



# The US Federal Debt

OLLI – Arizona State University  
January 25, 2024

Jon Haveman, Ph.D.  
NEED




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## National Economic Education Delegation

- **Vision**
  - One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.
- **Mission**
  - NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.
- **NEED Presentations**
  - Are **nonpartisan** and intended to reflect the consensus of the economics profession.



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# Who Are We?

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- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
  - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
  - o Akerlof, Smith, Maskin

## • Delegates: 652+ members

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

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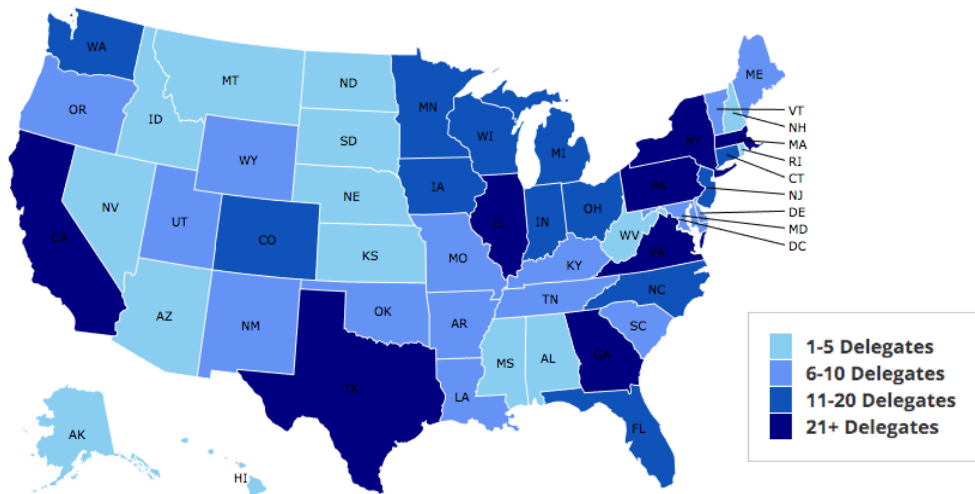
- Aid in slide deck development



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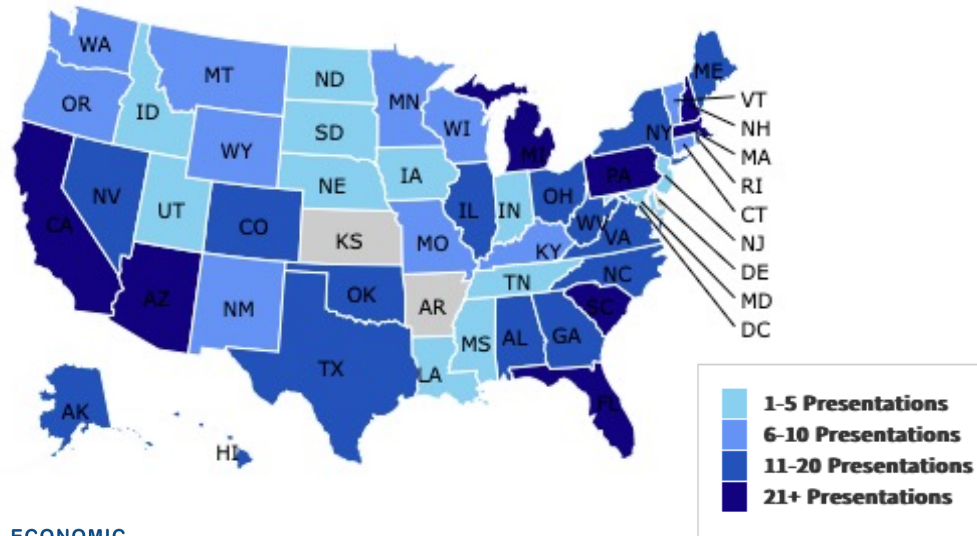
# Where Are We?



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## Where Have We Presented? (1,102 Talks)



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## Available NEED Topics Include:

- US Economy
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- Minimum Wages
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- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- Healthcare Economics

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  - Geoffrey Woglom, Amherst College, Emeritus
- **This slide deck was reviewed by:**
  - Olivier Blanchard, Brookings Institution
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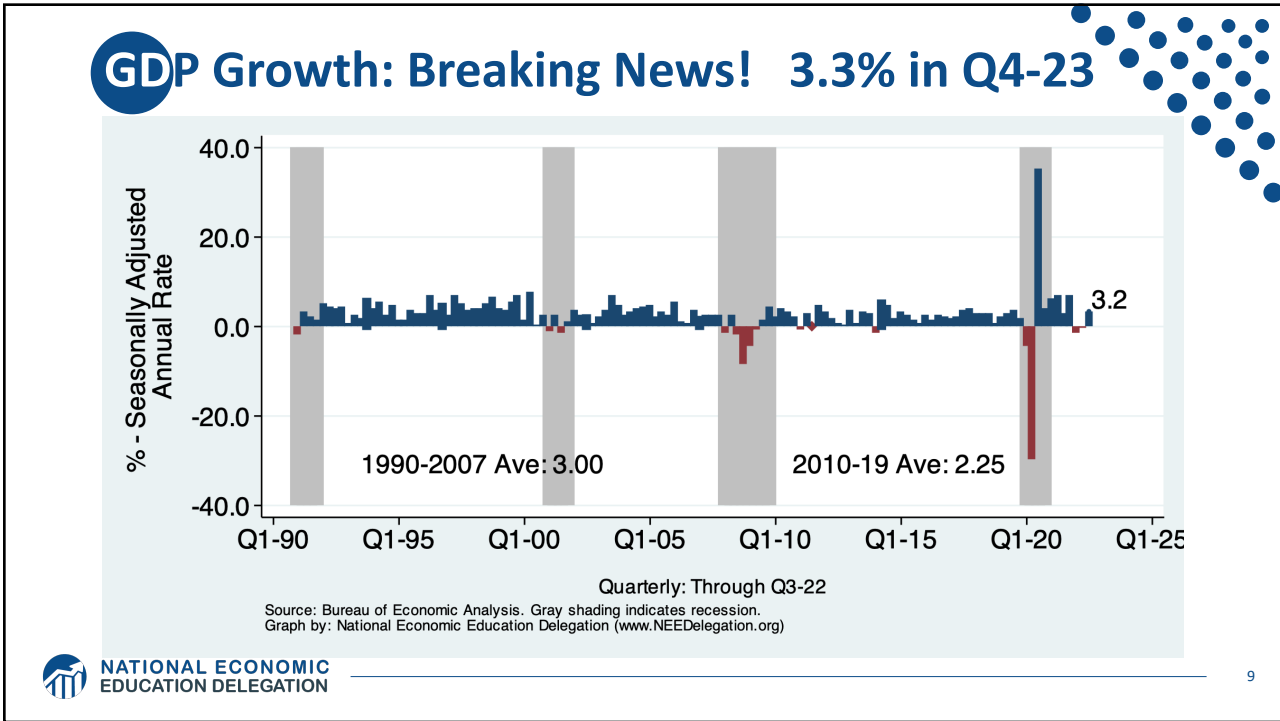
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## Outline

- **First: A Budget Review**
- **And Now: The Debt**
- **Important Points About the Debt**
- **How to Think About the Debt**
- **Summary**



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# First: A Budget Review

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# What Does the US Govt. Budget Look Like?

## 2022 Budget Summary (in billions)

Revenue		Outlays	
Income Taxes	\$2,632	Mandatory	\$4,134
Payroll Taxes	\$1,484	Discretionary	\$1,661
Corporate Taxes	\$425	Interest	\$475
Other	\$356		
<b>Total</b>	<b>\$4,897</b>	<b>Total</b>	<b>\$6,270</b>

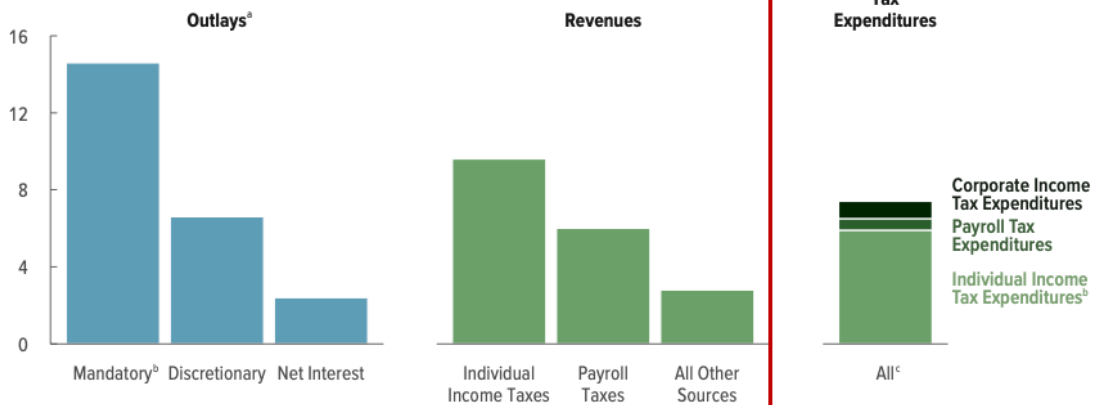
**Budget Deficit \$1,373 Billion**

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# But There is More to The Budget!

## Estimated Outlays, Revenues, and Tax Expenditures in 2023

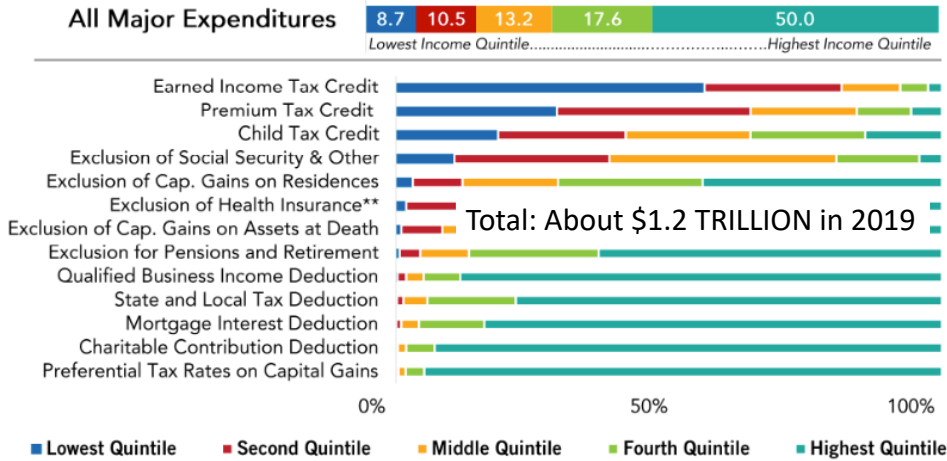
Percentage of GDP



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# What Are Tax Expenditures?

SHARE OF MAJOR TAX EXPENDITURES\* (%)



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



Source: [https://www.pgpf.org/Chart-Archive/0199\\_distribution\\_tax\\_expenditures](https://www.pgpf.org/Chart-Archive/0199_distribution_tax_expenditures)

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# And Now: The Debt



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## WHAT IS THE NATIONAL DEBT TODAY?

\$34,077,158,502,181



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## Of Debt, Deficits, and Surpluses

### • FLOW

- *Deficit*: The excess of outlays over revenues in a year.
- *Surplus*: The excess of revenues over outlays in a year.

### • STOCK

- *Debt*: The accumulation of debt over time.
  - The sum of all past deficits and surpluses.

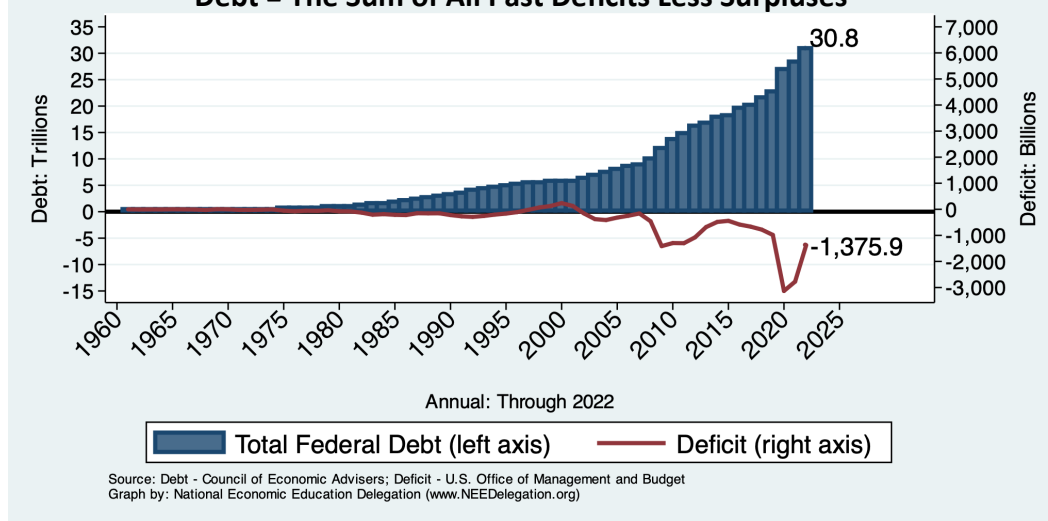


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## Debt vs. Deficit

Debt = The Sum of All Past Deficits Less Surpluses



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## Major Takeaways: Talking Points

- The debt is not currently a significant problem.
- The current trajectory of federal debt is unsustainable.
- ~~Given the historically low interest rates, we can afford to wait until after the crisis to act.~~
- We must enact plans to reduce the future (primary) deficits.
  - These are driven by Medicare and Social Security spending.
- The longer we postpone action, the greater the probability of a “fiscal crisis.”



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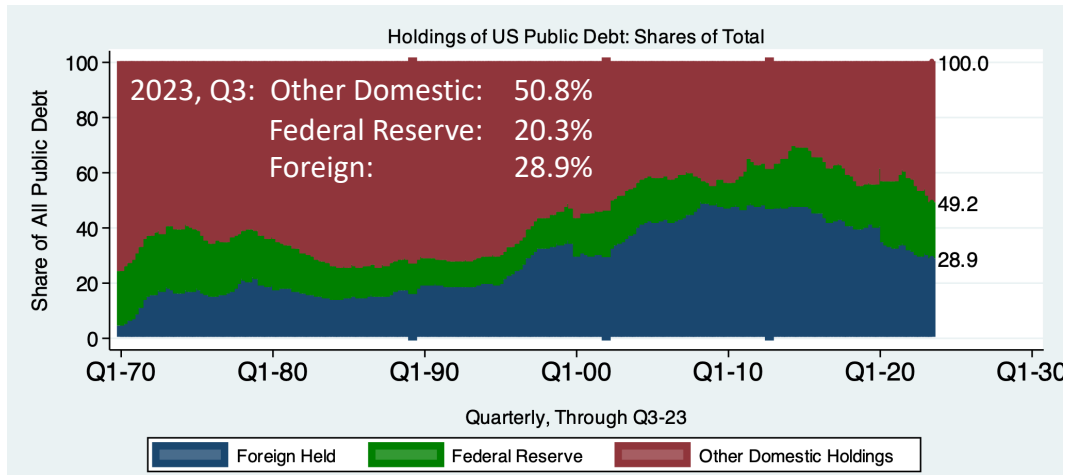
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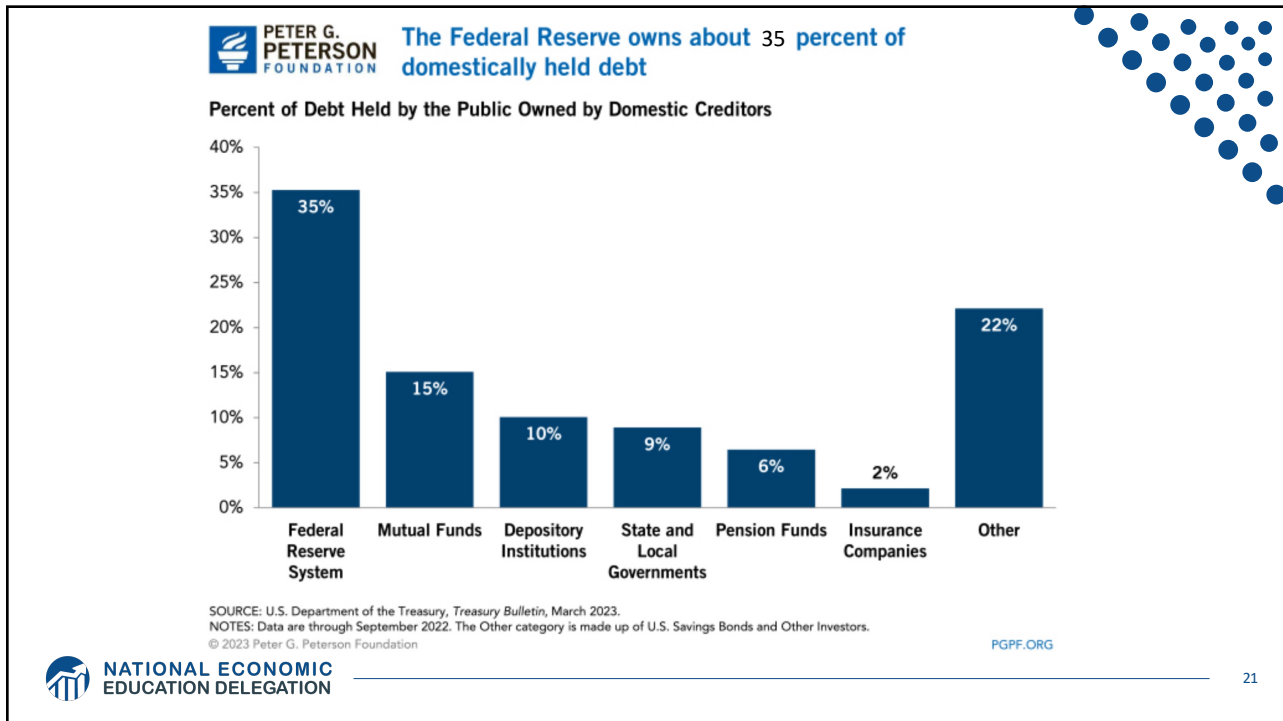
# How Does the US Government Borrow?

- **It issues debt.**
  - Treasury marketable securities:
    - 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 government and individuals
  - Federal Reserve

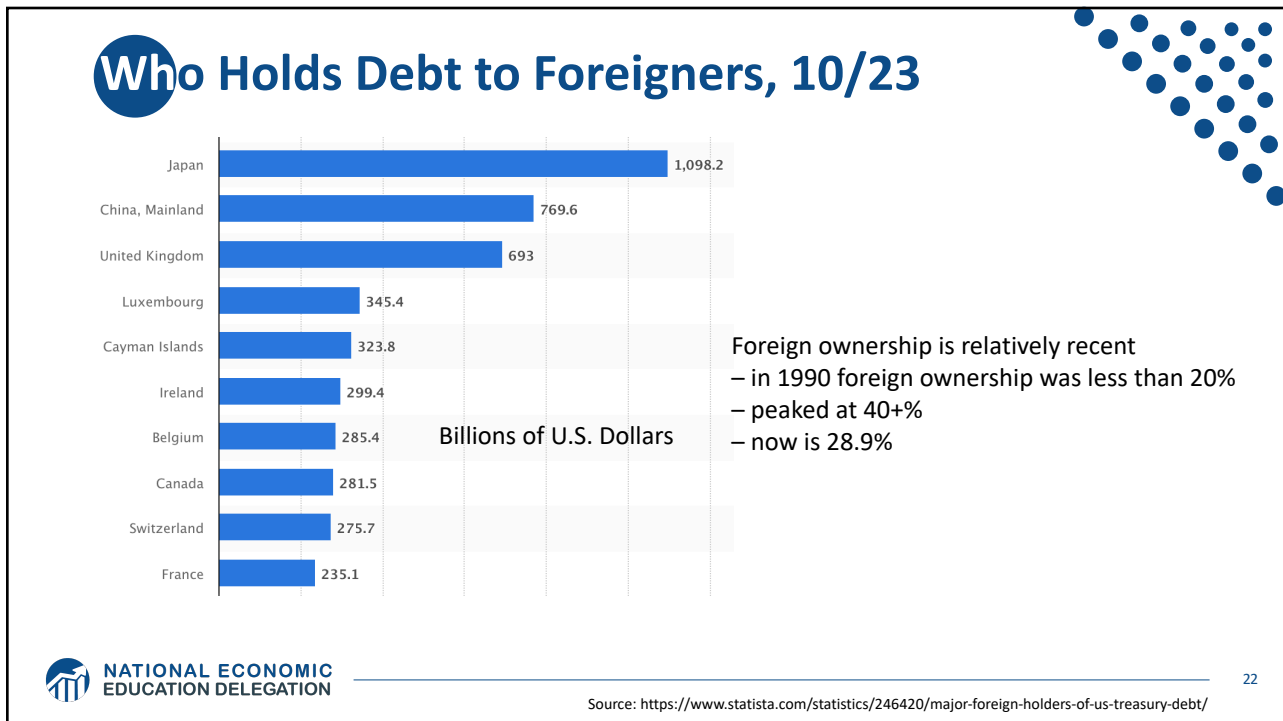
# Trends in US Debt Holdings Over Time



Source: NBER and US Office of Management and Budget.  
Graph by: National Economic Education Delegation (www.NEEDelegation.org)



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## Why Do Foreign Investors Buy US Treasuries?

- **Market for Treasuries is the deepest, most liquid capital market in the world.**
- **The US economy has a history of political and economic stability.**
- **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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## Important Points:

- Not all debt is created equal.
- What is the right measure of the debt?



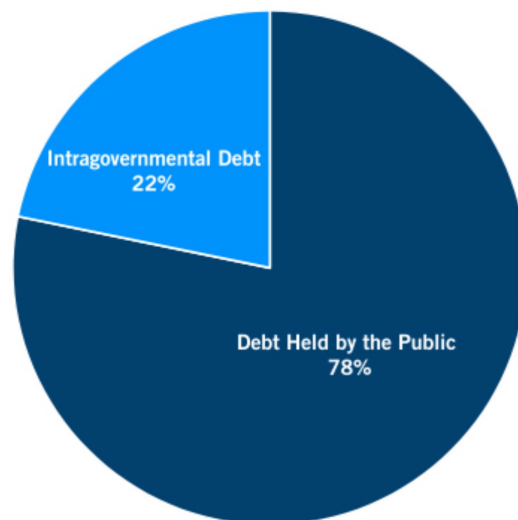
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## Not All Debt Is Created Equal

- **Some debt can reduce the availability of investment funds to other borrowers.**
  - Often referred to as “crowding out” private investment.
- **IntRAgovernmental debt is (important) bookkeeping.**
  - This debt **DOES NOT** crowd out private investment.
- **Debt held by the public.**
  - This debt **MIGHT** crowd out private investment.
- **Most analyses of debt focus on federal debt held by the public.**

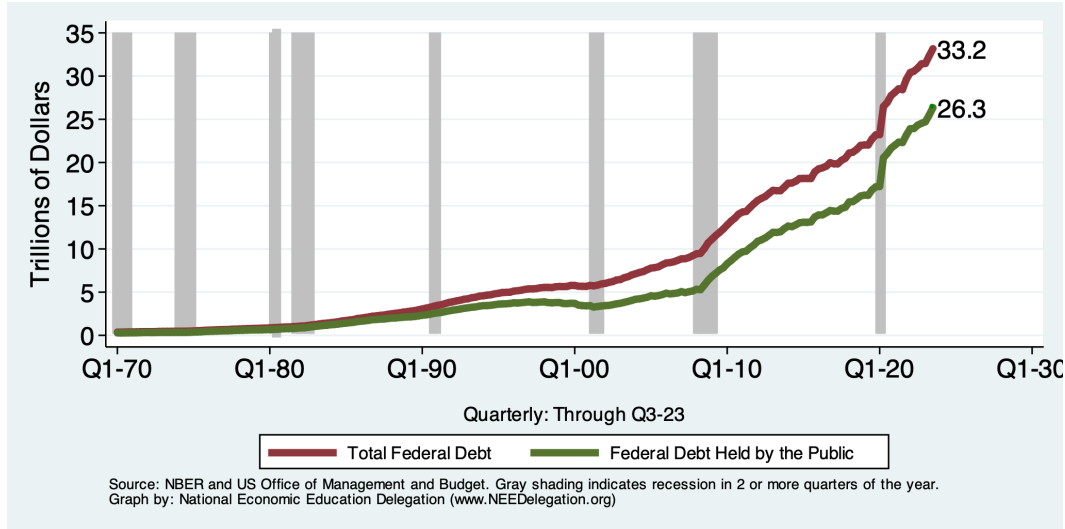
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## U.S. Publicly Held Debt, December 31, 2022



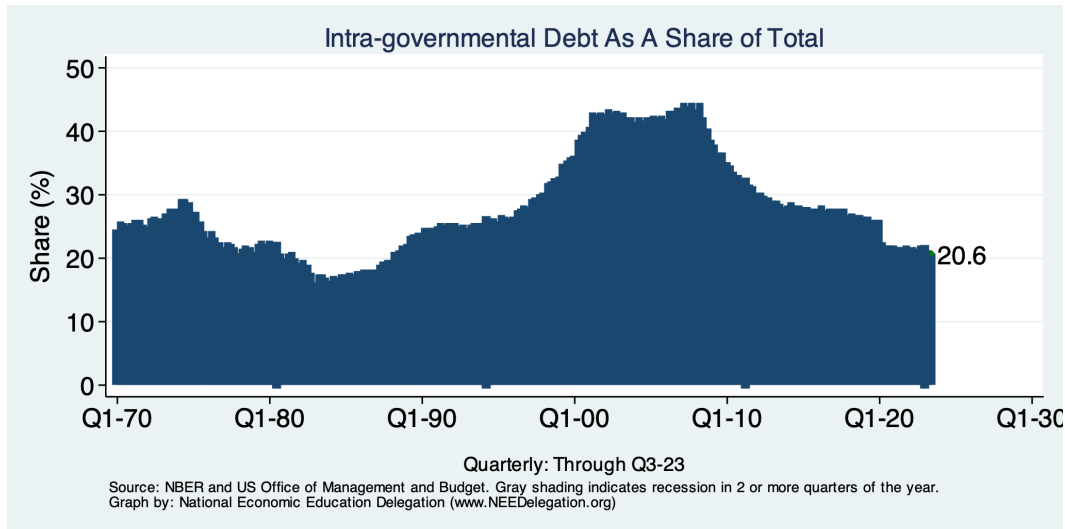
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## Two Measures of the Debt



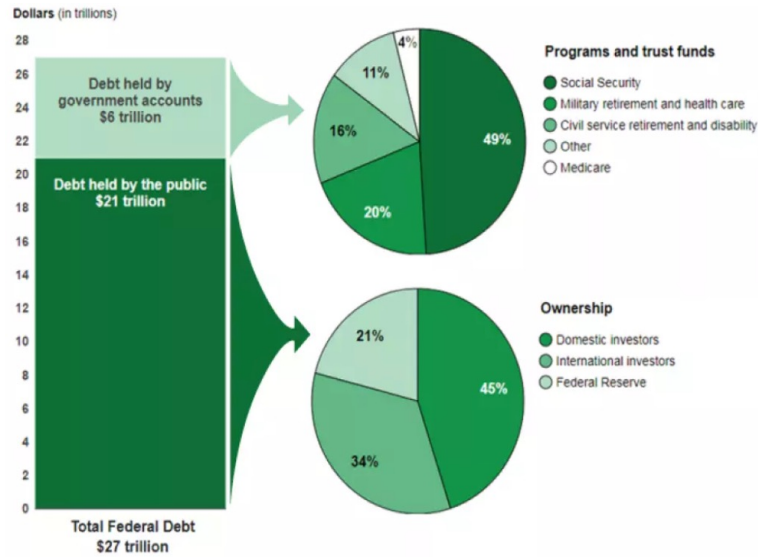
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## Trends in Intragovernmental Debt



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## A Breakdown of Total Federal Debt, 2020



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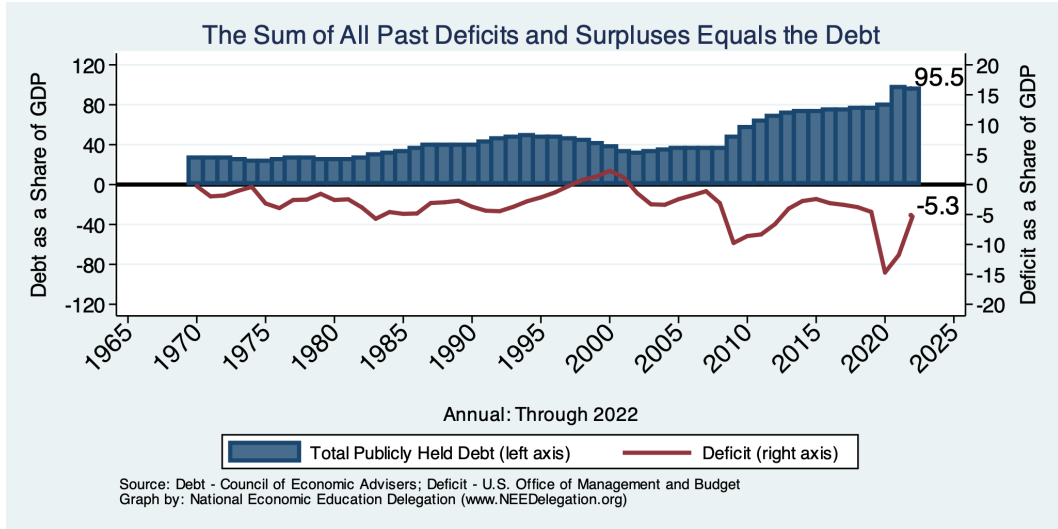
## The All-Important *Relative Debt*

- CBO analyzes 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	\$26.3 Trillion	95.4%
Greece	\$0.215 Trillion	170%

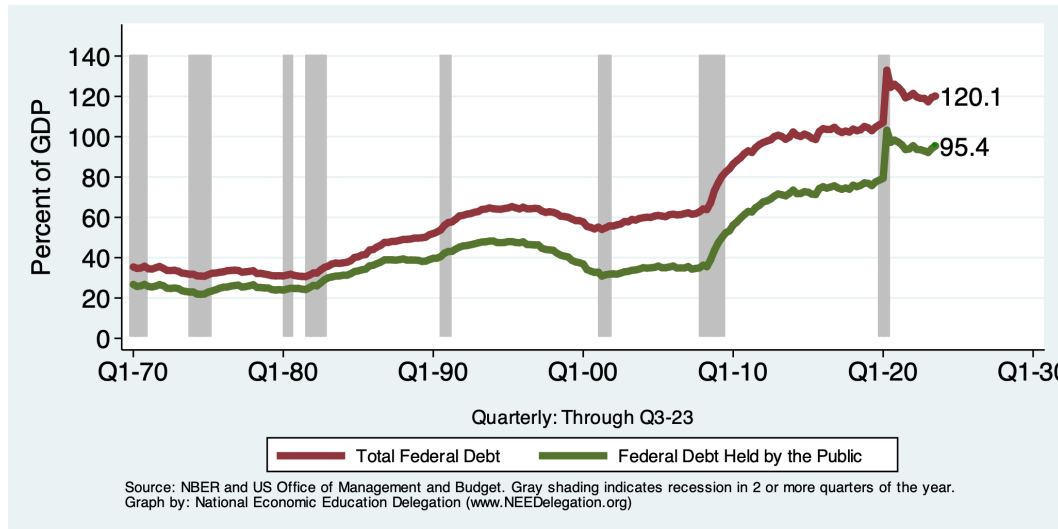
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## Relative Debt and Deficit



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## Two Measures of RELATIVE Debt



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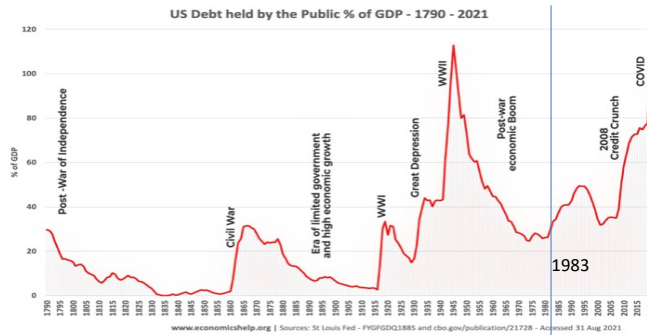


## Two Measures of the Deficit

- (1) PRIMARY deficit = current programmatic outlays – revenues
- (2) TOTAL deficit = primary deficit + interest
- Interest on the debt is
  - The part of the total deficit that is due to past deficits.
- This distinction becomes important for understanding:
  - The future course of relative debt.
  - The costs borne by future generations because of the debt.

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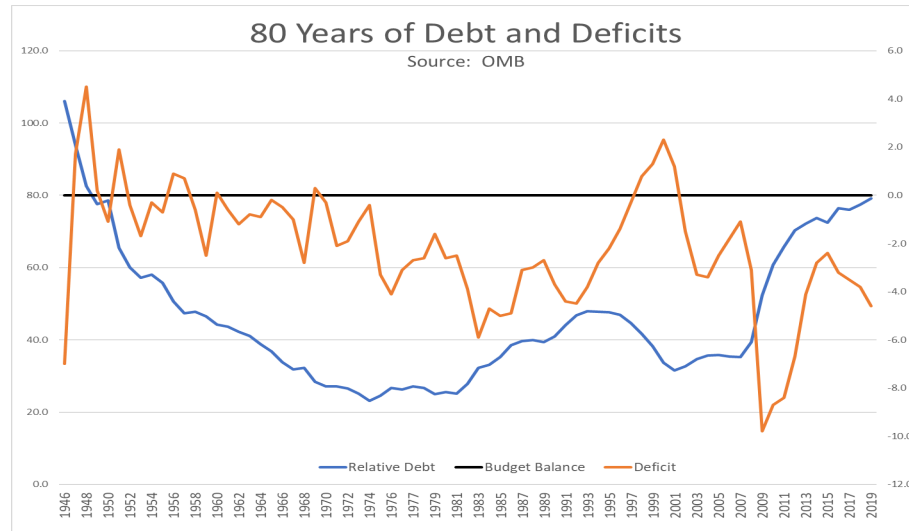
## Key Points About US Relative Debt



1. Relative debt peaked during World War II, followed by a long decline.
2. Prior to 1983, relative debt rose purposefully (wars and recessions) and then fell.
3. Relative debt has been and is expected to rise for the next 30 years w/o a strategic purpose.

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## The Post-WWII Fall in Relative Debt



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## Debt Dynamics

### • Surprising (?) Facts

- From 1945 to 1979, relative debt fell from 100% of GDP to 25% of GDP.
- During this period, the federal budget was in surplus only 8/35 years!

### • Relative debt is a fraction: $\text{Debt}/\text{GDP}$ ; fractions fall if:

- The *numerator* falls (budget surplus)
- The *denominator* rises (nominal GDP growth)
- The *denominator* grows faster than the *numerator*
  - o *GDP growth is greater than the interest rate on borrowing.*
  - o *CAN still run deficits and reduce the relative debt.*

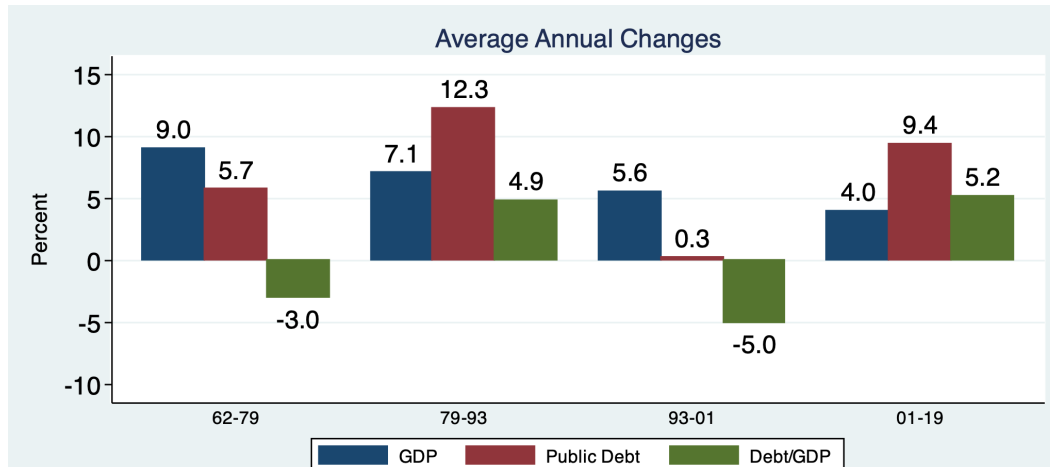
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## An Almost Free Lunch

- If the interest rate is *less* than the growth rate of GDP, then the contribution from the primary budget can be positive, hence...
- Debt to GDP can be stabilized with a (small) primary *deficit*.

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## The Arithmetic of Changes in Relative Debt



Source: Council of Economic Advisers and BEA  
Graph by: National Economic Education Delegation ([www.NEEDelegation.org](http://www.NEEDelegation.org))

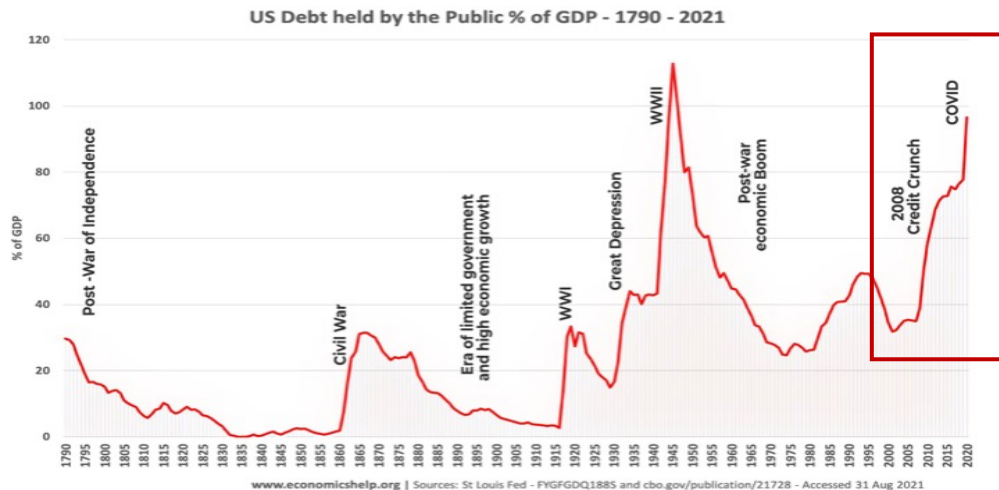
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## Is Stabilizing Relative Debt Good Enough?

- This means that the absolute level of the debt would continue to increase.
- **Yes, it is probably good enough.**
  - It is a reflection of the economy's ability to support the debt.
  - Stability will avoid bond market scares.
- **More on this later.**

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## But Let's Think About Today



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# Why Has the Federal Debt Risen So Much?

## • Expenditures UP:

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

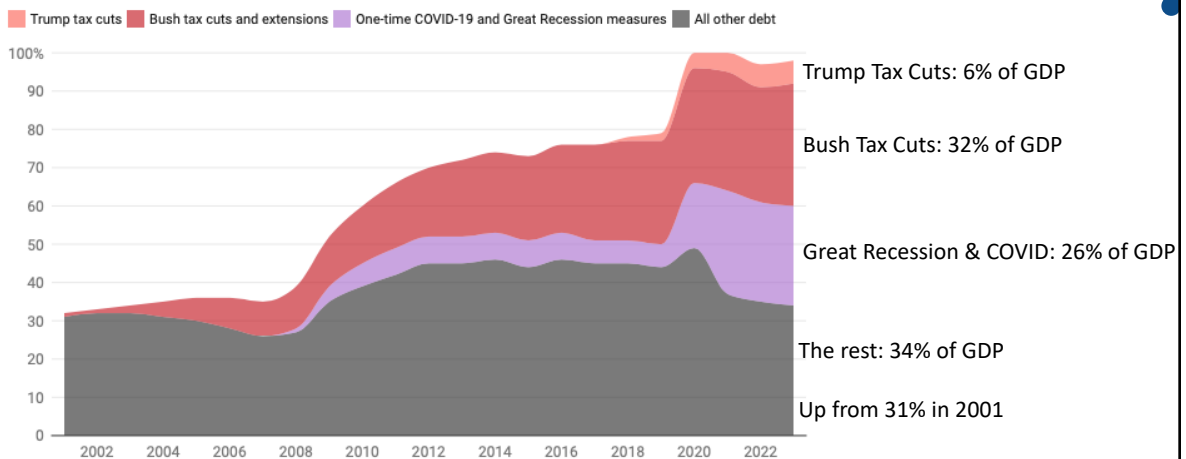
## • Revenues DOWN:

- Declining income tax revenues
  - o Stagnant wages
  - o **Tax cuts**
- Social security
  - o Declining revenues

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# Tax Cuts Have Driven The Debt Increases

Debt held by the public as a percentage of gross domestic product, 2001–2023



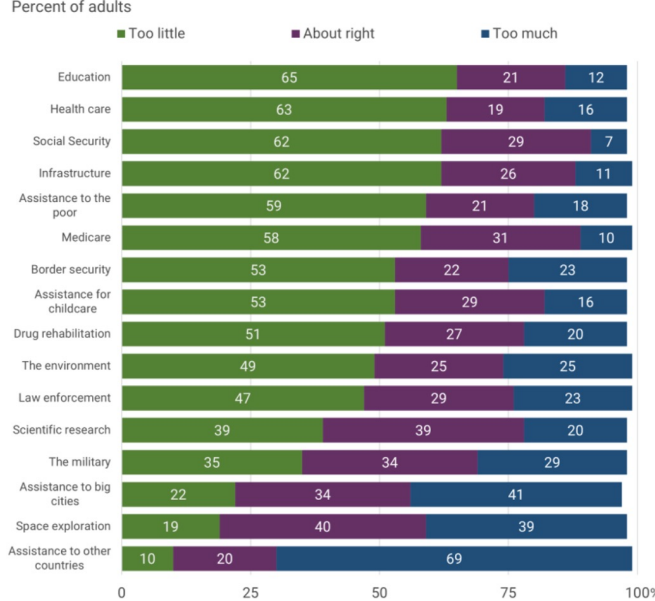
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# Thinking About Today....

- Do we have:
  - A spending problem?
  - A revenue problem?
  - Both?

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**Overall, the public is dissatisfied with the way the government is spending in key public policy areas.**



There is very little enthusiasm for cutting anything.

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## Thinking About Today....

- **Do we have:**
  - A spending problem?
  - A revenue problem?
  - Both?
  
- **Not much support for it being a spending problem.**



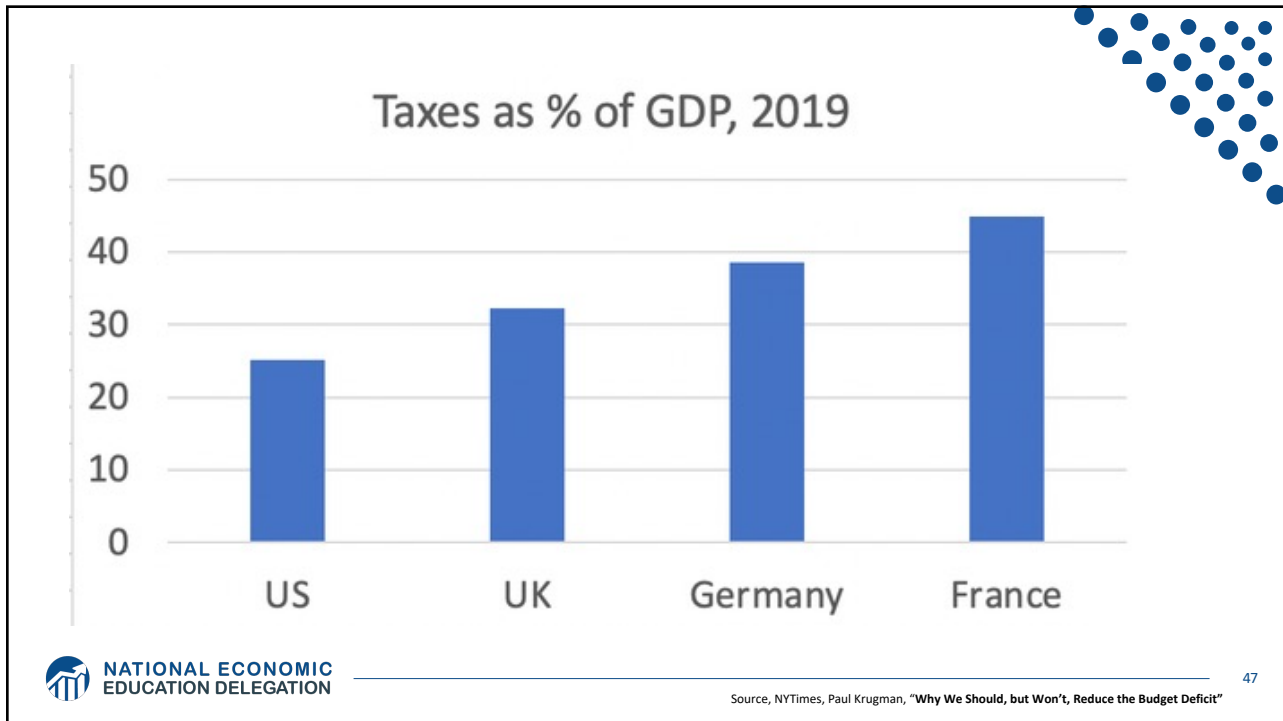
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## How To Address the Debt?

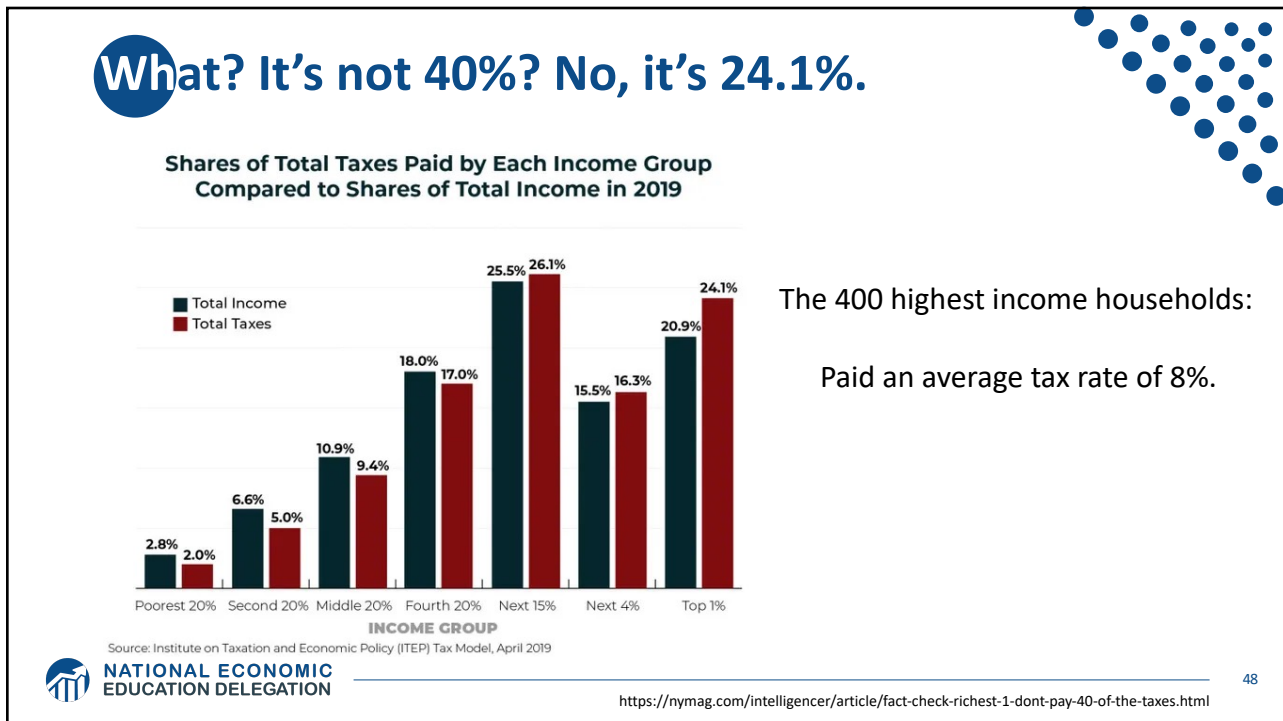
- **The question isn't taxes vs spending cuts.**
- **The question is:**
  - **Who should bear the burden of solving the problem?**
    - Spending cuts will mean primarily lower-income households.
    - Tax increases will mean primarily high-income households.
    - Soc Sec benefit cuts (age limit, actual payments, etc.) will mean primarily lower-income households.



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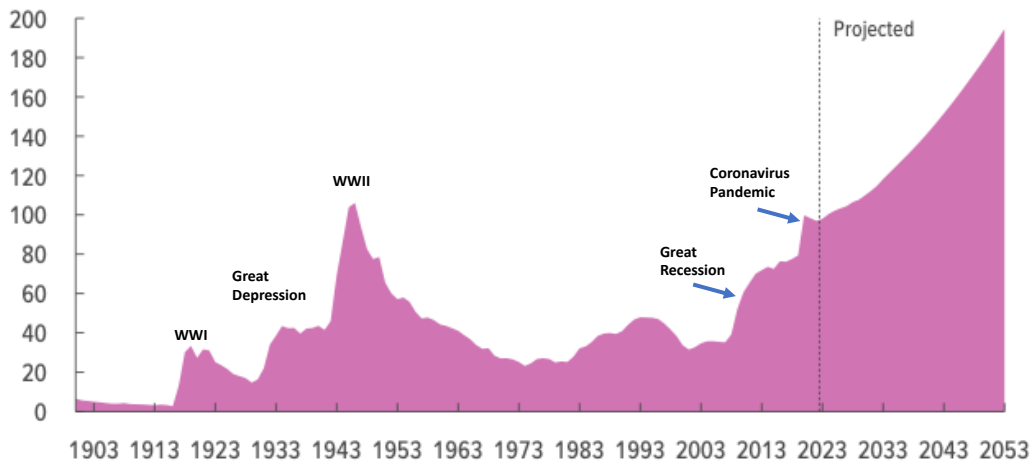


# Can't Stop...Thinking About Tomorrow

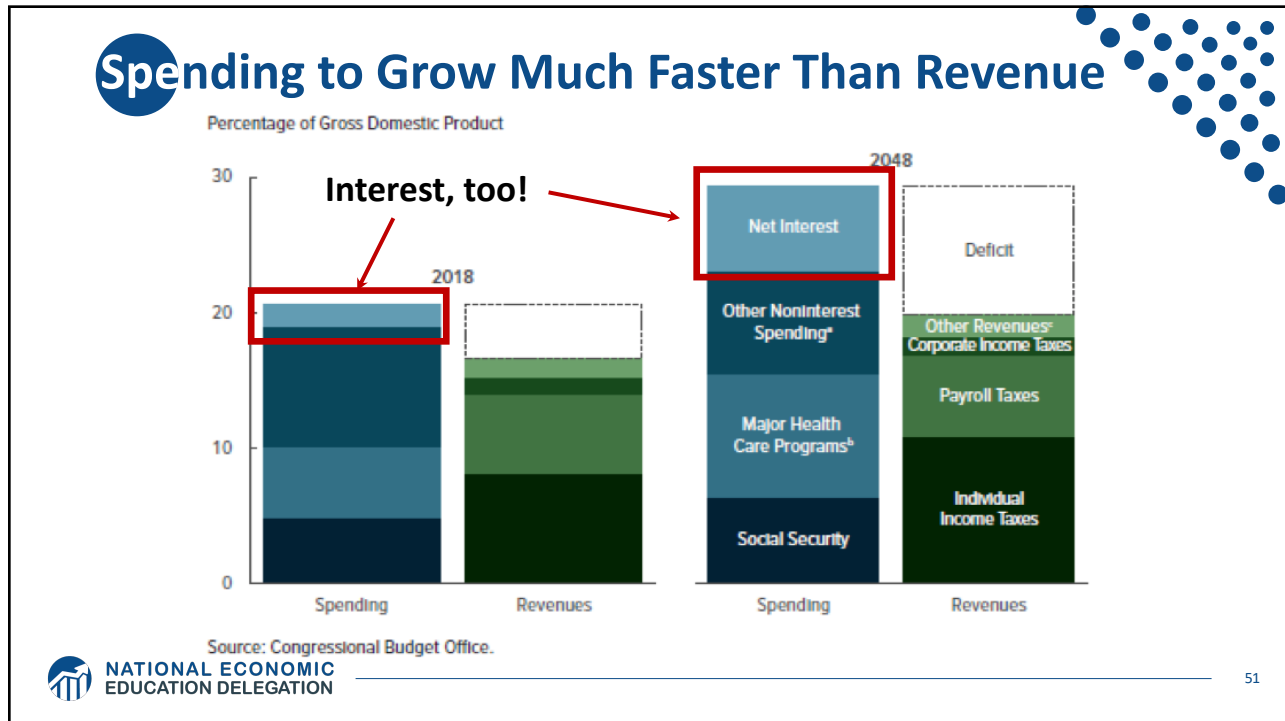
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## Now Let's Think About Today and the Future

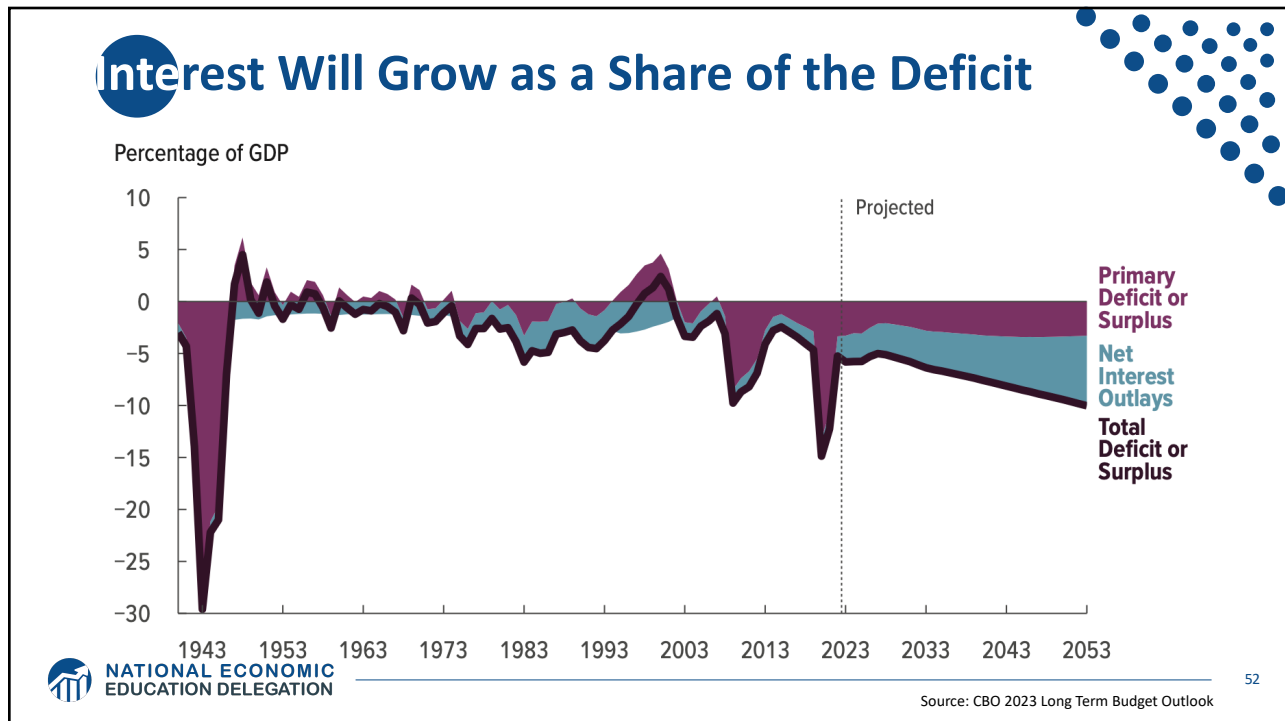
**Federal Debt Held by the Public, 1900 to 2053**  
Percentage of Gross Domestic Product



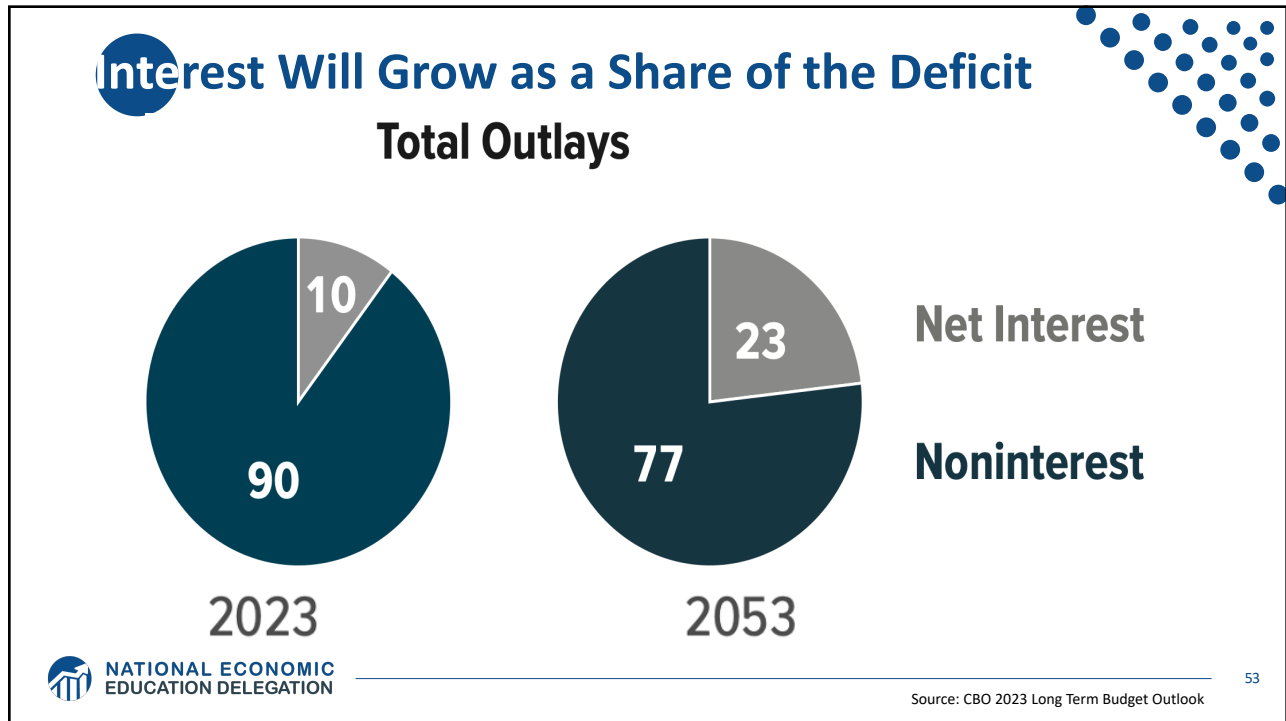
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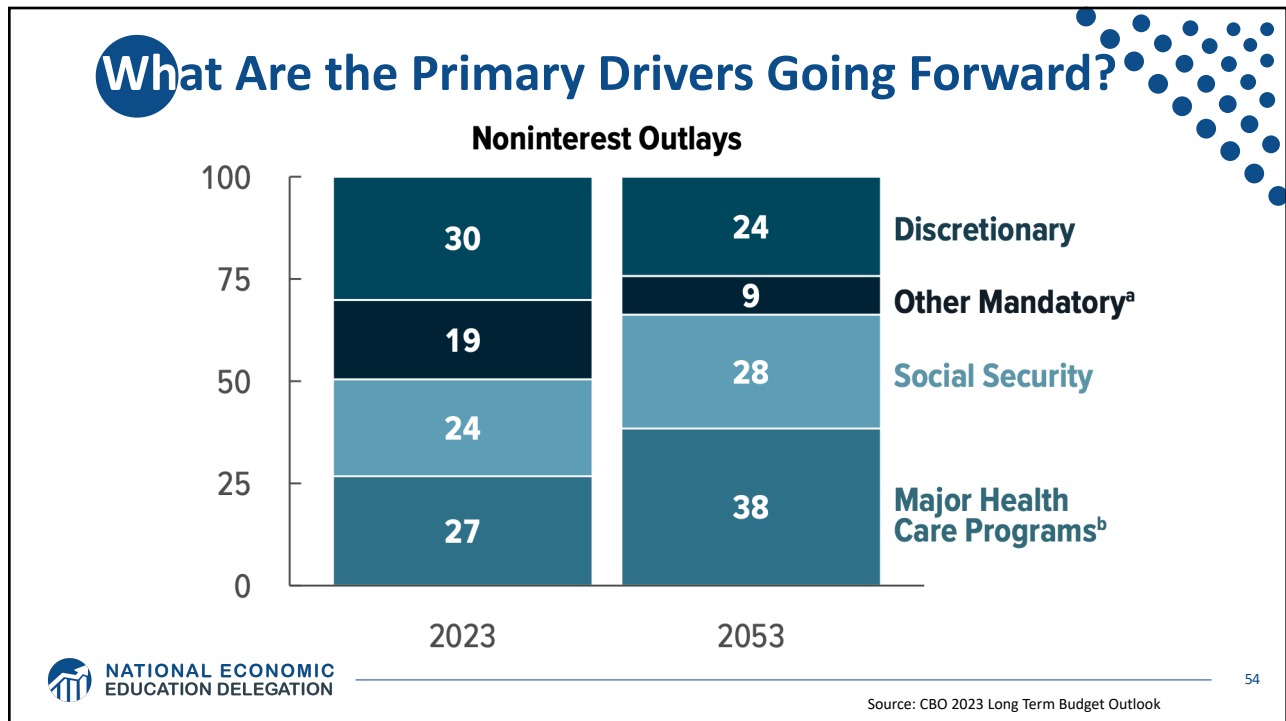
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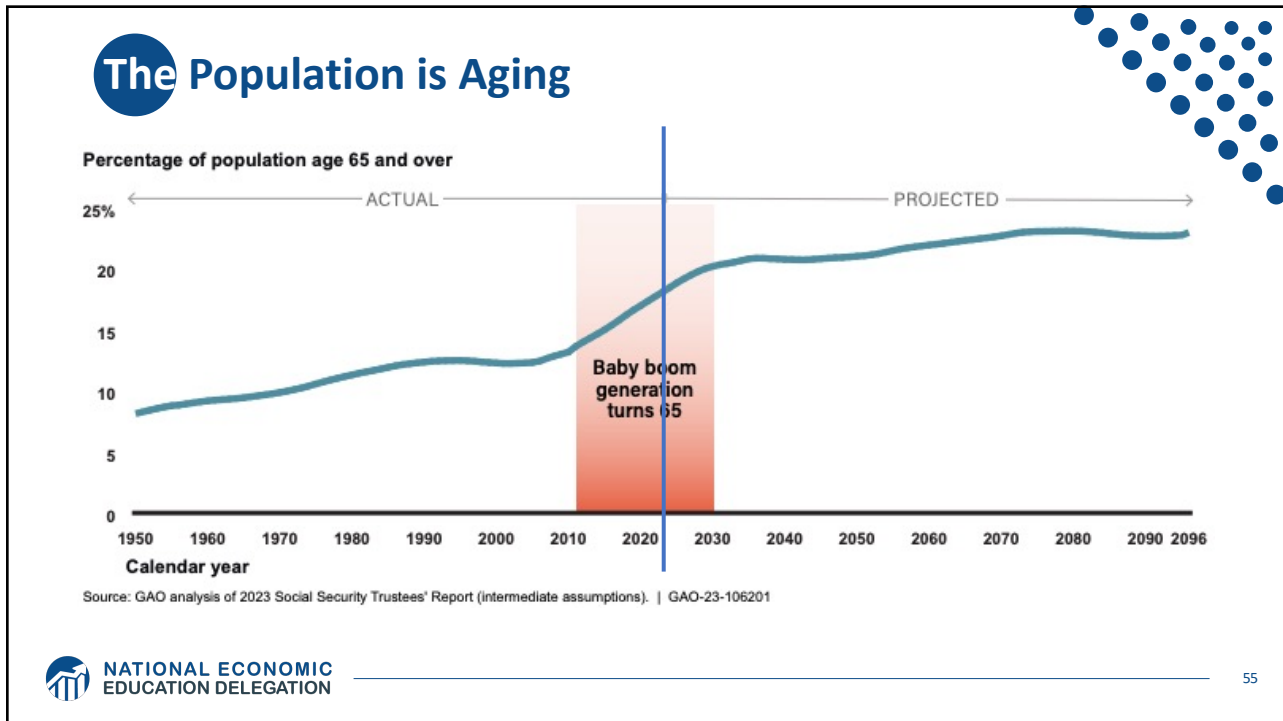
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## Perspectives on Increased Debt

- **Does debt impose a burden on future generations?**
  - Does it inevitably have to be paid off?
- **Government borrowing crowds out private capital and investments.**
  - Weakened by the ability to borrow from other countries.
- **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.



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## 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, Great Recession, COVID
  - Public investment expands GDP and tax revenue



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## Is The Debt a Problem Today?

- Federal government borrows each month with little difficulty.
- Very little evidence of "crowding out."
- Interest rates are low, but rising – this is becoming a concern.
- So, no, other than the debt ceiling, it's not a problem today.



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## So, Why Worry About it?

- If debt becomes too high:
  - Investors might start questioning the creditworthiness of the US government.
    - o Problem: Nobody knows how high is too high.
  - It becomes more difficult to borrow in times of crisis.
    - o War, severe recession
    - o "Fiscal space"
      - Impossible to measure how much we have.
      - Clearly, we have less now than in 2007.
  - Could start to crowd out investment by consumers and businesses.
    - o Not currently a problem. No idea if/when it might become one.
  - Could be inflationary.



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## Growth in Relative Debt

- **Can be scary to....**
  - International investors
  - Bond markets



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## Fiscal Crisis, or a Run on the Dollar

- **With an exploding relative debt, what happens if foreigners lose confidence in the stability of the dollar?**
- **CBO (*Federal Debt: A Primer*, March 2020):**

because the United States currently benefits from the dollar's position as the world's reserve currency and because the federal government borrows in dollars, a financial crisis—similar to those that befell Argentina, Greece, or Ireland—is 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 federal debt.
- **Crises of confidence, in addition to being unpredictable, happen very quickly.**



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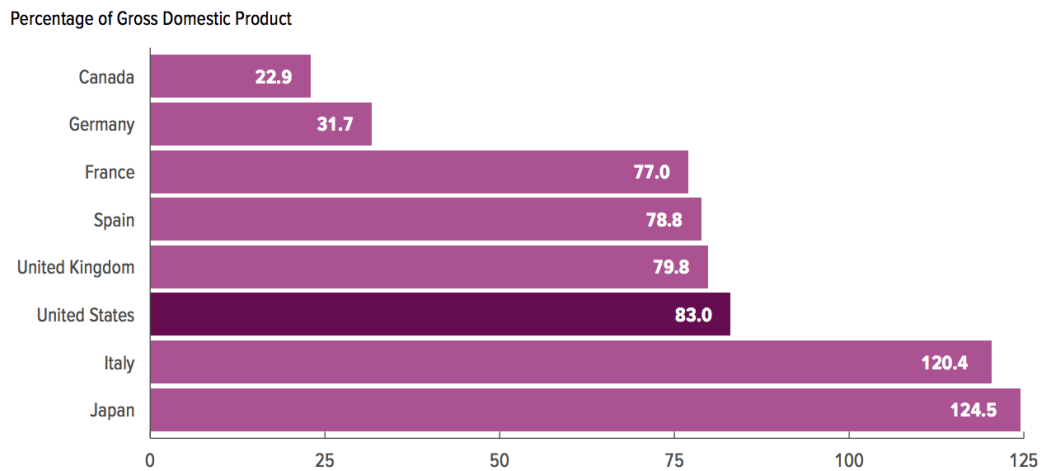
## What Is a Fiscal Crisis?

- **Increased perception of risk in government debt.**
- **Potential manifestations:**
  - Sudden significant increase in interest rates
  - Plunging exchange rates
- **Why?**
  - Increased expectation of default
- **Potential results:**
  - Dramatic budget reforms may be quickly necessary to stave off actual default.
  - Recession from declines in:
    - investment (interest rates)
    - consumption (interest rates)
    - Government spending
  - Higher interest bill on existing debt

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## Other Countries Have Higher Debt Levels

Debt of Selected Countries at the End of Calendar Year 2018



Source: Congressional Budget Office, using data from the Organisation for Economic Co-operation and Development.

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# Summary



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## 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.”



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## Major Takeaways: Talking Points

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



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## Bottom Bottom Line

- Question is not **WHETHER** the US will have to act...  
but **WHEN**.
- Some combination of the following **WILL** be necessary:
  - **Raising taxes**
  - **Cutting spending**
  - **Reining in health-care costs**
- **The longer we wait, the harder it will be!**



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**Thank you!**

## Any Questions?

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## Maybe Debt Isn't a Problem After All: MMT

- **Stephanie Kelton provided a prominent and recent exposition of modern monetary theory in a *NY Times* op-ed on June 6, 2020:**
  - "Learn to Love Trillion-Dollar Deficits."
- **Modern monetary theory**
  - US Treasury borrows in its own currency and therefore cannot default.
    - As opposed to countries, such as Greece, which borrow in euros.
  - Example: How did we "find the money" for the recent increase in the deficit of about \$1.9 trillion?
    - Answer: The Fed purchased \$1.7 trillion = 89% of financing
  - More generally, MMT argues that we can always find the money to increase federal spending.



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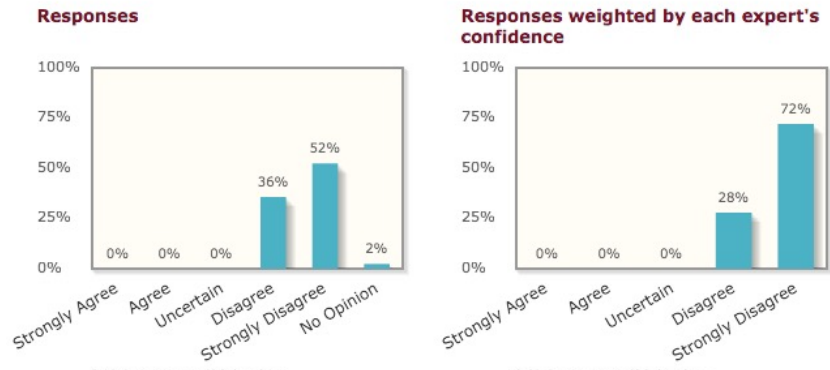
# MMT's Free Lunch

- The only limit on deficit spending is when it leads to too much spending, thereby increasing current inflation.
- Recognizing this fact, “could free policymakers not only to act boldly amid crises but also to invest boldly in times of more stability.”
  - First part, acting boldly, is important and likely true.
  - Second part, invest boldly, is suspect.

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# General Sense on Modern Monetary Theory

**Question A: Countries that borrow in their own currency should not worry about government deficits because they can always create money to finance their debt.**



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## A More Reasonable, But Still Optimistic View

### Olivier Blanchard:

- Emeritus Professor at MIT
- Chief Economist at the IMF, 2008–2015
- President of the American Economic Association, 2018

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## The Key: Stabilization of Relative Debt

- **Stabilization of relative debt might forestall the consequences of chronic deficits.**
- **Problem: The US federal debt is in no way stable.**
- **W/o stability, interest rates might rise, causing crowding out of:**
  - policy priorities
  - domestic investment
- **Budget surpluses are not necessary, but budget control is.**

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