



# The US Federal Debt

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## Outline

- **Basic Data, Definitions and History.**
- **Arithmetic of Changes in the Debt.**
- **Traditional Views of the Economic Costs of the Debt.**
- **5-minute break!**
- **New Views on the Cost of the Debt.**
- **The Challenges Ahead.**
- **Budget Reconciliation Games.**

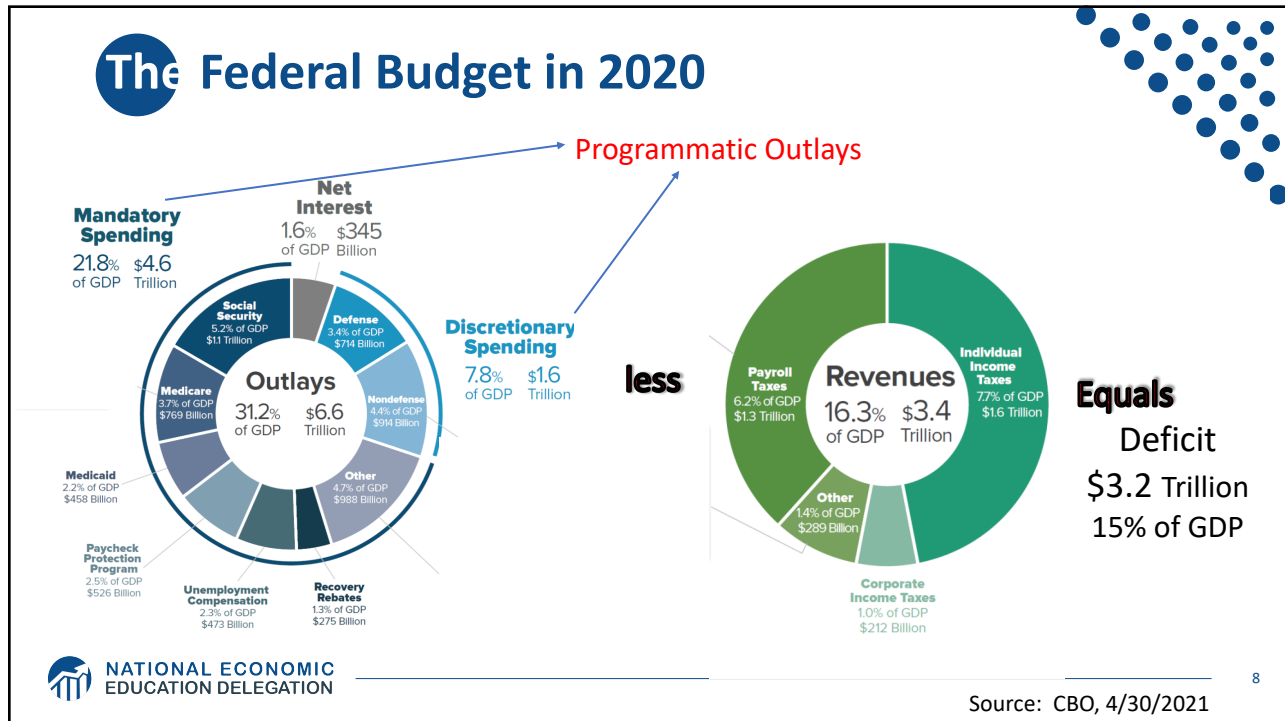


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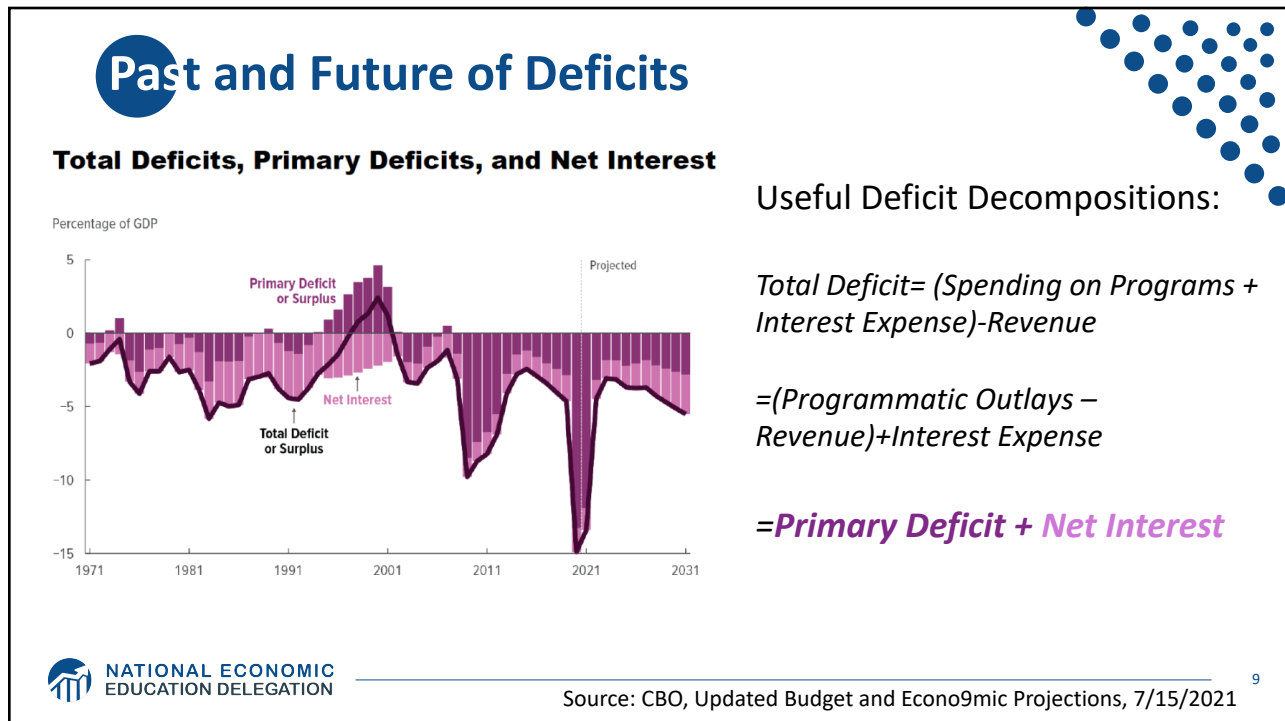
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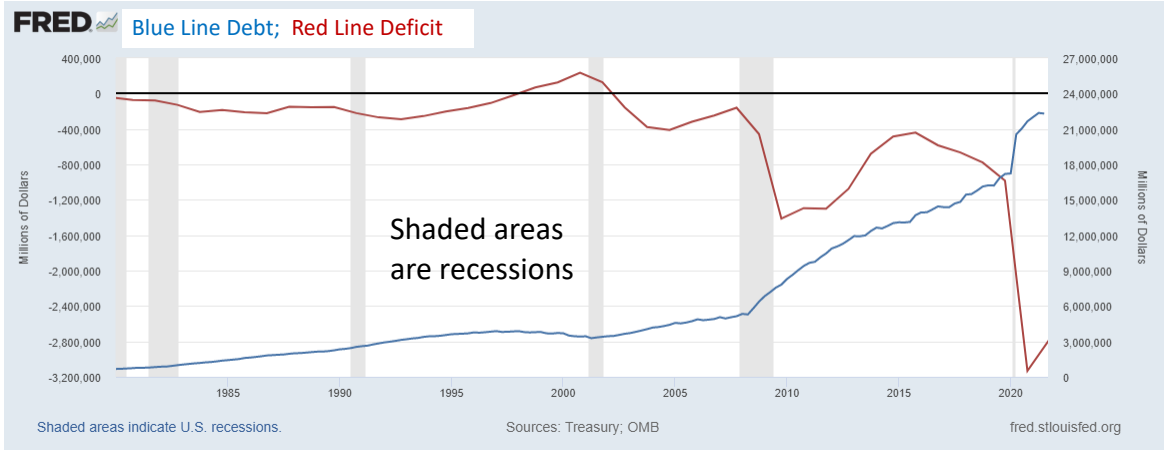
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# Debt vs. Deficit

The Sum of All Past Deficits Less Surpluses Equals the Debt

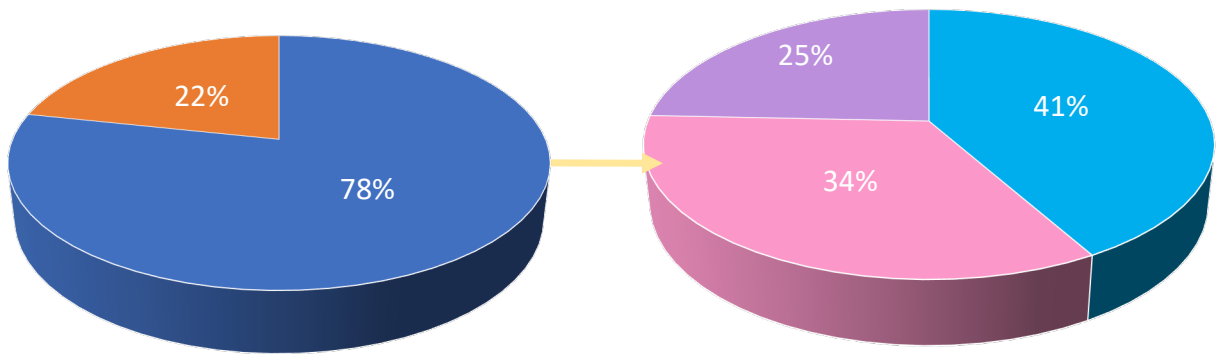


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# A Breakdown of the Total Federal Debt

Total Public Debt, 11/30, \$28.9 tr

Publicly Held Debt, 11/30, \$22.6 tr



Publicly Held Intra-gov't Domestically Held Foreign Federal Reserve

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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 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

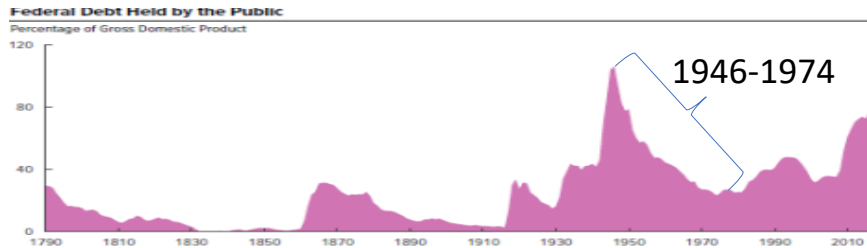
- **The Congressional Budget Office was founded in 1974 to provide Congress with information about the budgetary implications of legislation.**

- **Two kinds of Reports**

- Cost Estimates – H.R. 486 Ukraine Religious Freedom Support Act
- Build Back Better Scoring.
- Projections of Debt and Deficits – The Budget and Economic Outlook: 2021 to 2031



## 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 in the debt:**

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

## 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.**

## Traditional View: Debt and Deficits Raise Interest Rates

1. **Crowding Out:** Higher interest rates lead to less investment and over time to a smaller capital stock and reduced future output.
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.



## 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 overall budget is in surplus, there must be no primary deficit (programmatic outlays are less than revenues.)

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

3. The primary reason for the fall in the relative debt was the decrease in the deficit.



## Answer to #3 in More Detail

- **Facts:**

- 2020Q2: GDP, 19.5 trillion; Debt, 20.5 trillion
- 2021Q3: GDP, 23.2 trillion; Debt, 22.3 trillion

- **Analysis:**

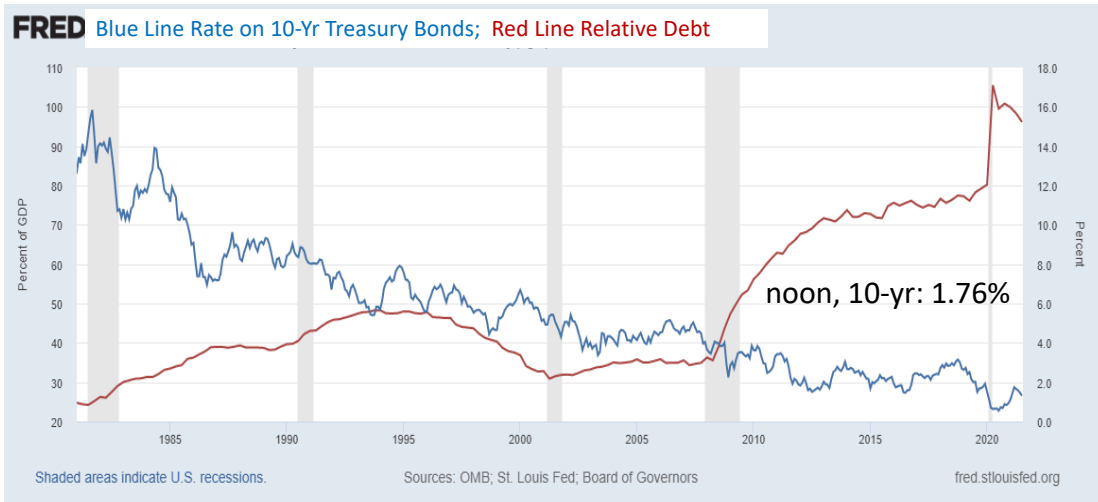
- Growth in GDP =  $(23.2-19.5)/19.5 = 3.7/19.5=0.19$ , or 19 percent
- Growth in Debt =  $(22.3-20.5)/20.5 = 1.8/20.5=0.09$ , or 9 percent

**Growth in GDP exceeded the Growth in the Debt.**

**Lesson: You don't need a Budget Surplus to Lower the Relative Debt.**



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



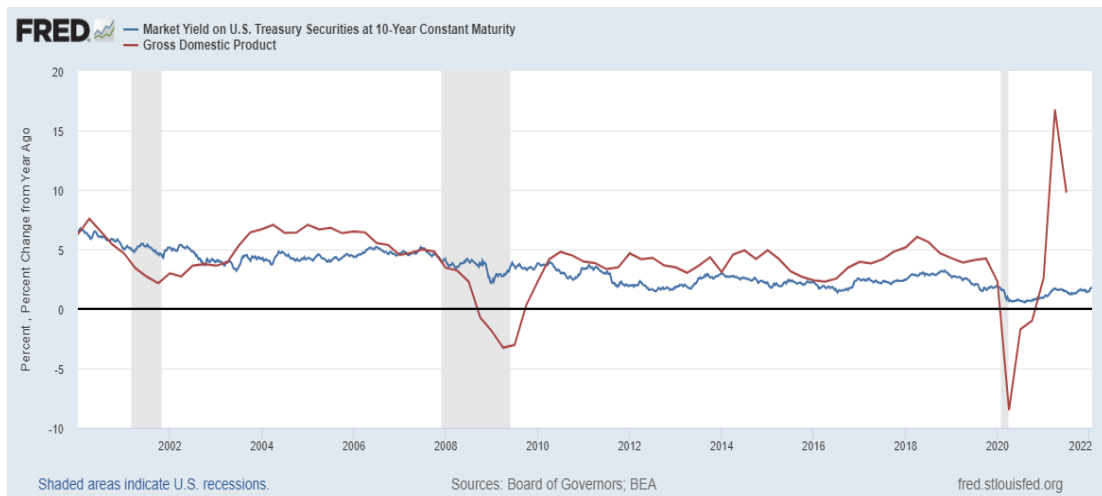


# What the Traditional View Got Wrong

- 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.

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# Evidence



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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!
- This point made in the Presidential address by Olivier Blanchard at the AEA conference in 2020.
- Blanchard does believe that the relative debt must be stabilized
  1. At some point deficits must be reduced.
  2. But it may not be crucial at what level of debt we stabilize.



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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 6<sup>th</sup> 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” for the recent increase in the deficit of 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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## MN T'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.
- We rely on foreigners to hold a substantial portion of our debt and they can loose if the exchange value of the dollar falls



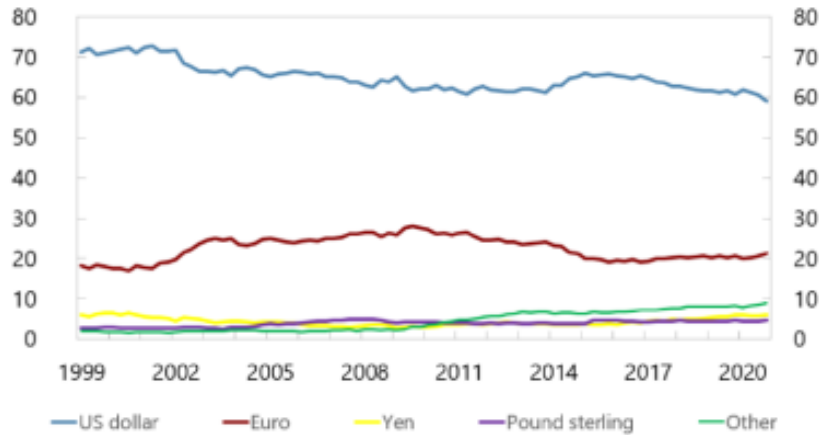
## Why do Foreigners Buy US Treasuries?

- 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



## 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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## What If Foreigners Lost Confidence in the \$

### **CBO, *The 2020 Long-Term Budget Outlook*, 9/2020**

The risk of a fiscal crisis appears to be low in the short run despite the higher deficits and debt stemming from the pandemic.... Nonetheless, the much higher debt over time would raise the risk of a fiscal crisis in the years ahead.



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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?**

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.
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.



## But is this Problem Impossible?



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## CBO to the Rescue *(The 2020 Long-Term Budget Outlook, 9/2020)*:

### First a note on CBO projections:

- The “baseline projections” (such as on the previous slide) are based on the law as currently written; they are *not* forecasts of what will happen.
- E.g., The 2017 tax cuts that reduced personal and estate taxes will be phased out in 2025.

### But, CBO is allowed to project alternate scenarios:

CBO (9/2020) suggests deficits in 2025 be reduced from 5 to 2.1 percent of GDP, but it won't be easy: about \$700b or 2.9% of GDP



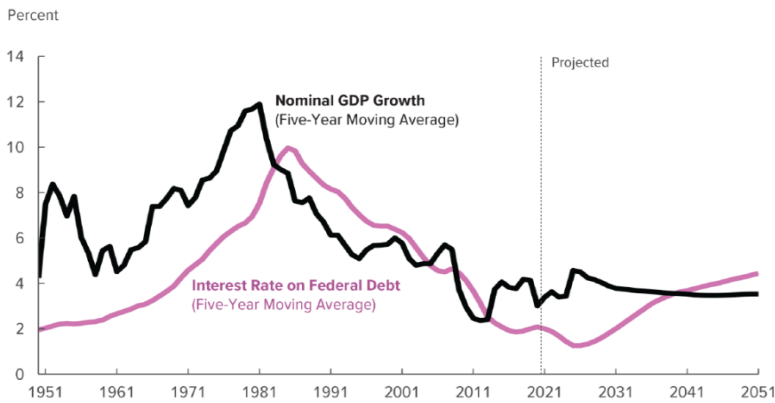
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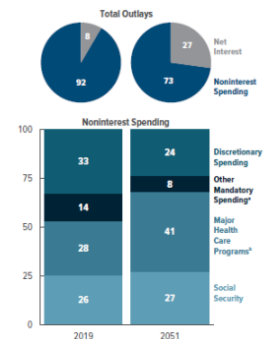
# We Have a Little Time: CBO's Crystal Ball

## Interest Rates and GDP Growth



But, it won't be easy

Figure 6. Composition of Federal Outlays



# What about Infrastructure and BBB?

- **Infrastructure \$1.2t - terrible reporting**
  - Net New Spending \$415b over 10 years.
  - But infrastructure can be good borrowing
- **Build Back Better: CBO Scoring**
  - \$160b over ten years.
  - Byrd and Reconciliation.
  - Effect on Deficit in the first 5 years: +\$750b ; Last 5 years -\$590!

**Thank you!**

## Any Questions?

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