PIIE PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

High Inflation and the Hard Road Ahead

Karen Dynan

October 6, 2022

Fall 2022 Global Economic Prospects Event

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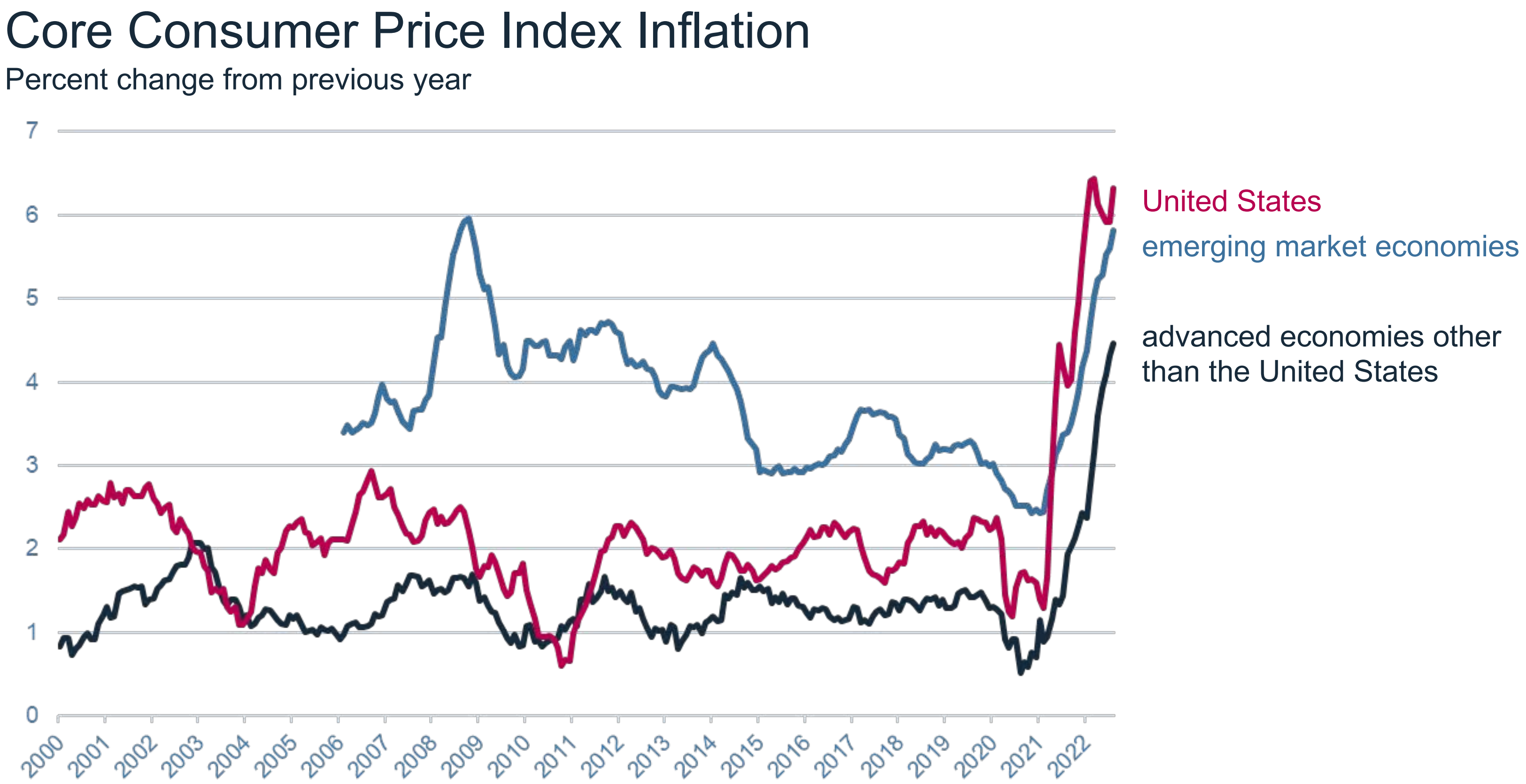
Global inflation has climbed rapidly

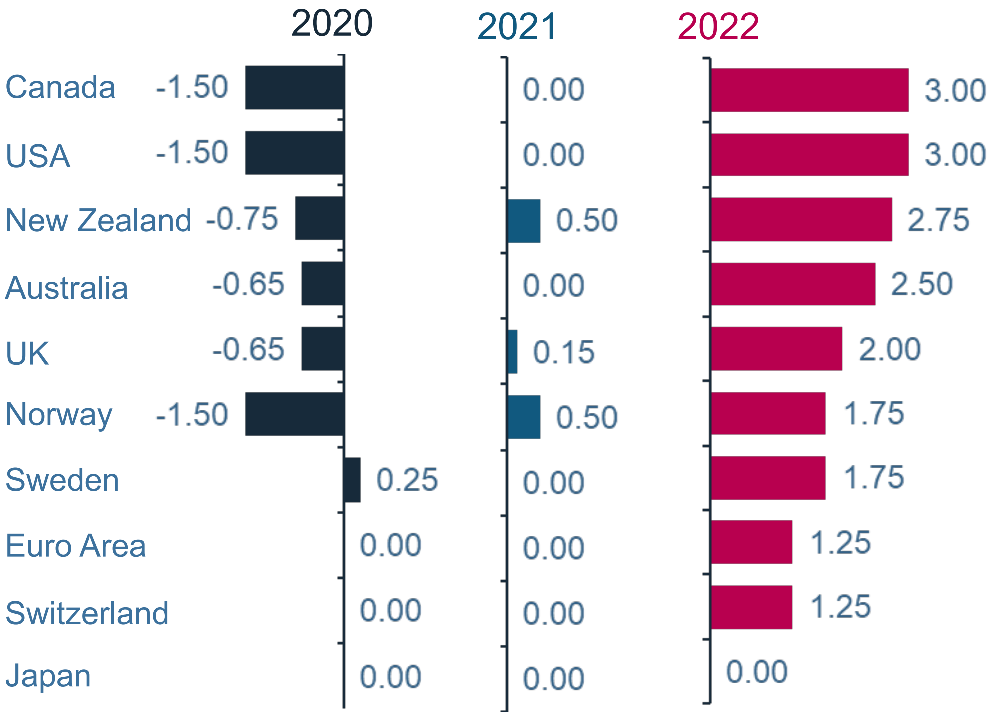


Sources: Federal Reserve Bank of Dallas and US Bureau of Labor Statistics via FRED; last data point August 2022 (preliminary estimate for the non-US lines)

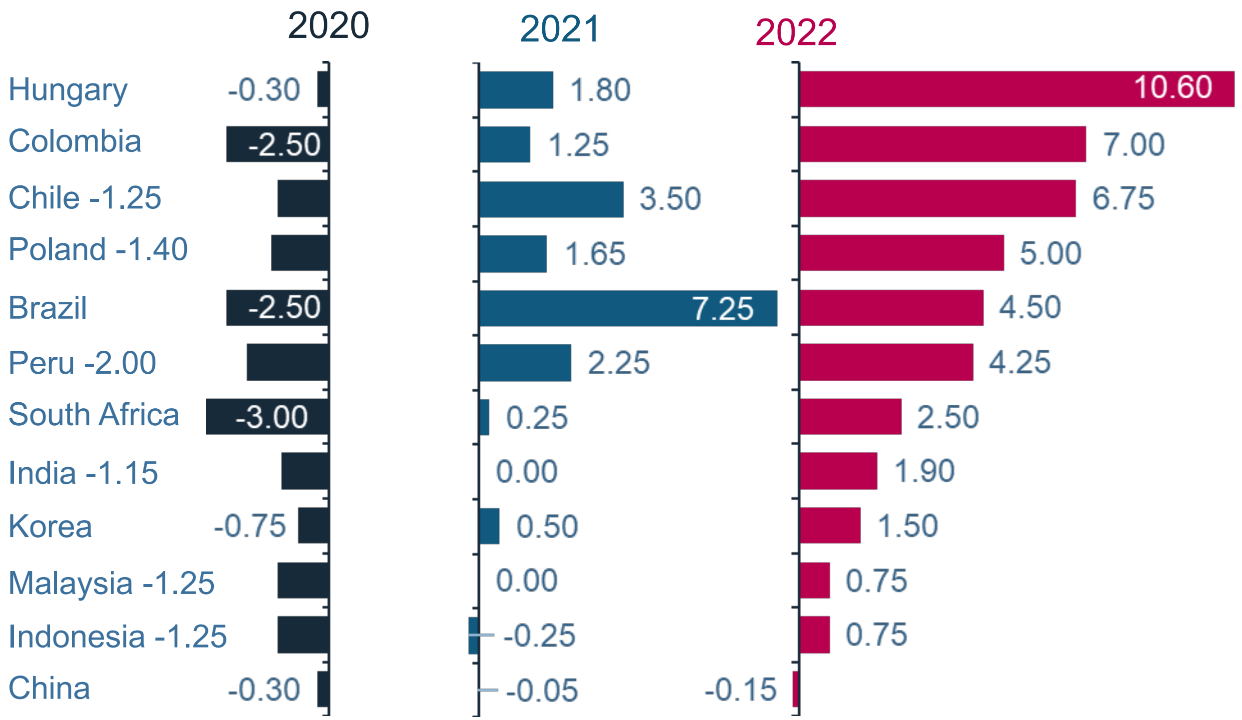
Central banks are tightening sharply

Year-on-Year Percentage Point Increases in Policy Interest Rates (as of October 5, 2022)

Advanced Economies

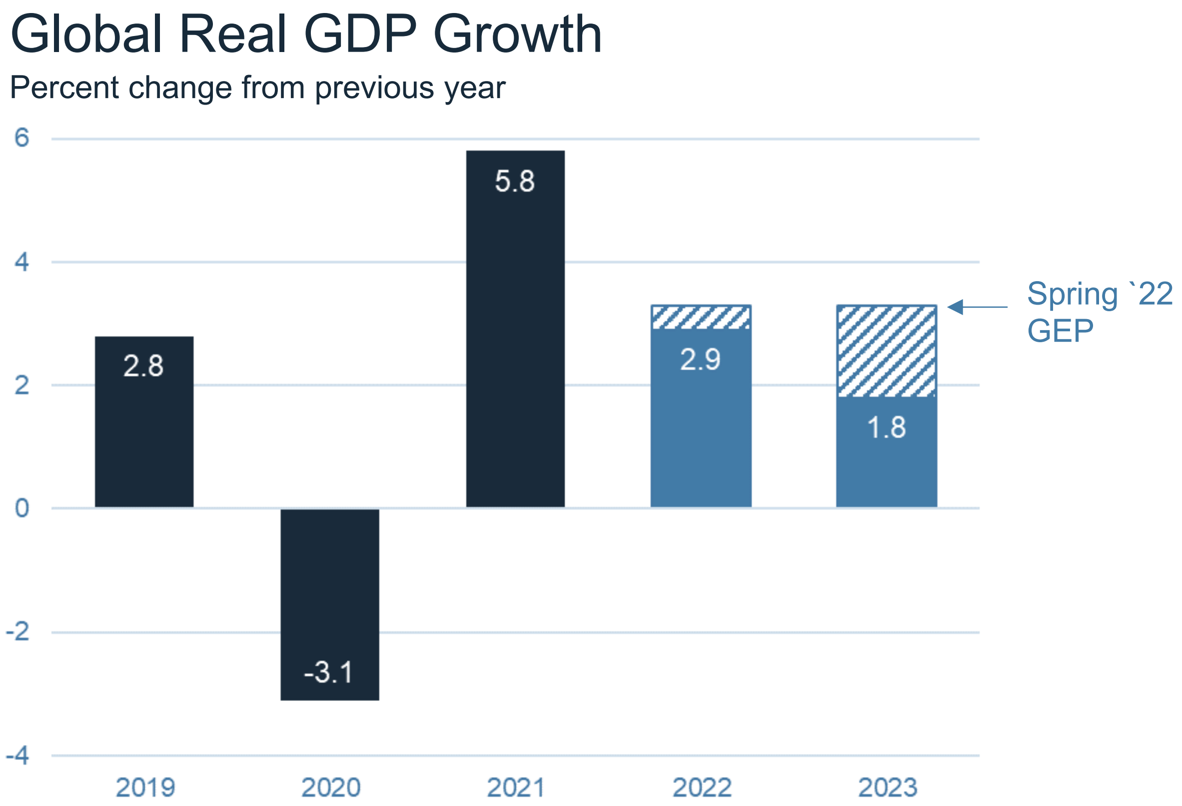


Emerging Market and Developing Economies



Sources: Central bank sources and Obstfeld, Uncoordinated Monetary Policies Risk a Historic Global Slowdown

Global economic activity has slowed, and recessions loom in many countries



Note: Purchasing power parity weights used to calculate global GDP
Sources: Consensus forecasts for 2019-2021; author's forecasts for 2022-2023

Tighter monetary policy is a primary driver

Direct effects of the energy-price shock from the war in Ukraine and a major slowdown in China reinforce the weakness

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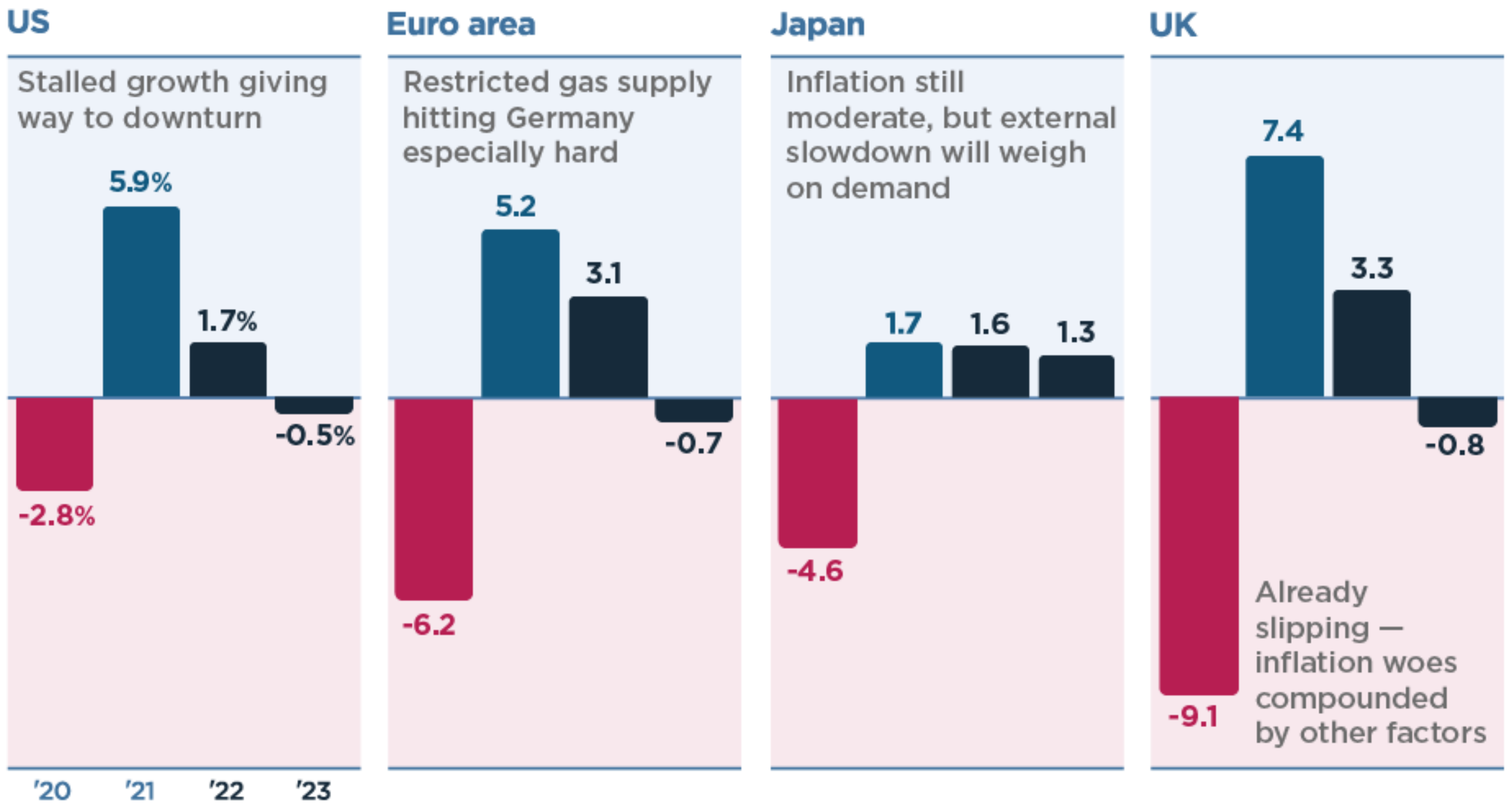
Most advanced economies will experience weaker growth in 2023 than in 2022



Sources: Consensus forecasts for 2020-2021; author's forecasts for 2022-2023.

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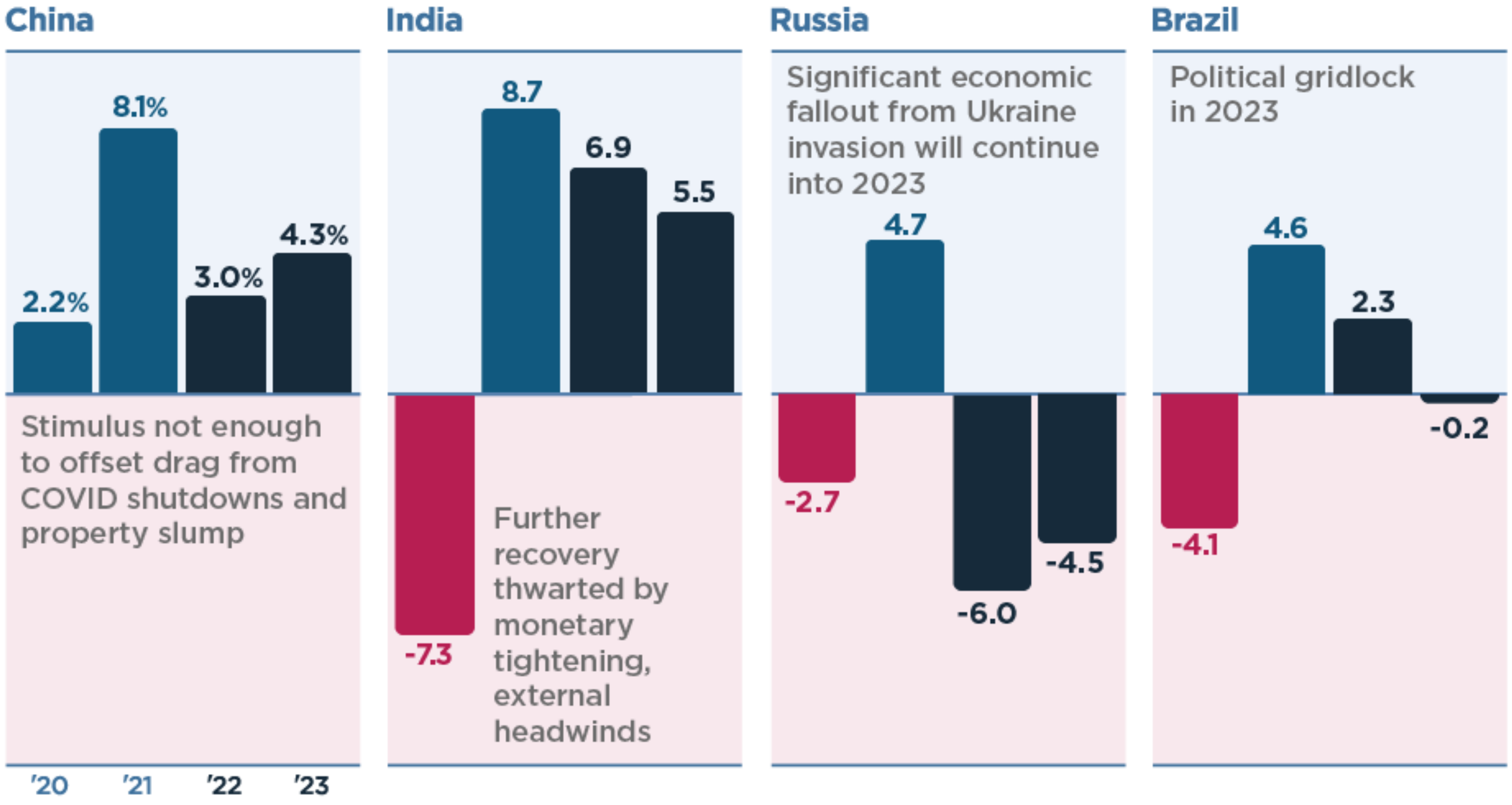
The major emerging economies will follow divergent paths



Sources: Consensus forecasts for 2020-2021; author's forecasts for 2022-2023.

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Summary of the outlook for large economies

Real GDP Growth (Y/Y)	2020	2021	2022	2023
Global Output Growth	**-3.1**	**5.8**	**2.9**	**1.8**
United States	-2.8	5.9	1.7	-0.5
Euro Area	-6.2	5.2	3.1	-0.7
Japan	-4.6	1.7	1.6	1.3
United Kingdom	-9.1	7.4	3.3	-0.8
China	2.2	8.1	3.0	4.3
India	-7.3	8.7	6.9	5.5
Russia	-2.7	4.7	-6.0	-4.5
Brazil	-4.1	4.6	2.3	-0.2

Sources: Consensus forecasts for 2020-2021; author's forecasts for 2022-2023. Annual-average-over-annual-average growth rates. PPP weights.

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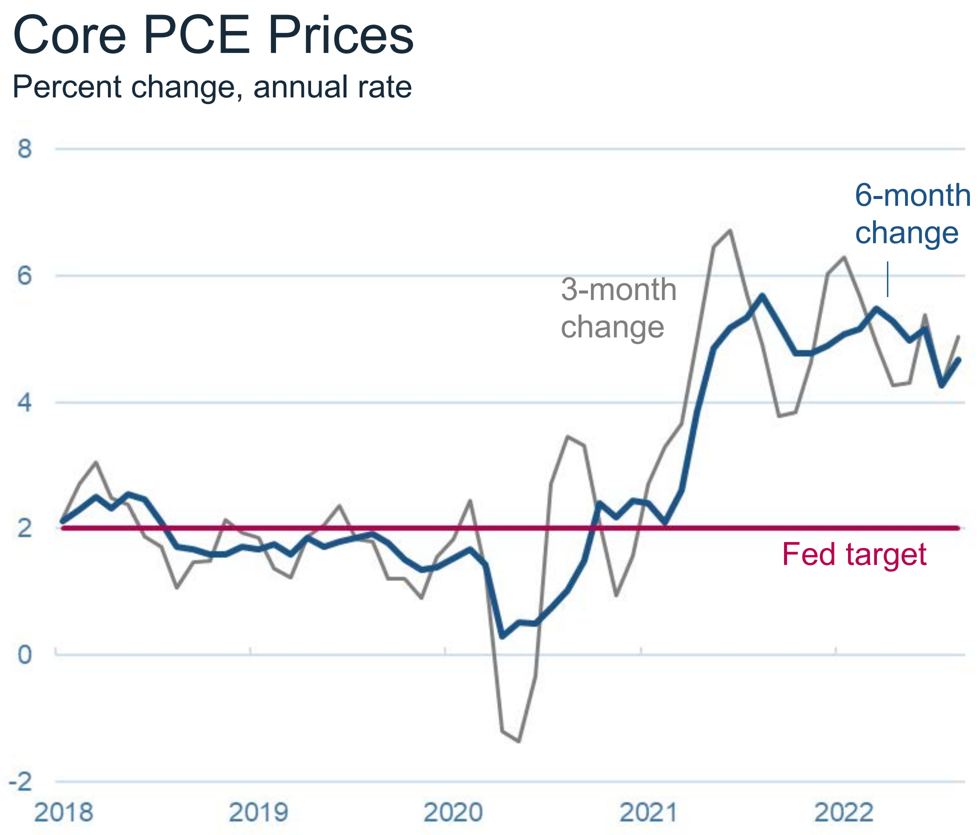
US inflation has not declined notably, despite almost a year of little economic growth



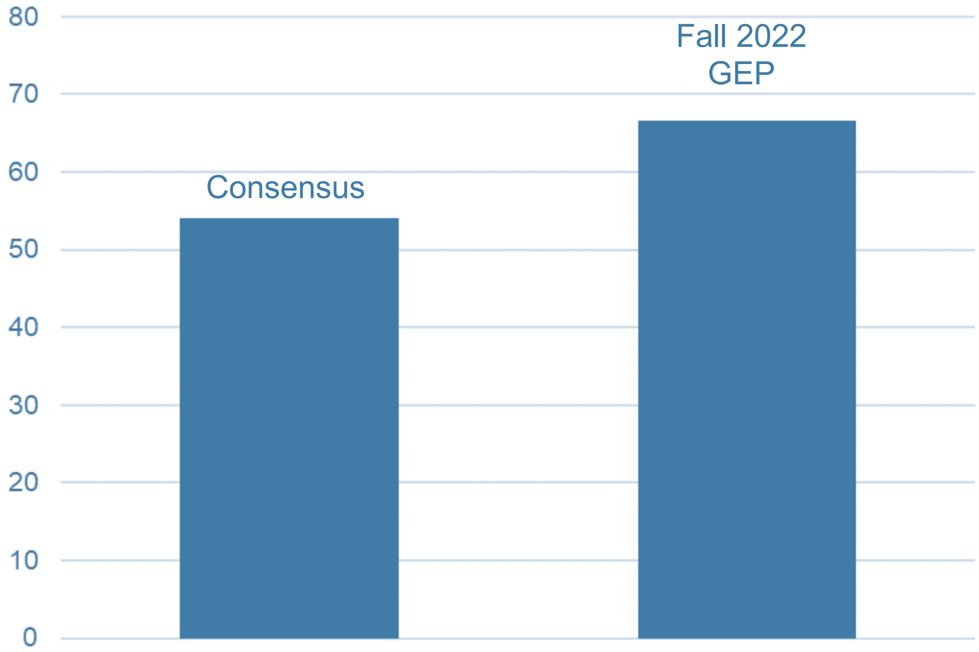
Source: US Bureau of Economic Analysis via FRED

Furthermore, the inflation rate needs to fall by almost 3 percentage points to reach the Fed's target

Therefore, a recession will likely be needed to restore price stability

US 2023 Recession Probability

Percent

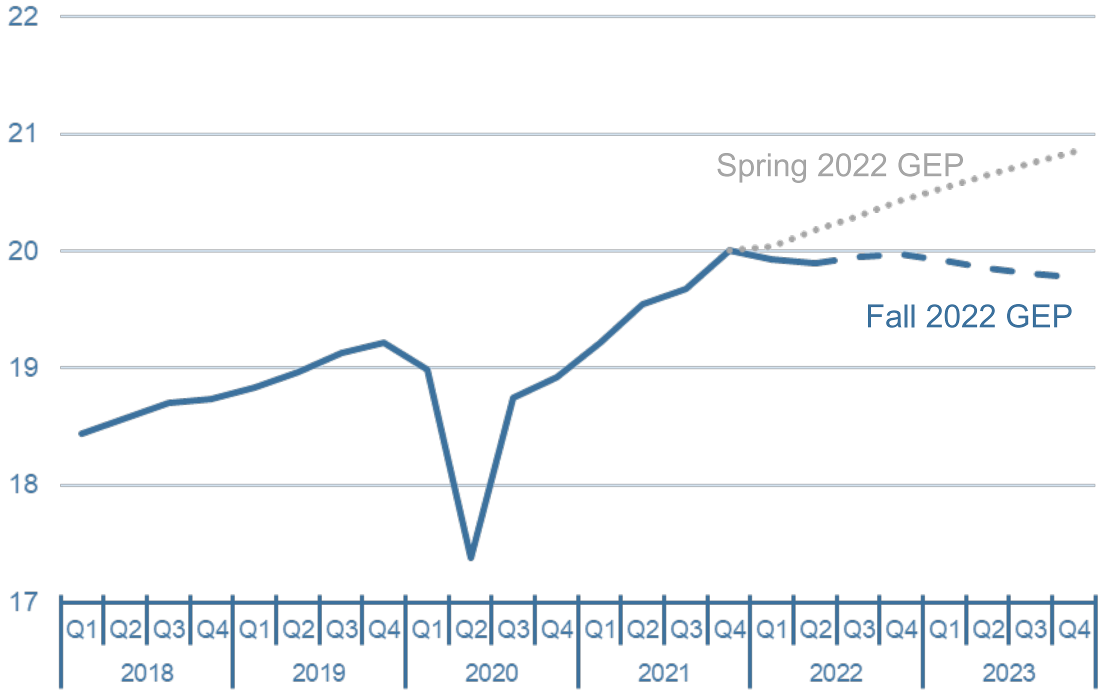


Sources: September 2022 Blue Chip Economic Indicators; author's forecast

US Real GDP

Chained 2012 Dollars (Trillions)

Q4/Q4 GDP growth:
2022 -0.2
2023 -1.0



Sources: US Bureau of Economic Analysis via FRED; author's forecast

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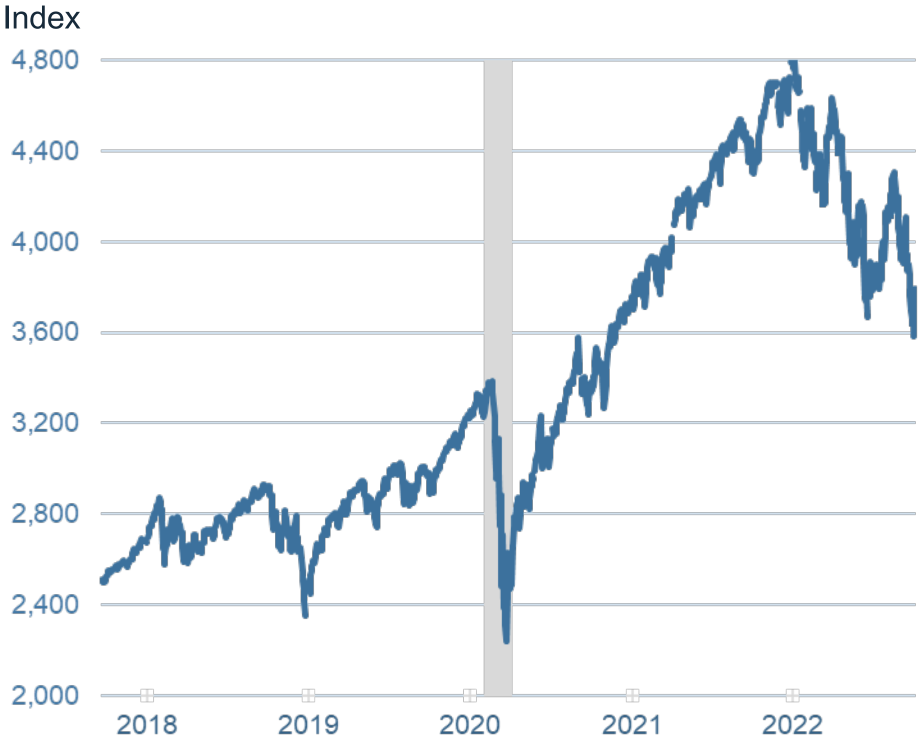
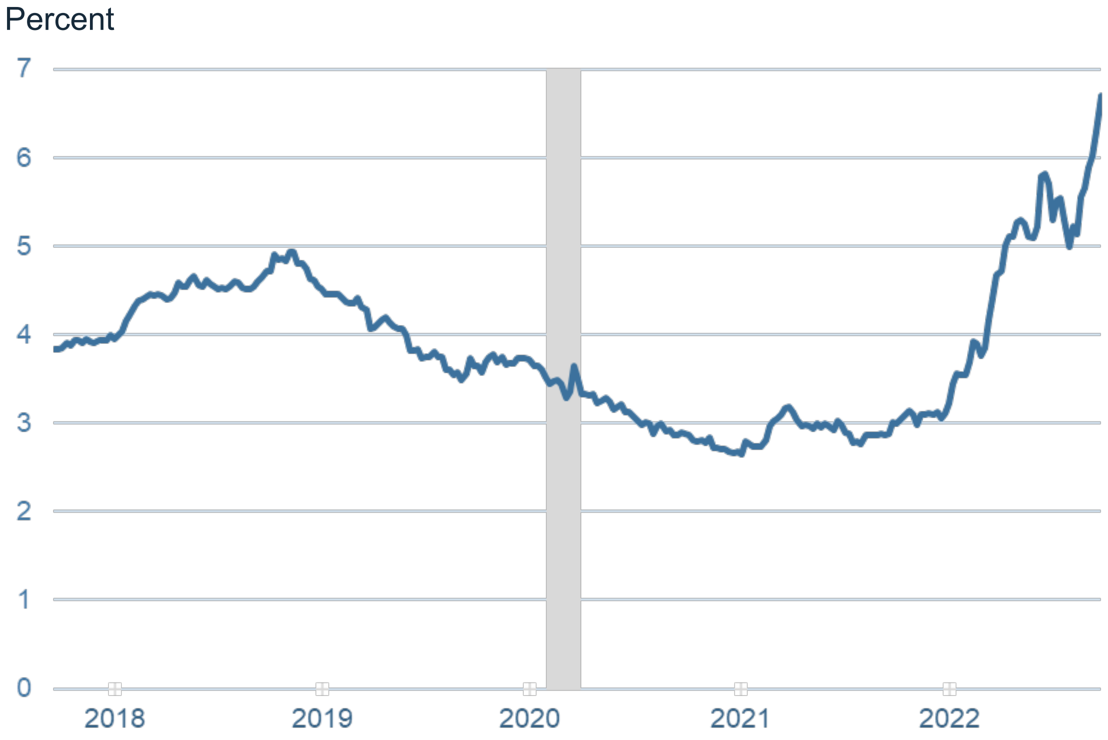
Financial conditions are responding to Fed tightening

S&P 500



Sources: S&P Dow Jones Indices LLC via FRED; last data point October 4

Interest Rate on 30-Year Fixed-Rate Mortgages



Sources: Freddie Mac via FRED; last data point September 29

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Financial market volatility will likely continue to be pronounced

A 1pp increase in interest rates has a much larger effect on the present value of a long stream of future returns when that increase is 1% => 2% than 3% => 4%

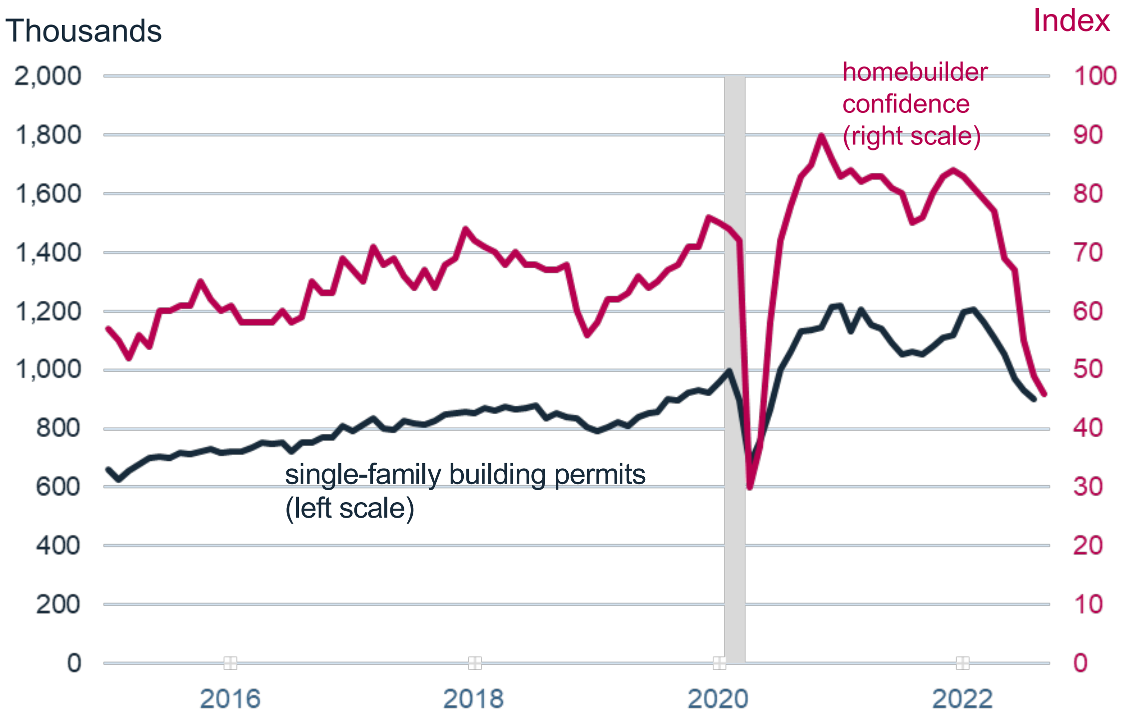
So, asset prices will swing more markedly with shifts in interest rates

Also, interest rates have not increased significantly or been this high in a number of years, so investment portfolios and market participants' mindsets may not be prepared for the higher rates to come

Moreover, as Maury Obstfeld has noted, coincident-but-not-coordinated interest rate hikes by many central banks can have an especially large collective effect

Housing demand is dropping, and consumer demand has slackened a bit

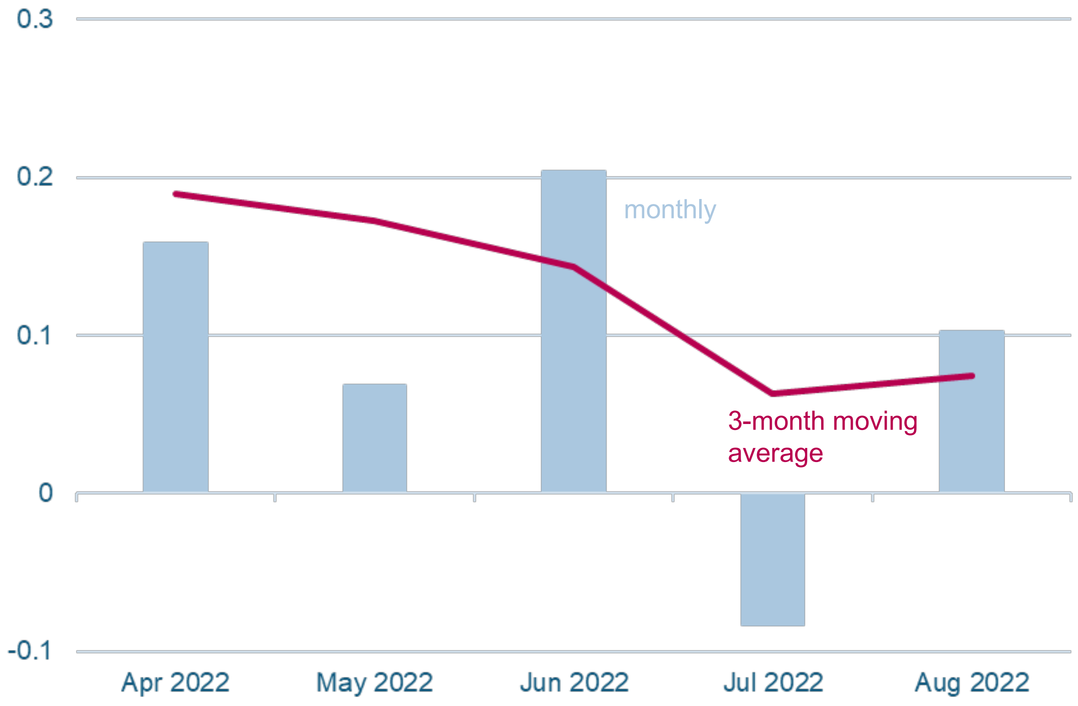
Housing Activity Indicators



Sources: US Census Bureau via FRED and National Association of Home Builders; last data point August 2022 for permits and September 2022 (preliminary) for homebuilder confidence

Real Personal Consumption Expenditure

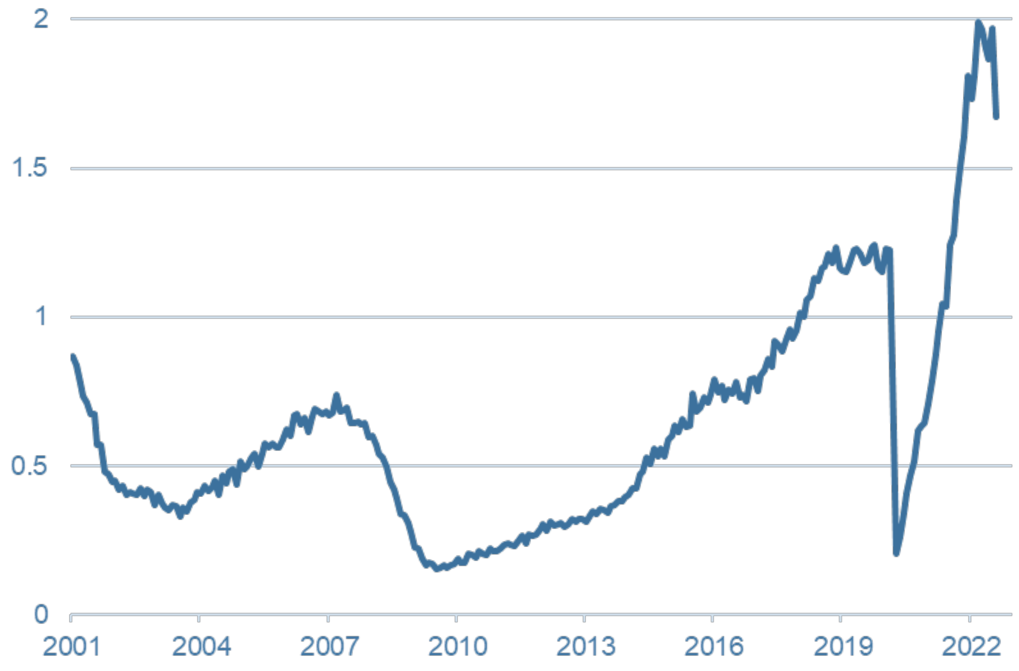
Percent change, monthly rate



Sources: US Bureau of Economic Analysis via FRED; last data point August 2022

Yet, labor markets remain very tight

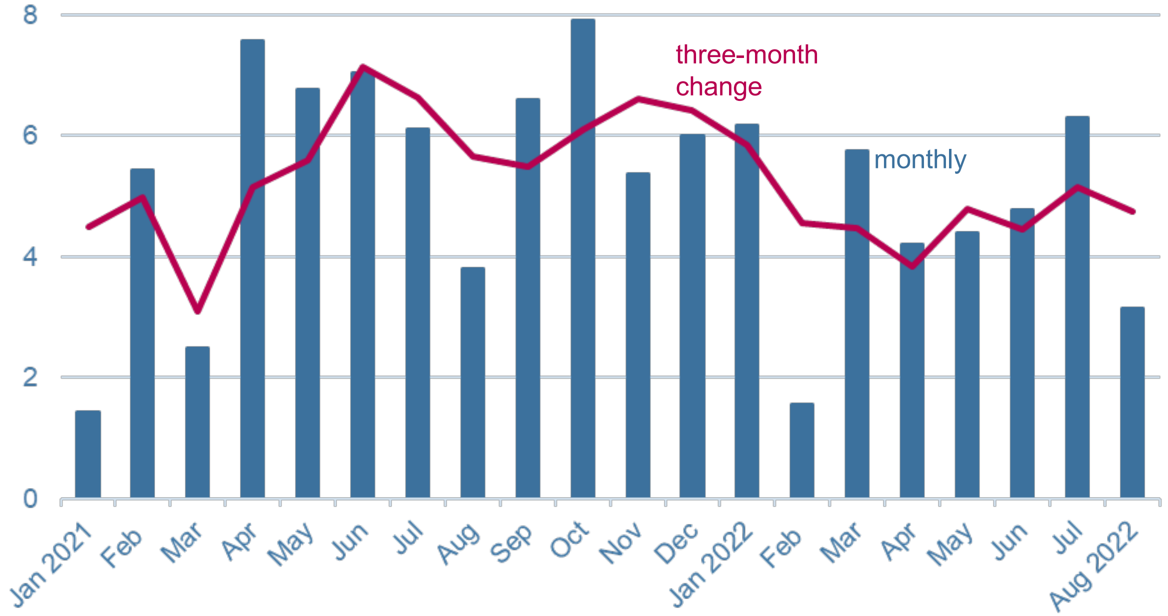
Job Openings per Unemployed Worker



Sources: US Bureau of Labor Statistics via Macrobond; last data point August 2022

Change in Average Hourly Earnings in All Private Industries

Percent Change, Annual Rate



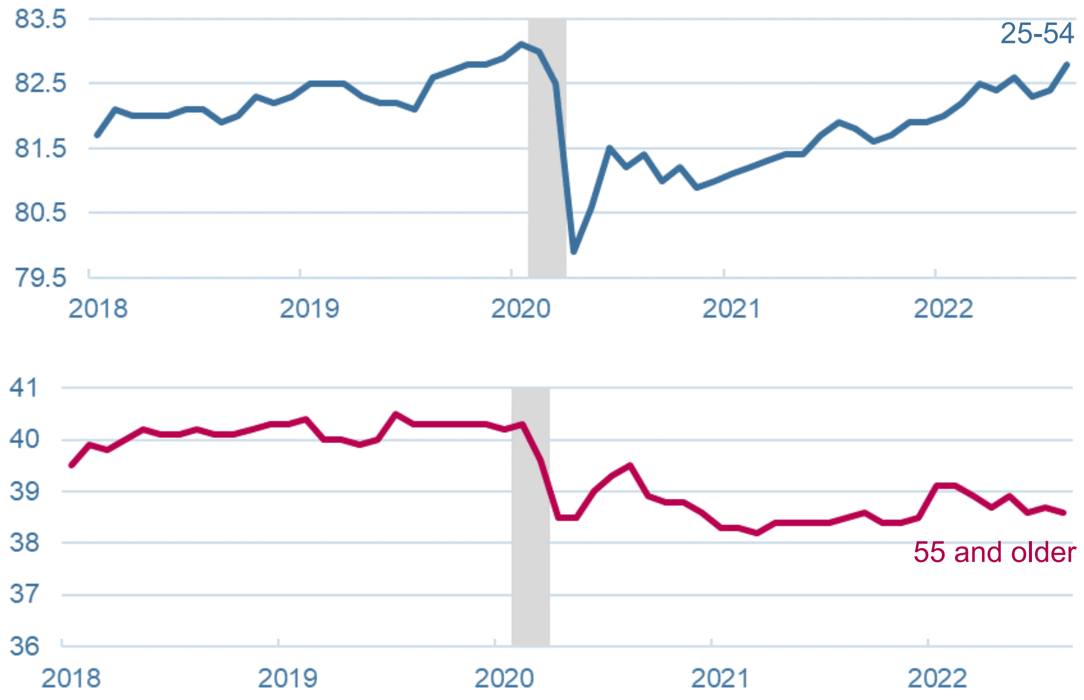
Note: Adjusted for changing composition of employment using chain-weighted aggregation (by total hours worked) of average hourly earnings by industry sector

Source: Furman and Powell, A Tight US Labor Market Stays Tight

The scope for labor *supply* to expand and relieve tight labor markets looks limited

Labor Force Participation Rate

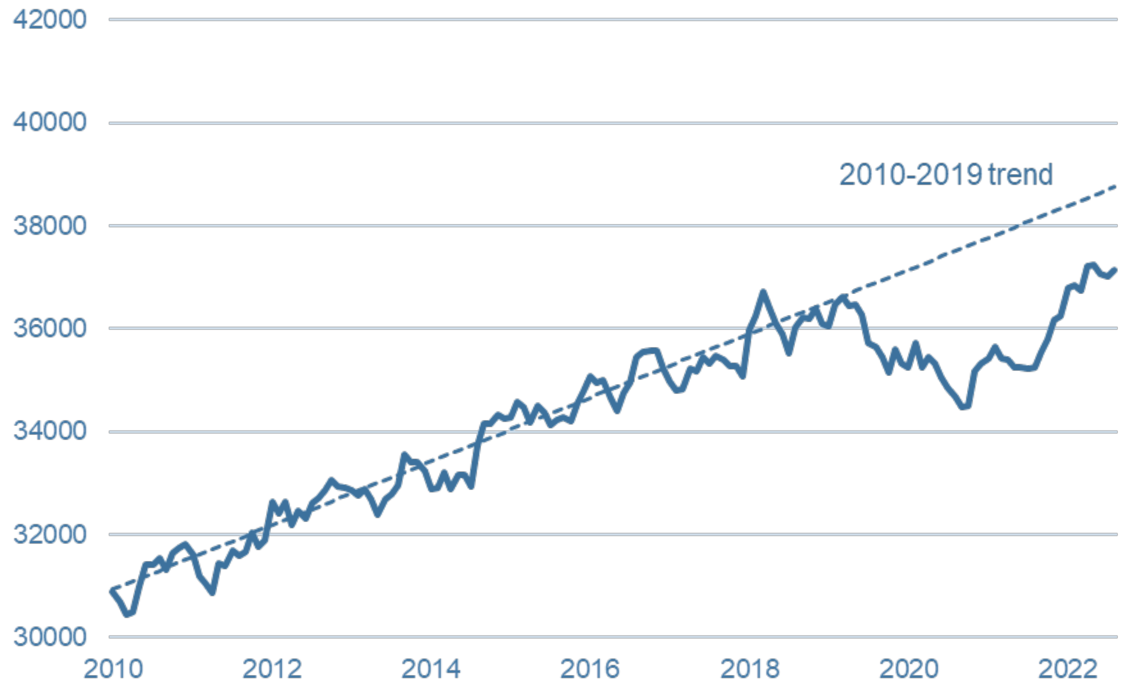
Percent of population in age group



Source: US Bureau of Labor Statistics via FRED; last data point August 2022

Foreign Born Population, Age 16-64

Thousands



Note: January changes incorporate annual adjustments to BLS population controls
Source: US Bureau of Labor Statistics

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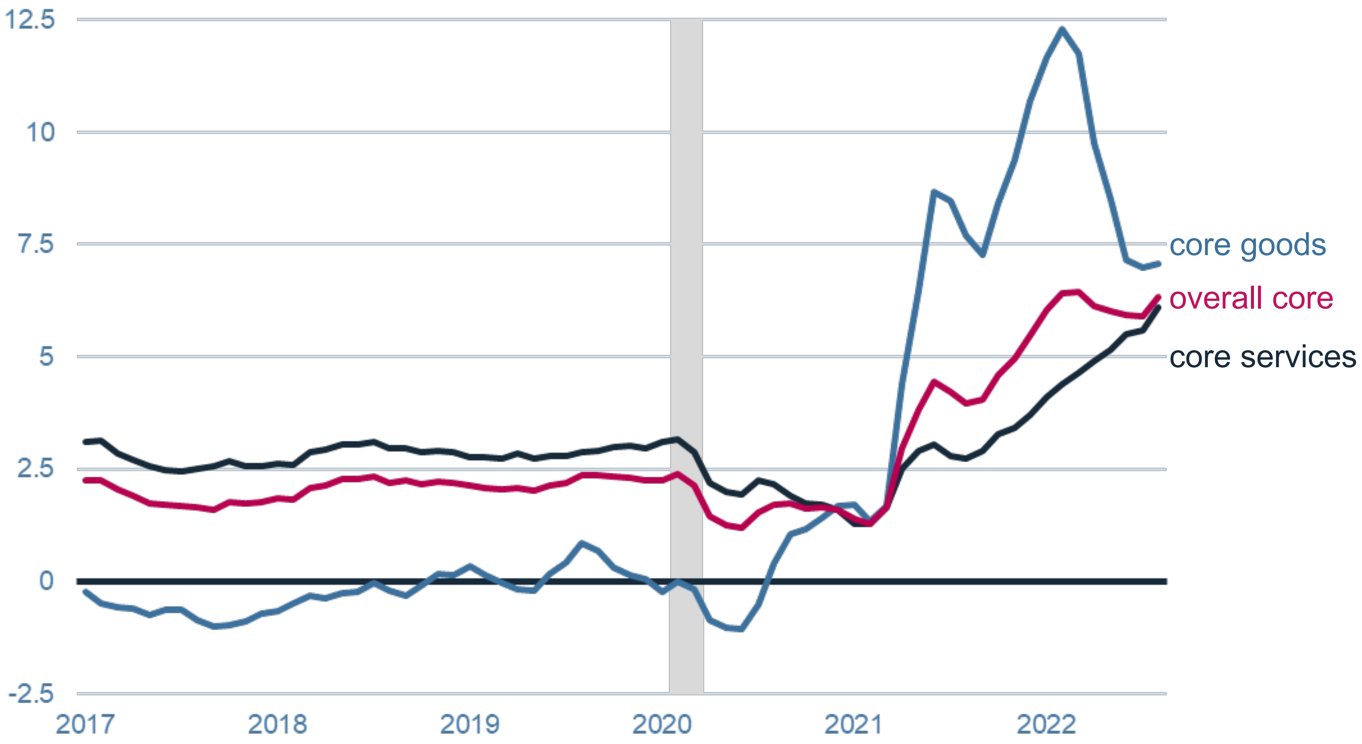
US core inflation may not even have peaked

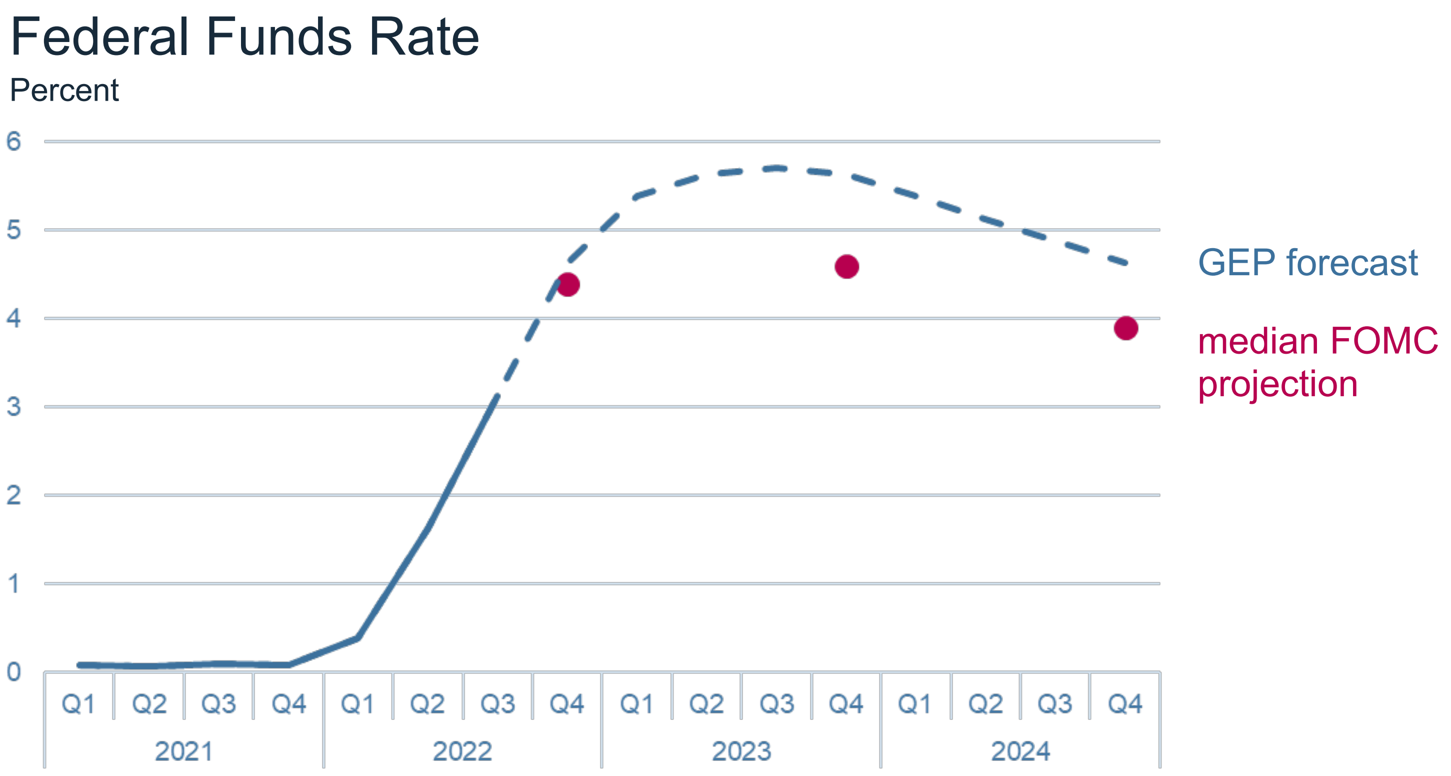
Breakdown of Core US CPI Inflation

Percent change from 12 months earlier



Source: US Bureau of Labor Statistics via FRED; last data point August 2022

The Fed will probably need to raise the policy rate substantially further

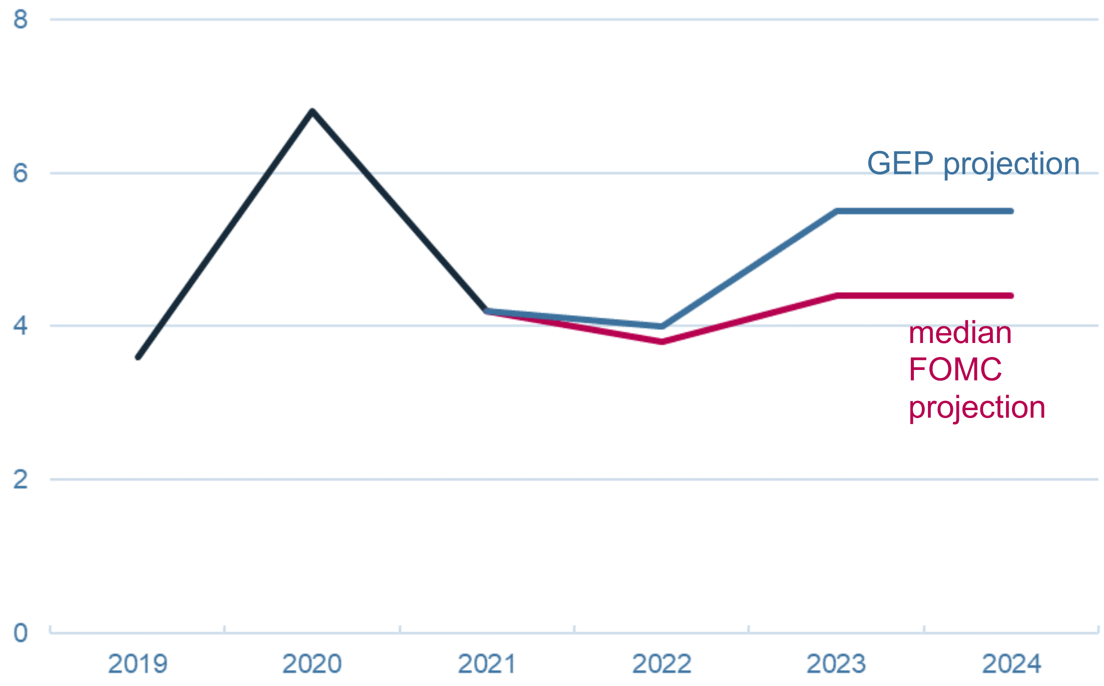


Note: Dashed line corresponds to forecast
Source: Federal Reserve via FRED; author's forecast

A soft landing is not the most likely outcome

US Unemployment Rate

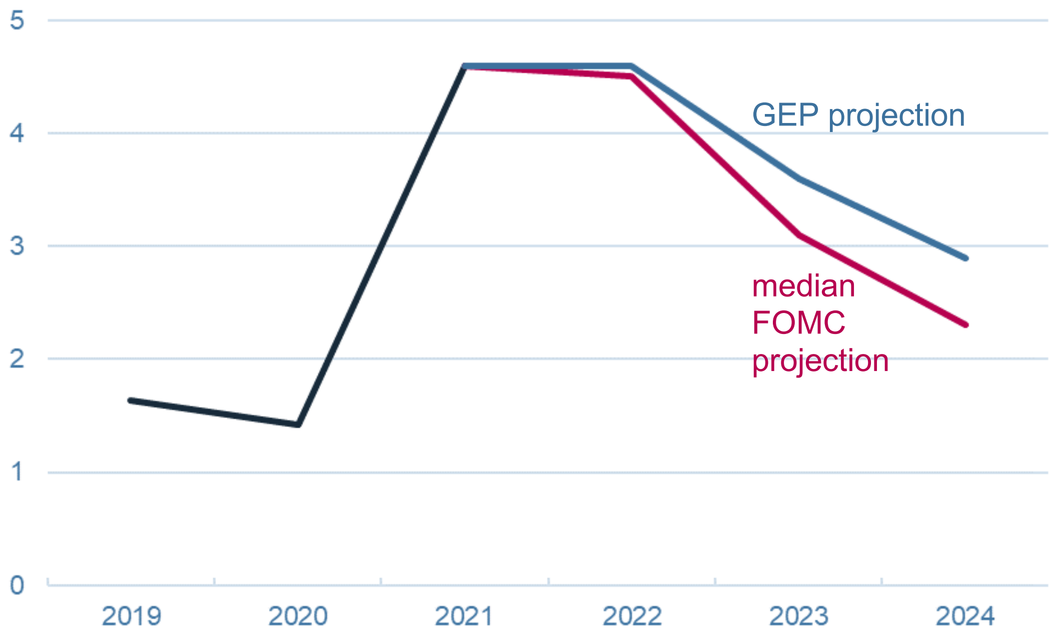
Q4 level



Source: Federal Reserve; author's forecast

Projection of Core US Inflation

Percent change in core PCE deflator from Q4 to Q4



Source: Federal Reserve; author's forecast

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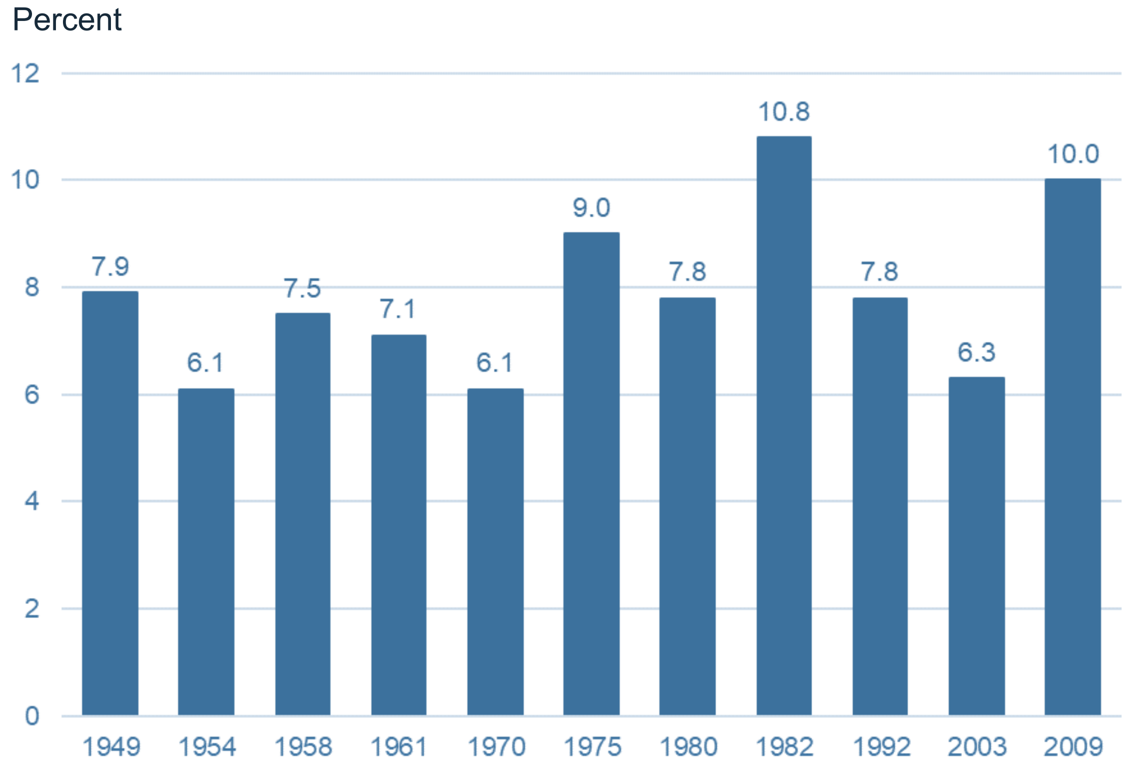
But the US downturn will probably be mild by historical standards

Peak Unemployment in pre-2020 Recessions



Source: Bureau of Labor Statistics via FRED; author's calculations

By comparison, the GEP Fall 2022 forecast shows a peak unemployment rate of 5.5 percent

A mild recession is likely because several factors will help facilitate the disinflation and mitigate the longer-term damage from the slowdown

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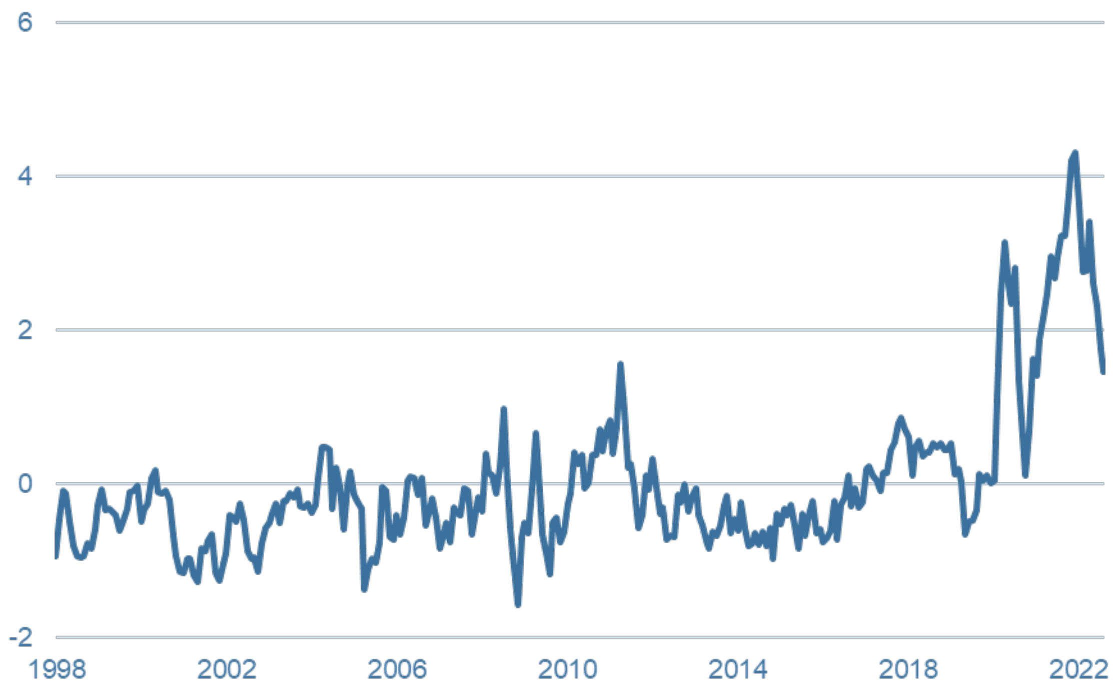
Inflationary supply shocks are abating

Global Supply Chain Pressure Index

Standard deviations from average value



Source: Federal Reserve Bank of New York; last data point August 2022

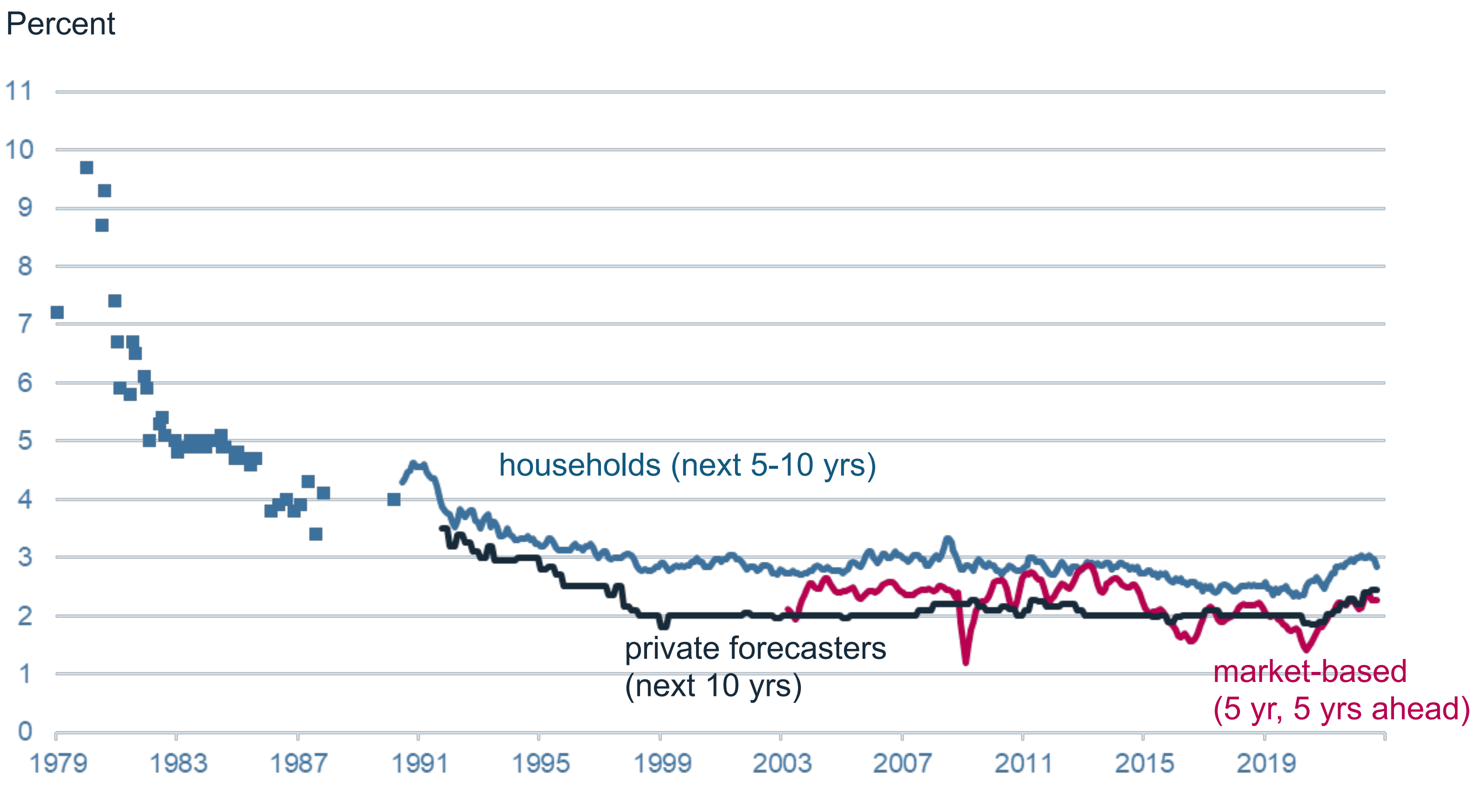
West Texas Intermediate Spot Price of Oil

Dollars per barrel

Source: US Energy Information Administration via FRED; last data point October 3

Inflation expectations remain fairly low

Long-term Inflation Expectations



Sources: University of Michigan, Survey of Professional Forecasters, Federal Reserve Bank of St. Louis via FRED.
Lines are 3-month moving averages; dots are from a single point in time.

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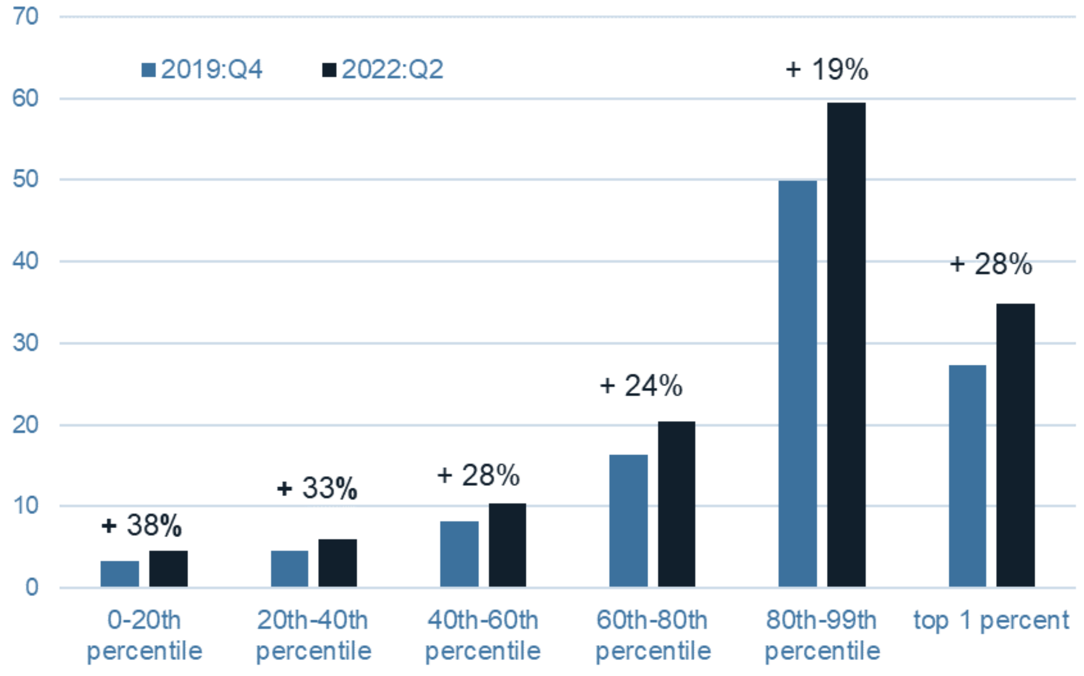
Moreover, solid household and business finances will serve as shock absorbers

Aggregate Wealth by Income Percentile

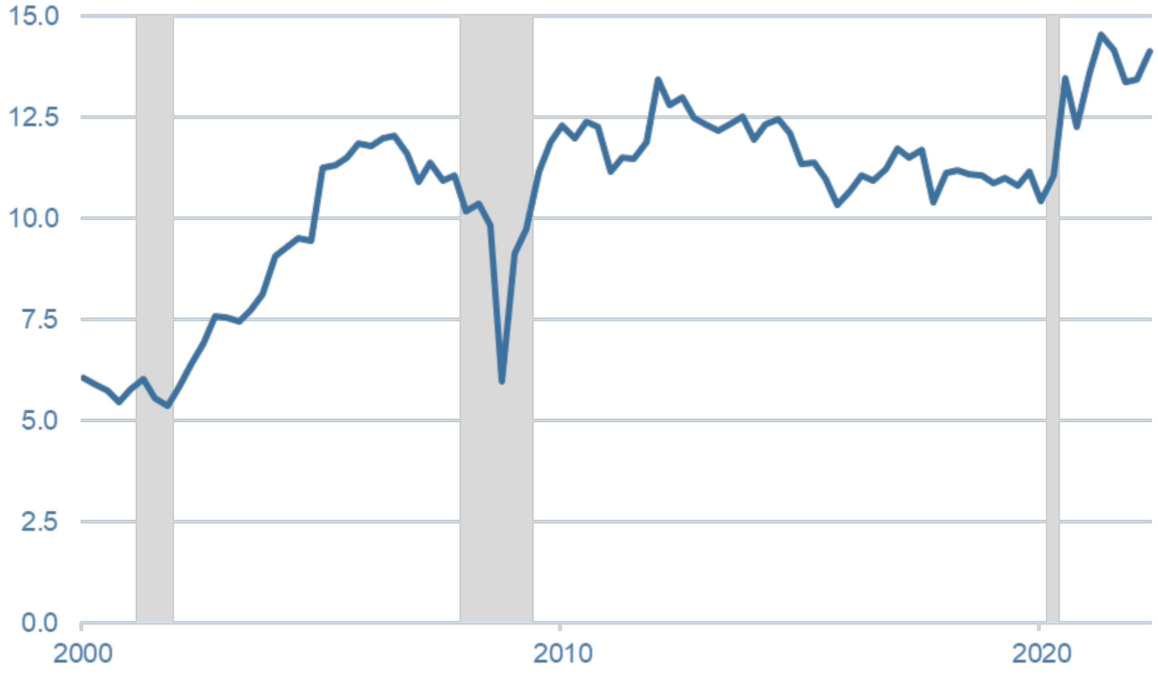
Trillions



Sources: Federal Reserve Distributional Financial Accounts; author's calculations

After-tax Corporate Profits

Percent of national income



Source: Bureau of Economic Analysis via FRED

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