



# The US Federal Debt

Fellowship Forum  
August 25, 2020  
Geoffrey Woglom  
Amherst College  
Professor of Economics (Emeritus)




NATIONAL ECONOMIC  
EDUCATION DELEGATION

---


1

1



## 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.



NATIONAL ECONOMIC  
EDUCATION DELEGATION

---

2

2

# Who Are We?

## • Honorary Board: 48 members

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 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: 500+ members

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

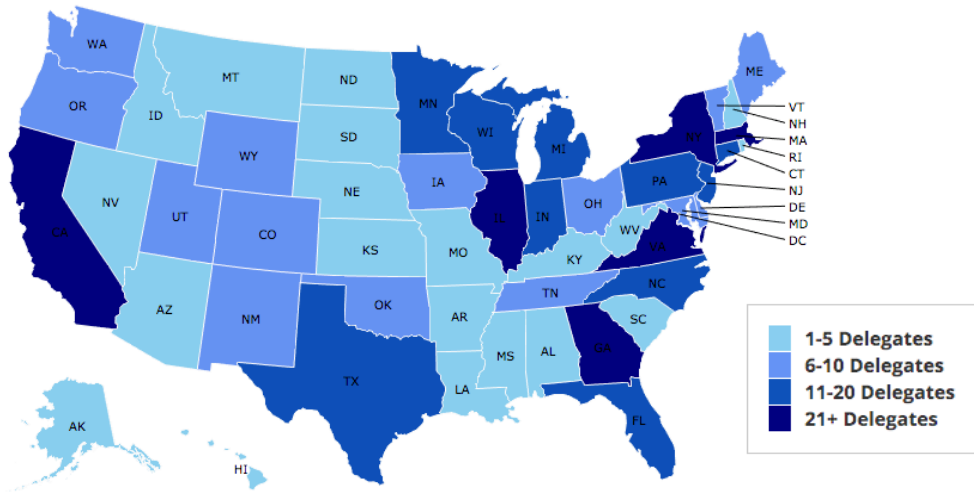
## • Global Partners: 45 Ph.D. Economists

- Aid in slide deck development



NATIONAL ECONOMIC EDUCATION DELEGATION

# Where Are We?



NATIONAL ECONOMIC EDUCATION DELEGATION

## Credits and Disclaimer

- **This slide deck was authored by:**
  - Jon Haveman, Executive Director, NEED
  - Geoffrey Woglom, Amherst College, Emeritus
- **This slide deck was reviewed by:**
  - <name>, <affiliation>
  - <name>, <affiliation>
- **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).

5

# US Federal Debt

August 25, 2020

6

# Outline

## I. Debt Basics

1. *Definitions and Data.*
2. *Debt/Deficit History: pre and post 1983.*
3. *Debt Dynamics*

## II. Economic Costs of the Debt

1. *Traditional View*
2. *Two New Optimistic Views*
  1. *Modern Monetary Theory (MMT): Federal Debt Free Lunch!*
  2. *Olivier Blanchard: Stable debt has little cost.*
3. *A Scarier (More Realistic) View with a Silver Lining*

## III. Covid Update and the Path Forward

7

# What Does the U.S. Gov't Budget Look Like?

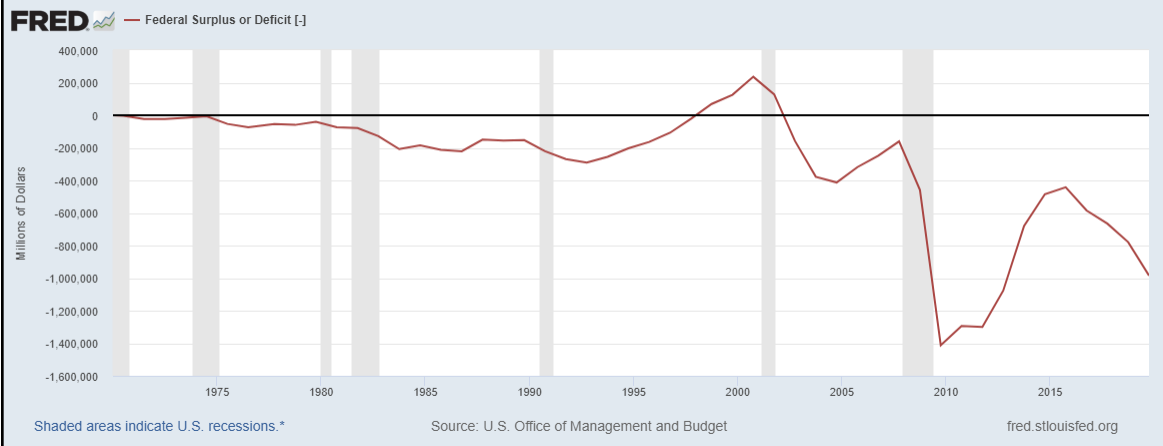
## 2019 Budget Summary

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			
<b>Total</b>	<b>\$3,462</b>		<b>Total</b>	<b>\$4,447</b>

**Budget Deficit \$984 Billion**

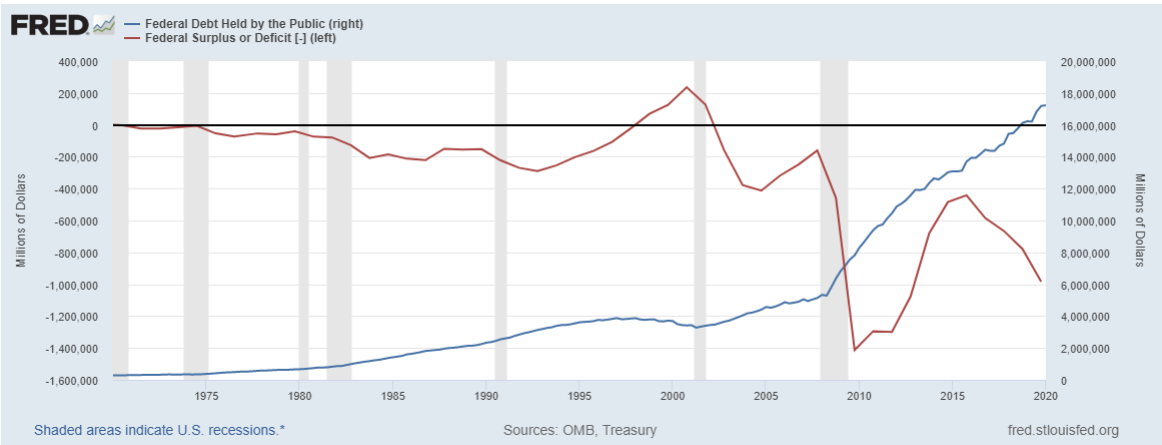
8

# A History of Persistent Deficits (fiscal years)



# Debt vs. Deficit

The Sum of All Past Deficits Less Surpluses Equals the Debt

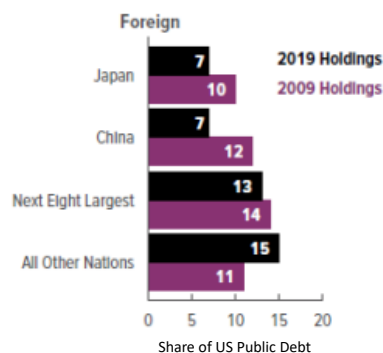
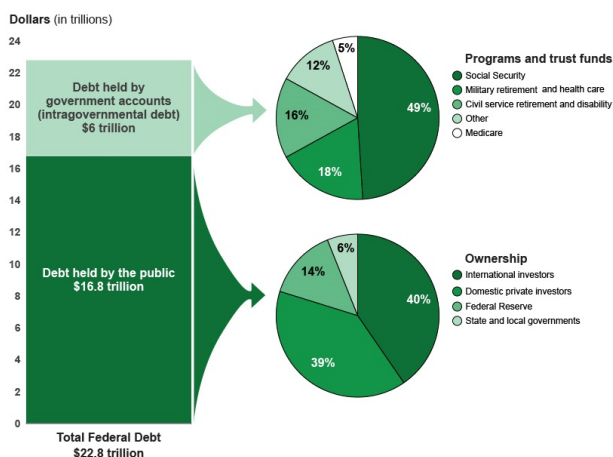


# How Does the U.S. Government Borrow?

- **It issues debt**
  - Treasury marketable securities:
    - o Treasury bills, notes, and bonds
    - o TIPS: Treasury inflation-protected securities
  - Savings bonds
- **Who buys the debt?**
  - Other federal government agencies
  - Individuals and businesses
  - State and local governments
  - Foreign governments and individuals.
  - The Federal Reserve

11

# A Breakdown of the Total Federal Debt



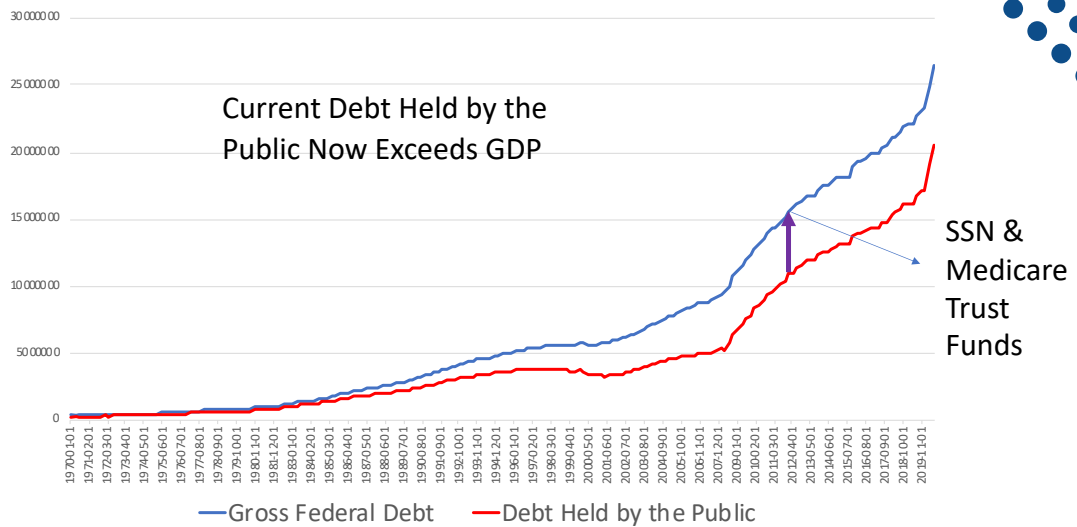
12

# Not All Debt Is Created Equal

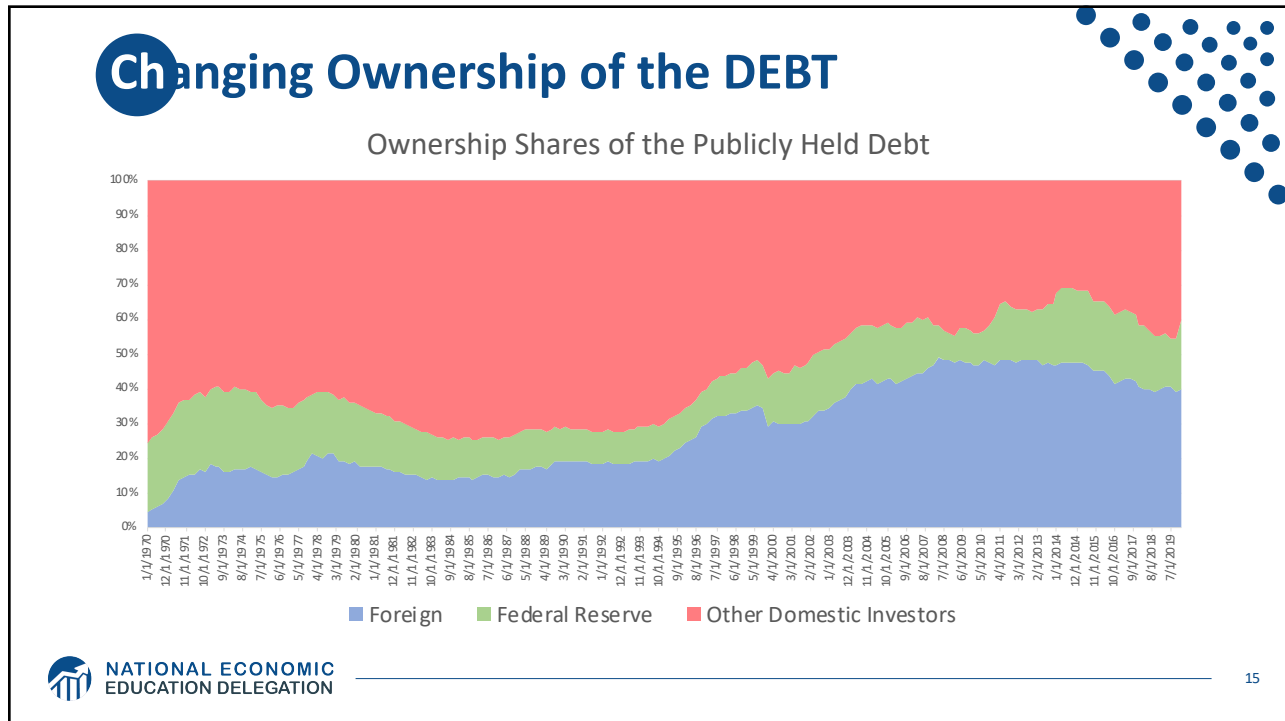
- **Some debt can reduce the availability of investment funds to other borrowers.**
  - Often referred to as “crowding out” private investment
- **Intra-governmental debt is (important) bookkeeping.**
  - This debt **DOES NOT** crowd out private investment.
- **Debt held by the public**
  - This debt **MAY** crowd out private investment.
- **Most analyses of debt focus on the federal debt held by the public.**

13

# Two Measures of the Debt



14



15

## 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 – HR 6036 VA Family Leave Act of 2020
  - Projections of Debt and Deficits – The Budget and Economic Outlook: 2020 to 2030

**NATIONAL ECONOMIC EDUCATION DELEGATION**

16



## 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%

17

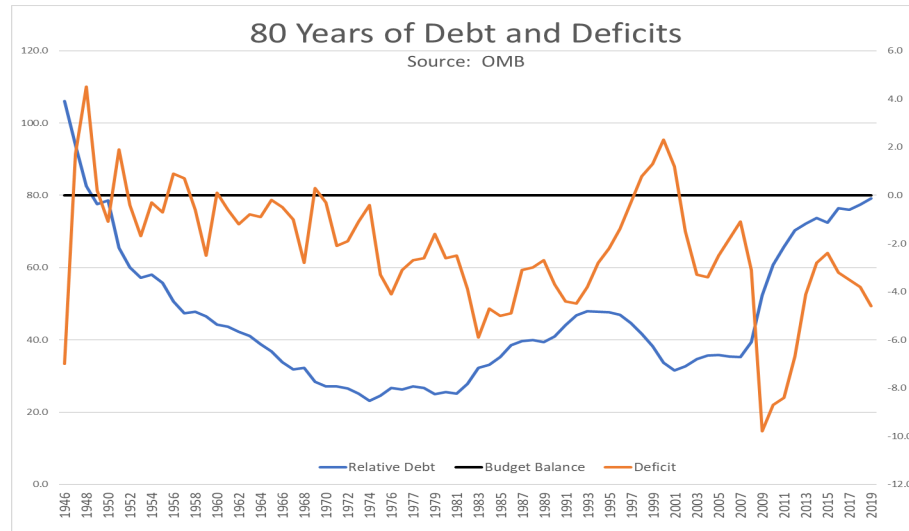
## Key Points About the U.S. Relative Debt



1. Relative debt peaked during WWII (106%) - followed by a long decline.
2. Prior to 1983, relative debt rose purposefully (wars and recessions) and then fell.
3. Recently, relative debt has been and is expected to continue to rise for the next 30 years w/o strategic purpose.

18

## What Caused the Post WWII Fall in Rel. Debt?



19

## Debt Dynamics

### • Surprising (?) Facts

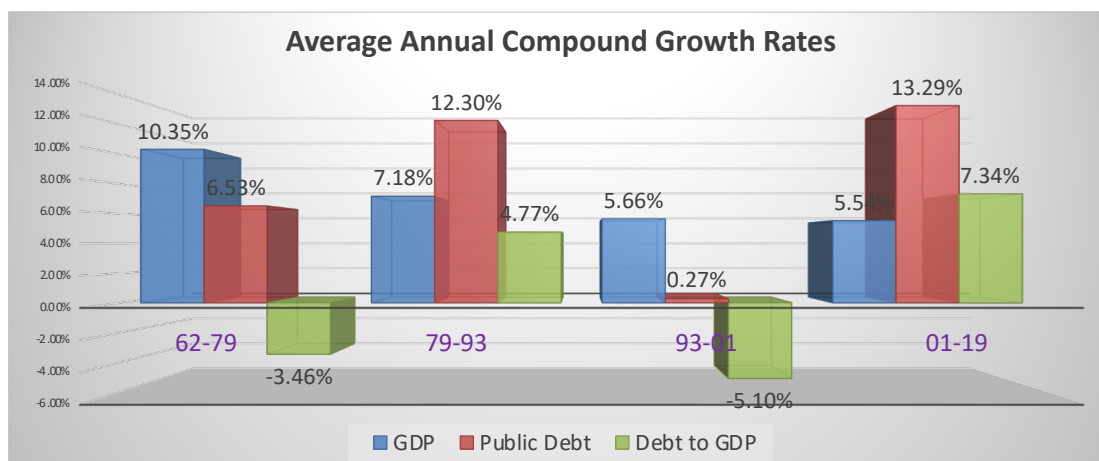
- From 1945 to 1979 the relative debt fell from over 100% of GDP to 25% of GDP.
- While the Federal Budget was in surplus a couple of times (e.g., 69)

### • 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 than the *numerator*

20

## The Arithmetic of Changes in Relative Debt



NATIONAL ECONOMIC  
EDUCATION DELEGATION

Relative Debt Can Fall without Budget Surplus

21

21

## Two Last Deficit Definitions

- **(1) Primary deficit = current programmatic outlays - revenues**
- **(2) Total deficit = primary deficit + interest on the debt**
- **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.



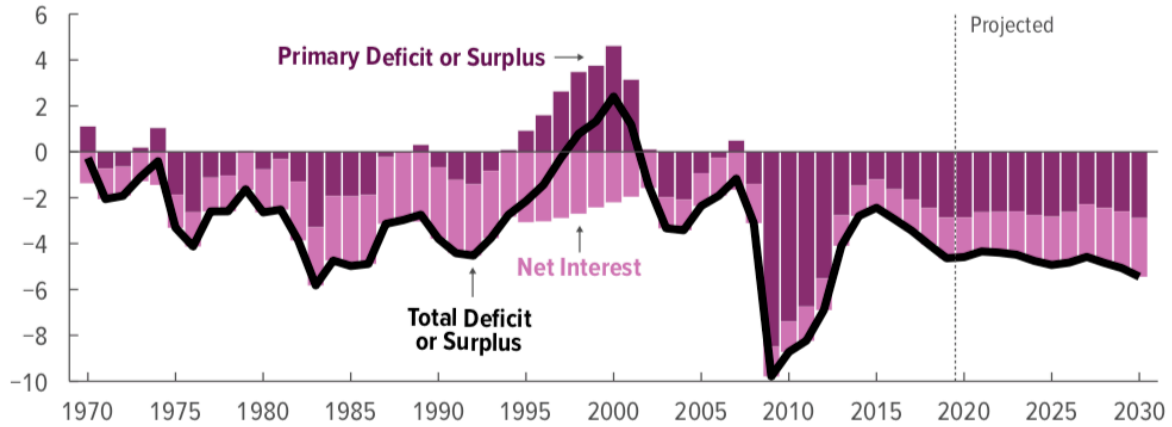
NATIONAL ECONOMIC  
EDUCATION DELEGATION

22

22

## Two Parts of the Deficit:

Percentage of Gross Domestic Product



This graph was done before Covid-19

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

## Traditional View of Costs of Government Debt

## Traditional View: A Non-Issue

- **The analogy between household and government debt is inaccurate.**
  - 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



## Traditional View: 4 True Costs

### 1. Crowding Out:

- The Treasury's borrowing needs compete with private borrowers, so that debt and deficits raise interest rates.
- Higher interest rates lead to less investment and over time to a smaller capital stock and reduced future output.

### 2. Higher interest rates lead to foreign capital inflows or foreign borrowing

- With foreign borrowing some of the interest on the debt is going to foreigners.



## Traditional View: 4 True Costs (Cont.)

### 3. Larger Primary Surpluses Needed to Stabilize the Relative Debt

- The larger the relative debt, the bigger the needed primary surplus.
- Thus higher taxes or programmatic outlays must be reduced.



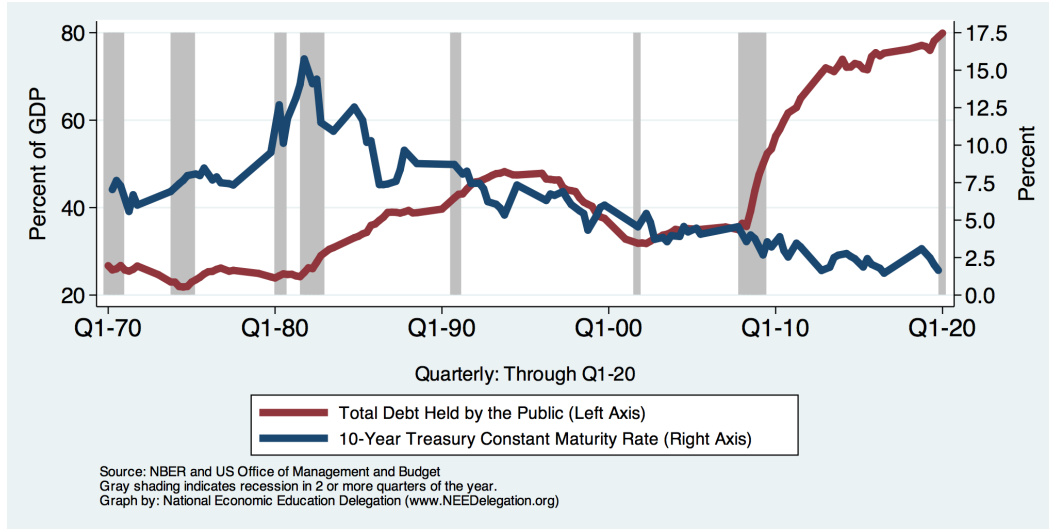
## Traditional View: 4 True Costs (Cont.)

### 4. Government Bias towards higher inflation

- GDP grows if either prices rise or real output rises.
- Government may be tempted to “inflate away” their debt problems.
- Or, at a minimum they may not work as hard to avoid increases in inflation

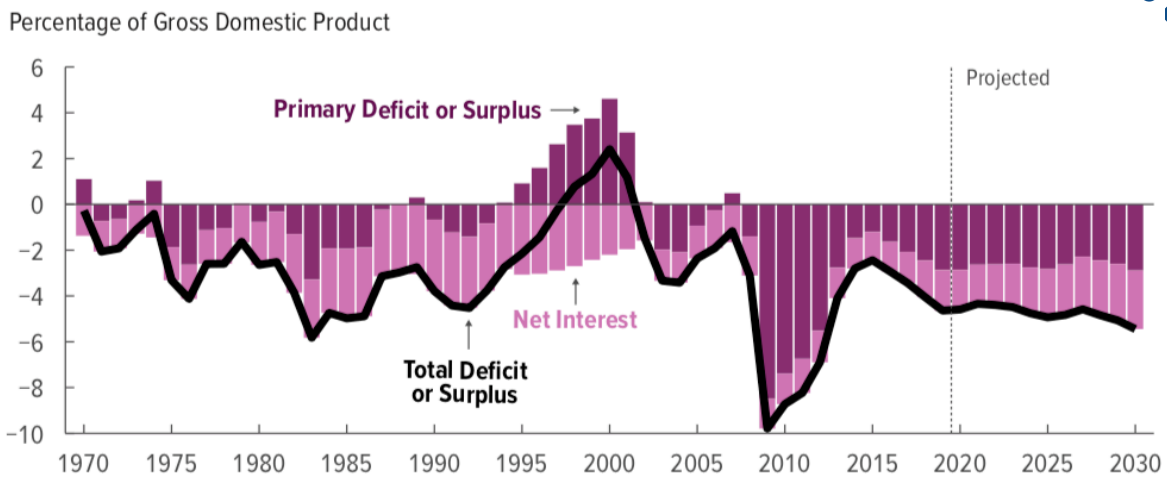


## The Dog that Didn't Bark; Rising Interest Rates?



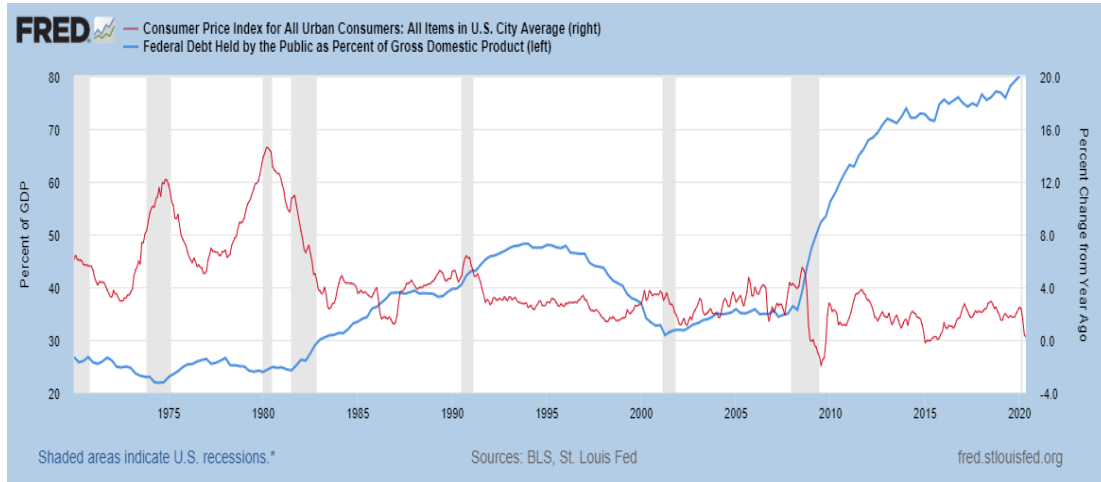
29

## Cost #3: No Primary Surplus Since '07!



30

## Cost #4: Anybody See Any Inflation?



31

## Maybe Debt Isn't a Problem After All: MMT

- **Stephanie Kelton provided a prominent and recent exposition of Modern Monetary Theory in her June 6<sup>th</sup> *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

32



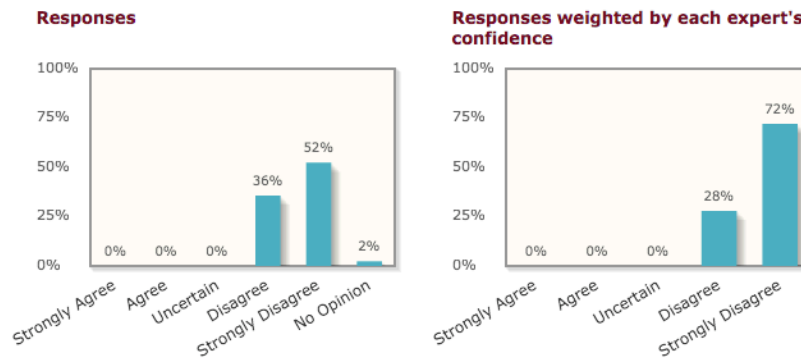
## MN T's Free Lunch

- 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

33

## Do't Just Take My Word for It

**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.**



© 2019, Initiative on Global Markets.  
Source: IGM Economic Experts Panel  
[www.igmmchicago.org/igm-economic-experts-panel](http://www.igmmchicago.org/igm-economic-experts-panel)

© 2019, Initiative on Global Markets.  
Source: IGM Economic Experts Panel  
[www.igmmchicago.org/igm-economic-experts-panel](http://www.igmmchicago.org/igm-economic-experts-panel)

34

## **A** More Reasonable, But Still Optimistic View

### **Olivier Blanchard:**

- Emeritus Professor MIT
- Chief Economist at the IMF, 2008-2015
- President of the American Economic Association, 2018



## **AEA** Presidential Address, 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

- **Stabilizing the Relative Debt, Debt/GDP, requires that the growth rate in debt equals the growth rate of GDP.**
- **The growth rate in debt has 2 parts:**
  1. The growth rate from interest on the debt, or just the interest rate.
  2. A contribution due to the primary surplus (-) or deficit (+).
- **The traditional view assumes that the interest rate on debt is greater than the growth rate of GDP**
  - So, 2. must be negative to offset excess of 1.
  - i.e., debt stabilization requires a primary surplus.



37

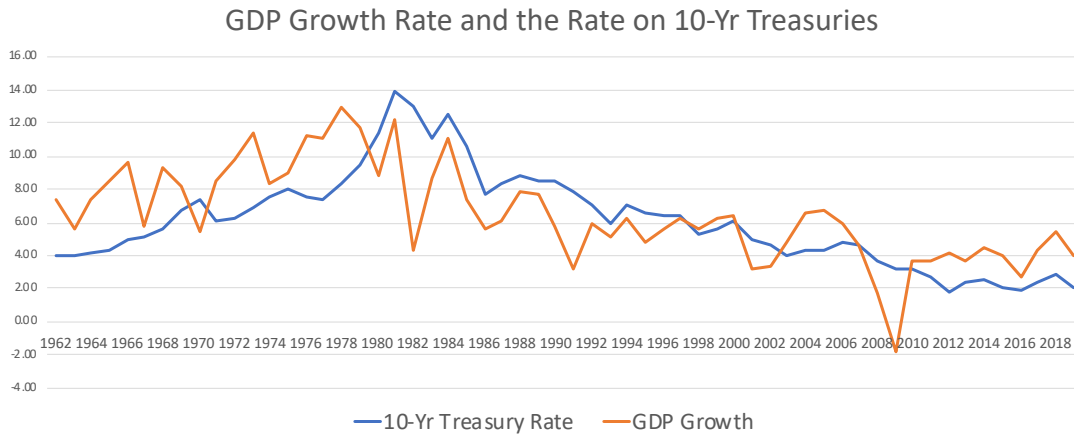
## An Almost Free Lunch

- If the interest rate is *less* than the growth rate of GDP, then the contribution from the primary budget can be positive, or
- Debt to GDP can be stabilized with a (small) primary *deficit*.
- **Blanchard is not MMT (when the crisis is over)**
  1. Relative Debt must be stabilized;
  2. Primary deficit must be reduced,
  3. But it may not crucial at what level of debt we stabilize.



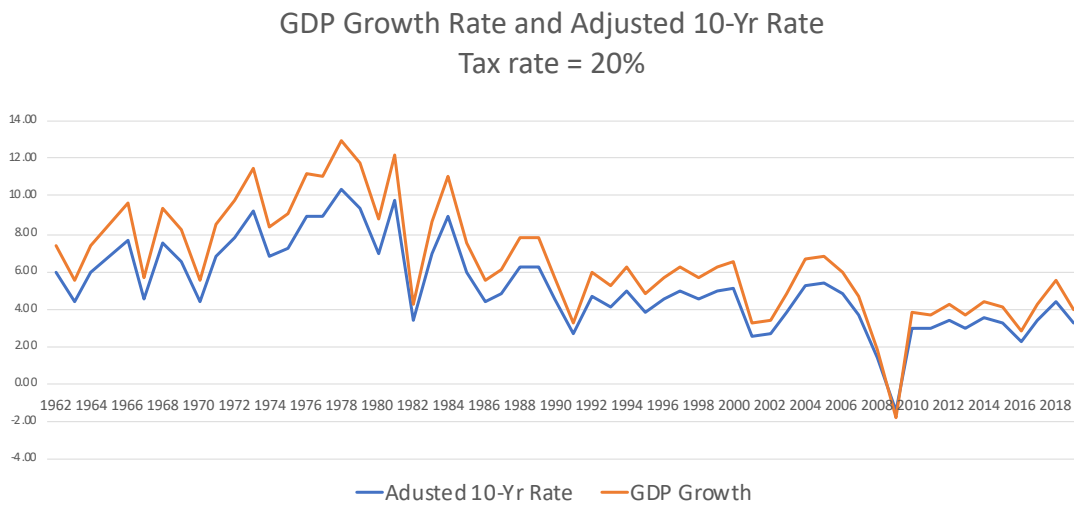
38

# Evidence?



39

# But Interest on the Debt is Taxable



40

## A New and Possibly Catastrophic Cost

- MMT is right that for practicable purposes the US cannot default on its debt, but...
- International investors 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

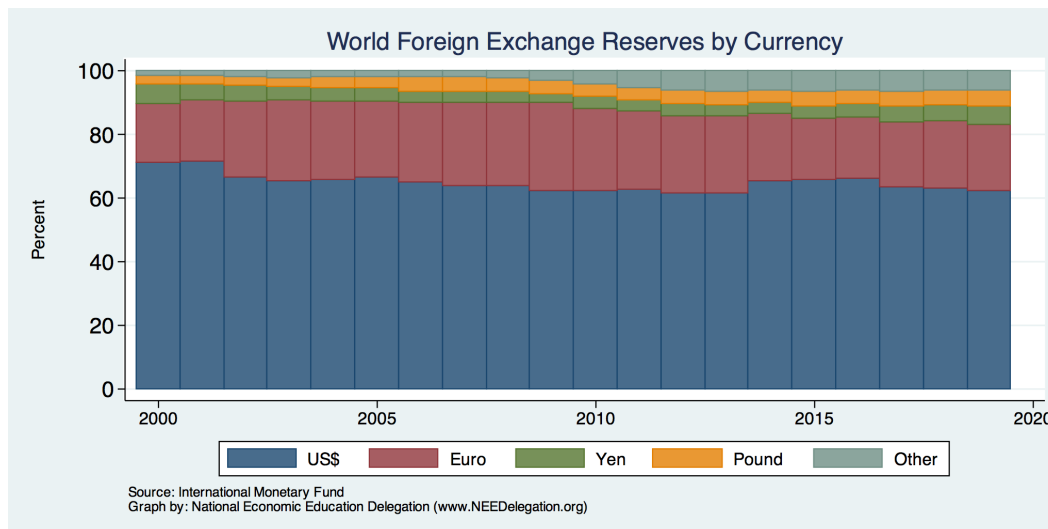
41

## Why do Foreigners Buy US Treasuries?

- Market for Treasuries is the deepest, most liquid 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

42

## Will Our Privilege Last Forever?



43

## Fiscal Crisis, or a Run on the Dollar

- **With an exploding relative debt, what happens if foreigners lose confidence in the stability of the dollar?**
- **CBO (*Federal Debt: A Primer*, March 2020):**

...,because the United States currently benefits from the dollar's position as the world's reserve currency and because the federal government borrows in dollars, a financial crisis—similar to those that befell Argentina, Greece, or Ireland—is less likely in the United States.

Although no one can predict whether or when a fiscal crisis might occur or how it would unfold, the risk is almost certainly increased by high and rising federal debt.

- **Crises in Confidence, in addition to being unpredictable, happen very quickly.**

44

## Bottom Line: We Need to Worry about the Debt

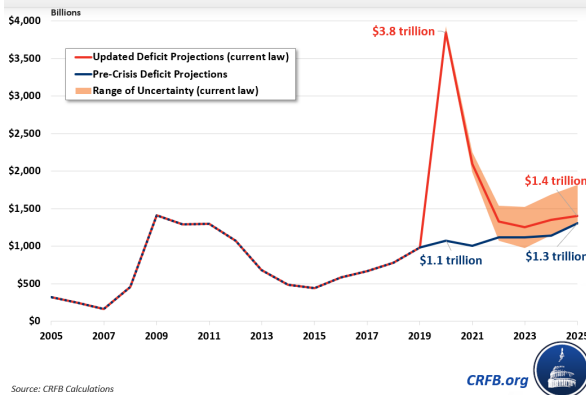
1. Interest rates may not stay this low forever.
2. A fiscal crisis should be avoided at all costs.
3. The good news is we may be able to stabilize the relative debt without a primary surplus.
4. Stabilizing the relative debt would substantially reduce the possibility of the crisis

But, we must substantially reduce (after the pandemic is over) the primary deficits.

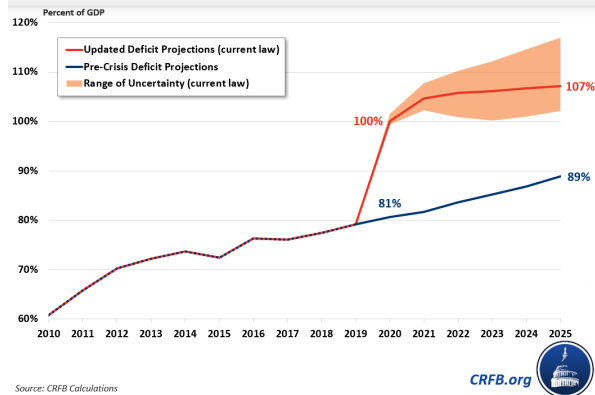
45

## Covid Update?

### Federal Deficit Will Reach Record Levels



### Debt Will Equal Size of Economy This Year



46

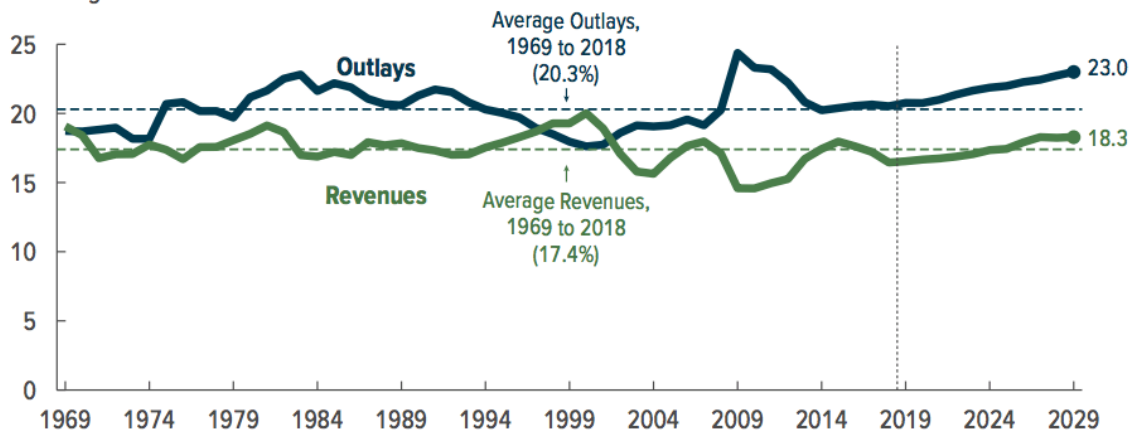
## From a Republican Deficit Hawk

- “I’m a fiscal hawk from way back, and all of my heebie-jeebies are going off when I see these numbers,” said Douglas Holtz-Eakin, a Republican who used to head the Congressional Budget Office and is president of American Action Forum. “But then I look at the scale of the problem, and I think, yeah, that’s that. Gotta do it.” *Politico*, 4/29

47

## How Did We Get Here? (Pre Covid Data)

Percentage of Gross Domestic Product



Deficits before the Pandemic were Unsustainable

48



## Bottom Line Takeaways

- **Herb Stein, an expert on fiscal policy and the Chair of Richard Nixon’s Council of Economic Advisors, is famous for observing: “If something cannot go on forever, it will stop.” A rising and accelerating ratio of debt-to-GDP cannot go on forever. How does it stop?**
  1. Fiscal Crisis.
  2. Reductions in the Primary Deficit.



## Thank you!

## Any Questions?

[www.NEEDelegation.org](http://www.NEEDelegation.org)

<presenter name>

<presenter email>

Contact NEED: [Info@NEEDelegation.org](mailto:Info@NEEDelegation.org)

Submit a testimonial: [www.NEEDelegation.org/testimonials.php](http://www.NEEDelegation.org/testimonials.php)

Support NEED: [www.NEEDelegation.org/donate.php](http://www.NEEDelegation.org/donate.php)



## 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
<b>Deficit</b>	<b>-4.6</b>	<b>-7.0</b>	<b>-2.4</b>

51

## Takeways (Continued)

- After the virus is defeated, some combination of spending cuts and tax increases must be enacted.
- Given the fiscal challenges of an aging population and climate change, it is better to do this sooner rather than later.
- The particular combination of spending cuts and revenue increases is a political question.
- But high debt levels should not deter:
  - Productive infrastructure investment.
  - Fiscal responses to crises.

52

# Fed Makes an Open Market Purchase of 40

All Banks			Federal Reserve			
Assets		Liabilities	Assets		Liabilities	
Reserves	<b>100</b>	Deposits	TBonds	<b>280</b>	Reserves	<b>100</b>
		1000			Currency	150
TBonds	<b>160</b>				NW	30
Loans	780	NW				
		80				

Then I would tell the story about how banks with excess reserves would expand loans and deposits.

But in the new world since 2008 bank don't make more loans because of excess reserves.