Osher Lifelong Learning Institute, Summer 2022

Contemporary Economic Policy

University of Kentucky
June-July, 2022

Host: Jon Haveman, Ph.D.
National Economic Education Delegation

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Available NEED Topics Include:

- Coronavirus Economics
- US Economy
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- US Social Policy

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Course Outline

- **Contemporary Economic Policy**
  - Week 1 (6/15): Trade and Globalization (Alan Deardorff, University of Michigan)
  - Week 2 (6/22): Climate Change (Sarah Jacobson, Williams College)
  - **Week 3 (6/29): The Federal Debt (Geoffrey Woglom, Amherst College)**
  - Week 4 (7/6): Economic Inequality (Jon Haveman, NEED)
  - Week 5 (7/13): The Black-White Wealth Gap (Jon Haveman, NEED)
  - Week 6 (7/20): Trade Deficits and Exchange Rates (Alan Deardorff, University of Michigan)

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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 on Need website(www.NEEDelegation.org)**
- **Debt and Deficit Glossary in the Chat**

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The US Federal Debt

Geoffrey Woglom
Amherst College
Professor of Economics (emeritus)

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Credits and Disclaimer

- **This slide deck was created by:**
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  - Geoffrey Woglom, Amherst College, Emeritus
- **This slide deck was reviewed by:**
  - Olivier Blanchard, Peterson Institute for International Economics
  - John H. Cochrne, Stanford University
- **Disclaimer**
  - NEED presentations are designed to be nonpartisan.
  - It is, however, inevitable that presenters will be asked for and offer their own views.
  - Such views are those of the presenters and not necessarily those of the National Economic Education Delegation (NEED).

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Outline

- Definitions and Basic Data and Historical Data.
- What needs to be done to “stabilize” the debt?
- Traditional Economic Analysis of the Costs of the Debt
- New Ideas about the Costs of the Debt and the importance of foreign holders of the debt.
- “Debt? What me Worry?” Modern Monetary Theory.
- Recent Congressional Budget Office (CBO) analysis of the Cost of the Debt.
- Budget Reconciliation and CBO projections.
- Inflation and the Debt problem

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Basic Definitions

- Fiscal year Deficit = Total Outlays Less Revenues between Oct to September.
- The deficit paid for by government borrowing: (net) issue of new government bonds.
- The accumulated value of past borrowing is the total government debt.

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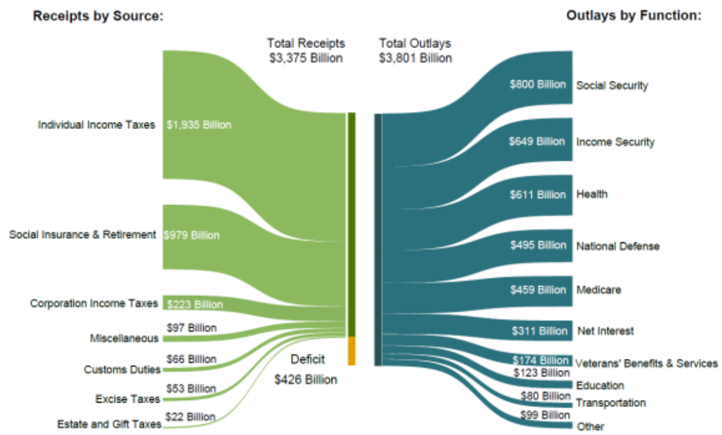
The Federal Budget in FY2022: Oct. thru May

IIT, 54%
SST, 30%
CT, 8.0%



Mandatory, 64%
Discret. 29%
Net Interest, 7%

Programmatic Outlays = Mandatory + Discretionary

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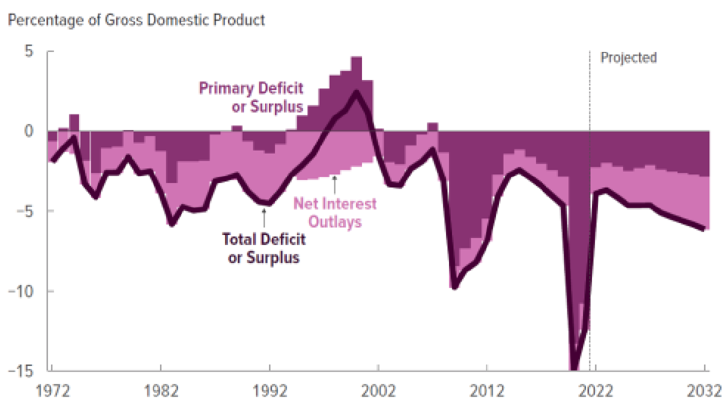
Source: Monthly Treasury Report, 5/2022

Past and Future of Deficits



Useful Deficit Decompositions:

Total Deficit= (Programmatic Outlays + Interest Expense)-Revenue

=(Programmatic Outlays – Revenue)+Interest Expense

=Primary Deficit + Net Interest

E.g, 2007: 1.1 = (17.4+1.7) - 18.0 = 19.1-18.0 = 1.1
1.1 = (17.4-18.0) + 1.7 = -0.6 + 1.7 = 1.1

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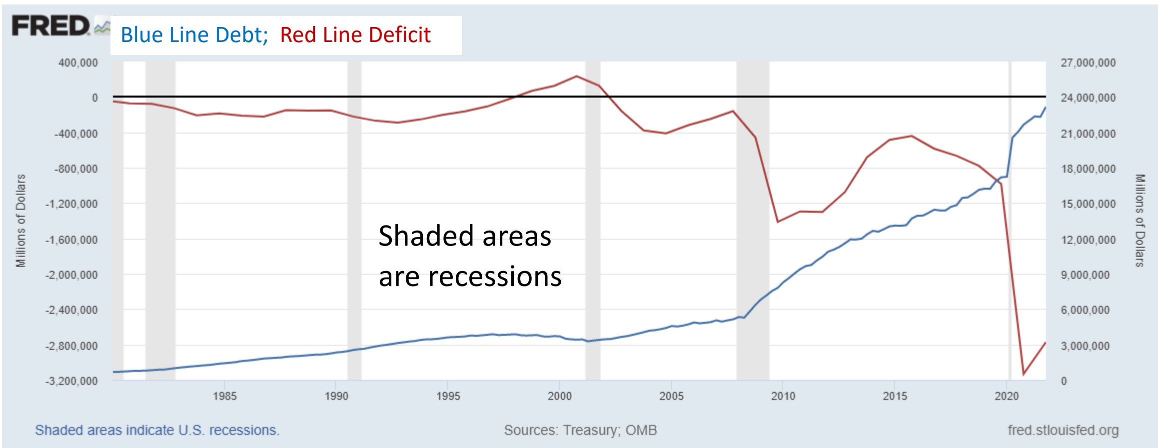
Source: CBO, "The Budget and Economic Outlook: 2022:2032," 5/2022

Debt vs. Deficit

The Sum of All Past Deficits Less Surpluses Equals the Debt



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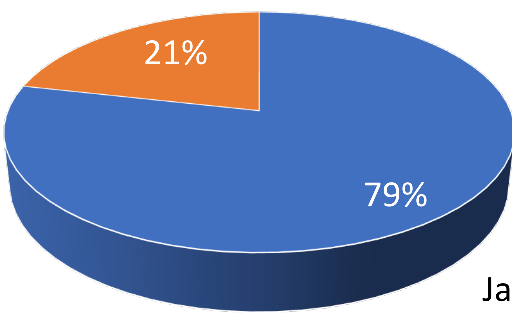
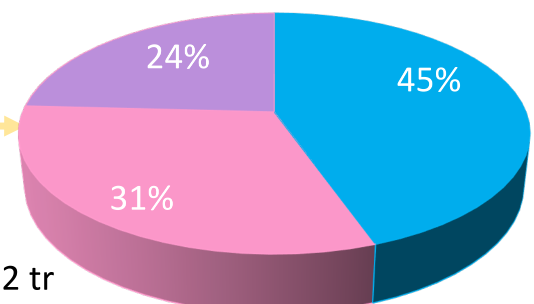
A Breakdown of the Total Federal Debt

Total Public Debt: $30.4 tr, 4/30

Publicly Held Debt: $23.8 tr, 4/30





Japan, $1.2 tr
China, $1.0 tr

Publicly Held Intra-gov't

Domestically Held Foreign Federal Reserve

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Sources: US Treasury, Federal Reserve Board

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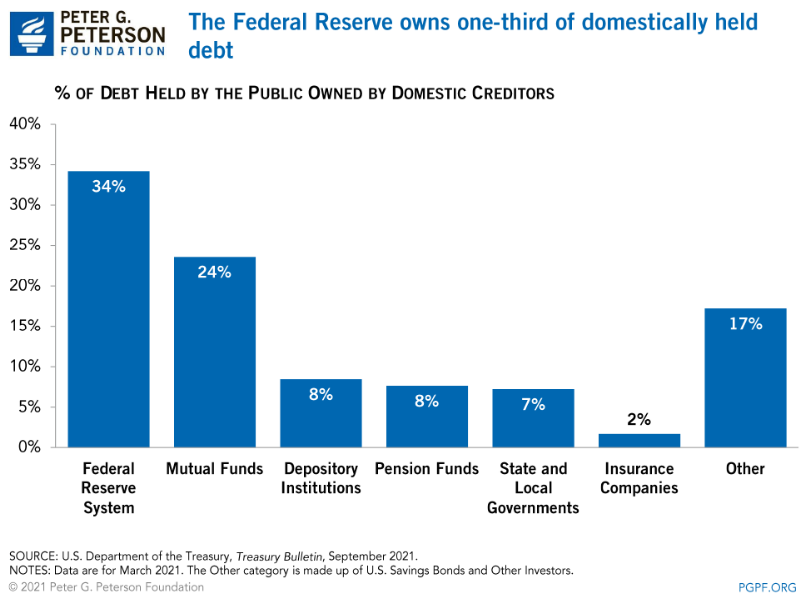

Not All Debt Is Created Equal

Intra-governmental debt is important bookkeeping.

- This debt **DOES NOT** require funding on credit markets

- **Debt held by the public**
  - This debt is funded by borrowing on credit markets and competes with private funding.
- **Most analyses focus on the publicly held 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.

CBO: Budget Analysts in Chief

- **The Congressional Budget Office was founded in 1974 to provide Congress with information about the budgetary implications of legislation.**
- **Two kinds of Reports**
  - Cost Estimates or "Scoring"
    - H.R. 486 Ukraine Religious Freedom Support Act
    - Build Back Better Scoring.
  - Projections of Debt and Deficits – The Budget and Economic Outlook: 2022 to 2032

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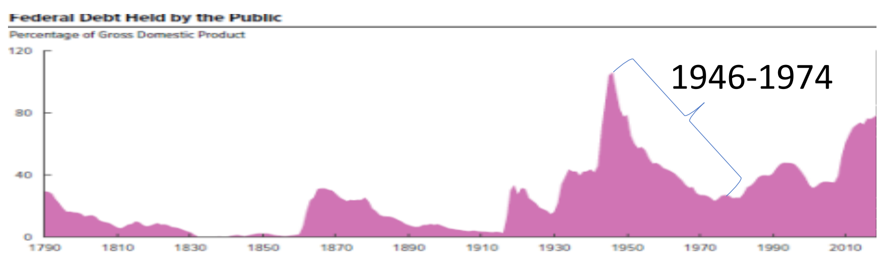
Key Points About the U.S. Relative Debt



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

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Relative Debt Dynamics

- **Two Parts to the growth rate the debt:**
  1. The interest rate on the debt.
  2. A portion that reflects a primary deficit (+) or primary surplus (-)
- **Numerical Example: GDP grows at 4%, interest rate is 5%**
  - If there is either a primary deficit or a primary balance of zero, relative debt grows: Growth in debt is greater than or equal to 5%, greater than GDP growth of 4%.
  - To stabilize the debt, there must be a primary surplus
  - Primary surplus has to be bigger, the higher the relative debt.

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Traditional Views of the Cost of the Debt

- **First a non-issue: There is no analogy between household and government debt.**
  - The government does not have to pay back the debt.
  - Maturing government bonds are paid by issuing new bonds.
- **Economist View of the Debt circa 1980, very little cost because relative debt was falling. That changes in 1983.**

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Traditional View: Debt and Deficits Raise Interest Rates

1. **Crowding Out via higher interest rates:**
   1. **Private: less investment and over time to a 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. **Foreign Borrowing: Higher interest rates lead to foreign capital inflows or foreign borrowing. With foreign borrowing, some of our GDP is paid to foreigners as interest.**

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Quiz!

If the statement is true, raise the hand icon on your computer:

1. **The largest source of Federal revenues are taxes on labor income.**
2. **If the primary deficit is zero (programmatic outlays equal revenues.), the overall budget is in surplus**

Between 2020Q2 and 2021Q3, the relative debt fell from 105% of GDP to 96%.

3. **The *most important* reason for the fall in the relative debt was the decrease in the deficit.**

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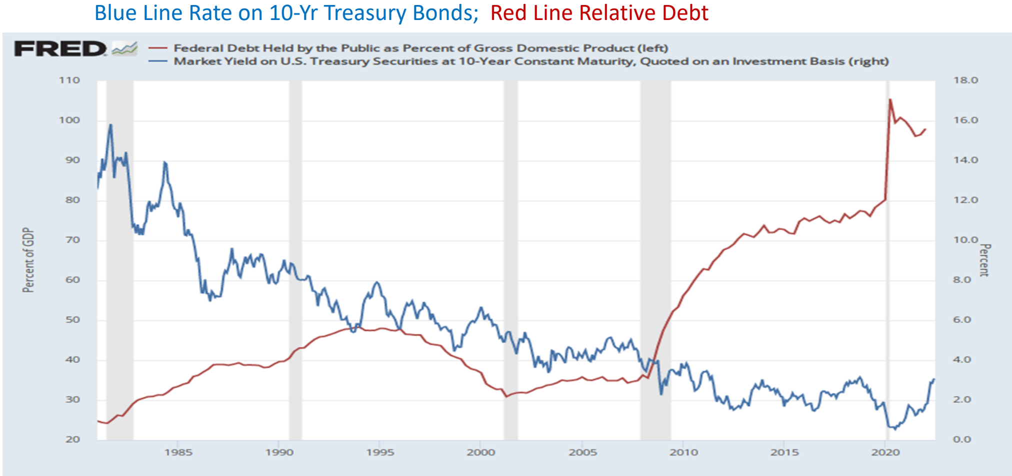
The Dog that Didn't Bark; Rising Interest Rates?

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



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Olivier Blanchard's Presidential Address to the AEA 1/2019

"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."

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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.**

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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!**
- **Remember our example with GDP growth of 4%. Now assume the interest rate is 3%. Relative debt will fall with a primary balance of zero!**
- **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.

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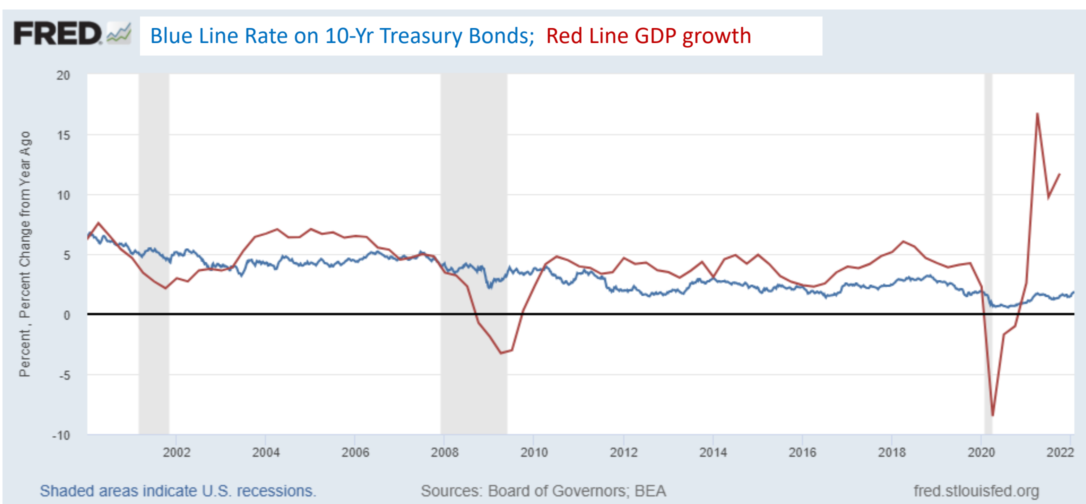
Blanchard's Evidence



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But Why Must the Relative Debt Be Stabilized?

- **Stephanie Kelton provided a prominent and recent exposition of Modern Monetary Theory in her June 6th 2020, *NYTimes* op-ed, "Learn to Love Trillion-Dollar Deficits."**
  - US Treasury borrows in dollars and therefore cannot default (as opposed to Greece).
  - 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

- **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."**
- **Too bad the second part isn't true. And, the recent rise in inflation suggests even Dr Kelton should now be worried about the debt**
- **We rely on foreigners to hold a substantial portion of our debt and they can loose if the exchange value of the dollar falls**

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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

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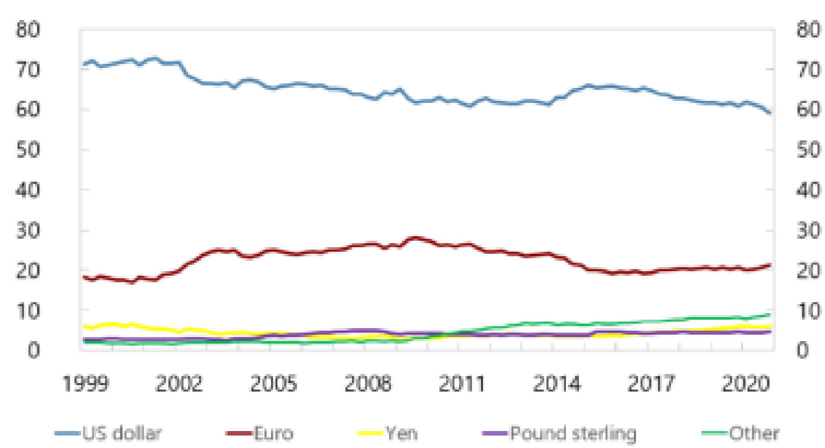
Demand for Dollars by Central Banks

(currency composition of global foreign exchange reserves, percent)



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Source IMF Currency Composition of Official Exchange Reserves

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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.

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?

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

Bottom Line: We Need to Worry about the Debt

1. Interest rates may not stay this low forever. In fact, economist don't really know why they have fallen to such low levels over the past 20 years
2. A fiscal crisis should be avoided at all costs.
3. The good news is we may be able to stabilize the relative debt without a running a surplus.

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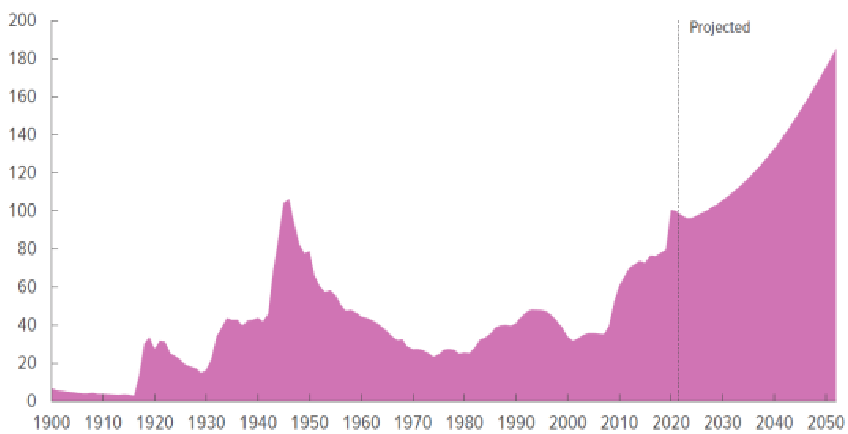
But is this Problem Impossible?

Figure 1-8.

Federal Debt Held by the Public, 1900 to 2052

Percentage of GDP



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CBO, "Budget and Economic Outlook: 2022-2032," May 2022

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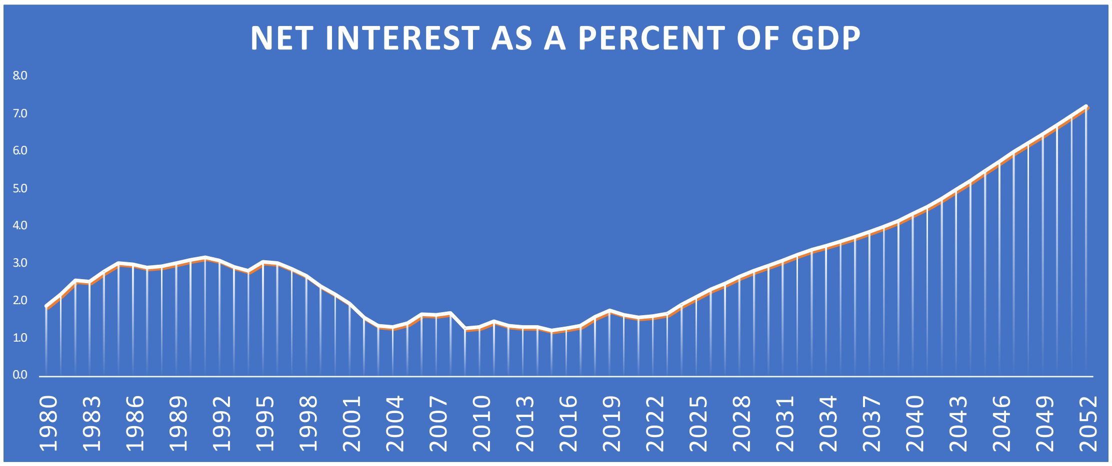
CBO Baseline Projection



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CBO, "Budget and Economic Outlook: 2022-2032," May 2022

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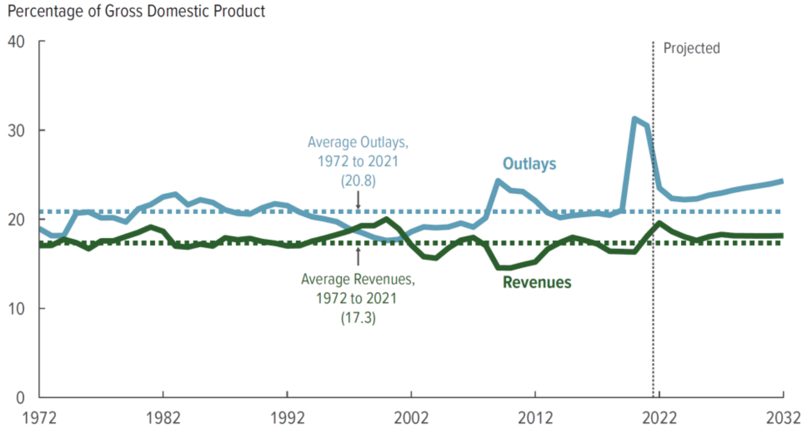
The Blueprint for a Crisis?

Figure 1-2.

Total Outlays and Revenues

Percentage of Gross Domestic Product



But, these are "projections," not forecasts!

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CBO, "Budget and Economic Outlook: 2022-2032," May 2022

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Citizen's Guide to "Budget Reconciliation."

- **Procedure successfully used 22 times since 1974 to avoid a Senate filibuster.**
- **Reconciliation can be used for changing taxes and spending (not Social Security) subject to the Byrd Rule.**
- **Byrd rule:**
  1. No extraneous provisions.
  2. No increase in the deficit after 10 year window.
- **Reconciliation games played by both parties:**
  1. BBB.
  2. Trump Tax Cut

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Reconciliation and CBO Projections

- **For the CBO to be effective it must be perceived to be (and must be) nonpartisan.**
- **Therefore, CBO "baseline" projections and legislative scoring must not try to predict changes in legislation.**
- **Instead, CBO must analyze the data based on the current law as written.**
- **CBO is allowed to provide analyses of policy options.**

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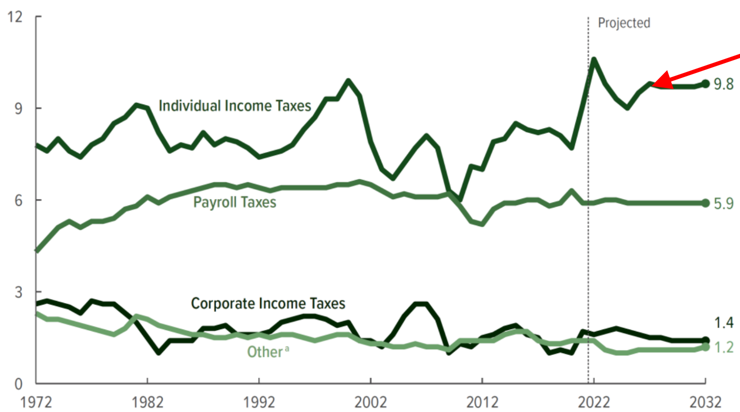
Example: Trump Tax Cut

Revenues, by Category

Percentage of Gross Domestic Product



Why do Income Taxes go up in 2025?

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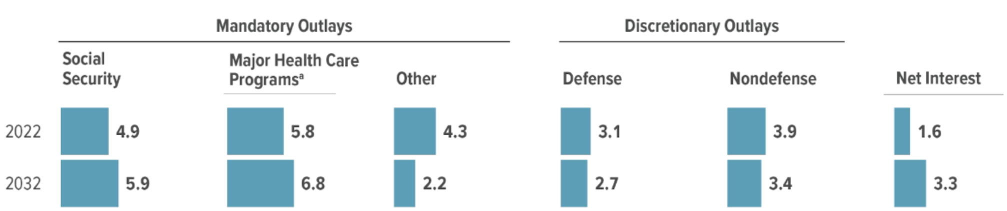
Outlays based on Current Law

The Components of Outlays

Percentage of Gross Domestic Product



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Unfortunately, The Required Changes are Big!

- **To Stabilize the relative debt at the current level of 100% of GDP:**
  1. Deficit in 2025 needs to go from projected 4.7 % of GDP to 2.9% and be maintained at the 2.9% level.
  2. This amounts to over $500 billion ***per year***.

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CBO, "2020 Long-Term Budget Outlook, " Sep 2022

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Any of these Options Sound Good?

Options to Reduce the Federal Deficit

Pick 10!

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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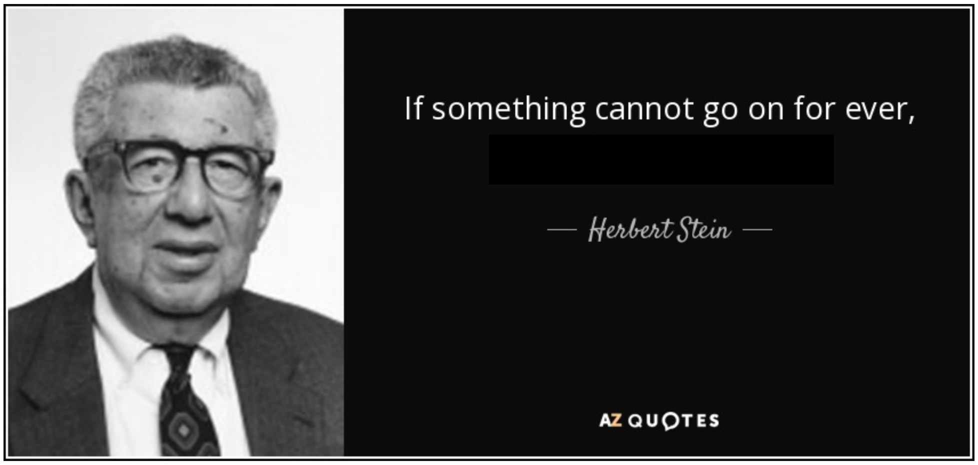
The Wit and Wisdom of Herb Stein



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How Does a Rise in Inflation Affect Debt?

- **First Consider two economies trying to stabilize relative debt:**

A. Previous example: GDP growth of 4% and interest rate of 5%: primary surplus needs to be large enough to offset the 1 percentage point excess of the interest rate over GDP growth.

B. High inflation example: same as A., but 2% faster inflation

1. GDP growth will be 2% higher, but
2. Eventually interest rates will also be 2% higher.
3. GDP growth of 6%, interest rate of 7%, so needed primary surplus is the same as A! (but total deficit will be higher).

- **Realistic Case of a sudden rise in inflation.**

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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 bonds

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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 les 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.

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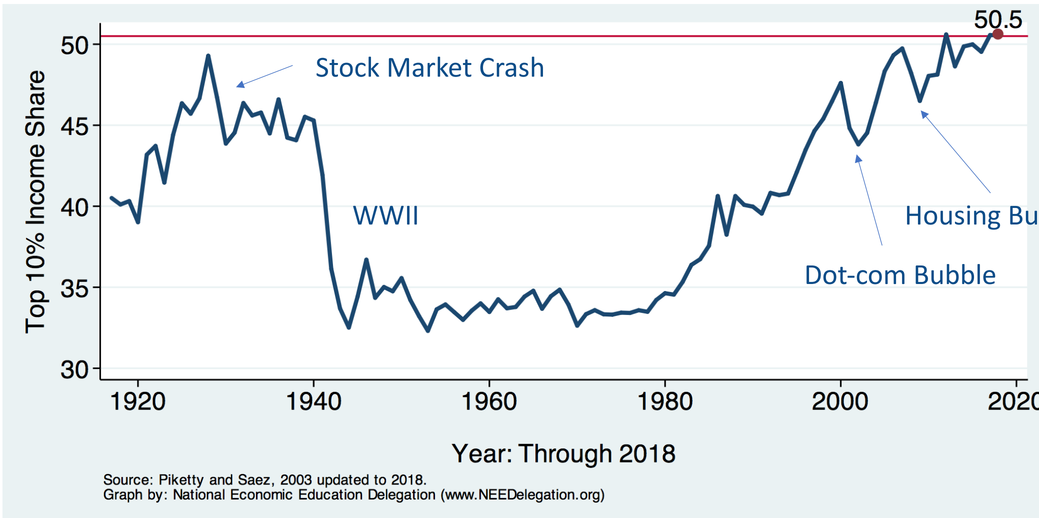
Income Inequality: Jon Haveman



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Questions?

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