The US Federal Debt

NEED: ThinkTank Tuesday Webinar
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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

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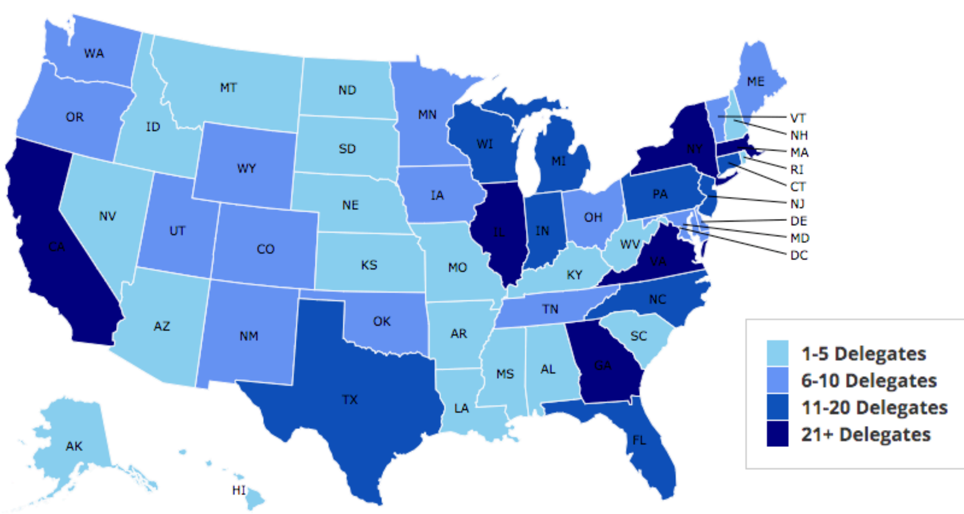
Where Are We?



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Credits and Disclaimer

- **This slide deck was authored by:**
  - Jon Haveman, Executive Director, NEED
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- **Disclaimer**
  - NEED presentations are designed to be nonpartisan.
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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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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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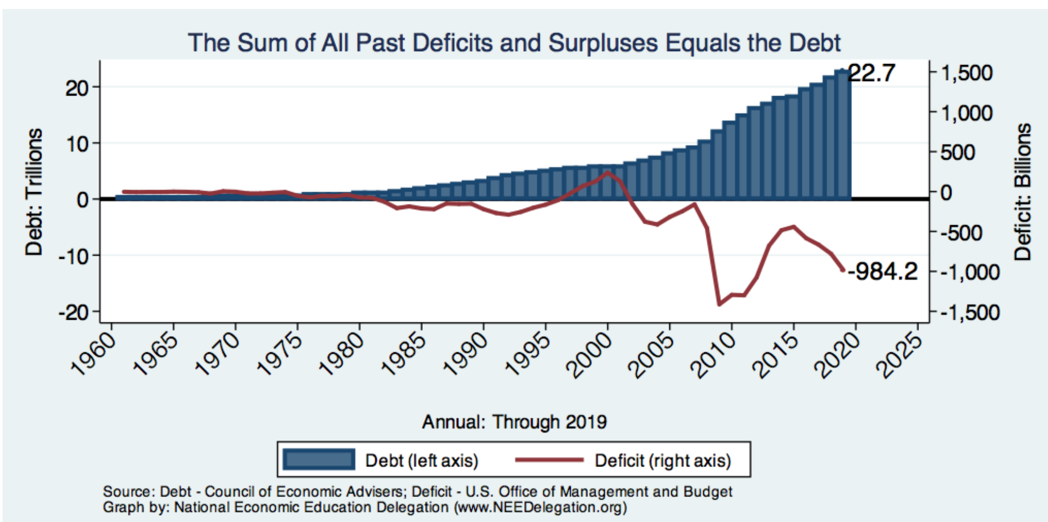
Debt vs. Deficit



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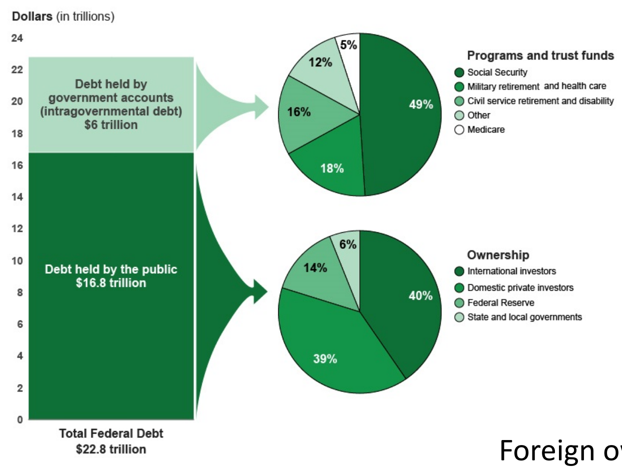
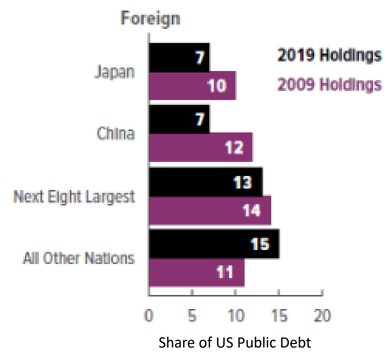
A Breakdown of the Total Federal Debt





Foreign ownership is relatively recent – in 1990 foreign ownership was less than 20%

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https://www.gao.gov/americas_fiscal_future?t=federal_debt

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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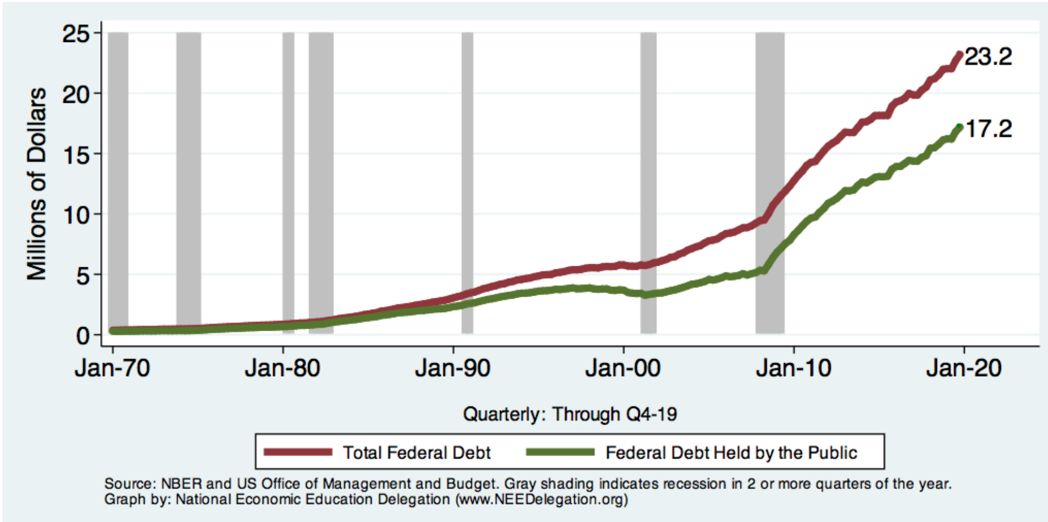
Two Measures of the Debt



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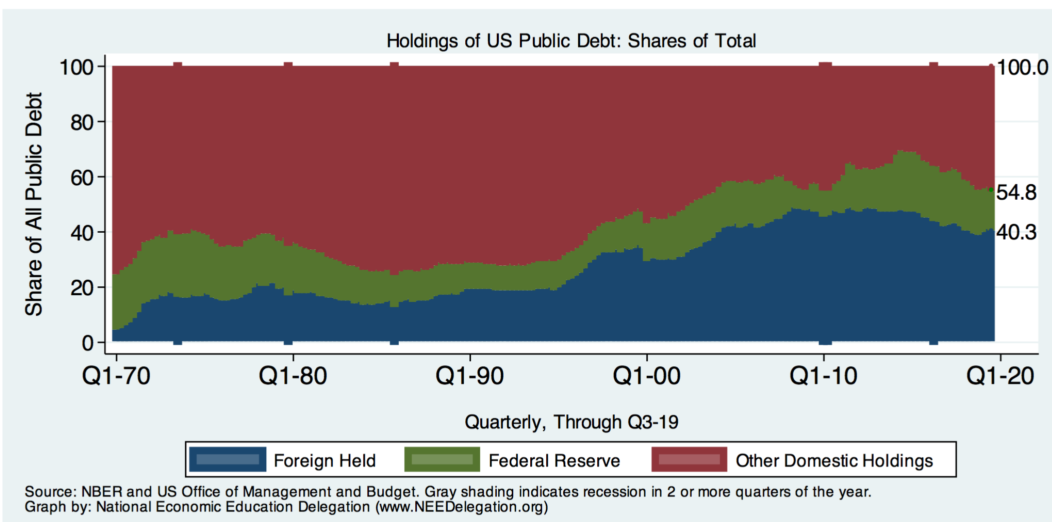
Trends in U.S. Debt Holdings Over Time



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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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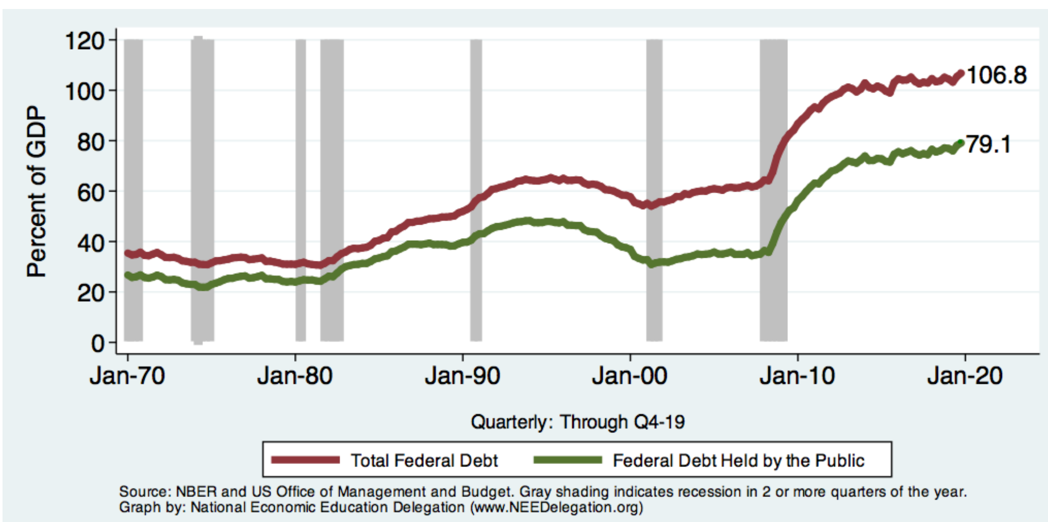
Two Measures of the RELATIVE Debt



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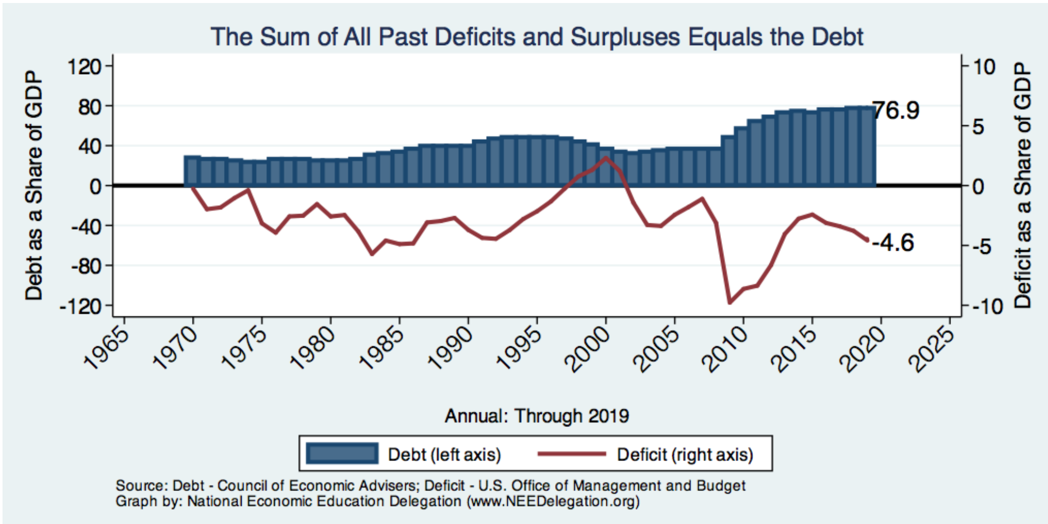
Relative Debt and Deficit



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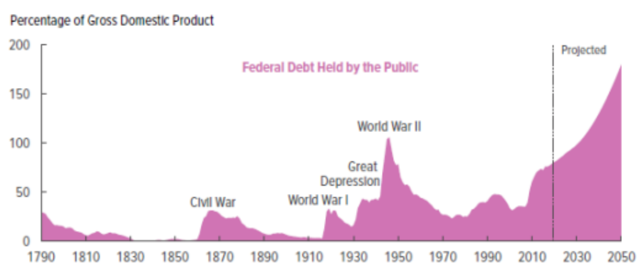
Key Points About the U.S. Relative Debt



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

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Debt Dynamics

- **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.
- **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***

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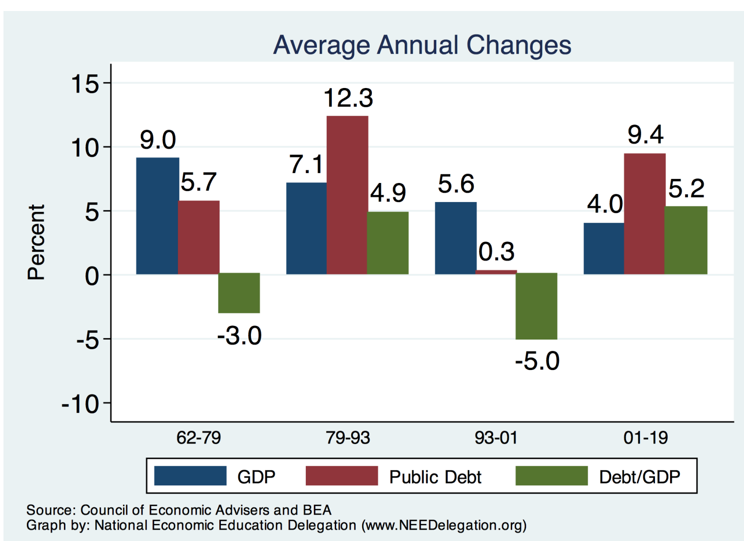
The Arithmetic of Changes in Relative Debt



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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 the relative debt.
  - The costs borne by future generations because of the debt.

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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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Growth in Outlays Exceeds Revenues

Percentage of Gross Domestic Product

	Revenues 2020	Revenues 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	Outlays 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

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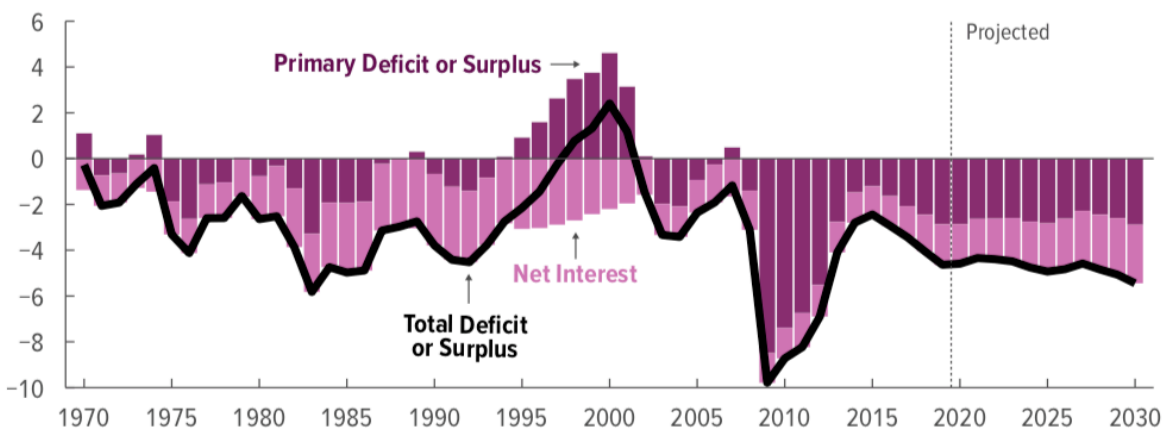
Rising Debt Levels Due to a Future of Deficits

Percentage of Gross Domestic Product



This graph was done before Covid-19

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

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Budget Consequences of an Aging Population

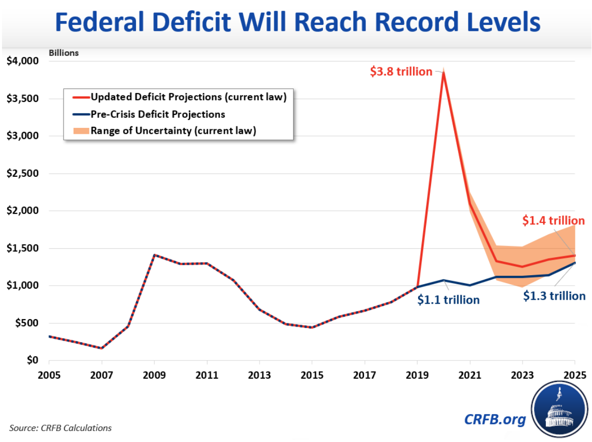
Contributions to the Federal Deficit: % of GDP

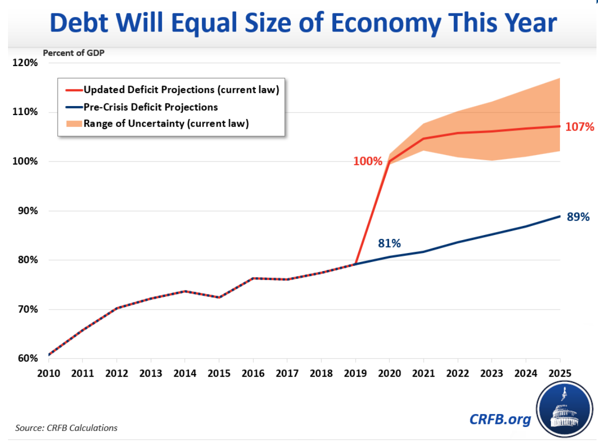
	2020	2031-2040	Change
Social Security	-0.4	-1.7	-1.3
Medicare	-1.7	-3.4	-1.7
Other	-2.5	-1.9	+0.6
Deficit	**-4.6**	**-7.0**	**-2.4**

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.**

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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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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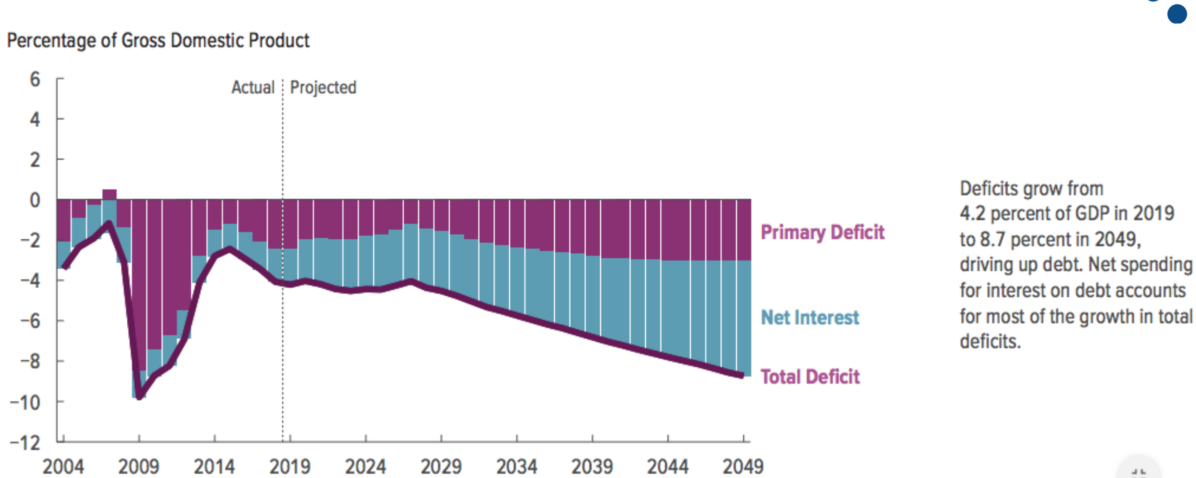
Not All Borrowing is Bad!

- **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.

Interest Will Grow as a Share of the Deficit



Is The Debt a Problem Today? (Pre-COVID 19)

- **Currently borrow about $100 billion each month with little difficulty.**
- **Very little evidence of ”crowding out”.**
- **Interest rates are very low, less than 1% on 10-year notes.**

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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?
  - It becomes more difficult to borrow in times of crisis.
    - War, severe recession
    - “Fiscal space”
      - Impossible to measure how much we have.
      - Clear that we have less now than back in 2007.
  - 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.

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Growth in the Relative Debt

- **Remember:**
  - the denominator of the relative debt is GDP
  - the numerator is the 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)

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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.

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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?**

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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.*

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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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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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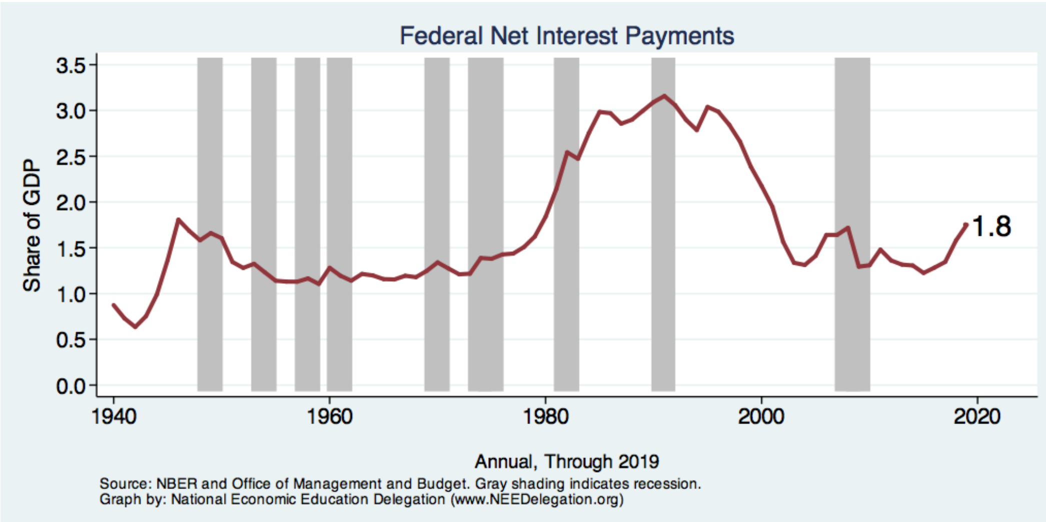
Problem #1: rising interest expense?



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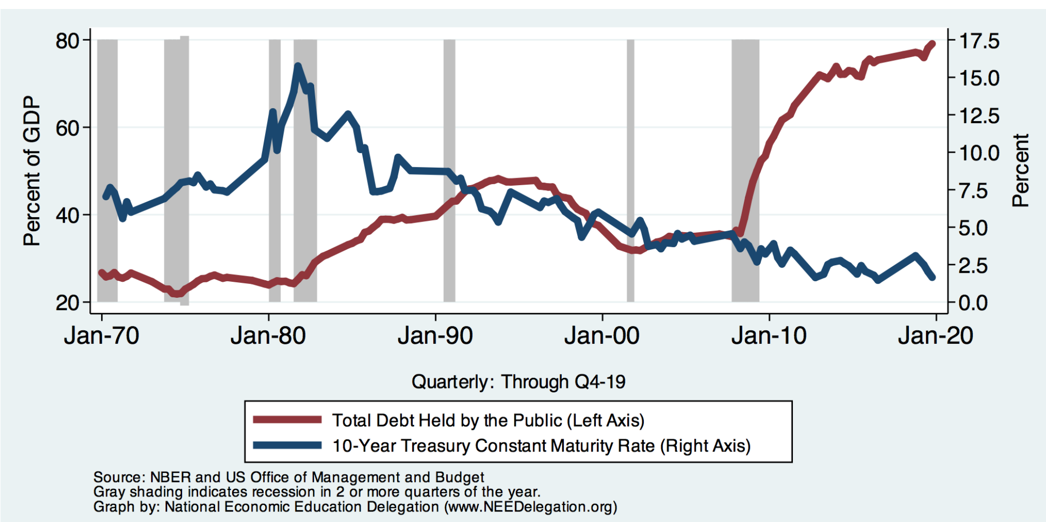
Problem #1: the Dog that Didn't Bark



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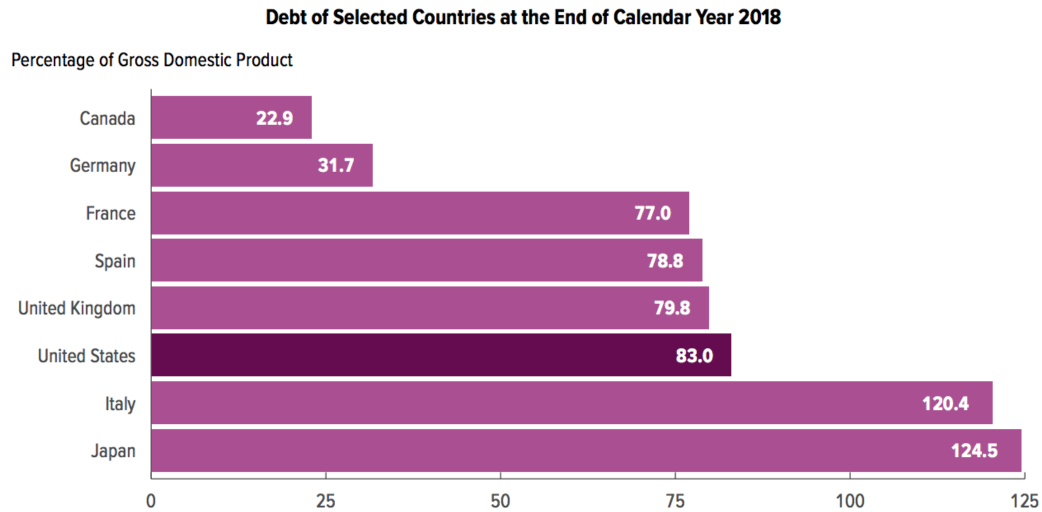
Other Countries Have Higher Debt Levels



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

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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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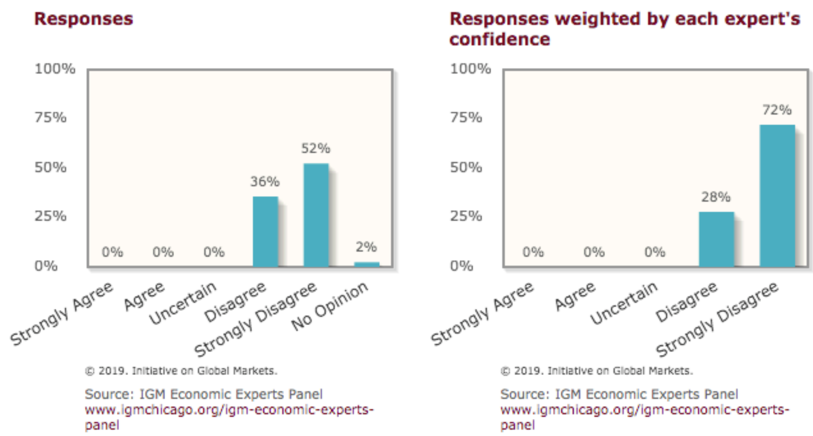
General Sense on Modern Monetary Theory

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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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 2: Increases in relative debt crowd out other government spending or must lead to higher taxes.**

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Bottom Line

- Question is not ***WHETHER*** the U.S. will have to act…

  …but ***WHEN***.

- Some combination of the following ***WILL*** be necessary:
  - **Raising taxes**
  - **Cutting spending**
  - **Reining in health care costs**

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Are There Reasons to Wait?

- **Very little evidence of:**
  - Crowding out
  - Inflationary impact
- **Uncertainty about the future**
  - Economic growth may render action today unnecessary.
- **There are a great many investments to be made by the gov't.**
  - Infrastructure
  - Education
  - Much, much more…

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Summary: The Debt

- **The jury is (sort of) out on the debt.**
- **Conventional wisdom is being challenged:**
  - Previously: inflationary and crowd out private investment
  - New assertion: these things don't matter for a country that can borrow in its own currency.
- **Upshot?**
  - This is a policy choice.
  - The cautious approach is to rein in the debt.
  - The cautious approach may lead to slower economic growth.

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Summary

- **Debt: $22.9 Trillion**
- **Deficits drive growth in the debt.**
  - Likely greater than $1 Trillion per year.
- **Publicly held debt matters most.**
  - Will grow from 78% of GDP today to 180% in 2049 – pre-COVID-19 estimates.
  - Could be in excess of 100% of GDP by end of 2020.
- **Multiple ways to offset this growth.**
- **Growing interest payments can constrain budgets.**

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Summary: Address The Debt?

- **Risks:**
  - Inflation
  - Slower economic growth
    - Higher interest rates
    - Crowding out
  - Default
- **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.**
- **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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Thank you!

Any Questions?

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