Public Finance: Taxes, Budgets & Debt

Figures current as of October 2026

How the American government raises $5.4 trillion, spends $7.4 trillion, borrows the difference, and owes $40 trillion: where the money goes and where it comes from, the process that produced three shutdowns in a year, the Treasury market that funds the gap, the two entitlements with expiry dates, the 2025 law, the states, the world's other debtors, the arguments, the arithmetic of what would fix it, and the dates to watch.

MODULE 1 — Foundations

Goal: Set the numbers and the vocabulary.

$7.4 trillion out, $5.4 trillion in, a $2 trillion gap, and $32.5 trillion held by the public; deficit against debt, mandatory against discretionary against interest, the primary deficit, the baseline, and the trust funds.

MODULE 2 — Where the Money Goes

Goal: Read the spending map and how it moved.

Social Security, Medicare, Medicaid, interest, defense, and everything else; the shift from a government that bought things to one that writes checks; one federal dollar in 1966 and 2026, worked through; and what the dollar leaves out.

MODULE 3 — Where the Money Comes From

Goal: Read the revenue map and who pays.

Income, payroll, corporate, customs, and excise taxes; who pays what share; the $2.3 trillion of tax expenditures; whether the rich pay their share, argued both ways; and the revenue level.

MODULE 4 — The Process, and Why It Fails

Goal: Understand the machinery and its breakdown.

The 1974 act and the twelve bills; the three shutdowns of fiscal 2026 and the stopgap to December 11; reconciliation and the Byrd rule; the debt ceiling, CBO, and the scoring games.

MODULE 5 — The Debt

Goal: Understand the Treasury market that funds the gap.

Bills, notes, and bonds; who holds them; how the Treasury borrows; and the interest bill under three rate paths, worked through.

MODULE 6 — Social Security

Goal: Read the program with an expiry date.

Seventy million beneficiaries, the payroll tax and its cap, the 2032 date and the 78% that follows, every option with its number, and how the gap should be closed, argued both ways.

MODULE 7 — Medicare and Medicaid

Goal: Read the health programs and the fights over them.

Medicare's parts and its 2033 date; Advantage; Medicaid and the 2025 law; whether Medicaid should require work, argued both ways; and the marketplace credits.

MODULE 8 — The 2025 Law

Goal: Read the year's largest fiscal act.

What the law did, line by line; its scores; who gained and who lost; and whether it is worth what it costs, argued both ways.

MODULE 9 — Interest, the Fed, and the Bond Market

Goal: Understand the price of the debt.

r against g; the term premium; the Fed's independence and its 2026 succession; whether fiscal dominance is coming, argued both ways; and the foreign holders and the dollar.

MODULE 10 — The States and Localities

Goal: Read the other governments.

Balanced-budget rules and the revenue mix; the squeeze of 2026-27 and the cost shift from Washington; pensions and municipal bonds.

MODULE 11 — Comparison Abroad

Goal: See what other debtors' arithmetic says.

Japan, Italy, France, Britain, Germany, and the United States in a table; why the United States can borrow what others cannot; and the debt-dynamics arithmetic for three countries, worked through.

MODULE 12 — The Long Run and the Arguments

Goal: Weigh the cases as their advocates make them.

CBO's long-term outlook to 2056; productivity; the consolidations that worked; and whether the debt matters, argued both ways.

MODULE 13 — What Would Fix It

Goal: Read the menu with numbers.

CBO's largest options with their yields; closing the gap three ways, worked through; and the commissions, and why none passed.

MODULE 14 — Where Things Stand, and What to Watch

Goal: Assemble the picture and name the dates.

Where things stand; five contradictions; what the vote will and will not change; a dated watch list from October 2026 into 2034; and a last word.

A note on the sources and the ground: Budget figures come from the Congressional Budget Office and the Treasury's monthly statements, taxes from the Internal Revenue Service (IRS) and the Joint Committee on Taxation, the programs from their trustees and administrators, and other countries from the International

Monetary Fund (IMF). Market prices are the close of Wednesday, October 14, 2026, and other figures are the latest release, with its date. Public finance is arithmetic that everyone agrees on and conclusions that no one does: the same $2 trillion deficit is read as a crisis, a choice, a stimulus, and an accounting identity, depending on who reads it. Where the ground is contested, the course makes each side's case as its advocates make it, then gives the evidence and its own reading, once. It explains how public finance works; it is not advice, and it does not forecast prices.

Market Snapshot

Prices and yields at the close of Wednesday, October 14, 2026, with the latest releases

Measure	Level	Source
Federal funds rate	3.75-4.00%, raised on September 16; the next meeting October 27-28	Federal Reserve
Treasury yields	Three-month 4.28%; two-year 4.82%; ten-year 5.19% (5.31% on October 5); thirty-year 5.52%	US Treasury
Ten-year breakeven inflation	2.35%	Federal Reserve Bank of St. Louis
Ten-year term premium	0.82 points (September 30, New York Fed model); 1.07 points (October 9, Federal Reserve Board model)	Federal Reserve
Dollar index	About 102.6, 4.3% above the end of 2025	Intercontinental Exchange
Consumer prices	Up 3.7% in the year to September; 2.6% excluding food and energy	Bureau of Labor Statistics, October 14
Unemployment	4.2% in September	Bureau of Labor Statistics, October 2
Federal debt, October 13	$40.34 trillion gross; $32.48 trillion held by the public	US Treasury, Debt to the Penny
Fiscal 2026	Outlays $7.40 trillion; revenue $5.40 trillion; deficit $1.99 trillion, 6.2% of GDP; net interest $1.14 trillion	Congressional Budget Office, October 8
Average rate on the debt	3.52% on marketable debt and 3.53% on all interest-bearing debt (September 30), the highest since April 2009	US Treasury
Federal Reserve's Treasury holdings	$4.57 trillion	Federal Reserve, October 14
Foreign holdings of Treasuries	$9.25 trillion (July)	US Treasury
Ten-year yields abroad	Japan 3.00%; Germany 3.44%; Italy 4.56%; France 4.88%; Britain 5.40%	Market closes

Market prices are closes of October 14, 2026; the other figures are the latest releases, with their dates.

Module 1 — Foundations

The Numbers and the Vocabulary

Recommended Reading / Reference

Book: Allen Schick, *The Federal Budget: Politics, Policy, Process* (3rd edition), the standard account of the machinery

Reference: The Congressional Budget Office's *Budget and Economic Outlook: 2026 to 2036* (February 11, 2026) and *Monthly Budget Review* (October 8, 2026), and the Treasury's *Monthly Treasury Statement*, the sources for the figures throughout

1a. The Government in Numbers

The federal government's finances come down to four numbers: what it spends, what it takes in, the gap between them, and the debt the gaps have built up. In fiscal 2026 it spent about $1.37 for every dollar it took in and borrowed the difference from investors at home and abroad. The borrowing has been nearly continuous: the government has run a surplus in four of the past fifty-six years, all between 1998 and 2001.

The debt it owes the public is at a level last reached at the end of the Second World War. The Congressional Budget Office (CBO), the nonpartisan agency that scores Congress's bills, expects it to pass that record by 2030 if current laws stay as written (1b). The course is about what those numbers mean, and the vocabulary in 1c decides much of that.

1b. The Numbers

Measure	Fiscal 2026	Note
Outlays	$7.40 trillion; about 23.0% of GDP	Fifty-year average 21.2%; CBO projects 24.4% in 2036
Revenues	$5.40 trillion; about 16.8% of GDP	Fifty-year average 17.3%; the sources are in Module 3
Deficit	$1.99 trillion; 6.2% of GDP	Up from $1.78 trillion, 5.8%, in 2025; fifty-year average 3.8%; the third-largest in dollars, after 2020 and 2021
Primary deficit	About $850 billion; about 2.6% of GDP	See 1c
Net interest on the public debt	$1.14 trillion; about 3.6% of GDP	Up $115 billion, or 11%; more than the Defense Department's outlays (Modules 2 and 5)
Debt held by the public	$32.48 trillion on October 13; about 101% of GDP	120% in 2036 on CBO's baseline
Gross debt	$40.34 trillion on October 13; passed $40 trillion on August 18	Includes $7.86 trillion owed to the government's own trust funds
Trust-fund dates	Highway, fiscal 2028	Social Security's and Medicare's dates are in Modules 6 and 7
GDP	About $32.1 trillion in fiscal 2026	The denominator of every ratio in the course

CBO, Monthly Budget Review (October 8, 2026) and Budget and Economic Outlook (February 11, 2026); Treasury, Debt to the Penny. Fiscal years run from October 1 to September 30.

1c. The Vocabulary

Term	Meaning	Why it matters
Deficit and debt	The deficit is one year's gap between spending and revenue; the debt is the sum of past deficits, less the surpluses	A deficit adds to the debt each year; the two are often confused
Debt held by the public and gross debt	Debt held by the public is what the Treasury owes investors, among them the Federal Reserve, foreigners, funds, and households; gross debt adds what one part of the government owes another	Debt held by the public is the economic measure; the gross figure is the headline
Mandatory, discretionary, interest	Mandatory spending is set by permanent law and paid to anyone eligible; discretionary spending is set each year in the twelve appropriations bills; interest is what the debt costs	Mandatory spending and interest are about three-quarters of the budget and grow on autopilot
Primary deficit	The deficit excluding interest	The debt ratio stabilizes when the primary balance is small enough, given growth and interest rates (Module 11)
Baseline	CBO's projection of what current law produces; a 'current policy' baseline assumes expiring provisions continue	The choice of baseline can make a large tax cut cost nothing on paper (Module 4)
Scoring	CBO's and the Joint Committee on Taxation's estimate of a bill's cost over ten years, static or including economic effects	The number that decides whether a bill fits the rules and how it is described
Trust funds	Accounts that hold a program's dedicated taxes and pay its benefits; when the balance reaches zero, benefits are cut to what the taxes cover	They give Social Security, Medicare, and the highways their dates
r and g	The interest rate the government pays and the economy's growth rate, both before inflation is taken out	When r is below g, debt can be carried cheaply; when it is above, debt compounds (Module 9)
Percent of GDP	A figure divided by the size of the economy	The only way to compare 1946 with 2026, or Japan with Italy: the $242 billion the public held in 1946 was 106% of GDP

1d. Three Things the Numbers Do Not Say

The debt is not a household's. A government that issues its own currency, borrows in it, and has a central bank can always pay; the questions are at what interest rate, at what inflation, and at what cost to everyone else who borrows. The household analogy is the subject's most common error, and the opposite error, that there is therefore no constraint at all, is the reason Module 11 looks at Japan, Italy, and France (Module 12 argues both sides).

The size of a deficit is not the whole argument. In a recession a deficit cushions the fall, and at full employment it adds to demand that the central bank may have to offset. The deficit of 2026 is the second kind: unemployment was 4.2% in September, inflation was 3.7%, and the Federal Reserve raised its rate (Module 9).

The trend is the number. The debt held by the public was 35% of GDP in 2007 and 79% in 2019, a rise of 44 points in twelve years before the pandemic added more. Whether today's level can be sustained is answered by the fact that it is being sustained; whether the slope can be is the open question. The slope is set by three things no annual budget touches: Social Security, Medicare, and interest.

Module 1 Key Points

Foundations

• In fiscal 2026 the government spent $7.40 trillion and took in $5.40 trillion, a deficit of $1.99 trillion, 6.2% of GDP.

• Debt held by the public is $32.5 trillion, about 101% of GDP; the $40 trillion headline adds what the trust funds are owed.

• Interest on the public debt cost $1.14 trillion in 2026, more than the Defense Department's $916 billion.

• Mandatory spending and interest are about three-quarters of the budget and grow on autopilot; Congress fights over the rest.

• The slope is the number: debt was 35% of GDP in 2007, is 101% now, and is 120% in 2036 on CBO's baseline.

Module 1 Quiz

Check Your Understanding

1. What was the federal deficit in fiscal 2026?

A) $2.6 trillion, 8% of GDP
B) $1.99 trillion, 6.2% of GDP
C) $850 billion
D) $1.4 trillion, 4%

2. What does debt held by the public leave out?

A) Bills under a year
B) Debt held by the Fed
C) What the government owes its own trust funds
D) Treasury securities owned by foreign central banks and sovereign wealth funds, which are counted separately

3. What share of federal spending is mandatory spending plus interest?

A) About three-quarters
B) About half of the total
C) About a quarter of the total
D) Nearly all of it, since discretionary spending fell below 5% of the budget under the 2025 law

4. When does CBO's baseline have the debt held by the public passing its 1946 record?

A) In 2050
B) At the end of 2036
C) This fiscal year, when the debt passed $40 trillion on August 18
D) By fiscal 2030

5. Why does the module say the debt is not a household's?

A) Households cannot borrow for fifty years
B) Federal debt carries no interest
C) A government that issues its own currency can always pay; the constraint is rates and inflation
D) The debt is owed almost entirely to Americans, so paying it is a transfer from one group of citizens to another with no net cost

Module 2 — Where the Money Goes

The Spending Map and How It Moved

Recommended Reading / Reference

Reference: The Office of Management and Budget's *Historical Tables*, the spending series back to 1940, and CBO's *Monthly Budget Review* (October 8, 2026), the source for fiscal 2026

2a. The Map

Category	Fiscal 2026	Share of outlays	What it is, and how it is growing
Social Security	$1.65 trillion	22%	Retirement, survivors', and disability benefits; up 5% in 2026 with the number of retirees and the cost-of-living adjustment (Module 6)
Medicare	$1.07 trillion net; about $1.3 trillion gross	14%	Hospital, physician, and drug coverage for people over 65 or disabled; up 8% in 2026 (Module 7)
Medicaid	$723 billion, the federal share	10%	Health coverage for people with low incomes, run by the states with federal matching money; up 8% in 2026, and slowed by the 2025 law from 2027 (Module 7)
Net interest on the public debt	$1.14 trillion	15%	The debt's cost, now larger than Medicare's net outlays too, and the one item that buys nothing (Module 5)
Defense Department	$916 billion	12%	The military; up 5% in 2026; the largest item Congress funds each year
Everything else	$1.89 trillion	26%	The nondefense agencies, veterans' benefits, federal pensions, the Supplemental Nutrition Assistance Program (SNAP), the refundable tax credits, unemployment insurance, farm supports, and student loans

CBO, Monthly Budget Review (October 8, 2026); shares of total outlays, rounded. Medicare is net of premiums and other offsetting receipts. CBO divides 'everything else' between nondefense discretionary and other mandatory spending in its outlook of early 2027.

2b. How It Moved

The federal government of 1966 was a military and a post office with a pension plan attached. The government of 2026 is, in the phrase usually credited to Peter Fisher, a Treasury under secretary in 2002, an insurance company with an army. Sixty years of demography, medical prices, and legislation moved the shares. Medicare and Medicaid were enacted in 1965, Social Security's benefits were indexed to prices in 1972, Medicare added drug coverage in 2003, and the Affordable Care Act of 2010 widened Medicaid. Meanwhile the Cold War ended, and the number of Americans over 65 reached 61.2 million in 2024.

The consequence is the structure Module 1 describes: the budget process (Module 4) decides only the discretionary remainder, with nearly all of the drama, and the deficit's path is set by laws first written in 1935 and 1965.

2c. One Federal Dollar

Worked example — one federal dollar, 1966 and 2026

Take a dollar of federal spending and divide it twice. Fiscal 1966 ended on June 30, 1966, the day before Medicare began paying benefits, with Medicaid just begun and the Vietnam build-up under way. That year the dollar went 43 cents to defense, 15 to Social Security, under 1 cent to Medicare and Medicaid together, 7 to interest, and 34 to everything else: the highways, the space program, the agencies, veterans, and welfare. In fiscal 2026 it went 22 cents to Social Security, 14.5 to Medicare, 10 to Medicaid, 15.5 to interest, 12 to the Defense Department, and 26 to everything else. The 1966 figure counts all national defense and the 2026 figure the Defense Department alone, which is most of it.

Social Security, Medicare, and Medicaid take 47 cents, against 16 in 1966, and interest takes 15.5, against 7. Defense fell from 43 cents to 12 because everything else grew faster, not because the military shrank. Two lessons follow. The deficit was 27 cents of every dollar spent, more than the 26 cents of everything outside the five largest items, so cutting all of that to zero would not have balanced the budget. And on CBO's baseline interest takes 19 cents of the 2036 dollar.

2d. What Is Not in the Dollar

- **Tax expenditures.** The spending that runs through the tax code as exclusions, deductions, and credits never appears as an outlay. Counted as spending, it would make the government nearly a third larger than the dollar shows (Module 3).
- **Credit programs.** The federal student loans, the Federal Housing Administration's mortgage insurance, and the export and small-business loans appear in the budget only as their estimated subsidy cost, under a 1990 law. A portfolio of trillions therefore shows up only as its expected losses, re-estimated when borrowers fail.
- **The states' part.** What the states pay for Medicaid is outside the federal dollar, and the highway dollar is matched by state fuel taxes. What the states and localities spend of their own is Module 10's subject.
- **The promises beyond the window.** Social Security's and Medicare's shortfalls over 75 years, which their trustees report each year, appear in no budget; Modules 6 and 7 measure them.
- **The two deficits.** By law Social Security's trust funds and the Postal Service are 'off-budget', so the government reports two deficits. In fiscal 2026 the on-budget deficit was $1.82 trillion and the off-budget accounts, chiefly Social Security, ran $177 billion more; the course uses the total, the 'unified' deficit.

Module 2 Key Points

Where the Money Goes

• Five items take three-quarters of federal spending: Social Security 22%, Medicare 14%, Medicaid 10%, interest 15%, and defense 12%.

• In 1966 defense took 43 cents of the federal dollar; in 2026 Social Security, Medicare, and Medicaid take 47 cents.

• Interest takes 15.5 cents of the 2026 dollar, against 7 cents in 1966, and 19 cents in 2036 on CBO's baseline.

• The deficit is 27 cents of each dollar spent, more than everything outside the five largest items combined.

• Counted as spending, the tax code's exclusions, deductions, and credits would make the government nearly a third larger.

Module 2 Quiz

Check Your Understanding

1. How much of the 2026 federal dollar went to interest?

A) Under 5 cents
B) About a third of every dollar
C) Nearly 40 cents, more than defense and Medicare combined
D) About 15.5 cents

2. Why did defense fall from 43 cents of the federal dollar in 1966 to 12 cents in 2026?

A) The military budget was cut by half in real terms after the Cold War ended.
B) Spending on retirement and health programs grew far faster than the military budget did.
C) Defense spending was moved off-budget by law in 1990.
D) The 2011 Budget Control Act capped it permanently.

3. Why would cutting all spending outside the five largest items to zero not have balanced the 2026 budget?

A) The deficit was larger than all of it.
B) Most of that spending is owed under contracts signed years earlier.
C) The cuts would lower GDP, and with it revenue, by an equal amount.
D) The courts have ruled that appropriated funds must be spent in full.

4. What does the Medicare figure of $1.07 trillion leave out?

A) Spending on prescription drugs under Part D
B) The premiums beneficiaries pay
C) The cost of the Medicare Advantage plans that private insurers run
D) Hospital costs paid from the trust fund rather than from general revenue

5. What would counting tax expenditures as outlays do to the measured size of the government?

A) Make it 5% larger
B) Make it about 10% larger
C) Make it nearly a third larger
D) Make it about twice as large, since tax breaks exceed outlays

Module 3 — Where the Money Comes From

The Revenue Map and Who Pays

Recommended Reading / Reference

Reference: The Treasury's *Monthly Treasury Statement* for September 2026, the Joint Committee on Taxation's *Estimates of Federal Tax Expenditures* (JCX-45-25), CBO's *The Distribution of Household Income, 2023* (September 24, 2026), and the IRS Statistics of Income tables on shares of income tax paid

3a. The Map

Source	Fiscal 2026	Share	What it is
Individual income tax	$2.85 trillion	53%	Seven brackets from 10% to 37% on wages, business income, and investment gains, after deductions and credits; up 7% in 2026; the largest source and the most progressive
Payroll taxes	$1.81 trillion	34%	For Social Security on wages up to a cap (Module 6), for Medicare at 2.9% on all wages, split between employer and employee, and for unemployment insurance; up 4%; flat up to the cap
Corporate income tax	$381 billion	7%	On profits (3e); down 16% in 2026 as the 2025 law's larger deductions for investment took hold; a quarter or more of revenue in the 1950s
Customs duties	$173 billion net	3%	The tariffs of 2025-26: $318 billion collected, less $145 billion refunded, about $130 billion of it for the emergency tariffs the Supreme Court struck down on February 20, 2026; net receipts were negative in May and June
Excise taxes	$106 billion	2%	Fuel, the Highway Trust Fund's source, at 18.4 cents a gallon on gasoline since 1993; alcohol, tobacco, airline tickets
Estate and gift taxes	$39 billion	1%	Up from $29.5 billion in 2025; the exemption rose to $15 million a person in 2026 under the 2025 law
Other	$47 billion	1%	Fees, fines, and the Federal Reserve's deposits of earnings, $10.5 billion, against about $100 billion in 2021; since September 2022, when its interest costs began to exceed its income, the Fed has carried the losses as a deferred asset, to be repaid from later earnings

Monthly Treasury Statement, September 2026; shares rounded, so they sum to more than 100%. The total is in Module 1.

3b. Who Pays

In tax year 2023, the latest in the IRS's Statistics of Income, the top 1% of filers, those with adjusted gross income above $675,602, reported 20.6% of all adjusted gross income and paid 38.4% of all income tax, an average rate of 26.3%. Both shares fell from 2022, when they were 22.4% and 40.4%. The top 10%, above $187,608, paid 70.5%. The bottom half reported 12.3% of income and paid 3.3% of the tax, an average rate of 3.7%, and for most workers the payroll tax is larger than the income tax.

Counting every federal tax, CBO's distribution for 2023, published on September 24, 2026, puts the top fifth of households at 70% of federal taxes, up from 55% in 1979, and the top 1% at 26% of federal taxes on 16% of income before transfers and taxes. Average federal tax rates rise from −0.5% for the lowest fifth, a net payment chiefly from the premium tax credits for health insurance, to 9.5% for the second, 13.4% for the middle, 17.3% for the fourth, and 26.0% for the top fifth.

3c. The Tax Expenditures

The tax code also spends. A tax expenditure is a provision that reduces what a taxpayer owes for doing something the code favors, such as saving for retirement or receiving health insurance through a job. The Joint Committee on Taxation (JCT) puts the total at $2.3 trillion in fiscal 2026, more than Social Security and more than all discretionary spending, and $11.7 trillion over 2025-29. Because they are subtractions from revenue rather than additions to outlays, they appear in no appropriations bill, and unlike appropriations they continue each year without a vote.

Grouped by purpose, the largest in fiscal 2026 are the exclusions for retirement saving, $355 billion, and the lower rates on capital gains and dividends, $252 billion. Next comes the exclusion of employer-paid health insurance, $240 billion of income tax and more counting the payroll tax it also escapes; it is why American health coverage runs through employers. Then come the child credit, $128 billion; the Affordable Care Act's premium credits, $105 billion; the charitable deduction, $78 billion; the deduction for pass-through business income, $76 billion; and the step-up in basis at death, which erases the capital gain on assets held until death, $73 billion.

Exclusions and deductions are worth more at higher tax rates and to those with more to shelter, so much of their value goes to the top of the distribution. The 1986 reform closed many of them; the laws since have mostly added more. The 2025 law added four deductions that run through 2028: for older taxpayers, $22 billion in fiscal 2026; for overtime pay, $22 billion; for tips, $7 billion; and for interest on car loans, $6 billion.

3d. Do the Rich Pay Their Share?

The case that they pay more than their share

Its advocates, among them most congressional Republicans and the Tax Foundation, point to the IRS's figures: the top 1% pays nearly twice its share of income in income tax, and the bottom half pays almost none. Counting every federal tax, the top fifth pays 70%, and average rates rise steadily with income. Higher rates, they argue, would discourage work, saving, and investment and would push income into forms the code taxes less. Revenue has stayed near the same share of GDP whatever the top rate (3e), so the problem is spending, not the rich.

The case that they do not

Its advocates, among them most congressional Democrats, groups such as Americans for Tax Fairness, and economists such as Emmanuel Saez and Gabriel Zucman, say the code taxes income, not the growth of wealth, and the largest fortunes grow mostly through gains that are never sold. A gain is taxed only when sold, and the step-up in basis erases it at death. Counting those unrealized gains as income, the White House budget office and Council of Economic Advisers estimated in 2021 that the 400 wealthiest families paid an average federal income tax rate of 8.2% over 2010-18. The payroll tax's cap means a worker earning at the cap and one earning $10 million pay the same Social Security tax.

The evidence

Both sets of numbers are accurate, because they divide by different things. The IRS shares and CBO's rates measure taxes against income as the code defines it, which leaves out gains not yet sold. The 8.2% measures income tax against a wider economic income that includes them, and it covers only federal income tax for one small group over nine years. The IRS shares also move with the markets: the top 1%'s share of income tax tracks its share of income (3b), which swings with realized capital gains.

The course's reading

The argument is less about rates than about the base. On income as the code measures it, the system is progressive and the top carries most of the income tax. On wealth, much of the growth of the largest fortunes is never taxed as income, for the reason the second case gives. The step-up in basis and the payroll-tax cap are where the two sides' numbers part, and both appear on every list of options in Module 13.

3e. The Revenue Level and What Is Not Taxed

Federal revenue has stayed between about 15% and 20% of GDP for seventy years, whether the top income-tax rate was 91%, as in 1960, or 28%, as in 1988, because the base moves with the rate. The 2017 tax law cut the corporate rate from 35% to 21% permanently and the individual rates temporarily (Module 4 explains why); the JCT scored it at about $1.5 trillion over ten years.

What the United States does not tax is as distinctive as what it does. It is the only member of the Organisation for Economic Co-operation and Development (OECD) without a value-added tax, the broad sales tax that other rich countries levy at standard rates from Canada's 5% to Hungary's 27%, about 19% on average. It has no carbon tax and no wealth tax.

Module 3 Key Points

Where the Money Comes From

• The individual income tax brings in 53% of federal revenue, payroll taxes 34%, and the corporate tax 7%, after a 16% fall in 2026.

• In 2023 the top 1% reported 20.6% of income and paid 38.4% of income tax; the bottom half paid 3.3%.

• Counting unrealized gains, the 400 richest families paid 8.2% in federal income tax over 2010-18, on a 2021 White House estimate.

• Tax expenditures cost $2.3 trillion in fiscal 2026, more than Social Security; retirement saving and capital gains lead the list.

• Revenue has stayed between about 15% and 20% of GDP for seventy years, whether the top rate was 91% or 28%.

Module 3 Quiz

Check Your Understanding

1. What share of federal revenue did the individual income tax raise in fiscal 2026?

A) A third
B) About 70%, the highest share since the 1940s
C) Under a quarter, after the 2025 law's tax cuts
D) About 53%

2. Why can the IRS's shares and the 8.2% rate for the 400 richest families both be accurate?

A) They divide by different things: the IRS counts income as the code defines it, while the 8.2% adds unrealized gains.
B) The IRS figures are for tax year 2023, while the 8.2% rate covers only the years 2010 to 2018.
C) The 8.2% counts state and local taxes, which fall more heavily on middle-income families.
D) The 400 families are left out of the IRS's published statistics for reasons of privacy.

3. Grouped by purpose, which tax expenditures cost the most in fiscal 2026?

A) The child credit
B) Those for retirement saving
C) The mortgage deduction
D) The exclusion of employer-paid health insurance, the reason most coverage runs through jobs

4. How did the 2025 law treat tips and overtime pay?

A) A flat 10% rate
B) A permanent exclusion from both income and payroll taxes
C) A deduction through 2028
D) An exemption for workers earning under $50,000, made permanent in 2026

5. What has federal revenue as a share of GDP done over seventy years of changing top rates?

A) Risen with each rate increase, to about 25%
B) Fallen steadily since the 91% top rate of 1960
C) Doubled since 1960, as the payroll tax grew to pay for Medicare
D) Stayed between about 15% and 20%

Module 4 — The Process, and Why It Fails

The Machinery and Its Breakdown

Recommended Reading / Reference

> **Reference:** The Congressional Research Service's *Introduction to the Federal Budget Process* and its report R49353 on fiscal 2027 appropriations (September 17, 2026); the Senate's rules on reconciliation (the Byrd rule, Section 313 of the 1974 act)

4a. The Machinery as Designed

The Congressional Budget and Impoundment Control Act of 1974, written after President Nixon refused to spend money Congress had appropriated, built the process as it exists on paper. The president submits a budget in February. The Budget Committees write a budget resolution by April 15 that sets totals for spending and revenue. Twelve appropriations bills, one from each subcommittee, fund the agencies and are due by October 1 (1b). The authorizing committees write the laws for the mandatory programs, and CBO, created by the same act, estimates the cost of everything.

The design assumed three things that have not held. Congress was to adopt a budget resolution every year; since 2021 it has adopted only the two written to unlock reconciliation, in 2025 and 2026. All twelve bills were to pass on time, which has happened four times since 1977, most recently for fiscal 1997. And the mandatory programs were to be revisited, which they have not been. What replaced the design is a continuing resolution that funds the agencies at last year's rates for weeks or months, an omnibus that bundles the bills late, a shutdown when a resolution lapses, and a reconciliation bill whenever the majority can pass one alone.

4b. Continuing Resolutions and Shutdowns

A shutdown is what the Antideficiency Act requires when appropriations lapse. Agencies without funding must stop all work except what protects life and property and must furlough their employees. The 'excepted' workers, among them air-traffic controllers, the military, and border agents, keep working without pay until the lapse ends.

Fiscal 2026 set the record with three lapses. The first ran from October 1 to November 12, 2025, 43 days, the longest in American history, over Senate Democrats' demand to extend the enhanced premium credits of the Affordable Care Act (Module 7). It ended with a law that funded three of the twelve bills for the year and the rest of the government to January 30, and three more bills became law in January. The second lapse, from January 31 to February 3, 2026, began after Senate Democrats withdrew their support for the Homeland Security bill following a fatal shooting by a Customs and Border Protection agent on January 24. The law that ended it funded five more bills and kept Homeland Security open to February 13.

The third lapse, Homeland Security's alone, ran from February 14 to April 30, 76 days. It ended with a law that funds the department through September 30 except Immigration and Customs Enforcement (ICE) and the Border Patrol's operations, which the majority then funded by reconciliation (4c). A shutdown's costs are real and partly recovered: CBO estimated in October 2025 that the first lapse would permanently cost between $7 billion and $14 billion of output, depending on its length. Furloughed employees are paid afterward under a 2019 law, contractors are not, and the work that stopped, from statistics to inspections and permits, resumes with a backlog.

Fiscal 2027 began without a lapse. The Continuing Appropriations and Extensions Act, 2027, signed on September 2, 2026 after votes of 90-6 in the Senate and 370-48 in the House, funds the government at fiscal 2026 rates through December 11, 2026. By October 23 none of the twelve bills had been enacted: the House had passed three and the Senate none.

4c. Reconciliation and the Byrd Rule

Reconciliation is the exception that has become the rule. Under the 1974 act a budget resolution can instruct committees to change mandatory spending and revenue to hit targets, and the resulting bill cannot be filibustered in the Senate, so it needs 51 votes rather than 60. Every major fiscal law of the past generation passed that way: the tax cuts of 2001 and 2003, the health-care amendments of 2010, the tax law of 2017, the relief act of 2021, the climate law of 2022, and the law of July 4, 2025 (Module 8). The Secure America Act of June 10, 2026 followed, with $70 billion for immigration enforcement through fiscal 2029.

The Byrd rule, written by Senator Robert Byrd in 1985, sets the limits. A reconciliation bill may contain only provisions with a budgetary effect, may not touch Social Security, and may not raise deficits beyond its ten-year window. The parliamentarian strikes what fails the test, as with a $1 billion Secret Service provision in the 2026 bill on May 16.

The rule shapes the laws it allows. The 2017 individual tax cuts expired after 2025 because permanent cuts would have raised deficits beyond the window, and the 2025 law's deductions for tips and overtime are temporary for the same reason (Module 3). The largest device was the baseline. In 2025 the Senate majority held that the Budget Committee's chair, not the parliamentarian, decides the baseline, and it adopted 'current policy', which assumes the expiring 2017 cuts continue, so extending them was scored at zero. Against current law, CBO's standard, the law's cost is far larger (Module 8), and the precedent is now available to the next majority of either party.

4d. The Debt Ceiling, CBO, and the Scoring Games

- **The debt ceiling.** A statutory limit on the gross debt, dating from 1917, that Congress must raise to borrow for spending it has already enacted. The standoffs of 2011, which cost the government its AAA rating from Standard & Poor's (S&P), 2013, and 2023 came within days of default. The 2025 law raised the limit by $5 trillion, to $41.104 trillion; the National Taxpayers Union Foundation expects it to be reached around May 2027, with the Treasury's extraordinary measures lasting to about February 2028.
- **The scorekeepers.** The methods of CBO and the JCT (1c), static or dynamic scoring, the choice of baseline, and the ten-year window, are the ground the fights are fought on, and each has been attacked by whichever party a score disfavors.
- **The window.** A ten-year score invites provisions that expire in year nine and revenue pulled into year one, so a bill's tenth-year cost is the honest number and its ten-year total the political one.
- **Emergency designations.** Spending labeled 'emergency' is exempt from the caps, which is how the pandemic's $5 trillion and every disaster bill were carried. The label is the majority's to apply.
- **The president's tools.** The administration revived impoundment (4a) through rescission packages, among them the $9 billion Rescissions Act of July 24, 2025. It also sent 'pocket rescissions' too late in the fiscal year for Congress to act. The Supreme Court let most of August 2025's $4.9 billion of foreign aid be withheld in September 2025. The Government Accountability Office (GAO) said on September 29, 2026 that the administration could not withhold the $810 million of a second year-end package.

Module 4 Key Points

The Process, and Why It Fails

• The 1974 process, a resolution by April and twelve bills by October, has worked as written four times since 1977.

• Fiscal 2026 set the record with three lapses, of 43, 4, and 76 days; fiscal 2027 runs on a stopgap to December 11.

• Reconciliation, at 51 Senate votes, carried every major fiscal law of a generation, and in 2025 and 2026 two years running.

• The 2025 Senate majority adopted a current-policy baseline that scored extending the 2017 tax cuts at zero.

• The debt ceiling, raised $5 trillion to $41.1 trillion in 2025, is expected to bind again around May 2027.

Module 4 Quiz

Check Your Understanding

1. How many times since 1977 has Congress passed all twelve appropriations bills on time?

A) Four times, most recently for fiscal 1997
B) Every year until the shutdowns of 2010
C) About half the time, mostly before 1990
D) Twice, both times in election years

2. Why did fiscal 2027 begin on October 1 without a shutdown?

A) Congress passed all twelve bills by September 30 for the first time since 1997.
B) The Antideficiency Act was suspended until after the midterm elections.
C) The president used impoundment powers to keep the agencies open.
D) A continuing resolution signed on September 2 funds the government to December 11.

3. What does the Byrd rule forbid in a reconciliation bill?

A) Any change to tax rates
B) Provisions with no budgetary effect, changes to Social Security, and deficits beyond the window
C) Spending above the caps
D) Any provision the minority leader objects to, which the parliamentarian must strike on a point of order raised by any senator of either party

4. What did the 2025 law do to the debt ceiling?

A) It abolished it.
B) It suspended the ceiling until January 2029, after the next election.
C) It raised it by $5 trillion.
D) It left the ceiling alone and moved the fight to the fiscal 2027 bills.

5. What funded ICE and the Border Patrol after the third lapse of fiscal 2026?

A) A 2026 reconciliation law
B) The fiscal 2027 continuing resolution of September 2
C) An emergency supplemental passed in May
D) Transfers from the Defense Department

Module 5 — The Debt

The Treasury Market That Funds the Gap

Recommended Reading / Reference

Reference: The Treasury's *Monthly Statement of the Public Debt*, its quarterly refunding statements (most recently August 5, 2026), and the Treasury International Capital (TIC) data on foreign holdings; the Federal Reserve's *Financial Accounts of the United States* for the domestic holders

5a. What the Debt Is

The debt held by the public (1b) is almost all marketable securities that the Treasury has sold at auction, $31.84 trillion of them on September 30, 2026.

Security	Maturity	Outstanding	Share
Bills	A few weeks to a year; sold at a discount, with no coupon	$7.12 trillion	22.4%, the largest share since 2020
Notes	Two to ten years	$16.28 trillion	51%
Bonds	Twenty and thirty years	$5.55 trillion	17%
Inflation-protected securities	Five to thirty years; principal rises with consumer prices	$2.17 trillion	7%
Floating-rate notes	Two years; the rate resets with the bill rate	$0.71 trillion	2%

Treasury, Monthly Statement of the Public Debt, September 30, 2026.

The Treasury sells them on a fixed calendar, bills every week and notes and bonds every month: $30.5 trillion in 2025 counting the bills that roll over, about $2.5 trillion a month. Twenty-five primary dealers, banks and securities firms obliged to bid, stand behind every auction, after NatWest withdrew on October 16, 2026. The market that trades the securities afterward is the deepest in the world, the benchmark for every dollar interest rate, and the main collateral of the financial system.

The average maturity is 71 months, just under six years, but about a third of the debt matures within a year, since the long bonds pull the average up while bills and short notes come due constantly. That is why the rise in rates of 2022 reached the budget so fast: notes issued at 2% or less in 2020-21 are maturing and being replaced at 4.5% or more. The average rate on the marketable debt was 3.52% on September 30, and 3.53% on all interest-bearing debt, the highest since April 2009, against 3.87% on bills and more than 5% on new ten- and thirty-year securities. On CBO's measure of net interest, which also nets out interest the government earns, the bill rose from $352 billion in fiscal 2021 to $970 billion in 2025.

5b. Who Holds It

Holder	Amount	Share of the public debt	Note
Foreign investors	$9.25 trillion (July)	About 28.5%	Central banks and other official holders $3.77 trillion, about 12%, against about 36% in 2008. In August: Japan $1,068 billion, Britain $1,010 billion, China $591 billion, its lowest since 2008 and down from $1,317 billion in November 2013
The Federal Reserve	$4.57 trillion (October 14)	About 14%	Peak $5.77 trillion in June 2022; the runoff ended on December 1, 2025, and bill purchases and the reinvestment of mortgage-bond paydowns into bills have since lifted its holdings (Module 9)
Money-market and mutual funds	$5.0 trillion (June 30)	About 15%	Money-market funds $3.28 trillion, most of it in bills
Banks	$1.80 trillion	About 6%	Losses on such securities when rates rose brought down Silicon Valley Bank in 2023
Households and others	$2.83 trillion	About 9%	A residual in the Federal Reserve's accounts that includes hedge funds

Treasury TIC data; Federal Reserve H.4.1 and Financial Accounts (second quarter of 2026). Shares of the debt held by the public on October 13 (1b). The rest, more than a quarter, is held by pension funds, insurers, state and local governments, broker-dealers, and others. Foreign holdings are recorded by where securities are held in custody, which inflates Britain, Belgium, and the Cayman Islands.

The composition decides two things. The foreign share measures the world's willingness to fund the deficit, and its make-up has changed: central banks, once the largest buyers, have given way to private investors abroad, many of them funds. The Fed's share sets how much the private market must absorb. The trust funds' holdings sit outside this table, and they are owed to beneficiaries who can vote rather than to creditors who can sell.

5c. How the Treasury Borrows

The Treasury chooses what to sell, and in 2026 it chose bills. At its quarterly refunding, announced on August 5, it sold $125 billion of three-, ten-, and thirty-year securities and said it expected to keep coupon auction sizes steady 'for at least the next several quarters', so the added borrowing went into bills. By September 30 their share of the marketable debt (5a) was above the roughly 20% that the Treasury Borrowing Advisory Committee, the panel of dealers and investors that advises it, treats as a guide.

The Treasury also buys back older securities: up to $38 billion in August-October to support the market's liquidity and up to $25 billion for cash management. In the week of August 17 Treasury Secretary Scott Bessent doubled the maximum size of its long-dated buybacks to at least $4 billion an operation, saying yields 'do not reflect underlying fundamentals'. The market tested the approach in October. The ten-year reopening of October 7 sold $39 billion at 5.300% and the thirty-year auction of October 8 sold $22 billion at 5.618%, the highest auction yields since 2000. The next refunding statement is due on November 4, 2026.

5d. The Interest Bill Under Three Rate Paths

Worked example — the interest bill under three rate paths

Take the debt at the end of fiscal 2026, about $32.4 trillion at an average rate of 3.52%, with 22% of it in bills that reprice every year and about a third maturing within a year. Run it to 2036 on CBO's primary deficits, 2.6% of GDP falling to 2.1%, and nominal growth of about 3.8% a year, repricing the maturing debt and each year's new borrowing at the path's rates. The calculation anchors path one to CBO's published figures and measures the other two as differences from it. As a check, raising every rate 1.5 points above CBO's lifts the 2036 debt ratio by 13 points in this calculation, as in CBO's own estimate of October 8, 2026 (to 133.1% of GDP).

Path one, CBO's baseline of February 11, 2026, with the ten-year yield at 4.1% rising to 4.4%: interest reaches $2.1 trillion in 2036, 4.6% of GDP and about a quarter of revenue. **Path two, rates fall** to the world of 2019, with the ten-year at 3.0% and bills near 2.4%: interest in 2036 is about $1.36 trillion, 3.0% of GDP and a sixth of revenue, and the debt ratio ends nine points lower, near 111%. **Path three, today's rates hold**, with bills near 4.3% and the ten-year near 5.2%: interest in 2036 is about $2.65 trillion, 5.8% of GDP and a third of revenue, and the debt ratio ends near 127%.

Three lessons follow. The paths differ by about $1.3 trillion a year in 2036 on a variable Congress does not set, so the fiscal position is in effect a bet on interest rates, and the size of the deficit sets the stake. The third path is no shock, only the market of this autumn held still. And because the debt reprices quickly (5a), every tenth of a point on the average rate costs about $32 billion a year now and about $55 billion on the debt of 2036.

Module 5 Key Points

The Debt

• Bills are 22.4% of the marketable debt, the most since 2020, and about a third of the debt matures within a year.

• Foreign investors hold about 28.5% of the public debt and the Fed about 14%; China's holdings are the lowest since 2008.

• The Treasury kept coupon auctions steady and leaned on bills and buybacks; October's auctions cleared at the highest yields since 2000.

• Each tenth of a point on the average rate costs about $32 billion a year now and $55 billion by 2036.

• In 2036, interest is about $1.36 trillion if rates fall, CBO's $2.1 trillion, or $2.65 trillion if today's rates hold.

Module 5 Quiz

Check Your Understanding

1. What share of the marketable debt was in bills on September 30, 2026?

A) About 5%
B) About half, the largest share of any security
C) Nearly 40%, after the Treasury's August decision
D) 22.4%, the most since 2020

2. Why does a rise in rates reach the interest bill quickly, though the average maturity is nearly six years?

A) The Treasury must reset the coupon on every outstanding note whenever the Fed changes its rate.
B) About a third of the debt matures within a year, because bills and short notes come due constantly.
C) Inflation-protected securities make up half of the debt and adjust every month.
D) Foreign holders can demand early repayment whenever yields rise above their purchase price.

3. What happened at the Treasury's auctions of October 7 and 8, 2026?

A) They failed
B) They were cancelled
C) They cleared at the highest yields since 2000
D) The Fed bought most of the ten-year and thirty-year securities on offer to cap their yields

4. On the module's three paths, what would interest be in 2036 if the rates of this autumn held?

A) About $2.65 trillion
B) About $1.36 trillion, as in 2019
C) About $2.1 trillion, CBO's baseline
D) Over $4 trillion, more than Social Security and Medicare together

5. Which holders own the largest share of the debt held by the public?

A) The Fed
B) American banks, through their securities portfolios
C) Households, through savings bonds and brokerage accounts
D) Foreign investors

Module 6 — Social Security

The Program With an Expiry Date

Recommended Reading / Reference

> **Reference:** The 2026 *Annual Report of the Board of Trustees* of the Social Security trust funds (June 9, 2026), the Social Security Administration's actuarial estimates of reform options (ssa.gov/oact/solvency), and the Congressional Research Service's summary of the report (IF13256, June 25, 2026)

6a. The Program

Social Security paid about $1.61 trillion in 2025 to about 70 million people: retirees and their families, survivors, and disabled workers. A 12.4% tax on wages up to a cap, $184,500 in 2026 and $192,300 in 2027, split between employer and employee, finances it, and about 186 million workers pay. It is the largest program in the budget and the main source of income for most Americans over 65. It is also the main reason the poverty rate of the elderly has fallen from 35% in 1959: on the Census Bureau's supplemental measure it lifted 28.8 million people out of poverty in 2025, more than any other program.

Its benefits are earned. A worker's benefit is computed from the 35 highest-earning years, indexed to wage growth, through a formula that replaces about three-quarters of a very low earner's wages, about 40% of an average earner's, and about a quarter of a maximum earner's. Benefits then rise each year with the cost-of-living adjustment, which is 3.6% for 2027, announced on October 14, 2026.

The 1935 act was designed to build a sizable reserve, but the 1939 amendments deferred its tax increases, and for decades the program ran roughly pay-as-you-go: each year's workers paid that year's retirees. It was reformed in 1983 (6d) to build a surplus against the baby boom's retirement. The trust funds peaked at about $2.9 trillion in 2020 and are now being drawn down, to $2.56 trillion at the end of 2025, because the boomers retired and birth rates fell. There were about 5 workers for each beneficiary in 1960 and about 2.6 in 2025, and the trustees project 2.3 by 2035.

6b. The Date, and What Happens After It

The trustees' report of June 9, 2026 projects that the retirement trust fund will run out in the fourth quarter of 2032. The law then allows benefits to be paid only from incoming taxes, which will cover 78% of what is scheduled: a cut of about 22% for every beneficiary, including those already retired, with no vote taken. Counted together with the disability fund, which stays solvent, the reserves last to the third quarter of 2034, when 83% would be payable. Merging the funds takes a law, as a temporary reallocation to the disability fund did in 2015.

The 75-year shortfall is 4.42% of taxable payroll, up from 3.82% in the 2025 report. Part of the rise comes from the 2025 law's deduction for older taxpayers, which reduces the income tax on benefits that flows to the funds. Closing the gap at once would take a rise in the tax rate of 4.25 points, to about 16.65%, or a cut in benefits of 25.2%, or a mix; waiting until 2034 raises those to 4.90 points or 28.5%. What happens at the date is not a default: the checks keep coming, smaller.

6c. The Options, With Their Numbers

Option	Share of the 75-year gap closed	Who bears it	Note
Eliminate the taxable maximum, with no added benefit	About 70%	Earners above the cap, about 6% of workers	The largest single option
Eliminate the cap and credit benefits on the added earnings	About 55%	The same, less	Keeps the link between taxes paid and benefits earned
Raise the tax rate by one point, to 13.4%	About 25%	All workers and employers	The rate has not changed since 1990
Raise the full retirement age from 67 to 69, phased in	About 30%	Younger workers (6d)	Equivalent to a benefit cut of about 13% for those affected
Index the cost-of-living adjustment to the chained consumer price index	About 15%	All beneficiaries, more the longer they live	About 0.3 points a year less
Slow benefit growth for the top two-thirds of earners (progressive price indexing)	About 40%	Middle and high earners retiring after the mid-2030s	Keeps low earners whole and moves the program toward a floor
Do nothing until the fund runs out	None, then the cut at exhaustion (6b)	Every beneficiary at once	The default, and the one every Congress has chosen until the last moment

Approximate shares, from the Social Security actuaries' estimates against the shortfalls of recent years; against the 2026 report's larger gap (6b), each option now closes somewhat less. Shares interact when options are combined.

6d. How Should the Gap Be Closed?

The case for revenue first

Its advocates, among them most congressional Democrats and groups such as Social Security Works, say the program's benefits are modest, earned, and the main income of most retirees, so cutting them is cutting the floor. The tax rate has not risen since 1990, while the share of wages above the cap has grown as earnings at the top outran the rest. Lifting or removing the cap would ask more of those most able to pay and would close most of the gap with one change. A higher retirement age, they add, falls hardest on manual workers and on those whose life expectancy has not risen.

The case for restraining benefits

Its advocates, among them many congressional Republicans and fiscal groups such as the Committee for a Responsible Federal Budget, say Americans live longer than the program's designers assumed, so the retirement age should rise with longevity. Removing the cap would turn an earned-benefit program into a general tax on high earners, and a payroll tax rise would weigh on hiring. A more accurate inflation index, or slower benefit growth for the better-off, would protect the poorest while closing much of the gap. Some, among them Senators Bill Cassidy and Tim Kaine, propose a separate fund invested in stocks to add returns.

The evidence

No single option closes the 2026 gap, so every plan combines them (6c). The gains in life expectancy that justify a higher retirement age have gone mostly to higher earners, which is why the age option bears hardest on low earners. Polls show large majorities against benefit cuts and for raising the cap, and the Byrd rule keeps any change out of reconciliation, so a fix needs 60 Senate votes (Module 4). The 1983 reform

passed that way, months before the checks would have shrunk, with a tax increase, a later retirement age, and the taxation of benefits.

The course's reading

The arithmetic leaves the choice of who bears the cost to politics, but it settles two things. Each year of delay makes the fix larger, and the only reform of this size that has passed, in 1983, took something from both sides. The trust fund's date (6b) falls in the next presidential term, and the menu in 6c is the one that term will choose from.

Module 6 Key Points

Social Security

• Social Security paid $1.61 trillion in 2025 to about 70 million people, from a 12.4% tax on wages up to $184,500 in 2026.

• The retirement fund runs out in the fourth quarter of 2032; benefits then fall to 78% of scheduled, for everyone, with no vote.

• The 75-year gap rose to 4.42% of payroll in 2026: a 4.25-point tax rise or a 25.2% cut if done today.

• No single option closes the gap; removing the cap comes closest, and doing nothing means a 22% cut in 2032.

• The Byrd rule keeps Social Security out of reconciliation, so a fix needs 60 Senate votes, as in 1983.

Module 6 Quiz

Check Your Understanding

1. What happens when the Social Security retirement trust fund is exhausted?

A) The Treasury covers the gap from general revenue under the 1983 act
B) Benefits fall to about 78% of scheduled
C) The program closes to new beneficiaries until Congress acts
D) Benefits are frozen at their current dollar levels

2. What did the 2026 trustees' report find about the 75-year shortfall?

A) It widened to 4.42% of taxable payroll, from 3.82% a year earlier.
B) It narrowed after the 2025 law's senior deduction.
C) It was unchanged from 2025.
D) It disappeared over the projection period because the 2025 law's tariff revenue was credited to the trust funds.

3. When does the retirement trust fund run out, on the 2026 trustees' report?

A) Early in 2040
B) Late in 2027
C) The fourth quarter of 2032
D) In the summer of 2050

4. What is the taxable maximum for 2027?

A) $176,100, as in 2025
B) $250,000 and up
C) $184,500, frozen
D) $192,300

5. Why can Social Security not be changed through reconciliation?

A) Social Security is written into the Constitution's spending clause.
B) The Byrd rule bars any change to Social Security in a reconciliation bill.
C) The states share its cost and must consent to any change.
D) Its trust funds are owned by the workers who paid in.

Module 7 — Medicare and Medicaid

The Health Programs and the Fights Over Them

Recommended Reading / Reference

Reference: The 2026 Medicare trustees' report (June 9, 2026), the Medicare Payment Advisory Commission's *Report to the Congress* (March 12, 2026), the Centers for Medicare & Medicaid Services' interim final rule on Medicaid community engagement (June 1, 2026), and KFF's Medicaid and marketplace trackers

7a. Medicare

Medicare covers more than 70 million people over 65 or disabled, and it is four programs with two kinds of money. Part A, hospital insurance, is financed mainly by the Medicare payroll tax (Module 3) through a trust fund. Parts B, physicians and outpatient care, and D, prescription drugs, are financed about three-quarters from general revenue and a quarter from premiums, so they have no exhaustion date: general revenue covers whatever they cost. Part C, Medicare Advantage, is the private-plan version, and it enrolls 35.2 million people, 55% of those eligible.

Advantage plans are paid a fixed amount per enrollee, and the Medicare Payment Advisory Commission (MedPAC), Congress's adviser on the program, estimated on March 12, 2026 that they are paid about 14% more than the same people would cost in traditional Medicare, a projected $76 billion in 2026. The excess comes chiefly from favorable selection, enrollees healthier than the payments assume, and from more intensive coding of diagnoses. It is the largest overpayment in the program and the first item on most reformers' lists (Module 13).

The trustees' report of June 9, 2026 keeps the Hospital Insurance fund's exhaustion date at 2033, when incoming revenue would pay 89% of hospital claims. CBO, on its own assumptions about costs, puts the date at 2040; the course treats the difference as a real uncertainty. The Inflation Reduction Act of 2022 lets Medicare negotiate some drug prices. The first ten negotiated prices took effect on January 1, 2026, and fifteen more, among them the semaglutide drugs sold as Ozempic and Wegovy, take effect on January 1, 2027. The third round's fifteen, the first to include drugs given in doctors' offices, are due by November 30, 2026 and take effect in 2028.

7b. Medicaid and the 2025 Law

Medicaid and the Children's Health Insurance Program (CHIP) covered 73.2 million people in June 2026, down from about 94 million in 2023, when the pandemic's continuous-enrollment rule unwound. The states run it and share its cost under a formula that pays 50% to about 77% of a state's spending, depending on its income, and 90% for the adults covered by the Affordable Care Act's expansion, which 40 states and the District of Columbia have adopted. It is the largest payer for nursing-home care, covering about three in five residents, and for births, about two in five, as well as the main insurer of children in low-income families.

The 2025 law is its largest change since 1965, and CBO scores it at $887 billion less federal Medicaid spending over ten years:

- **Work requirements.** Expansion adults aged 19-64 must show 80 hours a month of work, community service, a work program, or half-time education, or a monthly income of at least $580. Parents of children 13 or younger, the medically frail, and others are exempt. States must start by January 1, 2027 under the

interim final rule the Centers for Medicare & Medicaid Services (CMS) issued on June 1, 2026, and may start earlier, as Nebraska has. Before ending coverage a state must send a notice and allow 30 days.

• **Renewals every six months.** Expansion adults' eligibility is checked twice a year rather than once, for renewals after December 31, 2026.

• **Provider taxes.** From fiscal 2028 the ceiling on the taxes states levy on hospitals and other providers to draw federal matching money falls from 6% of their revenue by half a point a year, to 3.5% in fiscal 2032, in the expansion states. A CMS rule of early 2026 also bans the non-uniform taxes some states levied mainly on managed-care plans.

• **The offset.** The Rural Health Transformation Program pays $10 billion a year for five years, and CMS made its first awards to all fifty states in December 2025.

• **The coverage cost.** CBO estimated in August 2025 that the law would leave about 10 million more people uninsured in 2034, most of them through the Medicaid changes.

7c. Should Medicaid Require Work?

The case for the requirement

Its supporters, among them most congressional Republicans and the administration, say it returns Medicaid to its purpose and asks of adults who can work what SNAP and welfare already ask. Most expansion adults already work or would qualify for an exemption, so the requirement asks little of them and encourages the rest. Parents of young children, the disabled, and the frail are exempt, and the savings protect the program for the people it was built for while easing a cost that grows faster than the economy.

The case against

Its critics, among them most congressional Democrats, hospital groups, and analysts such as those at the Center on Budget and Policy Priorities, say the requirement saves money mainly by removing eligible people through paperwork. Those who work irregular hours, or are exempt but must prove it, lose coverage when a report goes missing. The costs move to hospitals as unpaid care, most of all rural hospitals, and to the states, and the savings come from people with low incomes.

The evidence

The record is short and points one way. Arkansas ran a requirement in 2018, and about 18,000 people lost coverage within months, with no measurable rise in employment, before a court stopped it. Studies found that most of those who lost coverage were working or should have been exempt. Georgia's program, running since July 2023, has enrolled a small fraction of the people its designers expected. In CBO's estimate the requirement is the largest single source of the law's Medicaid savings, which is the same finding seen from the budget's side: the money is saved when people leave the rolls.

The course's reading

The evidence so far is about reporting more than about work. Whether 2027 differs depends on administration. States that verify work and exemptions from data they already hold will lose fewer eligible people than states that require monthly reports, so the number to watch in 2027 is how many people lose coverage for missing paperwork rather than for failing the test.

7d. The Marketplace Credits

The Affordable Care Act's marketplaces sell insurance to people who buy their own, with premium credits scaled to income. The 2021 relief act enhanced those credits, capping premiums at 8.5% of income and extending help above 400% of the poverty line, and the 2022 climate law extended the enhancement through 2025. Enrollment reached 24.3 million in 2025, and 22.4 million, 92%, received the enhanced credits.

Their expiry was the fight behind the first shutdown of fiscal 2026 (Module 4). In December 2025 no Senate measure to extend them reached 60 votes, and they expired. On January 8, 2026 the House, forced by a discharge petition, passed a three-year extension 230-196; the Senate has not taken it up, and a bipartisan Senate compromise of two years stalled. Paying enrollment fell to 19.2 million in February 2026, down 13%, and insurers requested a median premium rise of 15% for 2027. CBO had estimated that the expiry alone would leave about 4 million more people uninsured. A permanent extension would cost about $35 billion a year by CBO's estimate, under half of 1% of federal spending, which made the fight one over whether to pay rather than whether the country could.

Module 7 Key Points

Medicare and Medicaid

• Medicare's hospital fund runs out in 2033 on the trustees' 2026 report, with 89% of claims payable after; CBO says 2040.

• Medicare Advantage enrolls 55% of the eligible and is paid about 14% more than traditional Medicare would cost: $76 billion in 2026.

• Medicaid and CHIP cover 73.2 million people; the 2025 law cuts federal Medicaid spending by $887 billion over ten years.

• Work requirements start by January 1, 2027; where tried before, coverage fell and employment did not measurably rise.

• The enhanced marketplace credits expired after 2025; paying enrollment fell 13%, and the House's extension has stalled in the Senate.

Module 7 Quiz

Check Your Understanding

1. When does Medicare's Hospital Insurance trust fund run out, on the 2026 trustees' report?

A) In 2033
B) 2029
C) Not before 2050, after the 2025 law's changes
D) It has no date, because general revenue covers Part A

2. On MedPAC's March 2026 estimate, how much more is Medicare Advantage paid than traditional Medicare would cost for the same people?

A) About 2%
B) Around 6%
C) About 14%, or $76 billion
D) About 40%, or $300 billion, more than all of Medicaid's growth

3. Who must meet the 2025 law's Medicaid work requirement?

A) Every enrollee over the age of 16, including the disabled
B) Parents of children under 13 and pregnant women
C) Expansion adults aged 19-64
D) Everyone on Medicaid and CHIP whose household income is above the poverty line

4. What did Arkansas's work requirement of 2018 show?

A) Employment rose by a fifth
B) Coverage fell, and employment did not measurably rise
C) Enrollment rose
D) Most enrollees left Medicaid for jobs with employer coverage within a year, as designed

5. What happened to the enhanced marketplace premium credits after the 2025 shutdown?

A) They expired at the end of 2025
B) They were made permanent
C) They were extended through 2028 by the January 2026 funding law
D) The Senate passed a two-year extension that the House then rejected in March

Module 8 — The 2025 Law

The Year's Largest Fiscal Act, With Both Cases Made

Recommended Reading / Reference

Reference: Public Law 119-21, signed July 4, 2025; CBO's cost estimate (August 4, 2025) and its distributional analysis (August 11, 2025); the Council of Economic Advisers' report on the law's growth effects (June 25, 2025)

8a. What It Did

Provision	What it does	Budget effect, 2025-34
The 2017 individual provisions, made permanent	Rates, brackets, the larger standard deduction, the child credit (raised to $2,200), the pass-through deduction, and the higher estate-tax exemption	The largest part of the $4.5 trillion of revenue the law gives up
The state-and-local-tax deduction	Its cap rises from $10,000 to $40,000, phasing down above $500,000 of income and returning to $10,000 in 2030	Part of the revenue total
Tips, overtime, car loans, older taxpayers	Deductions of up to $25,000 for tips, $12,500 for overtime ($25,000 for couples), $10,000 for car-loan interest, and $6,000 for each taxpayer over 65 (Module 3)	Part of the revenue total
Business provisions	Permanent 100% expensing of equipment, immediate deduction of domestic research costs restored, a looser limit on deducting interest	Part of the revenue total (Module 3)
Clean-energy credits	The electric-vehicle credit ended September 30, 2025; wind and solar projects must begin construction by July 4, 2026 or be in service by the end of 2027; storage and nuclear credits kept, with limits on Chinese suppliers	Saves money, partly offsetting the tax cuts
Medicaid	Work requirements, renewals every six months, the provider-tax ceiling, and a rural fund (Module 7)	Saves money (7b)
SNAP	Work requirements extended to age 64 and to parents of children 14 and older; the states pay more of administration and part of benefits (Module 10)	Saves $186 billion
Student loans	Caps on graduate and parent borrowing and a new income-based repayment plan	Saves money
Defense and immigration	About $150 billion for defense and about $170 billion for immigration enforcement, detention, and the border wall	Adds spending
The debt limit	Raised (Module 4)	None directly

CBO, cost estimate for Public Law 119-21 (August 4, 2025); rounded.

CBO's total, against current law, is $3.4 trillion added to deficits over 2025-34, or $4.1 trillion with the $718 billion of added interest. If its temporary provisions were made permanent, the total with interest would be $5.0 trillion. CBO's February 2026 baseline, on the later window of 2026-35 and counting the law's effects on the economy and on interest, attributes $4.7 trillion to it. By the end of 2034 the debt held by the public is 9.5 points of GDP higher than it would have been.

8b. Who Gained, Who Lost

The distribution is the law's least disputed fact, because the independent models found the same shape. CBO's analysis of August 11, 2025, counting the tax cuts and the spending cuts together over 2026-34, has households in the bottom tenth losing about $1,200 a year on average, 3.1% of their income. Households in the middle, the fifth and sixth tenths, gain about $800 to $1,200 a year. Those in the top tenth gain about $13,600 a year.

The shape follows from the design. The bottom loses because the Medicaid and SNAP cuts outweigh tax cuts that households with little income-tax liability mostly do not receive. The top gains most because the permanent rates, the pass-through deduction, the larger cap on state and local taxes, and the estate exemption are worth most to the highest incomes. The provisions aimed at the middle, for tips, overtime, and older taxpayers, are temporary (Module 3), while those worth most at the top are permanent.

8c. Is the Law Worth What It Costs?

The case for the law

Its supporters, among them the administration and most congressional Republicans, say the 2017 cuts were the most important pro-growth reform in a generation and were about to expire on nearly every family at once. Making them permanent gave households and businesses that plan over decades a stable code, and full expensing is the provision economists across the spectrum rate as most favorable to investment. The deductions for tips, overtime, and older taxpayers were relief aimed squarely at working and retired households. The Medicaid and SNAP changes ask adults who can work to do so, and against the current-policy baseline (Module 4) the law's cost is small. The Council of Economic Advisers (CEA) projected in June 2025 that it would make GDP 4.6-4.9% larger within four years, about 1.1-1.2 points of added growth a year, and offset $2.1-2.3 trillion of its cost through growth.

The case against

Its critics, among them most congressional Democrats and fiscal groups such as the Committee for a Responsible Federal Budget, say it added trillions to a debt already near the size of the economy, at full employment, with interest already the fastest-growing item in the budget. It pays for a permanent tax cut whose largest gains go to the top partly with a permanent cut in benefits at the bottom, and millions will lose coverage (Module 7). The provisions it advertised to the middle expire after 2028 while the top's do not. Its growth claims are far above every independent estimate, and its baseline is a device any future majority can use to spend without counting.

The evidence

The scorekeepers' figures are not in dispute; the argument is over what to count against them. CBO's estimates, the CEA's projections, and the independent models diverge on growth. The CEA's figure is several times the size of the effects the independent models found, and the economic effects CBO counts in its February analysis leave the cost in the trillions. The 2017 law, which this one extends, is the test case. Studies since found that corporate investment rose, though by less than its advocates projected, that wages rose far less than the $4,000 or more a household the White House had promised, and that the cuts came nowhere near paying for themselves. The first data since the 2025 law show no acceleration: real growth was 2.2% at an annual rate in the second quarter of 2026, and the IMF expects 2.3% for the year.

The course's reading

The law is a large permanent tax cut, a smaller permanent spending cut that falls mostly on people with low incomes, and a set of temporary provisions for the middle. On the evidence, its effect on growth will recover a modest part of its cost, not most of it. Whether permanence and lower rates were worth that debt is a judgment the numbers leave to the voter; what the numbers settle is that the law added to deficits at full employment, when the arithmetic of Module 1 argued for the opposite.

Module 8 Key Points

The 2025 Law

• The 2025 law made the 2017 individual cuts permanent, added four deductions through 2028, and cut Medicaid and SNAP by about $1.1 trillion.

• CBO scored it at $3.4 trillion over 2025-34, $4.1 trillion with interest, and $5.0 trillion if its temporary provisions became permanent.

• On CBO's analysis the bottom tenth loses about $1,200 a year and the top tenth gains about $13,600.

• The CEA projected a GDP level 4.6-4.9% higher within four years, far above every independent estimate.

• Supporters call it permanence, expensing, and work; critics call it debt at full employment, paid for at the bottom.

Module 8 Quiz

Check Your Understanding

1. How did CBO score the 2025 law's effect on deficits over 2025-34?

A) A saving of $2.1 trillion once the growth the White House projected is counted, as CBO's rules require
B) $1.5 trillion, the same as the 2017 law, since its new provisions were offset by the spending cuts
C) $4.5 trillion of lost revenue with nothing offsetting it, since the Medicaid changes were dropped
D) $3.4 trillion, or $4.1 trillion counting the added interest, and $5.0 trillion if its temporary provisions became permanent

2. Which group loses the most as a share of income under the 2025 law, on CBO's analysis?

A) The bottom tenth
B) Retirees
C) The middle fifth, through the expiring deductions
D) The top 1%, through the phase-down of the higher cap

3. What did the Council of Economic Advisers project for the law?

A) Growth of 4.6-4.9% a year, every year, for the whole decade
B) A GDP level 4.6-4.9% higher within four years
C) A balanced budget by 2030 from higher revenue, with no spending cuts needed
D) A recession in 2026 as the Medicaid cuts took hold, then a recovery

4. Why does the bottom tenth lose under a law that cut taxes?

A) Its tariffs fall hardest on the poorest households, which spend the largest share of income on goods.
B) Its new payroll tax on tips falls mostly on low-wage service workers in restaurants and hotels.
C) Its Medicaid and SNAP cuts outweigh tax cuts that households at the bottom mostly have too little tax liability to receive.
D) Its limit on the earned-income credit removes most working families from the program from 2027.

5. What does the 2025 law do to the cap on the state-and-local-tax deduction?

A) Repeals it
B) Keeps it at $10,000
C) Removes it entirely for incomes under $500,000 and makes the change permanent
D) Raises it to $40,000 until 2030

Module 9 — Interest, the Fed, and the Bond Market

The Price of the Debt

Recommended Reading / Reference

Book: Barry Eichengreen, *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System* (2011)

Reference: The Federal Reserve's semiannual *Monetary Policy Report*, the New York Fed's daily term-premium estimates, and the IMF's *Fiscal Monitor* (October 14, 2026)

9a. r Against g

One relationship governs whether a debt can be sustained: the gap between the interest rate the government pays, r, and the rate at which the economy grows, g (1c). When g exceeds r, a government can run a primary deficit and still hold its debt ratio steady, because the economy grows out from under the debt faster than interest adds to it. That was the American condition from 2009 to 2021. When r exceeds g, the arithmetic reverses: holding the ratio steady takes a primary surplus equal to the gap times the debt ratio. With the debt near 100% of GDP, every point by which r exceeds g requires a surplus of about 1% of GDP just to stand still.

In 2026 the two sides moved in opposite directions. The energy shock of the Gulf conflict lifted prices, and nominal GDP grew at annual rates of 5.8% in the first quarter and 8.5% in the second, far above the average rate on the debt (Module 5). That gap held down the debt ratio's rise (Module 11 works the arithmetic). The relief is borrowed from inflation and is unlikely to last: the rate on new borrowing is far higher than the average, and CBO's baseline has the ten-year yield at 4.1-4.4% against nominal growth of nearly 4% once prices settle, which puts r at or above g for the decade. CBO Director Phillip Swagel said on October 8 that, with interest rates of 4-5%, stabilizing the debt would take real growth of 5-6% a year, or nominal growth of 7-8%.

9b. The Term Premium's Return

The yield on a ten-year Treasury is the market's expectation of short-term rates over the decade plus a term premium, the extra return investors demand for holding a long bond whose price falls if rates or inflation rise. The premium was several points in the early 1980s and 1-2 points in the 1990s, and it fell to zero and below in the 2010s, as the Fed's bond buying, foreign central banks, and low inflation removed the risk. It has returned since 2023. The New York Fed's model (ACM) put it at 0.82 points on September 30, 2026, and the Federal Reserve Board's model (Kim-Wright) at 1.07 points on October 9. Applied to the whole debt held by the public, that is $265-350 billion a year, an upper bound, since only refinanced debt pays it.

The reasons the market gives are fiscal and institutional: deficits at full employment, the supply of bonds, the tariffs and the questions they raised about the dollar, and since 2025 doubt about whether the Fed will stay free to set rates where inflation requires. In a poll of academic economists by the University of Chicago's Booth School for the Financial Times, more than 60% said concerns about the Fed's credibility substantially drove the rise in long-term yields after Warsh's nomination (9c). The IMF's Fiscal Monitor of October 14 warned that a 'declining safety premium on US government bonds' leaves markets open to a sharp

repricing. The premium moves on events: in April 2025 the ten-year yield rose from 4.01% to 4.48% in the week after the tariff announcements.

9c. The Fed and Its Independence

The Federal Reserve sets the short-term rate and holds a large share of the public debt (Module 5). Its independence rests on an arrangement in which a president appoints governors to fourteen-year terms and the chair to four, and then cannot direct them, and it keeps the debt's price from becoming a political variable. The years 2025-26 tested it more than any since the 1970s. The president demanded cuts publicly and repeatedly, saying on September 16, 2026 that rates 'should be 1 per cent, or less', and he moved to remove Governor Lisa Cook. On June 29, 2026, in Trump v. Cook, the Supreme Court held 5-4 that a governor's for-cause protection requires notice and a hearing, and Cook stayed. The same day, in Trump v. Slaughter, the Court overruled the precedent that had protected other independent agencies' heads but set the Fed apart.

A criminal investigation of Chairman Jerome Powell over the cost of the Fed's headquarters renovation shadowed the succession. The Justice Department closed it in April 2026, and on October 2 Attorney General Todd Blanche said it would not be reopened. The Fed's inspector general found no evidence of a crime but faulted the project's management. Kevin Warsh, nominated on January 30, was confirmed as chair 54-45 on May 13, the narrowest Senate margin for a Fed chair on record, and sworn in on May 22, 2026; his term as chair runs to May 2030. Powell remains a governor, his term running to January 31, 2028.

The Fed's own record since is the evidence that matters. It held its rate through July and on September 16 raised it a quarter point, to 3.75-4.00%, by a vote of 12-0, its first rise since July 2023, with consumer prices up 3.4% on the year in August. At Jackson Hole on August 28 Warsh called 2% a 'firm, fixed target'. The committee meets next on October 27-28.

9d. Is Fiscal Dominance Coming?

Fiscal dominance is the condition in which a central bank holds rates below what inflation requires because the government's interest bill cannot bear higher ones. It is how the debt of the 1940s was carried, under a cap on Treasury yields that ended with the 1951 Treasury-Fed Accord, and how many high-inflation episodes in high-debt countries began.

The case that it is coming

Its proponents, among them a share of academic economists and bond-market strategists, point to pressure from both directions. The president wants rates far lower while the interest bill keeps rising. The Treasury has leaned toward bills, whose cost moves with the Fed's rate, and it buys back long bonds while its secretary calls their yields wrong (Module 5). Treasury Secretary Bessent has also suggested that the Fed 'consider upsizing' its repurchase facility for foreign central banks. Warsh himself proposed in 2025 a revised Treasury-Fed accord giving the Treasury a say over large balance-sheet changes, and the Fed's bill purchases (Module 5) look to them like a start.

The case that it is not

Its opponents, among them the Fed's leadership and most central-bank economists, point to what the Fed has done rather than what it has been asked. They cite the September rise (9c), a chair who calls 2% a firm target and has rejected the idea that he is more open to the president's wishes than his predecessor, and a Supreme Court that protected governors from removal without cause. The bill purchases were for managing bank reserves, and they stopped on August 14.

The evidence

The market's own prices separate the two fears. The ten-year breakeven inflation rate, the inflation investors expect over the decade, was 2.35% on October 14, near the Fed's target, so investors are not yet pricing a Fed that will tolerate inflation. What they are demanding is a larger term premium for holding long debt at all. Core inflation, which leaves out food and energy, was 2.6% in September. The Treasury's moves are real but small beside the market, and its advisory committee's minutes say issuance, not buybacks, should be its main tool.

The course's reading

Not yet. The September rise, made against the president's demand, and anchored inflation expectations are the evidence that the Fed still sets rates for inflation. What has shifted is on the Treasury's side: issuing short and buying back long ease the market's load now and raise the budget's exposure to the Fed's rate later. The test will come the first time the Fed's mandate and the Treasury's interest bill point in different directions at once.

9e. The Foreign Holders and the Dollar

- **The reserve currency.** The dollar was 56.7% of the world's allocated foreign-exchange reserves in the second quarter of 2026, from about 72% in 2001, against 20.6% for the euro, 5.0% for the yen, and 2.1% for the yuan. The world's demand for dollar assets is therefore structural, and estimates in the economic literature put the saving at perhaps half a point on the interest rate, about $160 billion a year at today's debt.
- **The current account.** That demand also finances the deficit with the rest of the world: the current account ran $246 billion short in the second quarter of 2026, 3.0% of GDP, about $1 trillion a year.
- **The 2025 test.** The tariffs and the questions about the Fed brought the first sustained debate in a generation over the dollar's standing, and the dollar index fell 9.4% in 2025, its largest fall since 2017. It recovered in 2026 to about 4% above the end of 2025, and foreign investors kept their share of the debt (Module 5), because no rival market has the Treasury's depth.
- **The basis trade.** Hedge funds hold Treasuries against short futures positions, financed with borrowed money, about $830 billion of them in September 2025 on a Fed estimate and $1.2 trillion in September 2026 on Morgan Stanley's. A forced unwinding sells bonds into a falling market, as in March 2020, when the Fed stepped in. The Securities and Exchange Commission's rule moving cash Treasury trades into central clearing takes effect on December 31, 2026, and repo trades on June 30, 2027.

Module 9 Key Points

Interest, the Fed, and the Bond Market

• When r exceeds g, a primary surplus is needed just to hold the debt ratio; at 100% of GDP each point costs 1% of GDP.

• Inflation lifted nominal growth to about 7%, annualized, in 2026's first half, above the debt's 3.5% average rate, a relief unlikely to last.

• The ten-year term premium is 0.82 points on the New York Fed's model and 1.07 on the Board's, from near zero in 2022.

• Kevin Warsh became Fed chair on May 22, 2026; on September 16 the Fed raised rates, 12-0, against the president's demand.

• The dollar is 56.7% of world reserves, from about 72% in 2001; its privilege is worth perhaps half a point on the debt.

Module 9 Quiz

Check Your Understanding

1. With the debt near 100% of GDP, how large a primary surplus does each point by which r exceeds g require?

A) 0.1% of GDP
B) Half a point
C) About 10% of GDP, the size of all discretionary spending
D) About 1% of GDP

2. What did the Fed do on September 16, 2026?

A) Cut its rate by half a point, as the president had demanded
B) Raised its rate by a quarter point
C) Held its rate and announced new purchases of long-term bonds
D) Capped the ten-year yield at 4.5% under a new accord with the Treasury

3. Why does the module's reading hold that fiscal dominance has not arrived?

A) The Supreme Court ruled in June that a president may not comment publicly on interest rates.
B) The Treasury stopped selling bills in 2026, so the Fed no longer needs to support the market.
C) The Fed raised rates against the president's demand, and the inflation investors expect has stayed near the target.
D) Congress passed a law in 2026 that forbids the Fed from buying Treasury securities of any kind.

4. What does the term premium measure?

A) The extra yield for holding long bonds
B) The Fed's rate
C) The interest the Treasury pays on bills relative to what the Fed pays on bank reserves
D) The difference between American and German ten-year yields, the market's measure of American risk

5. What share of the world's allocated foreign-exchange reserves was in dollars in the second quarter of 2026?

A) About 20%
B) 56.7%, down from about 72% in 2001
C) Nearly 90%
D) About 30%, behind the euro for the first time since the euro's launch in 1999

Module 10 — The States and Localities

The Other Governments

Recommended Reading / Reference

> **Reference:** The National Association of State Budget Officers' *Fiscal Survey of States* (spring 2026), Equable Institute's *State of Pensions 2026*, and the Census Bureau's Annual Survey of State and Local Government Finances

10a. What the States Are

The fifty states and their roughly 90,000 local governments, counties, cities, school districts, and special districts, deliver most of what a citizen sees of government. They run the schools, which with the universities take about a third of their spending, and they run Medicaid, the roads, the police and courts, the prisons, and the water and transit systems. They spend about $3.5 trillion a year of their own revenue and about $1 trillion more of federal grants, most of it for Medicaid.

They raise the money differently from the federal government and from each other: property taxes for the localities, and sales and income taxes for the states in varying mixes. Nine states have no tax on wage income and five have no statewide sales tax. And they work under a constraint Washington does not have. Forty-nine states, every one but Vermont, must balance their operating budgets, by constitution or statute, and none can print money; they borrow only for capital projects, through a municipal bond market of about $4.5 trillion whose interest is exempt from federal tax. A recession or a federal cost shift therefore becomes a state spending cut or tax increase within the year, which makes the states the level of government where this course's arithmetic is enforced.

10b. The 2026-27 Squeeze

The states entered 2026 from a strong position and are leaving it. Their rainy-day funds held $191.0 billion in fiscal 2025, a median of 13.5% of general-fund spending, after the federal pandemic money and the revenue surge of 2021-23. The National Association of State Budget Officers' spring 2026 survey found general-fund revenue up 2.2% in fiscal 2026, a fall of 0.7% after inflation, as the income-tax cuts many states enacted in 2021-24 took hold. Governors' budgets would draw the funds down to $160.5 billion in fiscal 2027 and cut general-fund spending by 1.4%, to $1.36 trillion, after a rise of 7.9% in fiscal 2026. Thirteen states reported gaps for fiscal 2027 that totaled $26.3 billion before balancing, and tax changes roughly cancel out: 14 states proposed net increases and 19 net cuts.

The 2025 law then shifts costs to them on a schedule (Module 8). Since October 1, 2026 the states pay 75% of SNAP's administrative costs, up from half. From fiscal 2028 they pay part of its benefits as well, from nothing to 15% depending on their error rates, on a program the federal government had paid for in full since the 1970s. A farm-bill draft in the Senate would change that share; it has not passed.

Medicaid's changes (Module 7) land on state budgets in stages. The work requirements and six-month renewals are the states' to run, and the falling provider-tax ceiling cuts a source of matching money most of them use. Whether to keep the expansion itself is now debated: Idaho, South Dakota, and Oklahoma saw bills or ballot measures to repeal or limit it in 2026, and nine states have laws that would end it automatically if the federal match fell.

10c. Pensions and the Bonds

• **The pensions.** State and local pension funds were $1.13 trillion short of what they have promised in 2026, on Equable Institute's count, though their funding was the best since 2009. The shortfall is concentrated in a few places, among them Illinois, New Jersey, Kentucky, Connecticut, and Chicago. The promises are protected by state constitutions or courts in most states, so the adjustment falls on new hires, on contributions, and on taxes.

• **The municipal bonds.** The market's federal tax exemption is why a state's rating matters and why the exemption appears on every list of tax expenditures that could be cut. Ten-year AAA municipal bonds yielded about 4.0% on October 13, about 78% of the Treasury yield.

• **The federal dependence.** Federal money is about a third of state budgets, so what Washington stops paying the states pay, or the beneficiaries lose (10a).

• **The localities.** Property taxes carried the cities through 2020-25, and commercial real estate is the coming strain. Office vacancy was 19.8% in the third quarter of 2026, near the record of a year earlier, and assessments reset on a lag of years, so falling office values reach city budgets slowly.

Module 10 Key Points

The States and Localities

• States and about 90,000 local governments deliver most of what citizens see of government: schools, police, roads, and courts.

• Forty-nine states must balance their budgets and none can print money, so a federal cost shift becomes a cut or a tax within a year.

• State revenue grew 2.2% in fiscal 2026, and rainy-day funds are budgeted to fall from $191 billion to $160.5 billion.

• Since October 1, 2026 the states pay 75% of SNAP's administration, and from fiscal 2028 up to 15% of its benefits.

• State and local pensions are $1.13 trillion short, their best funding since 2009, and the promises are mostly legally protected.

Module 10 Quiz

Check Your Understanding

1. How many states must balance their operating budgets?

A) All fifty, by constitution
B) About half of them
C) Forty-nine, every state but Vermont
D) Thirty-one, under their statutes

2. What did the budget officers' spring 2026 survey find about fiscal 2027?

A) 13 states projected gaps, totaling $26.3 billion
B) Every state had a surplus
C) Most states projected shortfalls for the first time since 2020
D) A combined deficit of about $190 billion, the largest since the 2009 recession, led by California and New York

3. Why does a federal cost shift become a state cut or tax within the year?

A) Federal law requires states to match any cut in federal grants dollar for dollar.
B) The municipal bond market closes to any state that runs a deficit for more than one quarter.
C) State constitutions bar any borrowing at all, even for roads and schools.
D) States must balance their budgets and cannot print money.

4. What is the state of public pension funding, on Equable's 2026 count?

A) $1.13 trillion short, the best since 2009.
B) Fully funded for the first time since the 1990s, after the market gains of 2023-25.
C) $3 trillion short and getting worse as contributions fall.
D) Short by about $500 billion, nearly all of it in Illinois.

5. When does the states' share of SNAP benefits begin under the 2025 law?

A) It began in July 2025.
B) In fiscal 2028, at up to 15% depending on error rates.
C) In January 2027, together with the Medicaid work requirements.
D) It was dropped from the final law, which kept SNAP benefits entirely federal.

Module 11 — Comparison Abroad

What Other Debtors' Arithmetic Says

Recommended Reading / Reference

Book: Carmen Reinhart and Kenneth Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (2009), the record, read with the later debate over its thresholds

Reference: The IMF's *Fiscal Monitor* (October 14, 2026) and its *World Economic Outlook* debt tables, the sources for the comparisons

11a. The Debtors

The IMF's Fiscal Monitor of October 14, 2026 put the world's public debt at 94% of GDP in 2025, on course to approach 100% by 2029, and found that energy subsidies and price controls were costing about 0.5% of world GDP. The six debtors that matter most to the comparison stand as follows.

Country	Gross debt, % of GDP (IMF, 2026)	Ten-year yield (October 14)	The story
Japan	199%	3.00%, near its highest since 1996; the thirty-year at a record 4.25% in October	Prime Minister Sanae Takaichi, in office since October 21, 2025, won 316 of 465 seats on February 8, 2026. The Finance Ministry's fiscal 2027 request assumes a 3.8% interest rate, the highest in 29 years, for a record ¥36.64 trillion of debt service, and Takaichi plans about ¥40 trillion of new bonds, against ¥32.7 trillion for 2026, with a two-year cut in the consumption tax on food. The Bank of Japan's rate is 1.25%.
Italy	138%	4.56%, 1.12 points over Germany and below France	The 2025 deficit was 3.1% of GDP, with a primary surplus of 0.8% (11c). Italy remains in the European Union's excessive-deficit procedure, and Economy Minister Giancarlo Giorgetti says its exit 'may happen in 2027'. Moody's upgraded it to Baa2 in November 2025.
France	118.5%	4.88% on October 14, 1.44 points over Germany; above 5% on October 21-22, the highest since July 2002, with the spread over Germany the widest in 15 years	Prime Minister Sébastien Lecornu, appointed September 9, 2025, passed the 2026 budget on February 2 under Article 49.3, which adopts a bill without a vote unless the government loses a no-confidence motion; two such motions failed. The deficit target was 5.0% of GDP, after 5.4% in 2025, and 2026 is now projected at 5.4%. The 2027 draft of October 1 targets 5.0% with about €54 billion of savings, some of which the National Assembly has struck out, and October's student protests over school funding have included riots. Fitch and S&P rate France A+; Moody's affirmed Aa3 with a negative outlook on October 23, assuming a deficit-reducing 2027 budget is adopted. The presidential election is on April 18 and May 2, 2027.
United Kingdom	104%	5.40%	Andy Burnham has been Prime Minister and John Healey Chancellor since July 20, 2026. The Budget and the Office for Budget Responsibility's forecast come on October 28, with the March headroom of £23.6 billion against the fiscal rules eroded by higher gilt yields, on one estimate by about £10 billion, and debt interest above £100 billion a year.

Country	Gross debt, % of GDP (IMF, 2026)	Ten-year yield (October 14)	The story
Germany	64.6%	3.44%, the benchmark the others are measured against	The March 2025 constitutional change created a €500 billion infrastructure fund and exempted defense spending above 1% of GDP from the debt brake. The 2027 draft budget of July 6, 2026 borrows €203.6 billion and lifts defense from 2.8% of GDP in 2026 to 3.5% in 2029; Finance Minister Lars Klingbeil: 'We cannot defend Germany against Putin with a balanced-budget policy'.
United States	125.8%	5.19%	The largest debtor in dollars, the reserve currency, and the deepest market. IMF Managing Director Kristalina Georgieva said on October 14 that growth alone cannot make the needed adjustment quickly enough; Treasury Secretary Bessent had said in September, 'With 3% growth, we grow our way out of this'.

IMF, Fiscal Monitor and World Economic Outlook (October 2026); general-government gross debt on the IMF's definition, which is why the American figure exceeds the debt held by the public used elsewhere in the course. Yields are the closes of October 14, 2026, except where dated.

11b. Why the United States Can Borrow What Others Cannot

France has a crisis of ratings, spreads, and governments; the United States, at a higher gross ratio (11a), has none, and the difference rests on four structural facts rather than virtue. The dollar is the reserve currency and the Treasury market the world's collateral (Module 9). The Federal Reserve is a lender that cannot run out of dollars, so a weak Treasury auction is a risk of price, never of payment, whereas a euro member borrows in a currency it does not issue and depends on the European Central Bank's willingness to act. The American economy has grown faster than Europe's and Japan's over the past decade, which makes the r-against-g arithmetic more forgiving. And the American debt is, by the standards of the table, young (Module 1).

What the comparison says is that the United States has more room than any other debtor and is using it faster: it runs one of the largest deficits of any rich country at full employment, with no fiscal rule to bind it. The room is finite in a way the reserve currency conceals. Britain's autumn of 2022, when unfunded tax cuts set off a gilt crash that forced the Bank of England to buy £19.3 billion of gilts in under three weeks and ended a prime minister's term after 49 days, showed that a deep market can reprice in days when the fiscal story changes. France's year shows what a fragmented legislature does to a budget.

11c. The Debt-Dynamics Arithmetic

Worked example — the debt-dynamics arithmetic for three countries

The equation is one line. The change in the debt ratio each year equals the primary deficit, as a share of GDP, plus the debt ratio times the gap between the average interest rate on the debt, r, and nominal growth, g, divided by one plus g. Apply it.

The United States, fiscal 2026. The debt held by the public started the year at about 99% of GDP; the average rate on it was about 3.6%, counting the inflation adjustment on protected securities; nominal growth over the fiscal year was about 4.9%; and the primary deficit was 2.6% of GDP. The debt term is 0.99 × (3.6 − 4.9) ÷ 1.049 = −1.2, so the ratio rises by 2.6 − 1.2 = 1.4 points; borrowing for student loans and other credit programs, outside the deficit, takes it to about 101%. If nominal growth held at its annualized pace of the first half of 2026, about 7.1%, the debt term would be about −3.3 and the ratio would edge down. If it settles near

CBO's 4% while the average rate drifts up to meet it, the debt term is about zero and the ratio rises by the whole primary deficit each year. Holding it steady then requires a primary balance of about zero: a swing of 2.6% of GDP, about $850 billion a year at fiscal 2026's GDP, or 2.8% and about $900 billion if the average rate settles a fifth of a point above growth (Module 13).

Japan. Take gross debt of 199%, a primary balance near zero on the government's own measure, and, for illustration, an average rate of about 1% on bonds issued mostly near zero, with nominal growth of about 3%. The debt term is 1.99 × (1.0 − 3.0) ÷ 1.03 = −3.9: inflation is shrinking the ratio by nearly 4 points a year, and the government's expansion is spending that dividend. But as old bonds roll, the average rate converges toward the market's. At the Finance Ministry's 3.8% assumption against growth of 3%, the term turns to +1.5 points a year, which is why a bond market quiet for thirty years is the one the world watched in 2026.

Italy, 2025. Italy ran a primary surplus of 0.8% of GDP, and its interest cost was about 3.9% of GDP, an average rate of about 2.9% on a debt of 134%, not far from its nominal growth. The equation therefore predicts a roughly stable ratio. Instead it rose 2.5 points, to 136.7%. The gap comes from items outside the deficit, among them tax credits for building renovations, recorded as spending in earlier years, that add to the debt as they are cashed. The equation sets the slope, and the accounting can still move the level.

The lesson of the three: the ratio's slope (1d) is set by the primary balance and by r − g, and inflation flattered both the American and the Japanese arithmetic in 2026. Of the three, the United States has the largest primary deficit.

Module 11 Key Points

Comparison Abroad

• Japan's debt is 199% of GDP; inflation is shrinking the ratio now, but a 3.8% rate assumption would reverse the arithmetic.

• France passed its 2026 budget without a vote; its ten-year yield rose above 5% in October, the highest since 2002.

• Britain's 2022 gilt crash showed that a deep market can reprice a government's debt in days when the fiscal story changes.

• The United States can borrow what others cannot for four reasons: the reserve currency, the Fed, faster growth, and a young debt.

• Holding the American debt ratio steady takes a swing of 2.6-2.8% of GDP, about $850-900 billion a year.

Module 11 Quiz

Check Your Understanding

1. What interest rate does Japan's Finance Ministry assume in its fiscal 2027 budget request?

A) 0.5%

B) About 1%, as in 2024

C) Zero, under the Bank of Japan's yield cap

D) 3.8%, the highest in 29 years

2. How did France pass its 2026 budget?

A) By a large majority in the National Assembly, after the Socialists and Republicans agreed on a package

B) By referendum, the first on a budget since the Fifth Republic began, after the Assembly deadlocked

C) Under Article 49.3, which adopts a budget without a vote unless the government loses a motion of no confidence

D) Under emergency powers granted after the European Commission suspended the deficit rules for two years

3. What does the change in the debt ratio equal, in the module's equation?

A) The deficit minus the growth rate of real GDP

B) The interest bill divided by revenue

C) The primary deficit plus the debt ratio times the gap between the interest rate and growth, divided by one plus growth

D) The primary deficit times the inflation rate, less the share of the debt that foreign investors hold

4. Why did Italy's debt ratio rise in 2025 despite a primary surplus?

A) Its interest rate jumped above 8% after a downgrade

B) Items outside the deficit added to the debt

C) It joined the euro

D) The European Central Bank sold most of its Italian bonds, forcing the Treasury to borrow at much higher rates

5. Which of the module's four reasons explains why a weak Treasury auction is a risk of price rather than of payment?

A) The euro's weakness

B) Faster growth

C) The young age of the American debt compared with France's and Italy's

D) The Federal Reserve cannot run out of dollars

Module 12 — The Long Run and the Arguments

The Cases, Made as Their Advocates Make Them

Recommended Reading / Reference

Book: Olivier Blanchard, *Fiscal Policy under Low Interest Rates* (2023), the profession's central position, argued at length

Reference: CBO's *The Long-Term Budget Outlook: 2026 to 2056* (March 2026), Blanchard's presidential address to the American Economic Association, 'Public Debt and Low Interest Rates' (2019), and the Bureau of Labor Statistics' productivity releases

12a. The Long Run in Numbers

CBO's long-term outlook, published in March 2026, runs the laws as written for thirty years. It has the debt held by the public at 129% of GDP in 2040 and 175% in 2056, about $168 trillion, against 156% for 2055 in the edition of a year earlier. Net interest reaches 6.9% of GDP in 2056, more than a third of revenue, against a record 3.2% in 2025, and passes Social Security in 2047. The deficit reaches 9.1% of GDP, with spending at 27.9% and revenue at 18.8%, on real growth averaging 1.7% a year. The projections predate the Supreme Court's tariff ruling (Module 3).

The long run is not a forecast, and no thirty-year projection has been right. Its use is the one the trustees' reports serve: to put dates on the arithmetic. Three uncertainties dominate it. The first is the laws themselves, which have changed every few years since the projections began. The second is interest rates (Module 5). The third is productivity: half a point more growth a year would, through the larger denominator alone, leave the 2056 ratio about 25 points lower.

Productivity is where the 2026 evidence is most encouraging. Output per hour in the nonfarm business sector rose 2.2% in the year to the second quarter of 2026, after 2.1% in 2025, and has grown 2.1% a year since the end of 2019, against 1.5% a year in 2007-19, on the Bureau of Labor Statistics' (BLS) figures of September 3. The BLS's preliminary figure for the third quarter is due on November 5.

12b. What Consolidations Have Worked

Episode	What was done	Result	Lesson
United States, 1990-2001	The 1990 deal (George H. W. Bush: tax increases and spending caps), the 1993 deal (Clinton: tax increases), the 1997 balanced-budget act; the Cold War's end; the late-1990s boom	Deficit of 4.5% of GDP (1992) to a surplus of 2.3% (2000); debt held by the public from 48% of GDP (1993) to 31% (2001)	Both parties, both sides of the ledger, and growth; never repeated
Canada, 1995-2000	Finance Minister Paul Martin's budgets: deep cuts to programs and to transfers to the provinces; taxes held	Surpluses from 1997-98; federal debt from about 67% of GDP (1996) to about 29% (2008)	A crisis-adjacent moment, a majority government, a spending-led plan
Sweden, 1994-98	After a banking crisis, cuts and tax increases; then spending ceilings (1997), a surplus target (2000), and a fiscal council (2007)	Deficit of about 11% of GDP (1993) to a surplus (1998); gross debt from about 73% (1994) to under 40% (2008)	Rules and institutions that outlasted the crisis

Episode	What was done	Result	Lesson
Britain, 2010-19	Spending restraint, concentrated on public services and investment	Deficit from about 10% of GDP (2009-10) to about 2% (2018-19)	It worked on the numbers and is still fought over for what it cut
Greece, 2010-18	Three bailout programs of spending cuts and tax increases	GDP down about a quarter; debt from about 127% of GDP (2009) to about 180% (2018)	Consolidation without a currency of one's own, in a slump

Historical record; figures rounded. The 1983 Social Security reform, the other American model, is in Module 6.

12c. Does the Debt Matter?

The case that it matters, and soon

Its advocates, among them the fiscal hawks at groups such as the Committee for a Responsible Federal Budget and the Peterson Foundation and economists such as Kenneth Rogoff, start from the numbers. The debt is the largest in peacetime history, the deficit is the largest ever run at full employment, interest is on course to pass Social Security, and the market already charges more than 5% for ten-year money. They read the history of high-debt countries as markets tolerating a position for years and then repricing in days, as Britain's did in 2022 (Module 11). The reserve currency, they say, is a privilege spent by being relied on. Their prescription is a consolidation of 2-3% of GDP, phased in and drawn from both taxes and spending, before a crisis imposes it in a year.

The case that it matters less than claimed

Its advocates come from two directions. The functional-finance school, and Modern Monetary Theory, whose best-known exponent is Stephanie Kelton, holds that a government borrowing in its own currency cannot be forced to default in it, so the constraint on spending is inflation and real resources, not the debt ratio. The deficit is, by accounting identity, the private sector's surplus; in the 2010s the debt doubled while rates fell and inflation stayed below target, and the austerity of 2011-13 slowed the recovery for nothing. The growth optimists add that faster productivity, from artificial intelligence or anything else, shrinks the ratio more than any plausible consolidation.

The evidence

Each side has its decade. The 2010s support the second case (Module 9); the inflation of 2021-22 and the market's repricing since support the first, and put the school's own test, inflation, under strain. The 2026 inflation is mostly energy (9d), so both sides can claim it. The productivity gains are real but young, and no one has measured how much of them comes from artificial intelligence. And the term premium's return and October's auction yields (Modules 5 and 9) show the price of the debt rising without a crisis.

The course's reading

Most of the profession, following Blanchard's 2019 address and Jason Furman and Lawrence Summers in 2020, holds a position summed up as 'until it doesn't', and the course shares it. While r is below g (Module 9), the fiscal space is best spent on things that raise growth; but the constraint is a rising price that can become a run, not a cliff at some ratio. The sound policy is a gradual consolidation toward a primary balance near zero, and the rise in market rates since 2023 says the space is narrowing. The date at which 'until it doesn't' arrives cannot be known, which is the argument for not finding out.

Module 12 Key Points

The Long Run and the Arguments

• CBO's long-term outlook has the debt at 175% of GDP in 2056 and interest at 6.9% of GDP, more than a third of revenue.

• The hawks want a consolidation now; the functional-finance school says inflation, not the debt ratio, is the constraint.

• Productivity has grown 2.1% a year since 2019, against 1.5% in 2007-19; half a point more would cut the 2056 ratio by 25 points.

• The profession's center holds 'until it doesn't': stabilize the ratio gradually, with a primary balance near zero, since the date is unknowable.

• The American consolidation of 1990-2001 used both parties, both sides of the ledger, and growth, and has not been repeated.

Module 12 Quiz

Check Your Understanding

1. What does CBO's 2026 long-term outlook project for the debt held by the public in 2056?

A) 175% of GDP
B) About 120% of GDP, as in 2036
C) A fall to 80% of GDP as the boomers die
D) About 300% of GDP, above Japan's

2. What does the functional-finance school treat as the real constraint on deficits?

A) Inflation
B) The debt ratio
C) The debt ceiling set by Congress
D) The willingness of foreign central banks to buy Treasuries

3. How fast has American productivity grown since the end of 2019, on the BLS's figures?

A) About 1%
B) About 2.1% a year
C) About 4% a year, a record
D) Slower than in any cycle since the 1970s, about 0.5% a year

4. What did the American consolidation of 1990-2001 combine?

A) Spending cuts alone
B) A new value-added tax
C) A constitutional balanced-budget amendment, ratified in 1995 after the Republican victory of 1994
D) Tax increases and spending limits from both parties, with growth

5. What is the policy conclusion of the 'until it doesn't' position?

A) Cut the deficit to zero within two years, whatever the cost to growth, before the bond market forces the choice
B) Ignore the debt ratio entirely and judge every deficit only by its effect on inflation and employment
C) Consolidate gradually, aiming at a primary balance near zero, because the date when markets stop lending cheaply cannot be known
D) Rely on productivity growth from artificial intelligence to stabilize the ratio, and change no taxes or benefits

Module 13 — What Would Fix It

The Menu With Numbers

Recommended Reading / Reference

Reference: CBO's *Options for Reducing the Deficit: 2025 to 2034* (December 12, 2024), the latest edition, with ten-year estimates for 76 options; the Simpson-Bowles report, *The Moment of Truth* (December 2010)

13a. The Menu

CBO publishes the menu, and the table below takes the largest items from it, the ones any plan to stabilize the debt must draw on, since the small ones do not add up. The figures are ten-year totals, each estimated as if enacted alone; they interact when combined. They were estimated in 2024, before the 2025 law, so today's yields for the tax options would differ somewhat.

Option	CBO's ten-year estimate (2025-34)	Who pays	The politics
Raise every income-tax rate on ordinary income by 1 point	$1.19 trillion ($0.57 trillion for 2 points on the top four brackets alone)	Everyone who pays income tax	Simple; against both parties' pledges
Eliminate the Social Security taxable maximum	Up to $1.43 trillion	Earners above the cap	The most popular tax option in polls (Module 6)
A 5% value-added tax	$2.18 trillion on a narrow base to $3.38 trillion on a broad one	Consumers; regressive unless offset	Opposed on the right as a new tax and on the left as regressive
A tax on greenhouse-gas emissions	$0.65-0.92 trillion	Energy users	Favored by most economists; unpopular with voters
Raise the corporate rate	$136 billion a point; about $0.95 trillion from 21% to 28%	Shareholders and, in part, workers	Reverses the largest cut of 2017
Tax gains on assets passed at death	$0.20-0.54 trillion	The largest estates	Ends the step-up in basis (Module 3)
Limit the exclusion for employer-paid health insurance	$0.52-0.97 trillion	Workers with costly plans	A tax on costly plans was repealed in 2019, unused
Change Medicare Advantage's risk adjustment	$0.12-1.05 trillion; changing its benchmarks, $0.49 trillion	The insurers	The overpayment of Module 7; few losers among voters
Site-neutral payments for hospital outpatient care	Up to $0.16 trillion	Hospitals	Bipartisan in principle; hospitals resist
A chained price index for Social Security and other benefits	$0.28 trillion	Beneficiaries (Module 6)	The tax code has used it since 2018
Raise the full retirement age	$0.10 trillion in the window	Younger workers	Larger effect after the window (Module 6)
Reduce the Defense Department's budget	$0.96 trillion	The Pentagon and its contractors	The 2025 law added to it instead (Module 8)
Reduce selected nondefense discretionary spending	$0.34 trillion	The agencies and their programs	Small beside the gap

CBO, December 12, 2024; income-tax estimates by the JCT. Ranges span CBO's alternatives; the seven-point corporate figure scales CBO's one-point estimate.

13b. Closing the Gap

Worked example — closing the gap

Set the target as the deficit reduction over 2027-36 that would bring the debt held by the public back to about 101% of GDP in 2036, instead of CBO's 120%. On CBO's February baseline that is about $9 trillion, counting the interest saved. CBO's update of August 20, 2026 for the tariff ruling added $0.9 trillion to the decade's deficits, which raises the target to about $10 trillion. Phase each package in over three years and let it grow with the economy, and about a sixth of its value comes from interest saved. Policy savings of about $7.5 trillion, reaching about 2.1% of GDP a year once phased in, therefore meet the February target. That is less than Module 11's swing of 2.6% because CBO's baseline already has the primary deficit narrowing to 2.1% of GDP by 2036. Build the savings three ways, each item at CBO's figure.

The balanced package. Revenue: eliminate the payroll-tax cap ($1.43 trillion), a point on every income-tax rate ($1.19 trillion), the corporate rate to 25% ($0.54 trillion), tax gains at death ($0.54 trillion), and limit the health exclusion ($0.97 trillion), $4.66 trillion in all. Spending: Medicare Advantage's risk adjustment ($1.05 trillion), site-neutral payments ($0.16 trillion), the chained index ($0.28 trillion), the retirement age ($0.10 trillion), the defense cut ($0.96 trillion), and the nondefense cuts ($0.34 trillion), $2.88 trillion. With about $1.5 trillion of interest saved the total is about $9.0 trillion: enough for the February target and nine-tenths of the updated one, from eleven items.

The revenue-led package. A broad 5% value-added tax ($3.38 trillion), the payroll-tax cap ($1.43 trillion), the corporate rate to 28% ($0.95 trillion), the emissions tax ($0.92 trillion), gains at death ($0.54 trillion), and Medicare Advantage ($1.05 trillion): $8.26 trillion, about $9.9 trillion with interest, enough for either target, with the value-added tax alone about a third.

The spending-led package. The six spending items of the balanced package, $2.88 trillion, about $3.4 trillion with interest: about a third of the target. Reaching the rest without taxes would take cuts to the core of Social Security and Medicare benefits, which the menu's options barely touch.

Three lessons follow. The gap can be closed on paper by the first two routes. The spending-only route cannot get there without the benefit cuts both parties have promised not to make. And every package is a list of items that have each failed alone, which is the argument the commissions made: the only way to pass any of them is to pass them together, with both parties' fingerprints on the result.

13c. The Commissions, and Why None Passed

- **Simpson-Bowles (2010).** President Obama's National Commission on Fiscal Responsibility and Reform proposed about $4 trillion of deficit reduction over ten years, roughly two-thirds from spending, with lower tax rates paid for by closing tax expenditures and changes to Social Security and Medicare. It won 11 of 18 votes in December 2010, short of the 14 needed to send it to Congress.
- **Domenici-Rivlin (2010).** The Bipartisan Policy Center's parallel plan, built around a national sales tax of 6.5%, was never taken up.
- **The 2011 Budget Control Act.** The debt-ceiling deal created a joint committee that failed to agree, and automatic caps on discretionary spending followed for a decade: the one consolidation that passed, and it touched mainly the annual appropriations. The Obama-Boehner talks on a $4 trillion 'grand bargain' had collapsed that July over the revenue share.
- **The 2023 Fiscal Responsibility Act.** Another debt-ceiling deal, it capped discretionary spending for fiscal 2024 and 2025, rescinded some unspent pandemic funds, and changed SNAP's work

requirements.

• **The Fiscal Commission Act (2026).** Introduced in the Senate on March 11, 2026 by Todd Young (R-Ind.), John Curtis (R-Utah), and Angus King (I-Maine) with seven cosponsors of both parties, it would create a 16-member commission, 12 lawmakers and 4 outside experts. The commission would propose legislation to 'stabilize the ratio of public debt to GDP within a 15-year period' and to improve the trust funds' solvency over 75 years, with a vote on its report by May 17, 2027 and expedited handling in Congress, though Senate passage would still need 60 votes. It has not been enacted.

• **Why none passed.** The beneficiaries of every item are concentrated and organized, while those of consolidation are diffuse and in the future. Both parties have pledged the other's items off the table, reconciliation admits only one party's items, and no crisis has arrived to force the rest. The last reform of this size, Social Security's in 1983 (Module 6), passed months before its date; the next such date is the retirement fund's projected exhaustion.

Module 13 Key Points

What Would Fix It

• Bringing the debt back to about 101% of GDP by 2036 takes $9-10 trillion of deficit reduction over 2027-36, a sixth of it interest.

• Only the large options add up: the payroll-tax cap, a value-added tax, a point on income-tax rates, the health exclusion, Medicare Advantage, and defense.

• A balanced package of eleven CBO options reaches about $9 trillion; a revenue-led one with a 5% value-added tax, about $9.9 trillion.

• A spending-led package reaches about a third of the target without cutting the core of Social Security and Medicare.

• Simpson-Bowles drew the same menu in 2010 and won 11 of 18 votes; the 2026 Fiscal Commission Act is still a bill.

Module 13 Quiz

Check Your Understanding

1. About how much of a phased deficit-reduction package's ten-year value comes from the interest it saves?

A) About a sixth
B) About half of it
C) Nearly all of it, after ten years
D) Under 1%, since rates on new debt are fixed when it is issued

2. Why does the spending-led package fall short of the target?

A) CBO's rules forbid counting defense cuts beyond the first five years, so most of the Pentagon savings drop out of the score.
B) The 2025 law already cut nondefense spending by half, so little discretionary spending is left to cut.
C) Spending cuts raise the interest bill, because the Treasury must then borrow at shorter maturities to fund them.
D) Without taxes, reaching the rest would take cuts to the core of Social Security and Medicare benefits that the menu barely touches.

3. What would a 5% value-added tax on a broad base raise over ten years, on CBO's estimate?

A) $34 billion
B) About $3.4 trillion
C) About $340 billion, a tenth of the payroll tax
D) About $10 trillion, enough to close the gap alone

4. How did the Simpson-Bowles commission's plan fare in December 2010?

A) Congress passed it
B) It was never voted on
C) It won 11 of 18 votes, short of the 14 needed
D) It passed the commission unanimously, and the House adopted it before the Senate filibustered it

5. What would the Fiscal Commission Act of 2026 do, if enacted?

A) Create a 16-member commission to propose legislation stabilizing the debt ratio within 15 years, with a report vote by May 17, 2027
B) Cap federal spending at 20% of GDP and require a two-thirds vote in both houses to exceed the cap in any year
C) Abolish the debt ceiling and replace it with a target for the debt ratio that the Treasury must meet each year
D) Merge the Social Security trust funds and let them borrow from the Treasury's general fund when they run short

Module 14 — Where Things Stand, and What to Watch

The Picture Assembled, and the Dates

Recommended Reading / Reference

Reference: CBO's *Monthly Budget Review* and its next *Budget and Economic Outlook* (early 2027), the Treasury's quarterly refunding statements, the Social Security and Medicare trustees' reports, and the Committee for a Responsible Federal Budget's trackers, which together will show whether the picture below holds

14a. Where Things Stand

In fiscal 2026 the federal government spent $7.40 trillion, took in $5.40 trillion, and ran a deficit of $1.99 trillion, 6.2% of GDP, with unemployment at 4.2%: a deficit larger as a share of the economy than the year before and far above the fifty-year average of 3.8%. It owes $32.5 trillion to the public and $40.3 trillion in all, and interest on the public debt, $1.14 trillion, costs more than defense. Three-quarters of spending runs on autopilot: Social Security, Medicare, and Medicaid grow with the number of people who qualify and with prices, and interest grows with the stock and the rate.

The quarter Congress fights over produced three shutdowns in one fiscal year, and fiscal 2027 runs on a stopgap to December 11. The year's tax law added trillions to deficits and was scored at nearly nothing on a baseline of its majority's choosing. The tariffs that were to help pay for it lost their broadest legal basis in the Supreme Court, and most of those duties were refunded. The Fed has a new chair, confirmed 54-45, and in September it raised rates against the president's demand. The term premium is back, the ten-year yield closed above 5% this autumn for the first time since 2007, and the October auctions cleared at the highest yields since 2000. The states are absorbing the 2025 law's cost shifts under balanced-budget rules, and the trust funds have dates that place the enforcement of the arithmetic in the next presidential term.

The argument the course opened with, whether the deficit is a crisis, a choice, a stimulus, or an identity, has its provisional answer in the arithmetic of Modules 5, 11, and 13. It is a choice, made each year by not making it, priced by an interest rate the country does not control, and enforced, unless the bond market chooses an earlier date, when the retirement fund runs out, in the fourth quarter of 2032 on the trustees' projection.

14b. Five Contradictions

- **A stimulus at full employment.** The government runs a deficit of 6% of GDP with unemployment at 4.2%, while the Fed raises rates to bring inflation down: fiscal and monetary policy pull in opposite directions, and interest costs rise with every step.
- **Inflation as both relief and threat.** The energy shock lifted nominal growth above the debt's average rate and held the ratio's rise down in 2026. The same inflation pushed up the yields at which the debt is refinanced, so the relief lasts only until the old bonds roll.
- **One law, two numbers.** CBO scores the 2025 law at $3.4 trillion over ten years before interest; the Senate's current-policy baseline scores its largest part at zero. Both are arithmetic, and the choice between them is politics.

• **A revenue source that was ruled out.** The tariffs were presented as a way to help pay for the tax cuts, but the Supreme Court struck down the broadest of them in February, and the Treasury refunded about $130 billion of those duties in fiscal 2026.

• **A shorter debt to ease the market.** The Treasury leans on bills to spare the long end, which lowers the pressure on long yields now and raises the budget's exposure to the Fed's rate later.

14c. What the Vote Will and Will Not Change

• **Will not change: the autopilot.** Social Security, Medicare, and interest grow on laws that need 60 Senate votes to amend, and the midterm elections of November 3, 2026 are unlikely to produce 60 votes for anything. The deficit of 2027 is largely written.

• **Could change: the vehicle.** A Congress with a different majority in either chamber can refuse another reconciliation bill, shape the funding deal due by December 11, set the terms of the next debt-limit increase, and decide whether the 2028 expirations are extended. The president's veto remains until January 2029.

• **Will change by the calendar: the deadlines.** The work requirements in January 2027, the debt limit around May 2027 on the National Taxpayers Union Foundation's estimate, the states' share of SNAP from fiscal 2028, the highway fund's exhaustion in fiscal 2028 on CBO's projection, and the 2028 expirations arrive whoever wins.

• **Will change in the market: the price.** The ten-year yield, the term premium, the auctions, the foreign share, the dollar, and the Fed's rate path decide which of Module 5's three paths the country is on.

• **Will change last: the enforcement.** The fourth quarter of 2032, the trustees' projected date for the retirement fund, is the first date at which the numbers will be enforced by something other than choice. The 1983 precedent says the choice comes months before it, and the presidential term of 2029-33 is the one in which it will be made or not.

14d. The Watch List

When	What	Why it matters
October 27-28, 2026	Federal Reserve meeting	Whether the Fed raises again; futures on October 16 gave about 1 in 6 for a rise in October and about 9 in 10 by December
October 28, 2026	Britain's Budget and the Office for Budget Responsibility's forecast	Healey's first Budget, the headroom against the fiscal rules, and the gilt market's verdict
October 29, 2026	The first estimate of third-quarter GDP	The g in r against g: whether nominal growth stays far above the debt's average rate
October 29-30, 2026	Bank of Japan meeting	Whether it raises again, and the rate at which Japan's debt rolls over (Module 11)
November 3, 2026	The midterm elections	The vehicle, not the autopilot
November 4, 2026	The Treasury's quarterly refunding statement	Whether coupon sizes stay steady and bills keep rising as a share of the debt
November 5, 2026	Third-quarter productivity, preliminary	Whether the faster productivity of this cycle holds
About November 9, 2026	CBO's Monthly Budget Review for October	The first month of fiscal 2027 and more detail on fiscal 2026

When	What	Why it matters
No earlier than November 9, 2026	Congress's review period for the September rescission package ends	Whether GAO sues to establish that a president cannot let appropriations lapse this way (Module 4)
November 27, 2026	S&P's scheduled review of France, rated A+	The first rating decision after the Assembly's work on the 2027 budget
By November 30, 2026	Negotiated prices for the third round of Medicare drugs	The first prices for drugs given in doctors' offices, effective 2028
December 8-9, 2026	Federal Reserve meeting	The second chance this year for another rise
December 11, 2026	The fiscal 2027 stopgap expires	A full-year deal, another stopgap, or a lapse from December 12
December 31, 2026	Central clearing of cash Treasury trades required; the Fed's five task forces report; Medicaid's six-month renewals begin	The plumbing of the Treasury market, the balance sheet's future, and coverage
January 1, 2027	Medicaid work requirements in force; Social Security's 3.6% increase; the $192,300 taxable maximum; fifteen more negotiated drug prices	The coverage numbers against CBO's estimate
January 10, 2027	The American-Chinese tariff truce expires	Customs receipts and the tariff rate
Early 2027 (no date announced)	CBO's Budget and Economic Outlook	The first baseline to count the tariff ruling, the rates, and the growth of 2026
About May 2027 (estimates run from February to July)	The $41.1 trillion debt limit is reached and extraordinary measures begin	The brinkmanship's return; the X-date is put around February 2028
April 18 and May 2, 2027	France's presidential election	The budget's politics in the euro area's most watched debtor
Spring or early summer 2027	The trustees' reports	Whether the 2032 and 2033 dates hold or move
May 17, 2027	The fiscal commission's report vote, if the Fiscal Commission Act is enacted	Whether a commission gets a vote before the next date
October 1, 2027 (fiscal 2028)	The states' share of SNAP benefits begins; the provider-tax ceiling starts falling; the Highway Trust Fund runs out during the year	The cost shift reaching state budgets
January 31, 2028	Powell's term as governor ends	A seat for the president to fill
November 7, 2028	The presidential election	The term in which 2032 will be faced
December 31, 2028	The deductions for tips, overtime, car loans, and older taxpayers end	The 2025 law's first cliff
May 2030	Warsh's term as chair ends	The independence question's next test
Fourth quarter of 2032	Social Security's retirement fund is exhausted; benefits fall to 78%	The arithmetic enforced, or the choice made months before
2033	Medicare's hospital fund is exhausted on the trustees' projection (CBO: 2040)	The second date
Third quarter of 2034	The combined Social Security funds are exhausted; 83% payable	The last of the dates in the window
Ongoing	The ten-year yield against nominal growth; the term premium; the foreign share; the auctions	Which of the three rate paths the country is on

Dates as announced, set in law, or projected on October 25, 2026; the projections are the trustees' for the trust funds, CBO's for the highway fund, and the National Taxpayers Union Foundation's for the debt limit; 'about' marks expected dates not yet announced.

14e. The Last Word

The throughline of fourteen modules is this. The government of the United States is an insurance company with an army, funded by a tax system that raises roughly the same share of GDP it always has. It spends more than that and more each year, and it borrows the difference in the world's deepest market at a price it does not set. Its debt's level is being sustained and its slope is not, a slope set by programs no annual budget touches and an interest rate no Congress controls.

The arithmetic is not disputed. The ratio rises by the primary deficit plus the debt times the gap between the rate and growth, and holding it where it is requires a swing that every commission has designed and none has passed, because the beneficiaries of each item are organized and the beneficiaries of the whole are not yet born. The choice can still be made first, as it was in 1983 and 1990, by both parties, on both sides of the ledger, before a date forces it. The reader who has followed the dollar from the payroll deduction through the programs, the auction, the baseline, and the equation can now read the next CBO outlook, the next auction, and the next shutdown for what they are: the arithmetic, and the country deciding whether to do it or have it done.

Module 14 Key Points

Where Things Stand, and What to Watch

• Fiscal 2026 ran a $1.99 trillion deficit, 6.2% of GDP, at 4.2% unemployment; interest cost more than defense.

• The provisional answer: a choice, made each year by not making it, priced by an interest rate the country does not control.

• The midterms of November 3 can change the vehicle, not the autopilot; the market, not Congress, chooses the rate path.

• The next dates: the November 4 refunding, the December 11 stopgap, January's work requirements, and the debt limit around May 2027.

• The trustees' projected date, the fourth quarter of 2032, is the first at which the arithmetic will be enforced by something other than choice.

Module 14 Quiz

Check Your Understanding

1. When does the stopgap that funds the government in fiscal 2027 expire?

A) In 2028
B) September 30, 2027, the end of the fiscal year
C) December 11, 2026
D) It has no end date, since Congress passed a full-year bill in September

2. On the trustees' projection, what is the first date at which the arithmetic will be enforced by something other than choice?

A) May 2027
B) The fourth quarter of 2032
C) November 3, 2026
D) The day CBO's next outlook shows the debt above its 1946 record of 106% of GDP

3. What can the November 3 midterms change, in the module's reading?

A) The growth of Social Security and Medicare, which a new Congress can slow by simple majority
B) The interest rate on the debt, through the Senate's power to confirm Fed governors
C) The Social Security date, since a new majority can merge the trust funds without 60 votes
D) The vehicle, not the autopilot

4. What did the Fed do in September 2026, while the deficit ran at 6% of GDP at full employment?

A) It raised rates
B) It bought long bonds to hold yields down
C) It cut rates by half a point to support the economy
D) It capped the ten-year yield at 4.5% at the Treasury's request

5. Around when is the $41.1 trillion debt limit expected to be reached?

A) 2026
B) About May 2027
C) In 2030
D) Not before 2029, after the next presidential election

Answer Sheet

Answers to every module's Check Your Understanding quiz.

Module	Answers
Module 1 Quiz	1. B 2. C 3. A 4. D 5. C
Module 2 Quiz	1. D 2. B 3. A 4. B 5. C
Module 3 Quiz	1. D 2. A 3. B 4. C 5. D
Module 4 Quiz	1. A 2. D 3. B 4. C 5. A
Module 5 Quiz	1. D 2. B 3. C 4. A 5. D
Module 6 Quiz	1. B 2. A 3. C 4. D 5. B
Module 7 Quiz	1. A 2. C 3. C 4. B 5. A
Module 8 Quiz	1. D 2. A 3. B 4. C 5. D
Module 9 Quiz	1. D 2. B 3. C 4. A 5. B
Module 10 Quiz	1. C 2. A 3. D 4. A 5. B
Module 11 Quiz	1. D 2. C 3. C 4. B 5. D
Module 12 Quiz	1. A 2. A 3. B 4. D 5. C
Module 13 Quiz	1. A 2. D 3. B 4. C 5. A
Module 14 Quiz	1. C 2. B 3. D 4. A 5. B