



The US Federal Debt

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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: 54 members**

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 1 Secretary of the Treasury: Yellen (D)
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

- **Delegates: 585+ members**

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdfsource slide decks
- Give presentations

- **Global Partners: 45 Ph.D. Economists**

- Aid in slide deck development



Available NEED Topics Include:

- **US Economy**
- **Climate Change**
- **Economic Inequality**
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- **US Social Policy**
- **Trade and Globalization**
- **Trade Wars**
- **Immigration Economics**
- **Housing Policy**
- **Federal Budgets**
- **Federal Debt**
- **2017 Tax Law**
- **Autonomous Vehicles**

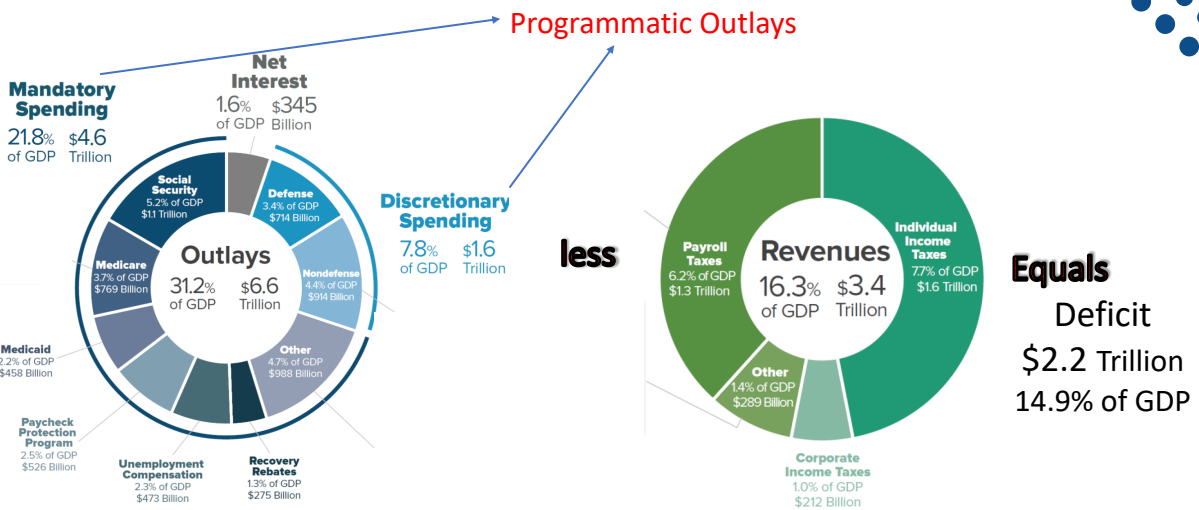


Credits and Disclaimer

- **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).

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The Federal Budget in 2020



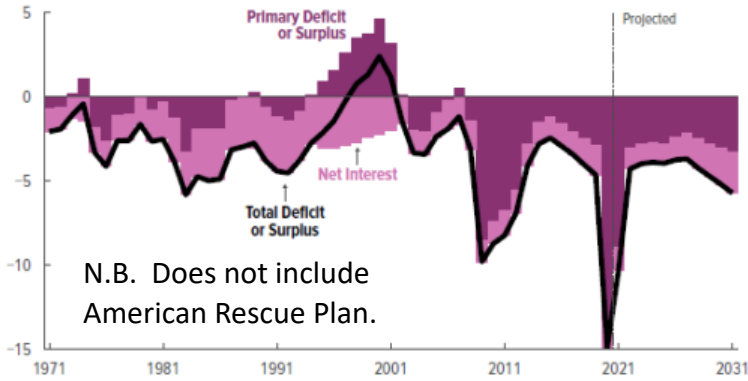
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Past and Future of Deficits

Figure 1.

Total Deficits and Surpluses

Percentage of GDP



Data source: Congressional Budget Office. See www.cbo.gov/publication/56996#data.

Useful Deficit Decompositions:

$$\begin{aligned}
 \text{Total Deficit} &= (\text{Programmatic Outlays} \\
 &+ \text{Interest Expense}) - \text{Revenue} \\
 &= (\text{Programmatic Outlays} - \text{Revenue}) + \text{Interest Expense} \\
 &= \text{Primary Deficit} + \text{Net Interest}
 \end{aligned}$$

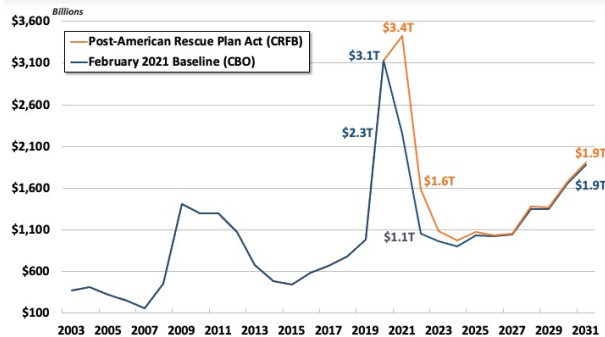


Source: Congressional Budget Office, The Budget and Economic Outlook: 2020 to 2030, 9/20

The Effect of the American Rescue Plan

The American Jobs Plan and American Family Plan could add \$4 trillion over 8 years, financed with tax increases spread over 15 years.

This Year's Deficit Will Eclipse Last Year's

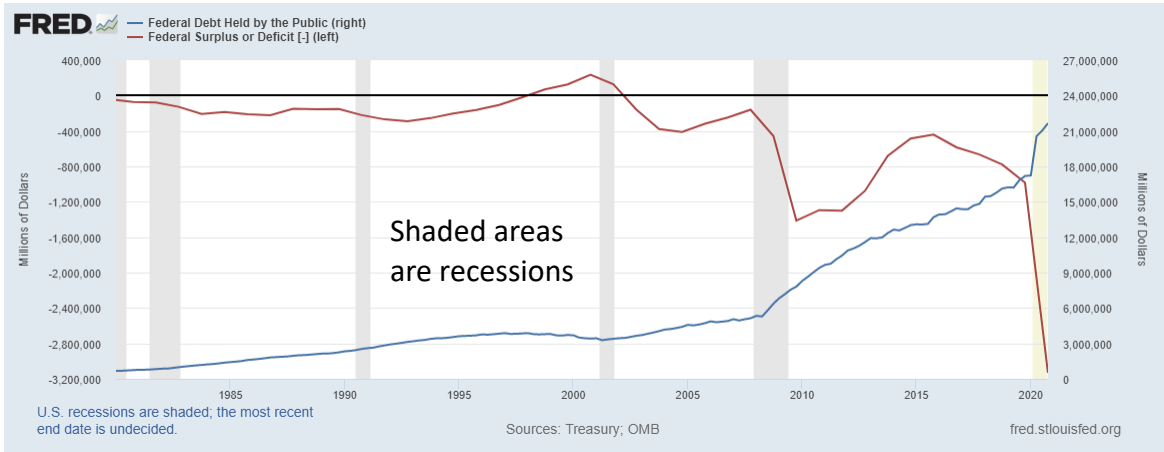


Source: Congressional Budget Office and CRFB calculations. These figures do not account for economic feedback effects.



Debt vs. Deficit

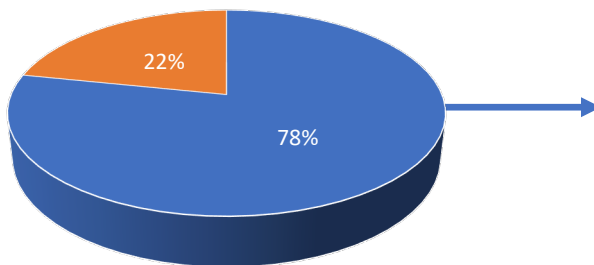
The Sum of All Past Deficits Less Surpluses Equals the Debt



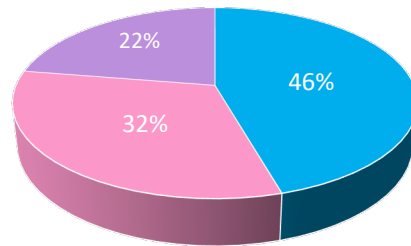
A Breakdown of the Total Federal Debt

Total Public Debt, 4/1/2021, \$28.1 tr

Publicly Held Debt, 4/1/2021, \$22.0 tr



Publicly Held Intra-gov't



Domestically Held Foreign Federal Reserve

As of 4/1, Japan holds \$1.24 tr
China holds \$1.1 tr:

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.

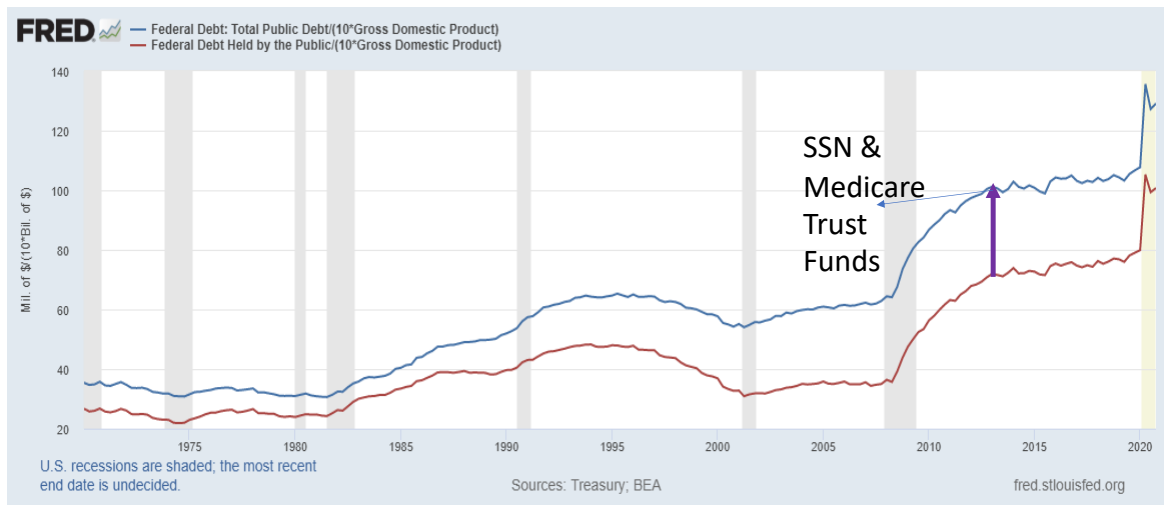
- **Most analyses focus on the publicly debt *relative* to GDP because:**

- 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.



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Two Measures of the Debt



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CBO: Budget Analysts in Chief

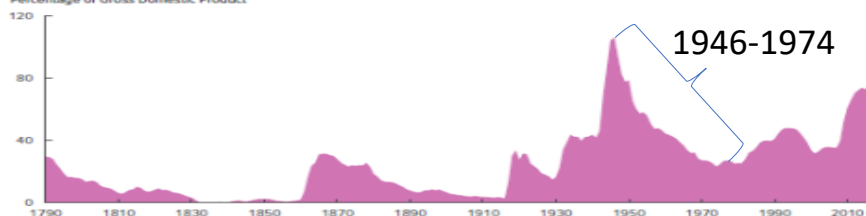
- The Congressional Budget Office was founded in 1974 to provide Congress with information about the budgetary implications of legislation.
- Two kinds of Reports
 - Cost Estimates – H.R. 486 Ukraine Religious Freedom Support Act
 - Projections of Debt and Deficits – The Budget and Economic Outlook: 2020 to 2030



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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

- **Between 1946-1974, relative debt fell continuously 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 GDP.**
- **While the debt grew by 42%, GDP (nominal) grew by 550%**

You don't need a surplus to reduce 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.
 - Retirees cash in maturing bonds which are financed with new bond issues sold to younger people.
 - Interest on the debt is essentially paid by the young to their parents
- **Economist View of the Debt circa 1980, very little cost because relative debt is falling. That changes in 1983.**

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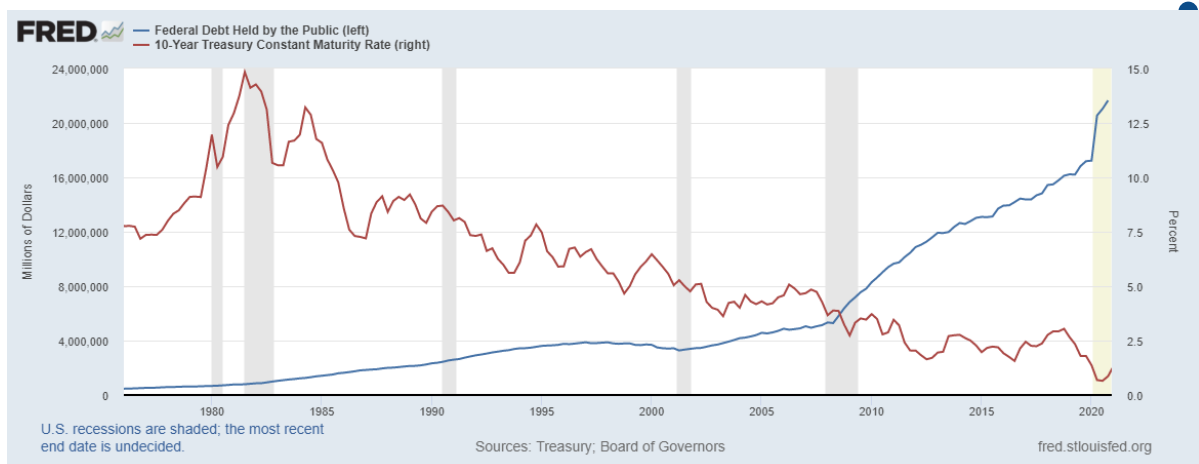
Traditional View: Debt and Deficits Raise Interest Rates

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.



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



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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."

What the Traditional View Got Wrong

- **The growth rate in debt :**
 - One part of the debt grows at the interest rate.
 - Total debt grows *by more* than the interest rate when there is a primary deficit.
- **The traditional view assumes that the interest rate on debt is greater than the growth rate of GDP**
 - So, there must be a *primary surplus* to offset the interest rate
 - i.e., programmatic outlays must be less than revenues to stabilize the debt.

An Almost 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!
- 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.

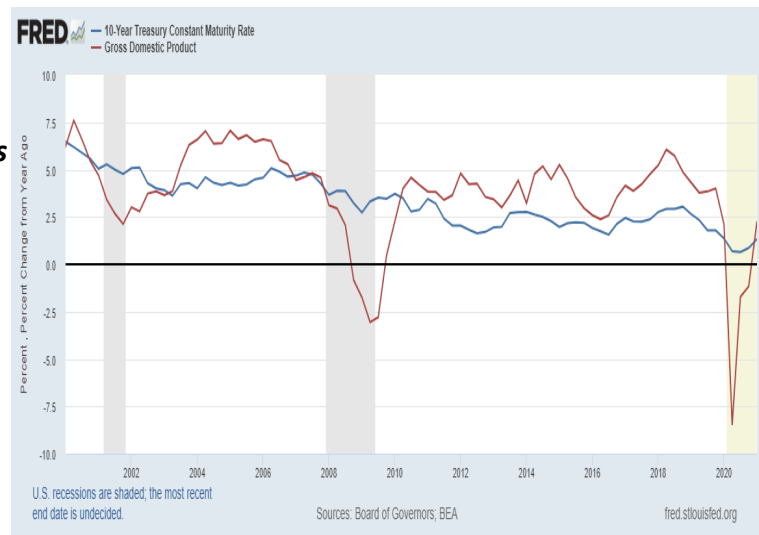
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Blanchard's Evidence

Except for recessions, interest rates have been *less* than GDP growth

But, why have interest rates fallen and how long will low rates continue?

Sadly, we don't know the answer to either question



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But why must the relative debt be stabilized

- For practical purposes, the US cannot default on its debt, but...
- International investors, however, can still lose if the exchange value of the dollar falls.
- Remember, foreign holdings of the public debt amount to 40 percent of the total



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Why do Foreigners Buy US Treasuries?

- Market for Treasuries is the deepest, the most liquid and safest capital market in the world.
- What would happen if foreigners lost confidence in the stability of the dollar?

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 or 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 2.5 percent of GDP, but it won't be easy



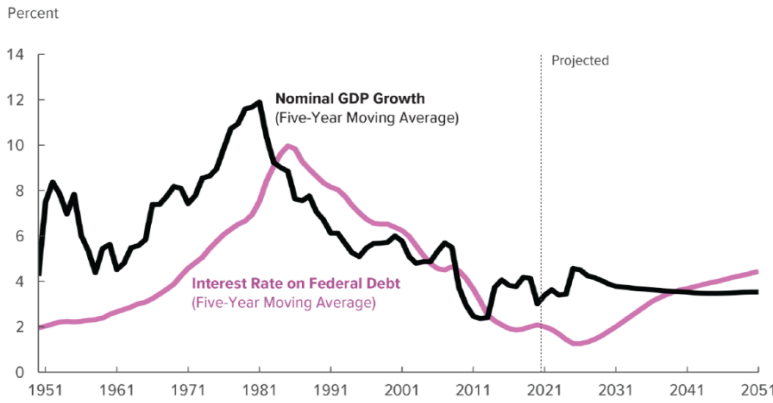
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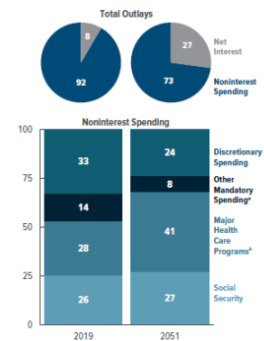
We Have Some Time: CBO's Crystal Ball

Interest Rates and GDP Growth



But, it won't be easy

Figure 6. Composition of Federal Outlays



Thank you!

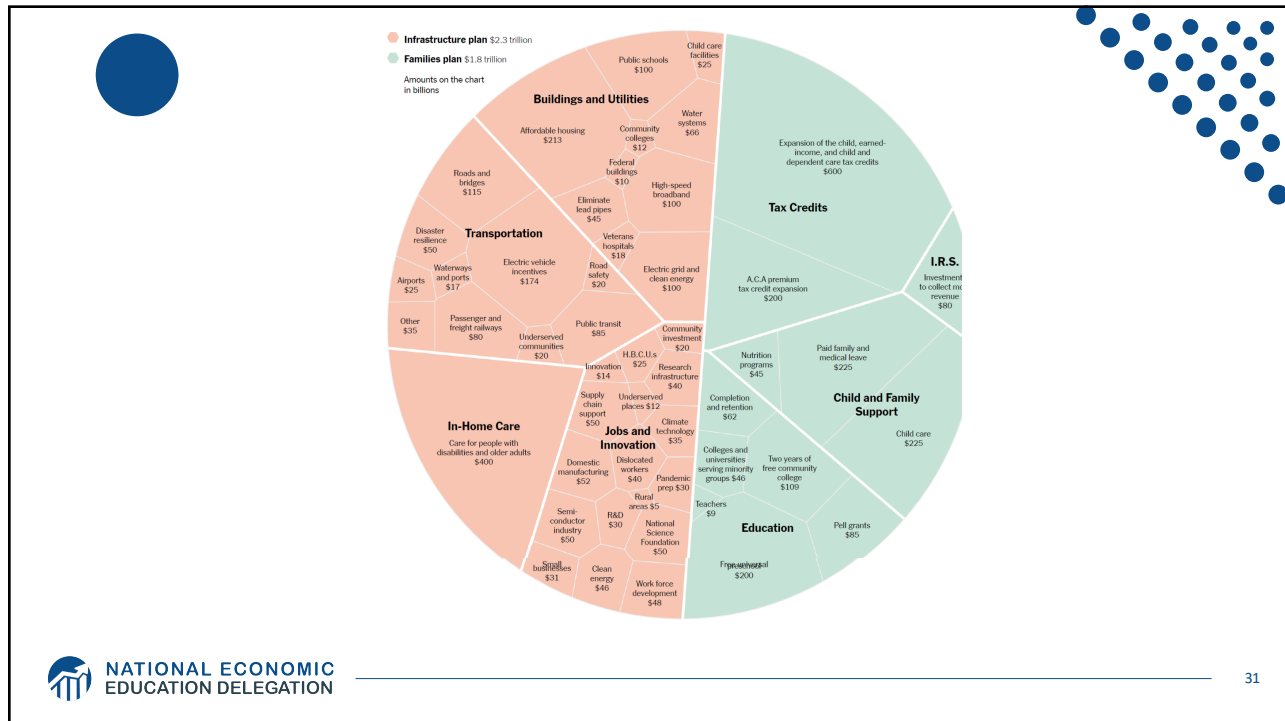
Any Questions?

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What Is Infrastructure?

American Jobs Plan & Made in America Tax Plan (Billions of US\$)

Category	Item	Amount (Billions)	
Infrastructure Spending (Public)	Highways, Roads, Bridges Repair	115	
	Road Safety	20	
	Modernize Transit Systems	85	
	Amtrak Repair	80	
	Electric Vehicle Charger Grants	174	
	Revamp Airports	25	
	Inland Waterways and Ports	17	
	Transportation Infrastructure	45	
	Infrastructure resilience	50	
	Other	10	
	Infrastructure Spending 'At Home'	Retrofit 2 million homes	213
		High speed Broadband	100
Rehab Public Housing		40	
Clean Drinking Water		45	
Public School Building		100	
Grants		50	
Bonds		50	
Community College Infrastructure		12	
Upgrade child care Facilities		25	
VA Hospital Modernization		18	
Federal Buildings Revamp		10	
Conservation and Resilience Workers		10	
Clean Energy Accelerator		27	
Other		50	
Care Economy		Housing for the Aged and disabled persons	400
	R&D, Manufacturing & Training Spending	R&D	580
		Strengthen Supply Chains	50
		Semiconductor Manufacturing	50
		Pandemic Preparedness	30
		Clean Manufacturing	46
		Regional Innovation Hubs	20
		NIST	14
		Domestic Manufacturing	52
		Small Business Aid	31
Workforce Development		100	
Other	7		
Revenue	Total over 15 years	2000	
	Raise corporate tax rate from 21 to 28%		
	All Other		
	Raise global min tax rate from 13 to 2.1%		
	End federal tax breaks for fossil fuel companies		
Loophole closure Inversion elimination Eliminate expense deductions for offshoring Eliminate cred expenses for onshoring Min Tax on Large Corporations Book Income Ramp up enforcement against corporations			

Sources: The White House, The Conference Board.