

## **An Update on the Economy and Monetary Policy**



**Loretta J. Mester  
President and Chief Executive Officer  
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**2023 UC San Diego Economics Roundtable  
San Diego, CA  
(via videoconference)**

**July 10, 2023**

## Introduction

I thank Jim Hamilton and the University of California San Diego for inviting me to speak today. I am looking forward to your questions because hearing what is on your minds helps me hone my own views about the economy. But let me start with a review of economic developments and my perspectives on monetary policy. Of course, the views I present will be my own and not necessarily those of the Federal Reserve System or of my colleagues on the Federal Open Market Committee.

### [Figure 1. Federal funds rate and SLOOS]

Since early last year, the Federal Reserve has been tightening the stance of monetary policy. We have raised the target range of the federal funds rate by 5 percentage points. We are also reducing the size of the Fed's balance sheet by allowing assets to roll off in a systematic way according to the plan announced in May 2022, which also helps to firm the stance of monetary policy. At its meeting last month, the FOMC decided to maintain the target range of the fed funds rate at 5 to 5-1/4 percent to allow the Committee time to assess incoming economic information and the cumulative effects of the tightening done so far. The tightening of monetary policy has led to a broader tightening in financial conditions. Banks have been tightening their credit standards, making credit less available to businesses and households, and Treasury yields, mortgage rates, and credit spreads have risen.

The FOMC has taken these policy actions to combat high inflation, which is well above our policy goal of 2 percent. While higher interest rates have made it harder for some households and businesses to borrow, high inflation is a hardship for everyone. In fact, at our recent Fed Listens<sup>1</sup> event, we heard from many community development practitioners that lower-income workers are now able to find jobs paying

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<sup>1</sup> The Fed Listens initiative began in 2019. It includes a series of events held across the country with a wide variety of participants to provide Fed policymakers with information on how monetary policy affects people in their daily lives. Our recent Fed Listens event was held with Federal Reserve Governor Miki Bowman in Cleveland as part of the Cleveland Fed's Policy Summit, a conference that focuses on issues affecting low- and moderate-income communities and households. More information on the Fed Listens initiative is available at <https://www.federalreserve.gov/fedlistens.htm>. More information on the Policy Summit is available at <https://www.clevelandfed.org/en/events/policy-summit/2023/ev-20230621-policy-summit-2023>.

considerably more than what they earned before the pandemic, but those higher wages haven't kept up with inflation. These workers are having to make some hard choices to make ends meet.

High inflation also imposes longer-run costs on the economy. It makes it harder to plan for the future, affecting people's decisions about getting an education or training for a new job, and businesses' decisions about whether to invest in new plants and equipment. These types of investments in human and physical capital help determine our economy's pace of innovation and productivity growth and therefore its potential growth rate and our longer-run standard of living. It is costly to our economy in both the short and the long run to allow inflation to remain so high for so long. And the Fed is committed to returning the economy to price stability.

The monetary policy question is whether the current level of the federal funds rate is sufficiently restrictive to keep inflation moving down in a sustainable and timely way to our goal of 2 percent. To assess that, let's review how the economy got to where it is today and the progress that's been made.

### **Economic Developments**

At the start of 2020, before the pandemic, the U.S. economy was on very solid footing. It was the 11<sup>th</sup> year of the expansion, and things looked quite good from the perspective of our monetary policy goals. The unemployment rate was at historically low levels, employment growth was strong, participation in the labor force was solid, and inflation was near the FOMC's longer-run goal of 2 percent.

But the pandemic changed all of that. The economy shut down in March 2020. Fiscal and monetary policymakers took aggressive actions to support households and businesses, ensuring that credit continued to flow, and to limit lasting damage to the economy. When public health statistics began to improve in May 2020, many parts of the country began to relax some of their stay-at-home restrictions, and the economy began to reopen. But spending patterns had changed, people had left the work force, and supply chains were disrupted. These forces are still affecting the economy today. The imbalances

between demand and supply, in an environment of accommodative fiscal and monetary policy, led to an increase in inflation starting in the spring of 2021.

**[Figure 2. GDP growth and sectors]**

The good news is that the monetary policy actions taken to date are helping to moderate demand and alleviate some of the imbalances that have contributed to price pressures. Real GDP grew at a below-trend pace of less than 1 percent last year, down from a very robust pace of about 5-3/4 percent in 2021. The slowdown in activity is most apparent in interest-rate sensitive sectors, including housing, manufacturing, and business investment. For example, some business contacts in Cleveland's Federal Reserve District, which includes the state of Ohio and parts of Pennsylvania, Kentucky, and West Virginia, tell us that they are pulling back on construction projects due to high interest rates and general economic uncertainty.

On the supply side of the economy, disruptions in supply chains have generally improved. Our contacts report that bottlenecks have eased, and survey data indicate that delivery times have shortened. Businesses also say that over time they have learned how to better navigate supply issues. This is welcome news because price pressures can be alleviated through both further moderation in demand and further improvement in supply.

In many respects the economy has been more resilient than many people were anticipating late last year. At that point, many of our business contacts were telling us they expected the economy to enter a recession this year. Now, most think there won't be a recession this year, and many think that, even if demand slows down some more, a recession will be avoided or will be very mild.

The economic outlook has been difficult to pin down partly because the pandemic and the responses to it from households, businesses, and monetary and fiscal policymakers are still affecting the economy. For example, consumer spending, which makes up about 70 percent of GDP, has been particularly resilient. It

has been growing at an annualized pace of about 3-1/2 percent so far this year, a pickup from last year's pace. Spending has been supported by strong income growth and the savings accumulated during the pandemic.

**[Figure 3. Goods and services spending]**

The pandemic also affected the pattern of spending. The mandated shutdowns and the voluntary pullback in demand for high-contact services led to a shift in spending from services to goods early in the pandemic. When the economy reopened, demand surged and was supported by fiscal transfers and accommodative monetary policy. Since early 2021, spending has been shifting back from goods to services, but neither spending level is back to its pre-pandemic trend. Adjusted for inflation, spending on goods remains elevated and spending on services remains below its trend level.

**[Figure 4. Housing starts and sales]**

Housing has also behaved somewhat differently than might have been expected. Many people wanted to change their living arrangements early in the pandemic, and sales of new and existing single-family homes surged in 2020 and 2021. In response, new home construction also moved up sharply. Last year, higher mortgage rates led to a sharp decline in housing starts. But now, conditions appear to be bottoming out and housing activity has started to move up again. This likely reflects structural issues, including a long-term shortage of available housing. So housing construction and prices have held up better than one might have expected given the level of interest rates. Contacts in construction tell us that they expect public-sector and infrastructure spending to also support construction activity.

**[Figure 5. Employment growth and the unemployment rate]**

The pandemic has had profound effects on the labor market. When the economy reopened, labor demand well outpaced labor supply, putting upward pressure on wages and price inflation. Progress is now being made in bringing demand and supply into better balance, but it is slow progress and demand is still outpacing supply. The monthly pace of job growth has been slowing over the past year. However, it

remains robust, with payroll gains averaging more than 240 thousand per month from April to June. The unemployment rate is 3.6 percent, near its 50-year low, and it has been basically at that level for over a year. The number of job openings has been moving down but the ratio of job openings to the number of unemployed workers is more than 1.6. That is well above the 1.2 level seen in the strong labor market conditions in 2019.

#### **[Figure 6. Labor force participation]**

We have seen an adjustment in labor supply over time. When the pandemic hit, many people left the work force. Some needed to take on the responsibilities of caring for children or elderly members of the family and others chose to retire. Since then, labor force participation rates have been improving. While the total labor force participation rate is below what it was before the pandemic, the participation rate of prime-age workers, i.e., workers between the ages of 25 and 54, is now higher than its pre-pandemic level and this has helped to ease some of the imbalance between labor demand and supply.

These strong labor market conditions are not necessarily a problem; in fact, they provide a basis for a scenario in which inflation moves back down to 2 percent without a recession. The question is whether the current strength in labor demand relative to supply is consistent with price stability.

#### **[7. Employment cost index and average hourly earnings]**

Here we need to look at wage trends. By some measures, wage pressures have moderated, and firms tell us they are not expecting the outsized wage gains of the last couple of years to persist except for those with skills particularly in demand. Nonetheless, wages are still growing at an annual rate of about 4-1/2 to 5 percent. This is well above the level consistent with 2 percent inflation given current estimates of trend productivity growth. Indeed, for wage growth at the current pace to be consistent with price stability, trend productivity growth would need to be 2-1/2 to 3 percent, instead of the current estimates of 1 to 1-1/2 percent. We have not seen any evidence that trend productivity growth is rising; in fact, productivity has declined over the past year.

**[Figure 8. Total PCE inflation, and energy and food inflation]**

The pandemic and the response to it by households, businesses, and monetary and fiscal policymakers also had profound effects on inflation in the U.S. and globally. In the U.S., inflation began to move up sharply in the spring of 2021, reflecting pandemic-induced imbalances in supply and demand in an environment of accommodative monetary and fiscal policy. Russia's invasion of Ukraine in February 2022 led to additional inflationary pressures, spurring higher prices for oil, food, and other commodities. This high and broad-based inflation is very different from what the U.S. experienced during the long pre-pandemic expansion. Until late in that expansion, the concern was that inflation was running below our longer-run goal of 2 percent.

Progress is being made on inflation. Inflation levels, both the headline numbers, which include food and energy prices, and measures of underlying inflation, including the core, median, and trimmed-mean measures, have moved down from their peaks. Measured year-over-year, total PCE inflation peaked at 7 percent in June of last year. As of May of this year, it has fallen to just under 4 percent, reflecting sharp declines in energy prices and a deceleration in food prices.

**[Figure 9. Core inflation and components]**

Unfortunately, we see less progress with core inflation, which excludes food and energy prices. Core PCE inflation peaked in February 2022 at 5.4 percent. It has moved down a bit since then, but progress has stalled, with core inflation running about 4.6 percent over the past six months. Of course, food and energy prices matter for consumers. The Fed's inflation target is defined in terms of total PCE inflation, which includes food and energy prices. But economists look at measures that exclude these components

because they often give a better reading on where inflation is headed. And currently the core measure indicates that inflation is stubbornly high and broad-based.

When we look at components, we see that inflation in both core goods and core services remains high. This is very different from the pre-pandemic expansion, when core goods inflation was slightly negative on average and falling goods prices were pulling inflation down. Currently, while core goods inflation has declined over the past year, it remains above 2 percent.

Consumers spend a larger share of their income on services than on goods: about 65 percent of the total consumption basket is core services compared to about 24 percent for core goods. (The rest of the basket comprises energy (4 percent) and food at home (7 percent).) Because its expenditure share is higher, services have a higher weight in the inflation indices than goods. Services inflation also tends to be more persistent than goods inflation. Housing services, measured by rents and the imputed rents for owner-occupied housing, constitutes about 15 percent of people's total consumption spending, and it is a large and cyclically sensitive component of services inflation.

Housing services inflation remains elevated. When the economy reopened in 2021, housing demand surged and so did rents. Last year, rent inflation began to come down, and the growth rate of rents in new leases, which helps predict housing services inflation, fell and has remained low. Cleveland Fed research indicates that it typically takes about a year for this deceleration to show up in the measures of housing inflation.<sup>2</sup> So we are expecting to see housing services inflation to move down this year.

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<sup>2</sup> Researchers at the Cleveland Fed have produced a new tenant repeat-rent index, which they show leads the Bureau of Labor Statistics' rent inflation measure by four quarters. For the data and analysis see Brian Adams, Lara Loewenstein, Hugh Montag, and Randal J. Verbrugge, "Disentangling Rent Index Differences: Data, Methods, and Scope," Federal Reserve Bank of Cleveland, Working Paper No. 22-38, December 2022. (<https://doi.org/10.26509/frbc-wp-202238>).



Inflation in core services excluding housing, which accounts for 50 percent of total consumption, tends to be sticky and correlated with wage inflation and the strength in the labor market. Although inflation in this component slowed in May, it has shown little improvement over time. To achieve our longer-run goal of 2 percent inflation, we will need to see continued sustained disinflation in the prices of goods, housing, and core services excluding housing. And to achieve that we will need to see further moderation of demand in both product and labor markets. This brings me to monetary policy.

### **Monetary Policy**

The FOMC has come an appreciable way in moving policy from a very accommodative stance to a restrictive one. We are closer to the end of our tightening phase than the beginning. Because monetary policy affects the broader economy with a lag, some of the tightening already in place will help to further moderate demand in both product and labor markets, thereby easing price and wage pressures. So I do expect inflation to move down further this year, although it will take longer to reach our 2 percent goal.

That said, the economy has shown more underlying strength than anticipated earlier this year, and inflation has remained stubbornly high, with progress on core inflation stalling. In order to ensure that inflation is on a sustainable and timely path back to 2 percent, my view is that the funds rate will need to move up somewhat further from its current level and then hold there for a while as we accumulate more information on how the economy is evolving.

### **[Figure 10. SEP federal funds rate path]**

This view accords with the median view among FOMC participants in the June Summary of Economic Projections.<sup>3</sup> Those projections indicate that all but two participants anticipate that further rate increases will be appropriate this year.

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<sup>3</sup> Four times a year, the FOMC summarizes Committee participants' projections of output growth, the unemployment rate, inflation, and the associated appropriate policy path. For the June 2023 SEP, see <https://www.federalreserve.gov/monetarypolicy/fomcproptabl20230614.htm>.

In addition to the current economic situation, risk management considerations also influence my current thinking that policy will need to tighten somewhat further to put inflation on a sustainable and timely path back to 2 percent.

**[Figure 11. Real rates]**

First, while policy is now in restrictive territory, it is less restrictive compared to many historical tightening cycles. That partly reflects the fact that when we started tightening in March 2022, policy was very accommodative; so much of the tightening was to move policy to a neutral stance. Until recently, the real policy rate, i.e., the nominal rate adjusted for inflation, has been below 0.5 percent, the median projection among FOMC participants of the long-run real fed funds rate. As inflation falls, the real rate will rise even without further increases in the nominal fed funds rate. Waiting for that passive tightening to happen, though, risks allowing inflation to remain elevated for longer.

**[Figure 12. SEP inflation]**

Influencing my view is that inflation has surprised us on the upside for some time. According to the June SEP, the median FOMC participant now expects inflation to remain slightly above 2 percent at the end of 2025, which is the farthest out the projections go. If so, then inflation will have been above our goal for over 4 years. And that is ignoring the risks that could play out, which most participants see as tilted to the upside for inflation.

**[Figure 13. Inflation expectations]**

A more timely path back to 2 percent inflation, which would be encouraged by somewhat tighter monetary policy, is desirable because the longer inflation remains elevated, the higher the risk that inflation expectations could become unanchored from our 2 percent goal. Once households and businesses believe that inflation will remain elevated, those expectations influence their savings and

investment decisions, and wage- and price-setting behavior, and this makes it much harder to bring inflation down.

So far, most measures of medium- and longer-term inflation expectations have remained reasonably well anchored in a range consistent with our 2 percent inflation goal, although they are at the upper end of that range. These measures suggest that even though inflation is high, people are expecting it to return to 2 percent over time. However, other evidence suggests some caution. As part of the Cleveland Fed's Survey of Firms' Inflation Expectations, in April, we asked top business executives what they thought the Fed's inflation target was. The mean response was 3.1 percent. This is higher than our target of 2 percent but also nearly a percentage point above the response before the pandemic.<sup>4</sup>

In addition, recent research by Cleveland Fed economists indicates that although short-run inflation expectations tend to move with gasoline prices and the prices of other salient items like food, we shouldn't ignore their persistently elevated levels entirely and focus only on longer-term expectations. The researchers find persistent differences in inflation expectations across consumers of different ages and that households form their expectations of inflation based on their lifetime experience of inflation.<sup>5</sup> When this mechanism is incorporated into a conventional New Keynesian model, inflation shocks are more persistent than otherwise, and the optimal response is for monetary policy to tighten when short-run inflation expectations rise even if longer-run expectations are stable. Doing so helps to limit the experience households have with high inflation, which helps to keep inflation expectations anchored in the future.

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<sup>4</sup> The Survey of Firms' Inflation Expectations (SoFIE) was created by Professors Olivier Coibion and Yuriy Gorodnichenko, and is maintained by the Federal Reserve Bank of Cleveland at <https://www.clevelandfed.org/indicators-and-data/survey-of-firms-inflation-expectations>.

For background on the survey, see Christian Garciga, Edward S. Knotek II, Mathieu Pedemonte, and Taylor Shiroff, "The Survey of Firms' Inflation Expectations," Federal Reserve Bank of Cleveland *Economic Commentary*, May 22, 2023. (<https://www.clevelandfed.org/publications/economic-commentary/ec-202310-the-survey-of-firms-inflation-expectations>)

<sup>5</sup> Mathieu O. Pedemonte, Hiroshi Toma, and Esteban Verdugo, "Aggregate Implications of Heterogeneous Inflation Expectations: The Role of Individual Experience," Working Paper No. 23-04, Federal Reserve Bank of Cleveland, January 2023. (<https://doi.org/10.26509/frbc-wp-202304>)

I believe a somewhat tighter policy stance will help achieve a better balance between the risks of tightening too much against the risks of tightening too little. Tightening too much would slow the economy more than necessary and entail higher costs than needed to get inflation back to our goal. Tightening too little would allow high inflation to persist, with short- and long-run consequences, and necessitate a much more costly journey back to price stability. A slightly higher policy rate would roughly equate the probabilities that the next policy move will be a tightening move versus a loosening move. This would be a good holding point as we accumulate more information about whether the economy is evolving as expected. If it is not, then we can adjust our policy rate either up or down, as appropriate.

Of course, while this is my current assessment, there continues to be uncertainty about the outlook, and the economy could evolve differently than anticipated. My policy views will be informed by all of the incoming economic and financial information, not only official government statistics but also regional information gathered from our business, labor market, and community contacts; a variety of surveys on economic and banking conditions; and higher-frequency data such as credit card spending. All of this information can help determine not only where the economy is but also where it is going, and therefore, inform our policy decisions.

I also recognize that others may assess the outlook and the risks to the outlook somewhat differently than I do. One benefit of attending FOMC meetings is hearing how other policymakers are evaluating things. While individual FOMC participants may at times have different assessments of appropriate policy, there should be no doubt that we all share a strong commitment to setting monetary policy to achieve our statutory goals of price stability and maximum employment on behalf of the public.

That concludes my summary of economic and policy developments. I look forward to our discussion.

# Figures for “An Update on the Economy and Monetary Policy”

**Loretta J. Mester\***  
**President and Chief Executive Officer**  
**Federal Reserve Bank of Cleveland**

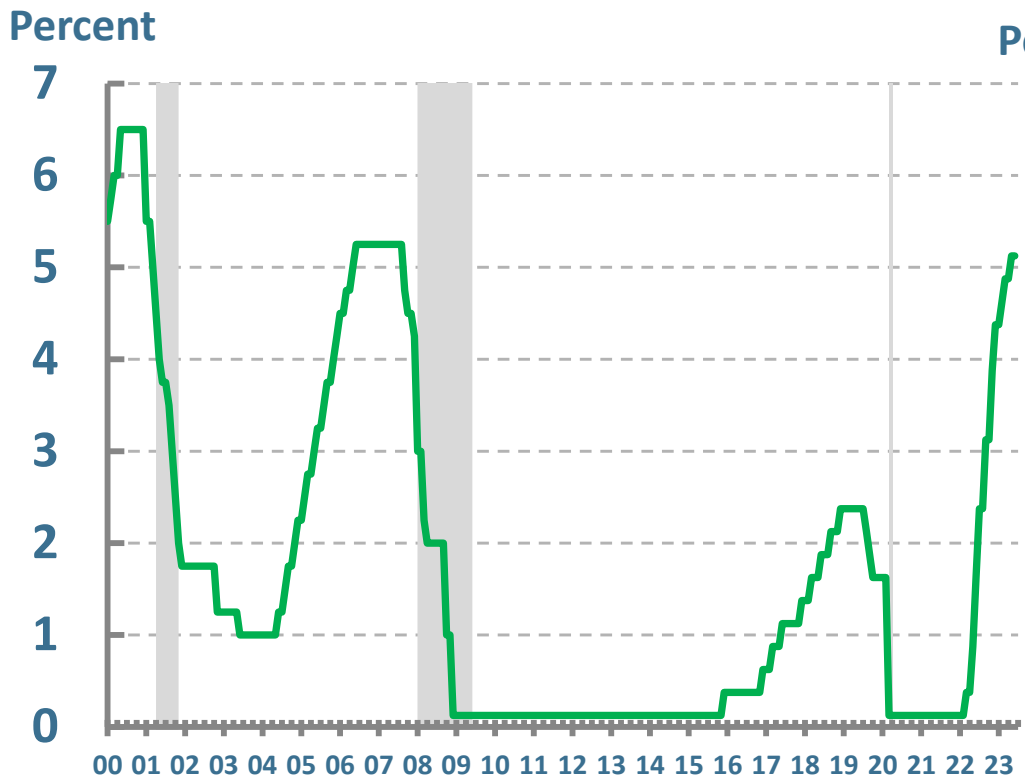
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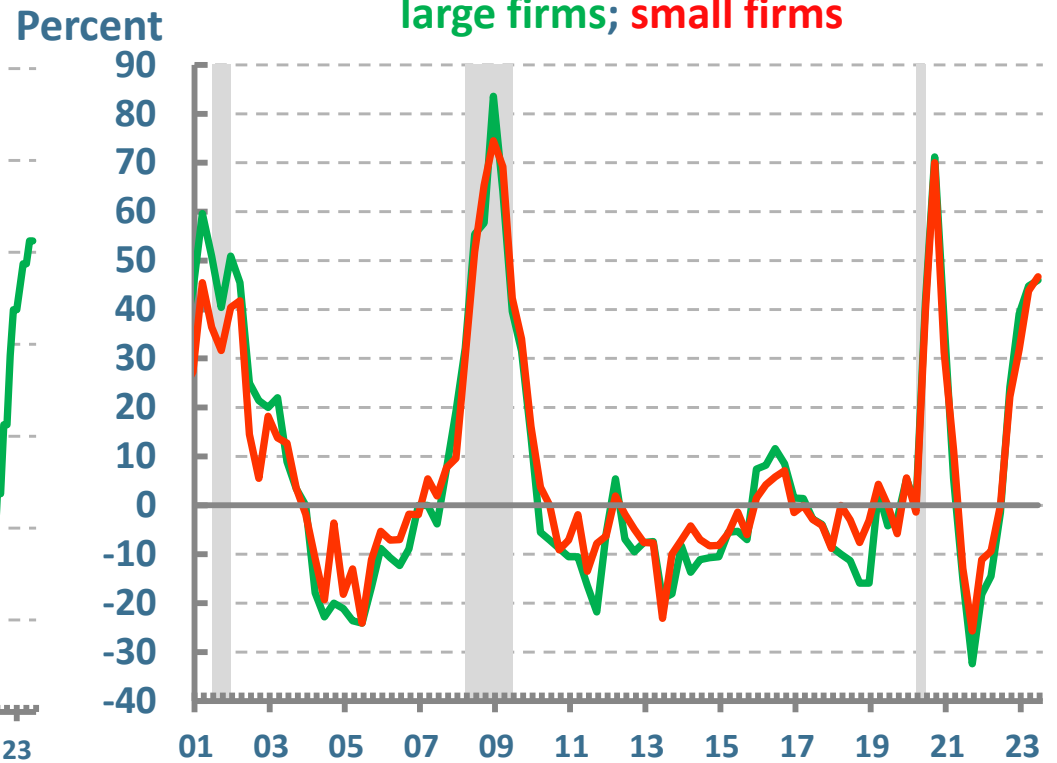
# Figure 1. The FOMC has raised the fed funds rate target by 500 basis points since March 2022 and banks are tightening credit standards

## Fed Funds Rate Target



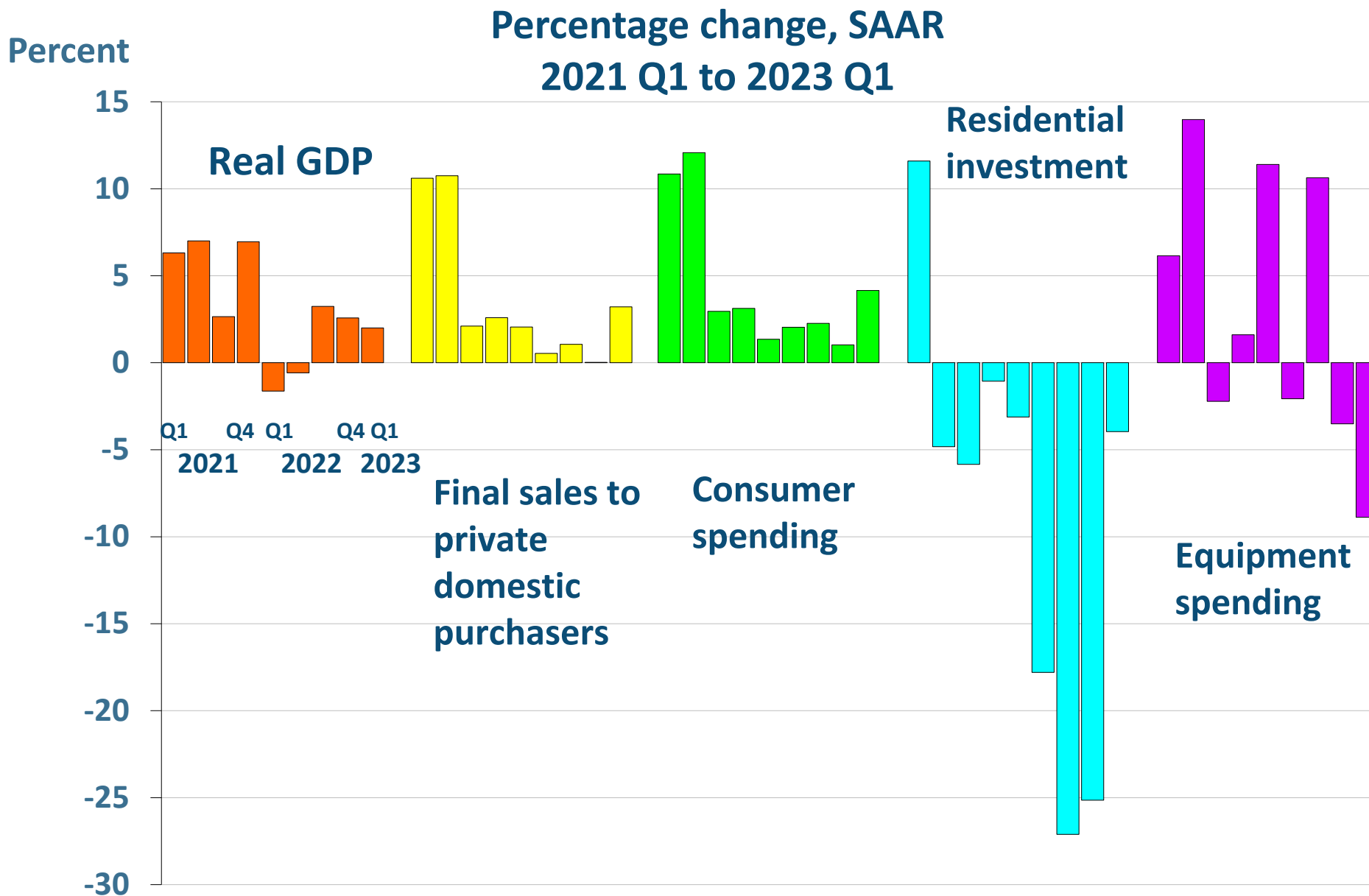
Source: Federal Open Market Committee via Haver Analytics  
 Monthly data, end of period, midpoint of target range  
 starting in Dec 2008: Last obs. June 2023

## Senior Loan Officer Opinion Survey: Net % of banks tightening standards for C&I loans to: large firms; small firms



Source: Federal Reserve Board via Haver Analytics  
 Quarterly data: Last obs. 2023 Q2

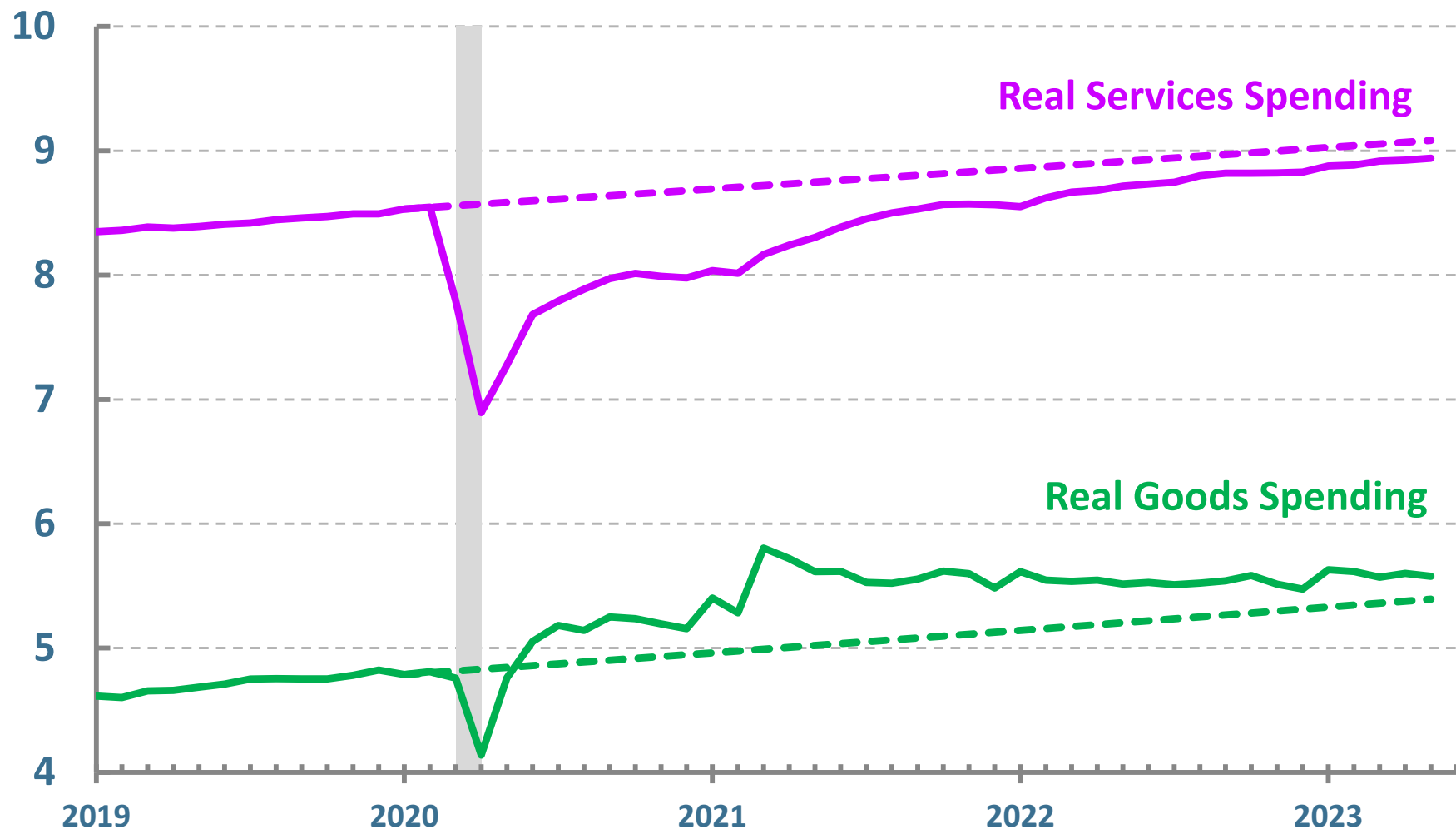
# Figure 2. Output growth has slowed but less than anticipated



Source: Bureau of Economic Analysis via Haver Analytics  
 Quarterly data: Last obs. 2023 Q1

### Figure 3. Real goods spending is still above trend and real services spending is still below trend

Trillions of chain-weighted 2012 \$

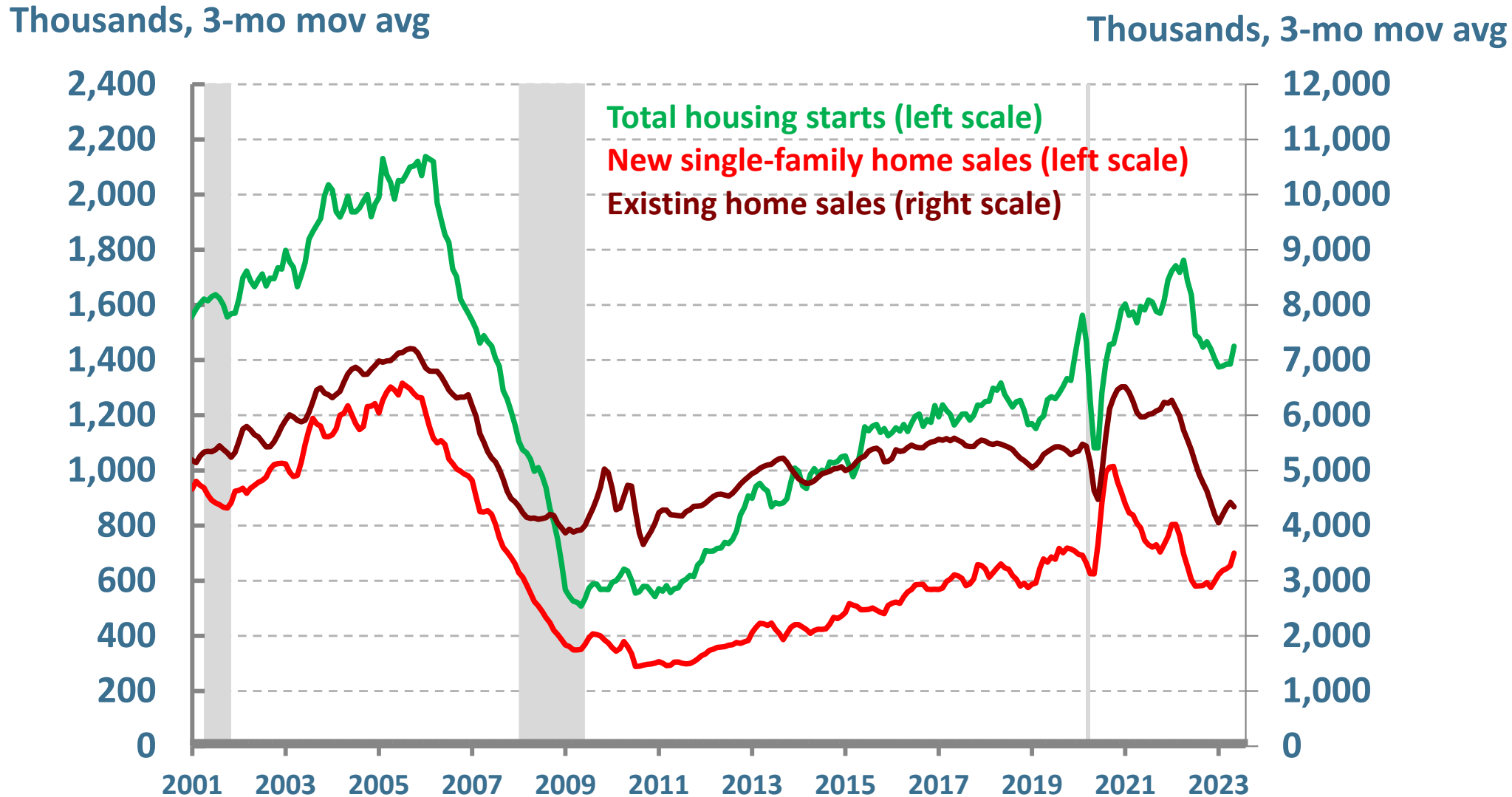


Source: Bureau of Economic Analysis via Haver Analytics  
Monthly data: Last obs. May 2023

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# Figure 4. Housing activity slowed as mortgage rates rose last year but it has picked up more recently

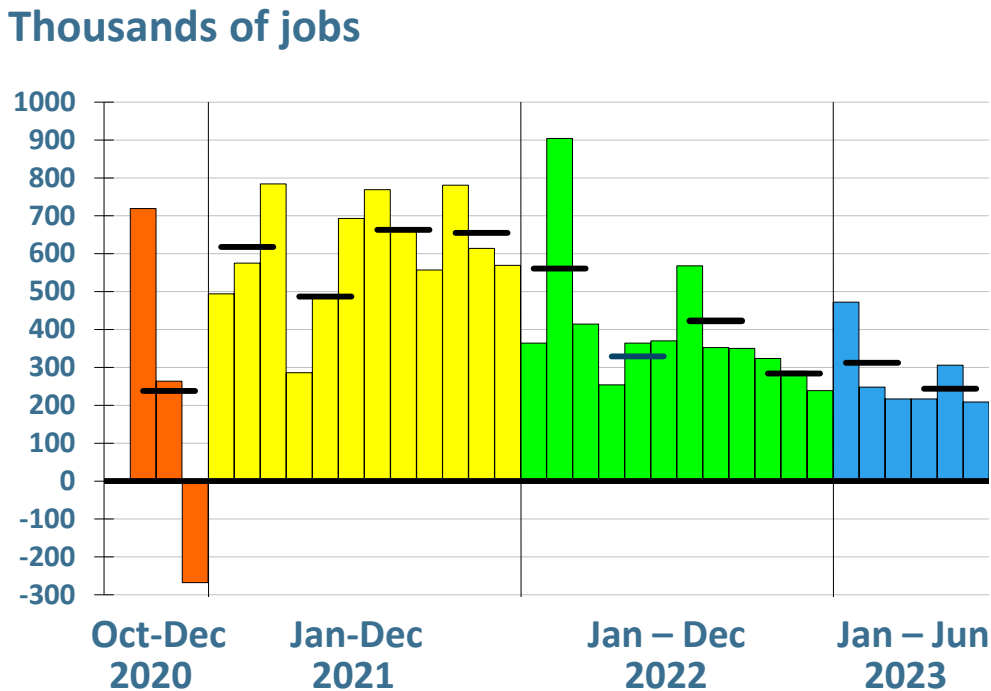


Source: Census Bureau for housing starts and new single-family home sales, and National Association of Realtors for existing home sales, via Haver Analytics

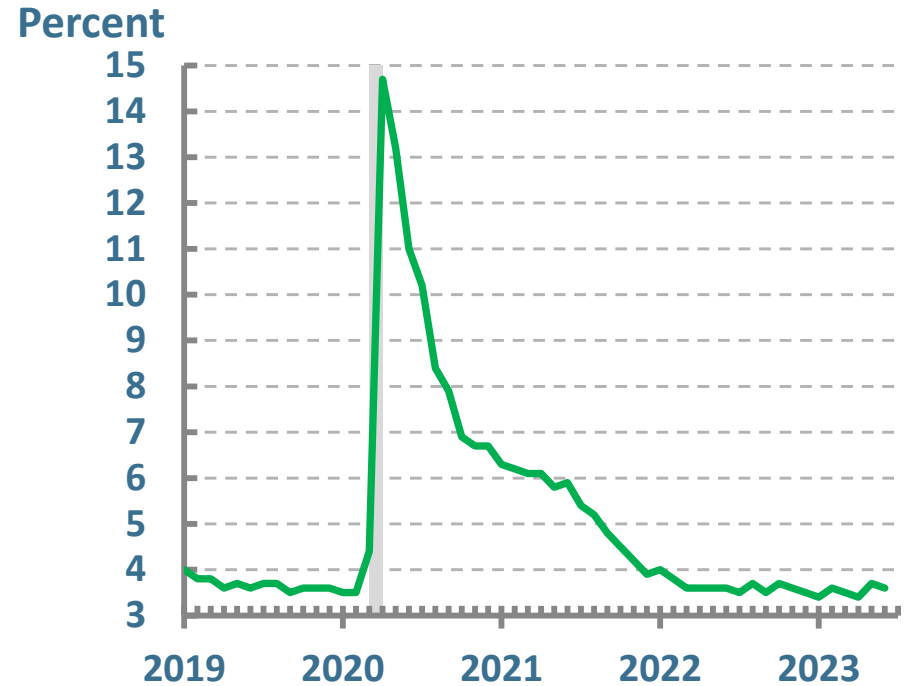
Monthly data: Last obs. May 2023

# Figure 5. Employment growth has moderated but labor markets remain tight

## Monthly change in payroll employment and 3-month average change

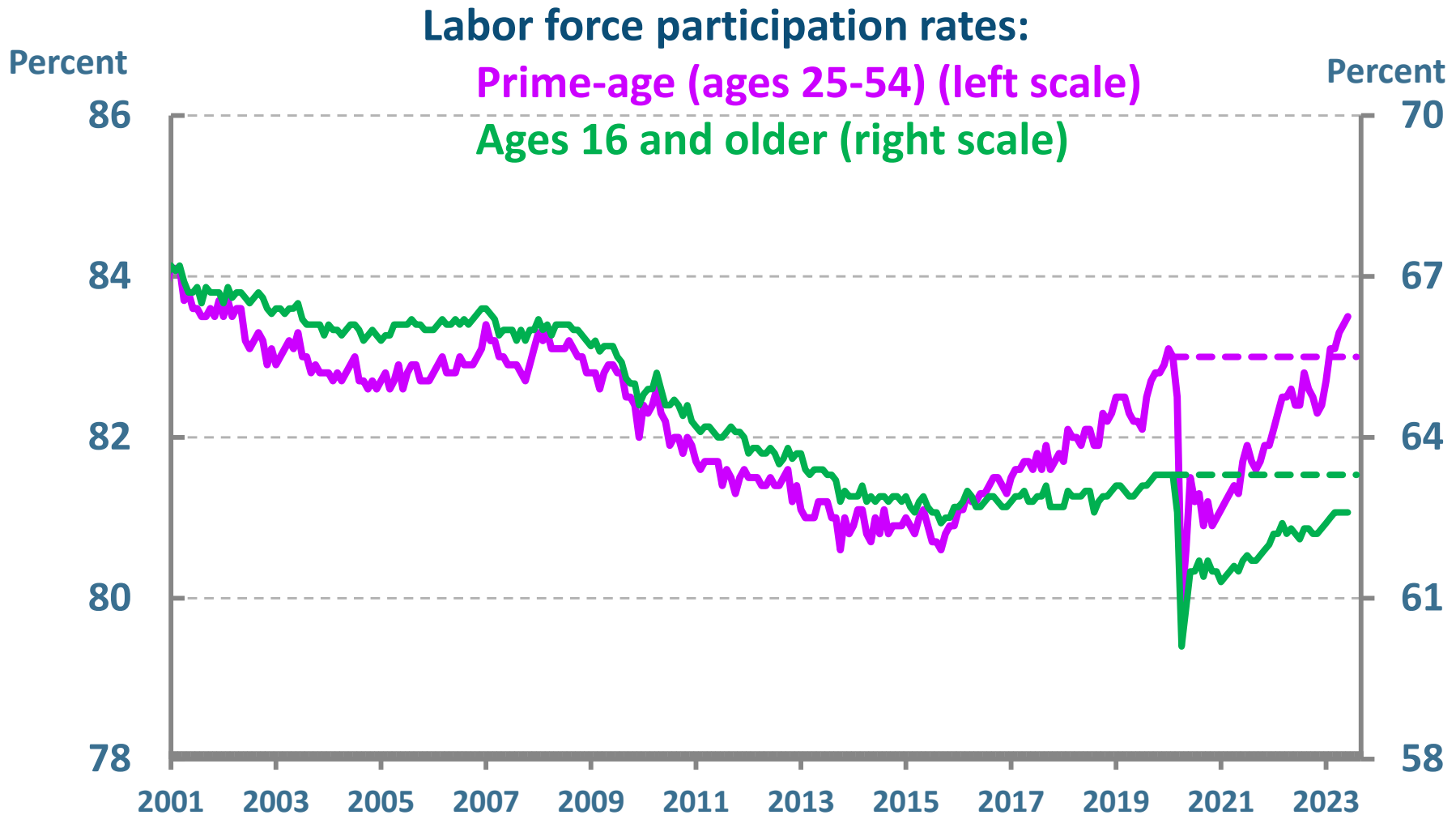


## Unemployment rate



Source: Bureau of Labor Statistics via Haver Analytics  
 Monthly data: Last obs. June 2023

**Figure 6. Labor force participation rates have been rising and the rate of prime-age participation is now above its pre-pandemic level**

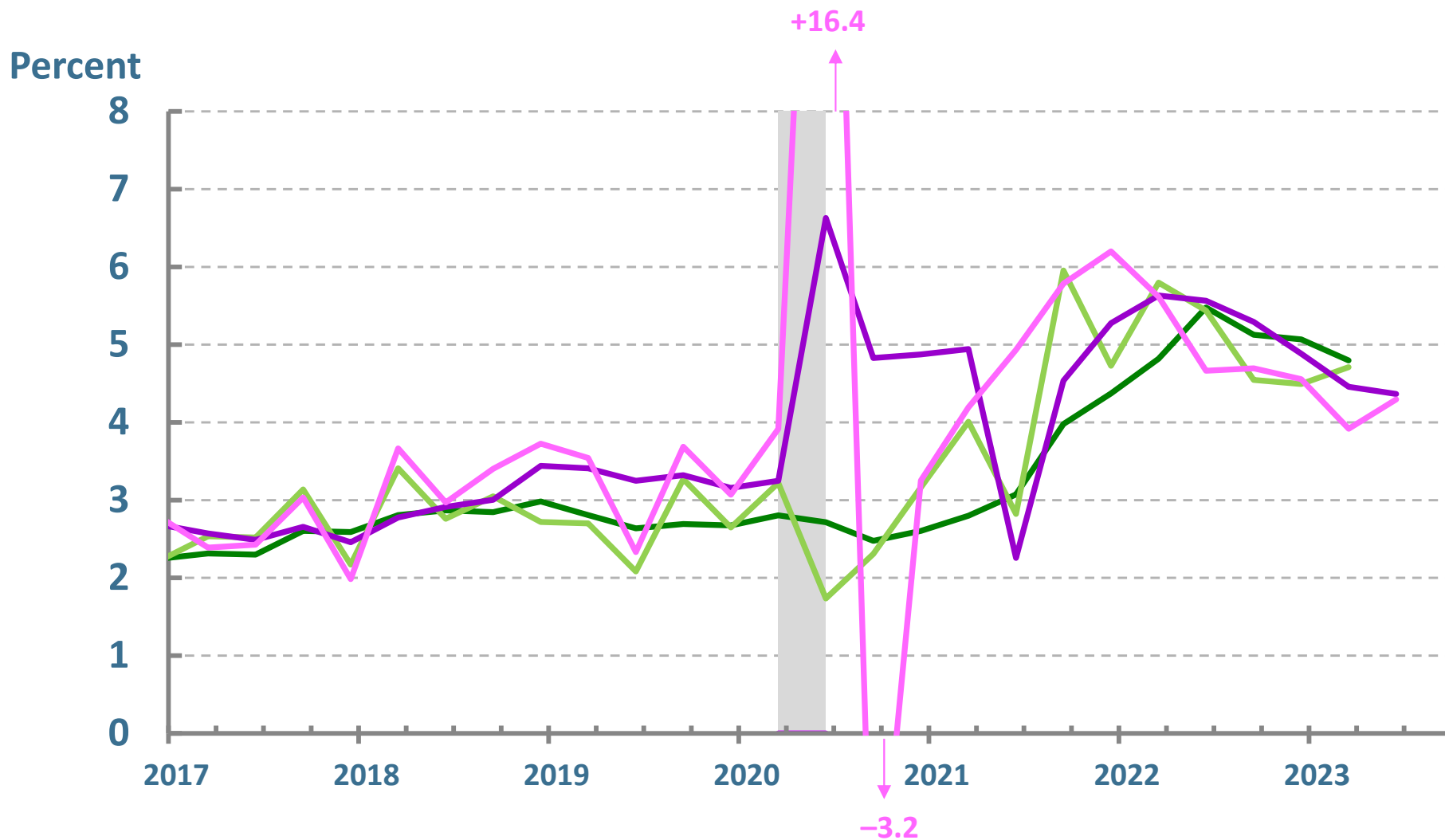


Source: Bureau of Labor Statistics via Haver Analytics  
Monthly data: Last obs. June 2023

## Figure 7. Compensation growth is down from its peak but is well above the level consistent with price stability

Avg hourly earnings, private industry: **yr-over-yr % chg** and **qrt chg, ann**

Employment cost index: comp, private wkrs: **yr-over-yr % chg** and **qrt chg, ann**



Source: Bureau of Labor Statistics via Haver Analytics

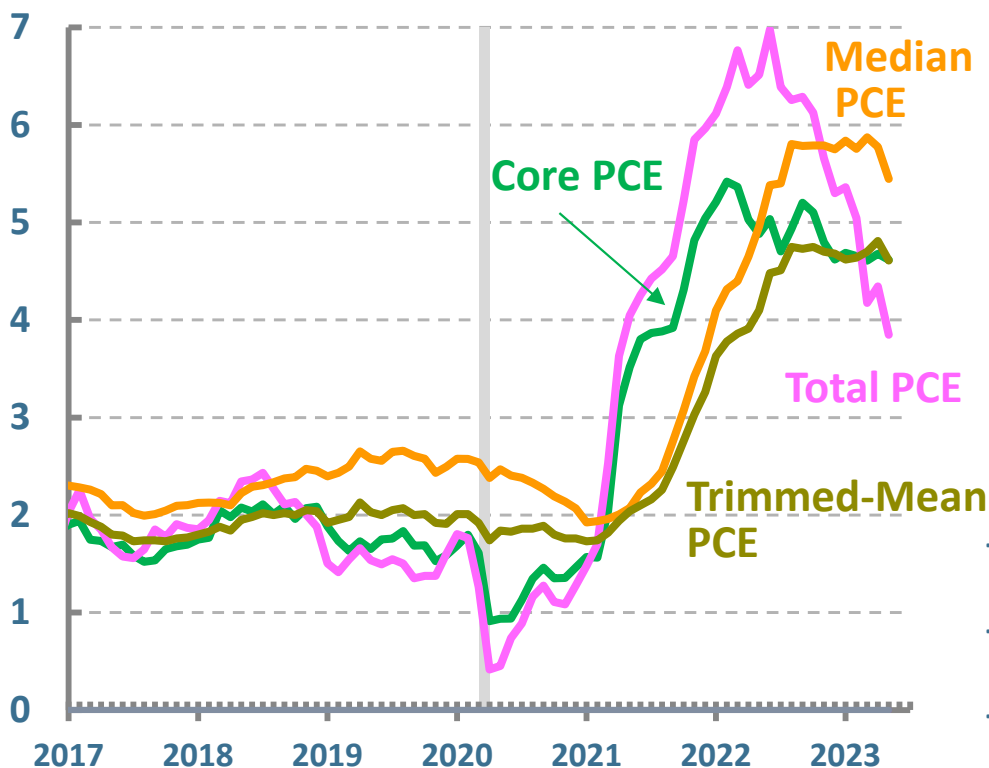
8 Quarterly data: Last obs. 2023 Q1 for ECI and 2023 Q2 for AHE

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**Figure 8. PCE inflation is down from its peak, reflecting sharp drops in energy prices and deceleration in food prices**

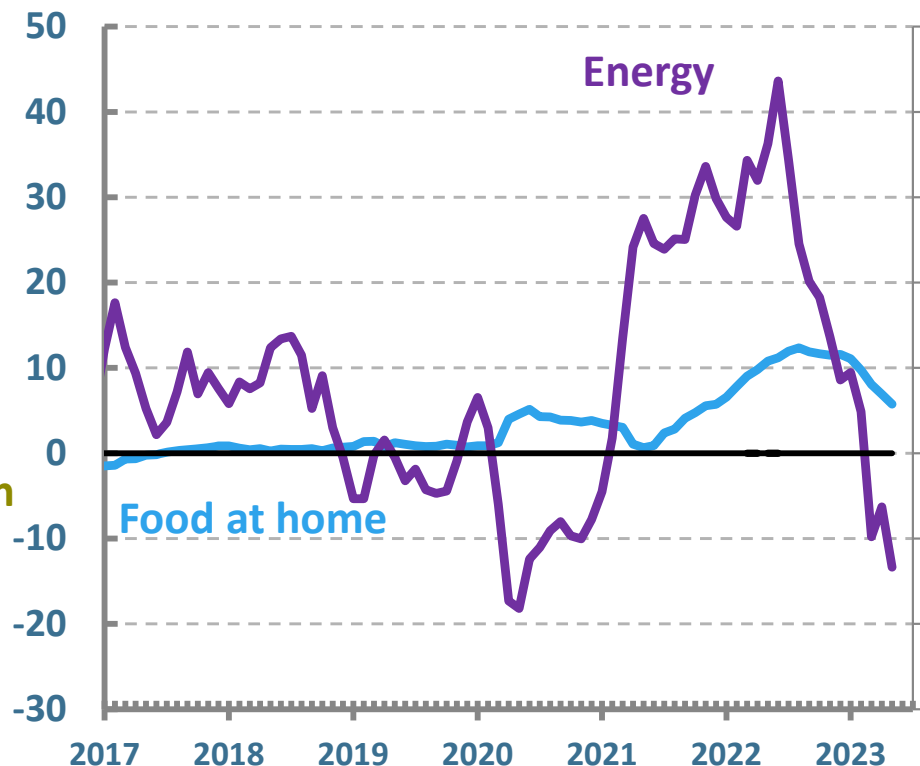
**PCE inflation**

Year-over-year percentage change



**Food and energy components**

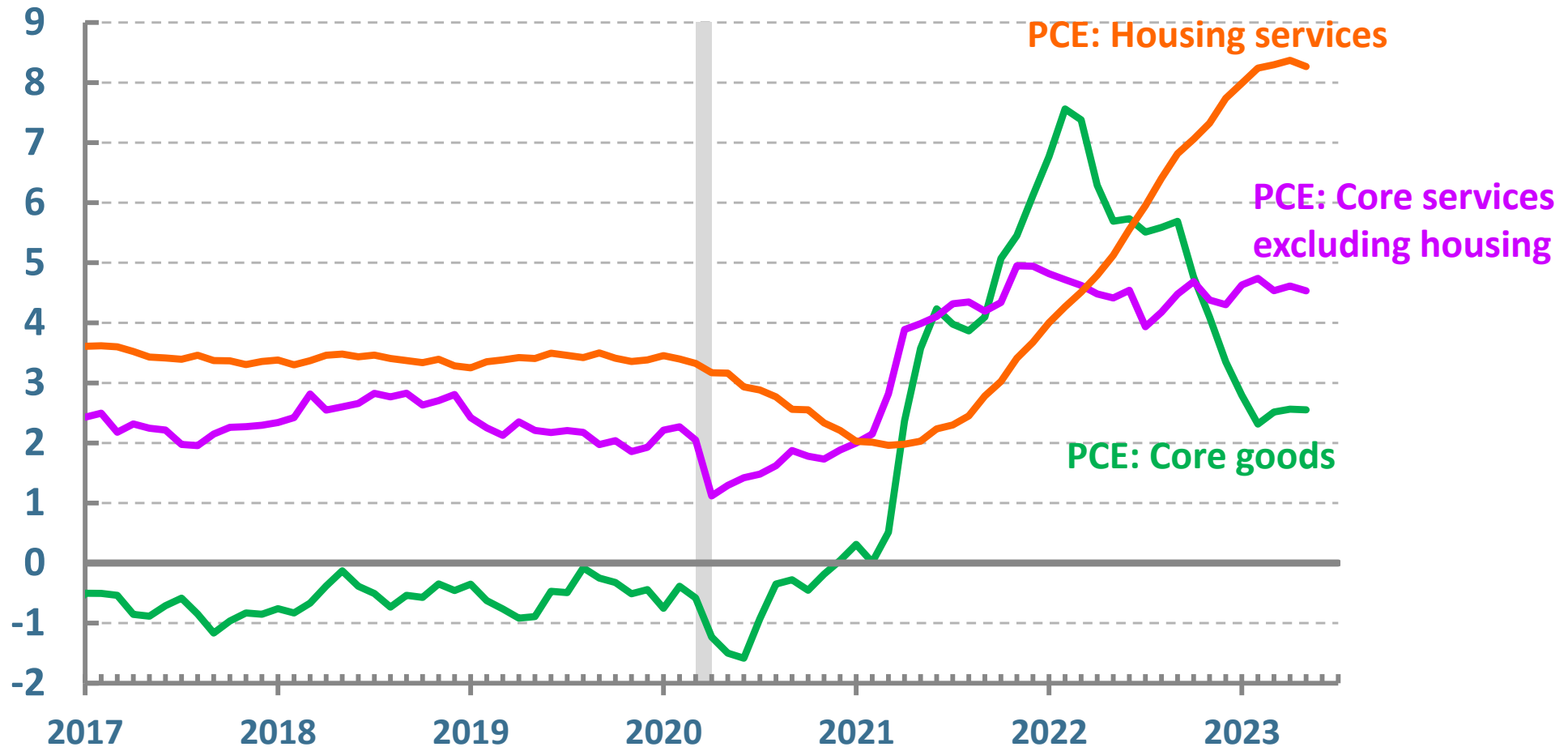
Year-over-year percentage change



Source: Cleveland Fed for median PCE, Dallas Fed for trimmed-mean PCE, Bureau of Economic Analysis for others, via Haver Analytics  
 Monthly data: Last obs. May 2023

**Figure 9. Core goods inflation has fallen and housing services inflation is expected to decline this year. Inflation in core services excluding housing has shown little improvement over time.**

Year-over-year percentage change

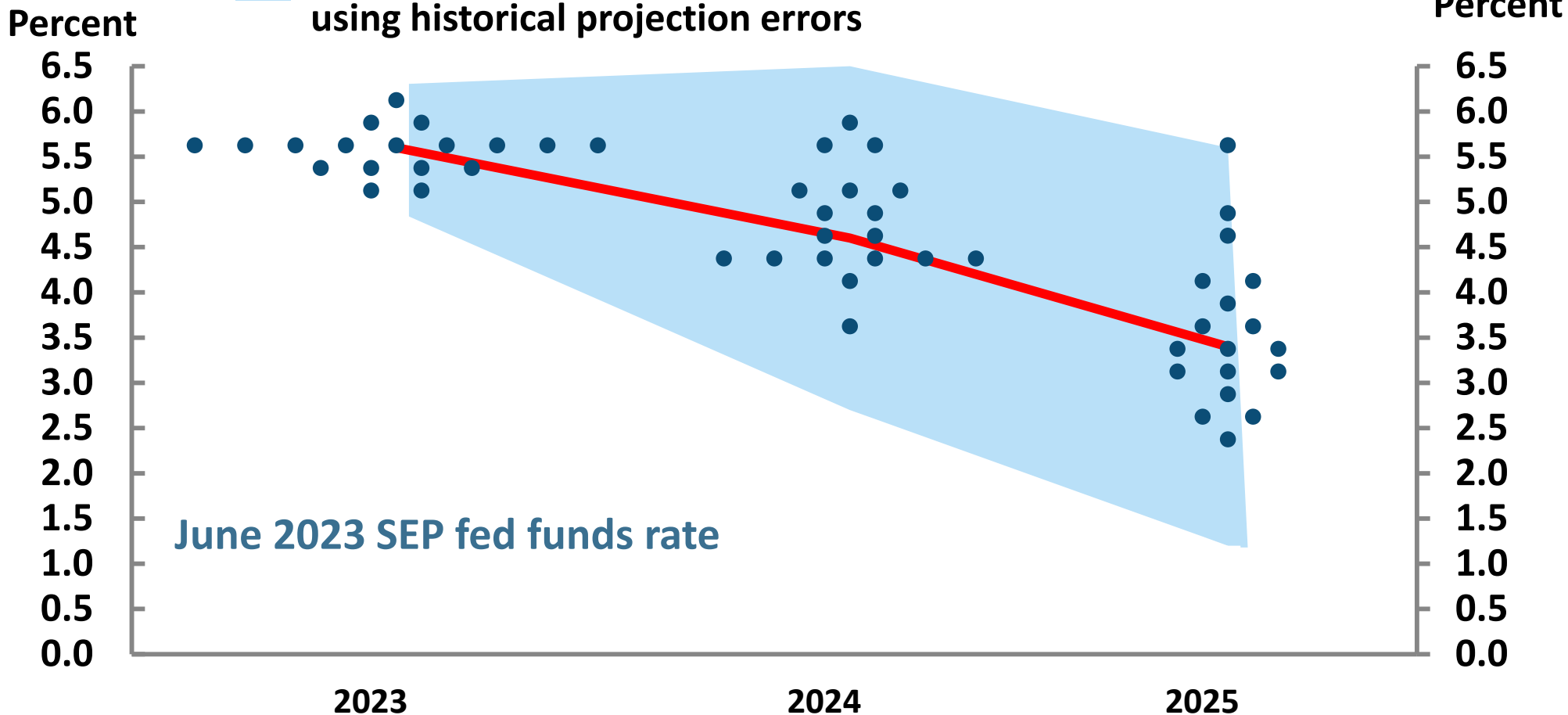


Source: Bureau of Economic Analysis via Haver Analytics  
Monthly data: Last obs. May 2023

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# Figure 10. The median fed funds rate path in the June SEP shows rates rising somewhat further this year

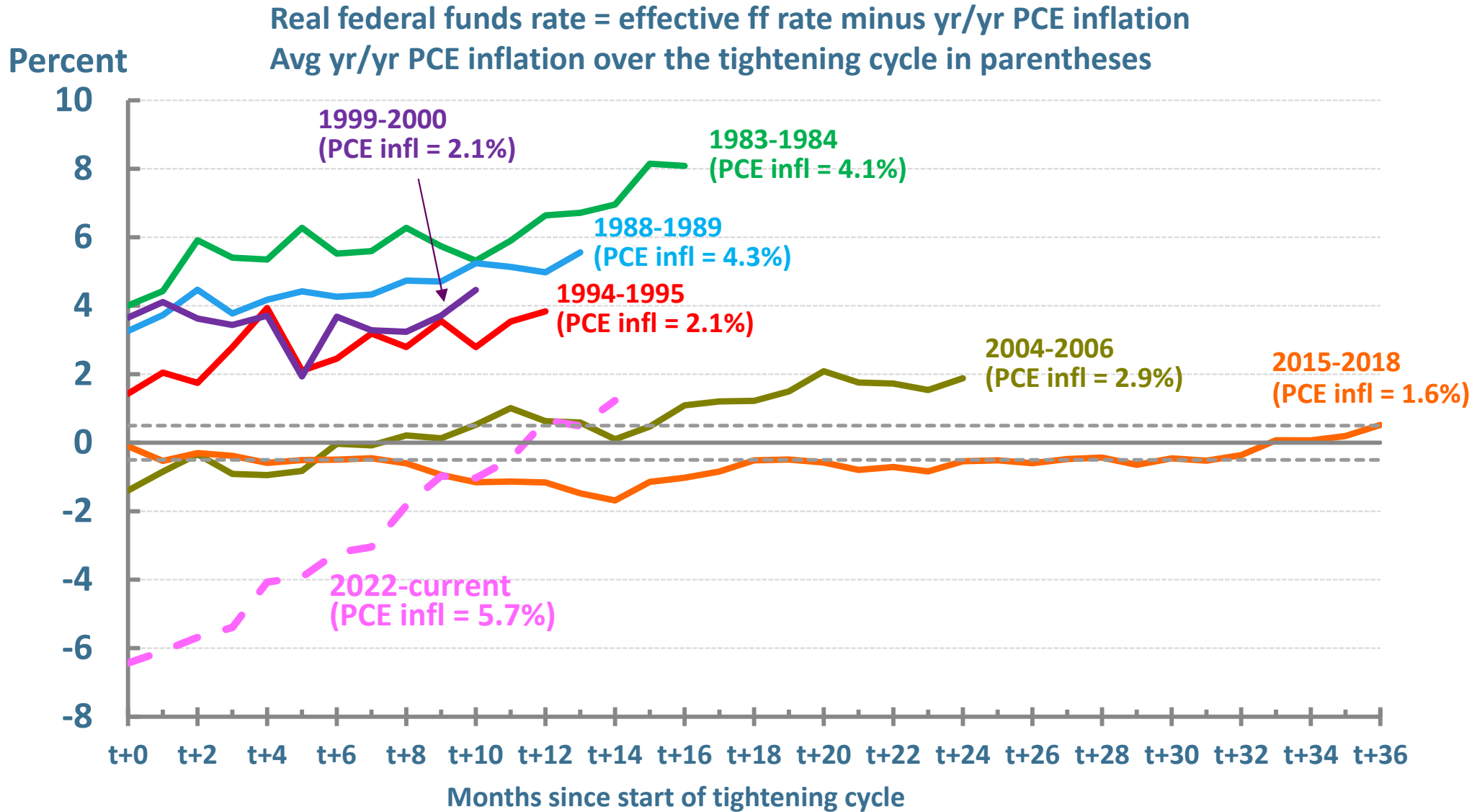
- Median of projections
- Individual projections
- 70% confidence interval around median of projections using historical projection errors



Source: FOMC's Summary of Economic Projections (SEP), June 2023.

Fan chart based on historical forecast errors from Table 2 of SEP, based on D. Reifschneider and P. Tulip, Board of Governors FEDS Working Paper 2017-020 (Feb. 24, 2017).

# Figure 11. The real fed funds rate is relatively low compared to several other tightening cycles



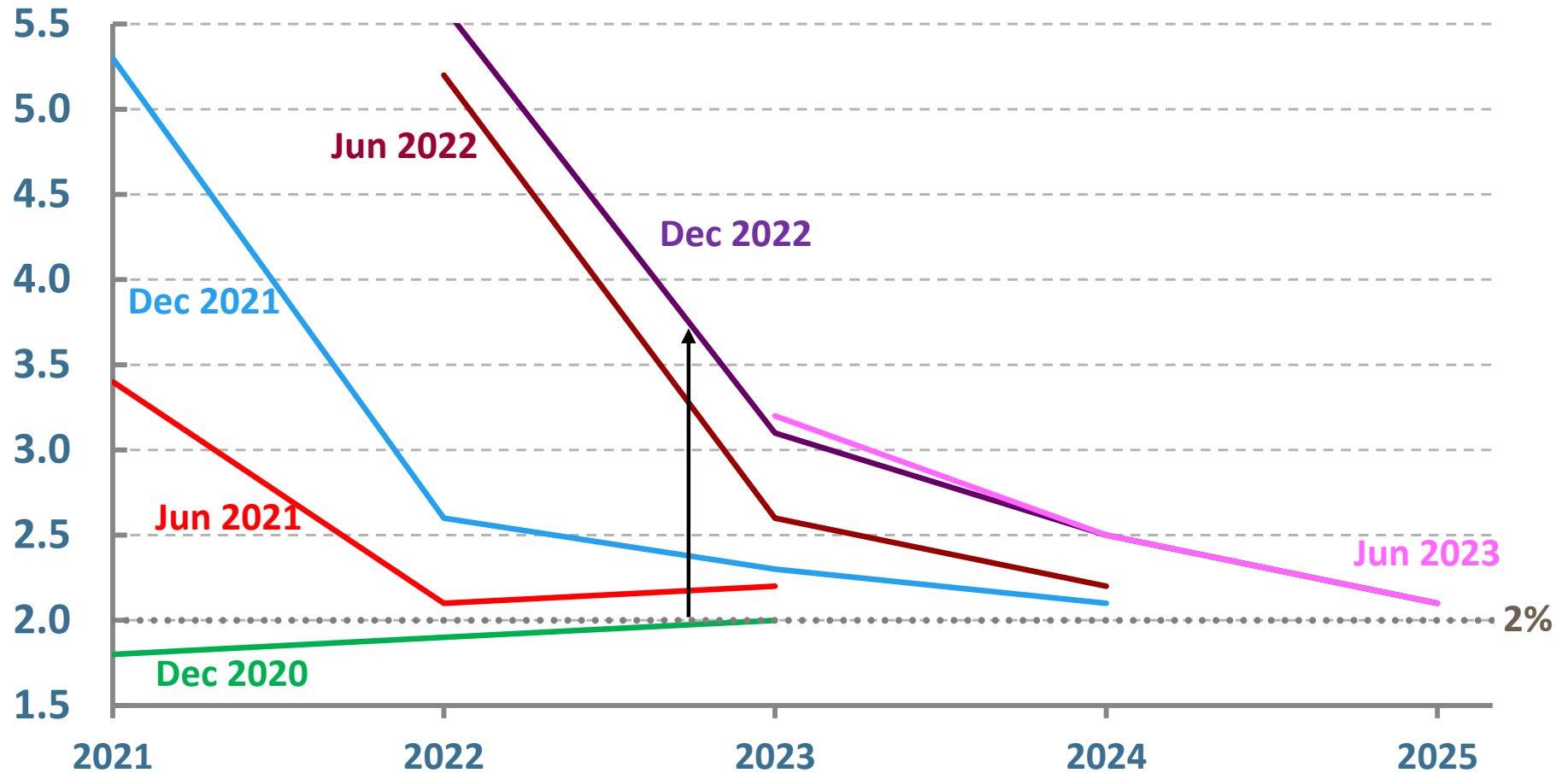
Source: Federal Reserve Board for federal funds rate and Bureau of Economic Analysis for PCE inflation via Haver Analytics, tightening cycles from Fed Res Bk of St. Louis  
 Monthly data



# Figure 12. Inflation forecasts have been revised up over time

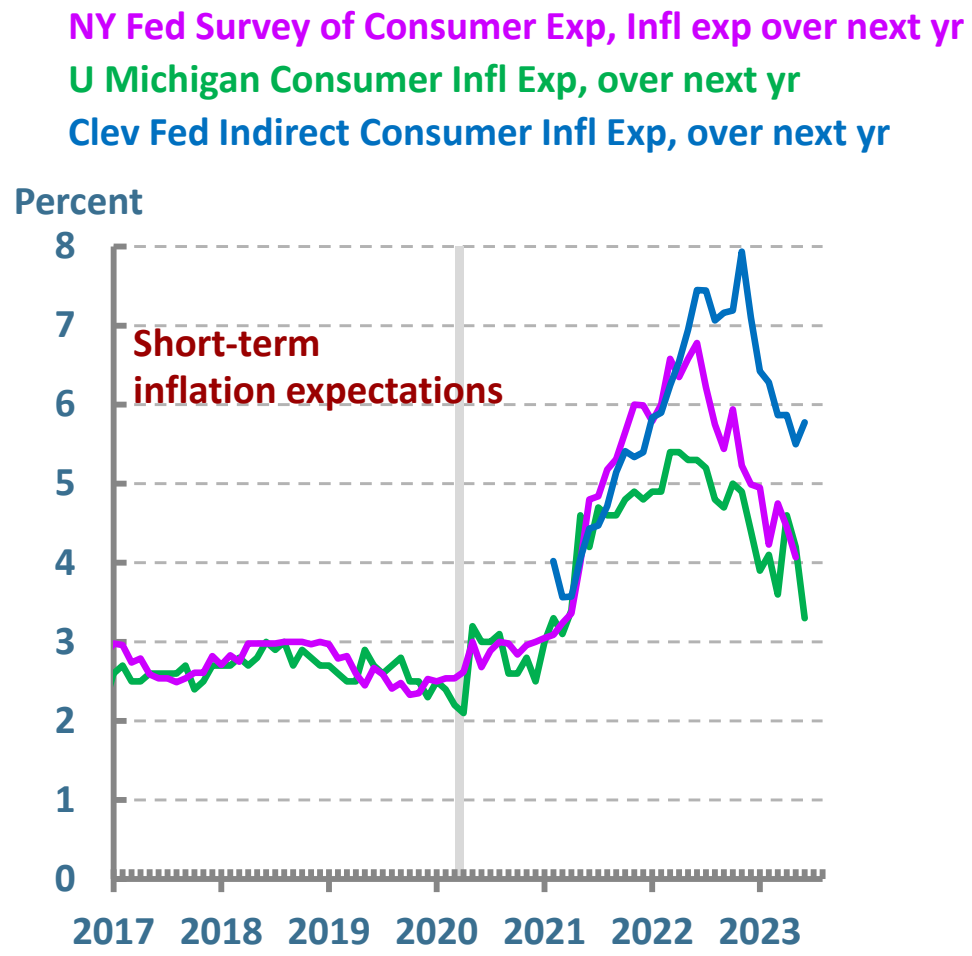
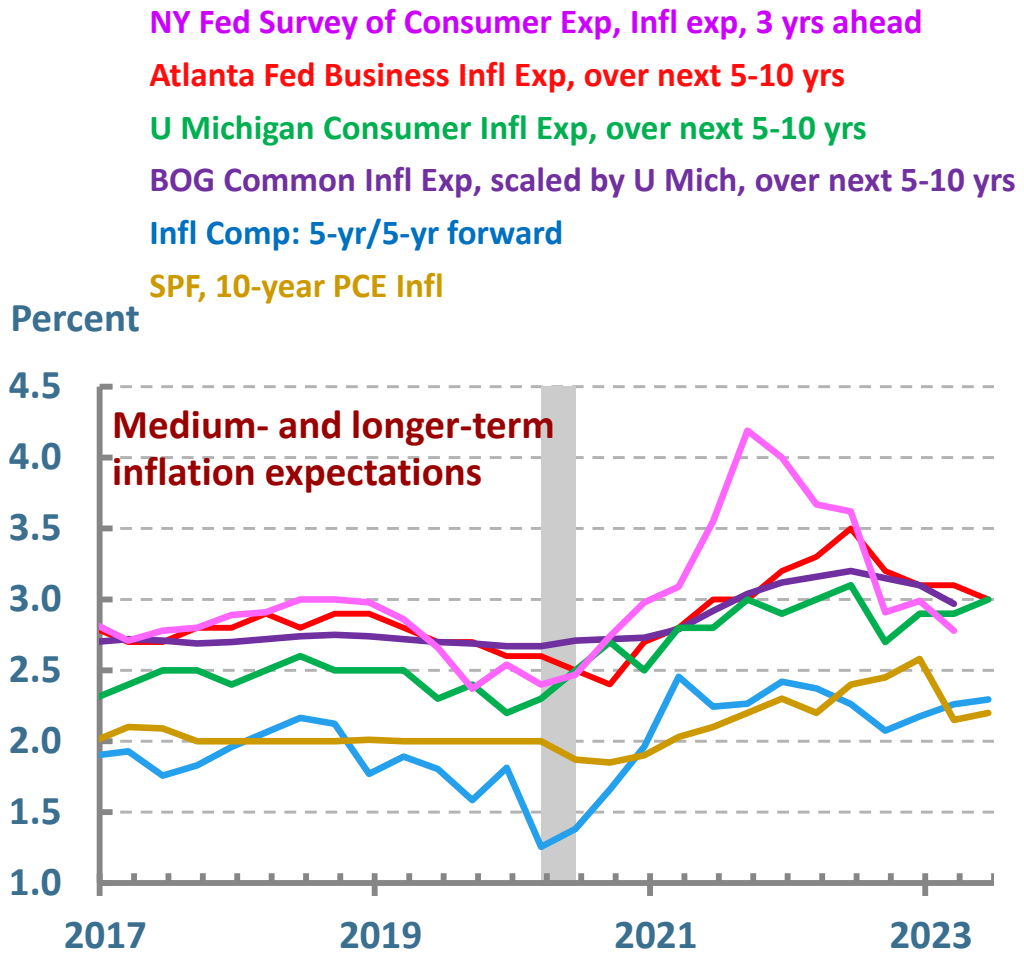
## FOMC SEP Median PCE Inflation Projections

Q4-over-Q4 percentage change



Source: FOMC Summary of Economic Projections (SEP)

**Figure 13. Medium- and longer-term inflation expectations are reasonably well anchored. Near-term inflation expectations have moved with inflation.**



Source: Federal Reserve Board, Federal Reserve Banks of Atlanta, Cleveland, Philadelphia, and New York, University of Michigan via Haver Analytics  
 Monthly data for near-term measures (weekly avg for Clev Fed): last obs. June 2023 for U Mich and Clev Fed and May 2023 for NY Fed  
 Quarterly data for medium- and longer-term measures (last month of qtr for NY Fed, U Mich, and Infl Comp): last obs. 2023Q1 for BOG, 2023Q2 for others

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