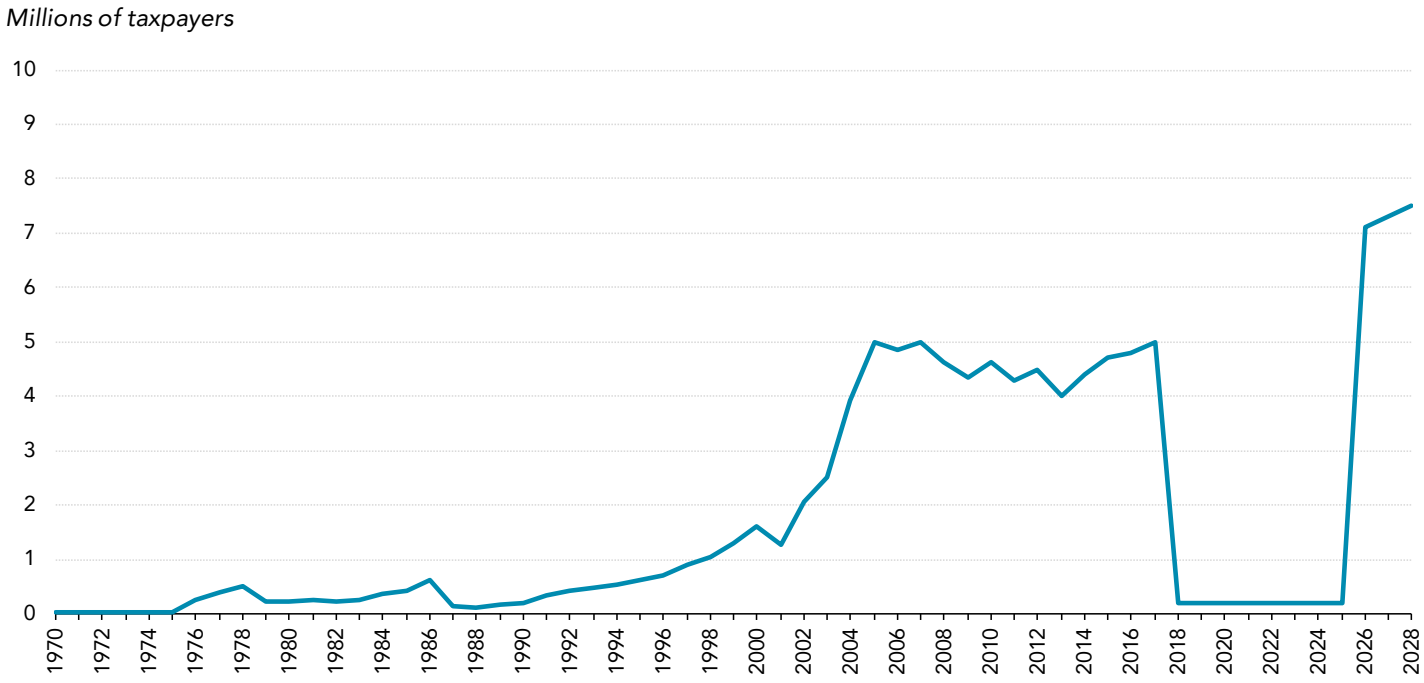
Key Elements of the U.S. Tax System

What is the AMT?

FIGURE 1

Alternative Minimum Tax

Number of taxpayers affected, 1970–2028



Source: Urban-Brookings Tax Policy Center Microsimulation Model (versions 0304-3, 0308-4, 1006-1, 0613-1, 0718-1); Harvey and Tempalski (1997); private communication from Jerry Tempalski; and SOI Division of Internal Revenue Service.
Note: Data includes those with direct AMT liability on Form 6251, those with lost credits, and (for years 2001-2028) those with a reduced deduction. Tax units that are dependents of other taxpayers are excluded from the analysis.

The 2017 Tax Cuts and Jobs Act (TCJA), included provisions that significantly reduced the im-pact of the AMT. TCJA enacted a higher AMT exemption and a large increase in the income at which the exemption begins to phase out. It also repealed or scaled back some of the largest AMT preference items—personal exemptions, the state and local tax deduction, and miscellane-ous deductions subject to the 2 percent of adjusted gross income floor—further limiting the AMT's scope. As a result, TPC projects that the number of AMT taxpayers will fall to just 200,000 in 2018 and remain roughly constant through 2025.

The AMT provisions, along with almost all other individual income tax measures in TCJA, are set to expire at the end of 2025. Thus, barring legislation from Congress, the AMT will return in force in 2026, affecting 7.1 million taxpayers. That number will rise to 7.5 million by 2028.

Key Elements of the U.S. Tax System

What is the AMT?

STRUCTURE

After calculating their regular income tax, some middle- and upper-income taxpayers must add AMT "preference items" to their taxable income, subtract an AMT exemption amount, and recal-culate their tax using the AMT tax rate structure. AMT liability is the excess, if any, of this amount over the amount of tax owed under the regular income tax rules.

Before the enactment of TCJA, some of the larger AMT preference items included the deduction for state and local taxes (62 percent of all preferences in 2012 according to data from the US Department of the Treasury), personal exemptions (21 percent), and the deduction for miscella-neous business expenses (9.5 percent). Because TCJA temporarily repealed the latter two provi-sions and capped the deduction for state and local taxes at $10,000, other preferences, such as the standard deduction and the special AMT rules for the treatment of net operating losses, de-preciation, and passive losses, will become more important through 2025.

The AMT exemption for 2018 is $109,400 for married couples filing jointly, up from $84,500 in 2017 (table 1). For singles and heads of household, the exemption rises from $54,300 in 2017 to $70,300 in 2018.

The AMT has two tax rates. In 2018, the first $191,100 of income above the exemption is taxed at a 26 percent rate, and income above that amount is taxed at 28 percent. The AMT exemption begins to phase out at $1 million for married couples filing jointly and $500,000 for singles, heads of household, and married couples filing separate returns. TCJA dramatically increased the exemption phaseout threshold, which was $160,900 for married couples ($120,700 for singles and heads of households) in 2017. Because the exemption phases out at a 25 percent rate, it cre-ates a top effective AMT tax rate of 35 percent (125 percent of 28 percent). All values are in cur-rent dollars, and the 2018 values are indexed annually for inflation using the chain-weighted con-sumer price index.

TABLE 1

Alternative Minimum Tax (AMT) Parameters

Dollars, 2017 and 2018

AMT Parameter	Single	Married Filing Jointly	Head of Household	Married Filing Separately
		2018		
Exemption	$70,300	$109,400	$70,300	$54,700
28 Percent Bracket Threshold	$191,100	$191,100	$191,000	$95,500
Exemption Phaseout Threshold	$500,000	$1,000,000	$500,000	$500,000
		2017		
Exemption	$54,300	$84,500	$54,300	$42,250
28 Percent Bracket Threshold	$187,800	$187,800	$187,800	$93,900
Exemption Phaseout Threshold	$120,700	$160,900	$120,700	$80,450

Source: Internal Revenue Code.
Note: All parameters are indexed annually for inflation.

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Q. Who pays the AMT?

A. Before the 2017 Tax Cuts and Jobs Act (TCJA), the individual alternative minimum tax (AMT) primarily affected well-off households, but not those with the very highest incomes. It was also more likely to hit taxpayers with large families, those who were married, and those who lived in high-tax states. TCJA shields almost all upper-middle and high-income taxpayers from the reach of the AMT. The AMT is now most likely to hit those at the top of the income scale who are engaged in certain sheltering activities.

Taxpayers pay the higher of their tax calculated under regular income tax rules or under the rules for the alternative minimum tax (AMT). In 2017—before enactment of the Tax Cuts and Jobs Act (TCJA)— the 39.6 percent top rate under the regular income tax was much higher than the 28 percent top statutory AMT rate. Thus, households with very high incomes who did not at-tempt to shelter much income typically paid the regular income tax. Households not at the very top of the income scale but still with high income faced somewhat lower statutory tax rates under the regular tax and were therefore more likely to pay the AMT.

Only about 3 percent of households overall were on the AMT in 2017 but the percentage was much higher among high-income groups. The AMT increased taxes for 27.2 percent of house-holds with "expanded cash income" (a broad measure of income) between $200,000 and $500,000, 61.9 percent of those with incomes between $500,000 and $1 million, and 20.6 per-cent of households with incomes greater than $1 million.

THE AMT AFTER TCJA

TCJA enacted a higher AMT exemption and a large increase in the income at which the exemp-tion begins to phase out. The act also repealed or scaled back some of the largest AMT "prefer-ence items"—items allowable under the regular tax but not the AMT—such as personal exemp-tions, job-related and other miscellaneous expenses, and the deduction for state and local taxes. As a result, TCJA shielded almost all upper-middle and high-income taxpayers from the AMT. The tax is now most likely to affect those at the top of the income scale who take advantage of certain tax shelters allowed under the regular tax but not the AMT.

In 2018, the AMT will impact just 0.1 percent of households overall. This includes 0.4 percent of households with income between $200,000 and $500,000, 2.2 percent of those with incomes be-tween $500,000 and $1 million, and 11.5 percent of households with incomes greater than $1 million (table 1).

TABLE 1

Share of Tax Units Affected by the AMT

Expanded cash income (2018$)[a]	2017	2018	2025	2026
Less than $50,000	*	*	*	*
$50,000 – $75,000	*	*	*	0.1%
$75,000 – $100,000	0.3%	*	*	0.3%
$100,000 – $200,000	1.9%	*	*	2.6%
$200,000 – $500,000	27.2%	0.4%	0.3%	29.5%
$500,000 – $1,000,000	61.9%	2.2%	1.9%	61.9%
More than $1,000,000	20.6%	11.5%	8.7%	16.8%

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Notes: Includes AMT liability on Form 6251, lost credits, and the value of reduced deductions. Tax units that are dependents of other tax units are excluded fom the analysis.
(a) Tax units with negative adjusted gross income are excluded from their respective income classes but are included in the totals.
* Less than 0.05%

The AMT provisions in TCJA, along with almost all of its other individual income tax measures, are set to expire at the end of 2025. Thus, barring congressional legislation, the AMT will return in force in 2026. It will increase taxes for almost 30 percent of taxpayers in the $200,000 to $500,000 income range and more than 60 percent of those with incomes between $500,000 and $1 million. It will again be less likely to affect those at the top of the income scale, hitting only about 17 percent of taxpayers with incomes greater than $1 million.

THE AMT AND MARRIAGE PENALTIES

Under the regular income tax, many married couples receive a "marriage bonus" because they pay less tax than they would if they were single. This is not true under the AMT, which imposes sig-nificant marriage penalties. AMT tax brackets are identical for married and single taxpayers, and the AMT exemption for married couples is only about one and a half times as large as the exemp-tion for singles.

In contrast, the standard deduction for married couples under the regular income tax is twice that for singles, and all but the highest tax brackets for married couples are twice as wide as those for singles. TCJA reduced AMT marriage penalties somewhat by increasing and adjusting the in-come at which the exemption begins to phase out so that it is twice as large for married couples as for singles. AMT marriage penalties, combined with married couples tending to have higher incomes than single individuals, make married couples more likely to pay the AMT than singles (table 2).

TABLE 2

Share of Tax Units Affected by the AMT

Filing status	2017	2018	2025	2026
Single	1.0%	*	*	1.3%
Married filing jointly	5.6%	0.2%	0.2%	7.5%
Head of household	2.1%	*	*	2.8%
Married filing separately	7.1%	0.4%	0.3%	8.1%

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
(a) Includes AMT liability on Form 6251, lost credits, and the value of reduced deductions. Tax units that are dependents of other tax units are excluded fom the analysis.
* Less than 0.05%

Data Sources

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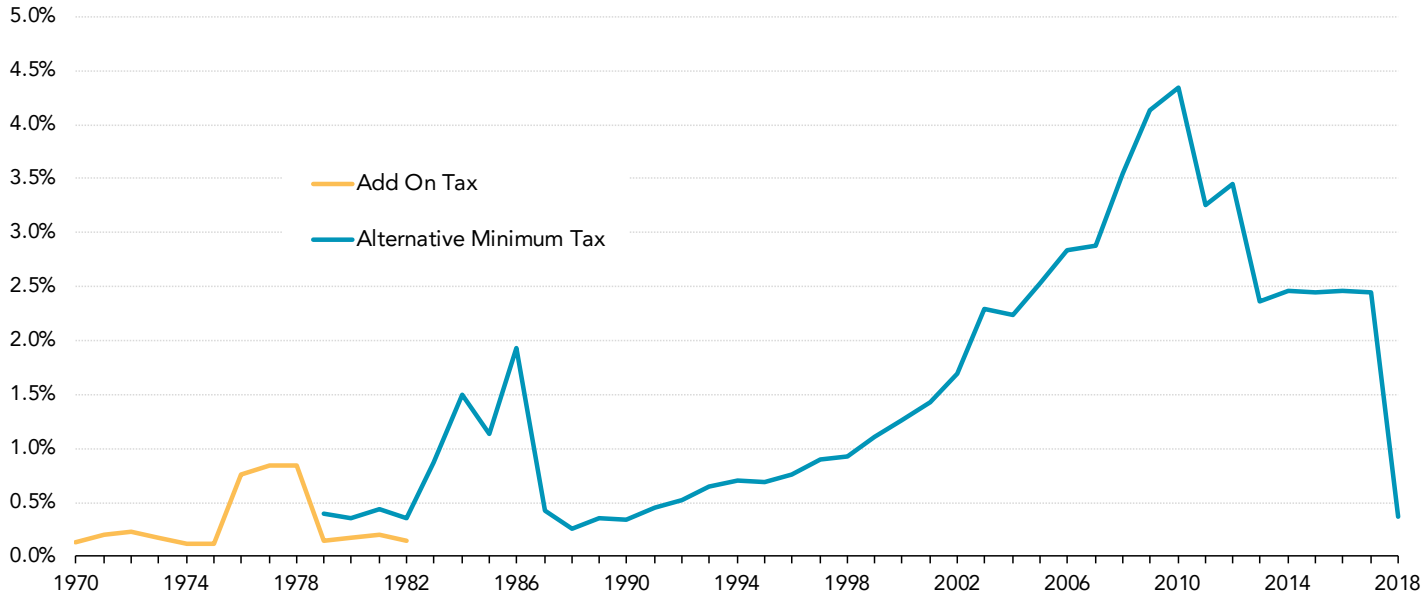
Gleckman, Howard. 2018. "The Tax Cuts and Jobs Act and the Zombie AMT." *TaxVox* (blog). October 2.

Q. How much revenue does the AMT raise?

A. About $5.2 billion in 2018, or 0.4 percent of all individual income tax revenue. That is down significantly from $36.2 billion—2.4 percent of income tax revenue—in 2017, primarily be-cause of the 2017 Tax Cuts and Jobs Act (TCJA). Since most TCJA individual income tax provisions expire at the end of 2025, AMT revenue will soar to $68.9 billion by 2028, or 2.6 percent of all individual income tax revenue.

Congress enacted the original minimum tax in 1969. It was an "add-on" tax households paid in addition to any regular income tax they owed. It applied to certain income items ("preferences") taxed lightly or not at all under the regular income tax. The largest preference item was the por-tion of capital gains excluded from the regular income tax. Revenue from the add-on tax grew from $122 million (0.14 percent of aggregate individual income tax revenue) in 1970 to $1.5 billion (0.84 percent) by 1978 (figure 1).

FIGURE 1
Individual Alternative Minimum Tax Revenue as a Share of All Individual Income Tax Revenue
1970–2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model (versions 0304-3, 1006-1, 0308-7, 0309-1, 0509-2, 0411-1, 0718-1); Harvey and Tempalski (1997); private communication from Jerry Tempalski; IRS.

Key Elements of the U.S. Tax System

How much revenue does the AMT raise?

Congress enacted the modern individual alternative minimum tax (AMT) in 1979 to operate alongside the add-on minimum tax. The main preference items, including capital gains, moved from the add-on tax to the new AMT. As a result, revenue from the add-on tax plummeted to $300 million in 1979. Congress subsequently repealed the add-on tax, effective in 1983. Revenue from the new AMT climbed rapidly from $870 million (about 0.4 percent of all individual income tax revenue) in its inaugural year of 1979 to $6.7 billion (2.0 percent) in 1986.

The Tax Reform Act of 1986 (TRA86) changed both the regular income tax and the AMT. The TRA eliminated much tax-sheltering activity and thus shifted much of the AMT base to the regu-lar income tax system. In particular, TRA86 eliminated the partial exclusion of capital gains, which had accounted for 85 percent of total AMT preferences in 1985. As a result, AMT revenue fell to $1.7 billion in 1987, back to the same 0.4 percent of aggregate individual income tax reve-nue that it had raised in 1979.

Unlike the regular income tax system, Congress did not index the AMT for inflation. Each year, the standard deduction, personal exemptions, and tax bracket thresholds in the regular income tax would rise to keep pace with inflation. In contrast, the AMT exemption and brackets stayed fixed. Thus, over time, as a taxpayer's income rose with inflation, AMT liability rose relative to regular income tax liability. Because taxpayers paid the larger of the two taxes, inflation pushed more people onto the AMT, and AMT revenue increased steadily after 1987.

In 2001, Congress passed the Economic Growth and Tax Relief Reconciliation Act, which sub-stantially reduced regular income taxes but provided only temporary relief from the AMT. Over the following decade, Congress repeatedly passed legislation—known as the AMT "patch"—to prevent an explosion in the number of AMT payers. Despite the annual patches, AMT revenue continued to grow, reaching $37.6 billion—or 3.5 percent of individual income tax revenue—in 2012.

The American Taxpayer Relief Act of 2012 (ATRA) enacted an AMT "fix" by establishing a higher AMT exemption, indexing the AMT parameters for inflation, and allowing certain tax credits under the AMT. Combined with the fact that ATRA raised regular income taxes on high-income taxpayers, the permanent AMT fix reduced AMT revenue to $27 billion, or 2.4 percent of income tax revenue, in 2013.

The 2017 Tax Cuts and Jobs Act (TCJA), included provisions that greatly reduce the revenue the AMT will generate. For 2018, TCJA enacted a higher AMT exemption and a large increase in the income level at which the exemption begins to phase out. It also repealed or scaled back some of the largest AMT preference items, further limiting the tax's scope. As a result, AMT revenue will fall from $36.2 billion in 2017 to just $5.2 billion in 2018—a drop from 2.4 percent to 0.4 percent of all individual income tax revenue.

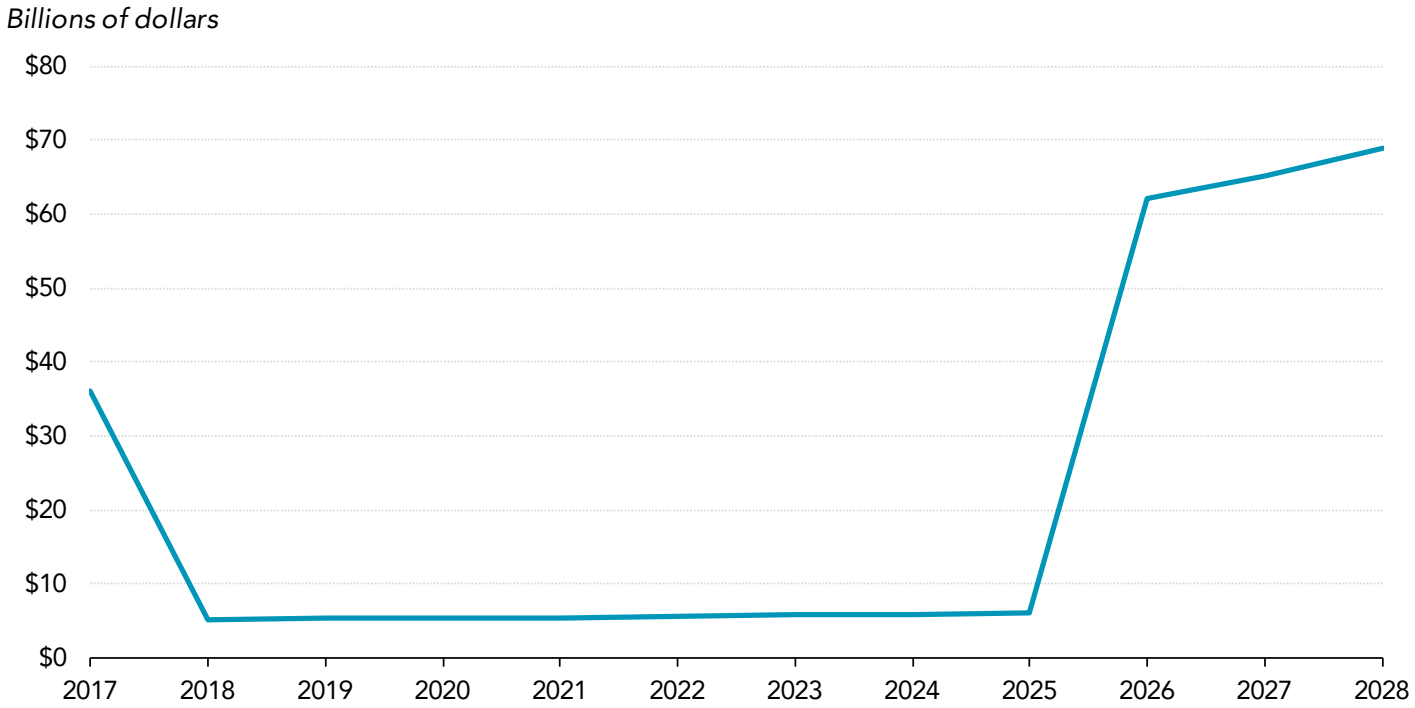
PROJECTIONS

The AMT provisions in TCJA, along with almost all its other individual income tax measures, are set to expire at the end of 2025. Thus, barring new legislation, AMT revenue will explode from $6.2 billion in 2025 to $62.1 billion in 2026. It will continue to rise to $68.9 billion—2.6 percent of all individual income tax revenue—by 2028 (figure 2).

How much revenue does the AMT raise?

FIGURE 2

Projected Individual Alternative Minimum Tax Revenue
2017–28



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

Data Sources

Urban-Brookings Tax Policy Center. "Microsimulation Model, versions 0304-3, 1006-1, 0308-7, 0309-1, 0509-2, 0411-1, and 0718-1."

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Key Elements of the U.S. Tax System

What is the child tax credit?

Q. What is the child tax credit?

A. The child tax credit provides a credit of up to $2,000 per child under age 17. If the credit exceeds taxes owed, families may receive up to $1,400 per child as a refund. Other dependents—including children ages 17–18 and full-time college students ages 19–24—can receive a nonrefundable credit of up to $500 each.

HOW THE CHILD TAX CREDIT WORKS TODAY

Taxpayers can claim a child tax credit (CTC) of up to $2,000 for each child under age 17 who is a citizen. The credit is reduced by 5 percent of adjusted gross income over $200,000 for single parents ($400,000 for married couples). If the credit exceeds taxes owed, taxpayers can receive up to $1,400 of the balance as a refund, known as the additional child tax credit (ACTC) or refundable CTC. The ACTC is limited to 15 percent of earnings above $2,500 (figure 1).

For the most part, the CTC is not indexed for inflation. The exception to this is the amount of the credit families with children under 17 can receive as a refund. This amount (currently $1,400) will increase with inflation after 2018 until it becomes equal to the full value of the credit ($2,000).

Starting in 2018, a $500 credit is available to dependents who are not eligible for the $2,000 CTC for children under 17 (figure 1). Before 2018, these individuals would not have qualified for a tax credit but would have qualified for a dependent exemption, which was eliminated by the 2017 Tax Cuts and Jobs Act (TCJA). These include children ages 17–18 or those 19–24 and in school full time in at least five months of the year. Also included are older dependents—representing about 6 percent of dependents eligible for the CTC.

After 2025, the CTC is scheduled to revert to its pre-TCJA form. At that point, taxpayers will be able to claim a credit of up to $1,000 for each child under age 17 and the credit will be reduced by 5 percent of adjusted gross income over $75,000 ($110,000 for married couples). If the credit exceeds taxes owed, taxpayers will be able to receive the balance as a refund. The refundable portion of the credit will be limited to 15 percent of earnings above $3,000.

IMPACT OF THE CTC

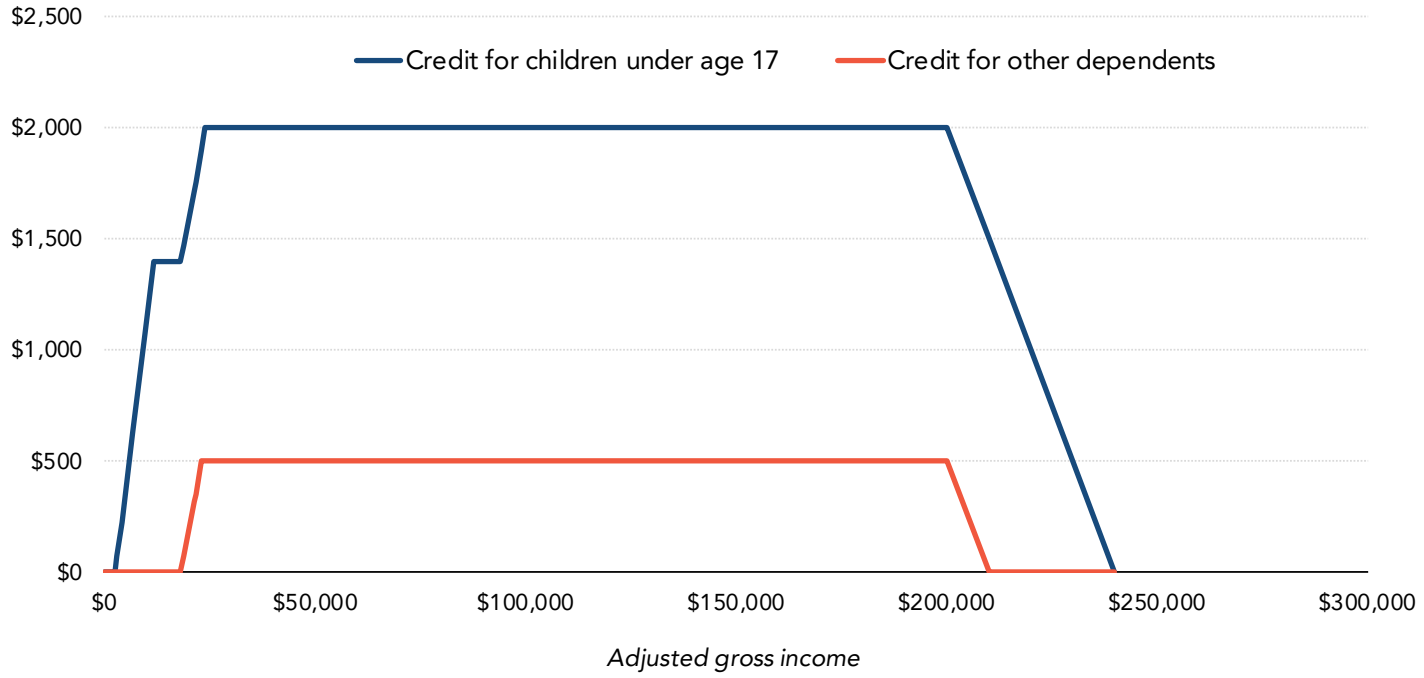
The Tax Policy Center estimates that 91 percent of families with children will receive an average CTC of $2,420 in 2018 (the average credit can exceed the maximum per child credit because families can have more than one child). Families with children in all income groups will benefit from the CTC, but families in the lowest income quintile are least likely to benefit from the credit because more of them will not have sufficient earnings to qualify for the credit. Just over three-quarters of families in the lowest income quintile

Key Elements of the U.S. Tax System

What is the child tax credit?

FIGURE 1

Child Tax Credit, Single Parent
For one child, tax year 2018



Source: Urban-Brookings Tax Policy Center calculations.
Notes: Assumes all income comes from earnings, and child meets all tests to be a CTC-qualifying dependent. Credit for married parents begins to phase out at $400,000 of income. Only citizen children qualify for the $2,000 CTC for children under 17. Noncitizens under age 17 who meet the dependency tests of eligibility can qualify for the credit for dependents over age 17.

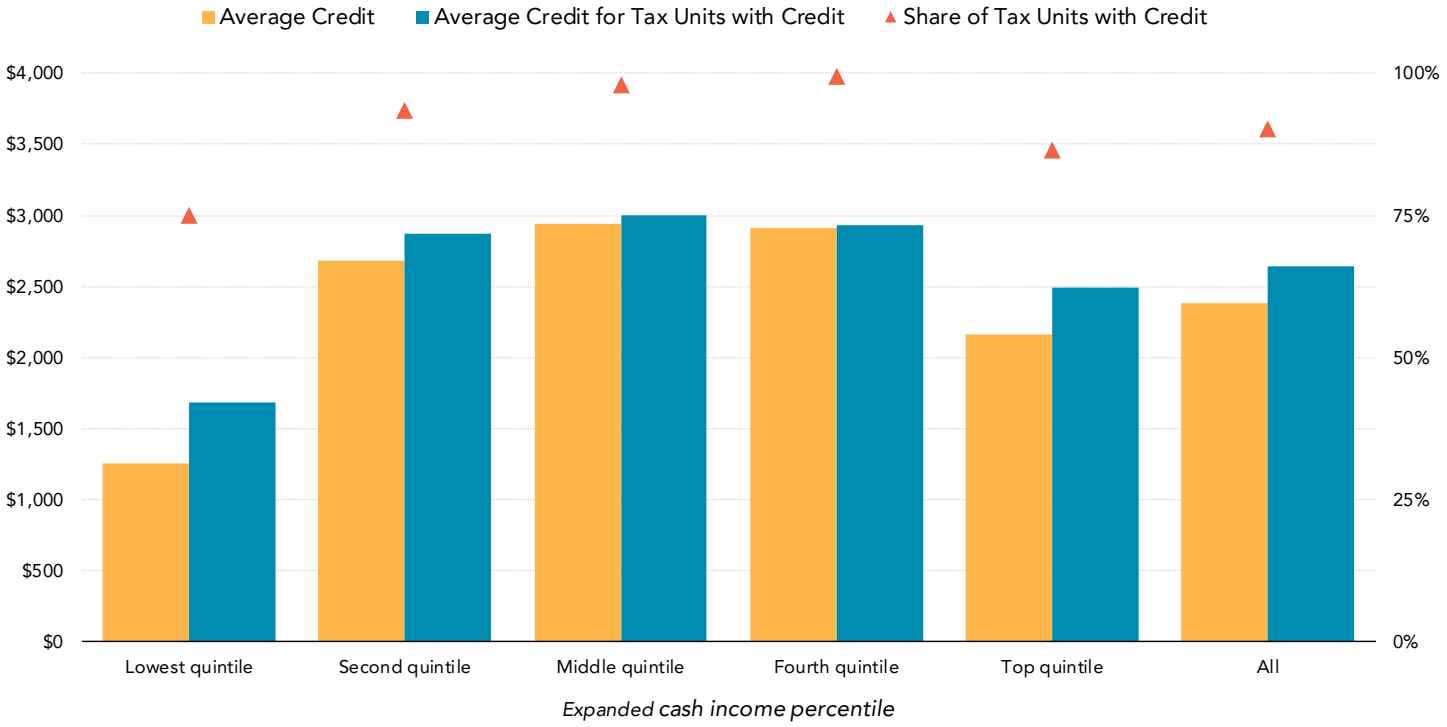
(the bottom one-fifth of the income distribution, ranked by household income) will be eligible for a CTC, receiving an average benefit of $1,340. The average credit is the smallest for this group because low-income families are most likely to be limited to the refundable portion of the credit, which is capped at $1,400 rather than the full $2,000 limit for the nonrefundable credit (figure 2).

The percentage of families with children receiving the credit and the average credit received are higher among moderate- and middle-income families. Almost 94 percent of families with children in the second income quintile will receive a CTC as will almost all families in the third and fourth income quintiles (98 and 99 percent, respectively). The proportion of families with children receiving a credit drops to 87 percent in the highest income group because of the income limits (figure 2).

The CTC has a significant impact on the economic well-being of low-income families with children. If the official estimate of poverty counted the CTC as income (including the refundable portion), 2.7 million fewer people would have fallen below the federal poverty line in 2016, including about 1.5 million children. Counting the credit would have also reduced the severity of poverty for an additional 12.3 million people, including 6.1 million children (Center on Budget and Policy Priorities 2018).

FIGURE 2

Distribution and Share of Child Tax Credit for Tax Units with Children
2018



Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."
Note: Includes the $500 nonrefundable portion of the child tax credit, also referred to as the credit for other dependents.

RECENT HISTORY OF THE CTC

In 2018, the Tax Cuts and Jobs Act doubled the CTC for children under 17 from $1,000 per child to $2,000 per child, up to $1,400 of which families can receive as a refundable credit. Only children who are US citizens may receive this credit. The legislation also allows dependents who do not qualify for the $2,000 credit to qualify for a nonrefundable credit worth up to $500. The legislation is temporary and expires after 2025. At that point, the credit for children under 17 will revert to $1,000 per child, and other dependents will no longer be eligible for a CTC.

Before these changes, the American Taxpayer Relief Act of 2012 had increased the CTC from $500 per child, its pre-2001 level, to $1,000 per child. It also temporarily extended the provisions of the American Recovery and Reinvestment Act of 2009 (the anti-recession stimulus package) that reduced the earnings threshold for the refundable CTC from $10,000 (adjusted for inflation starting after 2002) to $3,000 (not adjusted for inflation). The Bipartisan Budget Act of 2015 made the $3,000 refundability threshold permanent. The TCJA further reduced the refundability threshold to $2,500 starting in 2018, but that lower threshold will expire after 2025 when the $3,000 refundability threshold will return.

Key Elements of the U.S. Tax System

What is the child tax credit?

The refundable CTC was originally designed in 2001 to coordinate with the earned income tax credit (EITC). Once earnings reached $10,020 for families with two children in 2001, there was no further increase in the EITC. The earnings threshold for the refundable CTC was set at $10,000 so families could now receive a subsidy for earnings in excess of that amount. Like the earned income amount for the EITC, the $10,000 earnings threshold was indexed for inflation. When the earnings threshold for the refundable CTC was reduced—first to $8,500 in 2008 and then to $3,000 in 2009—that link between the phase-in of the refundable CTC and the EITC was broken.

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Q. What is the adoption tax credit?

A. The tax code provides an adoption credit of up to $13,810 of qualified expenses (in 2018) for each child adopted, whether via public foster care, domestic private adoption, or international adoption. The total amount of adoption credits for 2018 is estimated to reach approximately $400 million.

CREDIT AMOUNT

Taxpayers can receive a tax credit for all qualifying adoption expenses up to $13,810 in 2018. The maximum credit is indexed for inflation. Taxpayers may also exclude from income qualified adoption expenses paid or reimbursed by an employer, up to the same limit as the credit. Taxpayers can use the tax credit and the income exclusion but cannot claim the same expenses for both.

"Special needs" adoptions automatically qualify for the maximum credit regardless of actual out-of-pocket expenses. For purposes of the credit, a child has special needs if a state's welfare agency determines that the child cannot or should not be returned to his or her parents' home and that the child probably will not be adoptable without assistance provided to the adoptive family. This provision is designed to encourage parents to adopt children who would otherwise be hard to place, even if most of the adoption expenses are covered by someone else (such as a public foster care program).

ELIGIBILITY

The adoption credit is available to most adoptive parents, with some exceptions. The credit is not available to taxpayers whose income exceeds certain thresholds. The thresholds are indexed for inflation. In 2018 the credit begins to phase out at $207,140 of modified adjusted gross income and phases out entirely at income of $247,140. The credit also is not available for adoptions of stepchildren.

REFUNDABILITY

The adoption tax credit is nonrefundable but can be carried forward for up to five years. The credit is thus of little or no value to low-income families who pay little or no income tax over a period of years. The Patient Protection and Affordable Care Act of 2010 made the adoption tax credit refundable for 2010 and 2011. Concerned about the potential for fraud, the Internal Revenue Service (IRS) stepped up compliance efforts. The result, according to the National Taxpayer Advocate Service, was substantial delays for taxpayers, with 69 percent of all adoption credit claims filed in 2012 selected for audit. The IRS ultimately disallowed only 1.5 percent of claims, and 20 percent of the savings from the disallowed credits was spent on interest owed to taxpayers with delayed refunds. The credit reverted to nonrefundability in 2012.

Key Elements of the U.S. Tax System

What is the adoption tax credit?

COST OF THE CREDIT

The credit has been repeatedly expanded, from an initial maximum value of $5,000 in 1997 to $13,810 in 2018. In 2016, taxpayers claimed total adoption credit of $290 million (figure 1). The temporary availability of a refundable credit pushed the cost of the credit up to the dramatically higher figures of $1.2 billion in 2010 and $610 million in 2011 (including the refundable portion).

WHO GETS IT

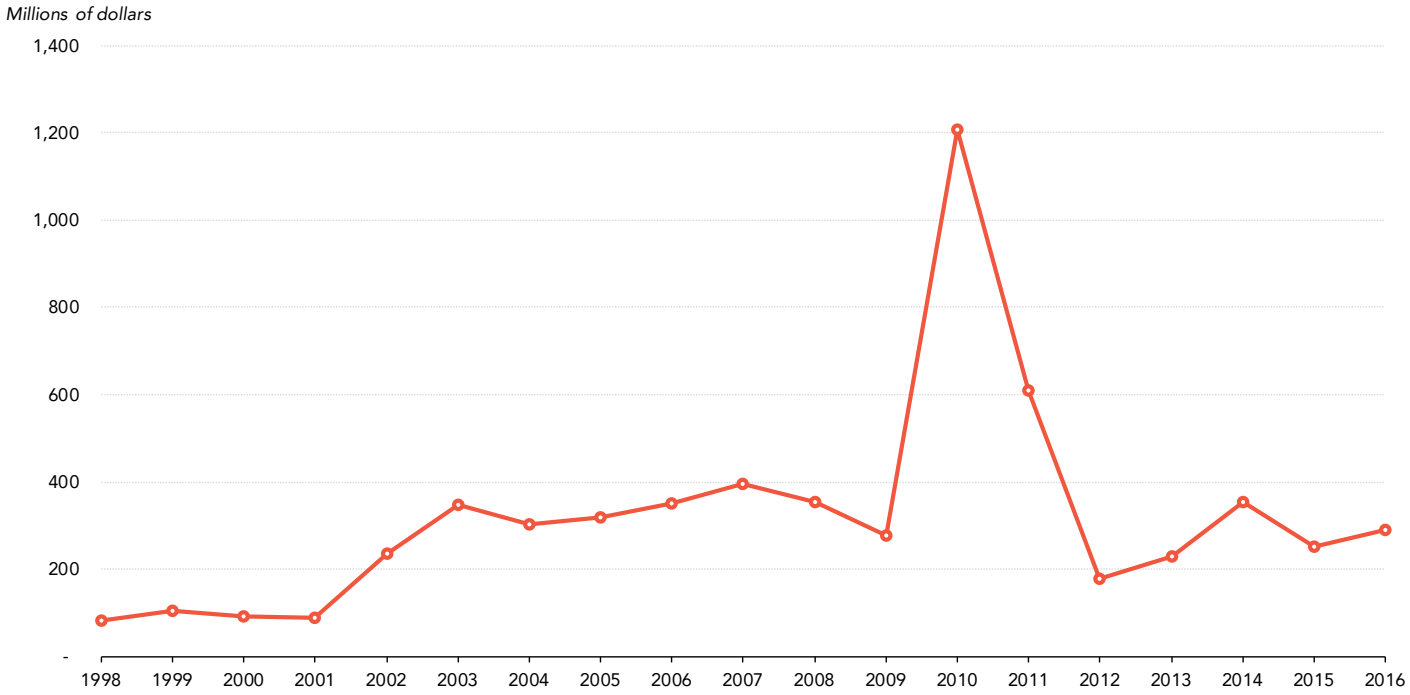
The distribution of the credit across income groups ranges from small amounts for low- and moderate-income households (because of their minimal tax liability and the credit's nonrefundability) and the highest-income households (because of the income cap) to substantial amounts to those with upper-middle incomes. For example, in tax year 2016, the credit for those with incomes between $50,000 and $75,000 (almost one-third of claimants) averaged $2,388 per adoption, while the average credit for households with incomes between $100,000 and $200,000 (about 30 percent of claimants) was $7,233 per adoption (table 1).

The most recent year with data available by adoption type (2004) indicates that nearly half of adoptions for which the credit was claimed were for domestic children without special needs, with only 18 percent classified as special needs, and the remainder reflecting international adoptions.

FIGURE 1

Cost of the Adoption Credit

Tax years 1998–2016



Source: Internal Revenue Service (IRS), Statistics of Income (SOI) Tax Stats, Individual Income Tax Returns, Publication 1304, "Table A. All Returns: Selected Income and Tax Items in Current and Constant 1990 Dollars, Tax Years 1990-2016." August 2018.

TABLE 1

Distribution of Adoption Credit

By adjusted gross income, tax year 2016

Size of Adjusted Gross Income (dollars)	Total Number of Returns with Eligible Expenses	Total Amount of Benefits	Average Amount of Credit
Less than $40,000	7,113	$5,392,000	$758
$40,000 – under $50,000	6,337	$10,795,000	$1,703
$50,000 – under $75,000	21,421	$51,154,000	$2,388
$75,000 – under $100,000	10,639	$48,944,000	$4,600
$100,000 – under $200,000	20,074	$169,067,000	$8,422
$200,000 and over	666	$4,817,000	$7,233
All returns	66,250	$290,168,000	$4,380

Source: Internal Revenue Service (IRS), Statistics of Income (SOI) Tax Stats, Individual Income Tax Returns, Publication 1304, "Table 3.3 All Returns: Tax Liability, Tax Credits, and Tax Payments, by Size of Adjusted Gross Income, Tax Year 2016 (Filing Year 2017)." August 2018.

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Q. What is the earned income tax credit?

A. The earned income tax credit subsidizes low-income working families. The credit equals a fixed percentage of earnings from the first dollar of earnings until the credit reaches its maximum. The maximum credit is paid until earnings reach a specified level, after which it declines with each additional dollar of income until no credit is available.

HOW THE EARNED INCOME TAX CREDIT WORKS

The earned income tax credit (EITC) provides substantial support to low- and moderate-income working parents, but very little support to workers without qualifying children (often called childless workers). Workers receive a credit equal to a percentage of their earnings up to a maximum credit. Both the credit rate and the maximum credit vary by family size, with larger credits available to families with more children. After the credit reaches its maximum, it remains flat until earnings reach the phaseout point. Thereafter, it declines with each additional dollar of income until no credit is available (figure 1).

By design, the EITC only benefits working families. Families with children receive a much larger credit than workers without qualifying children. (A qualifying child must meet requirements based on relationship, age, residency, and tax filing status.) In 2018, the maximum credit for families with one child is $3,461, while the maximum credit for families with three or more children is $6,431.

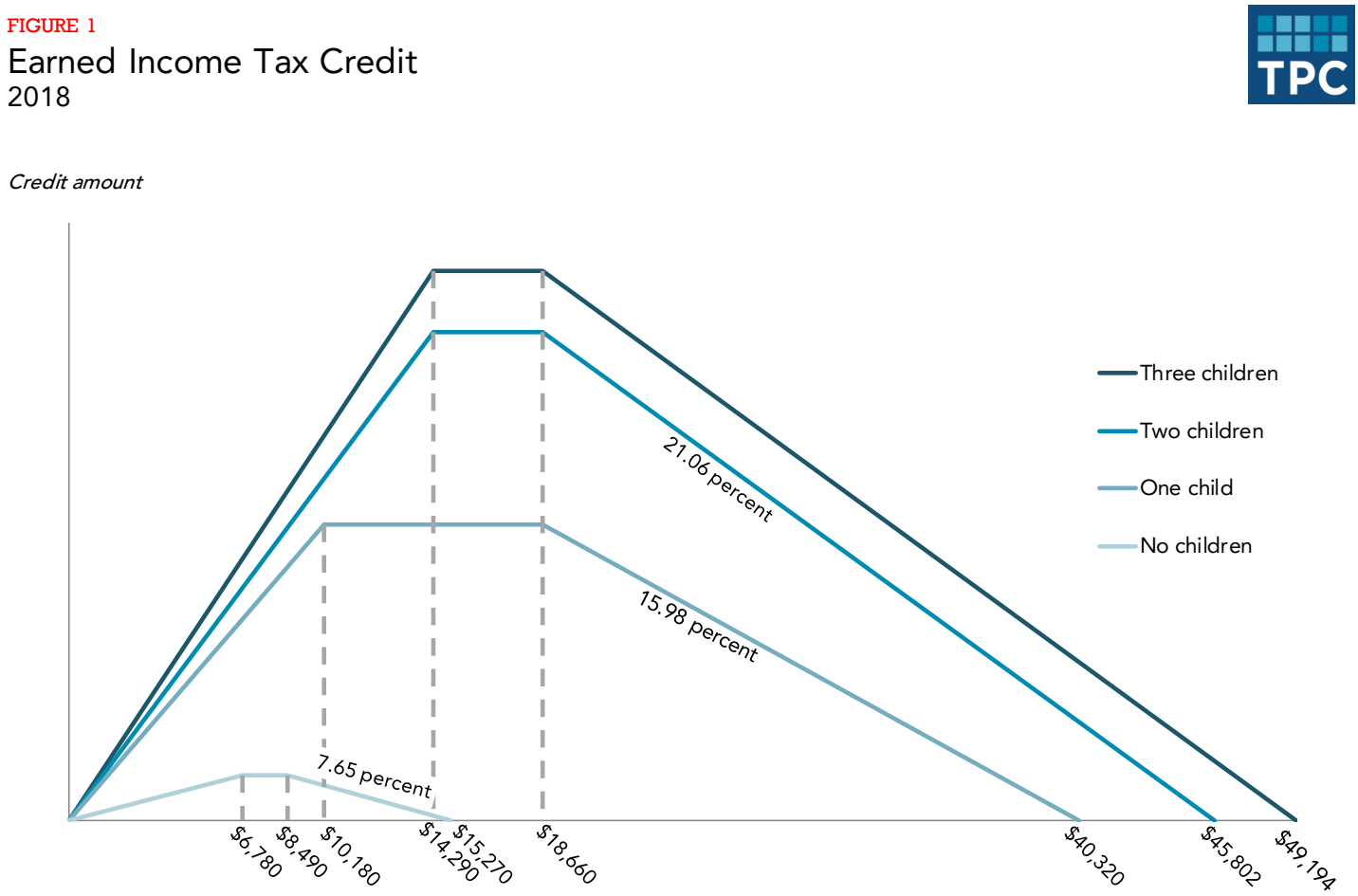
In contrast to the substantial credit for workers with children, childless workers can receive a maximum credit of only $519. Moreover, the credit for childless workers phases out at much lower incomes. Also, childless workers must be at least 25 and not older than 64 to qualify for a subsidy—restrictions that do not apply to workers with children. As a result of these tighter rules, 97 percent of benefits from the credit go to families with children.

IMPACT OF THE EITC

Research shows that the EITC encourages single people and primary earners in married couples to work (Dickert, Houser, and Sholz 1995; Eissa and Liebman 1996; Meyer and Rosenbaum 2000, 2001). The credit, however, appears to have little effect on the number of hours they work once employed. Although the EITC phaseout could cause people to reduce their hours (because credits are lost for each additional dollar of eanings, which is effectively a surtax on earnings in the phaseout range), there is little empirical evidence of this happening (Meyer 2002).

FIGURE 1

Earned Income Tax Credit
2018



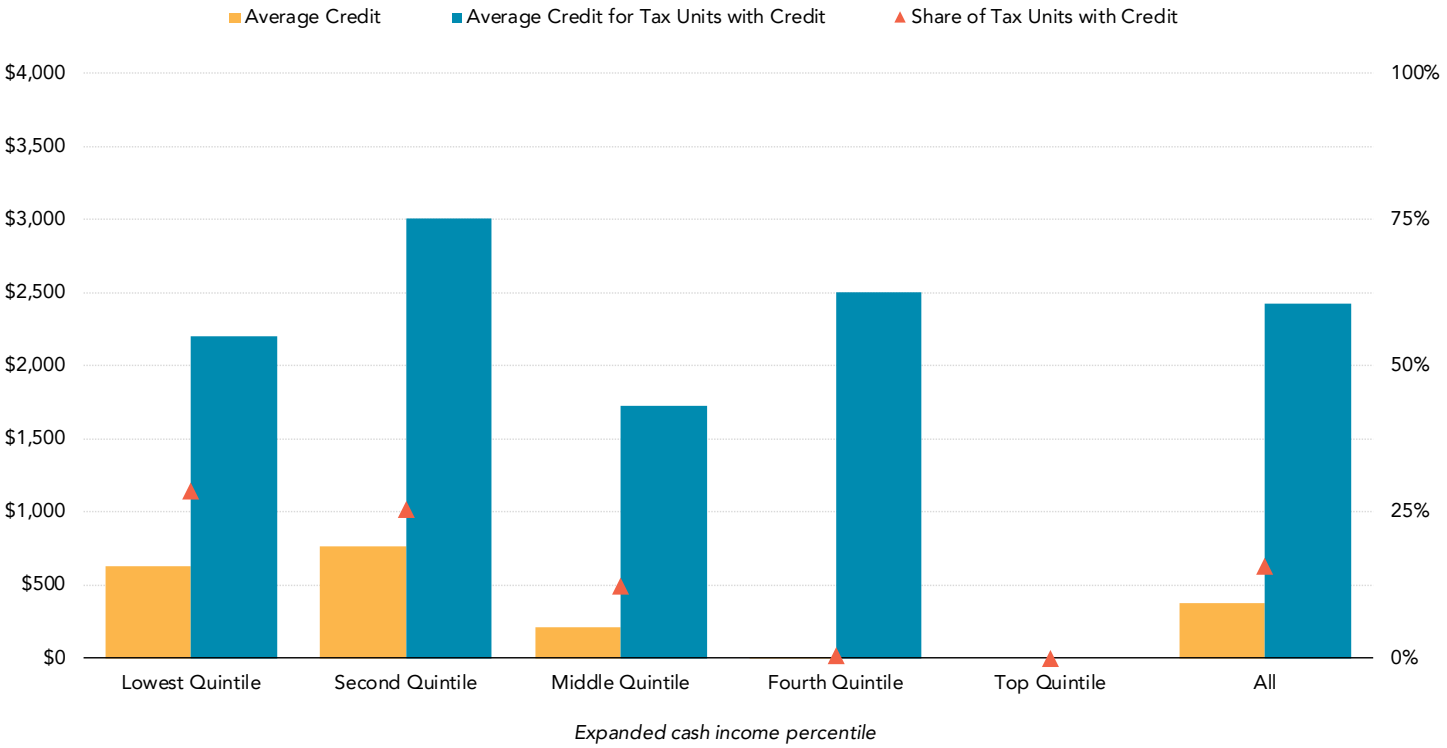
Source: Urban-Brookings Tax Policy Center (2018). Internal Revenue Procedure 2018-18, Internal Revenue Service.
Notes: Assumes all income comes from earnings. Amounts are for taxpayers filing a single or head-of-household tax return. For married couples filing a joint tax return, the credit begins to phase out at income $5,690 higher than shown.

The one group of people that may reduce hours of work in response to the EITC incentives is lower-earning spouses in a married couple (Eissa and Hoynes 2006). On balance, though, the increase in work resulting from the EITC dwarfs the decline in participation among second earners in married couples.

If the EITC were treated like earnings, it would have been the single most effective antipoverty program for working-age people, lifting about 5.8 million people out of poverty, including 3 million children (CBPP 2018). The EITC is concentrated among the lowest earners, with almost all of the credit going to households in the bottom three quintiles of the income distribution (figure 2). (Each quinitle contains 20 percent of the population, ranked by household income.) Very few households in the fourth quinitle receive an EITC (fewer than 0.5 percent).

FIGURE 2

Distribution of Earned Income Tax Credit



Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

RECENT CHANGES

As a result of legislation enacted in 2001, the EITC phases out at higher income levels for married couples than for single individuals. That threshold was increased as part of the American Recovery and Reinvestment Act of 2009 (ARRA). The same act increased the maximum EITC for workers with at least three children. The American Taxpayer Relief Act of 2012 made the 2001 EITC changes permanent (a $3,000 higher threshold for married couple phaseout, indexed) but extended the ARRA changes (a $5,000 higher threshold for married couple phaseout, indexed, and higher credit maximum for workers with at least three children) through the end of 2017. The Protecting Americans from Tax Hikes Act of 2015 made these changes permanent. The Tax Cuts and Jobs Act, enacted in 2017, adopted a more conservative measure of inflation to be used in the federal income tax system beginning in 2018. As a result, the EITC will grow more slowly over time.

PROPOSALS FOR REFORM

Both Democrats and Republicans have proposed EITC amendments to provide a substantial credit for childless workers. These proposals typically involve expanding the eligible age limits for the childless EITC—lowering the age of eligibility from 25 to 21 and increasing the age of eligibility from 64 to 67—increasing the maximum credit, and expanding the income range over which the credit is available. A more far-reaching approach to reform that would still expand benefits to childless workers would be to separate the credit into

two pieces—one focused on work and one focused on children. Examples of this type of reform have been proposed by many, including the President's Advisory Panel on Federal Tax Reform (2005), the Bipartisan Policy Center (2013), and Maag (2015b).

ERROR RATES AND THE EITC

The EITC likely delivers more than a quarter (28.5 percent) of all payments in error, according to a recent Internal Revenue Service (IRS) compliance study. The largest source of error was determining whether a child claimed for the EITC actually qualified (IRS 2014). The child must live with the parent (or other relative) claiming the EITC for more than half of the year in order to qualify. The IRS receives no administrative data that can verify where a child resided for the majority of the year, making it difficult for the agency to monitor compliance. Attempts to use administrative data from other programs to verify child residence have not proven successful (Pergamit et al. 2014).

To reduce fraud, the Protecting Americans from Tax Hikes Act of 2015 requires the IRS to delay tax refunds for taxpayers who claim an EITC or additional child tax credit on their returns until at least February 15. Delaying refunds was paired with a requirement that third-party income documents related to wages and income be provided to the IRS by January 31 (in prior years, this information was due the last day of February for paper filing and March 31 for electronic filing, and employers were automatically granted a 30-day extension, if requested). As a result, information needed to verify wages often got to the IRS well after the first returns had been processed. Together, these measures allowed earlier systemic verification of EITC claims, which protected more revenue than in prior years (Treasury Inspector General for Tax Administration 2018).

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Q. How does the tax system subsidize child care expenses?

A. Working parents are eligible for two tax benefits to offset child care costs: the child and dependent care tax credit and the exclusion for employer-provided child care.

THE CHILD AND DEPENDENT CARE TAX CREDIT

The child and dependent care tax credit (CDCTC) provides a credit worth between 20 and 35 percent of child care costs for a child under age 13 or any dependent physically or mentally incapable of self-care. Eligible child care expenses are limited to $3,000 per dependent (up to $6,000 for two or more dependents). Higher credit rates apply to families with lower adjusted gross income. Families with incomes below $15,000 qualify for the full 35 percent credit. That rate falls by 1 percentage point for each additional $2,000 of income (or part thereof) until it reaches 20 percent for families with incomes of $43,000 or more. The credit is nonrefundable so it can only be used to offset income taxes owed—in other words, any excess credit beyond taxes owed is forfeited. As a result, low-income families who owe little or no income tax get little benefit from the credit (table 1).

To qualify for the CDCTC, a single parent must be working or in school. For married couples, both adults must be working or attending school. In general, allowable expenses are capped at the earnings of the lower-earning spouse. Special rules allow individuals who were students or disabled to have their earned income assumed to be $250 per month ($500 if there is more than one qualifying child).

The Urban-Brookings Tax Policy Center estimates that, in 2018, 11.8 percent of families with children benefited from the CDCTC. Some families with children will not benefit because they do not have child care expenses or, in the case of married couples, only one partner works or goes to school. Among families with children who benefit from the CDCTC, taxes will be reduced by an average of $593. The only income quintile in which families average substantially different benefits is the lowest. (Each quintile contains 20 percent of the population ranked by household income.) Not only are their child care expenses likely to be lower than those of families in higher-income quintiles, they are typically unable to benefit from the credit because the CDCTC is nonrefundable (figure 1).

TABLE 1

Child and Dependent Care Credit

2018

Adjusted gross income (dollars)	Credit rate (percent)	Maximum Credit (dollars)	
		One child	Two or more children
15,000 or less	35	1,050	2,100
15,001–17,000	34	1,020	2,040
17,001–19,000	33	990	1,980
19,001–21,000	32	960	1,920
21,001–23,000	31	930	1,860
23,001–25,000	30	900	1,800
25,001–27,000	29	870	1,740
27,001–29,000	28	840	1,680
29,001–31,000	27	810	1,620
31,001–33,000	26	780	1,560
33,001–35,000	25	750	1,500
35,001–37,000	24	720	1,440
37,001–39,000	23	690	1,380
39,001–41,000	22	660	1,320
41,001–43,000	21	630	1,260
43,000 and over	20	600	1,200

Sources: Internal Revenue Service. "Publication 503—Main Content." Accessed November 23, 2015; Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

EMPLOYER EXCLUSION: FLEXIBLE SPENDING ACCOUNTS

Employer-provided child and dependent care benefits include amounts paid directly for care, the value of care in a day care facility provided or sponsored by an employer, and, more commonly, contributions made to a dependent care flexible spending account (FSA).

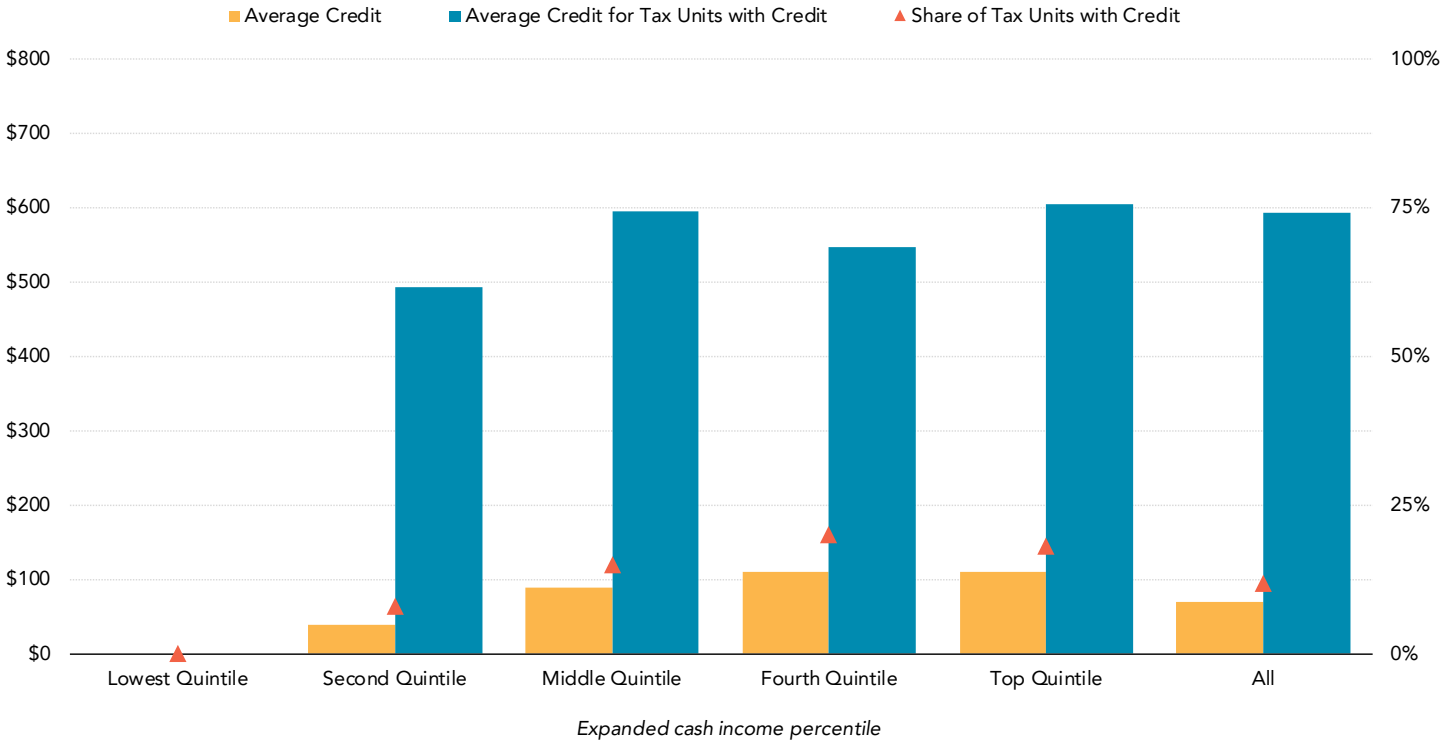
Employees can set aside up to $5,000 per year of their salary (regardless of the number of children) in an FSA to pay child care expenses. (FSAs are also available for health care expenses.) The money set aside in an FSA is not subject to income or payroll taxes. Unlike the CDCTC, though, which requires both partners in a married couple to work to claim benefits, only one parent must work to claim a benefit from an FSA. In 2014, 39 percent of civilian workers had access to a dependent care FSA (Bureau of Labor Statistics 2014). Lower earners are less likely to have access to an FSA than higher earners (Stoltzfus 2015).

Key Elements of the U.S. Tax System

How does the tax system subsidize child care expenses?

FIGURE 1

Distribution of the Child and Dependent Care Tax Credit for Tax Units with Children
2018



Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

INTERACTION OF CDCTC AND FSAS

If a family has child care expenses that exceed the amount set aside in a flexible spending account, the family may qualify for a CDCTC. Families first calculate their allowable CDCTC expenses ($3,000 per child under age 13, up to $6,000 per family). If this calculation exceeds the amount of salary set aside in an FSA, a parent may claim a CDCTC based on the difference. For example, a family with two or more children can qualify for up to $6,000 of expenses to apply toward a CDCTC. If that family excluded $5,000 from salaries to pay for child care expenses in an FSA, it may claim the difference between the two ($1,000) as child care expenses for a CDCTC.

Higher-income families generally benefit more from the exclusion than from the credit because the excluded income is free from both income and payroll taxes. Most higher-income families with child care expenses qualify for a credit of 20 percent of their eligible expenses. Because the combined tax saving from each dollar of child care expenses excluded from income exceeds $0.20, the exclusion is worth more than the credit. The exclusion, however, is only available to taxpayers whose employers offer FSAs.
Neither the CDCTC nor the FSA are indexed for inflation. Thus, each year, the real (inflation-adjusted) value of benefits from the two provisions erodes.

Key Elements of the U.S. Tax System

How does the tax system subsidize child care expenses?

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Q. What are marriage penalties and bonuses?

A. A couple incurs a marriage penalty if the two pay more income tax filing as a married couple than they would pay if they were single and filed as individuals. Conversely, a couple receives a marriage bonus if they pay less tax filing as a couple than they would if they were single.

CAUSES OF MARRIAGE BONUSES AND PENALTIES

Marriage penalties and bonuses occur because income taxes apply to a couple, not to individual spouses. Under a progressive income tax, a couple's income can be taxed more or less than that of single individuals. A couple is not obliged to file a joint tax return, but their alternative—filing separate returns as a married couple—almost always results in higher tax liability. Married couples with children are more likely to incur marriage penalties than couples without children because one or both spouses could use the head of household filing status if they were able to file as singles. And tax provisions that phase in or out with income also produce marriage penalties or bonuses.

Marriage penalties are more common when spouses have similar incomes. Marriage bonuses are more common when spouses have disparate incomes. Overall, couples receiving bonuses greatly outnumber those incurring penalties.

MARRIAGE PENALTIES

Couples in which spouses have similar incomes are more likely to incur marriage penalties than couples in which one spouse earns most of the income, because combining incomes in joint filing can push both spouses into higher tax brackets.

A couple with two incomes and no children, for example, could pay more taxes as a married couple if tax brackets for joint filers were less than twice as wide as for single filers. Today, that happens only for couples with income above $600,000, but it was more common before the 2017 Tax Cuts and Jobs Act.
A couple with children can still face a marriage penalty because single parents can use the head of household filing status. Consider parents of two children, each parent earning $100,000 (table 1). Filing jointly and taking a $24,000 standard deduction, their taxable income is $176,000, for which their 2018 income tax liability is $26,819. If they could file separately, one as single and the other as the head of a household, the single filer would owe a tax of $15,410 and the head-of-household filer would owe $8,588, yielding a total tax of $23,998. Their joint tax bill is thus $2,821 higher than the sum of their hypothetical individual tax bills, imposing on them a marriage penalty equal to 1.4 percent of their adjusted gross income.

Key Elements of the U.S. Tax System

What are marriage penalties and bonuses?

TABLE 1

Calculation of the Marriage Penalty for a Hypothetical Couple with Two Children

2018

Item	Couple filing separately[a]		Couple filing jointly
	Spouse one	Spouse two	
Adjusted gross income	$100,000	$100,000	$200,000
Standard deduction	$12,000	$18,000	$24,000
Equals taxable income	$88,000	$82,000	$176,000
Of which:			
Taxable at 10 percent	$9,525	$13,600	$19,050
Taxable at 12 percent	$29,175	$38,200	$58,350
Taxable at 22 percent	$43,800	$30,200	$87,600
Taxable at 24 percent	$5,500	$0	$11,000
Regular tax liability	$15,410	$12,588	$30,819
Alternative minimum tax	$0	$0	$0
Child tax credit	$0	$4,000	$4,000
Tax liability after credits	$15,410	$8,588	$26,819
Final tax liability	**$23,998**		**$26,819**
Marriage penalty (difference in tax liabilities)		**$2,821**	
As share of adjusted gross income		**1.4%**	

Source: Urban-Brookings Tax Policy Center calculations.
Note: Detail may not sum to totals because of rounding.
(a) When the couple files separately, spouse one files as single and spouse two as head of household with two children.

MARRIAGE BONUSES

Couples in which one spouse earns all or most of a couple's income rarely incur a marriage penalty and almost always receive a marriage bonus because joint filing shifts the higher earner's income into a lower tax bracket.

Consider a couple with two children and $200,000 in total earnings, all earned by spouse two (table 2). Under 2018 tax law, filing a joint return rather than having spouse two file as head of household, will yield the couple a marriage bonus of more than $7,000 as a result of two factors. First, because tax brackets for joint returns (other than the 35 percent bracket) are wider than those for head-of-household returns, much of the couple's income is taxed at lower rates under joint filing than the 32 percent marginal rate that spouse two would pay filing separately. Second, the couple would benefit from an increased standard deduction. Couples filing jointly receive a $24,000 deduction in 2018, while heads of household receive $18,000. The combination of these two factors yields a marriage bonus of $7,719, or 3.9 percent of their adjusted gross income.

TABLE 2

Calculation of the Marriage Bonus for a Hypothetical Couple with Two Children

2018

Item	Couple filing separately[a]		Couple filing jointly
	Spouse one	Spouse two	
Adjusted gross income	$0	$200,000	$200,000
Standard deduction	$0	$18,000	$24,000
Equals taxable income	$0	$182,000	$176,000
Of which:			
Taxable at 10 percent	$0	$13,600	$19,050
Taxable at 12 percent	$0	$38,200	$58,350
Taxable at 22 percent	$0	$30,700	$87,600
Taxable at 24 percent	$0	$75,000	$11,000
Taxable at 32 percent	$0	$24,500	$0
Regular tax liability	$0	$38,538	$30,819
Alternative minimum tax	$0	$4,000	$4,000
Child tax credit	$0	$0	$0
Tax liability after credits	$0	$34,538	$26,819
Final tax liability	**$34,538**		**$26,819**
Marriage bonus (difference in tax liabilities)		**$7,719**	
As share of adjusted gross income		**3.9%**	

Source: Urban-Brookings Tax Policy Center calculations.
Note: Detail may not sum to totals because of rounding.
(a) When the couple files separately, spouse one files as single and spouse two as head of household with two children.

EFFECTS OF THE TCJA ON MARRIAGE PENALTIES AND BONUSES

The 2017 Tax Cuts and Jobs Act (TCJA) limited many of the marriage penalties higher-income earners face, though penalties certainly still exist. Except for the 35 percent bracket, all tax brackets for married couples filing a joint return are now exactly double the single brackets. This limits a main cause of previous marriage penalties. It also expands the potential for marriage bonuses, as more couples find that filing together moves some income into lower tax brackets.

Additionally, the child tax credit phaseout now begins at $400,000 for couples, again double the $200,000 starting point of the phaseout for singles. Prior law began phasing out the credit at $75,000 for singles and $110,000 for couples, which could have introduced another marriage penalty for couples with children. The phaseout of the alternative minimum tax exemption is another source of marriage penalties for high-income taxpayers, because the income at which the exemption phaseout starts for couples is less than twice the starting point for singles. While this is still true under current law, TCJA increased both the alternative minimum tax exemption and the income at which it phases out, so the alternative tax will affect many fewer high-income taxpayers, singles and couples alike.

Key Elements of the U.S. Tax System

What are marriage penalties and bonuses?

MARRIAGE PENALTIES AND THE EARNED INCOME TAX CREDIT

Taxpayers who might qualify for the earned income tax credit (EITC) can suffer particularly large marriage penalties if one spouse's income disqualifies the couple. However, marriage can increase the EITC (a bonus) if a nonworking parent files jointly with a low-earning worker.

Consider a couple with two children and $40,000 in total earnings, split evenly between spouses (table 3). Two factors will cause them to incur a marriage penalty of $2,439 under 2018 tax law.

First, if the couple were not married, one spouse could file as head of household with two children and the other would file as single. Filing in that way, their combined standard deductions would be $30,000, $6,000 more than the $24,000 standard deduction available on a joint return.

Second—and more significant—filing separate returns, the head of household could claim an EITC of $5,434 and a $2,825 child tax credit; the other spouse would get neither tax credit. On net, the head of household would receive a payment of $8,059 and the other spouse would pay $800, yielding a joint tax refund of $7,259. Filing jointly, the couple would get a smaller EITC of $2,420, somewhat offset by a larger child tax credit of $4,000. Thus, filing jointly, the couple will receive a payment of $4,820, $2,439 less than the $7,259 they would have if they could have filed separately; the $2,439 difference equals 6.1 percent of their adjusted gross income.

TABLE 3

Calculation of the Marriage Penalty for a Hypothetical Low-Income Couple with Two Children

2018

Item	Couple filing separately[a]		Couple filing jointly
	Spouse one	Spouse two	
Adjusted gross income	$20,000	$20,000	$40,000
Less standard deduction	$12,000	$18,000	$24,000
Equals taxable income	$8,000	$2,000	$16,000
Of which:			
Taxable at 10 percent	$8,000	$2,000	$16,000
Regular tax liability	$800	$200	$1,600
Alternative minimum tax	$0	$0	$0
Child tax credit	$0	$2,825	$4,000
Earned income tax credit	$0	$5,434	$2,420
Tax liability after credits	$800	-$8,059	-$4,820
Couple's final tax liability	**-$7,259**		**-$4,820**
Marriage penalty (difference in tax liabilities)		**$2,439**	
As share of adjusted gross income		**6.1%**	

Source: Urban-Brookings Tax Policy Center calculations.
Note: Detail may not sum to totals because of rounding.
(a) When the couple files separately, spouse one files as single and spouse two as head of household with two children.

Key Elements of the U.S. Tax System

What are marriage penalties and bonuses?

Marriage penalties are not confined to the tax system. Married couples often receive lower benefits from government programs than they would if they had not married. Moreover, the interaction of a tax penalty and a program-eligibility penalty can create effective marginal tax rates that approach 100 percent.

Data Source

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Q. How does the federal tax system affect low-income households?

A. Most low-income households do not pay federal income taxes, typically because they owe no tax (as their income is lower than the standard deduction) or because tax credits offset the tax they would owe. Some receive substantial rebates via refundable tax credits. However, nearly all low-income workers are subject to the payroll tax.

WHAT FEDERAL TAX RATES DO LOW-INCOME HOUSEHOLDS PAY?

Low-income households typically pay some federal tax. The largest tax burden for households in the bottom income quintile (the bottom fifth) tends to come from the payroll tax, followed by excise taxes and a small amount of corporate tax. The average federal tax burden tends to be much lower for low-income households than for high-income households.

The Urban-Brookings Tax Policy Center estimates that in 2018, households in the lowest income quintile have a negative average income tax rate as a result of refundable credits—namely the earned income tax credit (EITC) and the child tax credit (CTC). That is, the payments the lowest income households receive from refundable credits exceed any income tax they owe.

In contrast, the average payroll tax rate for households in the lowest income quintile is 6.4 percent (very similar to the average rate of 6.9 percent for all households). The payroll tax is by far the most significant federal tax for households in the lowest income quintile, in terms of how much they pay.

Of course, low-income households pay federal excise taxes on specific products, including cigarettes, alcohol, and gasoline. Low-income households also indirectly pay some corporate income tax, to the extent that corporations pass tax burdens back to workers' wages.

WHAT SHARE OF LOW-INCOME HOUSEHOLDS OWE FEDERAL INCOME OR PAYROLL TAX?

About 11 percent of households in the bottom income quintile will pay federal income tax in 2018. In contrast, 62 percent of households in the lowest income quintile will owe payroll taxes. Combined, 64 percent of households in the lowest income quintile will owe federal income or payroll taxes.

In many cases, low-income households owe no income tax. All households can claim a standard deduction to reduce their taxable income, and many families with children can offset income taxes with the child tax credit. In 2018, the standard deduction is $24,000 for married couples, $18,000 for single parents, and $12,000 for singles. These are higher amounts than in prior years because of the 2017 Tax Cuts and Jobs Act, but the Act

also eliminated the personal exemption, which in past years also reduced taxable income. Households with income above the standard deduction often still do not owe federal income because they can claim child tax credits, which can offset up to $2,000 of taxes for each child under 17 and $500 for other dependents, including older children.

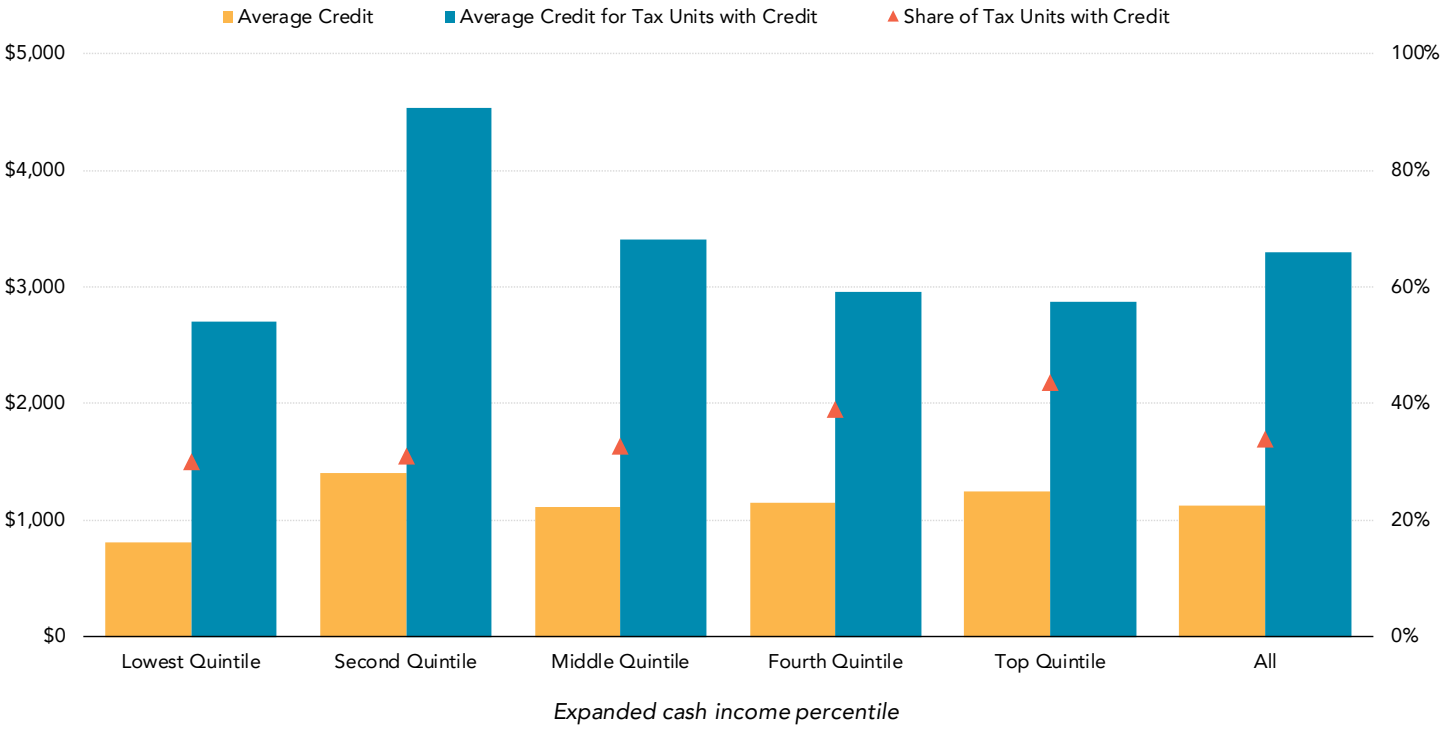
WHY DO LOW-INCOME HOUSEHOLDS FACE NEGATIVE AVERAGE FEDERAL INCOME TAX RATES?

Households can have negative federal income tax rates if they receive refundable tax credits. The EITC is a refundable credit that subsidizes earnings, particularly for workers with children. The CTC provides workers with children a credit of up to $2,000 per child under age 17, up to $1,400 of which can be received as a refund. Together, these credits deliver substantial assistance to low-income families with children. (A small EITC is also available to childless workers.) If refundable credits exceed taxes owed, households receive the excess as a payment. The net refunds created by these credits show up as negative average tax rates.

The Tax Policy Center estimates that in 2018, the CTC and the EITC together will average $810 for households in the lowest income quintile. About 30 percent of households in the lowest quintile will receive one or both of these refundable credits (figure 1).

FIGURE 1

Distribution of Child Tax Credit and Earned Income Tax Credit
2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model, (version 0718-1).

Key Elements of the U.S. Tax System

How does the federal tax system affect low-income households?

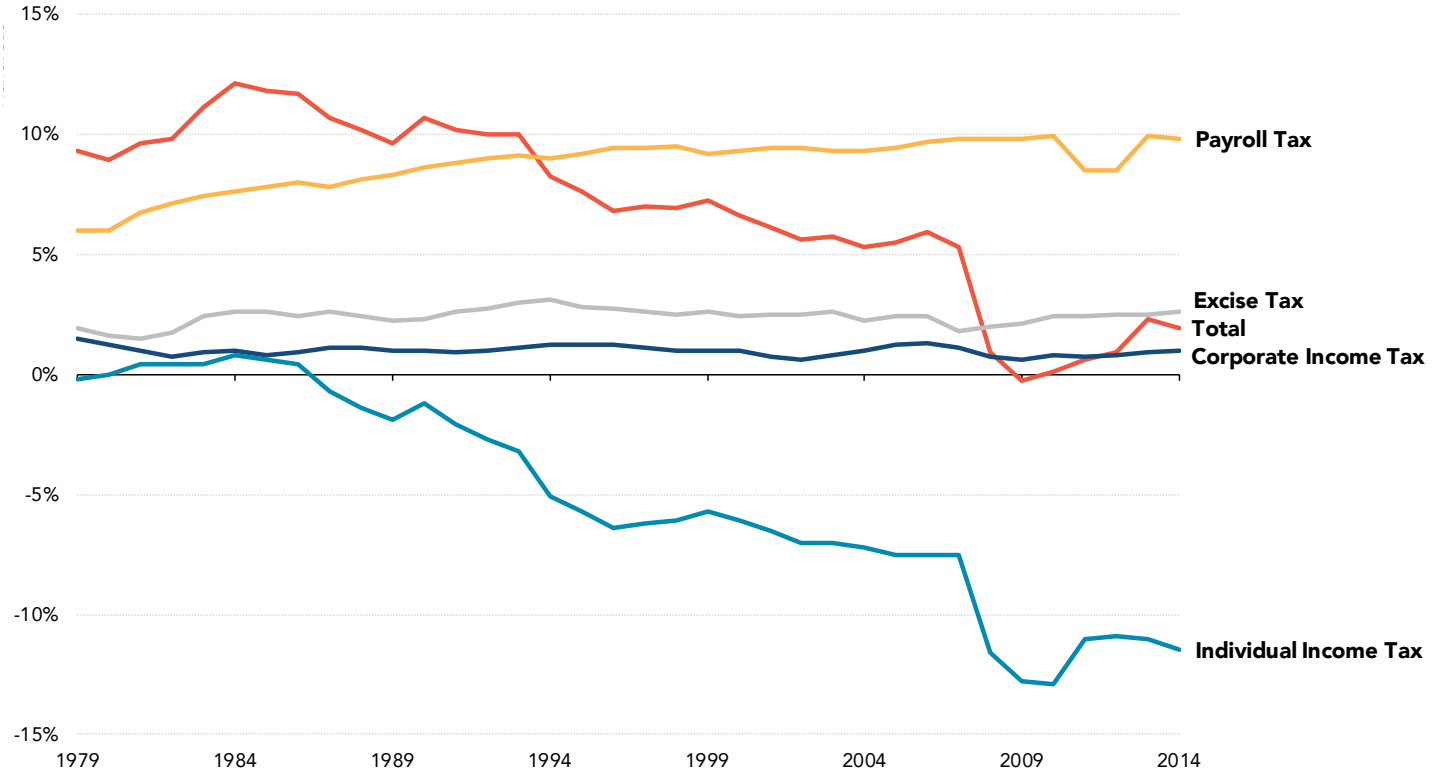
HOW HAVE EFFECTIVE TAX RATES FOR LOW-INCOME HOUSEHOLDS CHANGED OVER TIME?

Average tax rates for low-income households have changed markedly over the past quarter-century. Creation of the CTC and expansion of the EITC both lowered the effective individual income tax rate for low-income households from about 0.5 percent in the early 1980s to its negative value today (figure 2). In contrast, the effective payroll tax rate for households in the lowest income quintile increased by more than half over the same period (setting aside the temporary payroll tax reduction in 2011 and 2012). The effective corporate income tax rate borne by low-income households has also fallen since 1979, while the effective excise tax rate rose slightly.

FIGURE 2

Average Federal Tax Rates

Lowest quintile of households, 1979–2014



Source: Congressional Budget Office (2018).

Key Elements of the U.S. Tax System

How does the federal tax system affect low-income households?

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Q. What is the difference between refundable and nonrefundable credits?

A. Taxpayers subtract both refundable and nonrefundable credits from the taxes they owe. If a refundable credit exceeds the amount of taxes owed, the difference is paid as a refund. If a nonrefundable credit exceeds the amount of taxes owed, the excess is lost.

REFUNDABLE VERSUS NONREFUNDABLE TAX CREDITS

The maximum value of a nonrefundable tax credit is capped at a taxpayer's tax liability. In contrast, taxpayers receive the full value of their refundable tax credits. The amount of a refundable tax credit that exceeds tax liability is refunded to taxpayers.

Most tax credits are nonrefundable. Notable exceptions include the fully refundable earned income tax credit (EITC), the premium tax credit for health insurance (PTC), the refundable portion of the child tax credit (CTC) known as the additional child tax credit (ACTC), and the partially refundable American opportunity tax credit (AOTC) for higher education. With the EITC, PTC, and ACTC, taxpayers calculate the value of these credits and receive the credit first as an offset to taxes owed, with any remainder paid out as a refund. With the AOTC, if the credit fully offsets taxes owed, 40 percent of the remainder can be paid out as a refund.

BUDGET TREATMENT OF REFUNDABLE VERSUS NONREFUNDABLE TAX CREDITS

The federal budget distinguishes between the portion of a tax credit that offsets tax liability and the portion that is refundable, classifying the latter as an outlay. Most of the EITC—an estimated $62.1 billion of the 2017 total of $63.9 billion—was refunded. Much less of the child tax credit ($30.0 billion out of $54.3 billion) was refunded (figure 1). Because the 2017 Tax Cuts and Jobs Act substantially changed the child tax credit in 2018 through 2025, the amount of the credit and the shares of the nonrefundable and refundable portions will be different going forward.

ADVANTAGES AND DISADVANTAGES OF REFUNDABLE CREDITS

Proponents of refundable credits argue that only by making credits refundable can the tax code effectively carry out desired social policy. This is especially true for the EITC and the CTC: if the credits were not refundable, low-income households most in need of assistance would not benefit from them. Furthermore, allowing credits only against income tax liability ignores the fact that most low-income families also incur payroll taxes.

Key Elements of the U.S. Tax System

What is the difference between refundable and nonrefundable credits?

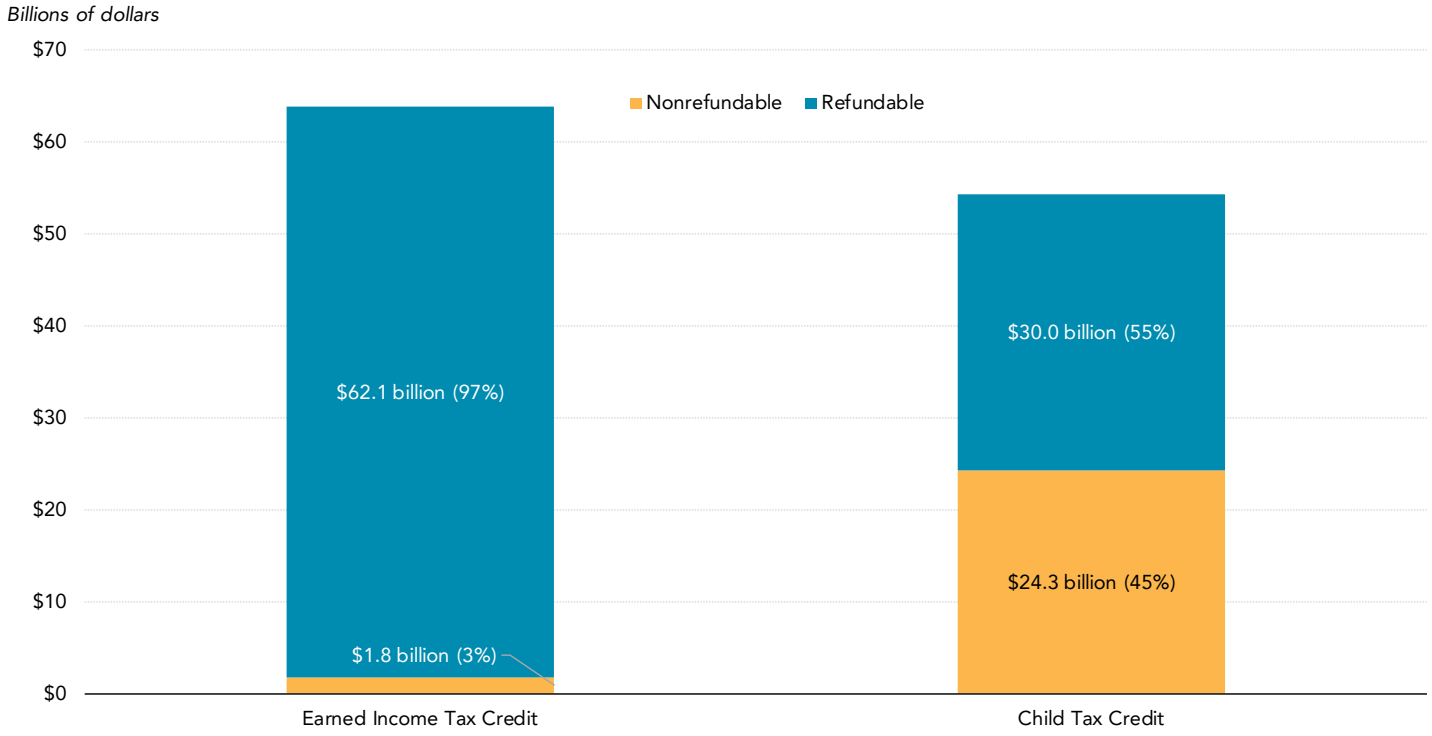
Opponents of refundable credits, for their part, raise a host of objections:

- The tax system should collect taxes, not redistribute income.
- The government should not use the tax system to carry out social policies.
- Everyone should pay some tax as a responsibility of citizenship.
- Refundable credits increase administrative and compliance costs, and encourage fraud.

FIGURE 1

Earned Income Tax Credit and the Child Tax Credit

Refundable and nonrefundable shares, fiscal year 2017



Source: Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2019: Tax Expenditures.* Table 13–1. "Estimates of Total Income Tax Expenditures for Fiscal Years 2017–2027."

Data Sources

Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2019: Tax Expenditures*. Table 13–1. "Estimates of Total Income Tax Expenditures for Fiscal Years 2017–2027."

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Q. Can poor families benefit from the child tax credit?

A. Yes. Low-income families can receive a refundable child tax credit equal to 15 percent of earnings above $2,500, up to a maximum credit of $1,400.

HOW THE CHILD TAX CREDIT WORKS

Taxpayers can claim a child tax credit of up to $2,000 per child under age 17. The credit is reduced by 5 percent of adjusted gross income over $200,000 for single parents ($400,000 for married couples). If the credit exceeds taxes owed, taxpayers can receive up to $1,400 of the balance as a refund, known as the additional child tax credit (ACTC) or refundable CTC. The ACTC is limited to 15 percent of earnings above $2,500. For other dependents, including children ages 17–18 and full-time college students ages 19–24, the CTC provides a nonrefundable credit of up to $500.

Families of nearly all incomes benefit from the CTC—with the largest average benefits (about $2,940) going to families in the middle income quintiles. Families in the lowest income quintile receive the smallest average credit ($1,260) because many have earnings too low to qualify for the full $2,000 credit, and instead receive some of their CTC as a refundable credit, which is limited to $1,400 per child under 17. The average credit value for families in the highest income quintile is about $2,160. Families in this income range can have their credits limited by its phasing out, which begins at $200,000 for single parents and $400,000 for married couples (figure 1).

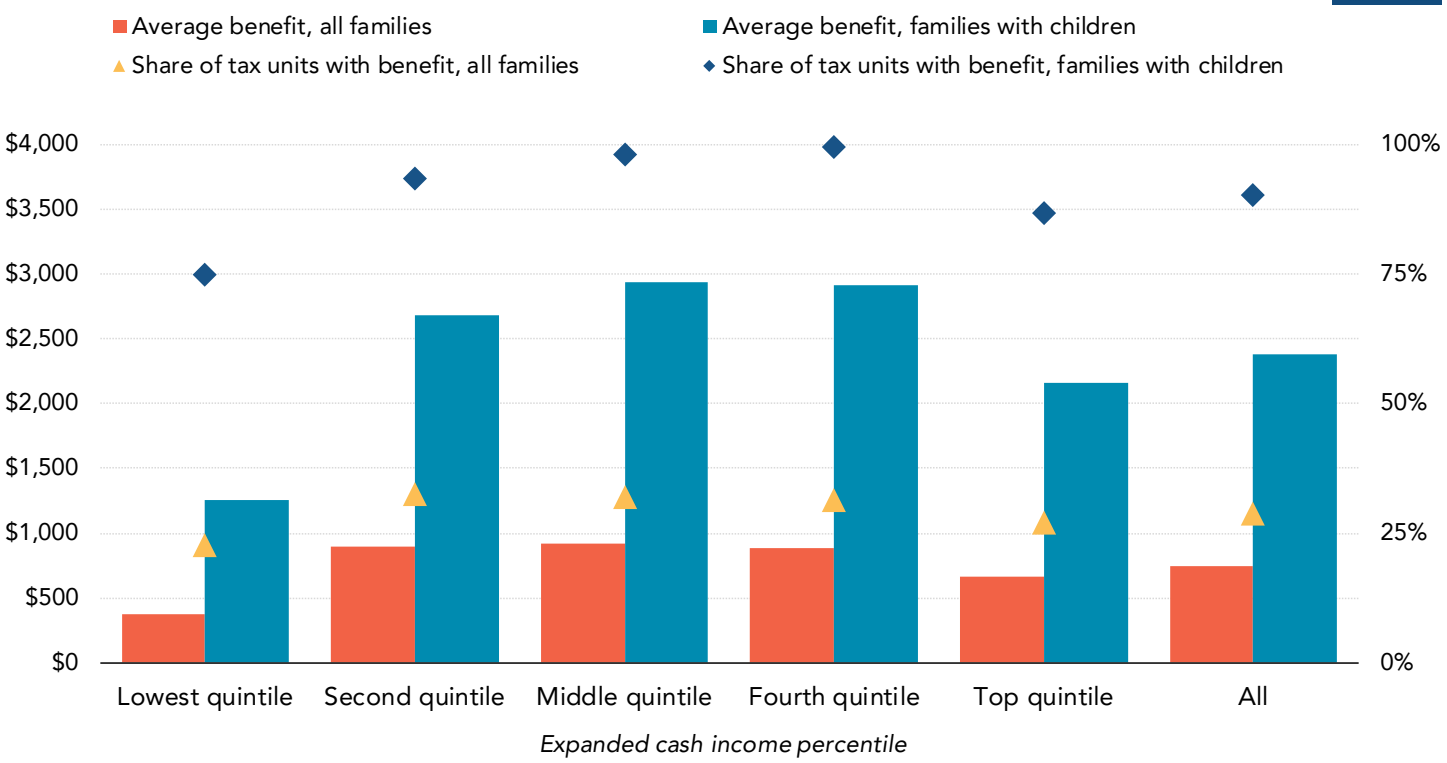
Neither the credit amount nor the phaseout point is indexed for inflation. Over time, the value of the credit will decline in real terms and as incomes grow, more people will be subject to the credit's phaseout. The $1,400 limit on the refundable credit, however, is indexed for inflation after 2018 until it reaches $2,000—the full value of the regular credit.

Key Elements of the U.S. Tax System

Can poor families benefit from the child tax credit?

FIGURE 1

Distribution of Child Tax Credit Benefits



Source: Urban-Brookings Tax Policy Center Microsimulation Model, (version 0718-1).
Notes: Includes the $500 nonrefundable portion of the Child Tax Credit. All estimates adjusted for family size.

Data Source

Urban-Brookings Tax Policy Center. "Microsimulation Model, version 0718-1."

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Q. Why do low-income families use tax preparers?

A. Many low-income families owe no income tax but still must file a tax return to receive refundable tax credits, including the earned income tax credit. Those who do file often seek help, which nearly always comes from a paid preparer. The cost of that help erodes the net value of refundable credits. That cost might be worth bearing if preparers helped their clients claim tax benefits that otherwise might be missed, but many don't.

TAX PREPARATION FOR LOW-INCOME FAMILIES

Most people fill out their tax returns with assistance from paid preparers. In 2010, 56.8 percent of all returns were completed this way. That proportion is slightly lower for lower-income families: 54.5 percent for returns with adjusted gross incomes below $30,000 (table 1). A very small proportion of low-income families reported using Volunteer Income Tax Assistance clinics.

TABLE 1

Tax Preparation Method

By adjusted gross income, 2010

AGI (thousands of dollars)	Tax returns (millions)	Tax Preparation Method				
		No identified preparer	Paid preparer	IRS prepared	Volunteer income tax assistance	Tax counseling for the elderly
Under 30	65.7	41.8%	54.5%	0.2%	1.7%	1.7%
30–50	25.6	42.3%	55.7%	0.1%	0.9%	1.0%
50–100	30.7	40.9%	58.2%	0.0%	0.4%	0.5%
Over 100	18.2	36.6%	63.2%	0.0%	0.1%	0.1%
Total	142.8	40.9%	56.8%	0.1%	1.0%	1.1%

Source: Tax Policy Center tabulations of 2010 Statistics of Income Public Use File.

DO PAID PREPARERS FILL OUT MORE ACCURATE RETURNS?

Except in a handful of states, paid preparers are not regulated. The Government Accountability Office found that returns completed by preparers were not more accurate than self-prepared returns and included errors in calculating a tax filer's earned income tax credit (EITC)—a problem specific to low- and moderate-income families.

In a small sampling performed by the Government Accountability Office, only 2 of 19 returns showed the correct refund amount. On 13 tax returns in the sample, preparers overestimated the total refund by $100 or more (McTigue 2014). A larger-scale study of Internal Revenue Service (IRS) data showed that paid preparers had a higher estimated error rate—60 percent—than returns prepared by taxpayers themselves. Some of these errors are made by the preparer; some are the result of the taxpayer providing incorrect or incomplete information (McTigue 2014).

When it comes to returns with the EITC, a recent study showed that unenrolled return preparers were more likely to make errors than other paid preparers. An unenrolled return preparer is someone other than an attorney, a CPA, or an enrolled agent—agents licensed by the IRS. Unenrolled preparers completed 43 percent of the EITC returns completed by paid preparers, while national tax preparation firms completed 35 percent of these returns (IRS 2014).

One clear benefit of paid preparation: an earlier study showed that if low-income workers already know about the EITC, they are more likely to receive it if they use a paid preparer than if they fill out their returns themselves (Maag 2005). Moreover, some preparers not only inform their low-income clients of their EITC eligibility, but further help them by identifying other forms of assistance for which they might qualify. Some even assist in the application process.

USE OF REFUND ANTICIPATION LOANS AND REFUND ANTICIPATION CHECKS

Before 2012, low-income tax filers who used paid preparers could get their tax refunds faster with a refund anticipation loan (RAL). RALs were high-cost immediate cash loans from private lenders, backed by the tax refunds the borrowers claimed on their prepared returns (Theodos et al. 2011). RALs proliferated after 1999 when the IRS reinstituted the debt indicator program, which disclosed whether a tax refund would be redirected by the IRS to pay debts.

The IRS has since discontinued use of the debt indicator, essentially eliminating the RAL market. However, most consumers who formerly received a RAL now appear to be using a similar product, the refund anticipation check (RAC). The RAC appears to cost less than the RAL but it can still be quite expensive. RACs are temporary bank accounts opened by paid preparers, where tax filers direct their refunds. Tax filers are allowed to pay fees out of their RACs. When the IRS deposits the refund, the paid preparer subtracts fees from the account, and then the tax filer can access the remainder.

In 2014, the National Consumer Law Center reported that more than 21 million consumers obtained RACs. Unlike RALs, RACs do not allow consumers faster access to anticipated refunds (Wu 2015). The vast majority of RAC consumers—about 83 percent—have low incomes. In fact, about half are EITC recipients (Wu 2015).

Key Elements of the U.S. Tax System

Why do low-income families use tax preparers?

Data Source

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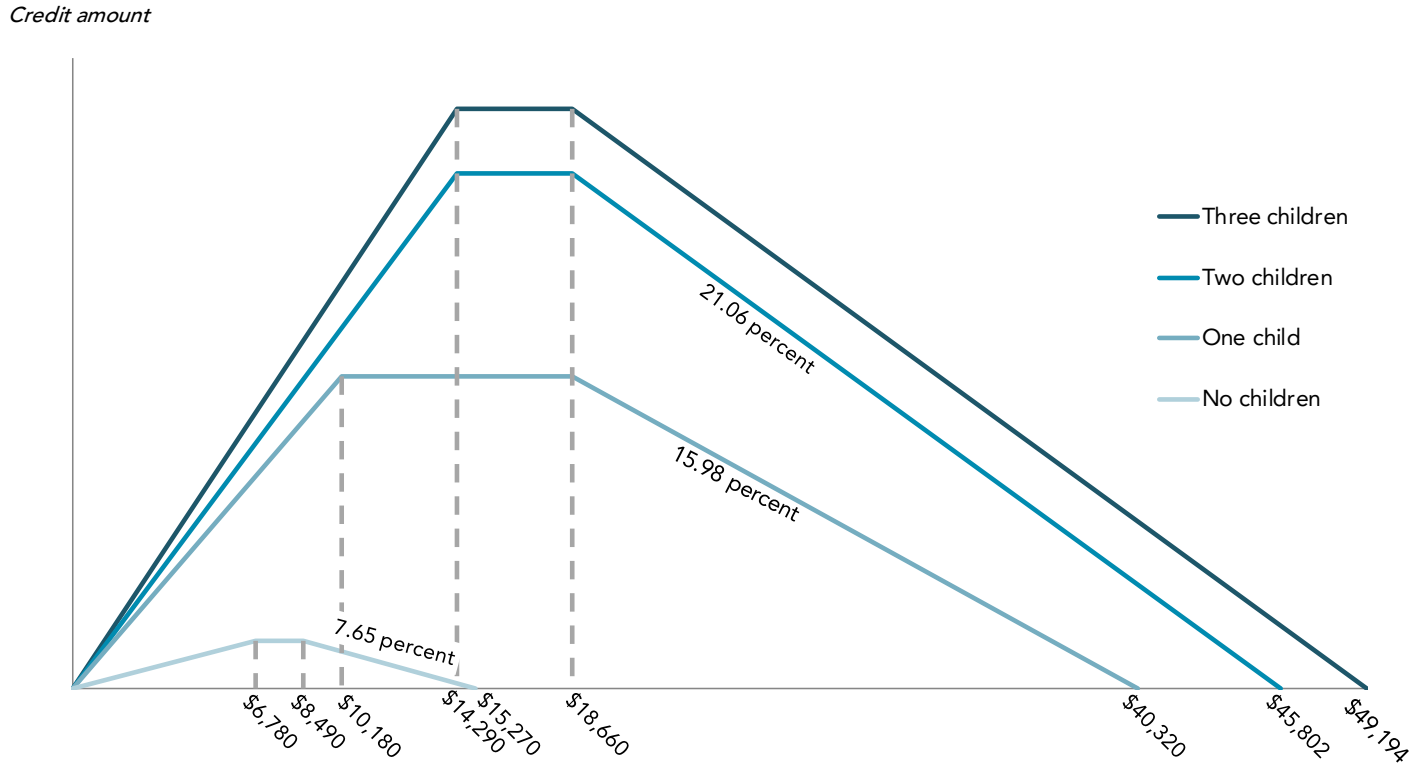
Q. How does the earned income tax credit affect poor families?

A. The EITC is the single most effective federal antipoverty program for working-age households—providing additional income and boosting employment for low-income workers.

In 2018, the earned income tax credit (EITC) will provide credits ranging from $519 for workers with no children to $6,431 for workers with at least three children (figure 1).

FIGURE 1

Earned Income Tax Credit
2018



Source: Urban-Brookings Tax Policy Center (2018). Internal Revenue Procedure 2018-18, Internal Revenue Service.
Notes: Assumes all income comes from earnings. Amounts are for taxpayers filing a single or head-of-household tax return. For married couples filing a joint tax return, the credit begins to phase out at income $5,690 higher than shown.

Key Elements of the U.S. Tax System

How does the earned income tax credit affect poor families?

POVERTY AND THE EITC

Official estimates of poverty compare the before-tax cash income of families of various sizes and compositions with a set of thresholds. The official poverty measure excludes the effect of federal tax and noncash transfer programs on resources available to the family. Thus, although the EITC adds income to poor households, it does not change the official number of those living in poverty.

To understand how the social safety net changes resources, the US Census Bureau has developed a supplemental poverty measure that includes additional resources available to families (and additional expenses) not captured in the official measure (Fox 2017). To determine how well off a family is, the supplemental poverty measure compares resources available to resources needed, taking into account regional differences.

Resources needed include not only basic items such as food and housing, but also taxes and expenses such as those associated with work and health care. Resources available include government transfers, including noncash transfers, and refundable tax credits such as the EITC. Official Census publications show that together, the child tax credit and the EITC lifted 8.1 million people out of poverty in 2016 (Fox 2017). The Center on Budget and Policy Priorities separates the effects of the EITC and the child tax credit and calculates that the EITC was responsible for lifting 5.8 million people out of poverty in 2016 (CBPP 2018). This makes the EITC the single most effective program targeted at reducing poverty for working-age households.

REDUCING POVERTY BY ENCOURAGING WORK

Substantial research confirms that the EITC encourages single people and primary earners in married couples to work (Dickert, Houser, and Scholz 1995; Eissa and Liebman 1996; Meyer and Rosenbaum 2000, 2001). The credit, however, appears to have little effect on the number of hours people work once they are employed. Although the EITC phaseout could cause people to reduce their work hours (because credits are lost for each additional dollar of earnings, effectively a surtax on earnings in the phaseout range), there is little evidence that this actually happens. (Meyer 2002).

The most recent relevant study found that a $1,000 increase in the EITC led to a 7.3 percentage point increase in employment and a 9.4 percentage point reduction in the share of families with after tax and transfer income in poverty (Hoynes and Patel 2015). If this employment effect were included in census estimates of poverty reduction (rather than just the dollars transferred through the credit), the number of people lifted out of poverty would be much greater.

Data Source

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Q. What are error rates for refundable credits and what causes them?

A. The IRS estimates two types of error rates for the earned income tax credit (EITC): the improper payment rate and the over-claim rate. The former includes IRS enforcement activities while the latter does not. The IRS has estimated an EITC improper payment rate of between 22 and 26 percent of EITC payments and an over-claim rate of between 29 and 39 percent of dollars claimed.

IMPROPER PAYMENTS IN THE EITC

Extrapolating from the IRS's National Research Program compliance study of individual income tax returns for tax year 2009, the US Treasury Department projected that in fiscal year 2013, between 22.1 percent and 25.9 percent of total earned income tax credit (EITC) program payments were improper (US Department of the Treasury 2013). The Office of Management and Budget identified the EITC as having the highest improper payment rate and the second-highest improper payment amount among 13 "high-error" programs.

Errors can stem from intentional fraud or innocent mistakes made by taxpayers—the latter, a likely result of complex rules associated with the EITC. Studies by Treasury analysts indicate that only a minority of improper payments stem from fraudulent actions (Holtzblatt and McCubbin 2003).

The estimated 22.1–25.9 percent range is likely higher than the actual error rate. A 2004 study by the Taxpayer Advocate found that, in 2002, among 67,000 people who sought reconsideration of their audit results, 43 percent were owed the entire or almost entire EITC claim that had initially been denied.

EITC OVER-CLAIMS

A more recent IRS study of returns claiming the EITC found that from 2006 to 2008, between 28.5 and 39.1 percent of all EITC dollars claimed were over-claims totaling between $14.0 billion and $19.3 billion (IRS 2014). The largest source was error in classifying children as "qualified." Roughly 75 percent of all tax returns with qualifying-child errors violated the requirement that children live with the taxpayer in the United States for more than six months of the year (IRS 2014). The IRS receives no administrative data that can verify where a child resided for most of the year, making it difficult for the agency to monitor compliance. Attempts to use administrative data from other programs to verify child residence have not proven successful (Pergamit et al. 2014).

IRS RESPONSE

The IRS is combating improper payments by implementing due diligence requirements for paid preparers (IRS 2015). The IRS has tried to strengthen paid-preparer regulation before, but the courts ruled in 2012 that the agency had overstepped its authority and would not be allowed to require competency tests of some preparers (Taxpayer Advocate Service 2013).

To reduce fraud, the Protecting Americans from Tax Hikes Act of 2015 requires the IRS to delay tax refunds for taxpayers who claim an EITC or an additional child tax credit on their returns until at least February 15. Delaying refunds was paired with a requirement that third-party income documents related to wages and income be provided to the IRS by January 31 (in prior years, this information was due the last day of February for paper filing and March 31 for electronic filing, and employers requesting a 30-day extension for filing some information returns were automatically granted an extra 30 days to file). As a result, information needed to verify wages often got to the IRS well after the first returns had been processed. Together, these measures allowed earlier systemic verification of EITC claims, which protected more revenue than in prior years (Treasury Inspector General for Tax Administration 2018).

What are error rates for refundable credits and what causes them?

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Q. How do IRS audits affect low-income families?

A. The IRS audits a disproportionate (but still small) share of tax returns that include EITC claims. The agency has found that average discrepancies between taxes owed and taxes paid are smaller on EITC returns than on all returns.

IRS AUDITS OF EARNED INCOME TAX CREDIT RETURNS

In FY 2017, the IRS audited 1.1 million of the almost 196 million returns filed, less than 1 percent of the total. Returns claiming an earned income tax credit (EITC) were audited at a rate more than twice that of all individual income tax returns: 1.4 percent compared with 0.6 percent. Almost all these audits (95 percent) were correspondence audits, meaning the tax filer was notified and could respond by mail.

The IRS selects which returns to audit based in part on a statistical formula that identifies returns most likely to be at risk of having an error (Guyton et al. 2018). For all individual income tax returns audited in FY 2017, the IRS recommended no change on 10 percent of all returns and on 9 percent of returns with an EITC. The average amount of money the IRS attempted to collect on all audited individual income tax returns was $9,669. The average amount on audited returns with an EITC was $5,286.

Recent analysis demonstrates that correspondence audits decrease the likelihood that a person will claim an EITC the year following the audit by over 30 percentage points. That effect persists to some degree for multiple years (Guyton et al. 2018).

Data Source

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Q. What kinds of tax-favored retirement arrangements are there?

A. Tax-favored retirement arrangements can be sliced and diced in various ways. There are three big differences, though: who sponsors them, who bears the risk, and when Uncle Sam takes his cut.

EMPLOYER-SPONSORED PLANS

There are two primary types of employer-sponsored plans. Defined-benefit plans generally distribute funds regularly during retirement according to formulas that reflect employees' years of work and earnings. In defined-contribution plans, of which the 401(k) plan is the most common, balances depend on past employee and employer contributions and on the investment returns accumulated on those contributions.

INDIVIDUAL RETIREMENT ACCOUNTS

Individuals also may establish their own individual retirement accounts (IRAs). There are two main types: traditional IRAs and Roth IRAs. Like 401(k)s, traditional IRAs allow taxpayers to deduct their contributions, up to a preset limit, from taxable income. Tax liability is only triggered when funds are distributed to the account owners. By contrast, contributions to Roth IRAs and Roth 401(k)s yield no tax breaks when they are made, but distributions to retirees, including accumulated investment income, are tax free.

PARTICIPATION

Employers are not required to offer their employees retirement benefits, and only about half of all workers are covered by an employer-sponsored plan. Coverage rates are highest for workers ages 45 to 65 and for those earning more than $100,000 (table 1).

Large companies are more likely to sponsor retirement plans than small firms. In 2015, about two-thirds of full-time workers at medium and large firms participated in employer-sponsored plans, compared with about one-third of full-time workers at small firms (EBRI 2018). In 2015, almost all full-time state and local government employees (89 percent) participated in employer-sponsored plans of one sort or another.

Participation in individual retirement accounts is less common than participation in employer-sponsored plans. About 30 percent of taxpayers owned an IRA in 2015, but only about 6 percent contributed to their plan in that year (table 2).

Key Elements of the U.S. Tax System

What kinds of tax-favored retirement arrangements are there?

TABLE 1

Participation in Employer-Sponsored Retirement Plans

Tax year 2014

	Taxpayers Covered by Employer-Sponsored Plans	Percentage of Taxpayers with Wage Income Covered
All	69,792,000	49%
Wage income		
Under $20,000	8,869,000	18%
$20,000–$50,000	28,628,000	54%
$50,000–$100,000	23,000,000	77%
$100,000–$200,000	7,162,000	84%
Above $200,000	2,133,000	86%
Age		
Under 35	19,020,000	36%
35–45	15,858,000	56%
45–55	17,694,000	60%
55–65	13,940,000	61%
Above 65	3,281,000	40%
Filer type		
Joint returns	40,467,000	60%
One wage earner	10,407,000	55%
Two wage earners	30,060,000	62%
Nonjoint returns	29,325,000	39%

Source: Internal Revenue Service, *SOI Tax Stats—Individual Information Return Form W2 Statistics*, Tables 3.A., 3.C, and 3.D.

Notes: Taxpayers are covered by an employer-sponsored retirement plan if their employer (or their spouse's employer) has a defined contribution plan (profit-sharing, 401(k), stock bonus and money purchase pension plan) and any contributions were allocated to their account; an IRA-based plan (SEP, SARSEP or SIMPLE IRA plan) and they had an amount contributed to their account; or a defined benefit plan (pension plan that pays a retirement benefit spelled out in the plan) and they are eligible to participate.

Key Elements of the U.S. Tax System

What kinds of tax-favored retirement arrangements are there?

TABLE 2

Participation in Individual Retirement Arrangements

Tax Year 2015

	Number of Taxpayers with IRAs	Share of Taxpayers with IRAs	Number of Taxpayers Contributing to IRAs	Share of Taxpayers Contributing to IRAs
All	58,425,000	29%	13,006,000	6%
Adjusted gross income				
Under $50,000	17,044,000	16%	3,143,000	3%
$50,000–$100,000	17,005,000	34%	3,911,000	8%
$100,000–$200,000	16,179,000	49%	4,156,000	12%
$200,000–$500,000	6,420,000	64%	1,367,000	14%
Above $500,000	1,777,000	73%	429,000	18%
Age				
Under 30	2,860,000	7%	1,522,000	4%
30–45	11,450,000	21%	3,805,000	7%
45–60	18,947,000	34%	4,899,000	9%
Above 60	25,141,000	50%	2,776,000	5%
Sex				
Men	28,526,000	29%	159,000	7%
Women	29,899,000	28%	98,000	6%

Source: Internal Revenue Service, *SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements*, Tax Year 2015, Tables 2, 4, and 7.

Data Source

Internal Revenue Service. *SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements*. Tax Year 2015, Tables 2, 4, and 7.

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Q. How large are the tax expenditures for retirement saving?

A. The tax expenditures are very large, indeed. They reached almost $230 billion in 2017 and will likely reach nearly $1.4 trillion over the 2018–22 period.

Tax expenditures are revenue losses attributable to special exclusions, exemptions, deductions, credits, and other provisions in the tax code. The Congressional Joint Committee on Taxation calculates the tax expenditure for retirement savings as the sum of the revenue loss attributable to the tax exclusion for current-year contributions and earnings on account balances, minus the revenue from taxation of current-year pension and individual retirement account distributions (table 1).

The 2017 Tax Cuts and Jobs Act did not make significant changes to retirement saving tax expenditures. However, the new law did modestly reduce the cost of those tax expenditures by reducing individual income tax rates. Lower marginal tax rates reduce the cost of tax expenditures that take the form of exclusion and deductions because reducing taxable income provides smaller tax benefits at lower rates.

TABLE 1

Tax Expenditures for Retirement Savings

Billions of Dollars, Fiscal Years 2017–22

Plan Type	2017	2018	2018–22
Net exclusion of pension contributions and earnings	**$202.1**	**$225.1**	**$1,247.7**
Defined benefit plans	$77.4	$87.9	$518.6
Defined contribution plans	$117.0	$125.5	$648.0
Keogh plans	$7.7	$11.7	$81.1
Individual retirement accounts	**$25.5**	**$25.7**	**$139.4**
Traditional IRAs	$18.0	$17.8	$96.5
Roth IRAs	$7.5	$7.9	$42.9
Credit for elective deferrals and IRA contributions	**$1.4**	**$1.2**	**$6.0**
Total expenditures	**$229.0**	**$252.0**	**$1,393.1**

Sources: Joint Committee on Taxation (2018a, 2018b).

Key Elements of the U.S. Tax System

How large are the tax expenditures for retirement saving?

The White House Office of Management and Budget publishes tax-expenditure estimates calculated in a similar fashion as the US Department of the Treasury's Office of Tax Analysis. The White House also publishes alternative estimates that take into account the deferral of tax payments on contributions to pensions and individual retirement accounts, as well as earnings. That calculation is the sum of the immediate revenue loss attributable to retirement savings contributions, plus the "present value" of revenue loss that occurs because of the tax exemption for accrued earnings on that contribution in future years, minus the present value of the revenue due upon future withdrawals (table 2).

TABLE 2

Present Value of Tax Expenditures for Retirement Savings

Billions of dollars, activity in calendar year 2018

Plan Type	2018
Employer plans	**$136.3**
Defined benefit plans	$41.9
Defined contribution plans	$88.8
Self-employed plans	$5.6
Individual retirement accounts	**$7.1**
IRA contributions and earnings	$1.8
Roth earnings and distributions	$4.8
Nondeductible IRA earnings	$0.6

Source: US Department of the Treasury, Office of Tax Analysis, "Tax Expenditures," Table 4.

Data Source

US Department of the Treasury, Office of Tax Analysis. "Tax Expenditures." Table 4. "Present Value of Selected Tax Expenditures for Activity in Calendar Year 2018."

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Q. What are defined benefit retirement plans?

A. Defined benefit retirement plans are lifetime annuities promised by employers and, in most cases, partially guaranteed by the federal government.

Defined benefit plans promise to pay a pre-determined benefit at retirement, usually determined by an employee's salary and years of service with the firm. Employers typically make all contributions, although some plans require employee contributions or permit voluntary ones.

RISKS

Under a defined benefit plan, an employer promises an employee an annuity at retirement. The employer, not the employee, bears the most risk in a defined benefit plan. If retired employees live longer than anticipated, or if the investments financing the employees' pensions fail to meet expectations, the employer must increase contributions to make good on the promised benefits. Defined benefit plans are thus more likely to be offered by large employers, who are better suited to bear the risk and to spread fixed administrative costs across larger numbers of participants.

However, not all the risk falls on employers. Employees bear some risk of nonpayment if the defined-benefit plan is unable to pay benefits. A portion of the non-payment risk is covered by the Pension Benefit Guaranty Corporation, a federal entity that ensures retired workers receive at least some of their benefits if their employers are unable to pay the promised sums in full.

TRENDS

Defined benefit plans have been falling in popularity (at least among employers) over the past few decades. For families with active participation in retirement plans, the share with a defined benefit plan fell from 40 percent in 1992 to 17 percent in 2016. Defined benefit plans, however, are still the most common type of plan for government employees.

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Q. What are defined contribution retirement plans?

A. Think savings accounts with tax benefits—and a lot of rules.

Tax-deferred defined contribution plans include the familiar 401(k) plans, similar 403(b) plans for nonprofit employees, 457 plans (mostly for state and local government employees), and the federal government's Thrift Savings Plan.

TABLE 1

Participation in Defined Contribution (401(k) type) Plans

Tax Year 2014

	Taxpayers with Elective Contributions	Share of Taxpayers with Wage Income Contributing
All	52,008,000	37%
Wage income		
Under $20,000	4,897,000	10%
$20,000–$50,000	20,431,000	39%
$50,000–$100,000	18,401,000	61%
$100,000–$200,000	6,324,000	74%
Above $200,000	1,954,000	79%
Age		
Under 35	13,748,000	26%
35–45	12,081,000	43%
45–55	13,475,000	46%
55–75	12,545,000	42%
Above 75	158,000	13%
Filer type		
Joint returns	30,774,000	45%
One wage earner	7,895,000	42%
Two wage earners	22,879,000	47%
Nonjoint returns	21,234,000	28%

Source: Internal Revenue Service, SOI Tax Stats—Individual Information Return Form W-2 Statistics, Tables 3.A, 3.C, and 3.D.

Note: Detail may not add up to total due to rounding.

Key Elements of the U.S. Tax System

What are defined contribution retirement plans?

PARTICIPATION

Less than 40 percent of workers contributed to a defined-contribution plan in 2014. Workers' participation in defined contribution plans generally increases with age and income. About three-quarters of workers earning $100,000 or more made contributions (table 1).

CONTRIBUTIONS AND WITHDRAWALS

Contributions to defined contribution plans are tax deferred, meaning that neither the employer nor the employee pays tax on initial contributions or accumulating plan earnings. However, employees pay tax when they withdraw funds. The major exception is Roth-type defined-contribution plans. With Roth plans, account holders pay taxes when contributions are made rather than when contributions are withdrawn.

Early withdrawals from defined-contribution plans incur penalties (in addition to the regular tax on withdrawals), except for specified purposes such as financial hardship, higher education, or the first purchase of a home.

RISKS

Defined benefit plans offer employees a contractually assured annuity at retirement. In contrast, under a defined contribution plan, an employee owns an account in which balances depend on the size of past contributions and on the investment returns those contributions accumulate. The employee bears the risk of underperforming assets and the possibility of outliving the income generated. But employees can manage these risks at retirement by using the assets in their plans to purchase annuities from insurance companies.

Data Source

Internal Revenue Service. *SOI Tax Stats—Individual Information Return Form W-2 Statistics*. Table 3.A. "Taxpayers with Wage Income, by Size of Wage Income, Presence of Retirement Plan Indicator, and Elective Retirement Contributions, Tax Year 2014"; Table 3.C. "Taxpayers with Wage Income, by Age of Taxpayer, Presence of Retirement Plan Indicator, and Elective Retirement Contributions, Tax Year 2014"; and Table 3.D. "Taxpayers with Wage Income, by Return and Earner Type, Presence of Retirement Plan Indicator, Elective Retirement Contributions, Tax Year 2014."

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Q. What types of nonemployer-sponsored retirement savings accounts are available?

A. The two big types are traditional individual retirement accounts (IRAs) and Roth IRAs. The main difference: when the feds take their cut.

TRADITIONAL IRAS VERSUS ROTH IRAS

Workers and their spouses do not need their employers' help to save in tax-favored retirement accounts. They may open individual retirement accounts, which mostly come in two forms: traditional IRAs and Roth IRAs. (Other types of IRAs, such as IRA-SEPs and SIMPLE-IRAs, are only available through employers.) The primary difference is the timing of any tax on contributions or distributions.

Qualified contributions to traditional IRAs are excluded from tax and grow tax-free, but withdrawals are taxed. Contributions to Roth IRAs, conversely, are taxed in the year they are made. But account assets grow tax-free, and withdrawals after age 59½ are not taxed. Even though statutory contribution limits are the same for both traditional and Roth IRAs, the effective amount a saver can place in tax-preferred status is higher with a Roth IRA because the saver is contributing post-tax income.

As of 2017, 43.9 million households (or 34.8 percent) owned at least one IRA. Some 35.1 million households (or 27.8 percent) held traditional IRAs, while 24.9 million (or 19.7 percent) owned a Roth IRA. Some households owned both.

THE FINE PRINT

These rules are a bit confusing. Taxpayers with income over a specified level, which varies with tax-filing status, may not contribute to a Roth IRA and may not deduct contributions to a traditional IRA. Nor may taxpayers who participate (or whose spouses participate) in employer-provided pensions deduct traditional IRA contributions if their income exceeds a specified limit.

For single taxpayers without access to an employer-sponsored pension, and for married couples in which neither spouse participates in such a pension plan, there are no income restrictions on the deductibility of traditional IRA contributions. A married taxpayer who does not participate in an employer-sponsored plan, but whose spouse does, may contribute the maximum statutory amount to an IRA, provided the couple's joint income does not exceed $186,000 for 2018.

Key Elements of the U.S. Tax System

What are Roth individual retirement accounts?

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Q. What are Roth individual retirement accounts?

A. Roth individual retirement accounts offer no up-front tax breaks. However, withdrawals of earnings and principal (with some restrictions) are not taxed.

A Roth IRA is a form of individual retirement account in which investors make contributions with after-tax earnings. Eligibility is limited by income. There's still a big tax break: contributions accrue tax-free in the account, and withdrawals are not taxed under normal circumstances. In 2017, 24.9 million people, representing 19.7 percent of all US households, owned a Roth IRA.

ELIGIBILITY AND CONTRIBUTION LIMITS

Only people with incomes under specified limits are eligible to contribute to a Roth IRA. In 2018, the contribution limit for IRAs is the lesser of $5,500 ($6,500 for individuals over age 50) or the taxpayer's taxable compensation. The contribution limit falls once household income exceeds certain thresholds, eventually reaching zero (table 1).

TABLE 1

IRA Eligibility and Contribution Limits
2018

Filing status	Modfied Adjusted Gross Income	Contribution
Single or Head of Household	Less than $120,000	$5,500 (or $6,500 if over 50)
	Between $120,000 and $135,000	A reduced amount
	$135,000 and over	Zero
Married filing jointly or qualifying widow(er)	Less than $189,000	$5,500 (or $6,500 if over 50)
	Between $189,000 and $199,000	A reduced amount
	$199,000 and over	Zero
Married filing separately	Less than $10,000	A reduced amount
	$10,000 and over	Zero

WITHDRAWALS

Investors can withdraw their contributions (but not investment returns earned on those contributions) at any time without being subject to tax. However, to receive tax benefits on investment returns, withdrawals must be qualified distributions. This means that the investor withdraws funds at least five years after his or her first contribution and after reaching age 59 years and 6 months, dying, becoming disabled, or making a qualified first-time home purchase. Nonqualified distributions do not satisfy the above conditions and are therefore subject to a 10 percent penalty tax. There are several exceptions to the penalty for early withdrawal of investment earnings.

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Q. Who uses individual retirement accounts?

A. Almost all taxpayers may establish IRAs, but high-income taxpayers are more likely to have an account. Taxpayers may either contribute to IRAs annually—or roll over larger balances from employer-sponsored plans.

Almost 60 million taxpayers own individual retirement accounts (IRAs), which include traditional IRAs, Roth IRAs, Simplified Employee Pensions (SEP IRAs), and Savings Incentive Match Plans for Employees (SIMPLE IRAs). The average IRA balance for taxpayers with IRAs is about $128,000. Ownership of IRAs increases with income and with age, as does the average IRA balance. Men and women are about as equally likely to own an IRA (table 1).

TABLE 1

Participation in Individual Retirement Arrangements (IRAs)

Tax year 2015

	Number of Taxpayers with IRAs	Share of Taxpayers with IRAs	Average IRA Balance[a]
All	58,425,000	29%	$128,000
Adjusted gross income			
Under $50,000	17,044,000	16%	$69,000
$50,000–$100,000	17,005,000	34%	$102,000
$100,000–$200,000	16,179,000	49%	$149,000
$200,000–$500,000	6,420,000	64%	$236,000
Above $500,000	1,777,000	73%	$362,000
Age			
Under 30	2,860,000	7%	$10,000
30–45	11,450,000	21%	$35,000
45–60	18,947,000	34%	$103,000
Above 60	25,141,000	50%	$203,000
Sex			
Men	28,526,000	29%	$159,000
Women	29,899,000	28%	$98,000

Source: Internal Revenue Service, SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements (IRA), Tax Year 2015, Tables 2, 4, and 7.

Note: Details may not add to total due to rounding; data combine accounts for taxpayers with multiple IRAs.

(a) Average IRA Balance = (End-of-year fair market value of IRAs by taxpayer / Total number of taxpayers with IRAs).

Key Elements of the U.S. Tax System

Who uses individual retirement accounts?

About 23 percent of taxpayers own traditional IRAs, while about 9 percent own Roth IRAs. Taxpayers can own multiple types of IRAs. Only a small percentage of taxpayers own SEP IRAs or SIMPLE IRAs. The average balance in traditional IRAs ($138,000) is larger than that in Roth IRAs ($32,000). Traditional IRA owners with adjusted gross income above $500,000 have an average balance of $345,000 (table 2).

TABLE 2

Types of Individual Retirement Arrangements

Percentage with IRAs and average balance of IRAs, tax year 2015

	Traditional IRA Plans		Roth IRA Plans		SEP Plans		SIMPLE Plans	
	Share of taxpayers	Average balance	Share of taxpayers	Average balance	Share of taxpayers	Average balance	Share of taxpayers	Average balance
All	23%	$138,000	9%	$32,000	2%	$114,000	1%	$35,000
Adjusted gross income								
Under $50,000	12%	$77,000	4%	$22,000	1%	$55,000	1%	$12,000
$50,000–$100,000	27%	$113,000	11%	$27,000	2%	$77,000	2%	$23,000
$100,000–$200,000	39%	$160,000	19%	$33,000	3%	$113,000	2%	$44,000
$200,000–$500,000	53%	$241,000	22%	$45,000	6%	$171,000	3%	$88,000
Above $500,000	61%	$345,000	20%	$134,000	9%	$230,000	3%	$124,000

Source: Internal Revenue Service, SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements (IRA), Tax Year 2015, Table 3.

Note: Details may not add to total due to rounding; data combine accounts for taxpayers with multiple IRAs of same type.

Taxpayers in 2018 may contribute in total the lesser of $5,500 per year ($6,500 for taxpayers age 50 or older) or the amount of their taxable compensation to traditional or Roth IRAs. They cannot make annual contributions to a traditional IRA starting once they reach 70 years and 6 months but they can still contribute to a Roth IRA.

Employees can make contributions of up to $12,500 to a SIMPLE IRA plan in 2018 and an additional $3,000 if they are 50 or older. Employers must either match employee contributions dollar for dollar up to 3 percent of compensation or make a nonelective contribution of 2 percent of compensation. SEP IRAs only allow employer contributions. For a self-employed individual, contributions are limited to 25 percent of net earnings from self-employment, up to $55,000 in 2018.

Taxpayers also may roll over their balances from employer-sponsored contribution plans to an IRA, typically after changing jobs. Rollovers are usually much larger than regular contributions. The average rollover in 2015 was almost $95,000. Taxpayers can make rollover contributions to a Roth or traditional IRA regardless of age.

Only a small percentage of taxpayers contributed to traditional or Roth IRAs in tax year 2015. The share of taxpayers who contributed increased with income, except for those owning Roth IRAs, which have income limits for eligibility. Traditional IRAs have no income limits on contributions, but income limits and other restrictions affect whether contributions are tax deductible. The average contribution to SEP IRAs was greater than for other type of IRA, reflecting the significantly higher contribution limits.

Key Elements of the U.S. Tax System

Who uses individual retirement accounts?

TABLE 3

Types of Individual Retirement Arrangements (IRAs)

Percentage contributing to IRAs and average contribution to IRAs, tax year 2015

	Traditional IRA Plans		Roth IRA Plans		SEP Plans		SIMPLE Plans	
	Share of taxpayers	Average contribution	Share of taxpayers	Average contribution	Share of taxpayers	Average contribution	Share of taxpayers	Average contribution
All	2%	$4,000	3%	$3,000	1%	$13,000	1%	$5,000
Adjusted gross income								
Under $50,000	1%	$3,000	2%	$3,000	0%	$5,000	1%	$2,000
$50,000–$100,000	2%	$4,000	4%	$3,000	0%	$7,000	1%	$4,000
$100,000–$200,000	3%	$4,000	7%	$4,000	1%	$12,000	1%	$6,000
$200,000–$500,000	8%	$5,000	2%	$4,000	3%	$20,000	2%	$12,000
Above $500,000	12%	$6,000	1%	$4,000	4%	$29,000	2%	$15,000

Source: Internal Revenue Service, SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements (IRA), Tax Year 2015, Table 3.

Notes: Details may not add to total due to rounding; data combine accounts for taxpayers with multiple IRAs of same type; Average Contribution = (Amount of total contributions / Total number of taxpayers making contributions to IRA type); the statistics are based on unaudited data and may contain amounts in excess of the legal maximum. For SEP and SIMPLE plans, total contributions include contributions made by the taxpayer directly as well as those made by an employer.

Data Source

Internal Revenue Service. 2018. *SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements*, Tax Year 2015. Table 2. "Taxpayers with IRA Plans"; Table 3. "Taxpayers with Individual Retirement Arrangement (IRA) Plans, by Type of Plan and by Size of Adjusted Gross Income"; Table 4. "Taxpayers with Individual Retirement Arrangement (IRA) Plans, by Age of Taxpayer"; and Table 7. "Taxpayers with Individual Retirement Arrangement (IRA) Plans, by Filing Status and Gender."

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Key Elements of the U.S. Tax System

How does the availability of tax-favored retirement saving affect national saving?

Q. How does the availability of tax-favored retirement saving affect national saving?

A. Incentives for retirement savings only increase *private saving* if the tax breaks encourage households to set aside additional cash rather than simply transfer it from other nest eggs. And it only increases *national saving* if the increase in private saving exceeds the revenue loss from the tax subsidy.

Tax-favored retirement savings accounts are popular: half of working adults take advantage of them. It's unclear, however, whether the accounts make much difference to overall savings and retirement preparedness. Although traditional pensions and other tax-deferred vehicles such as 401(k) plans and individual retirement accounts do make up a sizable share of households' wealth, the accounts only increase private saving if they encourage households to finance their own contributions through reduced consumption or increased earnings.

Put another way, incentives do not increase private saving if households finance their contributions by borrowing, by shifting their existing assets into tax-favored accounts, or by shifting funds they would have saved even in the absence of the incentive. Likewise, private saving does not increase if households respond to employer-provided pensions or contributions with equivalent reductions in other saving or with increased borrowing.

The earliest research on both traditional defined-benefit pensions and defined-contribution plans suggested that they had a strong impact on private wealth and saving. These studies, however, were marred by technical missteps. Later research has found a significantly smaller impact—and, in some cases, none at all. To the extent that the tax incentives do raise private saving, we can expect the impact to be greater for lower- and middle-income households than for high-income households, who tend to use the accounts to reduce present or future tax liability.

Key Elements of the U.S. Tax System

How does the availability of tax-favored retirement saving affect national saving?

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Q. What's the difference between front-loaded and back-loaded retirement accounts?

A. Your choice: pay the IRS now or pay them later.

Broadly speaking, there are two types of tax-favored retirement accounts: "front-loaded" accounts, such as traditional IRAs and 401(k)s, and "back-loaded" accounts, such as Roth IRAs. With front-loaded accounts, contributions are tax deductible but withdrawals are taxed. These accounts are also called EET accounts (the contribution is *exempt* from taxation, the accrual of returns is *exempt* from taxation, and the withdrawal is *taxed*). In back-loaded accounts, contributions are not tax deductible but accruals and withdrawals are tax-free. These accounts are also called TEE accounts (contributions *taxed*, accruals *exempt*, withdrawals *exempt*). In both types of accounts, investment returns on assets kept within the account (accruals) are untaxed.

Which is a better deal? That depends on the difference between individuals' tax rates during their working years and during retirement. Individuals with high tax rates during their working years and lower rates during retirement benefit more from front-loaded accounts, because the original contributions are deducted against high tax rates and withdrawals are taxed at lower rates. Someone who expects to be in a higher bracket in retirement would benefit more from a back-loaded account.

The example in table 1 shows that if tax rates during working years and retirement are the same, front- and back-loaded accounts yield the same result.

Consider a front-loaded account first. Say an individual faces a 25 percent tax rate when making both contributions and withdrawals, makes a before-tax contribution of $2,000, earns 5 percent per year, and withdraws all funds after 10 years. In a front-loaded account, the individual will be able to contribute the full $2,000. The account will accumulate interest, and after 10 years the balance will be $3,258. Upon withdrawal, the individual will pay $814 in taxes, leaving net retirement assets of $2,443. With a back-loaded account, an individual pays a 25 percent tax on $2,000 in income, leaving $1,500 to contribute to the account. With the same 5 percent return, the balance will grow to $2,443. Since no taxes will be paid on withdrawal, after-tax proceeds are $2,443, which is the same as in the front-loaded example.

Key Elements of the U.S. Tax System

What's the difference between front-loaded and back-loaded retirement accounts?

TABLE 1

Front- and Back-Loaded Savings Accounts with Constant Tax Rate

$2015

Plan overview		
Tax rate: 0.25		
Interest: 0.05		
Time (years): 10		
	Front-loaded	**Back-loaded**
Before tax income	2,000	2,000
Less taxes paid (25%)	0	500
Contribution	2,000	1,500
Accumulated balance in account	3,258	2,443
Less taxes paid on withdrawal (25%)	814	0
After-tax proceeds	2,443	2,443

Now check out the example in table 2, in which the tax rate decreases from 25 percent during working years to 20 percent during retirement. Here, the front-loaded account will accrue $163 more than the back-loaded account, since taxes are imposed upon withdrawal, when rates are lower. Of course, the conclusion is reversed if the tax rate is higher during retirement than during working years.

TABLE 2

Front- and Back-Loaded Accounts with Lower Tax Rate at Retirement

$2015

Plan overview		
Tax rate T0: 0.25		
Tax rate T10: 0.20		
Interest: 0.05		
Time (years): 10		
	Front-loaded	**Back-loaded**
Before tax income	2,000	2,000
Less taxes paid (25%)	0	500
Contribution	2,000	1,500
Accumulated balance in account	3,258	2,443
Less taxes paid on withdrawal (20%)	652	0
After-tax proceeds	2,606	2,443
Tax savings from front-loaded account: 163		

What's the difference between front-loaded and back-loaded retirement accounts?

That's not quite the end of the story, though. If the two accounts have the same contribution limit, an individual can shelter more savings in a back-loaded account than in a front-loaded account. For example, if an individual facing a 25 percent marginal income tax rate contributes $2,000 to a front-loaded account, he or she is really contributing $1,500 and $500 of government funds because of the tax deduction. When the funds are withdrawn, the government reclaims its share of the principal contribution, plus taxes on interest earned (table 3). In a back-loaded account, however, taxes are paid on the initial contribution and interest can be withdrawn tax-free. Note the distinction here. The value of the tax shelter per dollar saved is the same with either account. However, if the nominal contribution limits are identical, a determined saver can sock away more with a back-loaded account.

TABLE 3

Tax Savings in Front- and Back-Loaded Savings Accounts with Constant Tax Rate

$2015

Plan overview		
Tax rate: 0.25		
Interest: 0.05		
Time (years): 10		
	Front-loaded	**Back-loaded**
Contribution	2,000	2,000
Own income	-1,500	-2,000
Government tax expenditure	-500	0
Accumulated balance in account	3,258	3,258
Taxes paid on withdrawal	814	0
After-tax proceeds	2,443	3,258
Additional savings with back-loaded account: 814		

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Q. What is an automatic 401(k)?

A. An automatic 401(k) enrolls workers automatically, assigning them a default contribution rate and allocation of funds that they are free to change later.

An automatic 401(k) is one that automatically enrolls workers in the plan, rather than requiring them to sign up. Eligible workers are assigned a default contribution rate—often 3 percent of wages—and a default allocation of funds contributed to the retirement account. As with traditional 401(k)s, workers are still in control; they can change the default contribution rate and allocation or opt out entirely. The main difference: with an automatic 401(k), inaction on the worker's part will automatically result in the worker saving for retirement.

This difference is, as a practical matter, significant. With traditional 401(k) plans, workers must decide whether to sign up, how much to contribute, how to allocate their investment funds, how often to rebalance their portfolios, what to do with the accumulated funds when they change jobs, and when and in what form to withdraw the funds during retirement. These decisions are difficult, and many workers, daunted by the complexity, either make inappropriate choices or never sign up at all.

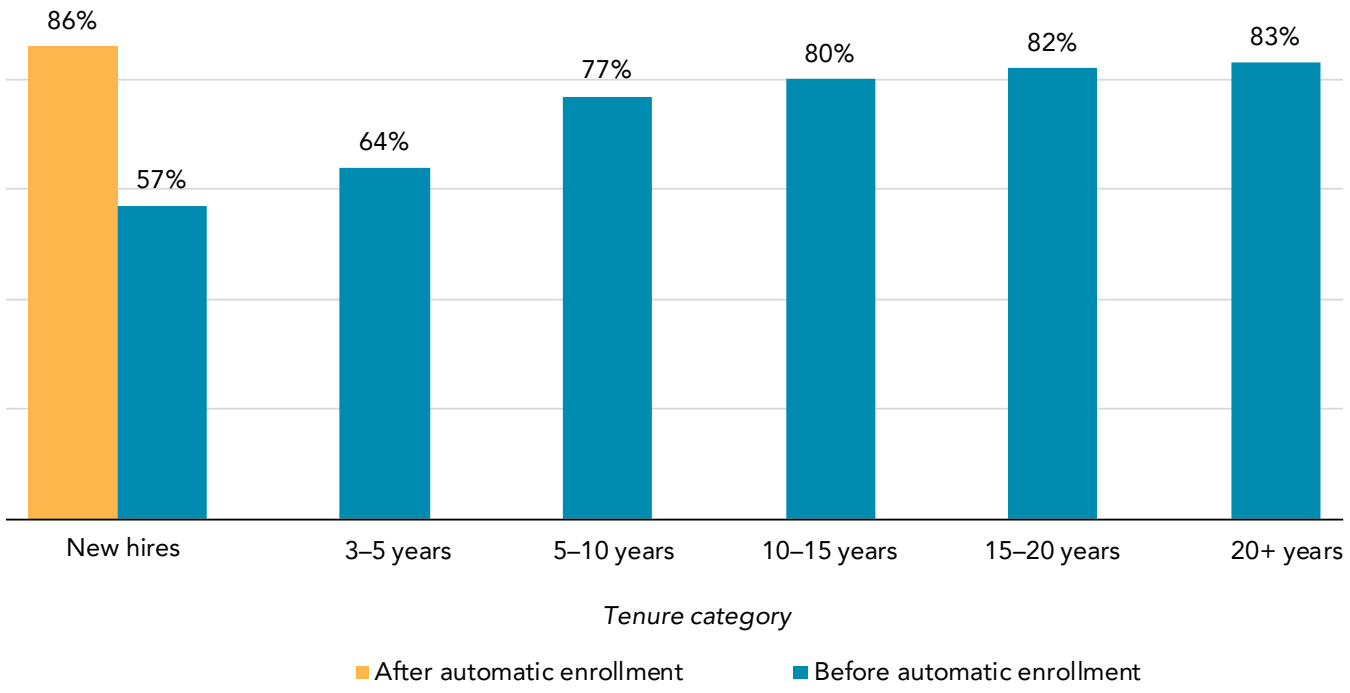
With an automatic 401(k), sometimes called an "opt-out plan," unless workers make the active decision not to participate, each stage of the savings and investment allocation process is automatically set at a pro-saving default. Workers can choose to override any of these choices, but the inertia that discourages so many from opting into a traditional 401(k) is now likely to keep them on the default path.

Figure 1 shows that automatic enrollment raises 401(k) participation rates among new hires. This is especially true for women, minority groups, and low earners.

The automatic escalation of default contributions over time raises overall contributions to 401(k)s relatively painlessly, as employees become accustomed to deferring receipt of a portion of their pay. The gradual escalation also helps ensure that inertia does not keep employees at a default contribution rate lower than the rate they might have chosen without the default.

FIGURE 1

Participation Rates in 401(k) by Tenure: Pre- and Post-auto 401(k)



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Q. How might low- and middle-income households be encouraged to save?

A. Expanding access to savings vehicles and scaling back deductions to provide low- and middle-income households with better incentives could make a difference.

Low- and middle-income families receive significant income support through tax breaks, notably through refundable credits such as the earned income tax credit and the child tax credit. But when it comes to building wealth—defined as what you own minus what you owe—the federal tax code offers such families far less.

Wealth is important: It keeps people afloat during financial emergencies like job loss or unexpected expenses. It provides a foundation for a secure retirement. And it opens doors to upward mobility, such as a down payment on a first home or college tuition.

The main wealth-building vehicles for most people in the United States are homeownership (through building equity and, hopefully, appreciation) and retirement savings accounts. Perversely, large tax subsidies for these assets mostly benefit the already wealthy. Most tax benefits for the mortgage interest deduction, state and local property tax deductions, and 401(k)s and similar retirement plans accrue to the highest-income taxpayers. That's because these tax subsidies are structured as deductions and exclusions, which provide households in higher tax brackets with bigger subsidies. Further, lower-income households are less likely to have enough deductions to make itemizing on their tax returns worthwhile, and itemization is required to claim major homeownership tax breaks. Lower-income workers, particularly those in part-time or temporary employment, have less access to and are less likely to participate in employer-based retirement plans.

At the same time, many low- and middle-income taxpayers simply do not participate in the regular and automatic saving vehicles through which much wealth is accumulated, such as paying off a mortgage and making regular deposits to retirement accounts.

A variety of changes would reduce the bias toward higher-income households by replacing existing subsidies with better-targeted incentives. Almost all these proposals favor some movement toward tax credits and away from deductions, and many use insights from behavioral economics to get more bang for a tax buck forgone.

Key Elements of the U.S. Tax System

How might low- and middle-income households be encouraged to save?

HOMEOWNERSHIP

Credits to encourage homeownership can take different forms. They can provide an up-front credit for first-time homebuyers of primary residences, similar to the temporary credit employed as a stimulus measure from 2008 to 2009. (An early version of this credit served as an interest-free loan to be paid back to the Internal Revenue Service.) Alternatively, homeowners could receive smaller annual credits proportional to their home equity, up to a designated maximum. Another approach is to provide a credit against property taxes to defray a significant cost of homeownership. Reforms that reward building equity instead of subsidizing mortgage interest (which a badly designed credit could also do) would encourage saving instead of acquiring debt.

RETIREMENT

A saver's credit is available to moderate-income taxpayers who contribute to qualified retirement plans. However, the credit is nonrefundable and phases out quickly at higher incomes, making few people eligible for the maximum amount. Some economists have proposed expanding the credit and making it refundable, so that workers with no net income tax liability could claim it.

More expansive proposals include reshaping the complicated pension landscape to simplify plans and increase access to employer-based retirement accounts with automatic enrollment. Contribution limits to tax-favored accounts would be lowered, and the government would instead match low- and moderate-income workers' contributions. Any credits or matching employer contributions could not be accessed until retirement. Pension antidiscrimination rules could be revised to favor plans that support more full- and part-time employees.

SAVINGS AND ACCOUNT OWNERSHIP

Many low- and middle-income workers receive large refunds from refundable tax credits. A "saver's bonus" could encourage taxpayers to save a portion of their refunds in qualified savings accounts. Taxpayers are already able to contribute to individual retirement accounts until the tax-filing deadline and apply any deductions or saver's credits against their tax year's liability. Some tax preparers and tax preparation software remind taxpayers that they can do this and make clear how much tax they would save if they do. Tax time could also be used to link taxpayers to savings vehicles, such as children's savings accounts or prepaid cards with savings features for taxpayers without bank accounts.

How might low- and middle-income households be encouraged to save?

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Q. What is the tax treatment of charitable contributions?

A. Corporations and individual taxpayers who itemize can deduct charitable contributions to 501(c)(3) organizations.

Many nonprofit institutions are exempt from paying federal income tax, but taxpayers may deduct donations to organizations set up under Internal Revenue Code section 501(c)(3) on their income tax returns. Donations to other nonprofits are made after taxes.

Since 1917, individual taxpayers have been able to deduct charitable contributions from income that might otherwise be taxed. Individuals may deduct cash and certain other contributions up to 60 percent of adjusted gross income (AGI) in a given year and may carry forward any excess for deduction on future tax returns for up to five years. Before the 2017 Tax Cuts and Jobs Act, the limit was 50 percent of AGI. An important caveat: only taxpayers who itemize may take the charitable deduction. Most taxpayers instead claim a standard deduction, which generally is larger than their potential itemized deductions but which does not provide a tax incentive to make charitable contributions. The Tax Cuts and Jobs Act nearly doubled the standard deduction amounts, which will greatly reduce the number of taxpayers who itemize and hence the number who have a tax incentive to make charitable contributions.

In 1935, Congress extended the right to deduct charitable contributions to corporations. Corporations may not deduct more than 10 percent of their pretax income in a given year but, like individuals, may carry forward excess donations for five years. Some corporate contributions, however, might also qualify as business expenses.

Contributions by individuals or corporations can take the form of cash, financial assets, or other noncash property such as real estate, clothing, or artwork. Certain contributions face greater restrictions than cash contributions, whereas others receive more generous treatment than cash. The limit for donations of appreciated real property is generally 30 percent of AGI, and the limit for contributions to private nonoperating foundations is the same. But donors may deduct the full current market value of appreciated property. This effectively allows them to deduct capital gains twice: donors pay no tax on the capital gains of the appreciated property, and then reduce their other income subject to tax by the full amount of their contribution, thereby effectively deducting from income the capital gains that had never been included in income. However, those capital gains would also be excluded from income tax if held until death, even if not given away so unless that provision is simultaneously addressed, removal of the special tax break for gifts of appreciated property would discourage such gifts.

Key Elements of the U.S. Tax System

What is the tax treatment of charitable contributions?

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Q. What entities are tax-exempt?

A. Nonprofit organizations that do not distribute profits can be exempt from federal income tax if organized expressly for public purposes.

Tax-exempt organizations (including charities) include many diverse entities. The National Taxonomy of Exempt Entities—developed by the National Center for Charitable Statistics at the Urban Institute and used by the Internal Revenue Service—classifies them into 9 major groups, 26 categories, and over 600 subcategories. The major groups are as follows:

1. Arts, culture, and humanities (e.g., art museums, historical societies)
2. Education (e.g., private schools, universities, parent-teacher associations)
3. Environment and animals (e.g., humane societies, the Chesapeake Bay Foundation)
4. Health (e.g., nonprofit hospitals, the American Lung Association)
5. Human services (e.g., the Girl Scouts, the YMCA, food banks, homeless shelters)
6. International and foreign affairs (e.g., CARE, the Asia Society, the International Committee of the Red Cross)
7. Public society benefit (e.g., the Rockefeller Foundation, the Urban Institute, civil rights groups, the United Way)
8. Religion-related (e.g., interfaith coalitions, religious societies)
9. Mutual membership or benefit (e.g., nonprofit credit unions, labor unions, fraternal organizations)

Although tax exemption requires that owners do not receive profits from the organization, employees and contractors with a nonprofit still earn private benefits, creating potential conflicts over such issues as defining when compensation is excessive. Also, many types of mutual benefit organizations qualify for tax exemption.

In 2013, approximately 1.41 million tax-exempt organizations were registered with the Internal Revenue Service. These nonprofits accounted for approximately 5.4 percent of US gross domestic product and paid 9 percent of US wages and salaries (as of 2014). About 35 percent of registered nonprofits are required to file annual returns (Form 990, 990-EZ, or 990-PF); organizations with gross receipts between $25,000 and $50,000 must file a simpler information return known as the 990-N (e-postcard). Religious congregations, as well as organizations with less than $25,000 in gross receipts, are exempted from the annual filing requirement. All private foundations are required to file the 990-PF.

Tax-exempt status confers exemption from federal tax on earnings from income-producing assets and activities (other than those that generate unrelated business income). States generally follow the federal precedent for their income taxes and often exempt charities from state and local property taxes and sales taxes. Charities also sometimes qualify to issue tax-exempt bonds.

Key Elements of the U.S. Tax System

What entities are tax-exempt as charitable activities?

Although many nonprofits qualify for tax exemption, only about two-thirds also qualify to be "charities" and receive contributions that donors can deduct on their tax returns. "Charitable purpose" is defined under section 501(c)(3) of the tax code as "religious, charitable, scientific, testing for public safety, literary, or educational purposes, or to foster national or international amateur sports competition [or] the prevention of cruelty to children or animals." This definition covers both public charities and private foundations; the latter organizations are created to distribute funds to charities or individuals.

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McKeever, Brice S. 2015. "The Nonprofit Sector in Brief 2015: Public Charities, Giving, and Volunteering." Washington, DC: Urban Institute.

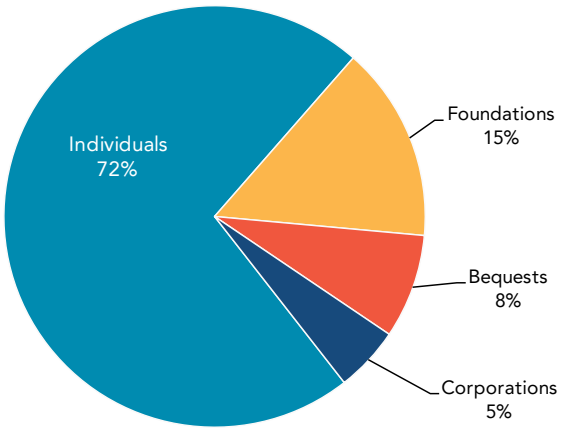
Q. Who benefits from the deduction for charitable giving?

A. The charitable deduction subsidizes charitable giving by lowering the net cost to the donor. If the tax deduction spurs additional giving, charitable organizations can provide more services.

A charitable contribution is intended for the benefit of those supported by the charitable activity, whether through education, health care, or the like. About three-quarters of charitable giving comes directly from individuals, with the balance coming from foundations, estates, and corporations (figure 1). Total contributions totaled $390.05 billion in 2016.

FIGURE 1

Sources of Charitable Giving
2016



Source: Giving USA Foundation. 2017. *Giving USA 2017: The Annual Report on Philanthropy for the year 2016.* Indianapolis, IN: Giving USA Foundation.

Key Elements of the U.S. Tax System

Who benefits from the deduction for charitable giving?

The charitable deduction subsidizes donors by lowering the net cost of the gift. Just how much the tax deductibility lowers the cost of giving depends on the donor's marginal tax rate. For instance, a donor in the 30 percent tax bracket pays 30 cents less tax for every dollar donated. Higher-income individuals generally save more taxes by giving to charity than those with lower incomes for two reasons: they have higher marginal tax rates, and they are more likely to itemize deductions and take advantage of the tax savings.

The deductibility of contributions subsidizes charitable activity but is also sometimes independently justified as an appropriate adjustment to the tax base. Many economists and lawyers argue that a taxpayer's taxable income should be determined by income net of contributions, because a taxpayer with, say, $50,000 of income and $10,000 of contributions has no more ability to consume than someone with $40,000 of income and no contributions. Others see the $10,000 as a consumption choice made by the donor that does not warrant special tax treatment. Either way, the amount of income subject to tax still decreases because the charitable gift is generally transferred tax free to beneficiaries.

Donors may choose which charitable activities to support. Thus, because part of the cost of donations is borne by the government through reduced revenue, donors effectively have a say in which activities the government supports. The same situation exists in many other programs, such as tax credits for research and development, whereby businesses determine the research activities the government supports.

Some donations fund activities that substitute for those the government might otherwise undertake. Other donations complement government activities, and still others support an adversarial relationship with government. Nonprofits, for instance, may seek government funding for an activity, or its members may engage in debates with government officials, though various rules limit outright lobbying. Many believe these types of charitable activity make democracies healthier, even when particular chartable efforts have little impact.

Although the tax deduction likely induces additional giving, estimates of the size of this effect vary. Indeed, there is considerable debate over whether the increase in giving exceeds the loss of government revenue, though valuing the deduction on that basis alone treats charitable contributions and government spending simply as substitutes.

Who benefits from the deduction for charitable giving?

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Q. How would various proposals affect incentives for charitable giving?

A. Proposals include providing more effective or more universal incentives for charitable giving, but often in exchange for some restrictions, such as a floor or a small percentage of income above which incentives would be provided. Many proposals aim to enhance the amount of giving per dollar of revenue loss; some take account of IRS capabilities to monitor taxpayer claims.

Under current law, taxpayers who itemize deductions can deduct most of their charitable contributions, thereby reducing their tax liability. Most taxpayers give up that charitable incentive, along with other itemized deductions, to take a standard deduction of greater value.

A MORE UNIVERSAL DEDUCTION

At present, close to 90 percent of all taxpayers take the standard deduction and cannot claim a deduction for charitable giving. Even when a greater share of taxpayers itemized, extending the deduction to nonitemizers was often advocated to expand the reach of the charitable deduction.

The 2017 Tax Cuts and Jobs Act (TCJA), however, went in the opposite direction and reduced tax subsidies for charitable giving. It did so not directly but mainly through several provisions that together substantially increased the share of taxpayers taking the standard deduction and foregoing the incentive to make charitable donations.

Any more universal deduction likely would displace the existing deduction for itemizers; else two charitable incentives would be in the law, one for itemizers and one for everyone else. However, a completely universal deduction raises two issues: effectiveness and compliance.

First, incentives for the first dollars of giving are considered relatively ineffective because they subsidize giving that taxpayers would take with or without a deduction. Consider a taxpayer who normally gives away $1,000 and, because of an incentive, increases that giving to $1,200. The money spent on the deduction for the first $1,000 is somewhat ineffective; the money spent on the last $200 is where the bang per buck is concentrated.

Second, the Internal Revenue Service (IRS) audits very few people, and the reporting system for charitable contributions is somewhat weak. IRS research clearly indicates that cheating is much more frequent when weak reporting systems are in place.

Key Elements of the U.S. Tax System

How would various proposals affect incentives for charitable giving?

FLOOR ON DEDUCTIONS

If a more universal deduction were combined with a reasonable floor applied to all taxpayers, much or all the revenue loss would be eliminated, as would many problems with noncompliance and complexity.

Taxpayers, for instance, might be allowed to claim charitable deductions greater than 1 or 2 percent of their adjusted gross income, regardless of whether they itemize. A modest floor would leave in place an incentive for all taxpayers, though they must give more than a modest amount to take advantage of it. Meanwhile, the subsidy for some of the first dollars of giving would be eliminated for everyone. Almost no matter how sensitive or insensitive taxpayers are to incentives, a revenue-neutral reform that exchanges fewer subsidies for the first dollars of giving in favor of more subsidies for the last dollars of giving would almost inevitably increase giving.

At the same time, such an approach would address concerns about administration and compliance by eliminating the need for IRS to monitor small givers, which it has not been able to do effectively.

A BETTER REPORTING SYSTEM FOR CHARITABLE CONTRIBUTIONS

Expanding reporting requirements for charitable contributions would raise revenues. Congress occasionally has required increased reporting, as when it required charities to track and send letters to donors for contributions greater than $250. Yet no reporting goes directly to IRS, which over the years has increasingly relied upon document matching as perhaps its primary way of enforcing proper reporting of individual's income tax liability. Various options include sending the IRS information already required for the letters to donors, or allowing an April 15 deduction option (see below) only for contributions directly reported to the IRS.

RAISING THE LIMIT ON THE DEDUCTION

The TCJA raised the annual limit on deductible contributions from 50 to 60 percent of adjusted gross income. Another option would be to raise the limit even further or to expand the current carryover provision for excess contributions beyond the five years now allowed.

IRA ROLLOVERS

Yet another proposal would expand the charitable individual retirement account (IRA) rollover provision. More generous than an itemized deduction, this provision allows some taxpayers over age 70 years and 6 months to donate up to $100,000 from traditional IRAs to charity without having to count the distributions as taxable income or separately take an itemized deduction for these contributions. Raising or eliminating the $100,000 annual limit on donations, lowering the age limit to 59 years and 6 months (the age at which IRA owners may withdraw funds without penalty), or allowing taxpayers to deposit such giving in donor advised funds (currently ineligible for such tax treatment) could increase charitable giving.

FOUNDATION EXCISE TAX

Another option would eliminate or reduce the excise tax on foundation income, which would increase net assets used for charitable purposes. The current excise tax on income from foundation assets was initially intended to cover the IRS's costs of overseeing the tax compliance of charitable organizations, but the monies were never appropriated for that purpose. The tax rate is either 1 or 2 percent, depending on whether the year's giving equals or exceeds the average of the last few years. Under current rules,

foundations that give at above-average rates today face a penalty of being more likely to face the 2 percent rate in future years. In effect, they are given a disincentive to exceed past levels of giving.

At very least, Congress could impose a single tax rate on all such income; this would eliminate the current perverse incentive for foundations to limit current grants today to avoid a higher tax in the future.

ALLOWING CHARITABLE DEDUCTIONS UP TO APRIL 15 OR TIME OF FILING TAX RETURNS

The House of Representatives has passed a proposal, sometimes called the April 15 option, which would allow individuals to take charitable deductions up to April 15 or the time of filing tax returns. The proposal costs the government almost nothing if there are no increases in giving because it doesn't really change the subsidy value of gifts already available. Thus, in terms of bang per buck, or increased giving per dollar of revenue cost, it ranks very high, because the incentive for the most part only loses revenues when there are additional gifts.

Economic and marketing evidence supports the notion that saliency matters: people would give more because they would be more aware of the size of the incentive, partly through the information tax return preparers and tax software developers provide.

CAPS ON CHARITABLE INCENTIVES

Prior to passage of TCJA, two proposals—a cap on total itemized deductions and a cap on the top rate at which deductions can be made—had been suggested to reduce incentives for charitable giving and raise revenues.

President Trump at one point proposed an overall cap on itemized deductions of $100,000 per single return and $200,000 per joint return. Higher-income taxpayers with mortgage interest, property tax, and other deductions in excess of such amounts would have been left with no tax incentives to give, while others would be left with a subsidy only for their first dollars of giving, up to the point they hit the cap.

A maximum cap on the tax subsidy rate for itemized deductions, proposed by President Obama, could also be reintroduced. Alternatively, in the presence of a universal deduction to nonitemizers and itemizers alike, the maximum cap could be replaced by a cousin, a maximum rate for that subsidy alone. For instance, if the top statutory tax rate is 37 percent but the maximum tax subsidy rate for deductible contributions is set at 27 percent, then the subsidy for those in that 37 percent bracket would be reduced by more than one-quarter. This would reduce giving much more than many other types of limitations that raise the same amount of revenues, such as the floor discussed above.

Background

How would various proposals affect incentives for charitable giving?

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Q. How large are individual income tax incentives for charitable giving?

A. The individual income tax deduction for charitable giving provides a substantial incentive to give by reducing the economic cost of making a donation. In 2018, charitable giving by individuals is estimated to reach $299 billion at an annual revenue loss of around $44 billion.

CHARITABLE GIVING BY ITEMIZERS AND NONITEMIZERS

An income tax deduction for charitable giving is available only to taxpayers who itemize their deductions. Estimates from the Tax Policy Center (TPC) suggest that for 2018, charitable giving by individuals could reach a total of $299 billion. TPC estimates that the 90 percent of households that do not itemize their deductions will contribute about 40 percent of total charitable giving while the 10 percent of households who itemize will provide about 60 percent (tables 1).

TABLE 1

Estimated Charitable Giving by Itemizers and Nonitemizers
2018, under current law

Current law baseline	Itemizers	Nonitemizers
Number of tax units	17,622	164,127
Percentage of total tax units	10	90
Total giving ($ billions)	180	119
Percentage of total giving	60	40

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

GIVING BY INCOME GROUP

Charitable giving patterns differ by income. The charitable deduction provides higher-income taxpayers with a larger tax subsidy per dollar donated because they are more likely to itemize deductions and because they generally face higher tax rates. Some research indicates additionally that they are more responsive or sensitive to each dollar of tax subsidy—that is, each dollar of government cost generates more charitable contributions—perhaps because a subsidy is more salient to those more likely to use tax advisers and give more to charity even in absence of a tax incentive.

Key Elements of the U.S. Tax System

How large are individual income tax incentives for charitable giving?

Tax proposals that affect incentives for higher-income individuals to give, however, will have a disproportionate effect on the charities to which these individuals are more likely to donate, such as higher education and museums.

Table 2 shows the amount of charitable contributions for taxpayers claiming an itemized deduction for those contributions. It does not include giving by non-itemizers. A few things to note. First, most low- and moderate-income taxpayers do not claim a deduction for charitable contributions, largely because most of them do not itemize. Second, at high-income levels, about 90 percent or more taxpayers claim charitable deductions (prior to TCJA). And third, the pattern of deductible charitable giving as a percentage of income is U-shaped—average giving is very high for the small percentage of low-income taxpayers who claim a deduction, as well as for the large percentage of very high-income taxpayers. The pattern of giving for atypical low-income taxpayers who itemize, however, may not be indicative of giving by all low-income households.

TABLE 2

Returns Claiming Charitable Deduction: Number of Returns with and Amount of Charitable Deduction by Adjusted Gross Income

Tax year 2016 (filling year 2017)

AGI category	Percent Claiming Charitable Deduction	Total Charitable Deductions	Average Charitable Deduction for those Claiming Deduction	Charitable Deduction as a Percentage of AGI[a]
Under $50,000	7.5	17,836,225	2,588	8.4
$50,000 under $100,000	35.0	38,417,634	3,305	4.5
$100,000 under $500,000	70.6	88,440,900	5,124	2.9
$500,000 under $2,000,000	88.0	26,142,094	25,510	3.1
$2,000,000 under $10,000,000	89.1	20,219,824	164,814	4.4
$10,000,000 or more	94.6	42,810,648	2,813,343	9.3
All returns	**24.6**	**233,867,324**	**6,332**	**4.3**

Source: Internal Revenue Service, Statistics of Income Division, August 2018.
Notes: AGI = adjusted gross income. Table only captures charitable donations reported to the Internal Revenue Service.
(a) Charitable deduction as a percentage of AGI is calculated as the average charitable deduction for returns claiming the deduction divided by the average AGI for all returns with any itemized deductions.

AVERAGE TAX INCENTIVE FOR GIVING

The after-tax cost of giving is the value of the gift minus any tax benefits received. If an itemizing taxpayer with a marginal tax rate of 24 percent (that is, the tax rate on the last dollars of income) gives $100 to a local college, for instance, the gift reduces the income tax bill for that person by $24, so the deductible charitable gift has a net cost of only $76. The $24 is the amount of the federal subsidy for giving. If the taxpayer had a 40 percent tax rate, the donation becomes even less costly to the taxpayer, at only $60. In other words, as tax rates increase, the after-tax "price" of charitable giving decreases.

Key Elements of the U.S. Tax System

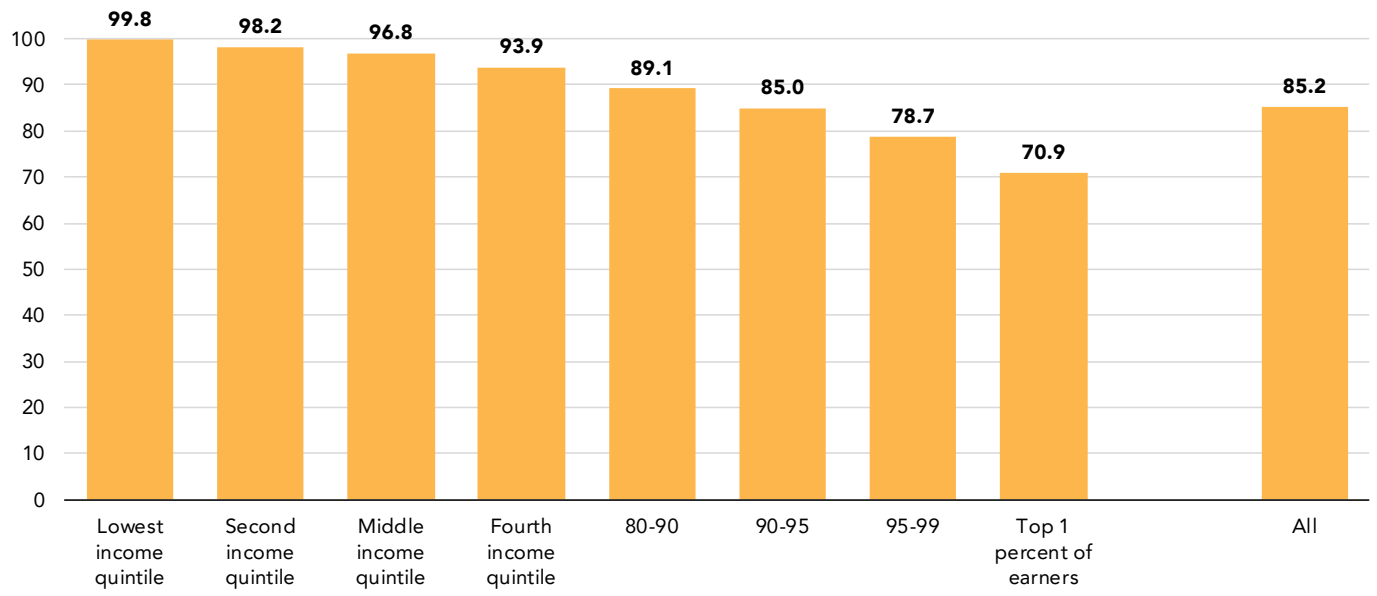
How large are individual income tax incentives for charitable giving?

Figure 1 shows a summary of the average after-tax price of charitable giving for taxpayers at different income levels. For the entire population , it is about 85 percent; that is, on average the after-tax federal subsidy is 15 percent. This represents a drop of about 30 percent from the average federal subsidy rate of around 21 percent prior to the passage of the 2017 Tax Cuts and Jobs Act. Note that taxpayers in the top 1 percent have the lowest after-tax price of charitable giving both because they face higher tax rates and they are more likely to itemize.

FIGURE 1

Estimated Average After-Tax Price of Charitable Giving, 2018

By expanded cash income percentile, under current law



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Notes: Graph depicts the average marginal after-tax price of a $100 donation.

TABLE 3

Estimated Tax Expenditures by Charitable Deductions

Fiscal years 2017–21 ($ billions)

Charitable deductions	2017	2018	2019	2020	2021
Educational institutions	$9.6	$9.2	$7.3	$7.5	$7.7
Health organizations	$4.5	$4.3	$3.3	$3.3	$3.5
Other	$42.9	$40.8	$31.3	$31.9	$32.9
Total	**$57.0**	**$54.3**	**$41.9**	**$42.7**	**$44.1**

Source: Joint Committee on Taxation (2018, 34–18).

Key Elements of the U.S. Tax System

How large are individual income tax incentives for charitable giving?

ESTIMATED REVENUE LOSS FROM THE CHARITABLE DEDUCTION

The charitable deduction is estimated to cost approximately $54 billion in 2018 and $240 billion over five years (2017–21). The relationship between the revenue loss and the amount of additional giving created by the tax incentive has significant policy implications. For example, if the loss in federal revenue from allowing the charitable deduction is greater than the increase in charitable giving caused by the deduction, then a portion of the federal subsidy is going to donors rather than to the ultimate beneficiaries of charitable gifts. To the extent that Congress views charitable and government efforts as direct substitutes, it might be more efficient to eliminate the deduction and provide direct federal support to charities.

This sometimes leads to proposals, such as allowing a deduction only for giving that exceeds a dollar floor, to concentrate a greater share of the tax incentive on the last rather than first dollars of giving by any taxpayer getting the incentive. Research suggests that first dollars of giving are much less responsive to tax incentives.

Studies on the impact of the tax incentive, however, do not deal with and therefore may underestimate the extent to which the presence of a tax incentive helps create a culture of giving.

LIMITS ON THE CHARITABLE DEDUCTION

Congress has placed many limits on the availability of a charitable deduction. Among them are the following:

- The charitable deduction is only available for a subset of qualifying, tax-exempt organizations that are charitable in nature, as defined in section 501(c)(3) of the tax code.
- Contributions for individuals are generally allowed up to 60 percent of adjusted gross income, but there is a 30 percent limit for contributions to a foundation and certain other organizations and a 30 percent limit for contributions of capital gain property. Deductible contributions for corporations are limited to 10 percent of corporate income.
- Contributions to many tax-exempt organizations, such as unions and chambers of commerce, are not deductible, though income earned on assets within those organizations generally are excluded from taxation.

How large are individual income tax incentives for charitable giving?

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Philip Stallworth, Chenxi Lu, and C. Eugene Steuerle, "Both Clinton and Trump would reduce tax incentives for charitable giving," TaxVox (blog), November 4, 2016.

Q. How did the TCJA affect incentives for charitable giving?

A. The 2017 Tax Cuts and Jobs Act will discourage charitable giving by reducing the number of taxpayers claiming a deduction for charitable giving and by reducing the tax saving for each dollar donated.

The Tax Cuts and Jobs Act (TCJA) makes major changes that will discourage charitable giving. It lowers individual income tax rates, thus reducing the value of all tax deductions. It increases the standard deduction to $12,000 for singles and $24,000 for couples, caps the state and local tax deduction at $10,000, and eliminates other itemized deductions—steps that will significantly reduce the number of itemizers and hence the number of taxpayers taking a deduction for charitable contributions. The new law also roughly doubles the estate tax exemption to $11 million for singles and $22 million for couples, which will discourage tax-motivated charitable bequests by some very wealthy households.

The Urban-Brookings Tax Policy Center estimates that TCJA will shrink the number of households claiming an itemized deduction for their charitable gifts from about 37 million to about 16 million in 2018, and reduce the federal income tax subsidy for charitable giving by one-third, from about $63 billion to roughly $42 billion. Overall, the TCJA will reduce the marginal tax benefit of giving to charity by more than 30 percent in 2018, raising the after-tax cost of donating by about 7 percent. Unless taxpayers increase their net sacrifice—that is, charitable gifts less tax subsidies—charities and those who benefit from their charitable works, not the taxpayers, will bear the brunt of these changes.

REDUCING TAX RATES

For taxpayers who itemize their deductions, the tax saving from charitable contributions depends on the donor's marginal tax rate. For instance, a donor in the 30 percent tax bracket pays 30 cents less tax for every dollar donated. By lowering tax rates, though only modestly for individuals, the TCJA reduced the tax saving for each dollar donated.

RAISING THE STANDARD DEDUCTION AND LIMITING SOME ITEMIZED DEDUCTIONS

Taxpayers who choose to itemize their deductions on their income tax returns can deduct charitable contributions from income that would otherwise be taxed. This lowers the cost of charitable giving by the amount of taxes saved. Most taxpayers, however, do not itemize but instead claim the standard deduction because it is larger than the sum of their potential itemized deductions. Taxpayers who take the standard deduction cannot reduce their taxable income by the amount of their charitable contributions; only itemizers have an incentive to give to charities because it reduces their taxes.

TCJA significantly increased the standard deduction amount. It also capped the deduction for state and local taxes at $10,000 and eliminated some other itemized deductions. The combined effect of these changes will

be to substantially reduce the number of taxpayers who itemize, and thus the number who take a deduction for charitable contributions.

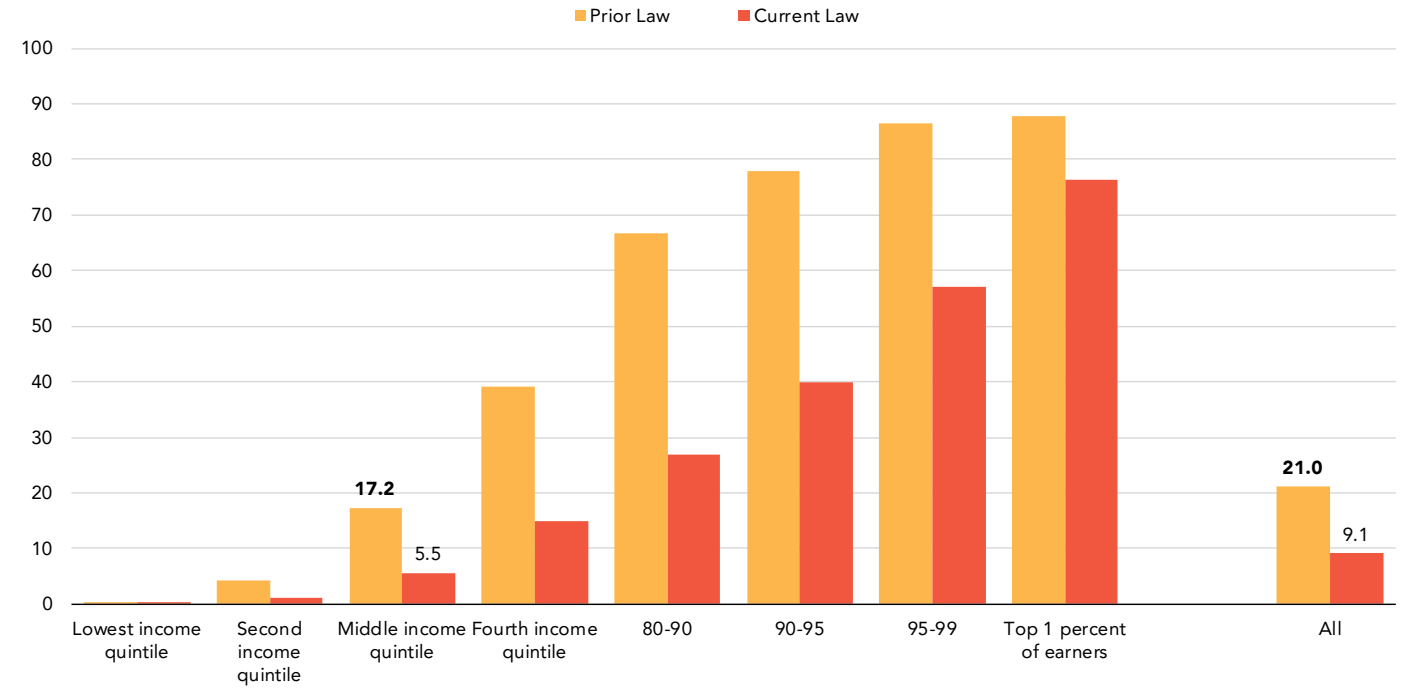
Before accounting for any changes in the amount of charitable giving, TPC estimates that the law will cut the number of those itemizing their charitable contributions by more than half, from 21 percent to about 9 percent of households. The share of middle-income households, defined here as those in the middle quintile of the income distribution, claiming the charitable deduction will fall by two-thirds, from about 17 percent to just 5.5 percent (figure 1).

The share of households itemizing their charitable contributions will fall even among high-income households. The share of households in the 90th–95th percentile (those making between about $216,800 and $307,900), taking a deduction for charitable gifts will drop from about 78 to 40 percent, and the share itemizing among households in the 95th–99th percentile (those making between about $307,900 and $732,800) will fall from 86 to 57 percent (figure 1).

FIGURE 1

Change in the Share of Taxpayers Taking Itemized Deductions for Charitable Giving under the TCJA

By expanded cash income percentile, under prior law and current law



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).
Notes: Graph depicts the average marginal tax subsidy for a $100 donation.

While nonitemizers do not receive any subsidy for their current level of gifts, the incentive remains for some to make large gifts, even if unused. Thus, a couple filing a joint return with $280,000 of adjusted gross income and paying state and local taxes in excess of $10,000 still has an incentive to give more than $14,000, at which point their total itemized deductions would exceed the standard deduction. However, the tax incentive would now apply to excess gifts, that is, giving that raises their total itemized deductions above the $24,000 amount of the standard deduction. Under prior law, which had a much lower standard deduction and no cap on deductible state and local taxes, the tax incentive for giving might very well have applied to the total amount of their charitable donation.

Some taxpayers can avoid these limitations. An individual retirement account charitable rollover allows people age 70.5 and older to make direct transfers from their IRAs totaling up to $100,000 per year to qualified charities, without having to count the transfers as income for federal income tax purposes. Also, some taxpayers can bunch gifts. For instance, a couple with $10,000 of state and local taxes would take the standard deduction if the only other itemizable expenses were contributions of $10,000 a year for each of five years. However, the couple might give away $50,000 in one year and nothing in the other four—thus gaining the advantages of both the increased standard deduction and a deduction for most of their charitable contributions.

AVERAGE SUBSIDY FOR CHARITABLE GIVING

The combination of provisions in TCJA that reduce both the number of itemizers and tax rates will lower the average subsidy for charitable giving (the marginal tax benefit averaged across all charitable gifts) from 20.7 percent to 15.2 percent. While the average subsidy for charitable giving will decline significantly for low- and moderate-income taxpayers, it will hardly change for the highest-income taxpayers. For example, the average subsidy for middle-income taxpayers (those whose income places them between the 40th and 60th percentile of the income distribution) will fall from 8.1 percent to 3.3 percent. By contrast, for those in the top 1 percent, it will fall from 30.5 percent to 28.9 percent (figure 2).

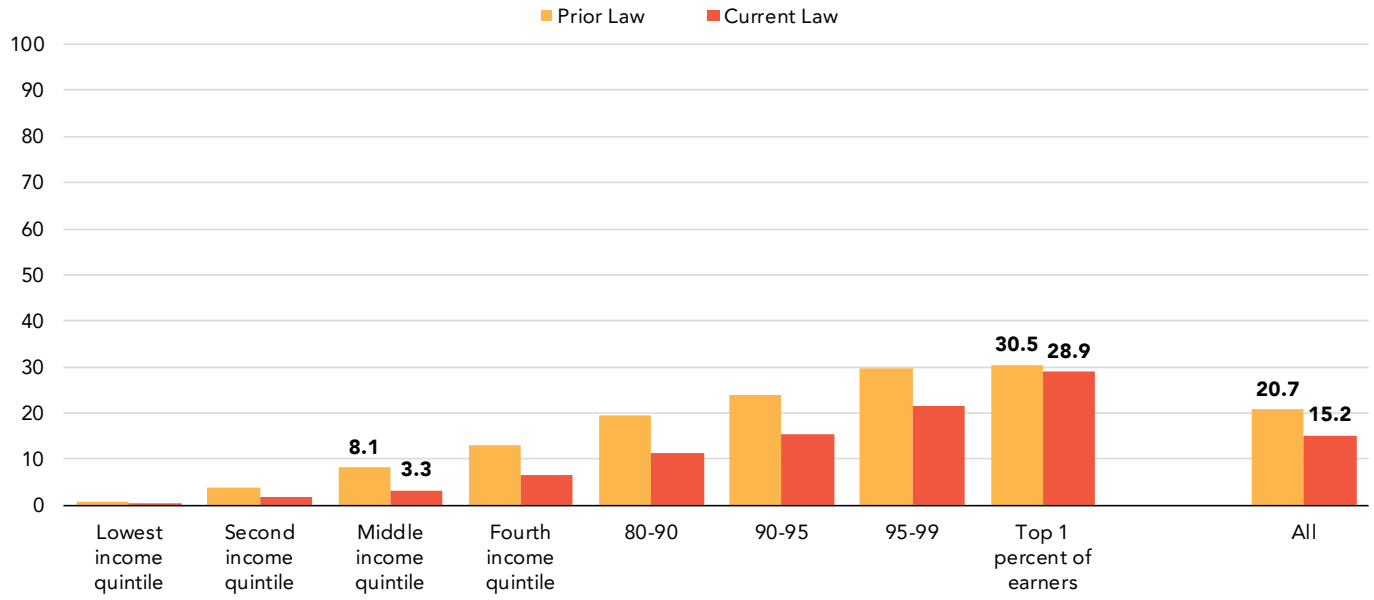
Key Elements of the U.S. Tax System

How did the TCJA affect incentives for charitable giving?

FIGURE 2

Estimated Effective Marginal Tax Benefit of Charitable Giving, 2018

By expanded cash income percentile, under prior law and current law



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).
Notes: Graph depicts the average marginal tax subsidy for a $100 donation.

Data Sources

Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0217-1. "

Q. How much does the federal government spend on health care?

A. The federal government spent nearly $1.1 trillion in fiscal year 2018. In addition, income tax expenditures for health care totaled $225 billion.

The federal government spent nearly $1.1 trillion on health care in fiscal year 2018 (table 1). Of that, Medicare claimed roughly $583 billion, Medicaid and the Children's Health Insurance Program (CHIP) about $399 billion, and veterans' medical care about $70 billion. In addition to these direct outlays, various tax provisions for health care reduced income tax revenue by about $225 billion. Over $146 billion of that figure comes from the exclusion from taxable income of employers' contributions for medical insurance premiums and medical care. The exclusion of employer contributions to medical care also substantially reduced payroll taxes, though that impact is not included in official tax expenditure estimates. Including its impact on both income and payroll taxes, the exclusion reduced government revenue by $280 billion in 2018.

TABLE 1

Estimated Federal Spending and Tax Expenditures for Health Care

Fiscal Year 2018

Program	Cost (millions of dollars)
Spending	
Spending for Medicare net of offsetting receipts	$583,200
Medicaid and CHIP	$399,000
Veterans' medical care	$70,400
Affordable Care Act (ACA) subsidies for nongroup coverage other than premium tax credit	$6,000
Tax Expenditures[a]	
Exclusion of employer contributions for medical insurance premiums and medical care[b]	$146,100
Premium tax credit for insurance purchased through ACA marketplaces	$49,200
Deductibility of medical expenses by individuals	$9,400
Deductibility of medical insurance premiums for self-employed	$6,400
Health Savings Accounts	$5,300
Exclusion of workers' compensation medical benefits	$4,600
Exclusion of medical care for military dependents and retirees	$3,000
Tax credit for small businesses purchasing health insurance	$600

Sources: Congressional Budget Office (2018a and b); Joint Committee on Taxation (2018); and Office of Management and Budget (2018).

(a) The Joint Committee on Taxation no longer classifies excluding Medicare benefits from taxable income as a tax expenditure.
(b) Only includes lost income tax revenues. Including income and payroll taxes, the exclusion reduced government revenue by $280 billion.

Key Elements of the U.S. Tax System

How much does the federal government spend on health care?

Data Sources

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Office of Management and Budget. 2018. *Budget of the United States Government, Fiscal Year 2019, Historical Tables*. Washington, DC: White House.

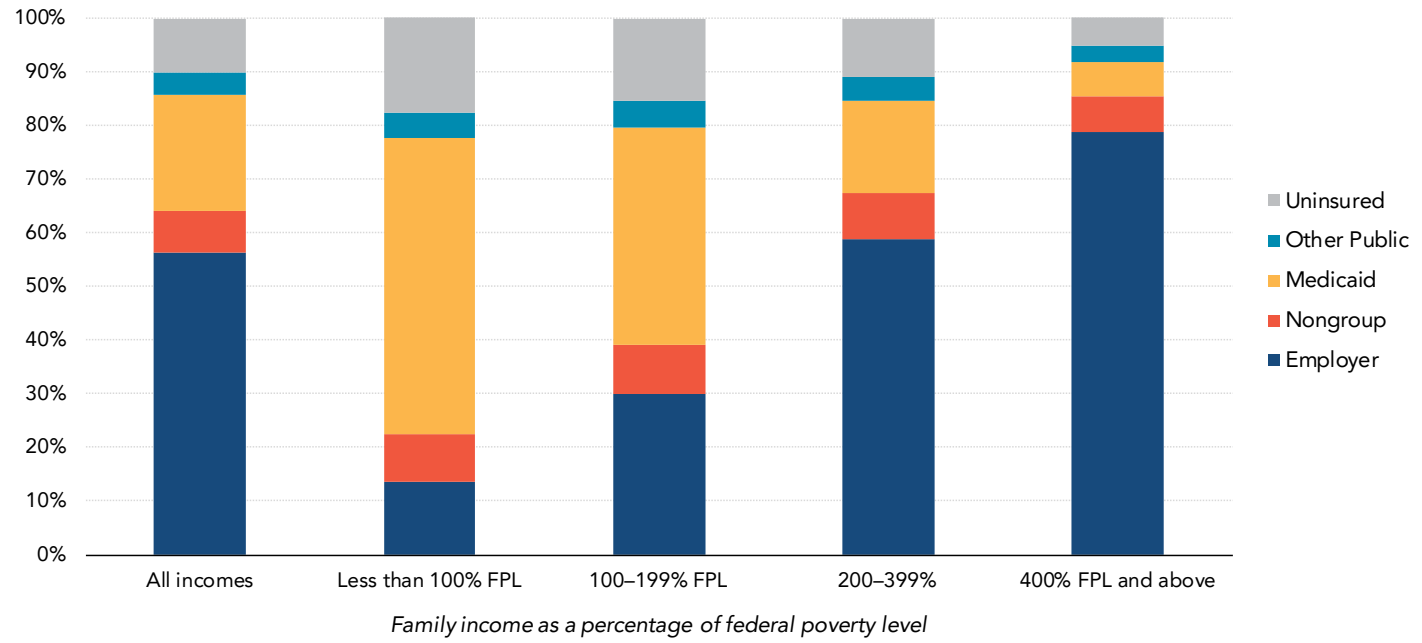
Q. Who has health insurance coverage?

A. Ninety percent of nonelderly individuals were covered in 2016, with rates rising sharply with income. The repeal of the individual mandate in 2019 is projected to reduce the percent covered by four percentage points.

In 2016, 56 percent of the nonelderly population obtained health insurance coverage through employment (figure 1). Another 8 percent purchased coverage on their own in the private market, while about 22 percent were covered by Medicaid and 4 percent had coverage from other public sources. That left 10 percent uninsured. Virtually all elderly individuals participate in Medicare, and those with low incomes also receive assistance through Medicaid.

FIGURE 1

Health Insurance Coverage of the Nonelderly by Income
2016



Source: Kaiser Commission on Medicaid and the Uninsured (2017).
Note: "Other public" insurance includes Medicare and military-related coverage; the Children's Health Insurance Program is included in Medicaid.

Key Elements of the U.S. Tax System

Who has health insurance coverage?

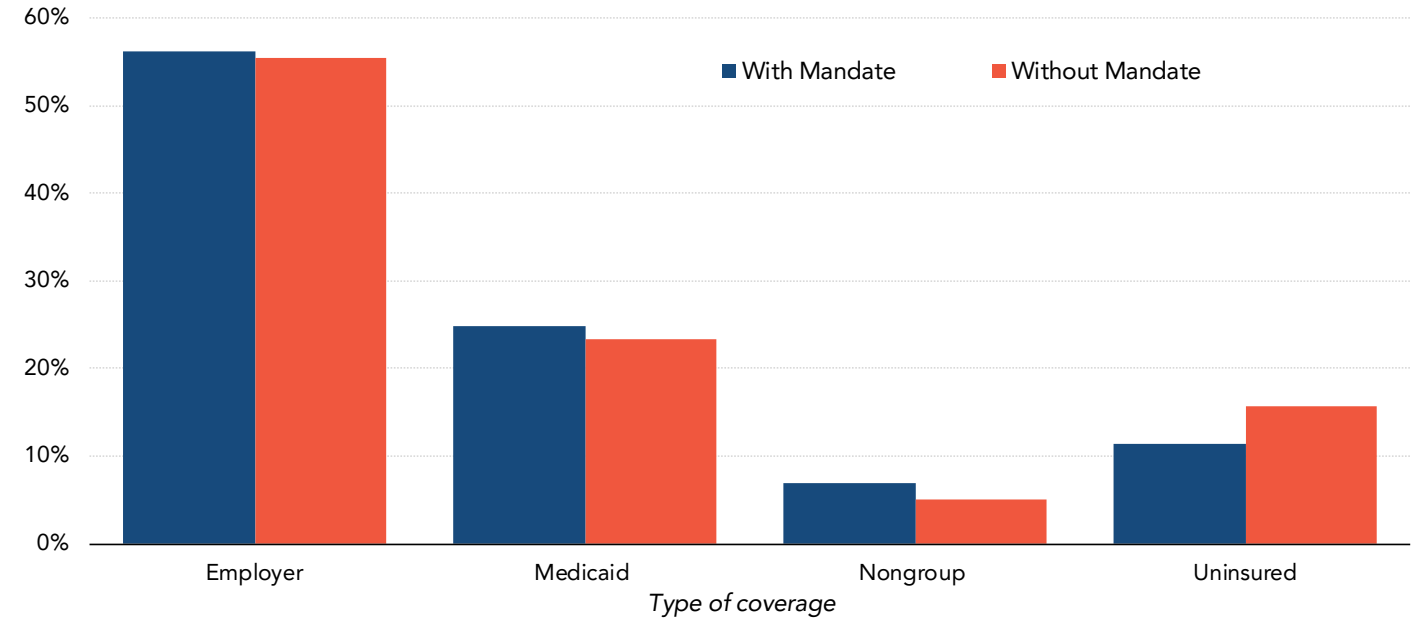
Health insurance coverage rises sharply with income. Less than 23 percent of the nonelderly with family incomes below 100 percent of the federal poverty level had private coverage in 2016; 18 percent reported having no health insurance, public or private. In contrast, 85 percent of those with incomes above 400 percent of the federal poverty level had private coverage, and just 5 percent had no insurance.

The 2017 Tax Cuts and Jobs Act repealed the Affordable Care Act's excise tax on individuals without adequate health insurance starting in 2019. The Congressional Budget Office projects that repealing the individual mandate will increase the share of nonelderly adults without health insurance 4 percentage points by 2021. Medicaid and nongroup coverage will decline the most (figure 2).

FIGURE 2

Impact of Repealing Individual Mandate on Health Insurance Coverage of the Nonelderly

2021



Source: Congressional Budget Office (2017a, b).
Note: The Children's Health Insurance Program is included in Medicaid.

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Q. What tax provisions subsidize the cost of health care?

A. A host of tax preferences for health care cost the federal government roughly $225 billion in income tax revenue in 2018. The largest is the exclusion from taxable income of employer contributions for health insurance premiums.

In 2018, the federal government lost roughly $225 billion in income tax revenue from at least eight tax preferences for health care. By far the most costly is the exclusion of employer contributions for health insurance premiums from taxable income.

EXCLUSION FOR EMPLOYER CONTRIBUTIONS TO HEALTH INSURANCE

Employer and most employee contributions to health insurance premiums are excluded from income taxes. The Joint Committee on Taxation estimates that the income tax expenditure on the exclusion for employer-sponsored health insurance was over $146 billion in fiscal year 2018. Employer contributions for health insurance premiums are also excluded from employees' taxable wages when calculating payroll taxes. Including its impact on both income and payroll taxes, the exclusion reduced government revenue by $280 billion in 2018.

OTHER MAJOR TAX EXPENDITURES FOR HEALTH CARE

Table 1 outlines the other major federal tax expenditures for health care:

- Individuals ineligible for employer-sponsored or public health insurance may receive subsidies to purchase insurance on Affordable Care Act Marketplaces ($49 billion).
- Individuals may claim as an itemized deduction out-of-pocket medical expenses and health insurance premiums paid with after-tax dollars and exceeding 7.5 percent of their adjusted gross income in 2018 and 10 percent of their income in subsequent years ($9 billion).
- Self-employed individuals may deduct health insurance premiums from their income ($6 billion).
- Individuals younger than 65 covered by high-deductible health insurance plans may take an income tax deduction for contributions to health savings accounts (HSAs). Employers may make HSA contributions that are excluded from income and payroll taxes. Additionally, HSA balances grow tax-free, and withdrawals for medical expenses are not subject to income tax ($5 billion).
- Medical benefits provided by workers' compensation insurance are excluded from taxable income ($5 billion).
- Coverage for military retirees and dependents is excluded from taxable income ($3 billion).
- Small employers who pay low average wages may take a credit when providing employees with health insurance. The credit phases out as firm size and average wages increase; it can only be taken for two years ($1 billion).

Key Elements of the U.S. Tax System

What tax provisions subsidize the cost of health care?

TABLE 1

Estimated Tax Expenditures

Fiscal Year 2018

Program	Cost (millions of dollars)
Exclusion of employer contributions for medical insurance premiums and medical care[a]	$146,100
Premium tax credit for insurance purchased through ACA marketplaces	$49,200
Deductibility of medical expenses by individuals	$9,400
Deductibility of medical insurance premiums for self-employed	$6,400
Health Savings Accounts[b]	$5,300
Exclusion of workers' compensation medical benefits	$4,600
Exclusion of medical care for military dependents and retirees	$3,000
Tax credit for small businesses purchasing health insurance	$600

Sources: Congressional Budget Office (2018a); Joint Committee on Taxation (2018); and Office of Management and Budget (2018).

Note: The Joint Committee on Taxation no longer classifies excluding Medicare benefits from taxable income as a tax expenditure.
(a) Only includes lost income tax revenues. Including income and payroll taxes, the exclusion reduced government revenue by $280 billion.

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Office of Management and Budget. 2018. *Budget of the United States Government, Fiscal Year 2019, Historical Tables*. Washington, DC: White House.

Q. How does the tax exclusion for employer-sponsored health insurance work?

A. The exclusion lowers the after-tax cost of health insurance for most Americans.

Employer-paid premiums for health insurance are exempt from federal income and payroll taxes. Additionally, the portion of premiums employees pay is typically excluded from taxable income. The exclusion of premiums lowers most workers' tax bills and thus reduces their after-tax cost of coverage. This tax subsidy partly explains why most American families have health insurance coverage through employers. Other factors play a role though, notably the economies of group coverage.

ESI EXCLUSION IS WORTH MORE TO TAXPAYERS IN HIGHER TAX BRACKETS

Because the exclusion of premiums for employer-sponsored insurance (ESI) reduces taxable income, it is worth more to taxpayers in higher tax brackets than to those in lower brackets. Consider a worker in the 12 percent income-tax bracket who also faces a payroll tax of 15.3 percent (7.65 percent paid by the employer and 7.65 percent paid by the employee). If his employer-paid insurance premium is $1,000, his taxes are $254 less than they would be if the $1,000 were paid as taxable compensation. His after-tax cost of health insurance is thus $1,000 minus $254, or $746. In contrast, the after-tax cost of a $1,000 premium for a worker in the 22 percent income-tax bracket is just $653 ($1,000 minus $347). Savings on state and local income taxes typically lower the after-tax cost of health insurance even more.

These examples assume that workers bear the full burden of employer payroll taxes. Note that the effective marginal tax rates (25.4 percent for the worker in the 12 percent income-tax bracket and 34.6 percent for the worker in the 22 percent income-tax bracket) are less than the sum of the income-tax and payroll-tax rates (27.3 percent and 37.3 percent, respectively) because those rates are applied to compensation after the employer's share of payroll taxes has been deducted. Thus, for example, if the employer increases compensation by $1,000, cash wages only increase by $929 [calculated as $1,000 / (1 + employer payroll tax rate)], because the employer would have to pay additional employer payroll taxes of $71. The lower-wage worker's resulting combined income and payroll tax would be 27.3 percent of $929, or $254. The higher-wage worker's resulting combined income and payroll tax would be 37.3 percent of $929, or $347. The example assumes the higher-wage worker has earnings below the maximum amount subject to Social Security taxes.

ESI EXCLUSION IS COSTLY

The ESI exclusion will cost the federal government an estimated $280 billion in income and payroll taxes in 2018, making it the single largest tax expenditure. Note, too, that the open-ended nature of the tax subsidy has likely increased health care costs by encouraging the purchase of more comprehensive health insurance

policies with lower cost sharing or with less tightly managed care.

Replacing the ESI exclusion with a tax credit would equalize tax benefits across taxpayers in different tax brackets, as well as between those who get their insurance through their employers and those who obtain coverage from other sources. Making the credit refundable would extend that benefit to those whose tax liability falls below the value of the credit. And designing the credit so that it does not subsidize insurance on the margin (i.e., to be a fixed dollar amount as opposed to a percentage of the premium) could lower health care costs.

Data Source

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Q. What are premium tax credits?

A. The Affordable Care Act provides families with refundable, advanceable tax credits to purchase health insurance through exchanges. Premium credits cap contributions as a share of income for families with incomes between 100 and 400 percent of the federal poverty level.

ACA TAX CREDITS FOR HEALTH INSURANCE

The Affordable Care Act (ACA) provides families with refundable tax credits to purchase health insurance through both state and federal Marketplaces. Tax filers can claim premium credits if they (1) have incomes between 100 and 400 percent of the federal poverty level (FPL), (2) are ineligible for adequate and affordable health insurance from other sources, and (3) are legal residents of the United States. Tax filers with incomes between 100 and 138 percent of the FPL are generally ineligible for premium credits if they reside in states that take advantage of the ACA's Medicaid-eligibility expansion.

CALCULATION OF PREMIUM CREDITS

Premium credits effectively cap family contributions as a share of income for those purchasing midrange "benchmark" plans. In 2018, maximum family contributions ranged from 2.01 percent of income for families at the poverty threshold to 9.56 percent for families between 300 and 400 percent of FPL (table 1). Premium credits equal the difference between gross premiums and maximum family contributions.

For example, consider a family of four with income equal to 200 percent of FPL in 2018 who are purchasing an insurance plan costing $15,000. Multiplying family income (here, $49,200) by the applicable 6.34 percent maximum premium results in a family contribution of $3,119 and thus a premium credit of $11,881 ($15,000–$3,119).

The example above assumes the family purchases the second least expensive (Silver) plan from the menu of Bronze, Silver, Gold, and Platinum health insurance plans offered through Marketplaces. If the family purchased a more expensive plan, the credit would remain unchanged and the family would pay the full difference in premiums.

ADVANCE PREMIUM CREDITS AND RECONCILIATION

Premium credits are based on a household's income in the tax year premiums are paid. Yet the credits are calculated the following year, when households file their income tax returns. However, the Treasury usually sends advance payment of premium credits directly to the insurance company, and the household pays a

reduced premium. The advance payment of credits is based on estimated income, generally from the last tax return filed before enrollment in health insurance. If actual income in the year of enrollment is less than estimated income, families qualify for additional credit amounts when filing their returns. If actual income is greater than estimated income, families must repay part or all of the advance credit.

Fortunately for most households with large income increases, the maximum reconciliation payment is limited. In tax year 2017, the maximum payment ranged from $600 for married couples with incomes below 200 percent of FPL to $2,550 for couples with incomes of at least 300 but less than 400 percent of FPL (table 2). Families whose income equals 400 percent or more of FPL have no limit on reconciliation payments.

For tax year 2016, 56 percent of families receiving advanced credits had to make reconciliation payments. However, analysis of tax refund data suggests that for most lower-income filers, reconciliation payments will reduce tax refunds rather than require additional payments. Still, reconciliation will likely present hardships for some families receiving advanced premium credits, even if they do not have tax payments due, because many low-income households have grown to rely on tax refunds for pressing needs.

TABLE 1

Maximum Premium Contribution (after Credits) for Families of Four

by Income Level, 2018

Income as Percentage of Federal Poverty Level	Premium as Percentage of Income	Income	Maximum Premium
100%	2.01%	$24,600	$494
133%	3.02%	$32,718	$988
150%	4.03%	$36,900	$1,487
200%	6.34%	$49,200	$3,119
250%	8.10%	$61,500	$4,982
300%	9.56%	$73,800	$7,055
399%	9.56%	$98,154	$9,384
400%	N/A	$98,400	N/A

Source: Tax Policy Center computations based on ACF HHS 2018 Poverty Guidelines and IRS Rev. Proc. 2017-36.

Note: Maximum premium contribution based on purchase of second least expensive Silver plan offered through a health insurance exchange.

TABLE 2

Maximum Reconciliation Payment

by income level, 2017

Household Income as Percentage of Federal Poverty Level	Married Filing Jointly	All Other Filers
Under 200%	$600	$300
200–299%	$1,500	$750
300–399%	$2,550	$1,275
400% and above	Unlimited	Unlimited

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Q. What is the Cadillac tax?

A. Employer-sponsored health benefits whose value exceeds legally specified thresholds will be subject to a 40 percent excise tax, starting in 2022. The so-called Cadillac tax will be levied on insurance companies, but the burden will likely fall on workers. The tax will effectively limit the tax preference for employer-sponsored health insurance.

TAX ON HIGH-COST HEALTH PLANS STARTING IN 2022

Under the Affordable Care Act, employer-sponsored health benefits whose value exceeds specified thresholds will be subject to an excise tax starting in 2022. (The Cadillac tax was originally scheduled to take effect in 2018 but has been delayed twice by legislation, most recently by the Extension of Continuing Appropriations Act of January 2018.) This "Cadillac tax" will equal 40 percent of the value of health benefits exceeding thresholds projected to be $11,200 for single coverage and $30,150 for family coverage in 2022. The thresholds will be indexed to growth in the consumer price index in subsequent years. Thresholds will be higher for plans with more-expensive-than-average demographics, retirees ages 55 to 64, and workers in high-risk professions. The Cadillac tax will apply not only to employers' and employees' contributions to health insurance premiums, but also to contributions to health saving accounts, health reimbursement arrangements, and medical flexible spending accounts.

WORKERS BEAR THE BURDEN

The tax will be levied on insurance companies, but the burden will likely be passed on to workers in the form of lower wages. Some employers will avoid the tax by switching to less expensive health plans; this will translate into higher wages but also higher income and payroll taxes. In fact, the Joint Committee on Taxation and the Congressional Budget Office predict that 70 percent of the revenue raised by the Cadillac tax will be through the indirect channel of higher income and payroll taxes, rather than through excise taxes collected from insurers. Simulations suggest the excise tax will have the largest relative impact on after-tax income for families in the middle income quintile.

EFFECTIVELY LIMITS THE ESI EXCLUSION

Employer-provided health benefits are excluded from taxable income, reducing income and payroll tax revenue by an estimated $280 billion in 2018. Even if one ignores the revenue losses, there are other undesirable aspects of the exclusion. The exclusion for employer-sponsored health insurance (ESI) is poorly targeted, as it is worth more to taxpayers in higher brackets who would be more likely to purchase insurance in the first place. Additionally, the ESI exclusions' open-ended nature may contribute to faster health care

cost growth. For these reasons, analysts have often suggested limiting the ESI exclusion by including the value of health benefits beyond a certain threshold in taxable income (Congressional Budget Office 2016).

While the Cadillac tax plan is not a direct limit, it effectively curtails the ESI exclusion. If employers avoid the excise tax by shifting compensation from health benefits to taxable wages, the ultimate impact will be identical to an exclusion limit. In both cases, health benefits that exceeded thresholds before introduction of the Cadillac tax would become subject to income and payroll taxes. If employers continue to offer high-cost health plans, the impact will be similar to an exclusion limit—though less progressive. Excess benefits would be taxed at 40 percent rather than at an individual worker's marginal tax rate. (After accounting for income and payroll tax offsets, the effective excise tax rate is ultimately lower than 0.4 and, in fact, declines with income (Blumberg, Holahan, and Mermin 2015).)

Data Sources

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Q. What tax changes did the Affordable Care Act make?

A. The Affordable Care Act made several changes to the tax code intended to increase health insurance coverage, reduce health care costs, and finance health care reform.

The Affordable Care Act (ACA) made several changes to the tax code intended to increase health insurance coverage, reduce health care costs, and finance health care reform.

To increase health insurance coverage, the ACA provided individuals and small employers with a tax credit to purchase insurance and imposed taxes on individuals with inadequate coverage and on employers who do not offer adequate coverage. To reduce health care costs and raise revenue for insurance expansion, the ACA imposed an excise tax on high-cost health plans. To raise additional revenue for reform, the ACA imposed excise taxes on health insurers, pharmaceutical companies, and manufacturers of medical devices; raised taxes on high-income families; and increased limits on the income tax deduction for medical expenses.

ACA tax provisions in effect in 2018 (table 1) include the following:

- A refundable tax credit for families to purchase health insurance through state and federal marketplaces. Tax filers must have incomes between 100 and 400 percent of the federal poverty level, be ineligible for health coverage from other sources, and be legal residents of the United States. The Premium Tax Credit cost $49 billion in fiscal year 2018 and primarily benefits low- and moderate-income families.

- A tax credit for small employers to purchase health insurance for their workers. Employers must have fewer than 25 workers whose average wages are less than $50,000. Employers can only receive the credit for up to two years. The small-employer health insurance credit cost $1 billion in 2018.

- A tax on individuals without adequate health insurance coverage (the "individual mandate"). Many individuals are exempt from the tax, including those with incomes low enough that they are not required to file a tax return, those whose premiums would exceed a specified percentage of income, and unauthorized immigrants. The 2017 Tax Cuts and Jobs Act eliminated the individual mandate starting in 2019. Individual mandate receipts were $4 billion in 2018.

- A tax on employers offering inadequate health insurance coverage (the "employer mandate"). The tax applies to employers with 50 or more full-time equivalent employees. Employer mandate receipts were $4 billion in fiscal year 2018 and projected to be $10 billion by 2020. The taxes on individuals without adequate health insurance coverage and employers offering inadequate health insurance coverage disproportionately affect low- and moderate-income families, who are more likely to lack health insurance or to work for employers not offering coverage. (We assume the burden of the tax on employers not

offering adequate coverage falls entirely on workers.)

- Excise taxes on health insurance providers, pharmaceutical manufacturers and importers, and medical device manufacturers and importers. Legislation passed in early 2018 suspended the medical device tax for 2018 and 2019 and suspended the health insurer tax for 2019. The health insurer and pharmaceutical taxes raised $18 billion in 2018. These excise taxes have a similar percentage impact on after-tax incomes for families across the income distribution.

- An additional 0.9 percent Medicare tax on earnings and a 3.8 percent tax on net investment income (NII) for individuals with incomes exceeding $200,000 and couples with incomes exceeding $250,000. The additional Medicare tax raised $10 billion and the NII tax raised $27 billion in 2018. Nearly all families affected by the additional Medicare tax and NII tax are in the top 5 percent of income, with most of the burden borne by families in the top 1 percent of income.

TABLE 1

ACA Taxes and Credits

Fiscal year 2018

Item	Amount (in $ billions)
Credits	
Premium Tax Credit	$49
Small Business Health Insurance Credit	$1
Taxes	
Individual mandate	$4
Employer mandate	$4
Excise taxes on health insurance providers and pharmaceuticals	$18
High-income taxes	$37
Net revenues	**$13**

Source: Congressional Budget Office (2018a, b) and Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

What tax changes did the Affordable Care Act make?

Additionally, these ACA tax provisions are scheduled to take effect in the future:

- An excise tax on employer-sponsored health benefits whose value exceeds specified thresholds (the "Cadillac tax") starting in 2022. Because the thresholds are only indexed to price inflation, more plans will be affected over time if, as likely, health care costs grow faster than prices for other goods and services. Some employers will likely avoid the tax by switching to less expensive health plans; this will translate into higher wages but also higher income and payroll taxes. Including the impact on income and payroll taxes, the tax on high-cost health plans is projected to raise $8 billion in 2022 with the revenue gain growing rapidly over time, reaching $39 billion by 2028. The Cadillac tax reduces after-tax incomes the most in percentage terms for middle-income families.

- An additional limit on the medical expense deduction. Pre-ACA, taxpayers could deduct medical expenses exceeding 7.5 percent of income when calculating taxable income. The ACA increased the threshold to 10 percent of income, and the Tax Cuts and Jobs Act temporarily lowered the limit back to 7.5 percent in 2017 and 2018. The threshold is scheduled to increase to 10 percent of income in 2019. The higher threshold is projected to raise $2 billion in 2019 and has the largest relative impact on after-tax income for families in the fourth income quintile.

Tax changes were an important component of the package of reforms enacted by the ACA. Any major change to the ACA would require making tax policy decisions with implications for health insurance coverage, the budget deficit, and the distribution of after-tax income.

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Q. How do health savings accounts work?

A. HSAs are tax-exempt savings accounts used in conjunction with a high-deductible health insurance plan to pay for qualifying medical expenses.

Individuals who participate in a qualifying high-deductible health insurance plan (HDHP) can establish a health savings account (HSA) to pay for qualifying medical expenses. Both employees and employers can make contributions to an HSA.

HSAs have many tax advantages. Contributions made by employers are exempt from federal income and payroll taxes, and account owners can deduct their contributions from income subject to federal income taxes. Further, any income earned on the funds in an HSA accrues tax-free, and withdrawals for qualifying medical expenses are not taxed. Withdrawals used for nonqualifying expenses are subject to income tax and an additional 20 percent penalty. But the penalty is waived for account holders who are disabled, who are ages 65 or older, or who have died. Unused balances can be carried over from year to year without limit.

Annual HSA contributions in 2018 are limited to $3,450 for an individual and $6,900 for a family. Account holders ages 55 or older can contribute an additional $1,000 to either type of account. The contribution limits are indexed annually for inflation.

In 2014, employers contributed $15.6 billion to HSAs, and individual tax filers contributed another $4.4 billion. The US Department of the Treasury estimates the tax preference for HSAs reduced income and payroll taxes by $7 billion in 2014.

Employers must offer an HSA-qualified insurance plan—usually an HDHP—for an employee to be eligible for an HSA. Individuals may also purchase an HSA-qualified insurance plan through the individual insurance market. A plan is HSA-qualified if it meets certain requirements; in 2018, these include a minimum deductible of $1,350 for individual coverage and $2,700 for family coverage.

HSAs are an expanded version of medical savings accounts (MSAs), established in 1996. Similar to HSAs, MSAs have many of the same tax advantages and also require account holders to have an HDHP. They are limited, however, to the self-employed or workers in small firms (50 or fewer employees). The Medicare Prescription Drug, Improvement, and Modernization Act authorized HSAs in 2003 to address the rising cost of medical care and the increasing number of uninsured individuals. No new contributions to MSAs could be made after 2007, except for individuals who previously made contributions to an MSA or who work for employers that had already established MSAs.

Key Elements of the U.S. Tax System

How do health savings accounts work?

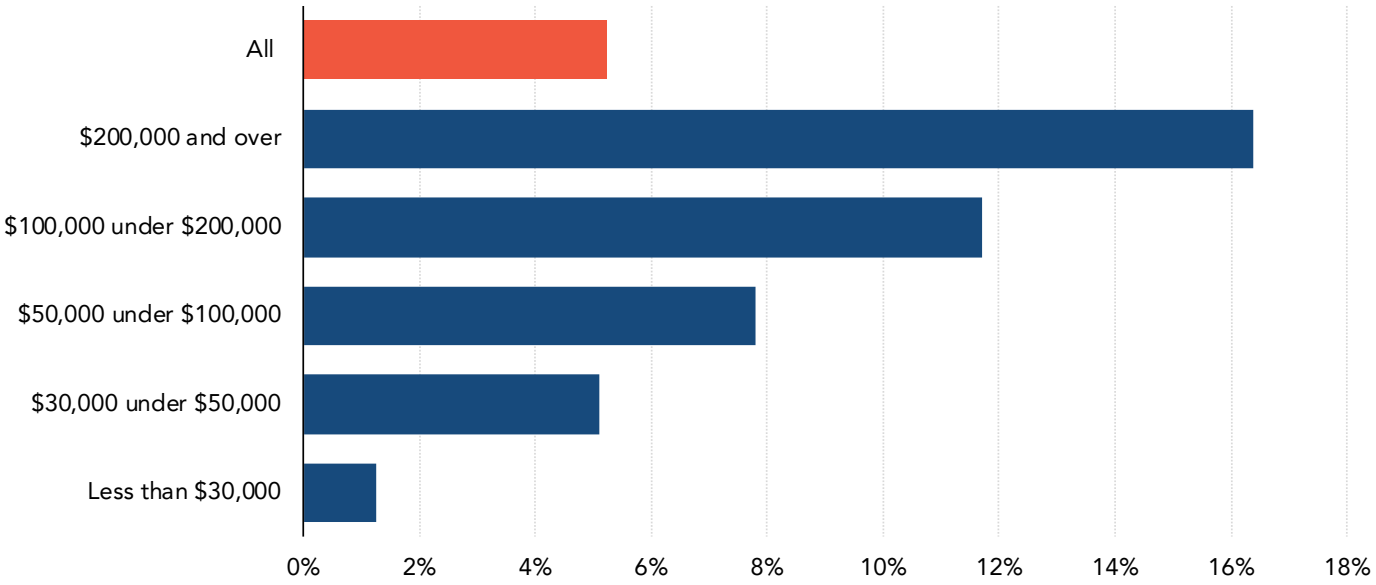
HSAs and their associated HDHPs place more of the health care financing burden on out-of-pocket costs and are intended to encourage more cost-conscious health care spending. In practice, HSAs are most attractive to higher-income individuals because the tax exemptions associated with contributions, account earnings, and withdrawals are of greater value for higher income-tax brackets. Additionally, high-wage workers are more likely to be constrained by contribution limits for retirement accounts and use HSAs as an additional means of tax-preferred saving.

In 2014, 11.7 percent of taxpayers with income between $100,000 and $200,000 contributed to an HSA, as did 16.4 percent of taxpayers with income over $200,000 (figure 1). In comparison, only 5.1 percent of taxpayers with income between $30,000 and $50,000 made such contributions. The average contribution for taxpayers with income over $200,000 was $4,716, compared with an average contribution of $1,500 for taxpayers with income between $30,000 and $50,000 (figure 2).

HSAs are also attractive to those who expect low health care expenses. These individuals enjoy the premium cost savings associated with HDHPs, as well as the HSA tax benefits, without fear of eventually paying a high deductible.

FIGURE 1

Percent of Tax Return Filers with HSA Contributions



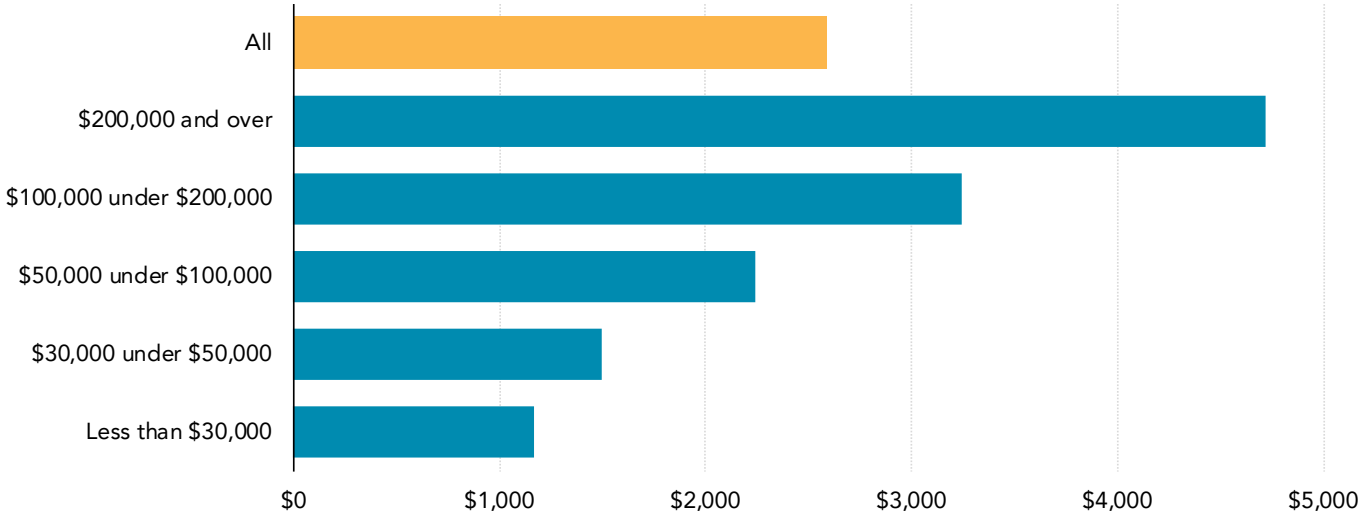
Source: Internal Revenue Service, SOI Tax Stats, Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," 2017; US Department of the Treasury, Office of Tax Analysis, "Health Savings Accounts, 2014"; and author calculations.
Note: Includes both individual and employer contributions.

Key Elements of the U.S. Tax System

How do health savings accounts work?

FIGURE 2

Average HSA Contribution
by adjusted gross income, 2014



Source: Internal Revenue Service, SOI Tax Stats, Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," 2017; US Department of the Treasury, Office of Tax Analysis, "Health Savings Accounts, 2014"; and author calculations.
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Q. How do flexible spending accounts for health expenses work?

A. A health care FSA is a tax-advantaged employer-sponsored account used to reimburse employees for qualifying health care expenses.

Health care FSAs are tax-advantaged benefit plans established by an employer to reimburse employees for qualified medical and dental expenses, such as copayments, deductibles, and prescription drug costs. FSAs are usually funded through salary-reduction agreements in which the employee agrees to receive lower monetary compensation in exchange for equivalent contributions to an FSA. For example, an employee who elects to reduce his or her monthly paycheck by $200 would receive, in return, a $2,400 annual contribution to his or her FSA.

The key benefit of FSAs is that these contributions are not subject to income or payroll taxes, which could mean significant tax savings for the account holder. An employee contributing $200 a month to an FSA would save $288 in federal income taxes if he or she were in the 12 percent tax bracket ($2,400 × 0.12 = $288) and an additional $184 dollars from reduced Social Security and Medicare payroll taxes ($2,400 × 0.0765 = $183.60). Because the federal income tax savings depend upon the employee's income tax rate (which rises with income), the benefit of using an FSA is greater for higher-income workers. For example, the income tax savings for an employee in the 35 percent tax bracket with the same $2,400 annual contribution would be $840 ($2,400 × 0.35 = $840).

An important attribute of health FSAs is that employers must make the entire value of an employee's FSA account available at the beginning of the year. For example, if either employee discussed above incurred a $3,000 medical expense in March, he or she could use the full $2,400 annual FSA contribution to help pay that cost, even though he or she would only have contributed $600 into the account.

In 2013, the Internal Revenue Service (IRS) instituted a contribution limit for health care FSAs. The limit is adjusted yearly for inflation; in 2018, it is $2,650 per year per employee. Generally, employees forfeit unused FSA funds at the end of the plan year, although employers may also offer one of two options:

- Provide a grace period of up to 2.5 months into a new plan year to use FSA money from the preceding plan year.
- Allow the employee to carry over up to $500 per plan year to use in the new plan year.

The Bureau of Labor Statistics in 2017 estimated that about 44 percent of all civilian workers had access to an FSA that year. As a whole, high-income employees and employees in larger firms are more likely to have access. Only 1 in 5 low-income workers had access to an FSA in 2017 compared with around 2 in 3 workers at the top of the earning scale (figure 1).

Key Elements of the U.S. Tax System

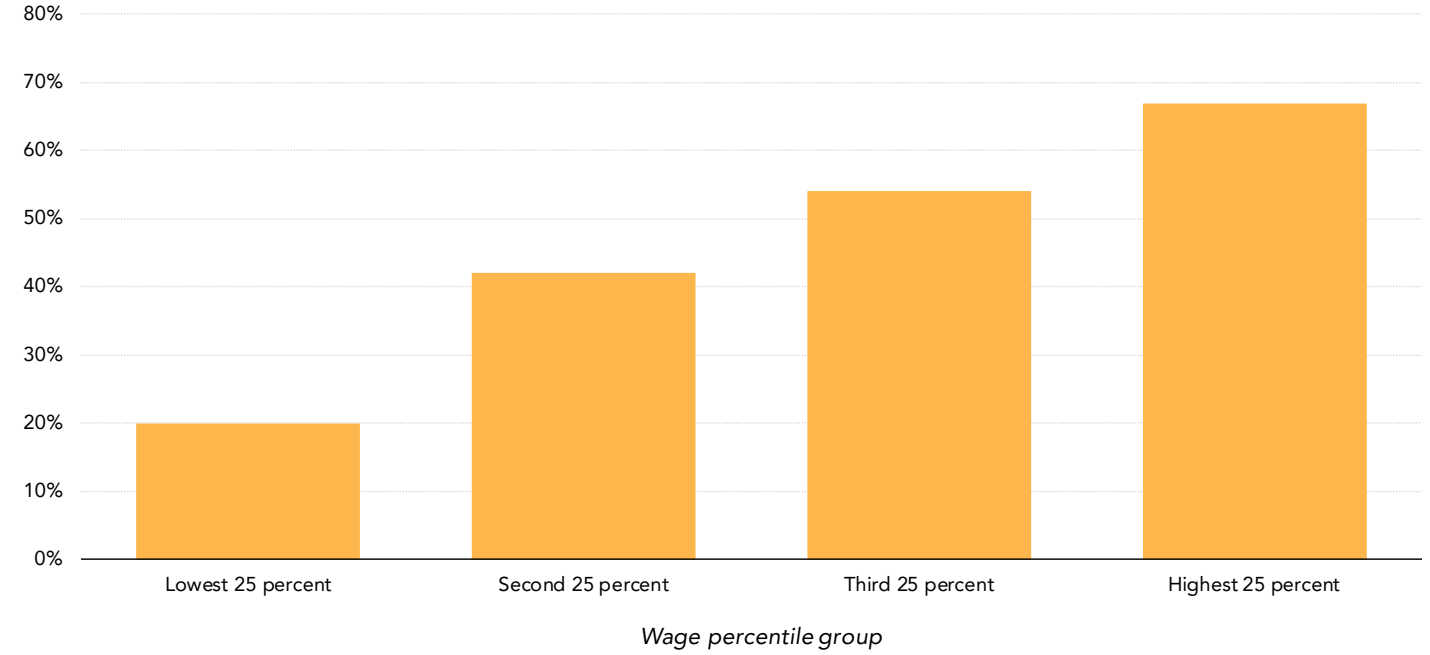
How do flexible spending accounts for health expenses work?

Employees in larger firms (500 or more workers) are more than three times as likely to have access than employees in smaller firms (99 or fewer workers), with 77 percent of the former reporting access versus 25 percent of the latter in 2017 (figure 2). Larger firms are typically better able to handle the complexity and administrative costs of offering FSAs.

More specific data on exactly who uses FSAs and how much federal tax revenue they cost are difficult to obtain because employees are not required to report FSA elections on federal income tax returns, and few surveys ask specifically about FSA participation.

FIGURE 1

Share of Workers with Access to Health Care Flexible Spending Accounts
by wage percentile, 2017



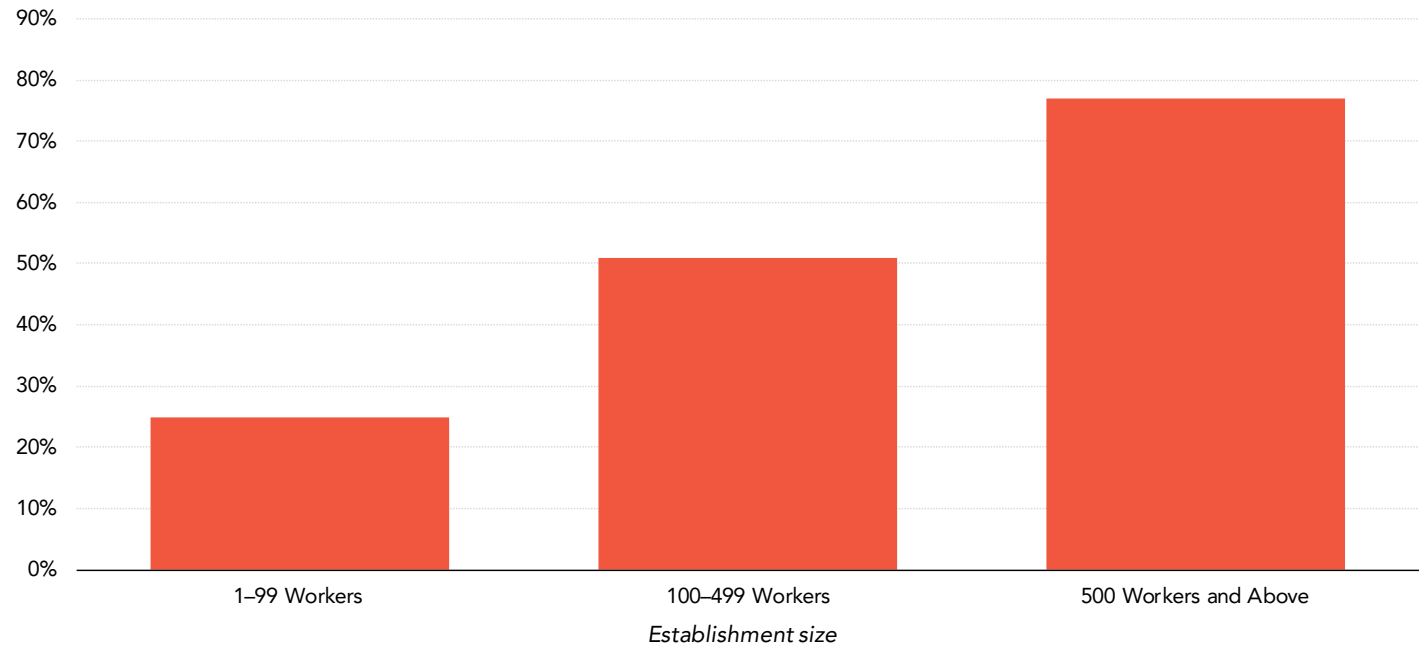
Source: Bureau of Labor Statistics. National Compensation Survey: Employee Benefits in the United States, March 2017—Civilian Tables. Table 41. "Financial Benefits: Access, Civilian Workers, March 2017."

Key Elements of the U.S. Tax System

How do flexible spending accounts for health expenses work?

FIGURE 2

Share of Workers with Access to Health Care Flexible Spending Accounts
by establishment size, 2017



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Q. What are health reimbursement arrangements and how do they work?

A. HRAs are tax-advantaged employer-sponsored accounts used to reimburse employees for qualified medical expenses. HRAs are usually offered in conjunction with high-deductible health plans.

HRAs are tax-advantaged employer-sponsored accounts used to reimburse employees for qualified medical and dental expenses, such as copayments, deductibles, and prescription drug costs. HRAs are usually offered in conjunction with high-deductible health plans.

Unlike health savings accounts and health flexible spending accounts, only an employer can contribute to the accounts. Employer contributions to the accounts and reimbursements for qualified medical expenses are exempt from federal income and payroll taxes. Any unused funds at the end of the plan year can carry over indefinitely, although employers may limit the aggregate carryover amount. Unlike health savings accounts, funds may never be used for nonqualified expenses and employees may lose their unused balances when they separate from their employers.

Employers need not fund HRAs until employees draw on the funds. Unlike flexible spending accounts, the entirety of the funds does not need to be available from the beginning of the period. HRAs are usually offered in conjunction with high-deductible health plans, although employers can "integrate" them with other qualified group health plans. With the implementation of the Affordable Care Act in 2010, most HRAs are no longer available as stand-alone accounts.

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Q. What are the tax benefits of homeownership?

A. The main tax benefit of owning a house is that the imputed rental income homeowners receive is not taxed. Although that income is not taxed, homeowners still may deduct mortgage interest and property tax payments, as well as certain other expenses from their federal taxable income. Additionally, homeowners may exclude, up to a limit, the capital gain they realize from the sale of a home.

OVERVIEW

The tax code provides several benefits for people who own their homes. The main benefit is that the owners do not pay taxes on the imputed rental income from their own homes. They do not have to count the rental value of their homes as taxable income, even though that value is just as much a return on investment as are stock dividends or interest on a savings account. It is a form of income that is not taxed.

Homeowners may deduct both mortgage interest and property tax payments as well as certain other expenses from their federal income tax. In a well-functioning income tax, all income would be taxable and all costs of earning that income would be deductible. Thus, in a well-functioning income tax, there should be deductions for mortgage interest and property taxes. However, our current system does not tax the imputed rental income that homeowners receive, so the justification for giving a deduction for the costs of earning that income is not clear.

Finally, homeowners may exclude, up to a limit, the capital gain they realize from the sale of a home. All of these benefits are worth more to taxpayers in higher-income tax brackets than to those in lower brackets.

IMPUTED RENT

Buying a home is an investment, part of the returns being the opportunity to live in the home rent free. Unlike returns from other investments, the return on homeownership—what economists call "imputed rent"—is excluded from taxable income. In contrast, landlords must count as income the rent they receive, and renters may not deduct the rent they pay. A homeowner is effectively both landlord and renter, but the tax code treats homeowners the same as renters while ignoring their simultaneous role as their own landlords. The Office of Management and Budget estimates that the exclusion of imputed rent reduced federal revenue by nearly $110 billion in fiscal year 2017.

Key Elements of the U.S. Tax System

What are the tax benefits of homeownership?

MORTGAGE INTEREST DEDUCTION

Homeowners who itemize deductions may reduce their taxable income by deducting interest paid on a home mortgage. Taxpayers who do not own their homes have no comparable ability to deduct interest paid on debt incurred to purchase goods and services.

The Tax Cuts and Jobs Act (TCJA) trimmed this important tax break for homeowners. Prior to TCJA, the deduction was limited to interest paid on up to $1 million of debt incurred to purchase or substantially rehabilitate a home. Homeowners also could deduct interest paid on up to $100,000 of home equity debt, regardless of how they used the borrowed funds. TCJA limited the deduction to interest on up to $750,000 of mortgage debt incurred after December 14, 2017, to buy or improve a first or second home. It also generally eliminated the deduction for home equity debt.

The congressional Joint Committee on Taxation (JCT) estimated that the cost of the mortgage interest deduction will shrink from $72 billion to $41 billion in fiscal year 2018, because of the lower cap on deductible mortgage interest and because other provisions of TCJA will result in many fewer taxpayers itemizing their deductions. The Urban-Brookings Tax Policy Center estimates that the share of tax units that benefit from the deduction in 2018 will shrink from 21 percent to 9 percent because of TCJA.

PROPERTY TAX DEDUCTION

Homeowners who itemize deductions may also reduce their taxable income by deducting property taxes they pay on their homes. That deduction is effectively a transfer of federal funds to jurisdictions that impose a property tax (mostly local but also some state governments), allowing them to raise property tax revenue at a lower cost to their constituents. The JCT estimated that the deduction saved millions of homeowners a total of $33 billion in income tax in fiscal year 2017. The cost of that deduction will also go down because of TCJA, as many fewer homeowners will itemize and because TCJA puts an overall cap of $10,000 on the state and local taxes that taxpayers can deduct.

PROFITS FROM HOME SALES

Taxpayers who sell assets must generally pay capital gains tax on any profits made on the sale. But homeowners may exclude from taxable income up to $250,000 ($500,000 for joint filers) of capital gains on the sale of their homes if they satisfy certain criteria: they must have maintained the home as their principal residence in two out of the preceding five years, and they generally may not have claimed the capital gains exclusion for the sale of another home during the previous two years. The JCT estimated that the exclusion provision saved homeowners $32 billion in income tax in fiscal 2017.

EFFECT OF DEDUCTIONS AND EXCLUSIONS

The deductions and exclusions available to homeowners are worth more to taxpayers in higher tax brackets than to those in lower brackets. For example, deducting $2,000 for property taxes paid saves a taxpayer in the 37 percent top tax bracket $740, but saves a taxpayer in the 22 percent bracket only $440. Additionally, even though they only represent about 20 percent of all tax units, those with more than $100,000 in income received over 85 percent of the mortgage interest deduction tax benefits in 2017. That difference results largely from three factors: compared with lower-income homeowners, those with higher incomes face higher marginal tax rates, typically pay more mortgage interest and property tax, and are more likely to itemize deductions on their tax returns.

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Q. Do existing tax incentives increase homeownership?

A. Probably not. The US homeownership rate is lower than in many other developed countries that do not offer tax subsidies for homeownership, such as the United Kingdom or Australia, and even lower than some other countries with subsidies. Beyond a base level, US subsidies mainly support larger homes and second homes. Additionally, evidence suggests that the subsidies raise housing costs, thus dissipating their effectiveness in helping people buy their own homes.

Contrary to popular belief, the mortgage interest deduction was not added to the tax code to encourage home ownership. The deduction existed at the birth of the income tax in 1913—a tax explicitly designed to hit only the richest individuals, a group for whom homeownership rates were not a social concern.

The federal government provided more than $130 billion of tax benefits to subsidize homeownership in 2017, yet our rate of homeownership differs little from that in countries providing no similar subsidies. The bulk of US subsidies go to middle- and upper-income households that likely would own their homes anyway; thus, these subsidies simply facilitate the consumption of more housing. In addition, evidence suggests that the tax subsidies raise housing costs, thus dissipating their effectiveness in helping people buy their own homes.

The US homeownership rate is lower than that in many other developed countries, such as the United Kingdom or Australia that have no such subsidies. The rate is even lower than in some countries that have subsidies, such as Sweden and Norway (figure 1). Other factors, including the ease of obtaining a mortgage, home prices, and cultural patterns, play significant roles in determining homeownership rates.

Because tax deductions are worth more to high-income households, which face the highest tax rates, the deductibility of property taxes and mortgage interest most helps households that would likely own their own homes even without a tax subsidy. Low-income households, which typically are most in need of aid to afford homeownership, get little or no benefit from that deductibility.

Beyond a base level, subsidies mainly support larger homes and second homes. In effect, the federal government encourages middle- and upper-income households to consume more housing than they otherwise would. Limits on the amount of mortgage debt for which taxpayers may deduct interest costs do, however, constrain those subsidies to some degree.

Key Elements of the U.S. Tax System

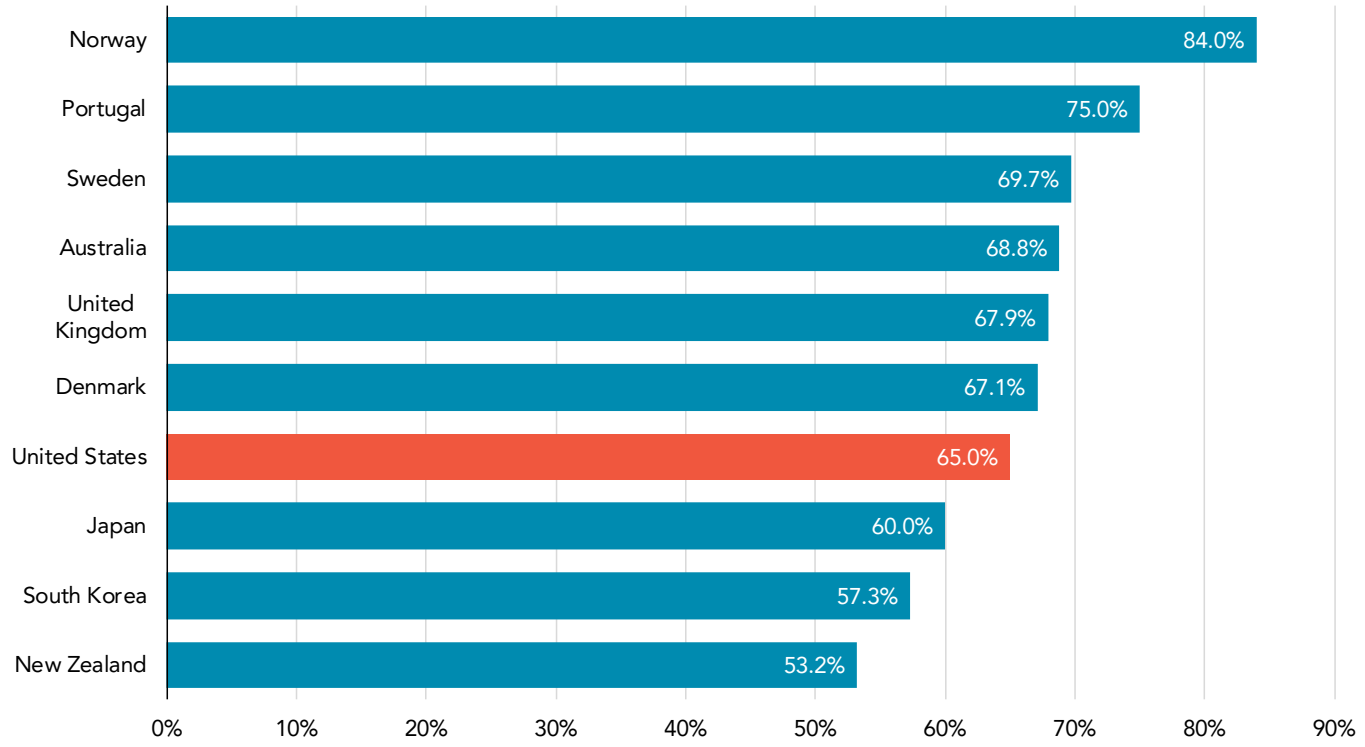
Do existing tax incentives increase homeownership?

Housing subsidies reduce the after-tax cost of housing at any given level of housing prices. This reduced cost raises demand for owner-occupied housing and thus drives up the price, particularly where land is scarce. By reducing the after-tax cost of housing, the subsidies enable people to pay more than they otherwise would. The resulting increase in demand for housing causes prices to rise, and rise most in markets where supply cannot easily increase to meet that higher demand.

FIGURE 1

Homeownshership Rates in Select Countries

Share of adults who own their homes



Source: Desilver (2013).

Do existing tax incentives increase homeownership?

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Q. What tax incentives exist for higher education?

Federal tax incentives for higher education include tax benefits for saving, tax benefits for tuition and related expenses, and tax benefits for student loans—in other words, benefits before, during, and after college attendance. These incentives mostly target middle-class households who do not benefit from traditional student aid.

The federal government provides individuals with financial assistance for higher education expenses in two major ways: traditional student aid (through loans, grants, and work study) and tax benefits. In 2017, 14 tax benefits were available for college students and their parents. These include three broad classes—special tax treatment for education savings plans, tax credits for tuition and related expenses, and tax deductions for student loan payments The Joint Committee of Taxation estimates these tax benefits will cost the federal government $144.7 billion between 2017 and 2021. These estimates account for recent tax law changes made by the 2017 Tax Cuts and Jobs Act (P.L. 115-97) and the extension of certain expiring tax provisions as part of budget reconciliation (P.L. 115-123).

Tax benefits for higher education are frequently oriented toward the middle class rather than the poorest households, who benefit more from traditional student aid (table 1). The largest benefits are tax credits: the American opportunity tax credit (AOTC) and the lifetime learning credit (LLC). Although the AOTC is refundable, both credits largely accrue to middle-class households, as these households typically have larger out-of-pocket expenses for higher education than lower-income households, who receive traditional aid. Allowing parents to claim a personal exemption for students ages 19 to 23 (before 2018) also helped middle-class households more than poor households, as the value of exemptions is tied to tax rates and middle-class households face higher tax rates. The Congressional Budget Office estimates that nearly all other tax benefits for higher education similarly benefit middle- and upper-class families. The one exception: allowing college dependents to qualify as children for the refundable earned income tax credit.

The Tax Cuts and Jobs Act (TCJA) did not dramatically change tax benefits for higher education savings or loan repayment. It also avoided changes to the AOTC and LLC. However, the legislation did significantly change the structure of tax benefits for those claiming a dependent college student. In prior years, taxpayers could only claim dependents over 18 if the dependent's gross income was below a modest amount. However, parents could claim full time students ages 19 to 23 without regard to the gross income test. In 2017, taxpayers received an additional $4,050 personal exemption for each 19 to 23 year old college student claimed as a dependent.

Key Elements of the U.S. Tax System

What tax incentives exist for higher education?

The Tax Cuts and Jobs Act eliminated all personal exemptions but it also expanded the child tax credit to include a $500 nonrefundable credit for dependents not eligible for the regular child tax credit, including 19- to 23-year-old dependent college students. This change transformed the tax saving for claiming a college student dependent from one which depended on the parents' tax rate to a credit where all taxpayers get an equivalent benefit regardless of their tax rate (up to the limit of their total income tax liability). This shifts more of the value of the benefit from higher-income taxpayers to lower-income taxpayers. However, because the new credit is nonrefundable, it still does not reach the lowest-income taxpayers.

In addition to the benefits discussed in more detail below, tax benefits for education include a business deduction for work-related education expenses; an exclusion from taxable income of scholarships, grants, tuition reductions, and employer-provided educational assistance; and penalty-free early withdrawals from individual retirement accounts if the funds are used for educational expenses.

TABLE 1

Distribution of Higher Education Tax Expenditures

by income before transfers and taxes, under current law, 2016

Tax Expenditure	Dollars (billions)	Shares (Percent)				
		Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile
Credits for education (AOTC and LLC)	18.8	12	23	28	28	9
Preferential treatment for students 19 to 23						
Dependent exemption	4.4	5	15	20	33	27
Higher Age Limit for Earned Income Tax Credit	3.3	52	29	5	3	2
All Preferential Treatment	7.7	25	21	16	21	17
Exclusions from taxable income						
Scholarships and fellowship income	3.6	9	16	17	28	30
Employer-provided education benefits and tuition reduction	2.9	12	18	20	25	25
Earnings of qualified education savings plans	0.9	*	*	1	3	97
Certain discharged student loan debt	0.2	3	5	11	28	56
All exclusions	7.7	9	15	16	24	37
Deductions						
Student loan interest	2.2	2	14	30	39	15
Tuition and fees	0.3	7	14	12	36	31
All deductions	2.5	3	14	28	39	17
All Tax Expenditures	36.6	13	20	23	26	17

Source: Congressional Budget Office (2018).

Notes: AOTC = American Opportunity Tax Credit; LLC = Lifetime Learning Credit

* = between zero and 0.5 percent

Key Elements of the U.S. Tax System

What tax incentives exist for higher education?

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Q. What tax incentives exist to help families pay for college?

A. Rapidly rising college expenses in the 1990s spurred the 1997 enactment of tax incentives for higher education, which currently include the American opportunity tax credit, the lifetime learning credit, and deductions for tuition and fees and for student loan interest.

AMERICAN OPPORTUNITY TAX CREDIT

The American opportunity tax credit (AOTC) provides a credit up to $2,500 per student during the first four years of undergraduate postsecondary school. Students receive a credit of 100 percent against the first $2,000 of tuition, fees, and books, and a 25 percent credit against the next $2,000. Up to $1,000 of the AOTC is refundable; to qualify for the credit, students must be enrolled at least half time for one or more academic periods during the year. AOTC credits, it should be noted, are not indexed for inflation. The AOTC was enacted as part of the fiscal stimulus package and then made permanent in 2015 under the Protecting Americans from Tax Hikes Act. The AOTC replaced the Hope credit and is available for more years of schooling (four versus two years), covers more expenses, and is partly refundable.

The maximum benefit for the AOTC begins to phase out when modified adjusted gross income (MAGI) reaches $80,000 and is completely phased out at MAGI of $90,000. For married couples, the phaseout range begins at MAGI of $160,000 and the credit is completely phased out at MAGI of $180,000. The phaseout thresholds are not indexed for inflation.

LIFETIME LEARNING CREDIT

The lifetime learning credit (LLC) equals 20 percent of tuition and fees for any postsecondary education expense, up to a maximum annual credit of $2,000 per taxpayer. That maximum applies to the combined expenses of all students in the household claiming the credit and is reached when total qualifying expenses equal $10,000. The maximum benefit for the LLC phases out for MAGI between $57,000 and $67,000 in 2018 (and between $114,000 and $134,000 for married couples). The phaseout thresholds for the lifetime learning credit are adjusted annually for inflation. The LLC is nonrefundable, so only people who owe income tax can benefit.

TUITION AND FEES DEDUCTION

The deduction for tuition and fees allows taxpayers (parents, students, or spouses—whoever pays) to reduce taxable incomes by up to $4,000 per return. Single, head of household, or qualifying widower filers with MAGIs between $65,000 and $80,000 or married filers with MAGIs between $130,000 and $160,000 can deduct up to $2,000 of expenses. After that, a family is no longer eligible for the deduction. Because

the provision is a deduction, it has value only to students and their families with taxable income. Congress retroactively extended the tuition and fees deduction for 2017, but it will not be available in 2018 unless Congress extends it again.

STUDENT LOAN INTEREST DEDUCTION

The student loan interest deduction allows taxpayers with qualified student loans (loans taken out solely to pay qualified higher education expenses) to reduce taxable income by $2,500 or the interest paid during the year, whichever is less. The loan cannot be from a relative or made under a qualified employer plan, and the student must be a taxpayer, a spouse, or a dependent; only those enrolled at least half time in a degree program qualify.

Qualified expenses include tuition and fees; room and board; books, supplies and equipment; and other necessary expenses such as transportation. To qualify in 2018, a taxpayer's AGI may not exceed $80,000 for single, head of household, or qualifying widower filers, or $165,000 for married filers. After that, a family is no longer eligible for the deduction. The deduction is, of course, only valuable to people with taxable income. The student loan interest deduction will cost an estimated $2.1 billion in 2018.

HOW THESE TAX INCENTIVES AFFECT STUDENTS

Before Congress created the AOTC, many observers argued that existing tax subsidies had minimal impact on college enrollment because those subsidies went mostly to people who would have attended college even without the additional aid. Many low-income students who might have been the most influenced by reduced college costs received little or no benefit from the Hope credit and the LLC because they were nonrefundable and thus could only offset income taxes owed.

In response, the AOTC was made refundable, allowing lower-income families to receive the credit. Even so, students with incomes below $50,000 receive more aid from the Pell grant than from the tax credits. And even with the changes to the tax credits, it remains unclear whether tax credits increase college enrollment (figure 1).

Using the tax system to subsidize higher education has two primary advantages over using traditional spending programs: (1) students don't have to fill out the daunting Free Application for Federal Student Aid form to receive benefits, and (2) every student who qualifies receives the full benefit for which he or she appears entitled. However, providing aid through the tax system also has disadvantages—notably, the delay in funds being received (up to 15 months after tuition was paid), a lack of transparency about why taxes went down, and potential mismatches in that the person receiving the credit or deduction is often not the student.

OPTIONS FOR REFORM

- Even though some books are eligible expenses under the American opportunity tax credit, additional assistance could be provided by broadening coverage to include other expenses, such as room and board.
- Providing benefits directly to schools when students enroll—not months later when their families file tax returns—could help students cover college costs when they are obliged to make payments. Benefit amounts would be based on estimates of the previous year's taxes.

Key Elements of the U.S. Tax System

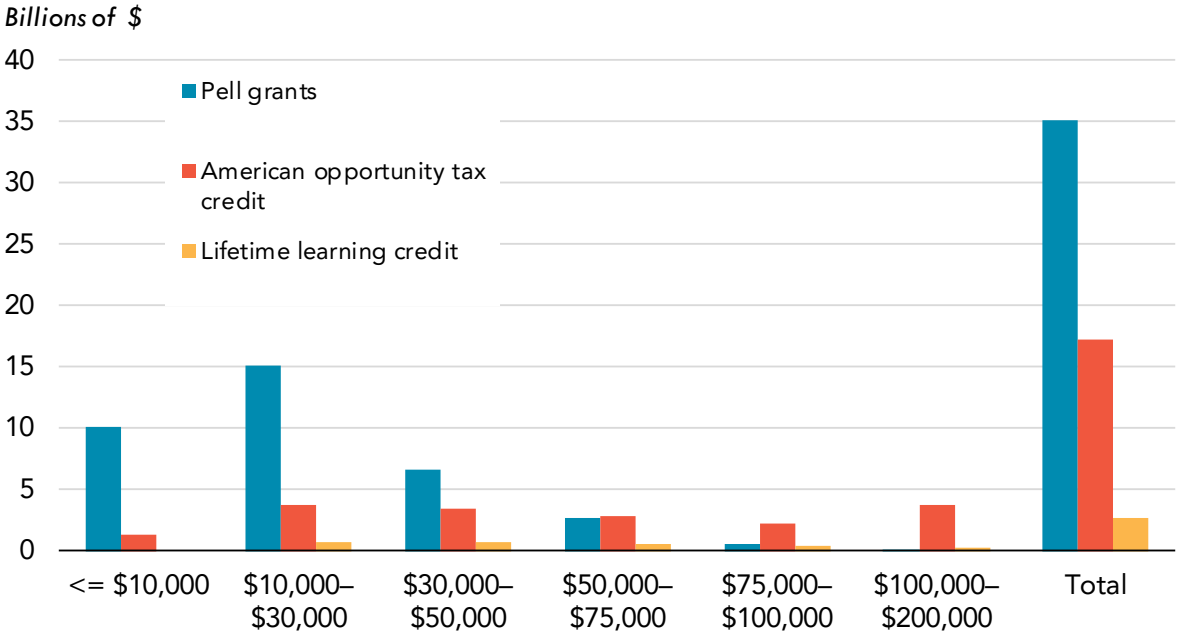
What tax incentives exist to help families pay for college?

- Consolidating the credits into a single credit would make the process more transparent for students and taxpayers.
- Rather than offering a deduction for student loan interest, providing incentives for students to enroll in income-contingent repayment programs would reduce hardship in student debt repayment.

FIGURE 1

Amount of Pell Grants, AOTC, and LLC

All students, 2017



Source: Tax Policy Center, Table T16-0246, 2016.

Key Elements of the U.S. Tax System

What tax incentives exist to help families pay for college?

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Q. What tax incentives exist to help families save for education expenses?

A. Three tax-favored saving instruments encourage families to save for education expenses: Coverdell savings accounts, qualified tuition programs (commonly known as 529 plans), and the education savings bond program. The first two can be used for elementary, secondary, and postsecondary education. In contrast the much smaller education savings bond program is limited to postsecondary education.

Tax-favored accounts encourage families to save for education expenses by reducing or eliminating the tax normally owed. But there's a catch: to reap significant benefits, families who use these accounts to save for college must invest in sheltered savings accounts years before they know whether their children will attend college. While these funds can be redirected toward another person's educational expenses if the child does not go to college, savers must pay penalties to divert the money for noneducation purposes. The resulting uncertainty is greatest for low-income families because their children are least likely to attend college.

Recent law changes allow families to make nontaxable withdrawals from 529 plans to pay for qualified expenses at public or private K–12 schools—an existing feature of Coverdell savings accounts.

Higher-income families benefit more from tax-favored accounts because they avoid more taxes for each dollar contributed to a sheltered account. All families must pay income tax and a 10 percent penalty on money withdrawn from an account if the funds are used for purposes other than permitted educational expenses. However, even after paying the penalties, high-income families can still come out ahead because of the size of their tax savings and because the accounts let them shift ownership to their children, who typically face lower income tax rates. That benefit, of course, does not extend to low-income families, who are likely to be in the same tax bracket as their children. Tax-free accounts hold no benefit for families whose incomes are too low to require them to pay income taxes, but they are still subject to the penalty for using the funds for other purposes.

COVERDELL ACCOUNTS

In 2018 families with adjusted gross income (AGI) below $110,000 ($220,000 if filing a joint return) can deposit up to $2,000 per beneficiary in a Coverdell account on an after-tax basis. Funds grow untaxed and may be withdrawn tax free if used to pay educational expenses. Coverdell account funds can be used for K–12 expenses as well as higher education.

Key Elements of the U.S. Tax System

What tax incentives exist to help families save for education expenses?

QUALIFIED TUITION PROGRAMS (529 PLANS)

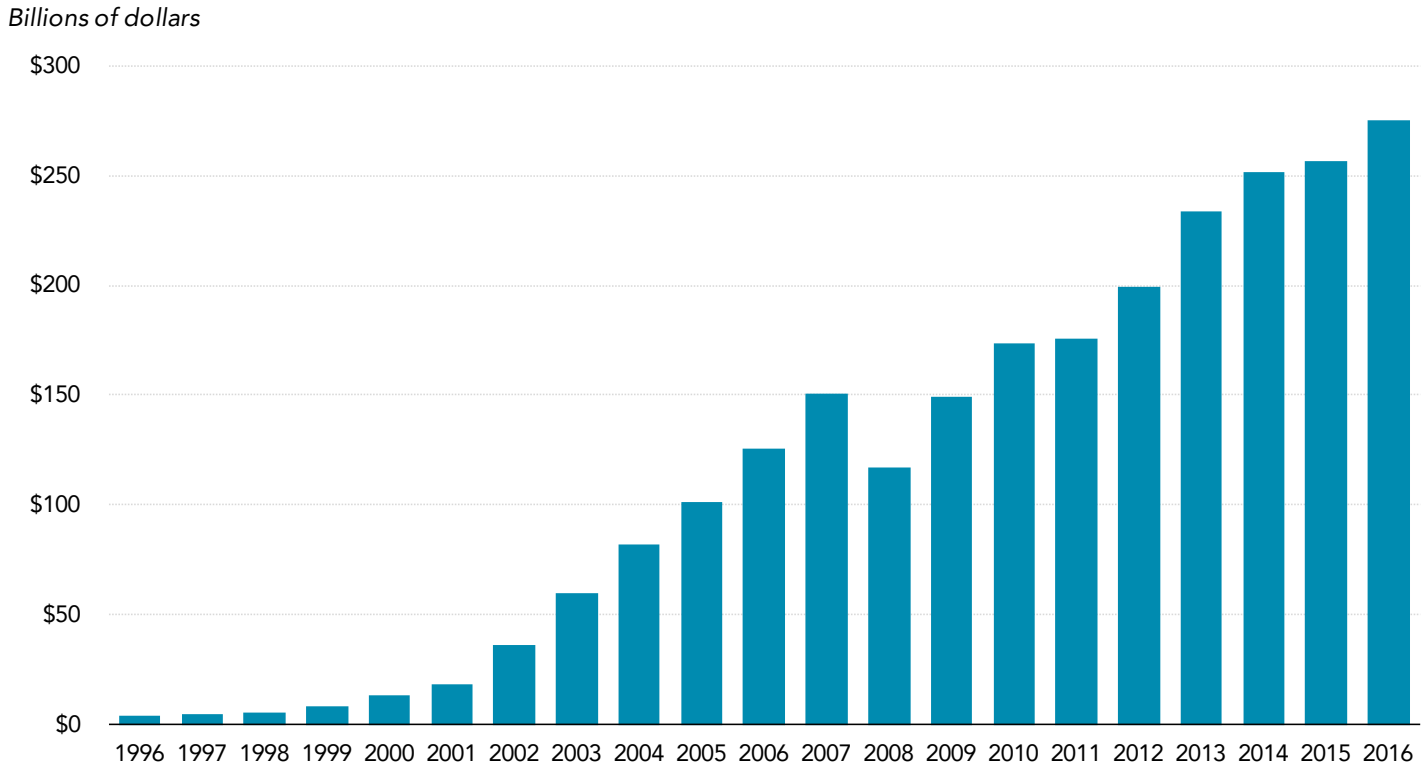
Anyone, regardless of income, may contribute to a 529 plan for a designated beneficiary. As of 2018, a donor may contribute up to $15,000 annually for each beneficiary without triggering a gift tax, with the option of making up to five years of contributions in a single payment as long as no additional gifts are made during the five-year period. Income in 529 plans accumulates untaxed.

Since passage of the Economic Growth and Tax Relief Reconciliation Act of 2001, funds are not taxed when withdrawn from 529s, provided they are used to pay qualified expenses for postsecondary education (tuition, room and board, books and supplies, and technology). Donors retain ownership of the accounts but may use the funds to pay educational expenses only for the named beneficiary. The donor may, however, change beneficiaries if the new beneficiary is a member of the same family as the old beneficiary.

FIGURE 1

Growth of 529 College Savings Plan Account Assets

1996–2016



Source: College Savings Plans Network (CSPN), *529 Report: An Exclusive Year-End Review of 529 Plan Activity*, March 2017.

Key Elements of the U.S. Tax System

What tax incentives exist to help families save for education expenses?

The 2017 Tax Cuts and Jobs Act expanded the qualified uses for tax- and penalty-free withdrawals from 529 plans to also cover K–12 elementary and secondary school tuition for public, private, and religious schools. Assets in 529 plans have grown considerably in the last two decades. In 1996, only 500,000 accounts existed and contained only $2.4 billion in assets. As of December 2016, there were 12.9 million 529 plan accounts containing $275 billion in assets (figure 1).

Every state except Wyoming sponsors a 529 plan (but Wyoming residents receive preferred treatment in the Colorado 529 plan). In states with a personal income tax, residents investing in their state-sponsored 529 plans often receive a state tax break for at least part of their investment. Families can choose to invest in plans from other states, which may be the best option for them—especially when contributions are not tax deductible. Some states, moreover, provide matching funds for contributions to 529 accounts. Beyond the state plans, there is also a separate private college 529 plan.

States that offer income tax credits or deductions for contributions to 529 college saving plans and exempt qualified distributions from 529 plans from state income taxes must decide whether they will follow the recent changes in federal rules for qualified withdrawals. Some states have decided to allow qualified withdrawals for K–12 tuition while others have not. For example, New York and Nebraska have issued public statements saying that only higher education expenses would qualify. In contrast, Pennsylvania will allow payment for K–12 tuition expenses to be processed through the PA 529 College Savings Program.

EDUCATION SAVINGS BOND PROGRAM

The federal government allows buyers to exclude interest on designated government bonds from income tax if the money is used to pay for postsecondary education. In 2018, however, families can only cash in these bonds tax free if their modified AGI (MAGI) is less than certain limits. The tax exclusion phases out for MAGI between $79,700 and $94,700 in 2018 (and between $119,550 and $149,550 for married couples). The income limits are indexed for inflation. This program is substantially smaller than the Coverdell and 529 programs.

What tax incentives exist to help families save for education expenses?

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Q. What is the tax treatment of college and university endowments?

A. A small number of colleges and universities in the United States have accumulated significant wealth in the form of endowments. Because these institutions are public and private nonprofit charitable enterprises, donations to their endowments are not taxed and the assets grow free of taxes. The 2017 tax legislation created an exception to this practice, imposing a tax on the endowment earnings of a small number of private nonprofit colleges and universities.

The 2017 Tax Cuts and Jobs Act (TCJA), imposes a new tax on a small group of private nonprofit colleges and universities. Institutions enrolling at least 500 students that have endowment assets exceeding $500,000 per student (other than those assets which are used directly in carrying out the institution's exempt purpose) will pay a tax of 1.4 percent on their net investment income. The $500,000 threshold is not indexed for inflation. A precise understanding of the tax awaits Internal Revenue Service guidance, but only 25 to 30 institutions meet these criteria.

CURRENT TAX TREATMENT OF ENDOWMENTS

Most private nonprofit colleges and universities are exempt from taxes because of their status as 501(c)(3) organizations and their educational mission. Many of these institutions attempt to accumulate endowments—financial assets that generate income to supplement budgets and provide long-term fiscal stability. Endowments support a wide range of activities. At doctoral universities, these include graduate education and research in addition to undergraduate education.

The tax treatment of private nonprofit college and university endowments differs from the treatment of private foundations. Private foundations are tax-exempt organizations established by an individual, family, or company for charitable purposes. Unlike college and university endowments, which accrue from multiple sources over time, foundations must pay an excise tax on their net investment income (generally 2 percent but reduced to 1 percent if their distributions are growing over time). Nonoperating foundations, which are funded by a single or small group of donors and distribute money to others rather than engage themselves in charitable activities, are required to pay out at least 5 percent of their funds each year. In contrast, operating foundations can receive donations from many donors and primarily operate charitable activities themselves rather than distribute grants. They, like college and university endowments, do not have payout requirements.

Key Elements of the U.S. Tax System

What is the excise tax on university endowments?

SIZE OF ENDOWMENTS

Public and private colleges and universities collectively hold over $500 billion in endowment wealth, but just 23 of these institutions hold approximately 50 percent of the assets. (There are about 1,600 private nonprofit and more than 700 public four-year institutions in the United States.)

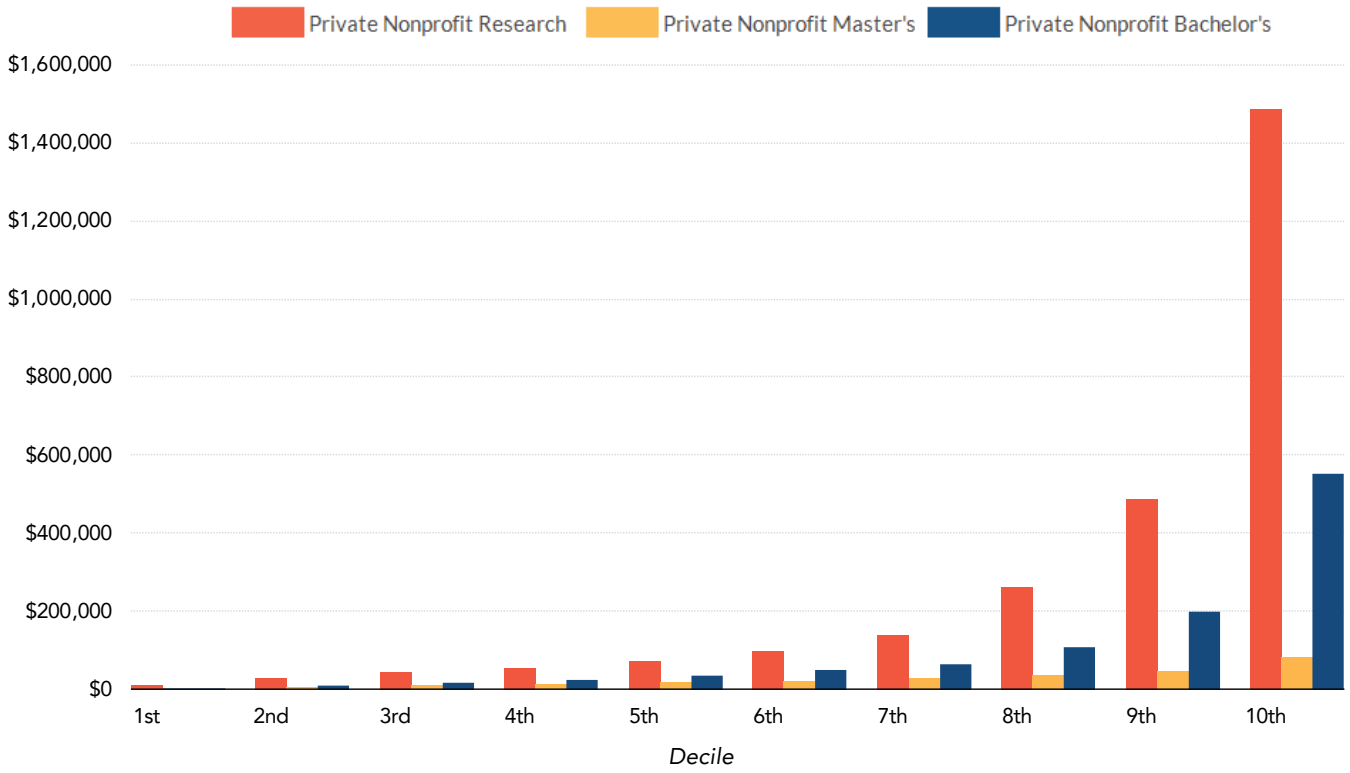
Endowments provide income that supplements tuition and fees, state appropriations, and other funding sources to support the education of undergraduate and graduate students, as well as research, public service, and other institutional activities. Endowments provide a cushion that protects institutional budgets from cyclical pressures, unanticipated changes in enrollments, and other temporary revenue disruptions.

When measuring institutional strength, it is best to examine endowment per student rather than total endowment dollars (figure 1). These figures must be interpreted with caution because they do not distinguish between undergraduate and graduate students, and differences across institutions may be misleading given the differences in institutional missions. Undergraduate colleges use almost all draw (the funds added to their annual budgets from endowments) to support undergraduate education, whereas research universities use the funds to support a broader range of activities.

FIGURE 1

Endowment per Full-Time Equivalent Student

Private nonprofit colleges and universities, 2015–16



Source: Urban Institute analysis of Integrated Postsecondary Education Data System data.
Notes: Institutions ranked by endowment per student. Each decile contains approximately 10 percent of the students in that sector.

Key Elements of the U.S. Tax System

What is the excise tax on university endowments?

The endowments of the wealthiest private research universities enrolling 10 percent of students in the sector average about $1.5 million per student. The average combined endowment ($486,000 per student) for the wealthiest institutions enrolling half the students in this sector is more than 10 times the average endowment ($43,000 per student) of the institutions with the lowest endowments where the other half of this sector's students are enrolled. Endowment wealth at private bachelor's colleges is similarly skewed. At the master's universities, where there is much less wealth and the gaps are smaller, the average endowment for the top half is still almost five times the average for the bottom half.

THE EFFECT OF THE NEW TAX

The new tax is not expected to generate a significant amount of revenue for the federal government, an estimated $200 million per year, but it could set a precedent for imposing further taxes on these nonprofit entities. Some members of Congress have questioned whether these wealthy institutions actually use their resources to further society's educational goals in a meaningful way, largely because few low-income students enroll at institutions with large endowments, which tend to have very selective admissions. In both the public and private nonprofit sectors, the higher the endowment income per student at a college or university, the lower the share of its student body receiving federal Pell grants for low- and moderate-income students.

However, the high-endowment schools do use some of their wealth to reduce the prices they charge low-income students. Low-income students who attend the best-endowed institutions benefit both from the opportunities offered and from considerably lower net tuition prices than they would pay elsewhere. Financial aid is already so generous at these institutions that the tax will not likely lower prices. Moreover, these wealthy institutions enroll fewer than 150,000 of the 4 million students in the private nonprofit sector, and 20 million postsecondary students overall.

The new endowment tax is controversial. There are bipartisan efforts in Congress to repeal the tax, which is, unsurprisingly, unpopular among the higher education community. Some earlier proposals for taxing colleges and universities involved providing incentives for institutions to spend their endowments in certain ways or to modify their pricing structures. Whether it is feasible or advisable for the federal government to effect such changes, the current legislation makes no such effort, nor does it use revenues generated by the tax to further the nation's educational goals.

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Key Elements of the U.S. Tax System

Why are taxes so complicated?

Q. Why are taxes so complicated?

A. Our tax system could be simple if its only purpose were to raise revenue. But it has other goals, including fairness, efficiency, and enforceability. And Congress has used the tax system to influence social policy as well as to deliver benefits for specific groups and industries.

Almost everyone agrees that the current tax system is too complicated, yet almost every year the system gets more complex, not less. Why? Tax simplicity almost always conflicts with other policy goals.

For example, the simplest—and least distorting—tax is a head tax, a fixed-dollar tax on everyone. But a head tax would be unfair, taking no account of differences in the incomes and needs of individuals, families, and businesses.

COMPETING GOALS FOR A TAX SYSTEM

Most people believe taxes should be fair, conducive to economic prosperity, and enforceable, as well as simple. But even people who agree on these goals often disagree about the relative importance of each. As a result, policies usually represent a balance among competing goals, and simplicity often loses out to other priorities.

For example, most countries tailor tax burdens to individual taxpayers' characteristics. That can make taxes fairer, but more complex. Income has to be traced from businesses to individuals. Individual characteristics such as marital status and number of dependents, as well as the composition of expenditures or income, have to be reported and documented. These conflicting objectives appear to be especially relevant in the current tax code, where the desire to reduce tax burdens for particular groups have added significant complexity.

POLITICS OF TAX POLICY

Politics compounds complexity. Interest groups—and thus politicians—support tax subsidies for particular activities. And these targeted subsidies inevitably complicate the tax system by creating distinctions among taxpayers with different sources and uses of income.

EFFECTS OF INCREMENTAL LEGISLATIVE CHANGES

The current tax law was not enacted all at once but is a result of numerous provisions added or subtracted in multiple tax bills. Often Congress designs legislation under self-imposed constraints, such as short-term revenue goals or effects on the distribution of tax burdens among income groups. The result is that

tax incentives are often designed in complex ways to limit the revenue losses or benefits to high-income taxpayers or to prevent their use by unintended beneficiaries.

The result of this process is a set of very complex provisions that appear to have no overall logic if the tax law were being designed from scratch. These include phaseouts of certain tax benefits at high incomes, multiple incentives for higher education and retirement savings, multiple benefits for taxpayers with dependents with different eligibility definitions, and an entirely separate tax schedule, the individual alternative minimum tax, that applies to certain taxpayers using selected tax preferences. The Tax Cuts and Jobs Act of 2017 substantially reduced the number of taxpayers subject to the alternative minimum tax through 2025 and, by raising the standard deduction and capping the state and local tax deduction, reduced the number of taxpayers who benefit from itemized deductions. But it left many other complex benefits in the tax law largely unchanged and added a new deduction for business income, with its own complex limits to minimize abusive transactions.

Annual reports by the National Taxpayer Advocate have presented proposals for simplifying the tax code, including reforms of education incentives, retirement incentives, child benefits, and the alternative minimum tax.

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Q. What are the benefits of simpler taxes?

A. Simpler taxes have lower compliance costs—in both time and money—and may encourage taxpayers to use tax provisions aimed at helping people pay for socially desirable activities.

Simplification could improve the tax code in at least two important ways. First, simplicity would lower taxpayers' costs of complying with the tax system in time, money, and mental anguish. Second, simpler tax provisions are more likely to be used. Provisions aimed at encouraging specific activities, such as saving for college, would be more effective if people understood how they work.

Making taxes simpler could improve compliance by reducing inadvertent nonpayment of taxes. To some (uncertain) extent, people do not pay taxes because they do not understand the tax law. Evidence also suggests that people are more likely to evade taxes they consider unfair. People who cannot understand tax rules may question the fairness of the tax system and feel that others are reaping more benefits than they are.

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Q. What policy reforms could simplify the tax code?

A. Reducing the number of distinctions among economic activities and taxpayers' characteristics would simplify the code, reducing both taxpayers' compliance costs and governmental administrative costs. Some distinctions among taxpayers promote fairness, so there are trade-offs among goals, but the tax law could be simplified without compromising equity.

The key to tax simplification is to make fewer distinctions across economic activities and taxpayers' characteristics. This would not only reduce compliance costs, but would also allow for simpler administration. For example, one provision that allows taxpayers to deduct charitable contributions requires administrative resources to determine which organizations are eligible to receive charitable contributions, and to ensure that taxpayers make the contributions they claim on their tax returns. This provision would also imposes record-keeping costs on taxpayers.

A simple tax system would generally be structured with a broad tax base with rates that are the same across different income sources or types of expenditure. Progressivity could be embodied in the rate structure (with rates rising with income, as they do now), a basic exemption amount, and the choice of tax base (income, consumption, or another measure), rather than through specific provisions that treat different levels of income and consumption differently. Universal exemptions, deductions, or credits are much simpler to administer than targeted ones.

The tax law could be made even simpler if all income were taxed at a single rate. Then, all taxes on earnings, interest, and dividends could be collected by withholding from employers and financial institutions without many taxpayers needing to file returns. But such a tax system would conflict with the goal of progressivity—imposing higher tax rates on those with a greater ability to pay—and many would regard that as unfair. Some other provisions that add complexity are nonetheless necessary for tax fairness and economic efficiency. For example, self-employed taxpayers who use a personal automobile in their business must keep records to distinguish between personal and business uses of their car. Nonetheless, a fair and efficient income tax requires that business costs should be deductible, while personal consumption expenses should not.

Several modest changes could make the current tax system simpler without compromising fairness or reducing incentives to work, save, and invest. One option would be to coordinate the phaseout of tax credits. Specific tax credits phase out across different income ranges, so that claiming each credit requires a separate worksheet and tax calculation. The phaseouts also create hidden taxes over the phaseout range and diminish the credits' effectiveness in encouraging the activities they are designed to spur.

Key Elements of the U.S. Tax System

What policy reforms could simplify the tax code?

Numerous provisions—each with its own rules—apply to the same general activity. Coordinating or consolidating these provisions could simplify tax-return preparation and reduce tax-planning costs with little or no change in revenue or the distribution of tax burdens. Examples include the various provisions related to families with children (the earned income tax credit, the dependent credit, and the child credit), tax subsidies for education (the American Opportunity and Lifetime Learning credits, and the deductibility of tuition and fees), and saving incentives (traditional individual retirement accounts, Roth IRAs, education IRAs, and Keogh plans).

Yet another simplification would tax capital gains at the same rate as ordinary income in return for reduced top tax rates. This was a main feature of the 1986 Tax Reform Act, although the 1986 reform also retained a limitation on capital losses to prevent selective realization of losses by taxpayers with gains on their investment portfolios. Returning to this approach would reduce incentives for complex tax-planning strategies that recharacterize ordinary income as capital gain. Yet a higher capital gains rate would increase incentives to delay or wholly avoid realizations of capital gains and put new pressure on rules, such as those for like-kind exchanges, that define when a realization event has occurred.

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Q. How do the estate, gift, and generation-skipping transfer taxes work?

A. The federal estate tax applies to the transfer of property at death. The gift tax applies to transfers made while a person is living. The generation-skipping transfer tax is an additional tax on a transfer of property that skips a generation.

The United States has taxed the estates of decedents since 1916. Gifts have been taxed since 1924 and, in 1976, Congress enacted the generation-skipping transfer (GST) tax and linked all three taxes into a unified estate and gift tax.

The tax applies only to the portion of the estate's value that exceeds an exemption level. The Tax Cuts and Jobs Act (TCJA) doubled the estate tax exemption to $11.2 million for singles and $22.4 million for married couples, but only for 2018 through 2025. The exemption level is indexed for inflation. The 40 percent top tax rate remains in place.

The tax rates and exemption levels have varied dramatically over the past two decades. Before the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), the estate tax exemption was set at $675,000 and scheduled to gradually increase to $1 million. EGTRRA cut all three taxes sharply, but only through 2010. The act gradually phased out the estate and GST taxes and repealed both entirely for 2010, leaving only the gift tax (at a reduced rate) in effect that year (table 1).

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reinstated the estate and GST taxes for 2010 and extended them through 2012, with a $5 million estate tax exemption (indexed for inflation after 2011) and a top rate of 35 percent, but allowed executors to elect the EGTRRA rules for decedents who died in 2010. The 2012 rules were permanently extended by the American Taxpayer Relief Act of 2012, but the top rate was increased to 40 percent (table 1).

Here's how the estate tax works:

- The executor must file a federal estate tax return within nine months of a person's death if that person's gross estate exceeds the exempt amount ($11.2 million in 2018).
- The estate tax applies to a decedent's gross estate, which generally includes all the decedent's assets, both financial (e.g., stocks, bonds, and mutual funds) and real (e.g., homes, land, and other tangible property). It also includes the decedent's share of jointly owned assets and life insurance proceeds from policies owned by the decedent.

Key Elements of the U.S. Tax System

How do the estate, gift, and generation-skipping transfer taxes work?

TABLE 1

Estate, Gift, and GST Tax Rates and Exemptions under Current Law
2007–2018

Year	Estate and GST tax rate	Gift tax rate	Estate and GST tax exemptions	Lifetime gift exemptions	Annual gift exclusion[a]
2007	45%	45%	$2 million	$1 million	$12,000
2008	45%	45%	$2 million	$1 million	$12,000
2009	45%	45%	$3.5 million	$1 million	$13,000
2010	0%[a]	35%	N/A[b]	$1 million	$13,000
2011	35%	35%	$5 million	$5 million	$13,000
2012	35%	35%	$5.12 million	$5.12 million	$13,000
2013	40%	40%	$5.25 million	$5.25 million	$14,000
2014	40%	40%	$5.34 million	$5.34 million	$14,000
2015	40%	40%	$5.43 million	$5.43 million	$14,000
2016	40%	40%	$5.45 million	$5.45 million	$14,000
2017	40%	40%	$5.49 million	$5.49 million	$14,000
2018	40%	40%	$11.2 million	$11.2 million	$15,000

Source: Internal Revenue Code.
(a) The exemption, which was $10,000 in 1998, is indexed for inflation in $1,000 increments.
(b) Executors can elect to apply the EGTRRA rules, which repealed the estate tax for 2010, but otherwise the 2011 parameters apply.

- The estate and gift taxes allow an unlimited deduction for transfers to a surviving spouse, to charity, and to support a minor child. Estates may also deduct debts, funeral expenses, legal and administrative fees, charitable bequests, and estate taxes paid to states. The taxable estate equals the gross estate less these deductions.
- A credit then effectively exempts a large portion of the estate: in 2018, the effective exemption is $11.2 million. Any value of the estate over $11.2 million is generally taxed at the top rate of 40 percent.
- The exemption level is portable between spouses, making the effective exemption for married couples double the exemption for singles. For example, if the first spouse to die bequeathed $5 million to children and grandchildren, the survivor's exemption would increase by the unused $6.2 million
- Although tax rates are graduated, all transfers in excess of the exemption are taxed at the top rate because the exemption exceeds the threshold at which the top rate applies.
- Special provisions reduce the tax, or spread payments over time, for family-owned farms and closely held businesses. Estates that satisfy certain conditions may use a special-use formula to reduce the taxable value of their real estate, often by 40 to 70 percent. Family-owned businesses may often claim valuation discounts on the logic that when a business (including, potentially, one only passively investing in liquid assets) is divided among many heirs, the resultant minority stakes may have a market value less than proportional to the total value of the business. When farms or businesses make up at least 35 percent of a gross estate, the tax may be paid in installments over 14 years at reduced interest rates, with only interest due during the first five years.
- Inheritances are not taxable income to the recipient under the income tax.
- The basis for inherited assets is stepped up to the value at the time of death, meaning that unrealized capital gains on assets held until death are never subject to income tax. (Journalist Michael Kinsley famously called this the "angel of death loophole.")

Key Elements of the U.S. Tax System

How do the estate, gift, and generation-skipping transfer taxes work?

Here's how the gift tax works:

- Congress enacted the gift tax in 1932 to prevent donors from avoiding the estate tax by transferring their wealth before they died.
- The tax provides a lifetime exemption of $11.2 million per donor in 2018. This exemption is the same that applies to the estate tax and is integrated with it (i.e., gifts reduce the exemption amount available for estate tax purposes). Beyond that exemption, donors pay gift tax at the estate tax rate of 40 percent.
- An additional amount each year is also disregarded for both the gift and estate taxes. This annual exclusion, $15,000 in 2018, is indexed for inflation in $1,000 increments and is granted separately for each recipient. Thus, a married couple with three children could give their children a total of $90,000 each year ($15,000 from each parent to each child) without owing tax or counting toward the lifetime exemption.
- Gifts received are not taxable income to the recipient.

And here's how the generation-skipping trust tax works:

- Congress enacted the GST tax in 1976 to prevent families from avoiding the estate tax for one or more generations by making gifts or bequests directly to grandchildren or great-grandchildren. The GST tax effectively imposes a second layer of tax (using the exemption and the top tax rate under the estate tax) on wealth transfers to recipients who are two or more generations younger than the donor.

Data Sources

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Q. Who pays the estate tax?

A. The top 10 percent of income earners pays more than 90 percent of the tax, with nearly 40 percent paid by the richest 0.1 percent. Few farms or family businesses pay the tax.

The Urban-Brookings Tax Policy Center estimates that some 4,000 individuals dying in 2018 will leave estates large enough to require filing an estate tax return (estates with a gross value under $11.2 million need not file this return in 2018). After allowing for deductions and credits, 1,900 estates will owe tax. Over 90 percent of these taxable estates will come from the top 10 percent of income earners and more than one-third will come from the top 1 percent alone (table 1).

Estate tax liability will total an estimated $14.9 billion in 2018. The top 10 percent of income earners will pay 93 percent of this total. The richest 0.1 percent will pay $5.8 billion, or 39 percent of the total (table 1). According to TPC's 2017 estimates, only about 80 small farms and closely held businesses—estates with farm and business assets totaling no more than $5 million and making up at least half of the gross estate—paid any estate tax in 2017. Small farms and businesses will not be subject to the estate tax in 2018 because of the $11.2 million effective exemption under the Tax Cuts and Jobs Act. The higher exemption amount expires after 2025.

TABLE 1

Estate Tax, Number of Returns and Distribution of Burden

2018 Current Law

	Expanded Cash Income Category					Businesses and Farms	
	All	Top 10%	Top 5%	Top 1%	Top 0.1%	All[a]	Small[b]
Number of returns[c]	4,020	3,530	3,020	1,970	480	450	N/A
Number of taxable returns[c]	1,890	1,720	1,330	690	150	140	N/A
Share of all taxable returns	100%	91%	70%	37%	8%	7%	N/A
Estate tax paid ($ billions)[d]	$14.9	$13.9	$13.1	$10.6	$5.8	$1.5	N/A
Share of all estate tax paid	100%	93%	88%	71%	39%	10%	N/A

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Note: Estimates are for estate tax returns filed for individuals who die in 2018.
(a) Estate tax returns on which farm and business assets represent at least half of gross estate.
(b) Estate tax returns on which farm and business assets represent at least half of gross estate and these assets are no more than $5 million.
(c) Number of returns is rounded to nearest multiple of 10.
(d) Estate tax paid is rounded to nearest multiple of $10 million.

Key Elements of the U.S. Tax System

Who pays the estate tax?

While most estimates assume the decedent bears the estate tax, this is primarily because of data limitations. There is good reason to believe that heirs most often bear the tax. When the burdens are analyzed this way, individuals inheriting over $1 million bear the estate tax almost exclusively.

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Q. How many people pay the estate tax?

A. About 4,000 estate tax returns will be filed for people who die in 2018, of which only about 1,900 will be taxable—less than 0.1 percent of the 2.7 million people expected to die in that year.

Because of a series of increases in the estate tax exemption, few estates pay the tax. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) raised the estate tax exemption from $675,000 in 2001 to $1 million in 2002 and to $3.5 million in a series of steps through 2009, sharply reducing the number of estates that paid estate taxes. EGTRRA repealed the estate tax for 2010 but after that, the estate tax was scheduled to revert to pre-EGTRRA rules.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reinstated the estate tax and generation-skipping transfer tax and extended them through 2012, with a $5 million estate tax exemption (indexed for inflation after 2011) and a top rate of 35 percent. The American Taxpayer Relief Act of 2012 permanently extended the exemption, but the top rate was increased to 40 percent.

The Tax Cuts and Jobs Act doubled the exemption to $11.2 million in 2018, but the estate tax cut is scheduled to expire after 2025 (along with most other provisions of the new law).

Internal Revenue Service data show that roughly 109,600 estate tax returns were filed for decedents in 2001, the year before the EGTRRA changes began to go into effect. Fewer than half—about 50,500—of those estates had any estate tax liability after credits. Estate tax liability totaled $23.7 billion (table 1).

For decedents in 2009, the year the final increase in the estate tax exemption under EGTRRA went into effect, only about 12,900 estate tax returns were filed, of which only 5,700 were taxable. Estate tax liability totaled $13.6 billion (table 1).

For those who died in 2010, executors could elect to have the EGTRRA rules apply, which meant that no estate tax was imposed. However, instead of recipients of bequests receiving a full step-up in basis, they were limited to $1.3 million (plus an additional $3 million for surviving spouses), with any additional unrealized gains required to be carried over. Recipients, therefore, will pay deferred income tax on these additional unrealized gains when the gains are realized.

For decedents in 2018 (with an exemption of $11.2 million), the Urban-Brookings Tax Policy Center estimates only about 4,000 estate tax returns will be filed, of which 1,900 will be taxable. Estate tax liability will total $14.9 billion after credits (table 1).

Key Elements of the U.S. Tax System

How many people pay the estate tax?

To put the number of estate tax returns filed in perspective, the Population Division of the Bureau of the Census projects that 2.7 million people will die in 2018. Thus, an estate tax return will be filed for only about 0.15 percent of decedents, and only about 0.07 percent will pay any estate tax.

TABLE 1

Estate Tax, Number of Returns, and Tax Liability
2001, 2007–2018

Year	Number of Returns[a]	Number of Taxable Returns[a]	Estate tax liability ($ billions)[b]
2001	109,600	50,500	$23.7
2007	36,700	16,600	$24.6
2008	29,000	15,100	$18.9
2009	12,900	5,700	$13.6
2010	*	*	*
2011	9,400	4,400	$10.9
2012	9,600	4,100	$12.0
2013	11,300	4,700	$16.6
2014	11,000	5,400	$18.3
2015	11,000	5,300	$18.6
2016	11,200	5,300	$19.3
2017	11,300	5,500	$20.0
2018	4,000	1,900	$14.9

Sources: For 2001, 2007, 2009, 2011, and 2013: Internal Revenue Service. Statistics of Income. "Estate Tax Year of Death Tables." For 2008, 2012, and 2014–2018, Urban-Brookings Tax Policy Center Microsimulation Model (versions 0217-1 and 0718-1).

Note: Figures are for estate tax returns filed for decedents dying in each calendar year.

* The estate tax was repealed for 2010 decedents by the *Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA)*, but reinstated by the *Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010* with an option for executors to elect the EGTRRA rules; IRS SOI did not publish statistics for 2010 decedents.

(a) Number of returns is rounded to nearest multiple of one hundred.

(b) Estate tax paid is rounded to nearest multiple of $10 million.

How many people pay the estate tax?

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Q. What is the difference between carryover basis and a step-up in basis?

A. The difference is whether heirs who sell an inherited asset will pay tax on the capital gains from the time the asset was originally purchased or from the time it was inherited. In some cases, the difference is a lot of tax liability.

A capital gain occurs if a capital asset is sold or exchanged at a price higher than its "basis," the original purchase price plus the cost of improvements less depreciation. When a person inherits an asset, the basis becomes the asset's fair market value at the time of the owner's death. This is called a "step-up in basis" because the basis of the decedent's asset is stepped up to market value. With gifts made during the giver's lifetime, the recipient retains the basis of the person who made the gift ("carryover basis").

The donor's income does not include the unrealized gain (or loss) on assets given by gift or bequest. The recipient does not owe any tax until the asset is sold, at which point any gain is taxable. The taxable gain is the amount received from the sale of the asset less the asset's basis. For most sales, the basis is the amount the taxpayer invested in the asset, adjusted for subsequent improvements, depreciation, and certain other items. For gifts and bequests, however, special basis rules apply.

For gifts, the basis remains the same as when the asset was held by the person who made the gift ("carryover basis"), but with an adjustment for any gift tax paid. For inheritances, the basis is the fair market value of the asset at the time of the donor's death (or six months afterward, if the executor elects the alternative valuation date). This is referred to as "step-up in basis" (or "stepped-up basis") because the previous basis is stepped up to market value.

The effect of carryover basis on gifts is to tax the unrealized gain accrued by the donor when the recipient sells the asset. The effect of step-up in basis on inheritances is to eliminate income tax on any unrealized gain accrued by the decedent.

There have been past efforts to repeal or eliminate step-up in basis.

- The Tax Reform Act of 1976 would have imposed carryover basis on all inherited assets, but the provision was repealed before it could ever take effect.

- The Economic Growth and Tax Relief Reconciliation Act of 2001 repealed the estate tax and curtailed step-up in basis, but only for one year—2010. The act limited step-up to $1.3 million (plus an additional $3 million for surviving spouses) with any additional unrealized gains carried over. (Estates could elect to

retain step-up in exchange for paying an estate tax; a few estates with highly appreciated assets chose this option.)

- The Obama administration proposed repealing stepped-up basis subject to several exemptions, including a general exemption for the first $100,000 in accrued gains ($200,000 per couple). The US Department of the Treasury estimated that, together with raising the capital gains rate to 28 percent, this proposal would raise $210 billion over 10 years. Ninety-nine percent of the revenue raised would come from the top 1 percent of households ranked by income.

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Q. How could we reform the estate tax?

A. Possible reforms run the gamut from repeal to modest fixes that would make the tax more difficult to avoid.

Proposals to reform the estate and gift tax range from comprehensive options, such as permanently repealing the estate tax or replacing the existing tax with a tax on inheritances, to more modest options, such as decreasing exemption amounts, increasing tax rates, and blocking avenues for avoidance.

The federal estate and gift taxes (including the generation-skipping tax, or GST) have changed more than a dozen times since 2001. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) cut these taxes sharply but only through 2010. EGTRRA gradually phased out the estate tax and GST, eliminating them entirely for 2010 and leaving only the gift tax (at a reduced rate) in that year.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reinstated the estate tax and GST for 2010 and extended them through 2012, with a $5 million estate tax exemption (indexed for inflation after 2011) and a top rate of 35 percent. But the law allowed executors to elect the EGTRRA rules for decedents who died in 2010. The American Taxpayer Relief Act of 2012 (ATRA) permanently extended the 2012 rules, though with a new top rate of 40 percent.

The Tax Cuts and Jobs Act of 2017 (TCJA) doubled the estate tax exemption to $11.2 million in 2018 but kept the 40 percent top rate. The TCJA changes expire after 2025.

REPEAL

Many members of Congress have called for the repeal of the estate and gift taxes. That would be expensive, however. The Office of Management and Budget projects that these taxes will raise $205 billion in fiscal years 2019 through 2028.

Repeal would also be regressive—the benefits would go almost entirely to people at the top of the income distribution—and would invite significant sheltering of income. Further, gifts from an estate to charity currently qualify for full deduction from the estate's taxable value, creating a substantial incentive to leave bequests to charities. Prior estimates indicate that repealing the estate tax would reduce charitable donations by 6 to 12 percent.

INHERITANCE TAX

One option, the substitution of an inheritance tax, would tax wealth transfers somewhat differently. An inheritance tax differs from an estate and gift tax in that the rate depends on the amount of gifts and bequests the taxpayer receives rather than on how much the donor gives or bequeaths. Unlike estate and

gift taxes, a progressive inheritance tax gives donors an incentive to spread their wealth more broadly, because each of any number of recipients can claim an exemption and take advantage of progressive tax rates, thus reducing the total tax attributable to an estate. Most countries that tax wealth transfers do so with inheritance taxes rather than estate taxes and many states levy inheritance taxes.

LIMIT PREFERENCES

A more modest reform could repeal or modify the many estate tax preference items, such as special trust arrangements and valuation discounts, that allow savvy millionaires to drastically reduce or even eliminate estate tax liability. University of Southern California law professor Edward McCaffery said the tax was so easy to avoid that it was essentially a "voluntary tax" (albeit one that raised about $20 billion per year at the time of his writing). The plethora of loopholes complicates estate planning and results in comparable estates facing very different tax bills. Eliminating estate tax preferences could increase revenues, which could pay for extending the higher estate tax exemption scheduled to return to pre-TCJA levels after 2025 or for reducing the deficit.

RETURN TO PRIOR LAW

Alternatively, policymakers might simply reverse some of the estate tax changes enacted since 2001 (figures 1 and 2).

- 2000 law. Before 2001, the estate tax had an exemption level of $1 million (not indexed for inflation), a top statutory rate of 55 percent, a 5 percent surtax that phased out the benefit of lower rates for large estates, and a credit (rather than a deduction) for state wealth transfer taxes. Making pre-ATRA law permanent starting in 2019 would increase the number of estate tax returns filed for decedents who died between 2019 and 2028 by 1.7 million and increase the estate tax liabilities of these decedents by $585 billion.

- 2009 law. The estate tax law in effect under EGTRRA for 2009 had an exemption of $3.5 million (unindexed) and a top rate of 45 percent. If 2009 law were made permanent starting in 2019, the number of estate tax returns filed for decedents who died between 2019 and 2028 would increase by 246,000, and estate tax liabilities of these decedents would increase by $234 billion.

- 2009 law, exemption indexed by chained consumer price index. If 2009 law, modified to index the exemption to inflation, were made permanent starting in 2019, the number of estate tax returns filed for decedents who died between 2019 and 2028 would increase by 162,000, and estate tax liabilities of these decedents would increase by $171 billion (about three-quarters the increase without indexing the exemption).

- 2017 law. The TCJA doubled the estate tax exemption and adopted a somewhat slower inflation adjustment starting in 2018, but only through 2025. Returning to an estate tax exemption of $5 million (indexed for inflation from 2011) in 2019 through 2025 would increase the number of estate tax returns filed by 55,000 between 2019 and 2028 and would increase estate tax liabilities by about $60 billion.

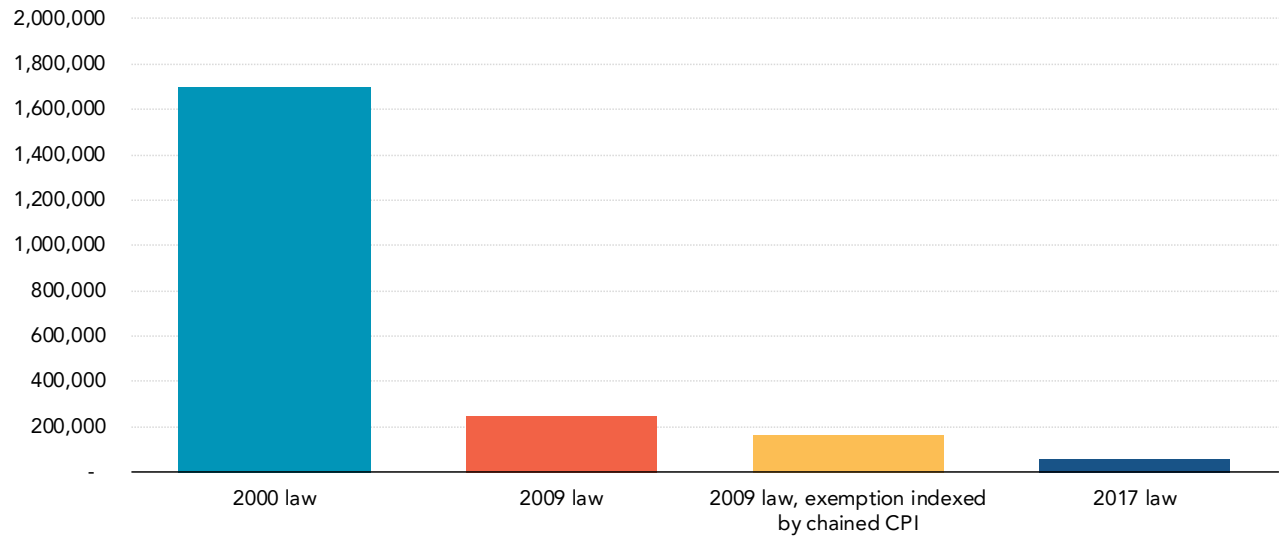
Key Elements of the U.S. Tax System

How could we reform the estate tax?

FIGURE 1

Change in Number of Estate Tax Returns under Alternative Reforms

2019–27

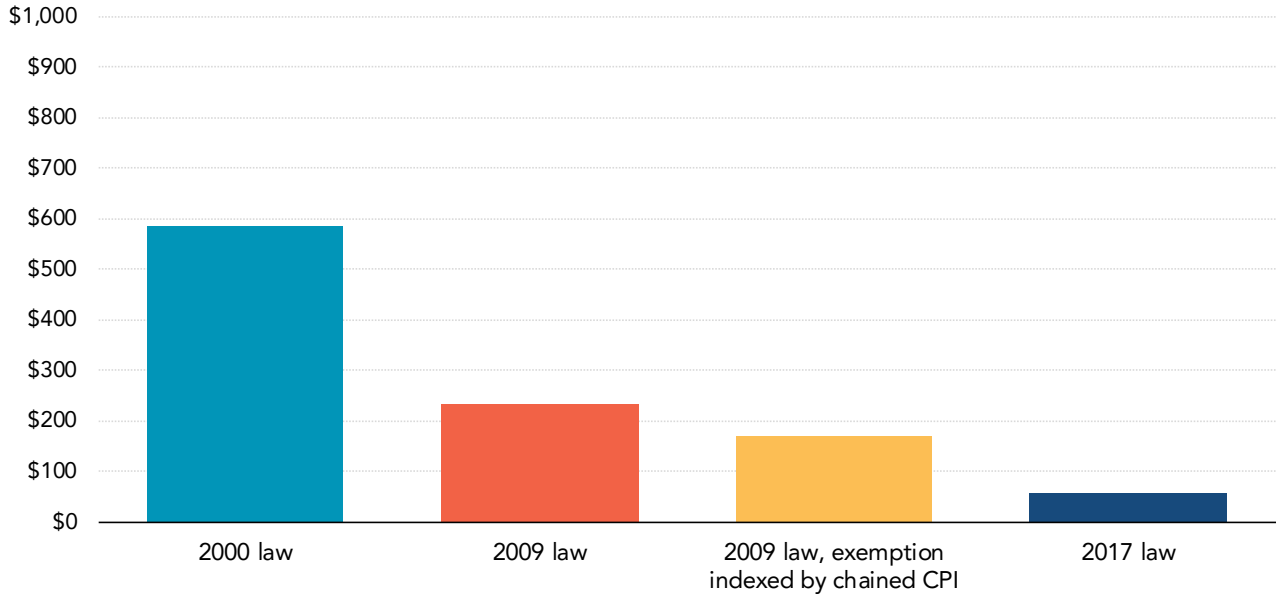


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Note: Returns included have gross estate greater than exemption; years refer to decedent's year of death.

FIGURE 2

Change in Estate Tax Liability under Alternative Reforms

2019–27, billions of dollars



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Note: Returns included have gross estate greater than exemption; years refer to decedent's year of death.

Key Elements of the U.S. Tax System

How could we reform the estate tax?

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Q. How should wealth be taxed?

A. There are three options: an estate and gift tax (like the current US federal system), an inclusion tax, or an accessions tax.

The transfer of wealth through gifts or bequests can be taxed in three ways: under an estate and gift tax (like the current US federal system), under an inclusion tax, or under an accessions tax.

ESTATE AND GIFT TAX

An estate and gift tax applies to the donor or the donor's estate using separate estate and gift tax rate structures. Apart from transfers to spouses and charities, which are generally exempt from tax, and the small annual exemption from the gift tax, the amount of tax imposed on the transfer does not vary with income or other characteristics of recipients of large gifts and bequests.

INCLUSION TAX

An inclusion tax requires recipients to treat transferred assets as taxable income under the federal income tax. The amount of tax, therefore, varies with the recipients' characteristics (e.g., their filing status), the amount of their other income, the amount of their deductions, and other factors that affect income tax liability.

ACCESSIONS TAX

An accessions tax, like an inclusion tax, taxes recipients on the value of transfers received, but under a rate structure different from the income tax rate structure. The tax imposed on the transfer, therefore, depends only on the amount the recipient receives in the relevant time period.

CONSIDERATIONS

Under all three approaches, the treatment of the donor's unrealized gains affects incentives to transfer and the amount of tax revenue produced. A donor's unrealized gains could be taxed as part of his or her income. Alternatively, such gains could be taxed when realized by the recipient if a carryover basis is required. On the other hand, if the recipient is allowed a step-up in basis, such gains could never be taxed at all.

One consideration for an accessions tax is the period over which transfers are taxed. If transfers are taxed annually with a graduated rate schedule, recipients would pay much less tax on lifetime transfers received evenly over many years than if they received the entire amount in one year. The tax system could address these differences by taking into account the transfers recipients accumulate over their lifetimes, much like the federal estate and gift taxes. With these current taxes, bequests and gifts are added up over the recipient's lifetime to determine whether he or she has exceeded the exempt amount.

The taxation of lifetime transfers can also differ under an inclusion tax because of the graduated income tax rate schedule. One way to address these differences would be to average inclusions over several years. Under an estate and gift tax, the number of recipients doesn't affect the amount of tax paid on transfers. Taxing inheritances under an inclusion tax or an accessions tax may encourage broader transfers of wealth, because broader transfers would generally reduce the total amount of tax paid.

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Q. What is an inheritance tax?

A. A type of wealth transfer tax in which the recipient, rather than the donor's estate, is taxed.

An inheritance tax applies to the gifts and bequests a taxpayer receives. Unlike estate and gift taxes, a progressive inheritance tax gives donors an incentive to spread their wealth more broadly. Recipients can claim an exemption and take advantage of graduated tax rates, thus reducing the effective tax rate. Currently, the United States has no federal inheritance tax, but several states do.

While donors or their estates are legally obliged to remit wealth transfer taxes, evidence suggests that all or most of the economic burden falls on recipients, who receive a smaller after-tax gift or inheritance than they would without the tax. However, an individual recipient's burden varies depending on whether the tax is an inheritance tax or an estate and gift tax.

Inheritance taxes come in three principal forms:

1. An accessions tax applies to the amount an individual receives by gift or bequest over a lifetime.
2. An annual inheritance tax applies to the gifts and bequests a person receives in a given year.
3. An inclusion tax counts gifts and bequests as income and taxes them as such.

Thus, the tax rate depends on the size of the gift or bequest, as well as on the recipient's other income. An inclusion tax could be combined with either of the other two types of inheritance taxes into a single tax that takes advantage of the strengths of each.

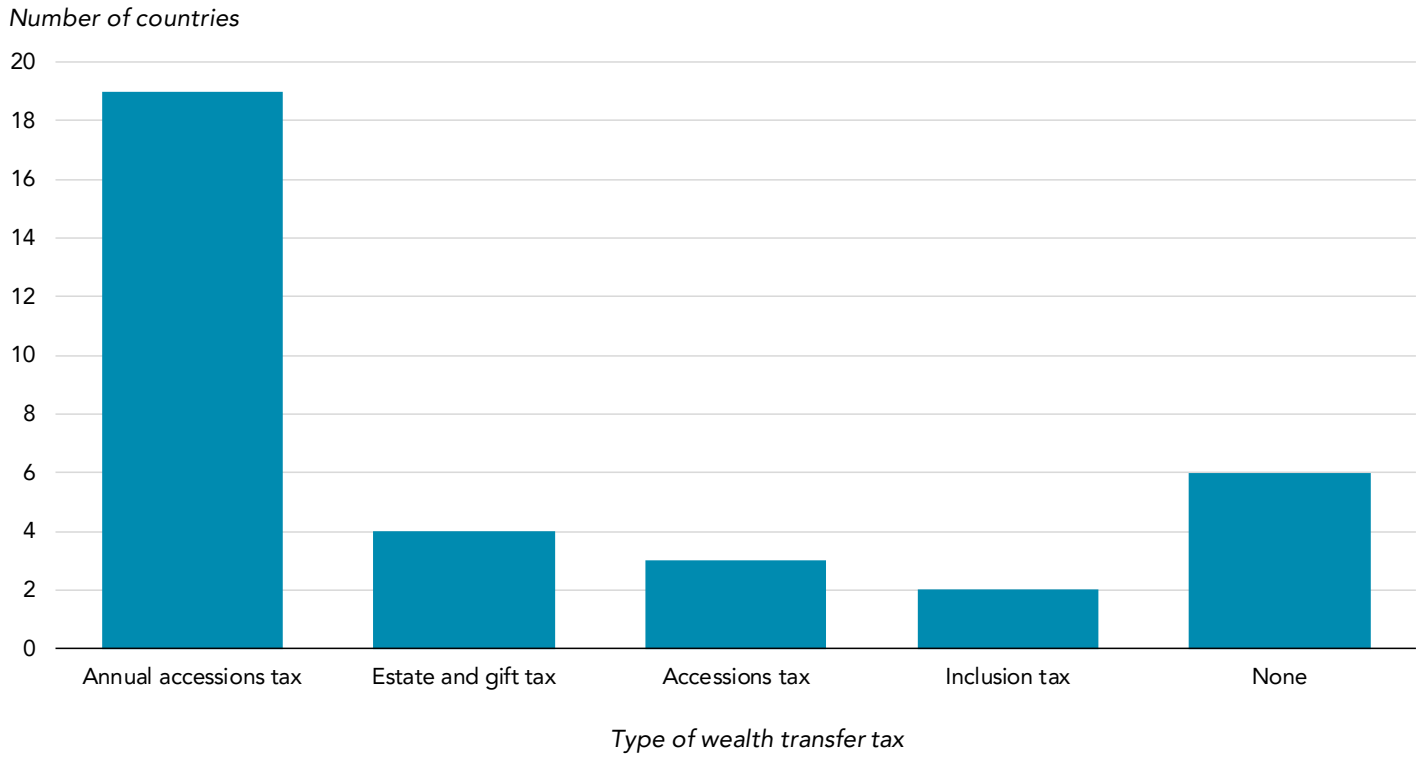
Most countries rely on inheritance taxes rather than on estate and gift taxes. More than half of the 34 countries in the Organisation for Economic Co-Operation and Development have an annual inheritance tax (figure 1); a few use accessions and inclusion taxes. Only three (besides the United States) have estate taxes. The past several decades have seen a shift away from estate taxes: Australia, Canada, and New Zealand repealed their estate taxes, and Ireland replaced its estate tax with an inheritance tax.

Some analysts argue that inheritance taxes are simpler to administer than estate taxes because they curtail strategies used to avoid estate taxes, such as moving assets into complicated trusts that falsely suggest a decedent's estate will go to a person or entity exempt from the tax. Others argue that estate taxes are simpler because they require less record keeping.

FIGURE 1

Type of Wealth Transfer Tax in 34 Countries

2007



Source: Batchelder (2009).

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Q. What are the major federal payroll taxes, and how much money do they raise?

A. Payroll taxes are levied to finance Social Security, the hospital insurance portion (Part A) of Medicare, and the federal unemployment insurance program. Revenue totaled just over $1.1 trillion, or about 6.1 percent of gross domestic product, in fiscal year 2017.

SOCIAL SECURITY

Social Security, or more formally, Old-Age, Survivors, and Disability Insurance (OASDI), provides benefits to elderly and disabled workers, their spouses, and surviving spouses or dependents. It is one of the largest items in the federal budget, with outlays of $939 billion in 2017.

Benefits are mainly financed by a payroll tax on cash wages, up to an annual maximum indexed to average wage growth (table 1). In 2018, maximum taxable wages are $128,400. Employers and employees each contribute 6.2 percent of the workers' wages for a combined 12.4 percent—usually 10.6 percent for the OASI trust fund (retirement and survivors) and 1.8 percent for the DI trust fund (disability).

The Bipartisan Budget Act of 2015 temporarily reallocated a portion of the OASI tax to the DI trust fund for 2016–18 to shore up the DI trust fund, which faced insolvency. For those years, the combined employer and employee rates are 10.03 percent for OASI and 2.37 percent for DI. Most economists believe that the employer portion of the tax, just like the employee portion, is borne by employees in the form of lower compensation.

TABLE 1

Major Federal Payroll Tax Rates and Bases

2018

Source	Wage Base	Employer Rate	Employee Rate	Total Rate
Old Age and Survivors Insurance (OASI)	$128,400	5.30%	5.30%	10.60%
Disability Insurance (DI)	$128,400	0.90%	0.90%	1.80%
Hospital Insurance (HI)	No limit	1.45%	1.45%	2.90%
Federal Unemployment Insurance (UI)	$7,000	0.60%	0.00%	0.60%

Source: Social Security Administration, "2018 Social Security Changes Fact Sheet," 2018; Department of Labor, "Unemployment Insurance Tax Topic," 2018.

Notes: Wage bases for OASI and DI are adjusted each year to account for wage growth. The Bipartisan Budget Act of 2015 reallocated a portion of the OASI tax to DI in 2016-2018. The rates in those years are OASI: 5.015 (employer and employee), DI: 1.185 (employer and employee).

Key Elements of the U.S. Tax System

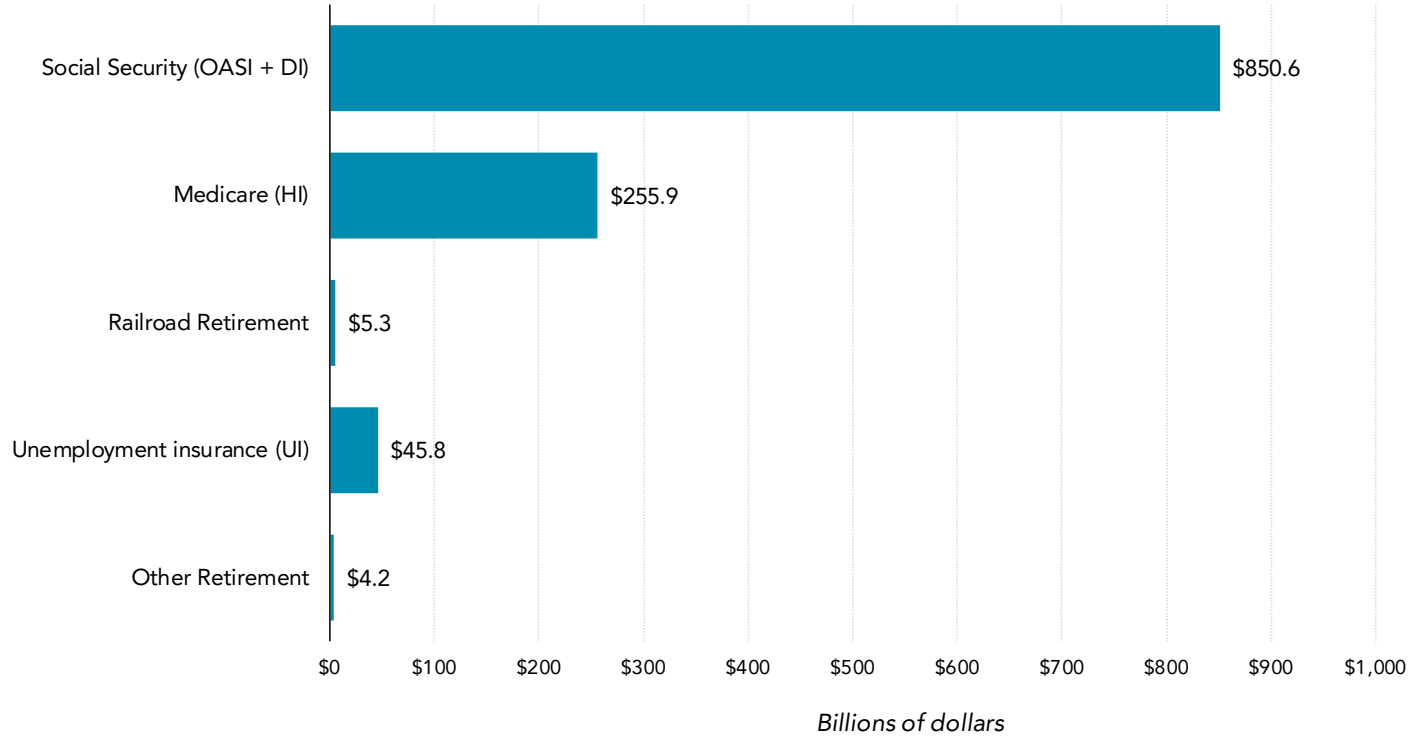
What are the major federal payroll taxes, and how much money do they raise?

Over time, Social Security taxes have become a major share of federal revenues. When the tax was first collected in 1937, the combined payroll tax rate was 2.0 percent; it raised $765 million (about $13.1 billion in 2017 dollars). In 2017, OASDI taxes totaled over $850 billion and represented 25.7 percent of total federal receipts (figure 1).

FIGURE 1

Federal Social Insurance (Payroll Tax) and Retirement Receipts

Billions of dollars, fiscal year 2017



Source: Office of Management and Budget, Historical Tables, "Table 2.4 Composition of Social Insurance and Retirement Receipts and of Excise Taxes: 1940–2023," 2018.
Note: OASI: Old-Age and Survivors Insurance; DI: Disability Insurance; HI: Hospital Insurance.

HOSPITAL INSURANCE

The hospital insurance (HI) program, or Part A of Medicare, covers inpatient hospital visits and other health care services for the elderly and some others suffering from specified maladies. Federal costs for other parts of Medicare, such as Part B, which covers doctors' and other providers' fees, are not covered by payroll taxes but mainly by general revenues.

The HI program is financed mainly through payroll taxes on workers. Employers and employees each contribute 1.45 percent of the worker's wages toward the HI trust fund for a combined rate of 2.9 percent (table 1). The cap on wages subject to the HI tax was removed in 1994. Also, beginning in 2013, single households earning more than $200,000 and married households earning more than $250,000 contributed

an additional 0.9 percent of earnings over those thresholds (there is no employer portion for this "surtax"). In 1966, the first year of HI tax collections, the combined tax rate was 0.7 percent, and collections totaled $1.9 billion (about $14.3 billion in 2017 dollars). In 2017, HI taxes totaled $255.9 billion.

UNEMPLOYMENT INSURANCE

Unemployment insurance (UI) provides insured workers with benefits if they are involuntarily unemployed and meet eligibility requirements. UI programs are run by the states in partnership with the federal government. To finance benefits and program expenses, both the states and the federal government deposit payroll taxes into a federal trust fund.

The federal payroll tax rate is 6.0 percent on the first $7,000 of covered wages, but tax credits reduce the effective federal tax rate to 0.6 percent (table 1). State unemployment tax rates and wage bases vary but are usually below 4.0 percent and are on low wage bases.

In 2017, federal UI taxes totaled about $45.8 billion.

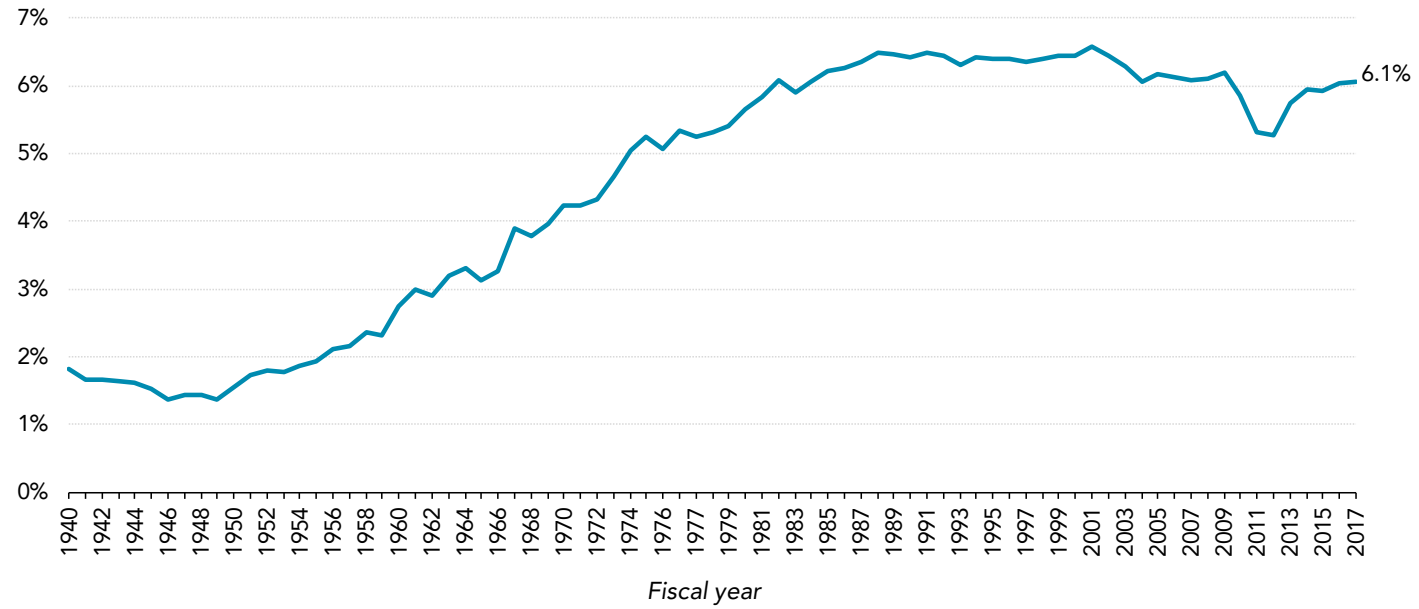
OTHER RETIREMENT PROGRAMS

Payroll taxes fund a handful of other retirement programs. The Social Security Administration operates the largest of these, a retirement program for the railroad industry that functions similarly to Social Security. Retirement programs for federal employees absorb most of the rest of payroll tax receipts.

FIGURE 2

Federal Social Insurance (Payroll Tax) and Retirement Receipts

Share of GDP, fiscal years 1940–2017



Source: Office of Management and Budget, Historical Tables, "Table 2.1-Receipts by Source: 1934–2023" and "Table 10.1-Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2023," 2018.

Key Elements of the U.S. Tax System

What are the major federal payroll taxes, and how much money do they raise?

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Q. What is the unemployment insurance trust fund, and how is it financed?

A. Unemployment insurance assists workers who become involuntarily unemployed and meet specified eligibility requirements. Unemployment insurance programs are run as federal-state partnerships financed through payroll taxes.

The federal unemployment insurance (UI) trust fund finances the costs of administering unemployment insurance programs, loans made to state unemployment insurance funds, and half of extended benefits during periods of high unemployment. Unemployment insurance programs pay benefits to covered workers who become involuntarily unemployed and meet specified eligibility requirements, such as actively looking for work.

UI is structured as a partnership between the federal government and states and territories. States and territories set the parameters of their unemployment programs within federal guidelines, including payroll tax rates and wage bases for covered workers. State unemployment insurance taxes are paid by employers and remitted to the federal UI trust fund, where each state has a separate account for covering normal unemployment insurance benefits.

In addition, a 6 percent federal payroll tax, known as the Federal Unemployment Tax Act (FUTA) tax, is levied on the first $7,000 of covered workers' earnings. Employers remit the tax but can claim credits against 5.4 percentage points of FUTA taxes paid in states with unemployment programs that meet federal standards (currently all states) The effective FUTA tax rate thus shrinks to 0.6 percent, or a maximum of $42 per worker. The federal fund is used to cover administrative expenses, make loans to states that deplete their own reserves, and cover half of extended unemployment benefits made available when states experience prolonged periods of high unemployment. (States cover the other half of these extended benefits.)

States can borrow from the federal fund if their own reserves are insufficient. When the Great Recession and the long period of high unemployment that followed hit state UI reserves particularly hard, 36 states borrowed from the federal fund. By the start of 2018, all states but California (and the US Virgin Islands) had repaid their outstanding balances. Loans from the federal fund can be repaid by reducing the credit employers can claim against FUTA taxes and through other add-ons. States can also take private loans to shore up reserves. At the beginning of 2018, three states—Michigan, Pennsylvania, and Nevada—had outstanding private loans.

What is the unemployment insurance trust fund, and how is it financed?

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Q. What are the Social Security trust funds, and how are they financed?

A. They provide cash benefits to the elderly and disabled as well as their spouses and dependents, and they are funded chiefly through payroll taxes.

There are two Social Security trust funds: old-age and survivors insurance (OASI) and disability insurance (DI), though the two are often analyzed together as Old-Age, Survivors, and Disability Insurance (OASDI). The funds finance benefits for eligible retired and disabled workers and their spouses, dependents, and survivors. When revenue dedicated to financing OASI and DI exceeds program expenses, the surplus is credited to the respective trust funds, which invest in special interest-bearing Treasury bonds. When program costs exceed receipts, the Social Security Administration can redeem its bonds to cover expenses, until it runs out of bonds. The US Department of the Treasury pays its obligation to the trust funds from general government funds.

TABLE 1

Social Security Trust Fund Receipts, Expenditures, and End of Year Assets

Billions of Dollars, 2017

Source	OASI	DI	Total
Asset reserves at the end of 2016	**$2,801**	**$46**	**$2,848**
Total income in 2017	**$826**	**$171**	**$997**
Net payroll tax contributions	$707	$167	$874
Reimbursement from General Fund of the Treasury	*	*	*
Taxation of benefits	$36	$2	$38
Interest	$83	$2	$85
Total expenditures in 2017	**$807**	**$146**	**$953**
Benefit payments	$799	$143	$942
Railroad Retirement financial interchange	$4	$0	$5
Administrative expenses	$4	$3	$7
Net increase in asset reserves in 2017	$19	$25	$44
Asset reserves at the end of 2017	**$2,820**	**$72**	**$2,892**

Source: Social Security Annual Trustees Report, 2018, Table II.B1.
* Less than $50 million
OASDI = old-age and survivors insurance; DI = disability insurance

Key Elements of the U.S. Tax System

What are the Social Security trust funds, and how are they financed?

PAYROLL TAXES: FICA AND SECA

The Social Security trust funds are financed chiefly through payroll taxes on workers covered by the OASDI program. Employers and employees each contribute 5.3 percent of the employee's taxable wages for OASI and 0.9 percent for DI coverage as part of what are sometimes called Federal Insurance Contributions Act (FICA) taxes. Up to $128,400 in wages is subject to FICA taxes, a threshold updated for average wage growth each year. (Revenue from a separate 1.45 percent FICA tax is dedicated to the Medicare hospital insurance trust fund. There is no wage cap for the Medicare tax.) Because the employer portion of the tax raises the cost of hiring workers, economists believe that this tax is passed on to workers in the form of lower compensation. Thus, workers effectively bear the entire tax.

Self-employed workers covered by Social Security contribute both the employer and employee portions of the tax under the Self-Employment Contributions Act (SECA) but can deduct the employer portion from their federal taxable income, just as other employees exclude employer FICA contributions from their taxable income.

OTHER FINANCING SOURCES

Social Security benefits are partially taxable for beneficiaries whose incomes exceed a threshold. The revenues are remitted to the OASI, DI, and HI trust funds. The trust fund balances also earn interest from special interest-bearing Treasury bonds. Congress sometimes adds to the trust funds directly from general funds. For example, when the payroll tax was cut temporarily as a stimulus measure in 2011 and 2012, the general funds reimbursed the trust funds for lost revenue.

TRUST FUND SOLVENCY AND GOVERNMENT-WIDE DEFICITS

Both the OASI and DI trust funds face shortfalls as benefits currently exceed the taxes paid into each (figure 1). In the near future, benefits from the combined OASDI trust fund will exceed revenues, including interest payments from the Treasury. In the 2018 Trustees' Report, Social Security's actuaries projected that the DI trust fund will be exhausted by 2032 and the OASI trust fund will be exhausted by 2034. If either event occurs, the Social Security Administration will only be able to pay a portion of benefits from payroll taxes collected—about three-quarters of promised benefits in the case of Social Security.

When the DI fund came close to depletion in 1994, Congress diverted some of the OASI fund's payroll tax receipts to the DI fund to maintain its solvency. Legislators took this step again in 2015, transferring funds from the OASI trust fund to extend the DI fund's solvency.

To restore long-term trust fund solvency, policymakers will need to change Social Security through some combination of raising the payroll tax rate, reducing benefits, and tapping other sources of revenue. To ameliorate the ever-growing gap between benefits relative to taxes, which adds to total government deficits, policymakers need to act soon. The sooner policymakers make adjustments, the less dramatic those adjustments will need to be.

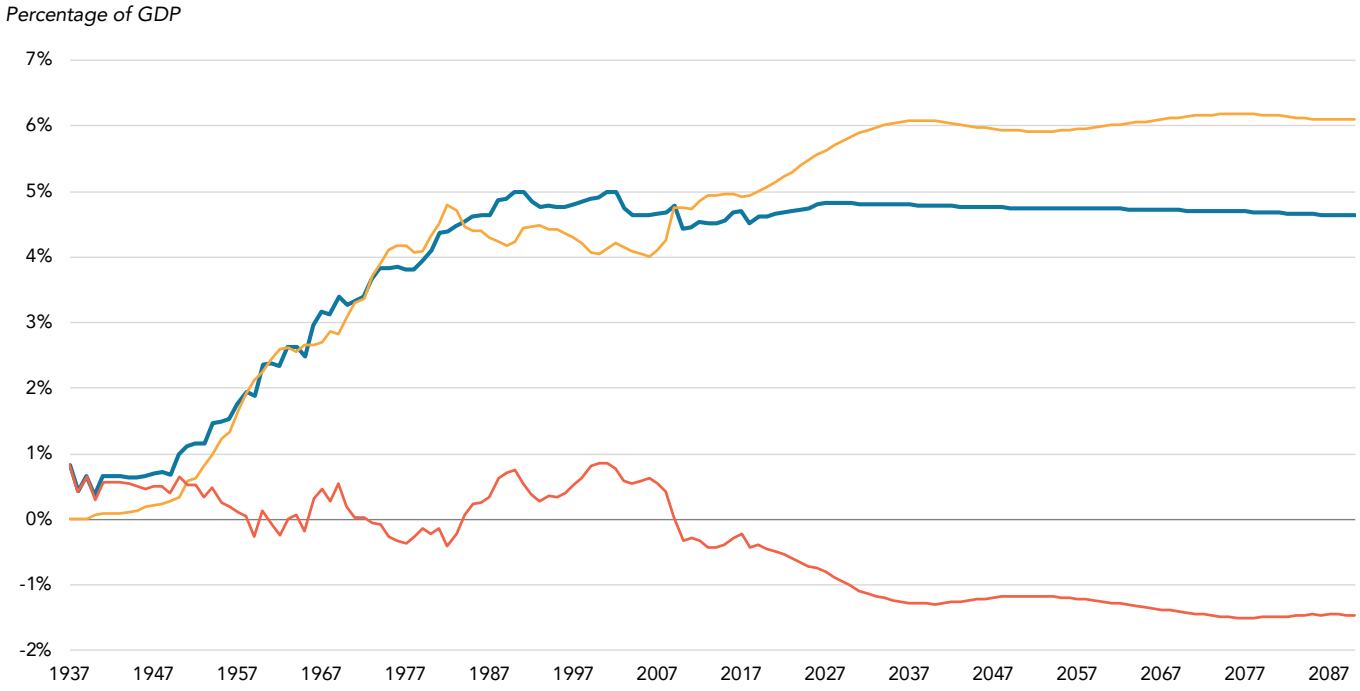
Key Elements of the U.S. Tax System

What are the Social Security trust funds, and how are they financed?

FIGURE 1

OASDI Cost and Income as a Percentage of GDP

1937–2090



Source: Calculations from data from 2017 OASDI Trustees' Report, *Annual Supplement to the Social Security Bulletin,* and BEA.

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Q. Are the Social Security trust funds real?

A. Social Security trust funds are real and hold real Treasury securities for which the federal government has an obligation to pay. They reflect any accumulated excess of Social Security taxes plus other revenues, such as interest received, over expenditures. At the same time, the trust funds "fund" only a tiny portion of outstanding obligations. The trust funds are invested in special-issue Treasury securities backed by the full faith and credit of the federal government.

Social Security was designed primarily as a "pay-as-you-go" system. Instead of prefunded accounts for individuals, contributions from current workers pay most of the benefits. For the most part, money going into the system immediately goes out to pay for benefits.

When Social Security's receipts from payroll taxes and other sources exceed program costs, as when the baby boom generation dominated the workforce, excess funds have purchased interest-bearing special-issue US Treasury bonds. In effect, the Social Security trust fund lends money to the general fund.

Where does the money go? When the non–Social Security part of government is running deficits, the money funds all other government activities. When the trust funds themselves run deficits, they add to these other non–Social Security deficits to produce an even larger unified fund deficit. Because these special-issue bonds are essentially both sold and held by the government, aren't publicly traded like other financial assets, and represent IOUs from the government, some people believe that the trust funds are nothing more than an accounting fiction.

Another factor further confuses the issue. Because the trust funds represent an asset to one side of government (the Social Security Administration) and a liability to another side of government (the general fund), some accounting presentations make the effect of the trust funds on the budget look "neutral," when in fact future obligations are to be paid.

So are the trust funds real? Yes. They have legal consequences for the Treasury and are backed by the full faith and credit of the federal government, just like any other Treasury bond. When the Social Security Administration redeems the bonds, the government has a legal obligation to pay the money back with interest, with no additional appropriation by Congress required.

The trust funds are not a free lunch for taxpayers. Money from the general fund used to repay debts to the

trust funds cannot be used for other purposes, like building roads or providing for national defense. And as an additional outlay for the government, those general fund payments increase the Treasury's need to borrow from the public, increasing federal deficits and adding burdens on future taxpayers.

For all the heat about whether the trust funds exist, the debate misses a larger issue: the long-term fiscal challenges posed by Social Security and Medicare are not caused by inadequate trust funds, which will be depleted after only a few years of drawdown, but to decades-long imbalances between promised benefits and the revenues required to fund those benefits.

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Q. What is the Medicare trust fund, and how is it financed?

A. The Medicare trust fund finances health services for beneficiaries of Medicare, a government insurance program for the elderly, the disabled, and people with qualifying health conditions specified by Congress. The trust fund is financed by payroll taxes, general tax revenue, and the premiums enrollees pay.

The Medicare trust fund comprises two separate funds. The hospital insurance trust fund is financed mainly through payroll taxes on earnings and income taxes on Social Security benefits. The Supplemental Medical Insurance trust fund is financed by general tax revenue and the premiums enrollees pay.

HOSPITAL INSURANCE TRUST FUND

The hospital insurance (HI) trust fund, also known as Part A of Medicare, finances health care services related to stays in hospitals, skilled nursing facilities, and hospices for eligible beneficiaries—mainly people over age 65 with a sufficient history of Medicare contributions.

The HI trust fund had receipts of $299.4 billion and a balance of $202 billion at the end of 2017 (table 1). The fund's chief revenue sources are payroll taxes and income from the taxation of Social Security benefits. Interest payments on trust fund balances, premiums from voluntary enrollees ineligible for Medicare coverage based on their earnings records, transfers from the general fund and the Railroad Retirement account, and miscellaneous receipts supply the remainder of revenues.

SUPPLEMENTAL MEDICAL INSURANCE TRUST FUND

The Supplemental Medical Insurance (SMI) trust fund finances two voluntary Medicare programs: Part B, which mainly covers physician services and medical supplies, and Part D, the newer prescription drug program.

The SMI trust fund received $405.8 billion in revenues and had $87.7 billion in assets at the end of 2017 (table 2). Unlike the HI fund, no payroll taxes are dedicated to SMI. Instead, the fund's chief revenue sources are contributions from the general fund (receipts from other sources, such as individual income taxes, corporate taxes, and excise taxes), premiums from participants (there are separate premiums for Parts B and D), and a small amount of interest on trust fund balances and miscellaneous receipts. Because the bulk of SMI's funding comes from the general fund, the trust fund balance mainly serves to cover temporary shortfalls and is kept low. High reserves are not required as long as general fund revenues and borrowing automatically rise with costs.

TABLE 1

Hospital Insurance Trust Fund Receipts, Expenditures, and End of Year Assets

Billions of dollars, 2017

Sources	Amount
Assets at end of 2016	**$199**
Total income	**$299**
Payroll taxes	$262
Interest	$7
Taxation of benefits	$24
Premiums	$4
General revenue	$1
Transfers from states	$0
Other	$2
Total expenditures	**$297**
Benefits	$293
Hospital	$145
Skilled nursing facility	$28
Home health care	$7
Physician fee schedule services	$0
Private health plans (Part C)	$95
Prescription drugs	$0
Other	$19
Administrative expenses	$3
Net change in assets	**$3**
Assets at end of 2017	**$202**

Source: Centers for Medicare and Medicaid Services (2018).

TABLE 2

Supplementary Medical Insurance Trust Fund Receipts, Expenditures, and End of Year Assets

Billions of Dollars, 2017

Sources	Part B	Part D	Total
Assets at end of 2016	**$88**	**$8**	**$96**
Total income	**$306**	**$100**	**$406**
Payroll taxes	$0	$0	$0
Interest	$2	$0	$2
Taxation of benefits	$0	$0	$0
Premiums	$82	$16	$97
General revenue	$217	$73	$291
Transfers from states	$0	$11	$11
Other	$5	$0	$5
Total expenditures	**$314**	**$100**	**$414**
Benefits	$309	$100	$409
Hospital	$53	$0	$53
Skilled nursing facility	$0	$0	$0
Home health care	$12	$0	$12
Physician fee schedule services	$69	$0	$69
Private health plans (Part C)	$115	$0	$115
Prescription drugs	$0	$100	$100
Other	$60	$0	$60
Administrative expenses	$5	$0	$5
Net change in assets	**-$8**	**$0**	**-$8**
Assets at end of 2017	**$80**	**$8**	**$88**

Source: Centers for Medicare and Medicaid Services (2018).

SOLVENCY AND BUDGET PRESSURES

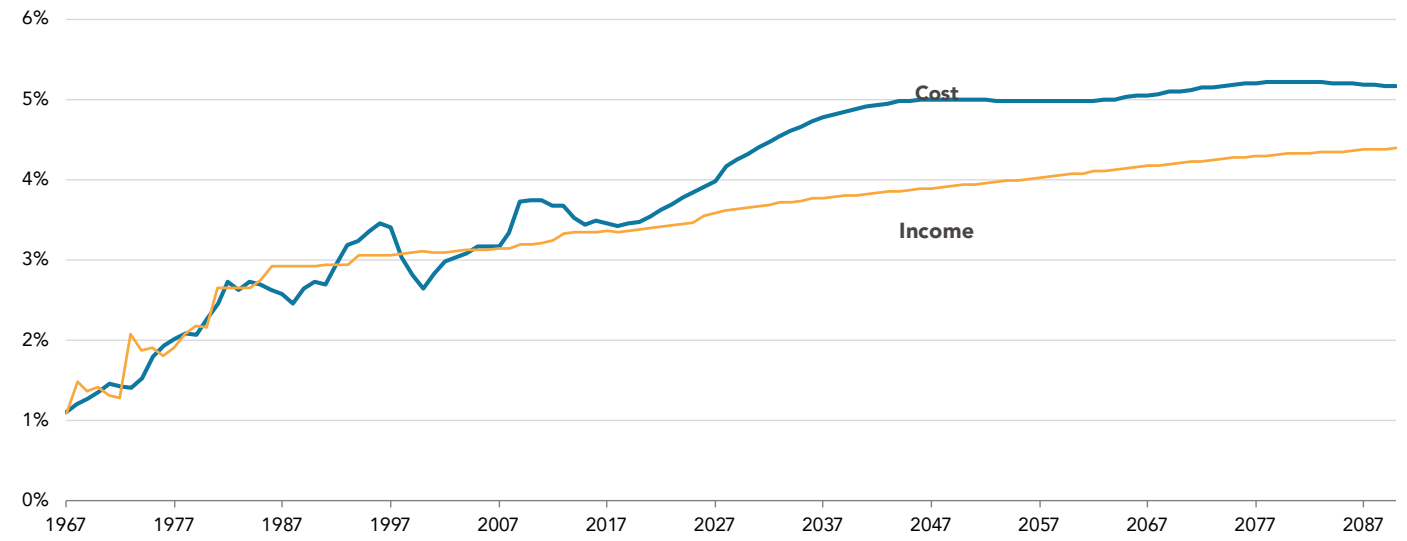
Like the Old-Age and Survivors Insurance and Disability Insurance trust funds, the HI trust fund faces long-term deficits (figure 1). (The SMI fund, primarily financed by general revenue, does not face these trust fund imbalances, though it still adds growing pressure to the overall budget.) As the number of Medicare beneficiaries increases from about 58.4 million in 2017 to nearly 80 million by 2030, the number of workers per beneficiary will decline from 3.1 to 2.4. The cost of health care has increased rapidly as well—though this dynamic has slowed but not stopped during and following the Great Recession—putting further pressure on program costs. HI trust expenditures exceeded taxes for several years up to 2016, and though these outflows and inflows will roughly stabilize for a few years, the fund is projected to be exhausted by 2027. These pressures now and in the future will force lawmakers to find ways to finance promised benefits or cut services or provider payment rates.

Key Elements of the U.S. Tax System

What is the Medicare trust fund, and how is it financed?

FIGURE 1

Hospital Insurance Cost and Income as a Percentage of Taxable Payroll
1967-2090



Source: Centers for Medicare and Medicaid Services. "2018 Expanded and Supplemental Tables."

Data Source

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Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

Q. What are the major federal excise taxes, and how much money do they raise?

A. Federal excise tax revenues—collected mostly from sales of motor fuel, airline tickets, tobacco, alcohol, and health-related goods and services—totaled $83.8 billion in 2017, or 2.5 percent of federal tax receipts.

Excise taxes are narrowly based taxes on consumption, levied on specific goods, services, and activities. They can be either a per unit tax (such as the per gallon tax on gasoline) or a percentage of price (such as the airline ticket tax). Generally, excise taxes are collected from producers or wholesalers, and are embedded in the price paid by final consumers.

Federal excise tax revenue has declined over time relative to the size of the economy. As a percentage of gross domestic product (GDP), excise tax revenue fell from 2.7 percent in 1950 to 0.7 percent by 1979 (figure 1). Receipts temporarily increased because of the crude oil windfall profit tax imposed in 1980, but excluding that tax, (the dashed line in figure 1) revenue was about 0.7 percent of GDP through the 1980s and 1990s. Excise tax revenues as a percentage of GDP gradually declined again throughout the 2000s to roughly 0.5 percent in recent years.

Excise tax revenue fell from $95 billion (5.1 percent of GDP) in 2016 to $83.8 billion (4.4 percent of GDP) in 2017 because of a one-year suspension of the annual fee on health insurance providers.

GENERAL FUND OR TRUST FUND REVENUES

Excise tax revenue is either transferred to the general fund or allocated to trust funds dedicated to specified purposes. General fund excise taxes account for roughly 40 percent of total excise receipts, with the remaining 60 percent going to trust funds.

General fund excise taxes are imposed on many goods and services, the most prominent of which are alcohol, tobacco, and health insurance. Other general fund excise taxes include taxes on local telephone service, vehicles with low-mileage ratings ("gas guzzlers"), ozone-depleting chemicals, indoor tanning services, and medical devices.

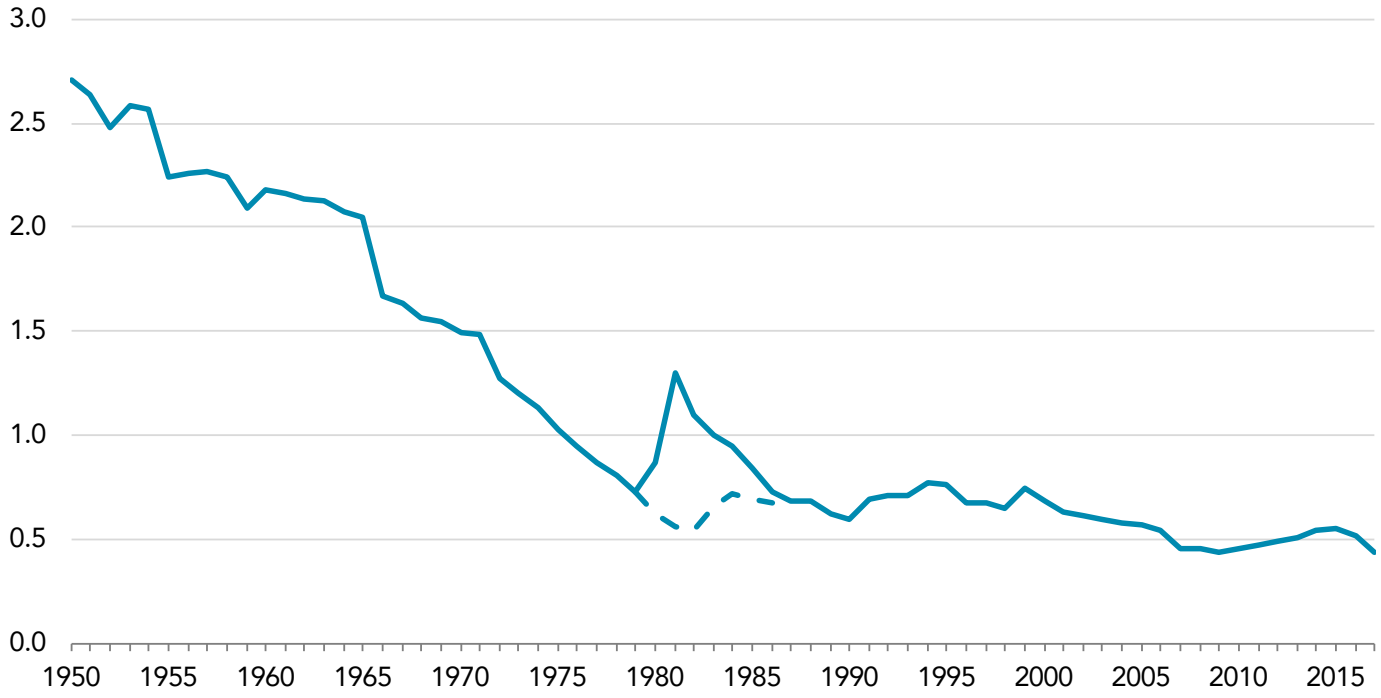
Excise taxes dedicated to trust funds finance transportation as well as environmental- and health-related spending. The Highway Trust Fund and the Airport and Airway Trust Fund account for over 90 percent of trust fund excise tax receipts, mostly from taxes on gasoline and other transportation fuels (Highway Trust Fund), and air travel (Airport and Airway Trust Fund).

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

FIGURE 1

Federal Excise Tax Revenue as a Share of GDP
1950–2017



Source: Office of Management and Budget, Historical Tables 2.3 and 2.4.
Note: The dashed line excludes receipts from the Crude Oil Windfall Profit Tax Act of 1980.
GDP = gross domestic product.

MAJOR FEDERAL EXCISE TAXES

Five categories of excise taxes—highway, aviation, tobacco, alcohol, and health—accounted for 96 percent of total excise tax receipts in 2017 (figure 2).

Excise taxes dedicated to the Highway Trust Fund

Highway-related excise tax revenue totaled $37.6 billion in 2017, 45 percent of all excise tax revenue. Gasoline and diesel taxes, which are 18.4 and 24.4 cents per gallon, respectively, make up over 90 percent of total highway tax revenue, with the remaining from taxes on other fuels, trucks, trailers, and tires. (The tax rates for gasoline and diesel include a 0.1 percent tax earmarked for the Leaking Underground Storage Tank Trust Fund.) Most other motor fuels are also subject to excise taxes, although "partially exempt" fuels produced from natural gas are taxed at much lower rates. Tax credits for producers of certain fuels deemed environmentally superior—including biodiesel, renewable diesel mixtures, alternative fuel, and alternative fuel mixtures—expired at the end of 2016 but were extended by the Bipartisan Budget Act of 2018 through 2017.

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

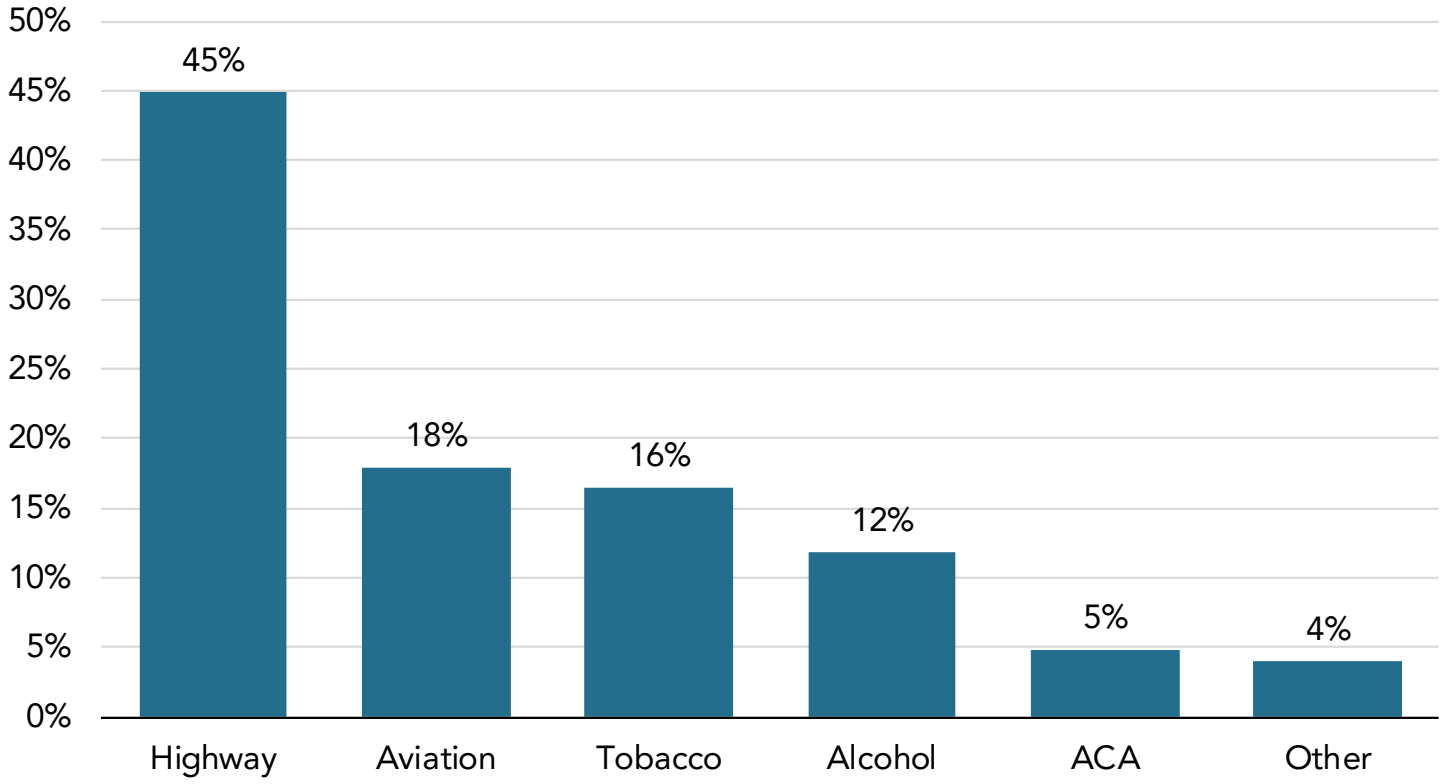
Excise taxes dedicated to the Airport and Airway Trust Fund

Revenue from excise taxes dedicated to the Airport and Airway Trust Fund totaled $15.1 billion in 2017, accounting for 18 percent of all excise tax receipts. According to Congressional Budget Office data, more than 90 percent of aviation excise taxes came from taxing passenger airfares, with the remaining coming from taxes on air cargo and aviation fuels.

Domestic air travel is subject to a 7.5 percent tax based on the ticket price plus $4.10 (in 2018) for each flight segment (one takeoff and one landing). A 6.25 percent tax is charged on domestic cargo transportation. International arrivals and departures are taxed at $18.30 per person (in 2018); there is no tax on international cargo. Both the domestic segment fee and the international arrivals and departures fee are indexed for inflation.

FIGURE 2

Composition of Total Federal Excise Tax Revenue
FY2017



Source: Office of Management and Budget, Historical Table 2.4.

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

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Tobacco excise taxes

Revenue from tobacco taxes totaled $13.8 billion in 2017, accounting for 16 percent of all excise tax revenue. Federal excise taxes are imposed on tobacco products, which include cigarettes, cigars, snuff, chewing tobacco, pipe tobacco, and roll-your-own tobacco. The tax is calculated per thousand cigars or cigarettes or per pound of tobacco, depending on the product. The tax equals about $1.00 per pack of 20 cigarettes. Cigarette papers and tubes are also subject to tax. Tobacco taxes are collected when the products leave bonded premises for domestic distribution. Exported products are exempt. Unlike other excise taxes collected by the IRS, alcohol and tobacco taxes are collected by the Alcohol and Tobacco Tax and Trade Bureau of the US Treasury Department.

Alcohol excise taxes

Excise tax revenue from alcoholic beverages amounted to $9.9 billion in 2017, 12 percent of total excise receipts. There are different tax rates for distilled spirits, wine, and beer. Distilled spirits generally are taxed at $13.50 per proof gallon (a proof gallon is one liquid gallon that is 50 percent alcohol), but a lower rate applies in 2018 and 2019 to quantities of less than 22.23 million proof gallons removed from the distillery or imported. Tax rates on wines vary based on type and alcohol content, ranging from $1.07 per gallon for wines with 14 percent alcohol or less to $3.40 per gallon for sparkling wines, but lower rates also apply in 2018 and 2019 to smaller quantities of wine removed or imported. Beer is typically taxed at $18.00 per barrel (31 gallons), although a reduced rate of $7.00 per barrel applied to the first 60,000 barrels for breweries that produce less than two million barrels. Lower rates apply in both cases in 2018 and 2019. Note that the alcohol content of beer and wine is taxed at a much lower rate than the alcohol content of distilled spirits.

Excise taxes enacted by the Affordable Care Act

The Affordable Care Act (ACA) legislation passed in 2010 contained several health-related excise taxes.

- The largest is an annual fee on health insurance providers. This fee represents a fixed aggregate amount for each calendar year ($14.3 billion in 2018), imposed on insurance providers according to their market share. The Consolidated Appropriations Act of 2016 suspended the fee for 2017. It is currently scheduled to return in 2018, but then was suspended again for 2019 by the Extension of Continuing Appropriations Act of 2018.
- Starting in 2014, an annual fee also applies to manufacturers and importers of branded prescription drugs, which, like the annual fee on health insurance providers, is a fixed aggregate amount for each calendar year ($4.1 billion in 2018) allocated in proportion to sales.
- A 40 percent excise tax on certain high-cost employer-sponsored health insurance plans (the "Cadillac

tax") was scheduled to begin in 2018 but Congress passed a two-year postponement of the excise tax, and later extended the suspension through 2022.

- Other health care–related excise taxes include a 2.3 percent tax on medical devices and a 10 percent tax on indoor tanning services. Congress suspended the excise tax on medical devices for two years for medical device sales in 2016 and 2017, and recently extended that suspension through 2019.

Health-related excise tax revenue totaled $4.1 billion in 2017, 5 percent of total excise receipts, down from $14.8 billion and 16 percent of excise receipts in 2016.

The ACA also imposed two additional taxes—a penalty tax on individuals without essential health insurance coverage (the "individual mandate") as an incentive to buy it, and a penalty tax on large employers that choose not to offer health care coverage (the "employer mandate"). The 2017 Tax Cuts and Jobs Act eliminated the individual mandate starting in 2019. This will reduce revenue but on net save money for the federal government because without the individual mandate, fewer people will enroll in government-subsidized health insurance programs and the saving from lower Medicaid costs and tax subsidies for health insurance premiums will exceed the lost revenues. Eliminating the individual mandate, however, will increase the number of people without health insurance—by an estimated 4 million in 2019 and by 12 million starting in 2021 according to the Congressional Budget Office.

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

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Q. What is the Highway Trust Fund, and how is it financed?

A. The Highway Trust Fund finances most federal government spending for highways and mass transit. Revenues for the trust fund come from transportation-related excise taxes, primarily federal taxes on gasoline and diesel fuel. In recent years, however, the trust fund has needed significant transfers of general revenues to remain solvent.

The Highway Trust Fund tracks federal spending and revenue for surface transportation. The trust fund has separate accounts for highways and mass transit. Because obligations from the trust fund generally are for capital projects that take several years to complete, outlays reflect projects authorized by Congress in previous years.

Most spending from the Highway Trust Fund for highway and mass transit programs is through federal grants to state and local governments. The federal government accounts for about one-quarter of all public spending on roads and highways, with the remaining three-quarters financed by state and local governments.

FINANCING THE TRUST FUND

The Congressional Budget Office estimates that Highway Trust Fund tax revenue will total $41 billion in fiscal year 2018 (figure 1). Revenue from the federal excise tax on gasoline ($25.7 billion) and diesel fuel ($9.9 billion) accounts for 87 percent of the total. The remaining trust fund tax revenue comes from a sales tax on tractors and heavy trucks, an excise tax on tires for heavy vehicles, and an annual use tax on those vehicles. In addition to dedicated tax revenue, the trust fund receives a small amount of interest on trust fund reserves.

The current tax rates are 18.4 cents per gallon for gasoline and ethanol-blended fuels and 24.4 cents per gallon for diesel (0.1 cent of each tax is dedicated to the Leaking Underground Storage Tank Trust Fund). The tax rates on motor fuels have not changed since 1993 and thus have failed to keep pace with inflation. If tax rates had been indexed for inflation since 1993, the current tax on gasoline would be about 31 cents per gallon and the tax on diesel fuel would be about 42 cents per gallon. Although the current taxes on motor fuels (except for a residual tax of 4.3 cents per gallon) are set to expire at the end of September 2022, Congress has routinely extended the taxes in the past.

TRUST FUND BALANCES

Before 2008, highway tax revenue dedicated to the trust fund was sufficient to pay for outlays from the fund, but that has not been true in recent years. Since 2008, Congress has sustained highway spending by transferring $140 billion of general revenues to the fund, including $70 billion in 2016 because of legislation enacted at the end of 2015.

Those transfers will enable the trust fund to meet spending obligations through 2020, but projected shortfalls will appear again by the end of 2021 (figure 2). The Congressional Budget Office projects that outlays from the Highway Trust Fund will exceed trust fund reserves by a cumulative $119 billion for the highway account and by $42 billion for the mass transit account by 2028, even if expiring trust funds taxes are extended (Congressional Budget Office 2018).

FINANCING FEDERAL SPENDING ON HIGHWAYS AND MASS TRANSIT

Congress could pay for projected highway and mass transit spending by simply raising the federal tax rate on gasoline and diesel fuel. A one cent increase in motor fuels taxes dedicated to the Highway Trust Fund would raise trust fund revenues by between $1.5 billion and $1.7 billion annually (Kile 2015). (Higher motor fuels taxes would increase costs for businesses, thus lowering business profits, employee wages, and the federal taxes collected on that income. The estimated increase in Highway Trust Fund revenues does not include the reduction in federal revenues from other sources.)

Drivers likely would respond to an increase in motor fuels taxes by driving less, which would reduce pollution and lessen the need for highway construction and maintenance. But drivers may also respond by driving more fuel-efficient vehicles, which would weaken the incentive to reduce miles driven.

Motor fuels taxes link highway use with the associated costs of building and maintaining roads as well other costs associated with fuel consumption, such as pollution and dependence on foreign oil. But motor fuels taxes are an imperfect user fee because they do not differentiate among vehicles that cause greater or lesser

FIGURE 1

Highway Trust Fund Revenue by Source
2018

Source: Congressional Budget (2018).

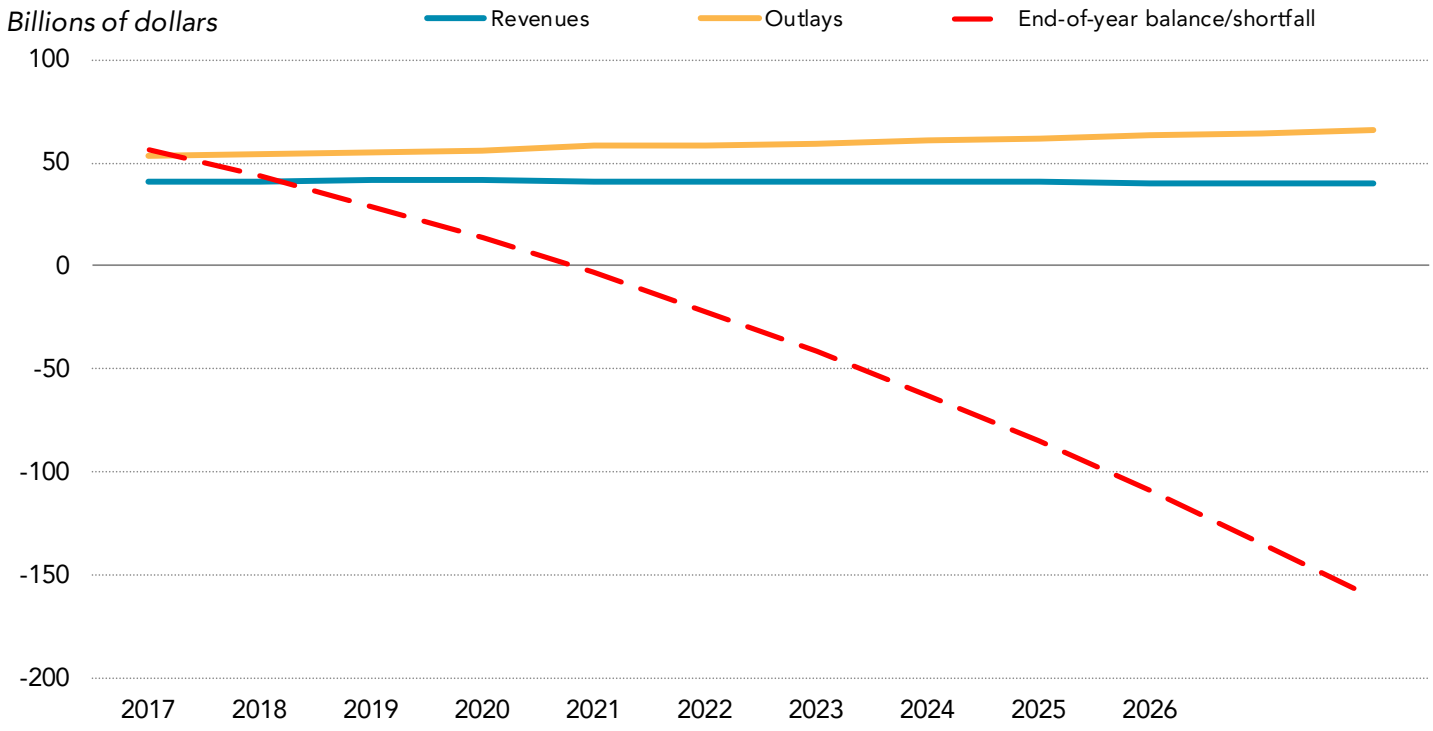
road wear for the same amount of fuel consumed or between travel on crowded and uncrowded roads. A tax on vehicle miles driven would provide a more direct link to the cost of highway use but, unlike an increase in the tax on motor fuels, would be difficult to implement, requiring new tolls or electronic motoring of vehicles. An advantage of a vehicle mileage tax is that it could adjust to reflect the additional costs of congestion by increasing tolls or the tax rate in certain locations and at certain times of the day. A vehicle mileage tax would not, however, provide an incentive for driving more fuel-efficient vehicles.

Alternatively, Congress could abandon the user-pay principle and simply pay for highways through general revenues. Highway spending would no longer have a dedicated source of revenue and would instead compete with other spending programs for general revenue funding through the annual appropriations process. Or Congress could decide to limit federal highway spending to the amount of revenue collected from exiting motor fuels taxes. This would require curtailing some existing highway projects and not starting others, at a time when the nation's infrastructure is already in need of repair.

FIGURE 2

Highway Trust Fund Account Projections

2017–28



Source: Congressional Budget Office (2018).
Notes: Revenues include a small amount of interest on trust fund reserves. Under current law, the Highway Trust Fund cannot incur negative balances.

Key Elements of the U.S. Tax System

What is the Highway Trust Fund, and how is it financed?

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Q. What tax incentives encourage energy production from fossil fuels?

A. Provisions of the federal income tax that subsidize domestic production of fossil fuels include the expensing of exploration, development, and intangible drilling costs; the use of percentage depletion instead of cost depletion to recover drilling and development costs of oil and gas wells and coal mining properties; and numerous smaller incentives for production and distribution of oil, coal, and natural gas.

Various tax incentives promote investment in fuel development, potentially diverting capital from investments in other assets with higher pretax yields. Several studies have found that the effective marginal tax rate—the extent to which all applicable tax provisions reduce the after-tax return on new investment—is much lower for oil, gas, and coal development than for other assets. The Obama administration proposed eliminating these incentives in most of its budgets, but Congress took no action.

Supporters justify these tax incentives as a means of reducing US dependence on imported oil. But such incentives also encourage more rapid exhaustion of domestic supplies, which may increase dependence on imports in the long run. The three largest energy tax incentives are expected to reduce federal tax revenue by nearly $11.6 billion from 2017 to 2021 (figure 1).

Intangible drilling costs cover the labor and materials needed for drilling and developing oil and gas wells and coal mines. Independent oil and gas producers (i.e., those without related refining and marketing operations) may deduct these costs from income in the year incurred, even though, as capital investments, they produce returns over many years. Integrated oil and gas companies may deduct 70 percent of these costs in the first year and recover the remaining 30 percent over the next five years.

With percentage depletion, producers can deduct a fixed percentage of gross revenue from a property as capital expenses each year. In contrast, with conventional cost depletion, producers deduct their actual costs as the resources from a well or mine are depleted. The federal income tax allows independent producers—but not integrated companies—to deduct 15 percent of gross revenue from their oil and gas properties as percentage depletion, without regard to how much they have invested in the properties. Percentage depletion is permitted only on the company's first 1,000 barrels per day from a property and is limited to net income from oil and gas properties. Percentage depletion is also available for coal and other minerals at varying rates.

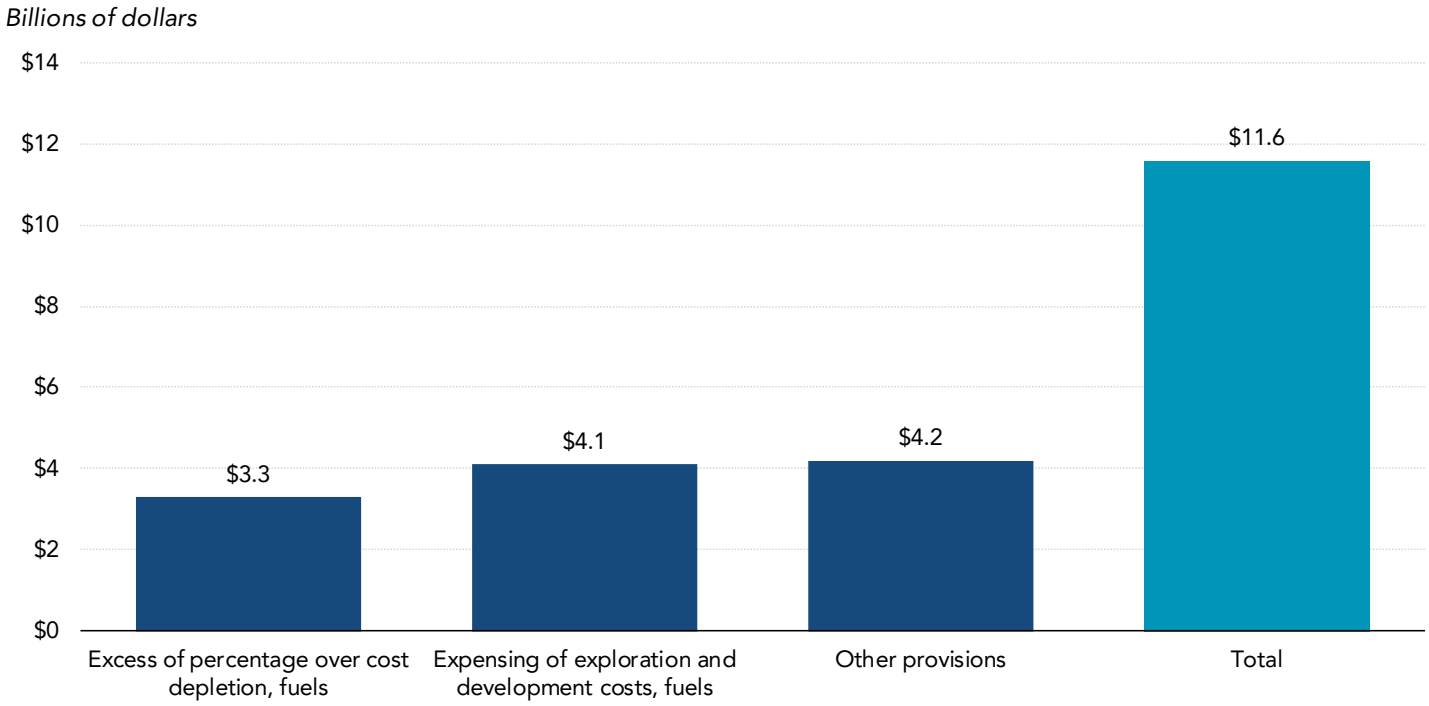
Key Elements of the U.S. Tax System

What tax incentives encourage energy production from fossil fuels?

FIGURE 1

Tax Incentives for Energy Production from Fossil Fuels

Revenue losses, fiscal years 2017–21



Source: Joint Committee on Taxation (2018).
Note: "Other provisions" includes exception from passive loss limitations for working interests in oil and gas properties, capital gains treatment of royalties on coal, exclusion of interest on energy facility bonds, credit for investment in clean coal facilities, treatment of natural gas distribution facilities as 15-year property, and amortization of all geological and geophysical expenditures over 2 years.

The tax law includes several smaller (but hardly trivial) incentives for investments in refineries, pipelines, oil and gas exploration, and selected coal technologies, including for carbon capture and sequestration. In addition, domestic energy properties used to benefit from the domestic production deduction provided in the American Jobs Creation Act of 2004, but this deduction was repealed in the Tax Cuts and Jobs Act enacted in 2017.

Subsidizing domestic production of fossil fuels is inconsistent with the policy goal of reducing fossil fuel use to counter global climate change. But the adverse effects of the incentives on climate change are minor, because any increase in domestic production they induce mostly displaces imports rather than raising domestic fuel consumption.

Some prior research concludes that the production incentives reduce the world market price of oil by less than 0.1 percent, which would barely effect consumption of gasoline and other oil-based products. Moreover, a recent study by the National Academy of Sciences finds that subsidies for oil and gas production may slightly reduce greenhouse gas emissions by accelerating the conversion of electricity production facilities from coal to natural gas.

Key Elements of the U.S. Tax System

What tax incentives encourage energy production from fossil fuels?

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Q. What tax incentives encourage energy alternatives to fossil fuels?

A. The federal tax code includes more than a dozen incentives for alternatives to fossil fuels. These provisions support electricity production from solar, wind, and other renewable sources and, to much lesser extent, from nuclear facilities. They also support alternative transportation fuels, especially electricity. And they encourage energy efficiency in homes and commercial buildings.

ELECTRICITY PRODUCTION

Several tax provisions encourage electricity production from nonfossil sources. The two largest are the renewable electricity production tax credit (PTC) and the energy investment tax credit (ITC). The PTC provides a per kilowatt hour subsidy to qualifying facilities during their first 10 years of operation. Wind-powered generators are the main recipients, but some geothermal, biomass, solid waste, and hydro facilities also claim it. The ITC provides a one-time credit for new investment in qualifying facilities. Solar generators are its main recipients, with small amounts going to fuel cells, combined heat and power systems, and other projects. The PTC is often known as the Section 45 credit, and the ITC as the Section 48 credit.

Small tax subsidies also target nuclear energy. Existing nuclear facilities get a special deduction for some contributions to future decommissioning funds. There is also an as-yet little-used production tax credit for advanced nuclear power facilities.

ELECTRIC VEHICLES

The tax code provides a substantial tax credit to individuals and businesses who purchase or lease plug-in electric light passenger vehicles and trucks. The credit starts at $2,500 and increases to $7,500 based on battery capacity. Plug-in hybrids typically qualify for credits of $4,000 to $6,000, while all-electric vehicles get the full $7,500. The credit phases out once a manufacturer reaches 200,000 qualifying vehicles. Tesla reached that limit in 2018, and General Motors is expected to do so in late 2018 or 2019. The credit for qualifying Tesla and GM vehicles will then phase down over a year. A smaller tax credit is available for electric motorcycles and other two-wheeled vehicles.

ENERGY EFFICIENCY

The tax code also encourages homeowners and businesses to use less energy, regardless of how produced. The residential energy efficiency tax credit provides up to $500 for energy efficiency improvements in existing homes, including insulation improvements and high-efficiency heating, cooling, and water heating. The $500 maximum applies cumulatively and can be claimed over multiple years. A separate residential energy-efficient property tax credit, known as Section 25D, supports home installation of solar electric and

water heating systems. Commercial buildings get a special deduction of up to $1.80 per square foot for investments in efficient lighting, heating, cooling, water heating, and building envelopes.

OTHER PROVISIONS

Smaller tax incentives for nonfossil energy sources include tax credits for certain bonds supporting renewable energy and energy conservation projects, exclusion from income tax of energy conservation subsidies provided by utilities, tax credits for fuel cell vehicles and alternative vehicle refueling, and tax preferences for biodiesel fuel.

EXPIRING PROVISIONS

Most of these tax provisions sunset every few years, and some have already expired. The residential energy efficiency and second-generation biofuel tax credits are just two of several provisions that expired at the end of 2017 and, as of mid-2018, had not been extended. Others expire later, such as the credit for residential solar, which expires at the end of 2021.

These provisions are part of a larger phenomenon of expiring tax provisions. Most eventually get extended, either before they expire or retroactively. As a result, they are often known as the tax extenders.

Energy provisions do sometimes expire, however. The tax credit for two-wheeled electric vehicles lapsed for all of 2014 before being renewed in 2015. And a substantial tax credit for ethanol fuels expired at the end of 2011.

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Q. What is a carbon tax?

A. Emissions of carbon dioxide and other greenhouse gases are changing the climate. A carbon tax puts a price on those emissions, encouraging people, businesses, and governments to produce less of them. A carbon tax's burden would fall most heavily on energy-intensive industries and lower-income households. Policymakers could use the resulting revenue to offset those impacts, lower individual and corporate taxes, reduce the budget deficit, invest in clean energy and climate adaptation, or for other uses.

WHY TAX CARBON, AND HOW MUCH?

Emissions of carbon dioxide, methane, nitrous oxide, and other greenhouse gases are increasing global temperatures, raising sea levels, shifting rainfall patterns, boosting storm intensity, and harming coral reefs and other marine life. Greenhouse gas emissions thus create a host of potential economic and environmental threats, including property damage from storms, human health risks, reduced agricultural productivity, and ecosystem deterioration (Environmental Protection Agency 2017; National Aeronautics and Space Administration 2018).

Energy prices do not currently reflect these costs of greenhouse gas emissions. Those who benefit from burning fossil fuels generally do not pay for the environmental damage the emissions cause. Instead, this cost is borne by people around the world, including future generations. Imposing a carbon tax can help to correct this externality by raising the price of energy consumption to reflect more of its social cost. The most efficient way to collect such a tax would be upstream from a limited number of fuel producers and importers, rather than downstream from fuel users.

Estimates of the environmental cost of carbon emissions are sensitive to scientific and economic assumptions and thus differ greatly. One prominent estimate, developed by an interagency working group of the United States government, is that carbon dioxide emissions impose social costs of about $40 per metric ton (Interagency Working Group on Social Costs of Greenhouse Gases 2016).

HOW WOULD A CARBON TAX AFFECT WELFARE?

A carbon tax would increase the price of burning fossil fuels and any resulting goods or services. A tax of $40 per ton would add about 36 cents to the price of a gallon of gasoline, for example, or about 2 cents to the average price of a kilowatt-hour of electricity (Marron, Toder, and Austin 2015). Higher energy prices would raise costs for industry and households, resulting in lower profits, wages, and consumption.

The impact of a carbon tax would differ among economic groups depending on the extent of energy price changes and on regional energy production and consumption patterns. Clearly, a carbon tax would fall more heavily on workers and investors in carbon-intensive industries as well as on regions that depend heavily on carbon-intensive fuels, particularly coal.

The distributional impact of a carbon tax would depend on the extent to which businesses could pass higher energy costs to their customers. If demand for goods is less "elastic" (that is, responds less) to price changes than the supply of goods, then consumers will bear more of the carbon tax burden than investors and workers.

Because low-income households consume a more energy-intensive basket of goods than wealthier households do, a carbon tax would be regressive; it would cost poorer households a higher share of their income than wealthier households (Marron, Toder, and Austin 2015). A carbon tax of $20 per ton would account for about 0.8 percent of pretax income for households in the lowest income quintile, as compared to 0.5 percent for the highest income quintile.

The environmental benefits from reduced emissions would be shared by people around the world. Combatting climate change thus poses a fundamental collective action problem. American reductions will be most valuable if they are accompanied by comparable reductions in other nations.

DEPLOYING THE REVENUE

A carbon tax could raise substantial revenue. The Joint Committee on Taxation and the Congressional Budget Office estimated, for example, that a broad-based carbon tax starting at $25 per ton in 2017 and rising at 2 percent more than inflation would have raised $1 trillion over its first decade (Congressional Budget Office 2016). This is close to the amount that the United States currently raises with all its other excise taxes—about 0.5 percent of gross domestic product per year.

The welfare impact of a carbon tax package would depend on how those revenues are used. Using some revenues to increase transfers, reduce Social Security contributions from low-income households, or compensate workers in carbon-intensive industries could soften the regressive impact of the carbon tax. Revenues from a carbon tax could also be used to finance cuts in existing taxes that act as a disincentive to growth. Before the 2017 tax bill, one prominent idea was using carbon tax revenue to reduce the corporate income tax (Marron and Toder 2015). However, because tax cuts on profits would largely benefit the wealthy, this would exacerbate the regressivity of the carbon tax. Revenues could also be used to reduce personal income and payroll taxes, to reduce future deficits, or to invest in clean energy and climate adaptation. What combination to choose depends on political, social, and economic considerations (Marron and Morris 2016).

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Q. How does the corporate income tax work?

A. The United States imposes a tax on the profits of US resident corporations at a rate of 21 percent (reduced from 35 percent by the 2017 Tax Cuts and Jobs Act). The corporate income tax raised $297.0 billion in fiscal 2017, accounting for 9 percent of total federal revenue.

The United States taxes the profits of US resident C corporations (named after the relevant subchapter of the Internal Revenue Code) at 21 percent.

Taxable corporate profits are equal to a corporation's receipts less allowable deductions—including the cost of goods sold, wages and other employee compensation expenses, interest, nonfederal taxes, depreciation, and advertising. US-based corporations owned by foreign multinational companies generally face the same US corporate tax rules on their profits from US business activities, as do US-owned corporations.

Corporate profits can also be subject to a second layer of taxation at the individual shareholder level, both on dividends when distributed and on capital gains from the sale of shares. The maximum tax rate on both dividends and capital gains is currently 23.8 percent (including the 3.8 percent tax on net investment income).

Many US businesses are not subject to the corporate income tax; rather, they are taxed as "pass-through" entities. Pass-through businesses do not face an entity-level tax. But their owners must include their allocated share of the businesses' profits in their taxable income under the individual income tax. Pass-through entities include sole proprietorships, partnerships, and eligible corporations that elect to be taxed under subchapter S of the Internal Revenue Code (S corporations).

The corporate income tax is the third-largest source of federal revenue, although substantially smaller than the individual income tax and payroll taxes. It raised $297.0 billion in fiscal 2017, 9.0 percent of all revenue, and 1.5 percent of gross domestic product (GDP). The relative importance of the corporate tax as a source of revenue declined sharply between the 1950s and 1980s, but over the past quarter century it has brought in revenues equal to about 2 percent of GDP (figure 1).

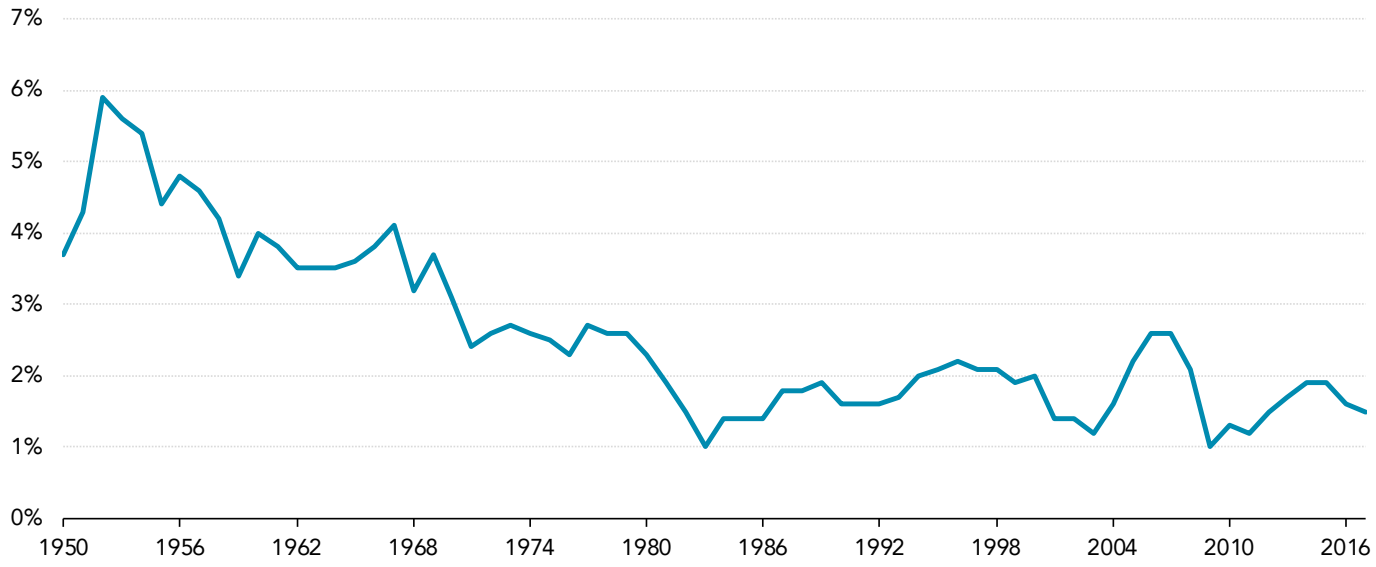
Key Elements of the U.S. Tax System

How does the corporate income tax work?

FIGURE 1

Corporate Income Tax Revenue

Share of GDP, fiscal years 1950–2017



Source: Office of Management and Budget, Fiscal Year 2019, *Historical Tables*, Table 2.3.

RECENT CHANGES TO THE CORPORATE INCOME TAX

The Tax Cuts and Jobs Act (TCJA) reduced the top corporate income tax rate from 35 percent to 21 percent and eliminated the graduated corporate rate schedule. The new law also repealed the corporate alternative minimum tax.

The TCJA made fundamental changes to the treatment of multinational corporations and their foreign source income. Profits earned abroad by US resident multinationals are now exempt (a "territorial" system). In addition, it created two new minimum taxes—the tax on Global Intangible Low-Taxed Income (GILTI) and the Base Erosion and Anti-abuse tax (BEAT). Another provision of the TCJA provides a new deduction for certain foreign-derived intangible income (FDII).

Before the TCJA, US resident multinationals owed tax on their worldwide profits, but tax on their profits from controlled foreign subsidiaries was deferred until those profits were repatriated (that is, paid back as dividends) to the US parent corporation. Further, these profits were eligible for a nonrefundable credit for foreign taxes paid.

Data Source

Office of Management and Budget. *Historical Tables*. 2.3. "Receipts by Source as Percentages of GDP: 1934–2023."

Q. What are pass-through businesses?

A. Most US businesses are not subject to the corporate income tax. Rather, profits flow through to owners and are taxed under the individual income tax. Pass-through businesses include sole proprietorships, partnerships, and S corporations. The share of business activity represented by pass-through entities has been rising in recent decades.

Most US businesses are taxed as pass-through (or flow-through) entities that, unlike C corporations, are not subject to the corporate income tax or any other entity-level tax. Instead, their owners include their allocated shares of profits in taxable income under the individual income tax. Pass-through businesses include sole proprietorships, partnerships, and S corporations.

TYPES OF PASS-THROUGH ENTITIES

Sole proprietorships: A business with a single owner does not file a separate tax return, but rather reports its net income on Schedule C of the owner's individual tax return. Generally, all net income from sole proprietorships is also subject to payroll taxes under the Self-Employed Contributions Act (SECA).

Partnerships: Partnerships file an entity-level tax return (Form 1065), but profits are allocated to owners who report their share of net income on Schedule E of their individual tax returns. Under "check the box" regulations instituted by the US Department of the Treasury in 1997, limited-liability companies can elect to be taxed as partnerships. General partners are subject to SECA tax on all their net income, while limited partners are only subject to SECA tax on "guaranteed payments" that represent compensation for labor services.

S corporations: Eligible domestic corporations that elect S corporation status file a corporate tax return (Form 1120S), but profits flow through to shareholders and are reported on Schedule E of the shareholder's personal income tax. S corporations cannot have more than 100 shareholders, and those shareholders must be US citizens or resident individuals (although certain estates, trusts, and tax-exempt organizations are also allowed). In addition, S corporations may have only one class of stock. S corporation owners do not pay SECA tax on their profits but are required to pay themselves "reasonable compensation," which is subject to the regular Social Security tax (i.e., the Federal Insurance Contributions Act, or FICA).

Key Elements of the U.S. Tax System

What are pass-through businesses?

GROWTH IN PASS-THROUGHS

The share of business activity represented by pass-through entities has been rising, particularly since passage of the Tax Reform Act of 1986 (Plesko and Toder 2013). Excluding sole proprietorships, more than 80 percent of businesses were organized as flow-through entities in 2014—up from 47 percent in 1980 (figure 1). Pass-throughs now account for more than 50 percent of total business net income, up from about 20 percent in 1980 (figure 2).

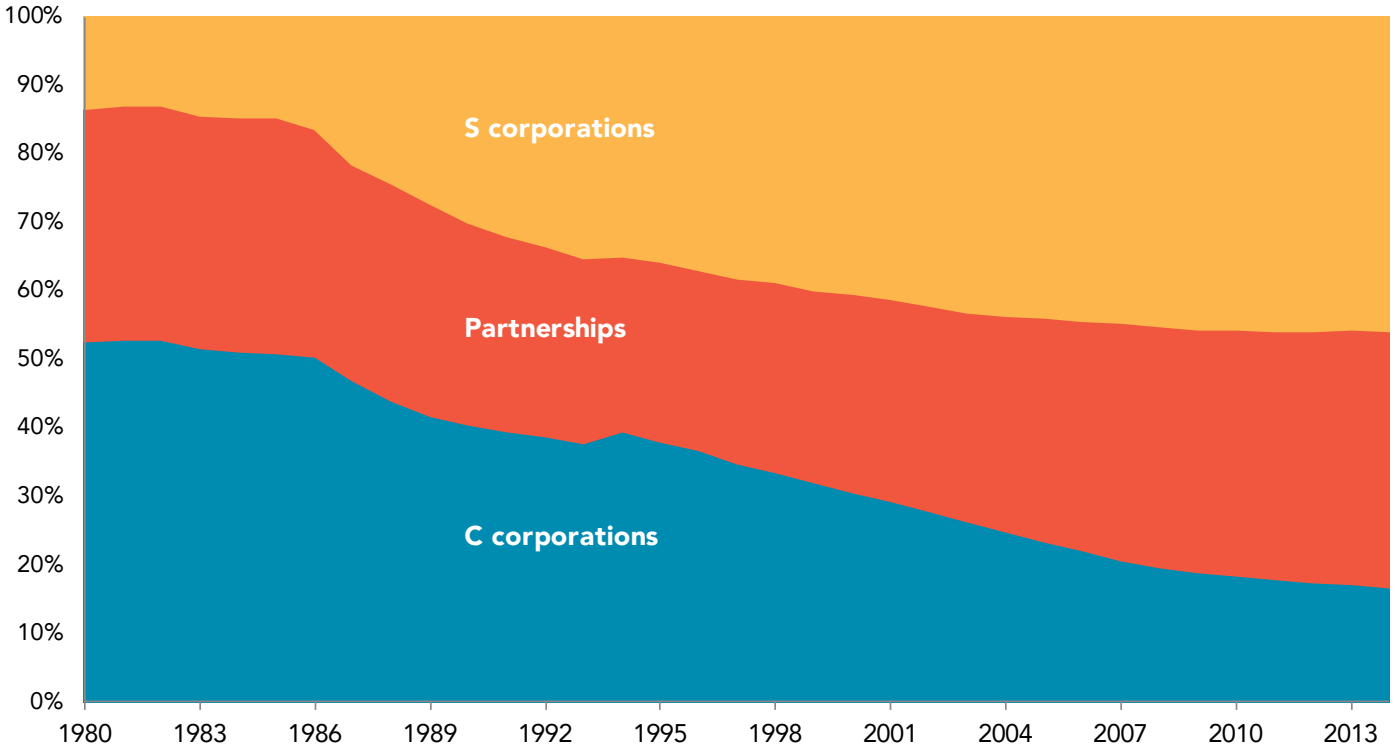
PASS-THROUGHS AND THE INDIVIDUAL INCOME TAX

In 2016, individuals reported about $957 billion in net income from sole proprietorships, partnerships, and S corporations, accounting for 9.4 percent of total adjusted gross income (AGI) reported on individual income tax returns (figure 3). Nonfarm sole proprietor income (reported on Schedule C) has declined modestly as a percentage of total AGI beginning in the mid-1990s. In 2016, 25 million returns reported net income of $328 billion, or 3.2 percent of AGI. In contrast, income from partnerships and S corporations has more than tripled as a share of AGI since the late 1980s. In 2016, 8.7 million returns reported $629 billion in net income from those sources, or 6.1 percent of AGI.

FIGURE 1

Share of Business Returns by Type

1980–2014



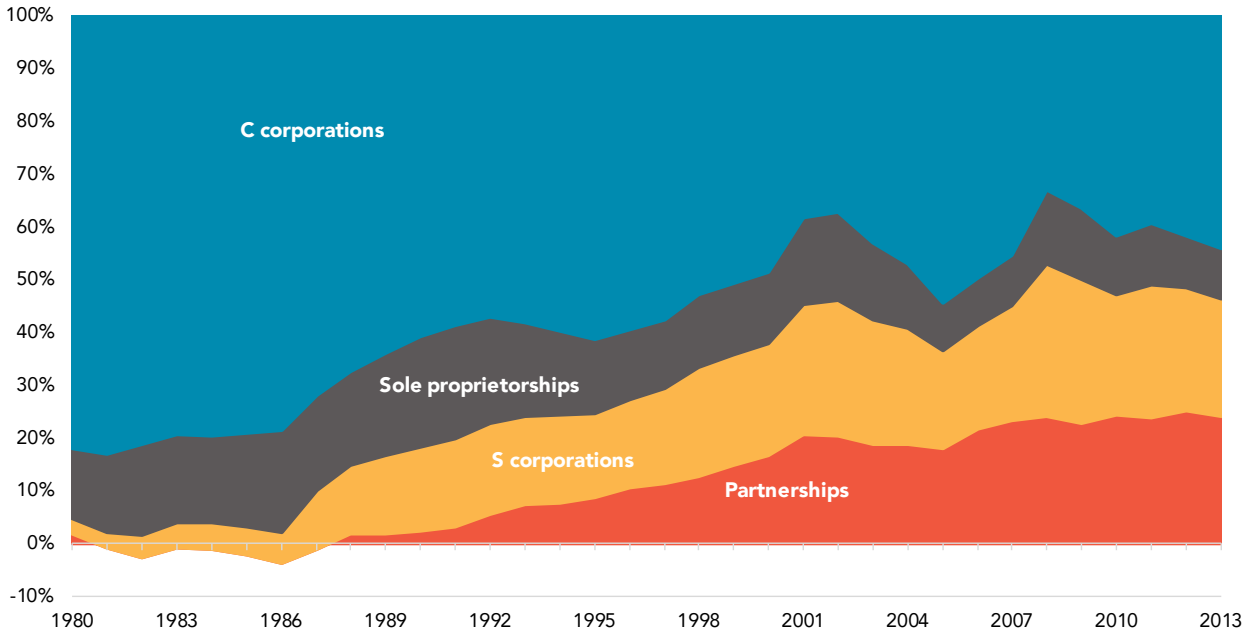
Source: Joint Committee on Taxation (2017).

Key Elements of the U.S. Tax System

What are pass-through businesses?

FIGURE 2

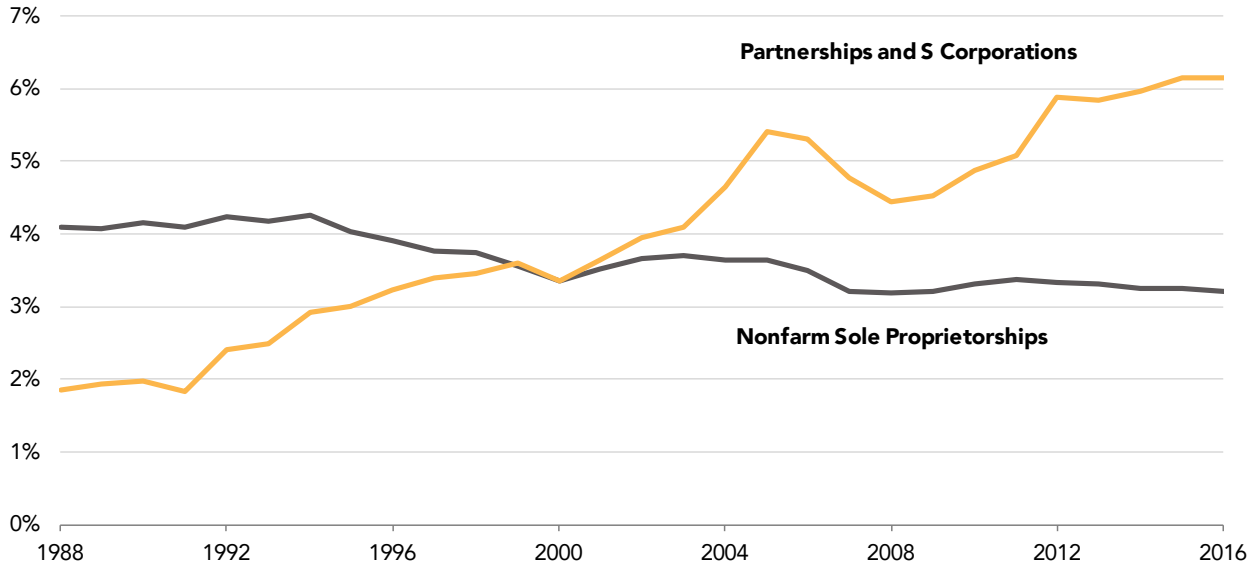
Share of Business Net Income (Less Deficit) by Type
1980–2013



Source: Nelson (2016).
Note: Shares do not include regulated investment corporations and real estate investment trusts. C and S corporation income includes officer compensation.

FIGURE 3

Net Income from Pass-through Businesses as a Percentage of AGI
1988–2016



Source: Internal Revenue Service, *SOI Tax Stats—Individual Income Tax Returns Publication 1304 (Complete Report)*, Table 1.4 (1988–2016).

Key Elements of the U.S. Tax System

What are pass-through businesses?

Pass-through income is concentrated among higher-income taxpayers. About 85 percent of all pass-through income is reported by taxpayers in the top 20 percent of the income distribution, and more than 50 percent is reported by the top 1 percent of taxpayers. Net income from partnerships and S corporations is even more concentrated—with more than 70 percent reported by the top 1 percent of taxpayers—and accounts for a large fraction of the increased share of income the top 1 percent earns (Cooper et al. 2016).

Data Sources

Internal Revenue Service, Statistics of Income Division. *SOI Tax Stats—Integrated Business Data*. Table 1. "Selected Financial Data on Businesses."

———. *SOI Tax Stats—Individual Income Tax Returns Publication 1304 (Complete Report)*. Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items."

Further Reading

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Joint Committee on Taxation. 2017. "Present Law and Data Related to the Taxation of Business." JCX-42-17. Washington, DC: Joint Committee on Taxation.

Nelson, Susan C. 2016. "Paying Themselves: S Corporation Owners and Trends in S Corporation Income, 1980–2013." Working Paper 107. Washington, DC: Office of Tax Analysis, US Department of the Treasury.

Plesko, George A., and Eric J. Toder. 2013. "Changes in the Organization of Business Activity and Implications for Tax Reform." *National Tax Journal* 66 (4): 855–70.

Q. How are pass-through businesses taxed?

A. Pass-through businesses are not subject to the corporate income tax. Rather, profits flow through to owners and are taxed under the individual income tax. Some pass-through income may be eligible for a 20 percent deduction beginning in 2018.

Pass-through income is only subject to a single layer of income tax and is generally taxed as ordinary income up to the maximum 37 percent rate. However, certain pass-through income may be eligible for a 20 percent deduction, which reduces the top tax rate to as low as 29.6 percent. Pass-through businesses generally face the same tax rules as C corporations for inventory accounting, depreciation, and other provisions affecting the measurement of business profits.

20 PERCENT PASS-THROUGH DEDUCTION

The 2017 Tax Cuts and Jobs Act (TCJA) created a new 20 percent deduction for certain forms of pass-through income beginning in 2018. The TCJA will reduce federal revenues by between $50 billion and $60 billion a year according to the Joint Committee on Taxation. The pass-through deduction is scheduled to expire at the end of 2025.

The so-called 199A (named for the relevant IRS code section the law created) or "qualified business income" deduction reduces the marginal tax rate for qualifying pass-through income. The 20 percent deduction effectively reduces the top marginal tax rate on qualifying pass-through income from the top ordinary rate of 37 percent to 29.6 percent (10 percentage points below the pre-TCJA top marginal rate of 39.6).
The 199A deduction is subject to several restrictions and exceptions (Gale and Krupkin 2018). For single filers with taxable income above $157,500 and joint filers with taxable income above $315,000, the pass-through deduction is potentially subject to two limitations:

Specified service limitation. Income earned by certain "specified service" businesses is excluded from the definition of qualified business income and therefore receives a reduced deduction or no deduction. Specified service activities include "any trade or business involving the performance of services in the fields of health, law, accounting, actuarial science, performing arts, consulting, athletics, financial services, brokerage services, or any trade or business where the principal asset of such trade of business is the reputation or skill of 1 or more of its employers or owners." The qualifying income is phased out for singles with taxable income between $157,500 and $207,500 (between $315,000 and $415,000 for joint filers).

Wage/asset limitation. The 20 percent deduction may also be limited based on the wages the associated business paid and/or its depreciable assets. Specifically, the deduction is limited to the greater of 50 percent of W-2 wages paid or 25 percent of W-2 wages paid plus 2.5 percent of the acquisition cost of qualifying

depreciable property. That limitation is phased-in over the same income range as the specified service limitation.

Further Reading

Gale, William, and Aaron Krupkin. 2018. "Navigating the New Pass-Through Provisions: A Technical Explanation." Washington, DC: Urban-Brookings Tax Policy Center.

Q. Is corporate income double taxed?

A. Yes, as a general rule. A corporation pays tax on its income, and its shareholders pay tax again when the income is distributed. But in practice, not all corporate income is taxed and many corporate shareholders are exempt from income tax.

Income earned by C corporations (named after the relevant subchapter of the Internal Revenue Code) is subject to the corporate income tax and taxed at a 21 percent rate. This income may also be subject to a second layer of taxation at the individual shareholder level, both on dividends when distributed and on capital gains from the sale of shares.

Suppose a corporation earns $1 million in profits this year and pays $210,000 in federal taxes. If the corporation distributes the remaining $790,000 to its shareholders, the distribution would be taxable to shareholders. Dividends are taxed at a top rate of 23.8 percent. As a result, only $601,980 would be left (assuming the dividends went to high-income individuals), and the combined tax rate on the income would be 39.8 percent.

To alleviate double taxation of corporate income, other countries have "integrated" their corporate and shareholder taxes. Some countries permit corporations to deduct the dividends they pay to shareholders. Other countries give shareholders full or partial credit for taxes paid at the corporate level, or they permit shareholders to exclude dividends from their taxable income.

IMPACT ON BUSINESS BEHAVIOR

Choice of organization form: Double taxation may discourage businesses from organizing as C corporations (which are subject to the corporate tax), encouraging them to organize as pass-through businesses (S corporations, partnerships, or sole proprietorships). Profits of an S corporation, partnership, or sole proprietorship are taxed only once, at a top rate of 37 percent (or 29.6 percent if eligible for the additional 20 percent pass-through deduction). By no coincidence, the share of business activity represented by pass-through entities has been rising (figure 1).

Source of financing (debt versus equity): Corporations can reduce the double-taxation of their income by issuing debt instead of stock to finance an investment, because interest payments are deductible in the calculation of taxable income.

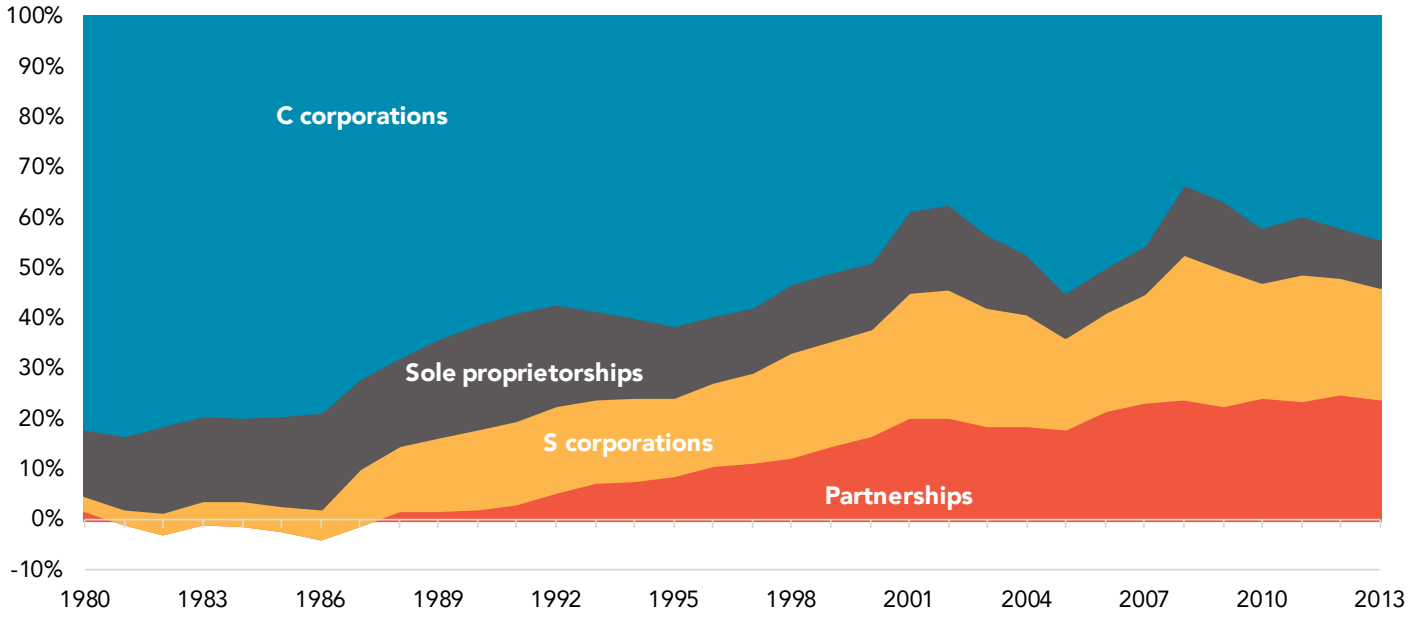
Payout policy (dividends versus retained earnings): Corporations can also choose to retain its earnings and not pay dividends. The corporation would still pay the corporate income tax on its earnings, but the shareholders would defer the second round of taxation until the corporation distributed the earnings or the

shareholders sold their stock at a price that reflected the value of the retained earnings.

But these choices distort business behavior. They encourage debt financing over equity, which creates a riskier capital structure for the corporation. And they encourage a corporation to retain earnings that might better be used by its shareholders.

FIGURE 1

Share of Business Net Income (Less Deficit) by Type
1980–2013



Source: Nelson (2016).
Note: Shares do not include regulated investment corporations (RICs) and real estate investment trusts (REITS). C and S corporation income includes officer compensation.

MOST SHAREHOLDERS ARE NOT SUBJECT TO A SECOND LAYER OF TAX

Often, however, there is not a second level of tax. Many shareholders of corporate stock, such as retirement accounts, educational institutions, and religious organizations, are exempt from income tax; the earnings distributed to these shareholders are not double-taxed. By some recent estimates, the share of U.S. corporate stock held in taxable accounts has fallen from over 80 percent in 1965 to about 25 percent today (Rosenthal and Austin 2016).

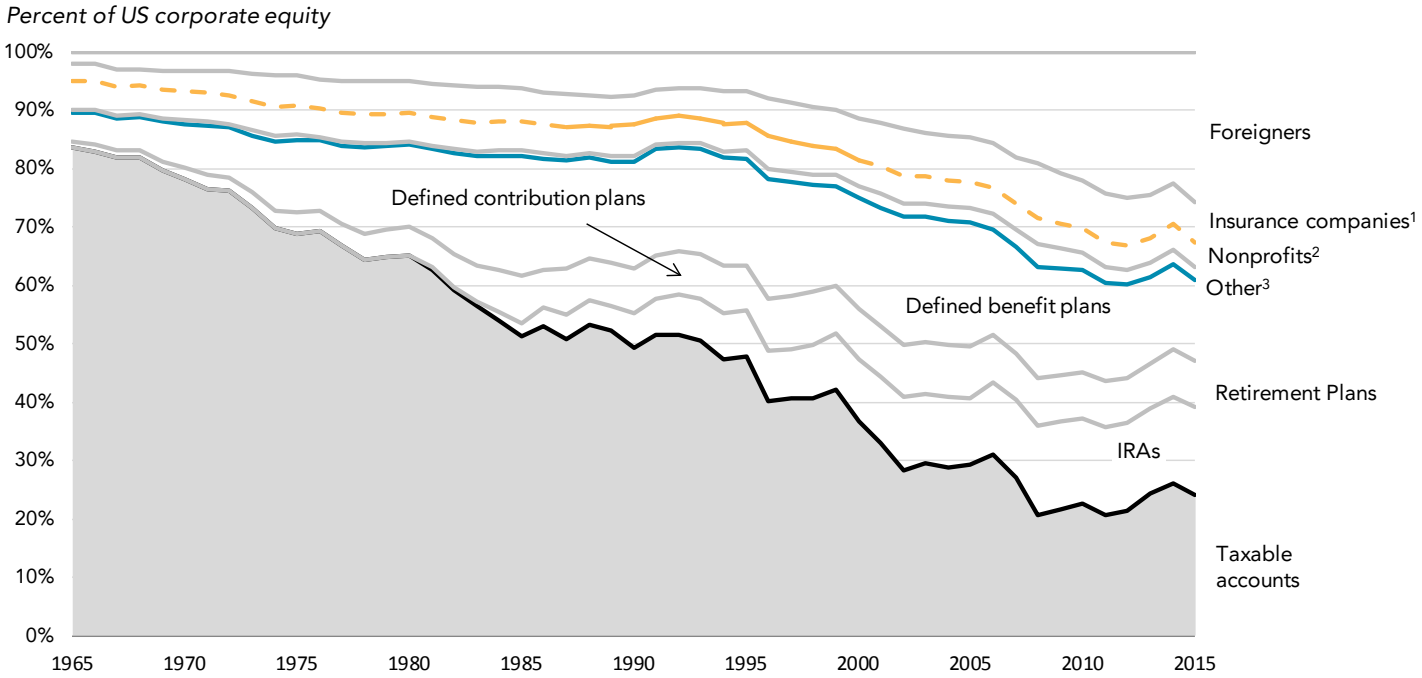
Key Elements of the U.S. Tax System

Is corporate income double taxed?

FIGURE 2

Ownership of US Corporate Stock, 1965–2015

Direct and indirect holdings



Source: Board of Governors of the Federal Reserve System, "Financial Accounts of the United States;" Investment Company Institute. 2016, "The U.S. Retirement Market, Fourth Quarter 2015;" Barclay Hedge; Preqin; Tax Policy Center calculations.
(1) Stock held in non-taxable segregated reserves to fund annuity contracts and whole life insurance.
(2) Dashed lines indicate TPC estimates
(3) Primarily government holdings, but includes equities in 529 savings plans.

Data Sources

Internal Revenue Service, Statistics of Income Division. *SOI Tax Stats—Integrated Business Data*. Table 1. "Selected Financial Data on Businesses."

Further Reading

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Q. What is the New Markets Tax Credit and how does it work?

A. The credit provides an incentive for investment in low-income communities. The US Department of the Treasury competitively allocates tax credit authority to intermediaries that select investment projects. Investors receive a tax credit against their federal income tax.

The New Markets Tax Credit (NMTC) was established in 2000. Congress authorizes the amount of credit, which the Treasury then allocates to qualified applicants. Since 2003, the program has parceled out credits worth nearly $23 billion. The NMTC has supported more than 4,800 projects in all 50 states, the District of Columbia, and Puerto Rico. Some 43 percent of the US's roughly 73,000 census tracts qualify for NMTC investments; by 2015, approximately 3,300 had received NMTC projects. In recent years, all applicants have pledged to place at least 75 percent of their NMTC projects in "severely distressed" census tracts. The credit is currently set to expire at the end of 2019, but Congress has extended it several times.

HOW DOES THE CREDIT WORK?

NMTC investors provide capital to community development entities (CDEs), and in exchange are awarded credits against their federal tax obligations. Investors can claim their allotted tax credits in as little as seven years—5 percent of the investment for each of the first three years and 6 percent of the project for the remaining four years—for a total of 39 percent of the NMTC project. A CDE can be its own investor or find an outside investor. Investors are primarily corporate entities—often large international banks or other regulated financial institutions—but any entity or person is eligible to claim NMTCs.

HOW HAS NMTC SPENDING CHANGED OVER TIME?

The cost of the program has fluctuated over time, including bump-ups in response to Hurricane Katrina and again as a part of the American Recovery and Reinvestment Act (figure 1). Of late, the NMTC has held steady at around $1.3 billion per year.

WHO INITIATES NMTC PROJECTS?

Community development entities are intermediaries that make loans or investments. They apply to the Treasury Department's Community Development Financial Institutions (CDFI) Fund to receive tax credit authority. CDEs sell these tax credits to investors and use the funds to make debt or equity investments in entities located in qualified low-income communities. CDEs are encouraged to make deals and offer preferential rates and terms. CDEs frequently leverage the NMTC by using other public subsidies and private-sector funds to invest in projects.

Key Elements of the U.S. Tax System

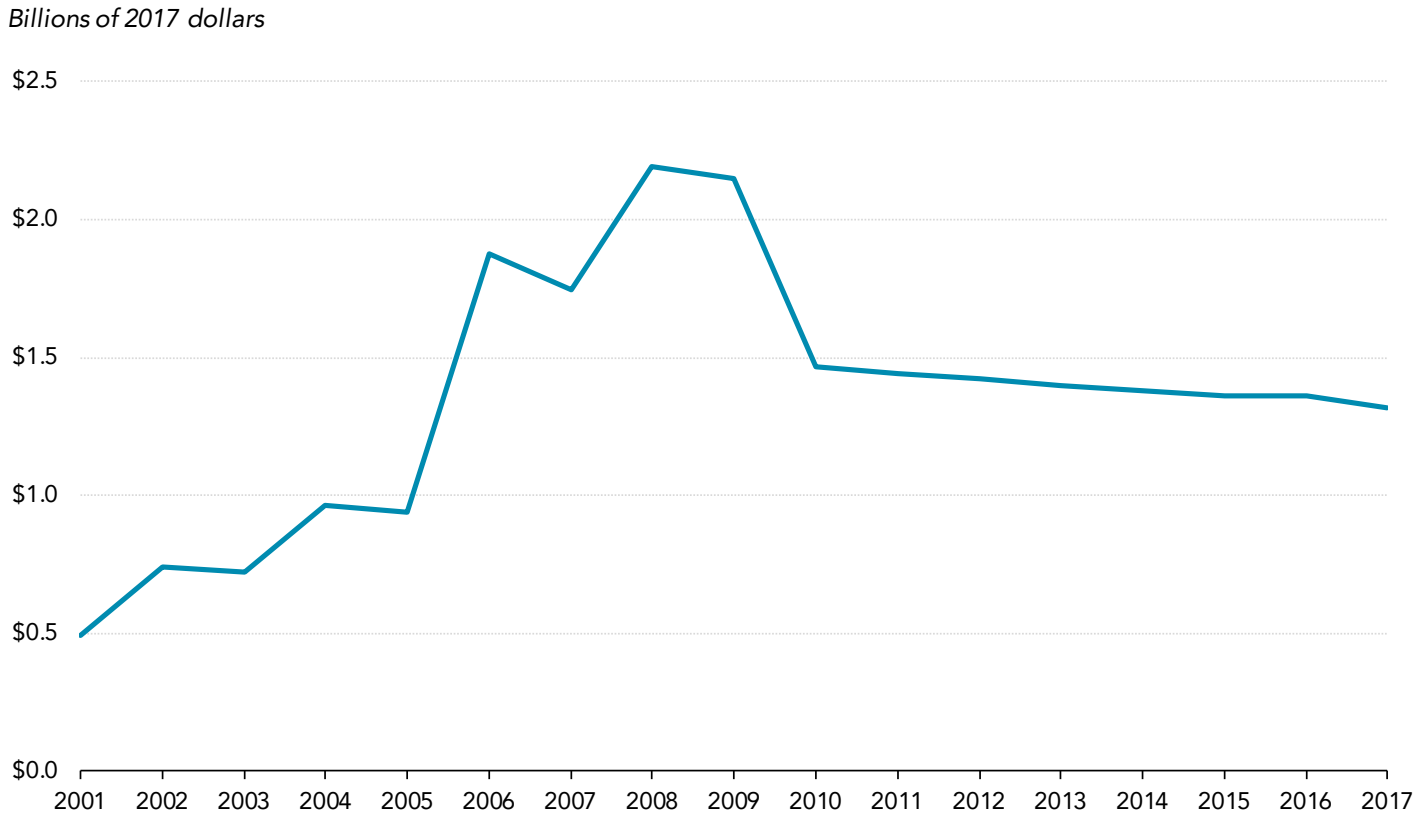
What is the New Markets Tax Credit and how does it work?

Many enterprises, including banks, developers, and local governments, can qualify to become CDEs. Our analysis of the most recent three rounds of NMTC allocations shows that CDFIs and other mission lenders were awarded the highest share of NMTCs, followed by mainstream financial institutions. The third-highest share went to government and quasi-government CDEs, followed by operating nonprofits and for-profits (table 1).

FIGURE 1

New Markets Tax Credit

Estimated present value of tax expenditures by approval year, 2001–17



Source: Urban Institute calculations based on allocation award information provided by the CDFI Fund.
Notes: The CDFI Fund publishes the amount of "allocation awards" under the program for each allocation round. This allocation authority is not the actual cost to the federal government, but the amount against which 39 percent can be claimed as credits, which we deflate in cost since not all credits are claimed in the year they are awarded. We adjust spending figures for inflation following the CPI-U. Calendar year of approval does not always align with year that credits were awarded and we use award dates for cost estimation.

TABLE 1

New Markets Tax Credit

Allocations by Type of Community Development Entity, 2015 - 2017

Type of CDE	Share of Number of Allocations	Share of Dollars Allocated	Median Allocation Amount
CDFIs and other mission lenders	50%	53%	$60,000,000
Mainstream financial institution	23%	23%	$55,000,000
Government/quasi-government	16%	15%	$50,000,000
Nonprofit (non-financial)	7%	5%	$40,000,000
For profit (non-financial)	5%	5%	$45,000,000

Source: Urban Institute calculations based on CDE application data from the CDFI Fund.

CDFI = community development financial institutions

WHO RECEIVES NMTC INVESTMENTS?

"Qualified active low-income community businesses" (QALICBs) receive NMTC investments. While called "businesses," QALICBs can be for-profit or nonprofit enterprises. Urban Institute calculations based on data from the CDFI Fund found that for NMTC projects reporting from 2003 to 2015, 61 percent went to for-profit QALICBs and 31 percent to nonprofits. (Tribal entities received 0.3 percent of investments, with the remaining projects missing or described as "other.")

The Urban Institute found in its evaluation of the 2002–07 New Markets rounds that QALICBs ranged in size—as measured by annual gross revenues or operating budgets at the start of their NMTC projects—from $0 for start-ups to $7 billion for a large for-profit parent entity in the natural resources business, with a median of $740,000.

WHAT PROJECTS DOES THE PROGRAM FUND?

The NMTC program is flexible with regard to project type and purpose. QALICBs can be used to finance equipment, operations, or real estate. Real estate financing can purchase or rehabilitate retail, manufacturing, agriculture, community facilities (e.g., health services, museums, or charter schools), rental or for-sale housing, or combinations of these.

The Urban Institute categorized NMTC project types (figure 2). Although no type dominated, the most prevalent were retail, manufacturing/industrial, mixed use, health care, office buildings, and schools.

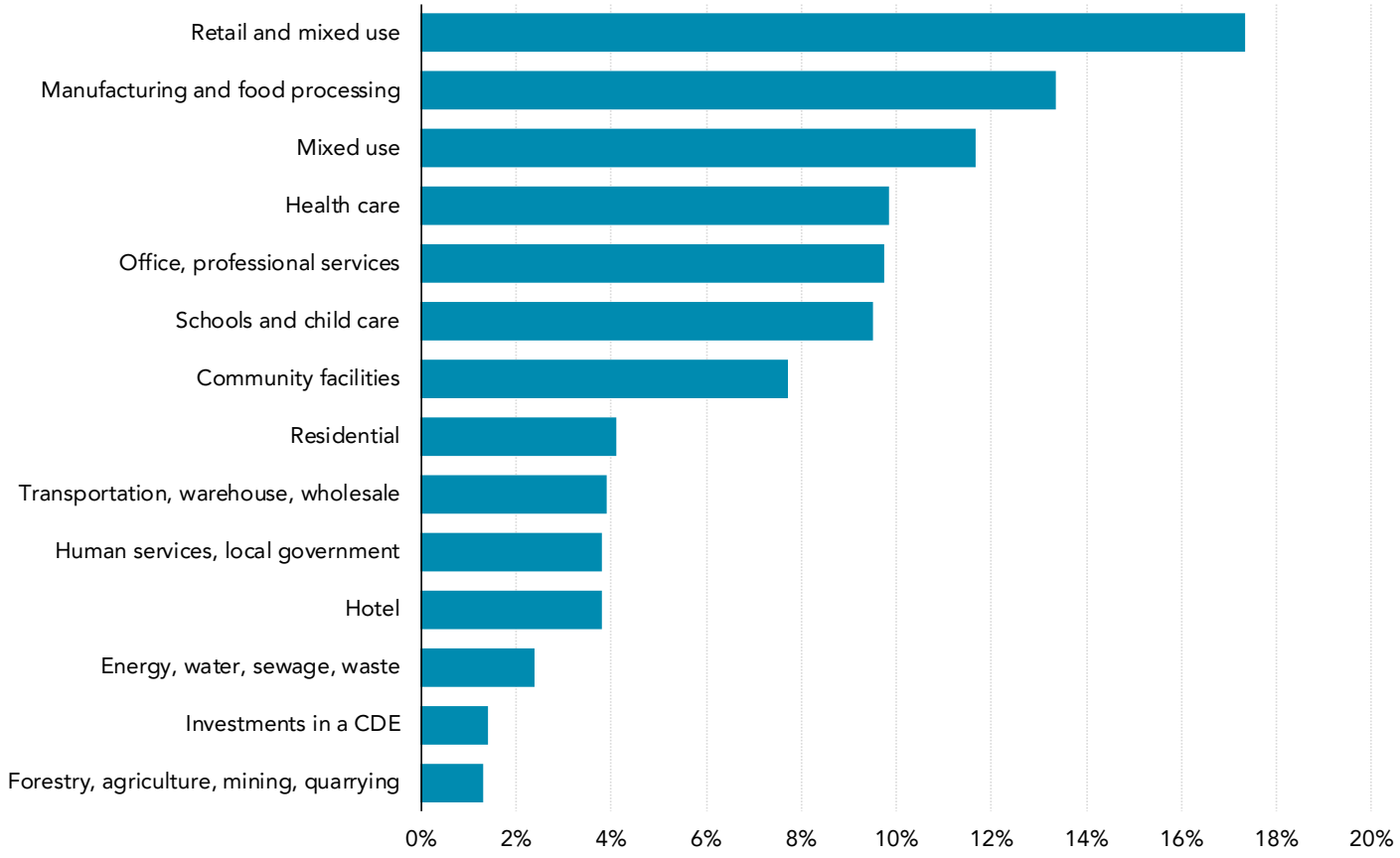
Key Elements of the U.S. Tax System

What is the New Markets Tax Credit and how does it work?

FIGURE 2

New Markets Tax Credit

Share of projects by industry, 2003–15



Source: Urban Institute calculations based on project reporting data from the CDFI Fund
Note: Projects with "other" industries comprising 0.1 percent of all projects not displayed.
CDE = community development entity

Further Reading

Abravanel, Martin D., Nancy M. Pindus, Brett Theodos, Kassie Dumlao Bertumen, Rachel Brash, and Zachary J. McDade. 2013. "New Markets Tax Credit Program Evaluation." Washington, DC: Urban Institute.

Q. What is the low-income housing credit and how does it work?

A. The credit provides an incentive for investment in low-income communities. The US Treasury competitively allocates tax credit authority to intermediaries that select investment projects. Investors receive a tax credit against their federal income tax.

The Low-Income Housing Tax Credit (LIHTC) subsidizes the acquisition, construction, and rehabilitation of affordable rental housing for low- and moderate-income tenants. The LIHTC was enacted as part of the 1986 Tax Reform Act and has been modified numerous times. Since the mid-1990s, the LIHTC program has supported the construction or rehabilitation of about 110,000 affordable rental units each year (though there was a steep drop-off after the Great Recession of 2008–09)—about 2 million units in all since its inception.

The federal government issues tax credits to state and territorial governments. State housing agencies then award the credits to private developers of affordable rental housing projects through a competitive process. Developers generally sell the credits to private investors to obtain funding. Once the housing project is placed in service (essentially, made available to tenants), investors can claim the LIHTC over a 10-year period.

QUALIFYING FOR THE CREDIT

Many types of rental properties are LIHTC eligible, including apartment buildings, single-family dwellings, townhouses, and duplexes.

Owners or developers of projects receiving the LIHTC agree to meet an income test for tenants and a gross rent test. There are three ways to meet the income test:

1. At least 20 percent of the project's units are occupied by tenants with an income of 50 percent or less of area median income adjusted for family size (AMI).
2. At least 40 percent of the units are occupied by tenants with an income of 60 percent or less of AMI.
3. At least 40 percent of the units are occupied by tenants with income averaging no more than 60 percent of AMI, and no units are occupied by tenants with income greater than 80 percent of AMI.

The gross rent test requires that rents do not exceed 30 percent of either 50 or 60 percent of AMI, depending upon the share of tax credit rental units in the project. All LIHTC projects must comply with the income and rent tests for 15 years or credits are recaptured. In addition, an extended compliance period (30 years in total) is generally imposed.

Key Elements of the U.S. Tax System

What is the low-income housing credit and how does it work?

COMPUTING THE CREDIT

The credit claimed by a taxpayer equals a credit percentage multiplied by the project's qualified basis. The percentage is larger for new construction or substantial rehabilitation (roughly 9 percent but specified in the law as a 70 percent present value credit) than for properties acquired for rehabilitation or for projects funded using tax-exempt bonds (roughly 4 percent but specified as a 30 percent present value credit). The qualified basis equals the fraction of the cost of the housing project rented to tenants meeting the income tests. For many LIHTC projects, the owners or developers aim to rent 100 percent of the units to qualifying tenants. State housing finance agencies may allocate enhanced tax credits to qualified projects in areas where the need is greatest for affordable rental housing.

The LIHTC statute originally specified that the IRS would periodically reset the specified credit percentages to maintain the present value of the 10-year stream of tax credits at 70 percent or 30 percent of the qualified basis. However, since 2008, Congress has specified that the minimum credit rate for the 70 percent present value credit should be at least 9 percent, regardless of prevailing interest rates. Thus, in a low interest rate environment, the present value of the credits claimed over 10 years will exceed 70 percent of the qualified basis.

ALLOCATING THE CREDIT

Congress sets a limit on the amount of LIHTC that can be allocated in any year. For 2018, each state was originally allocated $2.765 million or $2.40 per capita, whichever was larger. But Congress provided a 12.5 percent boost through 2021, so these figures were increased to $3.1 million and $2.70, respectively. Both dollar amounts are adjusted for inflation.

This structure guarantees that states with low populations get a somewhat larger award when calculated on a per capita basis. States then allocate these credits (generally through state housing finance agencies) to developers, based on state-created qualified allocation plans. These plans are required to give priority to projects that serve very low income households and that provide affordable housing for longer time periods. Projects financed by private activity tax-exempt bonds do not need to obtain a separate credit allocation from the state housing finance authority. The state, however, must approve the use of these bonds, which checks developers' ability to access 30 percent present value LIHTCs.

Developers generally sell the tax credits to investors, who may be better able to use the tax credits and other tax benefits of the housing project (e.g., depreciation, interest paid, net operating losses). Investors also contribute equity, often through a syndication or a partnership. The investors or limited partners usually play a passive role, receiving the tax benefits associated with the project but not participating in day-to-day management and oversight.

Most investors in LIHTC projects are corporations that have sufficient income tax liability to fully use nonrefundable tax credits. Financial institutions traditionally have been major investors, because they have substantial income tax liabilities, have a long planning horizon, and often receive Community Reinvestment Act credit from their regulators for such investments. Taxpaying investors cannot claim credits until the project is placed into service.

CALCULATING COSTS AND BENEFITS

The LIHTC is estimated to cost around $9 billion per year. It is by far the largest federal program encouraging the creation of affordable rental housing for low-income households. Supporters see it as an effective program that has substantially increased the affordable housing stock for more than 30 years. LIHTC addresses a major market failure—the lack of quality affordable housing in low-income communities. Efficiencies arise from harnessing private-sector business incentives to develop, manage, and maintain affordable housing for lower-income tenants.

Critics of the LIHTC argue that the federal subsidy per unit of new construction is higher than it needs to be because of the various intermediaries involved in its financing—organizers, syndicators, general partners, managers, and investors—each of whom are compensated for their efforts. As a result, a significant part of the federal tax subsidy does not go directly into the creation of new rental housing stock. Critics also identify the complexity of the statute and regulations as another potential shortcoming. Another downside is that some state housing finance authorities tend to approve LIHTC projects in ways that concentrate low-income communities where they have historically been segregated and where economic opportunities may be limited. Finally, while the LIHTC may help construct new affordable housing, maintaining that affordability is challenging once the required compliance periods are over.

Further Reading

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Q. What are opportunity zones and how do they work?

A. Opportunity Zones are tax incentives to encourage those with capital gains to invest in low-income and undercapitalized communities.

HOW DO OPPORTUNITY ZONES WORK, WHO CAN CLAIM THE INCENTIVES, AND WHAT PROJECTS CAN THEY SUPPORT?

The Tax Cuts and Jobs Act included a new federal incentive—Opportunity Zones—meant to spur investment in undercapitalized communities. Any corporation or individual with capital gains can qualify. The program provides three tax benefits for investing unrealized capital gains in Opportunity Zones:

1. Temporary deferral of taxes on previously earned capital gains. Investors can place existing assets with accumulated capital gains into Opportunity Funds. Those existing capital gains are not taxed until the end of 2026 or when the asset is disposed of.
2. Basis step-up of previously earned capital gains invested. For capital gains placed in Opportunity Funds for at least 5 years, investors' basis on the original investment increases by 10 percent. If invested for at least 7 years, investors' basis on the original investment increases by 15 percent.
3. Permanent exclusion of taxable income on new gains. For investments held for at least 10 years, investors pay no taxes on any capital gains produced through their investment in Opportunity Funds (the investment vehicle that invests in Opportunity Zones).

Investors can take advantage of one or more of the benefits.

Apart from a few "sin" businesses, Opportunity Funds can finance a broad variety of activities and projects. Funds can finance commercial and industrial real estate, housing, infrastructure, and existing or start-up businesses. For real estate projects to qualify for Opportunity Fund financing, the investment must result in the properties being "substantially improved."

WHICH COMMUNITIES ARE ZONES AND WHAT ARE THEIR ATTRIBUTES?

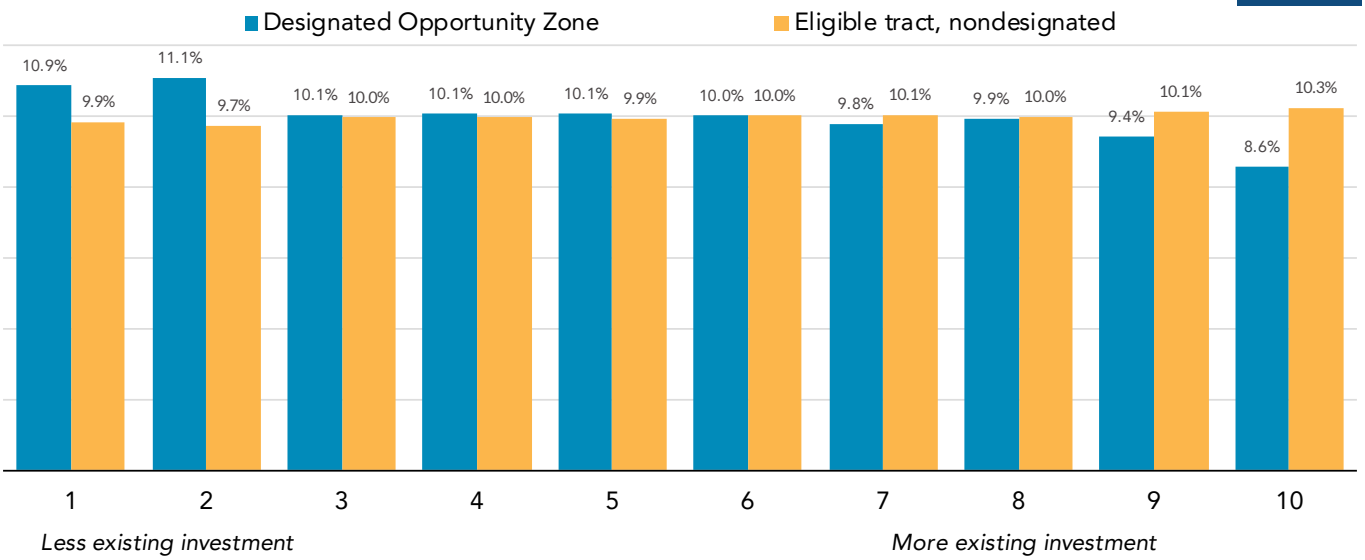
Twelve percent of US census tracts are Opportunity Zones (8,762 tracts). Governors of the 50 states and 4 territories and the mayor of Washington, DC, nominated the zones, which were officially designated by the US Department of the Treasury. The statute contains no provision to change which communities are classified as Opportunity Zones.

Urban Institute research finds that the designated zones have lower incomes, higher poverty rates, and higher unemployment rates than eligible nondesignated tracts. However, analysis shows minimal targeting of the program toward disinvested communities.

Urban ranked Opportunity Zone investment on a 1 to 10 scale, standardized across eligible tracts state by state, with 10 being the highest score. Just under one-third of Opportunity Zones are located in the three tracts that have the least investment, while 28 percent are in the three tracts attracting the most investment. This pattern is roughly similar to nondesignated tracts, with only very slight targeting toward lower-investment areas (figure 1).

FIGURE 1

Investment Score Distribution of Opportunity Zones



Sources: Urban Institute analysis of 2011–15 CoreLogic, 2015 Longitudinal Employer Household Dynamics Origin-Destination Employment Statistics Workplace Area Characteristics, 2011–15 US Census Bureau American Community Survey, 2000 US Census Decennial Census, 2011–15 Home Mortgage Disclosure Act, and 2011–15 Community Reinvestment Act data.
Note: This figure excludes US territories.

Opportunity Zones seem better targeted when measured by socioeconomic standards. Designated tracts have lower incomes, more poverty, and higher unemployment than eligible nondesignated tracts. Home values, rents, and homeownership rates also are lower. The designated tracts are less white and more Hispanic and black. Ages are similar while education levels are somewhat lower. The mix of urban and rural Opportunity Zones closely tracks community patterns (table 1).

Finally, we looked how designated tracts changed from 2000 to 2016. Where communities are already experiencing high levels of socioeconomic change, further investment may displace low- and moderate-income residents. Thus, Opportunity Zones in these areas may be less likely to benefit needy residents. We measured socioeconomic change by tracking changes in the share of residents with a bachelor's degree or higher, median family income, share of non-Hispanic white residents, and average housing costs as a share of income.

We found that tracts experiencing socioeconomic change were more represented among designated tracts (3.2 percent) than among eligible nondesignated tracts (2.4 percent).

TABLE 1

Tract Characteristics by Opportunity Zone Designation Status

Characteristics	Designated	Eligible, nondesignated
Economic (average $ or average %)		
Median household income	$33,345	$44,446
Poverty rate	32%	21%
Unemployment rate	13%	9%
Housing (average $ or average %)		
Median home value	$145,187	$170,919
Median rent/month	$768	$885
Homeownership	45%	57%
Severe rent burden	26%	24%
Vacancy rate	16%	14%
Demographic (average %)		
White alone	40%	55%
Black alone	24%	17%
Hispanic	30%	20%
Asian American and Pacific Islander alone	3%	4%
Younger than 18	24%	23%
Older than 64	14%	15%
Education (average %)		
Age 25+ with high school diploma or less	55%	50%
Age 25+ with bachelor's degree or higher	38%	43%
Geography (%)		
In a metro area	78%	79%
In a micro area	11%	11%
Not in core-based statistical area	10%	10%

Source: CDFI Fund, Urban Institute analysis of 2012–16 US Census Bureau American Community Survey.
Note: This table includes all 50 states, the District of Columbia, and Puerto Rico. It does not include American Samoa, Guam, Northern Mariana Islands, and the Virgin Islands due to data limitations.

Key Elements of the U.S. Tax System

What are opportunity zones and how do they work?

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Q. How does the current system of international taxation work?

A. All countries tax income earned by multinational corporations within their borders. The United States also imposes a minimum tax on the income US-based multinationals earn in low-tax foreign countries, with a credit for 80 percent of foreign income taxes they've paid. Most other countries exempt most foreign-source income of their multinationals.

TAXATION OF FOREIGN-SOURCE INCOME

Following the 2017 Tax Cuts and Jobs Act (TCJA), the federal government imposes different rules on the different types of income US resident multinational firms earn in foreign countries (table 1).

- Income that represents a "normal return" on physical assets—deemed to be 10 percent per year on the depreciated value of those assets—is exempt from US corporate income tax.
- Income above a 10 percent return—called Global Intangible Low Tax Income (or GILTI)—is taxed annually as earned at half the US corporate rate of 21 percent on domestic income, with a credit for 80 percent of foreign income taxes paid. Because half the US corporate rate is 10.5 percent, the 80 percent credit eliminates the GILTI tax for US corporations except for any income foreign countries tax at less than 13.125 percent. After 2025, the GILTI tax rate increases to 62.5 percent of the US corporate rate, or 13.125 percent, which makes US corporations subject to GILTI tax only on income foreign countries tax at less than 16.406 percent.
- Income from passive assets, such as bonds or certain categories of easily shiftable assets, is taxable under subpart F of the Internal Revenue Code at the full 21 percent corporate rate, with a credit for 100 percent of foreign income taxes on those categories of income.

US companies can claim credits for taxes paid to foreign governments on GILTI and subpart F income only up to their US tax liability on those sources of income. Firms may, however, pool their credits within separate income categories. Excess foreign credits on GILTI earned in high-tax countries, therefore, can be used to offset US taxes on GILTI from low-tax countries. US companies may not claim credits for foreign taxes on the 10 percent return exempt from US tax to offset US taxes on GILTI or subpart F income.

Key Elements of the U.S. Tax System

How does the current system of international taxation work?

TABLE 1

Taxation of Foreign-Source Income of US Multinationals

Type	2018–25	2026 and after
Normal returns (10% of depreciable basis of tangible capital)	No US corporate income tax	No US corporate income tax
GILTI (intangible profits, defined as profits in excess of 10% of tangible capital)	10.5% US tax rate with credit for 80% of foreign income taxes paid, up to a foreign income tax rate of 13.125%	13.125% US tax rate with credit for 80% of foreign income taxes paid, up to a foreign income tax rate of 16.406%
Subpart F income (passive and certain easily shift-able income)	21% US tax rate with credit for 100% of foreign income taxes, up to the US tax rate	21% US tax rate with credit for 100% of foreign income taxes, up to the U.S. tax rate

Suppose, for example, a US-based multinational firm invests $1,000 in buildings and machinery for its Irish subsidiary and earns a profit of $250 in Ireland, which has a 12.5 percent tax rate. It also holds $1,000 in an Irish bank, on which it earns interest of $50.

- The company pays the Irish government $31.25 of tax on the $250 of profits earned in Ireland plus another $6.25 on the $50 of interest from the Irish bank. Overall, it pays $37.50 of Irish tax on income of $300.
- The company owes no tax to the United States on the first $100 of Irish profits (10 percent of invested capital). It owes a tax before credits of $15.75 on the $150 of GILTI ($250 of profit less the $100 exempt amount). It owes $10.50 (21 percent of $50) on the interest from the Irish bank. So, overall its US tax before credits is $26.25.
- The company can claim a foreign tax credit of $21.25 from its Irish investments. This consists of $15 from the Irish tax on GILTI income (80 percent of .125 × $150) and the full $6.25 of Irish tax on interest income.
- So, overall, the US company pays $37.50 of tax to Ireland and an additional $5.00 to the United States ($26.25 less the $21.25 foreign tax credit) for a total tax liability of $42.50. This can be broken down into
  - $12.50 of Irish tax on the first $100 of profits from the investment;
  - $18.75 of Irish tax plus $0.75 of net US tax on the $150 of GILTI; and
  - $6.25 of Irish tax plus $4.25 of US tax on the $50 of interest income.

TCJA also introduced a special tax rate for Foreign Derived Intangible Income (FDII)—the profit a firm receives from US-based intangible assets used to generate export income for US firms. An example is the income US pharmaceutical companies receive from foreign sales attributable to patents they hold in the United States. The maximum rate on FDII is 13.125 percent, rising to 16.406 percent after 2025. FDII aims to encourage US multinationals to report their intangible profits to the United States instead of to low-tax foreign countries.

Most countries, including all other countries in the G7 (Canada, France, Germany, Italy, Japan, and the United Kingdom), use a territorial system that exempts most so-called "active" foreign income from taxation. Still others have hybrid systems that, for example, exempt foreign income only if the foreign country's tax system is similar to that in the home country. In general, an exemption system provides a stronger incentive than the current US tax system to earn income in low-tax countries because foreign-source income from low-tax countries incurs no minimum tax.

Key Elements of the U.S. Tax System

How does the current system of international taxation work?

Many countries also have provisions, known as "patent boxes," that allow special rates to the return on patents their resident multinationals hold in domestic affiliates.

Most other countries, however, also have rules similar to the US subpart F rules that limit their resident corporations' ability to shift profits to low-income countries by taxing foreign "passive" income on an accrual basis. In that sense, even countries with a formal territorial system do not exempt all foreign-source income from domestic tax.

INBOUND INVESTMENT

Countries, including the United States, generally tax the income foreign-based multinationals earn within their borders at the same rate as the income domestic-resident companies earn. Companies, however, have employed various techniques to shift reported profits from high-tax countries in which they invest to low-tax countries with very little real economic activity.

The US subpart F rules, and similar rules in other countries, limit many forms of profit shifting by domestic-resident companies but do not apply to foreign-resident companies. Countries use other rules to limit income shifting. For example, many countries have "thin-capitalization" rules, which limit companies' ability to deduct interest payments to related parties in low-tax countries in order to reduce reported profits from domestic investments.

TCJA enacted a new minimum tax, the Base Erosion Alternative Tax (BEAT) to limit firms' ability to strip profits from the United States. BEAT imposes a 10.5 percent alternative minimum tax on certain payments, including interest payments, to related parties that would otherwise be deductible as business costs.

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Q. How do US corporate income tax rates and revenues compare with other countries'?

A. The US corporate income tax rate is now lower than the top rate in all other leading economies except for the United Kingdom. Corporate income tax revenues in the United States as a share of gross domestic product have been lower than the average in other leading economies, even before the 2017 reduction in the US corporate tax rate.

CORPORATE TAX RATES

The 2017 Tax Cut and Jobs Act (TCJA) reduced the top US corporate tax rate from 35 percent to 21 percent and the average combined federal and state rate from 38.9 percent to 25.8 percent. As a result, the top US corporate tax rate, including the average state corporate rate, is now lower than that of all other leading economies in the G7 except the United Kingdom (with a 19 percent rate). Further, it is slightly below the average rate, weighted by gross domestic product (GDP), for the other Organisation for Economic Co-operation and Development (OECD) countries (figure 1).

CORPORATE TAX REVENUES

In 2016, even before the rate cut, the United States raised less revenue from corporate income taxes as a share of GDP than the average of other countries in the OECD (figure 2). Revenue has increased as a share of GDP in most OECD countries because base-broadening measures that subject more income to tax have more than offset the cuts in tax rates. In the United States, revenue has varied significantly from year to year with economic conditions and the vagaries of temporary investment incentives. Revenue, however, has remained at slightly over 2 percent of GDP in most years since the 1980s.

The Congressional Budget Office projects that federal corporate revenues will decline to about 1.2 percent of GDP in fiscal year 2018 because of the rate cut and investment incentives in TCJA, and then increase to about 1.5 percent of GDP at the end of the 10-year budget period. These projections assume that bonus depreciation enacted in the TCJA will phase out beginning in 2023 as currently scheduled and that base-broadening measures and the 2026 increases in tax rates for global intangible low-taxed income and foreign-derived intangible income will also occur as scheduled.

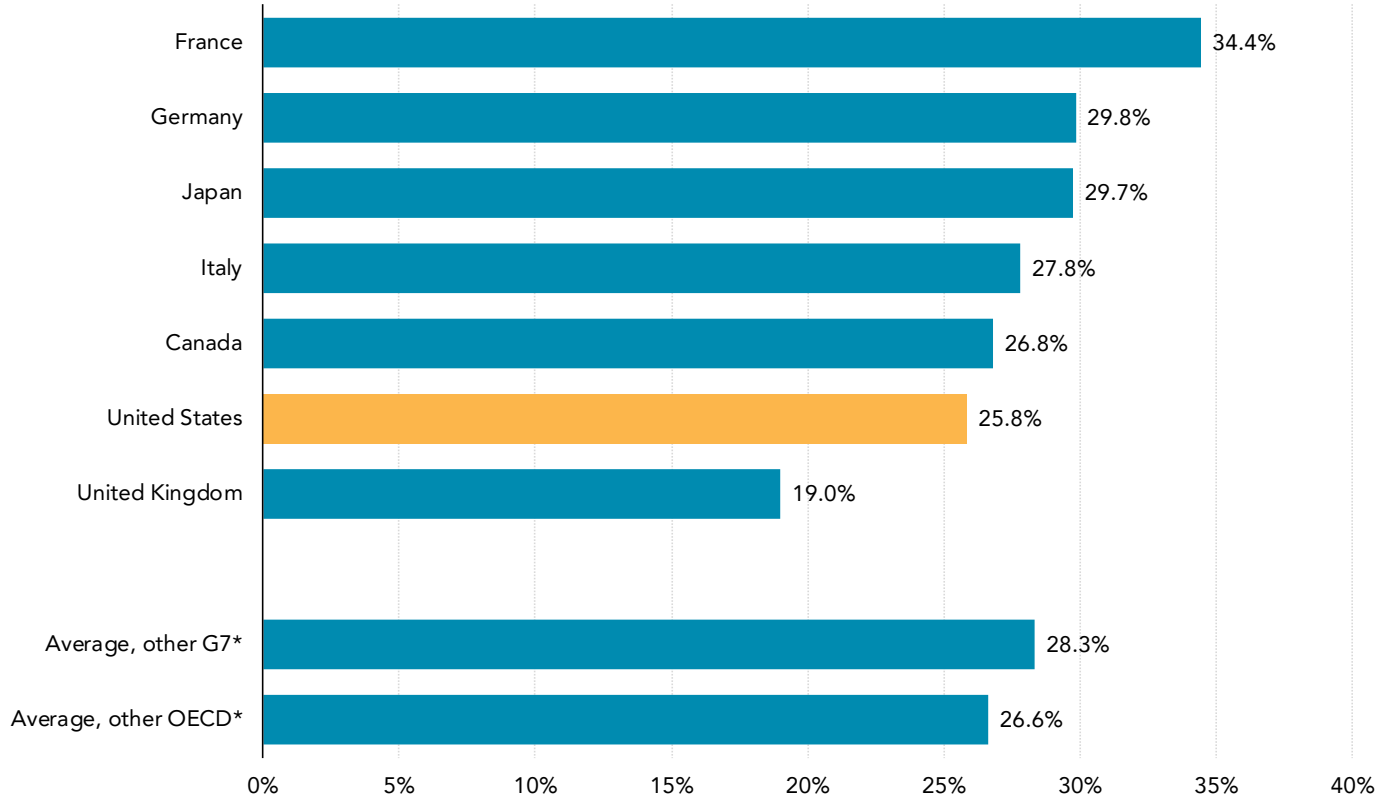
US corporate tax revenues were a smaller share of GDP than in some other developed countries because the US has a narrower tax base and an increasing share of business activity originating in businesses not subject to corporate tax (such as partnerships and subchapter S corporations).

Key Elements of the U.S. Tax System

How do US corporate income tax rates and revenues compare with other countries'?

FIGURE 1

Maximum Corporate Tax Rates Among Leading Economies
2018



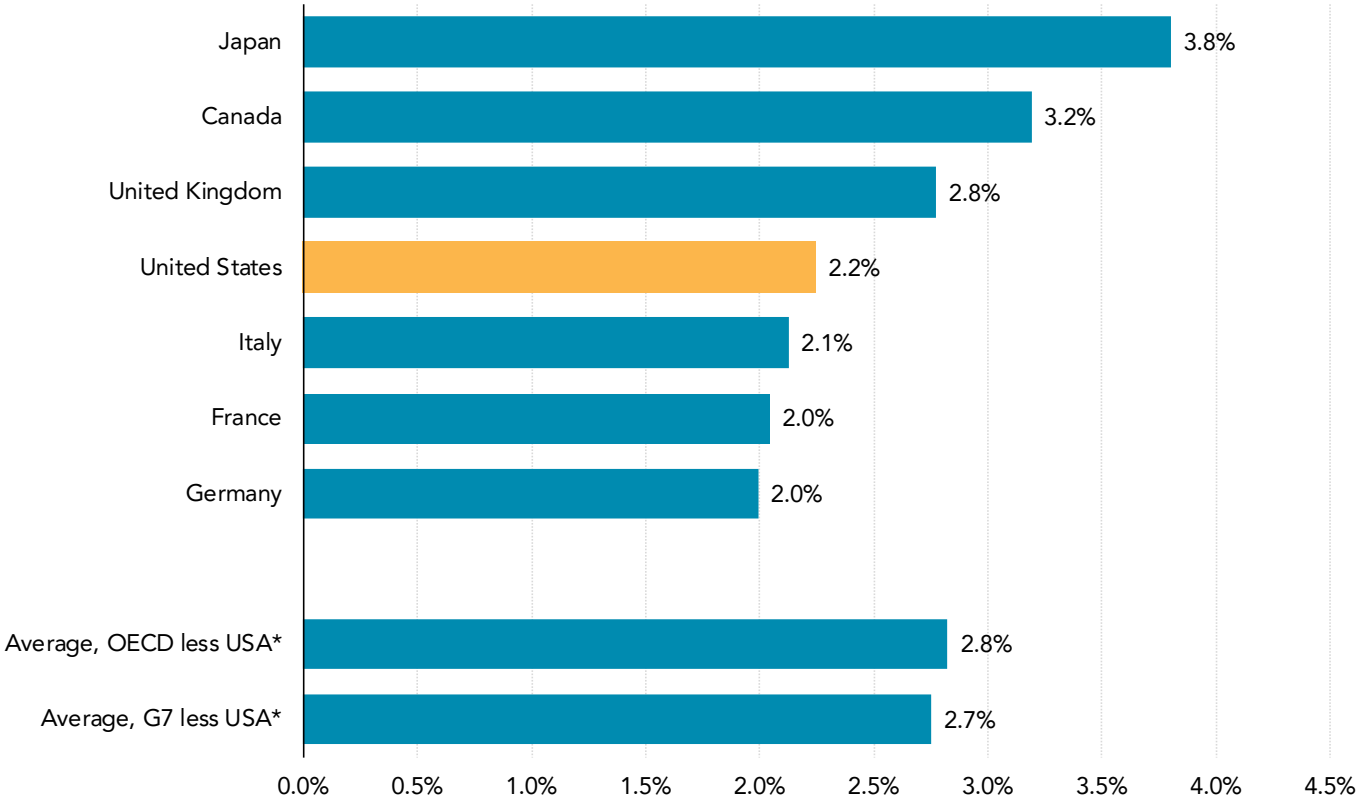
Source: OECD, Table II.1.; Urban-Brookings Tax Policy Center calculations.
Note: Includes taxes of sub-national governments.
* = weighted by GDP

Key Elements of the U.S. Tax System

How do US corporate income tax rates and revenues compare with other countries'?

FIGURE 2

Corporate Tax Revenues as Share of GDP Among Leading Economies
2016



Source: OECD, Table II.1.; Urban-Brookings Tax Policy Center calculations.
Note: Includes taxes of sub-national governments.
* = weighted by GDP

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Q. What are the consequences of the US International Tax System?

A. Despite enactment of the 2017 Tax Cuts and Jobs Act, which reduced incentives, current rules still encourage US multinational firms to earn and report profits in low-tax foreign countries, enable both US- and foreign-based firms to shift profits earned in the United States to other countries, and encourage companies to incorporate in foreign jurisdictions.

INCENTIVES TO EARN AND REPORT PROFITS IN LOW-TAX COUNTRIES

Multinational corporations typically operate overseas through foreign subsidiaries that are mostly taxed as independent corporate entities. This separate entity system gives multinationals incentives to shift reported profits to their affiliates in low-tax jurisdictions by underpricing sales to them and overpricing purchases from them.

For tax-reporting purposes, most governments require firms to use an "arm's length" standard, setting prices for transactions within the corporate group ("transfer prices") equal to the prices that would prevail if the transactions were between independent entities. Yet ample room remains for firms to manipulate transfer prices, especially for intangible assets such as patents that are unique to the firm and for which there is no easily established market price.

Leading multinationals often shift the ownership of their intangibles, which generate a large share of their worldwide profits, to affiliates in very low tax jurisdictions, such as Ireland and Singapore. Through complex transactions, multinationals can then shift reported profits from these jurisdictions to countries with no corporate income tax, such as Bermuda and the Cayman Islands. Typically, multinationals generate very little real economic activity—as measured by output, employment, sales, or investments in plant and equipment—in tax-free jurisdictions.

Before the 2017 Tax Cuts and Jobs Act (TCJA), US multinationals booked a disproportionate share of their profits in low-tax locations. In 2015, US multinationals reported over one-third of their overseas profits in three low-tax countries: the Netherlands, Ireland, and Bermuda (figure 1). The top 10 foreign locations of their profits, including other low-tax countries such as Luxembourg, Switzerland, Singapore, the UK Caribbean Islands, and the United Kingdom, accounted for almost three-fourths of their non-US profits.

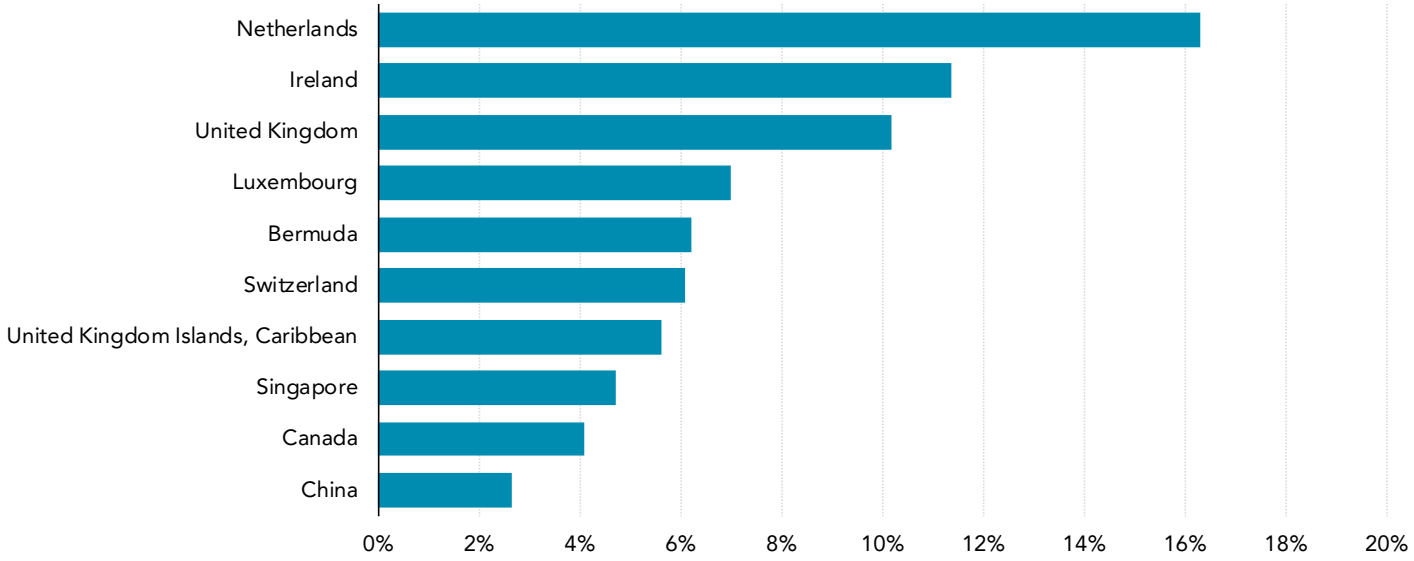
Key Elements of the U.S. Tax System

What are the consequences of the US international tax system?

FIGURE 1

Top 10 Countries for Non-US Profits of US Multinationals

Net income as share of total, 2015



Source: Bureau of Economic Analysis, *US Direct Investment Abroad (USDIA), Activities of US Multinational Enterprises (MNEs)*, "All Foreign Affiliates: Selected Data by Country," 2015.

Despite evidence that firms shift the location of real economic activity in response to tax-rate differences among countries, a substantial share of US multinationals' real activity remains in high-tax countries. These are mostly large economies with close ties to the United States (figure 2). Before TCJA, the effective corporate tax rates on new investments in such countries was slightly lower than the US rate.

The TCJA substantially reduced, but did not eliminate, the incentive for US corporations to shift profits to tax havens. It did this by introducing a new minimum tax on Global Low Tax Intangible Income (GILTI) at 10.5 percent beginning in 2018, increasing to 13.125 percent in 2026. The GILTI rate remains below the 21 percent US corporate rate and the rate in other countries in the G7 (which ranges from 19 percent in the United Kingdom to 34 percent in France). TCJA also reduced incentives for US companies to hold intangible assets in low-tax foreign countries by providing a special rate (13.125 percent beginning in 2018 and 16.406 percent beginning in 2026) for export income from intangible assets held in the United States (Foreign Derived Intangible Income).

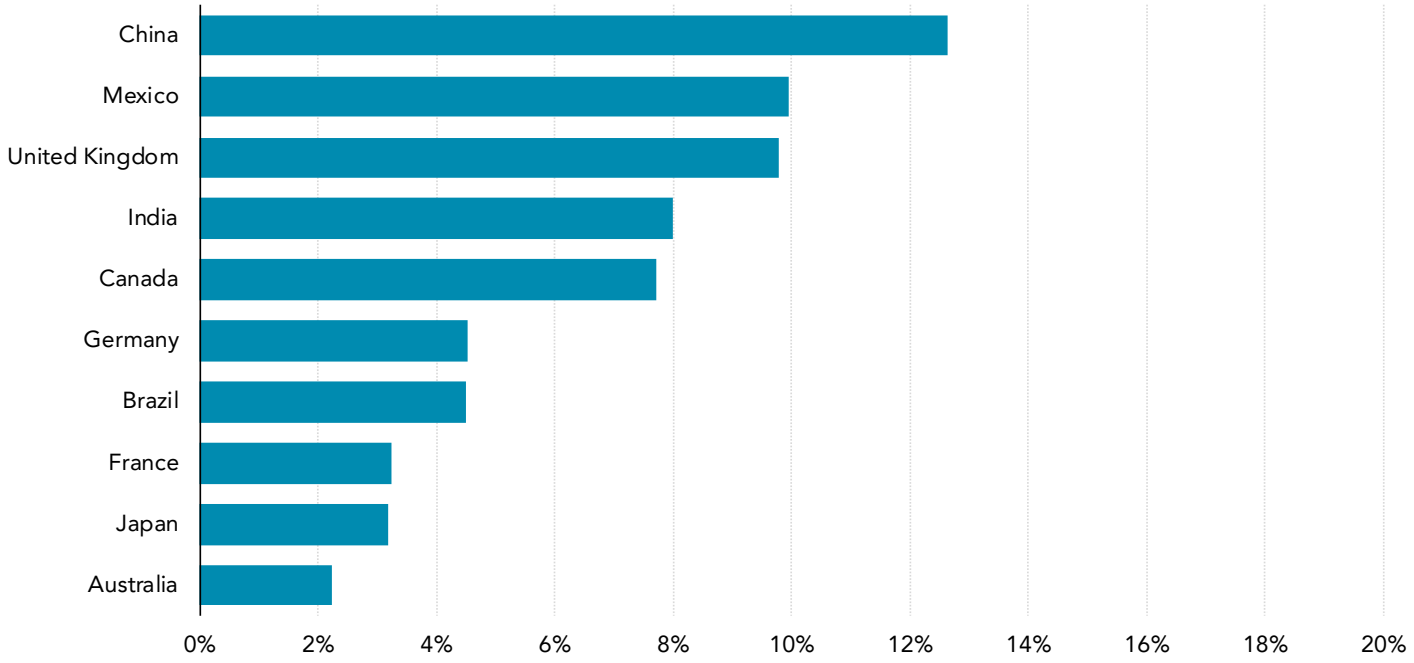
How TCJA affects the location of reported profits and real activities of US multinationals overseas will not be known for several years. However, we can expect in a few years that US companies will report substantially lower shares of their profits in low-tax countries with little economic activity.

Key Elements of the U.S. Tax System

What are the consequences of the US international tax system?

FIGURE 2

Top 10 Countries for Non-US Employment of US Multinationals



Source: Bureau of Economic Analysis, *US Direct Investment Abroad (USDIA), Activities of US Multinational Enterprises (MNEs)*, "All Foreign Affiliates: Selected Data by Country," 2015.

INCENTIVES TO INCORPORATE OVERSEAS

The United States bases its definition of corporate residence on place of incorporation. This definition need not be consistent with where a company's production and employment is located, where its sales take place, where its shareholders reside, or even where its top managers live.

For some firms, the tax benefits of foreign residence, combined with the lack of economic substance to the residence definition, have led them to shift the formal incorporation of their parent companies overseas. This type of transaction ("inversion") can often be accomplished without changing the location of any real business activities.

Over the years, Congress has enacted rules to limit inversions. A company can still "redomicile," though, by merging with a foreign-based company under certain conditions, including that the original foreign company contribute at least 20 percent of the shares of the new merged company if other conditions are not met. The TCJA added new provisions to penalize new inversions. In exchange for TCJA eliminating the tax on repatriated dividends, it imposes a 35 percent transition tax on overseas assets that newly inverted firms held before TCJA. Other US companies with foreign assets pay a comparable transition tax at 15.5 percent for cash and 8 percent for other assets. TCJA also introduced other penalties on newly inverted firms, including a provision that makes dividends to shareholders taxable as ordinary income instead of at the preferred rates generally applied to qualified dividends and long-term capital gains.

Key Elements of the U.S. Tax System

What are the consequences of the US international tax system?

The current US system still provides benefits for some multinational corporations to establish their parent company's residence outside the United States, although this incentive is smaller at the new reduced corporate tax rate. The United States now imposes GILTI on the intangible profits US-resident corporations earn in low-tax countries, while our major trading partners have so-called territorial systems that exempt active foreign-source profits. In addition, rules for US controlled foreign corporations limit US-based multinationals' ability to use debt-equity swaps and other earnings-stripping techniques to shift reported income out of the United States. But the United States is unable to apply its controlled foreign corporation rules to foreign-resident multinationals.

The US Department of the Treasury (2016), however, has recently issued new regulations to deter earnings stripping through interest payments to foreign-related parties and the Base Erosion and Anti-abuse Tax (BEAT), enacted as part of TCJA, imposes a minimum tax on a base that disallows deductions for certain payments, including interest, to foreign-related parties. Both Treasury regulations and BEAT aim to limit foreign-resident multinationals' ability to shift profits out of their US affiliates, although BEAT also affects US-resident companies.

A corporation's formal residence may be losing significance in an increasingly global economy where capital flows freely and a firm's research and development, production, and sales are often spread worldwide. The location of a multinational firm's investment, jobs, research and development, and tax revenue matter more than the site of its parent company. Corporate residence, however, does have some effect on US tax revenues and arguably may matter for research and development and other high-value activities often associated with a company's headquarters.

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Q. How does the tax system affect US competitiveness?

A. The international tax policies that best encourage firms to invest in the United States are not necessarily the policies that best help US multinational companies compete with foreign-based multinationals. Policymakers face a trade-off among goals.

WHAT IS COMPETITIVENESS?

Many—really all—politicians favor "international competitiveness," but the term means different things to different people. To some, it means domestic firms or industries can compete with their foreign counterparts in a global marketplace. For them, this translates into support for "mercantilist" policies that seek to increase exports, reduce imports, or promote more US activity in certain sectors, such as manufacturing.

An alternative form of mercantilism seeks to promote the growth of a country's resident multinational corporations without regard to whether they produce at home or overseas. Concerns about the competitiveness of US multinationals often follow from an assumption that these firms generate spillover benefits for the economy in which they are headquartered. For example, the knowledge created by research and development (R&D) (typically conducted at headquarters) often gets diffused to other domestic producers, boosting productivity more broadly.

By contrast, many economists view free trade and capital movements as mutually beneficial because they raise living standards in all countries. These economists define "competitive" policies as those that increase Americans' standard of living over the long run, without regard to their effects on the balance of trade, the net direction of international capital flows, or success in expanding specific activities, such as manufacturing or R&D.

Global international tax practices seek to promote free capital movements by preventing double taxation of international capital flows. These same practices assign the capital-importing countries rights to tax profits (i.e., the country where production facilities are located).

The capital-exporting country has two ways to avoid double taxation. The first method is simply to exempt taxation of the foreign-source income of its resident companies. The second method is to tax the worldwide income of its resident companies but to allow them to claim credits for foreign income taxes so that their income is taxed at the home-country rate rather than the rate in the country where the income is earned. These two approaches have different implications for a country's attractiveness either as a location for productive investment or as a place for multinational corporations to establish residence.

Although the promise of beneficial spillovers provides an argument for using the tax code to promote R&D

and other headquarters activities, direct subsidies such as research credits would be a more cost-effective way to encourage research.

HOW CAN TAX POLICIES ATTRACT INVESTMENT?

Following the 2017 Tax Cuts and Jobs Act (TCJA), the US corporate tax system no longer discourages investment in the United States by US- and foreign-based corporations. Now the top corporate tax rate in the United States (including the effect of state-level taxes) is slightly below the average corporate tax rate of our major trading partners. In addition, capital recovery provisions are more generous in the United States than in many other countries, especially through 2022 when companies can immediately deduct 100 percent of costs of machinery and equipment investment in the United States. (This bonus depreciation provision phases out between 2023 and 2027 at 20 percentage points per year.)

Provisions that make it easier in the United States than in most other countries to establish businesses whose owners benefit from limited liability without being subject to corporate-level taxation also encourage domestic investment. For example, many US corporations lease office buildings from real-estate investment trusts, which pay no corporate income tax, instead of owning them and facing US corporate income tax on the profits they generate.

The US tax system after TCJA continues to encourage US-based multinationals to invest in low-tax foreign countries instead of at home. US multinationals pay no US tax on foreign-source income up to 10 percent of the value of their tangible foreign capital (the value, net of past depreciation, of machinery, equipment, and structures). But most of the overseas tangible capital of US multinationals is in other major economies with corporate tax rates now similar to or slightly higher than the US corporate tax rate. Exemption of these profits, then, provides little additional benefit. On these investments, there would be no US tax liability—even in a worldwide system—because the credit for foreign income taxes would fully offset US corporate income tax liability.

HOW CAN TAX POLICIES ATTRACT CORPORATE HEADQUARTERS?

The US tax system places US multinationals at a competitive disadvantage with foreign-based multinationals that have income from low-tax countries. US companies now face a 10.5 percent minimum tax on global intangible low-taxed income, defined as global profits above 10 percent of tangible capital. In contrast, most countries in the Organisation for Economic Co-operation and Development and all the other countries in the G7 (Canada, France, Germany, Italy, Japan, and the United Kingdom) have exemption systems that allow their resident multinationals to pay only the foreign tax rate on most of their overseas profits.

The US and many other countries have controlled foreign corporation (CFC) rules that tax some forms of US multinationals' foreign-source income as it accrues in their foreign subsidiaries at the same rate as domestic-source income. The goal of CFC rules is to prevent schemes that shift the reported profits resident multinationals earn at home to their affiliates in low-tax foreign countries. Because CFC rules, however, apply only to domestic-resident multinationals, they do not prevent similar schemes by foreign-resident multinationals to strip profits from their affiliates in high-tax countries.

Several countries have enacted new taxes on foreign-resident multinationals operating in their countries, including the diverted profits tax in the United Kingdom and similar measures in Italy and India. Many countries also have "thin-capitalization" rules that limit interest deductions to prevent outbound income

shifting. The base erosion and anti-abuse tax (BEAT) in TCJA is a new measure that limits income shifting out of the United States by both US and foreign-resident companies. The BEAT imposes an alternative minimum tax on a tax base that disallows the deduction of certain payments to related parties. Some companies may find ways to avoid the BEAT, and the provision may also do unintended collateral harm to other companies, so its effectiveness is debatable. Nonetheless, BEAT is an effort to improve the competitive position of US-based multinationals by limiting the ability of foreign-based companies to strip profits from their US operations.

WOULD A VALUE-ADDED TAX OR DESTINATION-BASED CASH FLOW TAX INCREASE US COMPETITIVENESS?

Some commentators argue that substituting a value-added tax (VAT) for all or part of the corporate income tax would improve the US trade balance. Unlike the corporate income tax and other levies imposed on income earned in the United States, VATs typically exempt exports and tax imports.

But most economists dispute the claim that a VAT would improve the trade balance, arguing that any benefit to net exports from a VAT would be offset by a resulting appreciation of the US dollar relative to other currencies. In fact, some research suggests that countries that rely heavily on VATs for revenue have lower net exports than those that don't.

Replacing some or all of the corporate income tax with a VAT would, however, affect the trade position of some industries relative to others. Exemptions and lower rates within a VAT affect the relative prices consumers pay for different goods and services but do not distort trade patterns because VAT burdens do not depend on where goods and services are produced. In contrast, preferences within the corporate income tax do affect production location, improving the competitiveness of some US producers while worsening the competitiveness of others, because the tax does affect relative costs of production.

In 2017, House Republicans considered and then abandoned a plan for a destination-based cash flow tax (DBCFT) to replace the corporate income tax. The DBCFT was similar to a VAT in that it would have allowed immediate recovery of capital expenses and would have exempted exports from tax and disallowed a deduction for imports. (It differed from a VAT by allowing companies to deduct wages.) Many commentators expressed concern that the DBCFT would hurt US importers, but prominent economists argued that exchange rates would adjust to neutralize any trade effects of its border-adjustments feature.

Key Elements of the U.S. Tax System

How does the tax system affect US competitiveness?

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Q. How would formulary apportionment work?

A. Under the current global system, multinational firms determine their profits separately in each tax jurisdiction in which they operate. An alternative system would allocate a firm's worldwide income across countries using a formula based on some combination of its sales, assets, and payroll in each jurisdiction.

HOW FORMULARY APPORTIONMENT WORKS

Under formulary apportionment, a multinational corporation would allocate its profits across countries based on its sales, payroll, and capital base in each jurisdiction. The corporation would pay US corporate tax on the share of its worldwide income allocated to the United States. An alternative formula would base a corporation's US taxes only on the fraction of its worldwide sales destined for domestic consumers, a so-called "destination-based" corporate profits tax.

Many states in the United States use a formulary apportionment system to determine their taxable share of US-source corporate profits. The formulas have been historically based on a weighted average of the shares of sales, payroll, and assets in the state. But some states have shifted to a sales-only apportionment system to remove any incentive to shift employees or facilities to other jurisdictions.

The adoption of formulary apportionment by states was motivated by the widespread perception that states are so highly integrated economically that it is impractical to determine using a separate-entity system how much of a firm's income is earned by an affiliate in one state and how much by an affiliate in another.

ADVANTAGES OF FORMULARY APPORTIONMENT

Formulary apportionment would remove the current artificial incentive for multinationals to shift reported income to low-tax locations. Tax liabilities, instead, would be allocated by a measure (or measures) of their real economic activity in each location. These measures are far more difficult to manipulate for tax purposes than the division of profits among separate entities within a firm.

Formulary apportionment would also reduce the tax system's complexity and the administrative burden it imposes on firms. Firms would no longer have to allocate income or expenses across countries for tax purposes. Because intra-firm transactions would not affect the measure of domestic profits, there would be no need for transfer-pricing rules for intra-firm transactions, which would remove a major source of dispute between corporations and tax authorities.

There would also no longer be a need for controlled foreign corporation rules because all profits assigned

to foreign activities would be exempt. For this reason, there would also no longer be a need for foreign tax credits, so firms with deemed profits from intangible assets (GILTI) would have no incentive to earn taxable profits in high-tax foreign countries to increase the availability of offsetting tax credits in low-tax countries.

Absent behavioral responses, the United States and countries with similar tax rates would gain revenue under formulary apportionment: firms' shares of real economic activity in these countries typically exceed the shares of income they now report as originating there instead of in tax havens. The move to formulary apportionment could therefore be made revenue neutral by reducing corporate tax rates. Moreover, formulary apportionment would make a multinational corporation's tax liability independent of both its legal residence and its legal form (for example, branch or subsidiary). Formulary apportionment would thus remove any incentive for corporate inversions in which firms from two countries merge and establish their residence in a low-tax country to reduce their tax liabilities.

PROBLEMS AND DISADVANTAGES OF FORMULARY APPORTIONMENT

Significant issues, however, emerge in designing and implementing a global formulary apportionment system. And such a system would create new incentives for tax avoidance and could increase the incentive to shift real investments to low-tax countries.

Formulary apportionment would require an agreement among the major economies to scrap the current separate-entity system and to agree on how to allocate corporate income among jurisdictions. It would also require agreement on common accounting methods for measuring corporate profits.

A unilateral move by the United States to formulary apportionment would result in double taxation of some multinationals' income and exemption of other income. That's because different countries would use radically different methods of allocating income among jurisdictions.

A formulary apportionment system would introduce new boundary problems between high-tax and low-tax activities. While the current separate-entity system creates incentives to shift reported profits among firms within a multinational corporation, formulary apportionment provides incentives to shift profits between multinationals and separately owned firms. For example, if physical assets help determine the location of a multinationals' profits, a firm might well have an incentive to contract its low-margin manufacturing activities in high-tax jurisdictions to independently owned firms instead of establishing a manufacturing subsidiary within the firm to reduce its share of capital assets allocated to high-tax countries.

Further, formulary apportionment could worsen the incentive to shift real activities to low-tax countries because intangible assets—a large share of value for many leading multinational companies—are part of a firm's total profits but are absent from the allocation formula. Intangible assets magnify the effects on the firm's tax liability of putting more real capital in low-tax countries. They increase the share of both the firm's return to real capital and its return to the intangible profits taxed at lower rates.

Some analysts and commentators favor sales- or destination-based allocation of corporate profits because firms are least likely to reduce sales in a jurisdiction simply to reduce tax liability. A problem with a sales-based allocation, however, is that multinationals can then avoid tax on the profits from their intangible assets by selling their products to independent distributors in low-tax countries, who would then resell them throughout the world. Although rules could be written to prevent such abuses, they would be cumbersome

and hard to enforce. Most multinationals sell most of their output primarily to other companies in complex supply chains rather than directly to final consumers.

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Q. What are inversions, and why do they happen?

A. An inversion is a transaction in which a US-based multinational company merges with a smaller foreign company and then establishes its residence in the foreign company's country. As a foreign resident, the company can sometimes significantly reduce its taxes without changing the location of any real business activities.

The current US system treats multinational enterprises whose parent companies are incorporated in the United States (US-resident multinationals) differently from those that are resident elsewhere. The United States imposes a minimum tax on the active profits above a 10 percent rate of return that its multinationals accrue within their foreign affiliates, while our major trading partners have so-called territorial systems that exempt their resident multinationals' active foreign-source income. In addition, US anti-abuse rules limit US-based multinationals' ability to use debt-equity swaps to shift reported income out of the United States, but do not apply the same limits to foreign-resident multinationals. New provisions, however, place limits on these profit-shifting activities by foreign-resident multinationals.

The United States bases its definition of corporate residence on place of incorporation. This definition need not be consistent with where a company's production is located, where its sales take place, where its shareholders reside, or even where its top managers live.

In prior years, the tax benefits of foreign residence, combined with the residence definition's lack of economic substance, led some US-based multinationals to formally incorporate their parent companies overseas. This transaction ("inversion") can often be accomplished without changing the location of any real business activities. Some recent research (Rao 2015), however, finds that inverted companies over time increase their shares of employees and investment overseas compared with companies that did not invert.

In the two decades before enactment of the 2017 Tax Cuts and Jobs Act (TCJA), US multinationals accumulated a large amount of unrepatriated foreign cash, increasing the motivation for inversion transactions (Clausing 2014). TJCA eliminated taxes on repatriation of foreign-source income, thereby ending the incentive for US companies to retain assets overseas. In lieu of the repatriation tax, TCJA imposed a minimum tax of 10.5 percent on certain accrued foreign-source income and a one-time transition tax of 15.5 percent for cash assets and 8 percent for non-cash assets accumulated in foreign affiliates before the end of 2017. The transition tax is payable on a back-loaded schedule over eight years. These new taxes are payable whether or not a company repatriates its foreign assets, so firms are no longer encouraged to retain assets overseas. In response to TCJA, US firms reduced their overseas cash holdings, using most of the repatriated funds to pay their shareholders dividends and to repurchase shares.

Key Elements of the U.S. Tax System

What are inversions, and how will TCJA affect them?

Over the years, Congress has enacted rules to limit inversions. Simple inversions—a US company establishes a foreign affiliate, which then becomes the parent company—no longer work because the United States would continue to treat the new company as a US resident. A company can still "redomicile," though, by merging with a foreign-based company under certain conditions; these include a requirement that the original foreign company contribute at least 20 percent of the shares of the newly merged company if other conditions are not met.

A recent wave of inversion transactions, like previous waves, generated considerable concern among US policymakers and led to legislative proposals and administrative measures to impose additional limits on merger transactions. The US Department of the Treasury in 2014 issued new regulations to prevent avoidance of the 20 percent threshold on foreign ownership and to make it more difficult for newly merged companies to repatriate earnings accrued before the merger tax-free. In 2016, Treasury issued additional regulations (Shay 2014; US Department of the Treasury 2016) that reclassified certain debt transactions between related parties as equity instead of debt. The regulations deterred foreign-based companies from paying their US affiliates' tax-deductible interest to other affiliates in low-tax countries, a practice known as income stripping.

TCJA included additional measures to deter inversions. The transition tax rate on inverted firms' existing overseas assets was set at the full pre-TCJA rate of 35 percent instead of the reduced rates of 8 and 15.5 percent for other firms' assets. And the dividends shareholders receive from any newly inverted firms are taxable as ordinary income instead of at the reduced rates generally applied to qualified dividends and capital gains.

While Congress and the public have viewed inversions with great concern, changes in existing US corporations' residence are not the only way the share of world output by US-based multinationals can decline over time. Foreign-based multinationals can purchase smaller US companies or divisions of larger ones. New companies can be chartered overseas instead of in the United States. And foreign-based multinationals can expand faster than US-based companies if US tax laws place US multinationals at a disadvantage. In the long run, limits on inversions may be less important in promoting US corporate residence than tax laws in the United States and overseas that create a level playing field between US-resident and foreign-resident companies with operations in both the United States and our major trading partners.

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Key Elements of the U.S. Tax System

What is a territorial tax and does the United States have one now?

Q. What is a territorial tax and does the United States have one now?

A. Under a territorial tax, the United States would not tax profits earned overseas by US-resident corporations. The Tax Cuts and Jobs Act effectively exempted some of these profits, but retained taxation on some categories of foreign profits and imposed a new minimum tax on another.

When corporations based in one country earn profits from production in other countries, the countries involved must decide on the appropriate tax base. Such rules should prevent multiple layers of taxation from impeding international trade and investment flows while providing that corporate profits are taxable somewhere.

One option is a territorial tax system that taxes only the portion of a corporation's income originating within the country's borders. This prevents double taxation of cross-border flows because resident corporations' foreign-source income is exempt from tax.

Another option is a worldwide system that taxes all domestic-source income, as well as the foreign-source income of resident corporations. To prevent double taxation, countries with worldwide systems allow their resident corporations to claim tax credits to offset their foreign income taxes. They also typically allow their resident companies to defer tax on active profits earned by foreign affiliates (controlled foreign corporations, or CFCs) until those profits are repatriated to the parent company. This feature of tax systems—known as deferral—substantially reduces effective tax rates on foreign-source income in countries with worldwide systems, making them not that different from territorial systems.

Territorial and worldwide systems would be the same if all countries had the same tax rates. Then, credits under a worldwide system would exactly offset otherwise-payable taxes on foreign-source income. But the systems are different if countries have different corporate tax rates. Territorial systems encourage a country's resident multinational corporations to shift real investment and reported profits to low-tax foreign countries. Worldwide systems (with deferral) reduce this incentive because resident corporations pay the domestic tax rate when they repatriate profits earned in low-tax countries. But worldwide systems place resident corporations at a disadvantage compared with companies based in countries with territorial systems that impose no domestic tax on the profits their resident companies earn in low-tax foreign countries. Most countries have moved closer to territorial systems by eliminating taxation of the repatriated dividends their resident companies receive from their CFCs.

Key Elements of the U.S. Tax System

What is a territorial tax and does the United States have one now?

IMPLEMENTING TERRITORIAL TAXATION

Implementing territorial systems requires defining the source of a multinational corporation's profits. This was straightforward when most profits were attributable to physical assets with a fixed location, such plant, equipment, and structures. Today, however, an increasing share of profits comes from returns to intangible assets, such as patents, trademarks, and copyrights. Firms in technology, pharmaceuticals, and other sectors have been able to reduce their tax liability by shifting ownership of and profits from intangible assets to low-tax jurisdictions where little real economic activity occurs. By charging affiliates in high-tax jurisdictions a royalty for these intangible assets, such firms lower their overall tax bills. Also, firms can often allocate corporate debt and overhead costs among jurisdictions in ways that reduce their tax burdens.

Countries have two basic strategies to prevent companies from eroding the domestic corporate tax base by assigning reported profits to low-tax foreign jurisdictions. The first approach is to enact detailed rules that define the source of profits. These include rules to determine the "transfer prices" companies can report on goods traded within a multinational group; rules for allocating interest, overhead, and research costs; and provisions to limit interest deductions on debt between related parties. The recent report on base erosion and profit shifting by the Organisation for Economic Co-operation and Development includes a long list of recommendations for how to curb income shifting.

The second approach applies limited worldwide taxation as a backup to territorial taxation. Most advanced countries have enacted so-called CFC rules that subject some forms of "passive" income (such as interest and dividends) their resident multinationals earn within CFCs to current taxation. The subpart F rules in the US Internal Revenue Code, enacted in 1962, are an example of such a provision. By taxing certain types of easy-to-shift income on a worldwide basis, CFC rules limit the benefit of income shifting. CFC rules, however, only apply to a country's resident multinationals and therefore do not prevent foreign-resident companies from shifting profits earned within a country's borders to low-tax jurisdictions.

THE CURRENT US TAX SYSTEM

The current US system is a hybrid between a territorial and a worldwide system. The Tax Cuts and Jobs Act (TCJA) eliminated taxation of repatriated dividends but expanded taxation of income accrued within CFCs. The current system can be characterized as a territorial system for normal returns from foreign investment, defined in the US tax law as return of up to 10 percent on tangible assets, because these returns face no US corporate income tax. The result is that US companies investing overseas and foreign-resident companies from countries with territorial systems both pay only the local corporate income tax rate in countries where they place physical capital assets. In addition, US companies no longer have an incentive to avoid US taxation by contracting production to locally owned firms, as they would under worldwide taxation.

The new tax law, however, departs from territorial taxation in its treatment of intangible profits, which represent the bulk of profits for some of the largest US multinational corporations. Because TCJA eliminated the tax on repatriated dividends, it increased the rewards for income shifting: profits now not only accrue tax-free overseas, but are also tax-free when brought back to the US parent. To counter this, TCJA included GILTI, the tax on global intangible low-taxed income. A low-rate tax on intangible profits as they accrue will reduce the incentive to shift these profits out of the United States.

Finally, the new tax law retains the long-standing rules in subpart F for taxing the passive income US firms accrue within their foreign affiliates. These rules, and similar rules in other countries, have long been viewed

as a needed backstop to prevent base erosion in territorial systems.

Bottom line—the US system is a hybrid between a territorial and a worldwide system. It still retains some incentives of a pure territorial system to invest in lower-tax foreign countries instead of at home and to shift reported profits to lower-tax jurisdictions. And it still retains some features of a worldwide system that may place US multinationals at a competitive disadvantage compared with multinationals resident in other jurisdictions. But the hybrid nature of the system makes the problem of income shifting smaller than it would be in a pure territorial system and makes the competitiveness problem smaller than it would be in a pure worldwide system. And the lower 21 percent corporate rate in the new tax law makes both problems smaller than under the previous corporate rate of 35 percent.

Finally, the system continues to be extremely complex. How companies will adjust their behavior in response to revised incentives and how effective the IRS will be in enforcing the new rules remains to be seen.

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Q. What is the TCJA repatriation tax and how does it work?

A. The Tax Cuts and Jobs Act repatriation tax is a one-time tax on past profits of US corporations' foreign subsidiaries.

Before the 2017 Tax Cuts and Jobs Act (TCJA), the United States generally taxed its corporations and residents on their worldwide income. However, a US corporation could defer foreign income by retaining earnings indefinitely through a foreign subsidiary. The US corporation would pay US tax on the foreign earnings only when they were repatriated (by a dividend from the foreign subsidiary, for example). Upon repatriation, the earnings would be subject to US taxation at a rate up to 35 percent, with a credit for foreign taxes paid. The repatriation typically resulted in a net US tax obligation because the US tax rate was usually higher than the foreign tax rate. As of 2015, US corporations accumulated more than $2.6 trillion of earnings in foreign subsidiaries, according to the Joint Committee on Taxation.

Pursuant to the TCJA, the United States now generally exempts the earnings of a US firm from active businesses of foreign subsidiaries, even if the earnings are repatriated (i.e., there now is a 100 percent dividend-received deduction). But, as a transition to the new system and to avoid a potential windfall for corporations that had accumulated unrepatriated earnings abroad, the new law taxes these earnings as if they were repatriated but at preferred lower rates.

There are two tax-preferred rates for the foreign earnings deemed repatriated: foreign earnings held in cash and cash equivalents were taxed at 15.5 percent and those not held in cash or cash equivalents at only 8 percent. The TCJA permits a US corporation to pay any tax on the deemed repatriations in installments over eight years. The tax revenue raised by this transition tax on earnings accumulated abroad was estimated at $340 billion over the 10 years from 2018 to 2027.

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Q. What is the TCJA base erosion and anti-abuse tax and how does it work?

A. The BEAT, a new tax under the Tax Cuts and Jobs Act, limits the ability of multinational corporations to shift profits from the United States by making deductible payments to their affiliates in low-tax countries.

Over the past several decades, US multinational corporations have used a variety of techniques to shift profit from the United States to other countries (and, thereby, have eroded the US tax base). A US-based multinational corporation might, for example, pay an affiliate in a lower-taxed country to use patents or other intellectual property in the United States. This would increase the US corporation's costs, thus reducing their reported profits in the United States and increasing their revenue and their reported profits in the lower-taxed country, potentially lowering the corporation's overall tax bill. Prior US tax laws attempted to limit profit shifting, mainly by regulating what are called transfer prices between companies, but the Internal Revenue Service struggled to enforce these laws effectively.

To limit future profit shifting, the Tax Cuts and Jobs Act (TCJA) added a new tax, the BEAT (base erosion and anti-abuse tax). The BEAT targets large US corporations that make deductible payments, such as interest, royalties, and certain service payments, to related foreign parties. The BEAT is a minimum tax add-on: A US corporation calculates its regular US tax, at a 21 percent rate, and then recalculates its tax at a lower BEAT rate after adding back the deductible payments. If the regular tax is lower than the BEAT, then the corporation must pay the regular tax plus the amount by which the BEAT exceeds the regular tax. The BEAT rate is 5 percent in 2018, 10 percent in 2019 through 2025, and 12.5 percent in 2026 and beyond.

For example, suppose, in 2019, a US corporation has $300 million of gross income but pays deductible royalties to a foreign affiliate of $200 million. The corporation's regular tax liability is $21 million (21 percent of $100 million), but its alternative tax is $30 million (10 percent of $300 million), so the corporation would pay $30 million to the United States (the regular tax of $21 million plus the BEAT of $9 million).

The BEAT applies only to large multinational enterprises, those with gross receipts of more than $500 million (averaged over the prior three years). It also applies only to a corporation that makes more than 3 percent of its total deductible payments to foreign affiliates. However, the BEAT excludes payments that can be treated as cost of goods sold. For example, if a US company properly accounts for interest or royalties as part of the cost of its inventory, the interest or royalties are not added back to the BEAT tax base.

What is the TCJA base erosion and anti-abuse tax and how does it work?

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Q. What is global intangible low-taxed income and how is it taxed under the TCJA?

A. Global intangible low-taxed income is the income earned by foreign affiliates of US companies from intangible assets such as patents, trademarks, and copyrights. The Tax Cuts and Jobs Act imposes a new minimum tax on this income.

Before the 2017 Tax Cuts and Jobs Act (TCJA), the United States generally taxed its firms and residents on their worldwide income. However, US firms could defer the tax on foreign subsidiaries' active business earnings until those earnings were repatriated to the United States as dividends. After the TCJA, the United States generally exempts earnings from active businesses of US firms' foreign subsidiaries, even if the earnings are repatriated. (The United States still taxes the income from passive investments of foreign subsidiaries.)

But Congress worried that completely exempting US multinationals' foreign earnings might exacerbate the incentive to shift profits to low-tax jurisdictions abroad. So, Congress added a new 10.5 percent minimum tax on global intangible low-taxed income (GILTI) to discourage such profit shifting. GILTI is intended to approximate the income from intangible assets (such as patents, trademarks, and copyrights) held abroad. Congress considered intangible assets highly mobile—and sought to discourage US firms from shifting these assets offshore.

More specifically, a US business must include GILTI in its gross income annually. GILTI is calculated as the total active income earned by a US firm's foreign affiliates that exceeds 10 percent of the firm's depreciable tangible property. A corporation (but not other businesses) can generally deduct 50 percent of the GILTI and claim a foreign tax credit for 80 percent of foreign taxes paid or accrued on GILTI. Thus, if the foreign tax rate is zero, the effective US tax rate on GILTI will be 10.5 percent (half of the regular 21 percent corporate rate because of the 50 percent deduction). If the foreign tax rate is 13.125 percent or higher, there will be no US tax after the 80 percent credit for foreign taxes.

For example, suppose a US corporation is the sole shareholder of a foreign corporation with a manufacturing plant in Ireland, which has a 12.5 percent tax rate. Suppose the plant cost $100 million to construct, and the foreign income is $30 million (after properly allocating expenses). The corporation would calculate GILTI of $20 million (total foreign income minus 10 percent of $100 million of depreciable assets). The US tax on GILTI would be $2.1 million before credits for foreign taxes (half of the $20 million of GILTI times the 21 percent corporate tax rate), and the net US tax after credits would be $0.1 million ($2.1 million−$2 million credit for Irish taxes). In practice, the calculations are much more complicated, as US corporations may have multiple operations abroad—and how to properly allocate expenses among them is unclear.

Key Elements of the U.S. Tax System

What is global intangible low-taxed income and how is it taxed under the TCJA?

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Q. What is foreign-derived intangible income and how is it taxed under the TCJA?

A. Foreign derived intangible income is income that comes from exporting products tied to intangible assets, such as patents, trademarks, and copyrights, held in the United States. The Tax Cuts and Jobs Act taxes this income at a reduced rate.

As part of the 2017 Tax Cuts and Jobs Act, Congress lowered the tax rate for US corporations' foreign-derived intangible income (FDII). Congress effectively reduced the tax rate on foreign-derived sales and service income to 13.125 percent, rather than the regular 21 percent, seeking to encourage US corporations to export more goods and services, and locate more intangible assets in the United States.

The FDII computation is complicated, but it is intended to approximate income from the sale of goods and services abroad attributable to US-based intangible assets such as patents, trademarks, and copyrights. As with the provisions of the new law related to global intangible low-taxed income, Congress approximated the income attributable to a US firm's intangible assets by the income that exceeds a 10 percent deemed return on its depreciable tangible property. The share of the excess income allocated to the sale of goods and services abroad is taxed at a reduced rate.

For example, suppose a US corporation earned $100 million, with tangible assets of $200 million. The firm would allocate the deemed intangible income, $80 million ($100 million of earnings−$20 million deemed return on its tangible assets), between foreign and domestic sales of goods and services. The United States would tax the share of the $80 million allocated to foreign sales at 13.125, rather than the regular 21 percent. In 2026, the rate on FDII will rise from 13.125 to 16.83 percent.

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How Could We Improve the Federal Tax System?

What is comprehensive tax reform?

Q. What is comprehensive tax reform?

A. The term refers to broad, sweeping changes to the tax system. What qualifies as "comprehensive" is a judgment call.

Rather than taking a piecemeal approach, making small changes to provisions of the tax code, comprehensive reform would address the inequities, complexities, and inefficiencies of the entire tax system. The last comprehensive reform to the US tax system took place in 1986, when the Tax Reform Act lowered income tax rates and broadened the tax base.

Some contemporary proposals are more of the same, broadening the tax base to lower tax rates without lowering revenue. Some proposals would scrap the current system entirely, replacing the income tax with a consumption-based tax system. But the broad goals of greater fairness, efficiency, and simplicity remain the same.

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Q. What are the major options for comprehensive tax reform?

A. In a nutshell, broaden the income base while lowering tax rates, tax consumption instead of income, or do a bit of both.

BROADENING THE INCOME TAX BASE

Base broadening involves increasing the portion of income subject to taxation. It is often accompanied by proposals to decrease tax rates. The Bowles-Simpson plan, the Tax Reform Act of 2014, and a proposal from the Domenici-Rivlin Debt Reduction Task Force all fit this category.

In calculating tax liability, taxpayers have the right to exclude portions of their income through deductions, credits, exclusions, and the preferential treatment of income from certain sources. This, of course, lowers the revenues that could be collected if all income were taxed at the given rate. More than 150 such "expenditures" appear in the tax code; the 10 largest currently cost the government about $900 billion per year and account for approximately two-thirds of the budget impact.

SWITCHING TO A CONSUMPTION TAX

A consumption levy taxes the purchase of goods or services rather than income. A move to such a system was proposed by the 2005 President's Advisory Panel on Federal Tax Reform, forms the basis of Columbia Law School professor Michael Graetz's Competitive Tax Plan, and features in several other plans usually labeled as national retail sales taxes and flat taxes.

Retail Sales Tax

A national retail sales tax would levy a flat tax on all retail sales. In most proposals, the tax would have a broad base, exempting only expenditures for education, existing housing, purchases abroad by US residents, and food produced and consumed on farms. Proponents argue that the tax would be simpler to administer and create fewer economic distortions than the income tax. However, in most forms it would be regressive, disproportionately taxing low- and middle-income earners.

Value-Added Tax

Value-added taxes are collected from businesses at each stage of the production process. Under the "credit-invoice method," all sales by businesses are taxable, while firms claim credits for all taxes paid on purchases from other businesses. The result is that the tax base is equal to the full value of the final sale to the consumer. The United States is the only developed country that does not have a value-added tax, which tend to have lower administrative and compliance costs than income taxes.

How Could We Improve the Federal Tax System?

What are the major options for comprehensive tax reform?

Flat Tax

A flat tax is really a value-added tax divided into two parts. It was first proposed in 1983 by economists Robert Hall and Alvin Rabushka of Stanford University's Hoover Institution. Their proposal called for a 19 percent tax at the business level on all value added other than wages. Households, for their part, would pay a 19 percent flat tax on all wages and pension benefits above a specified exemption level. The family exemption increases the progressivity of the tax. But the tax structure is regressive relative to the current system, as it lowers taxes for higher-income households.

X-Tax

The X-tax, proposed by the late David Bradford, is a variant of the flat tax. Businesses would still pay a single-rate value-added tax on all their nonwage value added. But unlike the flat tax, the wage tax would be set at progressive rates, beginning at zero and increasing until the business rate were reached. The plan would retain the earned income tax credit and the deduction for charitable contributions and would provide a credit for payroll taxes paid. A modified version of the X-tax was proposed in the 2005 reports of the President's Advisory Panel on Federal Tax Reform, in which the income tax would be replaced with a 30 percent tax on firms and top wage earners. (The panel would have supplemented the X-tax with a 15 percent tax on capital income earned by individuals.)

Consumed Income Tax

In general, all income can either be spent immediately or saved to be spent later. A consumed income tax would tax only current consumption, exempting all savings until it is spent. Proponents argue that the exemption of savings would encourage investment, which would increase economic growth.

A variation of the consumed income tax, the Unlimited Savings Allowance Tax, was offered by Senators Sam Nunn and Pete Domenici in 1995 as a replacement for the income tax. Under their plan, households would pay a progressive consumed income tax with deductions for some education costs, mortgage interest, and charitable contributions. Businesses, for their part, would be taxed with a subtraction-method value-added tax with a flat rate of approximately 11 percent. Both households and businesses would be able to claim a payroll tax credit.

How Could We Improve the Federal Tax System?

What are the major options for comprehensive tax reform?

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Toder, Eric, Joseph Rosenberg, and Amanda Eng. 2013. "Evaluating Broad-Based Approaches for Limiting Tax Expenditures." *National Tax Journal* 66 (4): 807–32.

Q. What is a broad-based income tax?

A. One that minimizes tax preferences with the goal of increasing revenue at a given rate of taxation.

Expanding the definition of taxable income by removing or restructuring tax preferences could significantly increase revenue. In fact, the President's Advisory Panel on Federal Tax Reform estimated that converting the current preference-riddled tax to a comprehensive income tax system would nearly double the tax base.

In truth, virtually all tax analysts reach similar conclusions. Holding other factors constant, a broader tax base means that a lower tax rate will raise the same revenue. Hence, base broadening can offset the revenue effects of lowering the tax rate.

The National Commission on Fiscal Responsibility and Reform (Bowles-Simpson, for short) aimed to broaden the tax base by eliminating up to $1.1 trillion worth of tax expenditures, with the revenue gains used to reduce both tax rates and the budget deficit. The Domenici-Rivlin tax reform proposal also features base broadening and would reduce the deficit with a mix of eliminating, reducing, and simplifying various tax expenditures.

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Q. What would and would not be taxed under a broad-based income tax?

A. Generally, all forms of income, but there are as many options as there are proposals.

Base broadening could include all forms of income, such as wages and "anything that allows you to spend more, either now or in the future" (President's Advisory Panel 2005, 20). These sources include retirement account income, capital gains, dividends, rental income, employer-provided health insurance, unrealized increases in the value of real estate, and securities.

The President's Advisory Panel looked closely at a somewhat less comprehensive broad-based income tax that would eliminate credits, "above the line" deductions, and itemized deductions. The individual alternative minimum tax would go; tax filers would get to keep the standard deduction and personal exemptions.

The Bowles-Simpson Commission's "zero-base budgeting" plan would modify the income tax to lower rates and deficits by cutting tax expenditures. This tax would eliminate all tax expenditures (an estimated $1.1 trillion per year) but would not modify the payroll tax base.

The Domenici-Rivlin plan, for its part, eliminates the standard deduction and personal exemption, taxes capital gains and dividends as ordinary income, simplifies the earned income tax credit, shortens the list of itemized deductions, and caps deductions for medical expenses.

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President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*. Washington, DC: President's Advisory Panel on Federal Tax Reform.

Q. What would the tax rate be under a broad-based income tax?

A. That depends on what exclusions, credits, and deductions are left in and whether revenue neutrality is a must.

The President's Advisory Panel on Federal Tax Reform estimated how much marginal tax rates could be reduced under a broad-based income tax that generated the same revenue as the current system. As table 1 shows, the switch would permit across-the-board cuts of about one-third. This sort of reform would not be an easy political pill to swallow, however. The panel's version, for example, would preserve only the standard deduction and personal exemptions, and would eliminate credits, "above-the-line" deductions, and itemized deductions. On the plus side, a broad-based tax would eliminate the much-despised individual alternative minimum tax.

TABLE 1

Marginal Tax Rates for Married, Filing Jointly Households

Under current law and a broad-based system, 2006

Tax bracket	Current law system	Broad-based system
$15,050 and under	10.0%	6.6%
$15,051 – $61,100	15.0%	9.9%
$61,101 – $123,250	25.0%	16.4%
$123,251 – $187,800	28.0%	18.4%
$187,801 – $335,400	33.0%	21.7%
$335,401 and over	35.0%	23.0%

Source: President's Advisory Panel (2005).

The Bowles-Simpson alternative provides similar estimates but argues that its zero-base budgeting methodology would allow the system to reduce rates and the deficit simultaneously (table 2).

Note, however, that after the 2017 Tax Cuts and Jobs Act, these estimates are dated and both the projected revenues and tax base have changed.

TABLE 2

Marginal Tax Rates in 2011 under Current Law and Broad-based Systems

Bowles-Simpson plan

	Current law system	Broad-based system	Illustrative plan[a]
Bottom rate	15.0%	8.0%	12.0%
Middle rate	28.0 – 31.0%	14.0%	22.0%
Top rate	36.0 – 39.6%	23.0%	28.0%

Source: National Commission (2010).

(a) The illustrative plan eliminates all tax expenditures except for the Child Tax Credit and Earned Income Tax Credit. It also taxes capital gains and dividends as ordinary income.

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Q. What is a national retail sales tax?

A. A national retail sales tax is a consumption tax collected as a flat-rate tax on all sales from businesses to households.

Retail sales are business sales to households; neither business-to-business nor household-to-household transactions qualify. For example, the sale of a newly constructed home to a family that will occupy it is a retail sale. But the sale of that same home to a business that intends to rent it to others is not a retail sale, nor is the sale of an existing home by one occupant to another.

A pure national retail sales tax would represent a sharp break from the current tax system, shifting the tax base from income to consumption. Rates would be flat; no goods or services would be exempted or favored; and tax administration, enforcement, and points of collection would be radically altered.

No country in the history of the world has enacted a retail sales tax rate anywhere near as high as what would be required to replace the US tax system. Whether such a tax could be implemented effectively remains an open question.

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Q. What would and would not be taxed under a national retail sales tax?

A. In theory, all consumption would be taxed. In practice, there would be great pressure to narrow the base.

Under a pure national retail sales tax, all consumption expenditures by individuals and by federal, state, and local government agencies would be subject to the tax. (Purchases by businesses are, by definition, not retail sales and would not be subject to tax.) However, no sales tax in history has come close to this ideal. Some items, such as imputed financial services, are quite difficult to tax. Taxing others, such as child care, rent, food, housing, and health care, might undermine popular (and arguably desirable) social policies.

State experiences demonstrate that interest groups often succeed in carving out preferences, just as they do from the income tax. As a result, few state sales levies tax many of the items listed above, and none tax all of them. Hence, a pure broad-based national retail sales tax has no precedent.

However, the path of least political resistance—exempting selected sectors—would be problematic. The broader the tax base, the lower the tax rate can be and still reach the revenue target. But health, food, and housing make up more than 40 percent of all personal consumption; exempting even one of these sectors would cut deeply into the sales tax base, forcing the required rate higher. Moreover, even with a broad base, the required tax rate would have to be very high to replace existing federal taxes.

Consider, too, that a national retail sales tax would need to tax all purchases by state and local governments. Exempting them would narrow the base substantially, which in turn would raise the tax rate needed to generate a given amount of revenue. Taxation of government transactions would also be necessary to ensure that private industry is not placed at a disadvantage when competing with public suppliers of goods and services.

Although the various national retail sales tax proposals differ in details, they generally maintain similar tax-base characteristics. Business purchases and education, both of which are considered investments, would be exempt. Domestic purchases by foreigners would be taxed; foreign purchases by US residents would not.

Employer-provided health insurance would be taxed, but economists Jonathan Gruber and James Poterba estimate that this tax change would boost the price of health insurance by an average of 21 percent. This price increase would reduce both the number of people insured (by 6 million) and the amount of insurance each remaining insured person would choose to carry.

The existing deductions for mortgage interest and property taxes would disappear along with the income tax. This would reduce the value of all residential housing. Newly constructed houses sold to occupants

would be subject to the sales tax, but existing houses would generally not because such transactions would not constitute retail (business-to-household) sales. This change would lower the market value of new houses relative to old ones.

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Q. What would the tax rate be under a national retail sales tax?

A. It depends on assumptions about the breadth of the tax base, tax evasion and avoidance, and the effects on economic growth. It also depends on how the tax rate is measured. Estimates for a tax that would replace revenues from the current federal tax system range from 31 percent to 65 percent. However, these estimates are dated, since revenue levels have recently changed, in part due to the 2017 Tax Cuts and Jobs Act.

Perhaps the most controversial aspect of the national retail sales tax has been how high the tax rate would need to be to replace all revenue from the current tax system. The answer depends on four things: (1) whether the quoted rate is in tax-exclusive or tax-inclusive terms; (2) the rates of tax evasion and tax avoidance; (3) the extent to which deductions, exemptions, and credits would be retained in the tax base; and (4) the impact on economic growth.

Under the optimistic assumption of a very broad base and extremely conservative assumptions about evasion and avoidance, the tax rate would have to be 44 percent on a tax-exclusive basis, or 31 percent on a tax-inclusive basis.

TABLE 1

Range of Average Tax Rates under a Retail Sales Tax
2006–15

Avoidance, evasion, and legislative erosion rate	Tax-exclusive rate	Tax-inclusive rate
None	44%	31%
10%	53%	34%
20%	65%	39%

Source: Gale (2005).
Note: Estimates assume a baseline of current law revenue projections.

How Could We Improve the Federal Tax System?

What would the tax rate be under a national retail sales tax?

Estimates from the President's Advisory Panel on Federal Tax Reform span an even wider range. Using reasonable assumptions about tax evasion and the breadth of the tax base, the Advisory Panel estimated the required tax-exclusive rate to be between 34 and 89 percent. Their highest estimate assumes (1) an evasion rate consistent with the current income tax for income on which taxes are not withheld and there is no third-party reporting and (2) a federal tax base equivalent to the median state sales tax base.

Note, however, that these estimates are dated. Revenue levels have changed since the 2005 report, partly from the 2017 Tax Cuts and Jobs Act.

TABLE 2

Range of Tax Rates under a Retail Sales Tax

Evasion rate	Extended base[a]	Median state sales tax base
Lower evasion (15%)	34%	64%
Higher evasion (30%)	49%	89%

Source: President's Advisory Panel on Federal Tax Reform (2005).
Note: Tax exclusive rates.
(a) The extended base refers to the tax base described by advocates of the FairTax proposal, which includes all sales of goods and services to consumers except educational services, expenditures by US residents abroad, food produced and consumed on farms, and existing housing.

TAX EXCLUSIVE OR TAX INCLUSIVE

A key issue in determining the required tax rate is how to define the tax rate. Suppose a product costs $100 before tax and has a $30 sales tax. The "tax-exclusive" tax rate would be 30 percent, because the tax is 30 percent of the pre-tax selling price. The "tax-inclusive" rate would be about 23 percent, which is obtained by dividing the $30 tax by the total cost to the consumer ($100 + $30). Sales tax rates are typically quoted in tax-exclusive terms, but income tax rates are typically quoted as tax-inclusive rates. For example, a household that earns $130 and pays $30 in income taxes would normally think of itself as facing roughly a 23 percent ($30 ÷ $130) income tax rate.

Although there is no single correct way to report the sales tax rate, it is crucial to understand which approach is being used. The tax-inclusive rate will always be lower than the tax-exclusive rate, and the difference grows as the rate rises. At a rate of 1 percent, the difference is negligible, but a 50 percent tax-exclusive rate corresponds to a 33 percent tax-inclusive rate, a 17 percentage-point difference.

How Could We Improve the Federal Tax System?

What would the tax rate be under a national retail sales tax?

OTHER FACTORS WOULD RAISE THE RATE EVEN HIGHER

Households' total sales tax rate would be significantly higher than the federal rates indicated above, after existing state sales tax were added. In addition, most or all state income taxes would probably be abolished in the absence of a federal income tax system because state income tax systems depend on the federal system for reporting income and other information. Today's state income taxes would likely be converted to sales taxes, adding considerably to the combined sales tax rate.

Other reforms would further raise the required rate. Transition relief for households would reduce the tax base and raise the required rate even higher. And if major consumption items such as food, housing, or health care were exempted from the base (the assumptions above do not allow for such large exemptions), the rate on the remaining goods and services would rise still higher.

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Q. What is the difference between a tax-exclusive and tax-inclusive sales tax rate?

A. It depends on whether the tax is reported relative to the pre-tax or post-tax price.

Suppose an item costs $100 before tax and is subject to a $30 sales tax. The tax-exclusive tax rate would be 30 percent, as the tax is 30 percent of the pre-tax selling price. The tax-inclusive rate would be about 23 percent, which is obtained by dividing the $30 tax by the total cost to the consumer ($100 + $30). Thus, the difference between the two definitions is whether or not the tax paid is included in the denominator when calculating the tax rate.

Although there is no single correct way to report a sales tax rate, it is crucial to understand which approach is being used. The tax-inclusive rate will always be lower than the tax-exclusive rate, and the difference increases as the rates rise. At a rate of 1 percent, the difference is negligible, but a 50 percent tax-exclusive rate corresponds to a 33 percent tax-inclusive rate, which is a big difference.

Sales tax rates are typically quoted in tax-exclusive terms, but income tax rates are typically quoted as tax inclusive. For example, a household that earns $130 and pays $30 in income taxes would normally think of itself as facing roughly a 23 percent ($30 ÷ $130) income tax rate.

Further Reading

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President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*, 207–22. Washington, DC: President's Advisory Panel on Tax Reform.

Q. Who bears the burden of a national retail sales tax?

A. A revenue-neutral national retail sales tax would be more regressive than the income tax it replaces.

A national retail sales tax would create a wedge between the prices consumers pay and the amount sellers receive. Theory and evidence suggest that the tax would be passed along to consumers via higher prices.

Because lower-income households spend a greater share of their income than higher-income households do, the burden of a retail sales tax is regressive when measured as a share of current income: the tax burden as a share of income is highest for low-income households and falls sharply as household income rises. The burden of a sales tax is more proportional to income when measured as a share of income over a lifetime. Even by a lifetime income measure, however, the burden of a sales tax as a share of income is lower for high-income households than for other households: a sales tax (like any consumption tax) does not tax the returns (such as dividends and capital gains) from new capital investment and income from capital makes up a larger portion of the total income of high-income households.

In contrast, federal income taxes are progressive. The individual income tax is progressive thanks to refundable credits for lower-income households (average tax rates are negative for the two lowest income quintiles), the standard deduction (which exempts a minimum income from the tax), and a graduated rate structure (rates on ordinary income rise from 10 to 37 percent, with an additional 3.8 percent marginal tax on certain investment income of high-income households).

The President's Advisory Panel (2005) concluded that replacing the income tax system with a national retail sales tax would heavily favor high-income households. A sales tax rate of 22 percent (the rate necessary to replace the revenue from the federal income tax at that time) would increase tax burdens on the lower 80 percent of the income distribution by approximately $250 billion a year (in 2006 dollars), if the sales tax were not modified to return some revenue to lower-income households.

Put another way, the lower 80 percent of the income distribution would go from paying 15.8 percent of federal income taxes to paying 34.9 percent of federal retail sales taxes. Conversely, the top 20 percent of the income distribution would go from paying 84.2 percent of federal income taxes to 65.1 percent of federal retail sales taxes (figure 1).

The Advisory Panel also found that offsetting the regressivity by per capita rebates to disadvantaged households would require a 34 percent sales tax rate to sustain revenue.

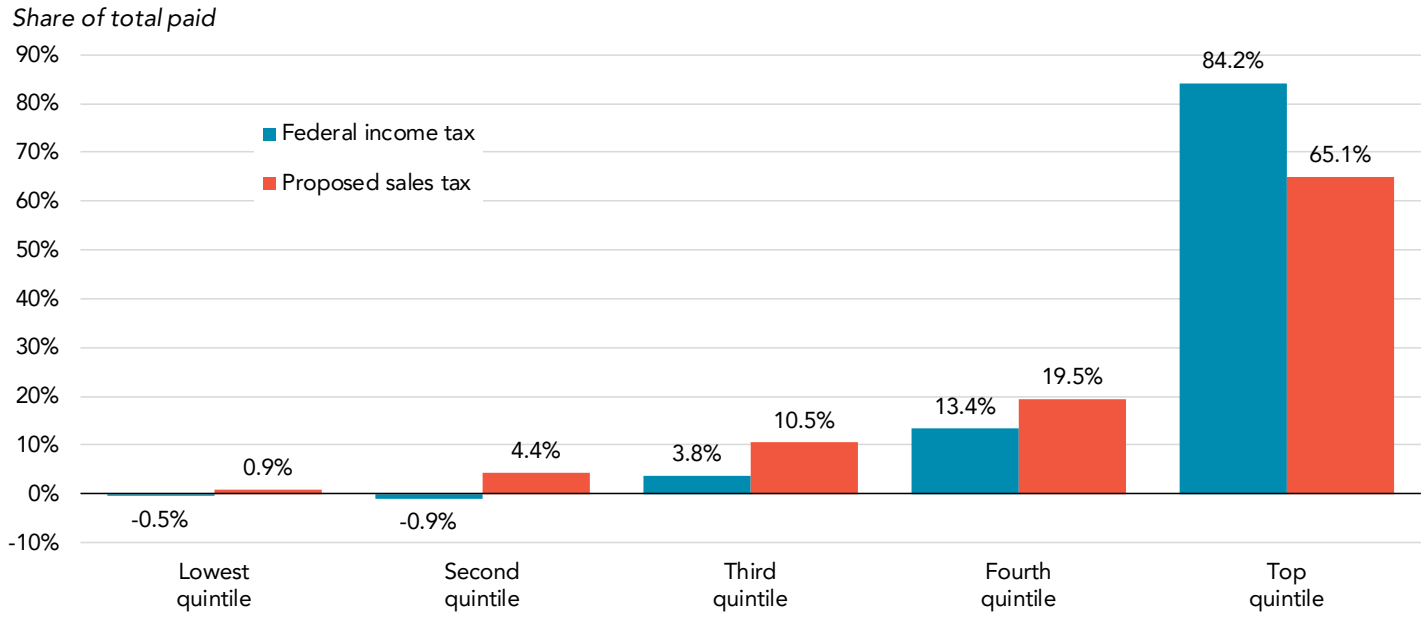
How Could We Improve the Federal Tax System?

Who bears the burden of a national retail sales tax?

FIGURE 1

Share of Current Federal Income Tax or Proposed Retail Sales Tax Paid

By income level under 2006 law



Source: President's Advisory Panel on Federal Tax Reform (2005).
Note: Assumes a 22 percent national retail sales tax without demogrant.

Some claim that a properly modified national retail sales tax would be "pro-family." Advocates usually point to the proposed demogrant—the per capita cash rebates—as proof of this assertion. On the other side of the ledger, though, families with children would likely be hurt by the elimination of both current deductions for health insurance, mortgage interest, and state and local income and property taxes (which finance schools and other government services) and by the elimination of various tax credits (the EITC, child care credits, education credits, and child tax credits). Consider, too, that at any given income level, families with children have higher consumption requirements than those without, so switching to a consumption tax would present an inherent disadvantage for families with kids.

Further Reading

President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*, 207–22. Washington, DC: President's Advisory Panel on Tax Reform.

Q. Would tax evasion and avoidance be a significant problem for a national retail sales tax?

A. A national retail sales tax would certainly not eliminate tax evasion and avoidance, and might increase it.

Advocates of the national retail sales tax claim that tax avoidance and outright evasion would decline, and that tax revenue collected from the underground economy would rise significantly. But critics view these claims as somewhere between overly optimistic and nonsensical. The President's Advisory Council on Federal Tax Reform (2005, 218) noted in its final report that "a federal retail sales tax assessed at a rate of at least 34 percent, added on to state retail sales taxes, would provide a substantial inducement for evasion."

By eliminating the current tax system, the national retail sales tax would indeed eliminate current avoidance and evasion schemes. But that does not mean it would eliminate avoidance and evasion. It would simply change their locus and nature.

The overall rate of evasion of the US income tax is estimated at around 16 percent, with the net percentage of misreported income equaling 22 percent. But these figures mask great differences in behavior that depend on the source of the income. At one extreme, where taxes are withheld and reported to government by a third party (predominantly wages), the misreporting rate is just 1 percent. At the other, where taxes are not withheld and there is no cross-reporting among government agencies, the misreporting rate averages 63 percent. If the income is subject to reporting but no withholding, about 7 percent is misreported. (Think interest, dividends, unemployment compensation, etc.) A national retail sales tax would feature no withholding and no cross-reporting, and so the potential for evasion needs to be taken seriously.

Individuals might avoid or evade a national retail sales tax in several ways. They might misreport personal consumption as business activity (e.g., using a company car for personal use). Treating property that involves mixed consumer and business use would also be a problem, as would verifying that retail goods were not purchased for personal use by business representatives (e.g., a bar owner purchasing a flat-screen for his or her home).

Previous studies have found a 13 percent "delinquency" rate for state sales taxes. This rate of evasion is lower than the likely rate under a national retail tax, though, since the tax rate under a national plan would be significantly higher than the rates applied by the states, increasing the incentive to cheat. Underreported sales would almost certainly be much higher with a national retail tax for two reasons: (1) enforcing the income tax currently relies on cross-verification between federal and state income taxes, and (2) the effective sales tax rates are currently low. With a tax-regime change, both conditions would change.

How Could We Improve the Federal Tax System?

Would tax evasion and avoidance be a significant problem for a national retail sales tax?

Then there's the question of taxing the underground economy. The example frequently offered is that of a drug dealer who does not pay income tax on his earnings today but would be forced to pay the sales tax if he took the funds and bought, say, an expensive car. The flaw in this argument was laid out years ago by former congressman Richard "Dick" Armey: "If there is an income tax in place, he [the drug dealer] won't report his income. If there is a sales tax in place, he won't collect taxes from his customers and send them to the government. In the end, neither system taxes the [illegal] drug trade."

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Q. What would be the effect of a national retail sales tax on economic growth?

A. The switch from an income tax to a consumption-based tax would probably make a positive difference, but it is far from certain.

A pure retail sales tax without exemptions or transition relief ought to have a positive impact on growth. First, switching from an income tax to a consumption-based tax would lead to greater savings and investment. And that should increase productivity and the pace of output growth.

There's a subtler route, too. The effective double taxation of existing capital during the transition to a national retail sales tax would generate windfall revenues and thus allow a tax-rate reduction that stimulated growth.

However, the world is not quite that simple. Many forms of saving—including pensions, 401(k) plans, and individual retirement accounts—already receive consumption tax treatment, and a significant share of corporate income is currently untaxed. Moreover, under a national retail sales tax, the likely provision of transition relief for existing assets could reduce the effect on saving further (it's hard to imagine that sophisticated lobbies would accept double taxation without a fight).

Several analysts have constructed models capable of generating realistic estimates of how tax reform would affect growth. The most complete model, developed by David Altig and colleagues (2001), simulates the effects of moving from the current system to a flat-rate consumption tax.

Their analysis—which assumes a less generous demogrant (cash rebate) than proposed by national retail sales tax advocates, some transition relief for existing assets, and no avoidance or evasion of the new tax—finds that the economy would be 0.6 percent larger than otherwise after two years, 1.8 percent larger after 10 years, and 3.6 percent larger in the very long run. But here, as almost everywhere, the devil is in the assumptions. Plausible allowances for avoidance, evasion, and erosion of the statutory tax base for political reasons, along with a more generous demogrant, would reduce these estimates.

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Q. What transition rules would be needed for a national retail sales tax?

A. The answer depends more on politics than on economics.

Any fundamental tax reform that seeks to collect the same amount of revenue in a new way is almost certain to redistribute tax burdens, affect asset values, and change price levels. Those who stand to lose would try to prevent the reform or secure "transition relief" that delays or blunts the impact.

The national retail sales tax proposal illustrates these issues starkly. Could the proposal withstand the inevitable political pressures to provide some with preferential treatment or to introduce transition relief? The issue is pivotal because backsliding would undermine the logic of pressing the reform in the first place.

The transition to a national sales tax would open a can of worms. At one extreme, the sales tax could include no adjustments. At the other, policymakers could grant extensive relief by adjusting Social Security benefits to reflect higher retail prices, allowing consumption to be tax free if financed by existing wealth, and so forth. In practice, the transition relief that has accompanied much smaller tax reforms has tended to balloon.

The economic case for transition relief depends on how it affects the simplicity, efficiency, and equity of the new tax system. Providing no relief would be simpler, transition rules could prove complex, and the transition period could stretch out for years. However, there are wheels within wheels here. Not providing relief would also be problematic because it would create strong incentives for individuals to adjust their behavior before the tax takes effect.

Not providing transition relief would certainly be more efficient. A consumption tax that exempts old assets is just a tax on future wages. While a pure consumption tax (one that taxes all old capital) is usually found to be more efficient than a pure income tax, a wage tax (which exempts all old capital) is usually found to be less efficient than a pure income tax. Not taxing existing assets requires higher tax rates on the rest of the tax base to raise the same revenue, increasing the disincentives to work that plague any tax on wages.

Surely the strongest argument for transition relief is fairness. The assets that people own today were priced, purchased, and used under the current tax system. Is it fair to their owners to change the rules midstream?

The answer may not be as obvious as it seems. First, a one-time implicit tax on existing capital would be very progressive. The distribution of such capital is more skewed toward wealthy households than the overall distribution of wealth. And the overall distribution of wealth is, in turn, more skewed toward the wealthy than the distribution of income. Second, since wealthy households would benefit most from the switch to a consumption-based tax, it seems reasonable to ask them to pay some of the costs.

Third, older households tend to have more assets than younger ones, so taxing existing capital places heavier burdens on older generations. But there's rough justice here: those older households, on average, have received transfers through Social Security and Medicare that far exceed what they have put in. And the vast majority of most elderly households' income and wealth is in earnings (which have not yet been taxed), housing (which receives extraordinarily preferential treatment under the current tax system), pension income (which already receives consumption-tax treatment), Social Security benefits (which everyone agrees would be indexed for inflation with tax reform), and Medicare benefits (which are not taxed). Few elderly households finance much of their living expenses from other assets, and those that do tend to be well off.

Ultimately, the political case for transition relief would determine whether it was part of the package. And history strongly suggests that it would be. Even in much smaller tax reforms, the losers—households and businesses made worse off by the reform—have been compensated. A big question, then, is whether imposing what might be called "sales tax lite" would be worth the economic dislocation.

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How Could We Improve the Federal Tax System?

Would a national retail sales tax simplify the tax code?

Q. Would a national retail sales tax simplify the tax code?

A. It would for individuals, but not as much for businesses and enforcement authorities.

Constructed as a flat-rate consumption tax with a universal demogrant (cash payment) for needy families, the proposed national retail sales tax contains many features that make taxation simpler. Most individuals would no longer need to keep tax records, learn the fundamentals of tax law, or even file returns. Only sole proprietorships, partnerships, and S or C corporations that make retail sales would have to file. And the complexity of filing a return would decline dramatically, even for these taxpayers.

But a national retail sales tax could create new areas of complexity, for example, in administering the proposed demogrant that returns part of the revenue to millions of households, and in enforcing the tax code to ensure that personal and business consumption are not mixed.

DEMOGRANTS

In many proposals, the demogrant that would accompany a national retail sales tax would likely be based on the existing federal poverty guidelines, which rise less than proportionally with the number of family members. For example, in 2016, single individuals fell beneath the federal poverty level if their annual incomes were less than $11,880. This number rose by $4,140 for each additional family member. Thus, the federal poverty level for a family of four in 2016 was $24,300, roughly twice the level for an individual. Basing the demogrant on the federal poverty level would thus create incentives to conceal family relationships to claim the demogrant for more than one individual in a family.

ADMINISTRATION

It is also unclear how the demogrants would be administered or even which agencies would be responsible for determining eligibility and monitoring claims. Thus, compliance and administrative costs could be significant.

TAX AVOIDANCE AND EVASION

Another area of complexity stems from the threat of tax avoidance and evasion. The most likely way that people would try to avoid the tax would be by disguising personal consumption as business activity, as business-to-business transactions would not be taxed.

For example, individuals might register as firms or purchase goods for personal use with a business certificate. Or employers might buy goods for their workers in lieu of wages. Ensuring that all business purchases are not taxed and that all consumer purchases are would require all businesses to record their transactions, even though only retailers would actually have to remit the tax. Some proposed tax plans

deviate from a pure retail sales tax by requiring that taxes be paid on many input purchases and that vendors file explicit claims to receive rebates on their business purchases. Such requirements would raise compliance costs further.

EVIDENCE

Some related evidence on the potential extent of these problems comes from the experience with state-level "use" taxes, under which taxpayers are obliged to pay taxes on goods purchased in other states. One analyst described the current enforcement of such taxes as "dismal at best."

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Q. What has been the state and local experience with retail sales taxes?

A. Most states and localities rely heavily on retail sales taxes. But their experiences suggest that administering a national tax would be daunting.

The first sales tax in the United States was a tax of last resort, established in Mississippi in the 1930s to raise revenue during the Depression. Sales taxes are now the rule rather than the exception in states and localities: 45 states, the District of Columbia, and several thousand localities impose them. Only Alaska, Delaware, Montana, New Hampshire, and Oregon abstain (although Alaska allows localities within the state to have them). Sales tax rates vary widely (from 3 percent to 8 percent), as do the goods and services that are exempt.

Nothing in the states' experience suggests that a broad-based, high-rate federal retail sales tax would survive attempts to create preferences or would be easy to administer. For example, states show little inclination to carefully differentiate between producers' and consumers' purchases. But without a uniform exemption of producer purchases in a national retail sales tax, cascading taxes and market distortions would present a significant problem.

Further, states make little effort to tax services, and they exempt broad categories of purchases for reasons relating to social and economic policy, tax administration, and plain old lobbying. The federal base would have to be much broader than the typical state base; otherwise, the rate needed to replace the revenue generated by today's income tax would be sky-high. The states offer only limited experience in taxing government entities. But proposals for a national retail sales tax envision taxing every dollar of government purchases and investment.

A uniform retail sales tax would cover consumption of all goods and services. State sales taxes, however, deviate from this norm in numerous ways. According to a 2010 Federation of Tax Administrators survey, 35 states exempted household water usage, 25 household electricity, 21 household natural gas, and 21 household telephone services. Another Federation of Tax Administrators survey in 2015 revealed that 33 states exempted food and almost all states exempted prescription medicines. Taxation of services under state sales taxes is spotty at best.

Product exemptions intended to make the tax more progressive would be deeply problematic. Demogrants (cash rebates for lower-income families) would be simpler to administer, would induce fewer distortions of household behavior, and—according to some studies—would be at least as progressive as specific product exemptions. Yet exemptions for "worthy" goods like prescription drugs and heating fuel are quite popular,

pleasing policymakers because they appear progressive even as they serve the interests of producers looking for exemptions.

The state experience suggests that items difficult to tax are sooner or later excluded and, again, that political pressures can easily affect the form and substance of a retail sales tax.

The taxation of services is even more problematic. Although many states tax some services, only Hawaii and New Mexico include almost all services in the tax base. Enforcement of sales taxes on services has proved exceptionally difficult. These taxes are hard to administer and easy to evade because their paper trail is difficult to audit. This challenge raises red flags for a national retail sales tax.

Last, but not least, remember that an efficient retail sales tax should exempt all business purchases, but most state-level sales taxes do not come close to this ideal. Various estimates indicate that, on average, between 20 and 40 percent of state sales tax revenue comes from business-to-business sales. Estimates for individual states are as high as 70 percent.

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Q. What is the experience of other countries with national retail sales taxes?

A. No country has attempted a truly ambitious retail sales tax. Those that have tried more modest versions have abandoned them in favor of value-added taxes.

Many countries have attempted to implement national retail sales taxes or variants, such as wholesale-level taxes or "ring" taxes (retail sales taxes with exemptions for businesses "in the ring"). But not for long. In 1967, 19 Organisation for Economic Co-operation and Development countries had some form of wholesale, retail, or "turnover" tax (a tax paid when a good is manufactured, rather than when it is sold). By 1995, all had converted to value-added taxes (VATs) that collect revenue at each stage of production. Developing countries have also largely abandoned retail sales taxes in favor of VATs.

Retail sales tax rates are generally lower than VAT rates, running 4–6 percent as opposed to 14–25 percent. These sales tax rates are also much lower than the rate advocated by proponents of the national retail sales tax. Only a few countries (Iceland, Norway, South Africa, Sweden, and Zimbabwe) have ever instituted retail sales taxes with rates in excess of 10 percent. And none of these countries currently maintains such a tax, presumably because high-rate sales taxes invite evasion.

Retail sales taxes got replaced with VATs for good reasons—namely, evasion and "cascading." Cascading occurs when taxed inputs are used to produce taxed outputs, so that the total tax on goods compounds beyond what was intended. This effect can be avoided by exempting all business purchases from taxation. But separating business purchases from consumer purchases is difficult. Moving to a VAT solves the problem because businesses receive credits for the taxes paid on their input purchases.

Evasion is higher under a retail sales tax than under a VAT for several reasons. First, the retail level is the weakest link in the enforcement chain. Second, if a retailer evades a sales tax, the full tax on the sale is lost. But with a VAT, successful evasion by retailers only costs the government the tax on the retailer's value added. Third, sales taxes do not produce a paper trail enforcers can easily follow.

How Could We Improve the Federal Tax System?

What is the experience of other countries with national retail sales taxes?

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Q. What did the President's Advisory Panel on Federal Tax Reform say about the national retail sales tax?

A. Put simply: a nonstarter.

The President's Advisory Panel on Federal Tax Reform's first objection to replacing the current tax system with a national retail sales tax hinges on the latter's effect on income distribution. The report (2005) noted that "lower and middle-income families would be especially hard hit by a stand-alone retail sales tax" (2005, 211).

The panel was also concerned that, although the proposed demogrant program (which would provide cash rebates to needy households) would make the retail tax system less regressive, it would be a bear to administer. And it would thus "inappropriately increase the size and scope of government" (208). Moreover, the panel concluded that, with the demogrant, the tax rate needed to sustain current federal revenues would exceed— perhaps far exceed—34 percent. Meanwhile, households would still be liable for state and local sales taxes, which currently average 6.5 percent.

Nor was the panel impressed with the tax's value as a tool to simplify the tax system. Taxpayers would still be required to complete state income tax returns unless states abolished their own income taxes. Moreover, a new government agency would be required to monitor both collection of the tax and allocation of demogrants.

The panel also expressed concern about likely evasion: "A federal retail sales tax assessed at a rate of at least 34 percent, added on to state retail sales taxes, would provide substantial inducement for evasion at the retail level" (218). And with third-party reporting—such as W-2 and 1099 forms—notably absent from the proposal, "evasion rates are estimated to be around 50 percent" (218).

There's more glum news here. The panel noted that states would lack the ability to collect the tax and that an agency analogous to the IRS would be needed to enforce compliance. It also pointed out that states currently rely on taxpayers' fears of audits of federal income tax returns to deter state sales tax evasion. If the federal government abandoned income tax enforcement along with the income tax, states would be left hanging. Last, the report cited concern that the burden of collecting the national retail sales tax would disproportionately fall on small businesses and small service providers, raising their costs.

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Q. What is a VAT?

A. The value-added tax (VAT) is the world's most common form of consumption tax, in place in more than 160 countries, including every economically advanced nation except the United States.

"Value added" is the difference between business sales and purchase of goods and services from other businesses. It represents the sum of wages, other labor compensation (such as health insurance), interest payments, and the profits businesses earn.

For example, suppose a farmer grows wheat and sells it to a baker for $40. The baker turns the wheat into bread and sells it to consumers for $100. The baker's value added is $60—the difference between sales and purchases. Let's further assume that the farmer has no input costs so that his value added is $40. The sum of value added at each stage of production is equal to the retail sale price of the good, in this case, $100.

The VAT is popular because it raises significant revenue, is relatively easy to administer, and, unlike an income tax, does not impinge on household saving and business investment choices. In 2015, VAT revenues averaged 5.8 percent of gross domestic product in the Organisation for Economic Co-operation and Development, the third-largest revenue source after income and payroll taxes.

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Q. How would a VAT be collected?

A. Most countries with a value-added tax employ the credit-invoice method. Under this method, businesses are taxed on their sales at each stage of production but obtain credits for the taxes they paid on inputs.

CREDIT-INVOICE METHOD

Most countries with a value-added tax (VAT) employ the credit-invoice method. All sales by businesses are taxable, but sellers pass invoices on to the VAT-registered business taxpayers who purchase the sellers' goods and services. These purchasers, in turn, claim a credit for taxes paid but then pay VAT on the full value of their sales. The result is that there are no net taxes on sales between registered VAT businesses, while the full value of the final sale to the consumer bears tax (table 1).

TABLE 1

Prices with Different Types of 10 Percent Sales Taxes

Taxes paid in parentheses

Production stage	No tax	Retail sales tax	Credit-invoice VAT	Subtraction method VAT
Farmer	$300	$300 ($0)	$330 ($30)	$330 ($30)
Miller	$700	$700 ($0)	$770 ($70–$30)	$770 ($40)
Baker	$1,000	$1,100 ($100)	$1,100 ($100-$70)	$1,100 ($30)
Total tax	**$0**	**$100**	**$100**	**$100**

Source: Toder and Rosenberg, 2010.

SUBTRACTION METHOD

Under a subtraction-method VAT, sometimes called a business transfer tax, businesses pay tax on the difference between the value of their sales and the value of their purchases from other businesses. As with the credit-invoice VAT, the sum of all the amounts subject to tax, without exemptions, is equal to the value of final sales. Japan uses a subtraction-method VAT, but it contains all the invoice requirements and rules of the credit-invoice method, so in practice it is not that different from the VATs used in other countries.

How Could We Improve the Federal Tax System?

How would a VAT be collected?

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Q. What would be taxed under a VAT?

A. Typically, a value-added tax covers all or most forms of consumption.

In principle, the tax base of a value-added tax (VAT) is all consumption. Most VAT systems, however, exclude certain items from taxation. Some items (e.g., food and prescription drugs) are excluded to reduce the impact of the tax on low-income households. Others are excluded because defining their "value added" is difficult (e.g., financial services).

BROAD VERSUS NARROW BASES

Eric Toder and Joseph Rosenberg (2010, 12) provide examples of broad- and narrow- based VATs. The broad-based VAT they examine includes "all domestic consumption, except for education, government-financed health care (Medicare and Medicaid), services of charitable organizations, and services performed by subnational governments," capturing about 80 percent of consumption. Their narrow-based VAT excludes (in addition to the exemptions in the broad-based VAT) "housing consumption, food consumed at home, and private medical expenses (out-of-pocket expenses and insurance premiums)," capturing about 50 percent of consumption.

REVENUE RATIOS

A revenue ratio is a formal measure of how broad a tax base is. For a VAT, the revenue ratio is calculated by dividing VAT revenue by the product of the standard VAT rate and all consumption. If the standard tax rate applied to all consumption and to nothing else, and if there were no evasion, the ratio would be one. Goods that are exempt, preferentially taxed, or zero rated (the inputs are eligible for credits though the goods are not taxed upon sale) reduce the revenue ratio, as does tax evasion.

The unweighted average VAT revenue ratio was 0.55 across all OECD countries in 2014, suggesting significant erosion in VAT revenues. The ratio ranged from 0.31 (Mexico) to 1.13 (Luxembourg). The combination of Luxembourg's status as a center of financial services and e-commerce and the current tax treatment of those services may explain why its VAT revenue ratio is greater than 1.00.

The older VATs, mainly in European Union countries, have narrow tax bases, with many goods or services receiving preferential treatment. Newer VATs, such as in New Zealand and Japan, tend to apply a lower standard rate to a broader base of goods and services.

How Could We Improve the Federal Tax System?

What would be taxed under a VAT?

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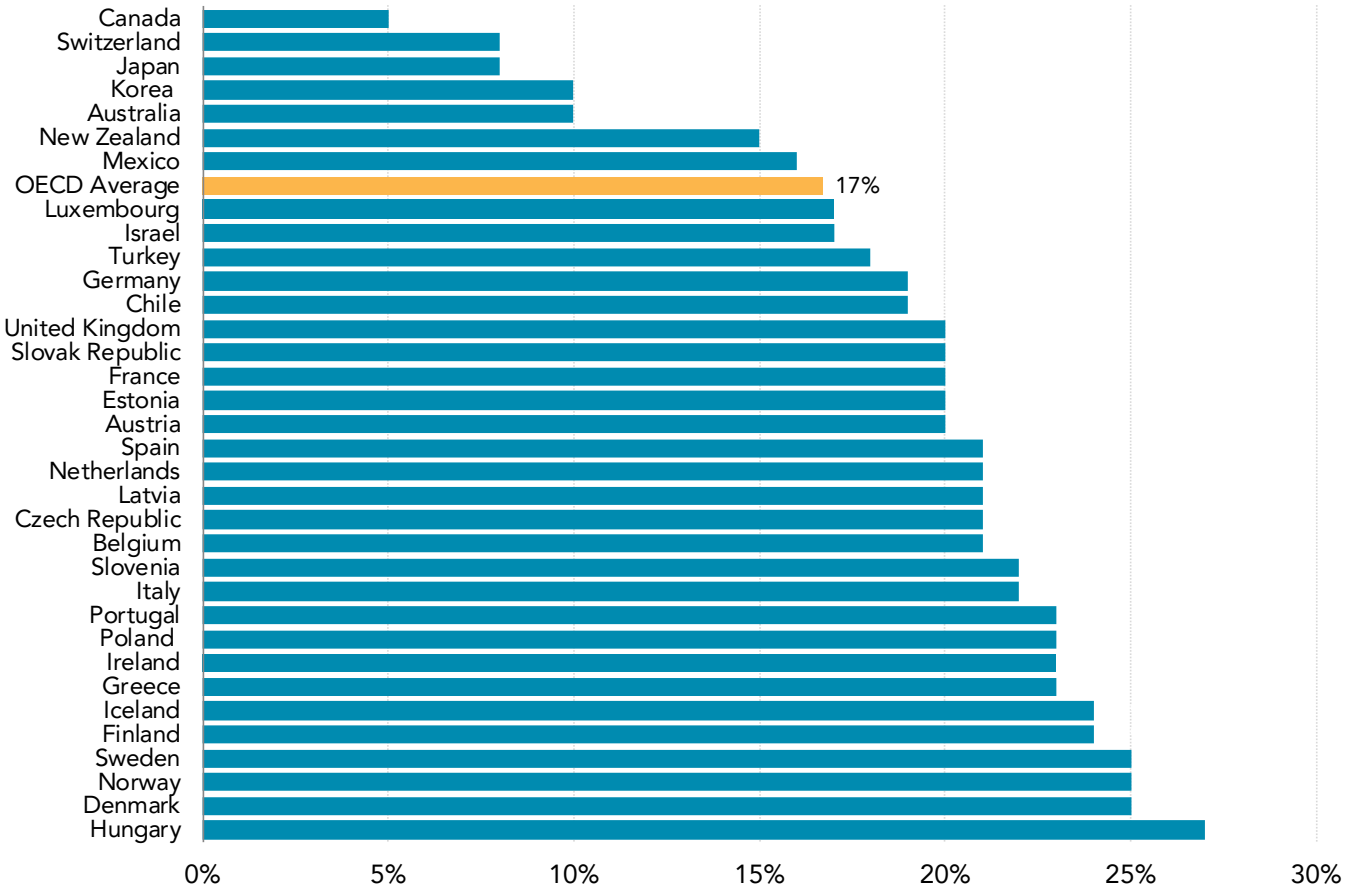
Q. What would the tax rate be under a VAT?

A. The rate of a value-added tax depends on how much revenue it is intended to raise and how broad the VAT base is. The lower the revenue target and the broader the base, the lower the tax rate will be.

FIGURE 1

Value-Added Tax Rates

Among select OECD countries, 2015



Source: OECD, 2016.

How Could We Improve the Federal Tax System?

What would the tax rate be under a VAT?

Value-added taxes (VATs) typically have a standard rate that applies to most goods and services. In 2018, the standard rate in the Organisation for Economic Co-operation and Development averaged 19.2 percent (unweighted) but varied widely—27 percent, its highest, in Hungary, 20 percent in the United Kingdom, 15 percent in New Zealand, 10 percent in Australia, 8 percent in Japan, and 5 percent, its lowest, in Canada (figure 1).

VATs typically provide preferential treatment for certain goods. Some goods are zero rated (the inputs are eligible for credits though the goods are not taxed upon sale), and some are exempt. Some are taxed at preferential rates. The VATs in European Union countries have narrow tax bases, with many goods or services receiving preferential treatment. Newer VATs, such as in New Zealand and Japan, tend to apply a lower standard rate to a broader base of goods and services. The broader the base, the lower the tax rate will be for a given revenue target.

Toder and Rosenberg (2010) estimated that the United States could have raised gross revenue of $356 billion in 2012 through a 5 percent VAT applied to a broad base that included all consumption except spending on education, Medicaid and Medicare, charitable organizations, and state and local government—capturing about 80 percent of consumption. That revenue would equal about 2.3 percent of GDP. If the same 5 percent rate applied to a narrow base that also excluded housing consumption, food consumed at home, and private medical expenses (out-of-pocket expenses and insurance premiums) —capturing about 50 percent of consumption—revenues would have been $221 billion, equal to about 1.4 percent of GDP.

Data Source

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Q. What is the difference between zero-rating and exempting a good in the VAT?

A. For a "zero-rated good," the government doesn't tax its sale but allows credits for the value-added tax paid on inputs. If a good or business is "exempt," the government doesn't tax the sale of the good, but producers cannot claim a credit for the VAT they pay on inputs to produce it.

ZERO RATING

Almost all countries apply preferential rates to some goods and services, making them either "zero rated" or "exempt." For a "zero-rated good," the government doesn't tax its retail sale but allows credits for the value-added tax (VAT) paid on inputs. This reduces the price of a good. Governments commonly lower the tax burden on low-income households by zero rating essential goods, such as food and utilities or prescription drugs.

EXEMPTING

If, by contrast, a good or business is "exempt," the government doesn't tax the sale of the good, but producers cannot claim a credit for the VAT they pay on inputs to produce it. Because exempting breaks the VAT's chain of credits on input purchases, it can sometimes raise prices and revenues. Hence, governments generally only use exemptions when value added is hard to define, such as with financial and insurance services.

IN PRACTICE

Of the 34 Organisation for Economic Co-operation and Development countries with a VAT in 2016, 18 "zero rated" certain goods and all but Chile and Japan had at least one reduced VAT rate.

How Could We Improve the Federal Tax System?

What is the difference between zero-rating and exempting a good in the VAT?

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Q. Who would bear the burden of a VAT?

A. A value-added tax (VAT) is a tax on consumption. Poorer households spend a larger proportion of their income. A VAT is therefore regressive if it is measured relative to current income and if it is introduced without other policy adjustments. A VAT is less regressive if measured relative to lifetime income.

Although a value-added tax (VAT) taxes goods and services at every stage of production and sale, the net economic burden is like that of a retail sales tax. Sales taxes create a wedge between the price paid by the final consumer and what the seller receives. Conceptually, the tax can either raise the total price (inclusive of the sales tax) paid by consumers or reduce the amount of business revenue available to compensate workers and investors. Theory and evidence suggest that the VAT is passed along to consumers via higher prices. Either way, the decline in real household income is the same regardless of whether prices rise (holding nominal incomes constant) or whether nominal incomes fall (holding the price level constant).

REGRESSIVITY

Because lower-income households spend a greater share of their income on consumption than higher-income households do, the burden of a VAT is regressive when measured as a share of current income: the tax burden as a share of income is highest for low-income households and falls sharply as household income rises. Because income saved today is generally spent in the future, the burden of a VAT is more proportional to income when measured as a share of income over a lifetime. Even by a lifetime income measure, however, the burden of the VAT as a share of income is lower for high-income households than for other households. A VAT (like any consumption tax) does not tax the returns (such as dividends and capital gains) from new capital investment, and income from capital makes up a larger portion of the total income of high-income households.

AVERAGE TAX BURDEN

Using a method more reflective of lifetime burdens, Eric Toder, Jim Nunns, and Joseph Rosenberg (2012) estimate that a 5 percent, broad-based VAT would be regressive at the bottom of the income distribution, roughly proportional in the middle, and then generally regressive at the top. The VAT would impose an average tax burden of 3.9 percent of after-tax income on households in the bottom quintile of the income distribution. (Each quintile contains 20 percent of the population ranked by income.) Yet, households in the top 1 percent of the income distribution would only have an average tax burden of 2.5 percent (table 1).

TABLE 1

Distribution of a Fully Phased-In VAT at 2015 Income Levels

(percentage change in after-tax income)

Cash Income Percentile	VAT Options		
	Broad base	Narrow base	Broad base with rebate
Lowest quintile	-3.9	-3.8	-0.6
Second quintile	-3.6	-3.5	-1.8
Middle quintile	-3.6	-3.6	-2.9
Fourth quintile	-3.6	-3.6	-3.5
Top quintile	-2.9	-2.9	-3.7
All	-3.3	-3.3	-3.2
Addendum			
80–90	-3.4	-3.4	-3.8
90–95	-3.2	-3.2	-3.8
95–99	-2.8	-2.8	-3.6
Top 1 percent	-2.5	-2.5	-3.6
Top 0.1 percent	-2.5	-2.6	-3.7

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0509-7).

DEMOGRANTS

Exempting, zero rating, or excluding certain essential consumption goods from the tax base (e.g., foodstuffs, medicine, health care) can reduce the regressivity of a VAT. Giving preferential treatment to particular goods, however, is an inefficient way to make the tax less regressive because high-income households consume more of the goods in question (though less as a share of income) than low-income households do. A better approach is to provide a limited cash payment—that is, a demogrant or a refundable tax credit. That way, everyone receives the same benefit, in dollars, which translates into a larger share of low-income households' income.

In the same study, Toder, Nunns, and Rosenberg simulate the effects of a 7.7 percent broad-based VAT with a refundable tax credit (the higher tax rate keeps the net revenues the same as the 5 percent, broad-based VAT with no tax credit). They find that the VAT in combination with the tax credit would impose an average tax burden of 0.6 percent on households in the bottom quintile of the income distribution. Households in the top 1 percent of the income distribution would face an average tax burden of 3.6 percent. Their results also show that the distribution of a narrow-based VAT that excludes spending on food, housing, and health care is much the same as the distribution of a broad-based tax (table 1).

How Could We Improve the Federal Tax System?

Who would bear the burden of a VAT?

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Q. Is the VAT a money machine?

A. A common criticism of the value-added tax is that it is simply a "money machine" that will enlarge a federal government by supplying a steady source of revenue. The empirical evidence has largely shown that this has not been the case.

Critics provide various reasons a value-added tax (VAT) would enlarge government. First, they say that any increase in government revenues will lead to more spending. If we want to control government spending, they say, we should cut revenues and "starve the beast." Second, critics fear that because a VAT is a "hidden tax," buried in the price of a good, policymakers can raise the tax with minimal economic disruption and without people noticing.

VATs' accumulated track record, however, largely belies these concerns. For starters, VAT revenues and rates have not risen inexorably over time. In advanced countries, VATs were phased in during the 1960s and 1970s. But after that, as International Monetary Fund economist Michael Keen has shown, VAT revenues remained remarkably constant, hovering around 7 percent of gross domestic product (GDP) in the 1990s and 2000s (Keen 2013; Keen and Lockwood 2006). VAT revenue among high-income countries in 2015 was almost exactly the same share of GDP as in 1984.

Further, although revenues have risen significantly in European countries that have VATs, VATs don't seem to be the reason. A study of 16 Western European countries from 1965 to 2015 found that VAT revenue rose by 5.6 percent of GDP, but excise and other sales taxes' falling by 5.2 percent offset almost all of that change. Indeed policymakers in those countries often enacted a VAT with the explicit goal of replacing less efficient sales and other taxes. Total revenue in those countries rose substantially—by about 10 percent of GDP—so the 0.4 increase in revenue from VAT was a tiny fraction of the total tax increase. In addition, some evidence suggests that instead of a VAT fueling higher spending, the public's demand for higher spending fuels demand for a VAT (Lee, Kim, and Borcherding 2013).

Is the VAT a money machine?

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Q. How would small businesses be treated under a VAT?

A. Most countries exempt small businesses from value-added tax, although many small businesses choose to voluntarily register for the VAT.

Most countries exempt small businesses from a value-added tax (VAT)—partly because small businesses are a powerful political constituency and partly because the administrative and compliance costs of taxing small businesses are high relative to the revenue raised.

The exemption is a mixed blessing, however. Many businesses prefer to buy their inputs from businesses in the VAT system so they can claim credits on the tax they pay. As a result, countries allow small businesses to register for the VAT even if they are not required to do so. For example, in Australia during the 2010–11 tax year, 37 percent of businesses had sales below the VAT threshold, yet 92 percent of all businesses registered for the VAT.

A higher exemption based on business sales saves on compliance costs but reduces revenue, with the revenue loss depending on the tax rate. A recent study by Treasury Department economists finds that if the United States had a 10 percent VAT, the optimal exemption based on sales would be about $200,000 and would cover about 43 million businesses (Brashares et al. 2014). That exemption would be higher than in most other countries, but the 10 percent rate would be lower than in most other countries. At a 20 percent rate, close to the average for Organisation for Economic Co-operation and Development countries, the optimal exemption would be $90,000, which is within the range of exemptions in other countries.

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Q. What is the Canadian experience with a VAT?

A. Concerns about regressivity, transparency, coordination with state sales taxes, and money machines can be assuaged by observing the Canadian value-added tax experience.

In 1991, Canada implemented a 7 percent national value-added tax (VAT) to replace a tax on sales by manufacturers. The VAT was introduced by the Conservative party, which had concerns about industry competitiveness and the country's fiscal situation.

Canada addressed distributional concerns by applying a zero rate to certain necessities—including groceries, drugs, and rent—and adding a refundable credit to the income tax. Transfer payments had been indexed for inflation and were highly progressive, further insulating against regressivity.

The Canadian VAT is completely transparent: it is listed separately on receipts and invoices just like sales taxes in the United States.

The Canadian experience also shows that a federal VAT can successfully coexist with either a VAT or a retail sales tax levied by subnational governments.

And the VAT in Canada has not been anything like a "money machine." The standard VAT rate declined over time to 6 percent in 2006 and 5 percent in 2008. In both revenues and expenditures, the size of the Canadian federal government as a share of the economy has shrunk significantly since introduction of the VAT. General government tax revenue and spending in Canada has actually fallen as a share of the economy since 1991.

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How Could We Improve the Federal Tax System?

Why is the VAT administratively superior to a retail sales tax?

Q. Why is the VAT administratively superior to a retail sales tax?

A. Retail sales taxes suffer from several enforcement problems. Most notably, the government has no record of transactions with which to verify retailers' tax payments. In a value-added tax, the chain of crediting creates a natural audit trail, and the seller has more incentive to report the transaction and pay tax.

If the value-added tax (VAT) replicates the effect of a well-functioning sales tax, why not just enact a retail sales tax?

Retail sales taxes suffer from several enforcement problems. Most notably, there's no cross-reporting; the government has no record of the transaction and the retailer responsible for sending the check to the government for the tax it collects knows this. As a result, compliance rates can be low. Most countries have found that, as a practical matter, retail sales tax rates of 10 percent or higher aren't enforceable—buyers have greater incentive to avoid the tax and retailers have greater incentive to keep the revenues. Not coincidentally, all state sales tax rates are below 10 percent.

For any tax, cross-reporting is essential to compliance. In the income tax, evasion rates on wage income are low: firms withhold income and payroll taxes on workers' behalf and send the money to the government. (The exception is tips, which proves the point.) In the VAT, the chain of crediting creates a natural audit trail. In a transaction between two businesses, the seller knows the buyer is reporting the transaction to claim a credit, so the seller has more incentive to report the transaction and pay tax. There's no similar incentive under a retail sales tax.

Also with a sales tax, the retailer can't always tell whether the buyer is a consumer who should pay the tax or a business which should not—and has little incentive to find out. If the retailer doesn't impose a sales tax on consumer purchases, that's tax evasion. If the retailer does impose a tax on business purchases, the tax "cascades," building up over successive stages of production, which raises and distorts prices. By providing a credit for taxes paid, the VAT prevents cascading.

Last, when retailers evade sales taxes, revenues are lost entirely. With a VAT, revenue would only be lost at the "value-added" retail stage. All these differences help explain why numerous countries replaced their sales and turnover taxes with VATs.

How Could We Improve the Federal Tax System?

Why is the VAT administratively superior to a retail sales tax?

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Q. What is the history of the VAT?

A. The value-added tax is a relatively new tax. It was designed by two people, independently, in the early 20th century. Many European countries enacted a VAT in the 1960s and 1970s. Other countries followed in the 1980s and thereafter.

The value-added tax (VAT) is a relatively new tax. It was designed by two people, independently, in the early 20th century. To Wilhelm Von Siemens, a German businessman, the VAT was a way to resolve the cascading problems that arose in implementing gross turnover taxes and sales taxes. To Thomas S. Adams, an American, the VAT was a better version of the corporate income tax.

In practice, governments have implemented the VAT largely as an improved sales tax. European countries, for example, have largely used the VAT to reduce or eliminate other sales taxes. The countries continue to maintain separate corporate income taxes.

Many European countries enacted a VAT in the 1960s and 1970s. Other countries followed in the 1980s and thereafter. Sijbren Cnossen, a leading VAT expert from Maastricht University in the Netherlands, called its spread "the most important event in the evolution of tax structure in the last half of the 20th century" (1998, 399).

US policymakers have found it tempting to consider the VAT, but no one seems to be able to muster the courage to call it by its real name. The "destination-based cash flow" tax that House Speaker Paul Ryan and Ways and Means Committee Chair Kevin Brady proposed in the 2016 Republican "blueprint" is just a VAT with a wage deduction. VATs are embedded in Ryan's "business consumption tax," libertarian Kentucky Senator Rand Paul's "Fair and Flat Tax," 2012 Republican presidential candidate Herman Cain's "9-9-9" proposal, and Republican Senator Ted Cruz's "Business Flat Tax." VATs have also been proposed (and renamed) in Senate Finance Committee Democrat Ben Cardin's "progressive consumption tax" and the Bipartisan Policy Center's 2010 Domenici-Rivlin commission report, which called it a "deficit reduction sales tax."

Although these leading policymakers proposed to use the resulting revenues differently, they all viewed the VAT favorably for three reasons: it raises lots of money, it creates few negative economic incentives, and it's administratively feasible.

What is the history of a VAT?

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Q. How are different consumption taxes related?

A. A retail sales tax, value-added tax, the flat tax, and the X-tax are closely related. These taxes are contrasted with wage taxes.

A retail sales tax is a flat-rate tax on all sales from businesses to households.

A value-added tax (VAT) is equivalent to a retail sales tax but it collects the tax in small pieces at each stage of production rather than entirely at the final sale.

The Hall-Rabushka flat tax is simply a two-part VAT, with all value added except wages taxed at the firm level and wages taxed at the individual level, after allowing for exemptions based on family size. Businesses and individuals face the same flat rate on all income.

The X-tax is simply a variant of the flat tax in which wages are taxed at graduated rates, and the business tax is set equal to the highest rate on wages.

A wage tax is quite different. It would tax wages directly, as would the flat tax or X-tax, but it would not contain the business component of such taxes.

How Could We Improve the Federal Tax System?

How are different consumption taxes related?

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Q. What is the flat tax?

A. While any tax system with flat rates could be called a flat tax, the name is usually reserved for a system developed by Robert Hall and Alvin Rabushka in 1985. Their flat tax is really a two-part VAT: All value added except wages is taxed at the business level and wages are taxed at the individual level at the same flat rate but with an exemption related to family size.

The Hall-Rabushka flat tax would replace the current income tax system with a consumption tax. Their system is a two-part value-added tax (VAT). All value added would be taxed at the business level except wages, which would be deductible. Wages would be taxed at the individual level, with an exemption based on family size. All taxable wages and all business non-wage value added would face the same flat rate. In Hall and Rabushka's original proposal (1985), that rate would be 19 percent.

In short, the flat tax is a consumption tax, even though it looks like a wage tax to households and a variant of a VAT to most businesses. Therefore, except for the exemptions, the economic effects of the flat tax are essentially the same as those of a VAT or a sales tax.

The flat tax can be split into two parts: the business tax and the individual tax. Firms would be responsible for paying taxes (at a flat rate) on sales after they have deducted wages, pensions, material costs, and capital investments. Individuals would be responsible for paying taxes (again, at a flat rate) on the wages that firms have deducted, but only on wages in excess of an exemption level.

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Q. What is the X-tax?

A. The X-tax is a variant of the flat tax developed by economist David Bradford. It is mechanically identical to the flat tax, except that it incorporates graduated tax rates on household wage income to improve progressivity.

The X-tax is a variant of the flat tax developed by Princeton economist David Bradford (1986). Like the flat tax, it is consumption based and incorporates two elements: a business tax and a personal tax.

On the business side, firms would be responsible for paying taxes on their sales, less material costs and wages; the business tax rate would be equal to the highest individual tax rate. On the individual side, individuals or households would be taxed on wages, less a deduction based on family size. The individual tax would have graduated rates up to a maximum equal to the business rate.

The major difference between the flat tax and the X-tax is the inclusion of a graduated individual rate structure on wages. This makes the X-tax more progressive than the flat tax.

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Q. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System,* Report of the President's Advisory Panel on Federal Tax Reform, November 2005.

A. The President's Advisory Panel on Federal Tax Reform recommended two simpler and fairer alternatives to the US income tax system, but both come with some big catches.

The President's Advisory Panel on Federal Tax Reform was created by President Bush in 2005 to recommend options to make the tax code simpler, fairer, and more conducive to economic growth. The panel developed two proposals, outlined below. Both contain features of income and consumption taxes, simplify taxes and streamline filing, eliminate the alternative minimum tax, eliminate most tax expenditures, and decrease the effective tax rate on capital income. As directed by President Bush, the panel designed the plans to be revenue neutral, though with the assumption that tax cuts proposed in President Bush's budget would be enacted.

The panel's report, *Simple, Fair, and Pro-Growth*, outlines the Simplified Income Tax Plan and the Growth and Investment Tax Plan (as well as how a value-added tax might be added to the former). The final chapter examines the possibility of replacing the income tax with a retail sales tax and finds that doing so would be deeply problematic.

SIMPLIFIED INCOME TAX PLAN

The Simplified Income Tax Plan would streamline the tax code by eliminating several exemptions. It would lower individual income tax rates to a range of 15–33 percent and set the top corporate rate at 31.5 percent. And it would encourage greater use of Roth-style savings accounts, such that a family of four could contribute up to $60,000 per year in plans for retirement, health, education, and housing.

Major Changes to Tax Expenditures

- Replace the standard deduction, personal exemption, and head-of-household family credit with a single family credit.
- Replace the earned income tax credit (aimed at the working poor) with a less generous version.
- Convert the mortgage interest deduction to a 15 percent credit and reduce the cap on eligible interest payments to increase the number of people qualifying for the credit by 60 percent.
- Allow any taxpayer to deduct charitable contributions in excess of 1 percent of income.
- Eliminate the state and local tax deduction.
- Allow taxpayers to deduct non-group health insurance up to the amount of the average premium. Employer-paid premiums in excess of caps would be taxable.

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Savings and Retirement

- Replace all current tax-preferred savings options with three savings vehicles and a refundable saver's credit that phases out with increases in income. Each account would have a Roth-like structure (no initial deductions) and would not have income eligibility limits.
- Implement Save at Work plans that would consolidate all employer-provided defined-contribution plans and 401(k) plans, encourage automatic contribution as a default, and maintain the current 401(k) contribution limits.
- Implement Save for Retirement plans that would replace all savings plans not provided by employers, such as individual retirement accounts. Save for Retirement plans would have a $10,000 annual contribution limit.
- Implement Save for Family plans that would replace education and health savings plans and could be used for education, medical care, home purchases, and retirement. Up to $1,000 could be withdrawn each year for any purpose and up to $10,000 could be contributed annually.

Corporate Taxation

- Divide businesses into small, medium, and large, with separate rules for each.
- Eliminate most deductions and credits.
- Move to a territorial system that taxes only domestic income.
- Eliminate the income tax on dividends received from US companies.
- Exclude 75 percent of corporate capital gains received from US companies from personal taxation.
- Tax interest received at regular individual income tax rates.

GROWTH AND INVESTMENT PLAN

The Growth and Investment Tax Plan alternative would move the system closer to a consumption tax. It would be composed of a hybrid X-tax (a tax that mixes a European-style value-added tax with an income tax on wages) plus an individual-level 15 percent surcharge on capital income. Most proposals in the Simplified Income Tax Plan regarding major credits and deductions, as well as individual savings and retirement, would also apply to the Growth and Investment Tax Plan.

Main Provisions

- The X-tax would be a flat 30 percent levy similar to a value-added tax, with deductions for wages and other compensation. Investments would be expensed, interest and other financial inflows would not be taxed, and interest payment deductions would be eliminated.
- Individuals' interest, dividends, and capital gains would be taxed at 15 percent.
- All front-loaded 401(k) plans would be converted to back-loaded Roth plans.
- Individual income tax rates would be consolidated into three brackets with rates of 15, 25, and 30 percent.

How Could We Improve the Federal Tax System?

Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System, November 2005

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Q. *The Moment of Truth*, Report of the National Commission on Fiscal Responsibility and Reform, December 2010.

A. The 2010 report of the National Commission on Fiscal Responsibility and Reform recommends policy reforms, collectively known as the Bowles-Simpson plan, intended to stabilize America's fiscal path.

President Obama tasked the National Commission on Fiscal Responsibility and Reform with recommending ways to bring the federal budget back into balance and to improve its long-run viability. The commission created a six-part plan outlining comprehensive tax reform, Social Security reform, cuts in discretionary spending, health care cost containment, mandatory personal savings, and changes to the budget process.

As a whole, the Bowles-Simpson plan would reduce the deficit to 2.3 percent of gross domestic product (GDP) by 2015, cap total tax revenue at 21 percent of GDP, and reduce spending to less than 22 percent of GDP. It would also stabilize the debt by 2014 and reduce the debt to 40 percent of GDP by 2035 (from about 60 percent when the report was written). The plan would cut the fiscal gap with an almost equal mix of revenue increases and spending cuts.

COMPREHENSIVE TAX REFORM

The commission's plan for tax reform set multiple goals: lower tax rates, broaden the base, cut tax expenditures, reduce the deficit, and maintain or increase tax progressivity.

Key Provisions

- Create three individual income tax brackets of 12, 22, and 28 percent, as well as a single 28 percent corporate rate.
- Eliminate the alternative minimum tax.
- Tax capital gains as normal income.
- Eliminate all tax expenditures except as follows:
  - Keep the child tax credit and earned income tax credit.
  - Replace the mortgage interest deduction with a 12 percent nonrefundable credit for all taxpayers for mortgages on principal residences only. Cap mortgage eligibility at $500,000.
  - Cap the exclusion for employer-sponsored health care at the 75th percentile of average premiums in 2014. Reduce the excise tax on high-cost health care plans (the Cadillac tax) to 12 percent.
  - Replace the charitable contribution deduction with a 12 percent nonrefundable credit for contributions over 2 percent of adjusted gross income.
  - Tax interest on newly issued state and municipal bonds.
  - Consolidate retirement accounts and cap tax-preferred contributions at the lower of $20,000 or 20

How Could We Improve the Federal Tax System?

The Moment of Truth, Report of the National Commission on Fiscal Responsibility and Reform, December 2010

percent of adjusted gross income, while expanding the saver's credit.

- Eliminate all tax expenditures benefiting corporations.
- Implement a territorial tax system for active foreign-source income.
- Increase the excise tax on gasoline by 15 cents between 2013 and 2022.

SOCIAL SECURITY REFORM

To reduce Social Security's projected funding shortfall, the commission would increase the taxable wage base by 2050 to include 90 percent of earnings, increase the full- and early-retirement ages to 69 and 64, respectively, by 2075, cover newly hired state and local workers after 2020, and create a hardship exemption allowing those who cannot work past age 62 to receive benefits early. In addition, a chained consumer price index (which is generally lower than the unchained consumer price index) would be used to index benefits. To aid the lowest earners, the proposal included provisions to make the benefit formula more progressive and to create a minimum benefit for low-wage workers and the long-term disabled.

CUTS IN DISCRETIONARY SPENDING

The commission recommended that discretionary spending be capped through 2020 to force a reckoning of priorities, and that security and non-security spending be reduced by equal percentages.

HEALTH CARE COST CONTAINMENT

The commission recommended changes to the Medicare Sustainable Growth Rate, a system designed to control Medicare payments to physicians. Other savings would come from changes in cost sharing, malpractice law, and prescription drug costs. Overall, the commission recommended that health care spending growth be held to GDP plus 1 percent.

MANDATORY PERSONAL SAVINGS

The commission recommended several reforms, including reforming civilian and military retirement programs, reducing agricultural program spending, eliminating in-school subsidies in federal student loan programs, and giving the Pension Benefit Guaranty Corporation the authority to increase premiums.

CHANGES TO THE BUDGET PROCESS

Finally, the commission proposed changes to the budgeting process, including switching to a chained consumer price index where cost-of-living indexes are used to set spending, establishing a debt-stabilization process to enforce deficit reduction targets, allowing budgetary cap adjustments for program integrity efforts, and reviewing budget-scoring practices.

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Q. Debt Reduction Task Force proposal, "Restoring America's Future," Bipartisan Policy Center, November 2010.

A. The task force proposed changes to the tax system, federal spending, health care spending, and Social Security to improve America's fiscal condition.

The Debt Reduction Task Force, chaired by Senator Pete Domenici and Alice Rivlin, created a plan to recover from the 2008 recession in the near term and reduce the national debt in the long term. The task force provided recommendations to reduce and stabilize the debt, streamline the tax code, restrain health care costs, strengthen Social Security, and freeze defense and domestic discretionary spending. The plan would reduce the debt to 60 percent of gross domestic product (GDP) by 2020 and balance the primary budget (excluding interest payments) by 2020. Federal spending would shrink to 23 percent of GDP by 2020, with revenues at 21.4 percent of GDP.

REVIVE THE ECONOMY AND CREATE JOBS

The task force recommended a one-year payroll tax holiday to create between 2.7 and 7 million new jobs over two years.

TAX REFORM

The task force's plan would cut tax rates and broaden the base by eliminating tax expenditures and establishing a new debt reduction sales tax.

Major Reform Proposals

- Consolidate individual income tax rates into two brackets: 15 and 27 percent.
- Set the corporate income tax rate at 27 percent.
- Tax capital gains and dividends as ordinary income, while allowing a $1,000 exclusion for capital gains.
- Eliminate the standard deduction and personal exemptions, along with most tax expenditures.
- Replace the earned income tax credit and other family and child provisions with a $1,600 per child universal credit and a credit of 21.3 percent on the first $20,300 of earnings for each worker.
- Replace the mortgage interest deduction and deduction for charitable contributions with 15 percent credits available to everyone regardless of income (the 15 percent mortgage interest credit would only be available for expenses on a principal residence, and only up to $25,000).
- Eliminate deduction for state and local taxes.
- Allow individuals and employers to contribute up to 20 percent of annual earnings to qualified retirement plans, up to $20,000 per year.
- Introduce an expanded refundable savings credit for taxpayers in the 15 percent tax bracket.
- Repeal the alternative minimum tax.

How Could We Improve the Federal Tax System?

Debt Reduction Task Force, "Restoring America's Future," November 2010

- Increase the excise tax on alcohol from about 21 cents per ounce to 25 cents.
- Phase in a 6.5 percent debt reduction sales tax over two years. The tax would be structured similarly to a broad-based value-added tax

DOMESTIC DISCRETIONARY AND DEFENSE SPENDING

The task force recommended that domestic discretionary spending be frozen for four years and defense spending be frozen for five years. After this time, spending growth would be allowed to increase at the rate of GDP growth. All spending limits would be enforced through statutory caps. If the caps were exceeded, spending would automatically be cut across the board. Cuts to domestic discretionary spending would save $1 trillion, and cuts to defense spending would save $1.1 trillion through 2020.

HEALTH CARE

The task force proposed short-term and long-term changes to all aspects of the health care system. As a whole, the reforms would save $756 billion through 2020.

Changes to Medicare

- Raise Part B premiums from 25 to 35 percent of program costs over five years.
- Use the government's bargaining power to increase rebates from pharmaceutical companies.
- Modernize benefits package and copayment structure.
- Bundle payments for post-acute care.
- Transition to a premium-support option to limit growth per beneficiary and increase competition among private plans.
- Eliminate barriers to enroll dual-eligible patients (Medicare beneficiaries who are also eligible for Medicaid) in managed care.

Other Major Changes

- Reduce excess cost growth in Medicaid by 1 percentage point per year.
- Require states to cap awards for non-economic and punitive damages for medical malpractice and test other reforms to the malpractice system.
- Impose an excise tax on beverages sweetened with sugar and high-fructose corn syrup.
- Reform the sustainable growth rate mechanism for physician payments.
- Cap the exclusion for employer-provided benefits in 2018 and phase it out over 10 years. This would replace the "Cadillac tax" that is part of the Affordable Care Act.

SOCIAL SECURITY

The task force proposed several changes to Social Security to ensure its long-run sustainability. Major reforms include increasing the portion of wages subject to the payroll tax to 90 percent, changing the cost-of-living calculation, indexing the benefit formula for increases in life expectancy, reducing benefit growth for the top 25 percent of beneficiaries, and covering newly hired state and local government workers. To aid the most at-risk populations, the task force proposed increasing the minimum benefit for long-term low-wage earners and the most vulnerable elderly.

OTHER SAVINGS

Cuts and reforms to smaller federal programs were projected to save $89 billion by 2020. The task force recommended reducing farm program spending by eliminating payments to producers with an adjusted

gross income over $250,000, consolidating and capping conservation programs, and reforming crop insurance. In addition, they proposed changing the benefit calculation for civilian government retirees and changing the age at which career military personnel can retire.

BUDGET PROCESS

To enforce the proposed reforms, the task force recommended that changes to the budget system be imposed to increase accountability. Examples of reforms included statutory spending caps, a pay-as-you-go requirement to prevent the fiscal situation from getting worse, and a fiscal accountability commission that would meet every five years to evaluate program growth and other budget issues.

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Q. "The Tax Reform Act of 2014: Fixing Our Broken Tax Code So That It Works for American Families and Job Creators," proposed by the House Ways and Means Committee.

A. The Tax Reform Act of 2014, an ambitious plan for broadening the tax base and simplifying both the corporate and personal income taxes, was designed to be revenue neutral over the 10-year budget horizon.

The Tax Reform Act of 2014 was proposed by former chair of the House Ways and Means Committee Dave Camp as a point of reference for tax reform. The Camp plan would reduce tax rates and eliminate or limit most tax expenditures. It would be revenue neutral and income distribution neutral over the 10-year budget horizon but would lose revenue and become more regressive after then.

INDIVIDUAL INCOME TAX

- Consolidate individual tax rates into three brackets: 10, 25, and 35 percent. The 35 percent bracket would be composed of the 25 percent rate plus a 10 percent surtax that would only apply to modified adjusted gross incomes over $450,000 ($400,000 for single taxpayers).
- Increase the standard deduction for all taxpayers and add an additional deduction for single taxpayers with at least one dependent child.
- Eliminate the personal exemption, state and local tax deduction, deduction for medical expenses, and other smaller tax expenditures.
- Reduce the cap on the interest deduction over four years to mortgages of $500,000.
- Allow deductions for only those charitable contributions in excess of 2 percent of adjusted gross income.
- Increase and expand the child tax credit.
- Modify the earned income tax credit, index the parameters to the chained consumer price index, and reduce eligibility for children to those younger than 18. The earned income tax credit would thereby be reduced for almost all families.
- Consolidate higher education incentives into an American Opportunity Tax Credit.
- Modify the rules for individual retirement accounts (IRAs) and 401(k) plans by barring deductible contributions to traditional IRAs and removing income limits on contributions to Roth IRAs.
- Repeal the alternative minimum tax.
- Tax capital gains and dividends as ordinary income, with a 40 percent exclusion.

CORPORATE INCOME TAX

- Set the top corporate rate at 25 percent; phase in the reductions over five years.
- Shift to a territorial system (which would exempt the foreign income of US multinational firms from US

taxation).

- Institute a retroactive tax on foreign-earned income of 8.75 percent on cash assets and 3.5 percent on noncash assets, with the option to spread payments over eight years. All revenue would be allocated to the Highway Trust Fund.
- Institute a 0.035 percent excise tax on big banks that is levied quarterly on consolidated assets in excess of $500 billion.
- Repeal the corporate alternative minimum tax, along with the deduction for domestic production activities and most other business tax preferences.

ANALYSIS

The Joint Committee on Taxation predicted the Camp plan would be revenue neutral in the initial 10 years. However, when considering the macroeconomic effects, the committee found that the plan could boost GDP by between 0.1 and 1.6 percent in that 10 years, increasing federal revenue by between $50 billion and $700 billion.

Beyond the first 10 years, though, the fiscal impact would be uncertain. Many provisions that initially increased revenue would expire. In addition, the official estimates may have misstated the cost of making certain tax extenders permanent, thereby increasing long-term costs. These additional costs could have been partially offset by adopting the chained consumer price index to index tax rates, credits, and so on.

Tax burdens for heads of households would significantly increase in all quintiles of the income distribution except the lowest. Further, households in high-tax states that itemize their deductions, families with older children, and households that previously benefited from tax preferences that would diminish or expire would probably bear a higher tax burden in the long run.

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Nunns, Jim, Amanda Eng, and Lydia Austin. 2014. "Description and Analysis of the Camp Tax Reform Plan." Washington, DC: Urban-Brookings Tax Policy Center.

Q. The Graetz Competitive Tax Plan: Update for 2015.

A. Graetz's proposal recommends cutting income and payroll taxes and making up the revenue with a value-added tax.

Columbia University law professor Michael Graetz introduced his "Competitive Tax Plan" more than a decade ago and has recently updated it. Broadly, the plan shifts the tax system, which is based on income, to one based on consumption. The plan is revenue neutral and would not change the overall income distribution.

The Competitive Tax Plan contains five components.

- A value-added tax (also called a goods and services tax) with a broad base and a single rate of 12.9 percent. Businesses with less than $1 million in gross receipts would be exempt. There would be 18 to 24 months between enactment and implementation, which Graetz expects would accelerate purchases of durable goods and provide a short-term boost to the economy. The tax would be modeled after modern value-added taxes in New Zealand, Australia, Canada, Singapore, and South Africa. States would be given incentives to harmonize their tax policies with the federal tax.

- An individual income tax in which the first $100,000 of income for married couples would be exempt from taxation ($50,000 for singles and $75,000 for heads of household). Above this threshold, tax rates would be 14, 27, and 31 percent. The alternative minimum tax and surtax on investment income would be repealed. With these reforms, less than one-fifth of the households now paying income tax would be required to file returns.

- A corporate income tax with a reduced rate of 15 percent. All credits except the foreign tax credit would be eliminated, and the corporate alternative minimum tax would be repealed. The plan may also subject large businesses (even if they are not corporations) to the corporate income tax while simplifying the taxation of small businesses.

- The current payroll tax, but with credits of 15.3 percent of wages for workers with earnings up to $10,000 and a credit of $1,530 for workers earning between $10,000 and $40,000. The credit phases out for incomes above $40,000.

- Refundable child credits would be established and distributed through debit cards. Each child would qualify for $1,500 per year, with a phaseout provision for higher-income earners. Low- and moderate-income earners, on the other hand, would receive an additional rebate of up to $3,500 for one child and $5,200 for two or more children.

How Could We Improve the Federal Tax System?

The Graetz "Competitive Tax Plan:" Update for 2015

Further Reading

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Toder, Eric, Jim Nunns, and Joseph Rosenberg. 2012. "Using a VAT to Reform the Income Tax." Washington, DC: Urban-Brookings Tax Policy Center.

Q. What is return-free filing and how would it work?

A. If an income tax system were simple enough, the government could withhold taxes owed and do its own accounting at the end of the year without much help from taxpayers.

EXACT-WITHHOLDING SYSTEM

In this variation, the tax agency attempts to withhold the exact amount of taxes due from paychecks and other income so that no end-of-year filing, payment, or refund is needed.

Two types of exact-withholding systems exist. Cumulative systems (used in the United Kingdom and Russia) aim to withhold exactly the right amount of tax at regular intervals across the year. Final-withholding systems (used in Germany and Japan) make adjustments by withholding more or less money from the final paycheck of the tax year.

TAX AGENCY RECONCILIATION SYSTEM

In a tax agency reconciliation system, taxpayers who choose to do so provide the tax authority with basic information. The tax authority then calculates tax liability from this information and from information it receives from employers, financial institutions, and other payers. The taxpayer then has a chance to review (and correct) these calculations and submits the return.

TAX AGENCY RECONCILIATION VERSUS EXACT WITHHOLDING

In both variations, taxpayers must report certain nonfinancial information to either their employers or the tax authority. In the United States, nonfinancial information would likely consist of the taxpayer's name, address, Social Security number, and filing status, along with the names and Social Security numbers of spouses and dependents. The employer or the tax authority would use this information to calculate withholding allowances. Taxpayers might be required to report this information periodically or whenever there is a change in their circumstances that would affect tax liability.

Neither an exact-withholding nor a tax agency reconciliation system provides an easy way to handle capital gains, itemized deductions, business income, employee business expenses, moving expenses, or individual retirement accounts, although some accommodation is possible. A key issue in return-free systems is who bears responsibility for mistakes on the return prepared by the tax authority, and for mistakes in exact withholding made by either the tax authority, the employer, or another payer.

How Could We Improve the Federal Tax System?

What is return-free filing and how would it work?

RETURN-FREE ELIGIBILITY

A return-free system in the United States could include more taxpayers if the tax code were adjusted in several ways:

- having the vast majority of taxpayers face the same marginal ("basic") tax rate;
- making the unit of taxation the individual rather than the family;
- taxing interest and dividend income at a flat rate and withholding it at the source;
- largely exempting capital gains from taxation; and
- limiting the number of itemized deductions.

None of these conditions, however, is necessary to operate a return-free system for at least some taxpayers.

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Van der Heeden, Koenraad. 1998. "The Pay-as-You-Earn Tax on Wages." In *Tax Law Design and Drafting*, vol. 2, edited by Victor Thuronyi, 564–96. Washington, DC: International Monetary Fund.

Q. What are the benefits of return-free filing?

A. It eases the burden of tax compliance on individuals, and could make the tax code simpler and tax collection and enforcement more efficient.

The primary benefit of a return-free system is a reduced tax compliance burden. Depending on the changes made to the current US income tax structure and administration to accommodate return-free filing, the requirement to file a final tax return could be eliminated for somewhere between 8 million and 60 million households. Secondary benefits include simplification of the tax code, and perhaps a lower administrative burden on the Internal Revenue Service and lower federal expenditure for tax collection.

Filing tax returns can be a drain on taxpayers' time, emotions, and, for those who hire a tax preparer, wallets. Thus, even if most taxpayers can complete their returns with little effort, a return-free system could still provide them significant benefits. There is one important catch: state income tax systems piggyback on the federal system. If the states failed to shift to a return-free system, the reduction in costs would be modest.

Although taxpayers participating in the return-free system would be spared filing paperwork, the net administrative savings might not be great. Of the 62 million or so taxpayers potentially eligible, over two-thirds currently file the simpler 1040A and 1040EZ returns. Even under a return-free system, these taxpayers would still have to provide some of the same information (such as filing status and dependents' identification) that they do now. Further, some administrative costs would merely be shifted from the taxpayers to their employers, other payers, and the IRS.

In 1996, the US General Accounting Office estimated that a tax agency reconciliation system could reduce the time spent preparing tax returns by as much as 155 million hours a year for 51 million taxpayers and reduce the IRS's annual costs by up to $37 million. These estimates, however, do not take into account the ways in which such a system might increase the administrative burden on taxpayers and the IRS. For example, 1 billion information reports would have to be filed earlier and processed much sooner by the IRS in order to complete returns by April 15 (with refunds to follow later). State income tax authorities would also incur additional costs or delays.

How Could We Improve the Federal Tax System?

What are the benefits of return-free filing?

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Q. What are the drawbacks of return-free filing?

A. Potential drawbacks include a heavier administrative burden for those charged with withholding income tax and for government collection agencies, as well as added limits on taxpayer independence.

Drawbacks to a return-free system include a potentially heavier administrative burden on employers and other businesses charged with withholding income tax, as well as on state and federal tax collection agencies. In addition, taxpayers and opponents have expressed concern that a return-free plan would allow the government to decide how much tax was owed, limiting taxpayers' independence and constraining their ability to appeal tax agencies' decisions.

Taxpayers appear to like overpaying tax through withholding then receiving refunds, perhaps viewing this as a form of forced saving. Moving to a cumulative exact-withholding system would eliminate refunds. In a tax agency reconciliation system, however, refunds would still be possible.

Some argue a "visible" tax system (as we have now) is important, on the principle that citizens who know what they pay can make better economic and political choices. In a return-free system, taxpayers would presumably be less informed about how they are being taxed and thus less aware of the tax consequences of their actions. However, the link between filing and understanding may be overblown. Payroll taxes in the United States already operate under a return-free system for almost all taxpayers, yet interest in Social Security and Medicare does not appear to have suffered as a result.

The IRS concluded in 1987 that "there are serious timing and accuracy problems" in developing a tax agency reconciliation system. Even after almost a decade of technological improvements, the US General Accounting Office in 1996 agreed that the IRS would likely need significant investments in processing capability to implement such a system.

How Could We Improve the Federal Tax System?

What are the drawbacks of return-free filing?

Further Reading

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US General Accounting Office. 1996. *Tax Administration: Alternative Filing Systems*. Washington, DC: US General Accounting Office.

Q. How would the tax system need to change with return-free filing?

A. The simpler the system, the easier it would be to increase the number of return-free filers.

Although many countries have adopted return-free tax systems, most of them have simpler tax codes than the United States. Implementing a return-free system that most US taxpayers could participate in would require sweeping changes in the tax code to make it more like those countries'. Common elements of such codes include a "basic" rate for most taxpayers, the designation of individuals (rather than families) as the unit of taxation, taxation of interest and dividends at one rate (and at the source), exemption of some capital gains from taxation, and the paring of deductions, allowances, and credits.

Still, with just minor reforms, the current system could accommodate return-free filing for the substantial number of taxpayers who now file simple returns. A big stumbling block is that the current withholding formulas are not designed to be exact for dependent filers, dual-income couples, or taxpayers with more than one job during the year. Indeed, if dependent filers and filing units with income from more than one job were still required to file a return, only 8 million taxpayers with wage income could be exempted from filing. Even among these 8 million, changes in personal circumstances during the year could cause withholding errors.

Without any changes in the law, it might still be possible to fine-tune withholding formulas to meet most taxpayers' needs. But there's no free lunch here: attaining the additional precision would add significant complexity to Form W-4 and the computation of withholding allowances.

Further Reading

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US Department of the Treasury. 2003. *Return-Free Tax Systems: Tax Simplification Is a Prerequisite*. Washington, DC: US Department of the Treasury.

Q. Who would qualify for return-free filing?

A. As many as 50 million taxpayers would qualify, including most of those who take the standard deduction and rely on wages for most of their income.

The size and scope of a return-free system would depend on its administrative and structural features. At best, some 50 million would qualify. This group would consist mostly of earners whose incomes come from wages and who choose not to itemize their deductions. The system could be expanded to include taxpayers with income from dividends, interest, pensions, individual retirement account distributions, and unemployment insurance, as well as low-income earners qualifying for the earned income tax credit (EITC). Taxpayers with uncomplicated itemized deductions could also be brought into the system.

In 2003, the Treasury conducted a study on how return-free filing could be implemented; the report was later updated to reflect 2007 tax data. Tables 1 and 2 break down the numbers. Note that the information is dated, as the 2017 Tax Cuts and Jobs Act changed the system with respect to personal exemptions, itemized deductions, and the standard deduction.

ELIGIBILITY

The Treasury reports that approximately 20 million taxpayers in 1999 had income solely from wages and salaries, claimed no credits (including the EITC), did not itemize deductions, and were in either the zero or the 15 percent tax bracket. Since almost all wage income is subject to withholding already, these taxpayers could more easily be shifted into a return-free system than the rest of the filing population.

If withholding at the source were extended to interest, dividends, pensions, individual retirement account distributions, and unemployment insurance benefits, the number would rise by 21.6 million. To some extent, taxes are already withheld on these forms of income. Mandatory withholding would expand the scope of a return-free system and could improve compliance, but may also add to taxpayers' administrative burdens. To reduce these burdens, small payments and some payers—for example, those who hold debt (such as seller-financed mortgages), foreign banks, and other foreign-resident debt holders—could be exempted from withholding.

THE EARNED INCOME TAX CREDIT

The EITC could be retained under a return-free system, but its administration would work differently depending on how the system was designed. Administering the EITC under an exact-withholding system would be complex but feasible. Under a tax agency reconciliation system, the EITC could continue to be administered through the tax system. With the EITC included in the return-free model, an additional 13.5 million taxpayers would have been eligible to use a return-free system in 1999.

How Could We Improve the Federal Tax System?

Who would qualify for return-free filing?

ITEMIZED DEDUCTIONS

Some deductions could be accommodated within a return-free system. Three of the most common are for state and local taxes, mortgage interest, and charitable contributions. The Treasury predicted that incorporating these into a return-free system would raise the number of eligible taxpayers by 1.7 million in the zero and 15 percent brackets and another 1.9 million in higher brackets. But these numbers represented a modest fraction of the then-current 33 million itemizers, demonstrating that itemizers do not generally meet other restrictions needed to avoid filing.

TABLE 1

Filers Qualifying for Alternative Return-Free Systems

By type of income, 2007

Filing system	Type of filer by change in administrative practice	Total (millions)	Percentage of current law filers
Current law	Total filers	138.8	100.0
Exact withholding	With current withholding rules[a]	8.2	5.9
	Plus more precise withholding rules[b]	19.9	14.3
	Plus expanded mandatory withholding[c]	30.9	22.2
	Plus delivering EITC through means other than tax return	43.5	31.3
Agency reconciliation	Plus exempting two-earner couples from filing	46.7	33.6
	Plus exempting taxpayers in higher brackets from filing	50.0	36.0

Source: Holtzblatt, 2007.

(a) This category is limited to taxpayers whose income is derived solely from one job and who do not claim above-the-line or itemized deductions or credits other than the child tax credit. Dependent filers are excluded. The exact withholding system is assumed to be restricted to taxpayers in the 15% or lower rate brackets.

(b) The withholding rules would be made more precise, so that the correct amount of taxes could be collected from filers who are claimed as dependents by other taxpayers or who have more than one job. However, two-earner couples are excluded from this category.

(c) Mandatory withholding would be extended to income from pensions and individual retirement account distributions, unemployment compensation, interest and dividends.

How Could We Improve the Federal Tax System?

Who would qualify for return-free filing?

TABLE 2

Filers Qualifying for Alternative Return-Free Systems

By type of return under current law, 2007

Filing system	1040 (millions)	Percent of total	1040A (millions)	Percent of total	1040EZ (millions)	Percent of total	Total
Current law	87.1	62.8	30.0	21.6	21.7	15.6	138.8
Exact withholding	6.0	13.8	18.7	43.0	18.8	43.2	43.5
Agency reconciliation	7.5	15.0	21.4	42.9	21.0	42.0	50.0

Source: Holtzblatt, 2007.
Note: Amount may not add up to total because of rounding.

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Q. Would return-free filing raise taxes?

A. Not for those who pay what they owe now.

While some antitax groups have suggested otherwise, a return-free system would not raise taxes for households already paying all the taxes they owe. Nor would anyone need to share more information with the IRS than they do now.

Some members of Congress, along with some antitax groups including Americans for Tax Reform and the American Conservative Union, oppose return-free filing on the grounds that it would shift the burden of contesting tax liability from the IRS to the taxpayer. They have other concerns, too. Americans for Tax Reform argues that implementing return-free filing would be dangerous because it "would create a conflict of interest where the Internal Revenue Service would become both tax preparer and enforcer." These groups further argue that return-free filing shields taxpayers from awareness of the costs of paying taxes and, consequently, is a means of implementing tax increases without taxpayers' knowledge.

These seem weak objections. Return-free filing should be viewed as a taxpayer tool, not a shield from information. Taxpayers could still file returns as they did before but would be given the option of filing "return free" if their taxes are simple enough to qualify. All taxpayers would retain the right to challenge their tax liability as calculated by the IRS.

Further Reading

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Goolsbee, Austan. 2006. "The Simple Return: Reducing America's Tax Burden through Return-Free Filing." Washington, DC: Hamilton Project.

Q. What was the experience with return-free filing in California?

A. Generally positive.

California operated a pilot program for return-free tax filing in tax years 2005 and 2006. Some 50,000 prescreened Californians who had previously filed as single taxpayers with no dependents, no itemized deductions, and wage income only were invited to participate. These taxpayers were sent "ReadyReturns"—completed forms—and were given the option of either filing their ReadyReturns (on paper or online) or discarding them and filing conventional returns later. The pilot program was popular among taxpayers who used it, and California subsequently authorized the widespread availability of ReadyReturns for tax year 2007. The program has now been incorporated into CalFile, the state's free online tax-filing site.

PROGRAM PARTICIPATION

The ReadyReturn pilot program had a participation rate of about 21 percent. Of the 11,000 who chose to participate, approximately half filed a paper copy and half filed electronically. The California Franchise Tax Board, the state's tax administrator, reported that more than 88,000 people used the service in 2012. The board estimated that about 2 million taxpayers would be eligible for the ReadyReturn in 2013, indicating that the program could be expanded somewhat easily to much of the state's population.

THE PROGRAM'S SUCCESS

Reviews of the system have been positive. Of those filing an electronic ReadyReturn, 95 percent said that it saved time, as did 87 percent of participants filing a paper version. Almost all participants said that they would opt to use the service the following year. Tax preparation services strongly opposed ReadyReturn and have lobbied against its expansion.

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Q. What other countries use return-free filing?

A. At last count, 36 countries, including Germany, Japan, and the United Kingdom, permit return-free filing for some taxpayers.

Nearly all countries that offer return-free systems have "exact-withholding" systems, of which there are two types: "cumulative" systems (used in the United Kingdom and Russia) and "final-withholding" systems (used in Germany and Japan). Some countries combine one of these approaches with other requirements. In Chile, for example, taxpayers are not eligible if they wish to file for refunds of excess withholdings.

COUNTRIES WITH TAX AGENCY RECONCILIATION SYSTEMS

Denmark and Sweden, both small countries, operate tax agency reconciliation systems. About 87 percent of Denmark's taxpayers and 74 percent of Sweden's had their returns filled out by the tax authorities in 1999. Spain, Estonia, Finland, Norway, and Iceland have also implemented tax agency reconciliation systems.

THE BRITISH EXPERIENCE

Britain's Pay As You Earn system, which has incorporated exact withholding since the 1940s, has several features that facilitate return-free filing. One is that it treats the individual (rather than the family) as the unit of taxation. Another is that a large proportion of taxpayers (64 percent) are taxed at the same "basic" marginal rate. The system was reformed in April 2013 to require employers to report salary payments in real time, with the goal of decreasing withholding errors. The reform also linked revenue collection and benefit payments to the same database, increasing efficiency.

Despite the clear need for the changes, concern still exists as to whether real-time reporting places a disproportionate burden on small businesses. To minimize the problem, small employers have been temporarily allowed to file payments monthly. In 2014, about 90 percent of the United Kingdom's income tax revenue was collected through Pay As You Earn.

FILING RATES

The portion of taxpayers who still have to file returns varies widely by country. About 90 percent of taxpayers eligible for final withholding in the United Kingdom did not have to file in 2014. The figures for other countries are dated, but there's no reason to believe that they are unrepresentative. In Germany in 1986 and in Japan in 1988–90, the corresponding figures were 46 percent and 63 percent, respectively.

Many countries, it should be noted, maintain a filing requirement for taxpayers with more than one job. At least one, Kenya, requires taxpayers to file a return if their personal circumstances change during the year.

How Could We Improve the Federal Tax System?

What other countries use return-free filing?

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The State of State (and Local) Tax Policy

What are the sources of revenue for state governments?

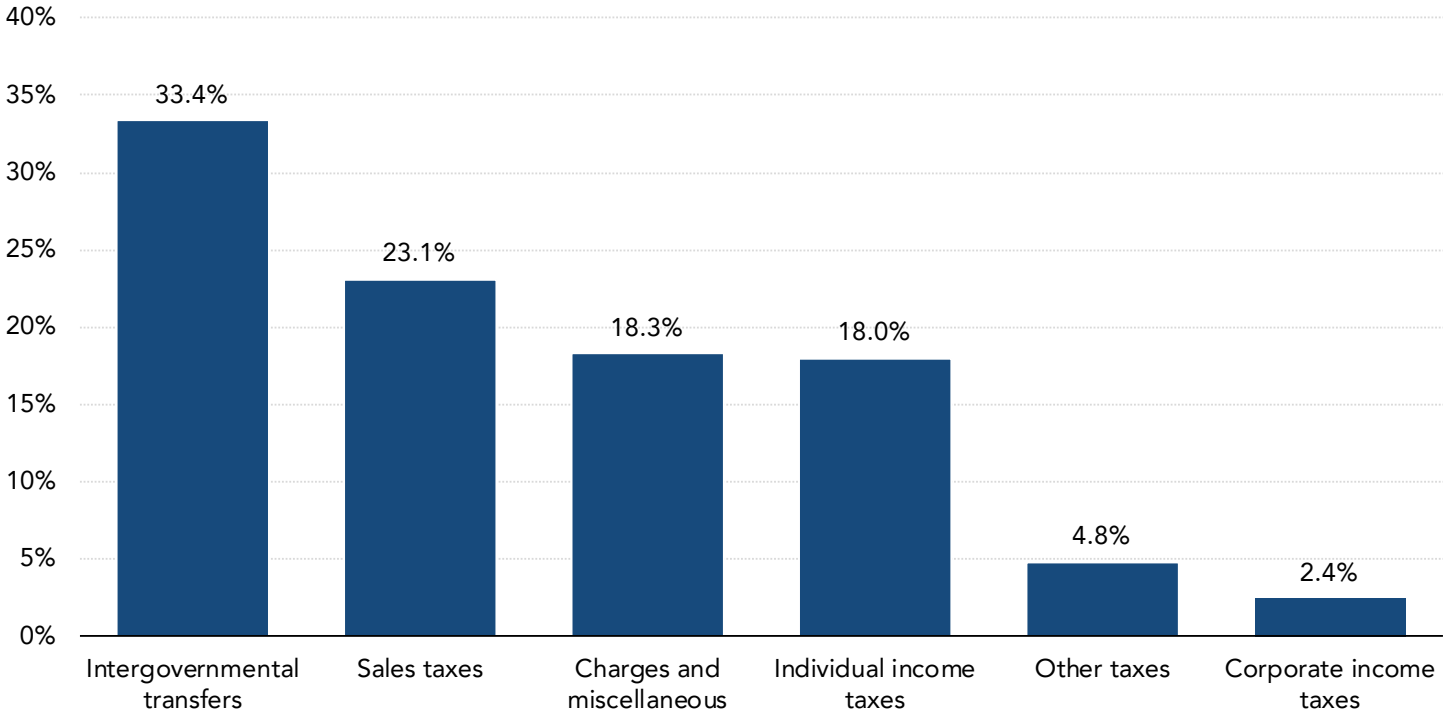
Q. What are the sources of revenue for state governments?

A. State government revenue comes from income, sales, and other taxes; charges and fees; and transfers from the federal government. Taxes account for about half of all general revenue.

State governments collected more than $1.9 trillion of general revenue in 2016. General revenue from income, sales, and other taxes totaled $923 billion—nearly half of all general revenue (figure 1). About one-third came from intergovernmental transfers.

FIGURE 1

Breakdown of State Government General Revenue



Source: Urban-Brookings Tax Policy Center. "State and Local Finance Initiative Data Query System"; US Census Bureau, *Annual Survey of State and Local Government Finances* and *Census of Governments*, vol. 4, *Government Finances*.

The State of State (and Local) Tax Policy

What are the sources of revenue for state governments?

INTERGOVERNMENTAL TRANSFERS

Intergovernmental transfers to state governments—primarily from the federal government—totaled $637 billion in 2016. The largest were federal grants for public welfare programs, predominately Medicaid.

OWN-SOURCE REVENUE

Revenue from state sales and gross receipts taxes—including both general sales taxes and selective taxes on products such as alcohol, cigarettes, and motor fuels—was $441 billion in 2016, or 23 percent of state general revenue. Individual income taxes provided $344 billion (18 percent of state general revenue) and corporate income taxes accounted for $46 billion (2 percent of state general revenue). Revenue from all other taxes (including license fees, estate taxes, and severance taxes) was $92 billion—5 percent of state general revenue. Charges and fees—notably tuition paid to state universities, payments to public hospitals, and tolls on highways or bridges—and other miscellaneous revenue provided $349 billion, or 18 percent of state general revenue in 2016.

General revenue does not include revenue collected by states from "business-like" enterprises, such as state-run liquor stores, utilities, and pension funds.

CHANGING SOURCES

Since 1977, the share of state general revenue from intergovernmental transfers, as well as charges and user fees, has increased, while the share from taxes has declined (figure 2). Revenue from charges and user fees increased significantly from 11 percent in 1977 to 18 percent in 2002, as states sought to broaden their revenue bases, including large increases in public university tuition. Charges as a percentage of revenue has been fairly flat since 2002, however.

Over roughly the same period, the share of state general revenue from taxes declined from 60 percent to 50 percent. Revenue from taxes as a percentage of state general revenue has also been roughly flat since 2002. Among specific taxes, the portion from individual income taxes rose slightly from 1977 to 2016, but the share from sales and corporate taxes declined.

LONG-TERM REVENUE GROWTH

State revenue grew slightly faster than the national economy between 1977 and 2001, rising from 8 percent of gross domestic product (GDP) to 10 percent. However, state revenue as a percentage of GDP has stayed at roughly 10 percent over the past 15 years (figure 3). State revenues grew above that during the 2008 Great Recession and its aftermath because of an increase in federal transfer payments, peaking at nearly 11 percent of GDP in 2011 before falling back to 10 percent in 2012 as federal transfers abated in the wake of the economic recovery. In 2016 state revenue remained just above 10 percent of GDP.

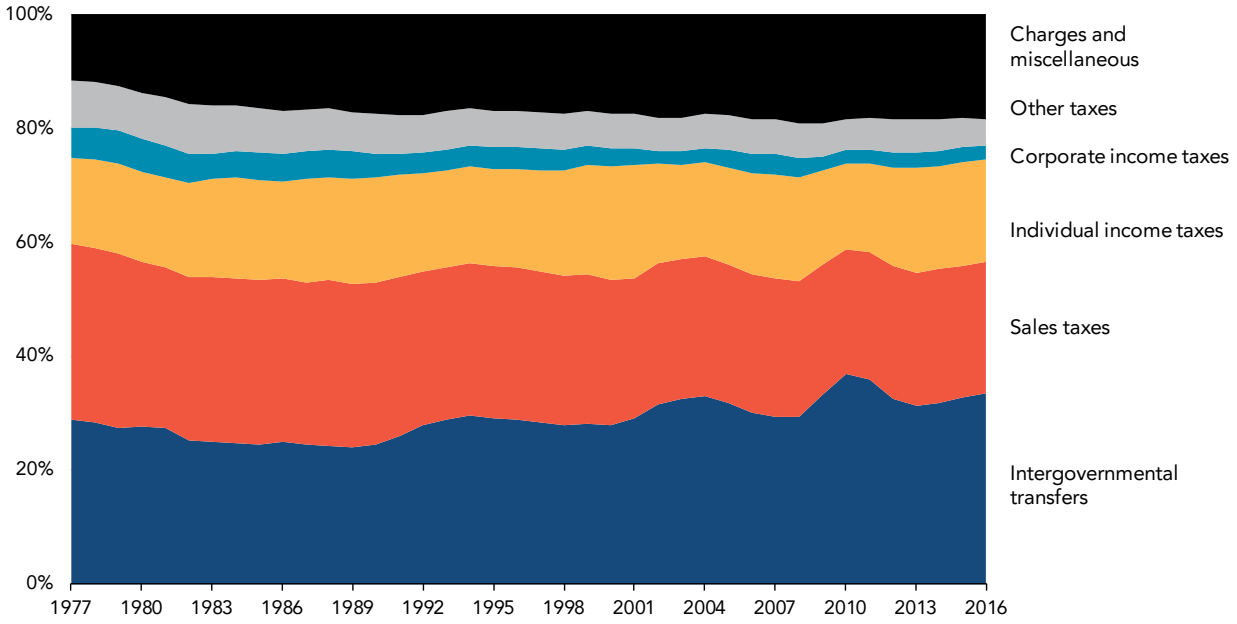
Revenue from charges and miscellaneous fees as well as individual income taxes grew from about 1 percent to 2 percent of GDP from 1977 to 2016, while sales tax revenue remained fairly constant at about 2.5 percent (figure 4). Intergovernmental transfers grew from about 2 percent to more than 3 percent of GDP over the period.

The State of State (and Local) Tax Policy

What are the sources of revenue for state governments?

FIGURE 2

Breakdown of State Government General Revenue

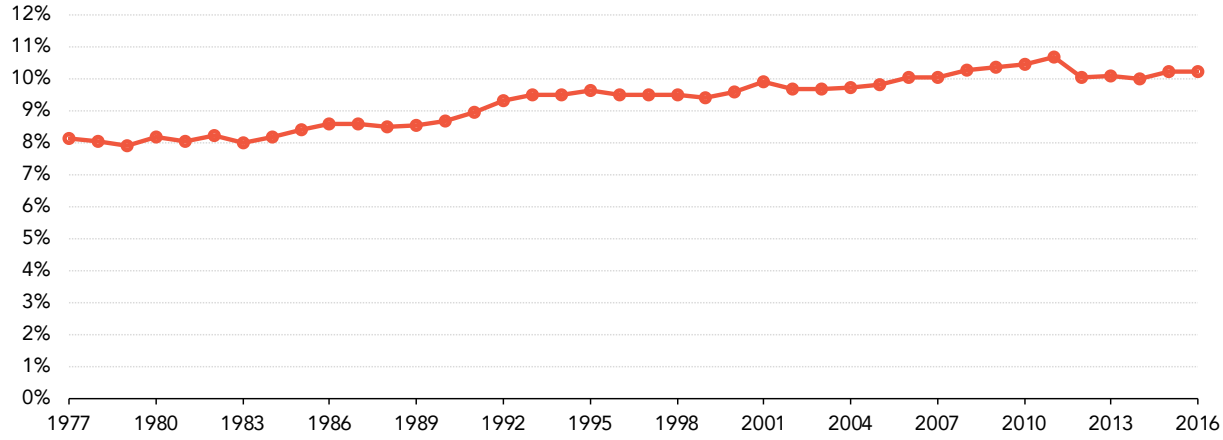


Source: Urban-Brookings Tax Policy Center. "State and Local Finance Initiative Data Query System"; US Census Bureau, *Annual Survey of State and Local Government Finances* and *Census of Governments*, vol. 4, *Government Finances*.

FIGURE 3

Total State Government General Revenue

Share of GDP, fiscal years 1977–2016



Source: Urban-Brookings Tax Policy Center. "State and Local Finance Initiative Data Query System"; US Census Bureau, *Annual Survey of State and Local Government Finances* and *Census of Governments*, vol. 4, *Government Finances*; US Department of Commerce, Bureau of Economic Analysis, "Gross Domestic Product, Third Quarter 2018 (Second Estimate); Corporate Profits, Third Quarter 2018 (Preliminary

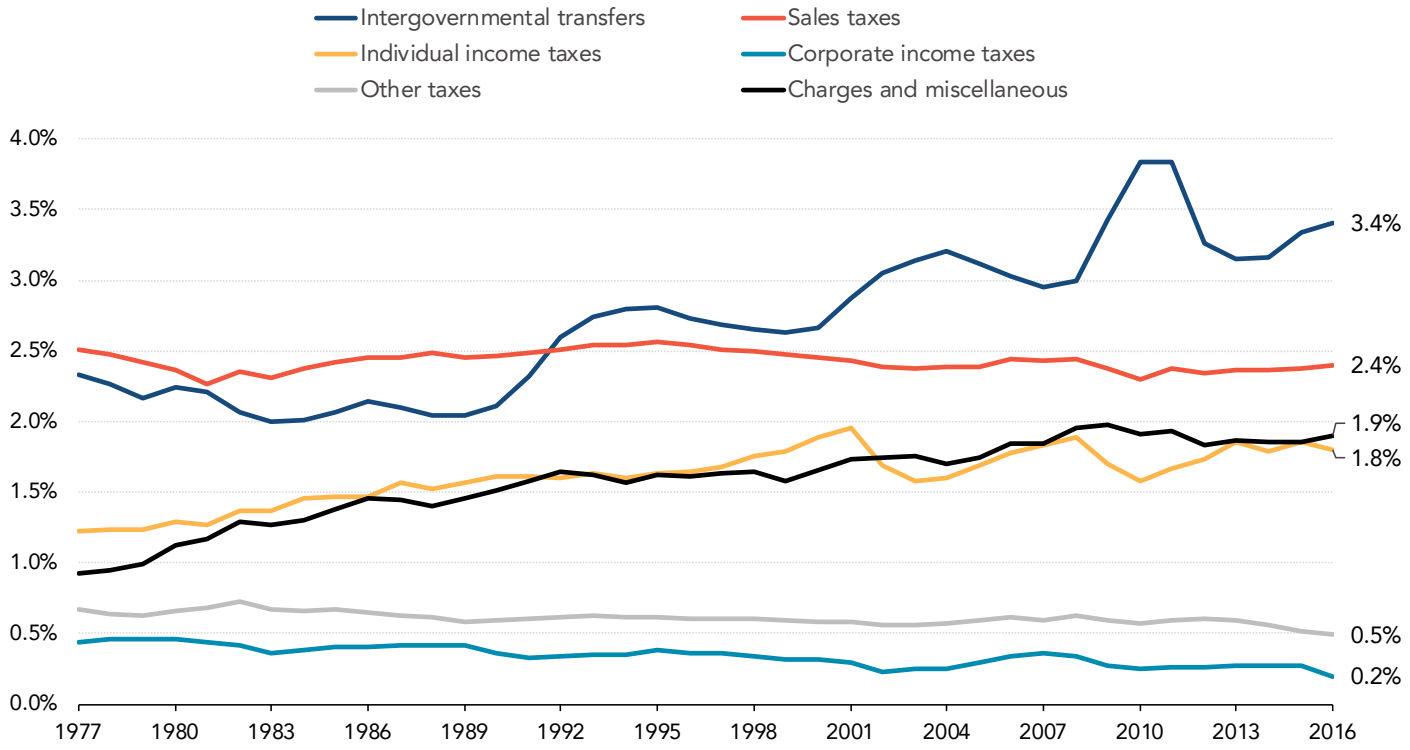
The State of State (and Local) Tax Policy

What are the sources of revenue for state governments?

FIGURE 4

State Government General Revenue

by category's share of GDP, fiscal years 1977–2016



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Francis, Norton, and Frank Sammartino. 2015. "Governing with Tight Budgets." Washington DC: Urban Institute.

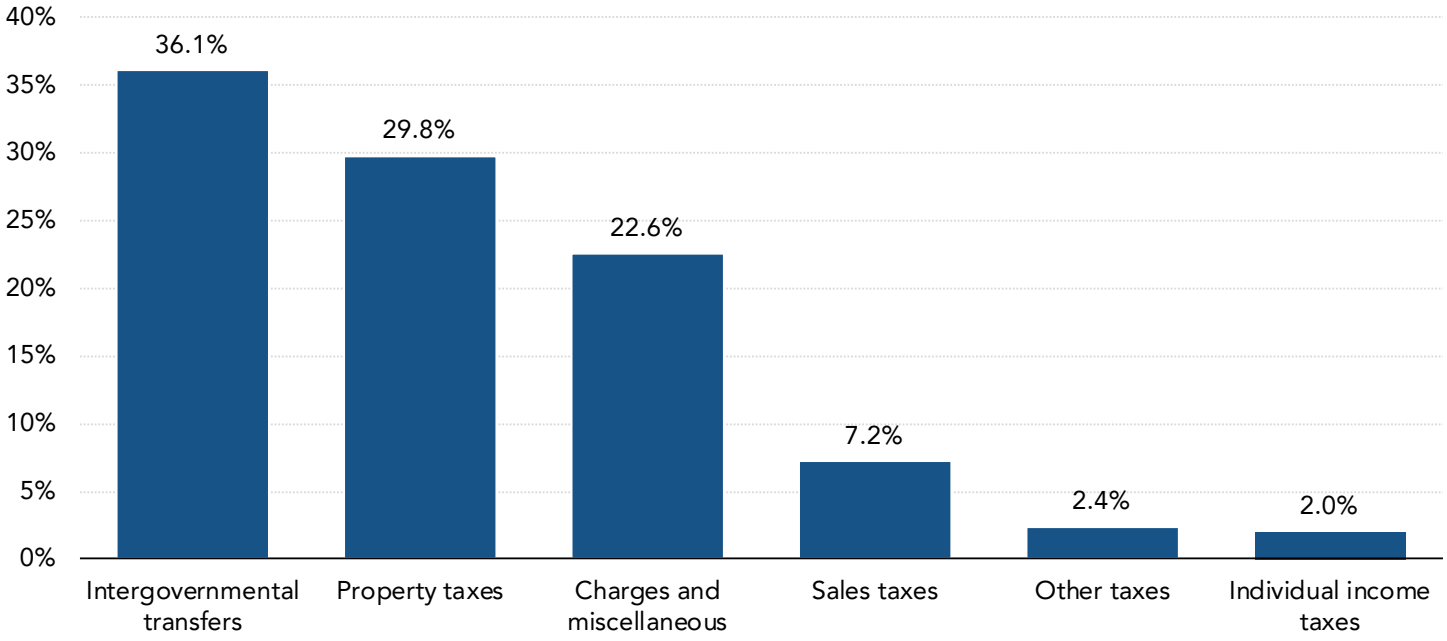
Q. What are the sources of revenue for local governments?

A. Local revenue comes from property, sales, and other taxes; charges and fees; and transfers from federal and state governments. Taxes accounted for roughly 40 percent of local general revenue in 2016.

Local governments collected over $1.6 trillion of general revenue in 2016. Revenue from property, sales, and other taxes totaled $677 billion, or 41 percent of general revenue. Intergovernmental transfers accounted for 36 percent of local general revenue in 2016 (figure 1).

FIGURE 1

Breakdown of Local Government General Revenue



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The State of State (and Local) Tax Policy

What are the sources of revenue for local governments?

INTERGOVERNMENTAL TRANSFERS

Local governments received 32 percent of their general revenue from state government transfers (including indirect federal funds) and 4 percent directly from the federal government. Local governments include county governments, municipalities, townships, special districts (such as water and sewage authorities), and school districts. Transfers for education programs account for over two-thirds of state government transfers to localities. Meanwhile, housing-program transfers are nearly 40 percent of federal transfers to local governments.

OWN-SOURCE REVENUE

Local governments collected $487 billion from property taxes in 2016, or 30 percent of local government general revenue. This was localities' largest single source of tax revenue. Sales taxes provided local governments $118 billion (7 percent of general revenue) and individual income taxes accounted for $33 billion (2 percent). All other taxes—including corporate income taxes, hotel taxes, and business license taxes—provided $31 billion in revenue (2 percent). Charges and miscellaneous fees, such as water, sewerage, and parking meter fees collected by municipal or county governments, provided $369 billion (23 percent of local general revenue).

CHANGING SOURCES

Since 1977, the share of local general revenue from taxes has remained steady at about 40 percent. However, the composition of tax revenue has changed somewhat. The contribution of property taxes to general revenue declined from 34 percent in 1977 to 30 percent in 1979, fell to a low of 27 percent in 2000, then returned to 30 percent in recent years. Meanwhile, revenue from sales taxes steadily increased from 5 percent to 7 percent between 1977 to 2016 (figure 2).

The share from intergovernmental transfers also fluctuated somewhat over time, falling from 43 percent of general revenue in 1977 to 36 percent in 2016. Revenue from charges and fees increased from 15 percent to 23 percent in 1985 and has remained roughly at that level since then (figure 2).

LONG-TERM REVENUE GROWTH

Although local government revenue was about the same relative to gross domestic product in 1977 (8.6 percent) and 2016 (8.7 percent), it has fluctuated over the period (figure 3). The percentage fell to a low of 8.0 percent in 1984 and peaked at 9.9 percent in 2009.

Much of the change in local government revenue relative to the economy resulted from increasing and decreasing transfers from federal and state governments. Transfers fell from 1977 through most of the 1980s but increased slowly though the 1990s. This source of revenue is mostly cyclical; it grew sharply during the 2001 and the 2007–09 recessions, receding in both cases as the economy recovered (figure 4).

The State of State (and Local) Tax Policy

What are the sources of revenue for local governments?

FIGURE 2

Breakdown of Local Government General Revenue

by category, fiscal years 1977–2016

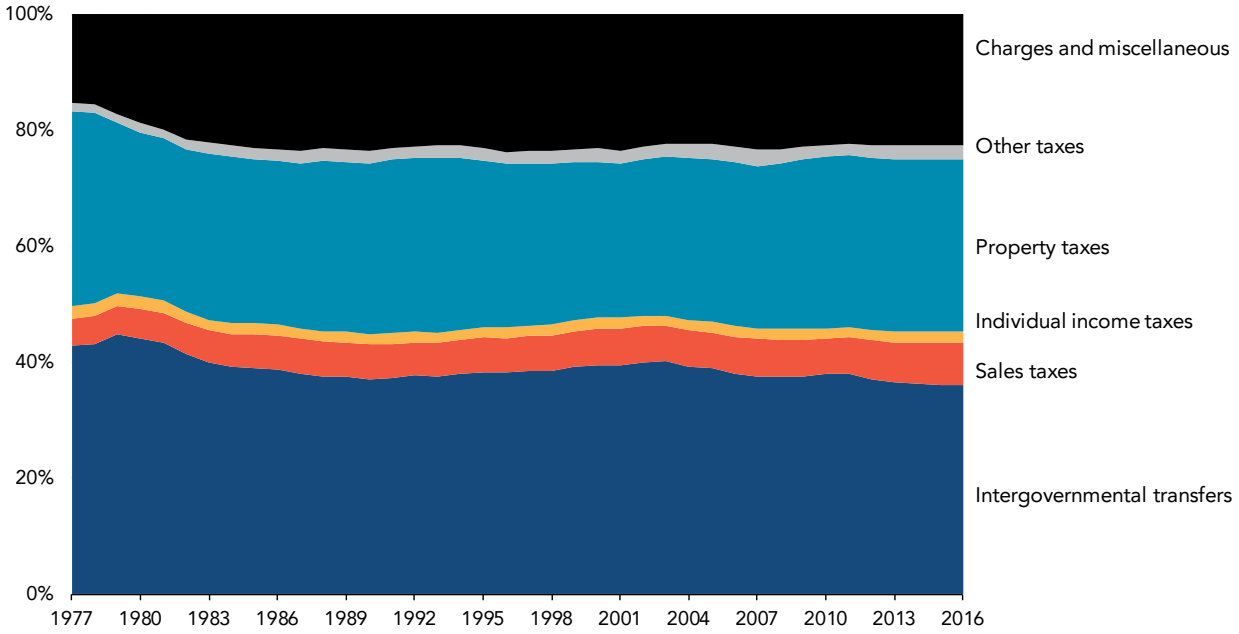

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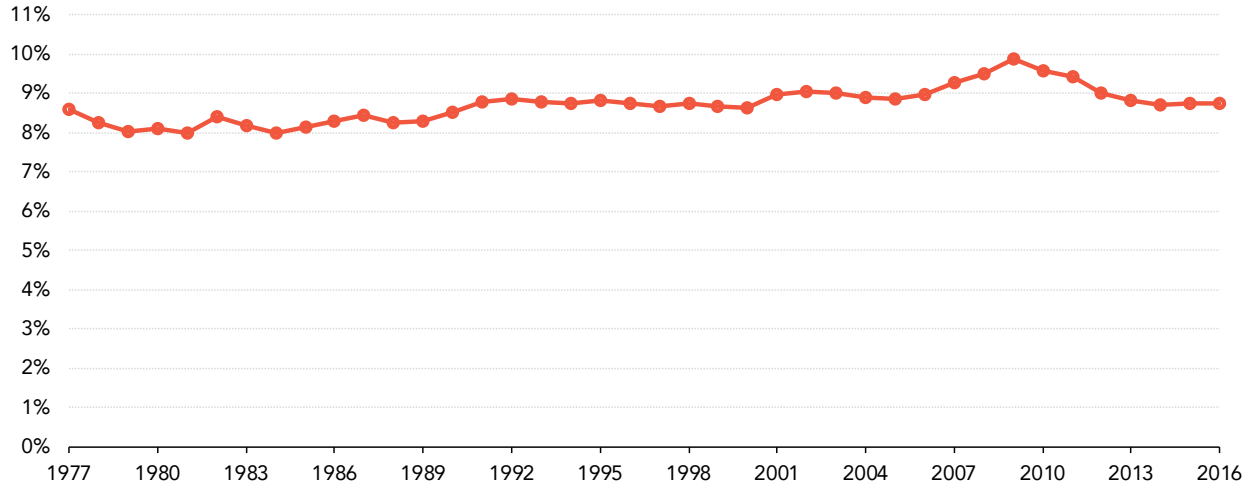
FIGURE 3

Total Local Government General Revenue

Share of national GDP, fiscal years 1977–2016



Source: Urban-Brookings Tax Policy Center. "State and Local Finance Initiative Data Query System"; US Census Bureau, *Annual Survey of State and Local Government Finances* and *Census of Governments*, vol. 4, *Government Finances*; US Department of Commerce, Bureau of Economic Analysis, "Gross Domestic Product, Third Quarter 2018 (Second Estimate); Corporate Profits, Third Quarter 2018 (Preliminary

The State of State (and Local) Tax Policy

What are the sources of revenue for local governments?

FIGURE 4

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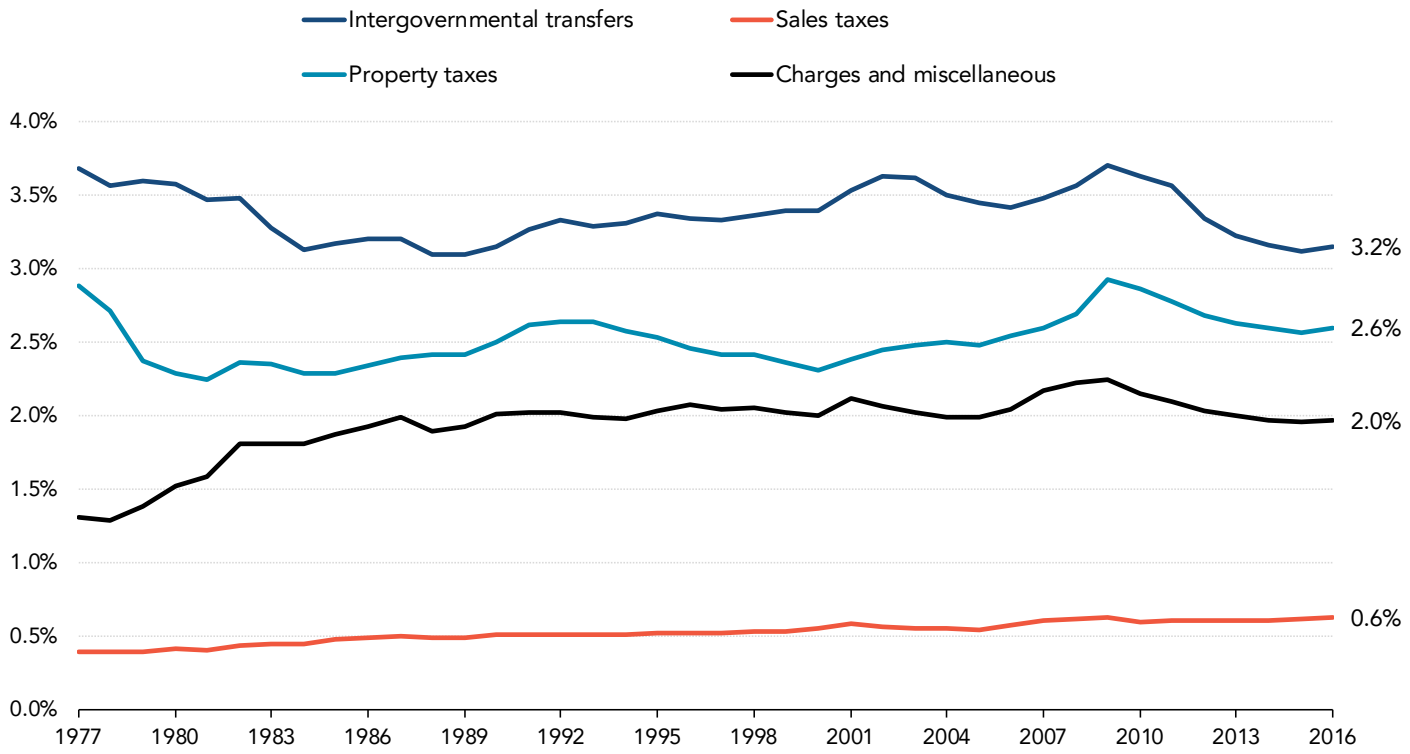

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Q. How do state and local individual income taxes work?

A. Forty-one states and the District of Columbia levy broad-based taxes on individual income. New Hampshire and Tennessee tax only individual income from dividends and interest. Seven states do not tax individual income of any kind. Local governments in 13 states levy some type of tax on income in addition to the state income tax.

State governments collected $344 billion from individual income taxes in 2016, or 27 percent of state own-source general revenue (table 1). "Own-source" revenue excludes intergovernmental transfers. Local governments—mostly concentrated in Maryland, New York, Ohio, and Pennsylvania—collected just $33 billion from individual income taxes, or 3 percent of their own-source general revenue. (Census includes the District of Columbia's revenue in the local total.)

TABLE 1

State and Local Individual Income Tax Revenue
2016

	Revenue (billions)	Percentage of own-source general revenue
State and local	$376	16%
State	$344	27%
Local	$33	3%

Source: Urban-Brookings Tax Policy Center, "State and Local Finance Initiative Data Query System."

Note: Own-source general revenue does not include intergovernmental transfers.

Forty-one states and the District of Columbia levy a broad-based individual income tax. New Hampshire taxes only interest and dividends, and Tennessee taxes only bond interest and stock dividends. (Tennessee is phasing its tax out and will completely eliminate it in 2022.) Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming do not have a state individual income tax.

For combined state and local revenue, Maryland relied the most on the individual income tax in 2016, with the tax accounting for 29 percent of its revenue. The District of Columbia and nine states—California, Connecticut, Kentucky, Massachusetts, Minnesota, Montana, New York, Oregon, and Virginia—also collected 20 percent or more of their own-source revenue from individual income taxes in 2016.

The State of State (and Local) Tax Policy

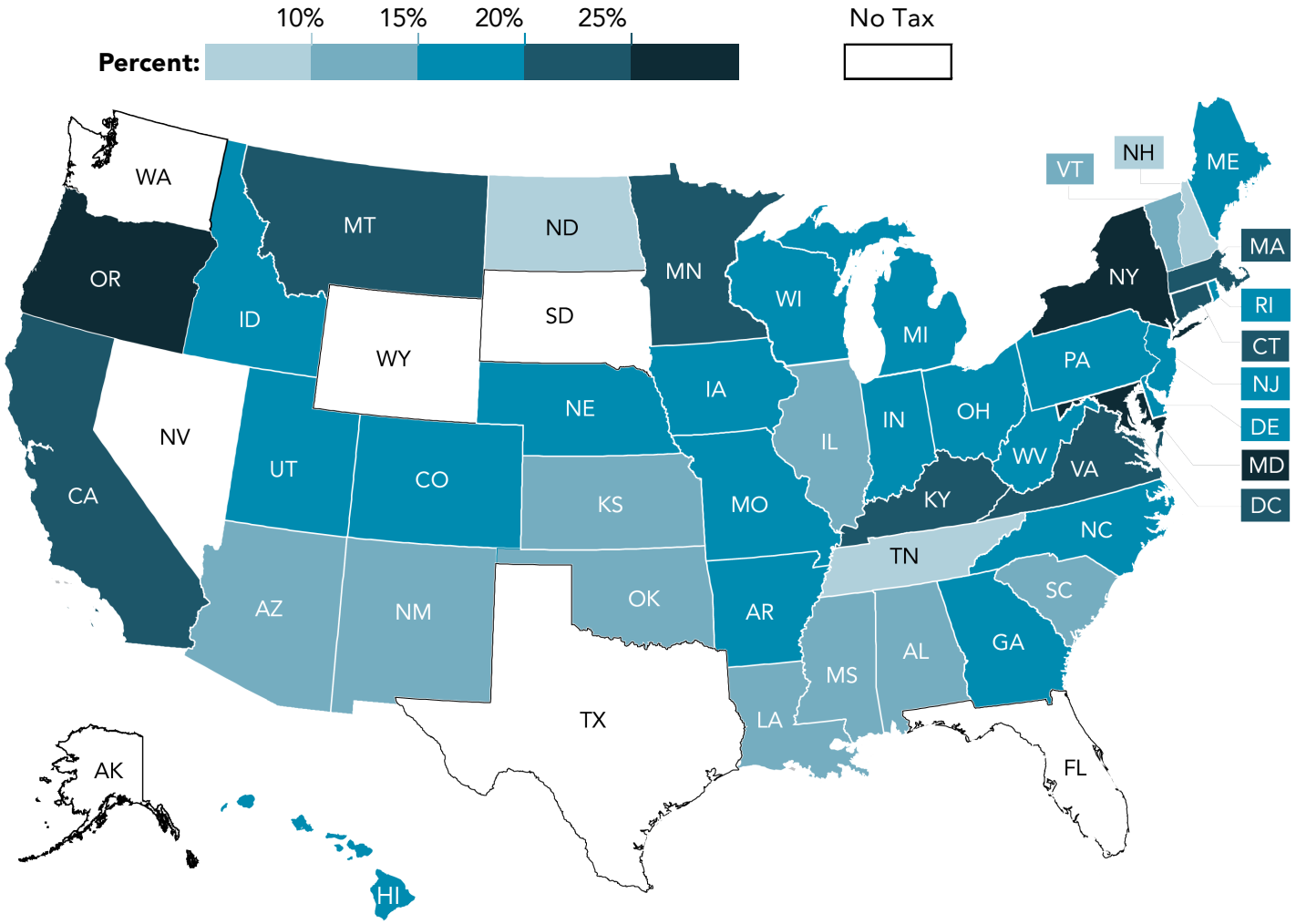
How do state and local individual income taxes work?

North Dakota's 5 percent of revenue from individual income taxes was the least of any state with a broad-based individual income tax. In every other state with a broad-based income tax, the tax provided at least 10 percent of own-source general revenue. New Hampshire and Tennessee, which levy a far more limited individual income tax, each collected about 1 percent of own-source revenue from their taxes.

FIGURE 1

Individual Income Tax as a Percentage of State and Local Own-Source General Revenue

2016



Source: Urban-Brookings Tax Policy Center, "State and Local Finance Initiative Data Query System."

Note: Own-source general revenue does not include intergovernmental transfers.

The State of State (and Local) Tax Policy

How do state and local individual income taxes work?

Local governments levy their own individual income taxes in 13 states. Localities in Indiana, Iowa, Maryland, and New York levy an individual income tax that piggybacks on the state tax. That is, local taxpayers in these states file their local tax on their state tax return and receive state deductions and exemptions when paying the local tax. Michigan localities also levy an individual income tax but use local forms and calculations.

Meanwhile, localities in Alabama, Delaware, Kansas, Kentucky, Missouri, Ohio, Oregon, and Pennsylvania levy an earnings or payroll tax. These taxes are separate from the state income tax. Earnings and payroll taxes are typically calculated as a percentage of wages, withheld by the employer (though paid by the employee) and paid by individuals who work in the taxing locality, even if the person lives in another city or state without the tax. Separately, localities in Kansas only tax interest and dividends (not wages).

In 2016, individual income taxes as a percentage of own-source local revenue ranged from less than 1 percent in Kansas and Oregon to 26 percent in Maryland. Local governments in Kentucky, Ohio, and Pennsylvania also collected more than 10 percent of own-source revenue from individual income taxes (or payroll taxes) in 2016.

WHAT INCOME IS TAXED?

The individual income tax base in most states is similar to the federal tax base. Most states start with federal adjusted gross income but a few start with federal taxable income (which is adjusted gross income minus certain deductions and exemptions). Alternatively, a handful of states use their own definition of income, but even these states rely heavily on federal rules when establishing their tax base.

Even the states that start with the federal tax base, however, often apply different rules for certain types of income. For example, unlike the federal government, states often tax municipal bond interest from securities issued outside that state, and many allow a full or partial exemption for pension income. In many states, but not all, taxpayers who itemize their federal tax deductions and claim deductions for state and local taxes cannot deduct those income taxes from their state income tax.

The 2017 Tax Cuts and Job Act created a new federal deduction for pass-through business income (income earned by sole proprietors, partnerships, and certain corporations). As such, states that use federal taxable income as their tax base had to decide whether to conform with the new federal deduction or establish separate treatment of pass-through income. For example, Idaho accepted the deduction as a part of its tax system while Oregon decoupled and rejected it. Critically, the deduction will not apply to state income taxes in states that use federal adjusted gross income, unless states pass legislation to adopt it.

Ohio already exempted a portion of pass-through business income from its income tax. Kansas exempted all pass-through income from its tax in 2012, but after budget problems it reversed course and ended the exemption in 2017.

HOW DO INDIVIDUAL INCOME TAX RATES VARY ACROSS STATES?

Most state income taxes are fairly flat, even in those states that apply graduated rates. Eight states impose a single tax rate on all income, while Hawaii has the most with 11 tax brackets. Top marginal rates for state income tax in 2018 ranged from 2.9 percent in North Dakota to 13.3 percent in California—including a 1 percent surcharge on incomes over $1 million (figure 2).

The State of State (and Local) Tax Policy

How do state and local individual income taxes work?

In some states with multiple tax brackets, the top tax bracket often begins at a low taxable income. Alabama, for example, has three rates, but the top tax bracket applies to taxable income over $3,000, making it essentially a flat tax. In other states, the difference between the lowest and the highest tax rates is small: about 2 percentage points in Arizona and Mississippi, for example.

While most states in the 1980s followed the federal government's lead in reducing the number of income tax brackets, some have increased the number of rates since then. California and New York have imposed new brackets (often called millionaire's taxes) for high-income taxpayers. California approved a millionaire's tax in 2004 that adds 1 percentage point to the rate applied to incomes over $1 million, and further increased the progressive bracket structure with another ballot measure in 2012. Similarly, New York's top tax rate of 8.82 percent applies to income above about $1 million.

At the start of 2018, California, Hawaii, Minnesota, and Oregon had top rates above 9 percent and another eight states had top income tax rates above 7 percent.

HOW DO STATES TAX CAPITAL GAINS AND LOSSES?

Eleven states and the District of Columbia treat capital gains and losses the same as under federal law. They tax all realized capital gains, allow a deduction of up to $3,000 for net capital losses, and permit taxpayers to carry over unused capital losses to subsequent years. However, most states tax capital gains at the same rate as ordinary income, while the federal government provides a preferential rate.

New Hampshire fully exempts capital gains, and Tennessee taxes only capital gains from the sale of mutual fund shares. Arizona exempts 25 percent of long-term capital gains, and New Mexico exempts 50 percent. Massachusetts has its own system for taxing capital gains, while Hawaii has an alternative capital gains tax. Pennsylvania and Alabama only allow losses to be deducted in the year that they are incurred, while New Jersey does not allow losses to be deducted from ordinary income.

The remaining 25 states that tax income generally follow the federal treatment of capital gains, with the exception of various state-specific exclusions and deductions.

HOW DO STATES TAX INCOME EARNED IN OTHER JURISDICTIONS?

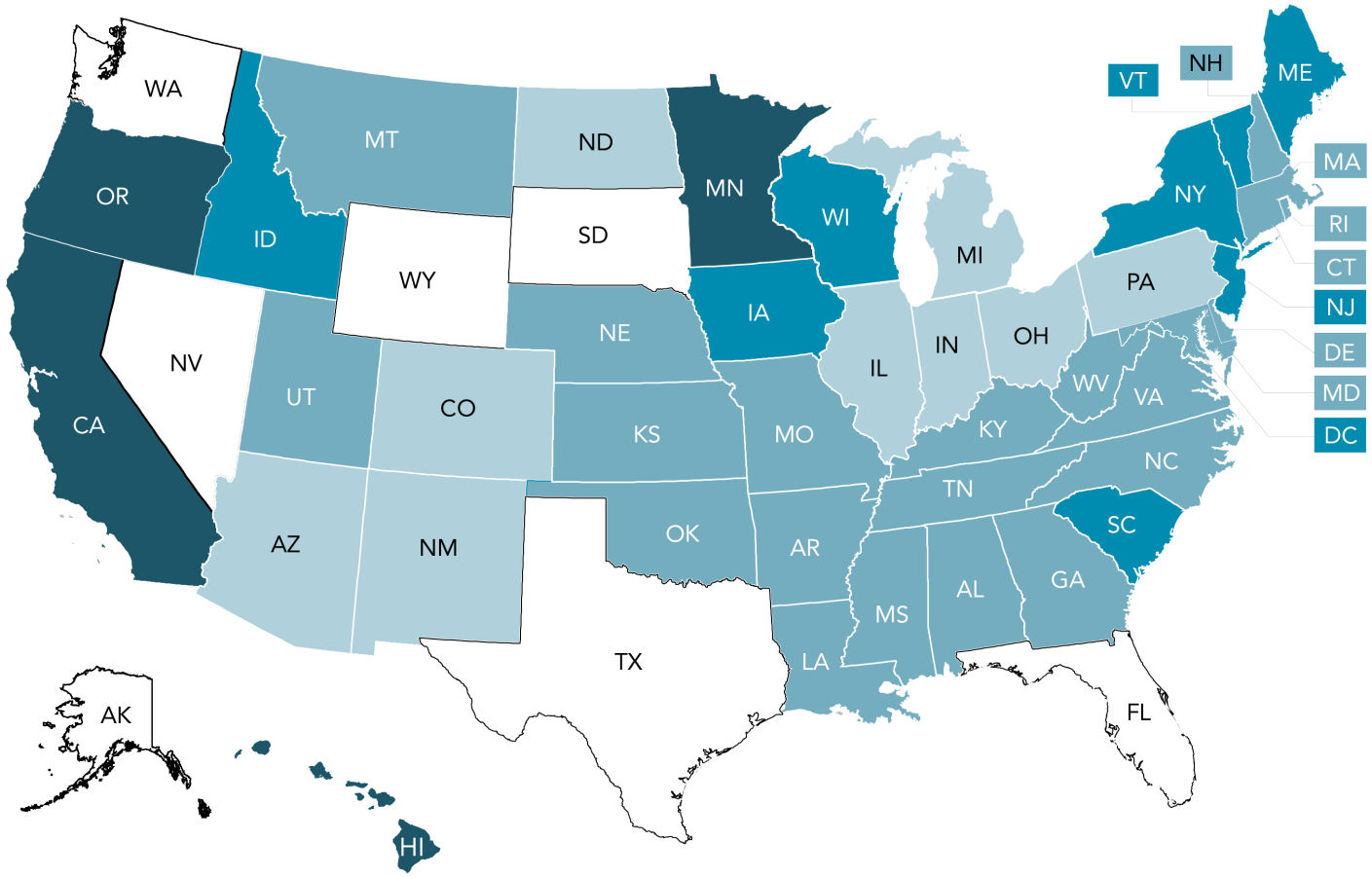
A state income tax is generally imposed by the state in which the income is earned and not the state where the earner lives. Some states, however, have entered into reciprocity agreements with other states that allow outside income to be taxed in the state of residence. For example, Maryland's reciprocity agreement with DC allows Maryland to tax income earned in the District by a Maryland resident. As of 2010, 15 states and DC had adopted reciprocity agreements with specific states. Typically, these are states with major employers close to the border and large commuter flows in both directions.

The State of State (and Local) Tax Policy

How do state and local individual income taxes work?

FIGURE 2

Top State Individual Income Tax Rates
2018



Source: Federation of Tax Administrators, "State Individual Income Taxes (Tax Rates for Tax Year 2018—as of January 1, 2018)."

The State of State (and Local) Tax Policy

How do state and local individual income taxes work?

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Q. How do state and local sales taxes work?

A. Forty-five states and the District of Columbia levy general sales taxes that apply (with some exemptions) to all goods and certain services. Thirty-seven states (including, Alaska, which has no state tax) also allow general sales taxes at the local level. Most states apply separate sales taxes to particular goods, including tobacco, alcohol, and motor fuels.

HOW MUCH REVENUE DO STATE AND LOCAL GOVERNMENTS RAISE FROM SALES TAXES?

States rely on sales taxes more than local governments do. States collected $441 billion from sales taxes in 2016, or 35 percent of own-source state general revenue (table 1). "Own-source" revenue excludes intergovernmental transfers. Nearly two-thirds ($291 billion) of that total came from general sales taxes, while the other one-third ($150 billion) came from selective sales taxes (or excise taxes) on tobacco, alcohol, and the like. Local governments collected $118 billion from sales taxes in 2016, or 11 percent of local government own-source general revenue. Of that total, $85 billion came from general sales taxes and $32 billion came from selective sales taxes. (Census includes the District of Columbia's revenue in the local total.)

Nevada relied on sales tax revenue more than any other state in 2016, with sales and selective sales taxes accounting for 46 percent of combined state and local own-source general revenue. Sales and selective sales

TABLE 1

State and Local Sales Tax Revenue
2016

	General Sales Tax		Selective Sales Tax		Total Sales Tax	
	Revenue (billions)	Percentage of own source general revenue	Revenue (billions)	Percentage of own source general revenue	Revenue (billions)	Percentage of own source general revenue
State and local	377	16	182	8	559	24
State	291	23	150	12	441	35
Local	85	8	32	3	118	11

Source: Urban-Brookings Tax Policy Center, "State and Local Finance Initiative Data Query System."
Note: Own-source general revenue does not include intergovernmental transfers.

taxes also represented 30 percent or more of combined state and local revenue in Arizona, Arkansas, Florida, Hawaii, Louisiana, New Mexico, South Dakota, Tennessee, Texas, and Washington. Among the states with a general sales tax, Massachusetts (15 percent of revenue) relied least on sales and selective sales tax revenue as a percentage of combined state and local own-source revenue.

Every state and the District of Columbia collected some revenue from selective sales taxes in 2016. The average revenue from these taxes was 8 percent of state and local own-source general revenue, but 17 states collected 10 percent or more from selective sales taxes. Nevada's 17 percent from selective sales taxes was the highest revenue share of any state, while Wyoming's 4 percent was the lowest.

HOW DO GENERAL SALES TAX RATES DIFFER ACROSS STATES?

Among states with general sales taxes, Colorado has the lowest rate (2.9 percent) (figure 1). No other state with a general sales tax has a rate below 4.0 percent, but the state general sales tax rate is 4.0 percent in Alabama, Georgia, Hawaii, New York, and Wyoming. In addition to California, four states (Indiana, Mississippi, Rhode Island, and Tennessee) have rates at or above 7.0 percent. Alaska, Delaware, Montana, New Hampshire, and Oregon have no state general sales taxes.

Thirty-seven states (including Alaska, which has no statewide tax) allow local governments to impose their own general sales taxes. The maximum sales tax rates levied by local governments range from 0.5 percent in Hawaii to 8 percent in Colorado.

WHAT PURCHASES ARE SUBJECT TO THE GENERAL SALES TAX?

General sales taxes typically apply to most tangible goods. One notable exception is food purchased for use at home: only 13 states tax such purchases, and 6 of these states tax food at a lower rate than their general sales tax rate. Five of the 13 states that tax food for home consumption provide income tax credits to low-income residents to help offset the tax. In contrast, food bought for immediate consumption at restaurants is taxed in most states, and sometimes at a higher rate than the general sales tax rate.

Many states also exempt prescription and nonprescription drugs, textbooks, and clothing from general sales taxes. Some states have sales tax holidays, periods in which specific purchases—for example, clothes and school supplies right before the start of a new school year—are sold tax-free.

The taxation of services (e.g., dry cleaning, carpentry work, barbershops) is more complicated. All states tax some services, but exemptions are common. Very few states tax professional services, such as doctors and lawyers. Hawaii and New Mexico are exceptions to that rule, taxing nearly all services.

DO SALES TAXES APPLY TO ONLINE PURCHASES?

The treatment of online and other remote sales (e.g., catalog sales) is complex. In 1992, the Supreme Court ruled (*Quill Corp. v. North Dakota*) that under the commerce clause of the US Constitution, a retailer with no physical presence in the online purchaser's state of residence (technically called a "nexus" requirement) is not required to collect a state or local sales tax from the consumer.

However, the Supreme Court revisited this issue in 2018 in *South Dakota v. Wayfair, Inc.*, overturned *Quill*, and gave states broad authority to collect the tax. The Supreme Court upheld a South Dakota law requiring any entity with sales of $100,000 or more or with at least 200 transactions in South Dakota to collect and

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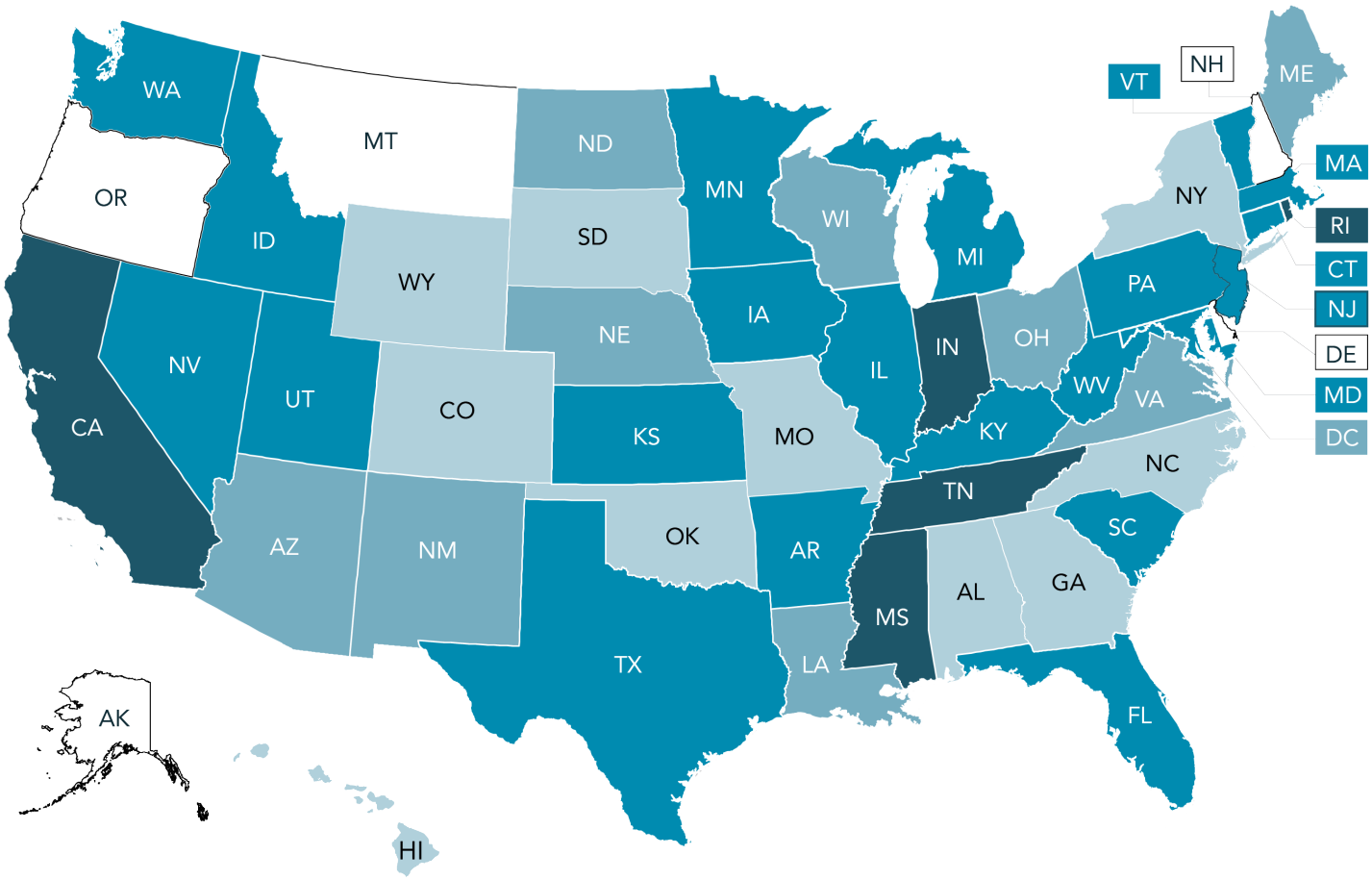
FIGURE 1

State General Sales Tax Rates
2018



Source: Federation of Tax Administrators, "State Sales Tax Rates and Food & Drug Exemptions (As of January 1, 2018)."

remit the state's sales tax. Other states have quickly begun enacting similar laws.

Taxing online sales is not completely new, though. Many large retailers had already begun voluntarily collected the tax even before *Quill*. Most notably, Amazon has collected taxes in every state with a general sales tax since April 2017.

Further, states levy use taxes in addition to sales taxes. Consumers are subject to use taxes on goods purchased outside their state for use in their home state—if they did not pay a sales tax. This includes online purchases. The use tax rate is the same as the sales tax rate, but few consumers know it exists and actually pay it. Many states with both a sales tax and an individual income tax (such as California, Kentucky, Virginia, and Utah) give taxpayers a chance to declare liability and pay use taxes on their income tax returns.

WHAT TAXES DO STATES LEVY ON TOBACCO, ALCOHOL, AND MOTOR FUELS?

All states levy "selective" sales taxes—with different rates than the general sales tax—on some goods and services. Three of the best known are taxes on cigarettes (and other tobacco products), alcohol, and motor fuels. Those products are also subject to a federal tax. For cigarettes and alcohol, the taxes are sometimes called sin taxes because one purpose of the tax is to discourage consumption. Marijuana and soda are also increasingly taxed by states and localities.

Tobacco Taxes

Cigarette taxes are typically levied per pack. Missouri has the lowest rate (17 cents per pack) and Connecticut and New York have the highest ($4.35). In six states (Alabama, Illinois, Missouri, New York, Tennessee, and Virginia), some local governments levy an additional cigarette tax. Local cigarette tax rates range from 1 cent per pack in Alabama and Tennessee to $4.18 per pack in Chicago (a Cook County tax of $3.00, plus a city tax of $1.18).

Some states and cities levy their general sales taxes on the prices of cigarettes inclusive of the excise tax, while others include the general sales tax in the excise tax rate. Taxes are also levied on other tobacco products, including cigars and loose tobacco. There is new discussion about whether other nicotine delivery devices such as e-cigarettes should be taxed. The District of Columbia, California, Kansas, Louisiana, Minnesota, and North Carolina have already passed such taxes. State and local governments collected $18 billion in revenue from tobacco taxes in 2016.

Alcohol Taxes

Alcohol taxes are generally paid at the wholesale level, so the cost is incorporated into the retail price. The excise taxes are levied per gallon (not as a percentage of the price), and beer, wine, and distilled spirits have different tax rates. In addition to the excise tax, many states also levy a general sales tax on the final purchase price of alcohol, and some states and cities have special sales tax rates for alcohol.

Some states, such as New Hampshire and Pennsylvania, collected most of their revenue from government-run liquor stores instead of traditional alcohol taxes, generating revenue through various fees, price mark-ups, and net profits. In total, 21 states collected revenue from government-owned liquor stores.
State and local governments collected $16 billion in revenue from alcohol in 2015—$7 billion from alcohol taxes and $9 billion from government-owned liquor stores.

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Motor Fuel Taxes

Motor fuel taxes are typically per gallon taxes. That is, consumers pay tax based on how much gas they purchase, not as a percentage of the final retail price of gasoline. However, 20 states and the District of Columbia tie at least a portion of their gasoline tax rate to the retail price. The lowest gasoline tax rate is in Alaska (8.95 cents per gallon) and the highest is in Pennsylvania (57.6 cents per gallon).

States earmark much of their motor fuel tax revenue for transportation spending, which has meant funding gaps for transportation as gasoline has recently stagnated. States are considering options like tying the gas tax rates to inflation or population, taxing based on price, and taxing miles traveled instead of gas (as more drivers use hybrid or electric cars). State and local governments collected a combined $44 billion in revenue from motor fuel taxes in 2015.

Some cities (e.g., Boston, San Francisco, and Washington, DC) also have special tax rates for specific goods and services (e.g., restaurant meals, hotel accommodations, rental cars, and parking) that are higher than their general sales tax rates. These higher tax rates are often designed to collect a significant share of their revenue from visitors, who use and benefit from city services and presumably have less political clout than local voters.

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Q. How do state and local property taxes work?

A. Jurisdictions in all 50 states and the District of Columbia impose property taxes. Most property tax revenue comes from local levies on land and improvements to it, but some states also tax personal property (such as machinery, equipment, and motor vehicles). The tax equals a percentage of the taxable value of the property and may be levied in some form at every level of government: state, county, municipal, township, school district, and special district.

HOW MUCH REVENUE DO STATE AND LOCAL GOVERNMENTS RAISE FROM PROPERTY TAXES?

While property taxes are a significant source of local government revenue, they are a very small revenue source for most states (table 1). State governments levied property taxes in 36 states in 2016, collecting $16 billion in revenue, or 1 percent of own-source state general revenue. (Own-source revenue excludes intergovernmental transfers.) Meanwhile, local governments collected $487 billion from property taxes in 2016, or nearly half of their own-source general revenue.

Property taxes are the largest own-source of revenue for counties, cities, townships, school districts, and special districts, which are specific-purpose units, such as water and sewer authorities. School districts rely quite heavily on property taxes, collecting $181 billion in 2012, which was 82 percent of their own-source general revenue. Because school districts receive substantial intergovernmental transfers, own-source revenue makes up less than half (about 45 percent) of their total general revenue. (Census only releases data for these specific local jurisdictions in years that end in 2 or 7.)

TABLE 1

State and Local Property Tax Revenue
2016

	Revenue (billions)	Percentage of own source general revenue
State and local	$503	22%
State	$16	1%
Local	$487	47%

Source: Urban-Brookings Tax Policy Center, "State and Local Finance Initiative, Data Query System."

Note: Own-source general revenue does not include intergovernmental transfers.

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IN WHICH STATES ARE PROPERTY TAXES MOST IMPORTANT?

New Hampshire, which has neither a broad-based income tax nor a general sales tax, was the most reliant on property taxes in 2016, with property tax revenue accounting for 47 percent of its combined state and local own-source general revenue. Property taxes also contributed more than 30 percent of state and local revenue in Connecticut, Maine, New Jersey, Rhode Island, and Vermont. Alabama was the least reliant on property tax revenue in 2016, with only 10 percent of its combined state and local own-source general revenue coming from the tax. Arkansas, Delaware, Hawaii, Kentucky, Louisiana, New Mexico, North Dakota, Oklahoma, and West Virginia also collected less than 15 percent of combined state and local revenue from property taxes (figure 1).

Looking only at local governments, property taxes provided more three-quarters of own-source general revenue in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, and Rhode Island in 2016. Alabama's local governments received 19 percent of their own-source revenue from property taxes, the lowest percentage in any state.

At the state level, Vermont's property taxes contributed 27 percent of state own-source general revenue in 2016, far and away the highest percentage in any state. Nearly all of Vermont's education spending is financed at the state level, and the state property tax is the largest source of that funding. The next-highest percentage was in Wyoming, where property taxes were 11 percent of state own-source general revenue. Wyoming's revenue is relatively high in part because the state levies its tax on mineral production.

Property taxes were also 5 percent or more of state own-source revenue in Arizona, Arkansas, Kansas, Michigan, Montana, New Hampshire, and Washington. State property taxes are often on personal property and taxes on land that is used for utilities. Fourteen states did not levy a state-level property tax.

HOW MUCH DO PROPERTY TAX RATES DIFFER ACROSS THE COUNTRY?

Effective property tax rates differ widely across and within states, making them difficult to compare. In addition to variation in statutory tax rates, local governments use various methods to calculate their real property tax base.

The taxing jurisdiction typically assesses the real property value by estimating what the property would sell for in an arms-length transaction. However, some jurisdictions base value on the last sale price or acquisition value of the property, others consider the income that a property could generate (for example, an empty lot that could be used for a hotel), and some base the assessment solely on the size or physical attributes (e.g., design, location) of the property. There is also variation in the timing of assessments, with some jurisdictions assessing annually and others less frequently.

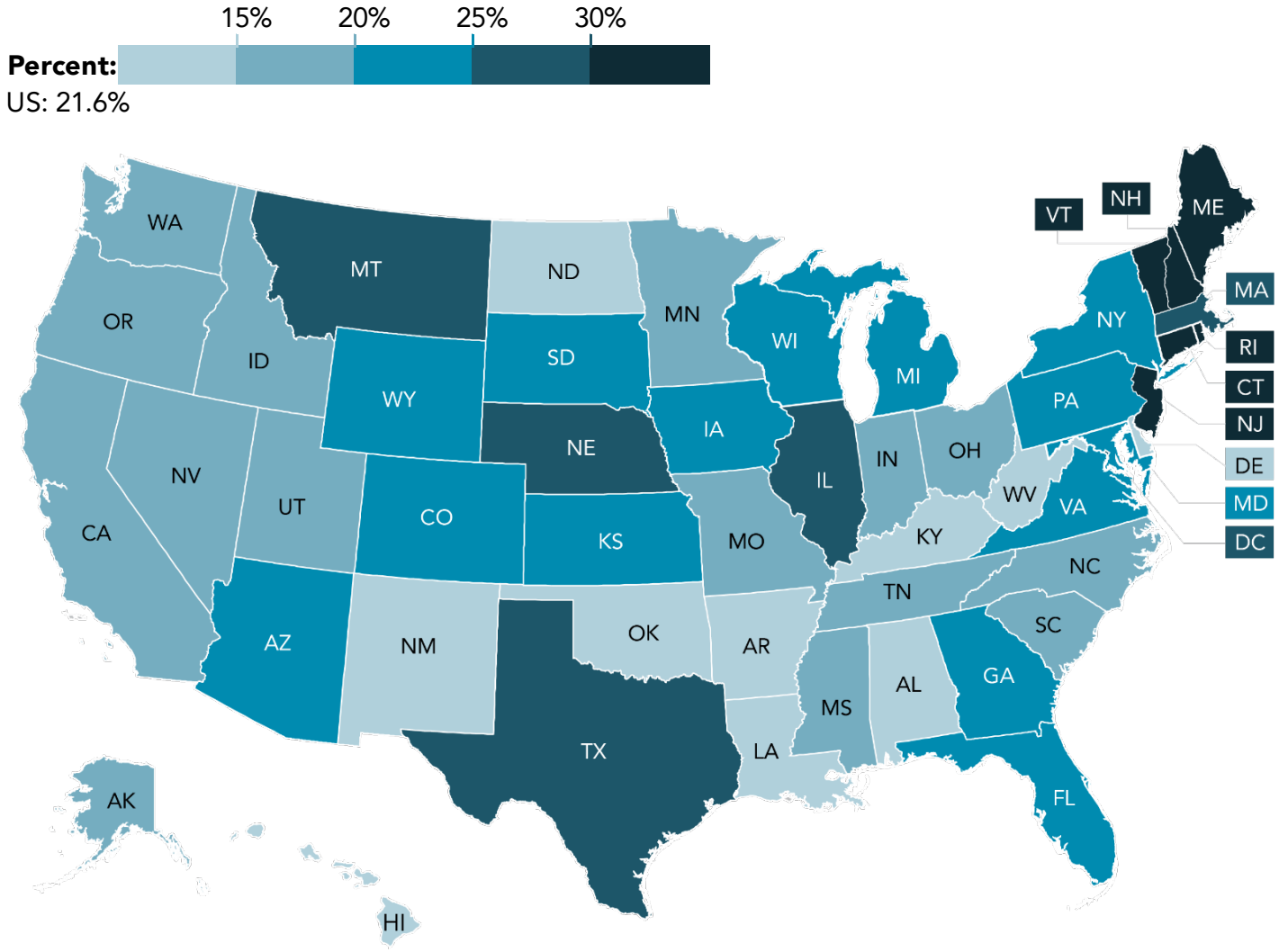
Some jurisdictions tax the entire assessed value of the property (before deductions and credits). Others tax only a fraction of the assessed value. For example, counties in South Carolina tax only 4 percent of a property's assessed value. Jurisdictions may impose different statutory tax rates ("classifications") for different types of property, most commonly distinguishing between residential and business property.

The State of State (and Local) Tax Policy

How do state and local property taxes work?

FIGURE 1

Property Tax Revenue as a Percentage of State and Local Own-Source General Revenue
2016



Source: Urban-Brookings Tax Policy Center, "State and Local Finance Initiative, Data Query System."
Note: Own-source general revenue does not include intergovernmental transfers.

The State of State (and Local) Tax Policy

How do state and local property taxes work?

HOW DO STATES LIMIT PROPERTY TAXES?

Many states have imposed limits on property tax rates, property tax revenue, or increases in assessed property values, reducing reliance on the property tax as a source of revenue. California, for example, limits the tax rate to 1 percent and annual assessment increases to 2 percent until a property is resold. As a result, neighbors with similar houses may have dramatically different tax liabilities depending on when their houses last changed hands.

States and local governments also often use limits, exemptions, deductions, and credits to lower tax liability. Here are some examples:

- Assessment limits prevent a property's assessed value from increasing by more than a fixed percentage between assessments. These limits can reduce a property's assessed value below its market value and prevent rapid property value increases from raising the owner's tax burden. When the property is sold, its assessed value is reset at market value.
- Homestead deductions and exemptions decrease the taxable value of real property by a fixed amount (much the same way a standard deduction decreases taxable income) for owners who occupy the property. Forty-one states and the District of Columbia have homestead exemptions that reduce the fraction of the assessed property value subject to tax.
- Circuit breaker programs provide relief for elderly and low-income residents with property tax liabilities above a specified percentage of their income. Although relief is based on property tax payments, it is typically provided via an income tax credit. In most states, the state government collects income tax while local jurisdictions collect property tax, making circuit breakers a type of subsidy from state to local governments. Unlike the other approaches described here, circuit breakers benefit renters as well as homeowners in some jurisdictions. According to the Lincoln Institute of Land Policy, 33 states and the District of Columbia offer some form of circuit breaker program. In 22 of these states and the District of Columbia, renters are eligible for a circuit breaker program (some states offer multiple programs for different types of residents).
- Property tax deferrals allow elderly and disabled homeowners to defer payment until the sale of the property or the death of the taxpayer.

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Q. How do state and local corporate income taxes work?

A. Forty-four states and the District of Columbia levy corporate income taxes. Ohio, Nevada, Texas, and Washington tax corporate gross receipts. South Dakota and Wyoming had no corporate income tax or gross receipts tax in 2016.

HOW MUCH REVENUE DO STATE AND LOCAL GOVERNMENTS RAISE FROM CORPORATE INCOME TAXES?

State and local governments raise a small share of revenue from corporate income taxes (table 1). States collected $46 billion from corporate income taxes in 2016, or 4 percent of state own-source general revenue. (Own-source revenue excludes intergovernmental transfers.) Local governments collected $8 billion from corporate income taxes in 2016, or 1 percent of own-source revenue. Census includes the District of Columbia's $500 million of revenue in the local total. The local total is low partly because only seven states allowed localities to levy a corporate income tax. Among them, New York (and mostly New York City) was responsible for 86 percent of all corporate income tax revenue collected by local governments.

TABLE 1

State and Local Corporate Income Tax Revenue
2016

	Revenue (billions)	Percentage of own source general revenue
State and local	$54	2%
State	$46	4%
Local	$8	1%

Source: Urban-Brookings Tax Policy Center, "State and Local Finance Initiative, Data Query System."
Note: Own-source general revenue does not include intergovernmental transfers.

At the state level, New Hampshire collected 16 percent of state own-source general revenue from corporate income taxes in 2016, the highest share of any state. New Hampshire does not have a broad-based individual income tax or general sales tax. Corporate income taxes were also more than 5 percent of state own-source revenue in Delaware, Illinois, Massachusetts, and Tennessee. Among the 44 states with a corporate income tax, the lowest percentage was in Hawaii, Louisiana, and New Mexico, which all collected only 1 percent of revenue from the tax.

The State of State (and Local) Tax Policy

How do state and local corporate income taxes work?

WHAT INCOME IS TAXED?

Most states use the federal definition of corporate income as a starting point. However, states deviate from federal rules in some instances. For example, when the federal government enacted "bonus depreciation" in 2008, which allowed businesses to deduct a larger portion of capital investment in the year the investment is first made, many states did not enact conforming rules. Many states will again have to decide if they want to conform or decouple from several corporate income tax provisions in the recently passed Tax Cuts and Jobs Act.

While states benefit from federal tax administration and enforcement by following the federal definition of corporate income, they must take additional steps to determine what portion of multistate corporation income is taxable in their states.

States must first establish whether a company has "nexus" in the state, that is, enough physical or economic presence to owe income tax. Next, they must determine the taxable income generated by activities in the state. For example, multistate companies often have subsidiaries in no-tax or low-tax states that hold intangible assets such as patents and trademarks. The rent or royalty payments to those wholly owned subsidiaries may or may not be considered income of the parent company operating in another state. Finally, states must determine how much of a corporation's taxable income is properly attributed to that state.

Until recently, most states used a three-factor formula based on the Uniform Division of Income for Tax Purposes Act to determine the portion of corporate income taxable in the state. That formula gave equal weight to the shares of a corporation's payroll, property, and sales in the state. In the last 20 years, however, states have moved toward formulas that either weight more heavily or rely exclusively on sales within the state to apportion income. By using the portion of a corporation's sales rather than employment or property to determine tax liability, states hope to encourage companies to relocate or to expand their operations within these states.

HOW MUCH DO CORPORATE INCOME TAX RATES DIFFER ACROSS STATES?

In 2018, top corporate income tax rates ranged from 3 percent in North Carolina to 12 percent in Iowa (figure 1). Six states (Alaska, Illinois, Iowa, Minnesota, New Jersey, and Pennsylvania) had top corporate income tax rates at or above 9.0 percent. Ten states (Arizona, Colorado, Florida, Kansas, Mississippi, New Mexico, North Carolina, North Dakota, South Carolina, and Utah) had top rates below 6.0 percent.

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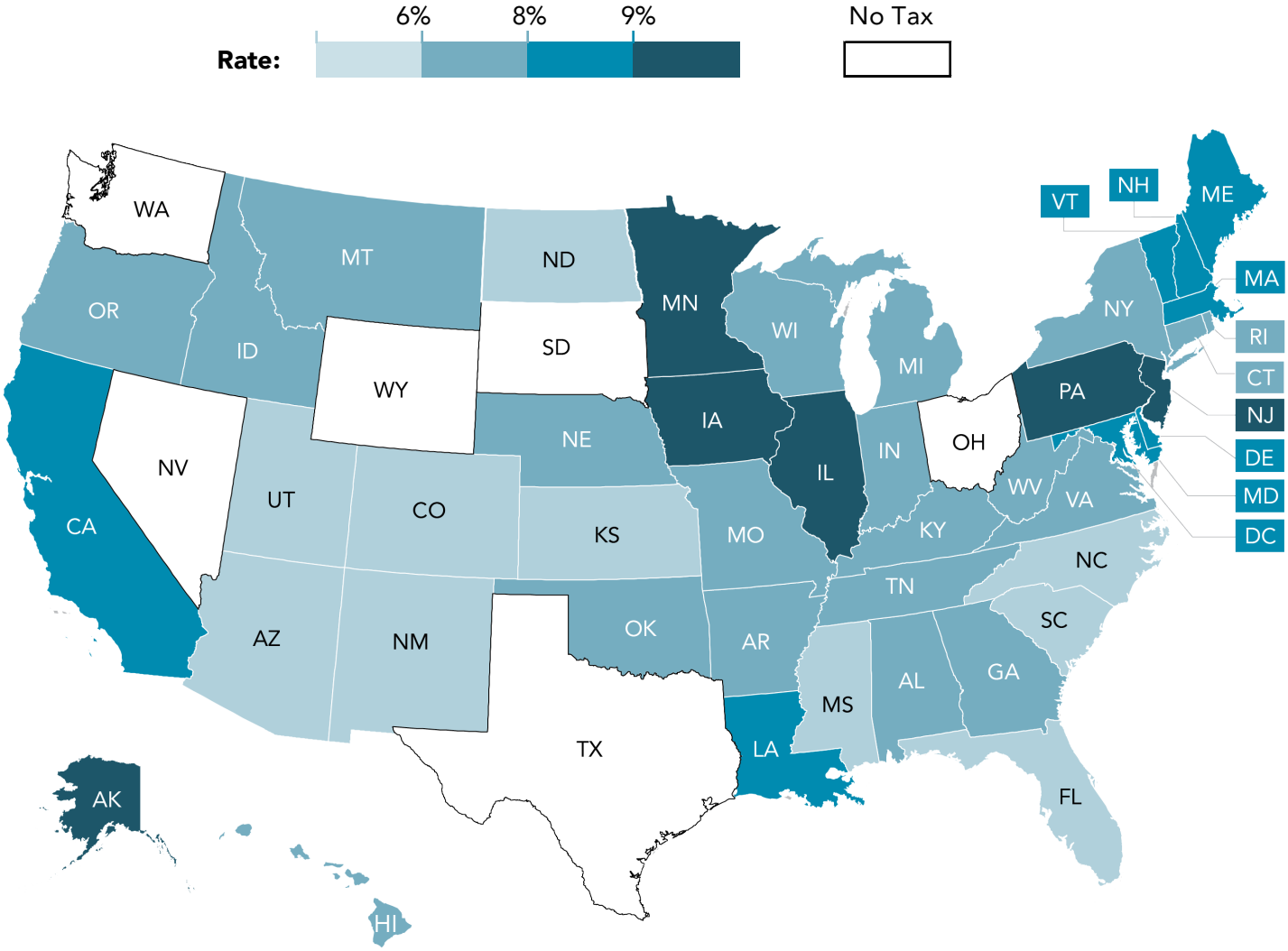
How do state and local corporate income taxes work?

FIGURE 1

Top State Corporate Income Tax Rates
2018



Source: Federation of Tax Administrators.

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Q. How do state estate and inheritance taxes work?

A. Twelve states and the District of Columbia have an estate tax and six have an inheritance tax (Maryland has both). Before 2001, when a federal credit offset the cost of state taxes, all states taxed the transfer of wealth at death.

State and local governments collected $5 billion from estate and inheritance taxes in 2016, well less than 1 percent of combined state and local own-source general revenue. In 2000, the last year all states levied an estate tax, these taxes still provided less than 1 percent of combined state and local own-source general revenue.

ESTATE TAX

An estate tax is paid by the estate itself on the transfer of property at the time of a person's death. States must allocate assets across jurisdictions if the deceased person lived or owned property in multiple jurisdictions.

Before 2001, all 50 states and the District of Columbia had an estate tax because the federal estate tax provided a state tax credit worth 16 percent of the taxable value of the estate. Thus, states could raise revenue without increasing the net tax burden on their residents by linking directly to the federal credit, and all states did this by setting their estate tax rate equal to the maximum credit. However, federal tax changes in 2001 replaced the credit with a less valuable deduction, and many states eliminated their tax.

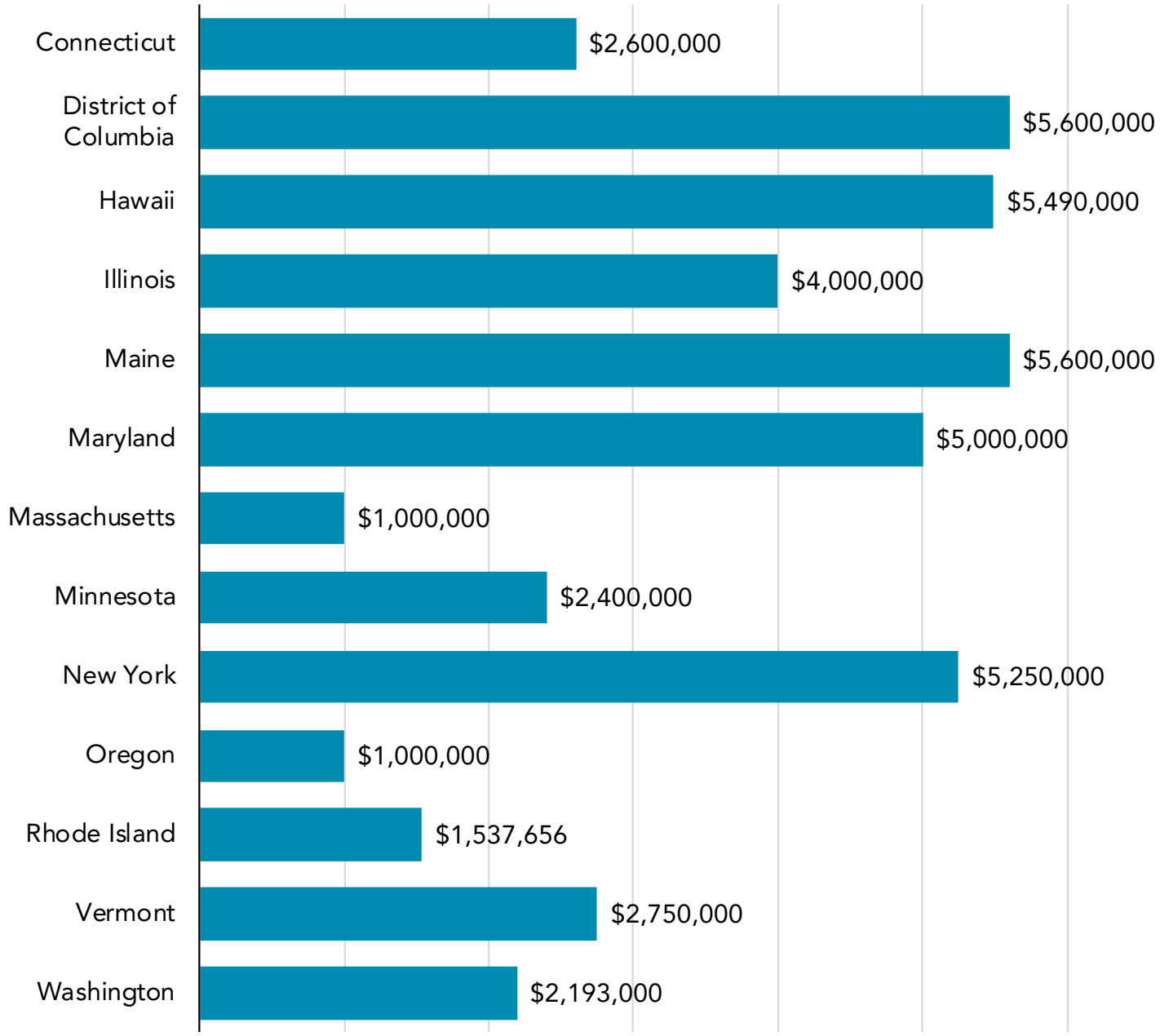
Currently, only 12 states and the District of Columbia levy an estate tax. Delaware and New Jersey repealed their estate taxes on January 1, 2018. Kansas, North Carolina, Ohio, Oklahoma, and Tennessee also recently repealed their estate taxes.

Each state exempts a gross amount from its tax (figure 1). These exemptions range from $1 million in Massachusetts and Oregon to $5.6 million in the District of Columbia and Maine. Some states previously tied their exemption to the federal amount, but after the Tax Cuts and Jobs Act raised the federal exemption from $5.49 million to $11.2 million beginning in 2018, the District of Columbia, Hawaii, Maryland, and Maine all decoupled and established their own exemption amounts. Connecticut was planning to match the federal amount in 2020, but recent legislation pushed the conformity date to 2023. New York is still set to match the federal exemption in 2019.

Most states have a top estate tax rate of 16 percent, a relic of the previous federal estate tax credit system (see below). However, Connecticut (12 percent), Hawaii (15.7 percent), Maine (12 percent), and Washington (20 percent) have different top rates.

FIGURE 1

Exemption Amounts for States with Estate Taxes 2018



Source: State tax codes.
Notes: The federal exemption threshold is $11,200,000.

The State of State (and Local) Tax Policy

How do state estate and inheritance taxes work?

INHERITANCE TAX

An inheritance tax is similar to an estate tax but is paid by the heirs rather than the estate. The tax is levied on a resident's estate or a nonresident's in-state property at the time of death. The tax depends on the heir's relationship to the decedent. Surviving spouses are exempt in all states with inheritance taxes; some states also exempt direct descendants. Iowa, Kentucky, Maryland, Nebraska, New Jersey, and Pennsylvania have inheritance taxes. Indiana recently repealed its inheritance tax.

BACKGROUND

From 1924 to 2005, the federal government shared estate tax revenue with the states by allowing a credit for state estate and inheritance taxes. From 1924 to 1954, the credit was equivalent to 25 percent of the federal estate tax. After 1954, estates could claim a credit for state estate and inheritance taxes according to a progressive schedule with a top rate of 16 percent of the taxable value of the estate. As a consequence, rather than establishing unique taxes, states enacted estate taxes that equaled the maximum credit. In 2000, the last year the full credit was available, the state tax credits totaled $6.4 billion.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) phased out the credit, replacing it with a less generous deduction. Many states directly linked the estate tax to the amount of the credit, and estate taxes would go to zero if they did not "decouple" from the federal law. In fact, 30 states let their tax go away by doing nothing. Fifteen states and DC did decouple, establishing separate estate taxes; five states explicitly repealed their taxes.

All provisions of EGTRRA were scheduled to expire in 2010 but were extended to 2012. In 2012, Congress did not address EGTRRA until the very end of the year, creating a fiscal cliff for most federal taxes and the possibility that the federal credit for state death taxes would return. In the end, Congress permanently replaced the state credit with a deduction for estate taxes paid to the states.

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Q. How do state earned income tax credits work?

A. In 2018, 28 states and the District of Columbia offered their own earned income tax credit (EITC). States typically set their credits as a percentage of the federal EITC. However, unlike the federal credit, some state EITCs are not refundable, which makes them much less valuable to very low income families who rarely owe income tax.

Twenty-eight states and DC offered their own earned income tax credit (EITC) in 2018. This does not include Washington's credit which, while a part of the state's tax code, has never been implemented or funded. If Washington did fund its credit, it would be the only state without an income tax to offer an EITC.

In all but six states—Delaware, Hawaii, Ohio, Oklahoma, South Carolina, and Virginia—state EITCs, like the federal credit, are refundable. That is, if a refundable credit exceeds a taxpayer's state income tax, the taxpayer receives the excess amount as a payment from the state. A nonrefundable EITC can only offset state income taxes, so the benefit is limited for low-income families with little taxable income.

All states but one set their credits as a percentage of the federal credit, the exception being Minnesota, which calculates its credit as a percentage of income (table 1). State credits as a percentage of the federal credit ranged from 3 percent in Montana to a nonrefundable 125 percent in South Carolina. The highest refundable credit is in the District of Columbia (40 percent).

California's credit is 85 percent of the federal credit but is based on a smaller earnings range than the federal EITC. In 2018, the state will expand the income range and allow previously ineligible self-employed workers to qualify for the credit.

Wisconsin's EITC depends on the number of qualified children: 4 percent of the federal credit for filers with one child, 11 percent for filers with two children, and 34 percent for filers with three or more children. A filer in Wisconsin without children is not eligible for the state EITC.

The District of Columbia also offers 100 percent of the federal EITC to earners without qualifying children and expanded the range of eligible income beyond the federal limits. The maximum federal credit for earners without a qualifying child is far lower ($519) than the max credit for earners with at least one child ($3,461), and the eligible income range is also far smaller for earners without qualifying children.

In 2018, Maryland passed legislation that extends eligibility for the state's credit to workers without a qualifying child who are between 21 and 24 years old (workers without qualifying children must be between 25 and 65 years old to claim the federal credit).

The State of State (and Local) Tax Policy

How do state earned income tax credits work?

TABLE 1

Description of State Earned Income Tax Credits
2018

State	Year enacted	Refundable	Percentage of federal EITC
California	2015	Yes	85 percent (applies to a smaller range of eligible income than the federal credit)
Colorado	2015		10
Connecticut	2011	Yes	27.5
Delaware	2005	No	20
District of Columbia	2000	Yes	40 (100 for childless workers)
Hawaii	2018	No	20
Illinois	2000	Yes	10
Indiana	1999	Yes	9
Iowa	1989	Yes	15
Kansas	1998	Yes	17
Louisiana	2007	Yes	3.5
Maine	2000	Yes	5
Maryland	1987	Yes	Refundable: 27; nonrefundable: 50
Massachusetts	1997	Yes	23
Michigan	2006	Yes	6
Minnesota	1991	Yes	Calculated as a percentage of income
Montana	2020	Yes	3
Nebraska	2006	Yes	10
New Jersey	2000	Yes	30
New Mexico	2007	Yes	10
New York	1994	Yes	30
Ohio	2013	No	10, limited to 50 percent of liability for Ohio taxable income over $20,000
Oklahoma	2002	No	5
Oregon	1997	Yes	8
Rhode Island	1986	Yes	12.5
South Carolina	2018	No	125
Vermont	1988	Yes	32
Virginia	2004	No	20
Washington	2008 (never implemented)	Yes	10 (or $50, whichever is greater)
Wisconsin	1989	Yes	4 for families with one child; 11 for families with two children; 34 for families with three or more children

Source: Tax Credits for Workers and Their Families, "State Tax Credits."

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Q. How do state and local severance taxes work?

A. Thirty-four states levy severance taxes, which are taxes on the extraction of natural resources (including oil and natural gas). The revenue from these taxes is extremely volatile because it rises and falls with the price and production of natural resources.

HOW MUCH REVENUE DO STATE AND LOCAL GOVERNMENTS RAISE FROM SEVERANCE TAXES?

State and local governments collected $8 billion from severance taxes in 2016. Nearly all this revenue came from state taxes. Only 12 states allowed local severance taxes in 2016, collecting a combined $225 million that year.

Severance taxes accounted for less than 1 percent of national state and local own-source general revenue in 2016, but provided a substantial amount of own-source revenue in a few resource-rich states, such as North Dakota (21 percent) and Wyoming (10 percent) (figure 1). "Own-source" revenue excludes intergovernmental transfers.

The states with the next-highest contributions from severance taxes were Alaska, New Mexico, and West Virginia—all collected 4 percent of state and local own-source revenue from severance taxes. Severance taxes in Texas account for 30 percent of national state and local severance tax revenue, but they provide only 1 percent of Texas's state and local own-source revenue. Sixteen states and the District of Columbia do not levy severance taxes.

Alaska typically depends on severance tax revenue more than any other state. However, the price and production of oil have fallen dramatically and so has the state's tax revenue. In 2012, Alaska's severance tax revenue was nearly $6 billion and accounted for over 40 percent of the state's combined state and local own-source general revenue. Since then, however, revenue has fallen to $4 billion in 2013 (33 percent), $2 billion in 2014 (23 percent), $636 million in 2015 (8 percent), and $337 million in 2016 (4 percent).

Alaska highlights the volatility of severance taxes and the challenges that poses to states that heavily rely on them. Therefore, these states must have flexible budgeting arrangements or significant rainy day funds to accommodate unforeseen changes in severance tax revenue flows.

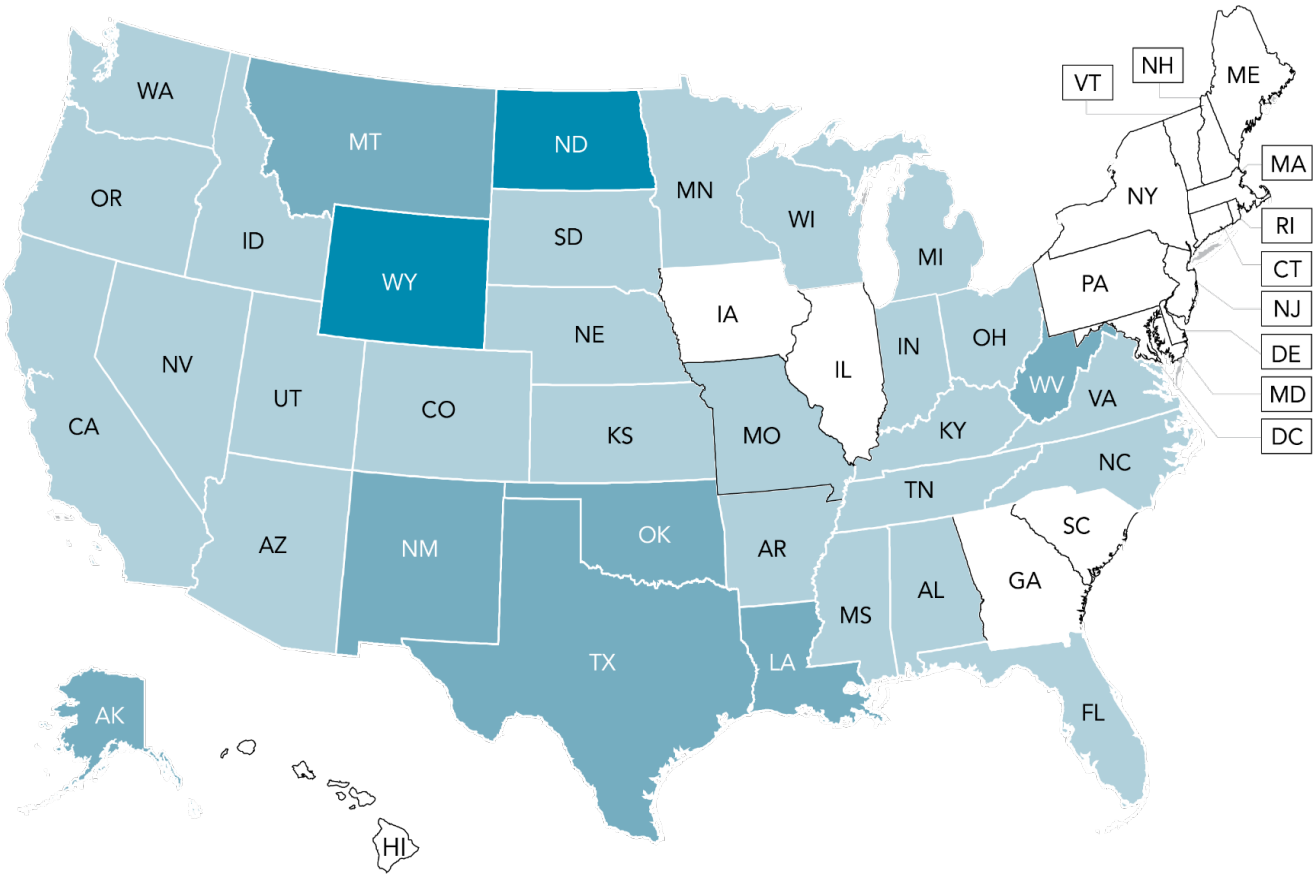
The State of State (and Local) Tax Policy

How do state and local severance taxes work?

FIGURE 1

Severance Tax Revenue as a Percentage of State and Local Own-Source General Revenue

2016



Source: US Census Bureau, Census of Governments.

Note: Own-source general revenue does not include intergovernmental transfers.

Data Sources

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Q. How do state and local soda taxes work?

A. While no state currently taxes sweetened beverages, several localities levy what's commonly referred to as a soda tax. Six local governments levy a per volume excise tax on drinks sweetened with sugar and one government levies a per volume tax on all sweetened drinks.

HOW MUCH REVENUE DO STATE AND LOCAL GOVERNMENTS RAISE FROM SODA TAXES?

No state currently has an excise tax on sugar-sweetened beverages. Instead, soda taxes are levied locally in Boulder, Colorado; Philadelphia, Pennsylvania; Seattle, Washington; and four California cities: Albany, Berkeley, Oakland, and San Francisco.

Philadelphia's tax is nearly 2 percent of its own-source revenue, but the taxes in the other jurisdictions account for 1 percent or less of own-source general revenue. (Own-source revenue excludes intergovernmental transfers.)

HOW DO SODA TAX RATES DIFFER?

All current soda taxes are based on a drink's volume. Tax rates range from 1 cent per ounce in all four California jurisdictions to 2 cents per ounce in Boulder (table 1). For concentrates (i.e., fountain soda), the tax is typically applied to the maximum volume the syrup can produce. As with state alcohol taxes, distributors or wholesalers pay the tax when they deliver products to retailers. The expectation is that much or all of the tax on soda is then passed on to customers in the form of higher retail prices. No current soda taxes are levied as a percentage of retail price.

Each jurisdiction exempts some beverages from its tax, including alcoholic beverages, milk, infant formula, and drinks for medical purposes (not including sports and energy drinks). Philadelphia's tax base is notably larger than other jurisdictions' because it includes any beverage with real or artificial sweeteners. As such, Philadelphia is the only jurisdiction that taxes diet sodas. In the other six localities, a drink is only taxed if the sweetener adds calories. Further, some jurisdictions only tax drinks if the drink surpasses a calorie minimum (e.g., 2 calories per ounce in Berkeley).

Cook County, Illinois (which includes Chicago), passed a 1 cent per ounce soda tax in November 2016. However, that tax was in effect for only a few months before the county board reversed itself and repealed it in October 2017.

Arizona and Michigan preemptively blocked local governments from enacting soda taxes. California,

despite already having four local soda taxes, passed legislation in June 2018 banning any new locality from establishing a tax for 12 years.

Washington voters also approved a ban on local soda taxes in November 2018. The ban does not affect Seattle's soda tax, though. Oregon voters rejected a similar ballot initiative that would have preemptively blocked local soda taxes.

TABLE 1

Soda Tax Rates

City	Tax rate	Eligible drinks	Paid by
Albany, CA	1 cent per ounce	Sugar-sweetened beverages	Distributors
Berkeley, CA	1 cent per ounce	Sugar-sweetened beverages	Distributors
Boulder, CO	2 cents per ounce	Sugar-sweetened beverages	Distributors
Oakland, CA	1 cent per ounce	Sugar-sweetened beverages	Distributors
Philadelphia, PA	1.5 cents per ounce	Sweetened beverages (includes diet drinks)	Distributors
San Francisco, CA	1 cent per ounce	Sugar-sweetened beverages	Distributors
Seattle, WA	1.75 cents per ounce	Sugar-sweetened beverages	Distributors

Source: City government websites.
Notes: Every jurisdiction exempts certain drinks such as milk. Seattle's tax is on "sweetened beverges" but their definition of these drinks only includes drinks with "caloric sweetener." Manufacturers in Seattle can apply for a lower rate based on gross income.

WHAT ARE THE OBJECTIONS TO TAXING SODA?

Soda taxes tend to be regressive because lower-income consumers spend a larger share of their income on the tax than higher-income consumers. Further, families with lower incomes typically spend more of their income on groceries—specifically, on products like sugar-sweetened beverages. However, policymakers could soften the regressivity of the tax by using the revenue for targeted tax relief (e.g., the earned income tax credit) or spending it on programs aimed at lower-income communities. Further, the tax might encourage the purchases of healthier beverages and thus amplify positive public health effects for this group.

Also, while sugar is consistently identified as contributing to obesity, it is not the only factor. And the health effects and medical costs of obesity are not uniform. Some consumers with no risk of harm or medical cost will pay the tax. Meanwhile, others may substitute equally or more unhealthy options (such as alcohol) to avoid the tax.

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Q. How do marijuana taxes work?

A. Marijuana sales are legal and taxed in seven states. Most of these states tax the consumer purchase of marijuana (similar to a retail sales tax) but some tax the transaction between cultivators and distributors or retailers (similar to taxes on alcohol).

HOW MUCH REVENUE DO STATE AND LOCAL GOVERNMENTS RAISE FROM MARIJUANA TAXES?

Although prohibited under federal law, marijuana sales are legal and taxed in seven states: Alaska, California, Colorado, Massachusetts, Nevada, Oregon, and Washington. Marijuana is legal in Maine and Vermont but neither state has established its tax system yet. Michigan voters approved legal and taxable marijuana in November 2018. The District of Columbia also legalized marijuana but Congress currently prevents the city from regulating and taxing sales (figure 1).

In Colorado and Washington, where marijuana has been taxed since 2014, marijuana taxes bring in hundreds of millions of dollars, or roughly 1 percent of each state's own-source general revenue. (Own-source revenue excludes intergovernmental transfers.) Nevada collected nearly $70 million in its first year of taxable sales, which is also roughly 1 percent of its own-source general revenue. In the past year, Alaska collected $10 million and Oregon collected $80 million—both totals are well below 1 percent of each state's own-source general revenue. California and Massachusetts have taxed marijuana for less than a year.

Medical marijuana is legal in 32 states and some of these states levy a tax on the purchase. But these tax rates are often the same as or close to the state's general sales tax rate and do not raise much revenue.

HOW DO MARIJUANA TAX RATES DIFFER?

Most states tax marijuana as a percentage of the retail price (table 1). These rates range from 10 percent in Nevada to 37 percent in Washington. California, Colorado, Massachusetts, and Oregon also use these taxes, which are similar to a retail sales tax the consumer pays on the purchase and the retailer remits to the state. Michigan's legislature will set up its tax system, but the ballot initiative called for a 10 percent excise tax on retail sales. Localities can also levy an additional tax in some states, mostly as an excise tax on retail sales.

Colorado and Nevada additionally have a tax on the wholesale transaction between cultivators and distributors or retailers. The expectation is that some or all of these wholesale taxes are passed through to the consumer via higher purchase prices—similar to how alcohol taxes work. Alaska and California also levy a tax at this stage of production but tax marijuana per ounce instead of as a percentage of price (similar to a cigarette tax).

Some states also levy their general sales tax on the purchase of marijuana in addition to the excise taxes.

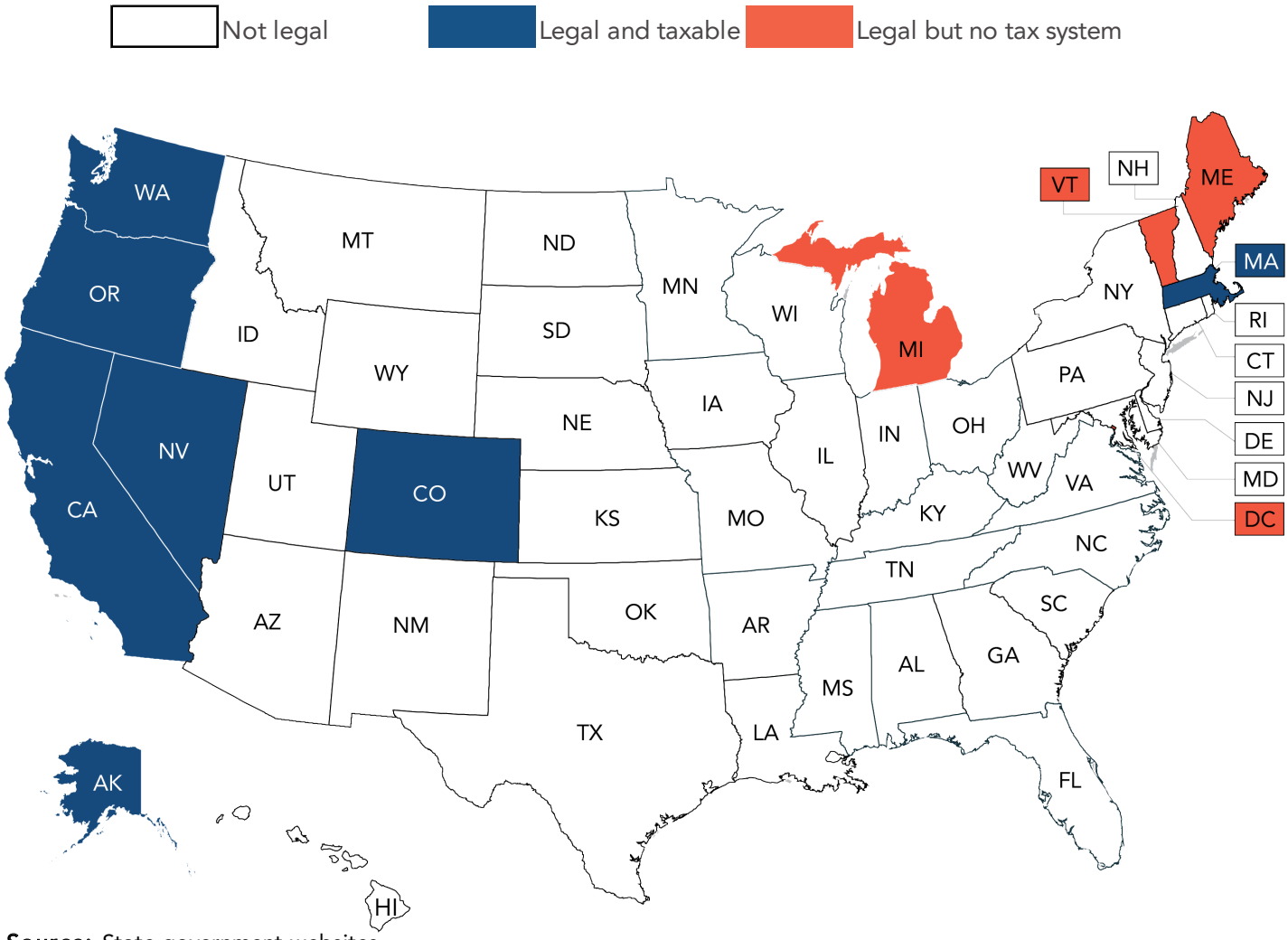
The State of State (and Local) Tax Policy

How do marijuana taxes work?

FIGURE 1

Where is Marijuana Legal and Taxable?

2018



Source: State government websites.

Note: Medical marijuana is legal in 32 states.

TABLE 1

Marijuana Tax Rates

State	Taxes	Legalization Date
Alaska	Cultivators pay $50 per ounce for bud/flowers and $15 per ounce for remainer of plant Localities can levy an excise tax on retail sales	2014
California	15% state excise tax on retail sale Cultivators pay $9.25 per ounce for flowers and $2.75 per ounce for leaves Localities can levy an excise tax on retail sales	2016
Colorado	15% state excise tax on retail sale 15% marijuana tax on contract price (cultivator) Localities can levy both a retail and/or cultivator tax	2012
District of Columbia	Prevented from taxing sales	2014
Maine	No tax system in place	2016
Massachusetts	10.75% state excise tax on retail sale Local excise taxes on retail sales capped at 3%	2016
Michigan	No tax system in place Ballot initiative proposed 10% excise tax on retail sale	2018
Nevada	15% state excise tax on wholesale sale (cultivator) 10% state excise tax on retail sale Localities can levy an excise tax on retail sales	2016
Oregon	17% state excise tax on retail sale Local excise taxes on retail sales capped at 3%	2014
Vermont	No tax system in place	2018
Washington	37% state excise tax on retail sale	2012

Source: State government websites.

Notes: Some states also levy their general sales tax on mariujana purchases. The legalization date is when the law passed and not when taxable sales began.

HOW DO STATES USE MARIJUANA REVENUE?

- Alaska sends half of its revenue to its general fund and half to programs aimed at reducing repeat criminal offences.
- California's revenue pays for administrative costs associated with marijuana legalization, and then uses excess funds for programs related to drug use, including economic development, academic studies, and youth programs.
- Colorado's revenue is dedicated to education programs.
- Massachusetts distributes its revenue to various public safety programs.
- Nevada's revenue is sent to education programs and its rainy day fund.
- Oregon dedicates its revenue to education programs, drug prevention and treatment programs, and transfers to local governments.
- Washington dedicates its revenues to health care programs.

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Q. How does the deduction for state and local taxes work?

A. Taxpayers who itemize deductions on their federal income tax returns can deduct state and local real estate and personal property taxes, as well as either income taxes or general sales taxes. The Tax Cut and Jobs Act limits the total state and local tax deduction to $10,000.

The state and local tax (SALT) deduction has been one of the largest federal tax expenditures, with an estimated revenue cost of $100.9 billion in 2017. The estimated revenue cost for 2018 drops to $43.1 billion because the Tax Cut and Jobs Act (TCJA) significantly increased standard deduction amounts (thereby reducing the number of taxpayers who will itemize deductions) and capped the total SALT deduction at $10,000.

State and local taxes have been deductible since the inception of the federal income tax in 1913. Initially, all state and local taxes not directly tied to a benefit were deductible against federal taxable income. In 1964, deductible taxes were limited to state and local property (real and personal property), income, general sales, and motor fuels taxes.

Congress eliminated the deduction for taxes on motor fuels in 1978, and eliminated the deduction for general sales tax in 1986. It temporarily reinstated the sales tax deduction in 2004, allowing taxpayers to deduct either income taxes or sales taxes but not both. Subsequent legislation made that provision permanent starting in 2015. Starting in 2018, taxpayers cannot deduct more than $10,000 of total state and local taxes. That provision of the law is scheduled to expire after 2025.

WHO CLAIMS THE SALT DEDUCTION?

Less than one-third of tax filers opted to itemize deductions on their federal income tax returns in 2016, but virtually all who itemized claimed a deduction for state and local taxes paid. High-income households are more likely than low- or moderate-income households to benefit from the SALT deduction. The amount of state and local taxes paid, the probability that taxpayers itemize deductions, and the reduction in federal income taxes for each dollar of state and local taxes deducted all increase with income.

About 11 percent of tax filers with incomes less than $50,000 claimed the SALT deduction in 2016, compared with about 80 percent of tax filers with incomes exceeding $100,000 (figure 1). The latter group, which made up about 17 percent of tax filers, accounted for about 77 percent of the total dollar amount of SALT deductions reported. The average claim in this group was of about $21,000.

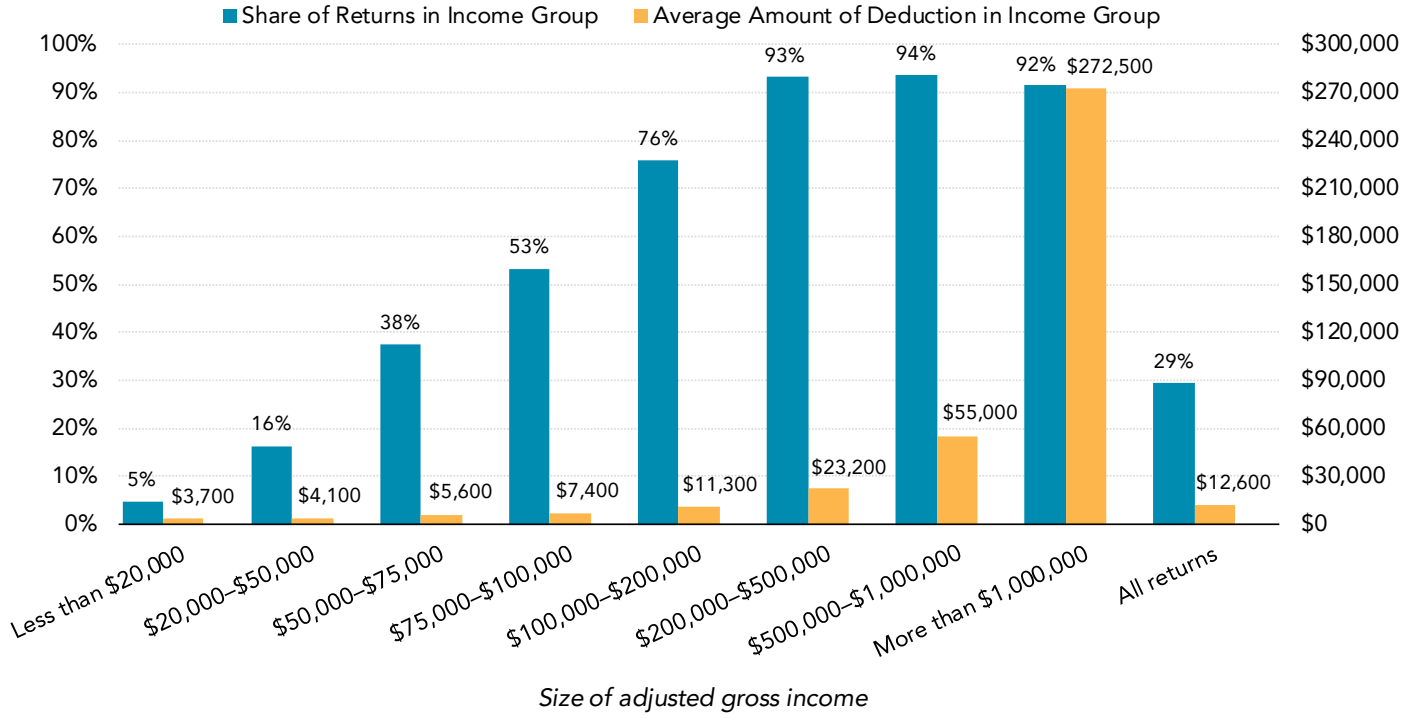
The State of State (and Local) Tax Policy

How does the deduction for state and local taxes work?

FIGURE 1

State and Local Tax Deduction

Share of returns claiming the deduction by AGI and average amount, tax year 2016



Source: Internal Revenue Service, Statistics of Income (SOI), Publication 1304, Individual Income Tax Returns, Tax Year 2016, Table 2.1 and Table 1.2, 2018; Urban-Brookings Tax Policy Center calcuations.

Although most high-income taxpayers claimed a SALT deduction, the federal individual alternative minimum tax (AMT) limited or eliminated the benefit for many of them. The AMT is a parallel income tax system with fewer exemptions and deductions than the regular income tax as well as a narrower set of tax rates. Taxpayers potentially subject to the AMT must calculate their taxes under both the regular income tax and the AMT and pay the higher amount. Taxpayers cannot claim the SALT deduction when calculating their AMT liability, and under tax law prior to 2018, the disallowance of the deduction was the major reason why taxpayers were required to pay the AMT.

Although some taxpayers in every state and DC claim the deduction, taxpayers in states with a disproportional share of high-income taxpayers and relatively high state and local taxes are more likely to claim the deduction (figure 2). The percentage claiming the deduction ranged from 17 percent in South Dakota and West Virginia to 46 percent in Maryland in 2016. In general, a higher percentage of taxpayers in states in the Northeast and the West claimed the deduction than in states in other regions. The average deduction claimed was also higher in those regions.

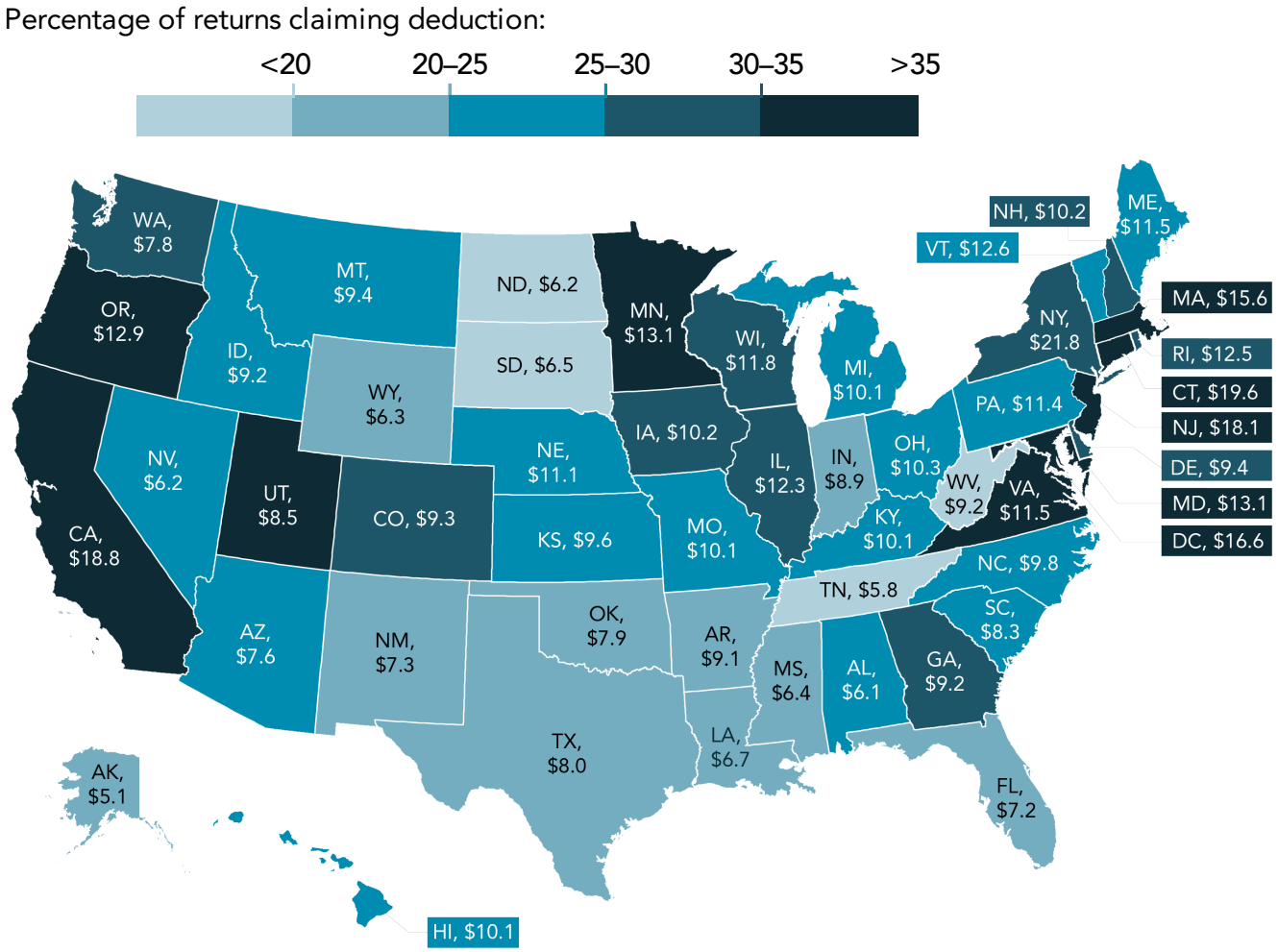
The State of State (and Local) Tax Policy

How does the deduction for state and local taxes work?

FIGURE 2

State and Local Tax Deduction

Number of returns and average deduction in thousands of dollars, 2016



Source: Internal Revenue Service (IRS), Statistics of Income (SOI), Historical Table 2, Tax Year 2016; Urban-Brookings Tax Policy Center calculations.

THE EFFECT OF TCJA ON THE SALT DEDUCTION

TCJA will have a significant effect on the average tax saving from the SALT deduction. Both the percentage of taxpayers claiming the deduction and the average amount claimed will fall dramatically in 2018 because of the changes enacted. Figure 3 compares the tax saving from claiming the deduction in 2017 and 2018, before and after the new law is in place. The tax benefit is measured as the reduction in tax liability from the deduction, which considers the applicable tax rates in each year, the effects of the alternative minimum tax (which disallows the SALT deduction), and the limit on itemized deductions (the "Pease" limit) that was in place in 2017 but eliminated for 2018 by TCJA.

The State of State (and Local) Tax Policy

How does the deduction for state and local taxes work?

Measured as a percentage of after-tax income, the tax saving from the SALT deduction in 2018 will be about one-quarter of what it was in 2017 overall. For taxpayers in the top 1 percent of the income distribution, the tax saving in 2018 will be about one-tenth of the tax saving in 2017.

EFFECTS OF THE DEDUCTION

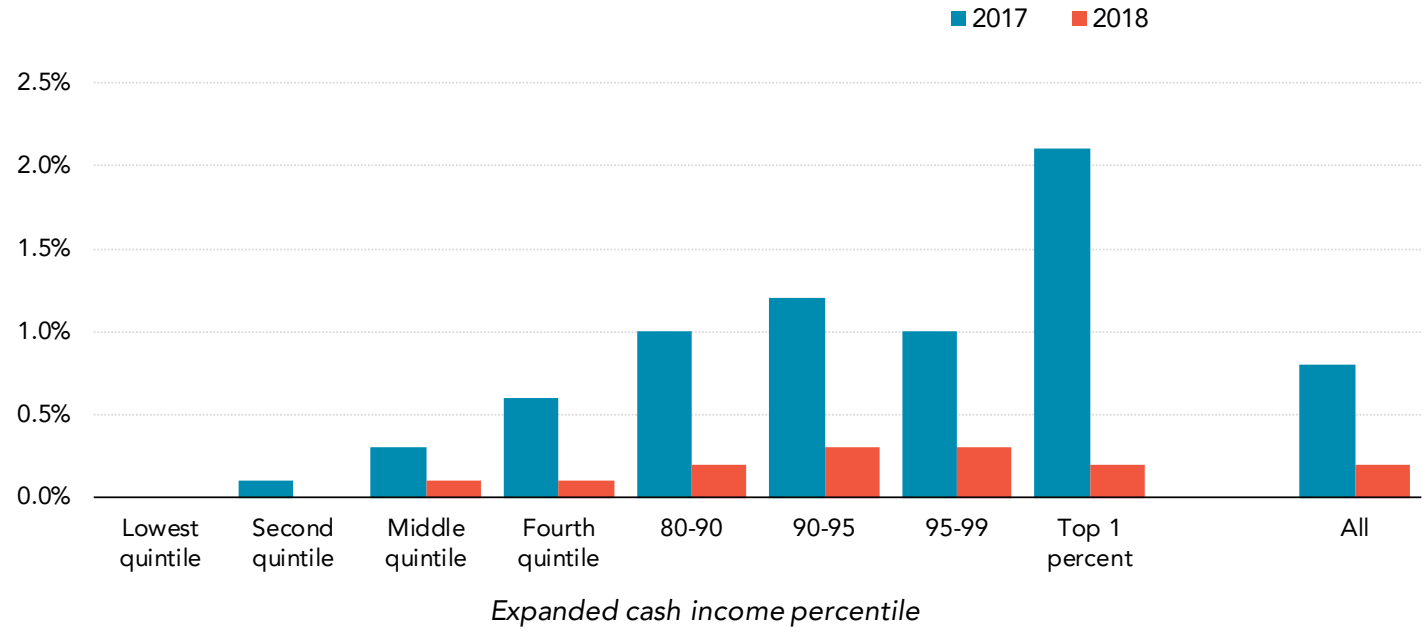
The SALT deduction provides state and local governments with an indirect federal subsidy by decreasing the net cost of nonfederal taxes for those who pay them. For example, if state income taxes increase by $100 for families in the 35 percent federal income tax bracket claiming the SALT deduction, the net cost to them is $65; that is, state taxes go up by $100, but federal taxes go down by $35. This federal tax expenditure encourages state and local governments to levy higher taxes (and, presumably, provide more services) than they otherwise would. It also encourages those entities to use deductible taxes in place of nondeductible taxes (such as selective sales taxes on alcohol, tobacco, and gasoline), fees, and other charges.

Critics of the deduction argue that state and local taxes simply reflect payments for the services those jurisdictions provide and, as such, should be treated no differently than other spending. They also point to the uneven distribution of benefits across income groups and states.

FIGURE 3

Itemized Deduction for State and Local Taxes

Benefit as a share of after-tax income, 2017 and 2018



Source: Urban-Brookings Tax Policy Center, "TPC Microsimulation Model, version 0718-1."

The State of State (and Local) Tax Policy

How does the deduction for state and local taxes work?

Proponents of the deduction counter that the portion of an individual's income claimed by state and local taxes is not disposable income, and that taxing it at the federal level is double taxation. Moreover, they argue that federal subsidies are warranted because a significant portion of state and local government spending is for education, health, public welfare, and transportation, all of which benefit the population in other jurisdictions as well. A counterargument, however, is that while federal support may be warranted, the substantial revenues gained by eliminating or limiting the deduction could be used to provide direct support through federal grants and loans.

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Q. What are municipal bonds and how are they used?

A. Municipal bonds (a term that encompasses both state and local government debt) are obligations that entitle owners to periodic interest payments plus repayment of principal at a specified date. States and localities (cities, townships, counties, school districts, and special districts) issue bonds primarily to pay for large, expensive, and long-lived capital projects

State and local governments issue bonds to pay for large, expensive, and long-lived capital projects, such as roads, bridges, airports, schools, hospitals, water treatment facilities, power plants, courthouses, and other public buildings. Although states and localities can and sometimes do pay for capital investments with current revenues, borrowing allows them to spread the costs across multiple generations. Future project users bear some of the cost through higher taxes or tolls, fares, and other charges that help service the debts.

States and localities issue short-term debt or notes to help smooth uneven cash flows (e.g., when tax revenues arrive in April but expenditures occur throughout the year). They also issue debt on behalf of private entities (e.g., to build projects with public benefit or for so-called public-private partnerships).

HOW LARGE IS THE MUNI BOND MARKET?

At the end of 2017, state and local governments had $3.84 trillion in debt outstanding (figure 1). About 98 percent of this debt was long term or with a maturity of 13 months or longer, while the remaining 2 percent was short term. As in most years, roughly 40 percent of municipal debt was issued by states and 60 percent by local governments.

Although municipal debt has more than tripled in nominal terms since the mid-1980s, the change is less dramatic as a percentage of gross domestic product.

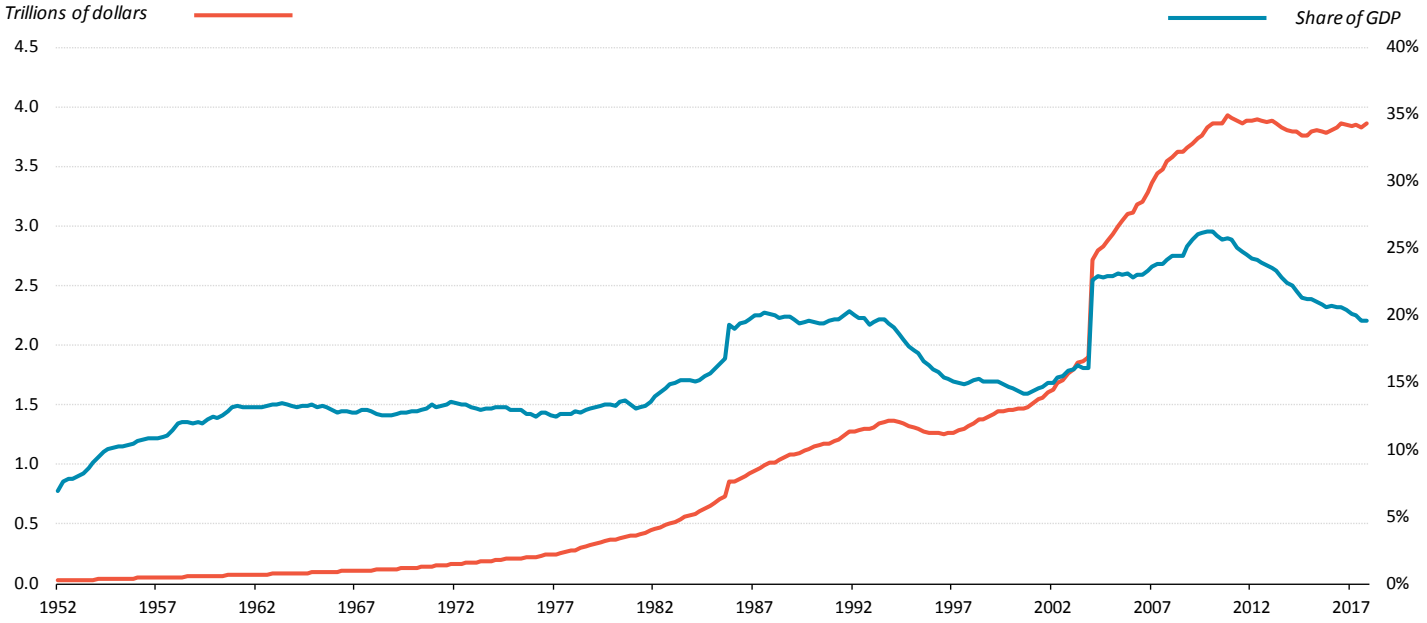
States vary widely in their long-term municipal debt outstanding (figure 2).

The State of State (and Local) Tax Policy

What are municipal bonds and how are they used?

FIGURE 1

State and Local Government Debt Outstanding
1952–2017



Source: Federal Reserve Bank, June 2018.
Note: Starting in the first quarter of 2004, the Federal Reserve made a one-time $800 billion adjustment to the stock of municipal debt oustanding.

WHAT ARE THE MAIN TYPES OF STATE AND LOCAL GOVERNMENT DEBT?

General obligation bonds are backed by an issuer's "full faith and credit," including its power to tax. Bonds may also be secured by future revenue streams, such as dedicated sales taxes or tolls and other user charges generated by the project being financed.

General obligation bonds typically require voter approval and are subject to limits on total debt outstanding. Revenue bonds and bonds secured by anticipated legislative appropriations are not subject to these requirements or limits. In 2017, roughly 60 percent of state and local issuances were revenue bonds and 40 percent were general obligation bonds.

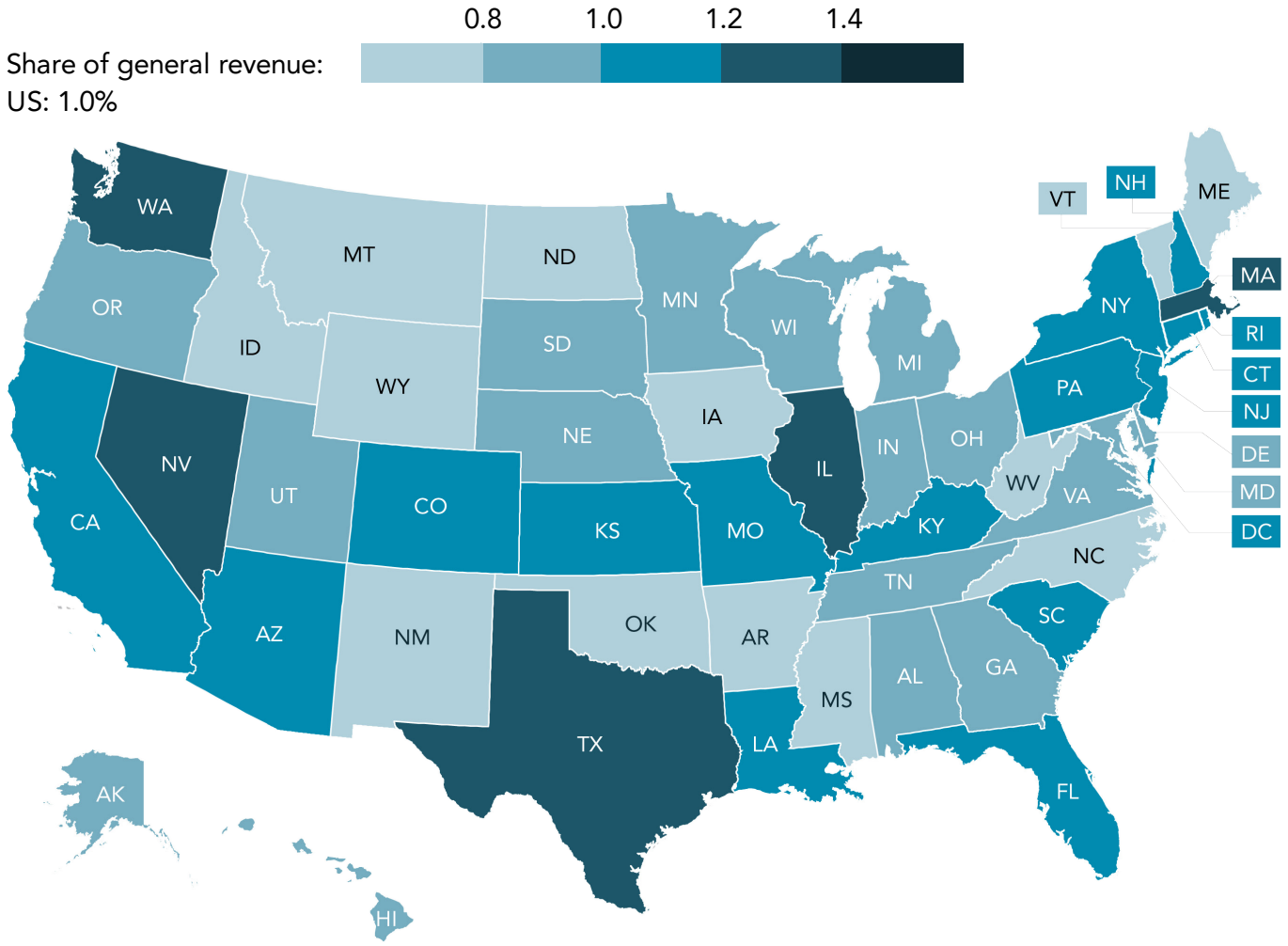
WHO HOLDS STATE AND LOCAL GOVERNMENT DEBT?

Most state and local bonds are held by households, followed by mutual funds (which also represent household investors) (figure 3). Banks and life insurance companies used to be more prominent municipal bond holders until the Tax Reform Act of 1986 and subsequent litigation limited the advantages of doing so.

FIGURE 2

Long-Term Outstanding Debt

2015



Source: US Census Bureau.

HOW DOES THE FEDERAL TAX EXEMPTION WORK AND WHAT ARE PROPOSALS FOR REFORM?

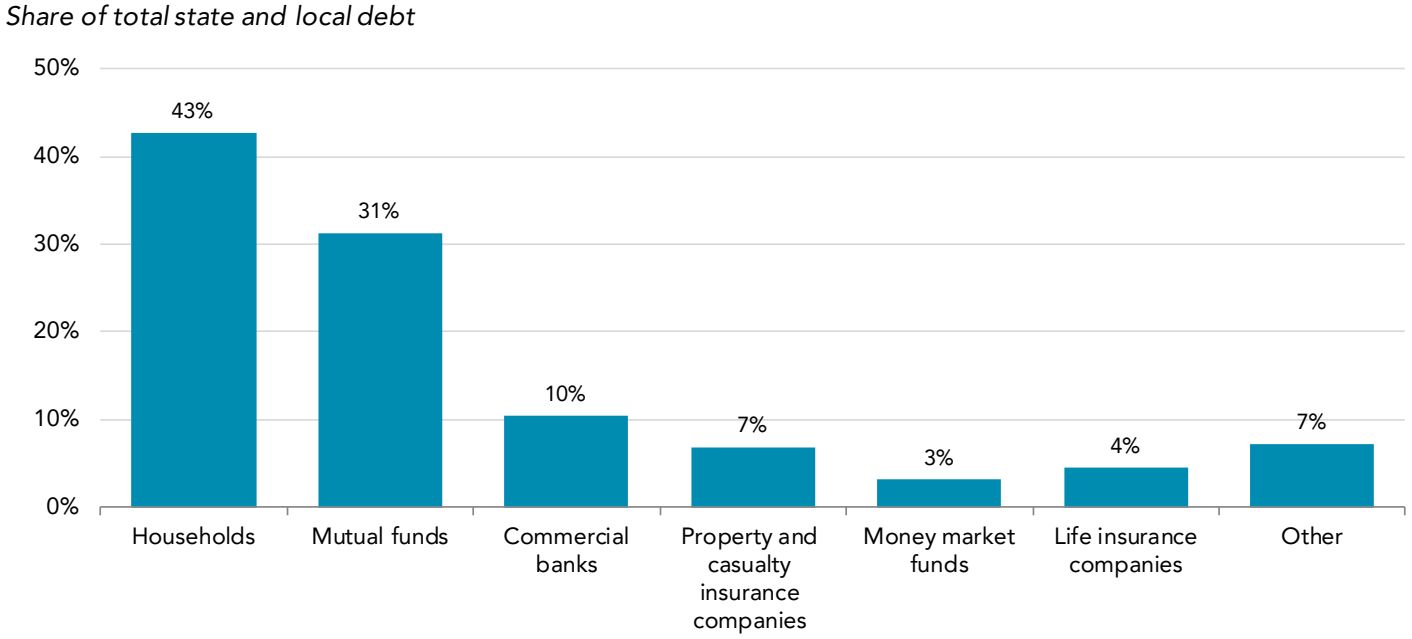
Since its inception in 1913, the federal income tax has exempted interest payments received from municipal bonds from taxable income. State and local governments also typically exempt interest on bonds issued by taxpayers' state of residence. However, the US Supreme Court in *Department of Revenue of Ky. v. Davis* upheld states' ability to tax interest on bonds issued by other jurisdictions.

Because of the federal tax exemption, state and local governments can borrow more cheaply than other debt issuers, such as corporations, for a given level of risk and length of maturity. The federal tax exemption

FIGURE 3

Holders of State and Local Debt

First quarter, 2018



Source: Federal Reserve Bank, June 2018.
Note: "Other" category includes closed-end funds, foreign investors, brokers and dealers, nonfinancial corporate businesses, government-sponsored enterprises, savings institutions, exchange-traded funds, state and local government general funds, and state and local government retirement funds.

therefore functions as a federal subsidy to state and local public infrastructure investment. This subsidy comes at a cost in foregone tax revenues, estimated at $28 billion in fiscal year 2018.

The federal tax exemption has been criticized as inefficient because high-bracket taxpayers receive more than the inducement needed to purchase municipal bonds. In 2017, for example, a high-grade taxable municipal bond yielded 3.36 percent. The yield for a comparable tax-exempt bond was 3.74 percent. Thus, taxpayers whose federal tax rate is about 10 percent should be just indifferent between the two types of bonds (the gap in yields—0.38 percentage points—is about 10 percent of 3.74 percentage points). Anyone in a higher tax bracket receives a windfall that generates no additional benefit for the borrower.

In light of this inefficiency, proposals have long circulated to cap the federal tax exemption. However, the revenue gain from eliminating or capping the deduction would depend on whether states and localities responded by issuing as many or fewer bonds and whether bondholders responded by shifting their portfolios toward taxable bonds or other investments (Poterba and Verdugo 2011). It is also difficult to hold constant all relevant bond features, including risk, time to maturity, fixed versus variable interest payments, and liquidity (Congressional Budget Office and Joint Committee on Taxation 2009).

Notably, President Donald Trump's most recent budget proposals have not suggested a cap on the bond interest exemption.

The State of State (and Local) Tax Policy

What are municipal bonds and how are they used?

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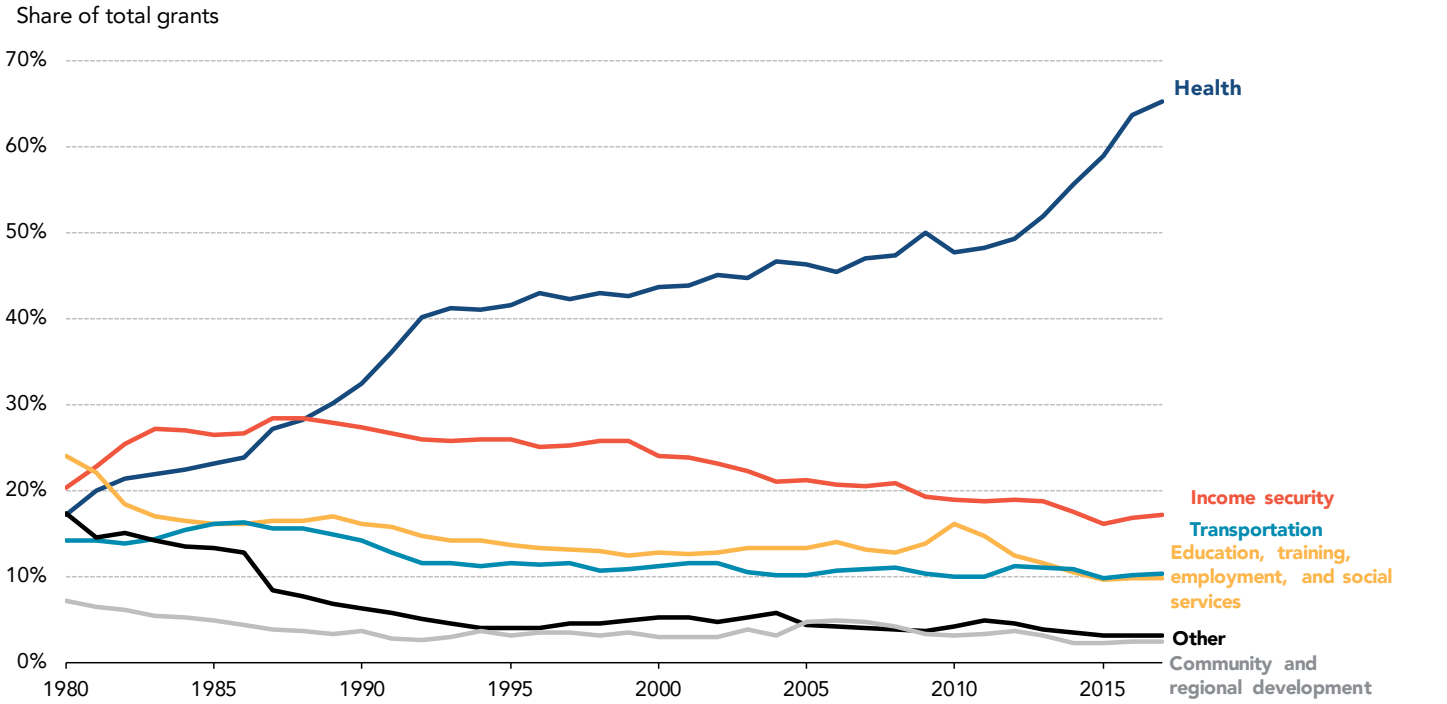
Q. What types of federal grants are made to state and local governments and how do they work?

A. The federal government distributes grants to states and localities for many purposes, but the bulk are dedicated to health care. Some grants are restricted to a narrow purpose but block grants give recipients more latitude in meeting program objectives.

The federal government distributes about $700 billion (17 percent of its budget) to states and localities each year, providing about one-quarter of these governments' total revenues. In 2017 about 65 percent of the funds were dedicated to health care (figure 1).

FIGURE 1

Federal Grants to State and Local Governments by Category
1980–2017



Source: Office of Management and Budget, Historical Tables, Table 12.2.

The State of State (and Local) Tax Policy

What types of federal grants are made to state and local governments and how do they work?

The federal government distributes grants to state and local governments for several reasons. In some cases, the federal government may devolve or share responsibility for a given service or function because state and local governments have better information about local preferences and costs. In others, the federal government may offer states and localities incentives to undertake additional spending benefiting neighboring jurisdictions or the country as a whole.

Over the past 50 years, the composition of federal grants has shifted dramatically. Today, federal grants for health programs, predominantly Medicaid, represent 65 percent of total federal grant outlays, compared with less than 20 percent in 1980.

There are two main types of federal grants. Categorical grants are restricted to a narrow purpose, such as providing nutrition under the Special Supplemental Nutrition Program for Women, Infants, and Children, also known as WIC. Even more restricted are grants limited to specific projects, such as building a highway. Block grants give recipients more latitude in meeting program objectives, such as assisting needy families and promoting work under the Temporary Assistance for Needy Families (TANF) program. States also set TANF eligibility requirements within federal parameters. Less common are grants targeted to redistributing resources across jurisdictions, such as the General Revenue Sharing program that ended in 1986.

Federal grants may also be classified according to how funds are awarded. Formula grants allocate federal dollars to states based on formulas set in law and linked to factors such as the number of highway lane miles, school-aged children, or low-income families. A prime example is the federal-state Medicaid program, which provides subsidized health insurance to low-income households.

Grants may also be awarded competitively according to specified criteria, as in the Race to the Top or Transportation Investment Generating Economic Recovery awards. In addition, grants may require states and localities to contribute their own funds (matching requirements) or maintain previous spending despite the infusion of federal cash (maintenance-of-effort requirements).

A recurring question with federal grants is how they influence state and local behavior. Research finds that states and localities substitute federal dollars for some of their own spending. However, magnitudes vary and in some cases federal grants may "crowd in" rather than crowd out state and local dollars. (See, for example, Gramlich and Galper (1973), who found that $1.00 of unrestricted federal aid stimulated $0.36 in state and local spending, $0.28 in lower state and local taxes, and $0.36 in higher fund balances or saving. However, other research has found evidence that federal dollars stimulate more than the expected state and local spending response. Some early "flypaper effect" research may have mistaken matching as lump-sum grants or overlooked maintenance-of-effort requirements. Other explanations include tacit understandings between federal appropriators and grant recipients about how recipients will respond to federal money (Chernick 1979; Knight 2002). See also Leduc and Wilson (2017).)

Beyond grants, the federal government also subsidizes state and local governments by allowing federal income taxpayers to deduct state and local taxes already paid (up to a $10,000 cap in 2018 through 2025 under current law) and by excluding bond interest from taxable income. The value of these subsidies was $133 billion in foregone dollars to the US Treasury in FY 2017 (Office of Management and Budget 2018).

The State of State (and Local) Tax Policy

What types of federal grants are made to state and local governments and how do they work?

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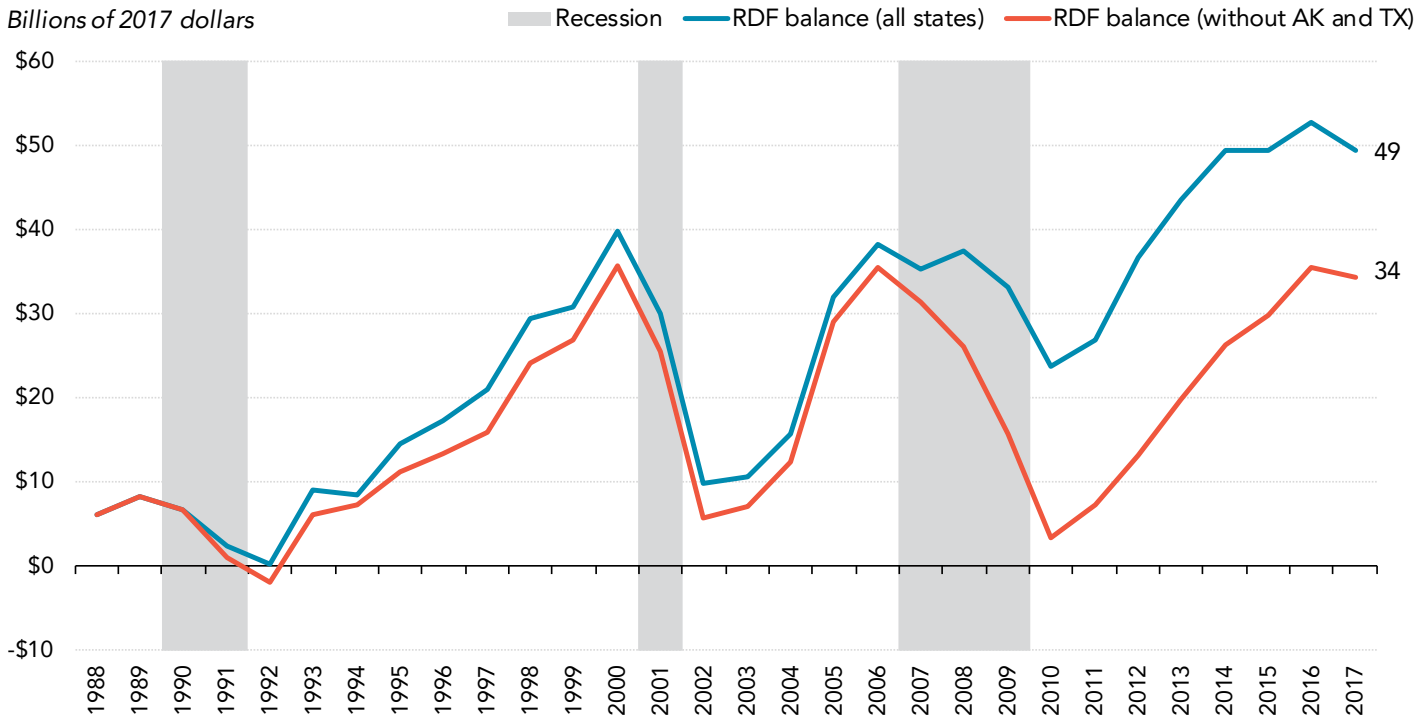
Q. What are state rainy day funds, and how do they work?

A. Rainy day funds, also known as budget stabilization funds, allow states to set aside surplus revenue for use during unexpected deficits. Every state has some type of rainy day fund, though deposit and withdrawal rules vary considerably.

FIGURE 1

Total Rainy Day Fund Balance

All states, 1988–2017



Source: National Association of State Budget Officers, Fiscal Survey of the States, various years, https://www.nasbo.org/reports-data/fiscal-survey-of-states; and National Bureau of Economic Research, "US Business Cycle Expansions and Contractions," http://www.nber.org/cycles.html.

Note: Data are reported in state fiscal years.

The State of State (and Local) Tax Policy

What are state rainy day funds, and how do they work?

SOURCES OF FUNDING

States finance their reserve funds differently (table 1). Most allow some or all of their year-end surplus to flow to the rainy day fund (RDF). Other states require a flat contribution out of total or special revenue sources. California, for example, dedicates a portion of its capital gains tax revenue to its budget stabilization account. Similarly, natural resource–rich states like Texas and Louisiana dedicate a portion of oil extraction revenues to various reserve funds, in combination with other deposit mechanisms.

A handful of states tie their reserve accounts to either revenue or economic growth. Arizona, for example, ties its deposits to a personal income growth formula, although the legislature must authorize the transfer. Other states require specified set-asides until the fund reaches its minimum required balance. A few states replenish their funds with discretionary appropriations as part of the budget process, but regular contributions are not automatic or required in these states. Except for the few states (such as Colorado) required to remit surplus revenues to voters, most states can also carry additional general fund surpluses into the following fiscal year once any RDF funding requirements are met.

TABLE 1

Rainy Day Fund Deposit Mechanisms

August 2018

Deposit mechanism	States
All or portion of year-end surplus	Connecticut, Georgia, Kentucky, Maine, Minnesota, Mississippi, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Utah, Vermont, West Virginia, Wisconsin
Portion of total or special revenues	Alaska, California, Nevada, Rhode Island
Tied to revenue or economic growth	Arizona, Idaho, Illinois, Indiana, Michigan, New Mexico, North Carolina, Tennessee, Virginia
Required minimum balance	Colorado, Florida, Iowa, Missouri, South Carolina
Combination	Delaware, District of Columbia, Hawaii, Louisiana, Maryland, Massachusetts, Texas, Washington
No required payments	Alabama, Arkansas, Kansas, Wyoming

Sources: National Association of State Budget Officers, *Budget Processes in the States*, 2015, https://www.nasbo.org/reports-data/budget-processes-in-the-states; the Pew Charitable Trusts, "Building State Rainy Day Funds," July 15, 2014, http://www.pewtrusts.org/en/research-and-analysis/reports/2014/07/15/building-state-rainy-day-funds-policies-to-harness-revenue; the Pew Charitable Trusts, "State Rainy Day Funds in 2017, July 18, 2017, http://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2017/07/state-rainy-day-funds-in-2017; and Tax Policy Center staff review of state constitutions and statutes.

Notes: Connecticut currently funds its rainy day fund (RDF) out of year-end surplus, but in 2015 it adopted new rules that will tie deposits to revenue growth. Illinois' RDF has loose deposit and withdrawal rules, and thus does not meet the definition of a rainy day fund for some researchers and state budget analysts. The state has not contributed to the fund since the deposit rules were established in 2004. Kansas established an RDF in 2016 and enacted a funding mechanism that will go into effect in 2019, dedicating 10 percent of unappropriated general fund surplus to its RDF. Currently, it is funded via discretionary legislative appropriation. Montana established its reserve fund in 2017 and currently funds it via end-of-year surpluses, but in 2021 will switch to a deposit mechanism based on revenue growth.

The State of State (and Local) Tax Policy

What are state rainy day funds, and how do they work?

USE OF FUNDS

In most states, the RDF is dedicated to closing deficit gaps in the current year or maintaining government spending when revenues are projected to decline. However, withdrawal rules vary. Some states include transfers from the rainy day fund to the general fund in normal appropriations bills, while others require an emergency declaration or a supermajority (e.g., three-fifths or two-thirds) of the legislature to make a transfer. Several states can use the RDF to cover short-term cash flow gaps. Money is transferred to the general fund and must be paid back by the end of the fiscal year.

In addition to an RDF that can be used for general purposes during a fiscal crisis, some states have reserve funds available only for specific uses. For example, 36 states have a reserve account dedicated to natural disaster recovery. Other states have separate reserve funds for education or Medicaid spending, designed to cover shortfalls in these vital programs. Deposit and withdrawal rules for these supplemental reserve accounts may vary considerably from the rules governing the state's primary RDF.

CAPS ON FUND BALANCES

Thirty-one states cap the balances of their funds. The cap is typically a percentage of either revenues or expenditures, although some states have more complex formulas for determining maximum fund size. Most states that finance their RDF with operating surpluses stop transfers once the cap has been reached, allowing the surplus to remain in the general fund. A few redirect those operating surpluses to other funds for special projects or taxpayer relief. Maine, for example, after transferring the required fixed amounts to several other reserve funds, directs 80 percent of the remaining surplus to its budget stabilization fund and the remaining 20 percent to its tax relief fund for residents. If the RDF is at its cap, excess surplus flows to the tax relief fund.

MITIGATING FISCAL CRISIS

An economic downturn can cause significant fiscal stress for states because, without changes in policy, revenues decline even as demands on programs such as unemployment insurance and Medicaid increase. Savings in rainy day funds help states weather a fiscal downturn with fewer expenditure cuts. The median balance of state RDFs declined significantly after each of the last three recessions, but states have gradually built them back up each time (figures 1 and 2).

Capping the amount in the RDF is a sensible approach to preventing the unnecessary build-up of restricted funds, but the cap must be set appropriately. Before the Great Recession, a typical rule of thumb was to maintain at least 5 percent of total expenditures or revenues in reserves. States that cap out at 5 percent or less, therefore, may find reserves inadequate to close fiscal gaps. Currently, 7 of the 31 states with caps top out at 5 percent or less.

Many states have reconsidered the 5 percent rule since the Great Recession, as even states with robust prerecession RDFs exhausted much of their reserves. The Government Finance Officers Association now recommends states set aside at minimum two months of operating expenditures (i.e., roughly 16 percent of total general fund spending). Only four states had RDF balances at or above 16 percent at the end of 2017, and all were natural resource–rich states (i.e., Alaska, North Dakota, Texas, and Wyoming). In another approach, also recommended by the Government Finance Officers Association and others, some states have begun to tie and tailor their caps and deposit mechanisms to their own revenue volatility.

The State of State (and Local) Tax Policy

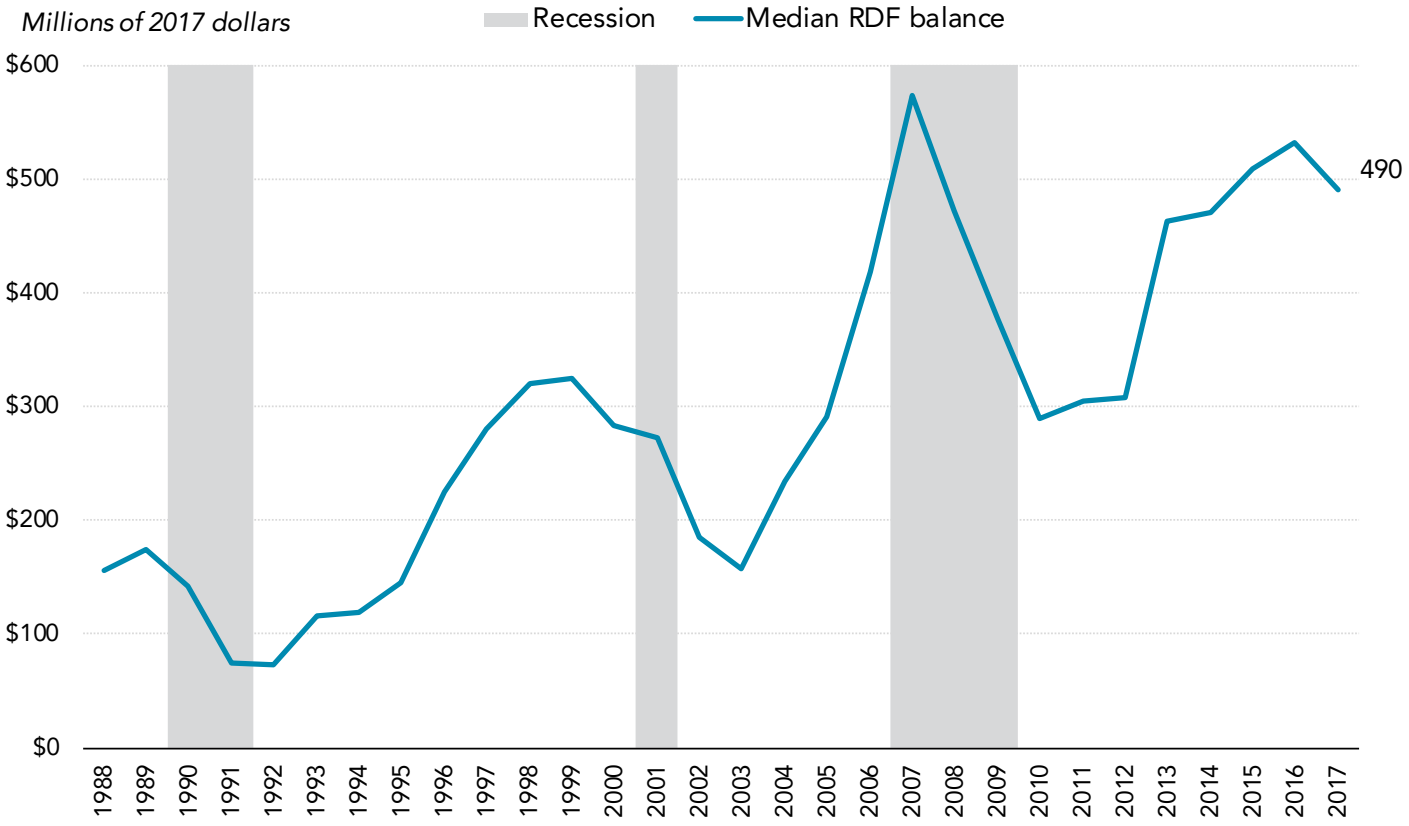
What are state rainy day funds, and how do they work?

RDFs are an important tool for states to avoid sharp cuts in spending or tax increases when they are hurting economically. In 2017, Randall and Rueben synthesized literature on rainy day funds (and other budget rules) from the past thirty years, recommending that states reduce fiscal and economic volatility by pairing strong balanced budget requirements with robust RDFs. Moreover, states should design their RDF deposit mechanisms and limits with an understanding of their own revenue volatility.

FIGURE 2

Median Rainy Day Fund Balance

All states, 1988–2017



Source: National Association of State Budget Officers, Fiscal Survey of the States, various years, https://www.nasbo.org/reports-data/fiscal-survey-of-states; and National Bureau of Economic Research "US Business Cycle Expansions and Contractions," http://www.nber.org/cycles.html.
Note: Data are reported in state fiscal years.

The State of State (and Local) Tax Policy

What are state rainy day funds, and how do they work?

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Q. What are tax and expenditure limits?

A. Tax and expenditure limits (TELs) restrict the growth of government revenues or spending by either capping them at fixed-dollar amounts or limiting their growth rate to match increases in population, inflation, personal income, or some combination of those factors. As of 2015, 34 states had at least one kind of TEL, including those states requiring a supermajority vote of the legislature to raise new taxes or revenues.

DESIGNING TAX AND EXPENDITURE LIMITS

Spending versus revenue limits. States can limit their own revenues, appropriations, or both. Many states, also, limit the growth of local revenues by, for example, restricting the growth of local property taxes. Appropriations and spending limits are more common than revenue limits. In 2015, 27 states imposed limits on their own government spending. By contrast, only 17 limited revenue; of those 10 capped both. Twenty-four states required a legislative supermajority (usually three-fifths or two-thirds of the legislature) to raise taxes or revenues (figure 1).

Mechanism. The means states use to limit spending and revenue vary considerably. The limit can be either a cap on growth or a restriction on the level, for example. The most common formula restricts expenditure *growth* to the pace of personal income, but some states include population and inflation growth in the formula. Other states restrict expenditures to a specific *level*, also often determined by a formula, such as a set percentage of personal income. Idaho, for example, limits expenditures to 5.33 percent of state personal income, thereby allowing expenditures to grow at the same rate as the economy. Another method is to restrict expenditures to a percentage of *projected* revenue, maintaining a cushion in case revenues fall short of projections.

Stringency. In general, constitutional provisions are more difficult to change or override than statutory TELs. By the same token, TELs imposed directly by voters rather than by legislators are more restrictive (New 2010). The most stringent revenue limits require that surplus revenues go back to taxpayers as rebates or be sequestered in rainy day funds. Oregon's "Kicker" rebate and Colorado's Taxpayer Bill of Rights (TABOR)are examples.

In some states, lawmakers can evade their TELs by imposing unfunded mandates upon, or transferring program responsibility to, local governments. Several states prohibit such actions, however and, more often, the measure of a TEL's stringency is whether the governor or legislature can override the cap with a simple majority. Several states have what, at first glance, appear to be restrictive TELs, but require only simple legislative majorities to override (i.e., the same threshold for approving a standard budget). Twelve states

require either a legislative supermajority or a popular vote to override their spending limits, and 16 impose this requirement on their revenue limits.

BACKGROUND

Most TELs emerged during the "tax revolt" of the late 1970s or the economic recession of the early 1990s. Although many of the best-known local property tax limits, such as California's Proposition 13 and Massachusetts's Proposition 2½, were adopted through citizen initiatives, most state TELs originated in their legislatures and limited expenditures, not revenues. As of 2015, only nine states had enacted TELs through voter initiative. New (2010) found that TELs adopted through citizen referendum were more effective than those adopted by legislatures.

Evidence on whether TELs limit state and local spending is mixed (Gordon 2008). Rueben (1996) found that laws' details matter and that TELs requiring a legislative supermajority or popular vote to modify spending reduced state general fund expenditures by 2 percent. However, those savings were partly offset by higher local spending.

Knight (2000) found that states with both a supermajority requirement to raise taxes (a kind of revenue limit) and an additional tax or expenditure limit had lower expenditures than states with just one constraint. Poterba and Rueben (1999) found that TELs affect the costs of state borrowing in two ways: not surprisingly, spending limits lower the costs and revenue limits increase them.

The strictest tax limitations, like the original implementation of the TABOR rule in Colorado, can prevent states from saving revenues in rainy day funds to cushion against downturns. In 2017, Randall and Rueben synthesized decades of research on TELs and other budgetary institutions, concluding that states should reform TELs that prevent them from saving during good times. Rueben, Randall and Boddupalli (2018) found that, during the Great Recession, states with binding revenue limits or a combination of binding revenue and expenditure limits were more responsive to deficit shocks than states with weaker rules.

PROPERTY TAX LIMITS

Property tax limits constitute a special category of revenue limit because, in most cases, they are set by state governments but apply to local governments. Only three states—Hawaii, New Hampshire, and Vermont—do not limit property taxes. State restrictions can apply to the property, to the jurisdiction, or both. Rate limits impose maximum rates on jurisdictions (e.g., counties, municipalities, and school districts). Limits on the growth of property tax assessments are typically applied to properties.

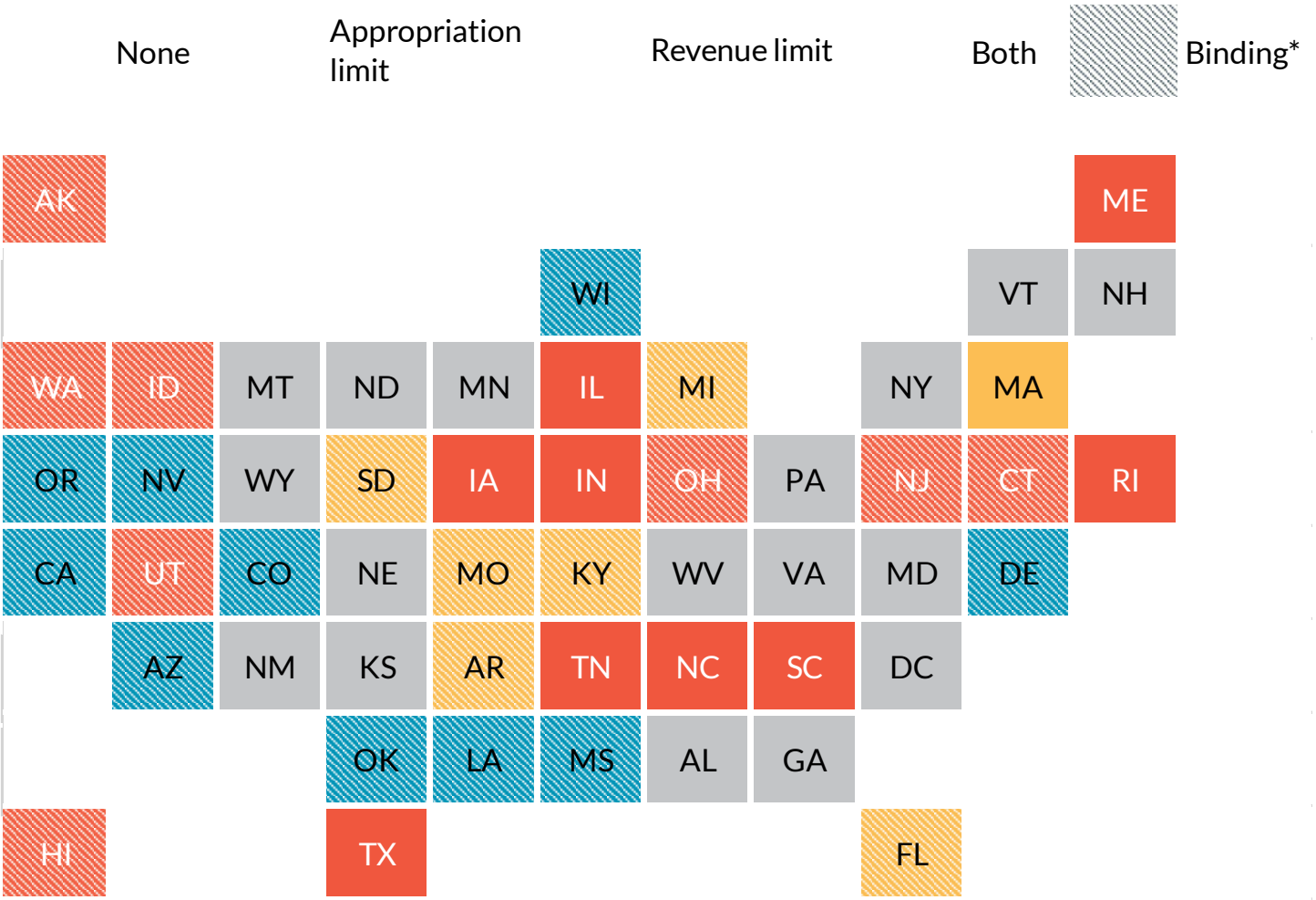
For example, Arizona limits residential property assessment to 10 percent of a home's value, growth in its property tax base to 5 percent annually, combined state and local tax rates for owner-occupied residences to a maximum of 1 percent of the state's limited property value, and growth in local property tax levies to 2 percent annually plus new construction. The state also caps expenditures for most local governments.

The State of State (and Local) Tax Policy

What are tax and expenditure limits?

FIGURE 1

Tax and Expenditure Limits by State
2015



Source: Tax Policy Center analysis based on various sources and independent data collection. Key sources included National Association of State Budget Officers *Budget Processes in the States* (1975 – 2015); Waisanen (2010); state-specific or other authoritative sources, including Skidmore (1999), Rueben (1996) and Mitchell (2010); and direct outreach to state budget staff.

Note: Revenue limits include requirements for a legislative supermajority to raise new taxes or revenues. States with both a binding revenue and expenditure limit are classified as binding if either the expenditure or revenue limit, or both, meet the requirement below.

*Binding appropriations and revenue limits require a vote of the people or legislative supermajority to override.

The State of State (and Local) Tax Policy

What are tax and expenditure limits?

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