



HARVARD
UNIVERSITY

The Fiscal Outlook: New Rules and Old Truths

Jason Furman

Harvard University and PIIE

World Bank: Fostering Fiscal Sustainability

Washington DC

June 12, 2024

Outline

1. Fiscal Past and Future
2. What Is the Right Limiting Principle?
3. The Neutral Rate
4. What About Uncertainty?

Outline

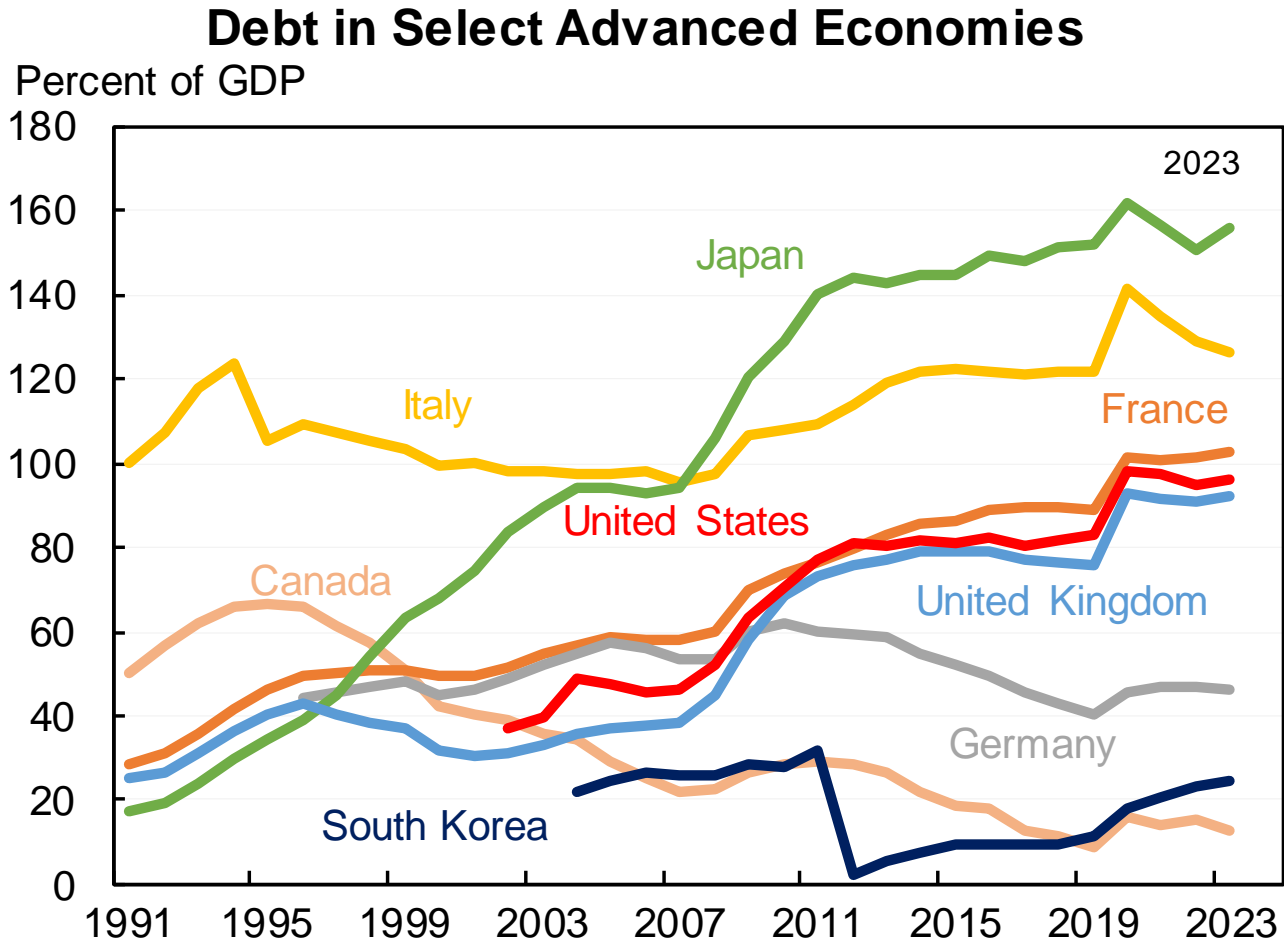
1. Fiscal Past and Future

2. What Is the Right Limiting Principle?

3. The Neutral Rate

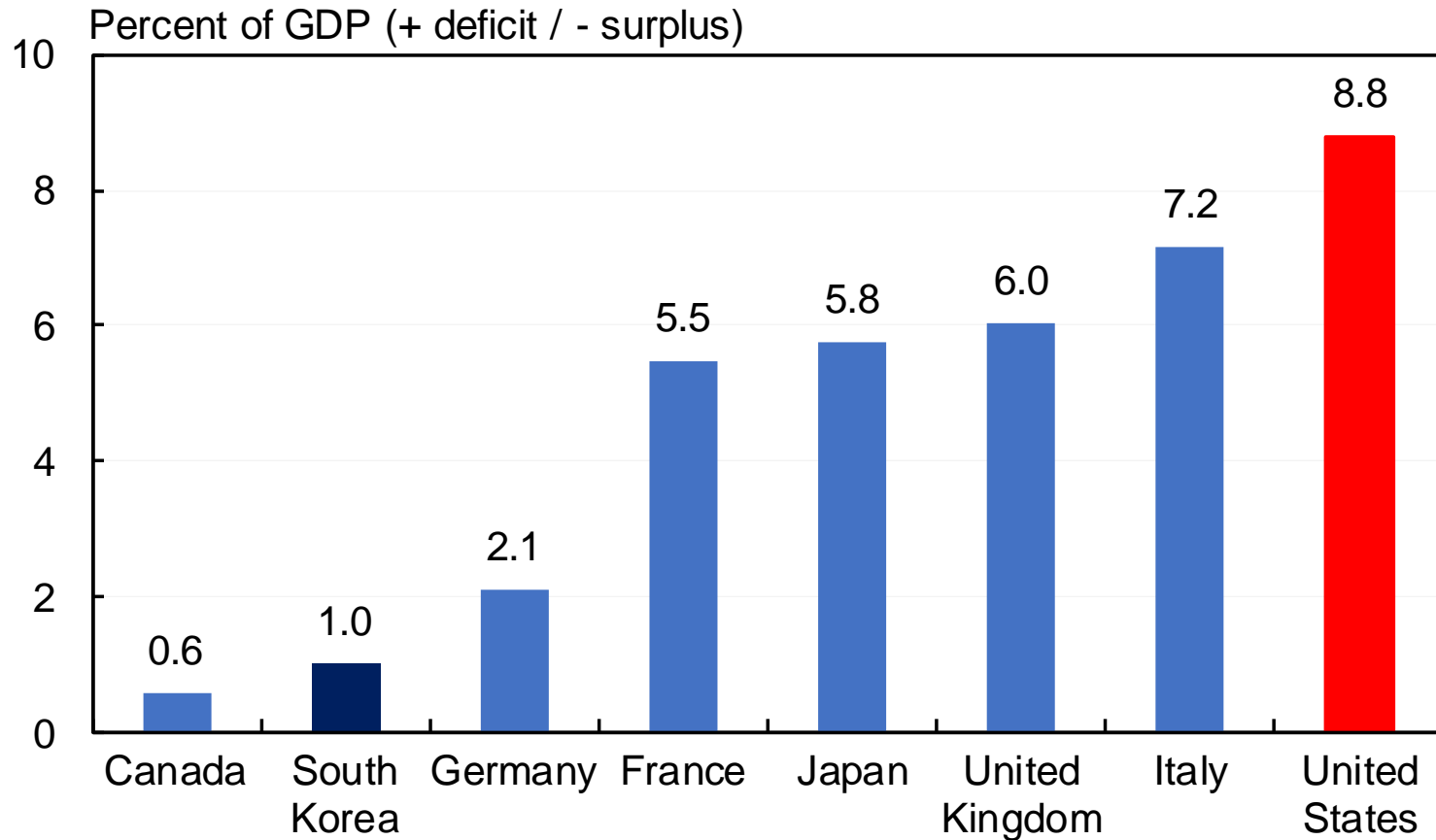
4. What About Uncertainty?

Debt is rising in most major advanced economies



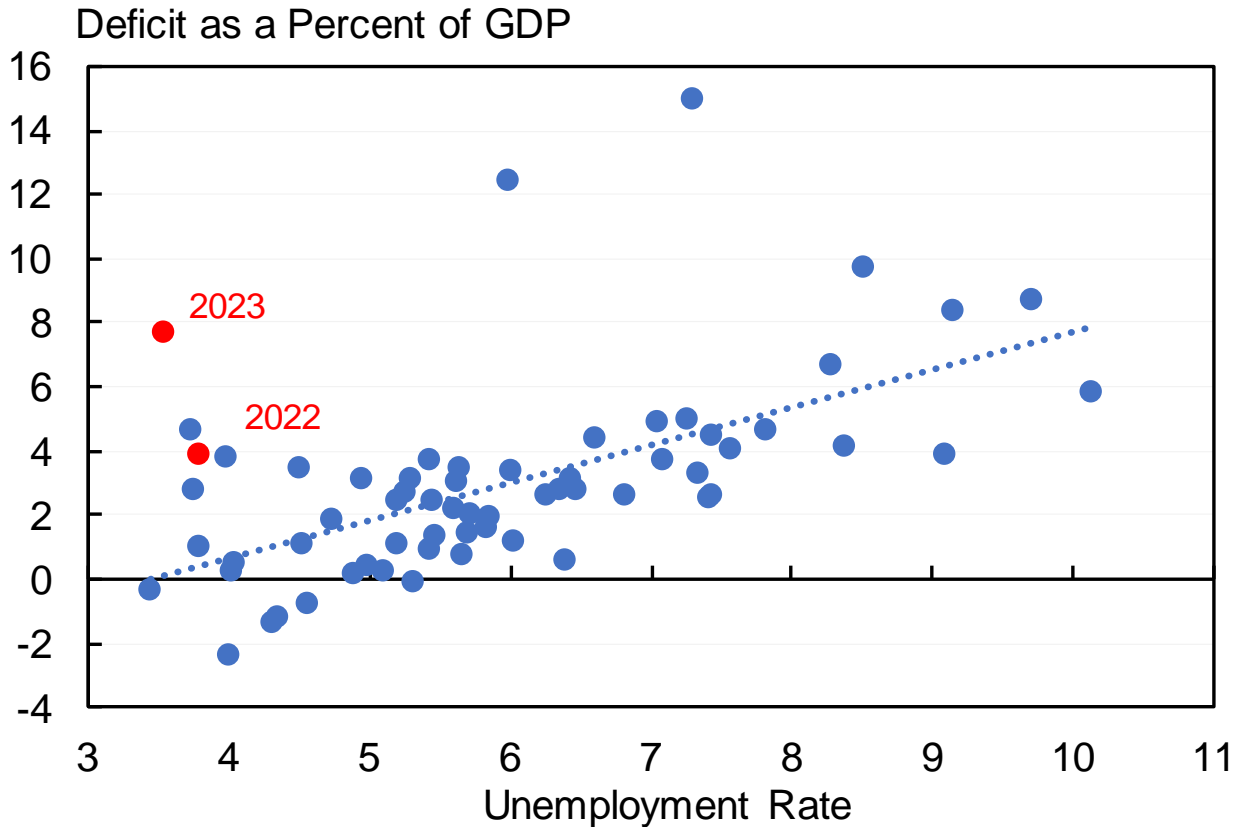
The U.S. deficit was larger than any other advanced economy last year

Deficit in Select Advanced Economies, 2023



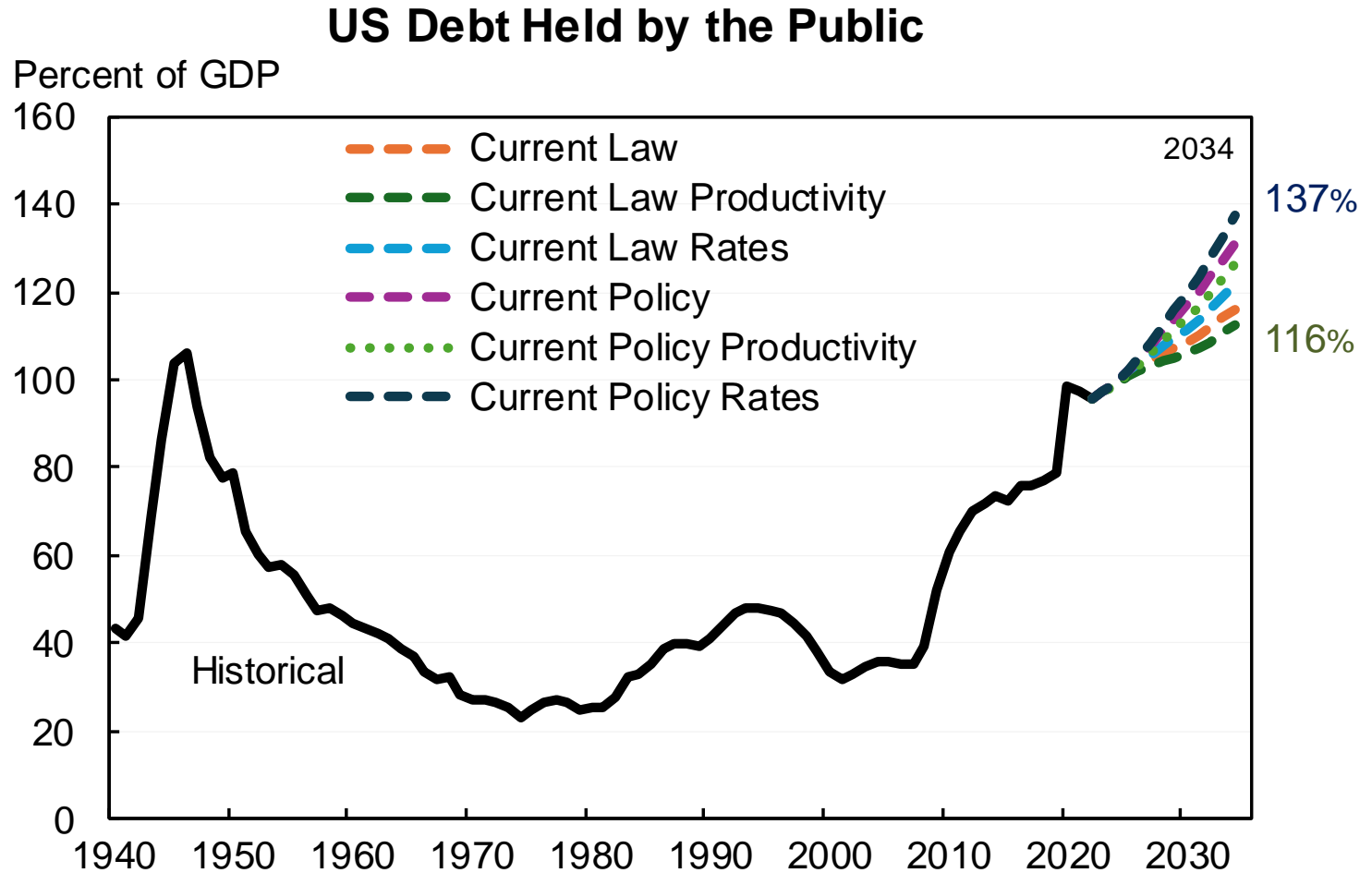
The U.S. deficit was especially large given the strength of the economy

Deficit as a Percent of GDP vs. Unemployment Rate, 1960-2023



Note: 2022 and 2023 are adjusted for student loan forgiveness. Unemployment Rate is the annual average of monthly rates. Source: Bureau of Labor Statistics (BLS); Bureau of Economic Analysis (BEA); Congressional Budget Office; Macrobond; author's calculation.

The U.S. debt is continuing to rise as a share of the economy under a range of scenarios



Note: Current Law Productivity assumes 0.5pp productivity growth each year of the forecast window. CBO Rules of Thumb used to determine interest rates. Source: Office of Management and Budget; Congressional Budget Office; Macrobond; author's calculation.

The U.S. fiscal adjustment needed to stabilize the debt as a share of the economy

Non-interest Spending and/or Tax Adjustments Needed to Stabilize the Debt

	CBO Forecast	CBO + 0.5pp productivity growth	CBO + market interest rates
<u>Percent of GDP</u>			
Current Law	1.8%	0.5%	3.0%
Current Policy	3.8%	1.9%	4.8%
<u>Dollars</u>			
Current Law	\$6.3 trillion	\$1.3 trillion	\$10.5 trillion
Current Policy	\$13.5 trillion	\$7.0 trillion	\$17.0 trillion

Outline

1. Fiscal Past and Future

2. What Is the Right Limiting Principle?

3. The Neutral Rate

4. What About Uncertainty?

A fiscal framework should be a combination of:

- Optimal
- Understandable
- Achievable

The debt needs to stabilize as a share of the economy, but where?

0% ?

45% ?

70% ?

100% ?

150% ?

250% ?

Debt to GDP ratios are a conceptually slowed measure

Debt



Stock

Backward looking



GDP

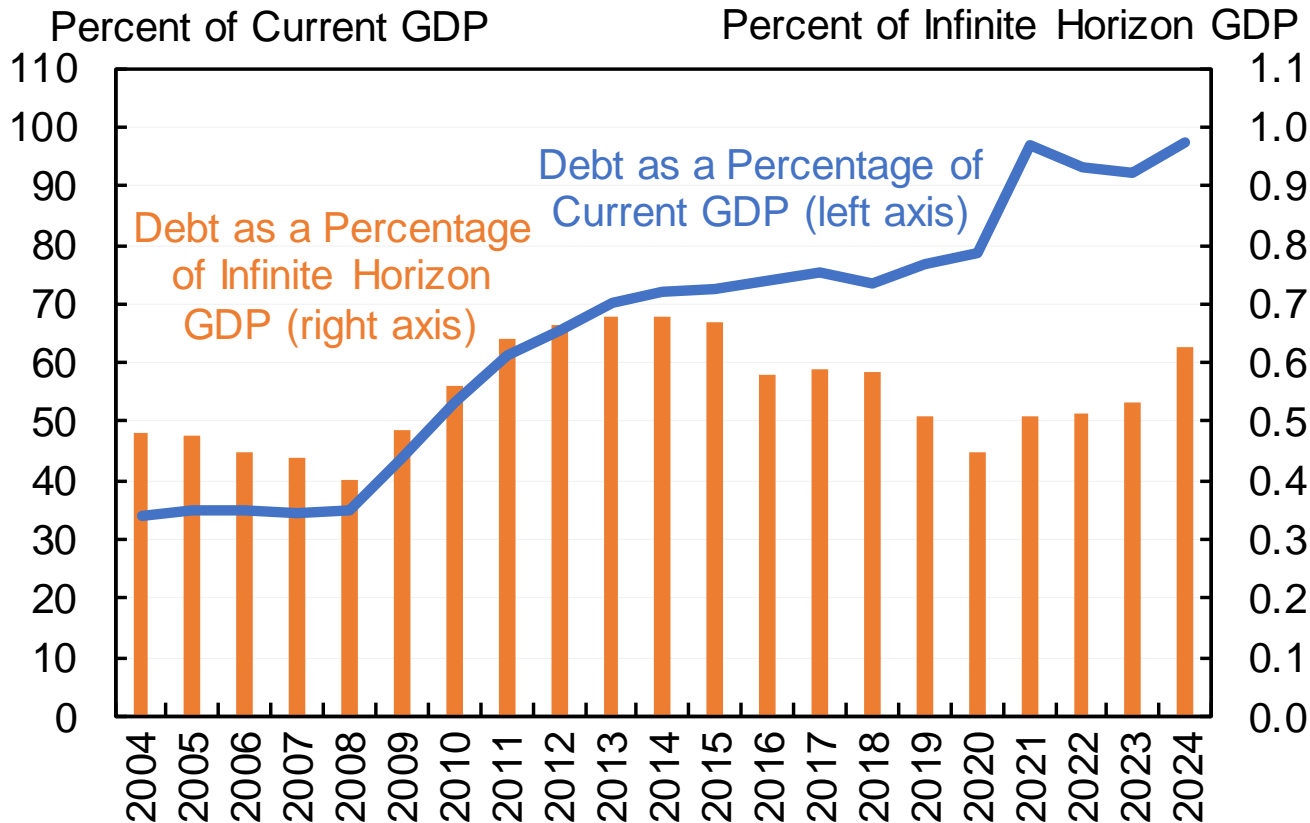


Flow

NPV of U.S. GDP is \$4.4 quadrillion (SS Trustees) or ∞ (if $r < g$).

Stock-stock: debt stable relative to future GDP even while tripling relative to present GDP

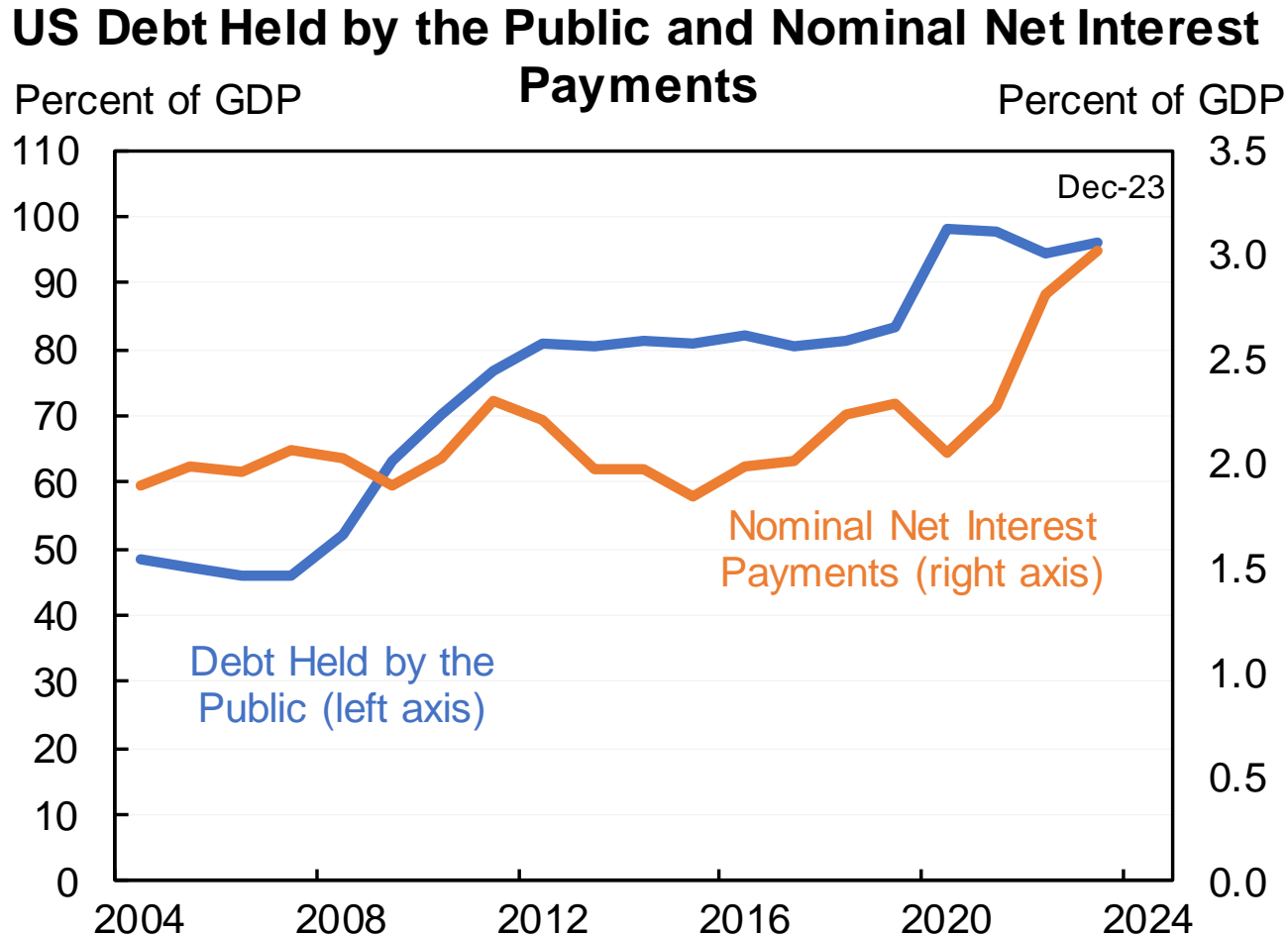
Debt as a Percentage of Current and Infinite Horizon GDP



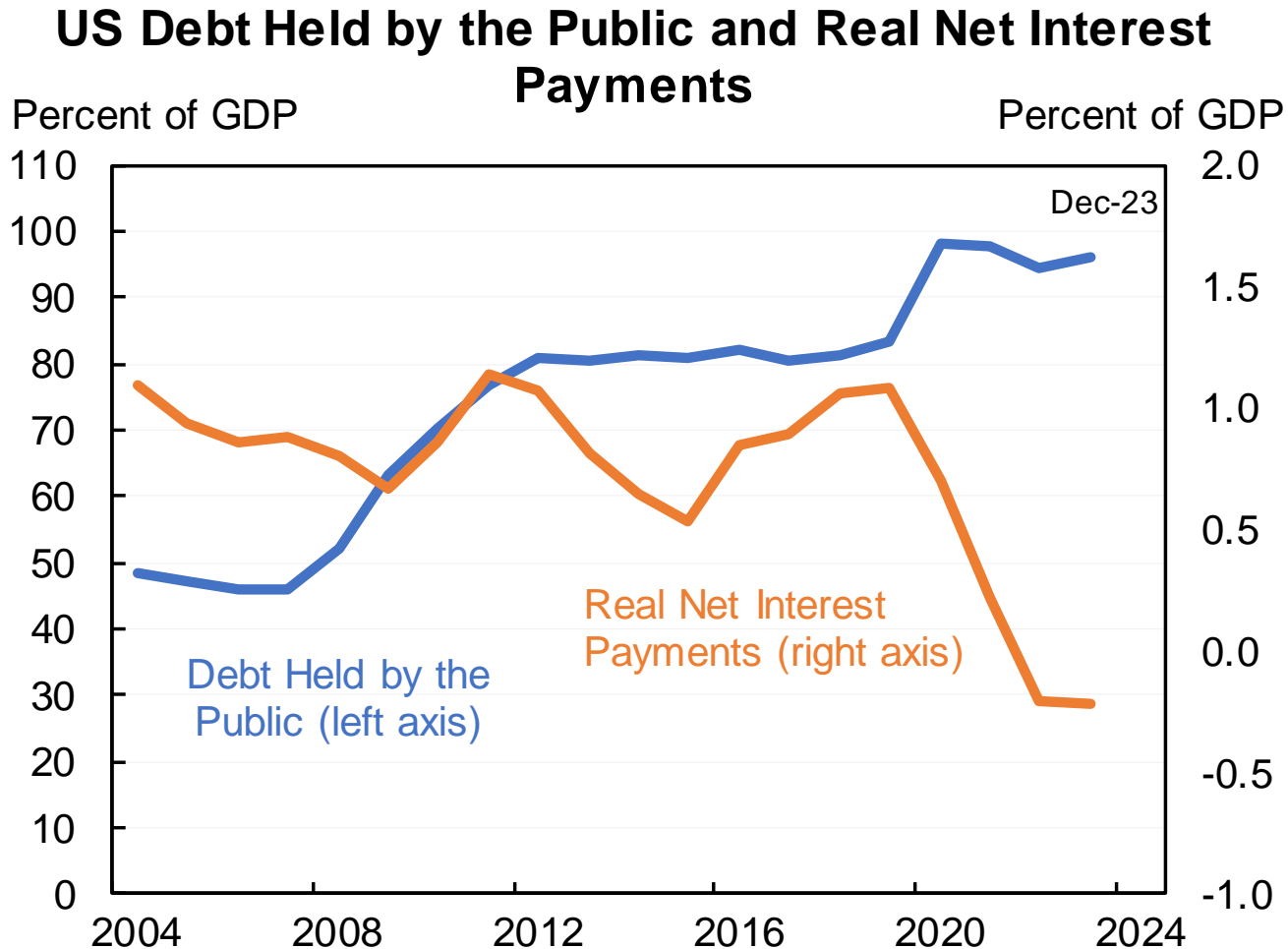
Note: 2024 value is based on debt as of June 7, 2024.

Source: The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds; Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters; Department of the Treasury; Macrobond; author's calculations.

Flow-flow: nominal debt service has fallen even while debt has increased in the United States

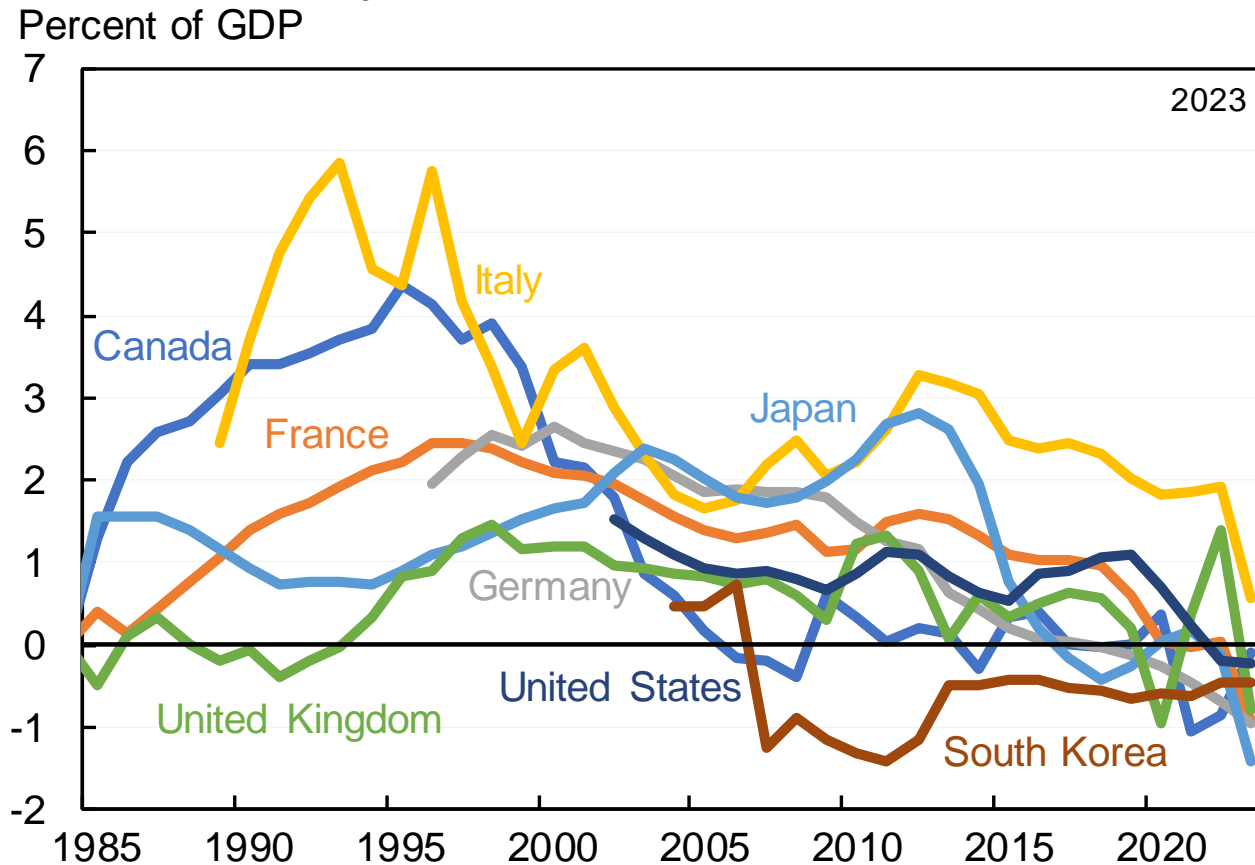


Flow-flow: real debt service (the analytically correct measure) tells the same story



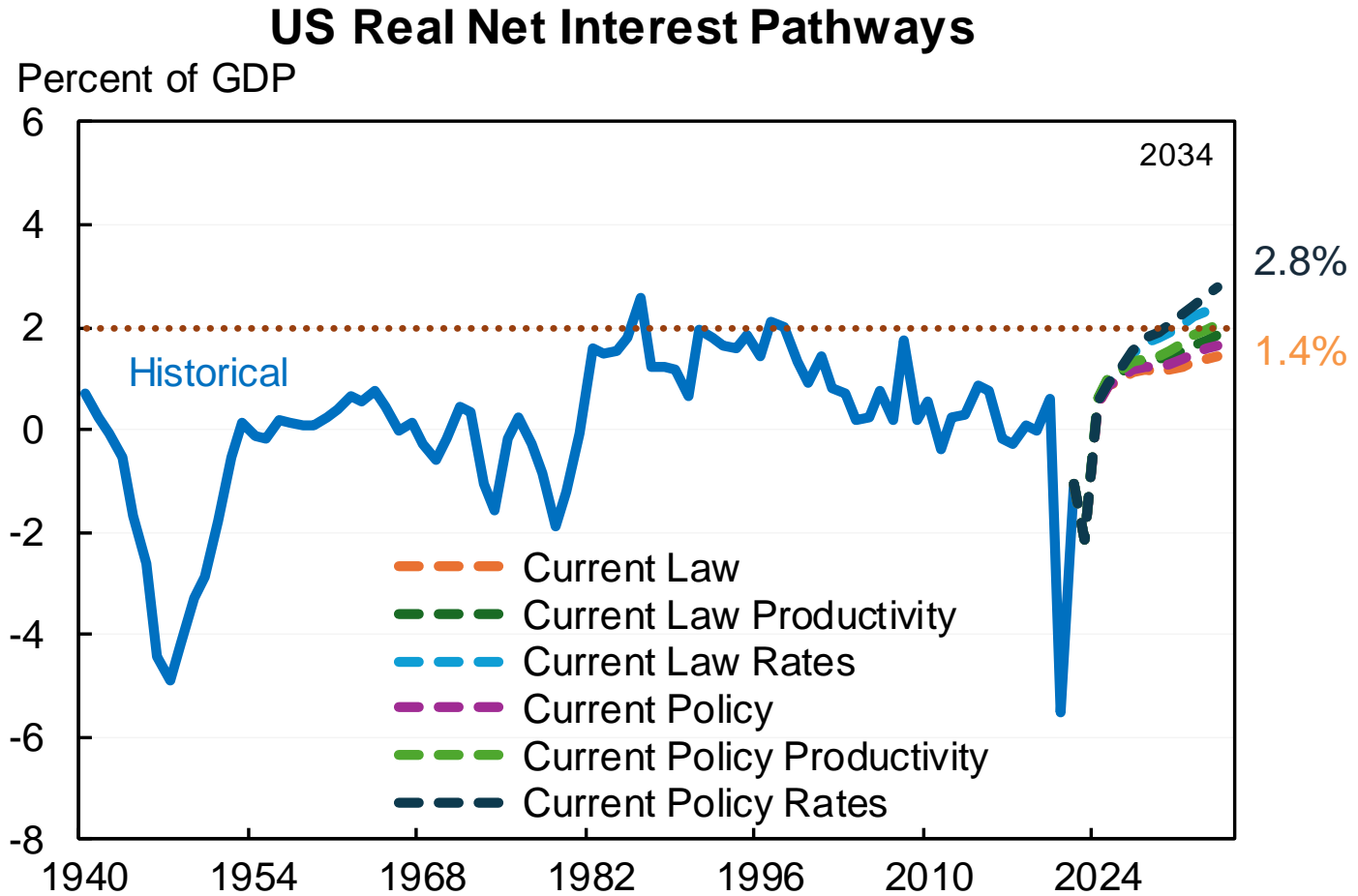
Real interest payments in major economies

Real Interest Payments in Select Advanced Economies



Note: Real interest is obtained using 5-year inflation rates of IMF's GDP deflator estimate index for each economy.
Source: International Monetary Fund, World Economic Outlook; Macrobond; author's calculations.

U.S. real net interest going forward



The limiting principle

- Debt on a gradually declining path
- Target a debt level based on keeping real net interest rate below about 2 percent of GDP for the United States (or 1 percent of GDP for smaller advanced economies)
- Periodically adjust the debt target based on the interest rate outlook

Outline

1. Fiscal Past and Future

2. What Is the Right Limiting Principle?

3. The Neutral Rate

4. What About Uncertainty?

Economics of the neutral rate

The **neutral interest rate** is the short-run real interest rate at which investment and saving are balanced in a manner consistent with full employment.

On average the real interest rate will tend back to the neutral rate.

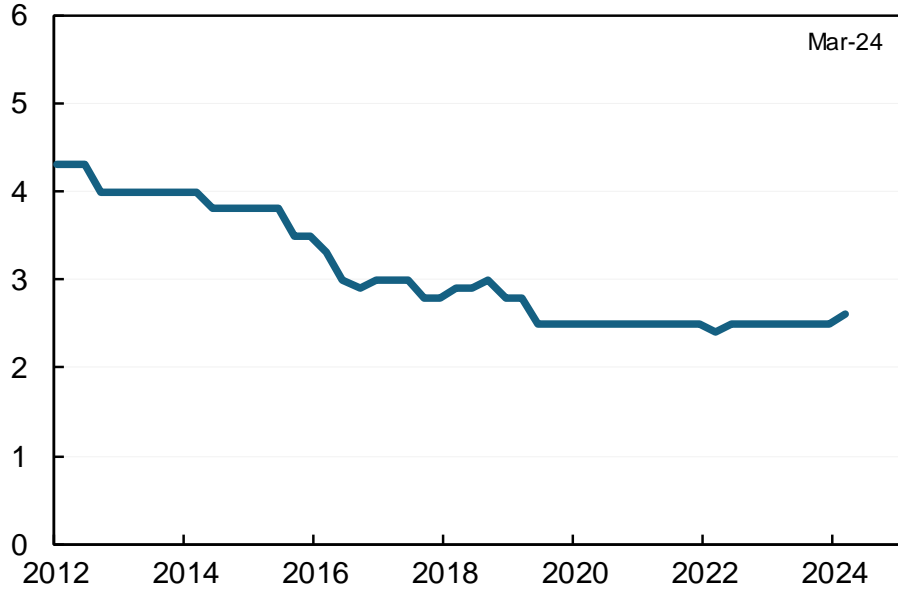
Factors that increase the neutral rate:

- Productivity growth
- Growing population
- Increased public debt
- Reduced inequality
- Increased risk premium for Treasuries

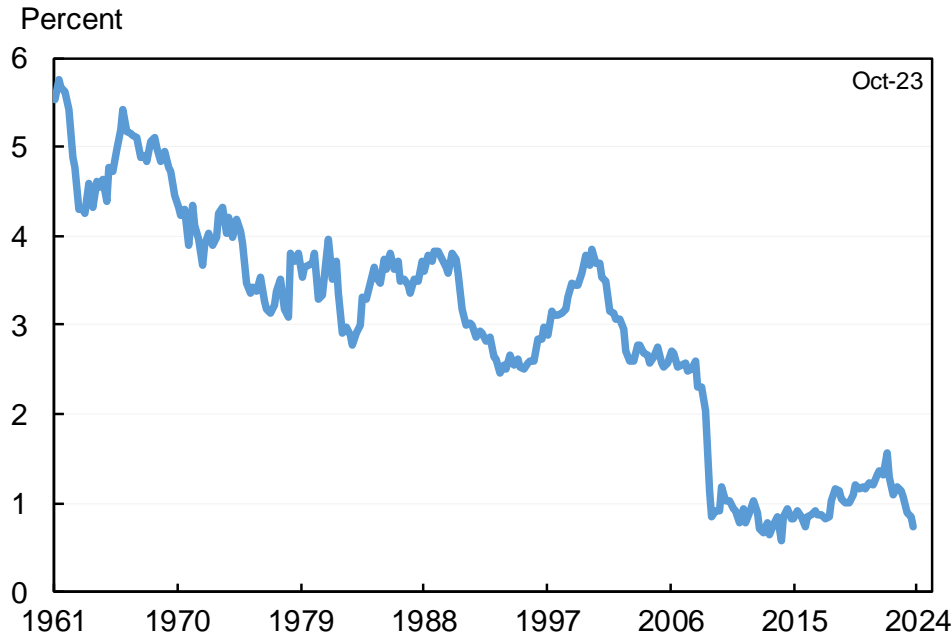
In practice it is *very* hard to estimate in real time.

The FOMC's median has barely changed; a leading model also has not risen

Longer Run FOMC SEP for Fed Funds Rate, Median
Percent



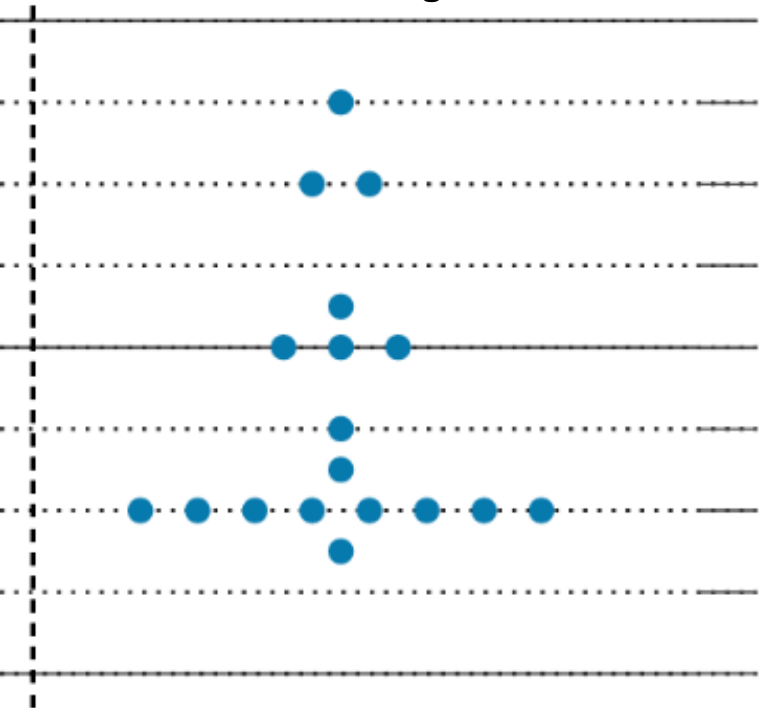
Estimate of the U.S. Real Neutral Interest Rate



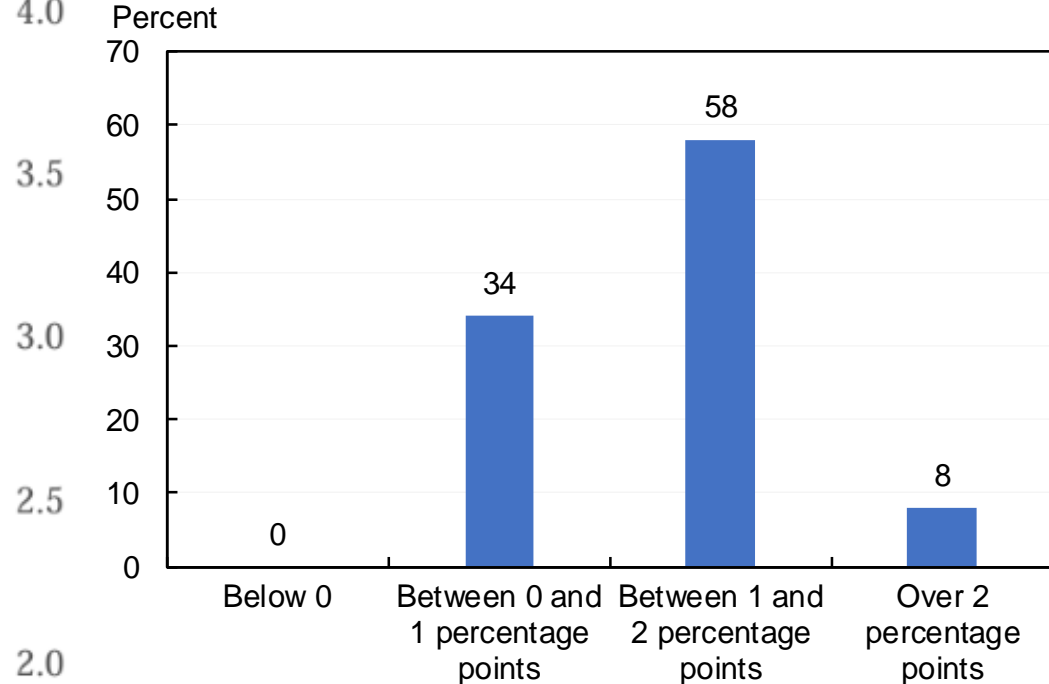
The FOMC's median forecast is 2.6% nominal which is about 0.25% real. The Holston-Laubach-Williams estimate has been about the same. (Note Williams is the President of the New York Fed.)

But there is a lot of disagreement about the neutral rate--and high uncertainty

FOMC Dot Plot for Longer-Run Rate Outlook



Survey of Economists: What is your estimate of R*?



Outline

1. Fiscal Past and Future
2. What Is the Right Limiting Principle?
3. The Neutral Rate
4. What About Uncertainty?

Huge uncertainty in budget forecasts—does that mean we should do more or less?

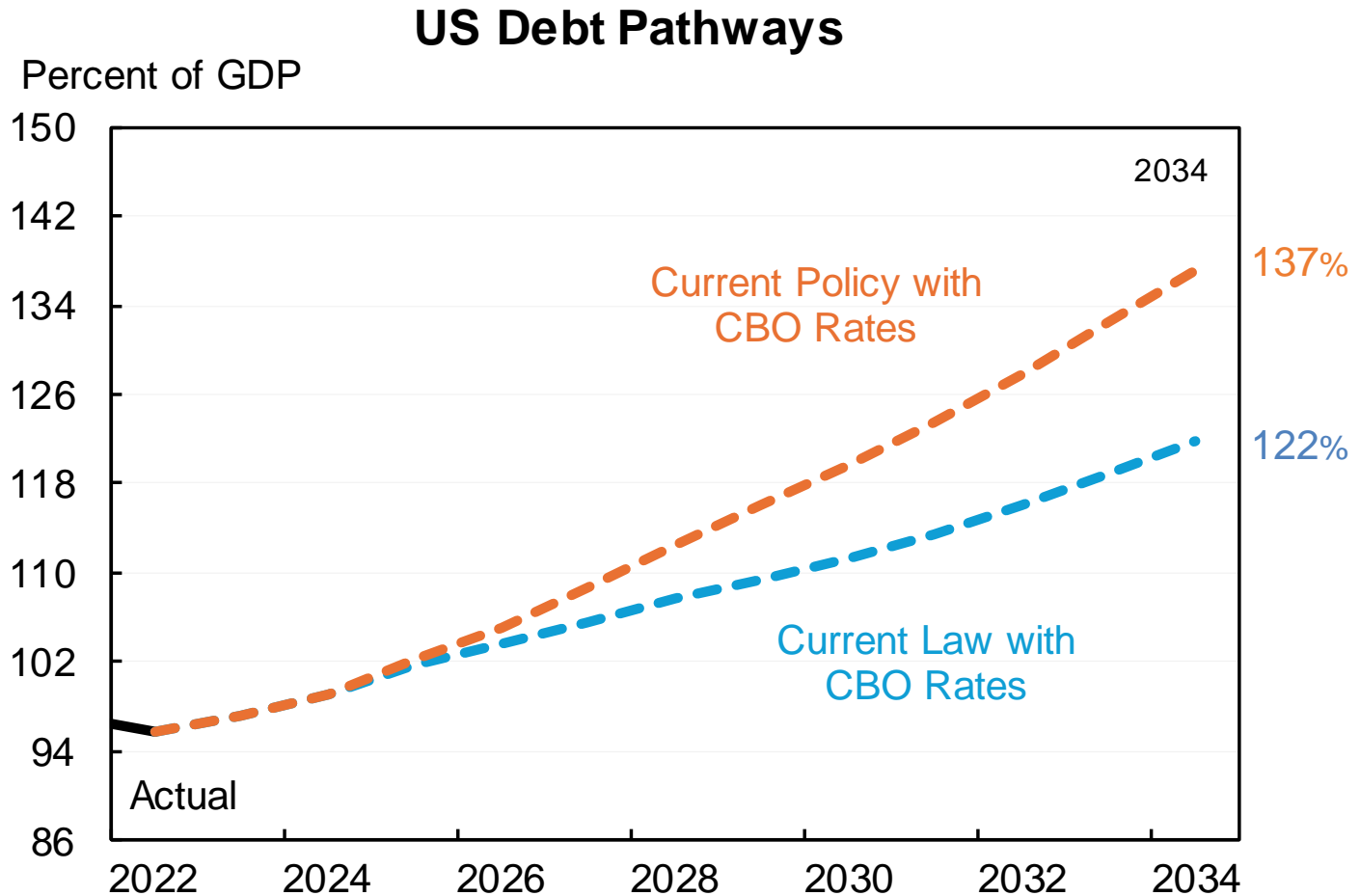
CBO Forecasts vs. Actual for FY 2023

	CBO Forecast (Feb 2023)	Actual
Deficit (\$)	\$1.4 trillion	\$2.0 trillion
Deficit (% GDP)	5.4%	7.5%
Real GDP (Q3 / Q3)	-0.1%	2.9%
Unemployment rate (Q3)	4.9%	3.7%
10-year interest rate (Q3)	3.9%	4.1%
PCE inflation (Q3 / Q3)	3.6%	3.3%

Note: Actual for deficit is adjusted up by \$333 billion for student loan forgiveness.

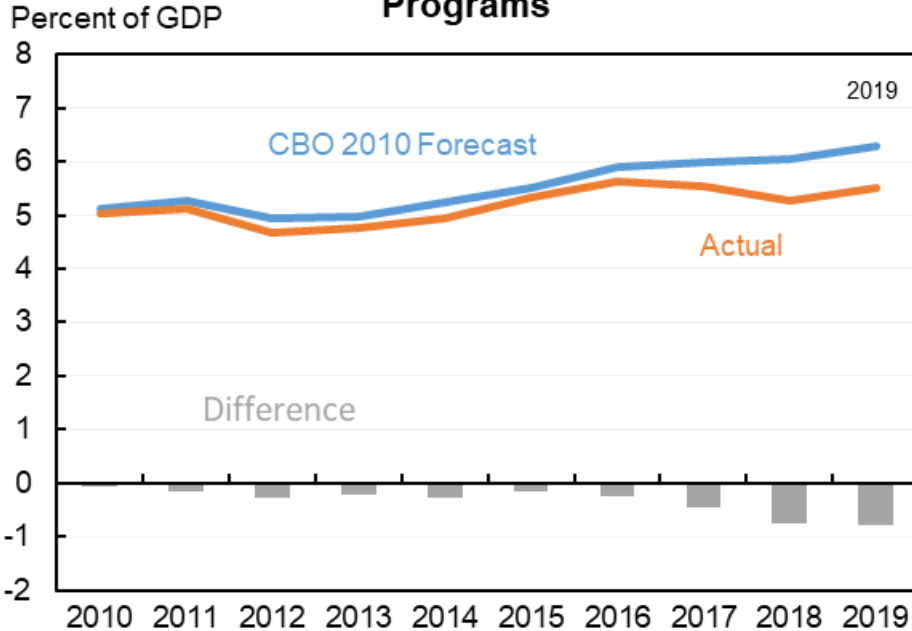
Source: Bureau of Economic Analysis; Bureau of Labor Statistics; Congressional Budget Office; author's calculations.

1. Legislative uncertainty

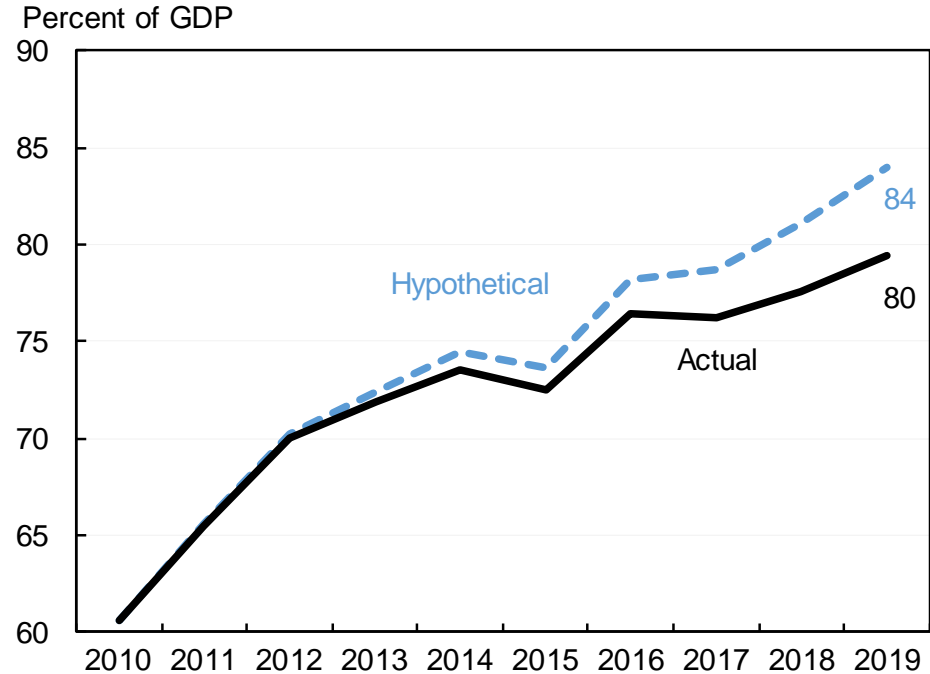


2. Technical uncertainty

CBO Forecast for Spending on Mandatory Health Programs



US Debt/GDP with Higher Health Spending

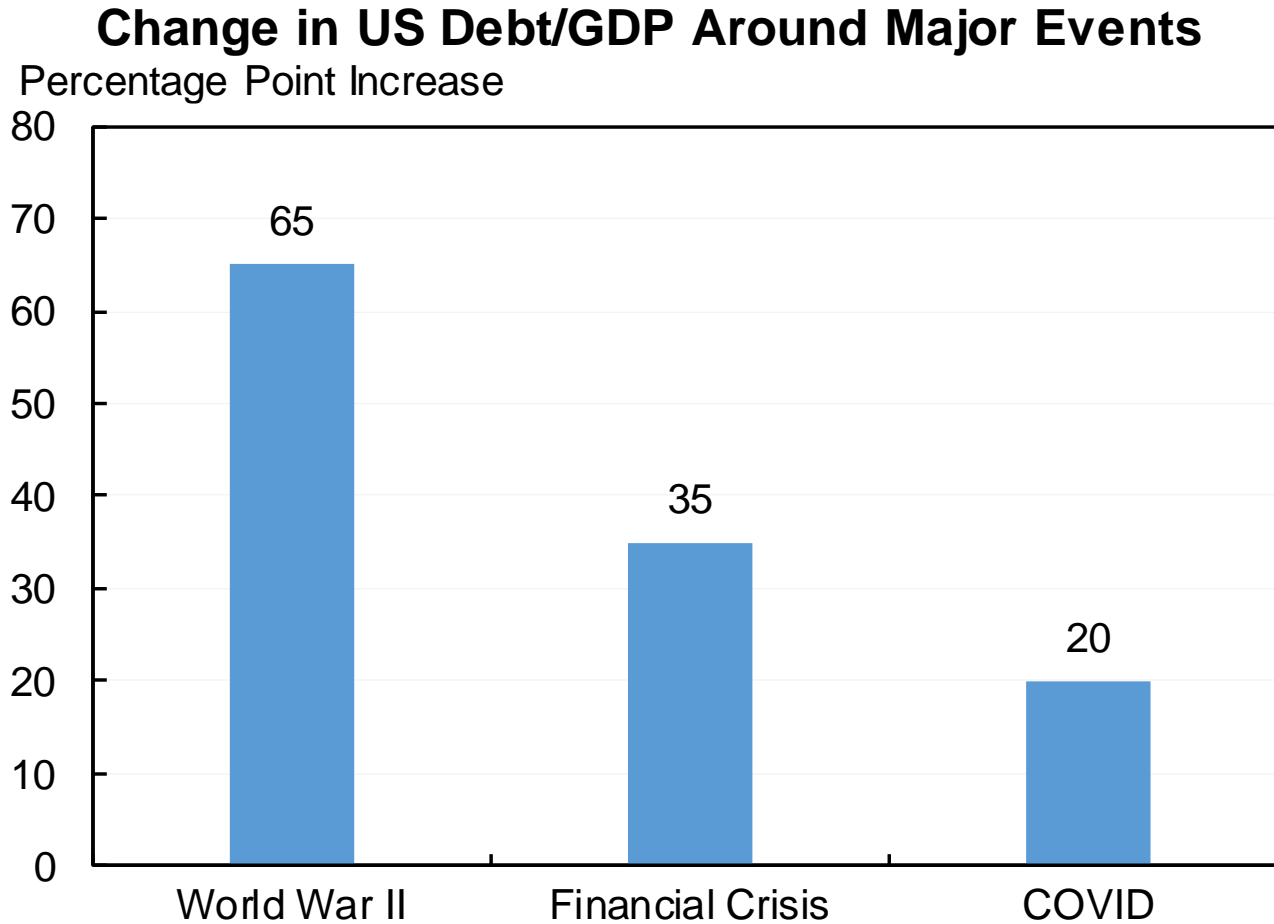


Note: 'Hypothetical' adds, to actual debt level, growing cumulative debt amounts from the difference between CBO's Forecast on health spending and Actual health spending.
 Source: Bureau of Economic Analysis (BEA); Congressional Budget Office; Macrobond; author's calculations.

3. Economic uncertainty

	2013 Forecast Error for 2014-23	Increase in Year 10 (% of GDP)	
		Deficit	Debt
Productivity down 0.1pp	0.6	0.3%	2.4%
Labor growth down 0.1pp	-0.8	0.1%	1.1%
Interest rate up 0.1pp (real rate)	-2.4	1.2%	7.8%
Interest & inflation up 0.1pp (nominal rate)	n/a	0.0%	0.6%

4. Event uncertainty



The higher the debt, the more $(i - g)$ dominates debt dynamics

$$\left(\frac{\text{Debt}}{\text{GDP}}\right)_t - \left(\frac{\text{Debt}}{\text{GDP}}\right)_{t-1} \approx (i_t - g_t) \left(\frac{\text{Debt}}{\text{GDP}}\right)_{t-1} + \left(\frac{\text{Primary Deficit}}{\text{GDP}}\right)_t$$

Two perspectives on uncertainty

Insurance: Do more now, based on a worst case.

Option value of waiting: Collect more information before making large fixed changes.

In both bases should still do no harm

Bottom line

The debt is on an upward trajectory in most of the world's major economies—and demography, green transition, defense, etc., will keep upward pressure.

There may be more capacity for debt than previously realized, but it is not unlimited. Debt targets should be based on debt service.

Neutral interest rates have probably risen, the question is how much.

Uncertainty could be an argument to do more now—but at the very least is an argument to do no harm.



HARVARD
UNIVERSITY

The Fiscal Outlook: New Rules and Old Truths

Jason Furman

Harvard University and PIIE

World Bank: Fostering Fiscal Sustainability

Washington DC

June 12, 2024