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# Economic Developments and Monetary Policy Environment

Federal Reserve Bank of Chicago  
Academic Advisory Council Meeting  
April 21, 2023

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Federal Reserve Bank of Chicago

*The views expressed here do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Federal*

# Labor market strong

## Nonfarm payroll employment

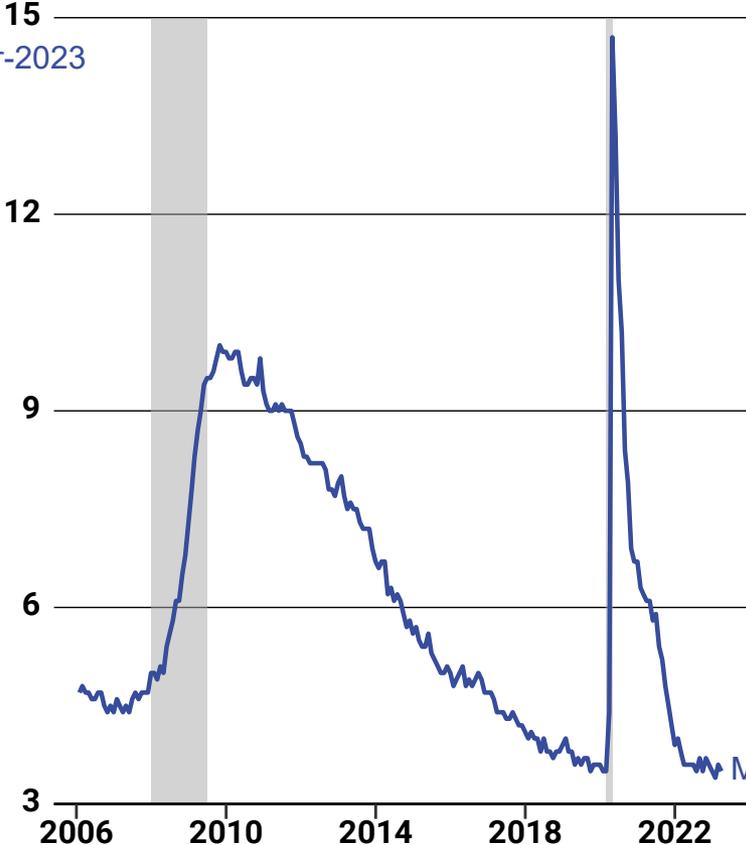
(millions, SA)



Source: Bureau of Labor Statistics via Haver Analytics

## Unemployment rate

(percent, SA)



Source: Bureau of Economic Analysis from Haver Analytics

# Labor force participation rates

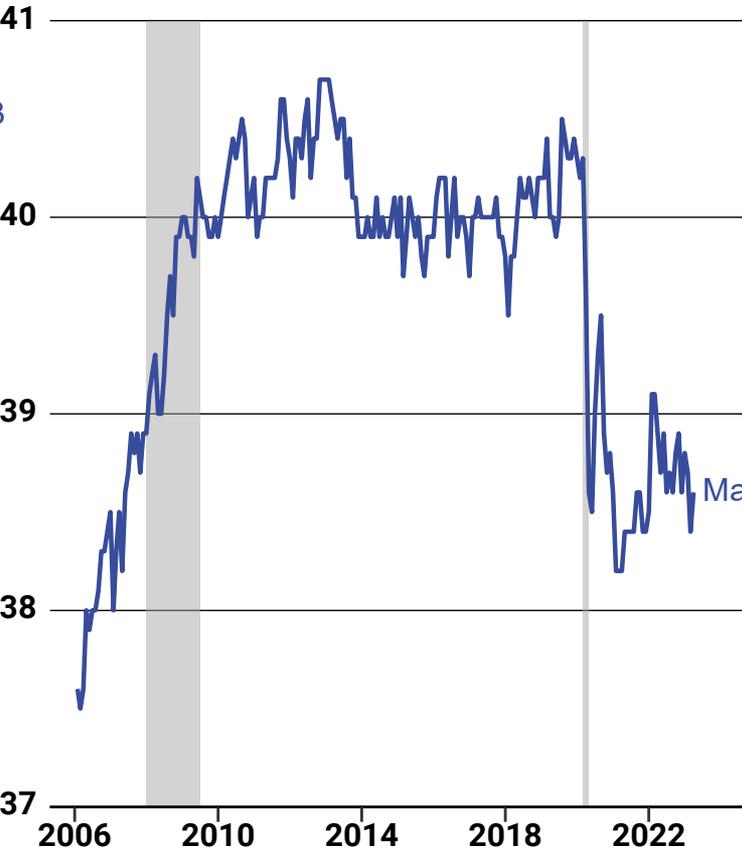
## Prime age (25-54 years old)

(percent, SA)



## 55 and older

(percent, SA)

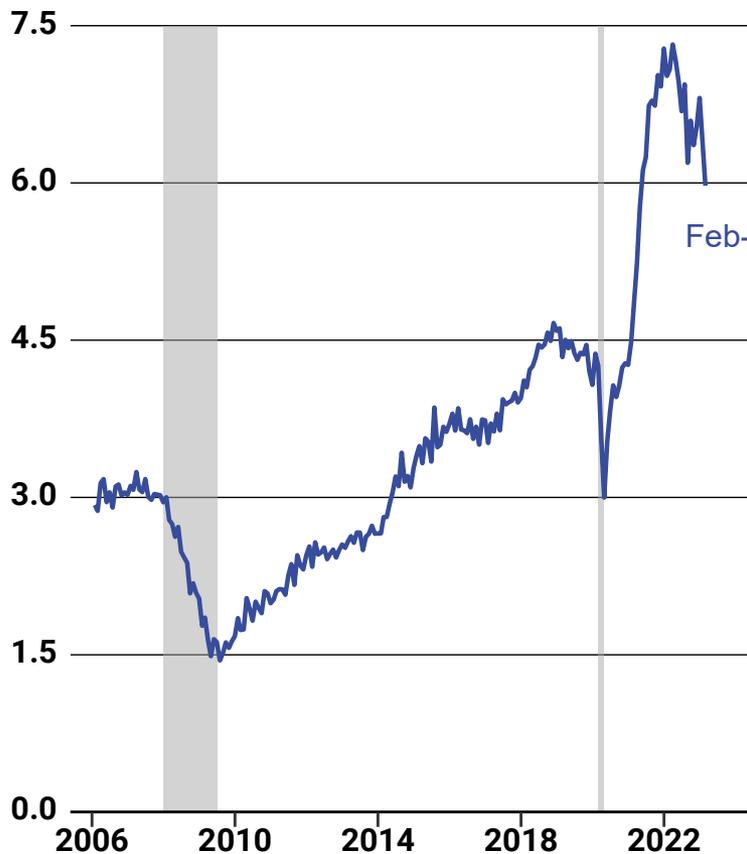


Source: Bureau of Labor Statistics via Haver Analytics, internal series from the Chicago Fed using methodology in Aaronson, Hu, Saifoddini, and Sullivan

# Job openings and quits off peak, but still high

## Job opening rate

(vacancies as a percent of labor force, SA)



Source: Bureau of Labor Statistics via Haver Analytics

## Quits rate

(percent of employment, SA)

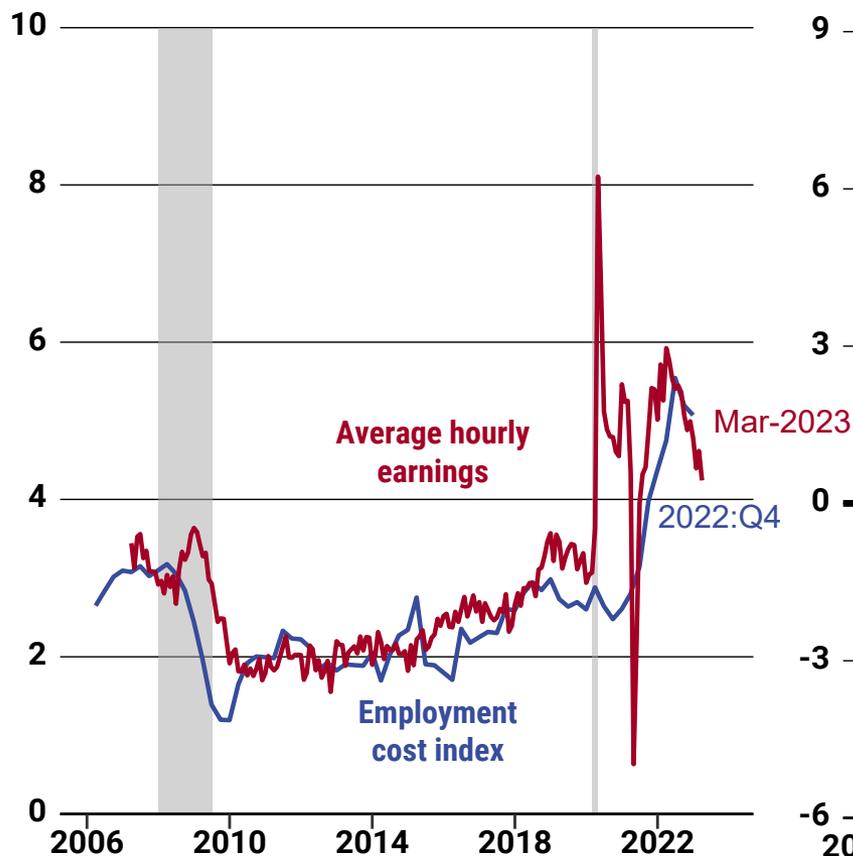


Source: Bureau of Labor Statistics via Haver Analytics

# Compensation, labor costs, and prices

## Compensation and wages

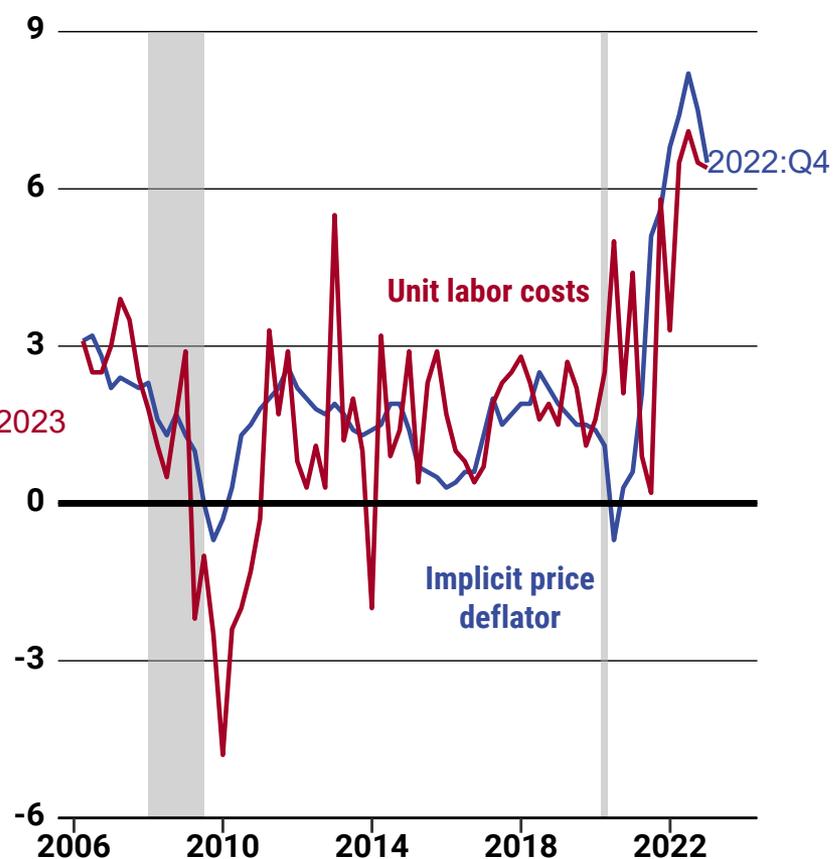
(private workers, percent change year-to-year, SA)



Source: Bureau of Labor Statistics via Haver Analytics

## Unit labor costs and inflation

(business sector, four-quarter percent change, SA)

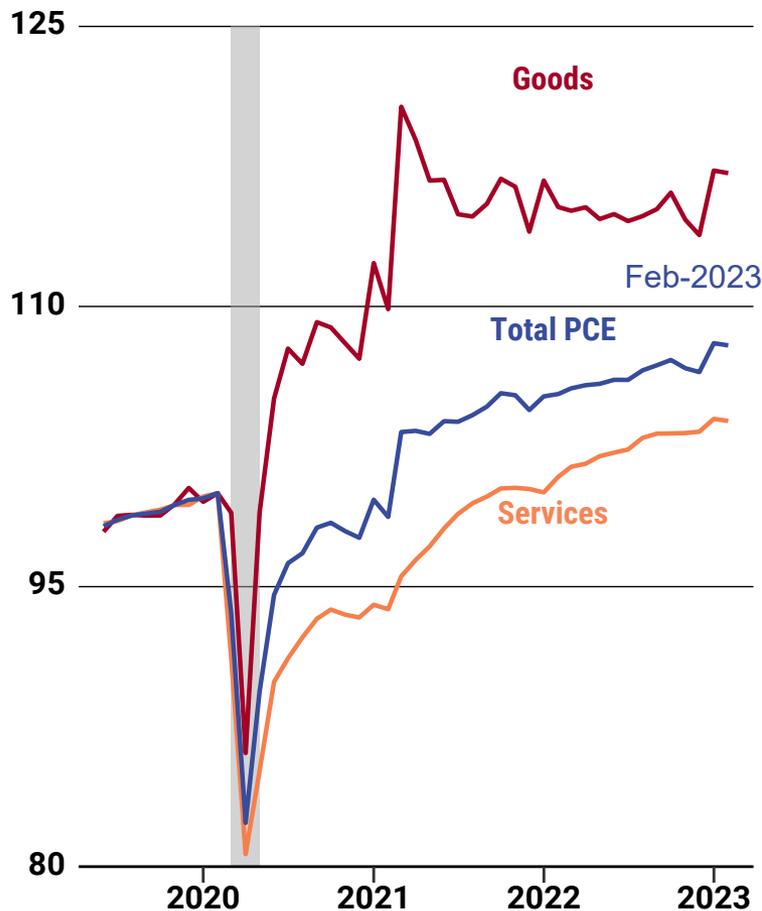


Source: Bureau of Labor Statistics via Haver Analytics

# Household spending

## Real personal consumption expenditures

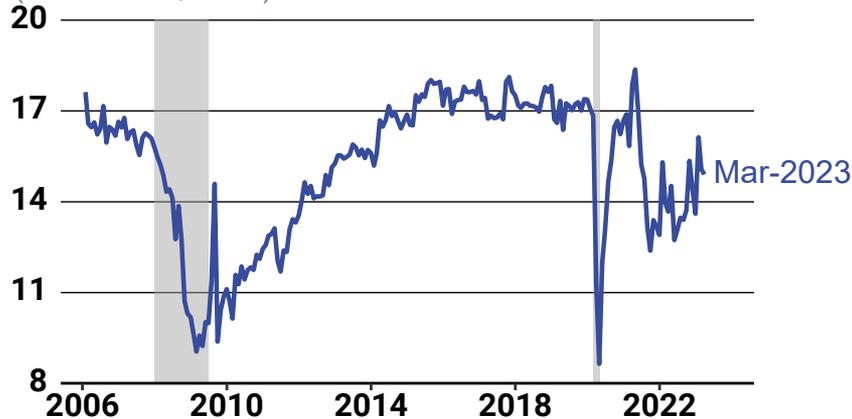
(indexed, Feb-2020 = 100)



Source: U.S. Bureau of Economic Analysis via Haver Analytics

## Light vehicle sales

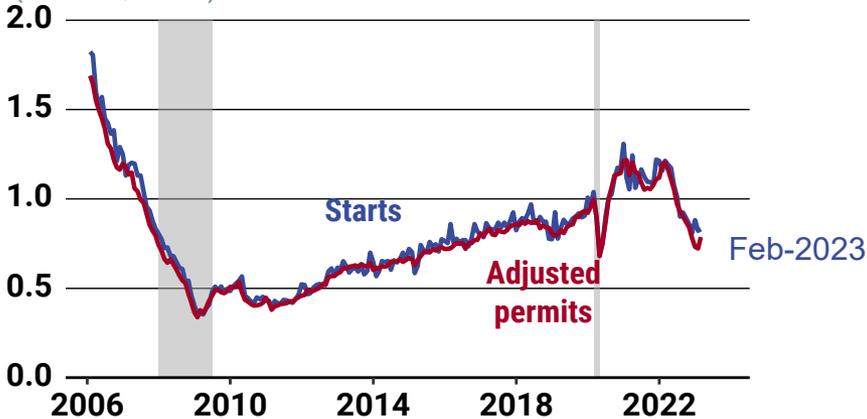
(million units, SAAR)



Source: Autodata via Haver Analytics

## Single family housing starts and permits

(millions, SAAR)

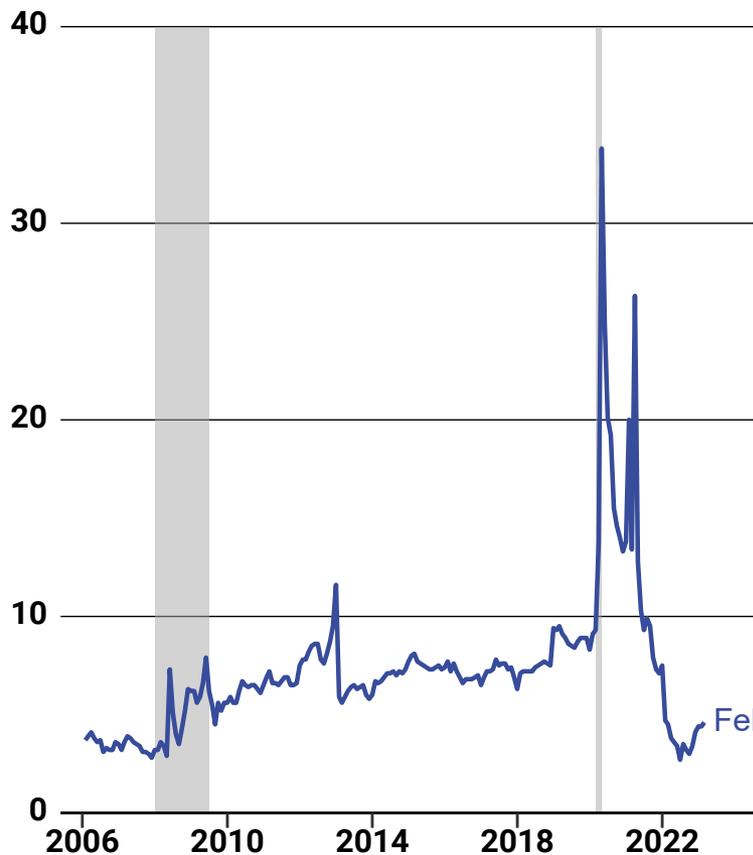


Source: Census Bureau via Haver Analytics

# Household balance sheets

## Personal saving rate

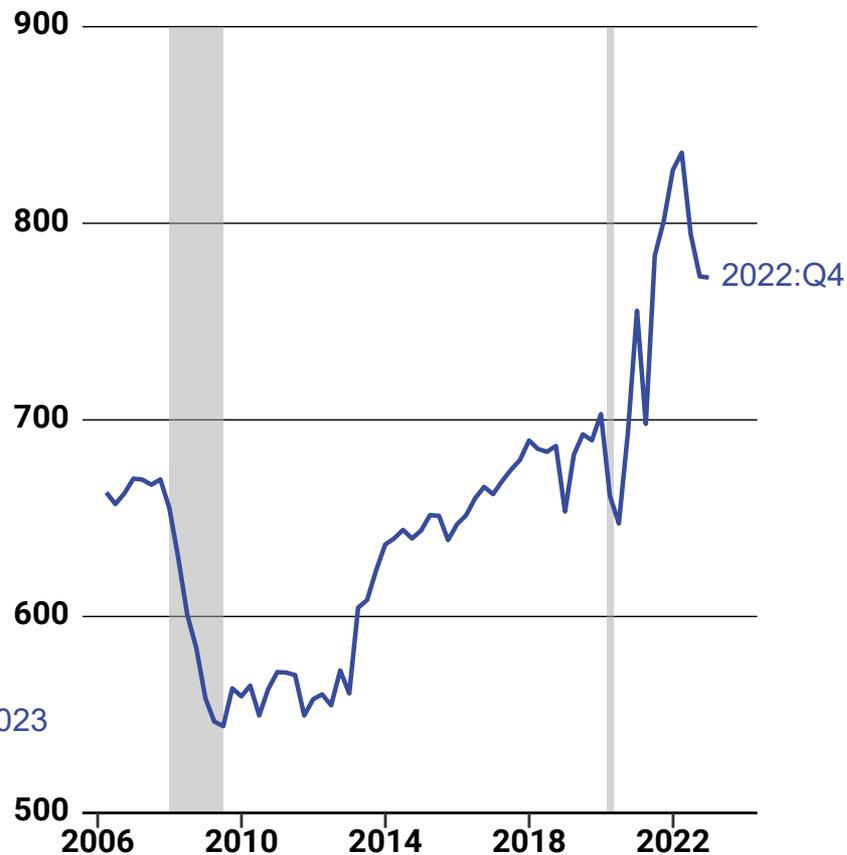
(percent of disposable income)



Source: Bureau of Economic Analysis via Haver Analytics

## Households & nonprofit organizations net worth

(percent of disposable personal income, EOP)

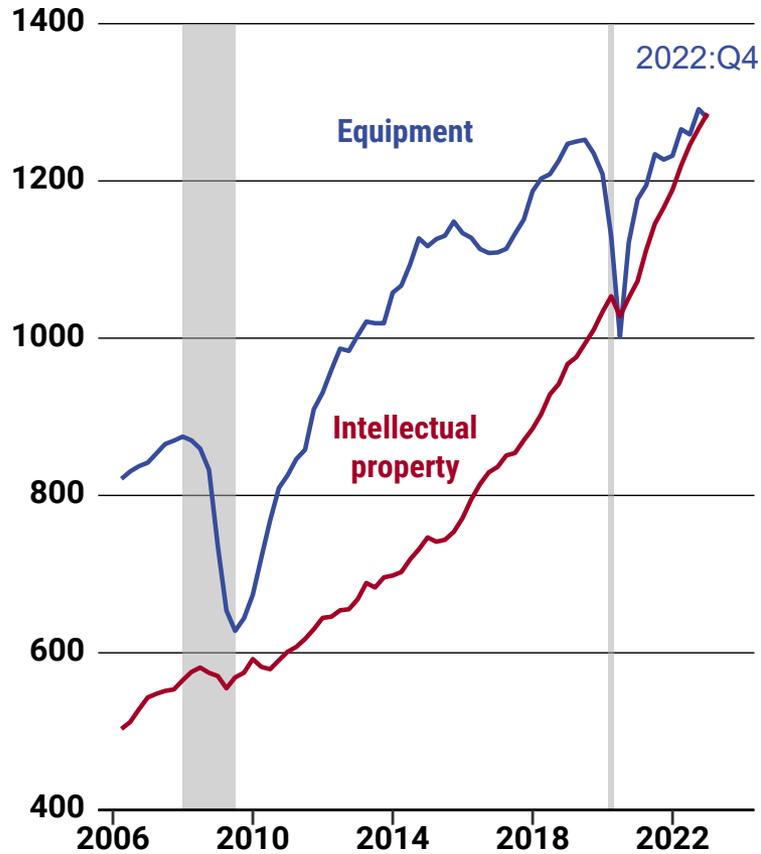


Source: Federal Reserve Board via Haver Analytics

# Nonresidential investment

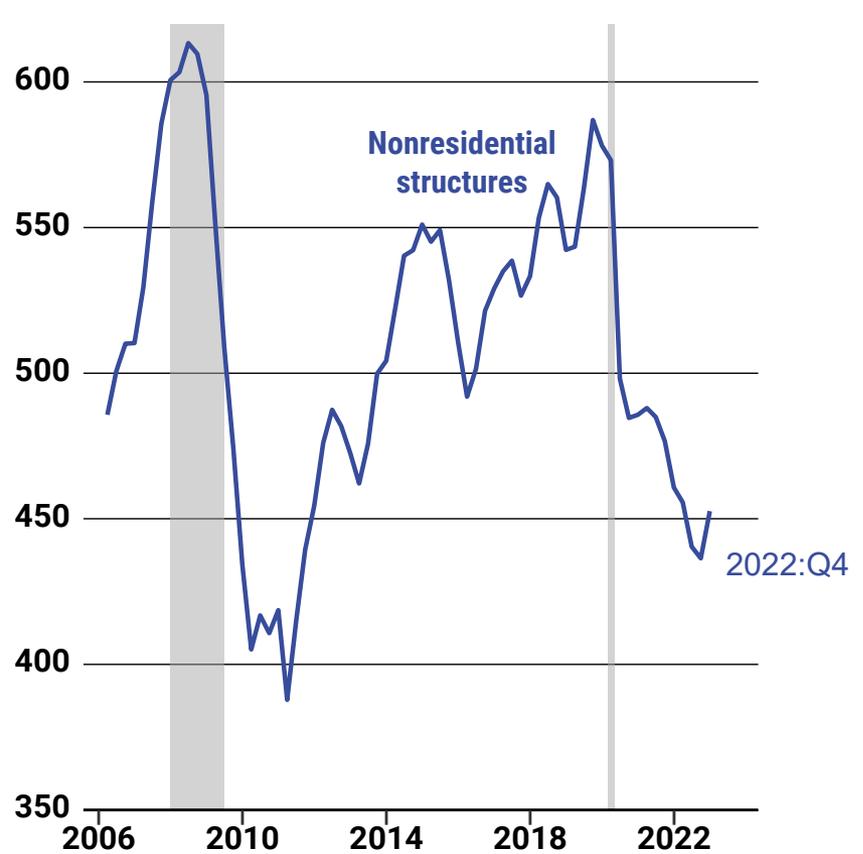
## Equipment and intellectual property

(bil. \$ 2012, SAAR)



## Structures

(bil. \$ 2012, SAAR)

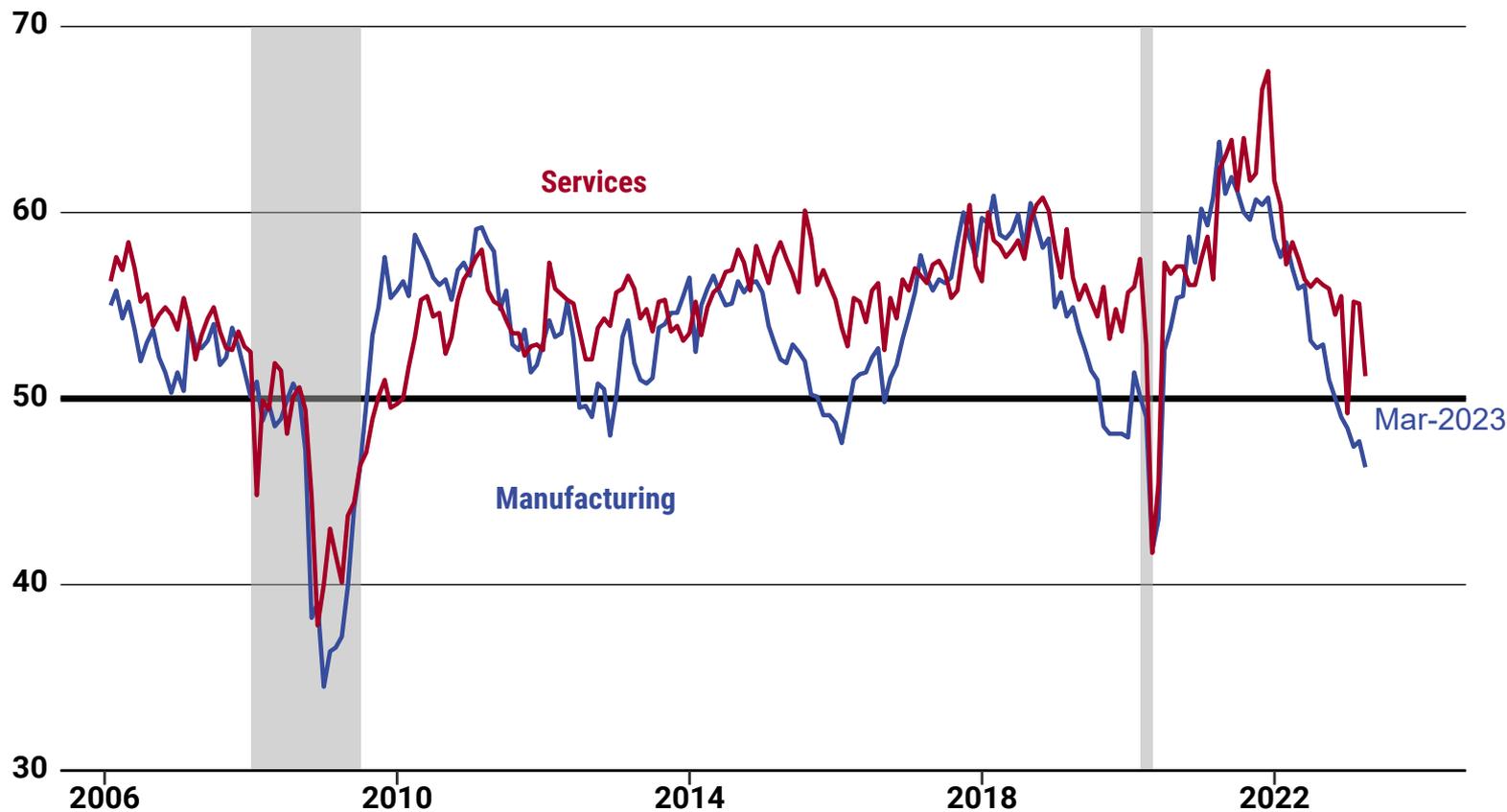


Source: Bureau of Economic Analysis via Haver Analytics

# Business activity

## Purchasing Managers Index

(above 50 is expansion)



Source: Institute for Supply Management via Haver Analytics

# Global growth outlook revised up

<b>IMF GDP Forecasts<sup>1</sup></b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>Advanced Economies</b>	<b>2.7</b>	<b>1.3</b>	<b>1.4</b>
<i>October</i>	2.4	1.1	
<b>Emerging Economies</b>	<b>4.0</b>	<b>3.9</b>	<b>4.2</b>
<i>October</i>	3.7	3.7	
<b>United Kingdom</b>	<b>4.0</b>	<b>-0.3</b>	<b>1.0</b>
<i>October</i>	3.6	0.3	
<b>Euro Area</b>	<b>3.5</b>	<b>0.8</b>	<b>1.4</b>
<i>October</i>	3.1	0.5	
<b>China</b>	<b>3.0</b>	<b>5.2</b>	<b>4.5</b>
<i>October</i>	3.2	4.4	

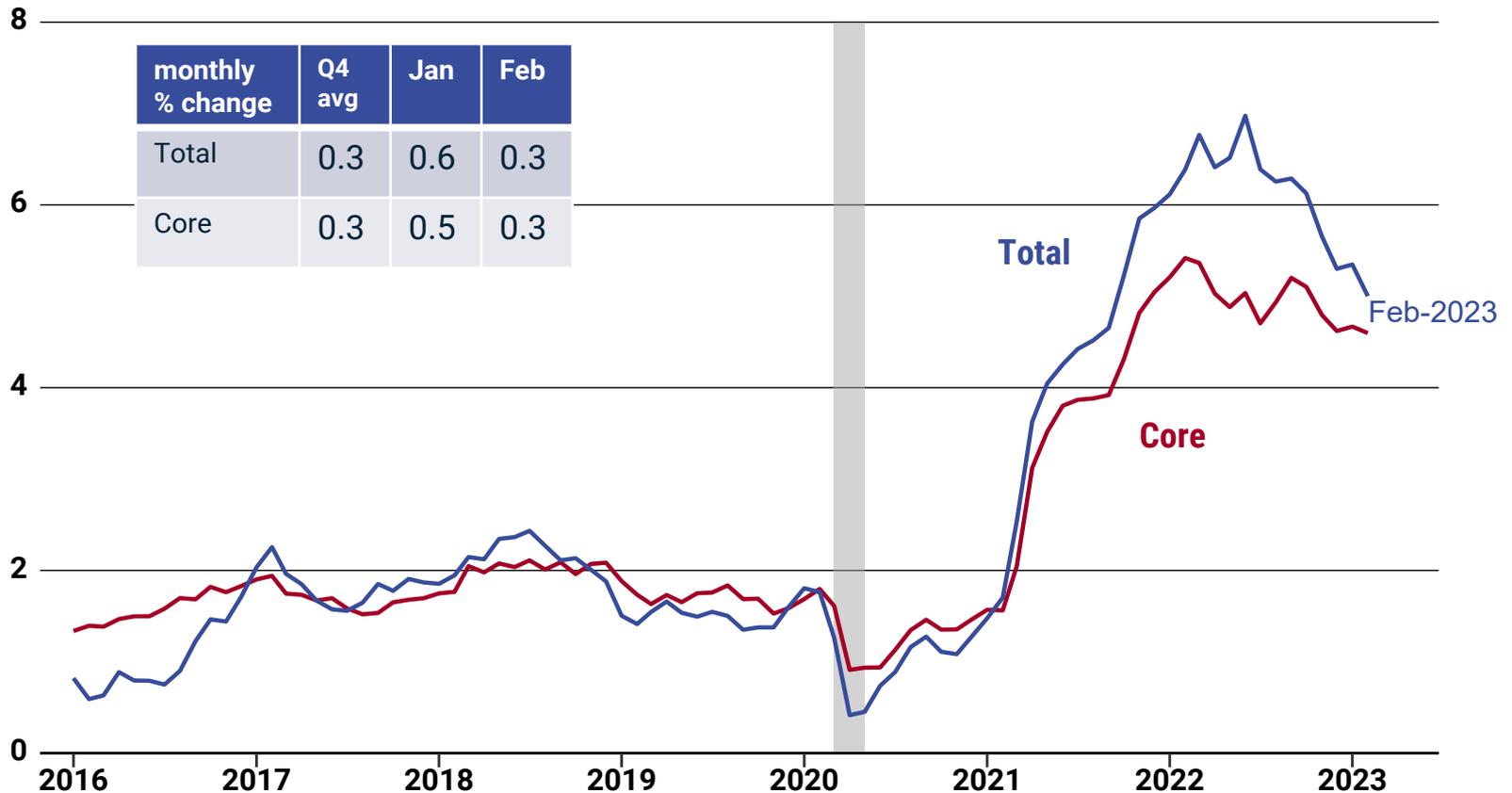
<sup>1</sup> Percent change in average annual level of real GDP

Source: International Monetary Fund World Economic Outlook, (current) and October 2022

# Inflation still high (PCE prices)

## Personal consumption expenditures price index

(seasonally adjusted percent change, year-over-year)

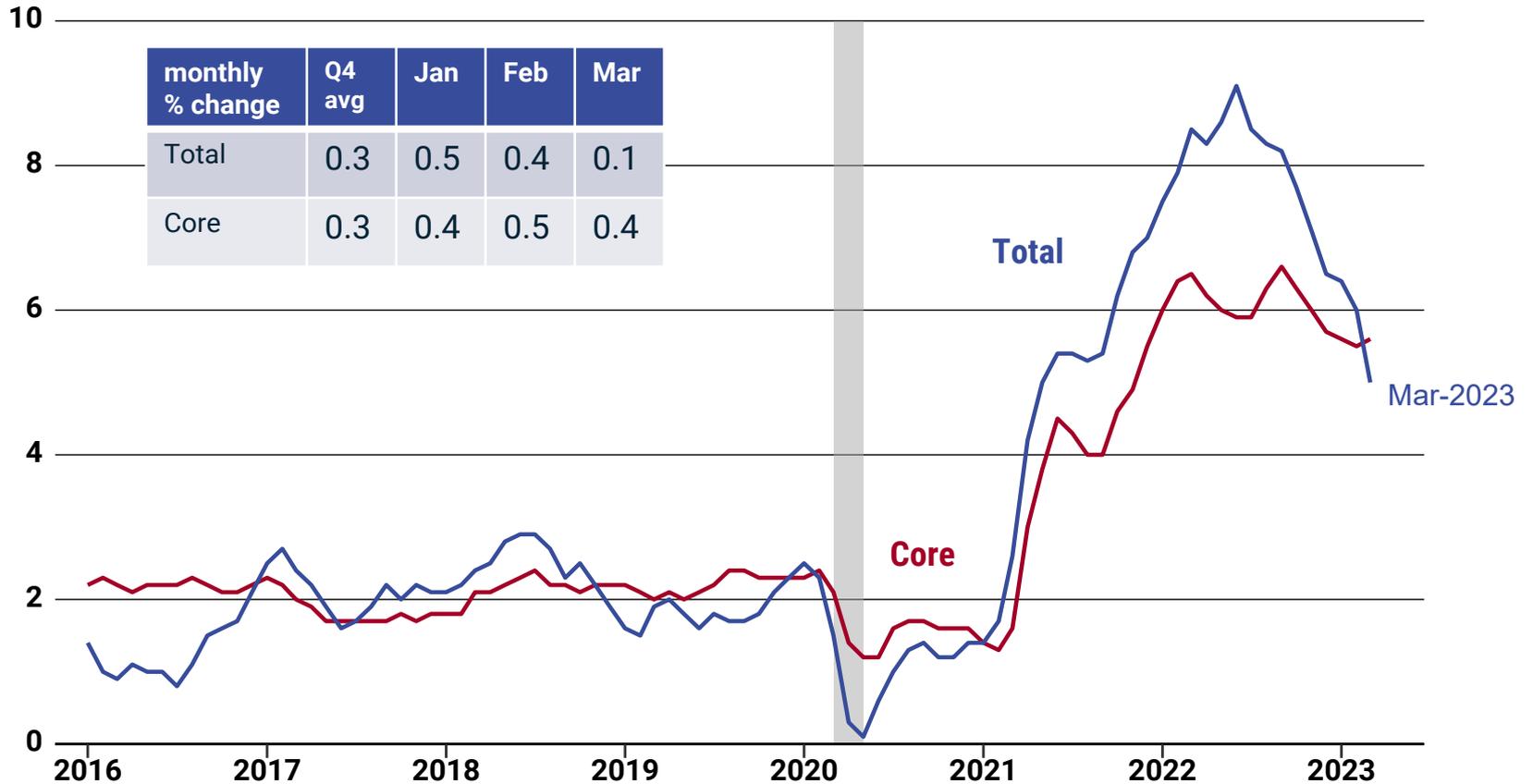


Source: Bureau of Economic Analysis via Haver Analytics

# Inflation still high (CPI)

## Consumer Price Index

(seasonally adjusted percent change, year-over-year)

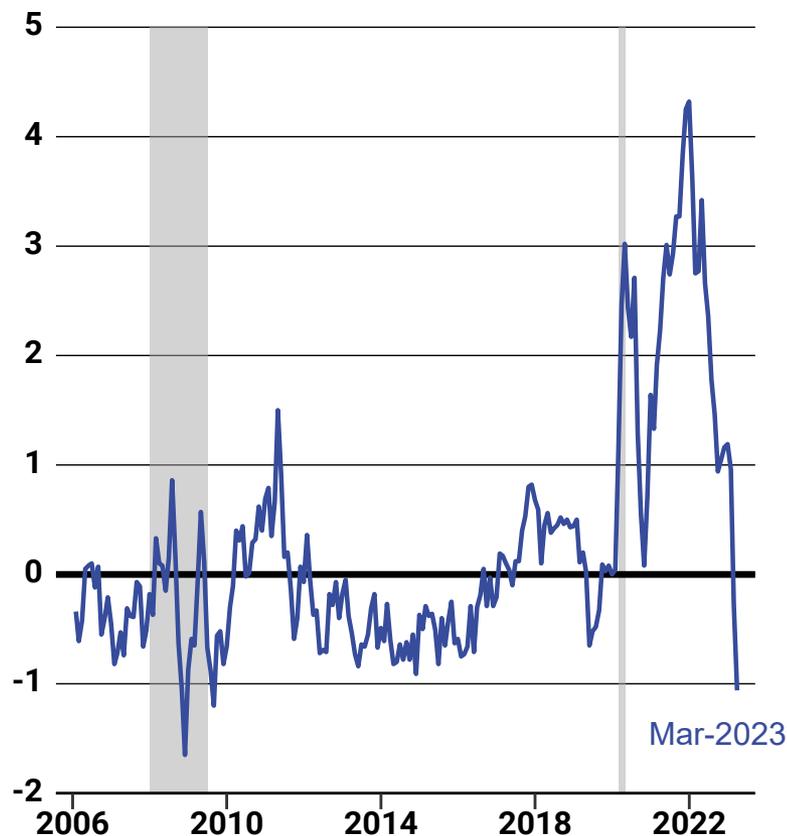


Source: Bureau of Labor Statistics via Haver Analytics

# Supply side repair and lower rents

## Global Supply Chain Pressure Index

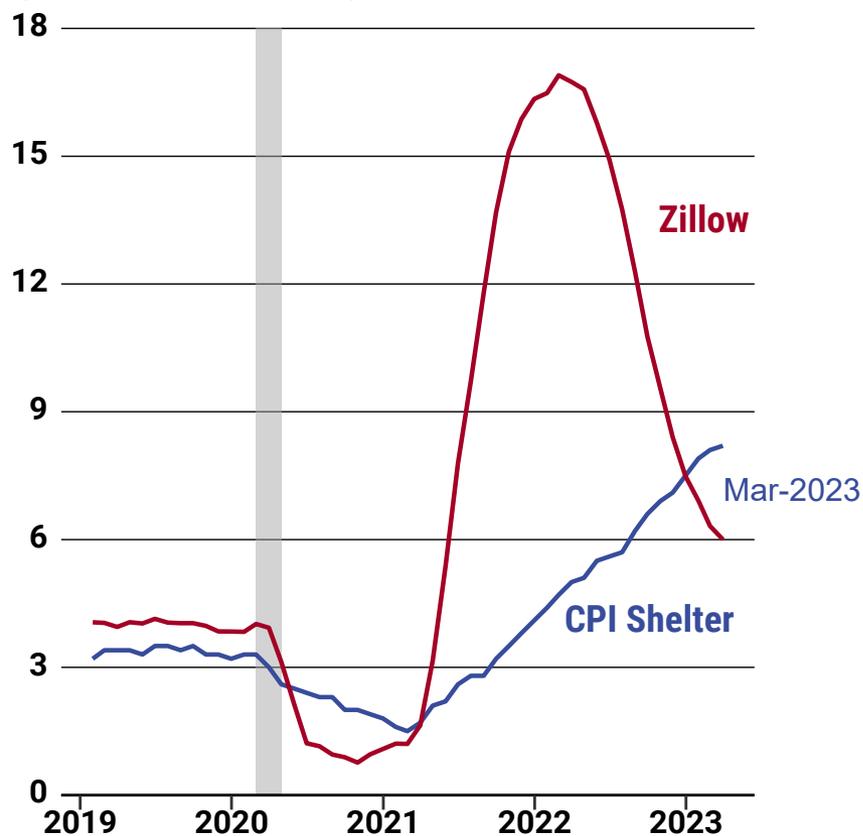
(standard deviations from average)



Source: Federal Reserve Bank of New York using data from Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv

## CPI shelter and Zillow Observed Rent Index

(12-month percent change)

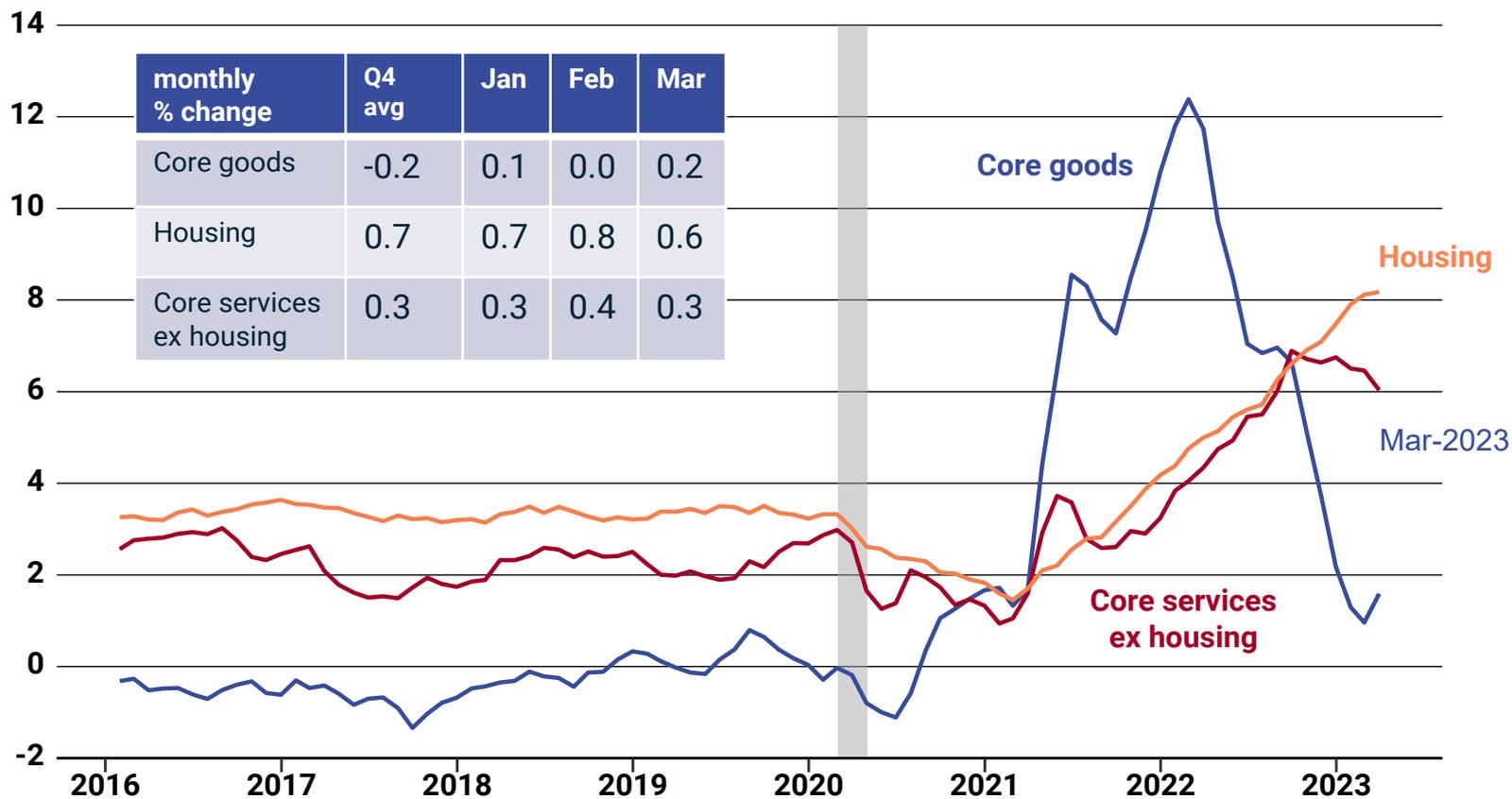


Source: BLS and Zillow via Haver Analytics

# Components of core CPI inflation

## Components of core CPI inflation

(12-month percent change)

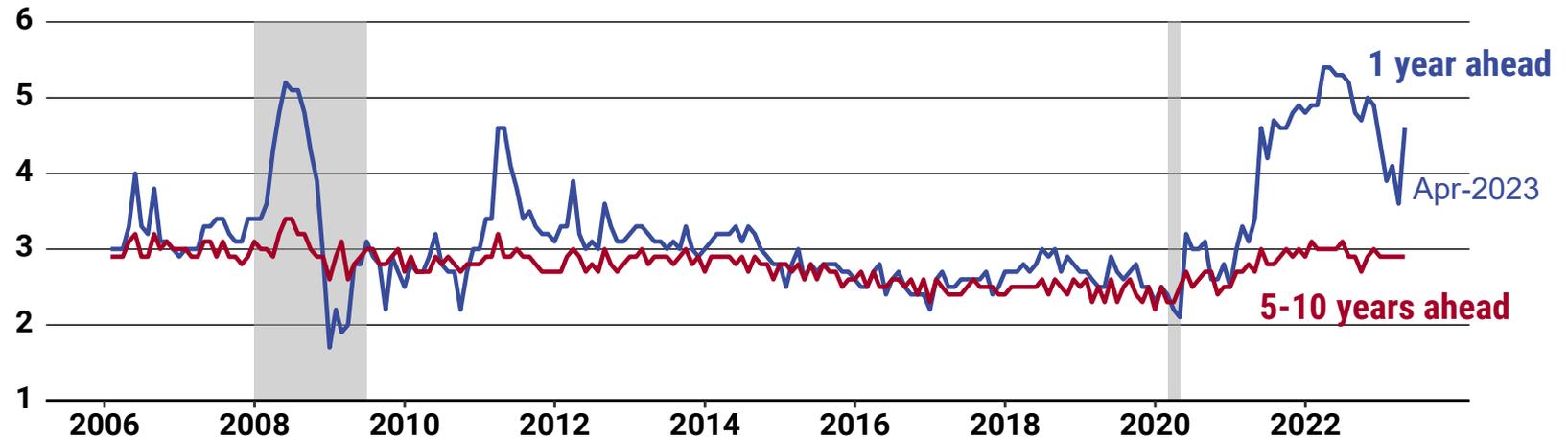


Source: Bureau of Labor Statistics via Haver Analytics

# Inflation expectations

## Michigan Survey of Inflation Expectations

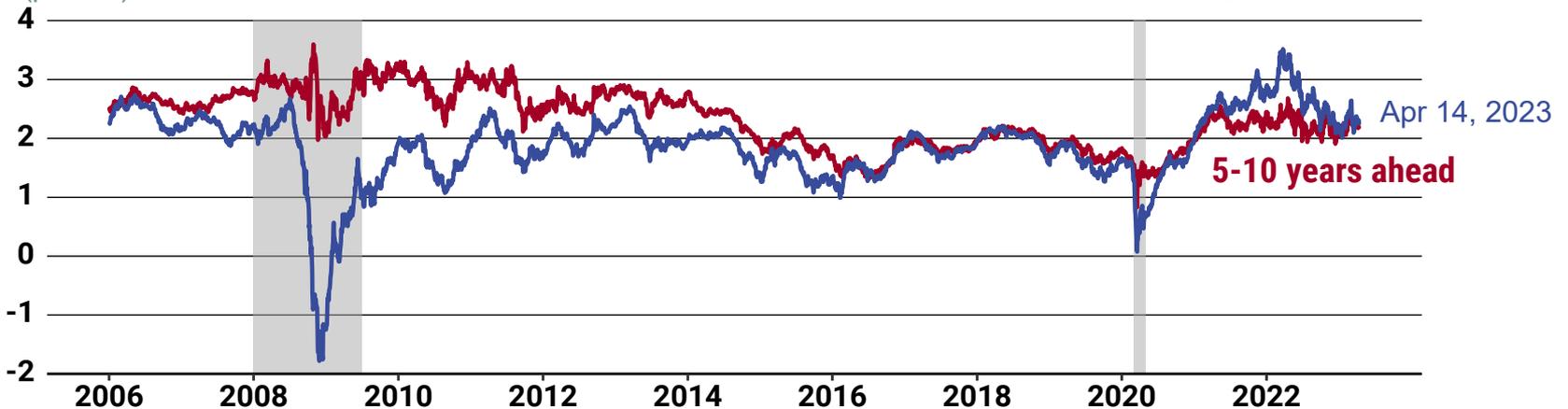
(percent)



Source: University of Michigan from Haver Analytics

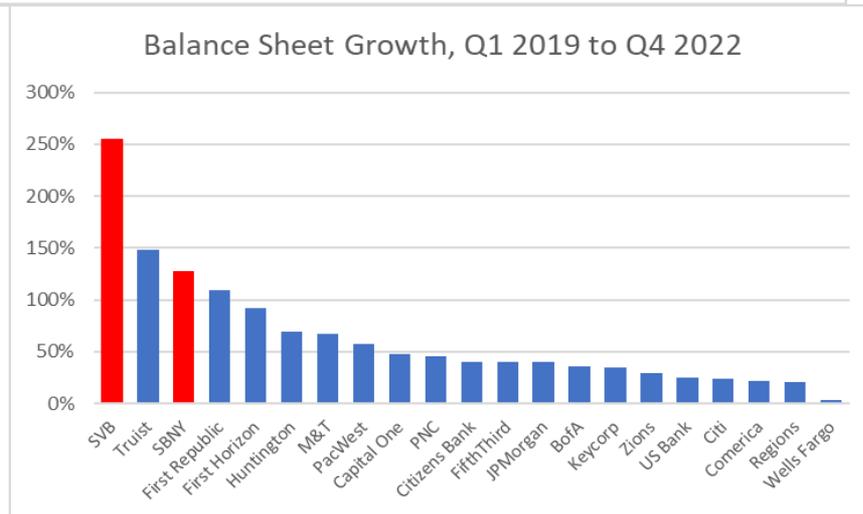
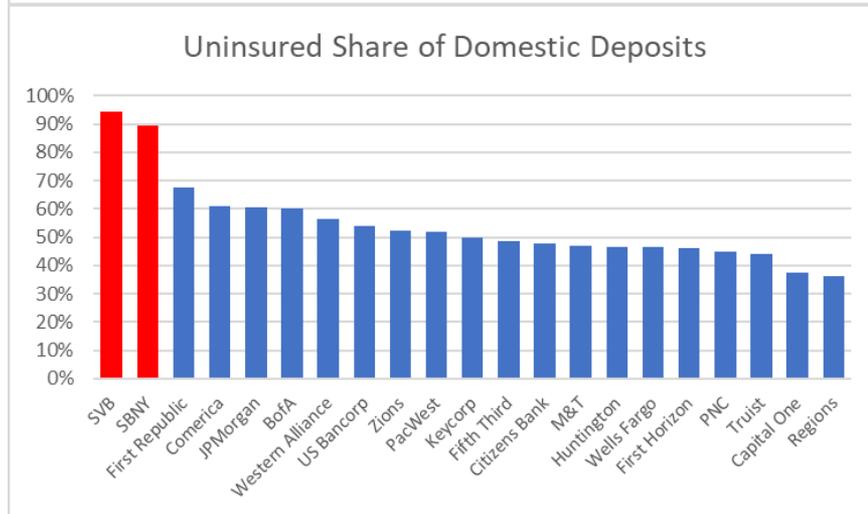
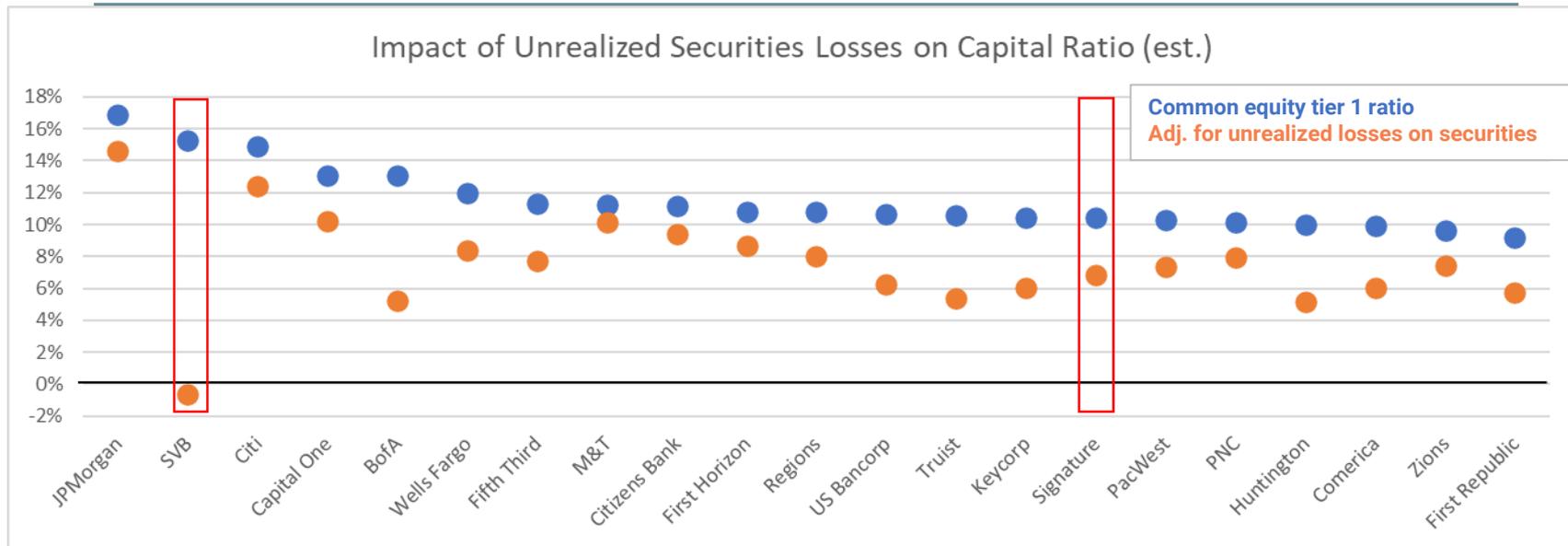
## TIPS inflation compensation

(percent)



Source: Board of Governors of the Federal Reserve System

# SVB and Signature Bank had unique circumstances



# Federal Reserve credit extensions

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## Credit Extended Through the Fed's Discount Window and BTFP

<i>\$ Billions</i>	2-Mar	15-Mar	29-Mar	12-Apr
Primary Credit	4.4	152.9	88.2	67.6
Bank Term Funding Program	-	11.9	64.4	71.8
Other Credit Extensions*	-	142.8	180.1	172.6

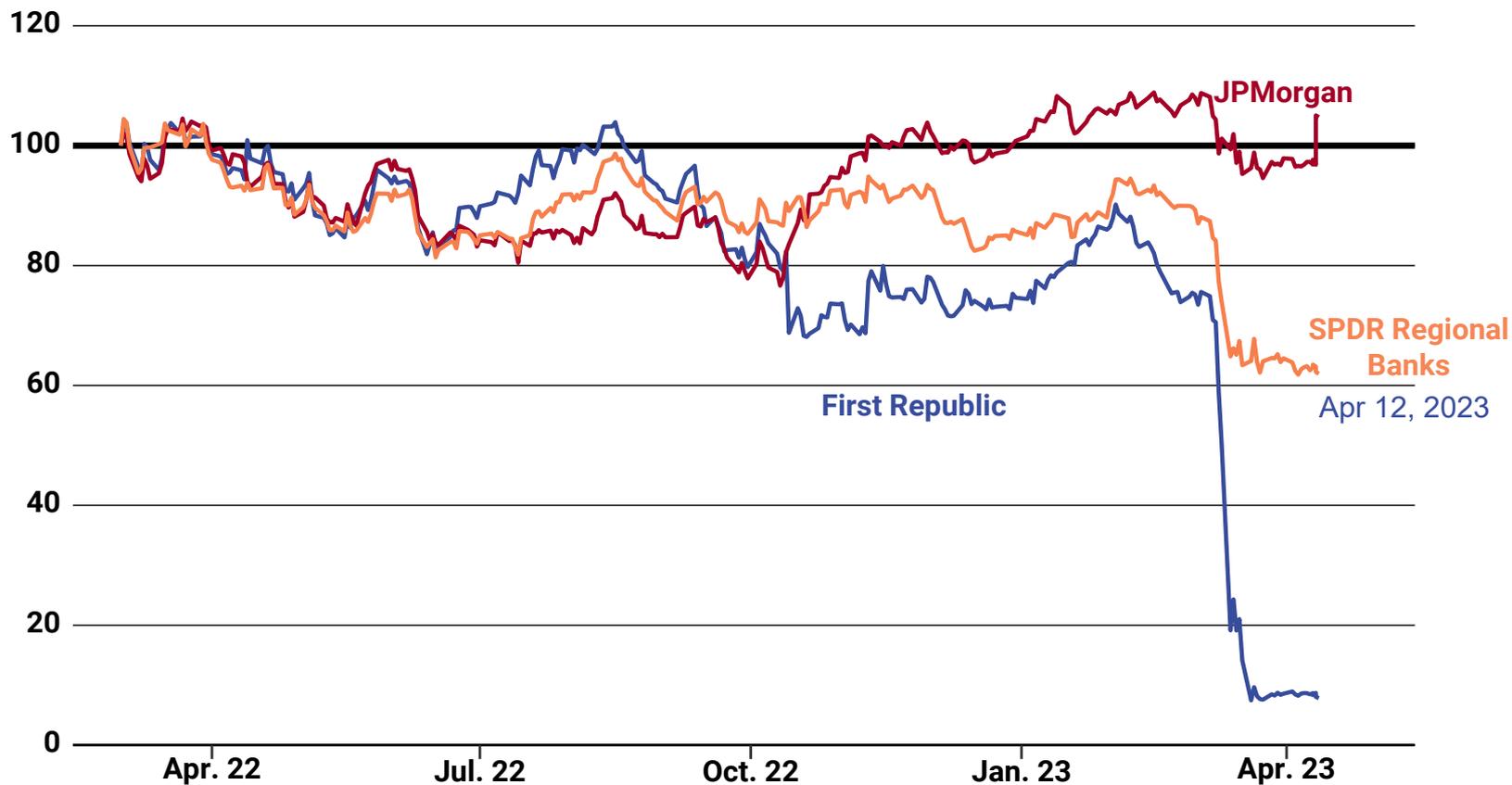
*\*Includes loans that were extended to depository institutions established by the Federal Deposit Insurance Corporation (FDIC). The Federal Reserve Banks' loans to these depository institutions are secured by collateral and the FDIC provides repayment guarantees.*

*Source: H.4.1 Factors Affecting Reserve Balances*

# Banking concerns: Selected stock prices

## Bank stock prices

(indexed, March 2022 = 100)

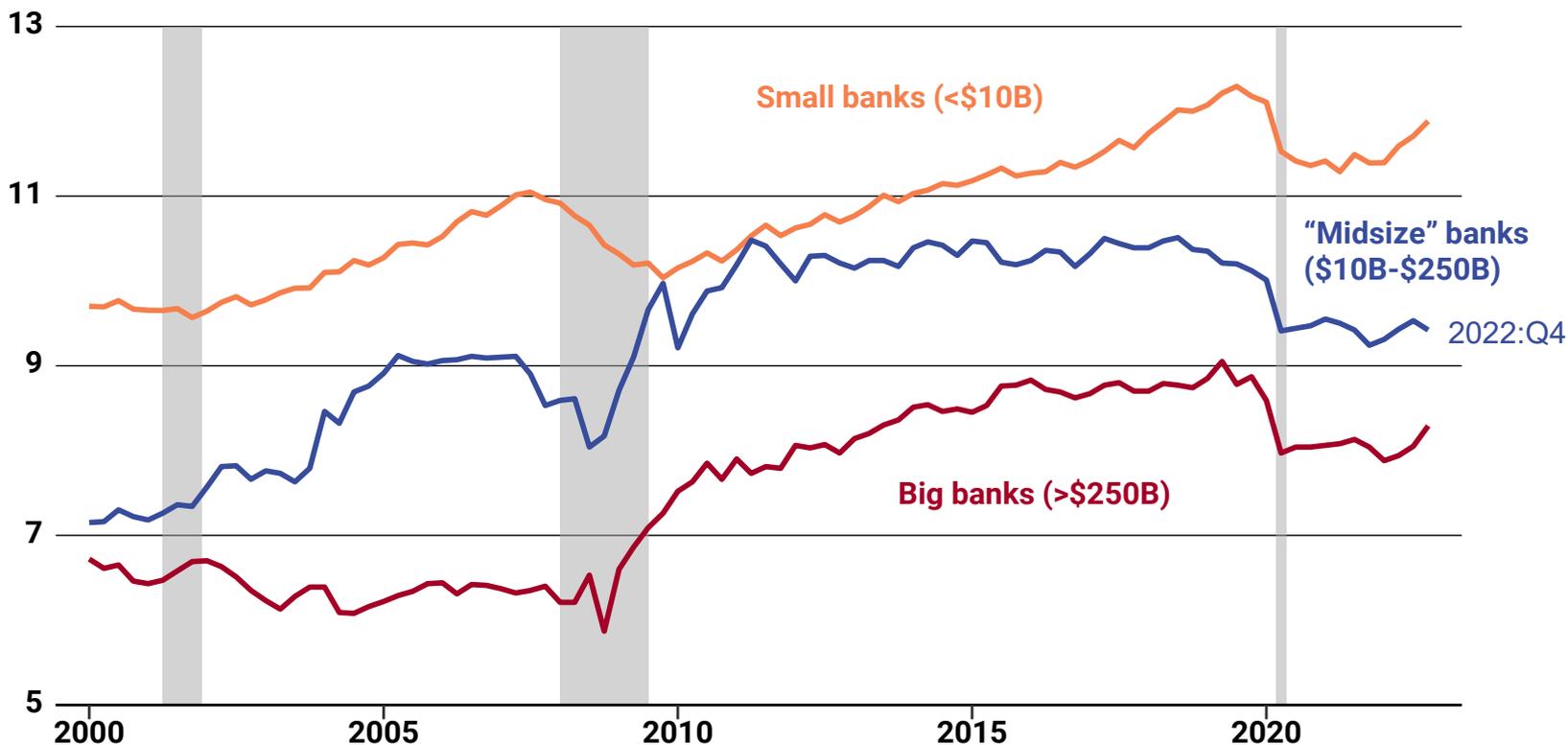


Source: Yahoo! Finance

# Overall banking system well capitalized

## Core capital (leverage) ratio

(percent)



Note: Leverage is the ratio of Tier 1 capital to total assets. Tier 1 capital includes: common equity; noncumulative perpetual preferred stock; and minority interests in consolidated subsidiaries less goodwill and other ineligible intangible assets. "Small" banks is the simple average of the leverage ratio for banks with <\$100M, \$100M-\$1B, and \$1B-\$10B in total assets, as reported in the FDIC's Quarterly Banking profile tables.

Source: FDIC via Haver Analytics

# Other financial market developments

## S&P 500 Index



Source: Standard & Poor's via Haver Analytics

## Treasury yields



Source: Board of Governors of the Federal Reserve System via Haver Analytics

# Other financial market developments, cont.

## 30-year fixed mortgage rate

(percent)



Source: Wall Street Journal via Haver Analytics

## Chicago Fed National Financial Conditions Index

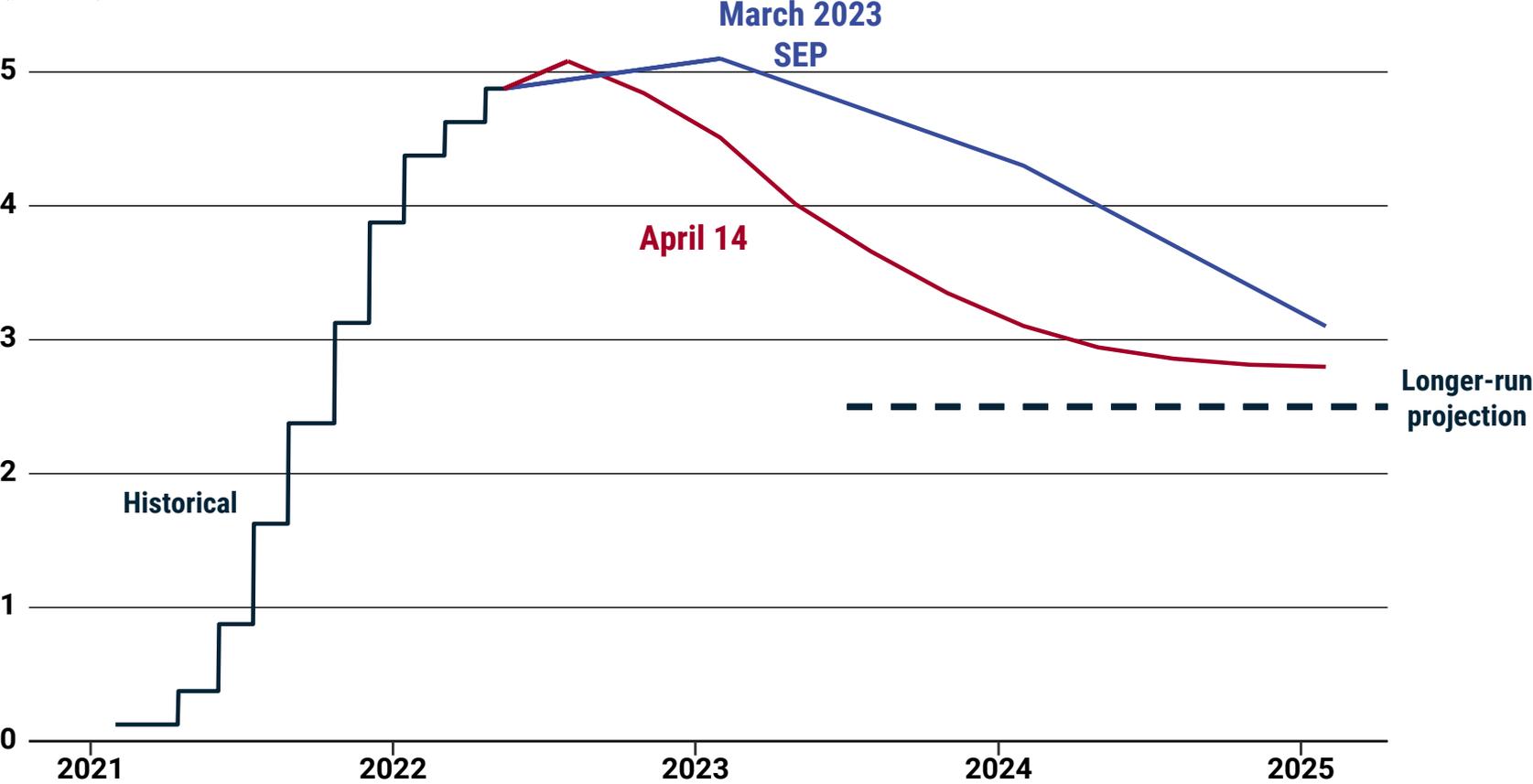
(>0 indicates tighter than average)



Source: Federal Reserve Bank of Chicago from Haver Analytics

# Fed funds rate paths

**Median SEP federal funds rate projection**  
(percent)

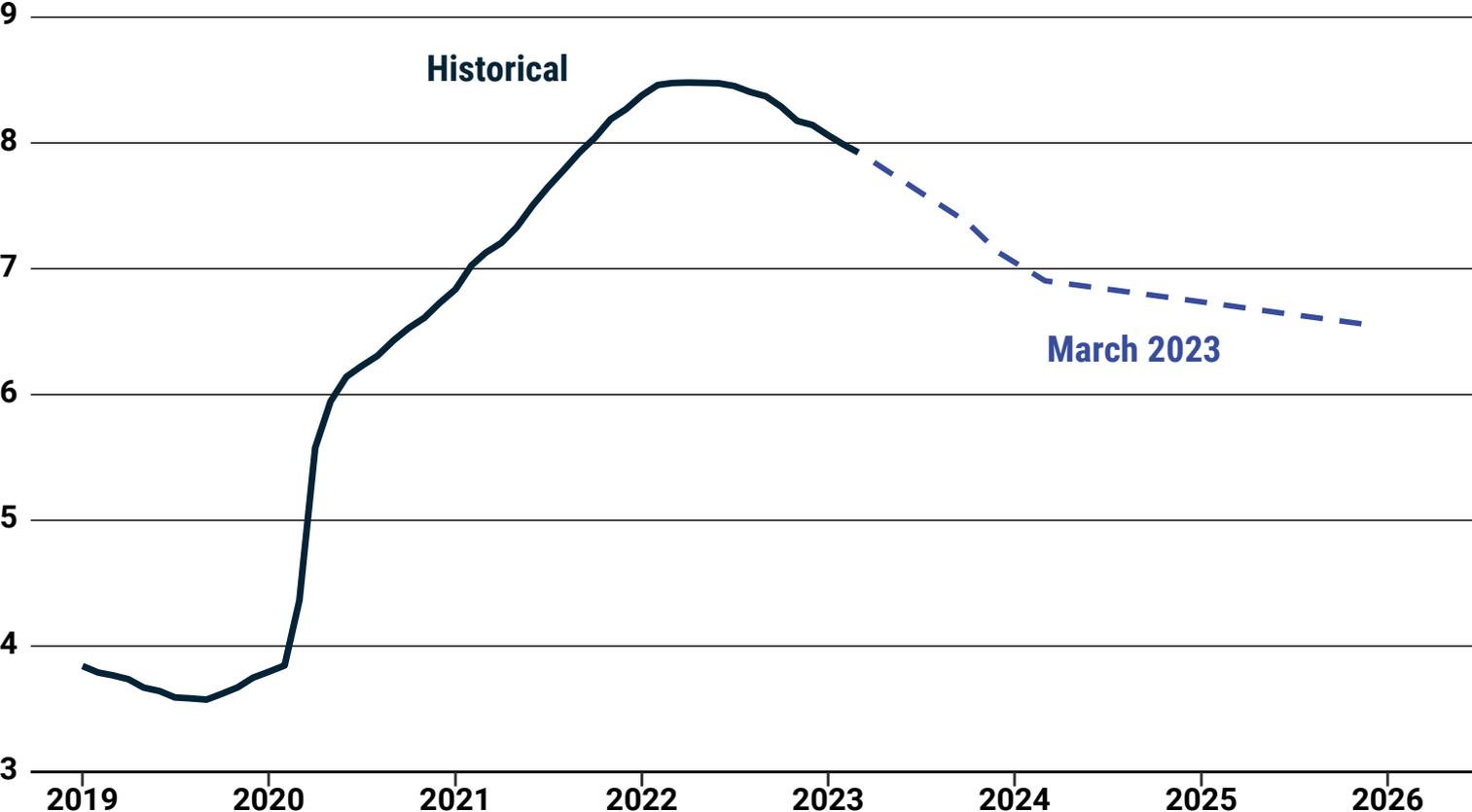


*Note: Median SEP projections are plotted at the end of their respective year*  
*Sources: FOMC Summary of Economic Projections via Haver Analytics*

# Balance sheet reduction

## Key Federal Reserve assets

(tril. \$)



Note: Key assets include U.S. Treasury securities and agency mortgage-backed securities  
Source: Federal Reserve Board via Haver Analytics; FRBNY Survey of Market Participants

# Median SEP outlook

Projection	2023	2024	2025	Long run
<b>GDP</b>	<b>0.4</b>	<b>1.2</b>	<b>1.9</b>	<b>1.8</b>
<i>December</i>	<i>0.5</i>	<i>1.6</i>	<i>1.8</i>	<i>1.8</i>
<b>Unemployment rate</b>	<b>4.5</b>	<b>4.6</b>	<b>4.6</b>	<b>4.0</b>
<i>December</i>	<i>4.6</i>	<i>4.6</i>	<i>4.5</i>	<i>4.0</i>
<b>Total PCE</b>	<b>3.3</b>	<b>2.5</b>	<b>2.1</b>	<b>2.0</b>
<i>December</i>	<i>3.1</i>	<i>2.5</i>	<i>2.1</i>	<i>2.0</i>
<b>Core PCE</b>	<b>3.6</b>	<b>2.6</b>	<b>2.1</b>	
<i>December</i>	<i>3.5</i>	<i>2.5</i>	<i>2.1</i>	

Source: FOMC Summary of Economic Projections, March 2023

# Blue Chip consensus forecasts

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<b>Variable</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>GDP<sup>1</sup></b>		<b>0.3</b>	<b>1.6</b>
<i>November</i>	<i>0.2</i>	<i>0.1</i>	
<b>Unemployment rate<sup>2</sup></b>		<b>4.3</b>	<b>4.6</b>
<i>November</i>	<i>3.7</i>	<i>4.7</i>	
<b>PCE inflation<sup>1</sup></b>		<b>3.0</b>	<b>2.2</b>
<i>November</i>	<i>5.8</i>	<i>2.9</i>	
<b>Core PCE inflation<sup>1</sup></b>		<b>3.4</b>	<b>2.3</b>
<i>November</i>	<i>4.9</i>	<i>3.0</i>	

<sup>1</sup>Q4/Q4 percent changes

<sup>2</sup>Q4 level

Source: Blue Chip Consensus Forecast via Haver Analytics, April 2023 (current) and November 2022



[www.chicagofed.org](http://www.chicagofed.org)

# Appendix

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# Slide 16 methodological notes

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**Top:** All capital ratio data are from Federal Financial Institution Examination Council (FFIEC) call reports. Common equity tier 1 (CET1) ratio is the ratio of common equity tier 1 to risk-weighted assets (RWA). Adjustments for unrealized losses were made on a case-by-case basis. For globally systemic important banks (GSIBs) – Bank of America, Citi, JPMorgan, and Wells Fargo – unrealized losses were calculated as the difference between the value of these banks’ “held-to-maturity” (HTM) securities portfolios on an amortized cost basis and a fair value basis. This amount was then subtracted from CET1 and divided by RWA to produce an adjusted CET1 ratio.

Each of the non-GSIBs had the same adjustment plus a similar adjustment for “available-for-sale” (AFS) securities. The latter adjustment was necessary because each of these non-GSIBs had opted into the accumulated other comprehensive income (AOCI) election on their call report form. The AOCI election effectively allowed these banks to net out the impact of mark-to-market valuation changes to AFS securities on their capital ratios, which GSIBs are unable to do.

**Bottom left:** Bars show the percent change in total assets from Q1 2019 to Q4 2022 as reported on each institution’s financial report on the FDIC’s website.

**Bottom right:** Bars show the estimated share of uninsured deposits based on the estimated share of insured deposits reported on each institution’s financial report on the FDIC’s website. Notably, this estimate represents the share of *domestic* insured deposits. Deposits held at foreign branches were excluded from this analysis.