


Back to the Future

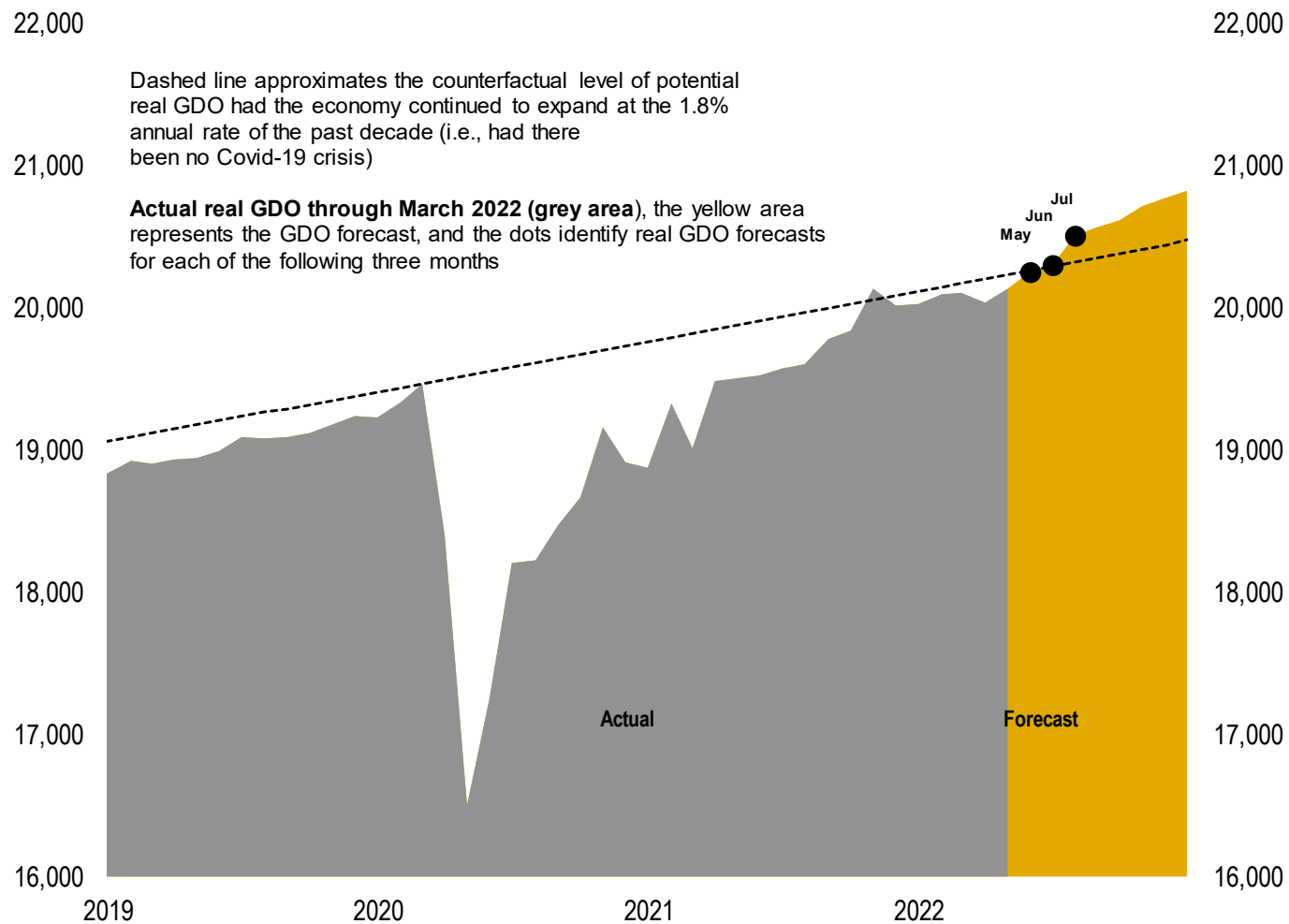
June 27, 2022



THE INTEREST RATE PICTURE

(1) Back On Our Feet: GDP (Actually, GDO), ...

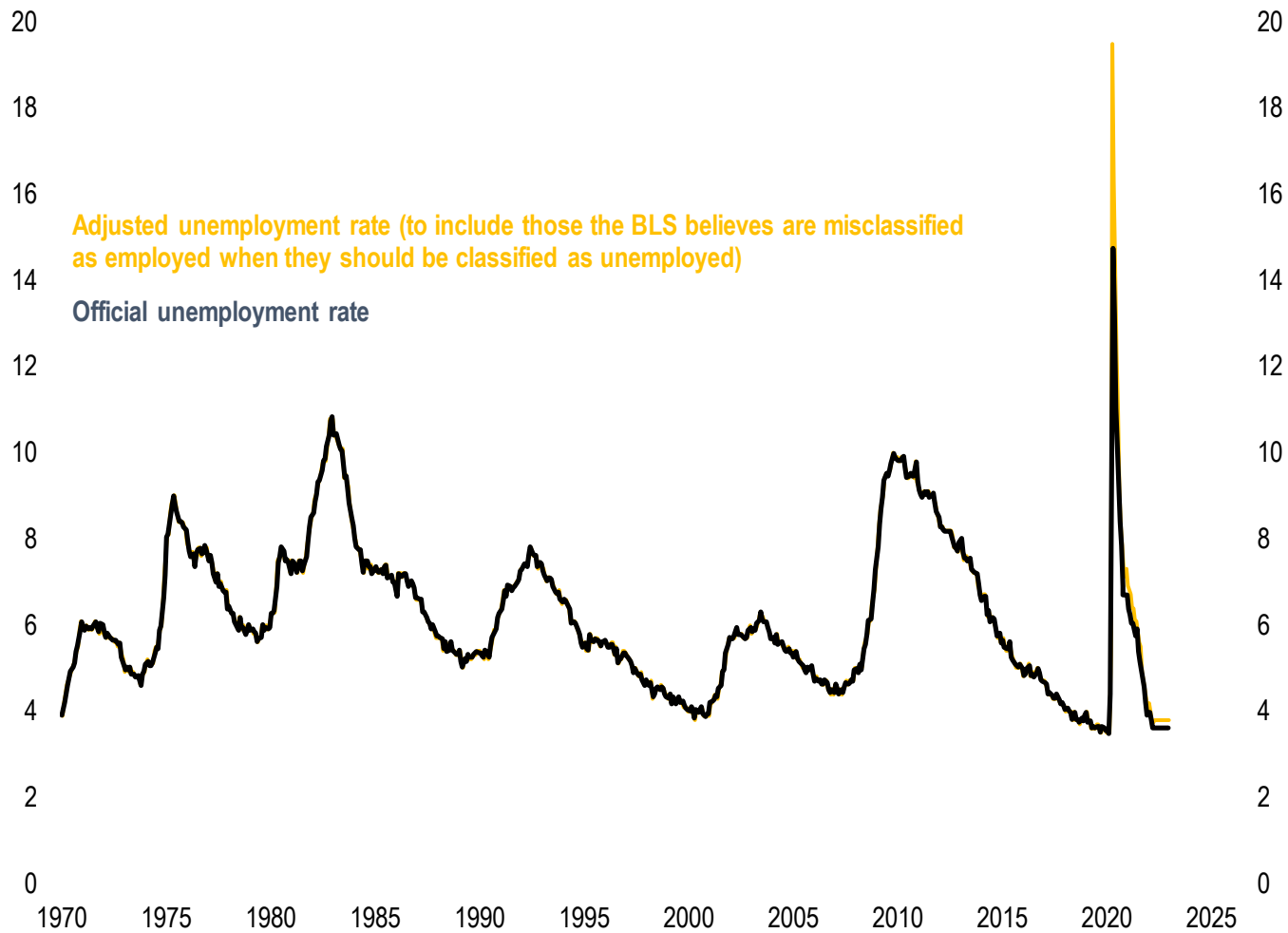
Real GDP and counterfactual real GDP scenario (billions of chained 2012 dollars)



Sources: Haver Analytics; IHS Markit Updated through April 2022.

... Unemployment, ...

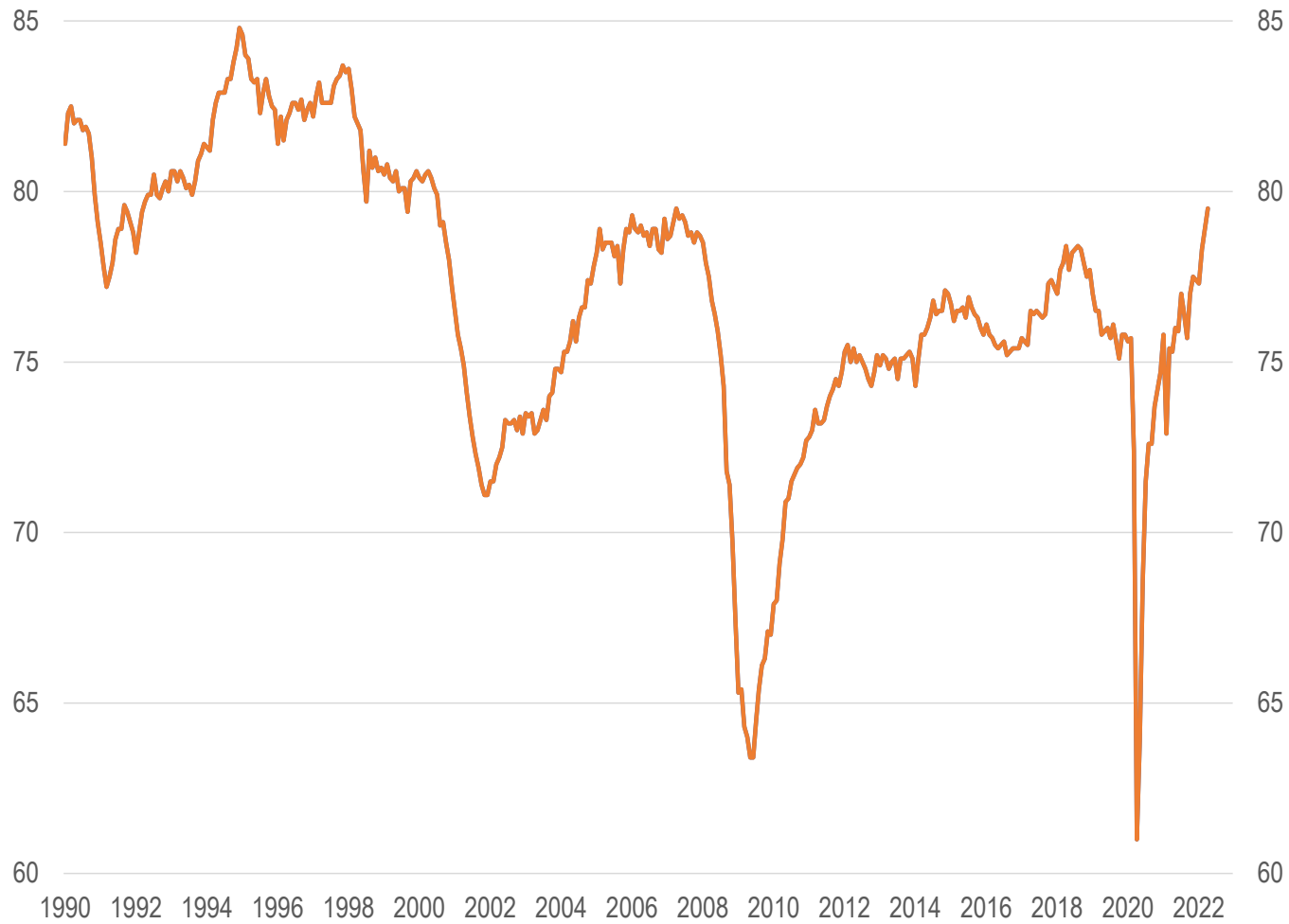
Unemployment (percent of the labor force)



Sources: Haver Analytics; U.S. Department of Labor. Updated through May 2022.

... and Manufacturing

Manufacturing capacity utilization (percent of capacity in use)

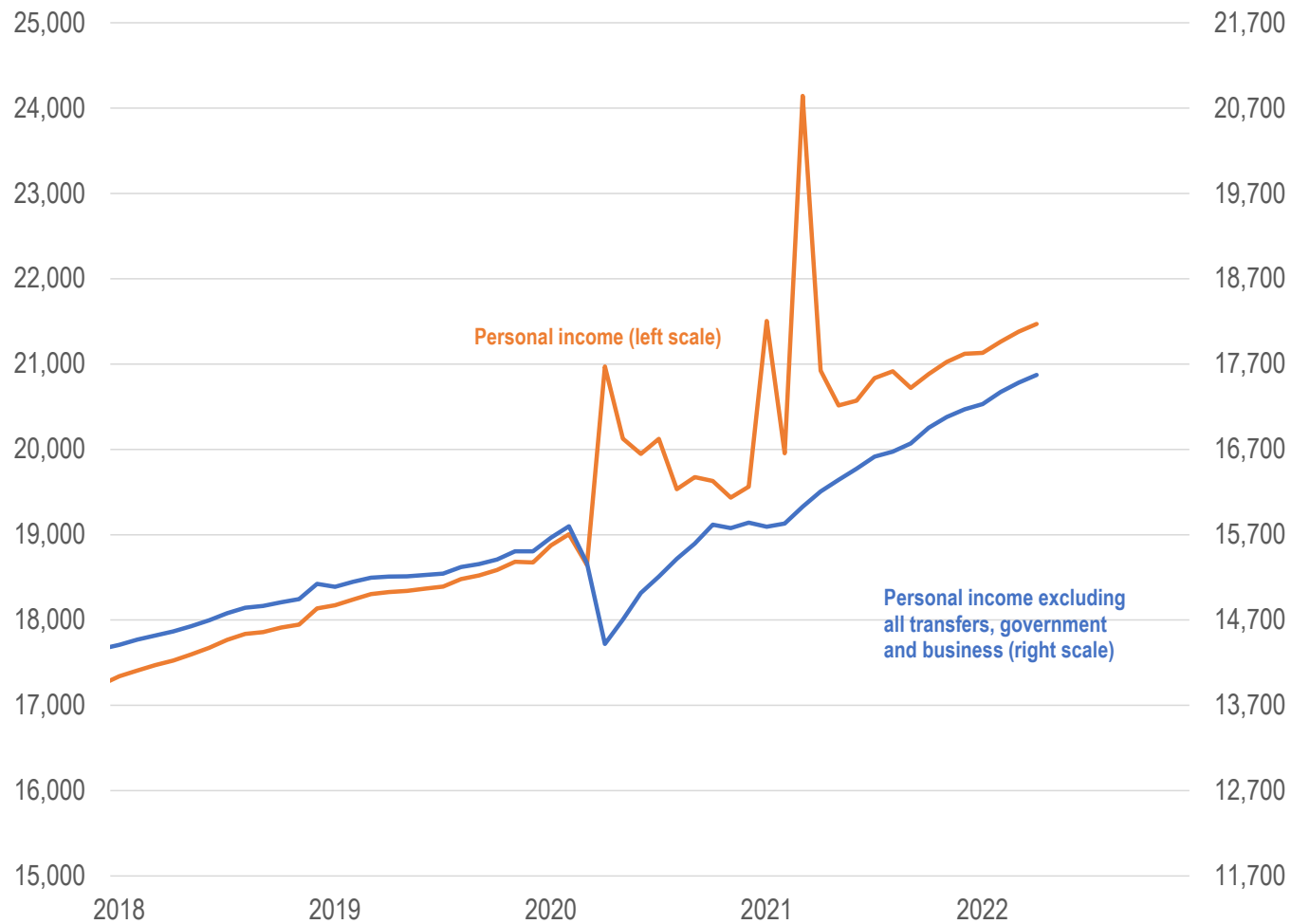


Sources: Haver Analytics; Federal Reserve Board. Updated through April 2022.

P.S. Not a Mystery Why

Personal income (billions of dollars)

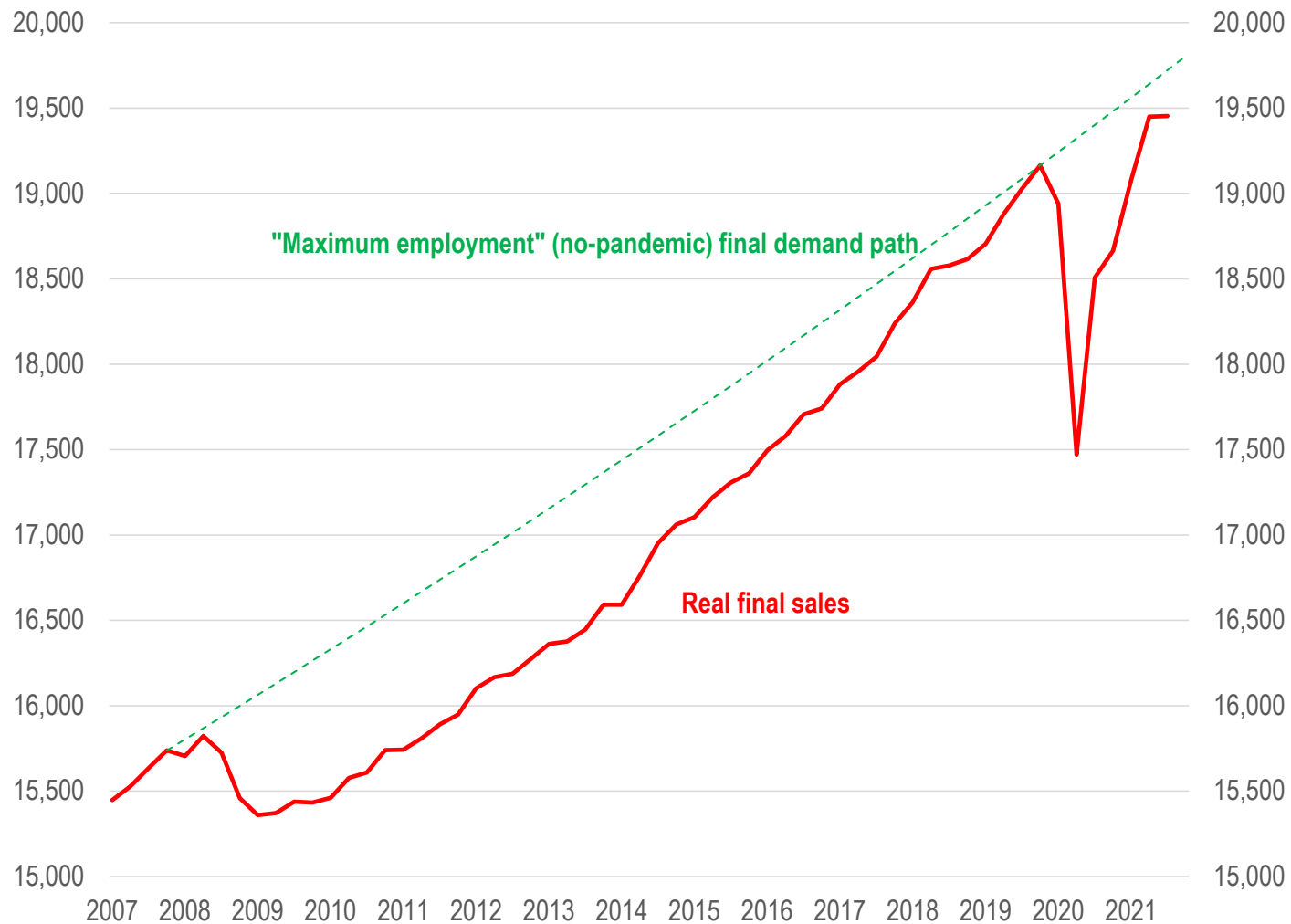
Personal income excluding all transfers (billions of dollars)



Sources: Haver Analytics; U.S. Department of Commerce. Updated through April 2022.

(2) Demand Is Where It Should Be, Not Overheated, ...

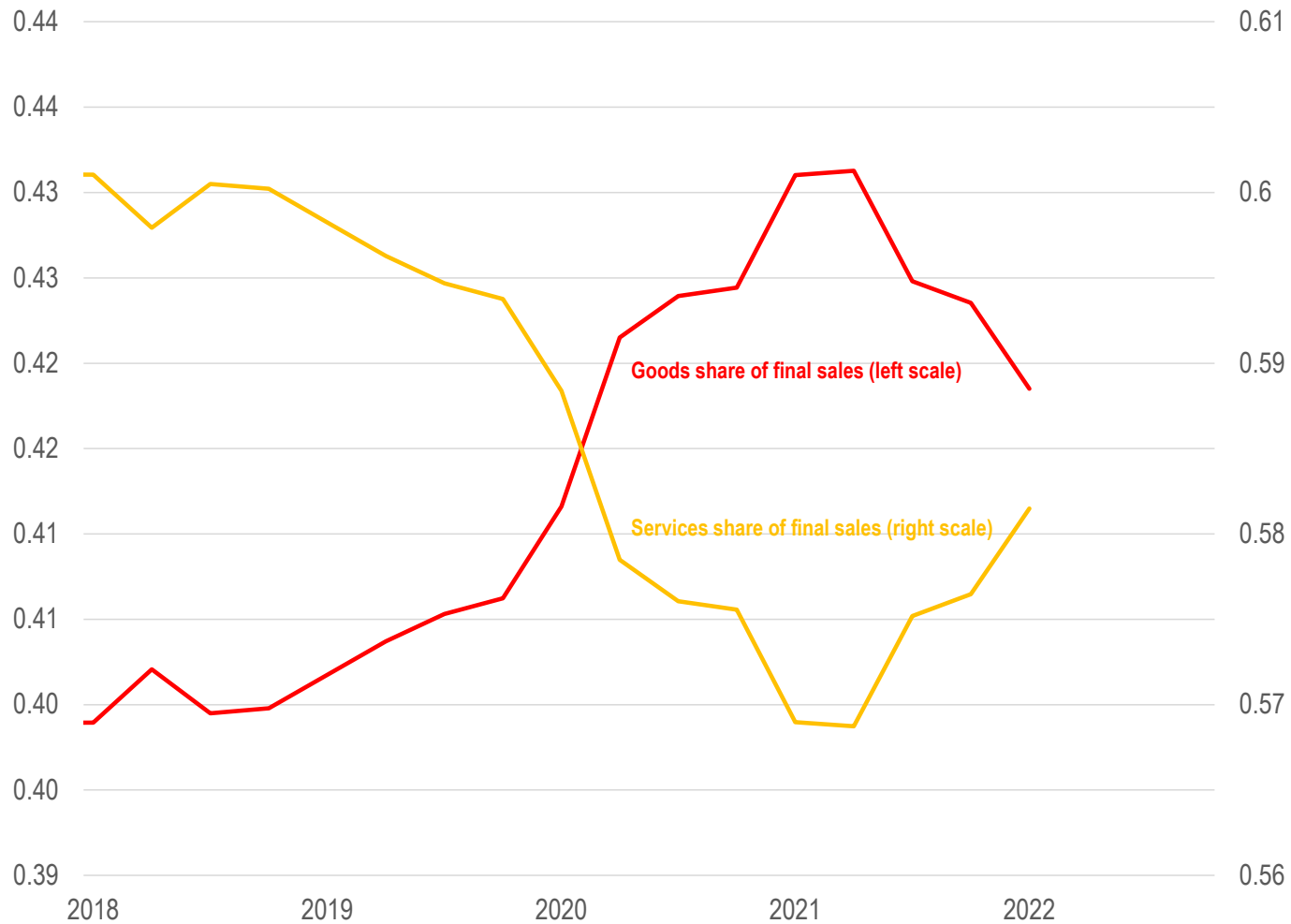
Actual and counterfactual real final sales (chained 2012 dollars)



Sources: Haver Analytics; U.S.

... But (Was) Skewed to Goods, ...

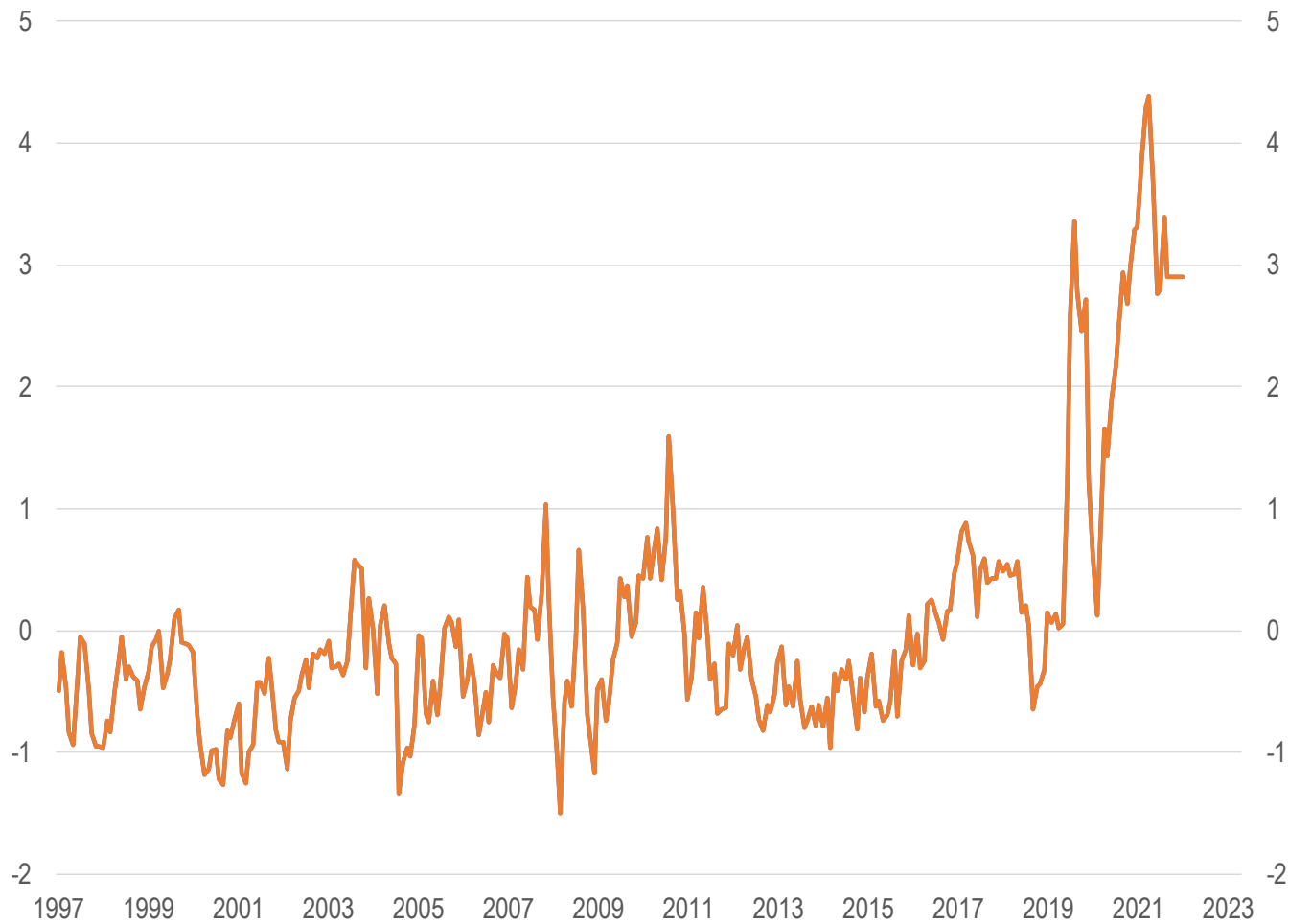
Services goods components of real final sales (billions of chained 2012 dollars)



Sources: Haver Analytics; U.S. Department of Commerce. Updated through 2022 Q1.

... Putting Pressure on Supply Chains ...

Standard deviation from average value



Source: Gianluca Benigno, Julian di Giovanni, Jan J. J. Groen, and Adam I. Noble, "Global Supply Chain Pressure Index: March 2022 Update" Federal Reserve Bank of New York Liberty Street Economics, June 6, 2022, <https://libertystreeteconomics.newyorkfed.org/2022/03/global-supply-chain-pressure-index-march-2022-update/>.

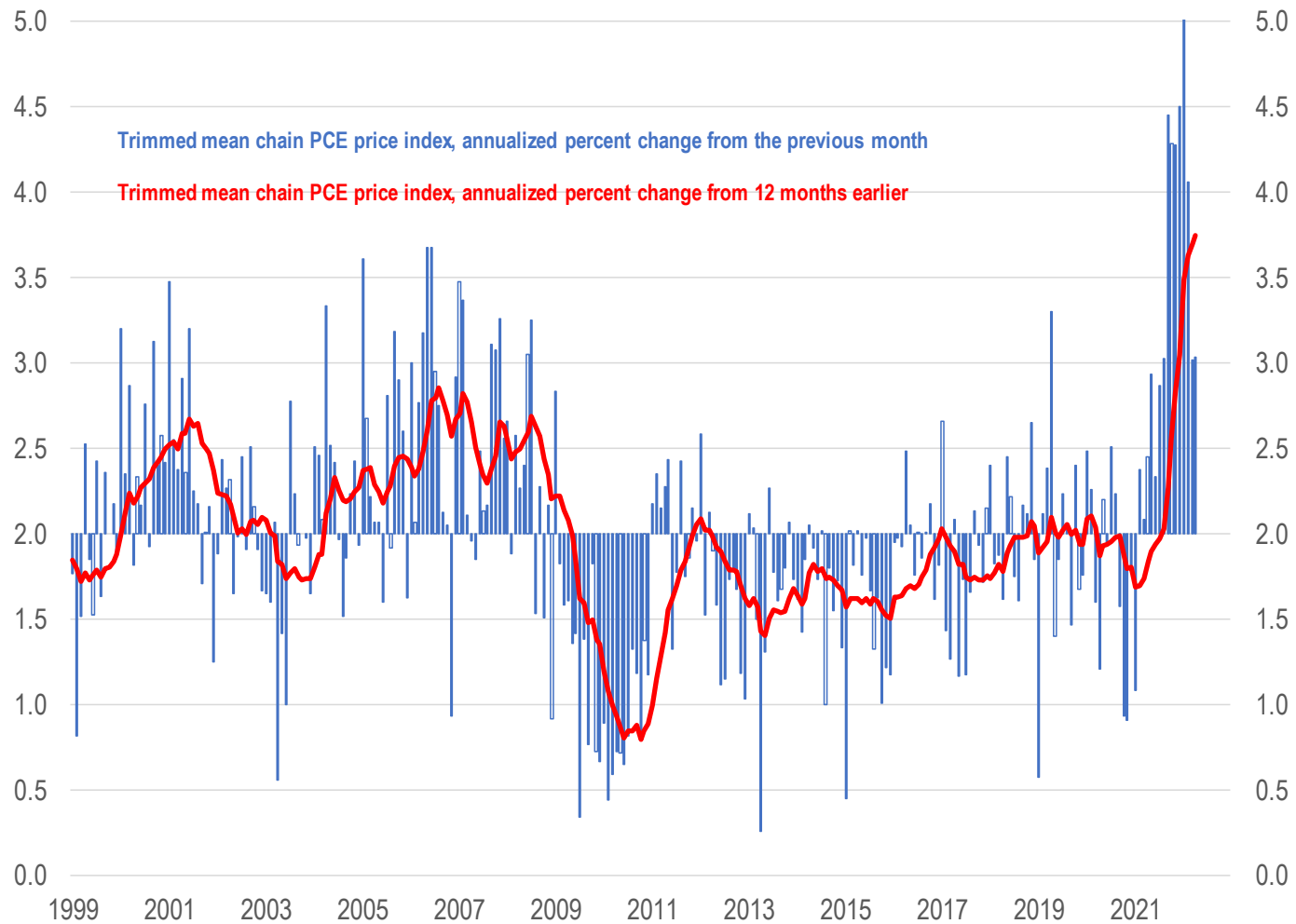
... and Goods Prices ...

	Relative Importance Weight (December 202)	Percent Change (Annual Rate)		Relative-Importance-Weighted Contribution to the Rise in the CPI Inflation Rate in the Pandemic Era	
		2019 (%, Dec/Dec)	Pandemic Era (% Mar 2022/Dec 2019)	(percentage points)	(percent of the CPI acceleration)
CPI All Items	100.0	2.26	4.88	2.623	100.0%
Energy	7.5	3.36	13.81	0.788	30.0%
Food and Beverages (Nonalcoholic Beverages)	14.0	1.80	6.03	0.592	22.6%
Shelter	32.4	3.24	3.38	0.045	1.7%
Private Transportation (Ex. Motor Fuel)	11.2	2.03	10.69	0.968	36.9%
New & Used Motor Vehicles	7.3	-0.67	11.05	0.856	32.6%
New Vehicles	3.9	0.05	6.50	0.250	
Used Vehicles	3.4	-0.69	17.78	0.632	
Medical Care	8.5	4.57	2.49	-0.176	-6.7%
Recreation	5.6	1.49	2.79	0.073	2.8%
Education & Communication	6.5	1.37	1.44	0.005	0.2%
Personal Care (Products and Services)	2.5	1.85	4.36	0.062	2.4%

Sources: At end of tables.

... Now, Maybe Cresting

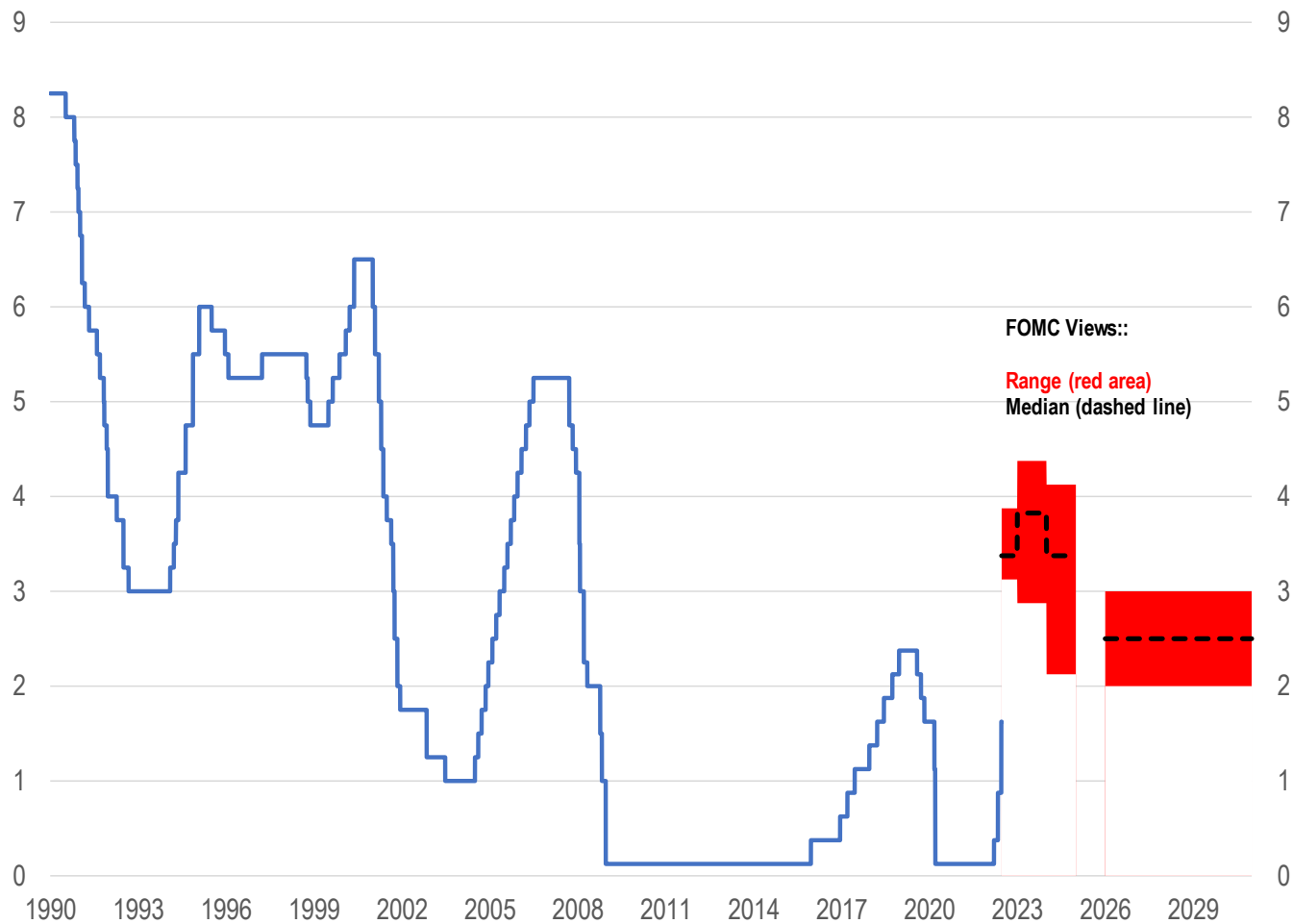
Selected inflation readings (percent change from 12 months earlier)



Sources: Haver Analytics; U.S. Department of Labor; U.S. Department of Commerce; Federal Reserve Bank of Dallas. Updated through April 2022.

(3) So, We No Longer Need the Fed's Help ...

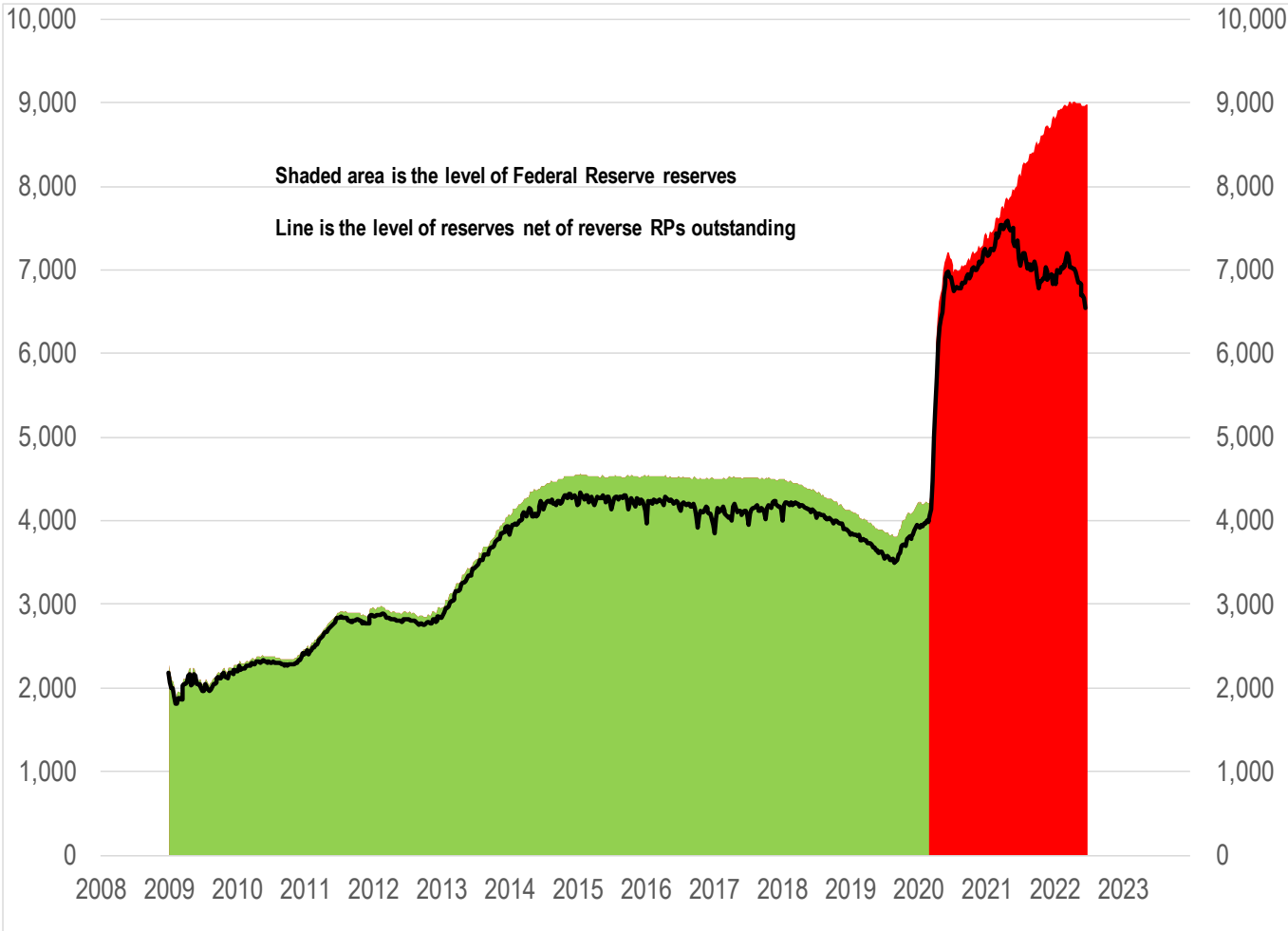
Effective federal funds rate and FOMC rate forecasts (percent per annum)



Sources: Haver Analytics; Federal Reserve Board. Updated through June 16, 2022 (FOMC forecasts) and June 17, 2022 (funds rate).

QT? The Fed's Portfolio Has Climbed by \$4½ Trillion ...

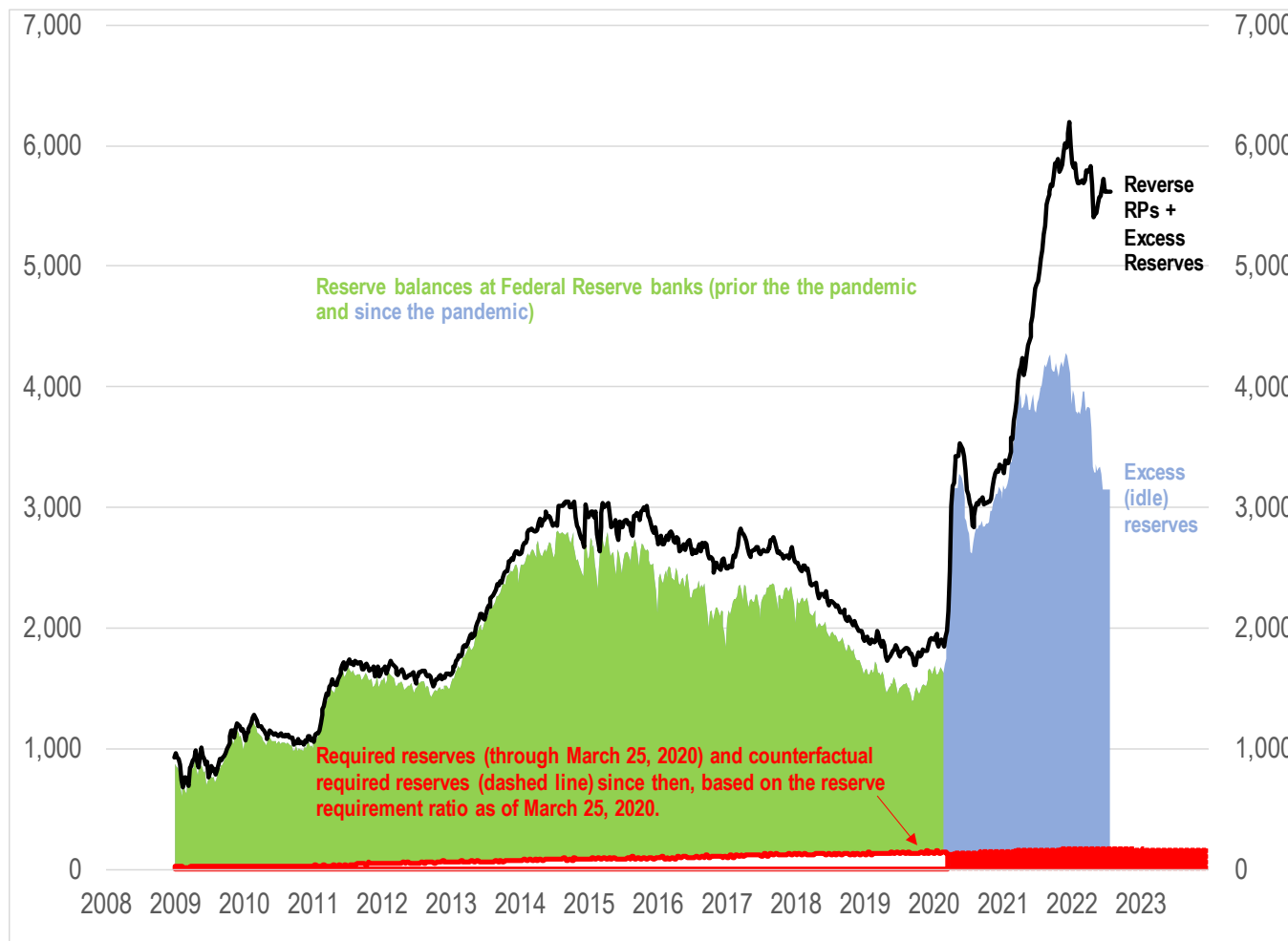
Reserves, required reserves and estimated required reserves (billions of dollars)



Sources: Haver Analytics; Federal Reserve Board. Updated through June 22, 2022.

... But “Excess” Reserves by Only \$1½ Trillion

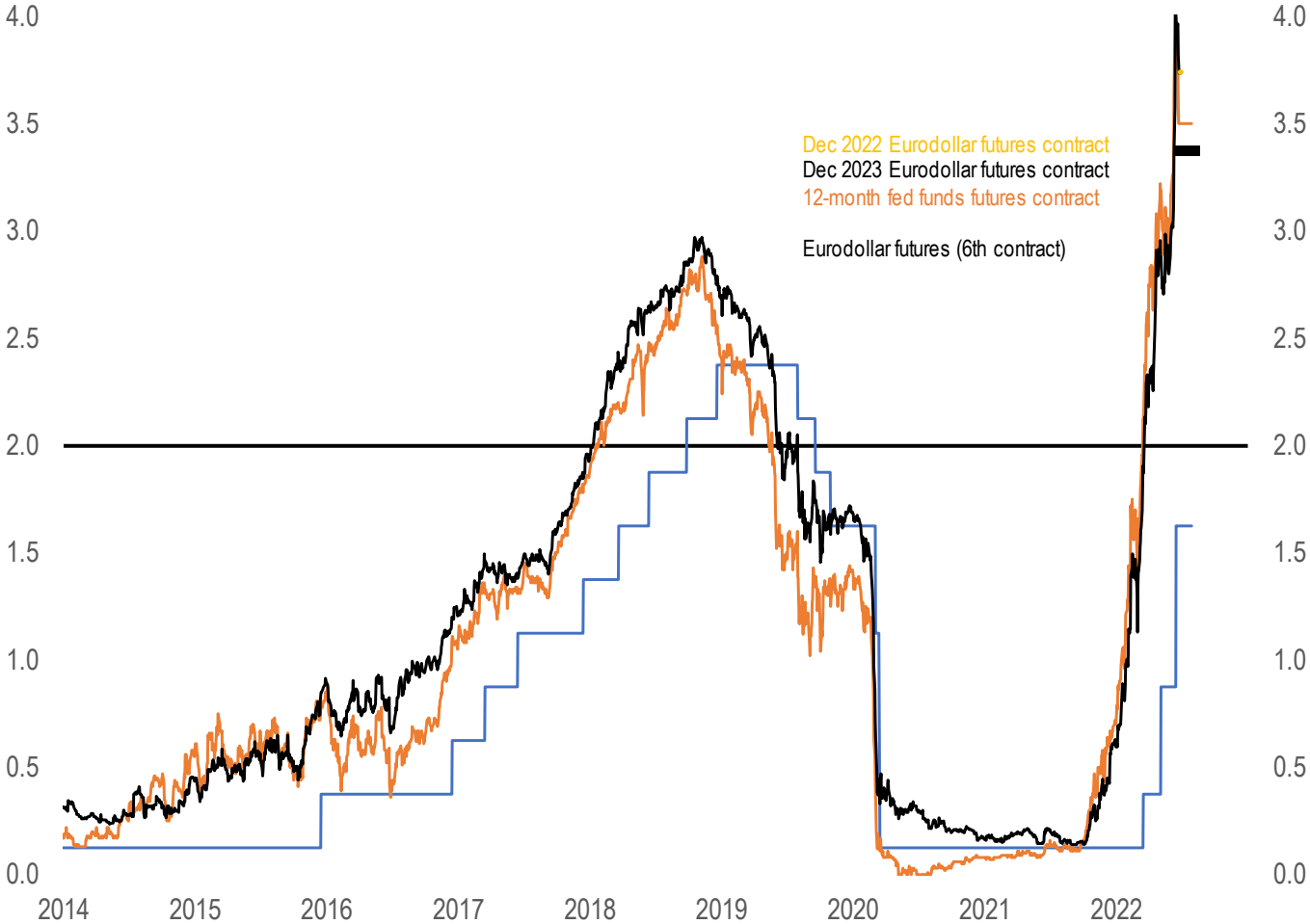
Reserves, required reserves and estimated required reserves (billions of dollars)



Sources: Haver Analytics; Federal Reserve Board. Updated through June 22, 2022.

Policy Transitions Often (Now Too) Beget Panic ...

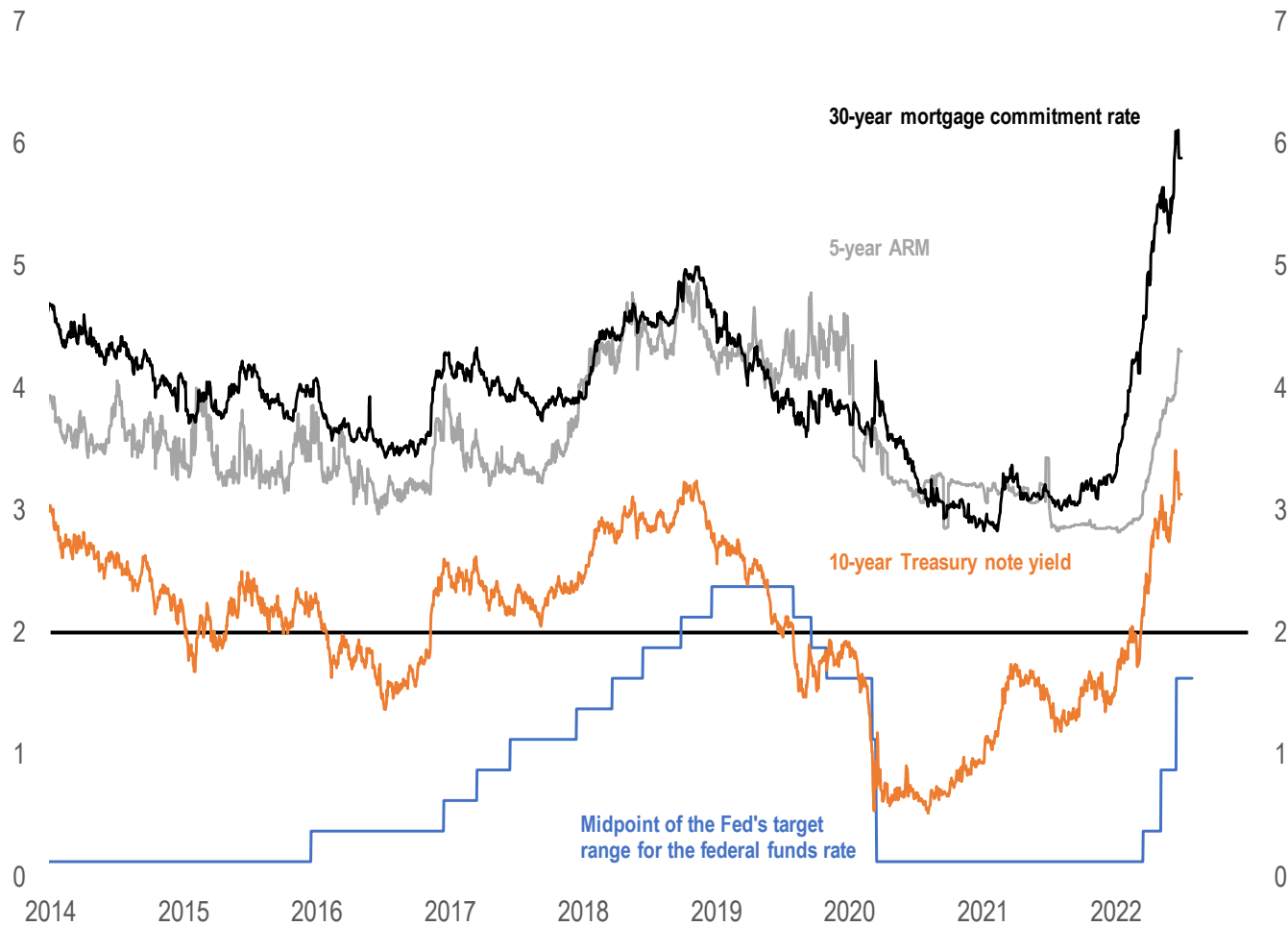
Effective federal funds rate and selected futures rates (percent per annum)



Sources: Haver Analytics; Federal Reserve Board; Chicago Mercantile Exchange. Updated through June 24, 2022.

... Probably Overreacting

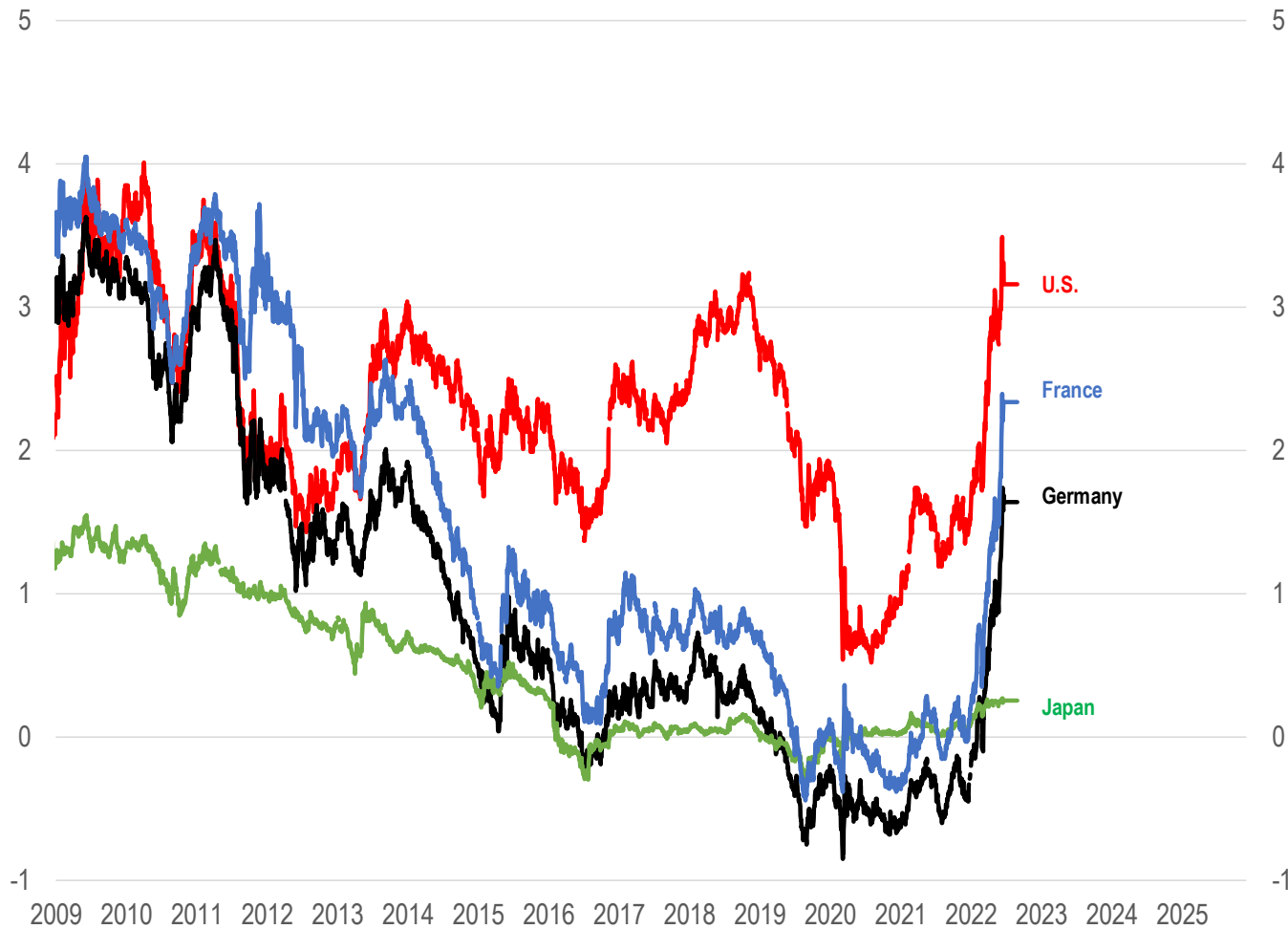
Effective federal funds rate and the 10-year Treasury note yield (percent per annum)



Sources: Haver Analytics; Federal Reserve Board. Updated through June 22, 2022.

Bond Yields Reflect Global Factors Too

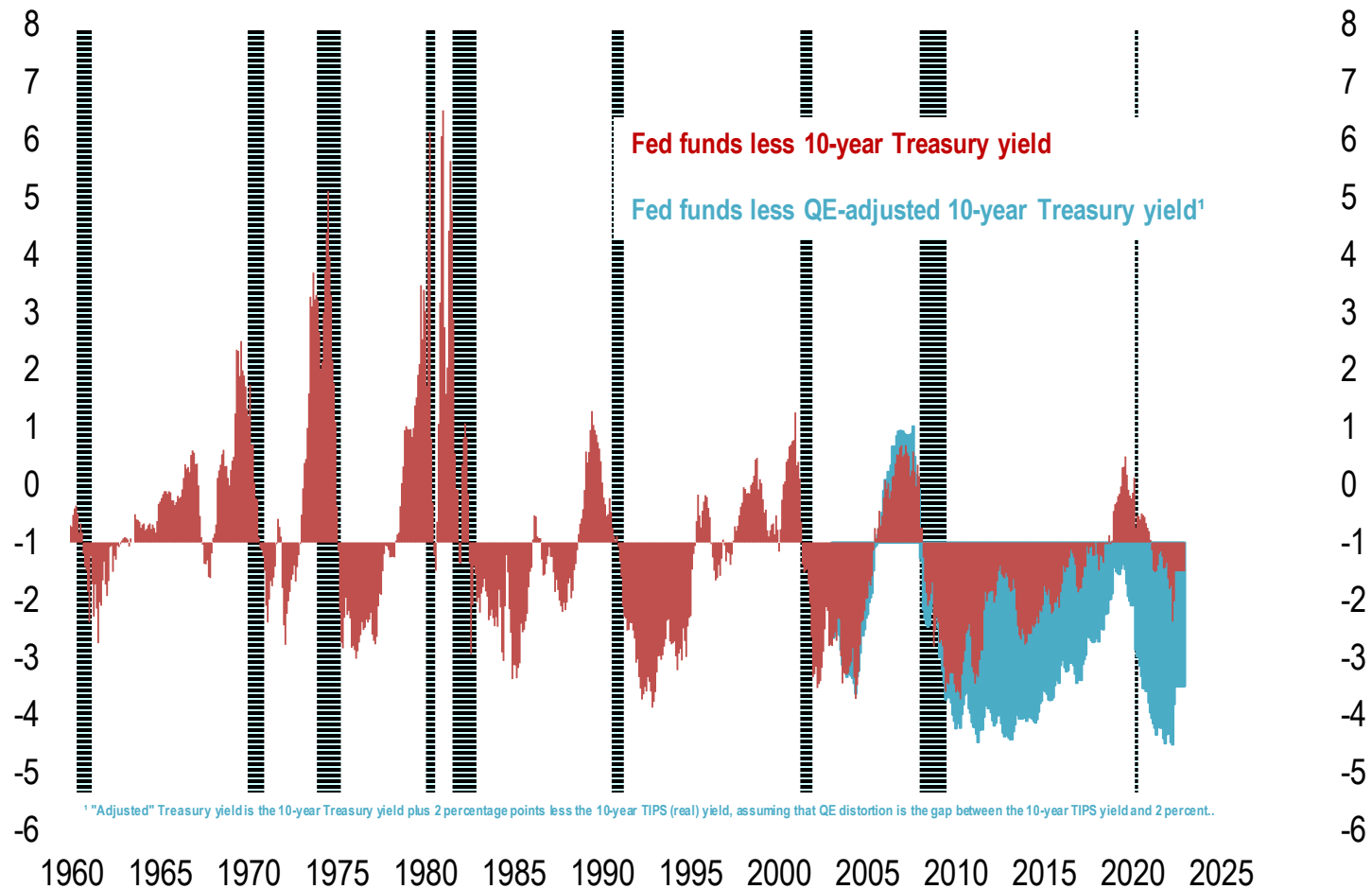
10-year Treasury note yield (percent)



Sources: Haver Analytics; Federal Reserve Board. Updated through June 24, 2022.

The Yield Curve Isn't What It Used to Be, Owing to QE

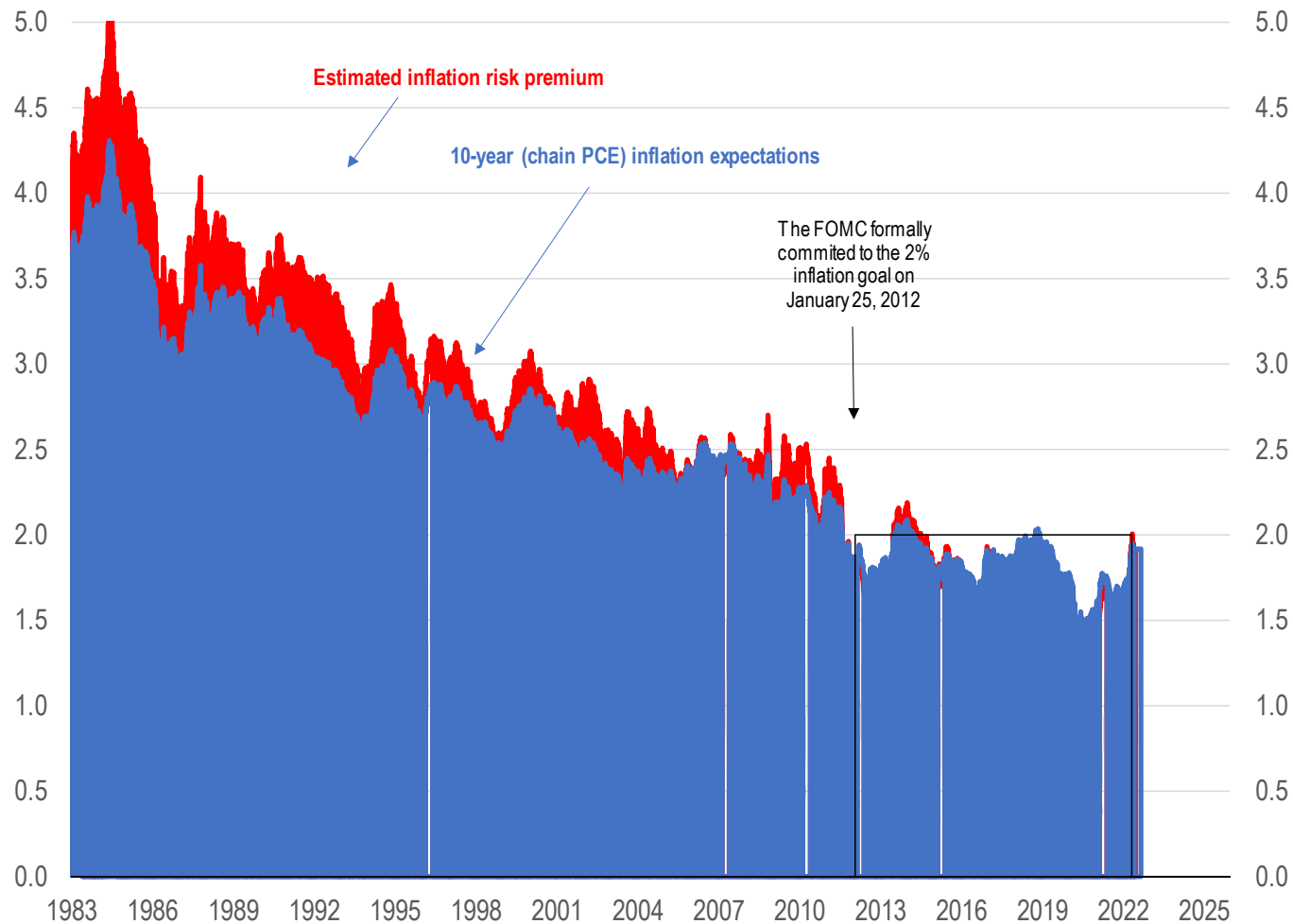
Target for the federal funds rate minus the 10-year Treasury yield (percentage points)



Sources: Haver Analytics; NBER-designated recession bars; Federal Reserve Board. Updated June 24 2022.

Payoff for THE Innovation In Central Banking ...

Market-based inflation expectations over the subsequent 10 years, chain PCE inflation (annual rate)

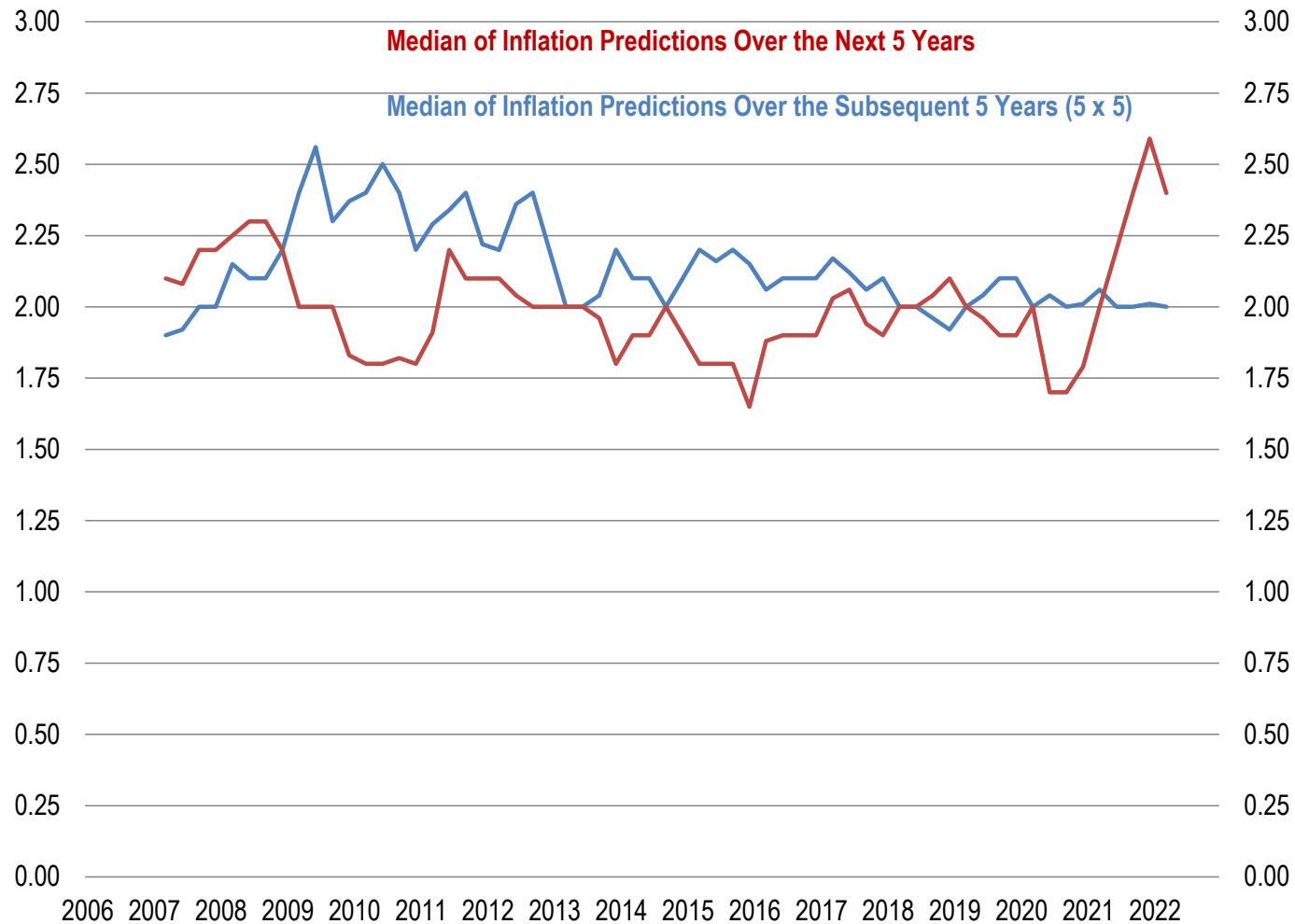


Note: Assumes that the PCE inflation rate will be 0.34 percentage point, the historical differential, below the CPI inflation expectations reflected in the Treasury nominal and TIPS securities yields. Takes account of the TIPS liquidity risk premium and the inflation risk premium.

Source: Haver Analytics; Federal Reserve Board. Updated through May 31, 2022.

... Professional Forecasters Second That

Market based inflation expectations over the subsequent decade (annual rate)

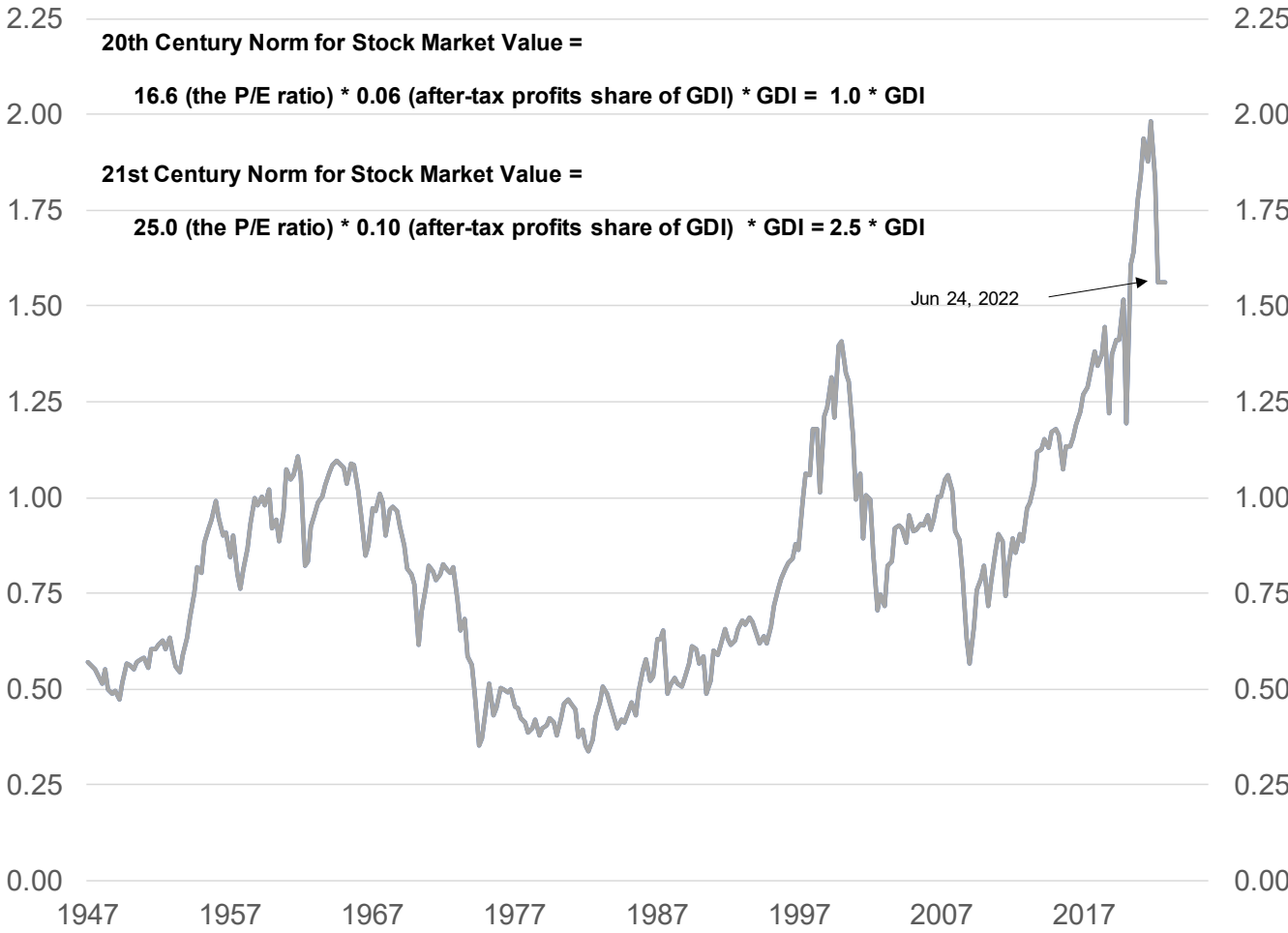


Note: Assumes that the PCE inflation rate will be 0.31 percentage point, the historical differential, below the CPI inflation expectations reflected in the Treasury nominal and TIPS securities yields.
Source: Haver Analytics; Federal Reserve Board. Updated through April 29, 2022.

ISSUES FOR HIGHER EDUCATION

Endowments ... Thinking About New Norms

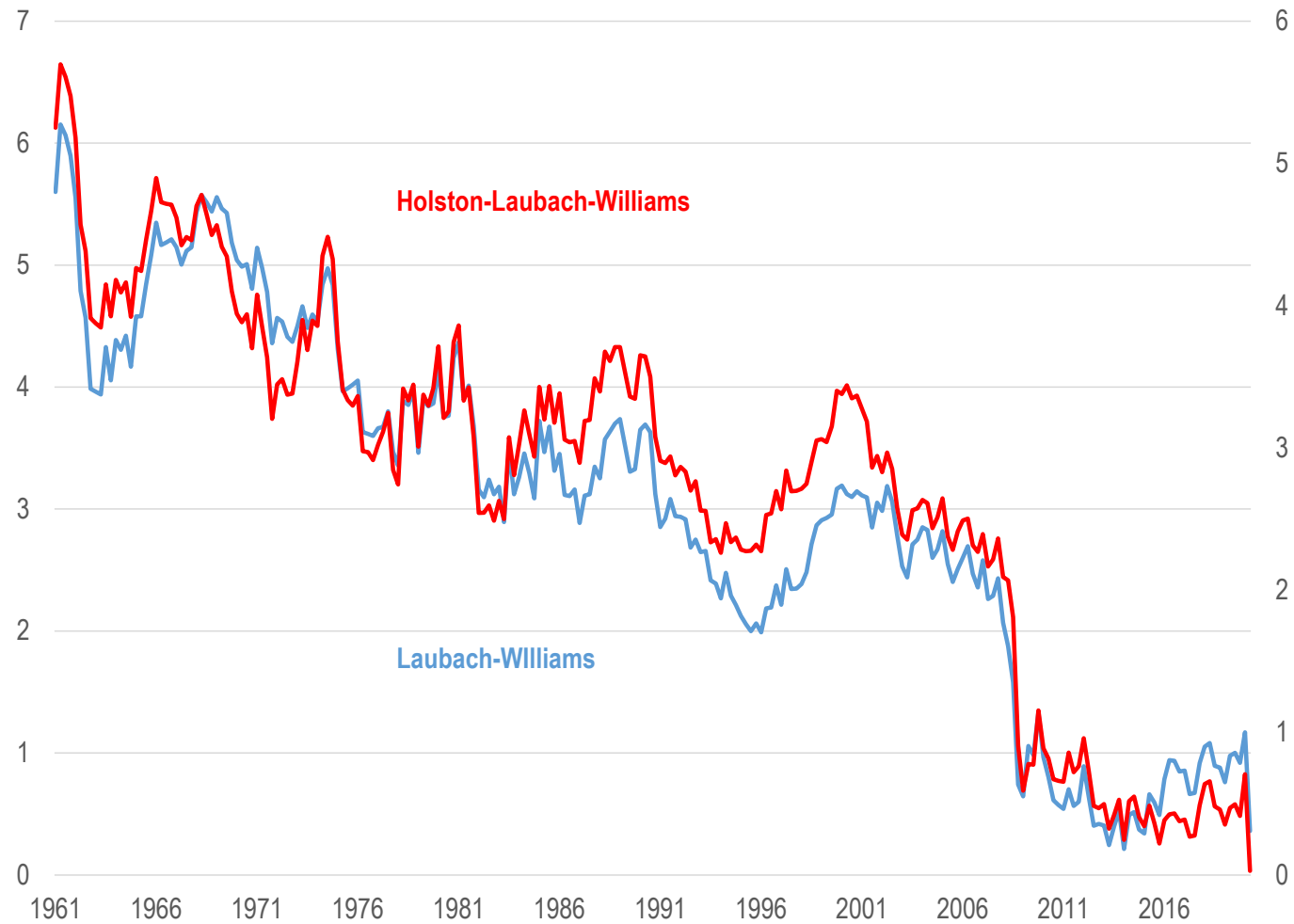
Ratio of the value of the U.S. stock market to Gross Domestic Income



Sources: Haver Analytics; Dow Jones; Federal Reserve Board; U.S. Department of Commerce. Updated through 2022 Q1 (GDI estimate) and June 24, 2022 (Wilshire 5000).

Discount Rates Are Low by Historical Norms ...

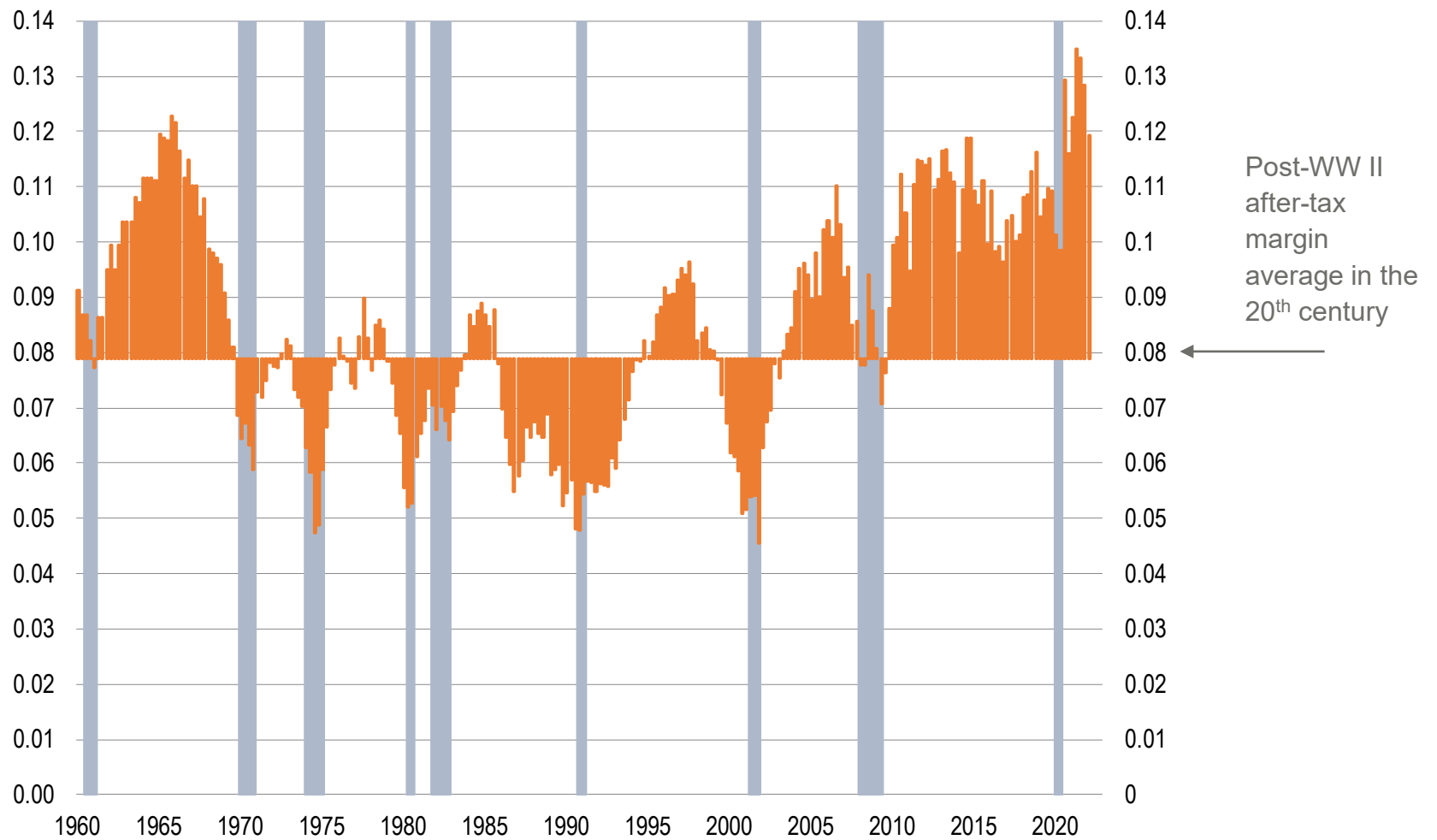
Equilibrium real risk-free rates, R-star (percent)



Source: "Measuring the Natural Rate of Interest," Holston, Laubach, and Williams. November 30, 2020.

... and Margins Are High by Historical Norms

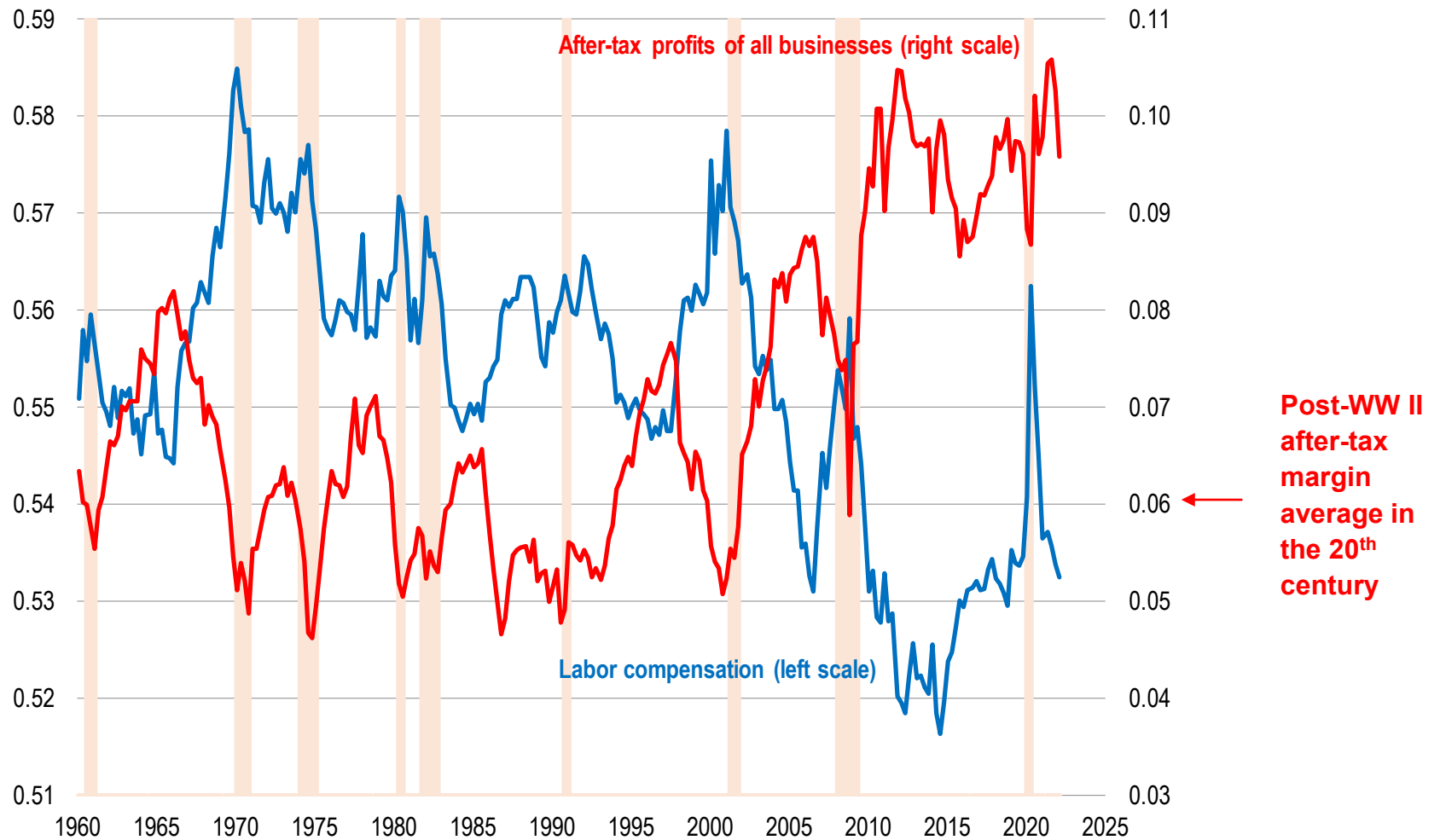
After-tax profits of nonfinancial corporations (percent of the sector's value added)



Sources: Haver Analytics; U.S. Department of Commerce. Updated through 2022 Q1.

It's Been That Way In This Entire Century

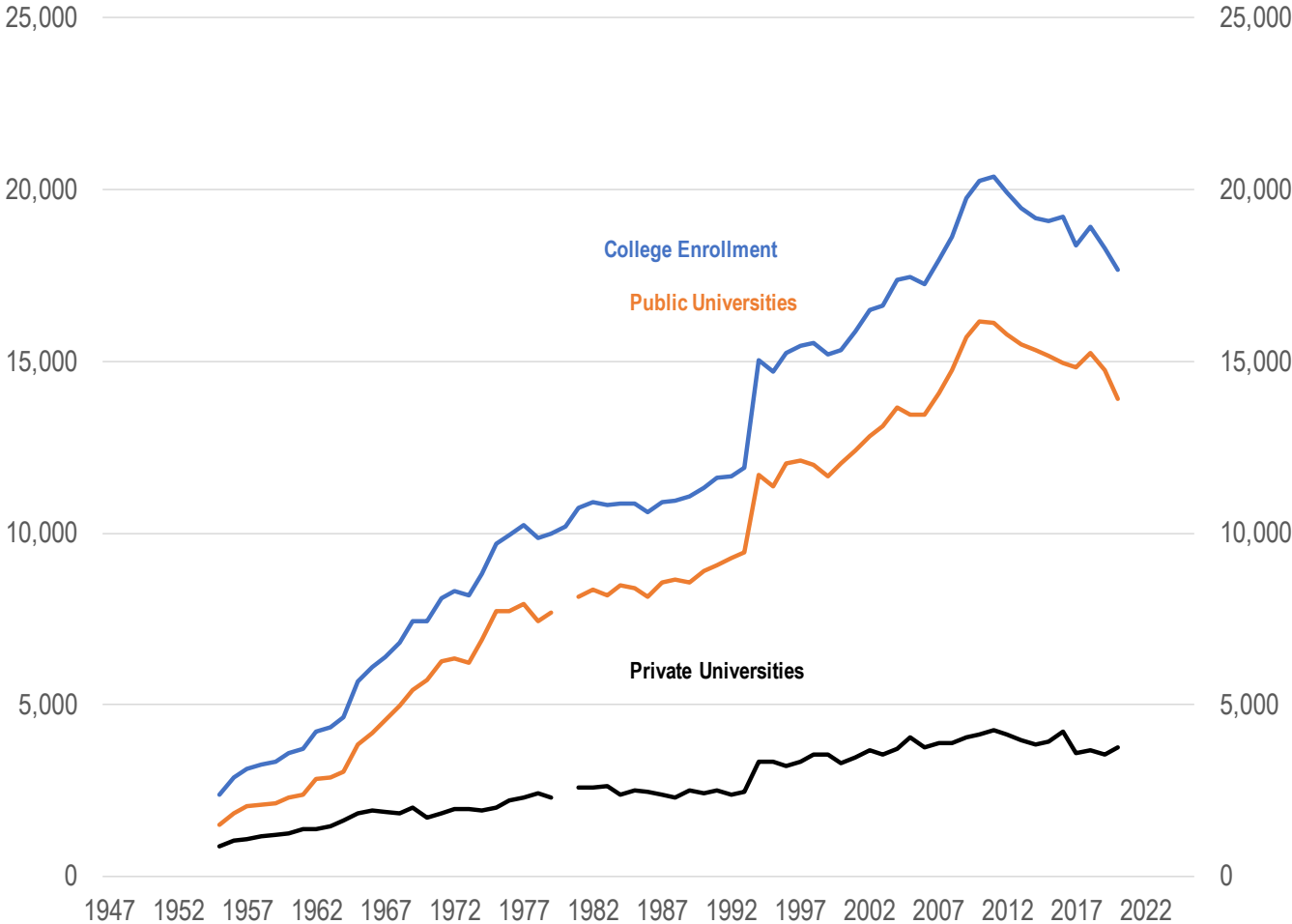
After-tax profits of all businesses (percentage of GDI)



Sources: Haver Analytics; U.S. Department of Commerce. Updated through 2022 Q1.

College Enrollment, a Story About ...

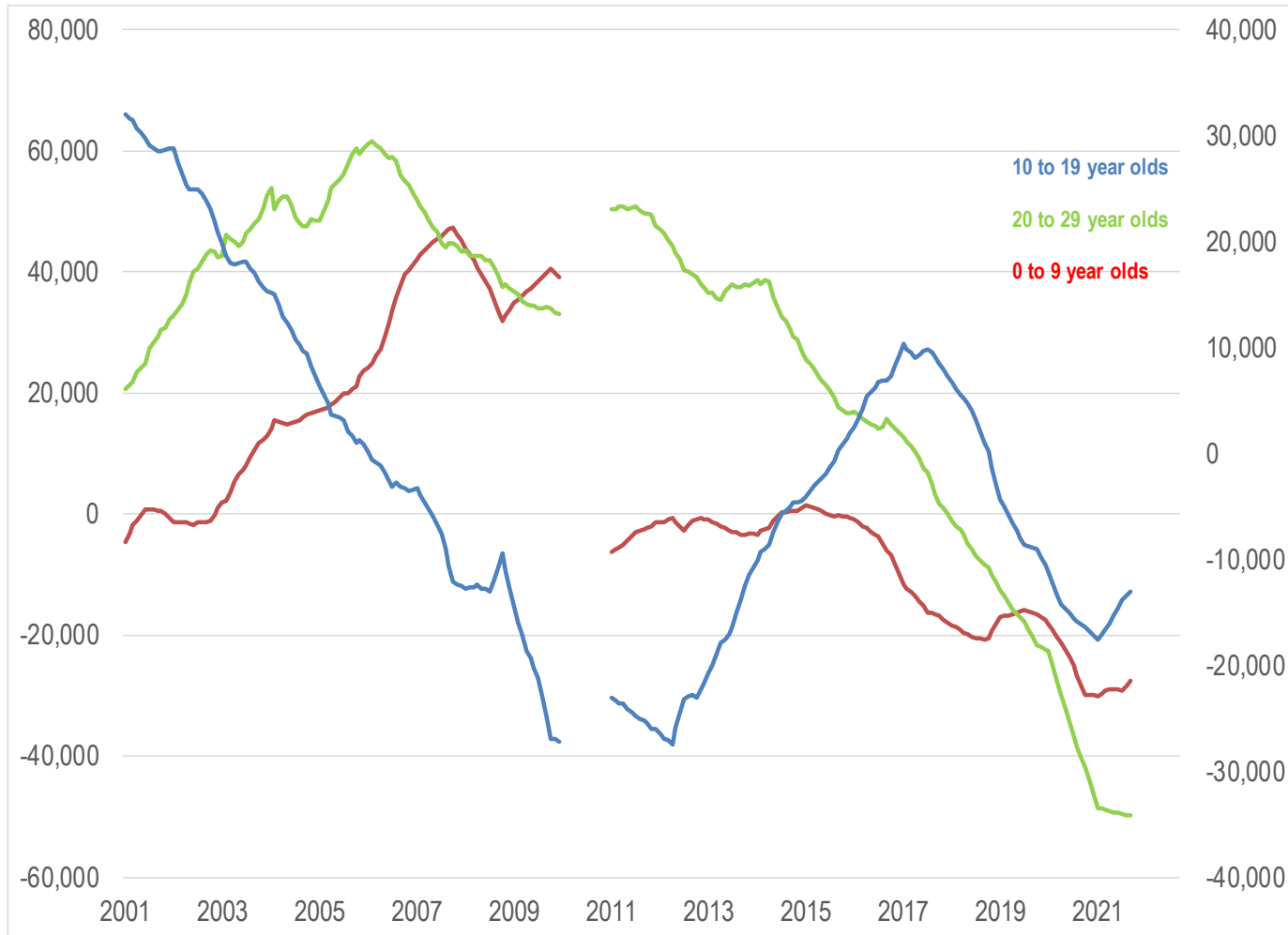
College ents (change from the previous year in thousands)



Source: Haver Analytics; Census Bureau. Updated through 2020.

Demographics, ...

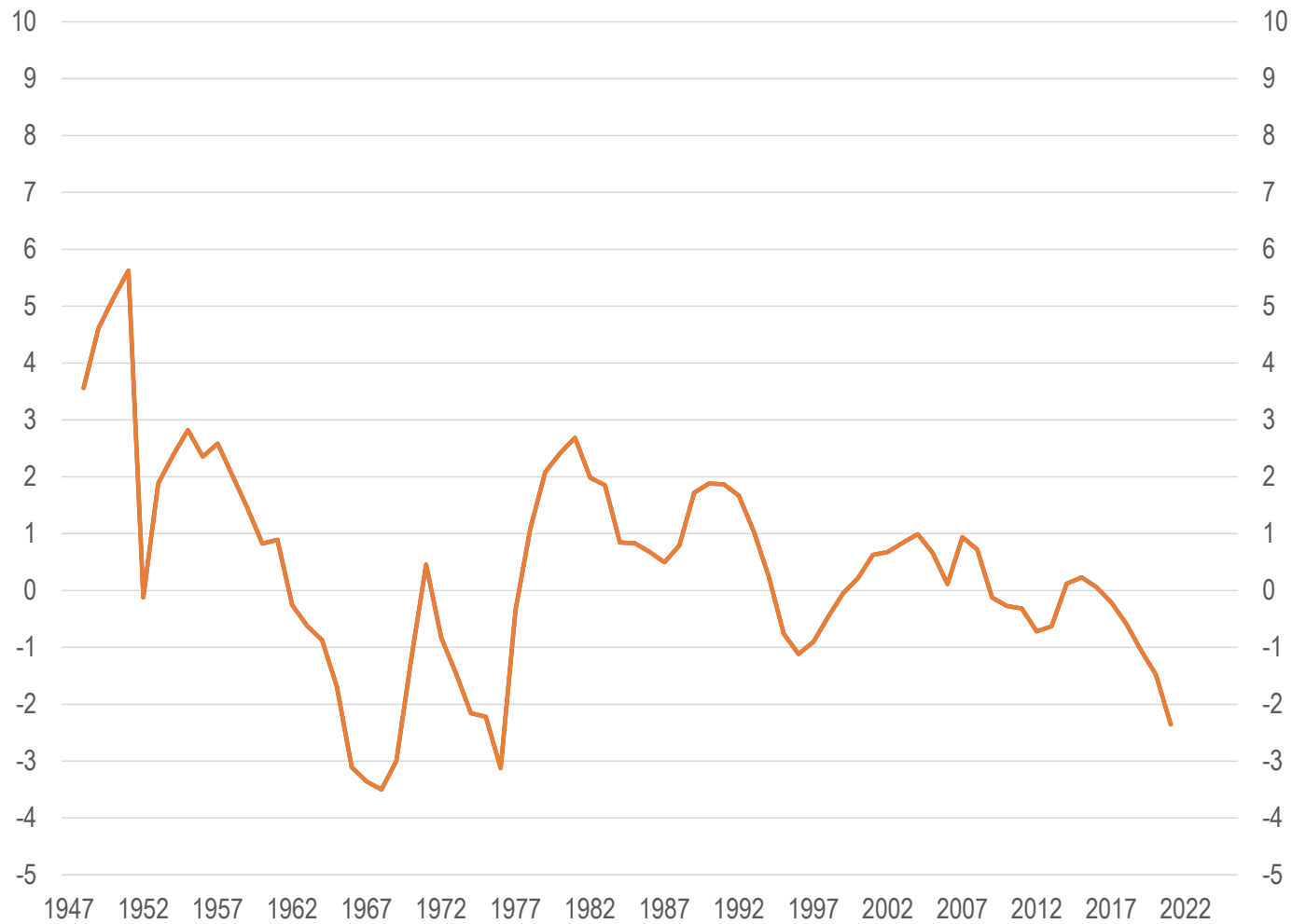
Selected cohorts (change from the previous year in thousands)



Source: Haver Analytics; Census Bureau. Updated through 2021

... <5 Years of Age, ...

Under the age of 5 (percent change from a year earlier)



Source: Haver Analytics; Census Bureau. Updated through 2021

... 10-15 Years of Age, ...

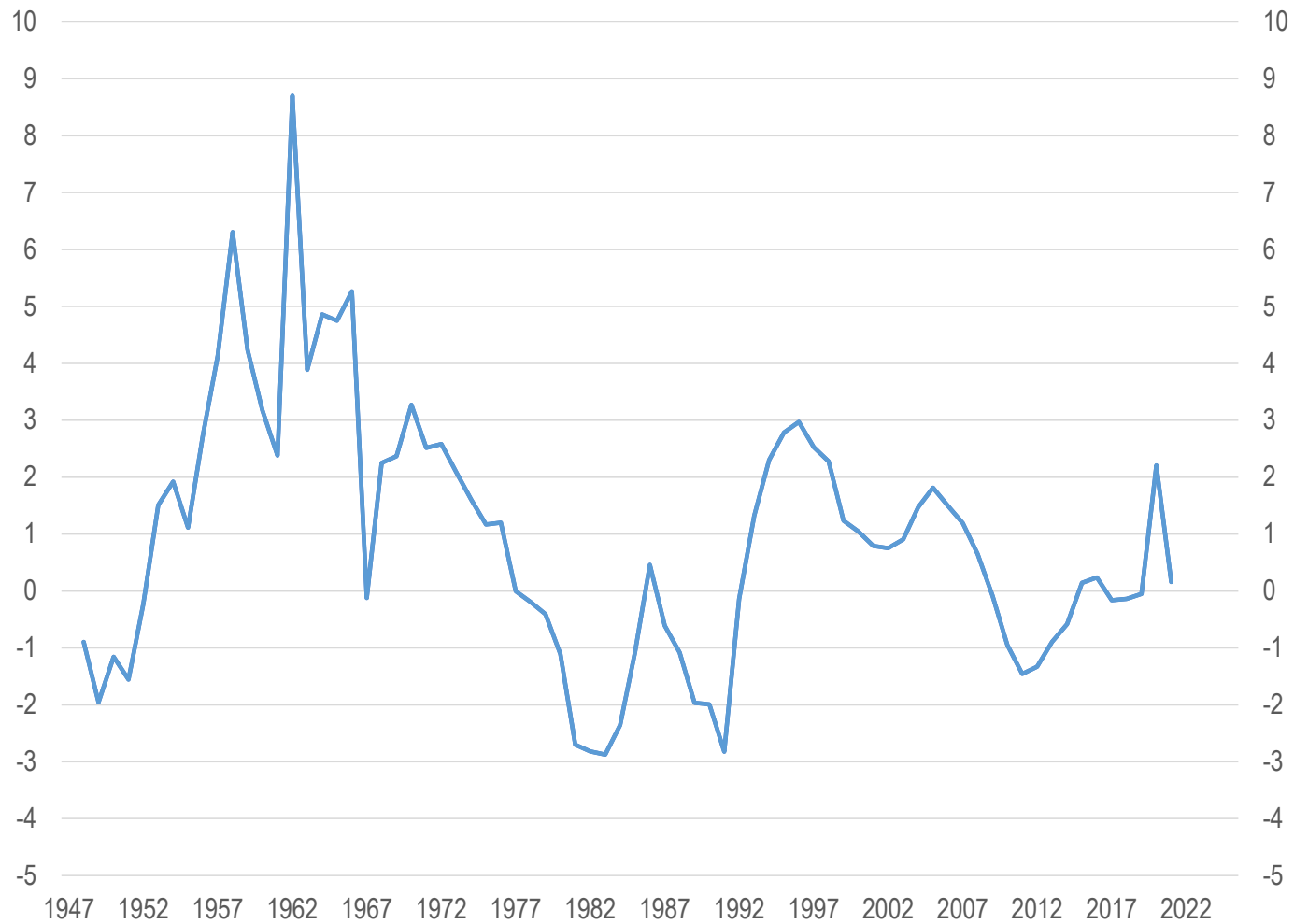
10 to 15 years of age (percent change from a year earlier)



Source: Haver Analytics; Census Bureau. Updated through 2021

... 15-19 Years of Age, ...

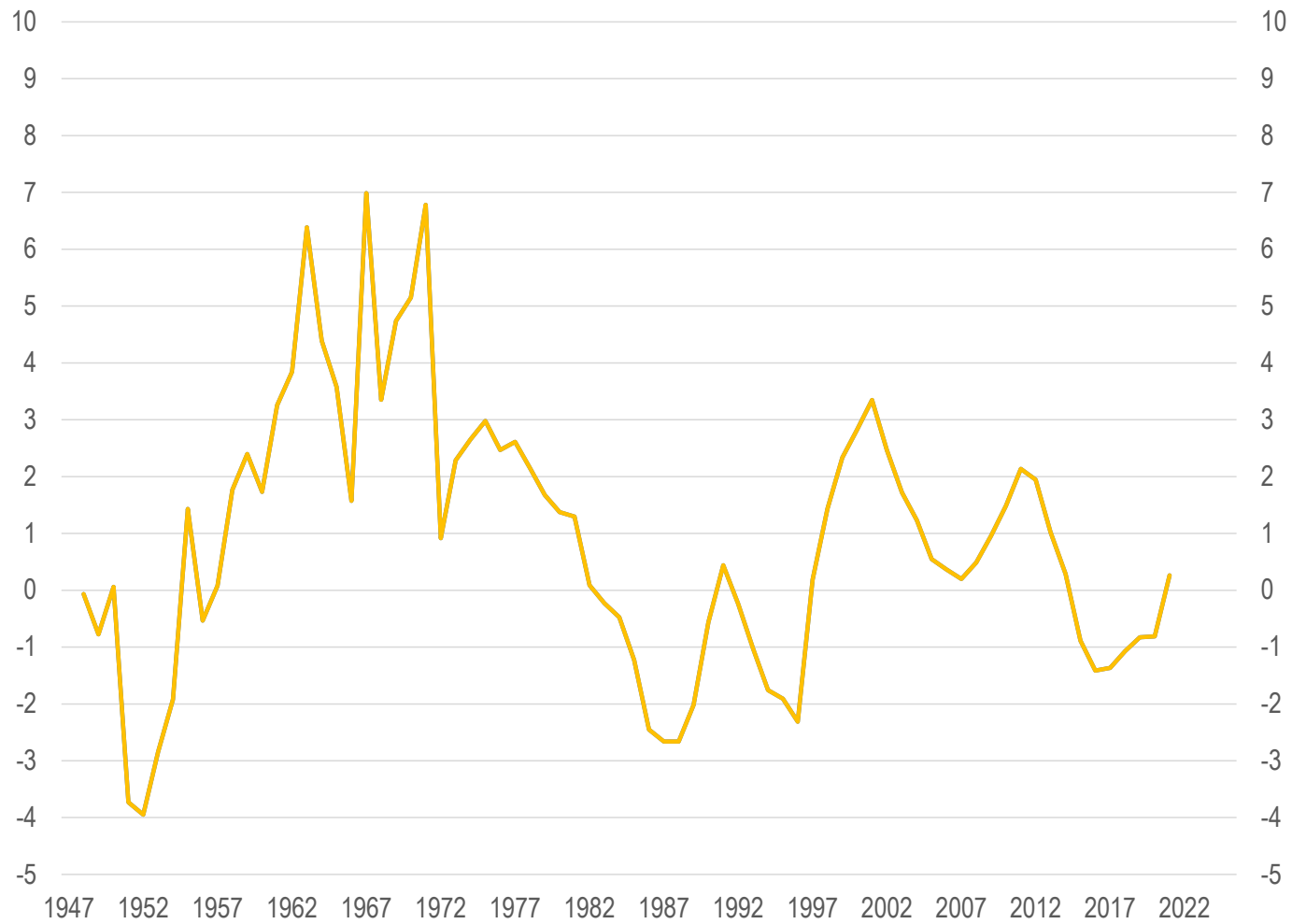
15 to 19 years of age (percent change from a year earlier)



Source: Haver Analytics; Census Bureau. Updated through 2021

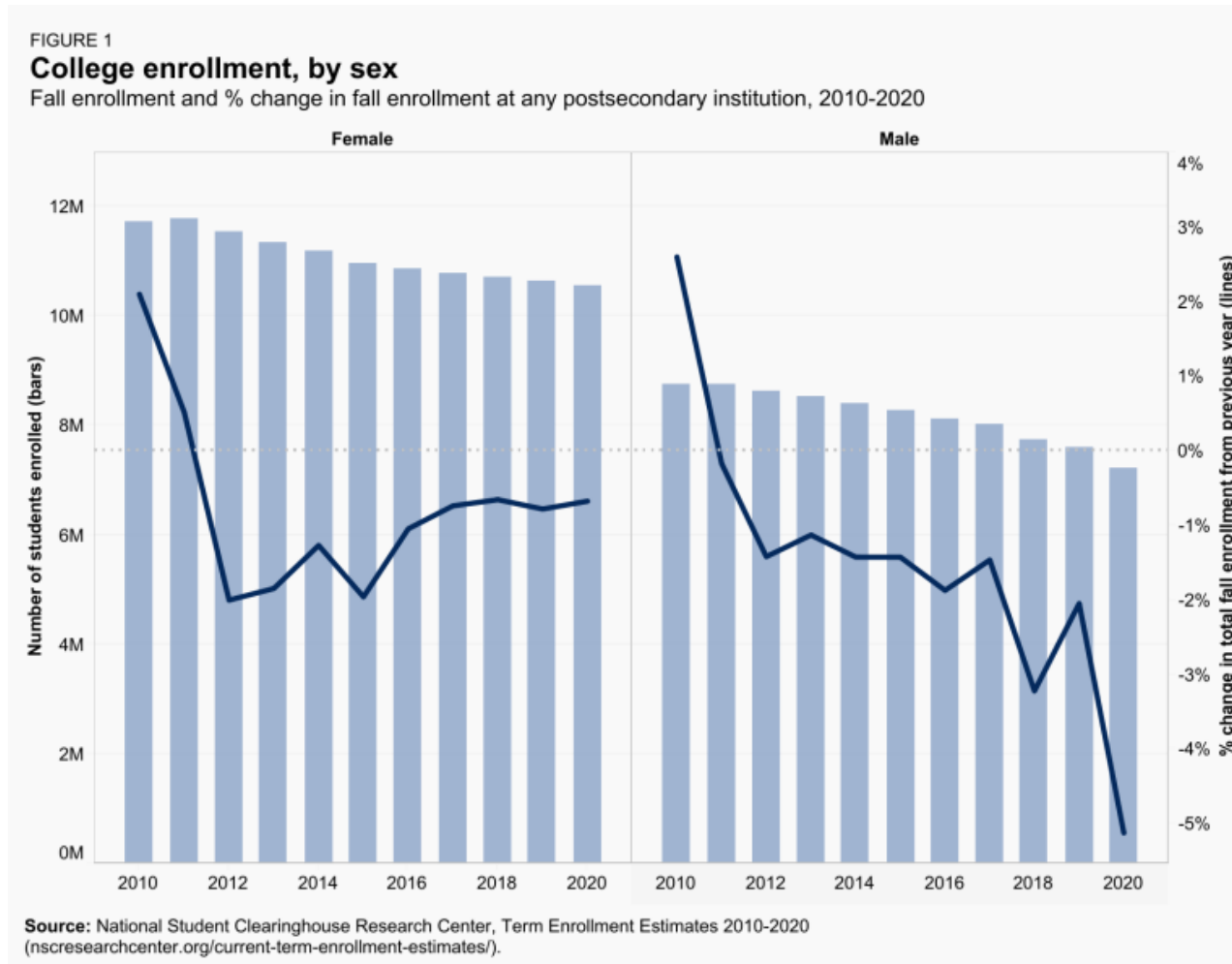
... and 20-24 Year Olds

20 to 24 years of age (percent change from a year earlier)



Source: Haver Analytics; Census Bureau. Updated through 2021

Gender Bender



And International Demand ...

In the United States, there are three primary student visa types: F, J, and M.

Visa Types

- [F-1 Student Visa](#): for study at an accredited U.S. college or university or to study English at an English language institute

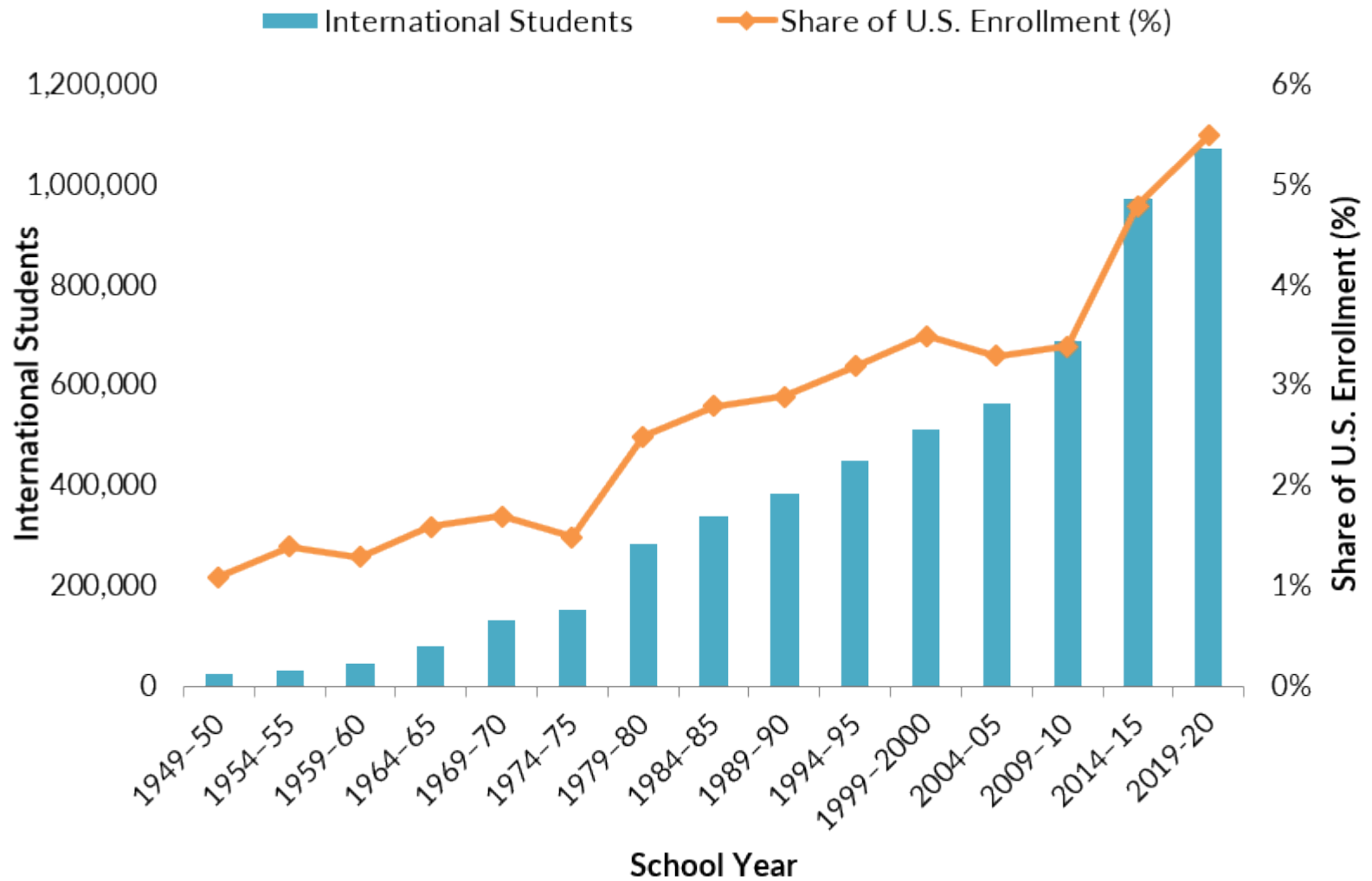
- [J-1 Exchange Visa](#): for participation in an exchange program, including high school and university study

- [M-1 Student Visa](#): for non-academic or vocational study or training in the United States

Valid student visas are required to apply to the Department of Homeland Security for admission into the United States at the port of entry. Students' Form I-20 document (F and M visas) or DS-2019 document (J visas), that are issued by their institution, is what allows them to maintain student status in the United States even if a visa expires during their studies.

To issue I-20 or DS-2019 documentation for student visas, U.S. institutions must be certified by the [Department of Homeland Security SEVP \(Student and Exchange Visitor Program\)](#) (F, M visas) or designated by the [Department of State Bureau of Educational and Cultural Affairs](#) (J visas), respectively.

... the Numbers



Source: Institute of International Education (IIE), "Enrollment Trends: International Student Data from the 2020 Open Doors Report," accessed January 11, 2021, available online.

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