Osher Lifelong Learning Institute, Fall 2025

The Economics of Public Policy Issues

George Mason University

Host: Geoffrey Woglom, Director
National Economic Education Delegation

Course Schedule

The Economics of Public Policy Issues

- Week 1 (9/23): Economic Update & Central Bank Independence Geoffrey Woglom, Amherst College
- Week 2 (9/30): Climate Change Economics Sarah Jacobson, Williams College
- Week 3 (10/7) AI and Inequality Geoffrey Woglom, Amherst College
- Week 4 (10/14): Economic Mobility Kathryn Wilson, Kent State University
- Week 5 (10/21): Saving Social Security Jon Haveman, Exec Director, NEED
- **Week 6 (10/28): Federal Debt and Deficits Dmitriy Stolyarov, U of Michigan**

Submitting Questions

- Please feel free to submit questions in the chat. I will pause the talk periodically and address questions.
- We will do a verbal Q&A once the material has been presented, and I will try to address the remaining questions then.
- Slides will be available from the NEED website tonight or tomorrow https://needecon.org/delivered_presentations.php.

The US Federal Debt

October 28, 2025

Dmitriy Stolyarov
University of Michigan

Credits and Disclaimer

- **This slide deck was created by:**
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- **This slide deck was reviewed by:**
  - Olivier Blanchard, Brookings Institution
- **Disclaimer**
  - NEED presentations are designed to be nonpartisan.
  - It is, however, inevitable that presenters will be asked for and offer their own views.
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Outline

- **Budget and Deficits**
- **Government Borrowing**
- **Important Points About the Debt**
- **How to Think About the Debt**
- **Summary**

First: A Budget Review

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Glossary

- <u>Revenue</u>: taxes received from individuals and businesses and other government income
- <u>Outlays:</u> expenditures on government programs and interest payments
  - **61%** *Mandatory expenditures are required by existing law (e.g. Social Security, Medicare, unemployment insurance)*
  - ***28%*** *Discretionary expenditures require an appropriations act (e.g. defense, education, funding for federal agencies)*
  - ***11%*** *Interest payments on debt*
- <u>Surplus or Deficit</u>: difference between revenues and outlays
  - *If revenues exceed outlays, we have a surplus*
  - *If outlays exceed revenues, we have a deficit*
- <u>Primary Deficit:</u> difference between expenditures and revenues

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What Does the US Govt. Budget Look Like?

2023 Budget Summary (in billions)

Revenue			Outlays	
Income Taxes	$2,176		Mandatory	$3,747
Payroll Taxes	$1,614		Discretionary	$1,719
Corporate Taxes	$420		Interest	$658
Other	$230			
Total	$4,441		Total	$6,123

Total Deficit: $1,683 Billion

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https://www.cbo.gov/publication/60339

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What Does the US Govt. Budget Look Like?

2023 Budget Summary (as % of GDP)

Revenue			Outlays	
Income Taxes	8.1		Mandatory	13.9
Payroll Taxes	6.0		Discretionary	6.4
Corporate Taxes	1.6		Interest	2.4
Other	0.9			
Total	16.5		Total	22.7

Total Deficit: 6.2

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Mechanics of government borrowing

- **US Department of the Treasury issues bonds (i.e. debt contracts)**
  - ***T-bills*** maturity up to 1 year (a T-bill that pays $1,000 1 year from now costs approximately $960)
  - ***T-notes*** maturity up to 1-10 years
  - ***T-bonds*** maturity more than 10 and up to 30 years
- **Sells bonds via auction, at market interest rates**
  - Proceeds deposited in the Treasury's account at the Federal Reserve

More Detail on borrowing by US Government

- **A multitude of debt contracts**
  - Treasury bills, notes, and bonds
  - TIPS: Treasury inflation-protected securities
  - Savings bonds
- **Who buys the debt?**
  - Other federal agencies
  - Individuals and businesses
  - State and local governments
  - Foreign governments and individuals
  - Federal Reserve (existing debt only)

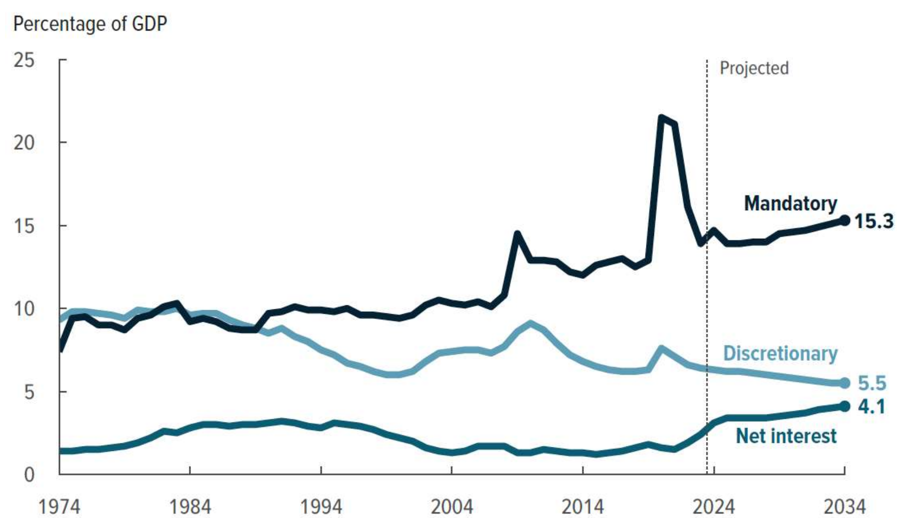
Borrowing discipline

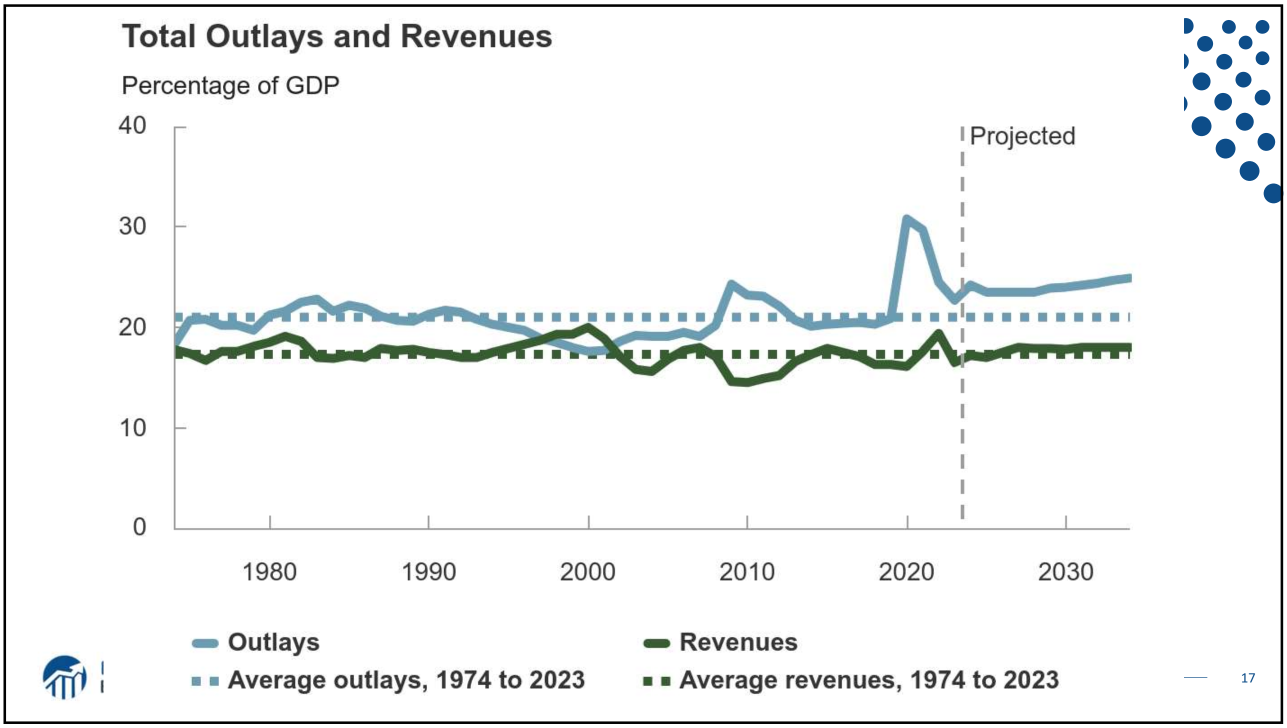
- **Appropriations process**
  - Discretionary spending requires annual approval by Congress
- **Debt ceiling**
  - Legal limit on the total amount of debt the federal government can incur. Congress must pass specific legislation to increase or suspend the limit
- **Market discipline**
  - The interest rate on US debt is set in the free market
  - Interest rates are a gauge of investor confidence in the safety of US debt

Borrowing discipline

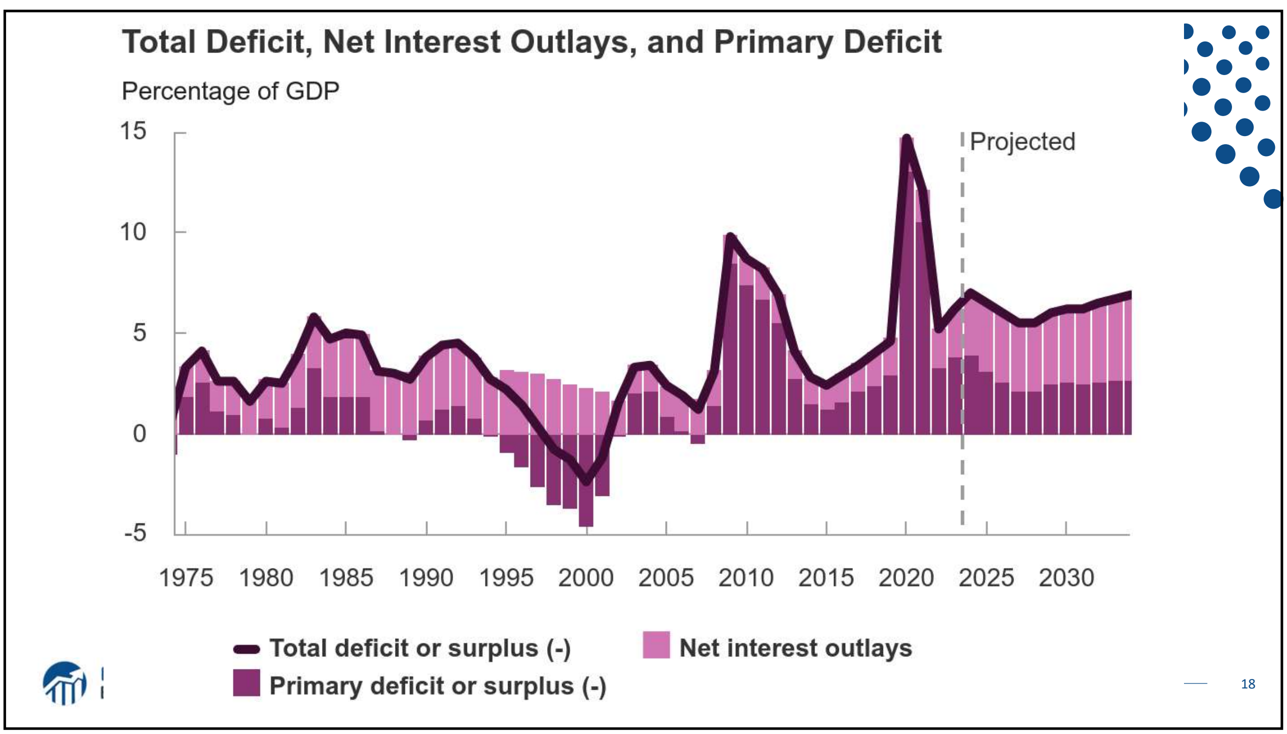
- **Why doesn't the US Treasury sell bonds directly to the Fed?**
  - Selling bonds to the Fed creates money in the government account without removing money from anywhere else
  - This can cause inflation
  - In the US, government borrowing is distinct from "printing money"
- **Principle of separation of monetary and fiscal policy**
  - The Fed independently decides how much existing US debt it holds
  - The Fed buys and sells bonds to regulate the amount of money in the US banking system
  - Federal Reserve independence contributes to financial stability and investor confidence

Deficits have been chronic





Total Outlays and Revenues
Percentage of GDP
40
30
20
10
0
1980
1990
2000
2010
2020
2030
Projected
Outlays
Revenues
Average outlays, 1974 to 2023
Average revenues, 1974 to 2023
17



Total Deficit, Net Interest Outlays, and Primary Deficit
Percentage of GDP
15
10
5
0
-5
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
Projected
Total deficit or surplus (-)
Net interest outlays
Primary deficit or surplus (-)
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Debt accumulation

Government debt equals past accumulated deficits, with interest

$$\boldsymbol{Debt\ next\ year\ =\ Debt\ this\ year\ +\ Total\ deficit}$$

$$\textbf{Debt next year} = \textbf{Debt this year} + \textbf{Interest} + \underbrace{\boxed{\textbf{Expenditures} - \textbf{Revenues}}}_{\text{Primary deficit}}$$

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And Now: The Debt

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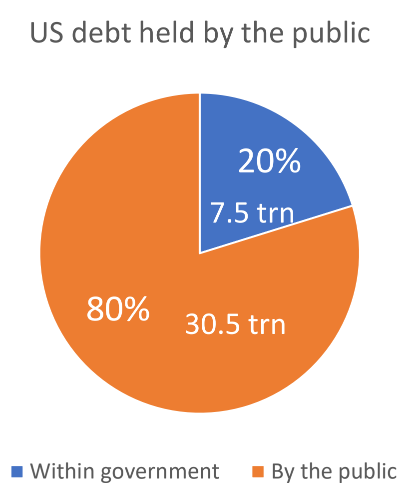
US federal debt as of Oct 24, 2025

$38,009,025,959,457

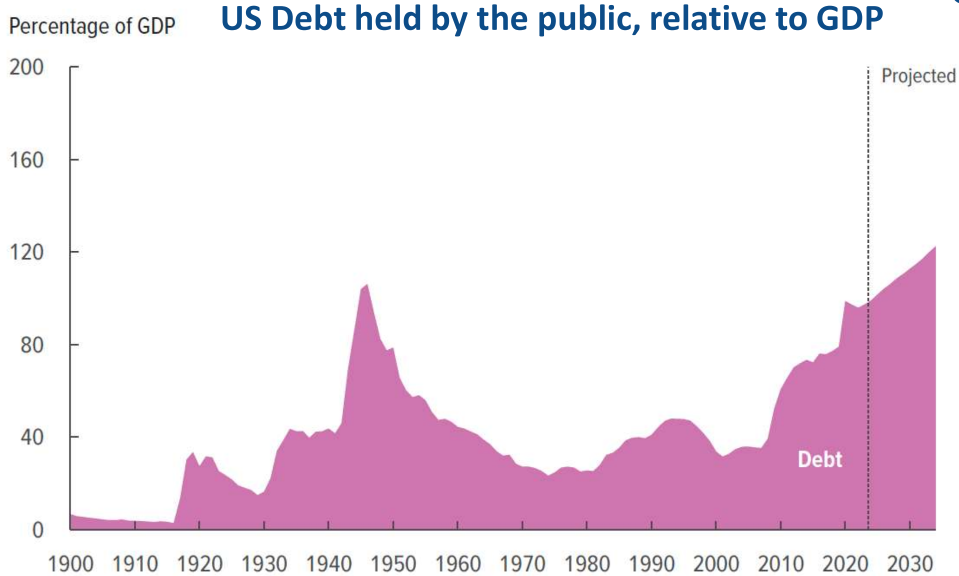
- Total debt over 36 trillion dollars
- This is about 269,000 per full time worker
- Or about 283,000 per US household

Not All Debt Is Created Equal

- **As of 2025, 20% is within-government debt holdings, a form of bookkeeping**
  - This debt **DOES NOT** affect private asset markets
- **80% Debt held by the public**
- **Most analyses of debt focus on federal debt held by the public.**



US Debt held by the public, relative to GDP



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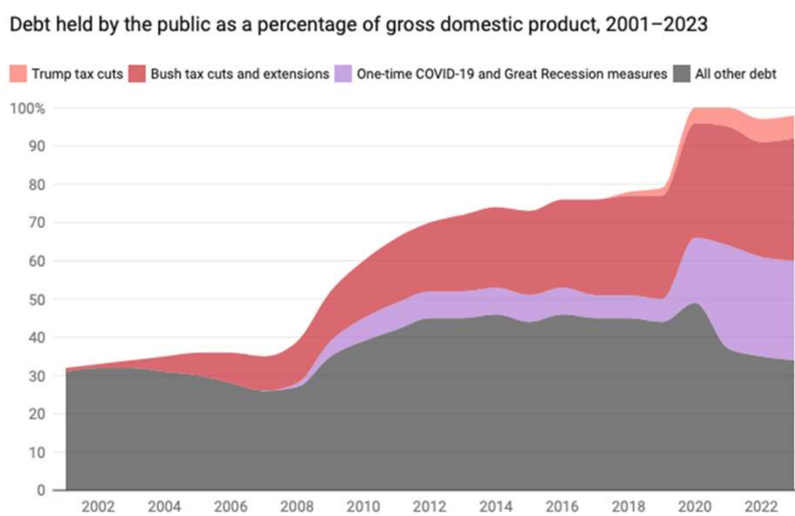
Recent contributors to Debt Increases



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

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Who holds US debt

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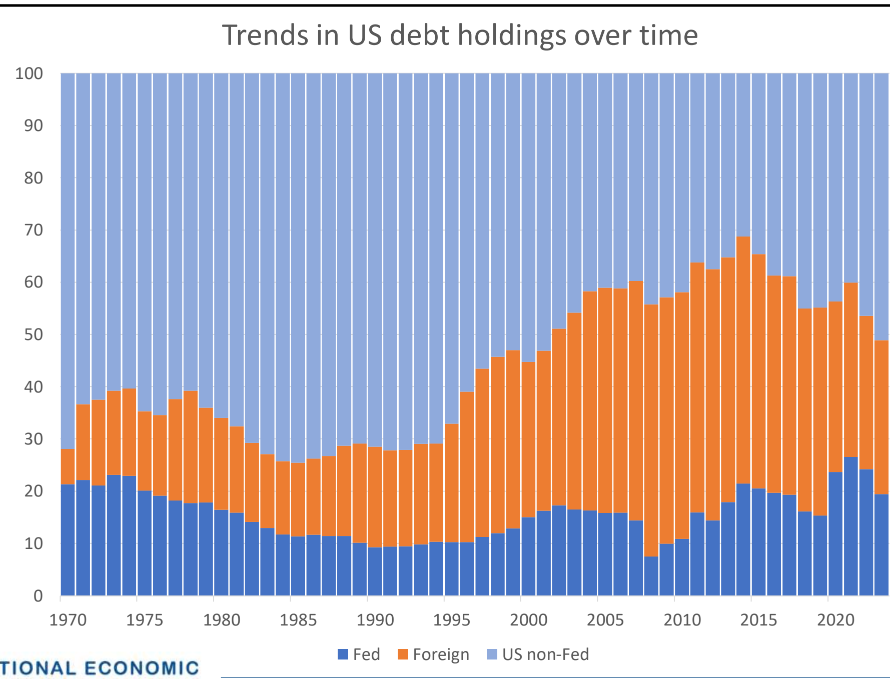

50% domestic private

30% foreign

20% Fed

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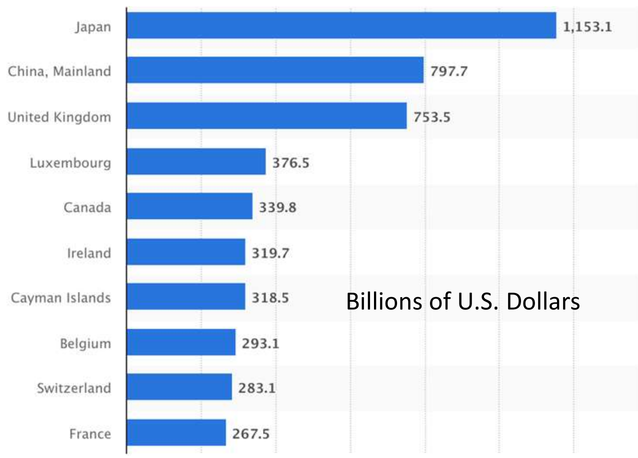
Who Holds Debt to Foreigners, Jan. 2024



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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?

- **Market for Treasuries is the deepest, most liquid capital market in the world.**
- **The US debt is perceived as a safe asset**
- **The dollar is the largest international reserve currency.**
  - Most trade transactions (e.g., oil) are quoted in dollars.
  - 88% of international transactions involve the dollar.
  - With some exceptions, foreign governments borrow in dollars.

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Is the US too deeply in debt?

And why do we care?

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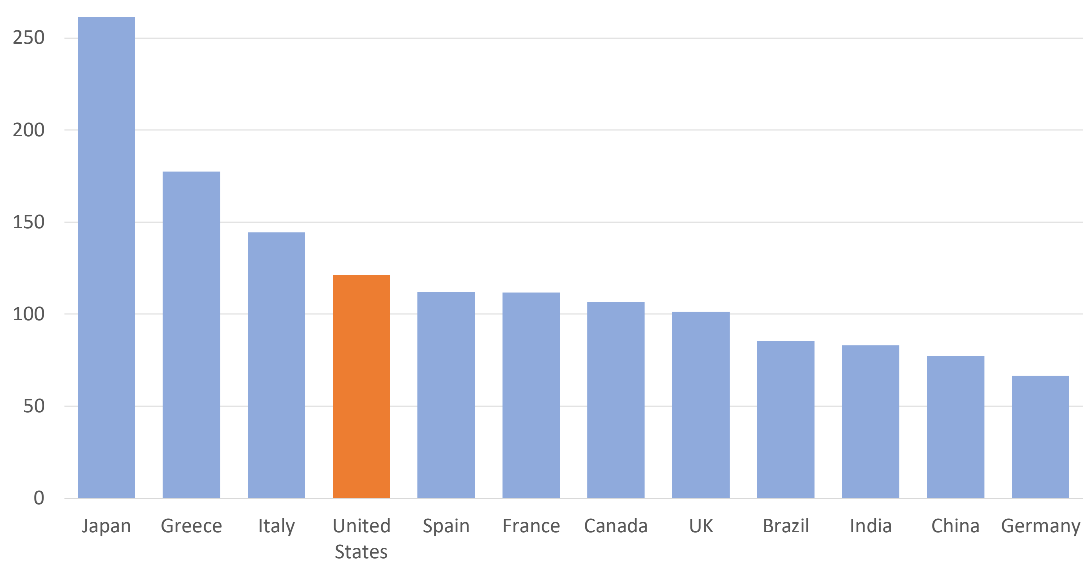
Total Debt-GDP ratios, selected countries



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Growth in Debt Relative to GDP

- **Can be scary to….**
  - International investors
  - Bond markets
- **No one knows when US borrowing will be perceived as too much**
- **Crises of confidence are unpredictable and happen very quickly**
- **If a fiscal crisis happens**
  - Scared international investors will sell US assets, weakening the dollar
  - US debt selloff will make interest rates spike

How can a Fiscal Crisis unfold?

- **Increased perception of risk in government debt.**
- **Potential manifestations:**
  - Spike in interest rates
  - Weak dollar
- **Why?**
  - Shift away from US assets, higher risk of future inflation
- **Potential results:**
  - Dramatic budget reforms may be quickly necessary to control future deficits.
  - Recession from declines in:
    - investment (interest rates)
    - consumption (interest rates)
    - Government spending
  - Higher interest bill on existing debt

Case study: Liz Truss "mini-budget" Sep 2022

Trigger: a tax cut bypassing usual budget scrutiny

Market reaction due to confidence collapse

- The pound plunged to $1.03, its lowest level in history
- Long-term bond rates spiked from 3.5 to 5.1 percent (highest since 2008)
- Pension funds that used bonds as collateral for borrowing risked insolvency

Policy response: BoE emergency intervention

- BoE had to buy about 3 percent of total government debt to prevent a systemic collapse of pension funds and broader financial system.

Aftermath: The "Idiot Premium"

- Government borrowing costs rose by 50-100 basis points
- Debt service costs rose from 4.4 to 4.9 percent of GDP
- Mortgage rates rose from 4.75 to 6.65 percent

Perspectives on Debt

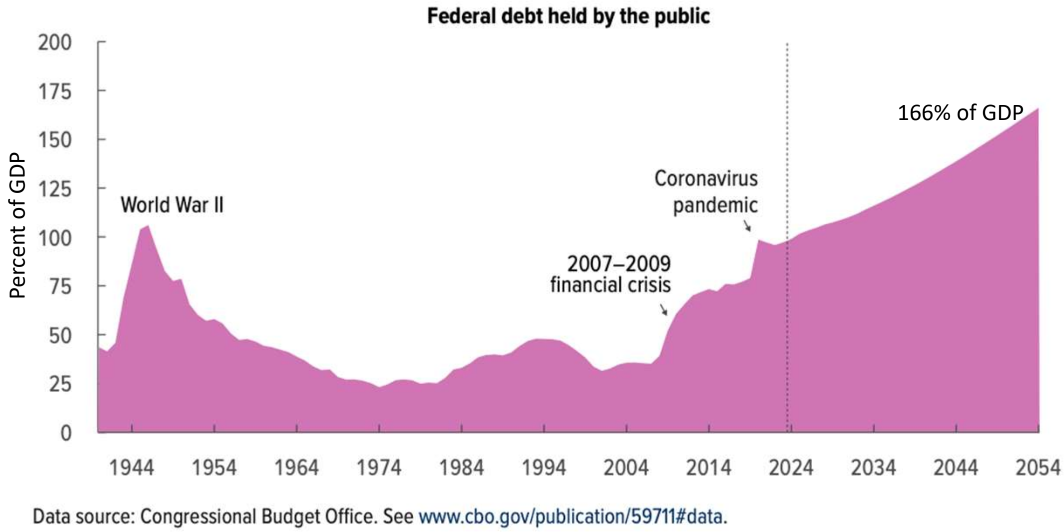
Perspectives on Increased Debt

- **Does debt impose a burden on future generations?**
  - Does it inevitably have to be paid off?
- **Government borrowing crowds out funding for investment.**
  - Less of an issue if foreign investors need safe assets
- **In time, debt service might crowd out other government spending.**
  - Diminishing policy priorities in the budget.
- **Is it reasonable to borrow at low interest rates for investment?**
  - For example, for infrastructure.

Is Stable Debt Relative to GDP Good Enough?

- **Stable means that the debt level rises in step with the size of the economy**
- **Yes, it probably is good enough.**
  - It is a reflection of the economy's ability to support the debt.
  - Stability will avoid bond market scares.
- **Stable relative debt should not be a burden on future generations**

Now Let's Think About Today and the Future



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Why Has the Federal Debt Risen So Much?

- **Expenditures UP:**
  - Social Security, aging
  - Health-care costs, aging
  - Economic stimulus
    - **In particular, during the Great Recession & COVID.**
  - Military engagements overseas

- **Revenues DOWN:**
  - Declining income tax revenues
    - Weaker wage growth
    - **Tax cuts**
  - Social security
    - Weaker wage growth

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Is The Debt a Problem Today?

- Federal government still borrows with little difficulty.
- So, not (yet) a problem. But …
- 10-year interest rates are still moderate, but rising inflation expectations are becoming a concern.
- 10-year US interest rates are higher than those in Canada, Germany, Japan

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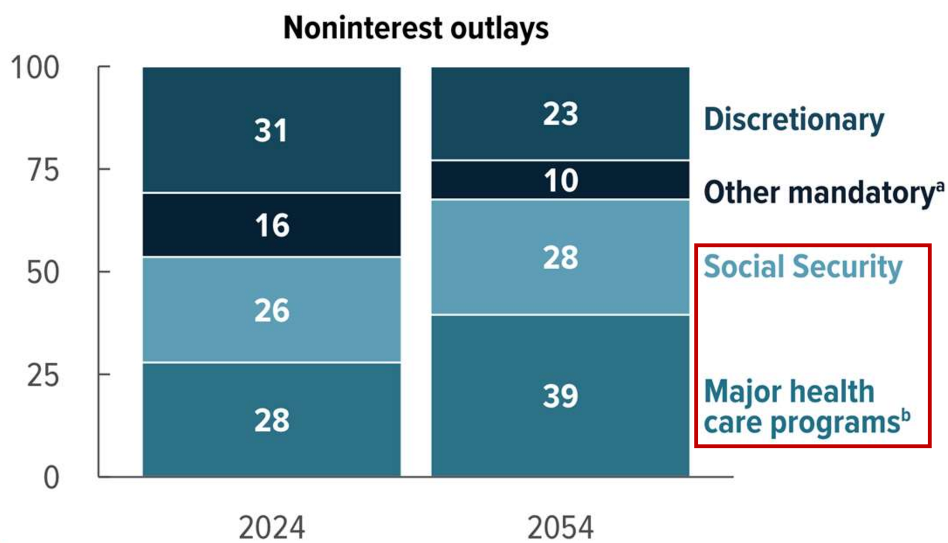
What Are the Primary Drivers Going Forward?



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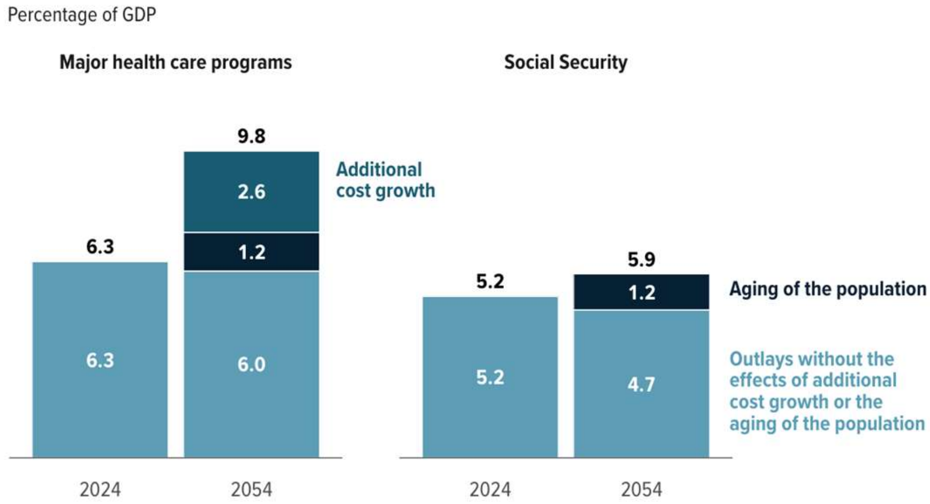
Source: CBO 2024 Long Term Budget Outlook

Mostly Healthcare



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

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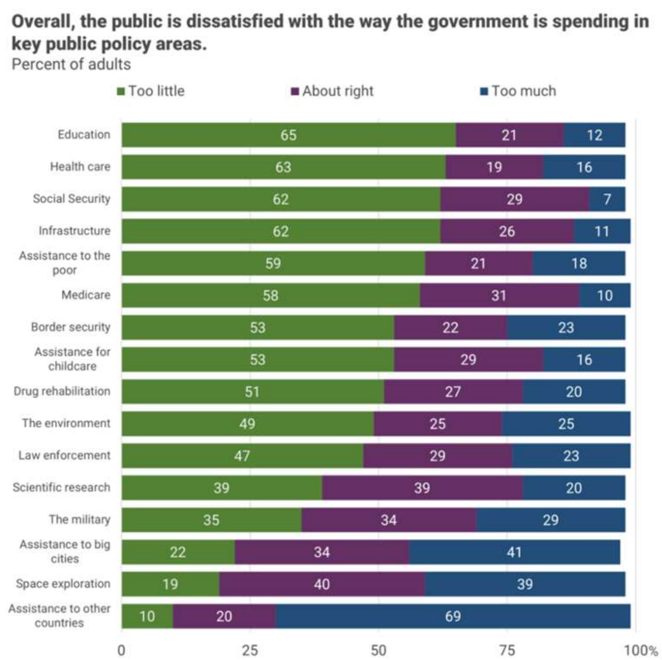
There is very little enthusiasm for cutting anything.



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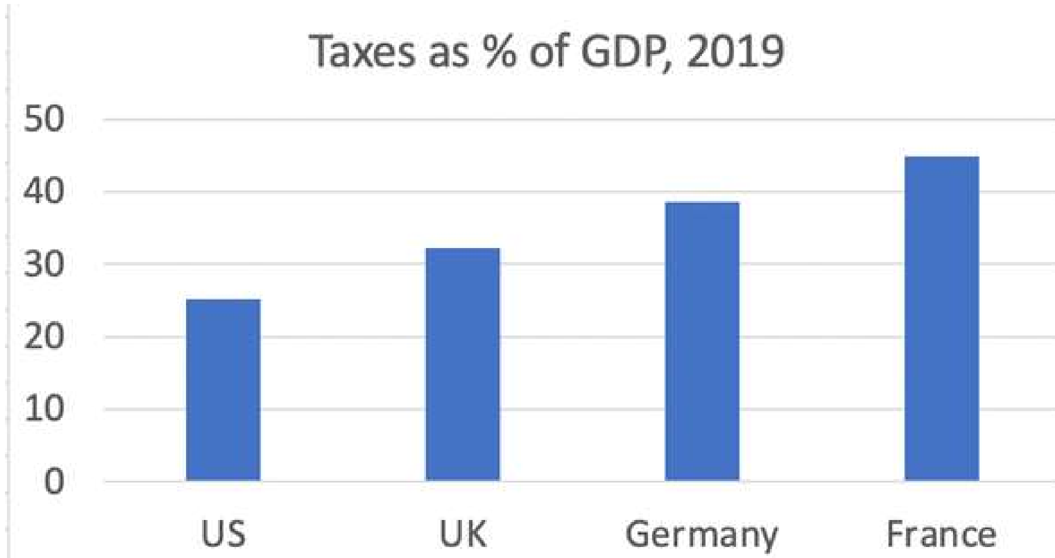
Source, NYTimes, Paul Krugman, "**Why We Should, but Won't, Reduce the Budget Deficit"**



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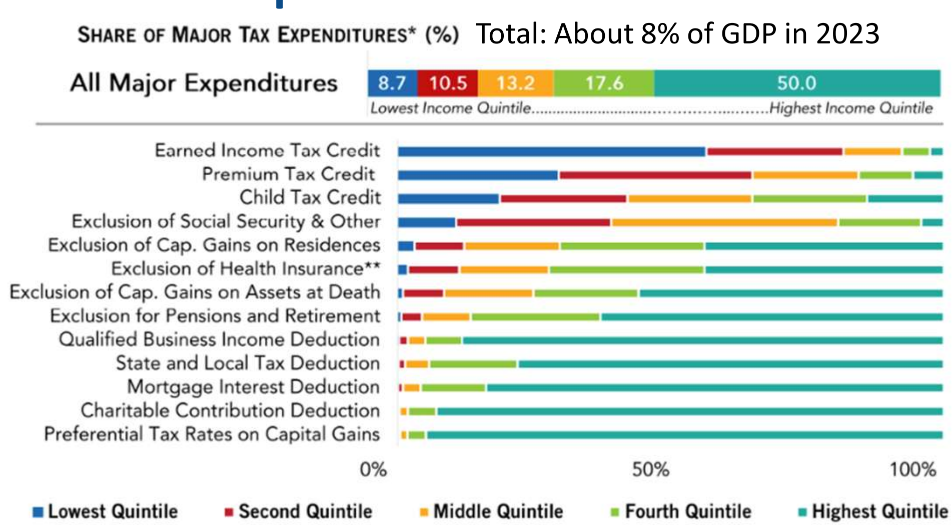
Source, NYTimes, Paul Krugman, **"Why We Should, but Won't, Reduce the Budget Deficit"**

What Are Tax Expenditures?



SOURCE: Congressional Budget Office, *The Distribution of Major Tax Expenditures in 2019*, October 2021.

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Source: https://www.pgpf.org/Chart-Archive/0199_distribution_tax_expenditures

Summary

Major Takeaways

- **The debt is not currently a significant problem.**
- **The current trajectory for the federal debt is unsustainable.**
  - The primary drivers are healthcare cost growth, an aging population, and interest.
- **We must enact plans to reduce the future (primary) deficits.**
  - Deficits are driven by health care and Social Security spending.
- **The longer we postpone action, the greater the probability of a "fiscal crisis."**

Bottom-Line Takeaways

- **Relative debt must be stabilized, so it is imperative to reduce primary deficits.**
- **Given the fiscal challenges of an aging population and climate change, it is better to do this sooner rather than later.**
- **But high debt levels should not deter:**
  - Productive infrastructure investment.
  - Fiscal responses to crises:
    - "When the house is on fire, you don't worry about being in a drought; you just put it out."

Thank you!

Any Questions?

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