HARVARD UNIVERSITY

The Global Economic Outlook, a Reconsideration of Fiscal Policy, and What it Means for Small Open Economies

Jason Furman

Harvard University

Virtual Israel Macro Meeting

November 29, 2022

Outline

1. Possibilism and Probabilism: The Global Economic Outlook

2. What It Means for Small Open Economies

3. Structural Changes Coming Out of the Pandemic

4. Rethinking Fiscal Policy

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1. Possibilism and Probabilism: The Global Economic Outlook
2. What It Means for Small Open Economies
3. Structural Changes Coming Out of the Pandemic
4. Rethinking Fiscal Policy

Current global macro risks

- Synchronized monetary tightening
- Synchronized asset price declines
- Commodity price increases
- End of fiscal support

The net effect of these depends on a country's economic context and macroeconomic outlook.

Be a **probabalist** not a **possibilist**

What is the probability of these outcomes in the United States?

	Inflation in 2023-H2 < 3.0% annual rate	Inflation in 2023-H2 ≥ 3.0% annual rate
Maximum unemployment in 2023 < 4.5%	Soft landing	Continued overheating
Maximum unemployment in 2023 ≥ 4.5%	Hard landing	Stagflation (or incomplete hard landing)

What is the probability of these outcomes in the United States?

	Inflation in 2023-H2 < 3.0% annual rate	Inflation in 2023-H2 ≥ 3.0% annual rate
Maximum unemployment in 2023 < 4.5%	Soft landing **13%**	Continued overheating **28%**
Maximum unemployment in 2023 ≥ 4.5%	Hard landing **23%**	Stagflation (or incomplete hard landing) **36%**

Why did (almost) nobody see it coming?

Source: The Royal Household.

Forecasters completely missed it

SURVEY OF PROFESSIONAL FORECASTERS

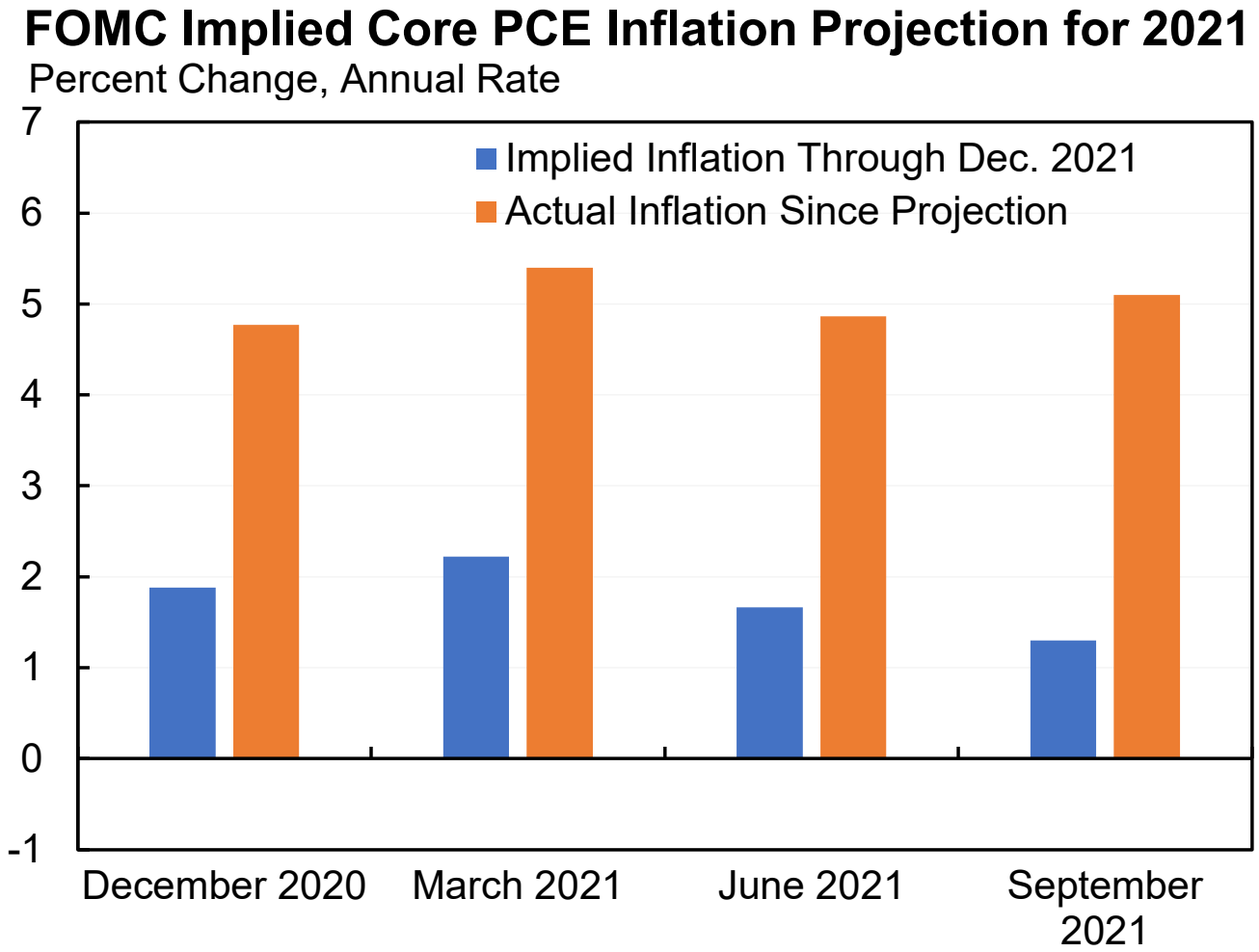
Release Date: May 14, 2021

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	20Q4 TO 21Q4	21Q4 TO 22Q4
4.0 PERCENT OR MORE	0.69	0.44
3.5 TO 3.9 PERCENT	2.66	2.07
3.0 TO 3.4 PERCENT	11.23	10.11
2.5 TO 2.9 PERCENT	24.03	25.25
2.0 TO 2.4 PERCENT	28.73	32.16
1.5 TO 1.9 PERCENT	19.88	18.92
1.0 TO 1.4 PERCENT	9.94	7.19
0.5 TO 0.9 PERCENT	2.31	2.46
0.0 TO 0.4 PERCENT	0.50	0.79
LESS THAN 0.0 PERCENT	0.04	0.62
Actual	**5.0%**	**6.0%+**

Source: Survey of Professional Forecasters (May 14, 2021).

Forecasters missed it again and again and again



Note: Actual inflation since projection through December 2021. Assumes that actual values were known through month prior to forecast.
Source: Bureau of Economic Analysis via Macrobond and via Federal Reserve Bank of St. Louis, ALFRED; Board of Governors of the Federal Reserve System; author's calculations.

Forecasters were being possibilistic not probabilistic

Typical assumptions forecasters were making:

1. Low multiplier on 25 percent of GDP in fiscal stimulus and extreme monetary stimulus

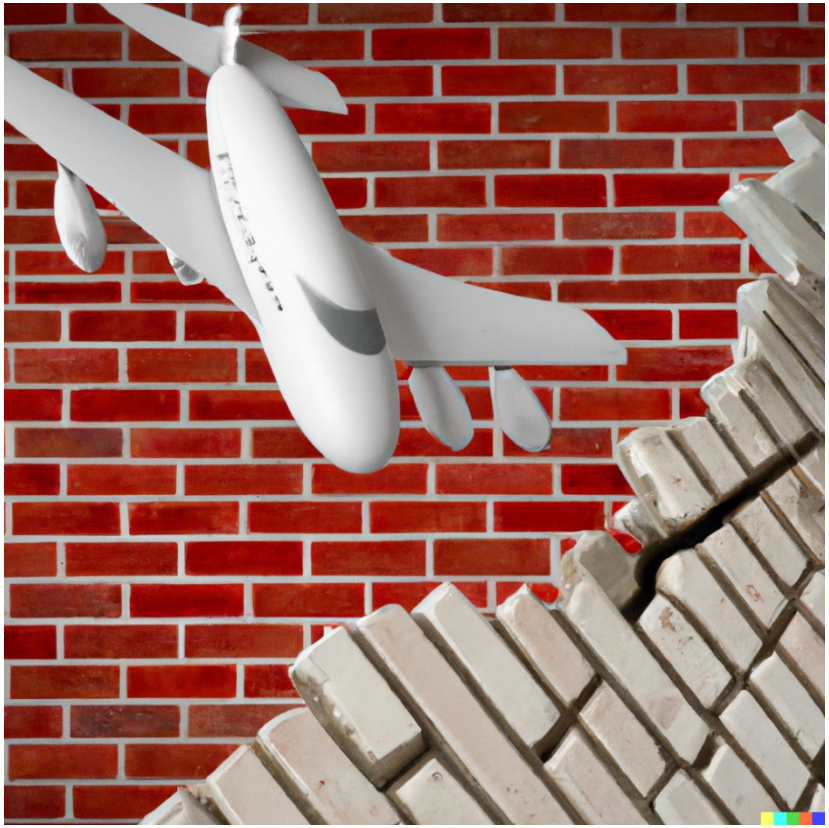
2. Supply side of the economy would fully recover by the middle of 2021

3. No additional COVID waves, no major geopolitical events

4. Everything with unusually large price rises (e.g., used cars) would normalize while everything with unusually small price rises (e.g., shelter and health insurance) would not rise

5. Wages would stop growing quickly

The big question now



OR

Source: DALL-E.

What are Alan Blinder's and Goldman Sachs' probabilities of a soft landing?

WSJ

THE SATURDAY ESSAY

The Fed's Surprising Record With 'Soft Landings' From Inflation

History shows that, with skillful decisions and some good luck, central bankers can defeat inflation without causing a recession

ILLUSTRATION BY DOUG CHAYKA, ISTOCK/GETTY IMAGES (5)

By Alan S. Blinder

Sept. 23, 2022 at 10:59 am ET

Goldman Sachs | Economics Research

5 September 2022 | 11:35AM EDT

Global Views: Progress Toward a Soft Landing

Source: Wall Street Journal and Goldman Sachs Economics Research.

Do these sound like the 50th percentile of possible outcomes to you?

"To be sure, landing the economy softly is a tall order, but success is not unthinkable"
–Alan Blinder

"The US economy can achieve a soft landing, even though the path is narrow."
–Jan Hatzius at Goldman Sachs

What needs to go right for a soft landing? All are possible, are they probable?

1. Inflation for some items falls a lot, does not rise for others

Bottom-up perspective

2. Immaculate loosening in the labor market
3. Wage growth slows and that translates into slower price growth
4. Long-term inflation expectations are binding

Top-down perspective

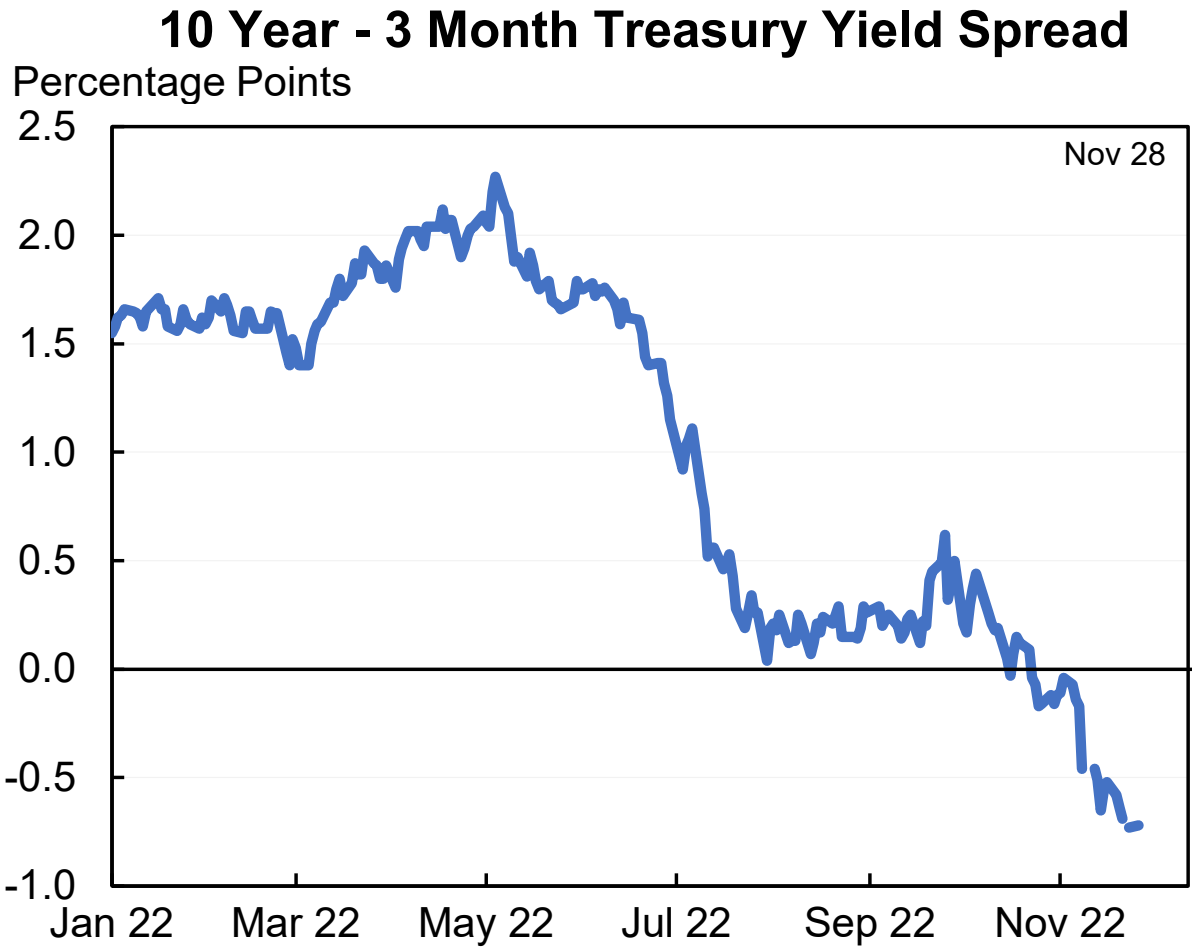
5. No new unfavorable shocks

Inflation is expected to come down…

	Forecast Date	Measure	2023 Inflation Forecast
Market (ICE)	Nov. 2022	CPI	2.3%
Federal Open Market Committee	Sep. 2022	Core PCE	3.1%
Survey of Professional Forecasters	Nov. 2022	Core PCE	3.0%

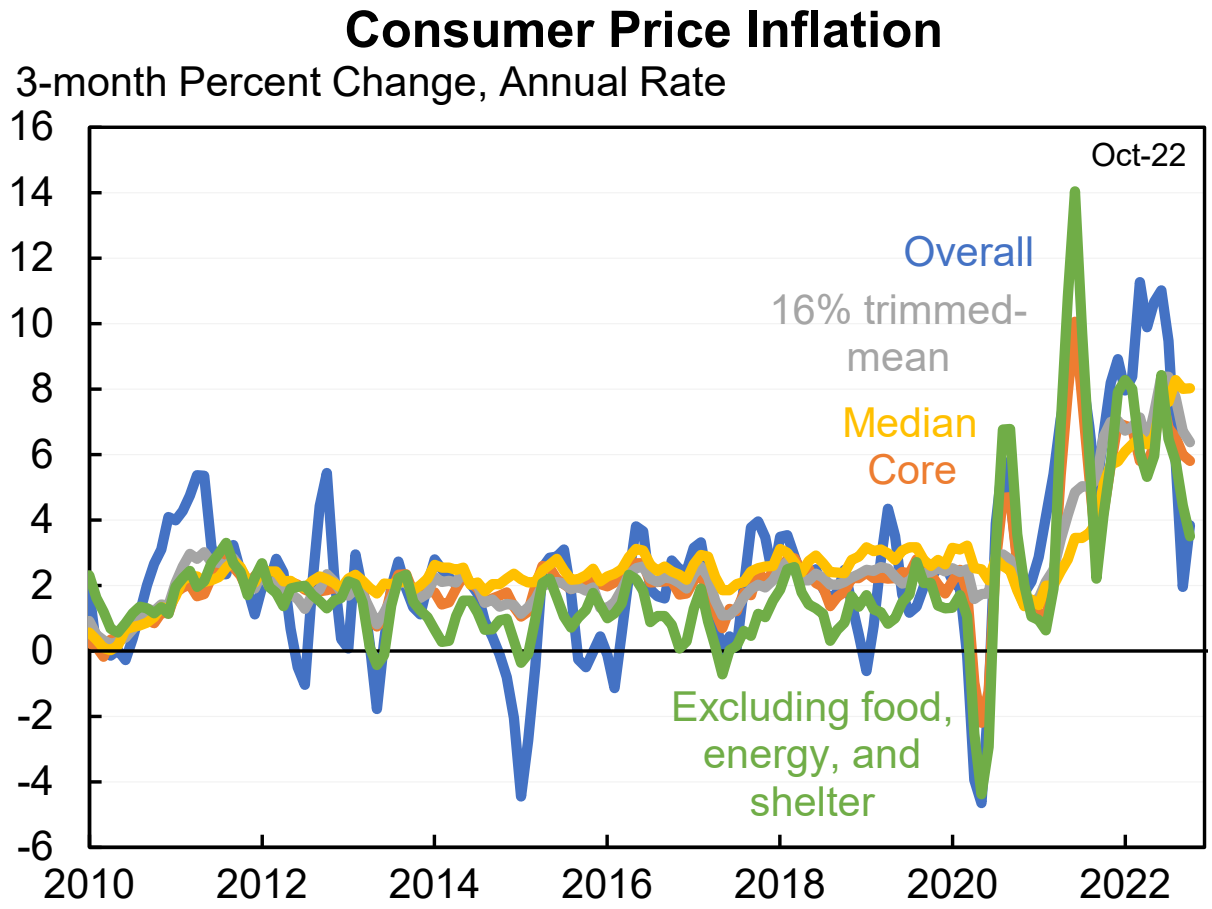
Note: ICE is Intercontinental Exchange.
Source: Sources listed.

...But the market also might expect a recession as the yield curve is now fully inverted



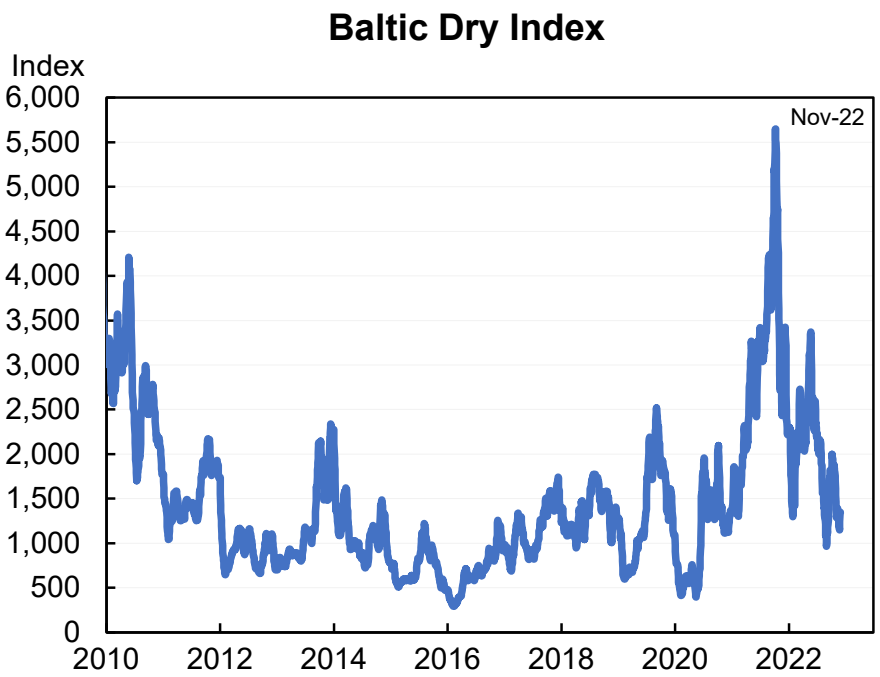
Source: U.S. Department of Treasury; Macrobond; author's calculations.

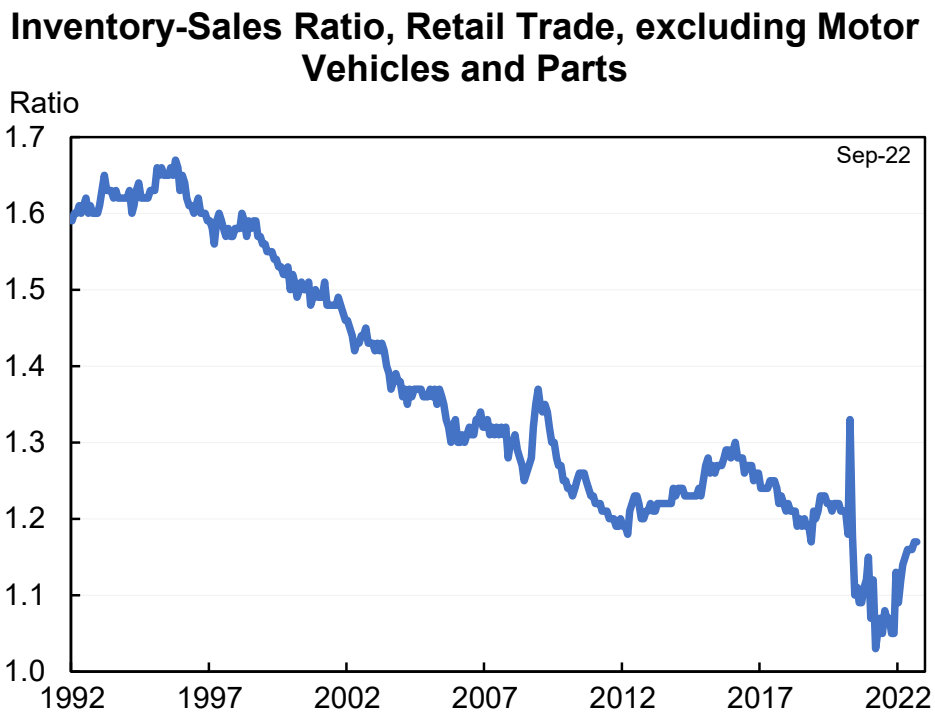
1. What is the right measure of underlying inflation?



Source: Bureau of Labor Statistics; Federal Reserve Bank of Cleveland; Macrobond; author's calculations.

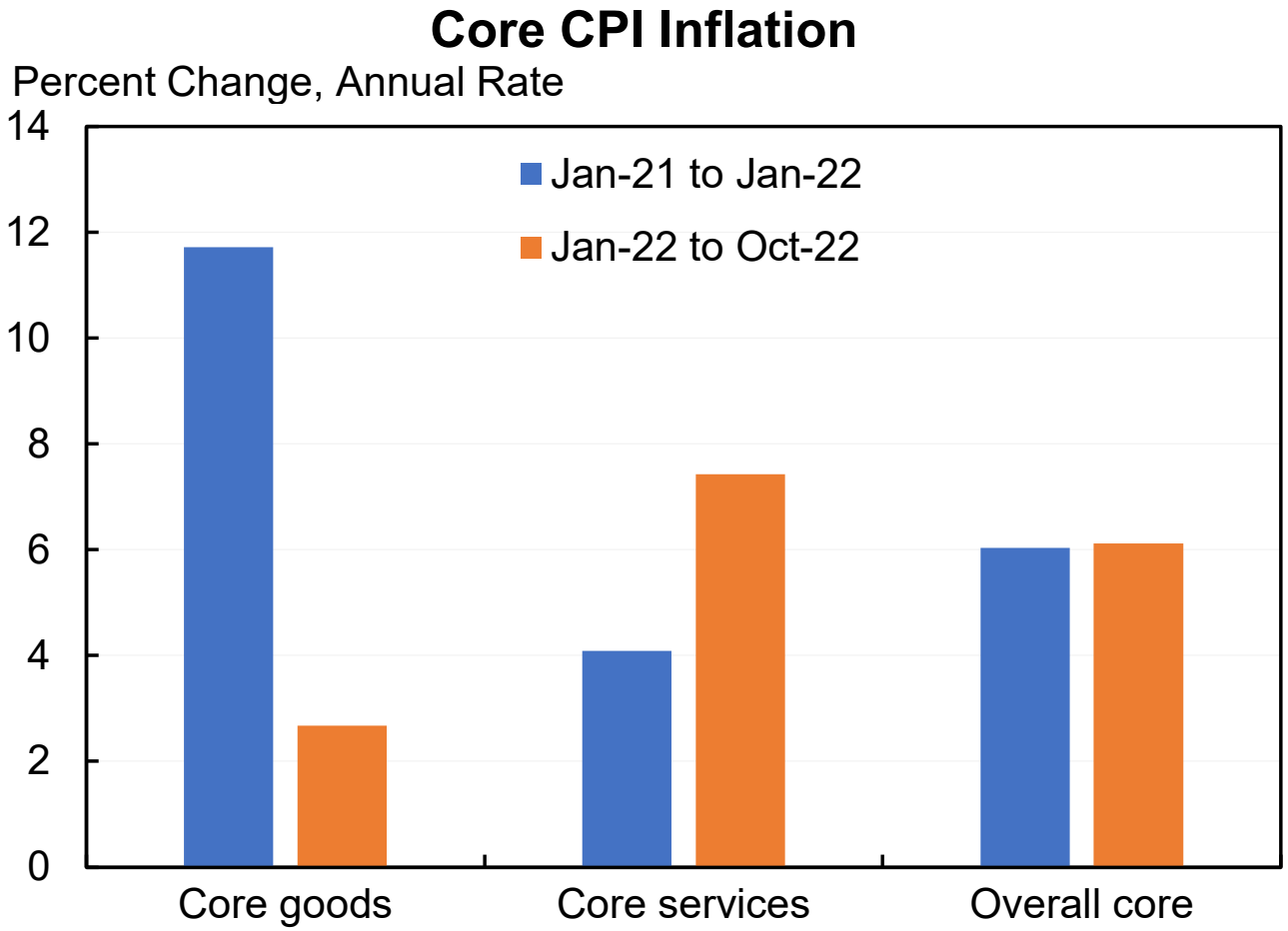
Goods prices (except new cars) likely to decline given healthier supply chains





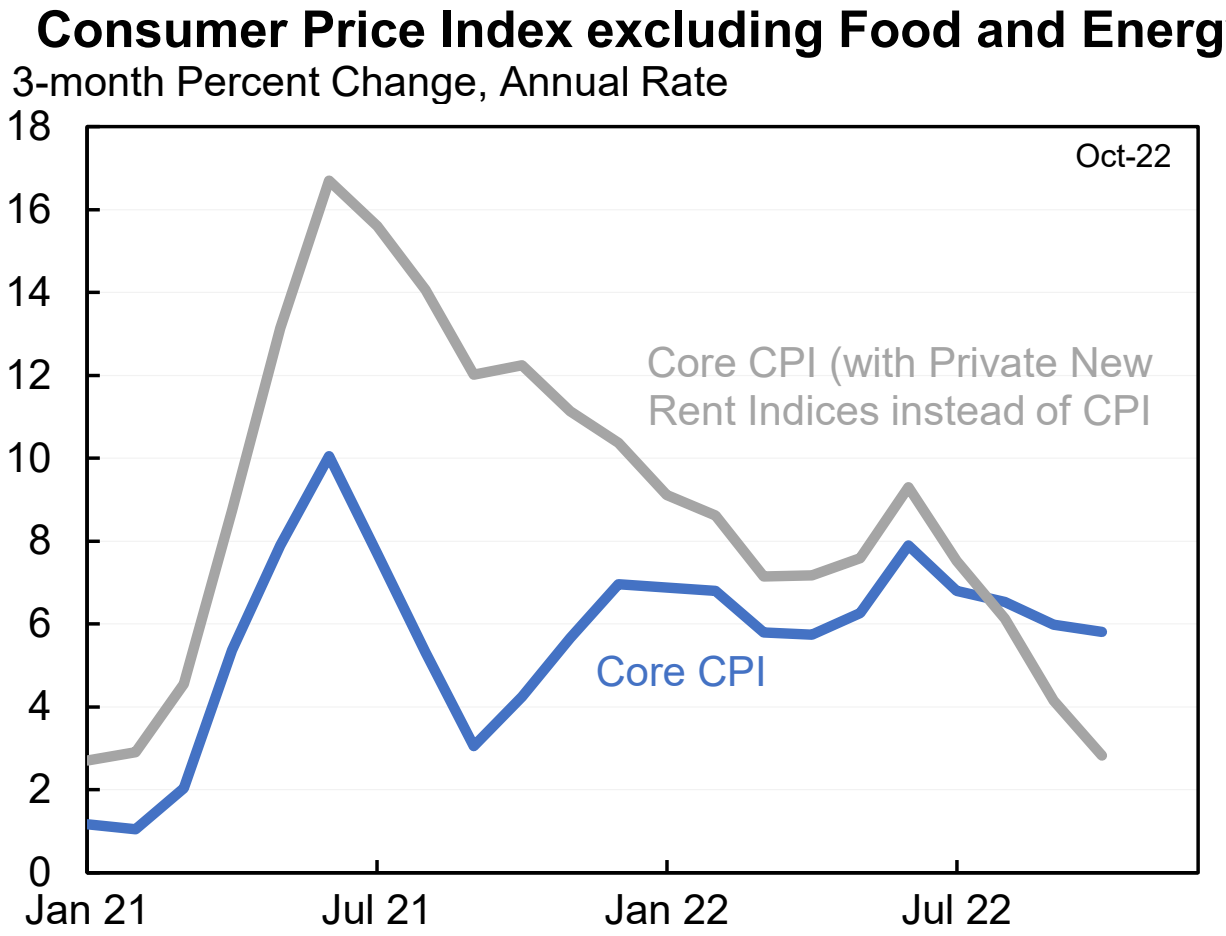
Source: Baltic Exchange; U.S. Census Bureau; Macrobond.

But services matter much more than goods for overall inflation



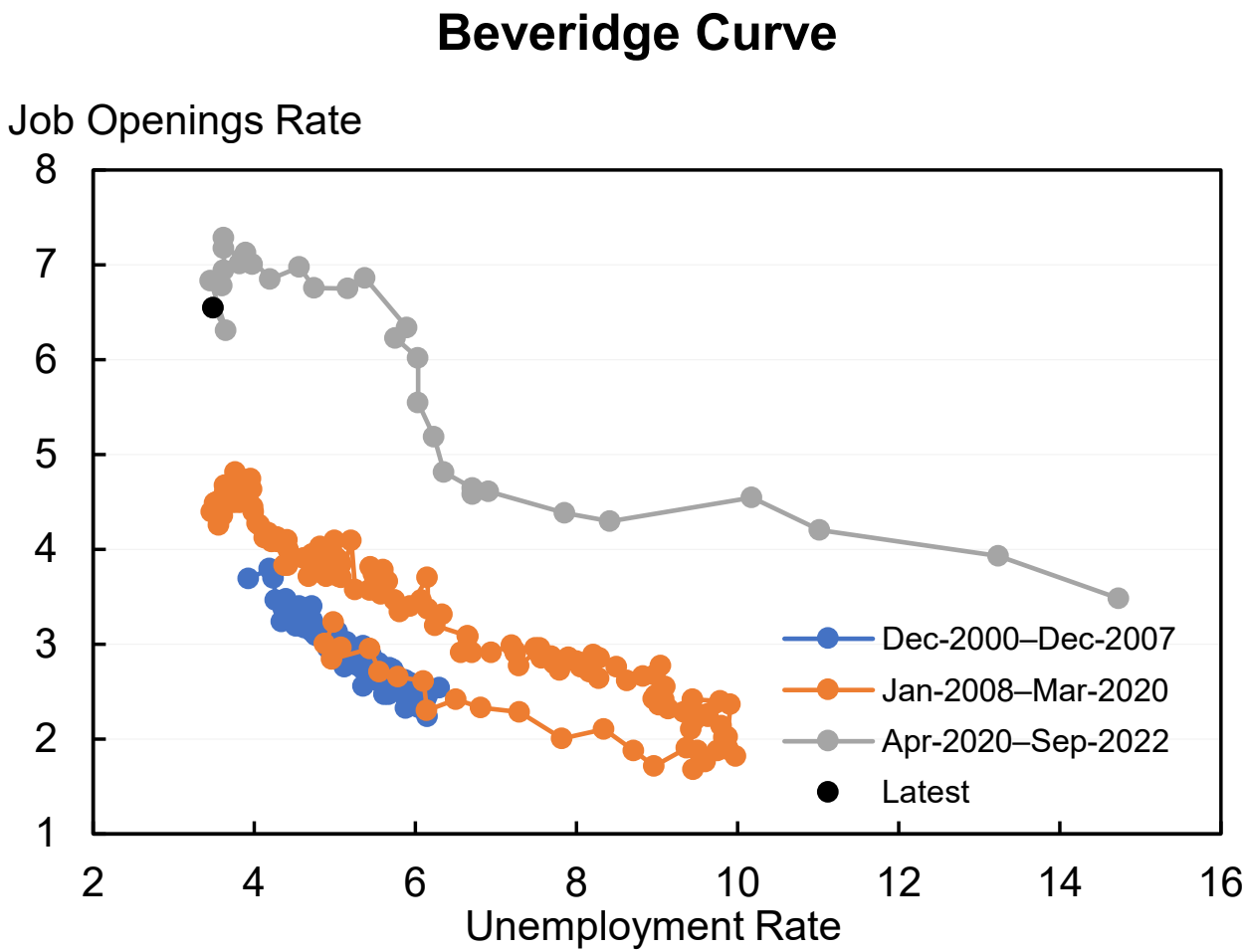
Source: Bureau of Labor Statistics; Macrobond; author's calculations.

Services prices also likely to fall given the turnaround in rents on new leases



Note: Private new rent indices are Zillow Observed Rent Index and Apartment List National Rent Index. Apartment List seasonally adjusted using Macrobond.
Source: Bureau of Labor Statistics; Zillow; Apartment List; Macrobond; author's calculations.

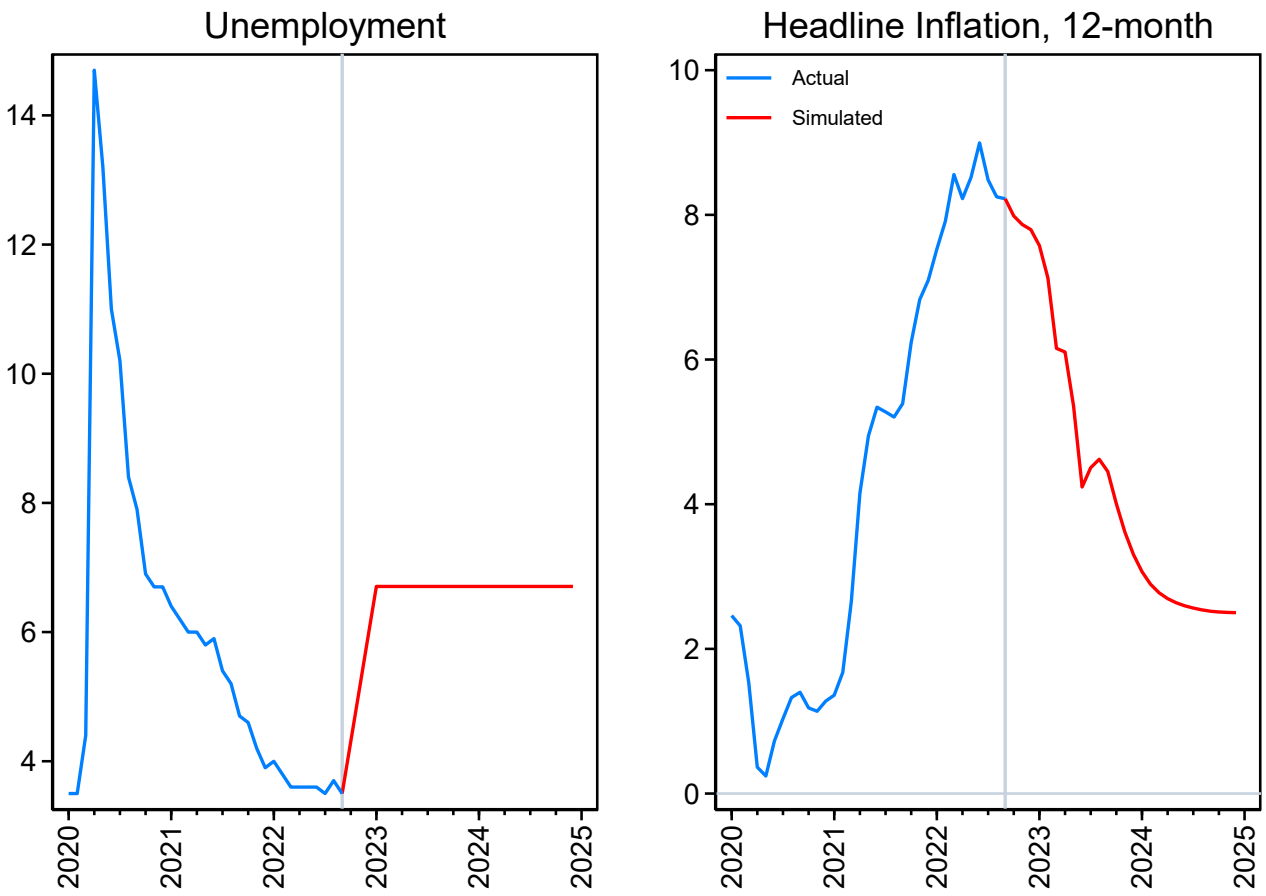
2. Immaculate loosening in the labor market?



Note: Job openings rate is job openings as a percent of total employment plus job openings.
Source: Bureau of Labor Statistics via Macrobond; author's calculations.

It could take a prolonged period of high unemployment to bring down inflation

Modelling a 6.7% unemployment rate for 2023 and 2024



Source: Author's calculations based on Ball, Leigh, and Mishra (2022).

Moreover, the further the Fed tries to push down inflation, the harder it could get

PCE Inflation at End of 2024	Unemployment in 2023 and 2024	Point Years of Added Unemployment	Sacrifice Ratio
2.0	6.7	6.4	8.5
2.5	4.7	2.1	2.5
3.0	4.1	0.9	1.0
3.5	3.9	0.4	0.6
4.0	3.7	0.1	

Caveat: These all assume the same expectations process. But if inflation stabilizes well above 2 percent then the inflation expectations process could be much less anchored. For example, stabilizing at 4.0 percent PCE inflation with inflation anchored at 0.9 would require a 4.6 percent unemployment rate.

Source: Author's calculations based on Ball, Leigh, and Mishra (2022).

3. Wage growth and price growth

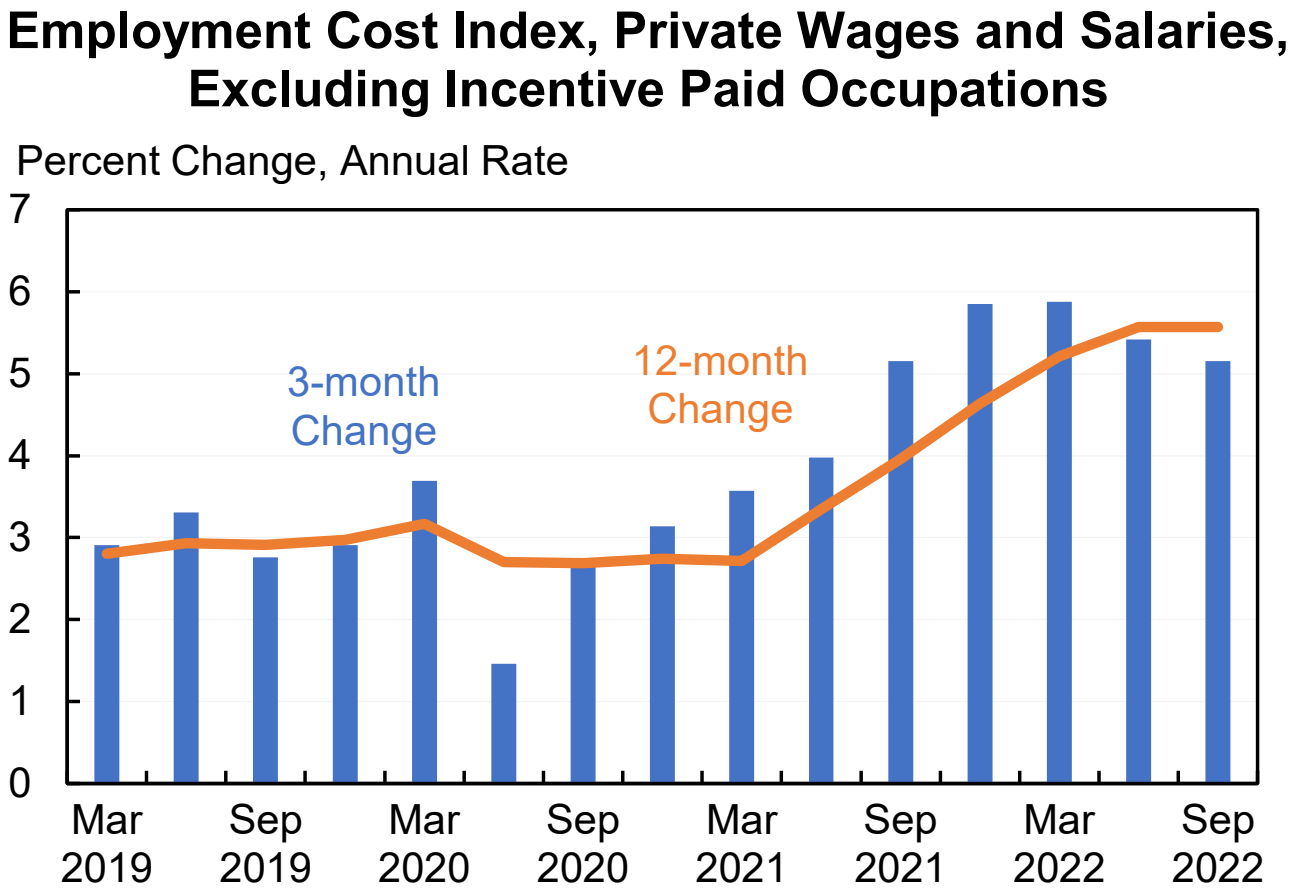
Inflation =

Compensation growth – productivity growth
(aka “unit labor costs”)

+

Profit share increase

Wage growth is slowing a little…



Note: Seasonally adjusted using Macrobond
Source: Bureau of Labor Statistics; Macrobond; author's calculations.

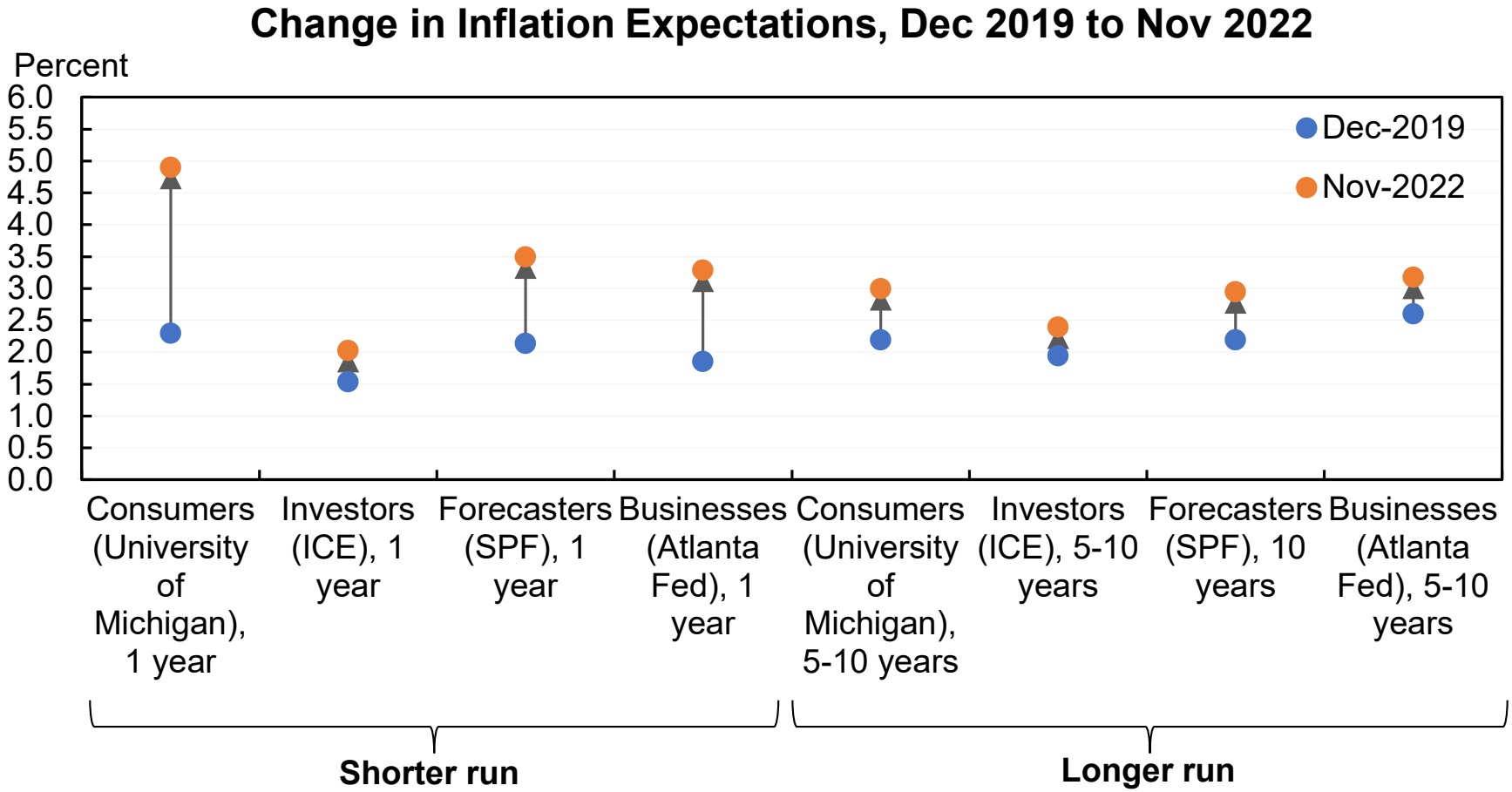
…But still consistent with very high inflation

Wage measure	Recent Six-month Growth (Annual Rate)	Core PCE Inflation Consistent with It
ECI Wages & Salaries, Civilian	5.6%	4.8%
ECI Wages & Salaries, Private Excluding Incentive Pay	5.2%	4.4%
Average Hourly Earnings, Private	4.6%	3.7%
Atlanta Fed Wage Growth Tracker	6.3%*	4.9%*

* 12-month change

Source: Bureau of Labor Statistics; Federal Reserve Bank of Atlanta; Bureau of Economic Analysis; Macrobond and author's calculations.

4. Inflation expectations underpin wage-price persistence: Which ones matter?



Note: November 2019 and November 2022 for Survey of Professional Forecasters. September for long-term Atlanta Fed estimates.
Source: University of Michigan and Federal Reserve Banks of Atlanta and Philadelphia via Macrobond; Intercontinental Exchange; author's calculations.

5. No new shocks

Newsletters *The Atlantic*

HEALTH

What Europe's COVID Wave Means for the U.S.

New variants are coming. How worried should we be?

By Sarah Zhang

OCTOBER 20, 2022

POLITICO

TRANSPORTATION

Second rail union rejects deal, raising strike threat anew

Wednesday's vote by the Brotherhood of Railroad Signalmen makes it the second rail union to reject a compromise since mid-September.

By ELEANOR MUELLER and TANYA SNYDER

10/26/2022 02:39 PM EDT

Updated: 10/26/2022 05:53 PM EDT

Bloomberg

Politics

China Wants to 'Speed Up' Its Seizure of Taiwan, Blinken Says

- Secretary of state comments on China in Bloomberg interview
- Says Beijing is now 'exerting more pressure' on Taipei

By Iain Marlow +Follow

October 26, 2022 at 1:10 PM EDT

Updated on October 27, 2022 at 2:13 AM EDT

yahoo!finance

Ford CEO on ongoing supply chain issues: 'It feels like Whac-A-Mole'

Seana Smith · Anchor

September 28, 2022 · 2 min read

Source: The Atlantic, Bloomberg, Politico, and Yahoo Finance.

What needs to go right for a soft landing? All are possible, are they probable?

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Bottom-up perspective

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Top-down perspective

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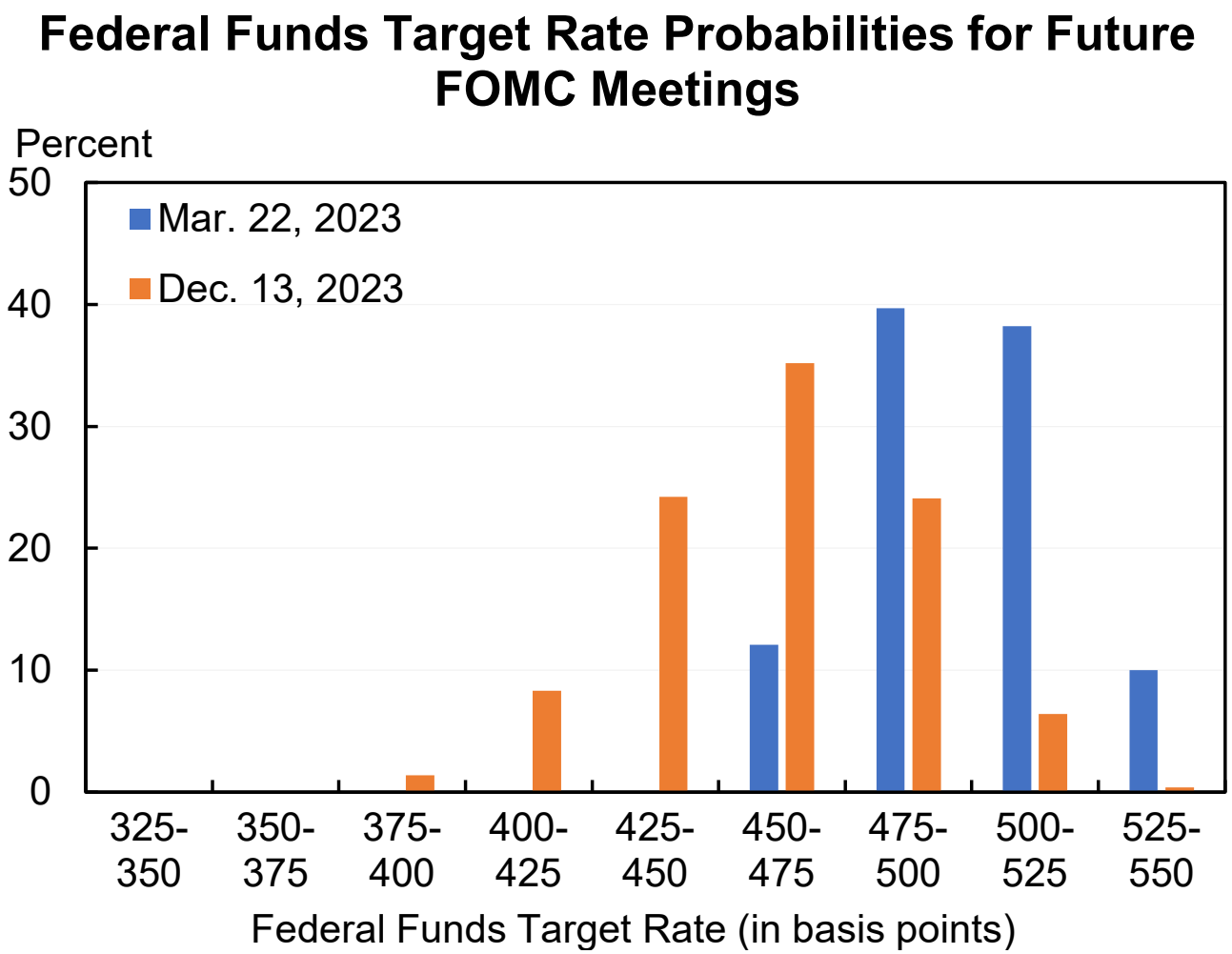
The market expects inflation to come down with ~100bp more in Federal funds rate increases



Note. Data as of November 28, 2022.
Source: CME Group.

Why rates might fall sooner

1. Inflation comes down
2. Unemployment goes up
3. Financial system “breaks”
4. Global economy “breaks”

What is the probability of these outcomes in the United States?

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Maximum unemployment in 2023 < 4.5%	Soft landing **13%**	Continued overheating **28%**
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My bottom-line view on thinking about the macroeconomy (or anything else)

- Be a probabilist—**with numbers**—not a possibilist
- Don’t assume everything goes right and nothing goes wrong
- Don’t think the best case is the 50th percentile
- Recognize uncertainty and plan for it (easier said than done)

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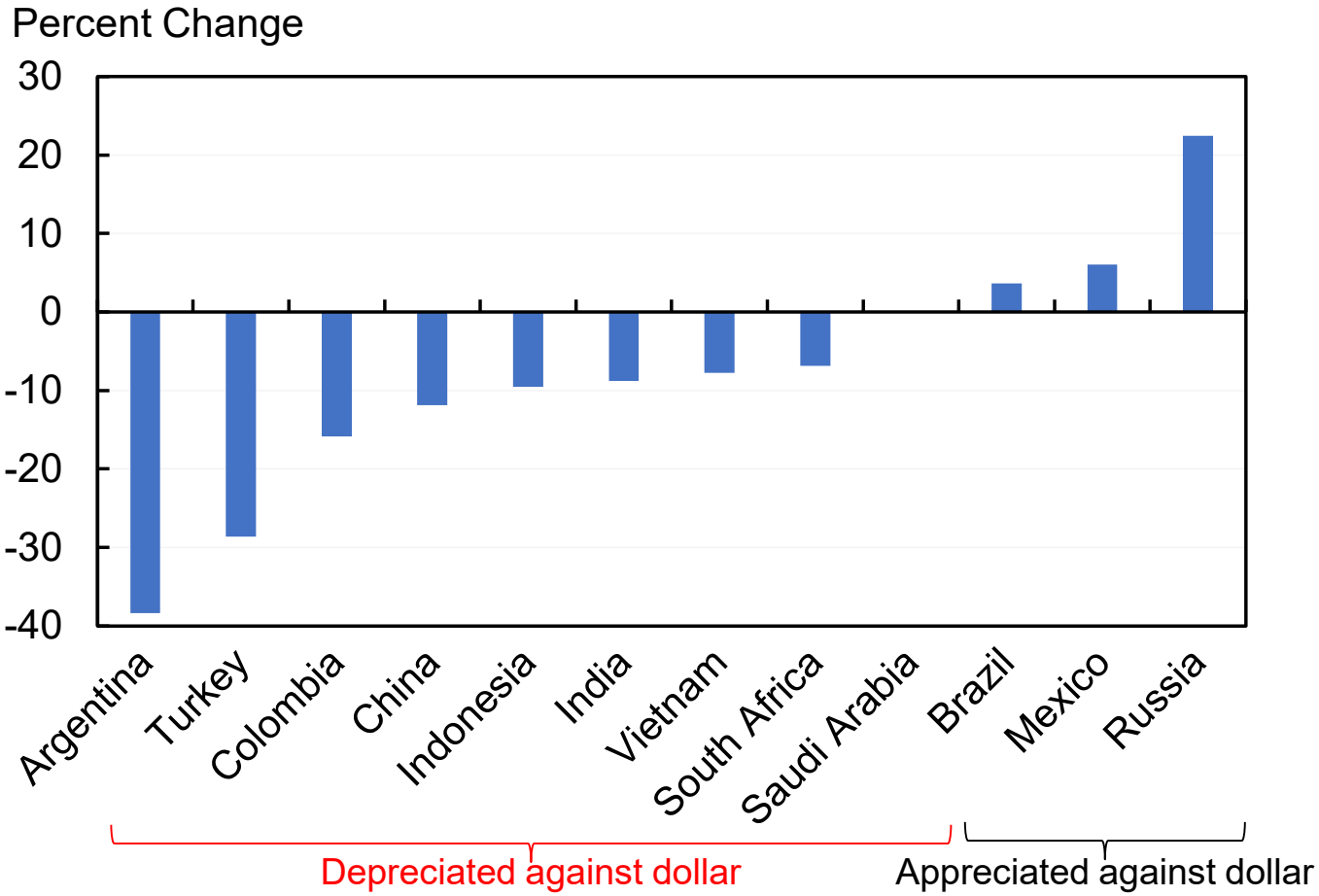
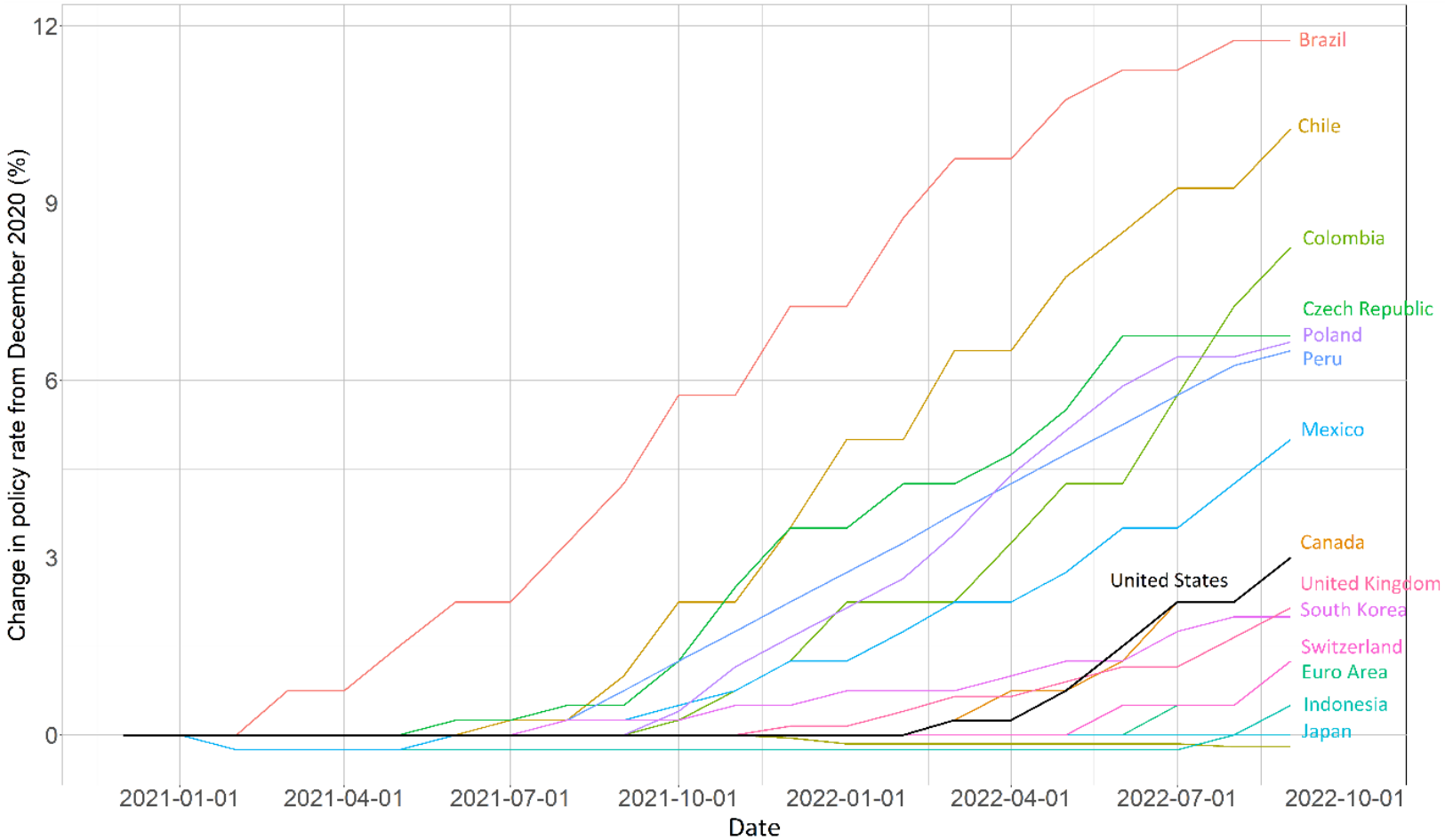
Wide range of currency changes across emerging markets

Currency Appreciation/Depreciation vs. U.S. Dollar, December 31, 2021–November 28, 2022



Source: Calculations based on Macrobond.

The United States not an outlier in terms of interest rate changes



Source: Bank for International Settlements; Trading Economics. Month-end policy rate data through September 2022.

Source: Kamin (2022), https://www.aei.org/wp-content/uploads/2022/11/Kamin-Will-The-Strong-Dollar-Trigger-A-Global-Recession.pdf?x91208

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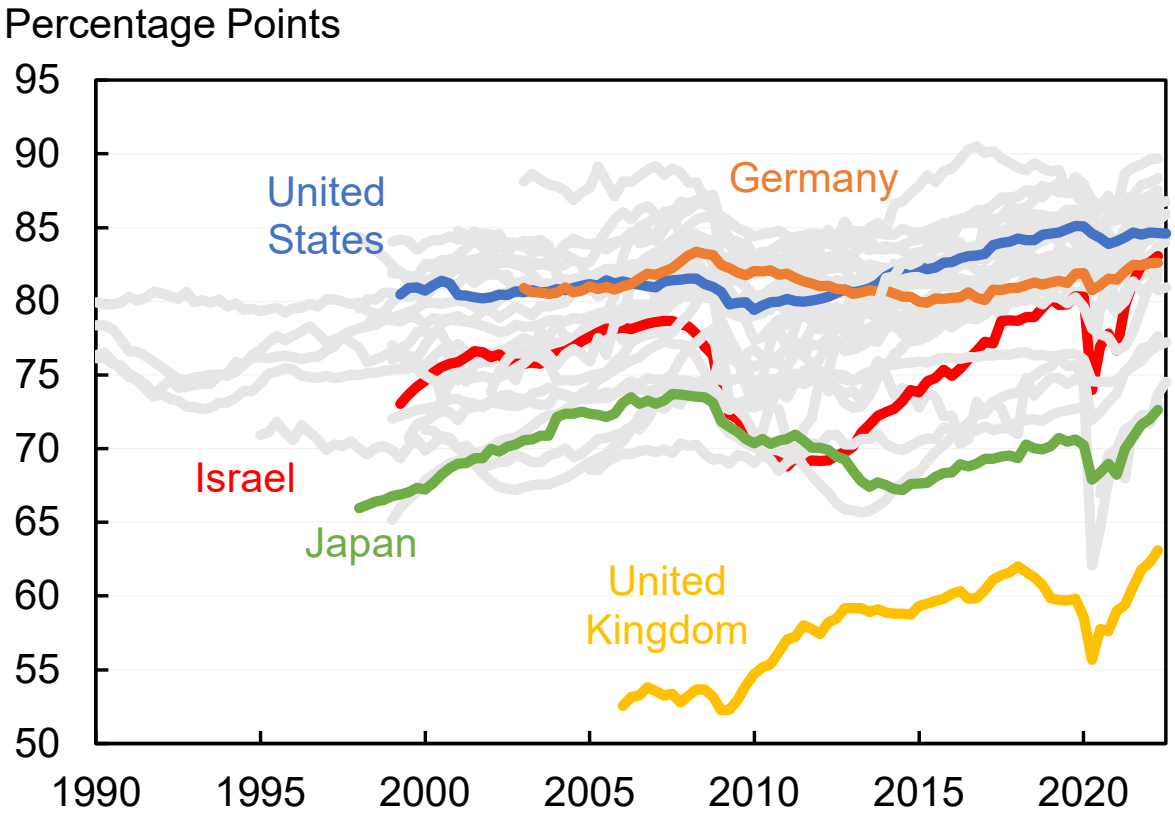
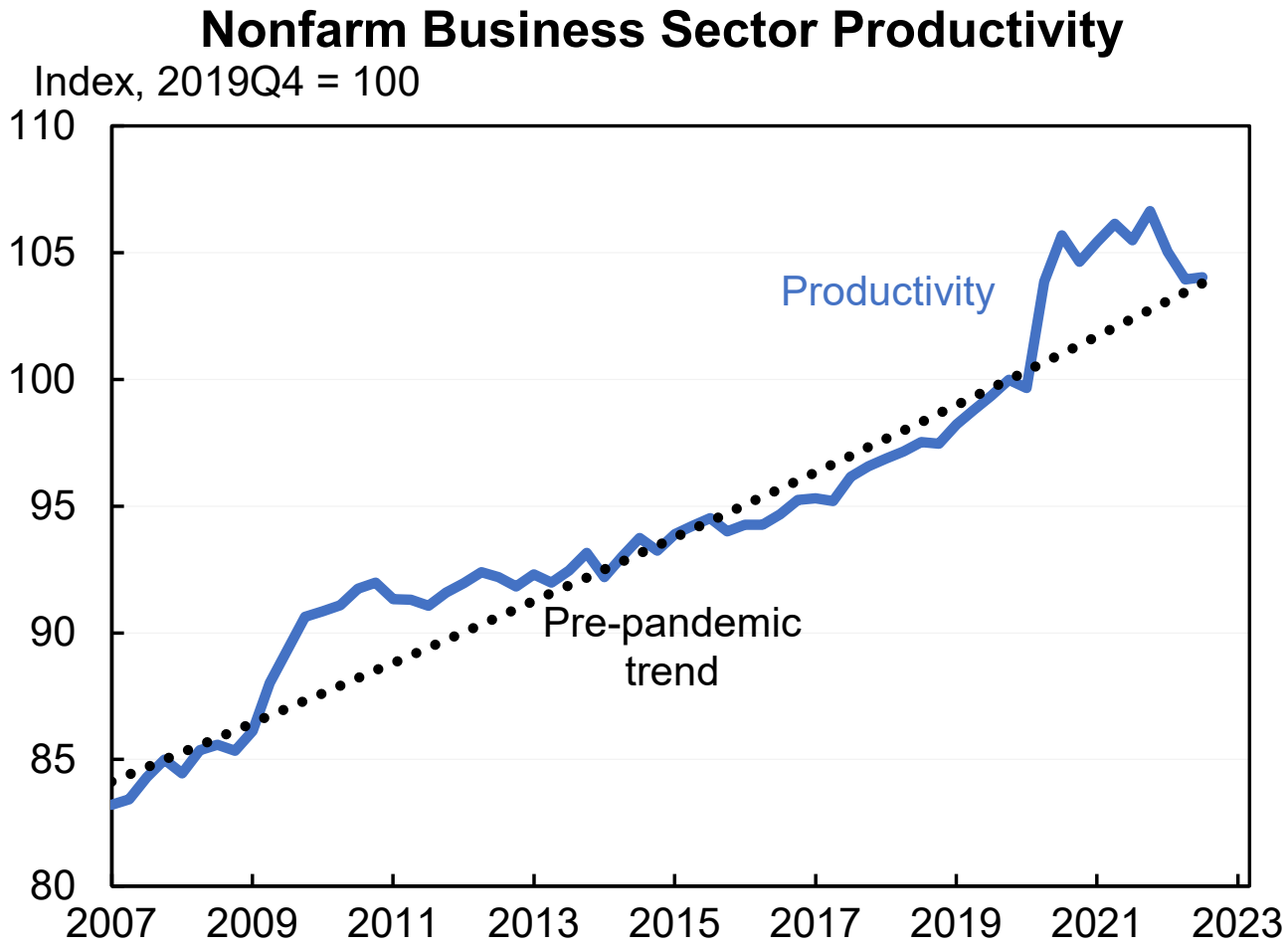
Least likely to see a structural change: employment rates higher than pre-pandemic

Employment-Population Ratio for Ages 25-54, Advanced OECD Countries



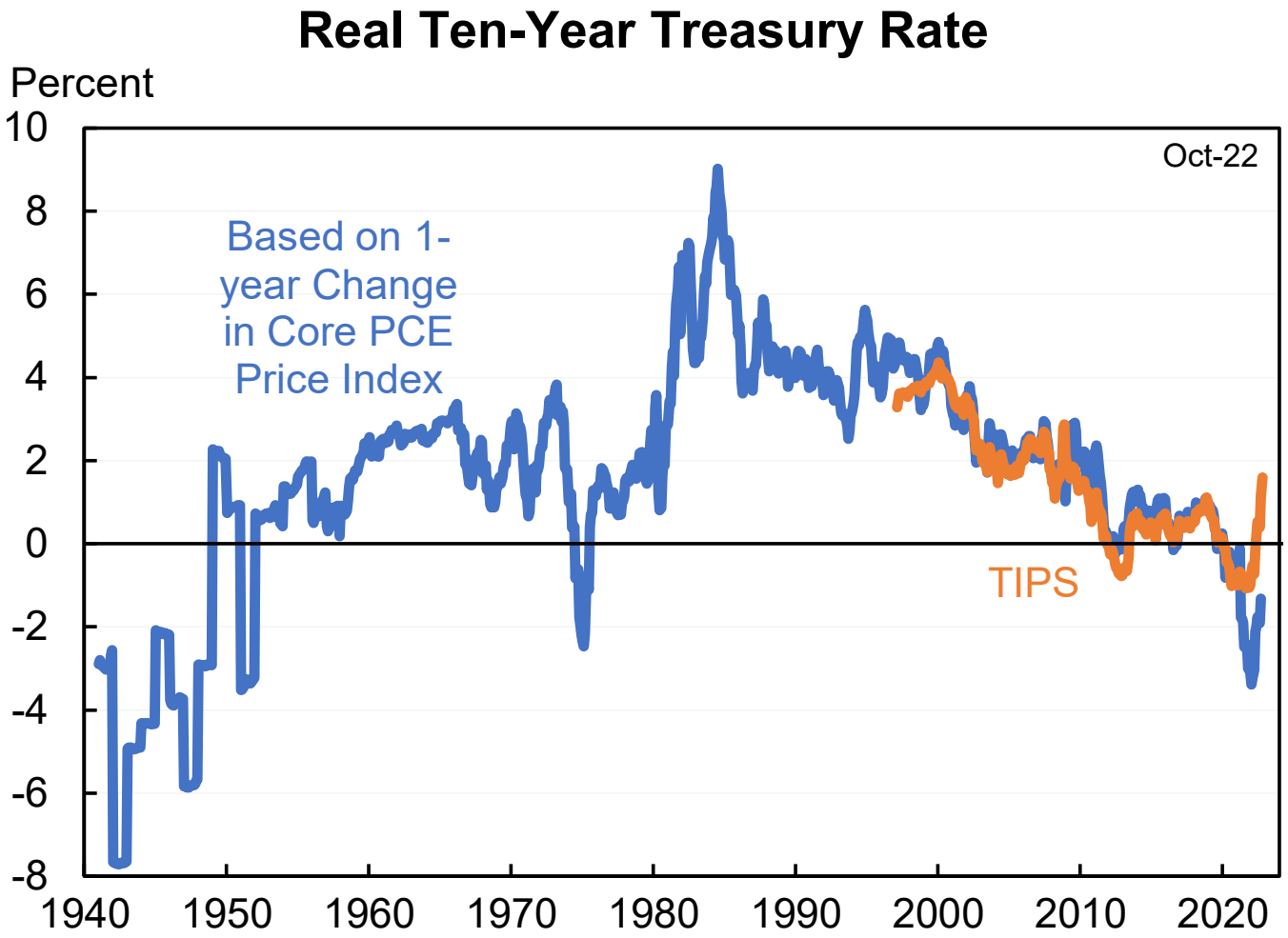
Source: Organisation or Economic Co-operation and Development.

Some chance of a structural trend but U.S. productivity growth is on trend so far



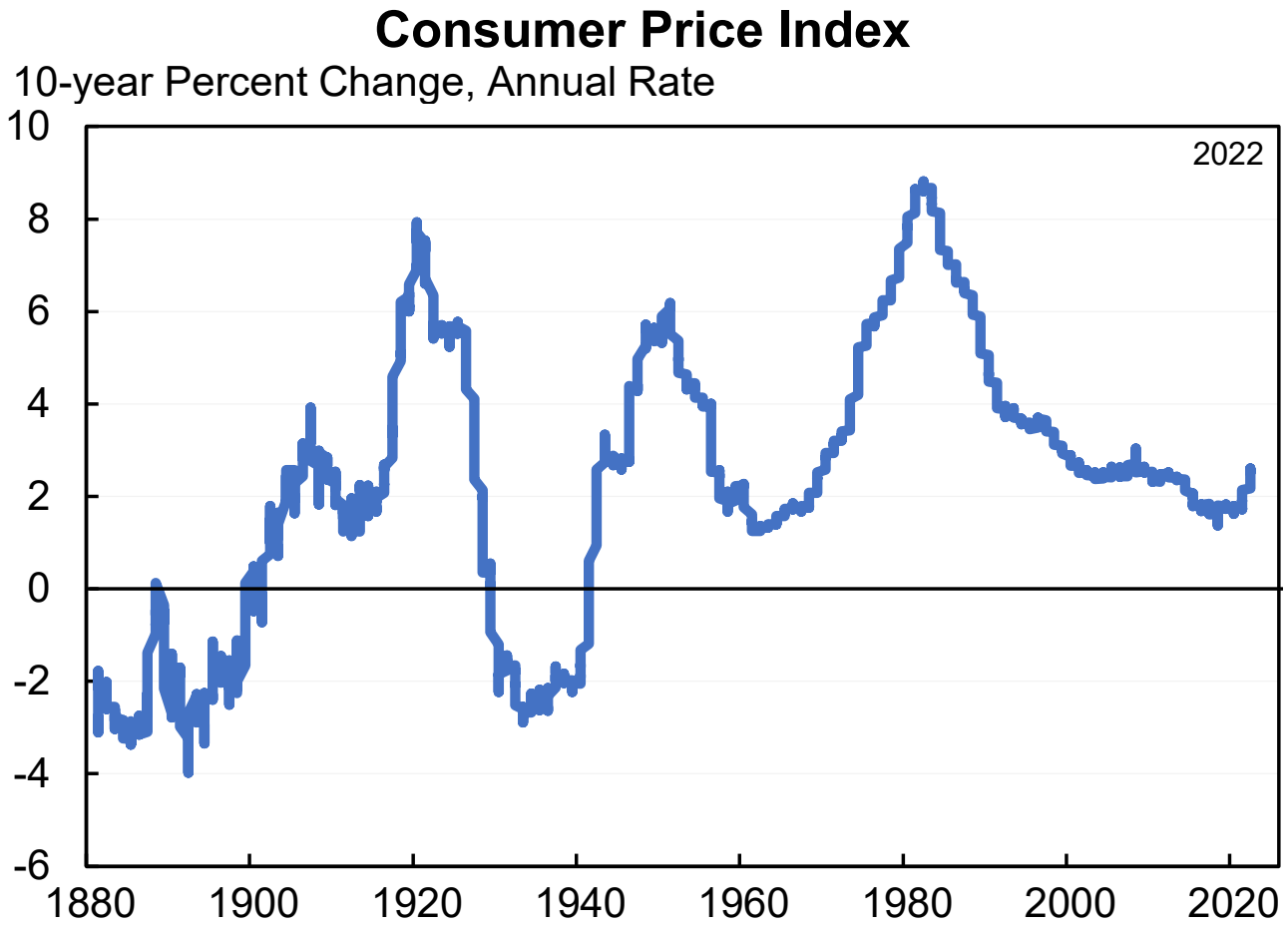
Note: Pre-pandemic trend is average growth rate from 2007Q4 to 2019Q4.
Source: Bureau of Labor Statistics via Macrobond; author's calculations.

Real interest rate have risen since the pandemic, is that temporary or permanent?



Source: Board of Governors of the Federal Reserve System; U.S. Department of the Treasury; Bureau of Economic Analysis via Macrobond; author's calculations.

Will central banks come out of this experience with a higher inflation target?



Source: Bureau of Labor Statistics Macrobond.

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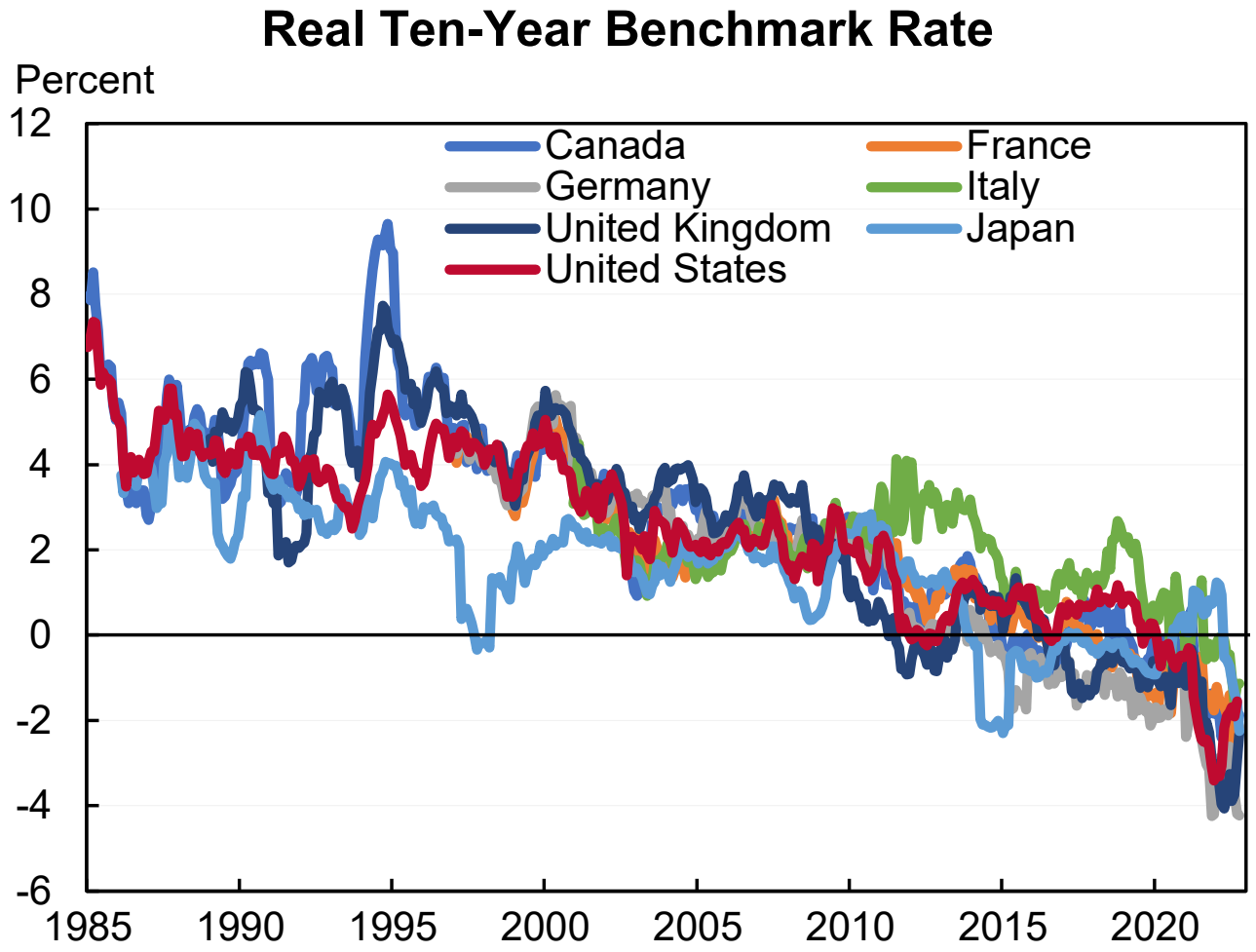
Interest rates have declined across a range of countries over a period of decades



Note: Inflation measured by 12-month changes in the core consumer price index (core personal consumption expenditures price index for United States).
Source: Bank of Canada; Statistics Canada; Eurostat; Japanese Statistics Bureau; U.K. Office for National Statistics; U.S. Bureau of Economic Analysis; Macrobond; author's calculations.

"When the facts change, I change my mind—what do you do sir?" (John Maynard Keynes)

Early 1990s: High interest rates are hurting business investment. *Deficit reduction can bring down interest rates and help economic growth.*

The 2010s through 2019: Borrowing no obstacle to business investment and growth. Low interest rates make it harder for monetary policy to stabilize the economy and increase financial risks. *Deficit increases would put upward pressure on interest rates, helping the economy.*

2022 forward: ??

Debt should be stable but at what level?

30% of GDP?

80% of GDP?

100% of GDP?

1,000% of GDP?

Why we would not want to stabilize the debt at 1,000 percent of GDP

- Debt/GDP stabilizing at any finite value is sufficient for debt sustainability.
- If $r < g$ then any primary deficit will result in debt as a share of the economy asymptoting to a finite value.
- BUT cannot do debt sustainability analysis with exogenous interest rates. IF the debt goes up a lot then r will go up and $r < g$ will not last forever.

Asking about debt to GDP is asking the wrong question

$$\frac{\text{Debt}}{\text{GDP}}$$

Stock

Measured at a point of time

Flow

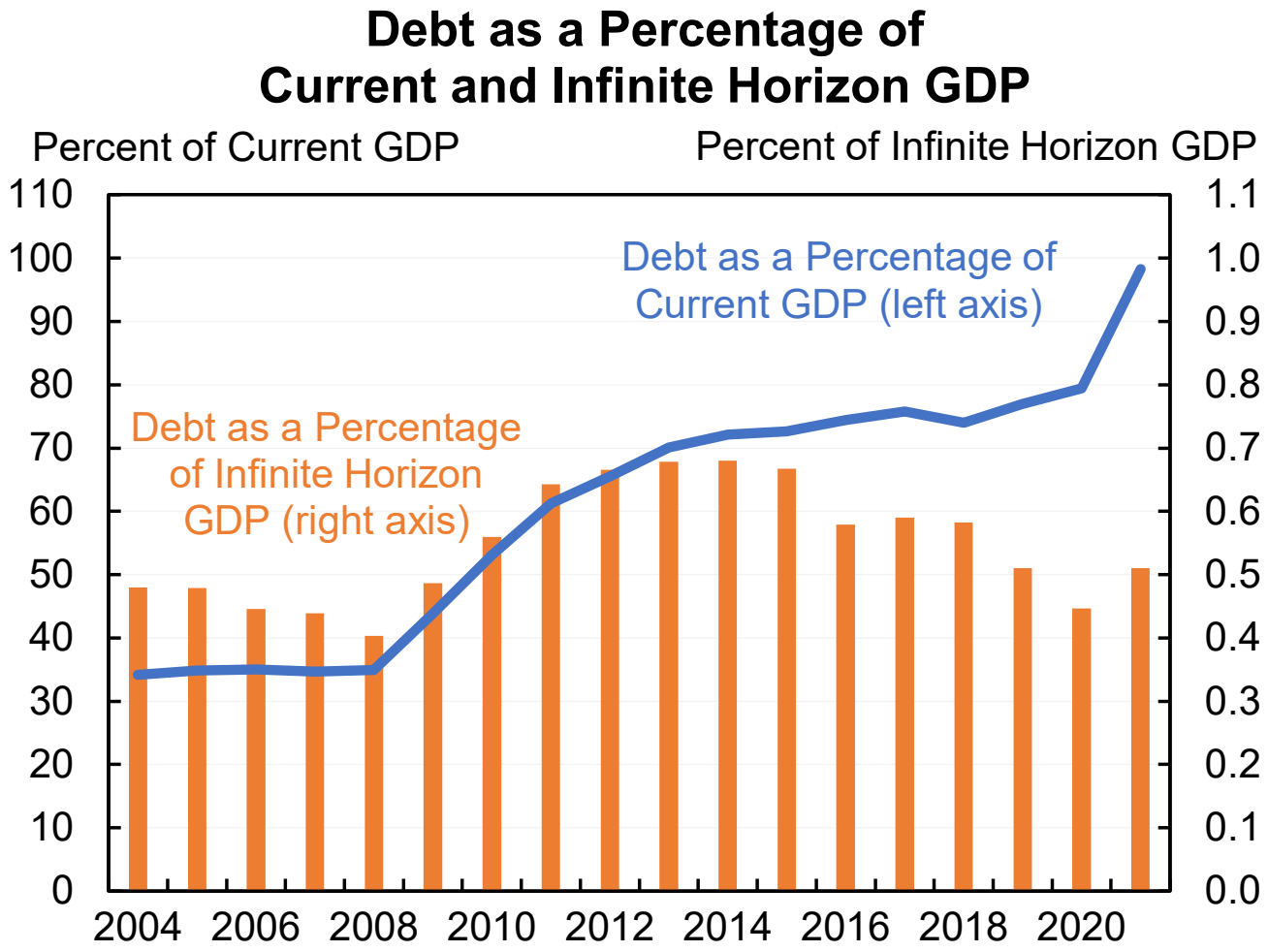
Measured over a period of time

But the debt-to-GDP ratio itself is a problematic concept

	Estimates for debt as of December 31, 2021
Debt / monthly GDP	1,196%
Debt / annual GDP	103%
Debt / decades GDP	12%
Debt / NPV future GDP	0.5%

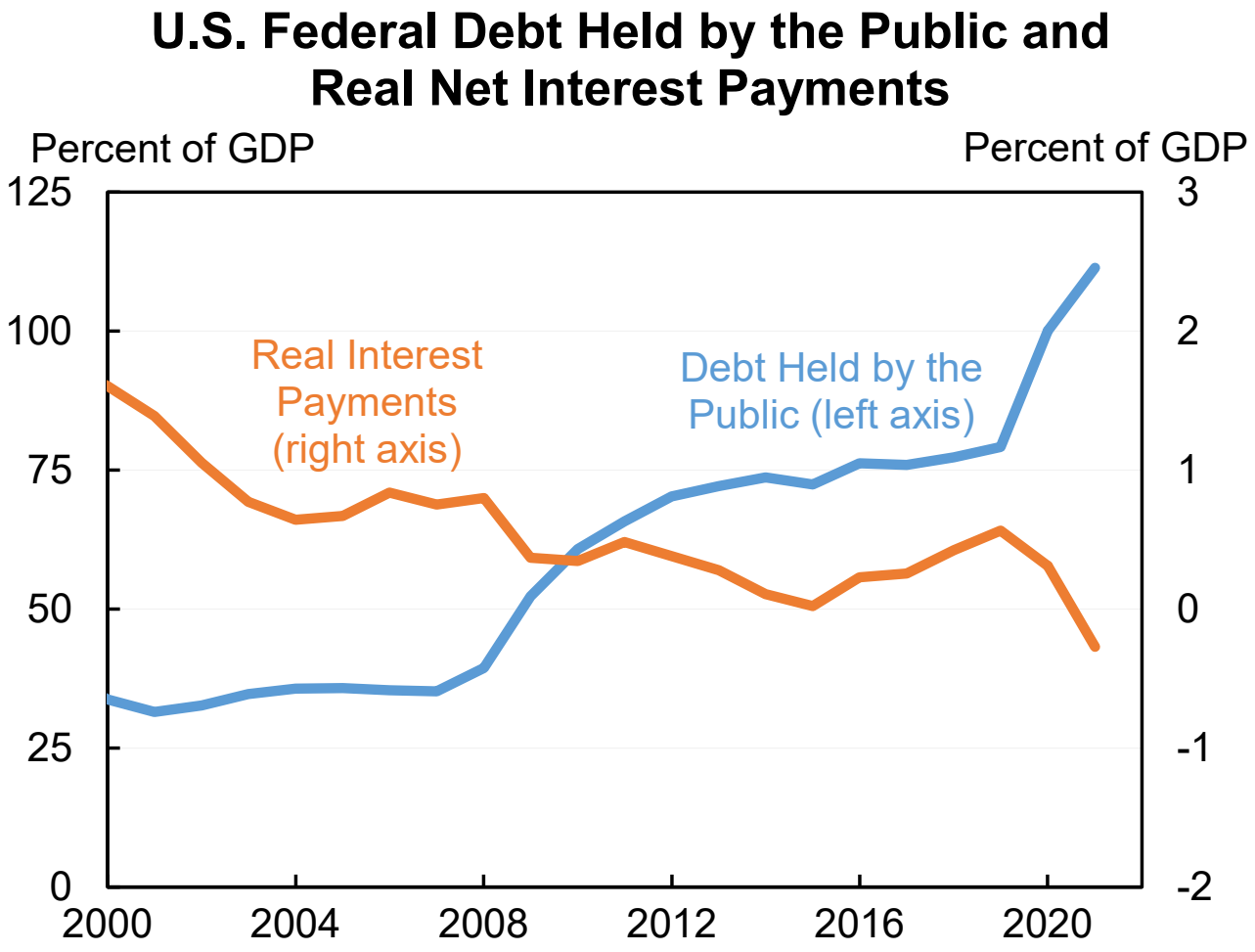
Source: The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds; Department of the Treasury; Bureau of Economic Analysis; Macrobond; author's calculations.

Stock-stock: It would cost ~0.5 percent of GDP to pay off all debt, unchanged since 2004



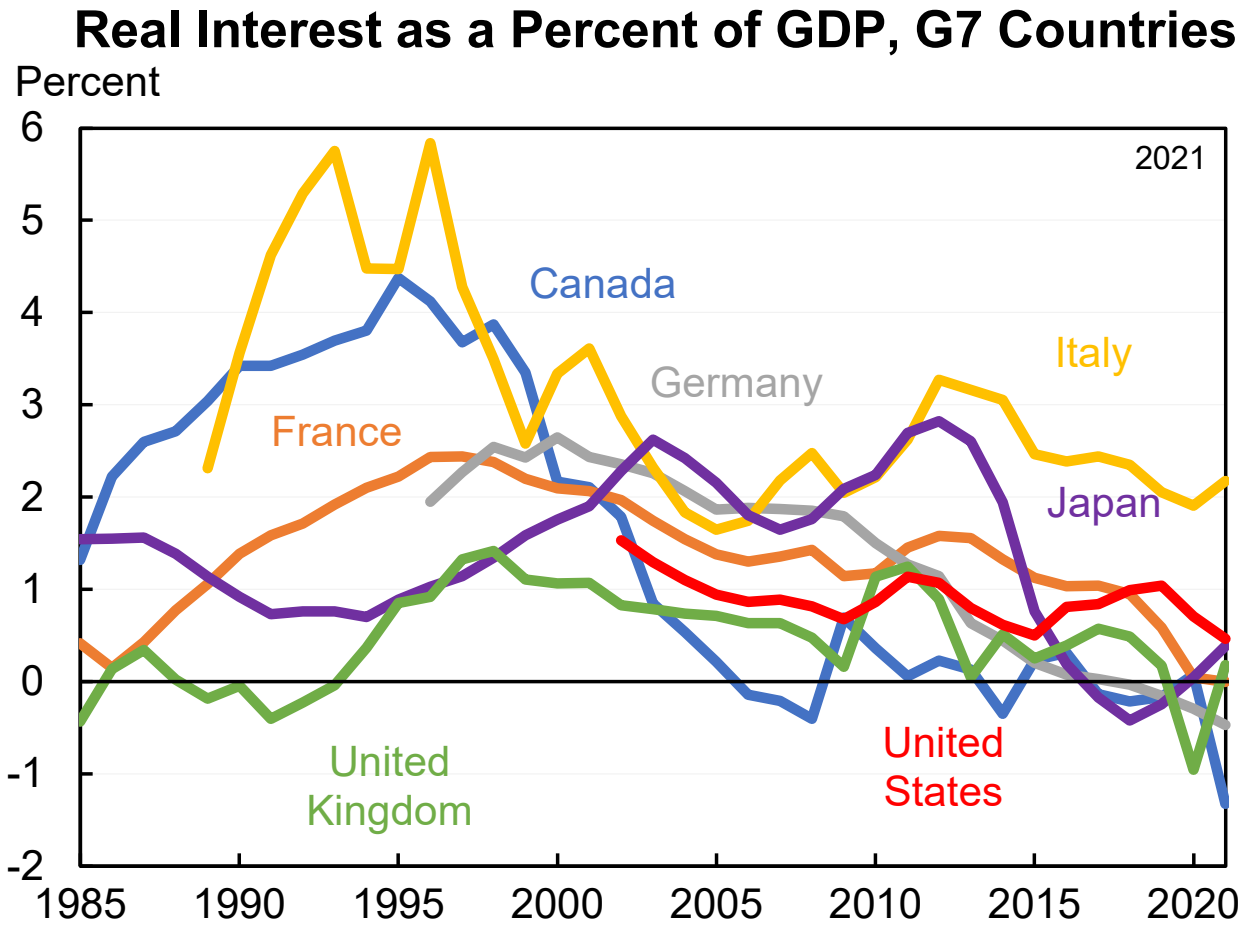
Source: The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds; Department of the Treasury; Bureau of Economic Analysis; Macrobond; author's calculations.

Flow-flow: real debt service has fallen even while debt has increased



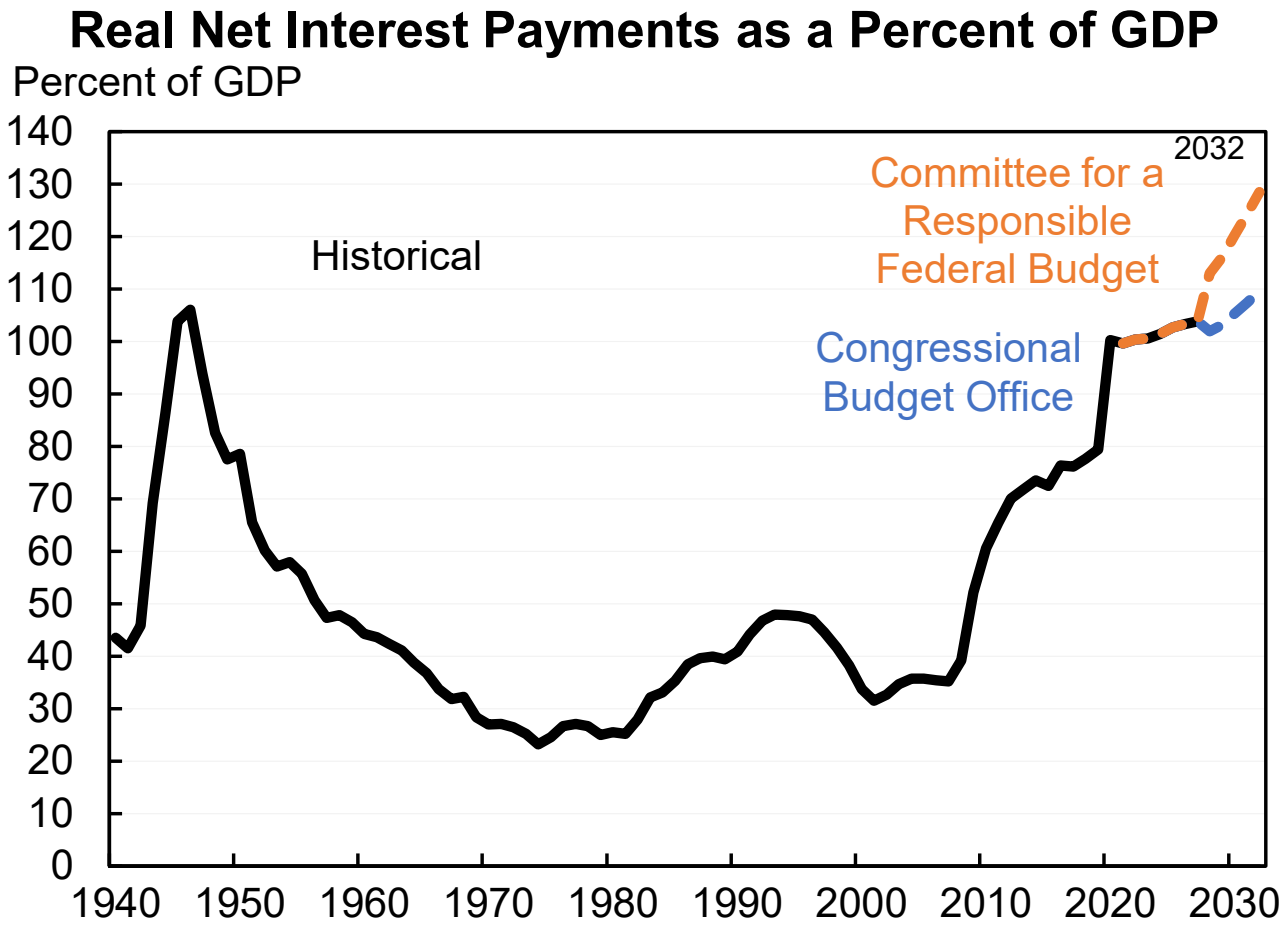
Note: 2021 values are projections and include passage of the American Rescue Plan.
Source: Office of Management and Budget; Congressional Budget Office; Bureau of Economic Analysis; Macrobond; author's calculations.

This is true throughout the advanced economies



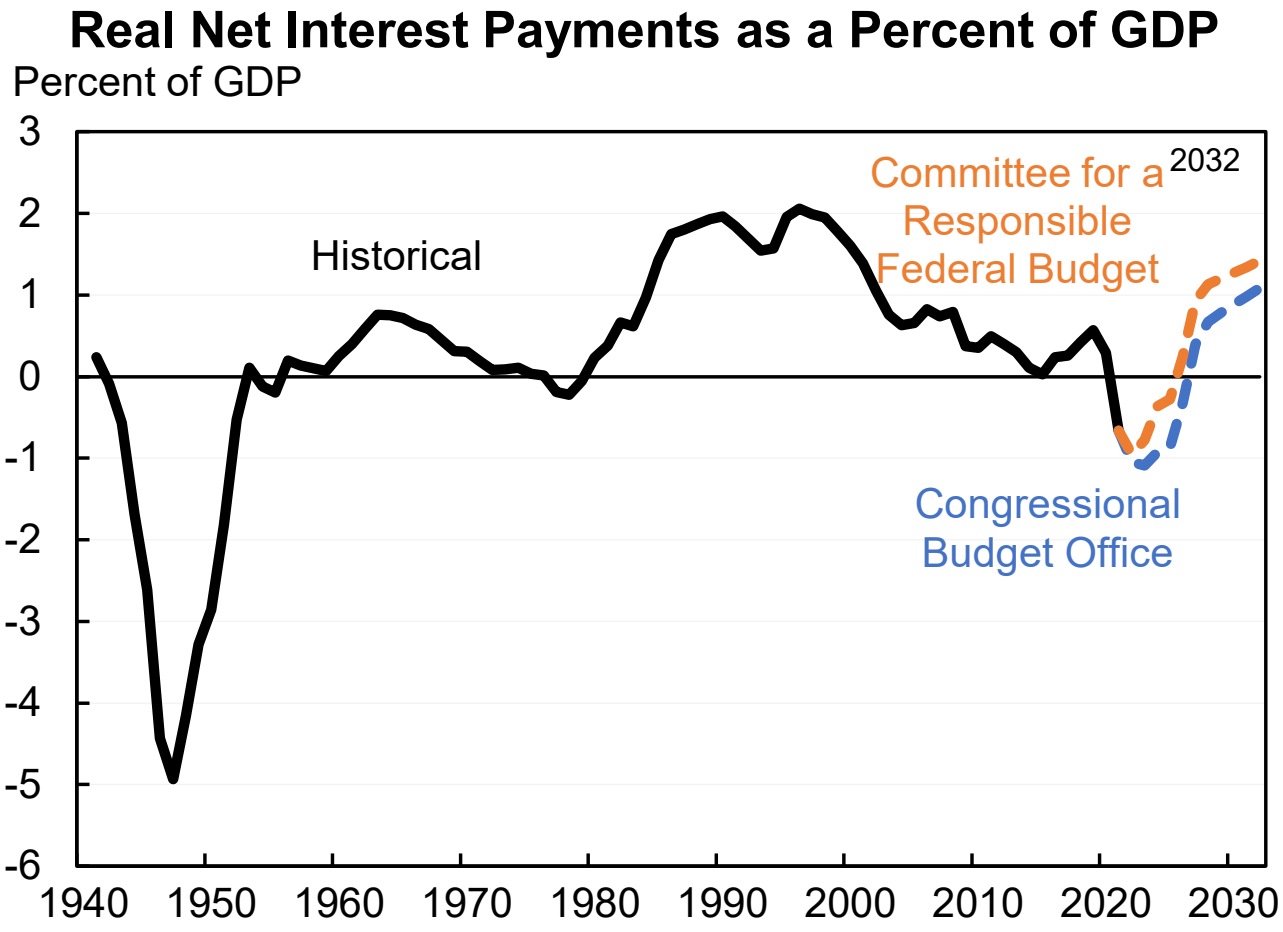
Source: International Monetary Fund, World Economic Outlook; Macrobond.

Looking forward



Note: Committee for a Responsible Federal Budget is Intermediate Alternate Scenario.
Source: Office of Management and Budget; Congressional Budget Office; Macrobond; Center for a Responsible Federal Budget (Marc Goldwein); author's calculations.

Looking forward



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Source: Office of Management and Budget; Congressional Budget Office; Bureau of Economic Analysis; Macrobond; Center for a Responsible Federal Budget (Marc Goldwein); author's calculations.

Going forward we need a fiscal framework that is a combination of:

- Optimal
- Understandable
- Achievable

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Jason Furman

Harvard University

Virtual Israel Macro Meeting

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