



Osher Lifelong Learning Institute, Summer 2022 Contemporary Economic Policy

University of Hawaii, Manoa
July-Aug, 2022

Jon Haveman, Ph.D.
National Economic Education Delegation

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Course Outline

- **Contemporary Economic Policy**

- Week 1 (7/8): Economic Update (Geoffrey Woglom, Amherst College)
- Week 2 (7/15): The Black-White Wealth Gap (Jon Haveman, NEED)
- Week 3 (7/22): Cryptocurrencies (Geoffrey Woglom, Amherst College)
- Week 4 (7/29): Autonomous Vehicles (Jon Haveman, NEED)
- **Week 5 (8/5): Federal Debt (Joseph Carolan, Oakland University)**
- Week 6 (8/12): Gender Pay Gap (Jon Haveman, NEED)

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Submitting Questions

- Please submit questions of clarification in the chat.
 - I will try to handle them as they come up.
- We will do a verbal Q&A once the material has been presented.
- OLLI allowing, we can stay beyond the end of class to have further discussion.
- Slides will be available from the NEED website (https://needelegation.org/delivered_presentations.php)



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The US Federal Debt

OLLI – University of Hawaii, Manoa
August 5, 2022

Joseph Carolan, Ph.D.
Oakland University



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Debt: Feelings....

- Feelings about debt – often personal
- How you *feel*....depends



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Debt: What do we use it for / why need it?

NOTE: Debt = negative savings

- Don't make enough to cover expenses
- Buy things you want now, don't have the money → implies you will have it later
- Big purchases (house, car, etc.)
- Use it for investment (not speculating, economic investment which creates value greater than the cost of capital – $ROI > WACC$)
 - Education
 - Think: businesses – using it to grow!
- Unexpected emergencies – we need \$ now!
- Others?



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Debt: From whom / how do we get it?

- Family & friends (incl. crowd sourcing)
- Banking system
- Credit cards
- Venture capitalists
- Government (think student loans)
- Loan sharks
- Others?

Q: Does it matter from whom? Why?



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Debt: When does it become problem?

- Can't pay it back
- Gets too big (relative to what?)
- Interest rates too high
 - Requires higher ROI
 - Interest payments eat up too much of income
- Creditors demand repayment
- Damages credit rating severely
 - Hurts ability to borrow again
 - Increases cost of borrowing
- Things don't go as planned....
- Others?



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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



Traditional View

- **Repayment a non-issue: unlike private sector debt**
 - Government doesn't "pay back" debt.
 - Maturing government bonds are paid by issuing new bonds ("rolling over" the debt)
 - 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.
 - ? What's cost of "rolling over"? When is it good?



What about default?

- Private sector can default / declare bankruptcy
- Stephanie Kelton (Modern Monetary Theorist)

6-6-2020, *NYTimes* op-ed, "Learn to Love Trillion-Dollar Deficits."

US Treasury borrows in dollars and therefore cannot default (as opposed to Greece).



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Federal Debt: Opening comments

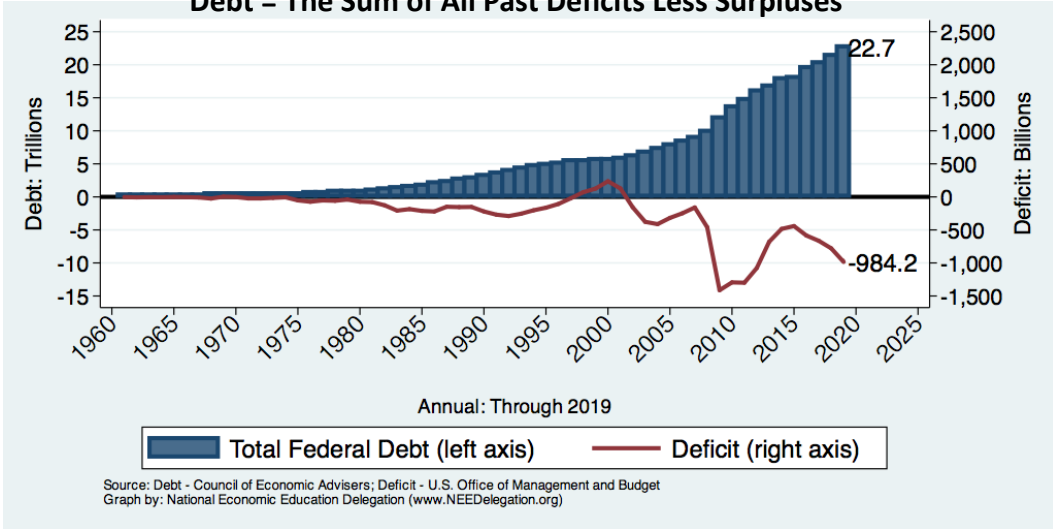
- **Reminder: Debt = negative savings**
- **'Deficit' vs 'Debt'**
 - Fiscal year Deficit = Total Outlays Less Revenues between Oct to September.
 - Accumulated value of past borrowing is total **government debt**.



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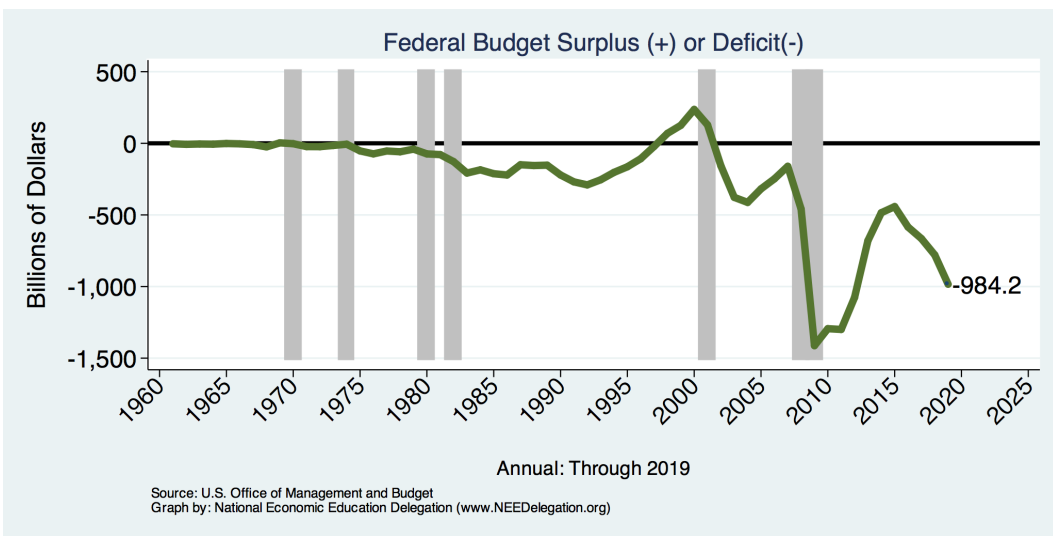
Debt vs. Deficit

Debt = The Sum of All Past Deficits Less Surpluses

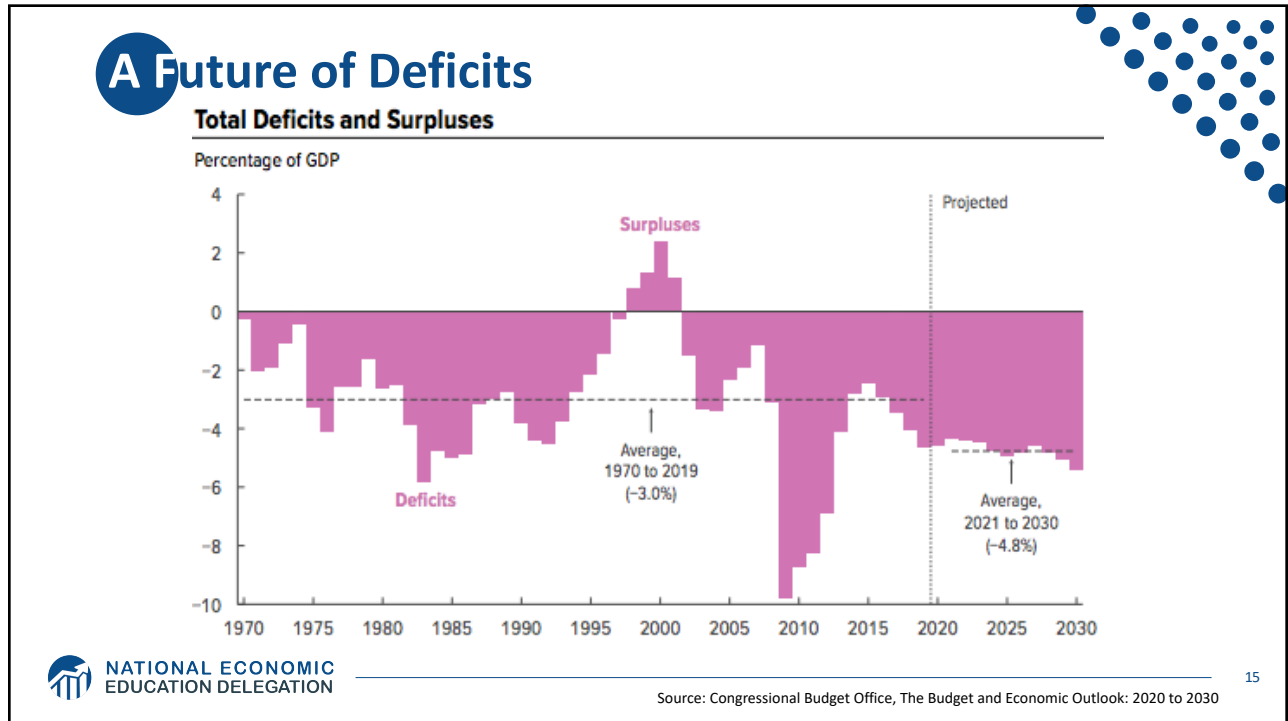


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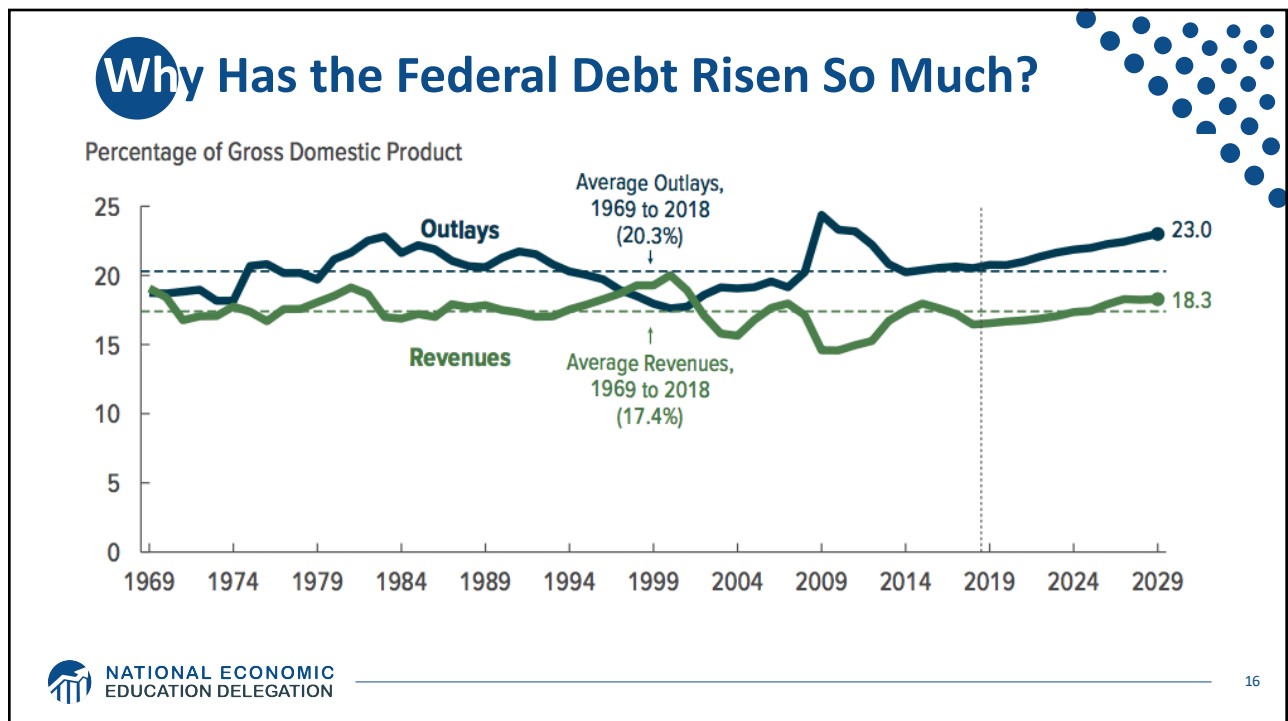
A History of Persistent Deficits



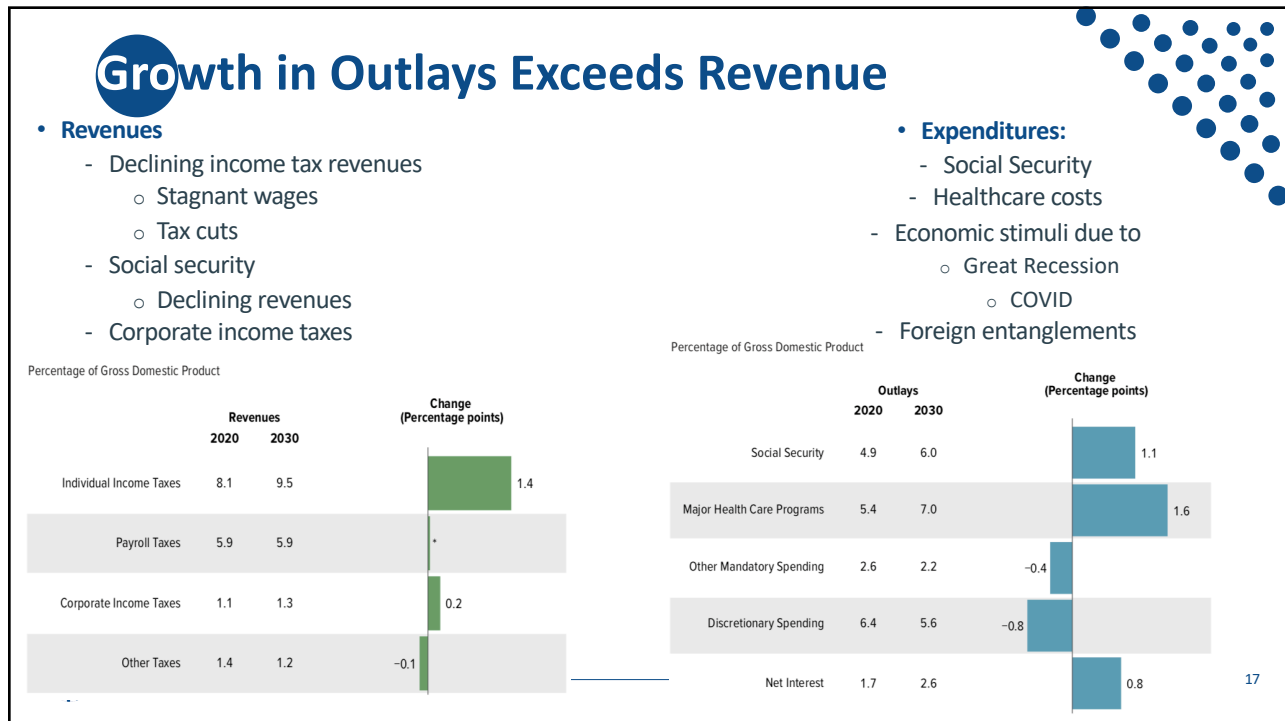
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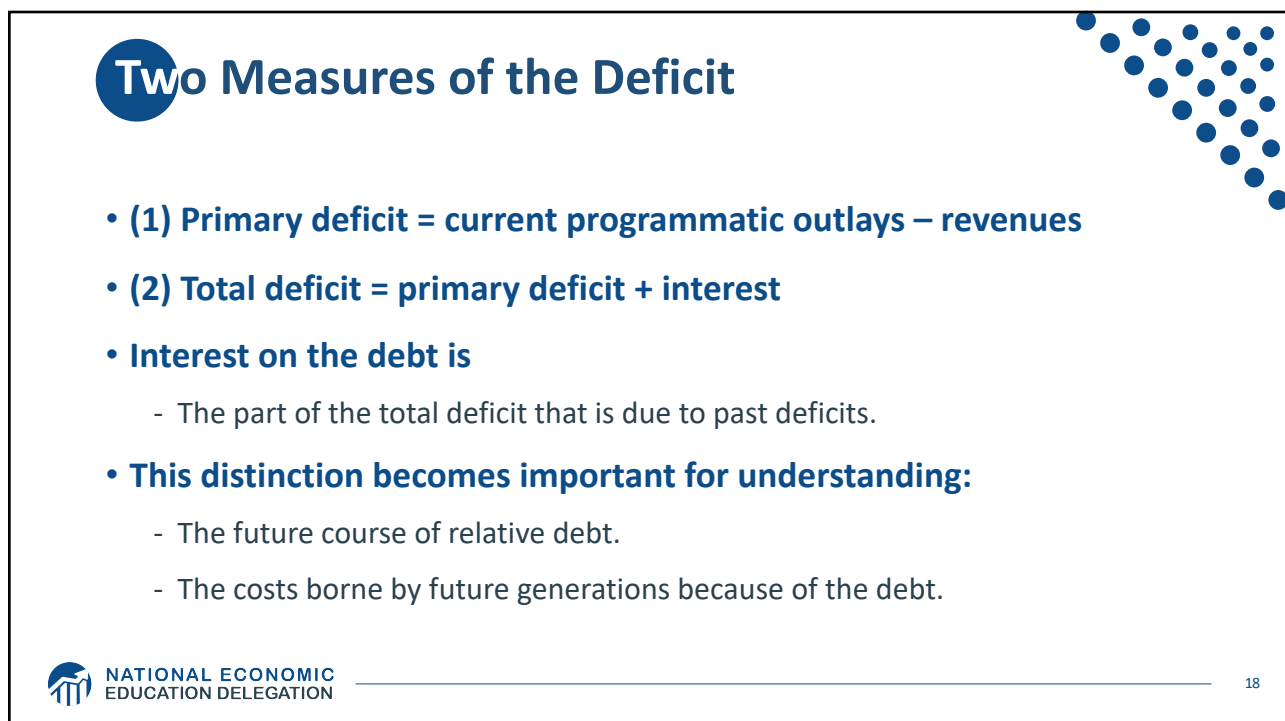
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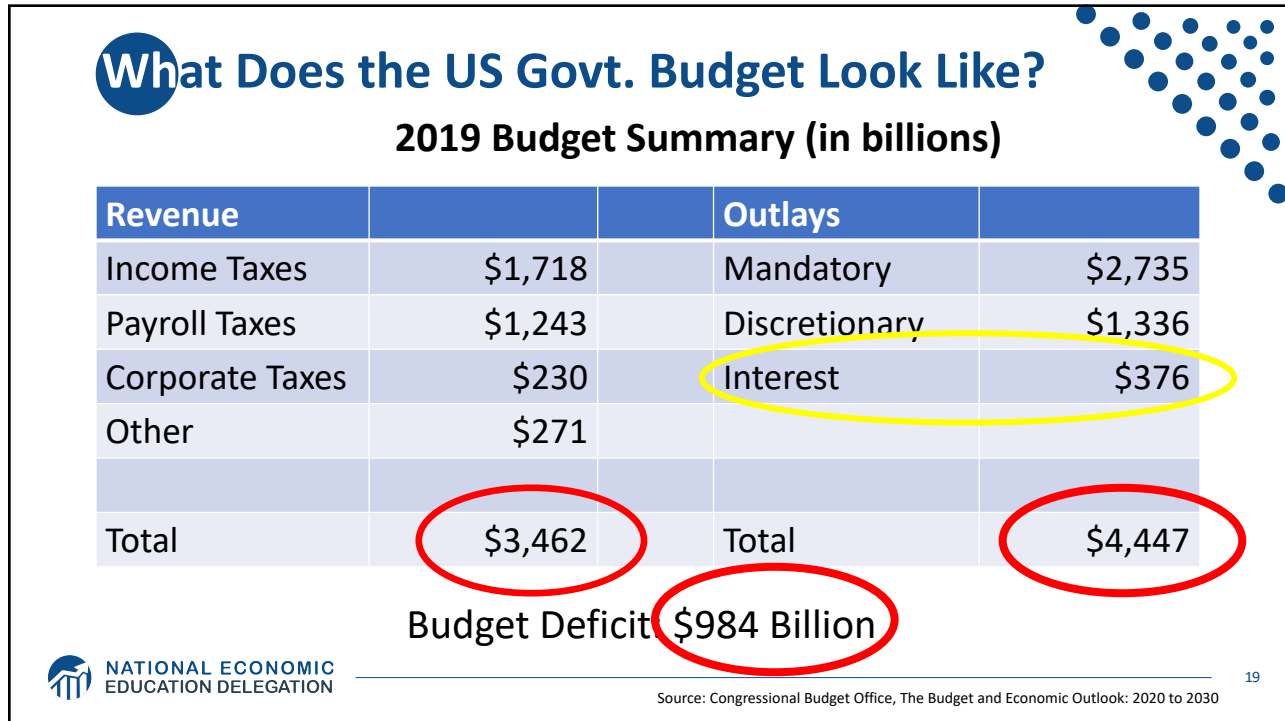
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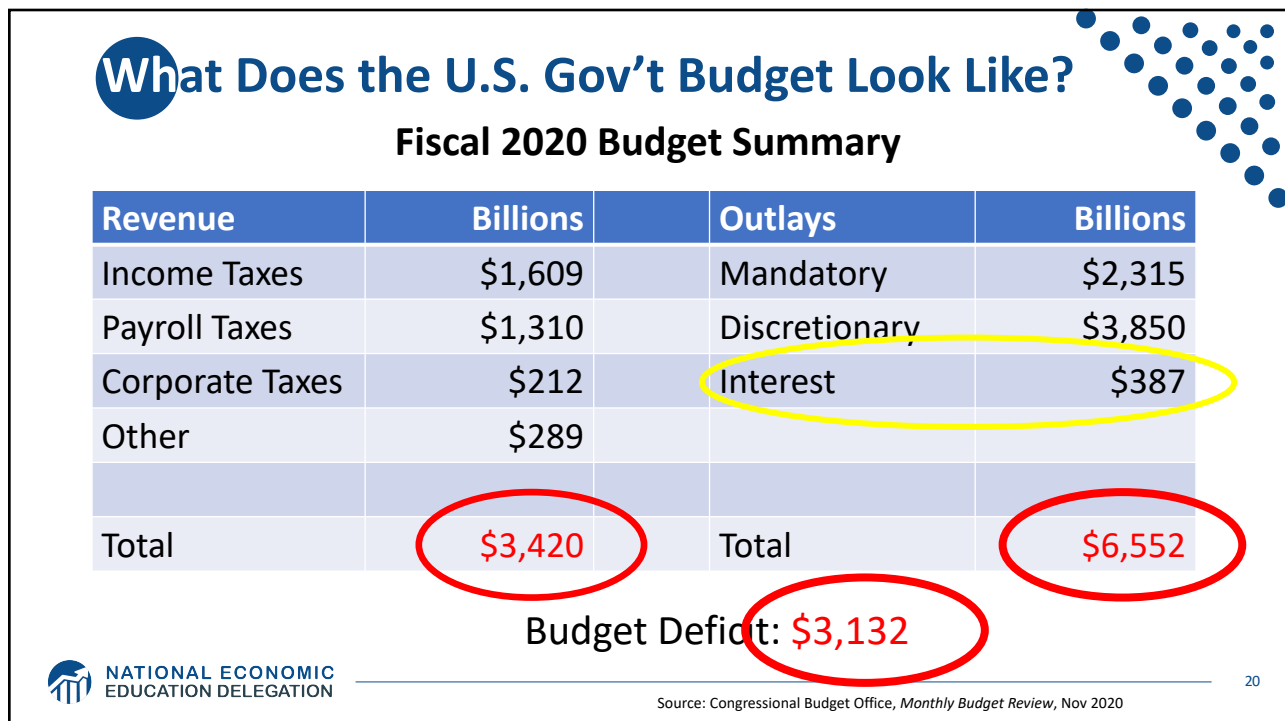
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Issue: deficit spending....

- Continued deficit spending increases debt. Is this a problem?



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Traditional View: Yes

Debt and Deficits Raise Interest Rates

- 1. Government spending 'Crowds Out' Private Investment via higher interest rates & fewer loanable funds:**
 1. Private sector: less investment over time means smaller capital stock and reduced future output.
 2. Government: primary surplus needed to stabilize the debt is larger; i.e., less programmatic outlays or higher taxes
- 2. Increases Foreign Borrowing & investment domestically:**
 1. Higher interest rates lead to foreign capital inflows or foreign borrowing.
 2. With foreign borrowing, some of our GDP is paid to foreigners as interest.



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Common belief :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 do not permanently increase relative debt.**

- Great Depression, WWII → Great Recession? COVID?
- Public investment expands GDP and tax revenue → $ROI > WACC$

- **Government spends more than earns. Use it on good debt? Or bad debt?**



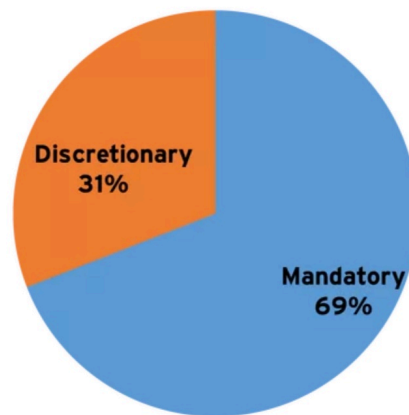
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On What is the Money Spent? Complicated

COMPOSITION OF FEDERAL SPENDING (2018)



Source: Congressional Budget Office, Haver

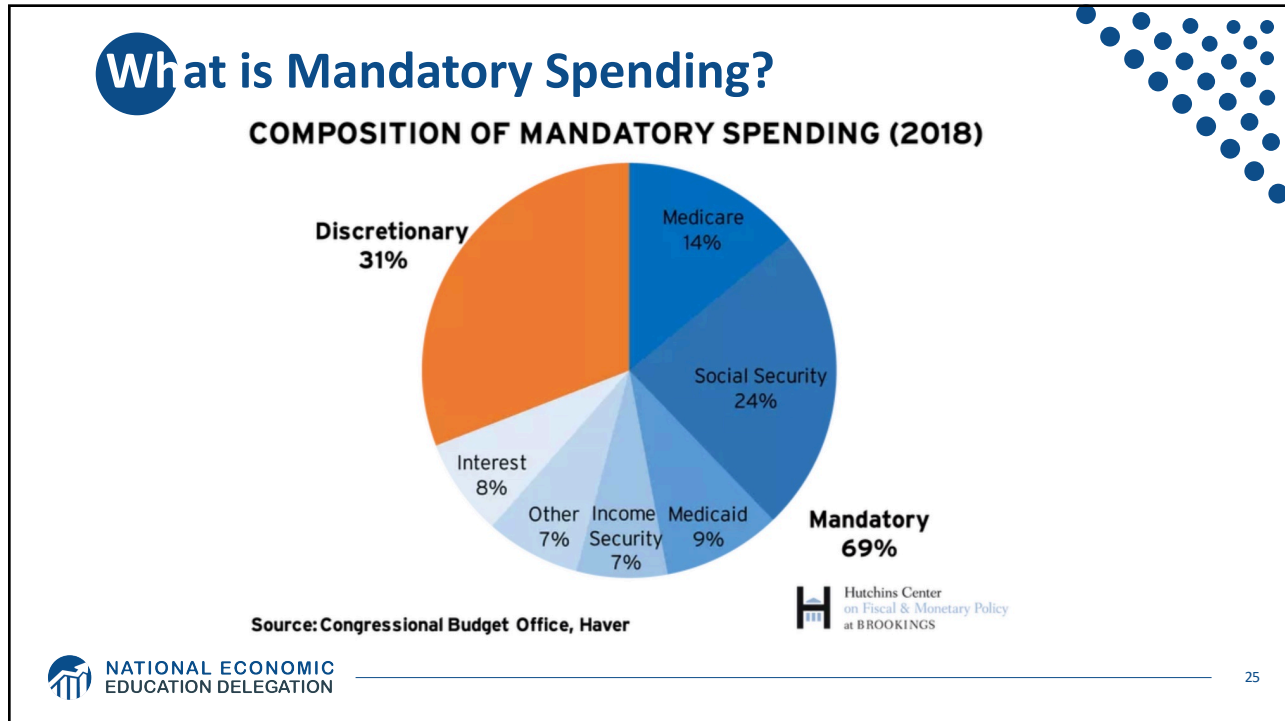
Hutchins Center
on Fiscal & Monetary Policy
at BROOKINGS



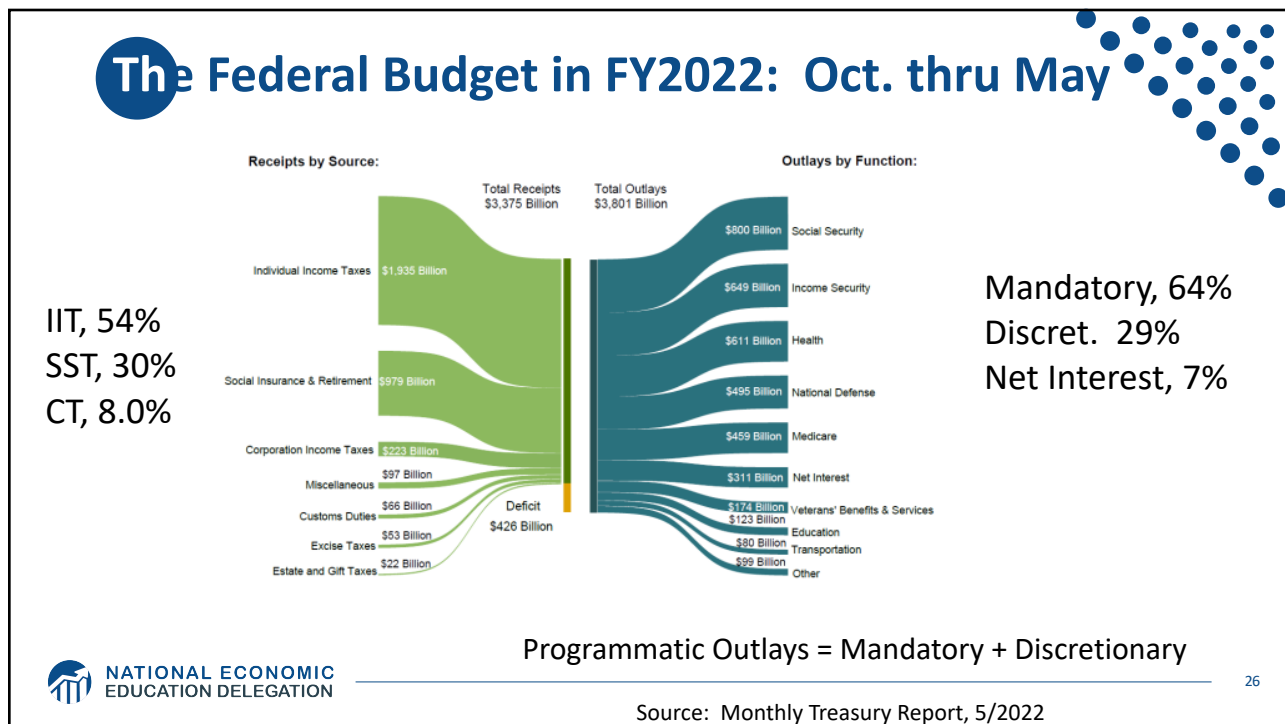
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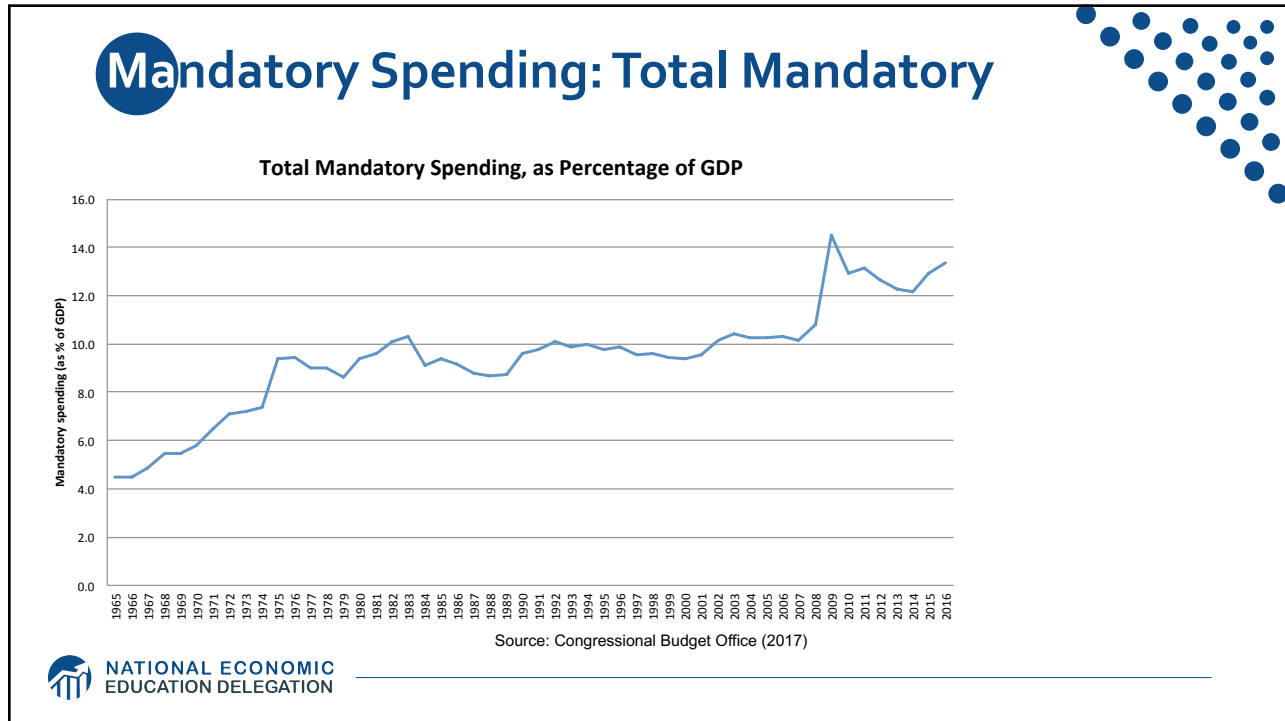
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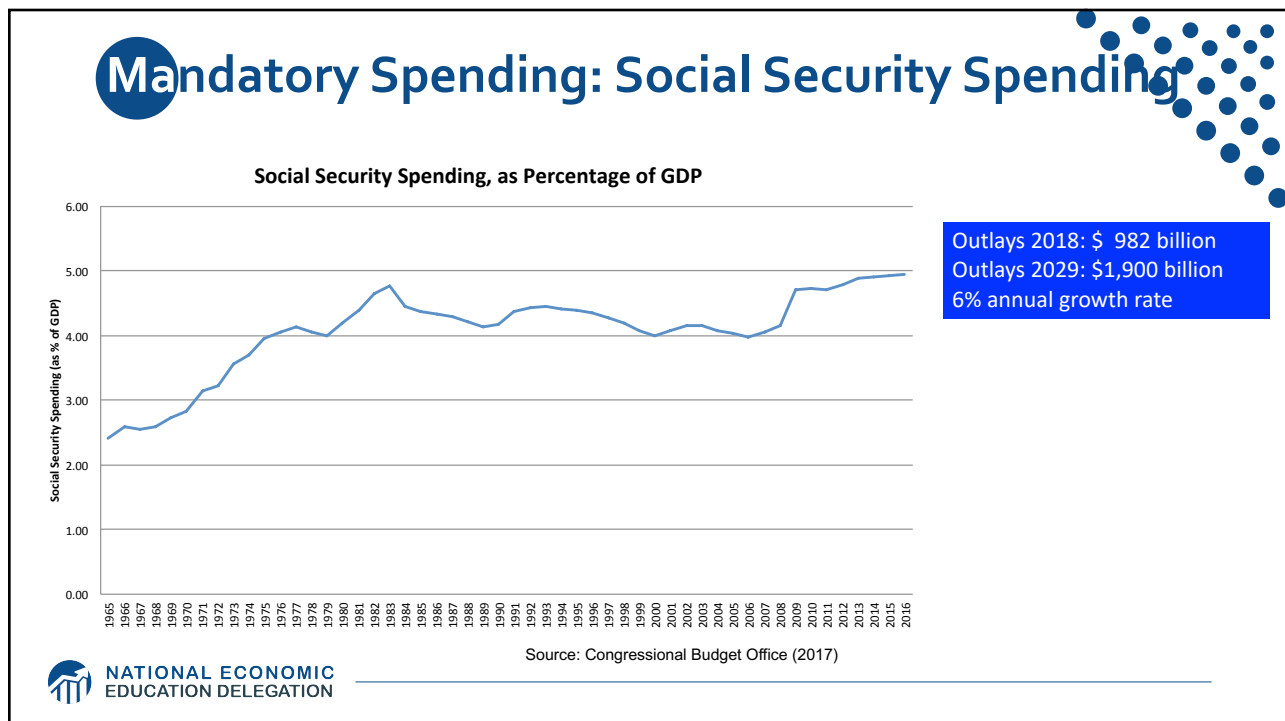
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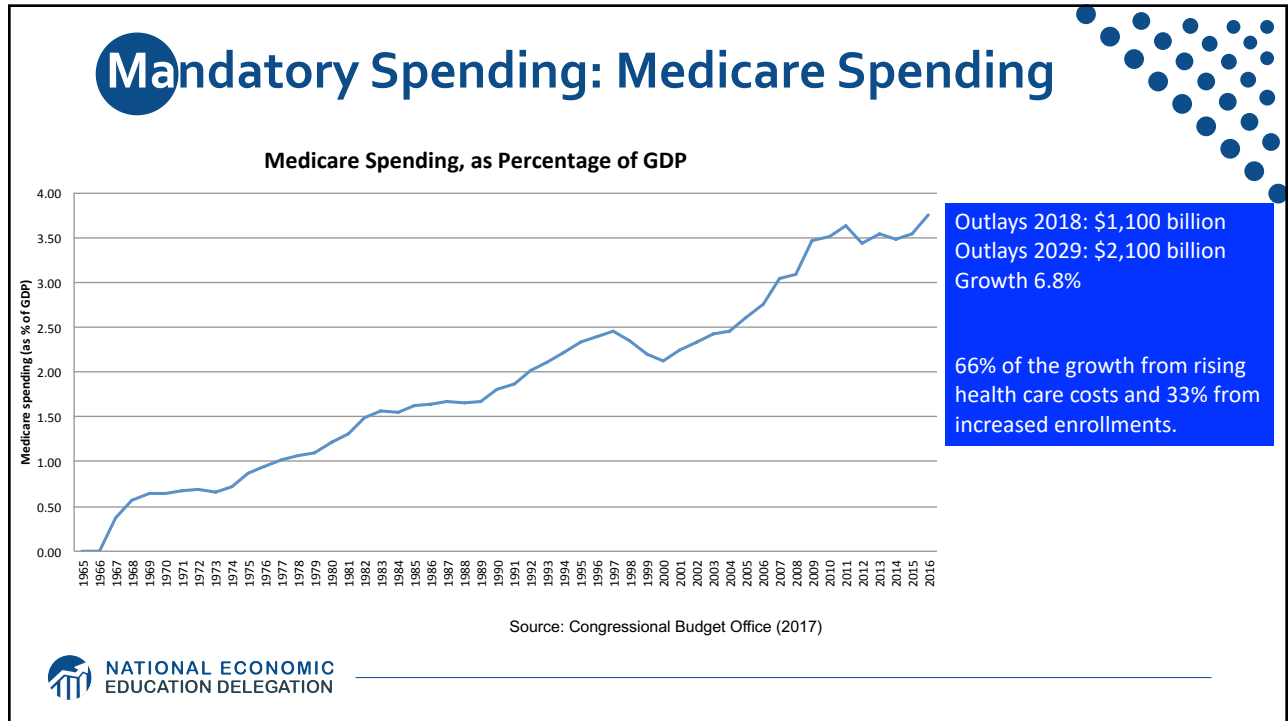
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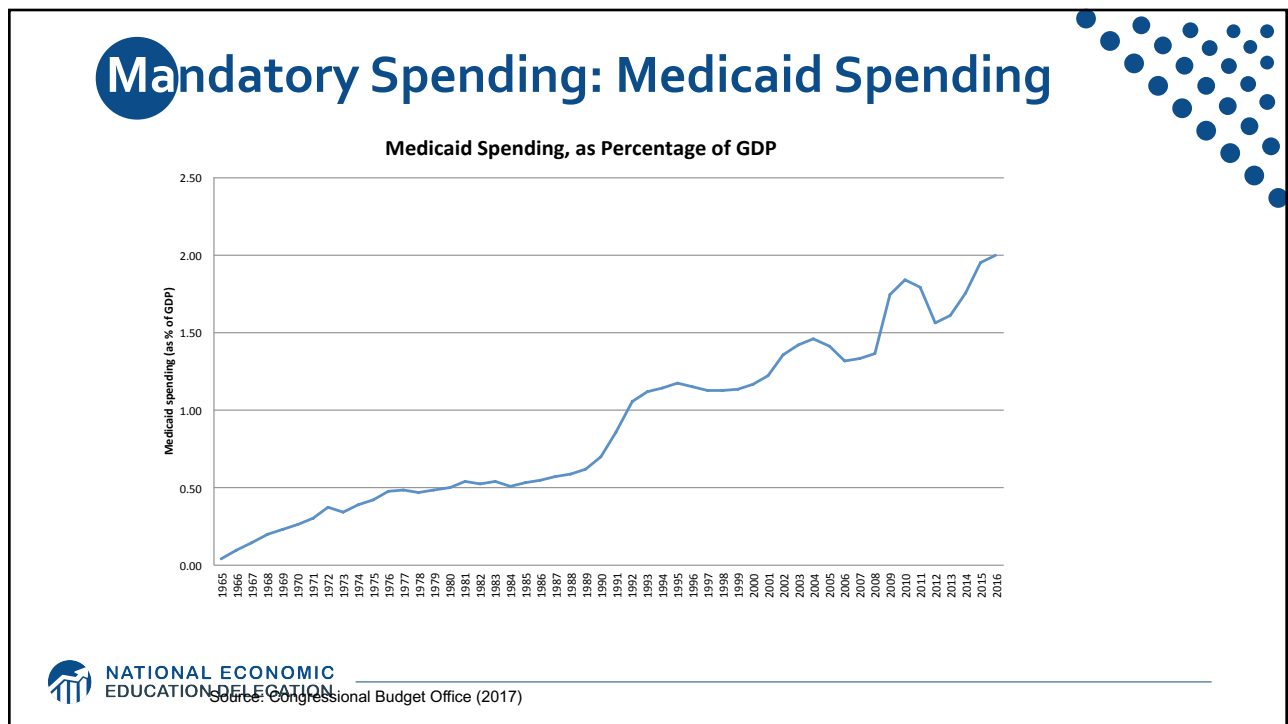
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Budget Consequences of an Aging Population

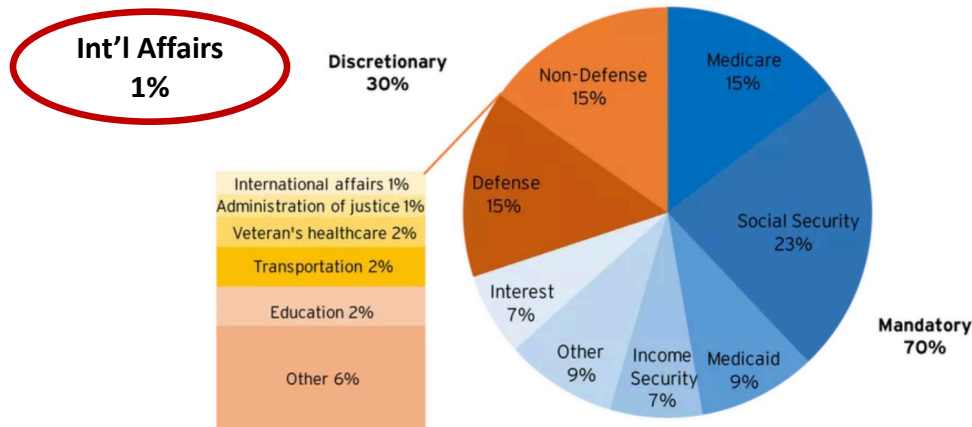
Contributions to the Federal Deficit: % of GDP

	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

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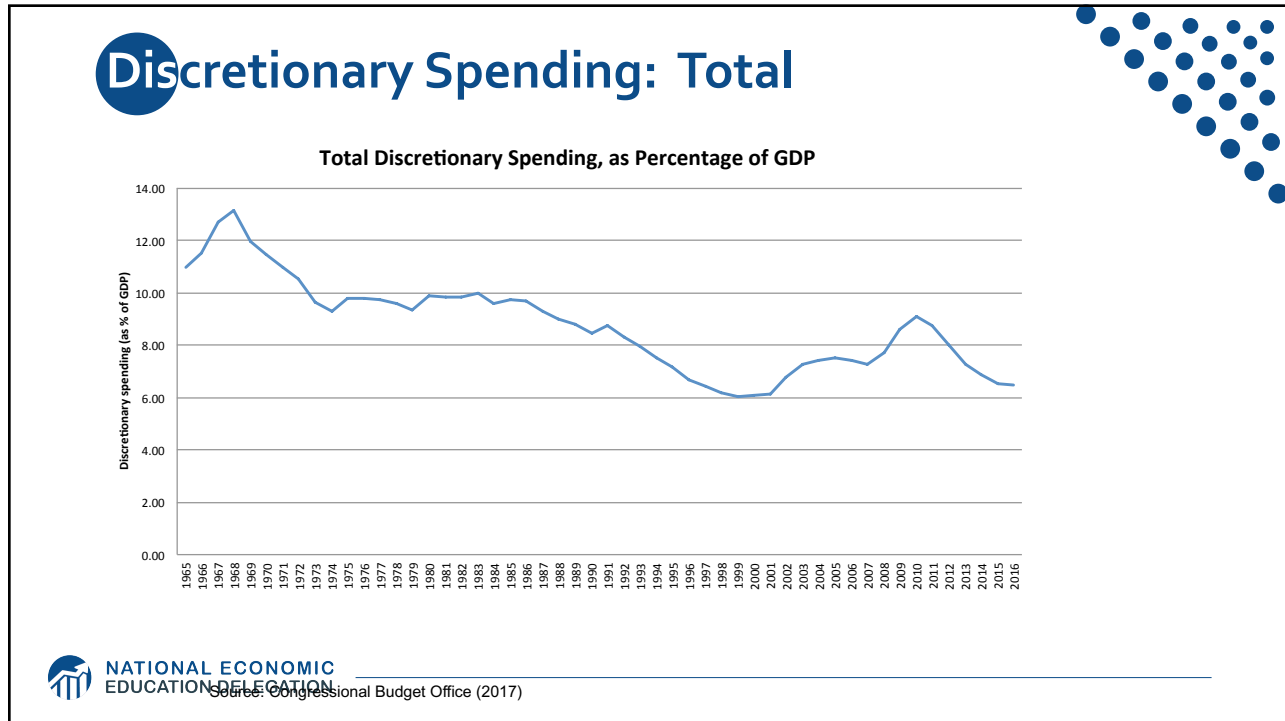
What is Discretionary Spending?

COMPOSITION OF DISCRETIONARY SPENDING (2017)

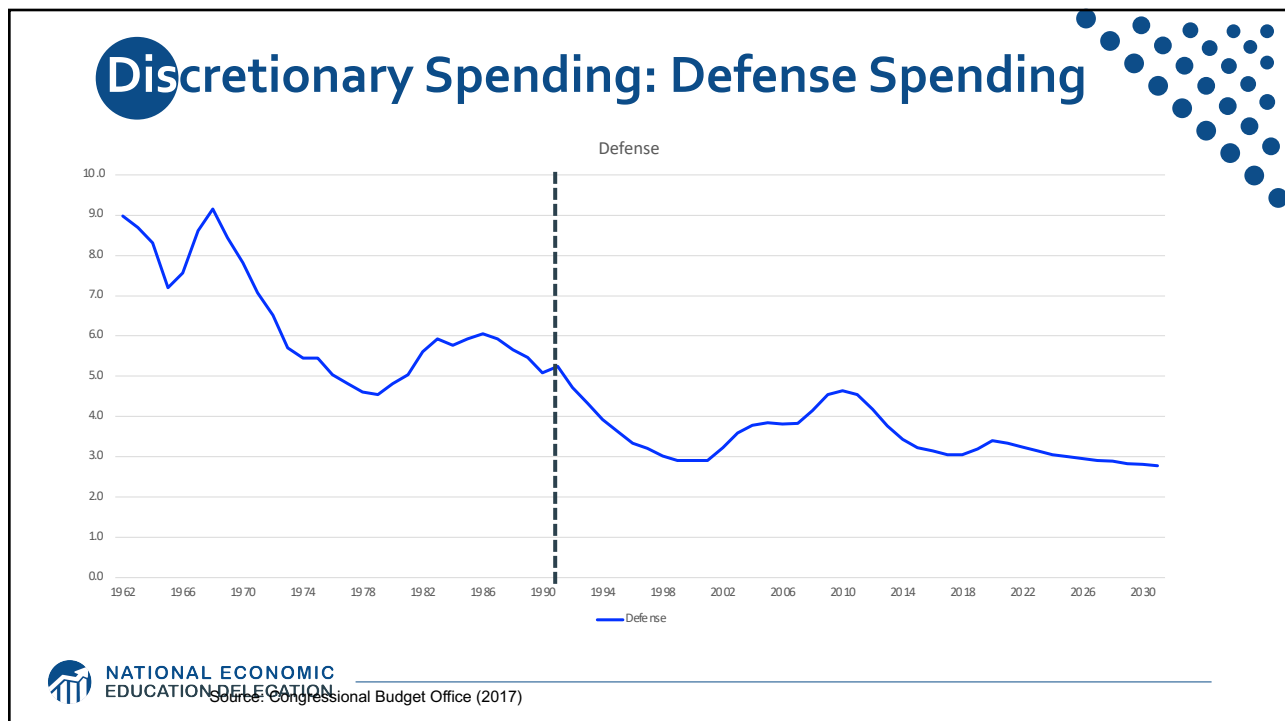


Source: Congressional Budget Office, Haver. Data are for 2017.
Note: Numbers may not add up due to rounding.

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Reminder: Two Measures of the Deficit

- **(1) Primary deficit = current programmatic outlays – revenues**
 - Continues to grow!
- **(2) Total deficit = primary deficit + interest**



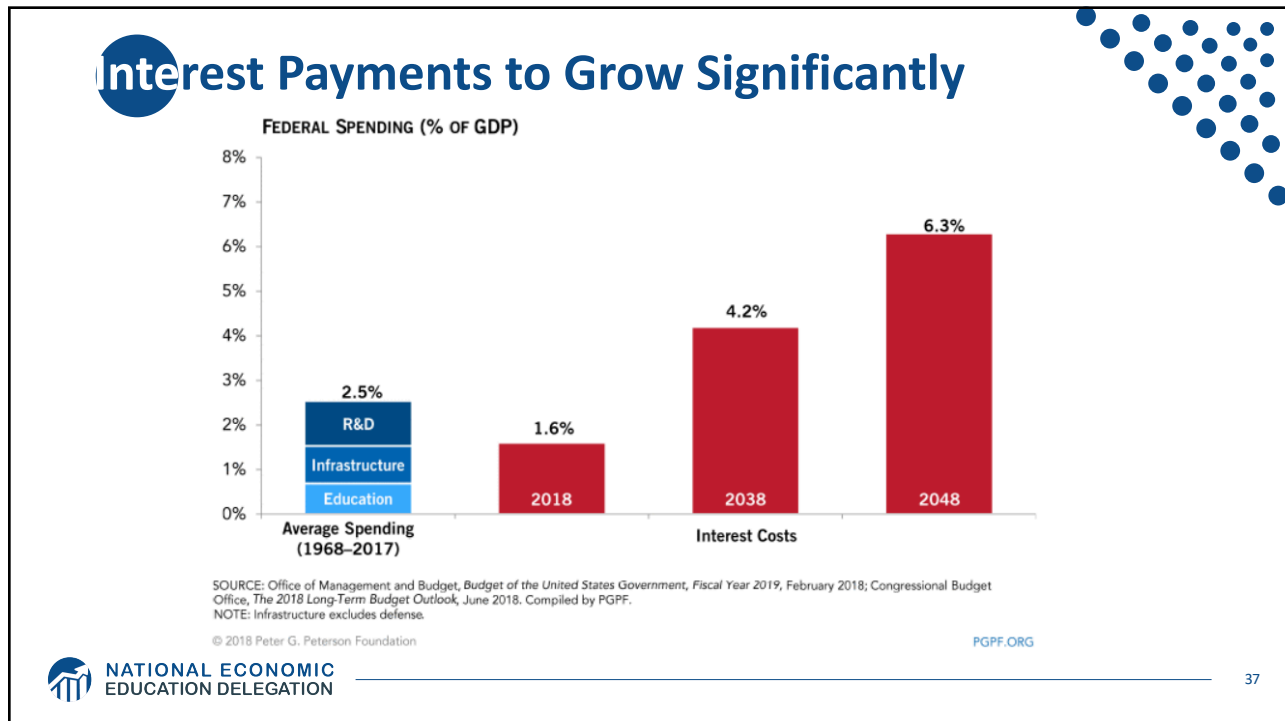
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Issue: rising interest payments

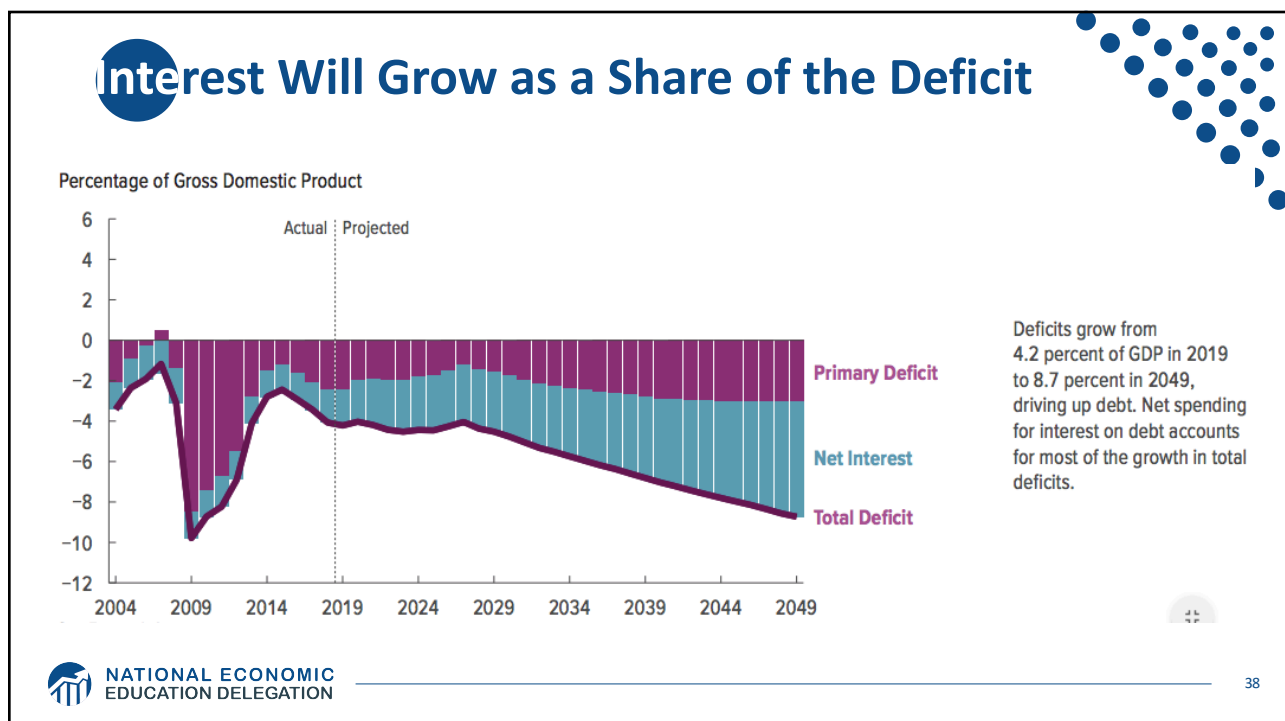
- **More debt means more interest to pay as debt matures**
- **Rising interest rates → cost more to “roll over” debt**
- **Are days of very low interest rates gone?**
- **IF foreign owners panic, rates up! (see later)**
- **Foreign borrowing demands higher rates (later)**
 - **Interest costs in 2018: \$325 Billion**
 - 1.6% of GDP, or 8% of the Federal Budget
 - **Forecast to increase to \$928 Billion in 2029**
 - 3.0% of GDP, or 22% of the Federal budget



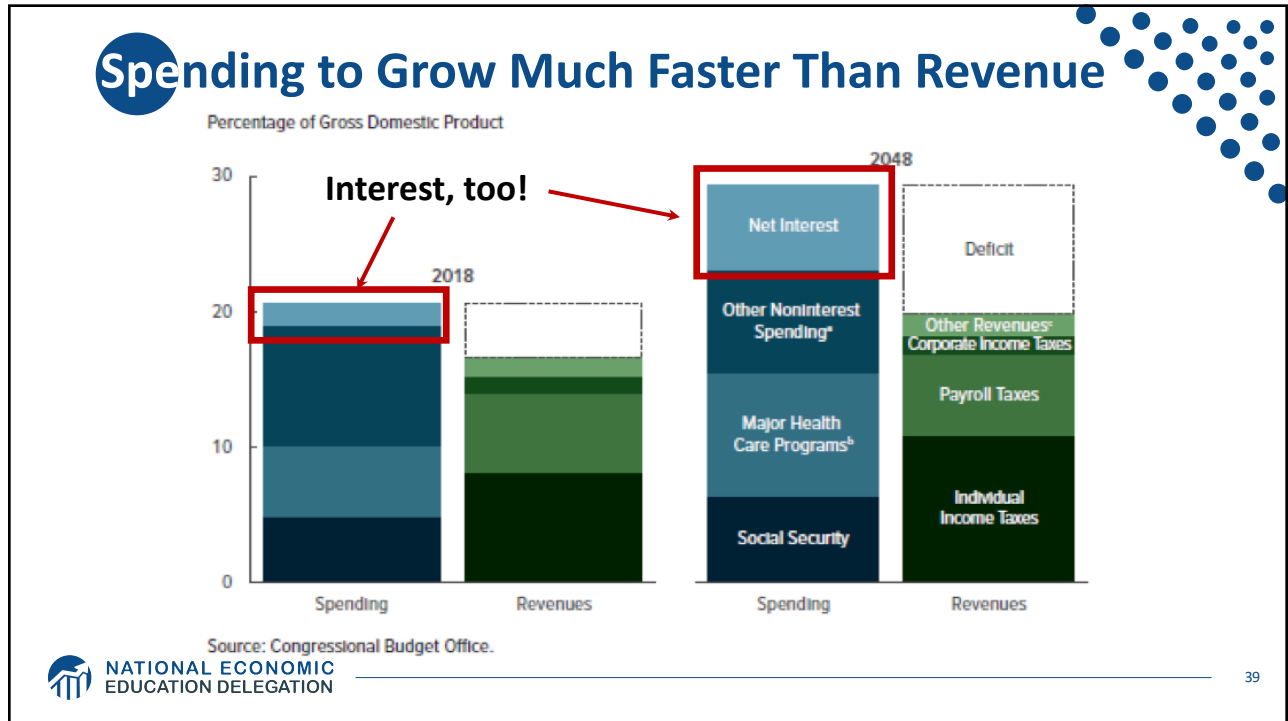
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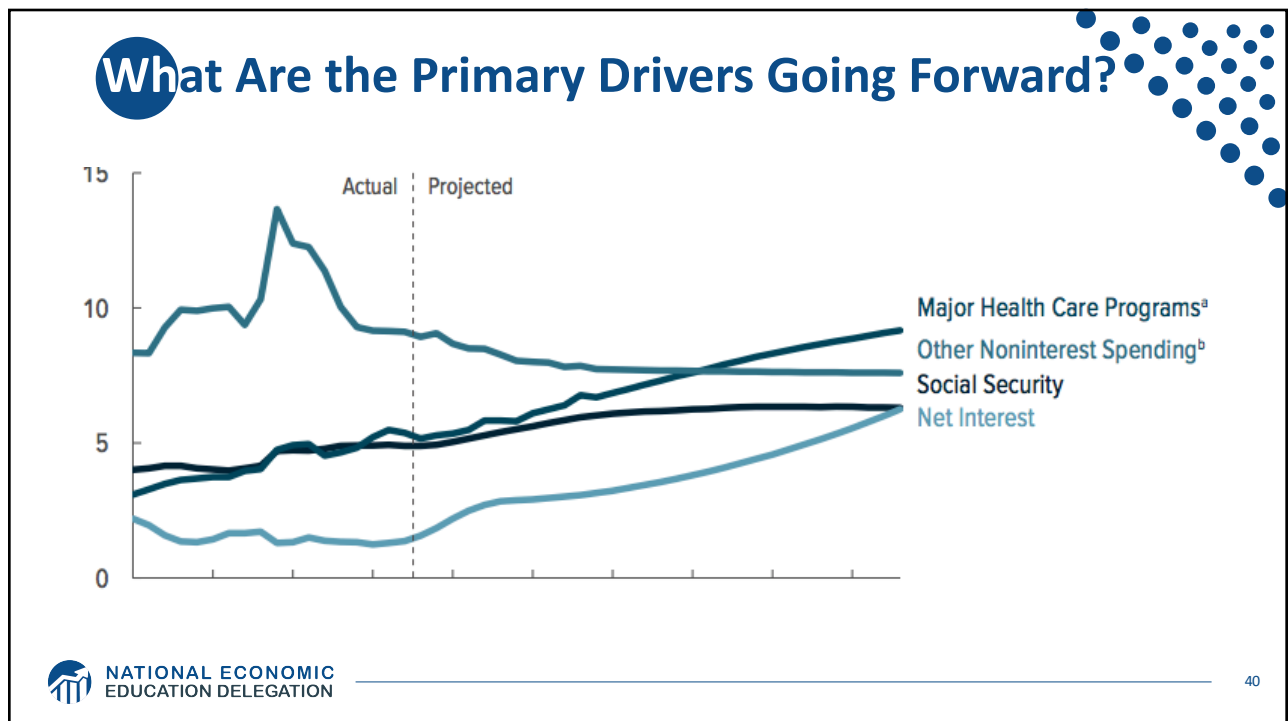
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Is The Debt a Problem Today? (Pre-COVID 19)

- 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.



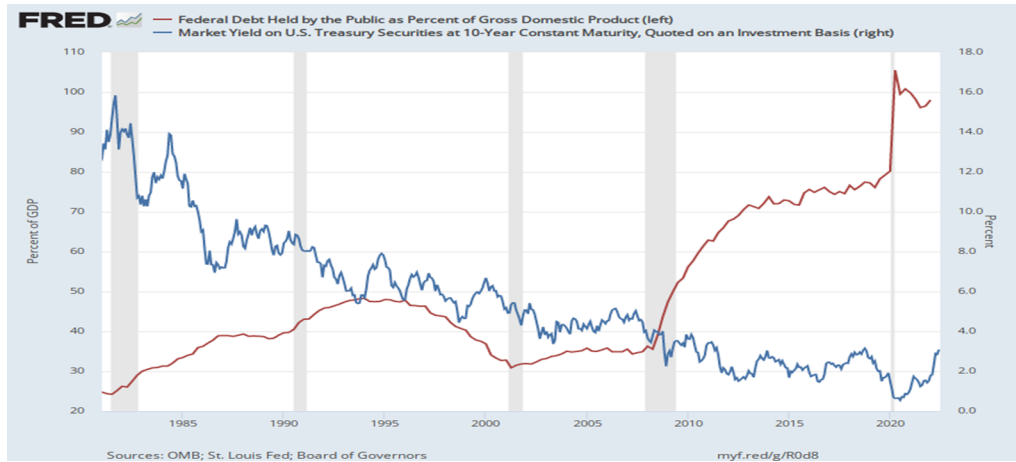
What the Traditional View Got Wrong

- Assumed that the interest rate was *greater* than the growth in GDP
 - In order to stabilize the debt, government must run a primary surplus.
 - The bigger the debt, the larger the required primary surplus.
- More debt today means a higher primary surplus is needed in the future, i.e., higher taxes and/or less programmatic outlays.
- BUT....interest rates didn't behave that way



The Dog that Didn't Bark; Rising Interest Rates?

Blue Line Rate on 10-Yr Treasury Bonds; Red Line Relative Debt



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MMT's 'Free Lunch'

- The only limit on deficit spending is if 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."
- **Dr. Kelton again**
 - Example: How did we "find the money" in FY 2020 to increase in the deficit by about \$1.9 trillion?
 - Answer: Fed open market purchases of \$1.7 trillion provided 89% of the financing.
 - More generally, she argues that we can always find the money to increase federal spending



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MMT's Free Lunch – maybe not so free...

- Recent rise in inflation suggests free and easy application of MMT theories – acting boldly in times of emergency, finding money via Fed, etc – might lead to problems.
- Deficit spending need to be reigned in....?
- **AND, foreigners hold a substantial portion of our debt and they can lose if the exchange value of the dollar falls (later)**



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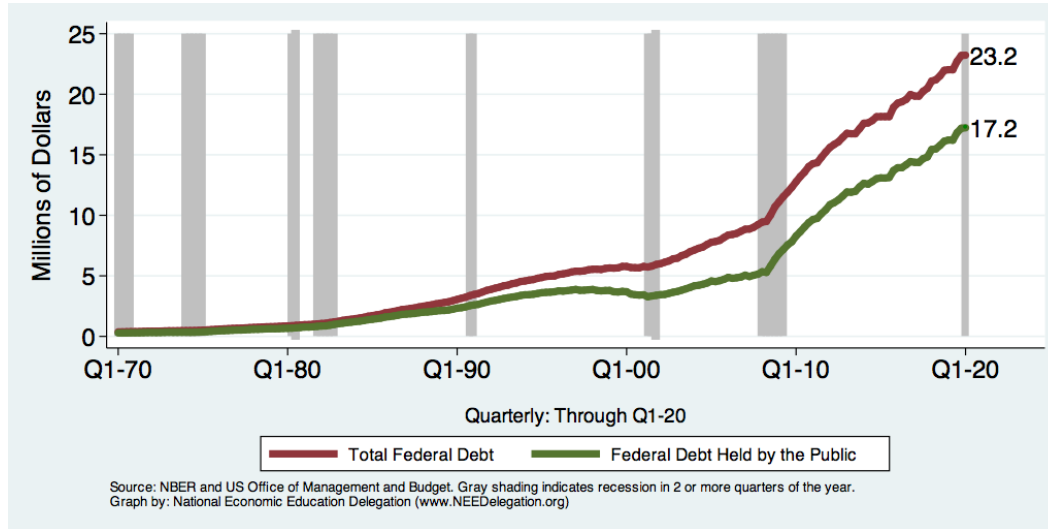
Issue: how big is too big?

- **Debt is growing b/c**
 - Primary deficits continue to grow
 - Interest payments continue to grow
- **When should we start to worry that it's getting too big?**



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Two Measures of the Debt



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Not All Debt Is Created Equal

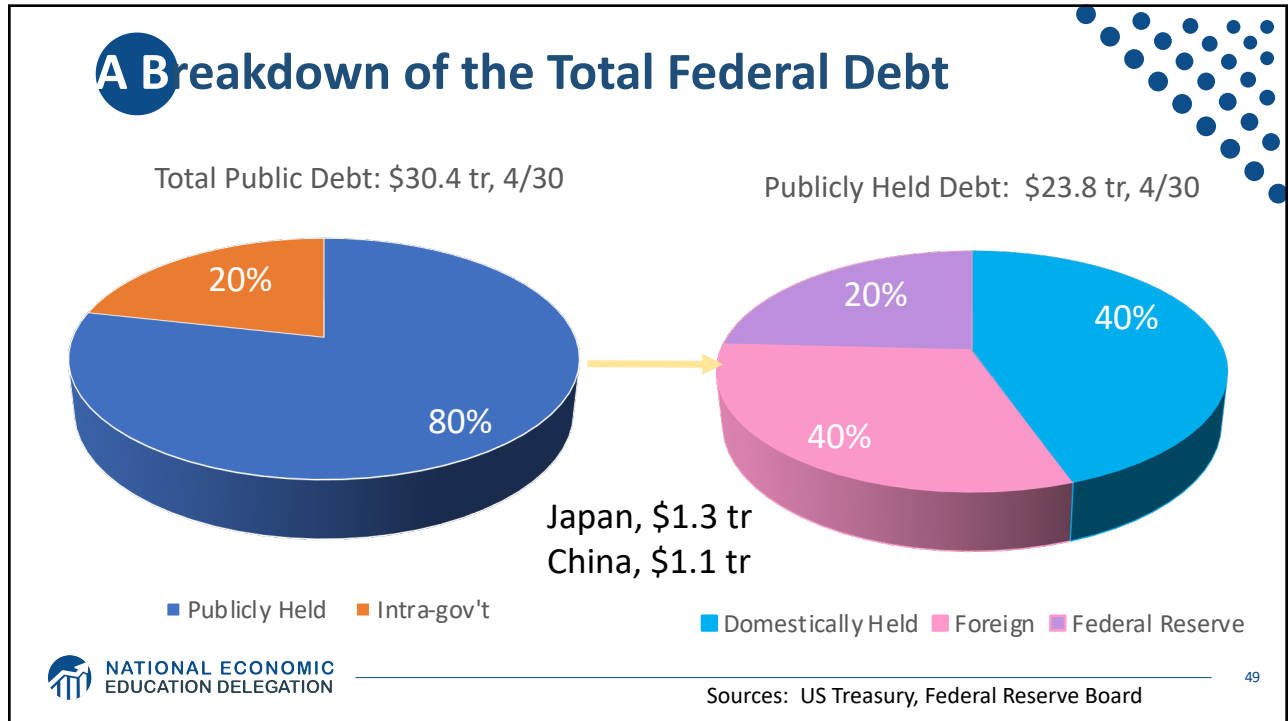
- **Some debt can reduce the availability of investment funds to other borrowers.**
 - Often referred to as “crowding out” private investment
- **Intra-government debt is (important) bookkeeping.**
 - This debt **DOES NOT** crowd out private investment.
 - This debt **DOES NOT** require funding on credit markets
- **Debt held by the public**
 - This debt **MIGHT** crowd out private investment.
 - This debt is funded by borrowing on credit markets and competes with private funding.



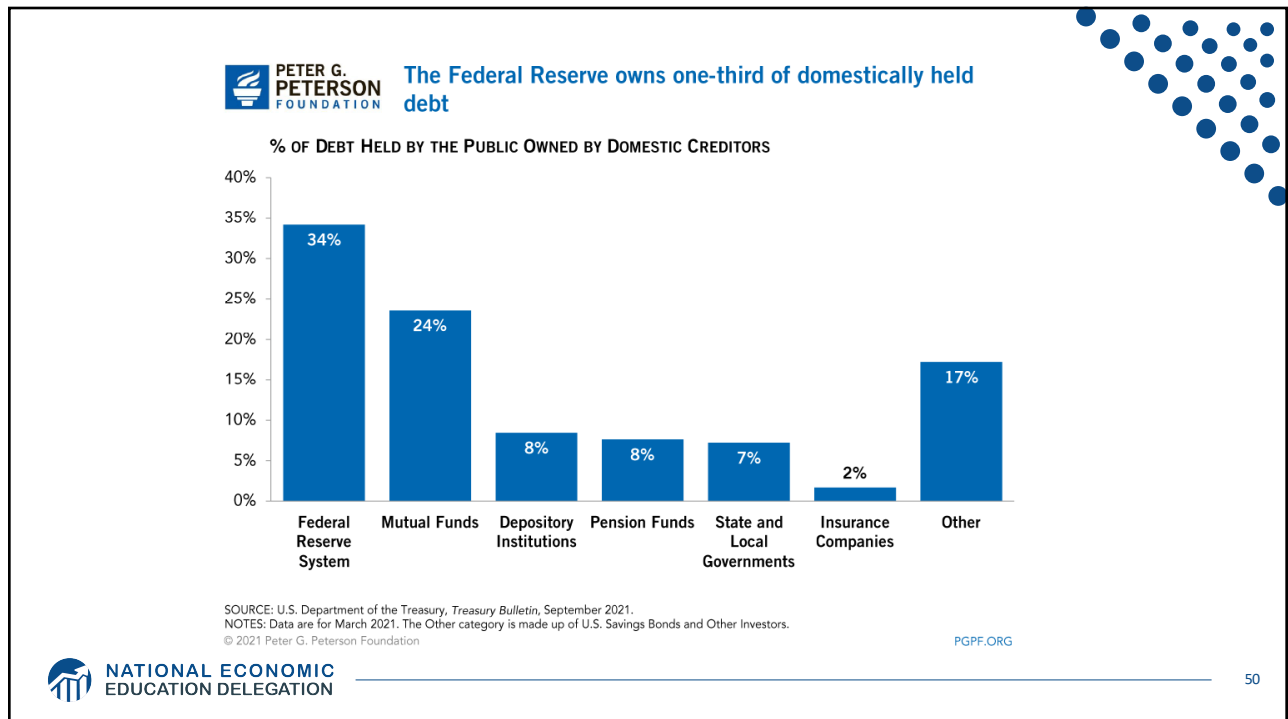
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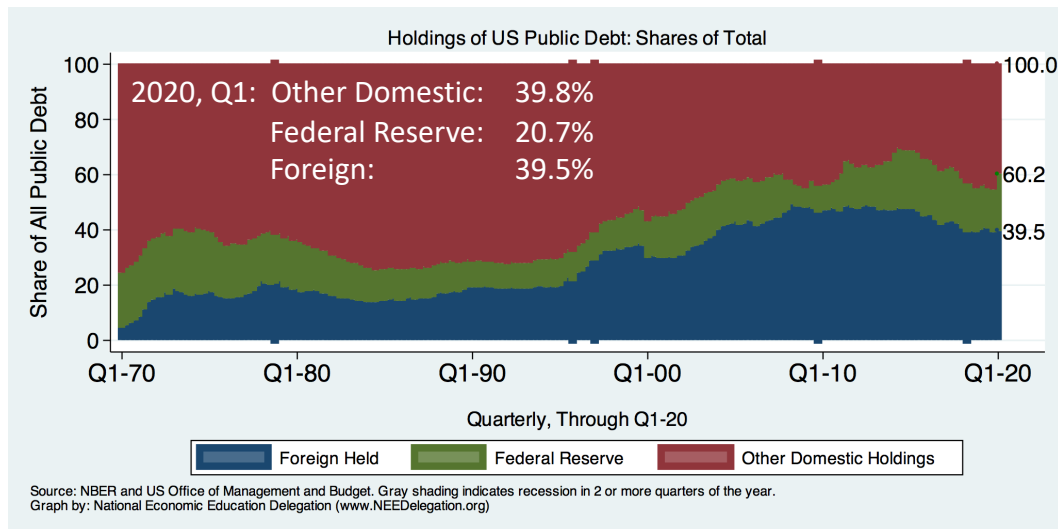


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Trends in US Debt Over Time



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Key Idea: *Relative Debt*

- Most analyses of debt focus on federal debt held by the public.
 - 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 (i.e. GDP)
- 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 than the *numerator*
- Why just public debt? Because it has to be “repaid” via “rolling over” and is subject to interest rate fluctuation

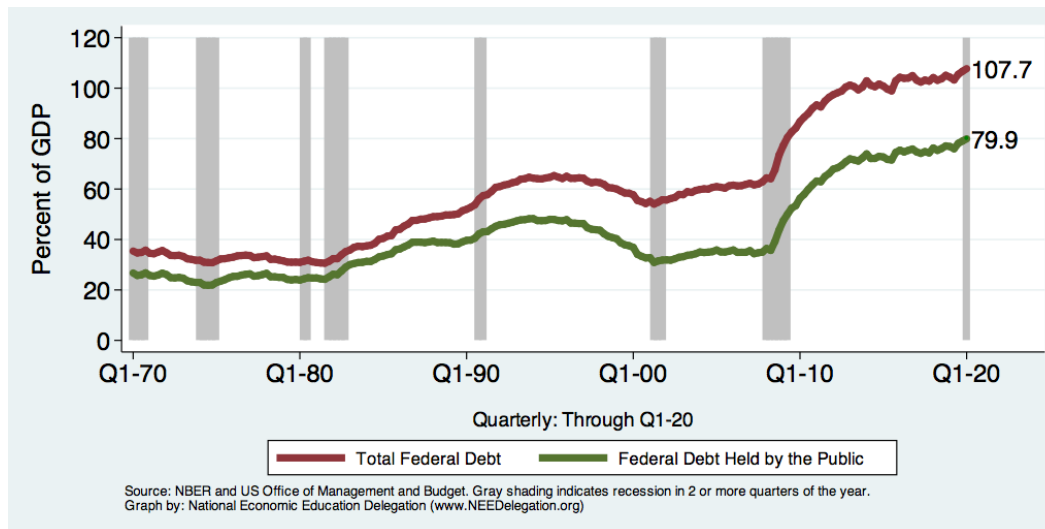


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Two Measures of RELATIVE Debt



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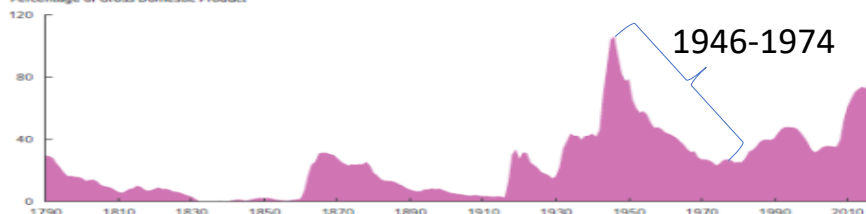
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Key Points About the U.S. Relative Debt

Federal Debt Held by the Public

Percentage of Gross Domestic Product



1. Relative debt peaked during WWII (106%) - followed by a steady decline until the 1980s.
2. Prior to 1983, relative debt rose purposefully (wars, recessions, public investment) and then fell.
3. What can we learn from the 46-74 period, where the relative debt fell continuously?



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Debt Dynamics

- The relative debt fell *in spite of* deficits in 21 of the 29 years, with the debt increasing by 42%. How?
- 1946-1974, deficits caused the debt to grow, but not as fast as the economy was growing.
- While the debt grew by 42%, GDP (nominal) grew by 550%

You don't need a surplus to reduce the *relative* debt:
You just need GDP to grow faster than the debt

- **Two Parts to the growth rate of US debt:**

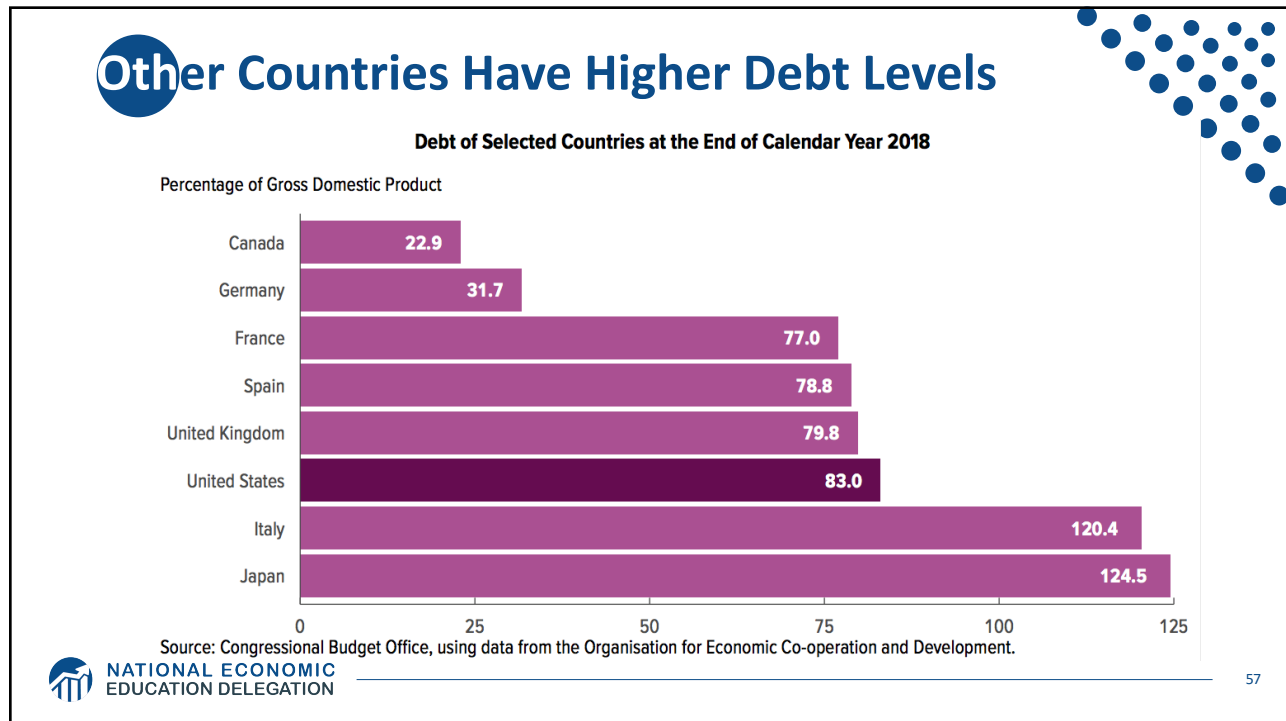
1. The interest rate on the debt.
2. A portion that reflects a primary deficit (+) or primary surplus (-)

GDP growth needs to
 exceed Int Rate + Growth
 Rate of deficit



Fed Debt: Problem yet? Soon?





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Relative Debt Cannot **Grow** Forever, But

- **IF Relative does grow, then we encounter issues with lenders**
 - Interest payments will grow with it.
 - Investors might start questioning the creditworthiness of the US government
 - Interest rates might increase
 - It becomes more difficult to borrow in times of crisis.
 - Could start to crowd out investment by consumers and businesses.
 - Could be inflationary.
- **May not present a problem if $GDP > \text{Interest rates}$ (Blanchard)**
- **Don't forget that 40% to foreigners (yep...later...almost..)**

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New View: Almost a Free Lunch

- If the interest rate is *less* than the growth rate of GDP, then Debt to GDP can be stabilized with a (small) *primary deficit*: programmatic outlays can be less than revenues!

Olivier Blanchard (economist @ MIT, Head of IMF.):

"If the future is like the past [with low interest rates],...the issuance of debt without a later increase in taxes may well be feasible. Put bluntly, public debt may have no fiscal cost."

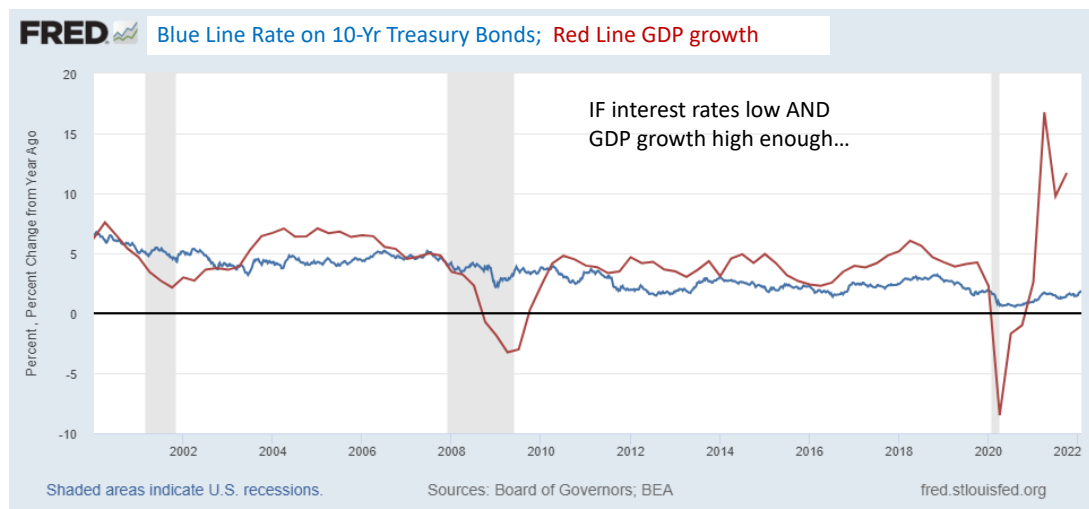
But,

"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."

- **Blanchard does believe that the relative debt must be stabilized**
 1. At some point current deficits must be reduced.
 2. But it may not be crucial at what level of debt we stabilize.



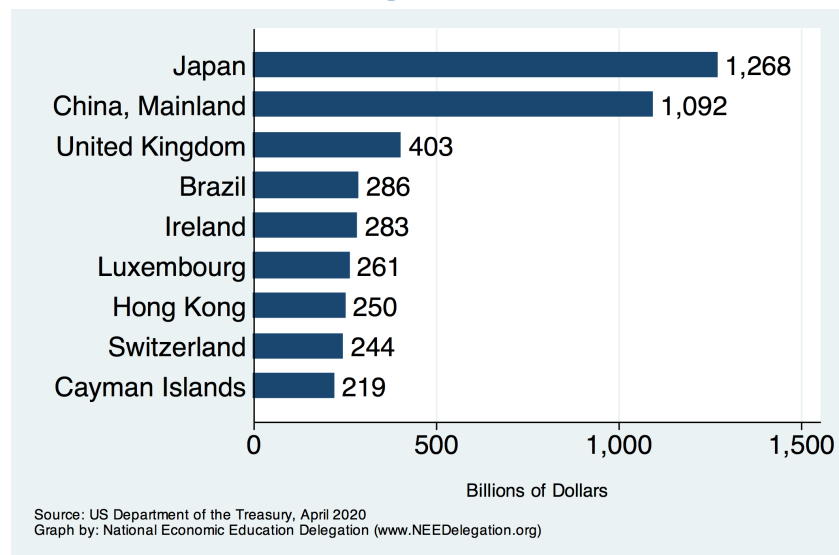
Blanchard's Evidence



Issue: The International Dimension (finally)

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Who Holds Debt: Foreign holders



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Should Foreigner ownership be concerning?

- **Why not?**

- Currency used for international trade
- Investors that are looking for stable ROI
- Imports & foreign borrowing go hand in hand (The “Best buy” effect)
- Fed holds foreign debt (the “poker game” idea)

- **Why?**

- Interest payments go to foreigners
- Possibility of a “fiscal crisis”



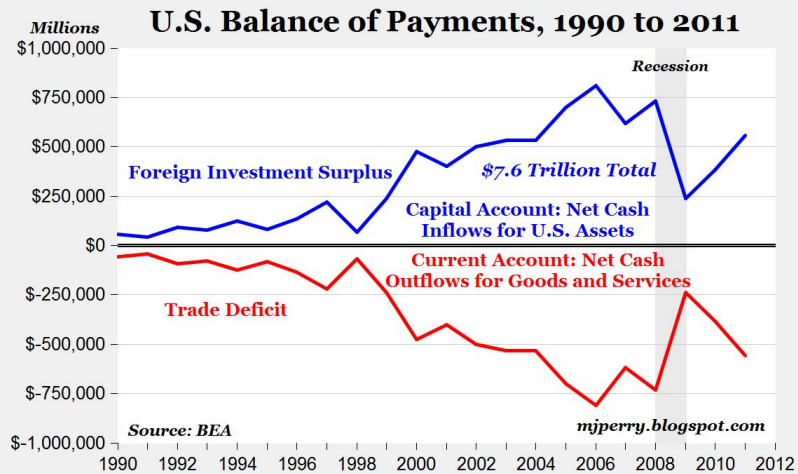
Why do Foreigners Buy US Treasuries?

- **Market for Treasuries is the deepest, most liquid and safest capital market in the world.**
- **US economy has a history of political and economic stability.**
- **We enjoy “An exorbitant privilege” (Valery Giscard d’Estaing): The dollar is the largest international reserve currency.**
 - Most trade transactions are quoted in dollars, e.g., oil.
 - With some exceptions, foreigners borrow in dollars. E.g., Yankee bonds



Trade and Investment Flows Balance Out

This is the
"Best Buy"
effect



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Issue: The International Dimension (finally)

- **Interest on foreign-held debt reduces US residents' welfare.**
 - Interest payments go to other countries.
- **When the Fed raises interest rates, the exchange rate of the dollar rises, causing:**
 1. Increases in the trade deficit
 2. Foreign borrowing.
- **Sharp increases in interest rates and the cost of imports raises the possibility of a fiscal crisis or a "run on the dollar."**



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What would a Fiscal Crisis Look Like?

Foreigners lose confidence in the dollar and sell Treasuries in exchange for assets denominated in their own currency,

1. Sale of Treasuries raises interest rates, worsening our fiscal outlook.
2. Trading of Foreign for US assets lowers US exchange rate.
 - a. Raising the price of imports thereby increasing inflation.
 - b. Lowering the foreign currency returns on all US assets, exacerbating 1.

Could the Fed Bail us Out? – the “poker game”

1. It could buy Treasuries and prevent the rise in interest rates.
2. Insufficient foreign assets to prevent the fall in the exchange rate,



CBO on the Costs of “High and Rising Debt”

1. The interest expense portion of the deficit will rise, including payments to foreigners.
2. Crowding out of private investment.
3. “The likelihood of a fiscal crisis in the United States would increase.”
4. Slow erosion of confidence in the U.S. dollar as an international reserve currency leading to higher interest rates.
5. Policymaker constraint in using deficit-financed fiscal policy to respond to unforeseen events.

CBO, “Budget and Economic Outlook: 2022-2032,” May 2022, pp15-16.



Any of these Options Sound Good?

Options to Reduce the Federal Deficit

CBO will publish a new volume of budget options at the end of this year.

Among the options that CBO has previously examined, 13 would have reduced the deficit by at least \$500 billion over the next 10 years:

- Reduce the Department of Defense's Budget
- Increase Individual Income Tax Rates
- Impose a 5 Percent Value-Added Tax
- Eliminate Itemized Tax Deductions
- Impose a Tax on Greenhouse Gas Emissions
- Impose a Tax on Financial Transactions
- Increase Excise Taxes on Motor Fuels and Index for Inflation
- Increase the Maximum Taxable Earnings for the Social Security Payroll Tax
- Increase the Payroll Tax Rate for Social Security
- Increase the Payroll Tax Rate for Medicare Hospital Insurance
- Establish Caps on Federal Spending for Medicaid
- Reduce Federal Medicaid Matching Rates
- Reduce Tax Subsidies for Employment-Based Health Insurance



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Takeaways / talking points

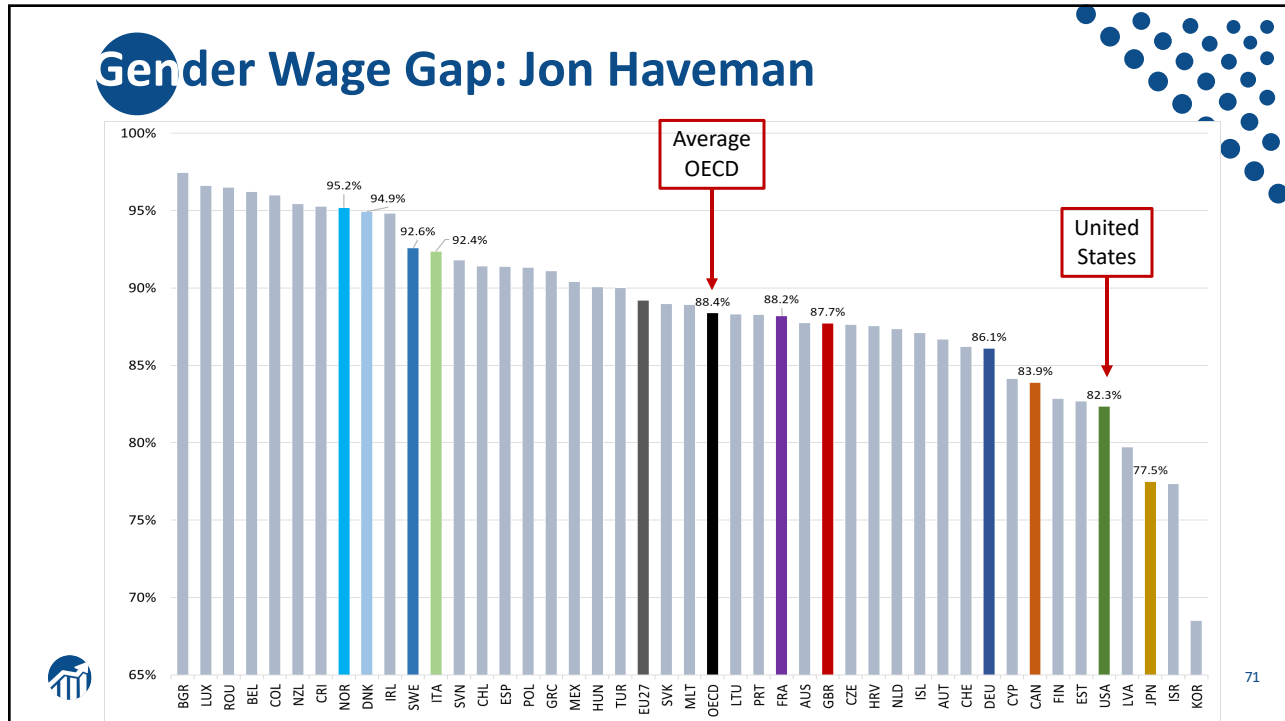
- **Can't technically default, nor technically have to "repay"**
 - "Rolling over" debt may cost more in future
- **The current trajectory for the federal debt seems unsustainable**
- **Persistence of deficit spending will increase need to borrow**
 - What should we cut?
- **Debt service will increase due to**
 - Deficit spending
 - Possible increased interest rates
- **Good borrowing may become more difficult if relative debt grows**
 - Economic investment may lack
 - Emergency borrowing ability may be constrained
- **Increased debt service may "crowd out" private investment**
- **Debt held by foreigners increases – may lead to 'fiscal crisis'**
- **Relative debt stabilization may be handled by combination of GDP growth and low interest rates**



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Thank you!

Any Questions?

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Federal Debt Glossary

- *Total Federal Debt* is the value of all outstanding government bonds (or “Treasuries”) that have been issued to finance past federal government deficits.
- *Deficit* is the difference between total federal spending and revenues.
- *Federal Debt in the Held by the Public* is the debt held by the private domestic investors, foreign investors and the Federal Reserve. The concept of the debt excludes intragovernmental debt, such as the debt held by the Social Security and Medicare Trust Funds.
- *The Relative Debt* is the Federal Debt Held by the Public as a fraction of the size of the economy, or GDP.
- *Congressional Budget Office (CBO)* is a congressional think tank that analyzes the effect of legislation on the budget (“scoring”) and issues periodic projections on the future of debt and deficits
- *Primary Deficit* is the difference between federal spending on programs and total revenues. The primary deficit excludes interest on the debt.
- *Rolling Over the Debt* the process of paying off maturing government bonds with newly issued



Federal Debt Glossary (Cont.)

- *Crowding Out* is the phenomena where government financing of deficits raises interest rates and lowers firms’ investment.
- *International Reserve Currency* is foreign holdings of US debt (and other countries debt) to facilitate international trade; e.g., oil is traded in dollars.
- *Default* is when an entity that issues a bond fails to make an interest payment or the repayment of the face amount on time.
- *Foreign Exchange Value of the Dollar* is the purchasing power of the dollar in terms of a foreign currency. When the US exchange rate falls, the dollar has less purchasing power over foreign goods.
- *Budget Reconciliation* is a Senate process for by-passing the filibuster, so that legislation can be enacted with a 51-vote majority. The process can only be used for changing spending or taxes and the legislation cannot increase the deficit after 10 years.

