The US Federal Debt

Cambridge Rotary Club
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Jon Haveman, Ph.D.
National Economic Education Delegation

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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?

- **Honorary Board: 48 members**
  - 2 Fed Chairs: Janet Yellen, Ben Bernanke
  - 6 Chairs Council of Economic Advisers
    - Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
  - 3 Nobel Prize Winners
    - Akerlof, Smith, Maskin
- **Delegates: 500+ members**
  - At all levels of academia and some in government service
  - All have a Ph.D. in economics
  - Crowdsource slide decks
  - Give presentations
- **Global Partners: 45 Ph.D. Economists**
  - Aid in slide deck development

Credits and Disclaimer

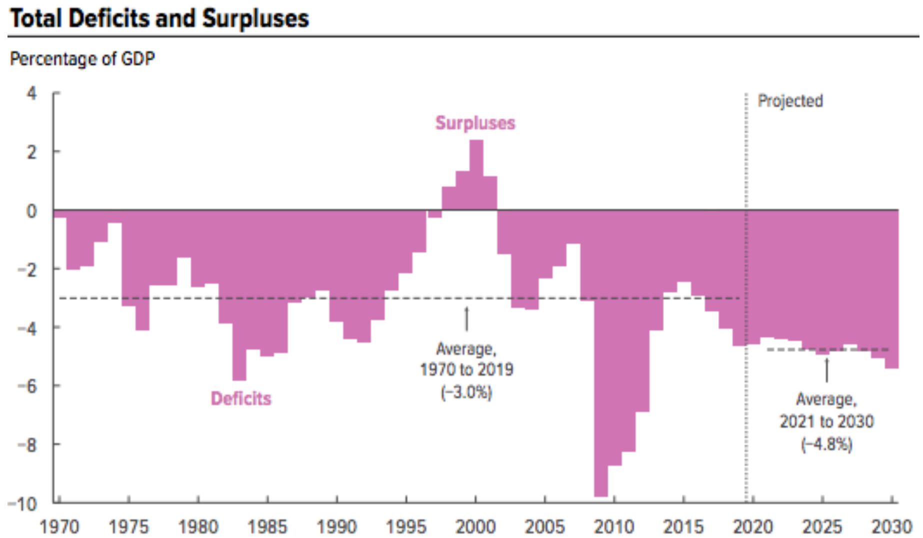
- **This slide deck was authored by:**
  - Jon Haveman, Executive Director, NEED
  - Geoffrey Woglom, Amherst College, Emeritus
- **Disclaimer**
  - NEED presentations are designed to be nonpartisan.
  - It is, however, inevitable that the presenter will be asked for and will provide their own views.
  - Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).

US Government Debt

Major Takeaways: Talking Points

- **The current trajectory for the Federal debt is unsustainable.**
- **Given historically low interest rates, we can afford to wait until after the crisis to act.**
- **After the crisis, 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".**

A Future of Deficits



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Source: Congressional Budget Office, The Budget and Economic Outlook: 2020 to 2030

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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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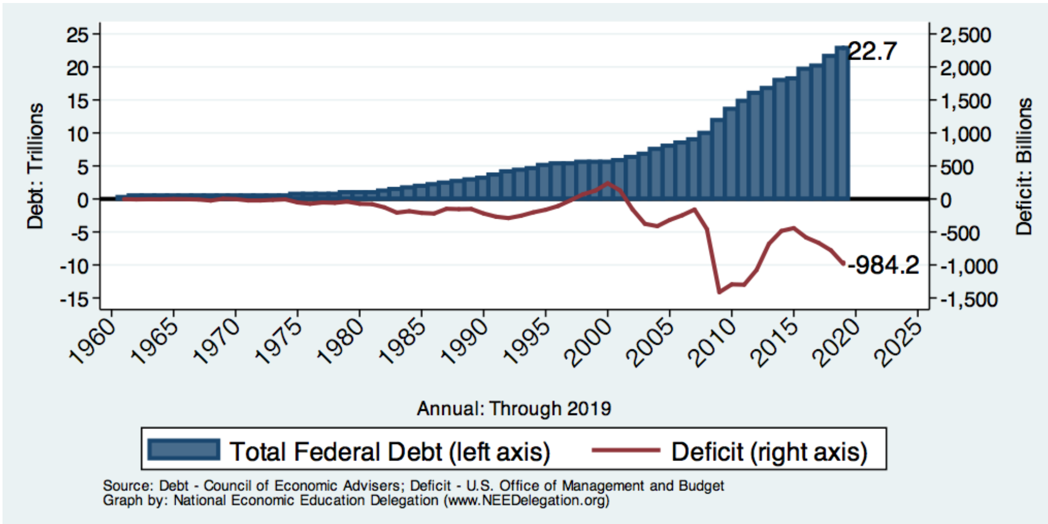
Debt vs. Deficit



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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.
- **Intra-governmental debt is (important) bookkeeping.**
  - This debt **DOES NOT** crowd out private investment.
- **Debt-held by the public**
  - This debt **MAY** crowd out private investment.
- **Most analyses of debt focus on the federal debt held by the public.**

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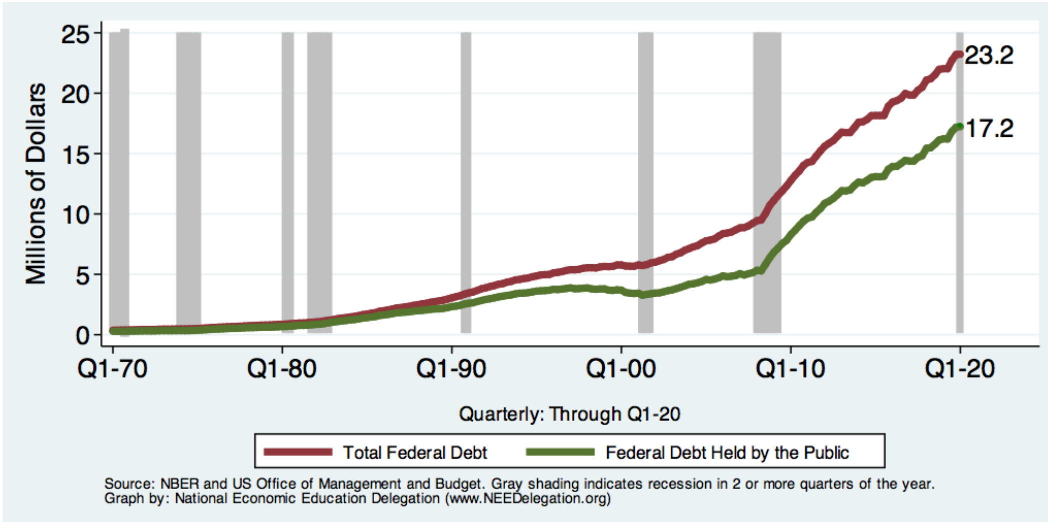
Two Measures of the Debt



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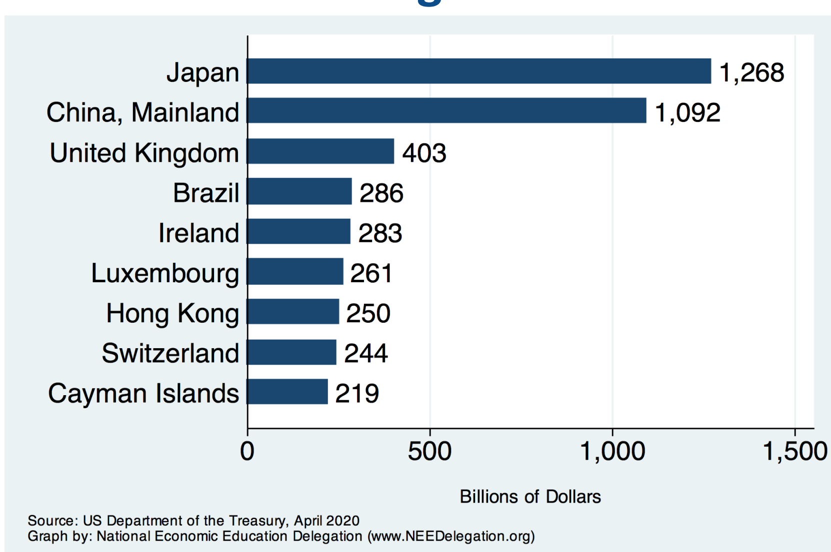
Who Holds Debt to Foreigners



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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	$17.0 Trillion	80%
Greece	$0.4 Trillion	176%

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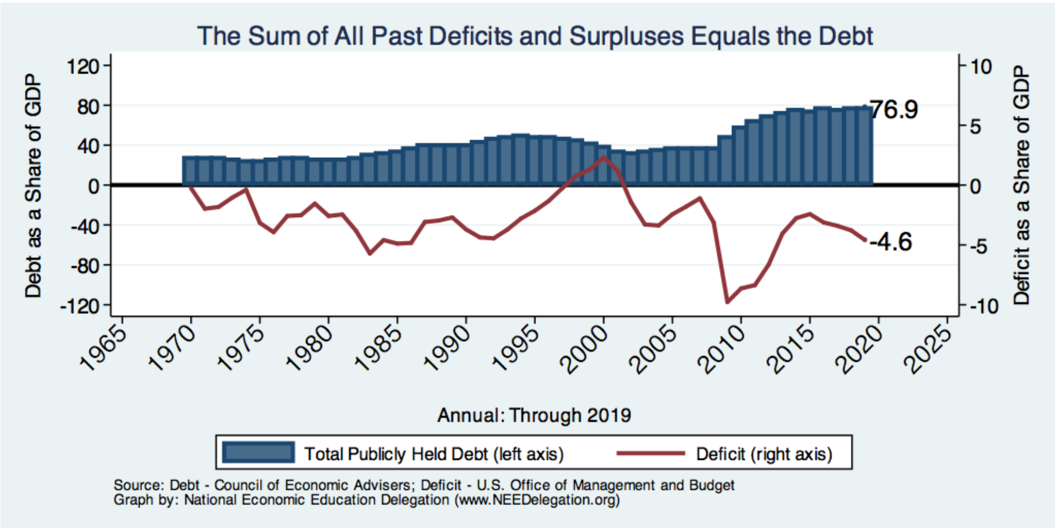
Relative Debt and Deficit



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Debt Dynamics

- **The Relative Debt is a fraction – Debt/GDP; Fractions fall if:**
  - The ***numerator*** falls (budget surplus)
  - The ***denominator*** rises (nominal GDP growth)
  - The ***denominator*** grows faster then the ***numerator***
- **Surprising (?) Facts**
  - From **1945 to 1979** the relative debt fell from **100% of GDP to 25%** of GDP.
  - While the Federal Budget was in ***surplus only once, 1969***.

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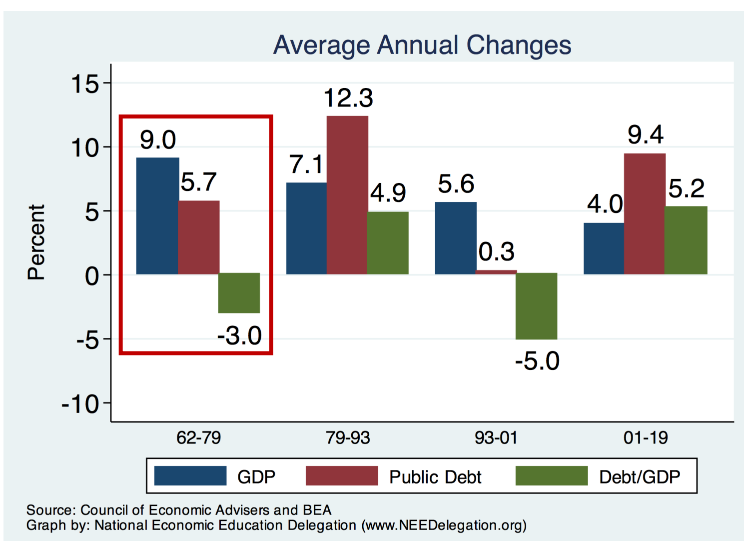
The Arithmetic of Changes in Relative Debt



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Key Points About the U.S. Relative Debt

1. Prior to 1983, relative debt rose purposefully and then fell.
   - Wars and recessions.
1. Relative debt peaked during WWII - followed by a long decline.
2. Recently, relative debt has been and is expected to rise for the next 30 years **W/O STRATEGIC PURPOSE**.

Growth in Outlays Exceeds Revenues

Percentage of Gross Domestic Product

Revenues	2020	2030	Change (Percentage points)
Individual Income Taxes	8.1	9.5	1.4
Payroll Taxes	5.9	5.9	*
Corporate Income Taxes	1.1	1.3	0.2
Other Taxes	1.4	1.2	−0.1

Percentage of Gross Domestic Product

Outlays	2020	2030	Change (Percentage points)
Social Security	4.9	6.0	1.1
Major Health Care Programs	5.4	7.0	1.6
Other Mandatory Spending	2.6	2.2	−0.4
Discretionary Spending	6.4	5.6	−0.8
Net Interest	1.7	2.6	0.8

Covid-19 Update

- **CBO (as of 4/24) projections:**
  - the 2020 federal ***deficit*** will rise from $1 trillion to $3.7 trillion.
  - ***relative debt:*** to rise from 80 percent to 101 percent of GDP.
- **FY 2019-2020 ends Sept. 30.**

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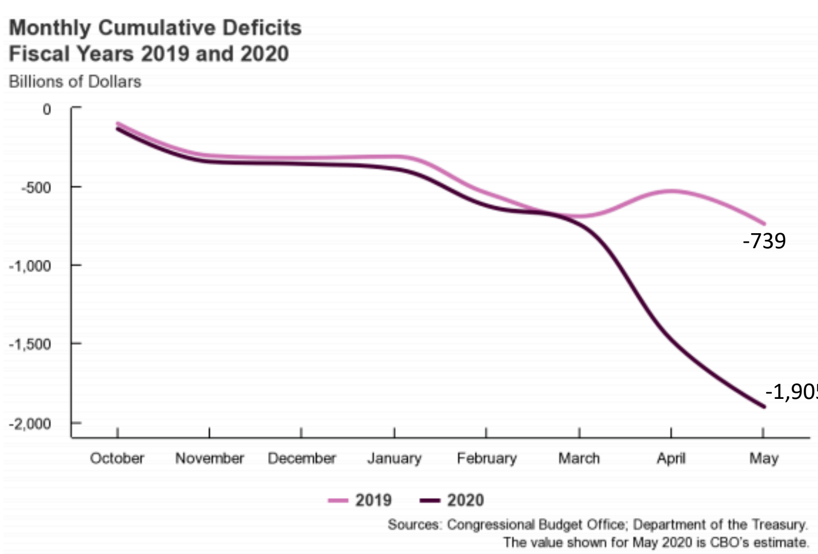
FY Cumulative Debt Change from CV



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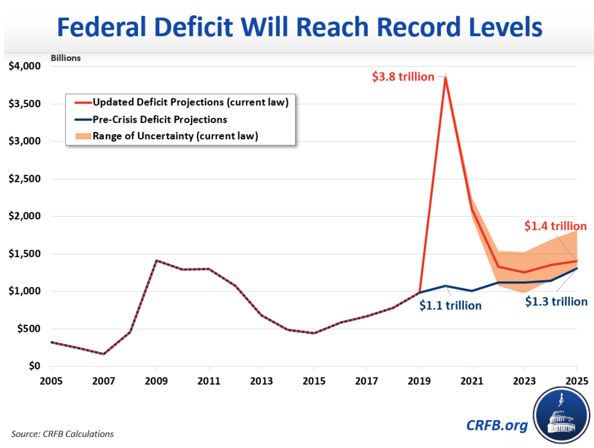
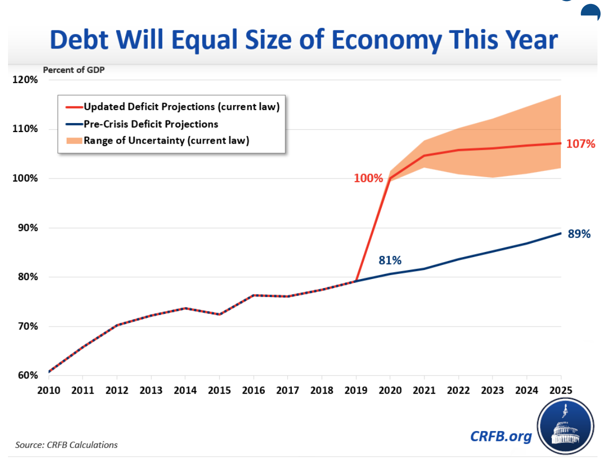
How Do We Pay for This?





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https://www.crfb.org/blogs/budget-projections-debt-will-exceed-size-economy-year

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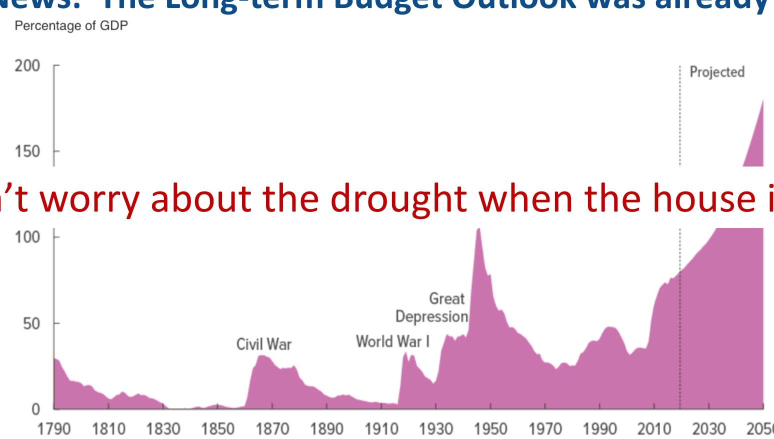
How Do We Pay for This?

- Good News: Treasury Interest Rates are Near Zero
- Bad News: The Long-term Budget Outlook was already a Mess



Don’t worry about the drought when the house is on fire!

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CBO, “The Budget and Economic Outlet: 2020-2030,” 1/2020

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Not All Borrowing is Bad!

- **Two good reasons to borrow:**
    1. During a temporary crisis:
        1. Recessions
        2. Wars
        3. Pandemic
    2. Productive public investments:
        1. Infrastructure
        2. Education

- **These deficits won't permanently increase relative debt.**
    - Great Depression, WWII.
    - Public investments will raise GDP and tax revenues.

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Perspectives on Increased Debt

- **Government borrowing crowds out private capital and investments.**
    - Weakened by ability to borrow from abroad.
- **Does debt impose a burden on future generations?**
    - Does it inevitably have to be paid off?
- **In time, debt service may crowd out other government spending.**
    - Diminishing policy priorities in the budget.
- **Is it reasonable to borrow at low interest rates for investments?**
    - For example: infrastructure.

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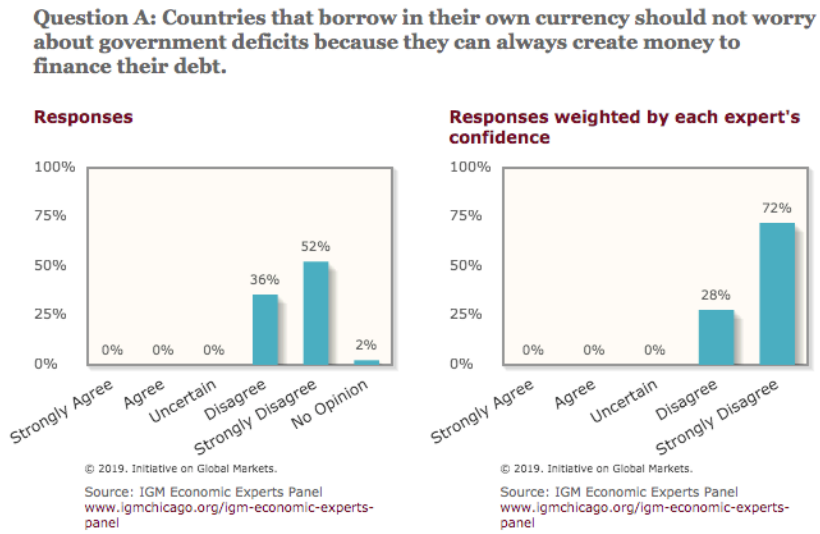
So, Why Worry About it?

- **If debt gets too high:**
  - There is the potential for investors to start questioning the creditworthiness of the U.S. Government.
    - Problem: Nobody knows how high might be too high?
    - Fiscal crisis is the end game.
  - It becomes more difficult to borrow in times of crisis.
    - War, severe recession
    - “Fiscal space”
  - Could start to crowd out investments by consumers and businesses.
    - Not currently a problem. No idea if/when it might become one.
  - Could be inflationary.

What is a Fiscal Crisis?

- **Increased perception of risk in government debt.**
- **Potential manifestations:**
  - Sudden major 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.

General Sense on Modern Monetary Theory



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Summary: Address The Debt?

- **Risks:**
  - Inflation
  - Slower economic growth
    - Higher interest rates
    - Crowding out
  - Fiscal Crisis
- **Reasons to wait:**
  - Interest rates are very low
  - Lots of important investments to make
  - Economic growth may take care of it

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Bottom Line Takeaways

- **Relative Debt must be stabilized, so it is imperative to reduce primary deficits after the virus has been defeated.**
  - Not entirely necessary to run budget surpluses!
- **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 current trajectory for the Federal debt is unsustainable.**
- **Given historically low interest rates, we can afford to wait until after the crisis to act.**
- **After the crisis, we must enact plans to reduce the future (primary) deficits.**
  - These are driven by Medicare and Social Security spending.
  - Need not run surpluses!
- **The longer we postpone action, the greater the probability of a "fiscal crisis".**

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Thank you!

Any Questions?

www.NEEDelegation.org
Jon D. Haveman, Ph.D.
Jon@NEEDelegation.org

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Bonus Slides

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What Does the U.S. Gov't Budget Look Like?

2019 Budget Summary

Revenue	Billions		Outlays	Billions
Income Taxes	$1,718		Mandatory	$2,735
Payroll Taxes	$1,243		Discretionary	$1,336
Corporate Taxes	$230		Interest	$376
Other	$271			
Total	$3,462		Total	$4,447

Budget Deficit: $984 Billion

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Source: Congressional Budget Office, The Budget and Economic Outlook: 2020 to 2030

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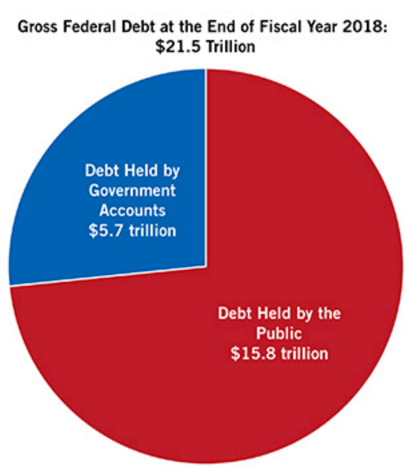
PETER G. PETERSON FOUNDATION

What makes up gross federal debt?



SOURCE: Department of Treasury, *Monthly Treasury Statement*, issue for September 2018. Compiled by PGPF.

PGPF.ORG

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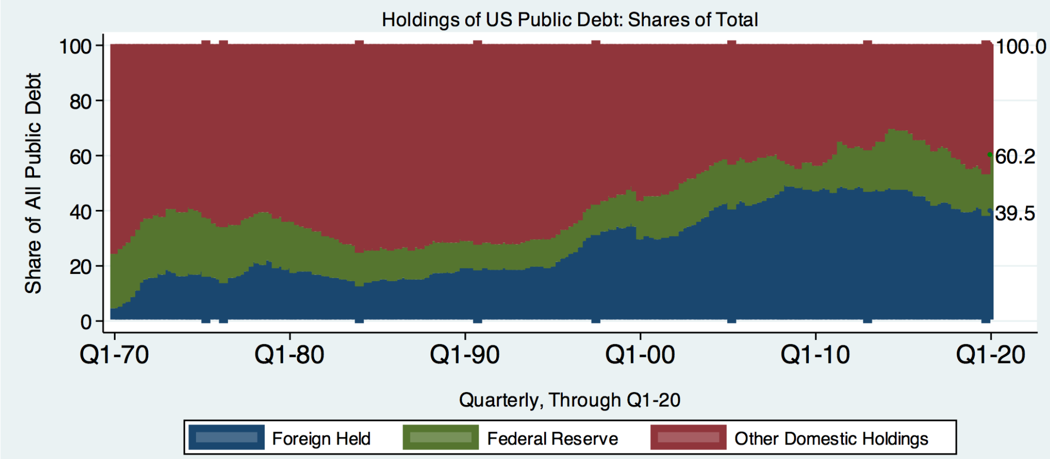
Trends in U.S. Debt Holdings Over Time



Source: NBER and US Office of Management and Budget. Gray shading indicates recession in 2 or more quarters of the year.
Graph by: National Economic Education Delegation (www.NEEDelegation.org)

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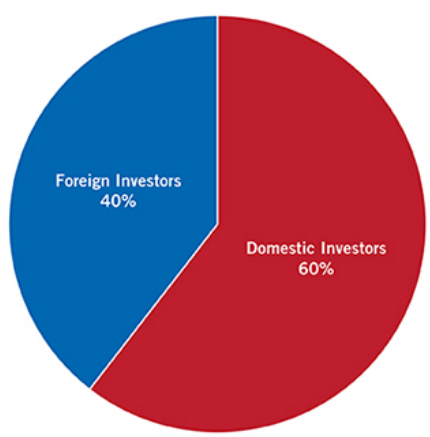
Foreign investors own over one-third of all U.S. public debt



SOURCE: Department of the Treasury, *Monthly Treasury Statement*, issue for September 2018; and Department of Treasury, *Treasury Bulletin*, December 2018. Compiled by PGPF.

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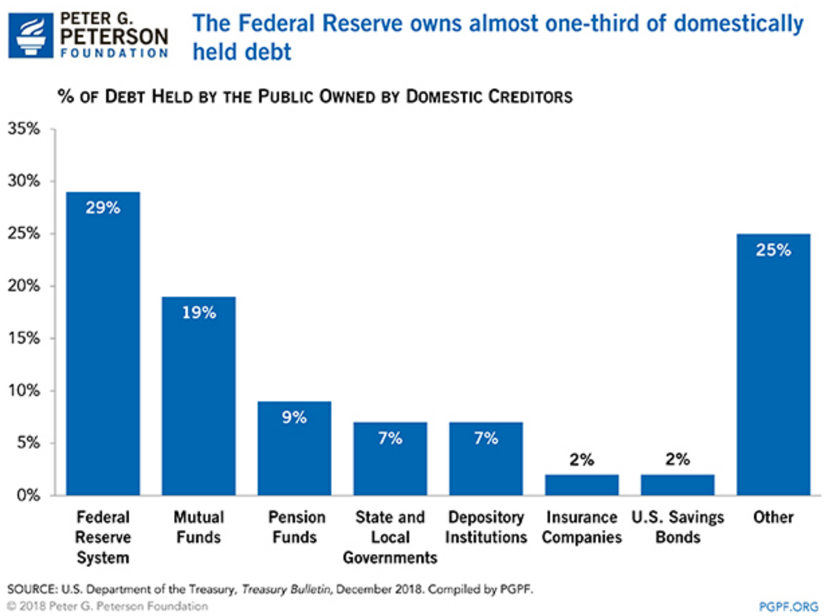

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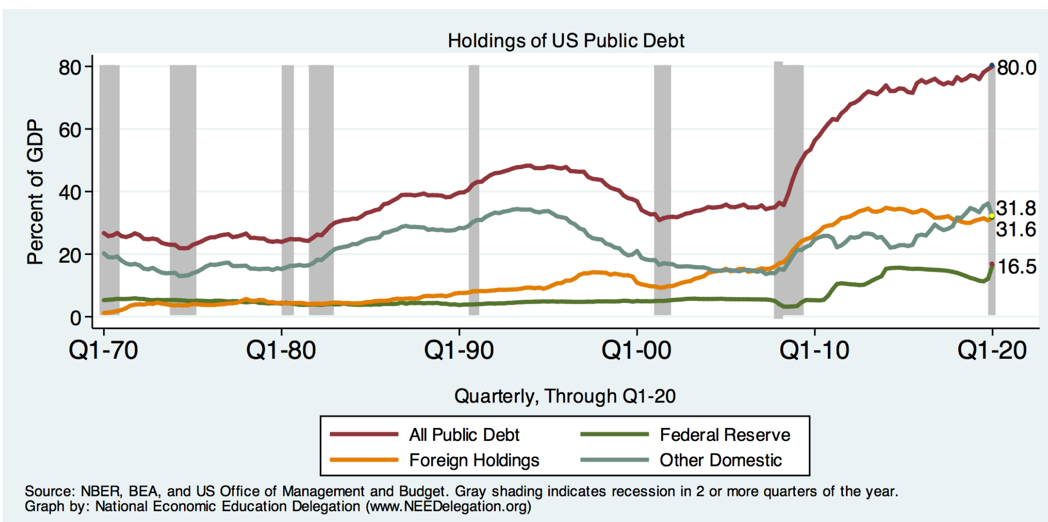
Summary: Who Holds U.S. Public Debt?



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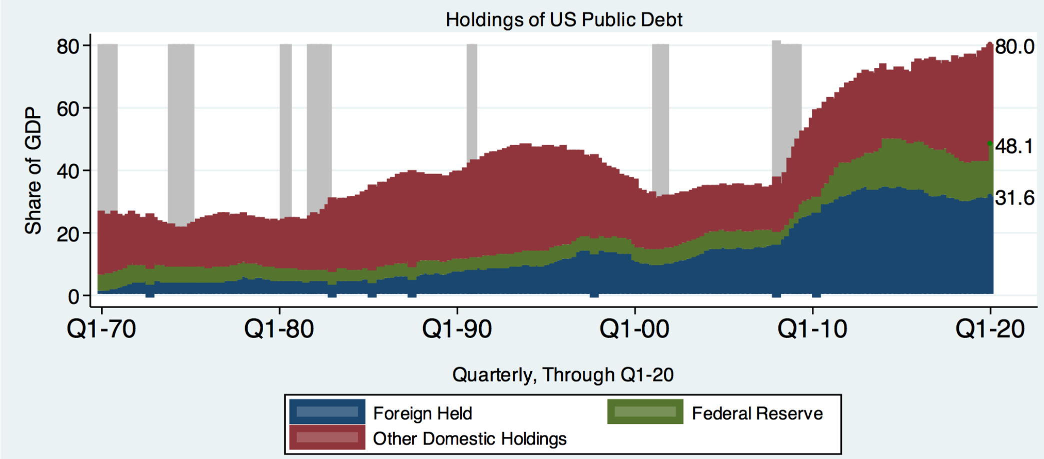

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Graph by: National Economic Education Delegation (www.NEEDelegation.org)

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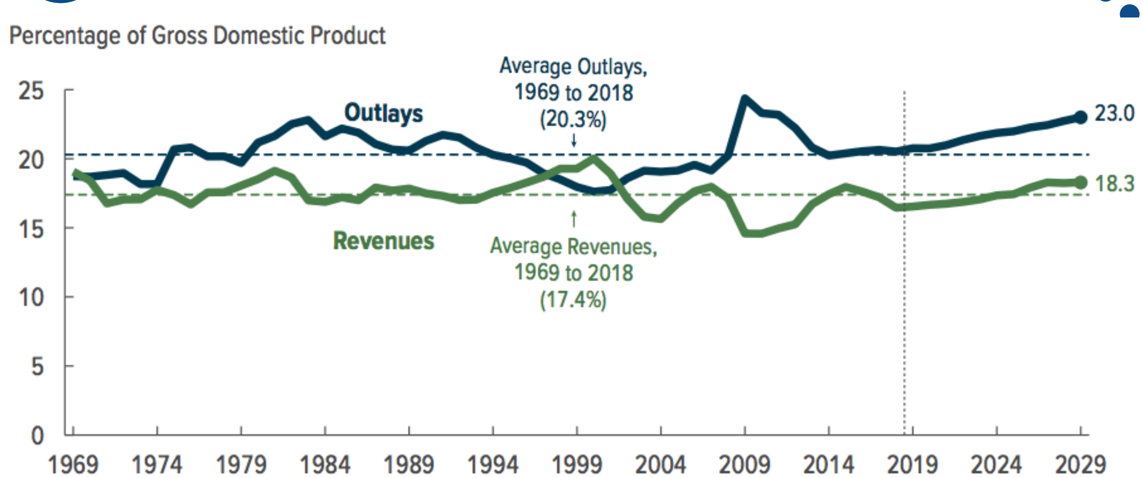
Why has the Federal Debt Risen so Much?



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Why has the Federal Debt Risen so Much?

- **Expenditures:**
  - Social Security
  - Health care costs
  - Economic stimulus
    - In particular, during the Great Recession.
  - Foreign entanglements
- **Revenues**
  - Declining income tax revenues
    - Stagnant wages
    - Tax cuts
  - Social security
    - Declining revenues
  - Corporate income taxes

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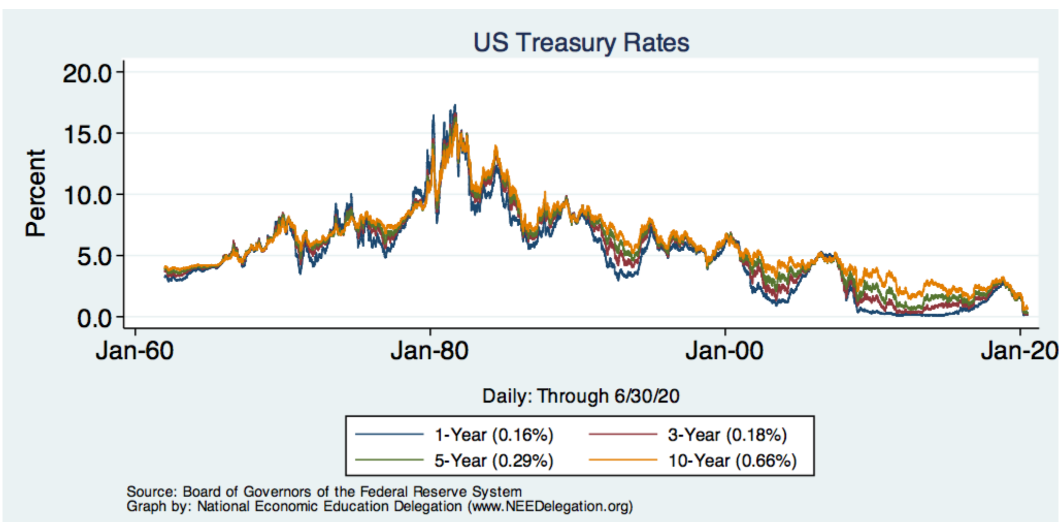
Interest Rates are Historically Low



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Economists Views on the Debt Evolve

1980 Economic Consensus

- **Debt and Deficits are not a Problem:**
  - The analogy between household and government debt is inaccurate.
  - The government never has to pay the debt back.
    - Borrow from young workers to pay back retirees.
  - As long as the relative debt is falling, there is nothing to worry about.

Reagan Experiment in Supply-Side Economics

- **Tax Cuts were supposed to be "investments".**
  - Lower marginal tax rates and people will work more/harder and save.
  - Higher GDP will raise tax revenues to pay for the deficit.
- **Sadly, from 1981-89 debt rises from 25% to 40%.**
  - For the first time relative debt rises during non-recessionary time of peace.
  - Reignites concern about debt and deficits.
- **Failed experiment?**

1990 Mainstream View: Two Main Problems

- **Problem 1: Rising debt reduces budgetary options.**
  - More debt means increased interest costs.
  - Therefore, greater relative debt:
    - requires a bigger primary surplus to stabilize the relative debt.
  - Larger primary surplus means either higher tax rates or less government spending:
    - *"crowding out" of outlays and/or tax cuts.*

1990 Mainstream View: Two Main Problems

- **Problem 2: Rising debt reduces investment.**
  - Deficits and Debt raise aggregate demand.
    - Direct government spending.
    - Lower taxes lead households to spend more.
  - To offset this increase in demand, the Fed has to raise interest rates, reducing investment and future GDP.
  - By causing interest rates to rise:
    - debt and deficits *"crowd out" investment*.
- **Rising interest rates also make problem 1 worse.**

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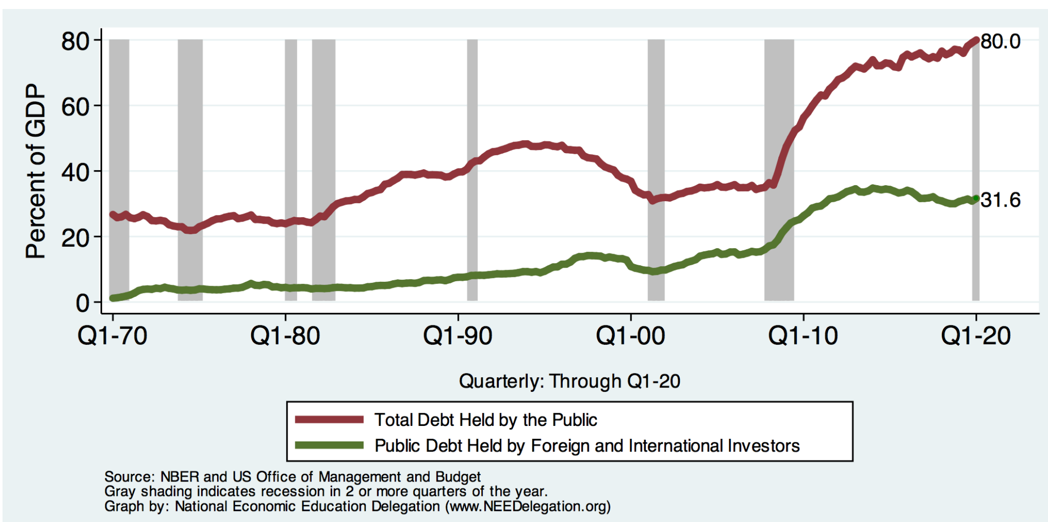
The International Appetite for U.S. Treasuries



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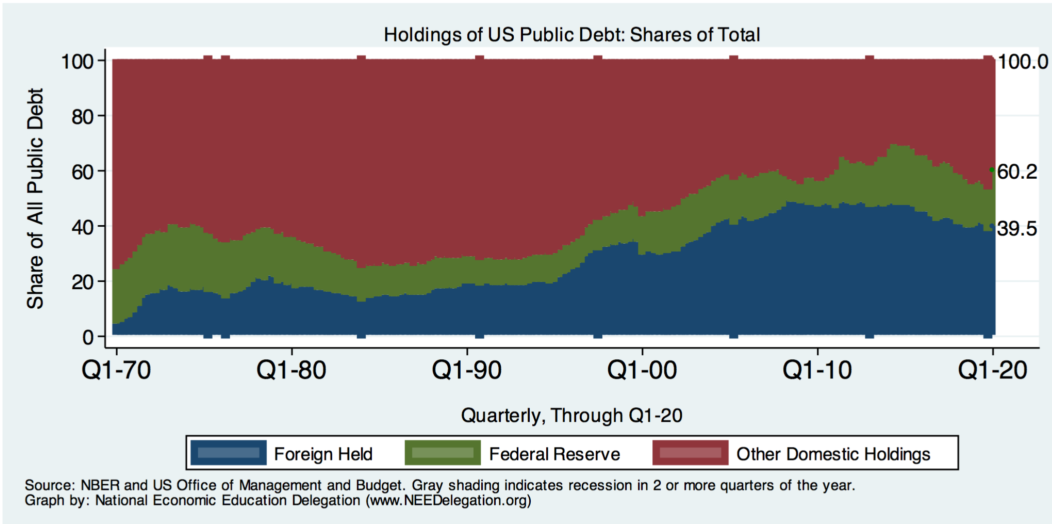
The International Appetite for U.S. Treasuries



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2005: The International Dimension to Debt

- **Interest on the foreign-held debt reduces US residents' welfare.**
  - Interest payments go overseas.
- **When the Fed raises interest rates, the exchange value of the dollar increases. Causing:**
  1. Increases in the Trade Deficit
  2. Foreign Borrowing.
- **Sharp increases in interest rates and the costs of foreign goods raises the possibility of a fiscal crisis or "run on the $".**

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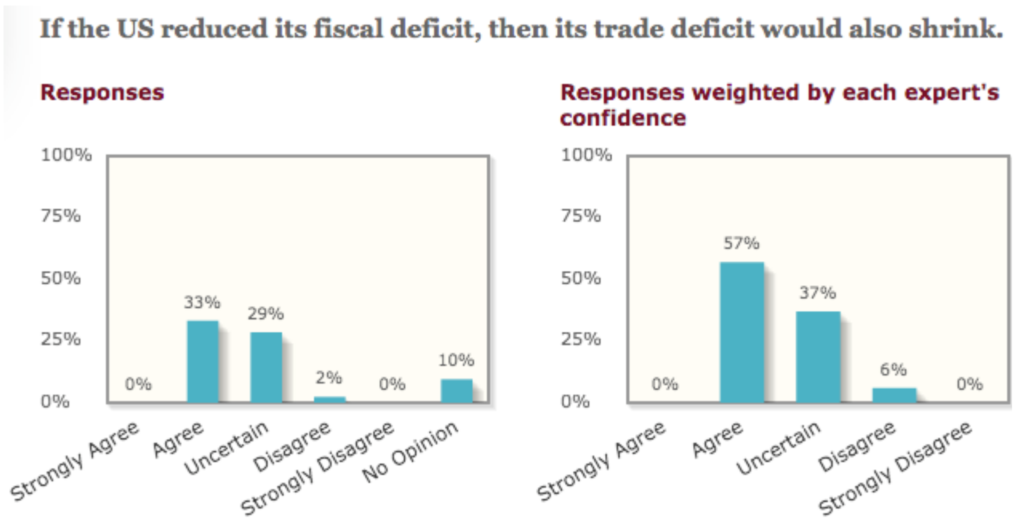
General Agreement Among Economists



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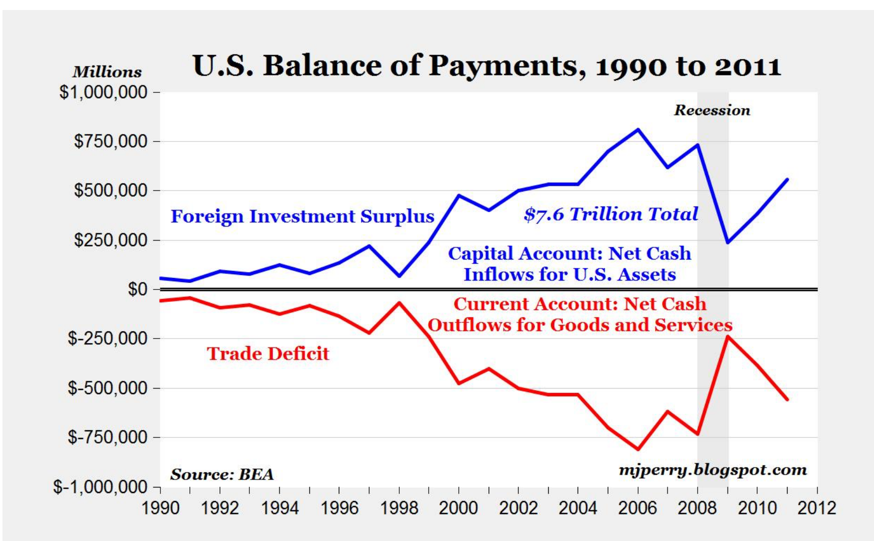
Trade and Investment Flows Balance Out



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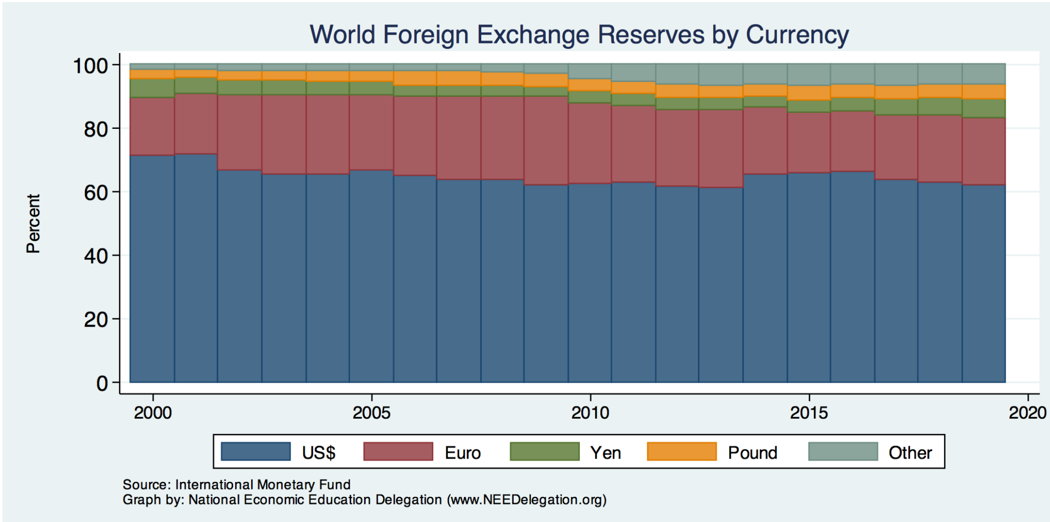
Will Our "Exorbitant Privilege" Last Forever?



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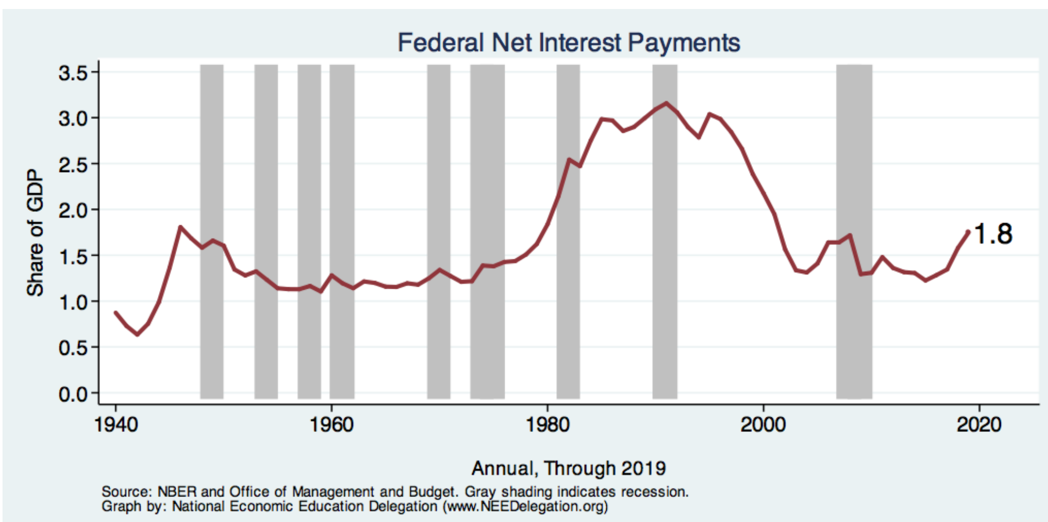
Problem #1: rising interest expense?



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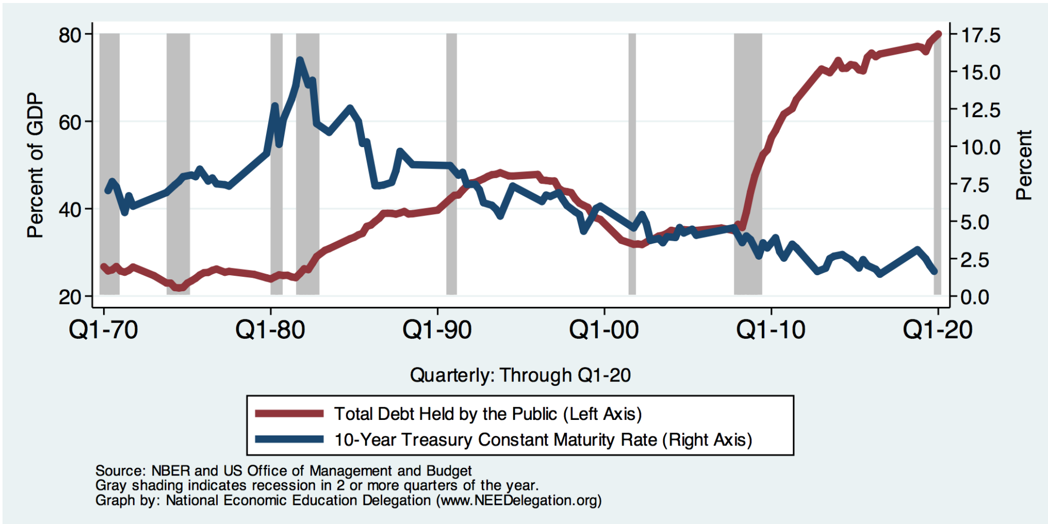
Problem #2: the Dog that Didn't Bark



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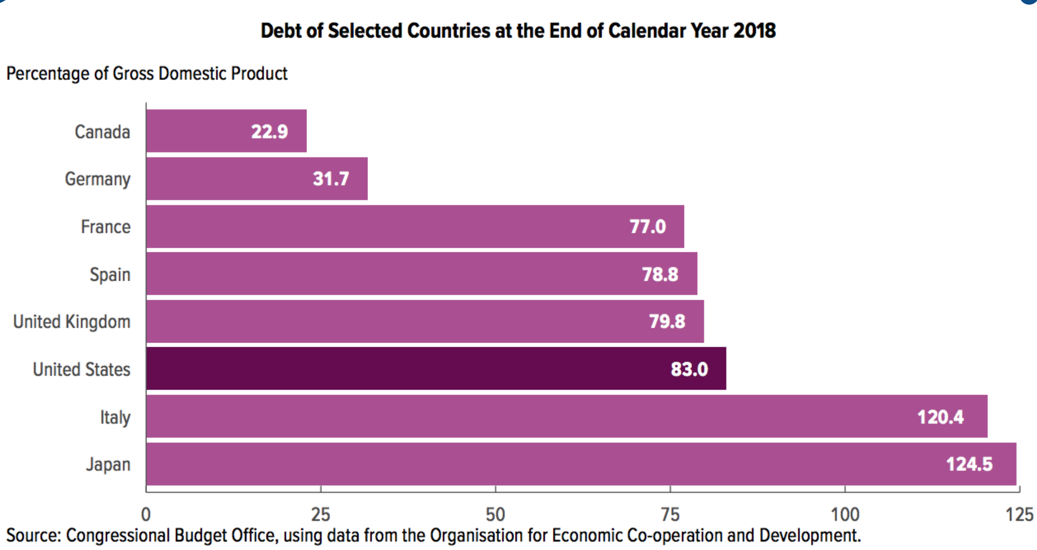
Other Countries Have Higher Debt Levels



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So, Can US Debt Grow Forever?

- **(M)odern (M)onetary (T)heory says YES!**
  - The US borrows in its own currency.
    - Most other countries do not.
  - The Fed can always buy what private investors won't, but…
- **The Wisdom of Herb Stein:**

(Chair of the Council of Economic Advisors under Nixon and Ford. Father of Ben Stein – teacher in Ferris Bueller's Day Off)

"If something cannot go on forever, it will stop."

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CBO on the Possibility of a Fiscal Crisis

- Moreover,
  - 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 debt.

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

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OK: Relative Debt Cannot Grow Forever, But

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

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Traditional View: The Interest Rate is Greater than the Growth in GDP

- To stabilize the relative debt, the government will need to run a primary surplus.
- The bigger the relative debt, the bigger the primary surplus that is needed.
- This is 1990 Consensus Problem 1: Increases in relative debt crowd out other government spending or must lead to higher taxes.

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Enter Olivier Blanchard

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

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AEA Presidential Address, 1/2019

"…the current US situation (where) interest rates are expected to remain below (GDP) growth rates for a long time, is more the historical norm than the exception… If the future is like the past,…the issuance of debt without a later increase in taxes may well be feasible. Put bluntly, public debt may have no fiscal cost."

But,

"My purpose…is not to argue for more public debt, especially in the current political environment. It is to have a richer discussion of the costs of debt…than is currently the case."

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Blanchard is Not MMT

- Relative Debt must be stabilized,
- But it may not be important at what level.
- If interest rate is less than the growth rate of GDP, then the relative debt will fall with a primary deficit of zero!

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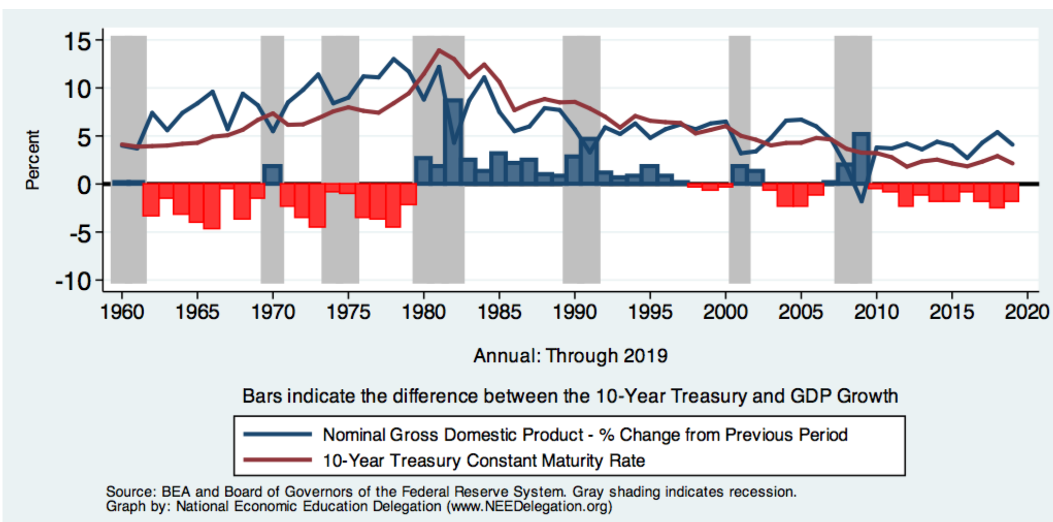
Evidence?



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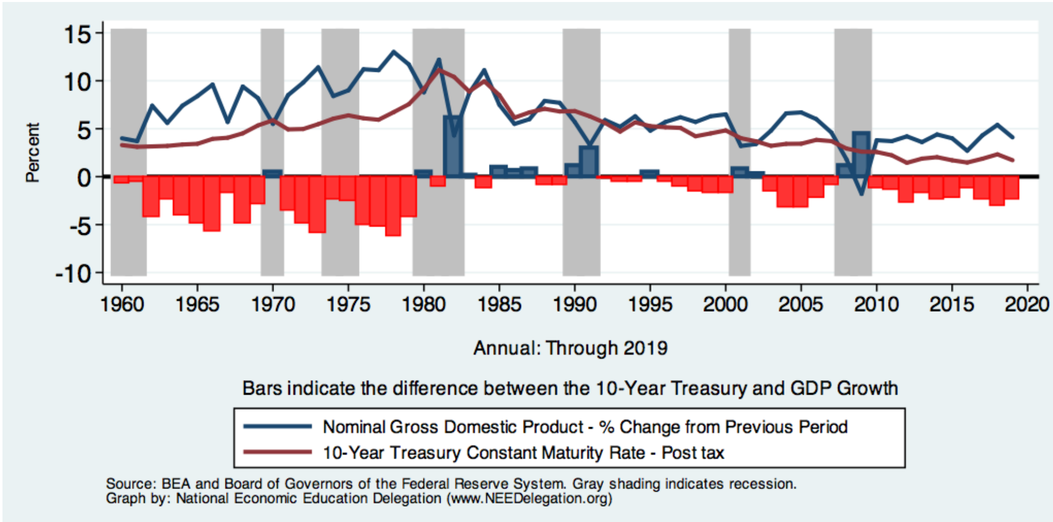
But Interest on the Debt is Taxable



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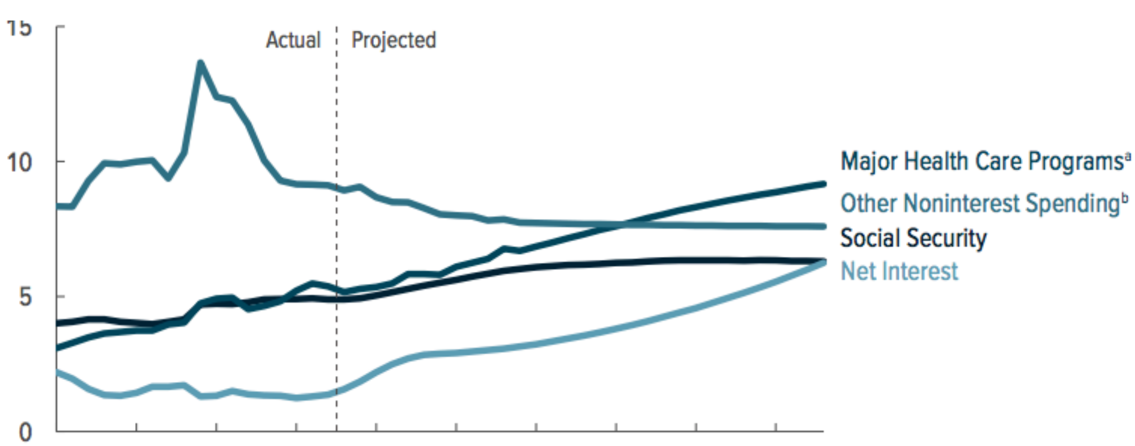
What Are the Primary Drivers Going Forward?



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Proposals Do Exist

- **Simpson-Bowles**
- **Domenici-Rivlin Task Force**
- **Solutions Initiative – Peter G. Peterson Foundation**
  - American Action Forum
  - American Enterprise Institute
  - Bipartisan Policy Center
  - Center for American Progress
  - Economic Policy Institute

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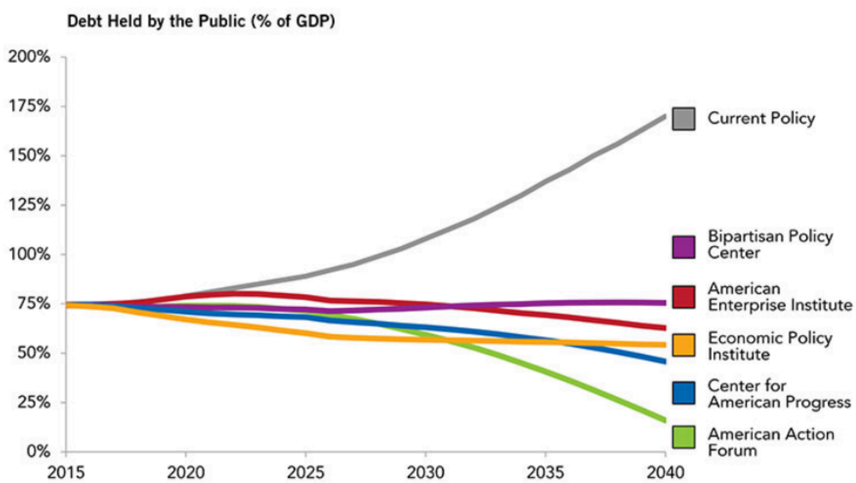
PETER G. PETERSON FOUNDATION

Solutions Initiative III: Projected Federal Debt through 2040



SOURCE: Peter G. Peterson Foundation, *Solutions Initiative III*, May 2015. See pgpf.org/solutions-initiative-iii for more details.
NOTE: Current policy is defined as the alternative fiscal scenario without economic feedback from CBO's *2014 Long-Term Budget Outlook*.

PGPF.ORG

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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.
- **Or defaulting on the debt.**
  - This will forever raise the cost of government borrowing.

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