

ECON 2: Principles of Macroeconomics

Lecture 13: Deficits, Debt, and Monetary Policy



Problems with Tax Cuts

Simple Option 1: Cut taxes for low income households

Benefits:

Costs:



Problems with Tax Cuts



Simple Option 2: Cut taxes for rich

Benefits: \$1 million dollar salary = \$353,168.19
in Federal taxes

Costs:

Forward-Looking Behavior: Tax cuts today
mean tax increases in the future

Federal Reserve Response?

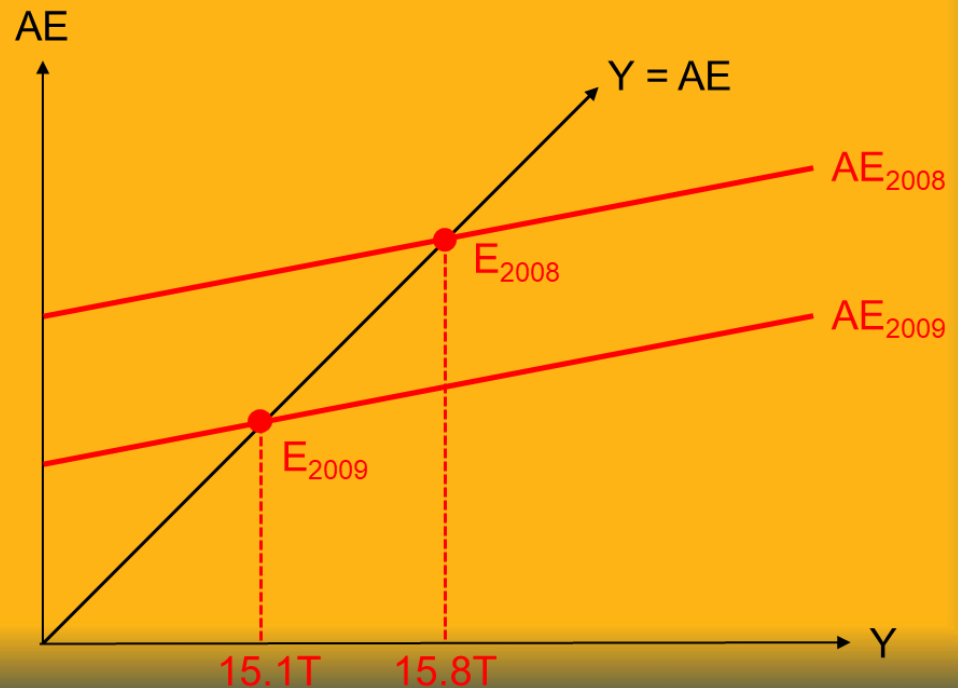
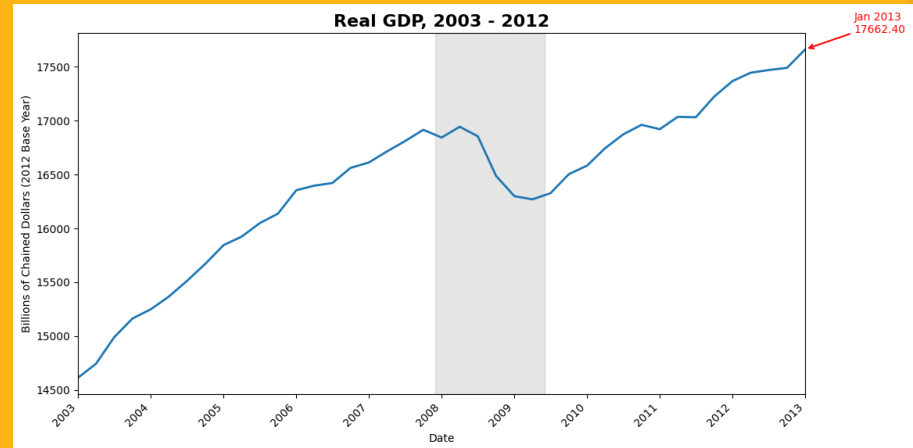
Biggest Concern with Fiscal Policy?

Government Response to the Great Recession

Economic crises = fiscal policies

Great Financial Crisis

Covid-19 pandemic



2008: Troubled Asset Relief Program (TARP) Bank Bailout Bill

Stabilize the U.S. financial system during the 2008 financial crisis by purchasing \$700 billion in troubled assets and injecting capital into financial institutions.

The U.S. Treasury purchased equity in banks and other financial institutions to stabilize their balance sheets.

Banks repaid loans with a 5% dividend (increased to 9% by 2013).

Major recipients included Goldman Sachs, JP Morgan, Wells Fargo, AIG (\$40B), and Citigroup/Bank of America (\$45B combined).

Loans to:

Community Banks (\$92 billion)

Big 3 Auto Companies (\$25 billion)

The U.S. Treasury earned \$441.7 billion on \$426.4 billion invested, resulting in a \$15 billion profit.



2008: Troubled Asset Relief Program (TARP) Bank Bailout Bill



- Impact
 - Prevented a deeper economic collapse by restoring confidence in financial markets.
 - Critics argue it created a “Too Big to Fail” precedent, encouraging risky behavior in large institutions.
- Controversies
 - Allegations of favoritism in selecting bailout recipients.
 - Moral hazard concerns: rewarding poor management decisions of failing institutions.
 - Limited help for homeowners and housing markets despite initial goals.
- Legacy
 - TARP is credited with averting a potential Great Depression but faced criticism for its perceived inequities and long-term implications for financial regulation.

2009: American Recovery and Reinvestment Act (ARRA) Economic Stimulus Bill

- Signed into Law: February 17, 2009, by President Barack Obama.
- Key Figures
- Original Budget: \$787 billion (later revised to \$831 billion) :
 - \$288 billion in tax cuts and incentives.
 - \$224 billion for entitlement programs (e.g., unemployment benefits, Medicaid).
 - \$275 billion for federal contracts, grants, and loans
- Major Spending Areas
 - Infrastructure: \$85 billion for projects like roads, bridges, and mass transit
 - Healthcare: \$155 billion for Medicaid expansion, COBRA subsidies, and health IT.
 - Education: \$100 billion for schools and state fiscal stabilization.
 - Energy: \$90 billion for renewable energy projects and efficiency upgrades.

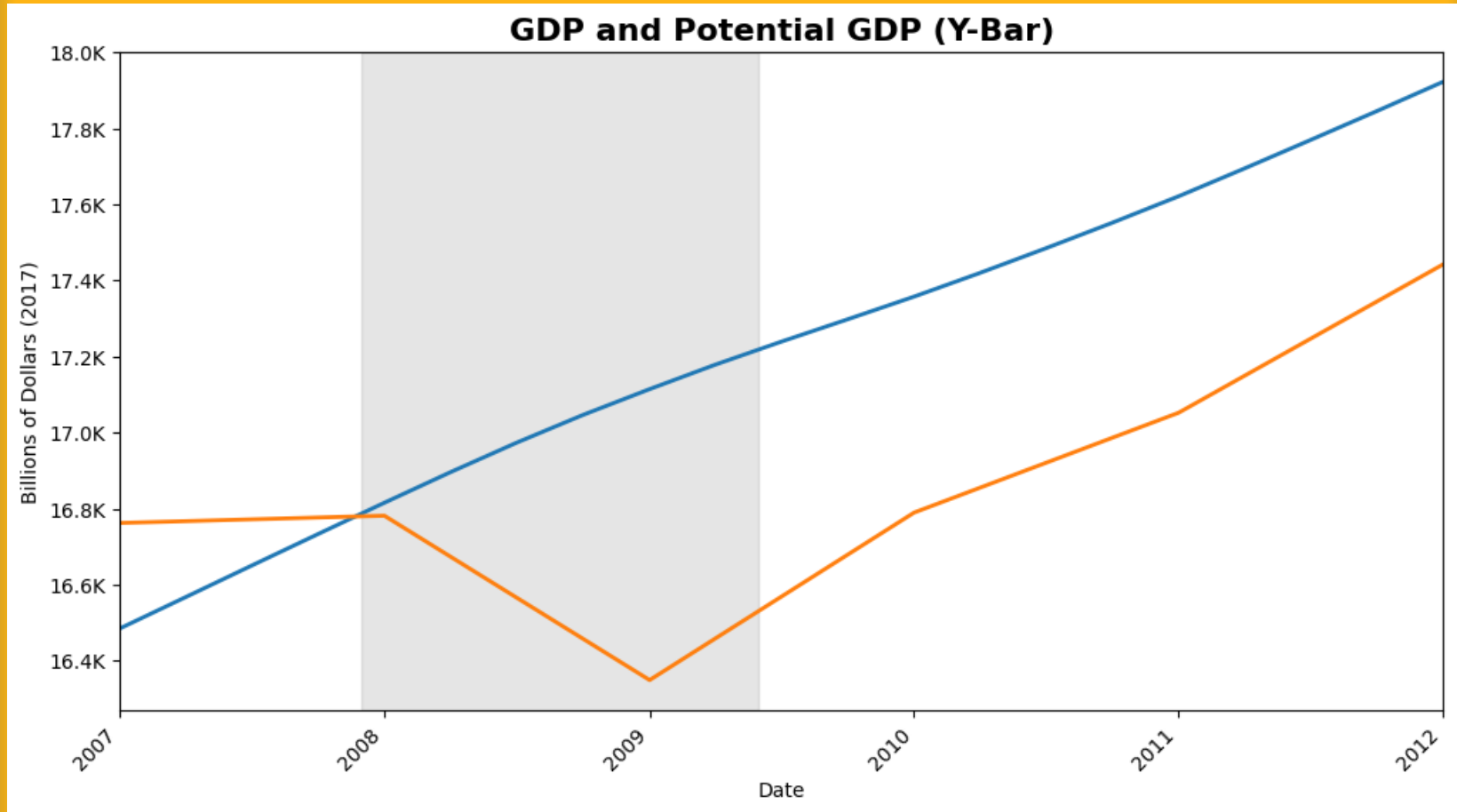


2009: American Recovery and Reinvestment Act (ARRA) Economic Stimulus Bill

- Economic Impact
 - Boosted GDP growth by up to 4.5% in 2010.
 - Created or saved an estimated 1.4–3.3 million jobs by mid-2010.
 - Helped lower unemployment by up to 1.8 percentage points.
- Criticisms
 - Spending delays hindered immediate economic recovery (“no such thing as shovel-ready projects”).
 - Concerns over waste, fraud, and inefficiency
 - Critics argued it increased federal debt without sufficient long-term benefits.
- Legacy
 - ARRA played a significant role in stabilizing the U.S. economy during the recession but remains controversial regarding its effectiveness and cost.

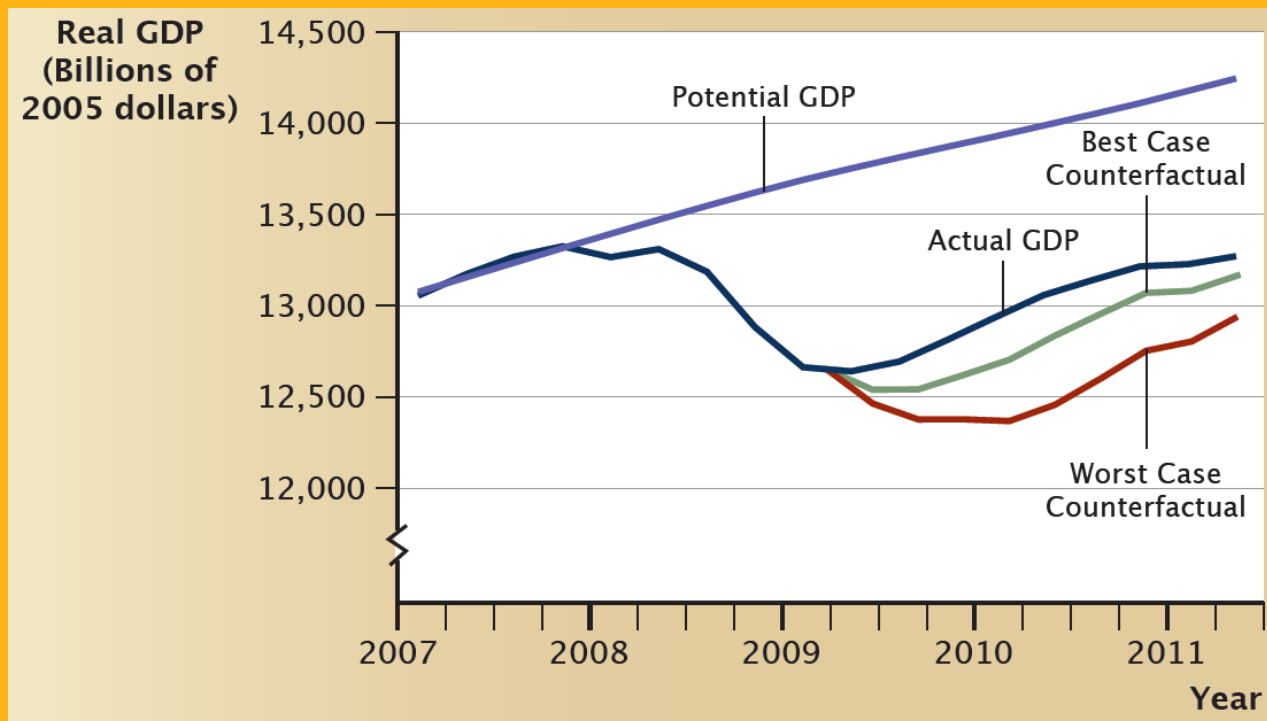


Government Response to the Great Recession



Government Response to the Great Recession

- Was stimulus useless?



Government Response to the Great Recession

Purchases of goods and services by the federal government	1.0 to 2.5
Transfers to state and local governments for infrastructure	0.5 to 2.5
Transfers to state and local governments for other purposes	0.7 to 1.8
Transfer payments to individuals (such as unemployment benefits and food stamps)	0.8 to 2.1
One-time payments to retirees and disabled individuals	0.3 to 1.0
One-time payments to existing recipients of Social Security	0.3 to 1.0
Making Work Pay tax credit	0.5 to 1.7
AMT patch	0.2 to 0.6
Other individual tax provisions	0.3 to 1.5

Government Response to the Great Recession

The size of the Great Recession stimulus package is still debated

Some say it was too small to stimulate the economy

Others claim it was too large and led to inflation and debt

Problems with the package's design besides its size



Covid-19 Pandemic Fiscal Policy

CARES Act (March 27, 2020)

- **Total Cost: \$2.2 trillion (largest in history)**

Key Provisions:

- \$290 billion in direct payments to individuals
- \$260 billion for unemployment benefits
- \$377 billion in small business relief
- \$150 billion for state and local governments
- \$200 billion for hospitals and healthcare providers.



Consolidated Appropriations Act (Dec. 2020)

- **Total Cost: \$900 billion**

Key Provisions:

- \$119 billion for unemployment benefits
- \$302 billion for small businesses
- \$82 billion for education

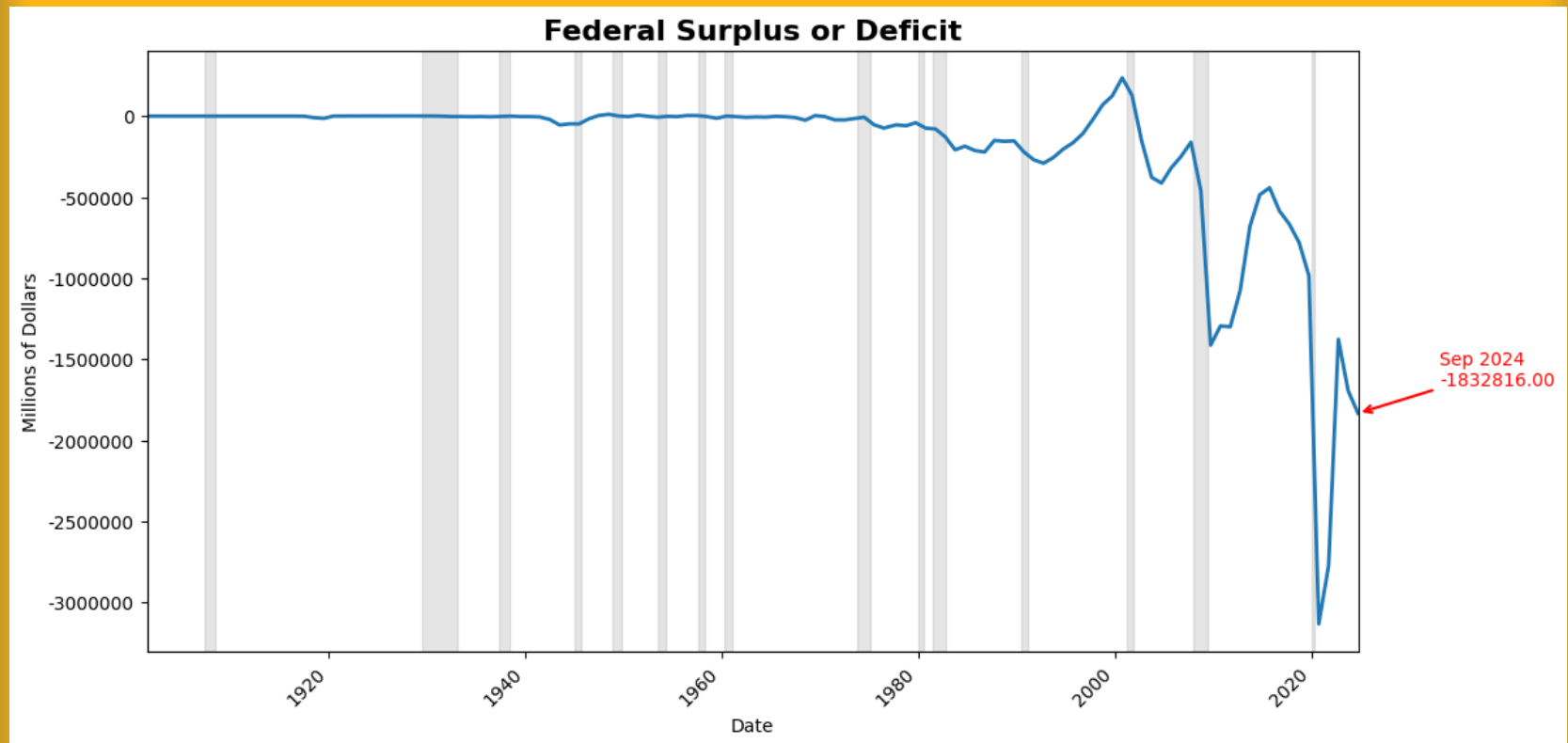
American Rescue Plan Act (March 2021)

- **Total Cost: \$1.9 trillion**

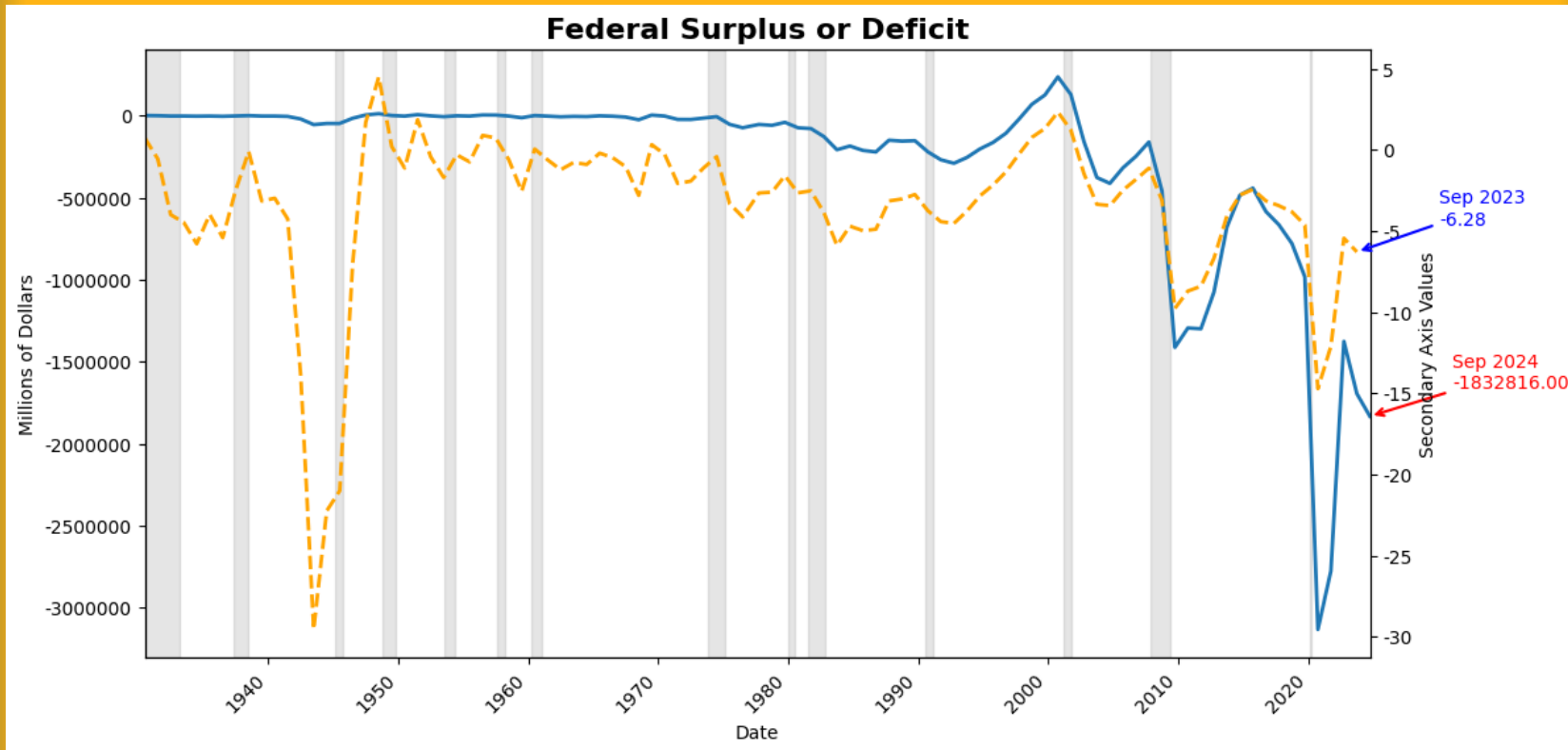
Key Provisions:

- \$203 billion for unemployment benefits
- \$176 billion in tax credits
- \$170 billion for education
- \$174 billion for healthcare

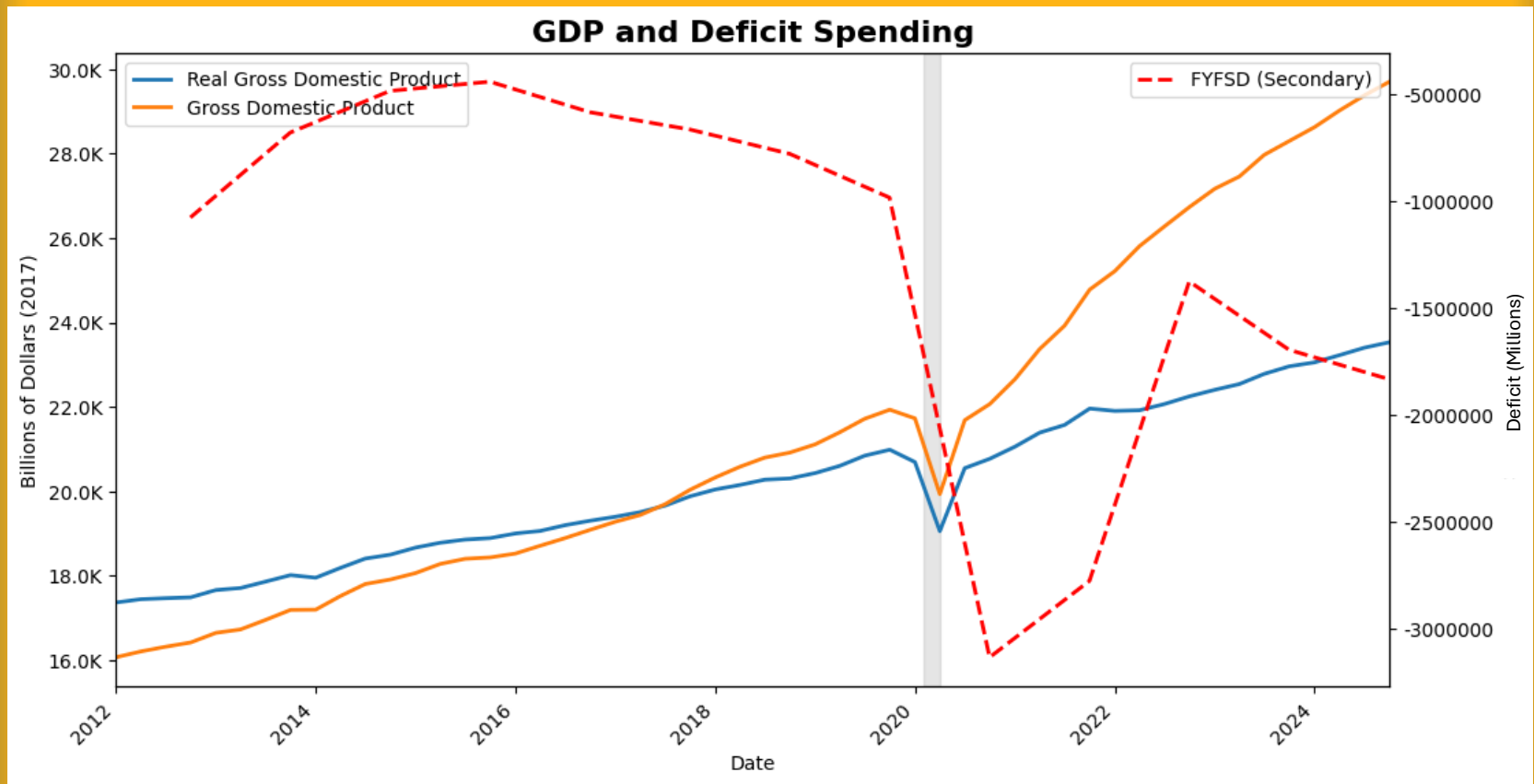
Federal Deficit over Time



Federal Deficit over Time



Federal Deficit over Time

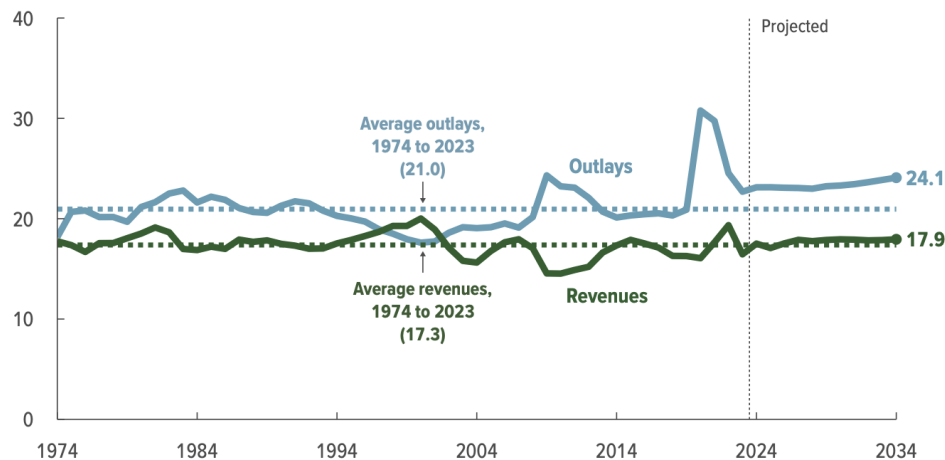


Federal Outlays and Revenues

Figure 1-3.

Total Federal Outlays and Revenues

Percentage of GDP



Measured as a percentage of GDP, projected outlays remain about the same for the next several years as growth in outlays for interest payments is offset by decreases in discretionary spending. Over the 2024–2034 period, outlays exceed their 50-year average by more than revenues exceed their historical average.

Data source: Congressional Budget Office. See www.cbo.gov/publication/59710#data.

When October 1 (the first day of the fiscal year) falls on a weekend, certain payments that would have ordinarily been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. All projections presented here have been adjusted to exclude the effects of those timing shifts. Historical amounts have been adjusted as far back as the available data will allow.

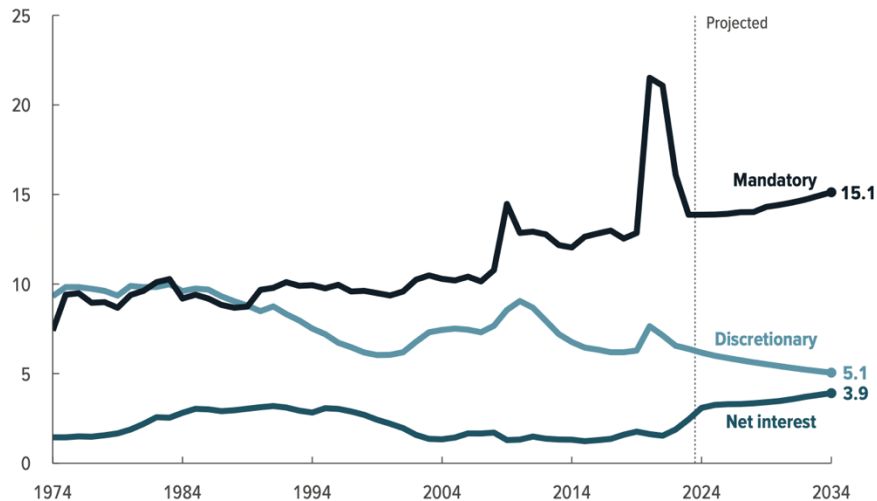
GDP = gross domestic product.

Federal Outlays and Revenues

Figure 1-4.

Outlays, by Category

Percentage of GDP

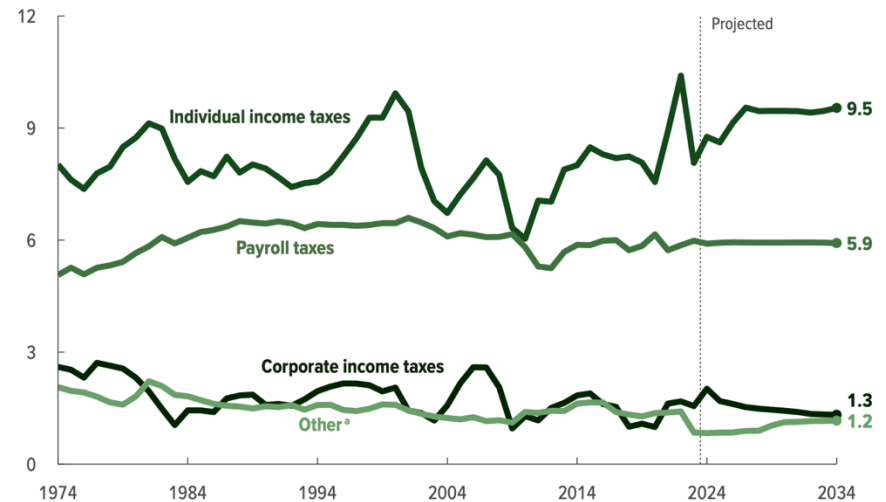


Data source: Congressional Budget Office. See www.cbo.gov/publication/59710#data.

Figure 1-5.

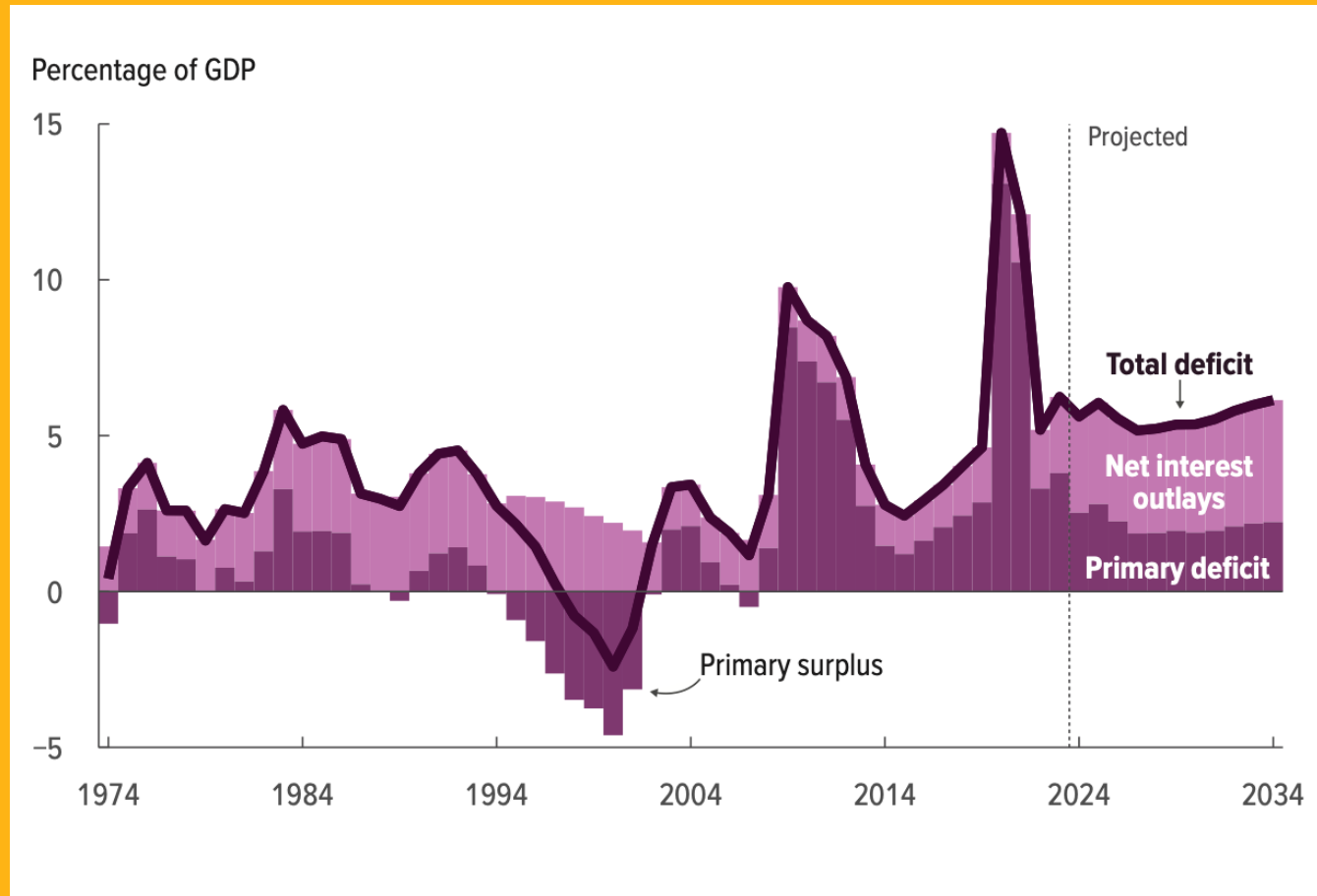
Revenues, by Category

Percentage of GDP

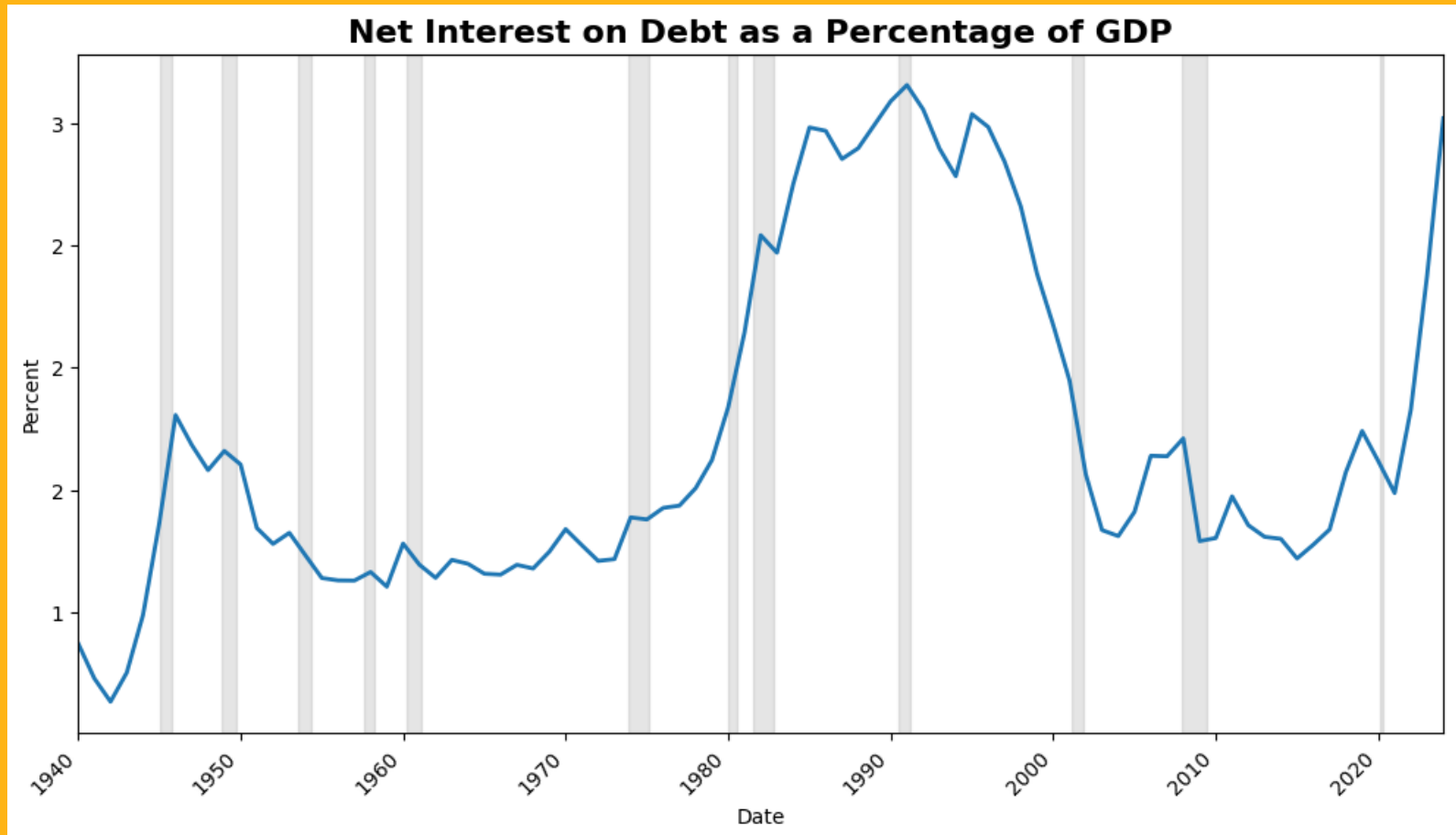


Data source: Congressional Budget Office. See www.cbo.gov/publication/59710#data.

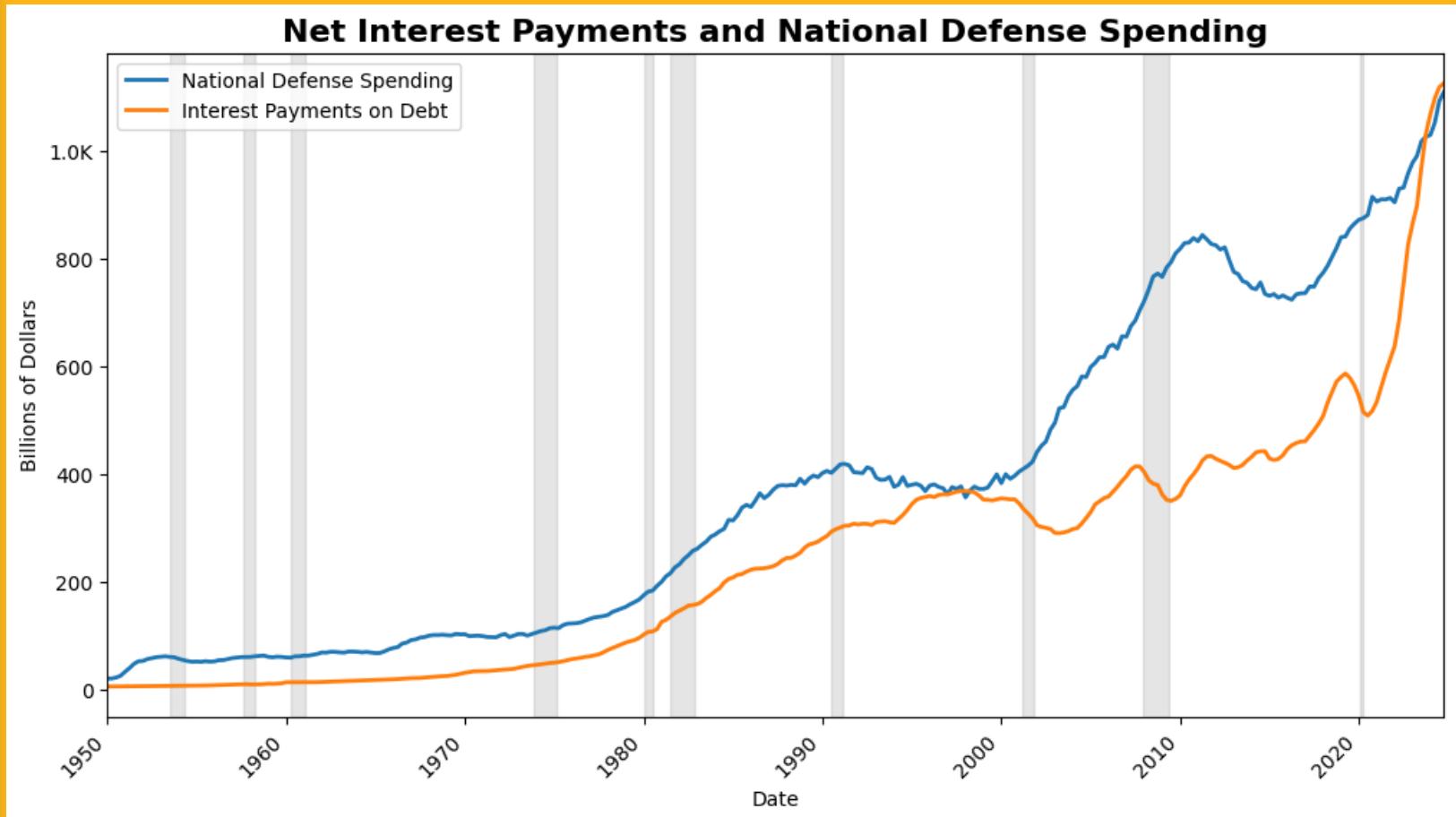
Federal Outlays and Revenues



Net Interest on Debt



Net Interest vs. Defense Spending



Connecting Deficit to Debt

- Each year a deficit is run, money must be borrowed in order to pay for shortfall



How Big is the National Debt?



[Link 1](#)

[Link 2](#)

National Debt Facts

Fact #1: Public Debt vs Intra-Governmental Borrowing

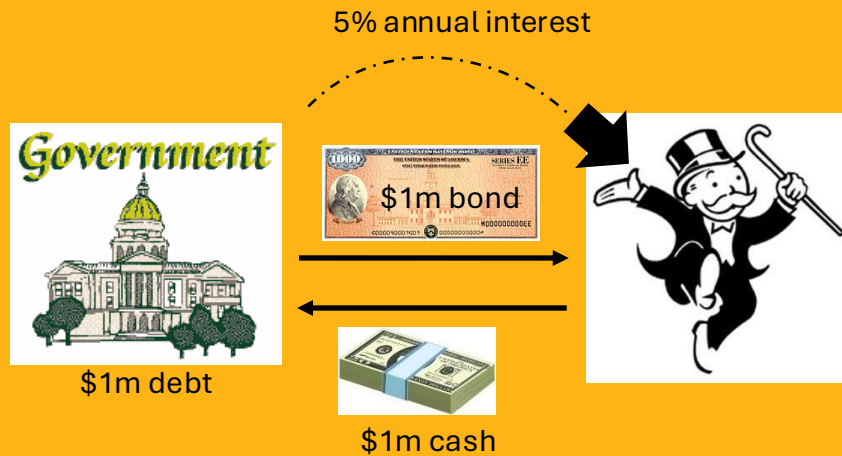


National Debt Facts

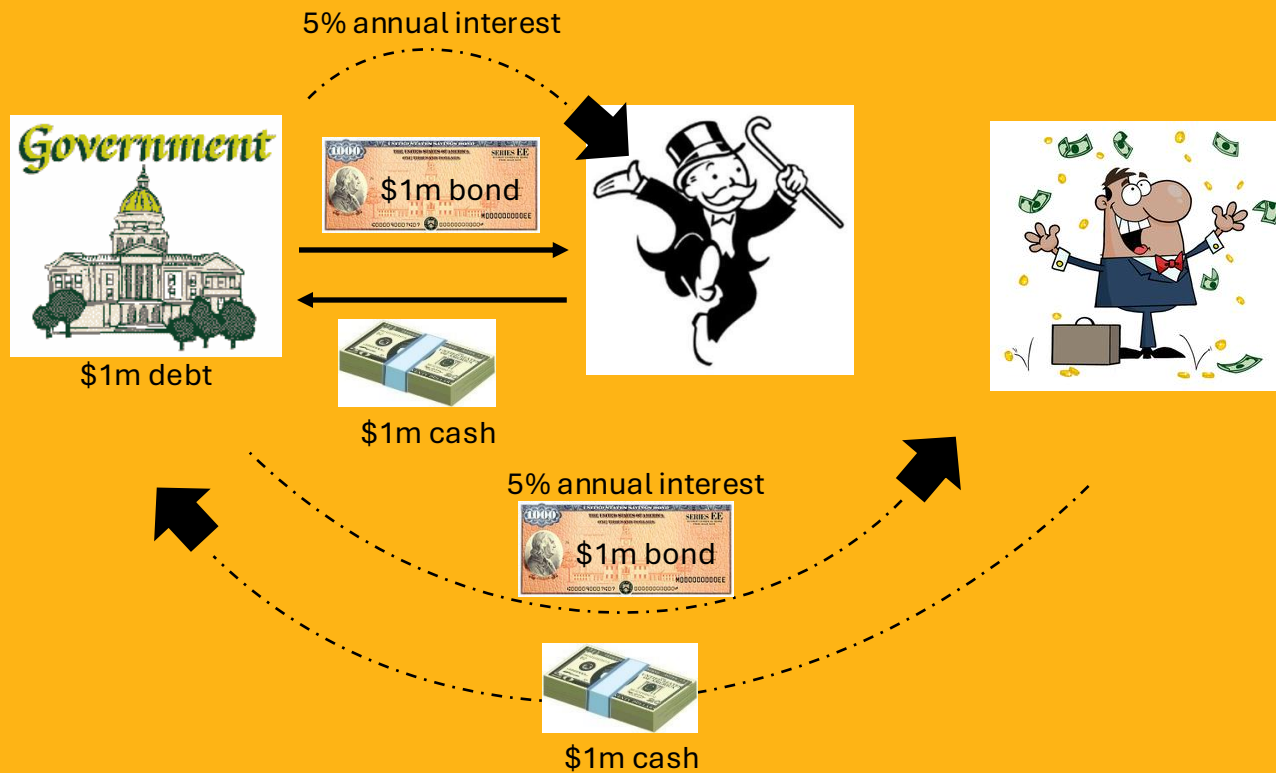
Fact #2: Government Bonds and Rolling Over Debt



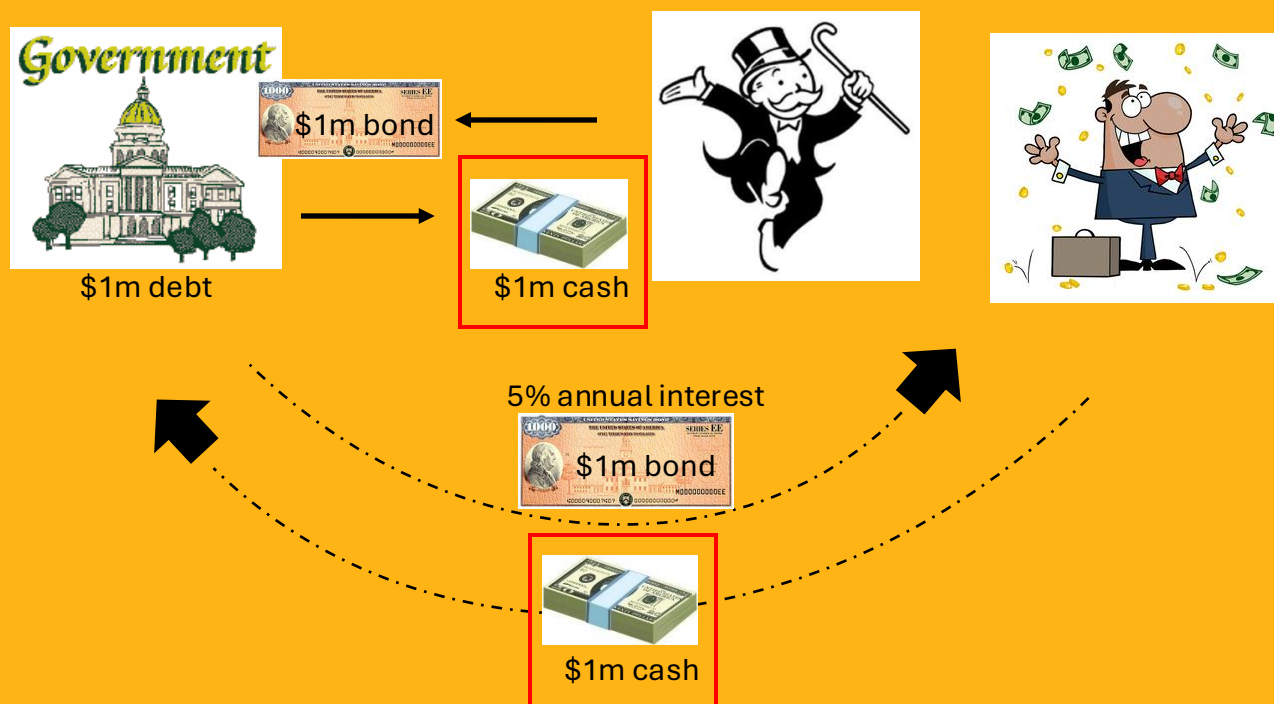
Rolling Over Debt



Rolling Over Debt



Rolling Over Debt



What if the government can't find a lender?



What about the debt matters?

Interest Payments

Example:

Government Debt = 1 million

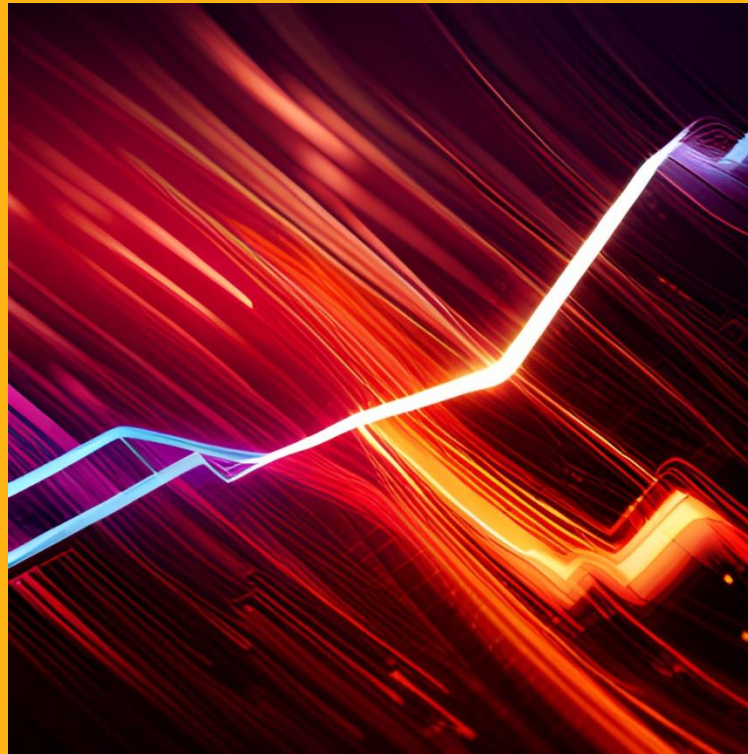
Interest Rate = 5% = 0.05

Nominal GDP = 5 million



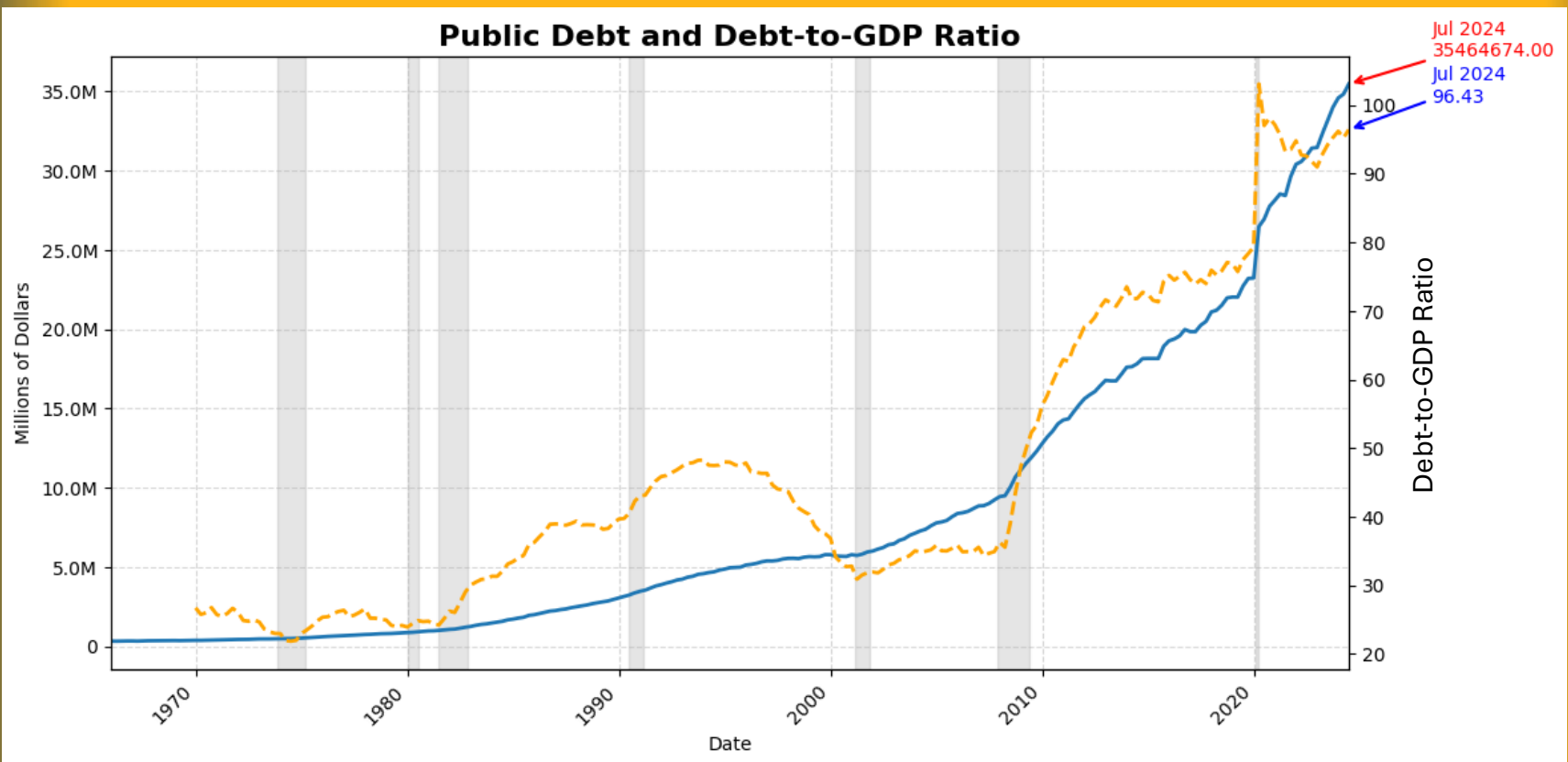
National Debt Facts

Fact #3: Debt-to-GDP Ratio



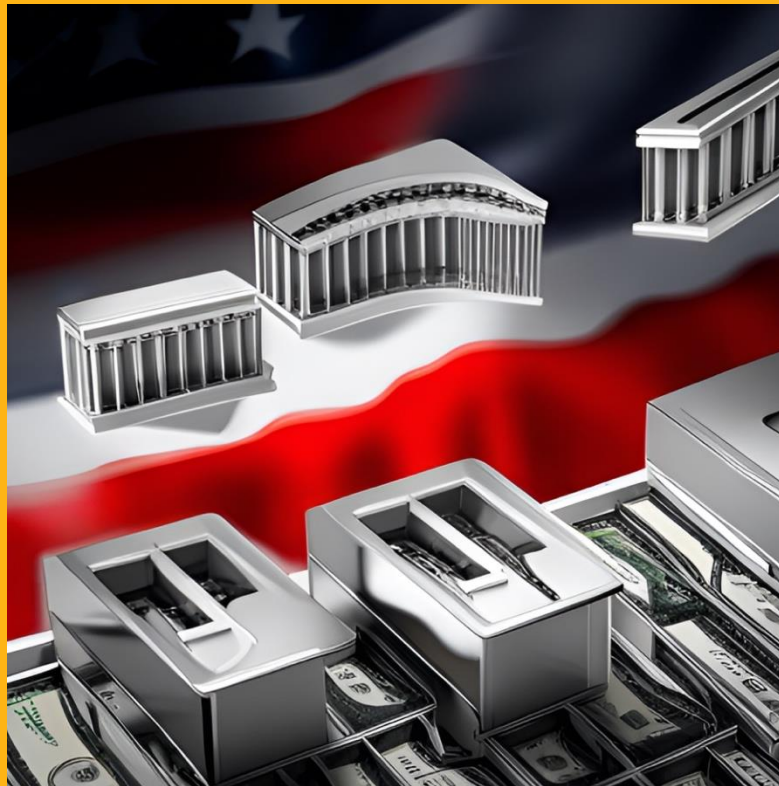
National Debt Facts

- Debt-to-GDP Ratio:

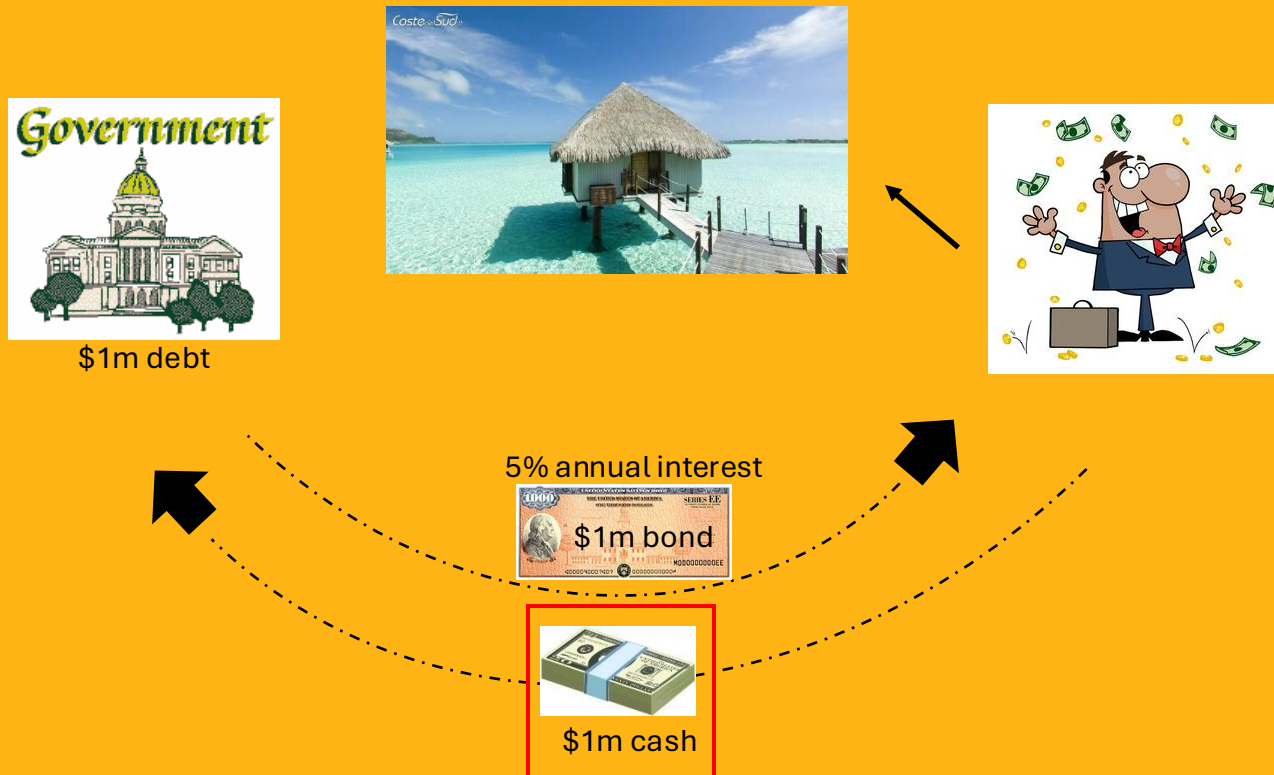


National Debt Facts

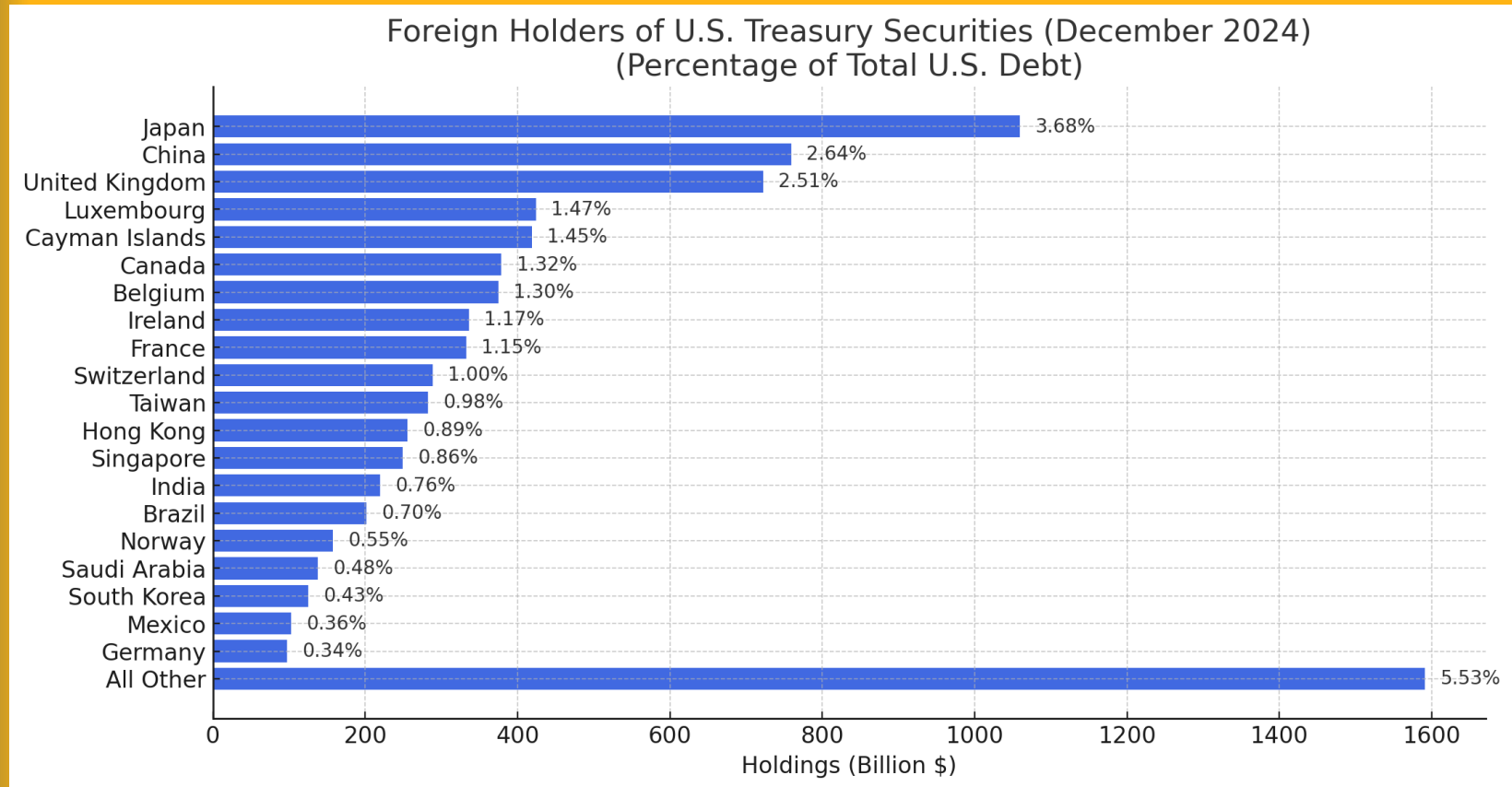
Fact #4: National Debt Interest Payments



Spending Interest Payments



Who Owns the US Debt



Debt Projections and Aggregate Expenditures



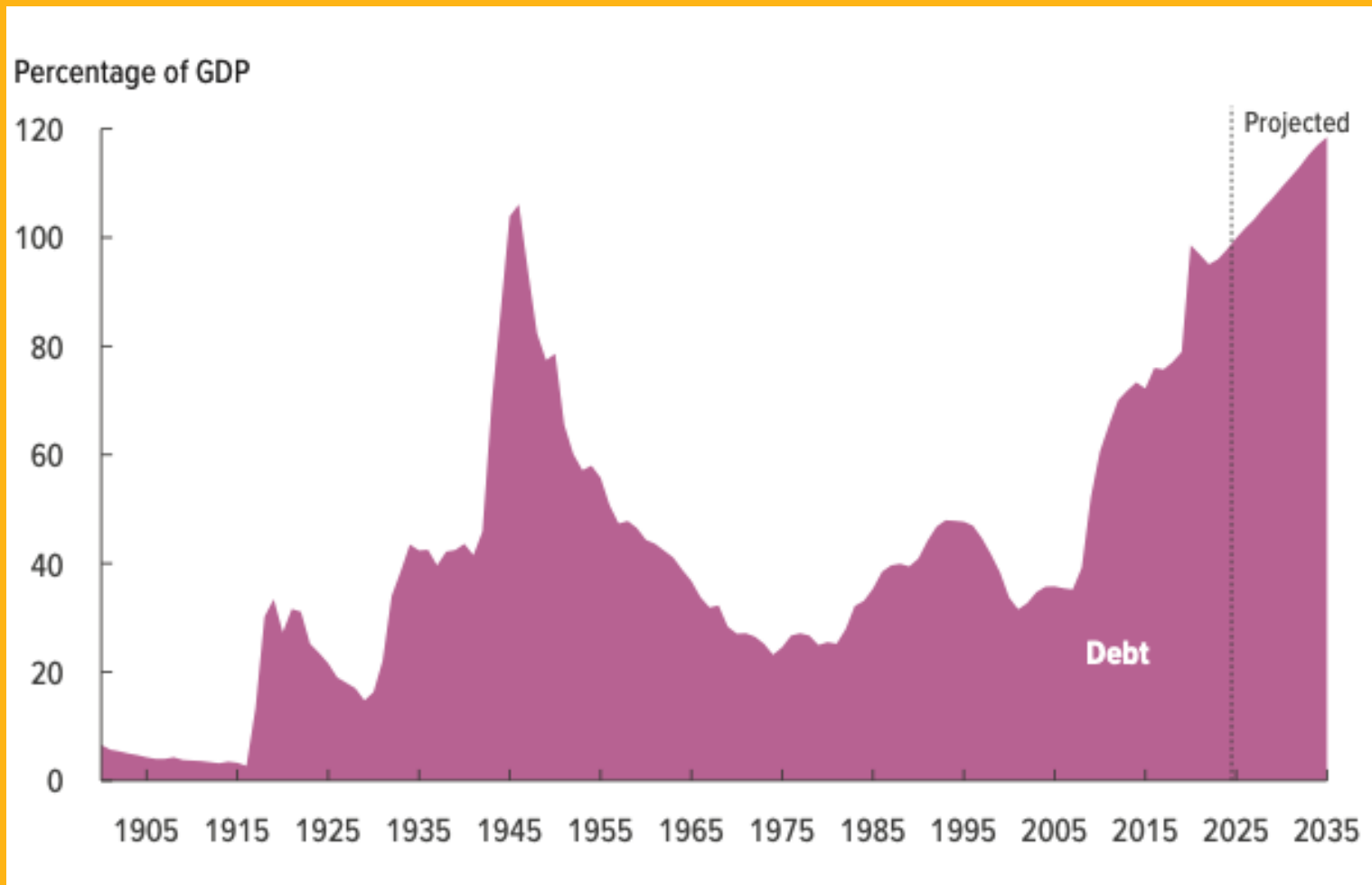
What can be done?

- Decompose the Minimum Tax Rate:

Long Term Costs of Rising Debt

- Fiscal crisis
 - Investors lose confidence in ability to repay its debt/interest
- Higher Interest Payments
 - Larger portion of budget dedicated to interest payments
 - Crowd out other types of government spending
- Economic Impact
 - Serviced and repaid by raising taxes
 - Monetize the debt = inflation, devaluation of currency
- Reduced Flexibility
 - Future generations forced to pay debt of previous generations
 - Limits the resources for economic downturns/emergencies

CBO Debt Projections



Maturing National Debt

- [Average Interest Rate on Debt](#)
- [Unsustainable Fiscal Path, Bureau of the Fiscal Service](#)
- [Fiscal Data \(from Treasury.gov\)](#)