The U.S. Federal Debt

OLLI – Berkshire Community College

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Available NEED Topics Include:

- US Economy
- Healthcare Economics
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- US Social Policy

Course Outline

- **Contemporary Economic Policy**
  - Week 1 (1/21): Economic Update (Geoffrey Woglom, Amherst College)
  - **Week 2 (1/28): Federal Debt and Deficits (Robert Rebelein, Vassar College)**
  - Week 3 (2/04): Health Economics (Robert Rebelein, Vassar College)
  - Week 4 (2/11): Climate Change Economics (Sarah Jacobson, Williams College)
  - Week 5 (2/18): Tariffs and Their Effects (Alan Deardorff Umichigan)
  - Week 6 (2/25): The New Inequality (Geoffrey Woglom, Amherst College)

Submitting Questions

- **Please submit questions in the chat**
  - I will try to handle them as they come up but may take them in a bunch as time permits.
- **We will have a verbal Q&A after the presentation**
- **Slides will be available from the NEED website tomorrow (https://needelegation.org/delivered_presentations.php)**

Deficit (or Surplus) vs. Debt

- **Deficit (or Surplus) are Annual amounts (Flows)**
  - ***Deficit***: The excess of outlays over revenues within a year.
  - ***Surplus***: The excess of revenues over outlays within a year.

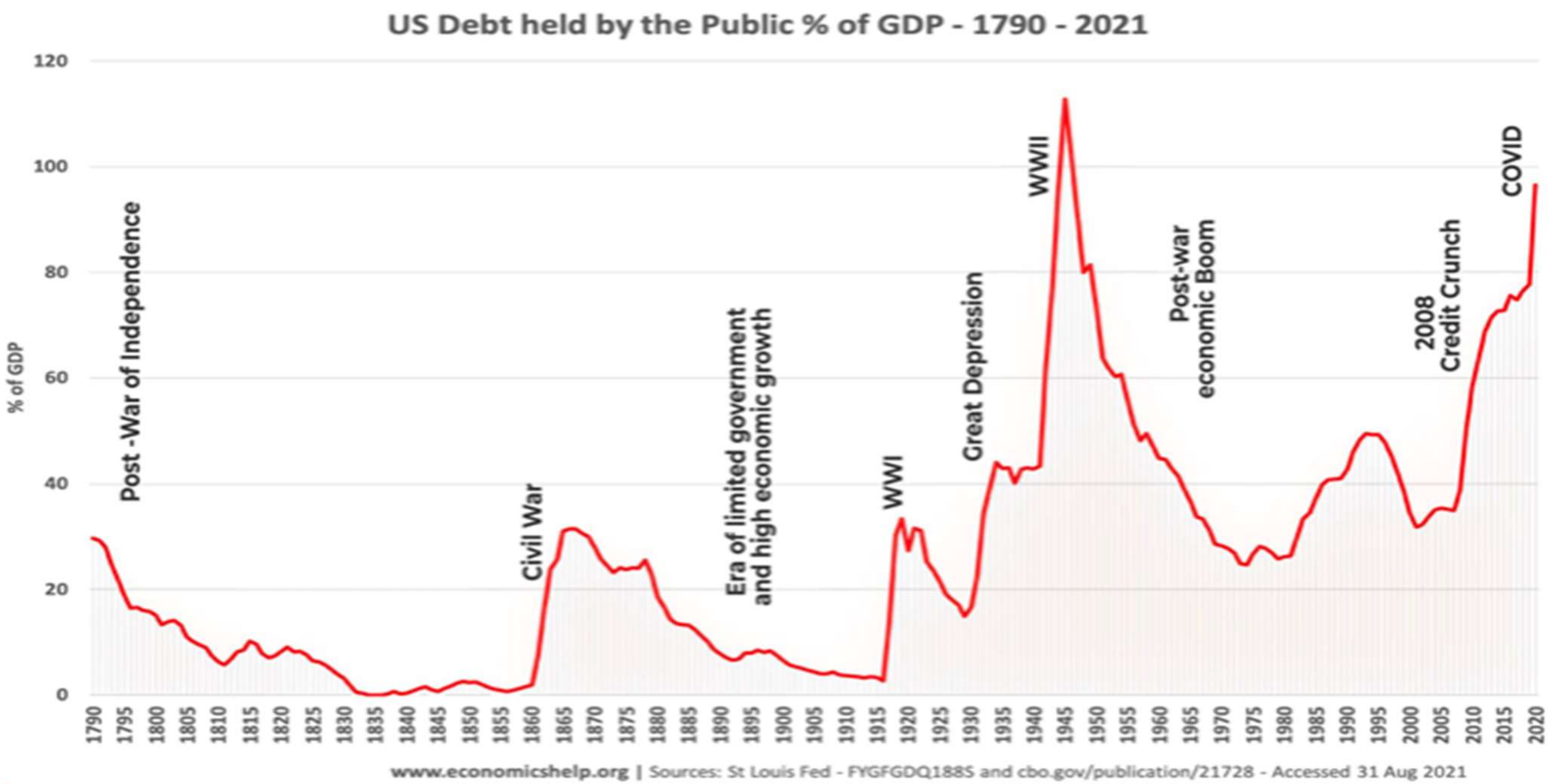
- **Debt is the accumulation of ALL past deficits and surpluses (Stock)**

Grows at about $45,000/second

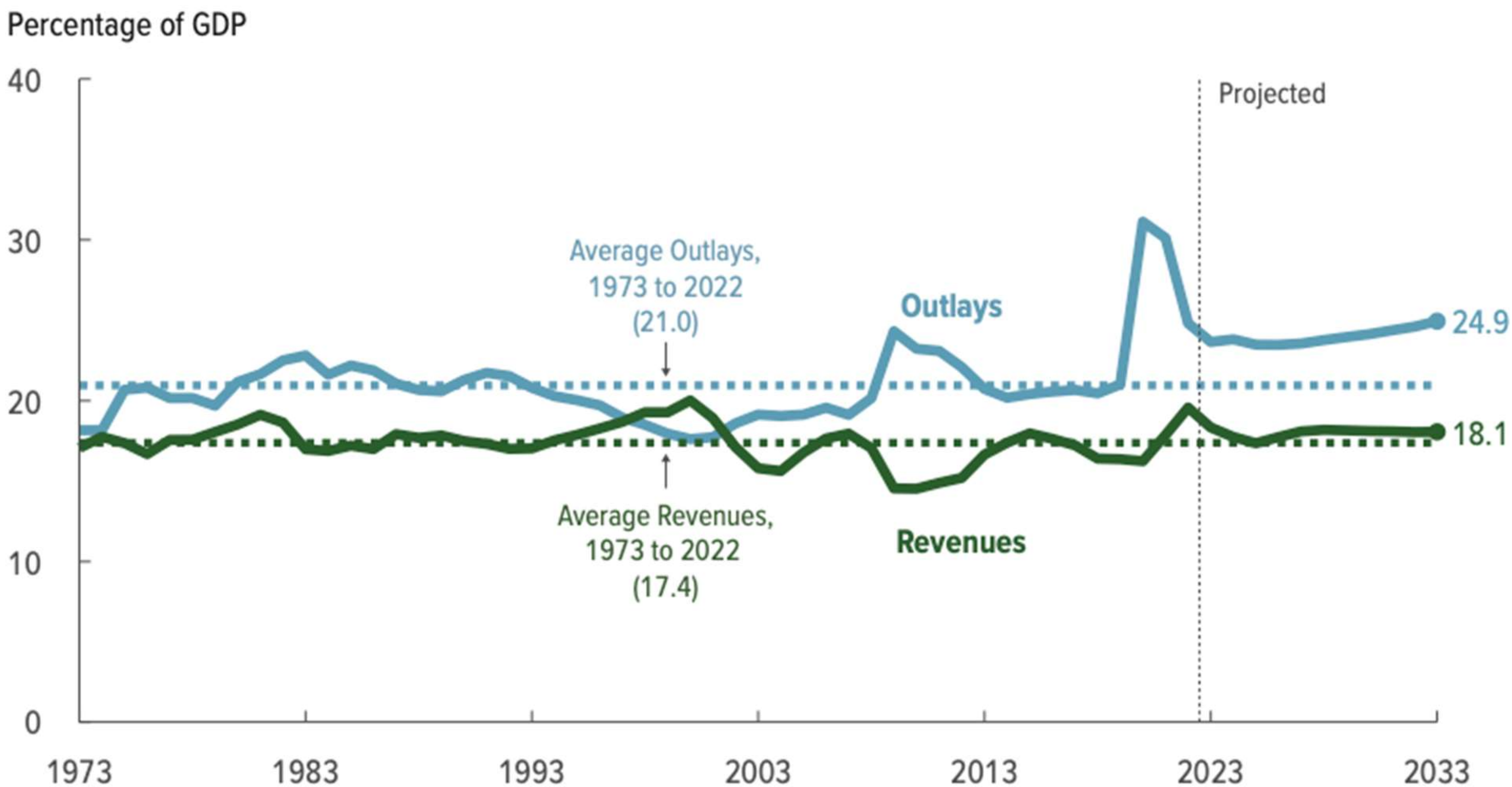
How Did we get here?

U.S. government has (almost) always had some debt

History of U.S. Debt

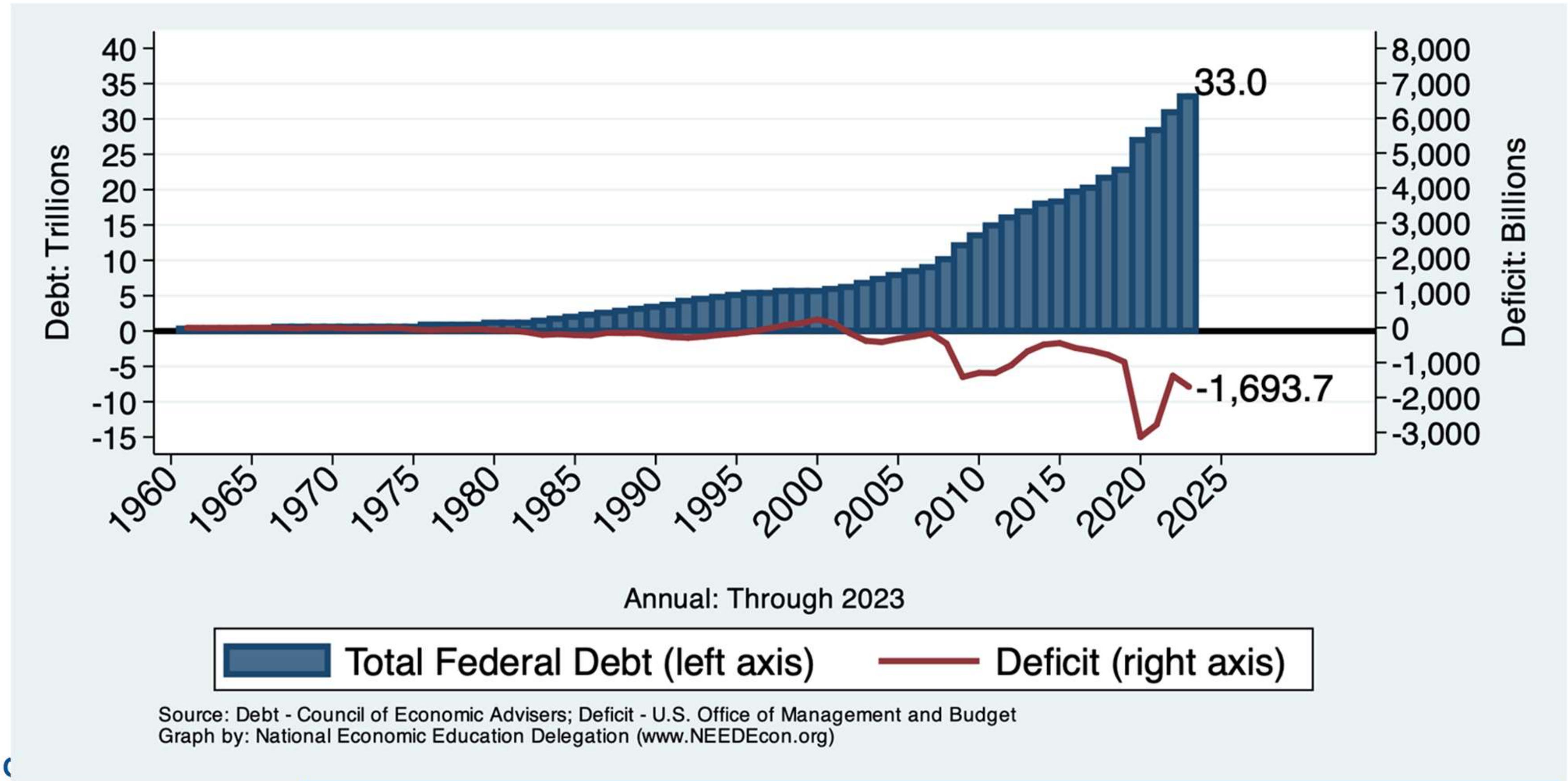


Why Has the Federal Debt Risen So Much?



Debt vs. Deficit

Debt = The Sum of All Past Deficits Less Surpluses



Not All Borrowing Is Bad!

- **Two good reasons to borrow:**
  1. During a temporary crisis
     1. Recession
     2. War
     3. Pandemic
  2. Productive public investment
     1. Infrastructure
     2. Education

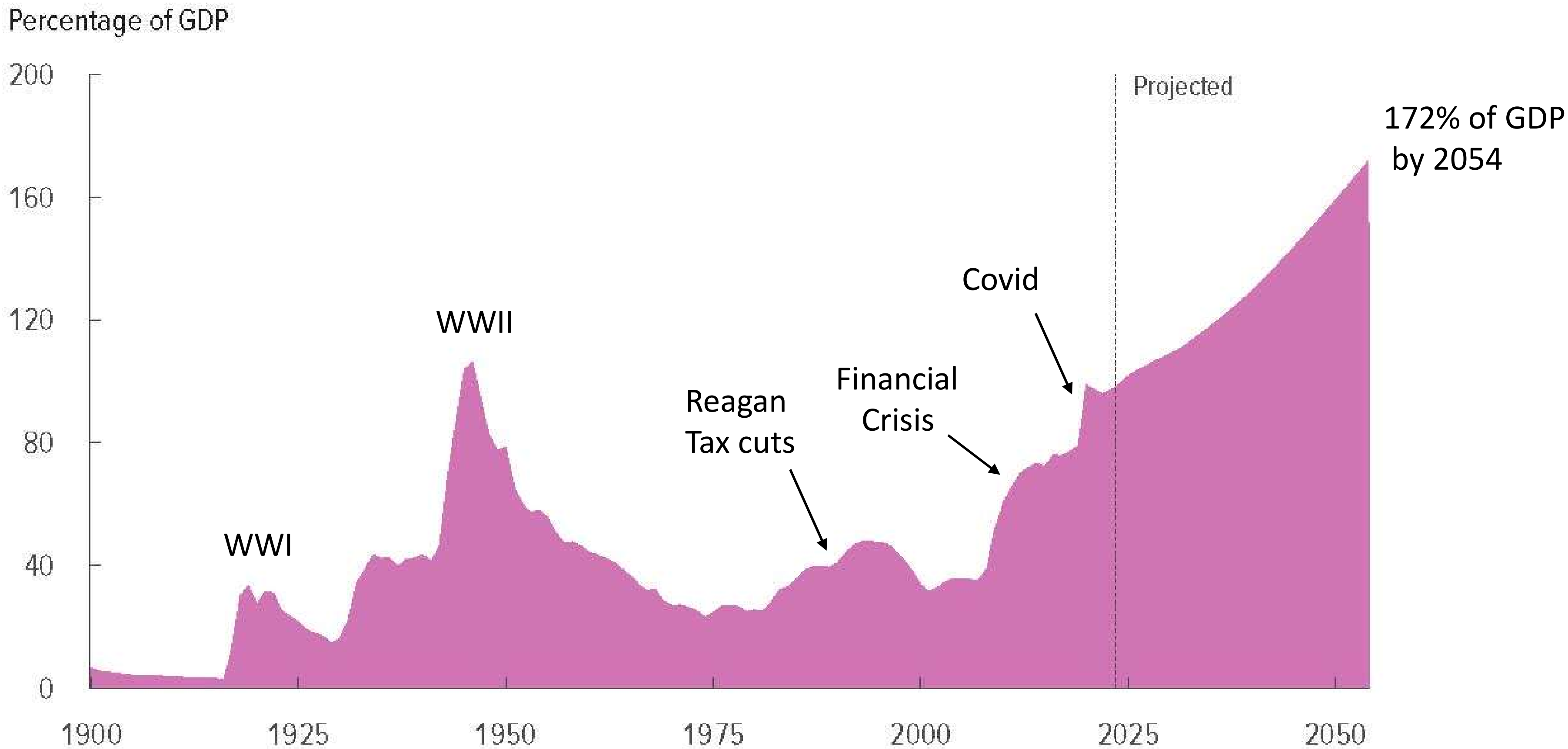
- **These deficits did not and do not permanently increase relative debt.**
  - Great Depression, WWII
  - Public investment expands GDP and tax revenue

The *Relative* Debt

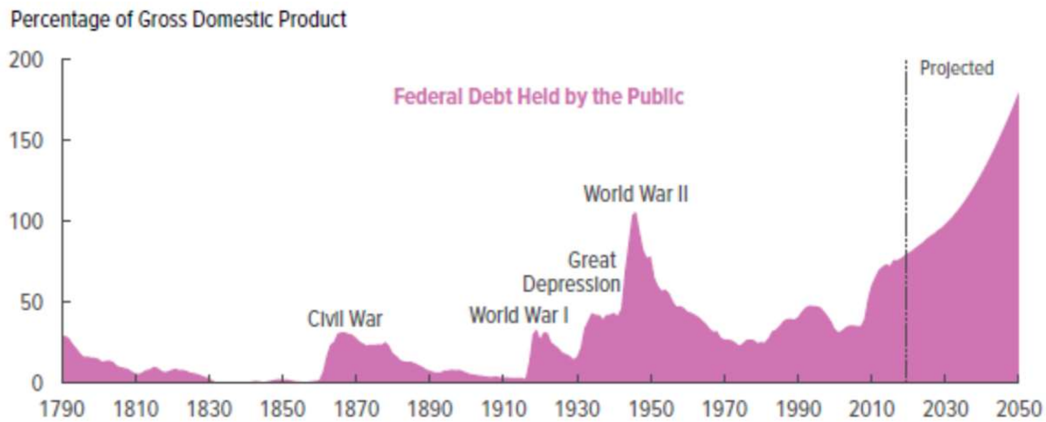
- **Economists analyze the debt *relative* to GDP because:**
  - To the extent that debt and deficits have ***burdens***, these burdens depend on the size of the debt ***relative*** to the size of the economy.

	Total Public Debt	Relative Debt: Debt/GDP
United States	$36 Trillion	121.6%
Greece	$0.215 Trillion	170%

Path of U.S. Debt (% of GDP)



Key Points About US Relative Debt



1. Prior to 1983, relative debt rose (wars and recessions) and then fell.
2. Relative debt peaked during World War II, then declined for several decades. (Note that debt continued to grow!)
3. Relative debt has been and is expected to rise for the foreseeable future w/o a strategic purpose.

Debt Dynamics

- **Relative debt is a fraction: Debt/GDP; this fraction falls if:**
  - The ***numerator*** falls (budget surplus)
  - The ***denominator*** rises (nominal GDP growth)
  - The ***denominator*** grows faster than the ***numerator***

Debt Dynamics

- **Surprising (?) Fact:**
  - From 1945 to 1975, relative debt fell from 100% of GDP to 25% of GDP.
  - During this period, relative debt fell because the economy grew strongly; the federal budget was in surplus only once (in 1969).

- **Relative debt is a fraction: Debt/GDP; this fraction falls if:**
  - The ***numerator*** falls (budget surplus)
  - The ***denominator*** rises (nominal GDP growth)
  - The ***denominator*** grows faster than the ***numerator***

Measuring the Debt

- **Not all debt is borrowed from the public**
- **Treasury Department also borrows from many different U.S. government agencies**
  - Called "intragovernmental borrowing"
  - about 20% of the total
- **This gives us two different measures of the Debt:**
  - Total Federal Debt
  - Debt Held by the Public

Measuring the Debt

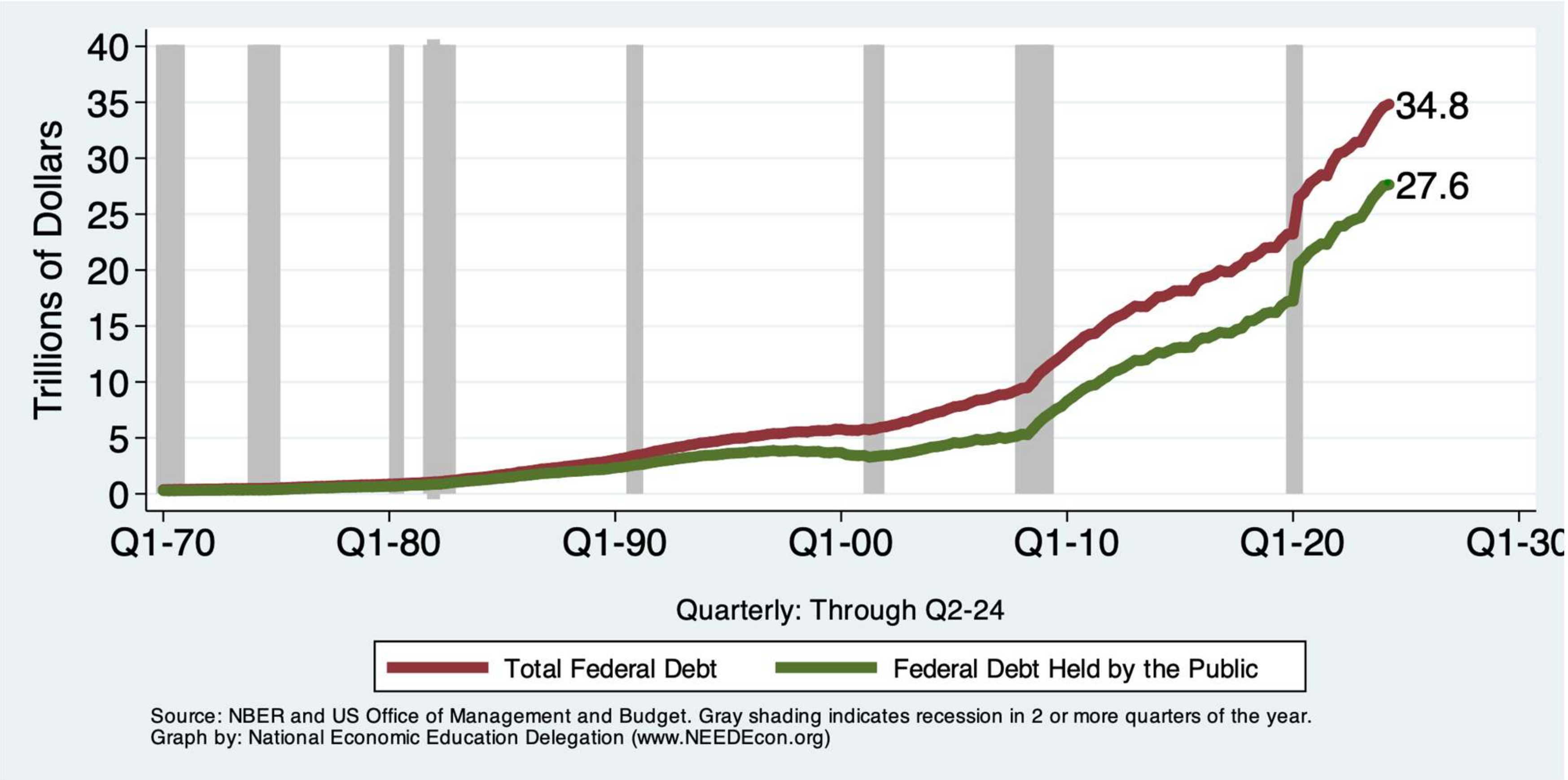
Total Federal Debt is about $36 Trillion

Minus Intragovernmental Debt of about $7 Trillion

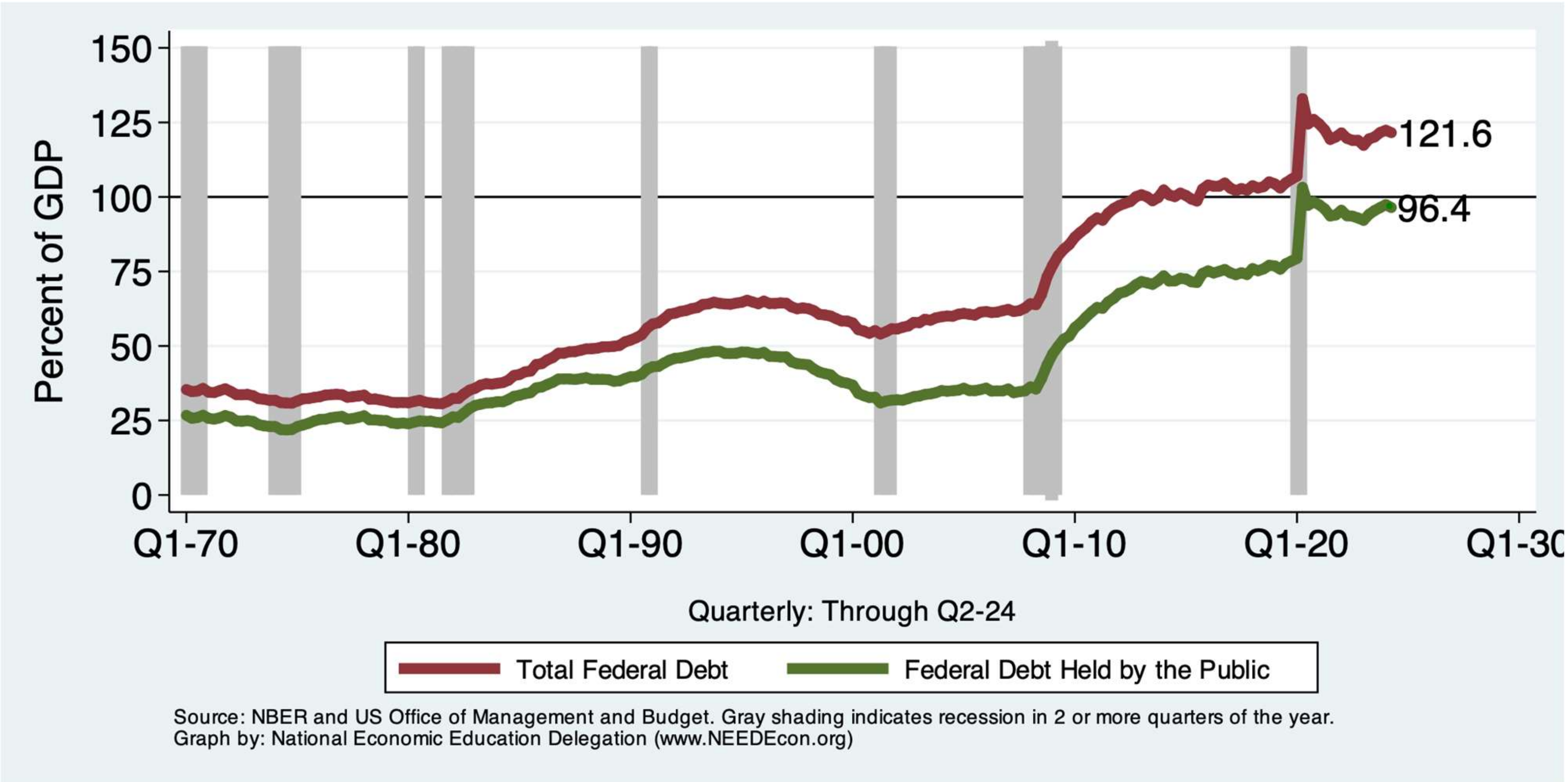
Leaving "Debt Held by the Public" of about $29 Trillion

- Most studies of debt focus on just this part

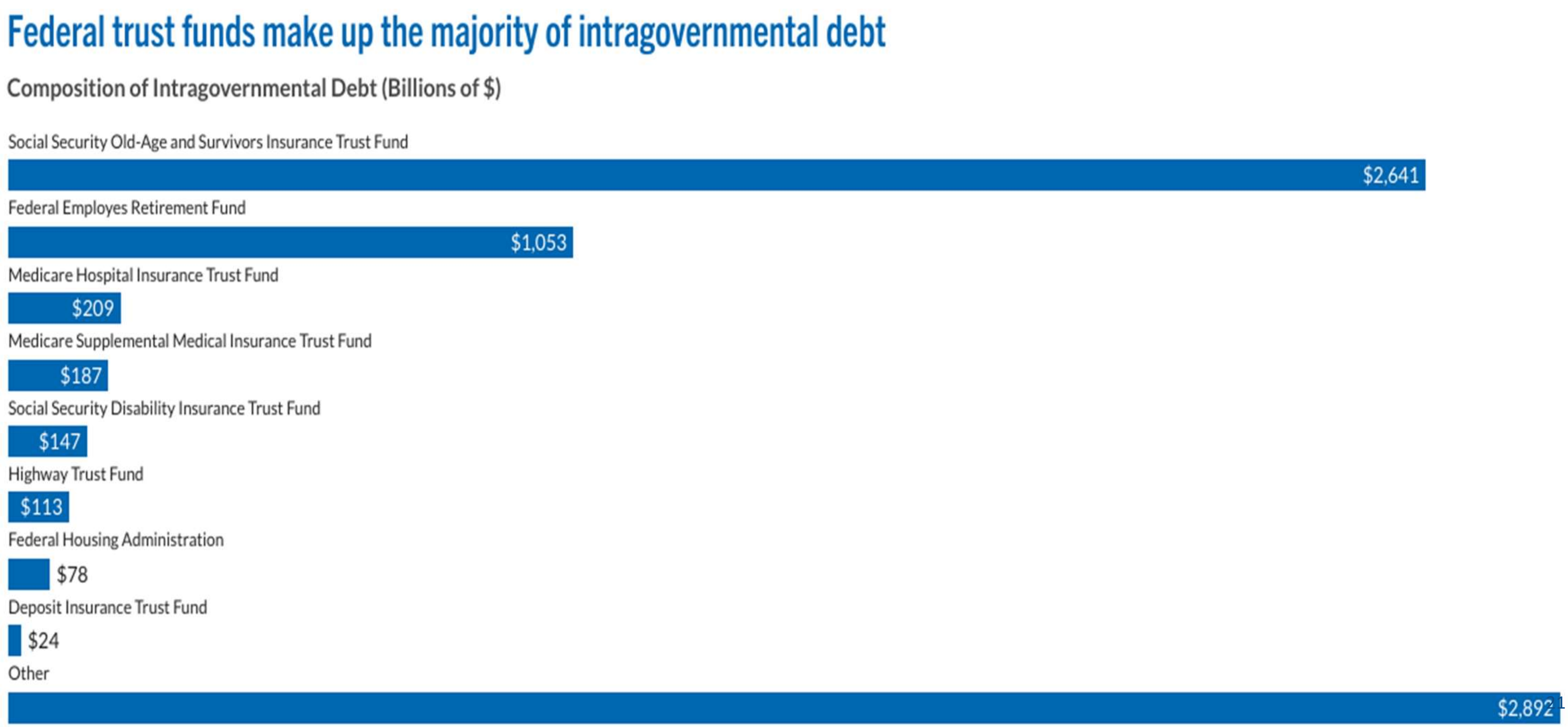
Two Measures: Total Debt vs. Debt Held by Public



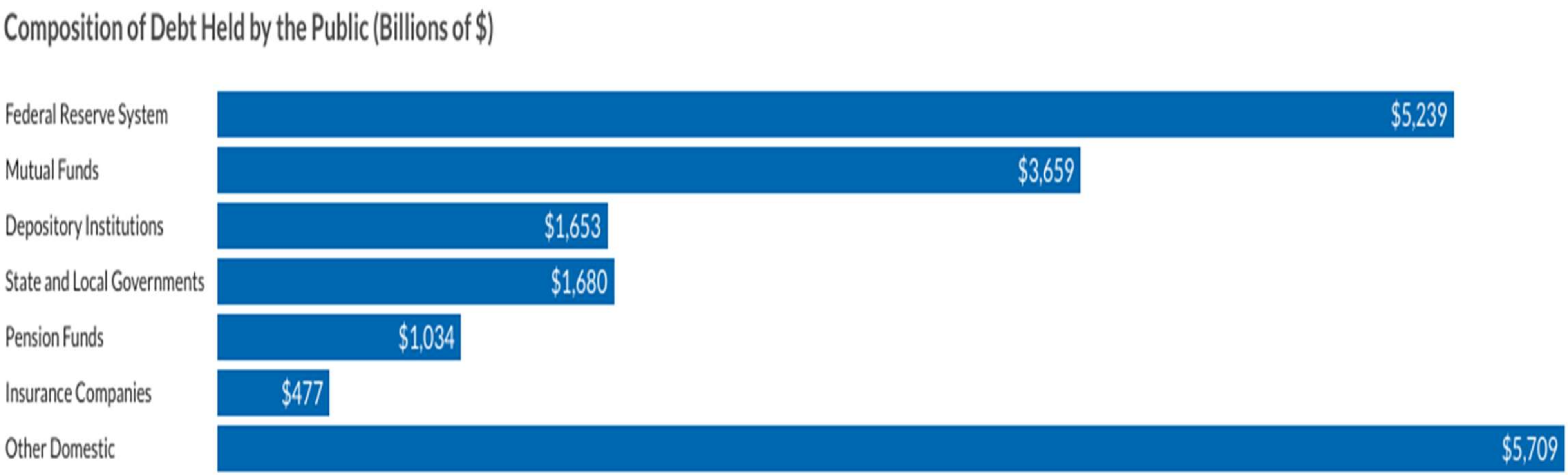
Two Measures of RELATIVE Debt



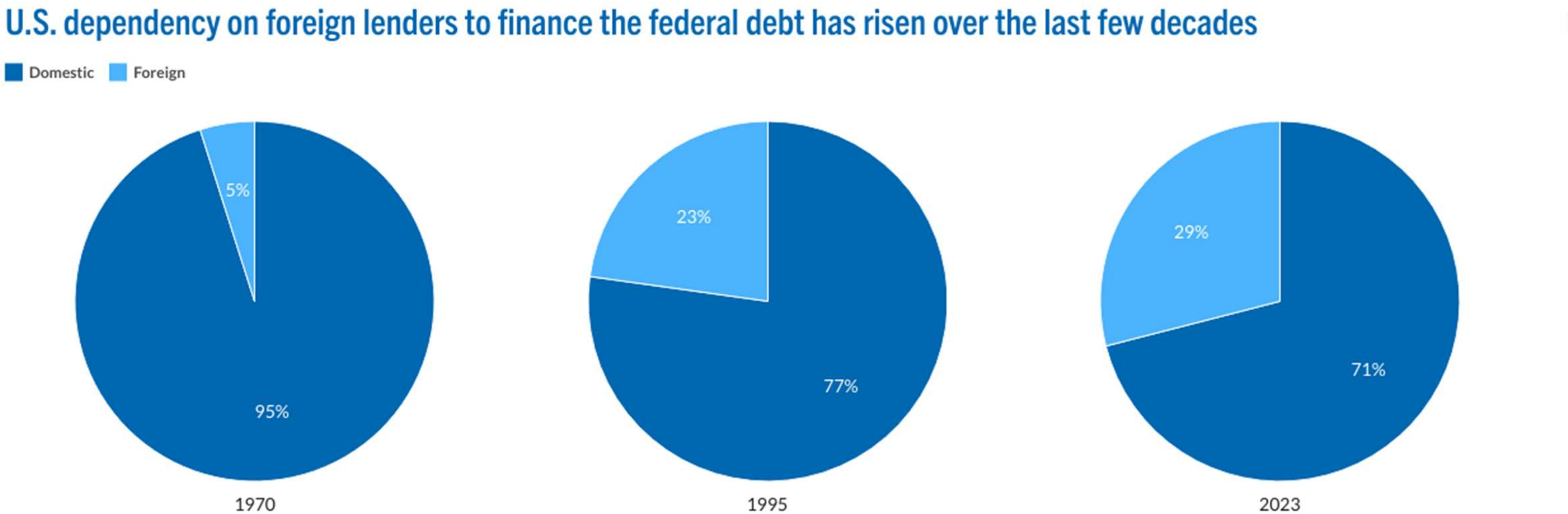
Who owns all this government debt?



Who owns the debt held by the public?
Domestic debt-holders:

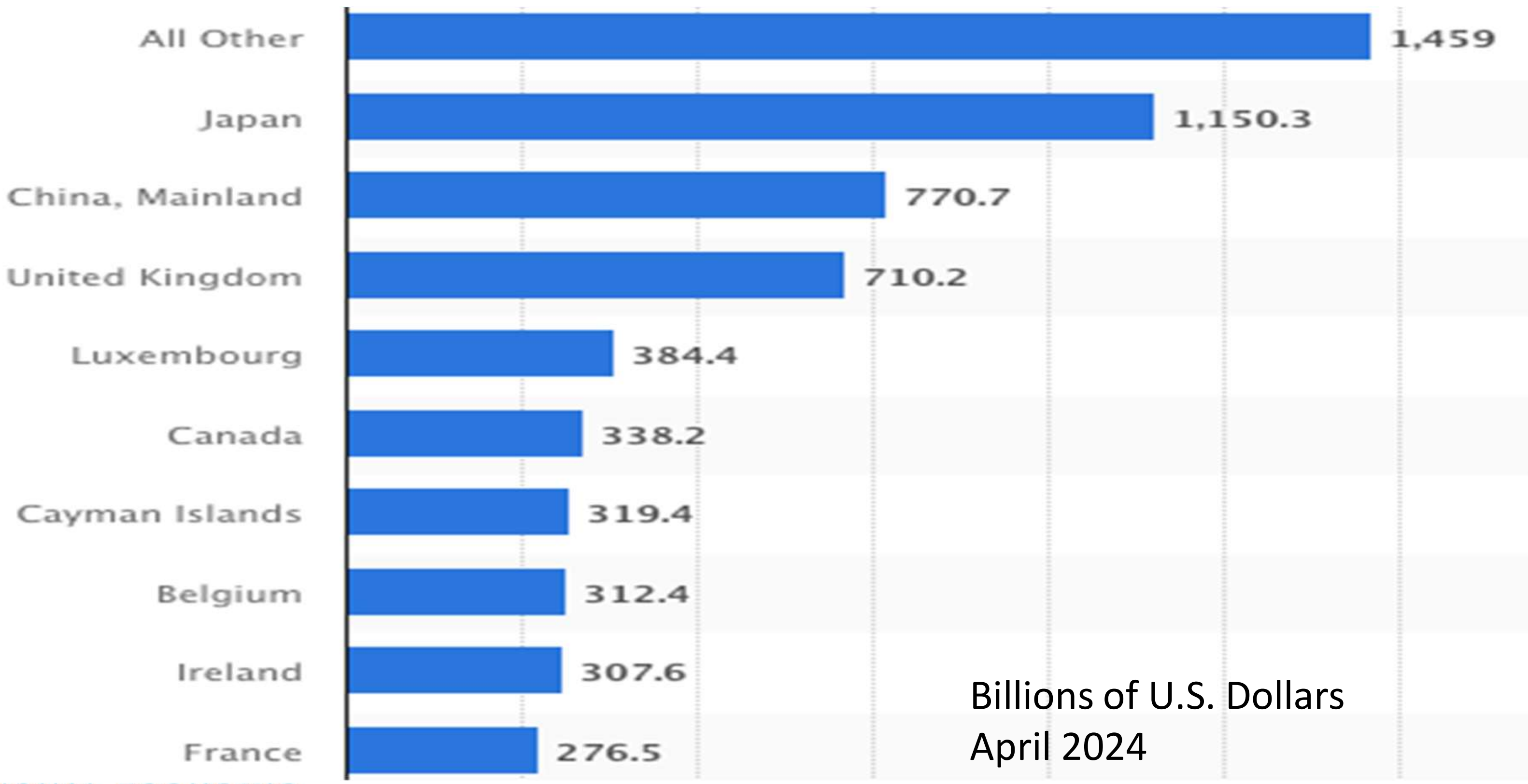


Who owns the debt held by the public?



Foreign Owned: $14 billion $7.9 trillion

Who owns the debt held by the public? Foreign debt-holders:



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Source: https://www.statista.com/statistics/246420/major-foreign-holders-of-us-treasury-debt/

Why Do Foreign Investors Buy US Treasuries?

- **The US economy has a history of political and economic stability and of always repaying its debts.**
- **The dollar is the largest international reserve currency (59%)**
  - Most trade transactions (*e.g.*, oil) are quoted in dollars (54%)
  - Foreign governments, companies, and citizens borrow in dollars (64%)
  - 90% of currency exchange transactions involve the dollar on one side or the other
- **Market for U.S. Treasury securities is the deepest, most liquid capital market in the world.**

Three Major Questions:

- **What economic effects do deficits have?**
- **Why is it so hard to reduce the deficit?**
- **What could happen if our debt continues to increase?**

Not All Debt Is Created Equal

- **Intragovernmental debt is (important) bookkeeping, but this debt does not affect capital markets.**

- **Debt held by the public can reduce the availability of investment funds to other borrowers.**
  - Often referred to as "crowding out" private investment
  - May also increase interest rates for in capital markets

- **Most analyses of debt focus on federal debt held by the public.**

Economic effects of deficits

- **No evidence of either crowding out or of higher interest rates**
  - Significant inflows of funds from other countries is probably why these haven't happened

- **More foreign ownership means money leaves the country as interest is paid to foreign debt-holders**

Three Major Questions:

- What economic effects do deficits have?
- **Why is it so hard to reduce the deficit?**
- What could happen if our debt continues to increase?

2023 US Government Budget Summary (billions)

Revenue			Outlays	
Income Taxes	$2,176		Mandatory	$3,753
Payroll Taxes	$1,614		Discretionary	$1,722
Corporate Taxes	$420		Interest	$659
Other	$228			
Total	$4,439		Total	$6,134

2023 Budget Deficit = $1,695 Billion

Primary Deficit = $1,695 - $659 = $1,036

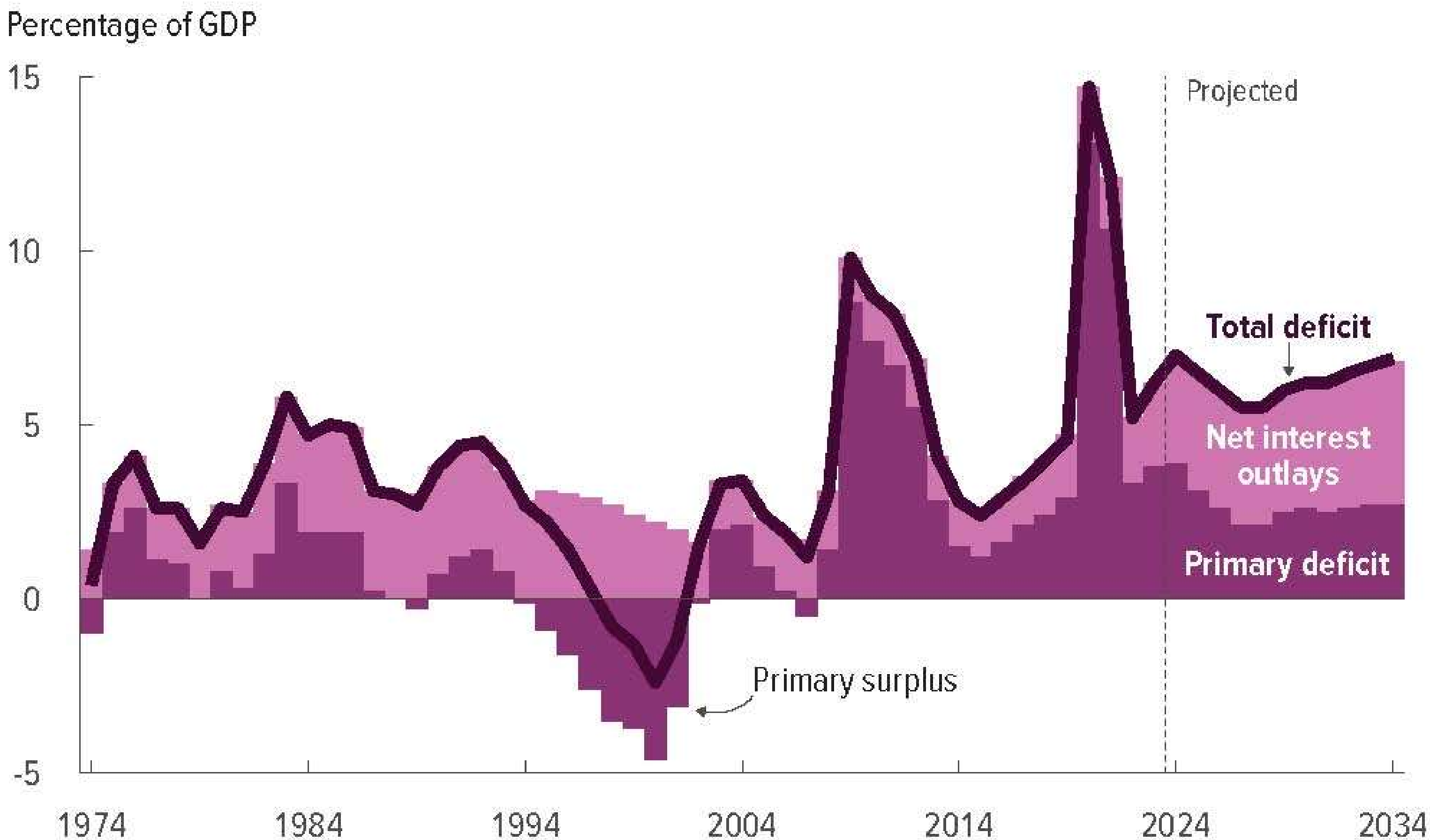
Source: https://www.cbo.gov/publication/60053

Two Measures of the Deficit

- Primary deficit = current spending – revenues

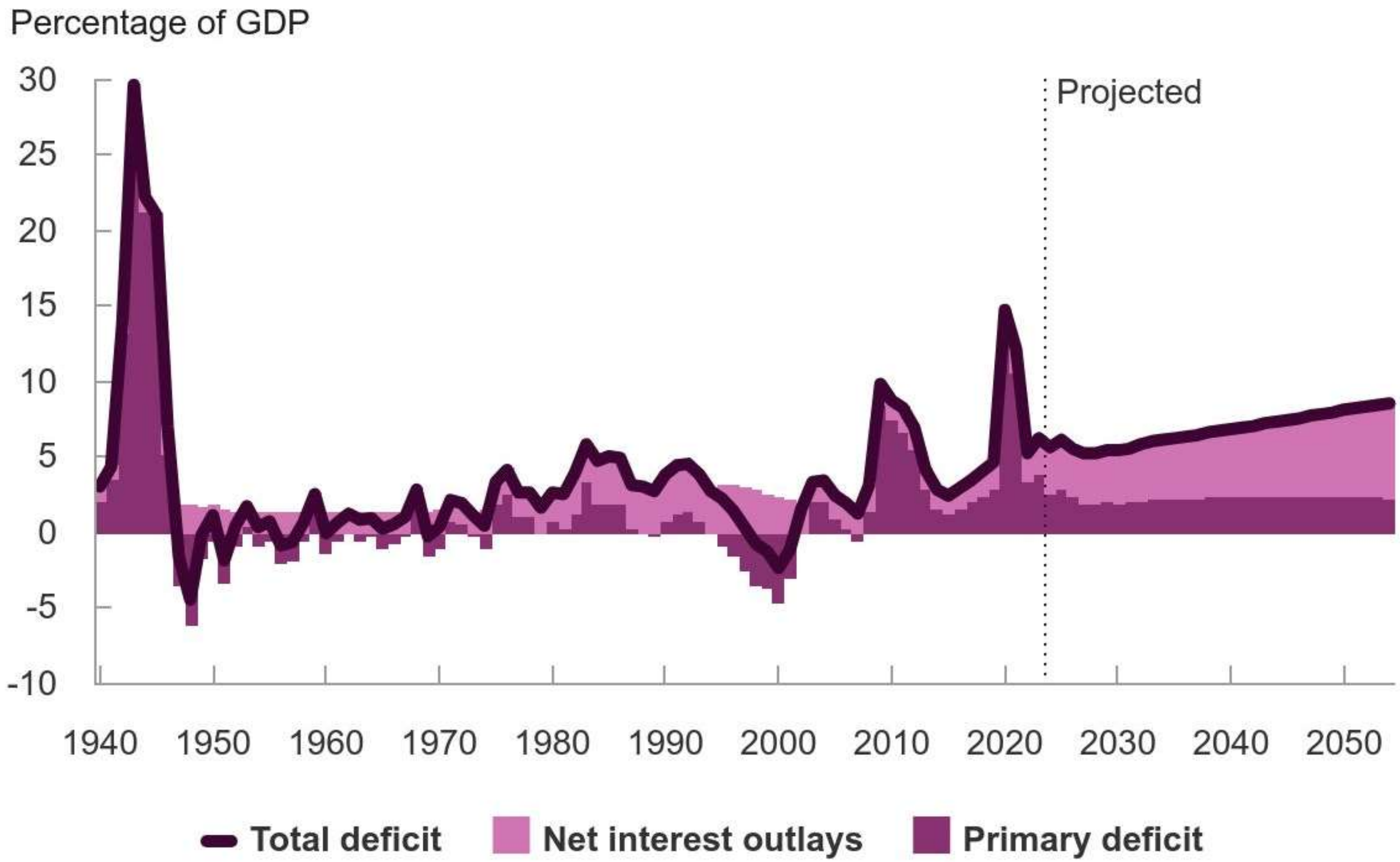
- Total deficit = primary deficit + interest

Rising Future Deficits



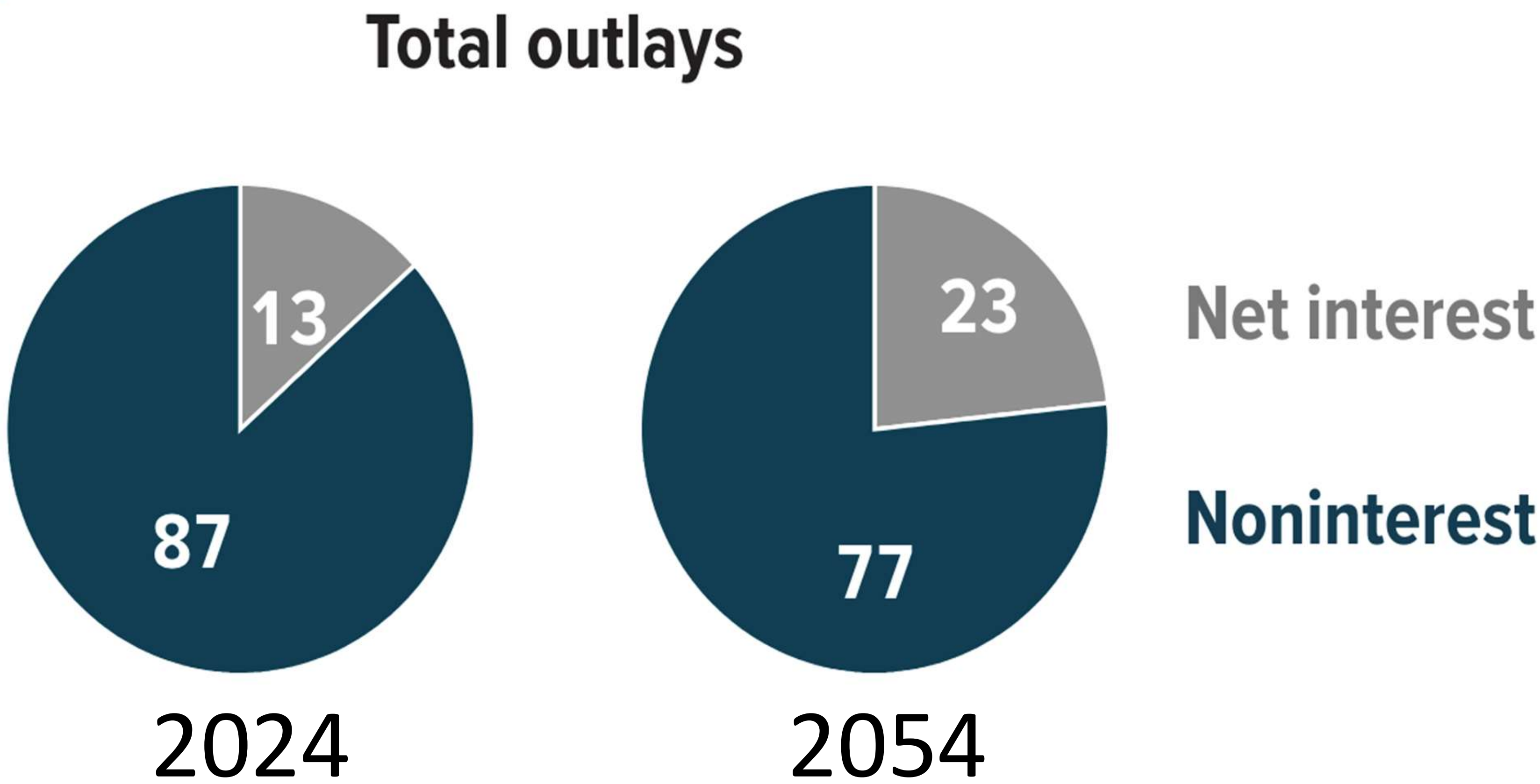
Source: CBO, An Update to The Budget and Economic Outlook: 2024 to 2034, June 2024

Rising Future Deficits



Source: CBO, The Long-Term Budget Outlook: 2024 to 2054, March 2024

Interest Will Grow as a Share of Spending



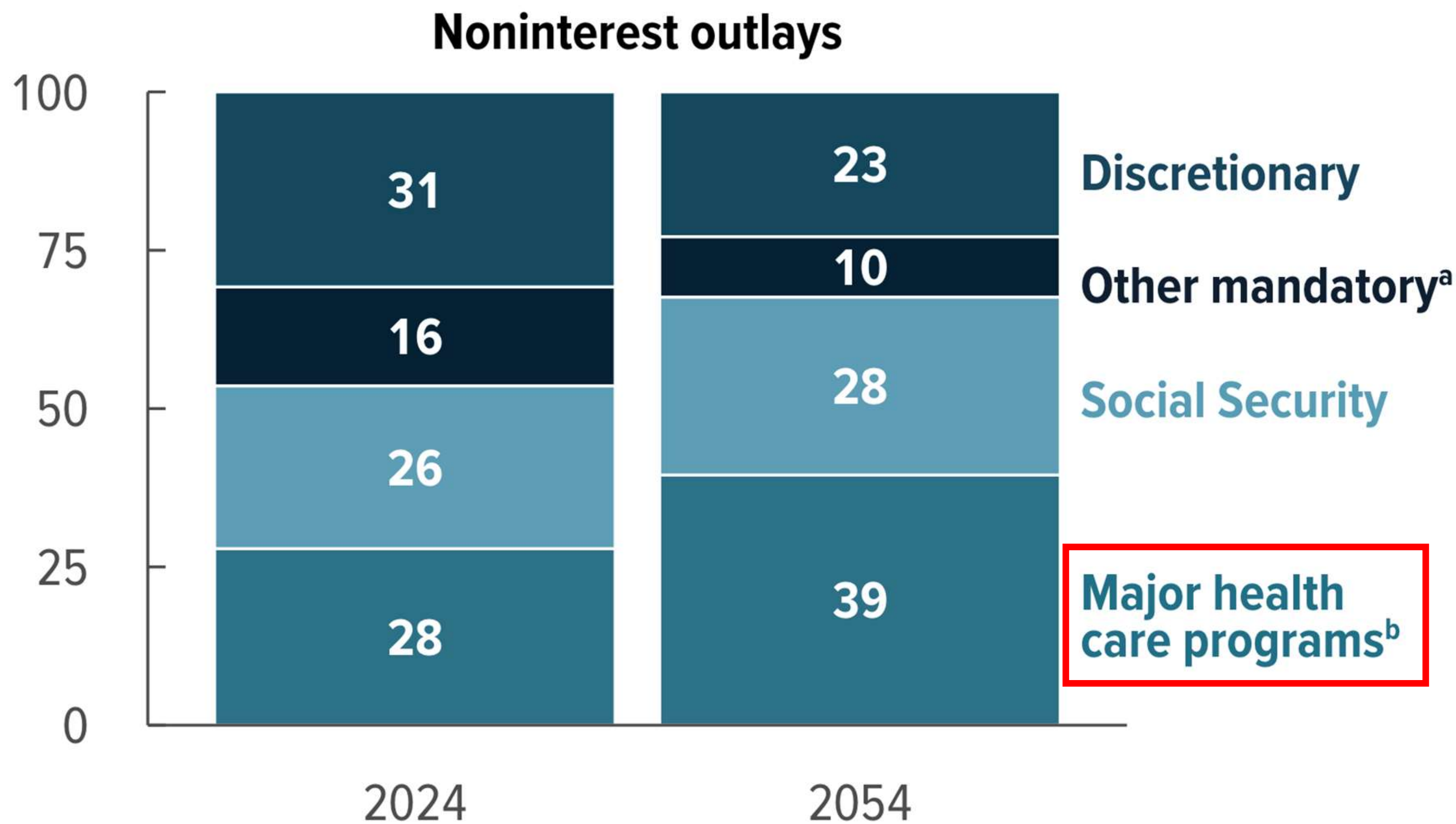
Source: CBO 2023 Long Term Budget Outlook

Why is it so Hard to Reduce the Deficit?

- **Expenditures Growing:**
  - Healthcare spending
  - Economic stimulus
    - E.g., during the Great Recession & COVID
  - Military engagements overseas
  - Social Security

- **Revenues Falling:**
  - **Tax cuts**
  - Slower labor force growth

The Primary Drivers Going Forward

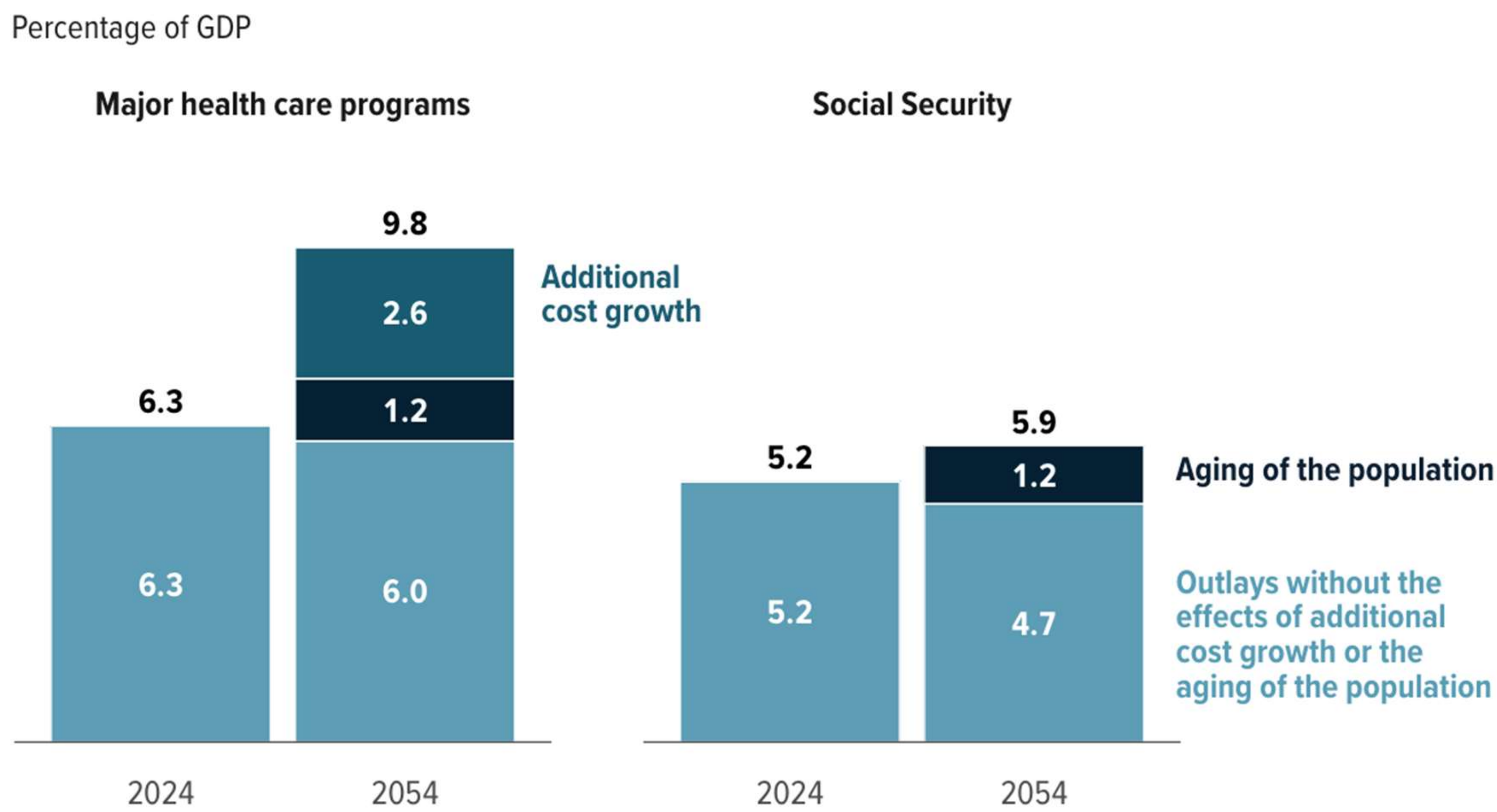


Source: CBO 2024 Long Term Budget Outlook

Some Healthcare Spending Facts

- **The U.S. spent about $4.5 Trillion on healthcare in 2022**
  - 17.3% of GDP (down from 19.5% in 2020)
- **The Federal Government (mostly via Medicare and Medicaid) was responsible for 33% of this spending**
- **Note: Spending = Price * Quantity**

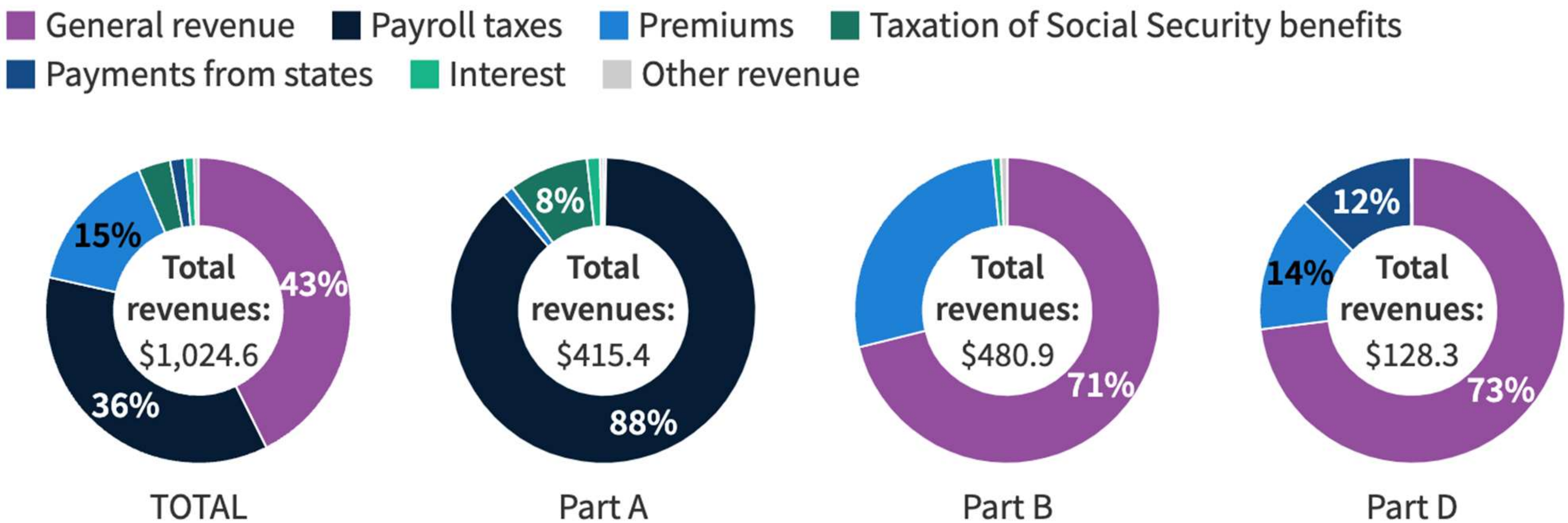
Healthcare is the bigger problem



Data source: Congressional Budget Office. See www.cbo.gov/publication/59711#data.

Medicare Revenues Come from Different Sources, Primarily General Revenues, Payroll Taxes, and Premiums Paid by Beneficiaries

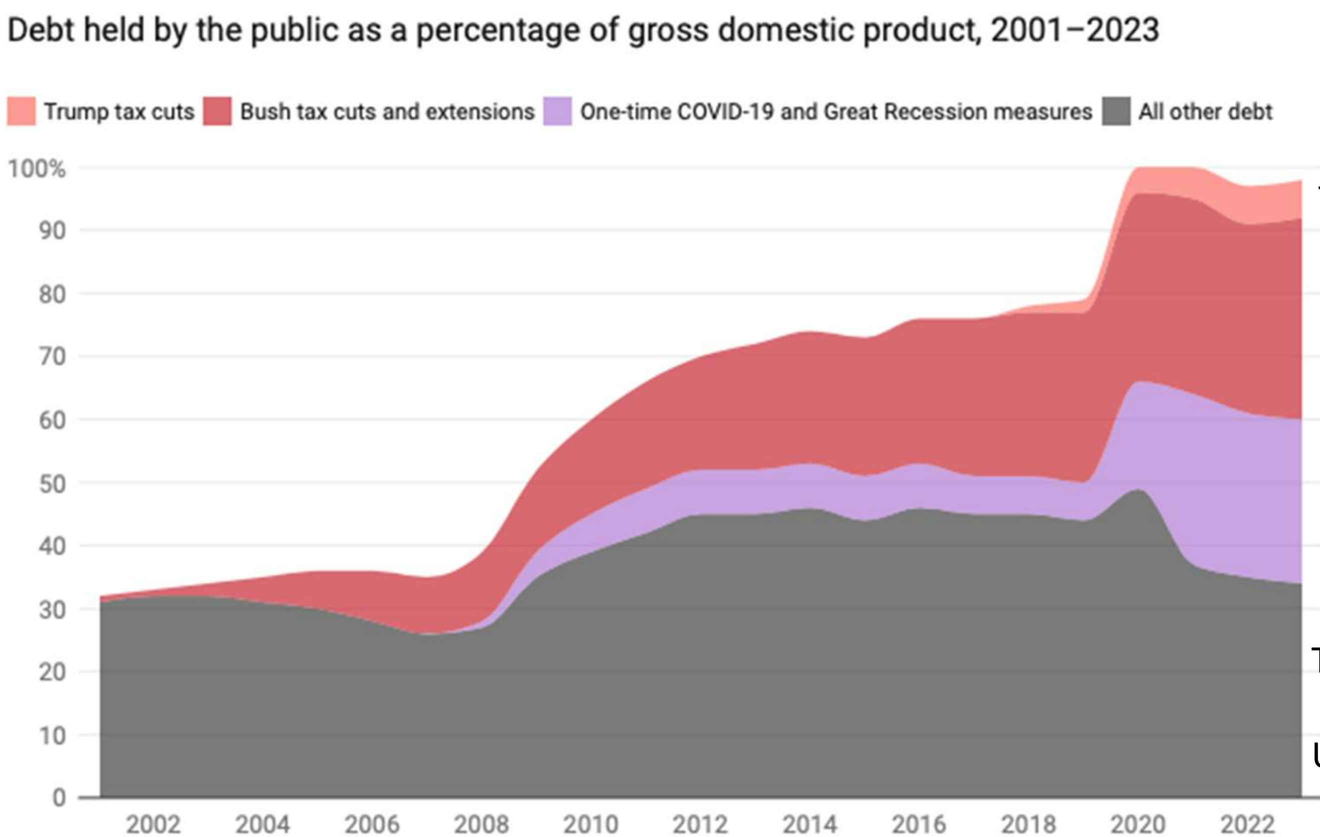
Revenues in billions for calendar year 2023, by source:



Source: KFF analysis of data from the 2024 Annual Report of the Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Trust Funds, Table II.B1, May 2024. • Get the data • Download PNG

KFF

Tax Cuts Have Contributed to Debt Increases



Trump Tax Cuts: 6% of GDP

Bush Tax Cuts: 32% of GDP

Great Recession & COVID: 26% of GDP

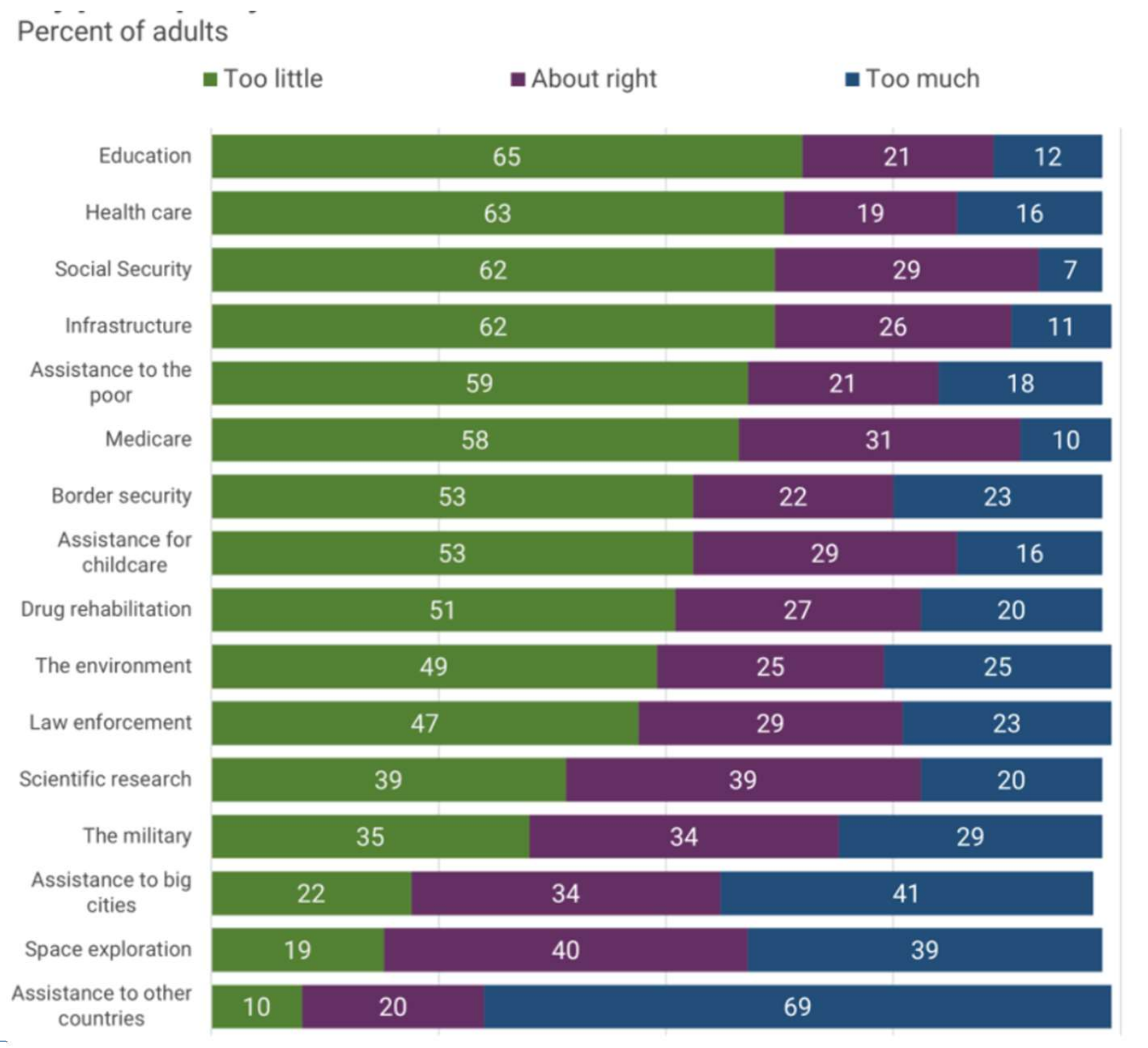
The rest: 34% of GDP

Up from 31% in 2001

Thinking about other spending….

- Do we have a spending problem?
- Are there any programs people think should be cut?

There is very little enthusiasm for cutting anything.



Source, NYTimes, Paul Krugman, “**Why We Should, but Won’t, Reduce the Budget Deficit**”

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Thinking about other spending….

- General opinion is that we don't spend enough on many programs → Not much public support for deficits being a problem of too much spending.

- Of course, no one wants to pay more in taxes either.

- Note: economics doesn't say anything about the right amount of spending or taxes – only that they should both be about the same amount

Three Major Questions:

- What economic effects do deficits have?
- Why is it so hard to reduce the deficit?
- **What could happen if our debt continues to increase?**

Traditional View: Debt not a serious problem

- **Unlike households, the government does not have to repay its debt**
  - Retirees cash in maturing bonds, which are financed with new bonds sold to younger people.
  - Interest on the debt is essentially paid by the young to their parents.
    - When the young are old, their young will do the same for them.

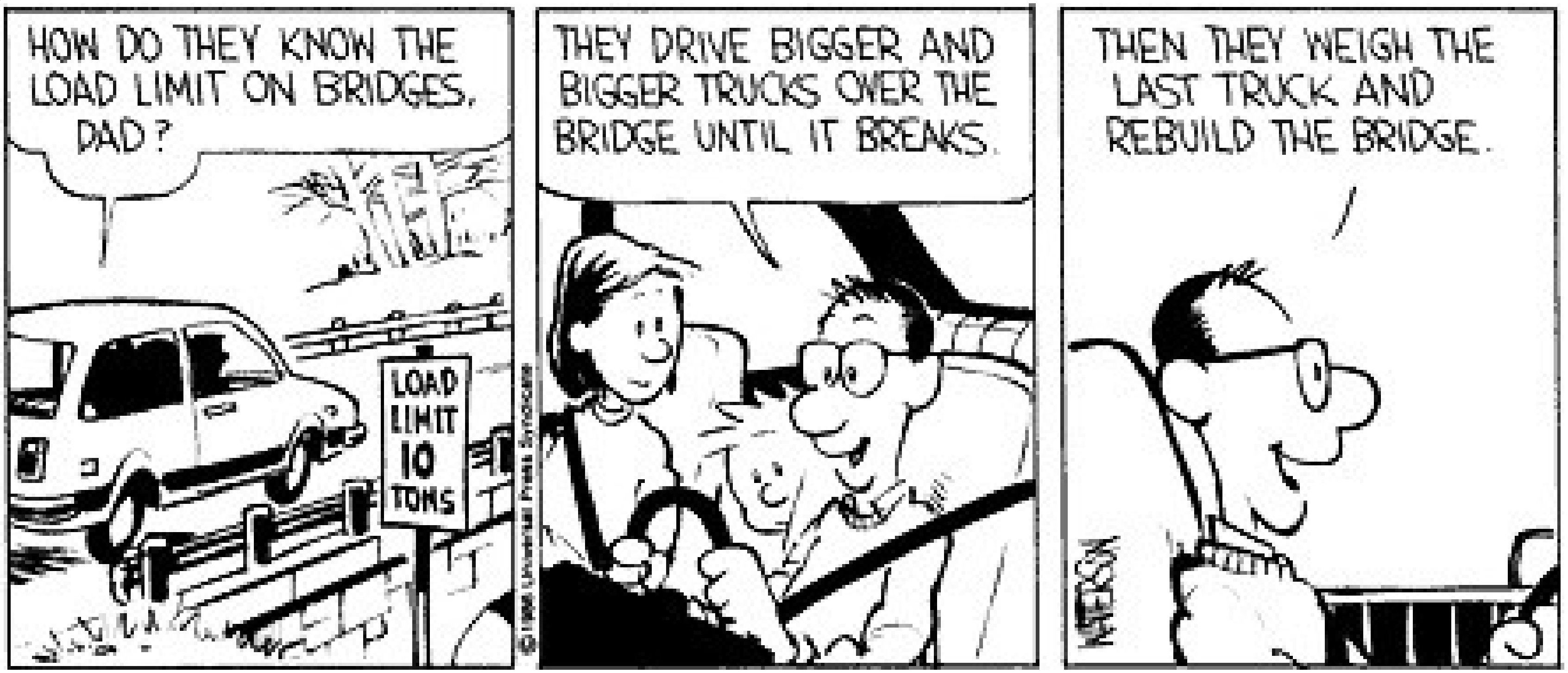
So, Why Worry About It?

- **If debt continues to grow…**
  - Interest payments will grow with it.
    - 13% of spending in 2024.
    - 23% of spending in 2054.
- **Rising interest rates:**
  - average interest rate was 1.9% from 2014 to 2023. The Congressional Budget Office (CBO) projects the average interest rate on public debt will be 3.5% from 2025 to 2054
- **Rising debt reduces budgetary options**
- **30% of interest payments go to people in other countries**

So, Why Worry About it?

- **If debt becomes too high…**
  - Investors might start questioning the creditworthiness of the US government and refuse to continue to lend to it.
    - Problem: Nobody knows how high is too high.

How much is too much?



Trucks = Debt; Bridge = Our Economy

Apologies to Bill Watterson!

So, Why Worry About it?

- **If debt becomes too high…**
  - It becomes more difficult to borrow in times of need.
    - E.g., War, severe recession, pandemic, etc.
    - Certainly, we have less flexibility now than 15 or 20 years ago.
  - Could start to crowd out investment by consumers and businesses.
    - Not currently a problem, but no idea if/when it could become one.
  - Could be inflationary (unlikely)
  - Could give political power to foreign governments (highly unlikely!)

How Does the US Government Borrow?

- **Treasury Department frequently auctions off IOUs**
  - Over $1 trillion every month!!
  - Including Treasury bills, notes, and bonds; Treasury inflation-protected securities (TIPS); Savings bonds (non-tradable)
  - Most of the money is used to pay off maturing bonds
- **Who buys the debt?**
  - Other federal agencies, Individuals and businesses (especially banks), State and local governments, Foreign government and individuals
- **A problem would arise if there were not enough buyers (i.e., lenders) because the government could not repay the maturing bonds**
  - Currently many more buyers than bonds sold; this helps keep interest rates paid on the debt low

What Is a Fiscal Crisis?

- **Caused by: Greatly increased perception of riskiness of government debt leading people to stop buying government bonds.**
  - Government would be unable to repay its maturing debt
- **Potential manifestations:**
  - Sudden and significant increase in interest rates
  - Plunging exchange rates
- **Potential results:**
  - Dramatic budget reforms may be necessary to stave off actual default.
  - Severe recession from dramatic declines in government spending and (because of higher interest rates) investment and consumption
  - Higher interest bill on existing debt

CBO on the Possibility of a Fiscal Crisis

- The United States currently benefits from the dollar's position as the world's reserve currency and
- The federal government borrows in dollars,
- Therefore, a financial crisis—similar to those that befell Argentina, Greece, or Ireland—is much less likely in the United States.
- Although no one can predict whether or when a fiscal crisis might occur or how it would unfold, the risk is almost certainly increased by high and rising debt.
- Crises of confidence, in addition to being unpredictable, happen very quickly. (Credit rating agencies have downgraded US debt in the past, citing concerns about ability and willingness to repay it.)

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Source: CBO – Federal Debt: A Primer, March 2020

The Key: Stabilization of Relative Debt

- Stabilization of relative debt might forestall the consequences of chronic deficits.
- Problem: The US relative debt level is in no way stable!
- Budget surpluses are not necessary, but budget control is.

Stabilizing the Relative Debt

- **Remember:**
  - the denominator of relative debt is GDP
  - the numerator is debt
- **The denominator grows at the rate of growth of GDP.**
- **The numerator grows with:**
  - the *interest rate* on the debt plus (or minus)
  - the effect of the primary deficit (surplus)
- **Notes:**
  - relative debt can fall, even with a deficit, if it causes the debt to grow more slowly than GDP.
  - Relative debt could rise with a surplus if interest rates are high enough.

OK: Relative Debt Cannot Grow Forever, But

- **Does it matter at what level we stabilize relative debt?**
- **Relative debt stops growing:**
  - when the growth of debt is less the growth in GDP (on average).
- **The bigger the relative debt, the smaller the effect of a primary surplus or deficit.**

Other Thoughts on Government Debt

- **In time, interest payments will crowd out other government spending**
- **Many economists think it is reasonable to borrow at low interest rates for investment**
  - For example, for infrastructure
- **A large debt encourages government bias toward higher inflation**
  - Inflation reduces real value of current debt (but not new debt)
- **Eventually will have to dramatically reform the budget, significantly cutting many programs, including most social programs**

How To Address the Debt?

- **The question isn't taxes vs spending cuts.**
- **The question is:**
  - **Who should bear the burden of solving the problem?**
    - Spending cuts will primarily burden lower-income households.
    - Tax increases will primarily burden high-income households.
    - Soc Sec benefit cuts (age limit, actual payments, etc.) will primarily burden current retirees and lower-income households.
    - Doing nothing will increase the cost and push the burden out to younger people/households

There Are Other (Bad/Costly) Solutions

- **Financial repression**
  - Using regulation to force down interest rates.
- **Paying the interest by printing money.**
  - Risks inflation, hyper- or otherwise.
- **Encourage inflation in other ways**
  - Reduces the real value of current debt (but not new debt)
- **Or defaulting on the debt.**
  - This will forever raise the cost of government borrowing.

Bottom Line: We Need to Worry about the Debt

- Interest rates were low for many years, no more!
- A fiscal crisis should be avoided at all costs.
- Stabilizing relative debt would substantially reduce the possibility of a crisis.
- The good news is we can stabilize relative debt without a primary surplus.
- Question is not ***WHETHER*** the US will have to act…

  but ***WHEN***.

Takeways

- Some combination of spending cuts and tax increases should be enacted to stabilize relative deficits
- The particular combination of spending cuts and revenue increases is a political question
- The longer we wait to address the deficit, the harder and more disruptive addressing it will be. Given the fiscal challenges of an aging population and climate change, it is better to do this sooner than later.
- But high debt levels should not deter:
  - Productive infrastructure investment.
  - Fiscal responses to crises.

What is the Debt Ceiling?

- **An amount of debt that the federal government can not exceed without congressional approval.**
- **From the Constitution: only Congress can authorize the borrowing of money on credit of the United States** (Article I, Section 8)**.**
- **During WWI, requests came so fast and furious, that Congress put in place the Debt Ceiling.**
  - Approvals then occurred only periodically.
- **And it continues today.**

5 Things to Know about the Debt Ceiling

1. The debt limit has been raised continually for more than a century.
2. Raising the debt limit is not about new spending; it is about paying for previous choices policymakers legislated.
3. Only one other advanced country—Denmark—has a separate debt limit rule like ours (but theirs isn't binding).
4. The economic consequences of a large-scale, intentional default are unknown, but predictions range from bad to catastrophic.

Souce: https://www.brookings.edu/2023/01/19/7-things-to-know-about-the-debt-limit/

<u>The U.S. Government Needs Your Help!</u>

It is accepting Donations to help pay off the Federal Debt

How do you make a contribution to reduce the debt?

Make your check payable to the Bureau of the Public Debt, and in the memo section, notate that it is a Gift to reduce the Debt Held by the Public. Mail your check to:

Attn: Dept G
Bureau Of the Public Debt
P. O. Box 2188
Parkersburg, WV 26106-2188

Note: *The Bureau of the Public Debt's Office of Public Debt Accounting maintains this FAQ. Keep in mind that these questions may not fit all situations and are only intended as a guideline.*

Thank you!

Any Questions?

www.NEEDEcon.org

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