



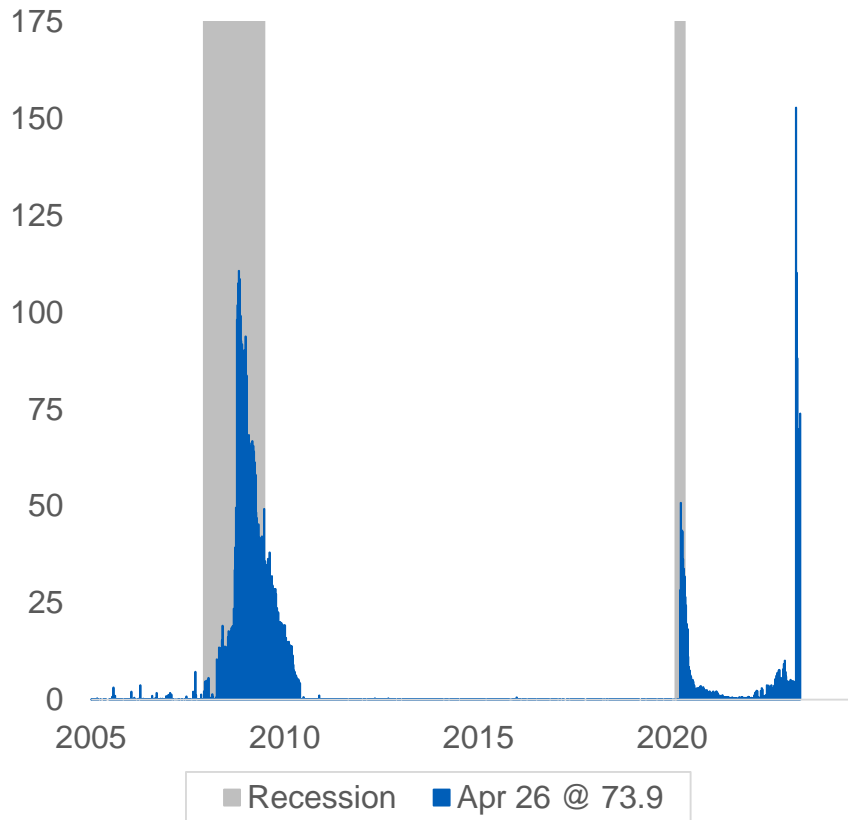
*May 3, 2023*

## Meet the Money Conference

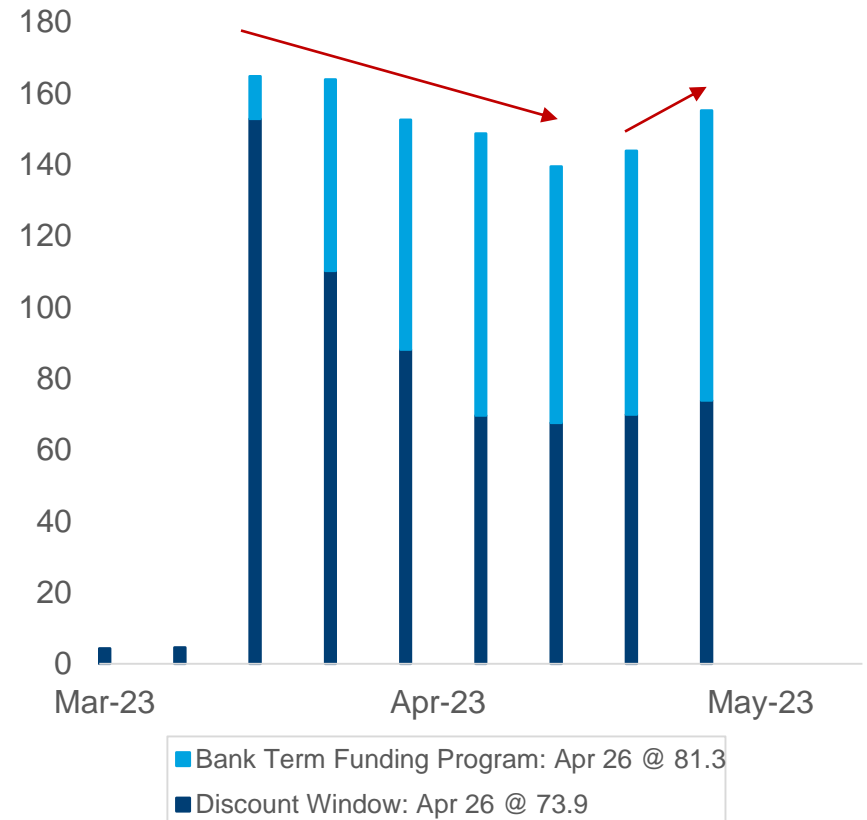
Paul Single  
Managing Director and Senior Economist  
[paul.single@cnr.com](mailto:paul.single@cnr.com)

# Recent News

Discount Window Borrowings  
\$, billions, not seasonally adjusted



Borrowing at the Fed  
\$, billions, not seasonally adjusted

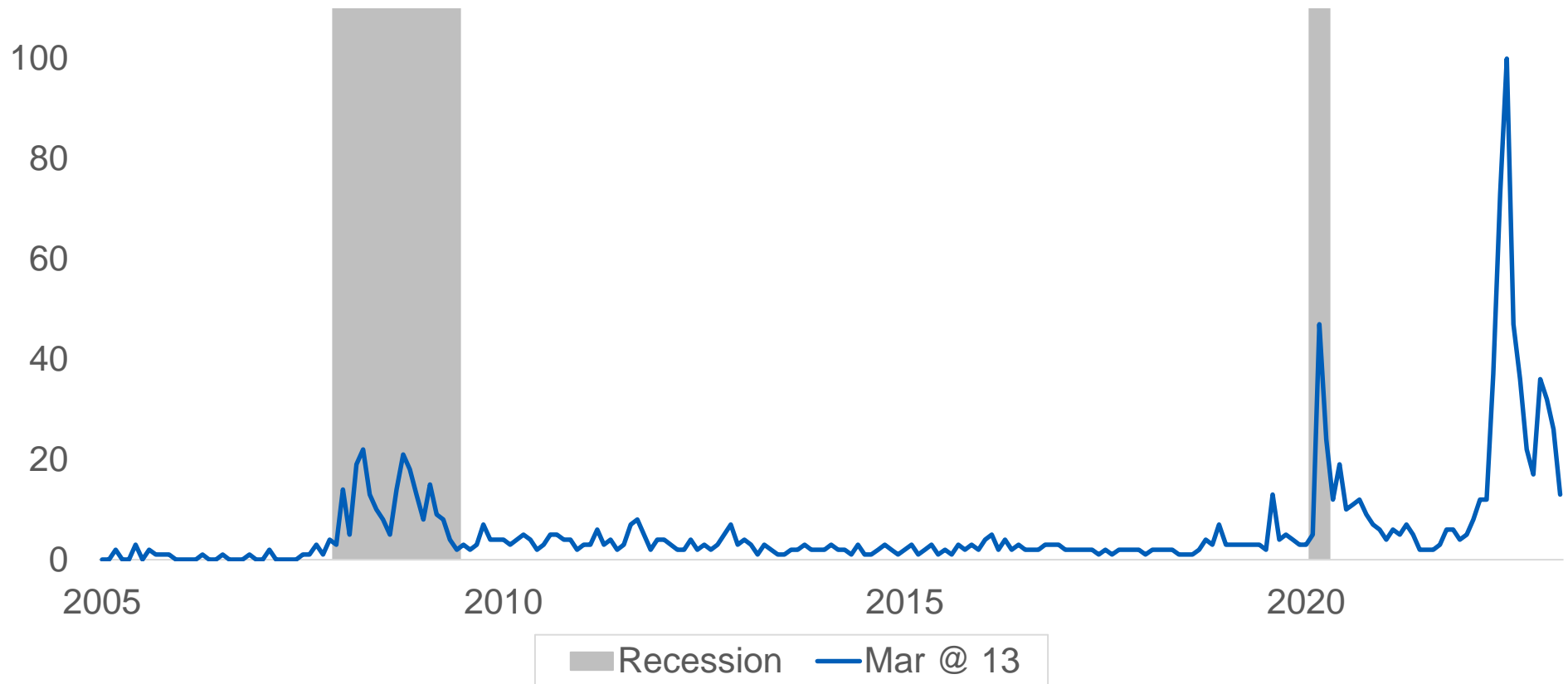


Data current as of April 30, 2023  
Source: Federal Reserve Bank  
Information is subject to change and is not a guarantee of future results.



# The "Godot" Recession

Google Search: "Are we in a recession?"



Data current as of April 30, 2023

Source: Google

Information is subject to change and is not a guarantee of future results.



“In economics, things take longer to happen than you think they will, and they happen faster than you thought they could.”

-Rudi Dornbusch, MIT Economist



# Recession



# Recession

A significant decline in economic activity spread across the economy, lasting more than a few months.

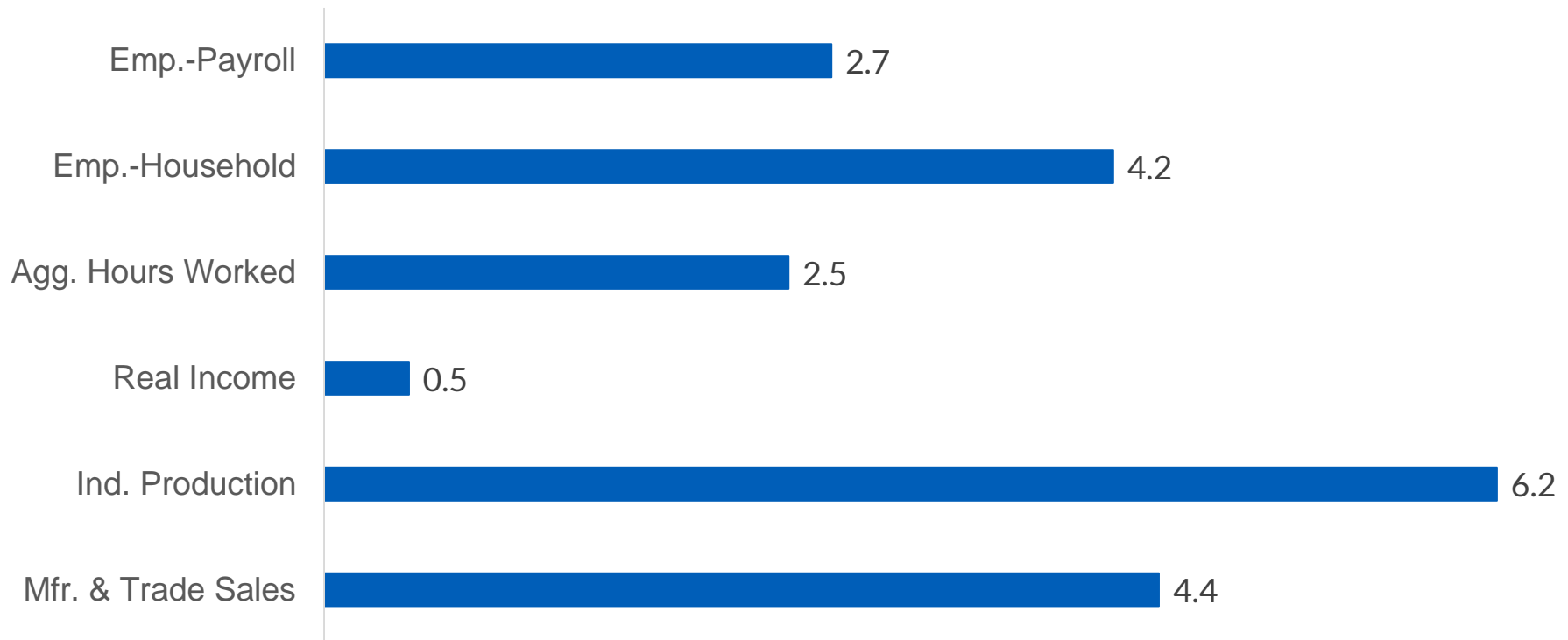
It is normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

Source: National Bureau of Economic Research  
Information is subject to change and is not a guarantee of future results.



# Recession

NBER - Recession Indicators  
*% , three month change, annualized*



Data current as of April 30, 2023

Source: Bureau of Economic Research, Bureau of Labor Statistics, Federal Reserve, U.S. Census Bureau Labor reports (April), Income report (March), Industrial Production (March), and Mfr. & Trade sales (January)  
Information is subject to change and is not a guarantee of future results.



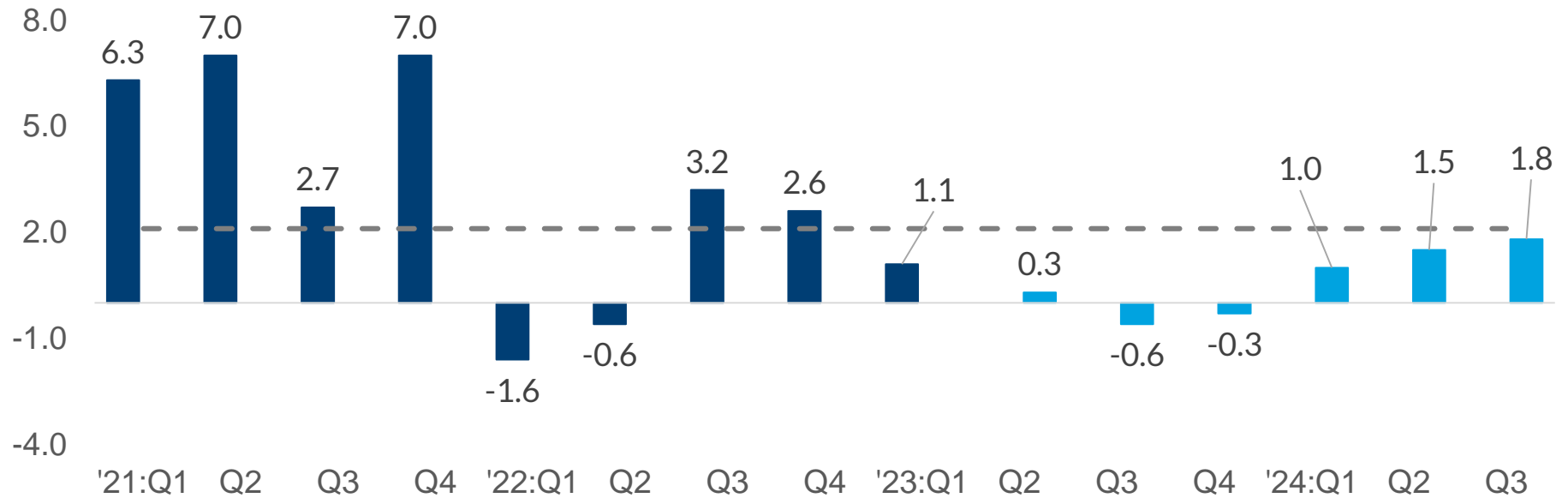
# GDP





# GDP

GDP: Actual and Forecast  
 % change, q-o-q, seasonally adjusted annualized rate

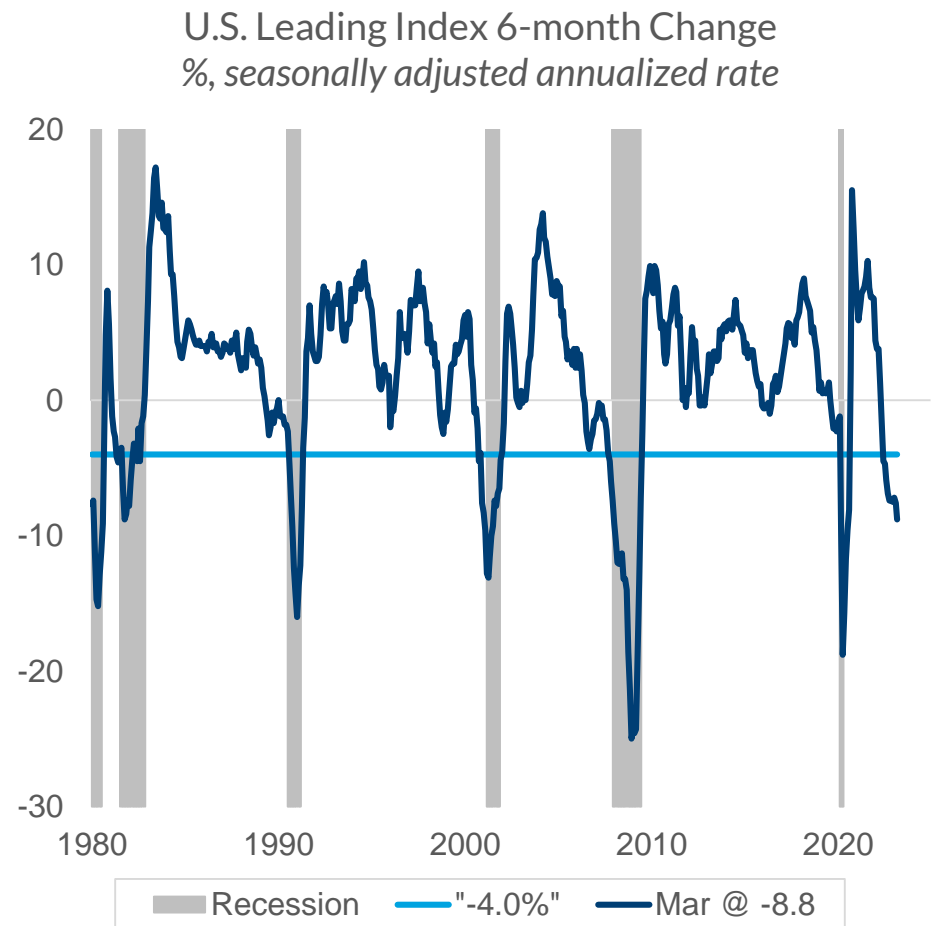
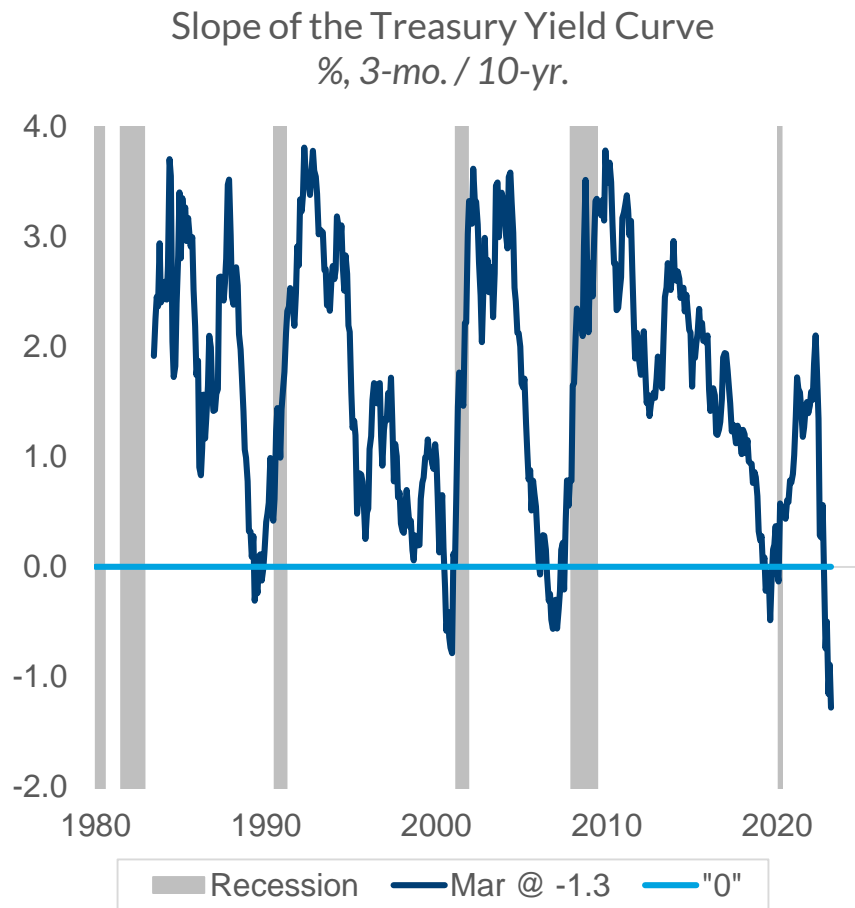


Actual q-o-q
  Bloomberg Survey of Forecasts q-o-q
  Average since 2000 @ 2.1

Data current as of April 30, 2023  
 Source: Bureau of Economic Research, Bloomberg  
 Information is subject to change and is not a guarantee of future results.



# GDP - Leading Indicators of a Recession



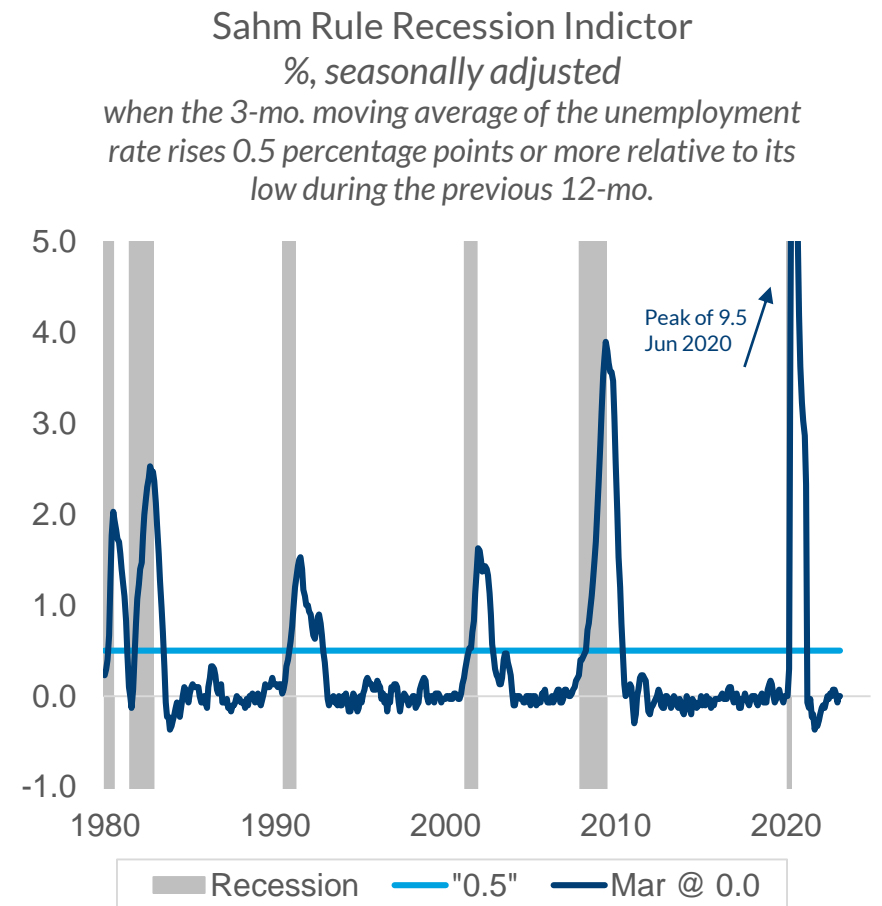
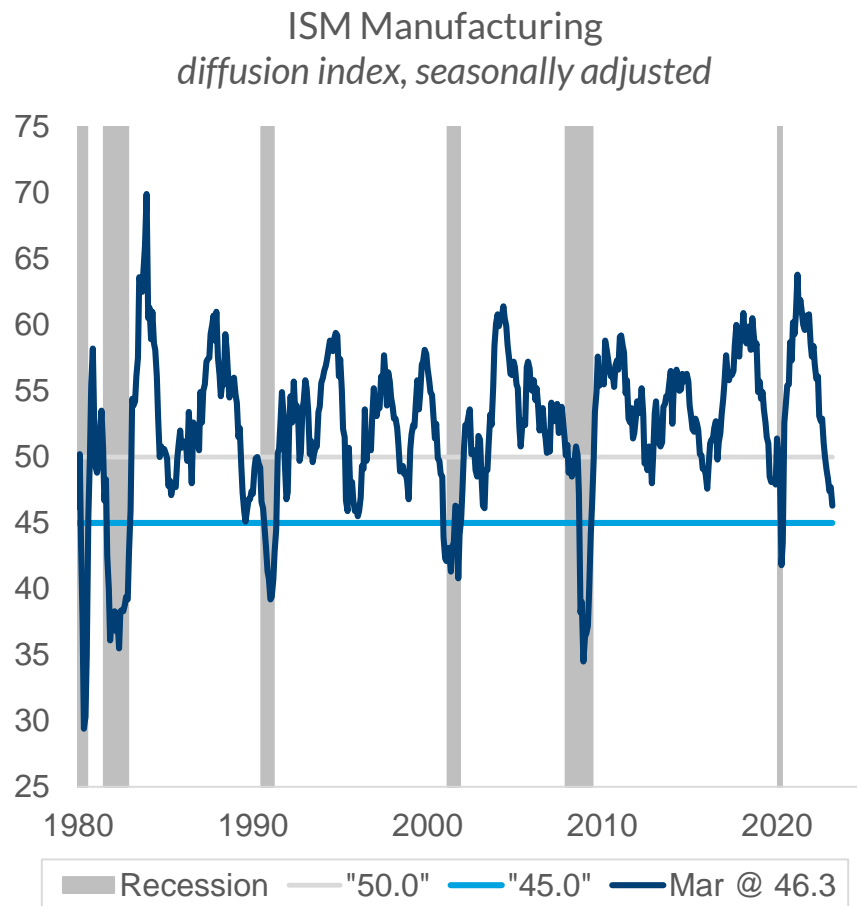
Data current as of April 30, 2023

Source: Conference Board, Bloomberg

Information is subject to change and is not a guarantee of future results.



# GDP - Leading Indicators of a Recession



Data current as of April 30, 2023

Source: Institute of Supply Management, St. Louis Fed

Information is subject to change and is not a guarantee of future results.

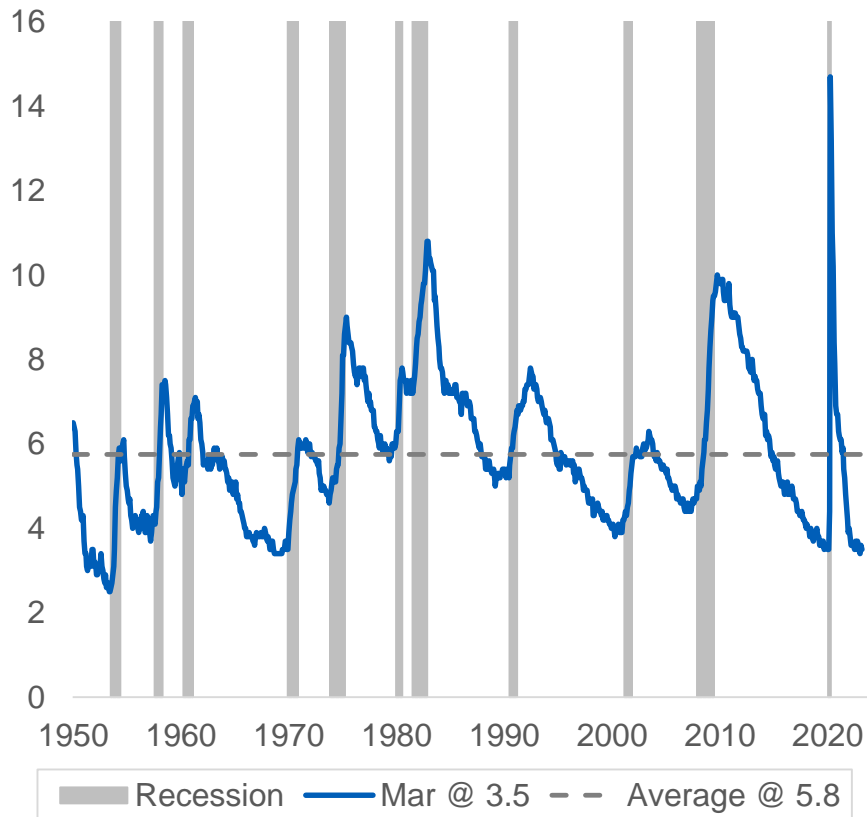


# Labor

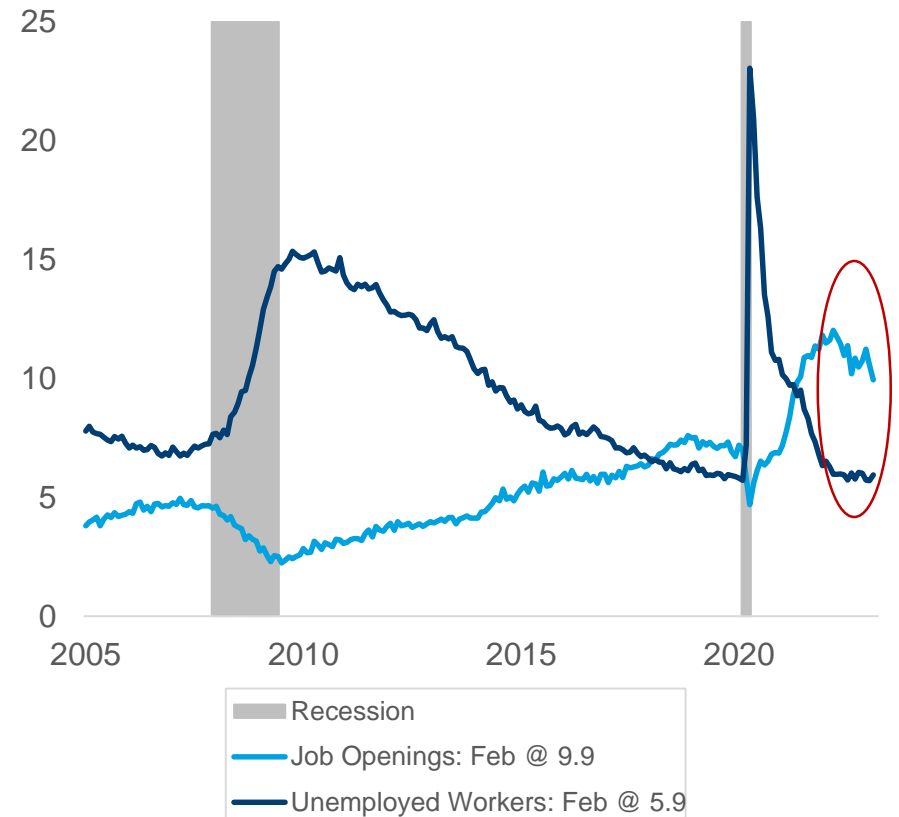


# Labor

Unemployment Rate  
%, seasonally adjusted



Job Openings and Unemployed Workers  
millions, seasonally adjusted

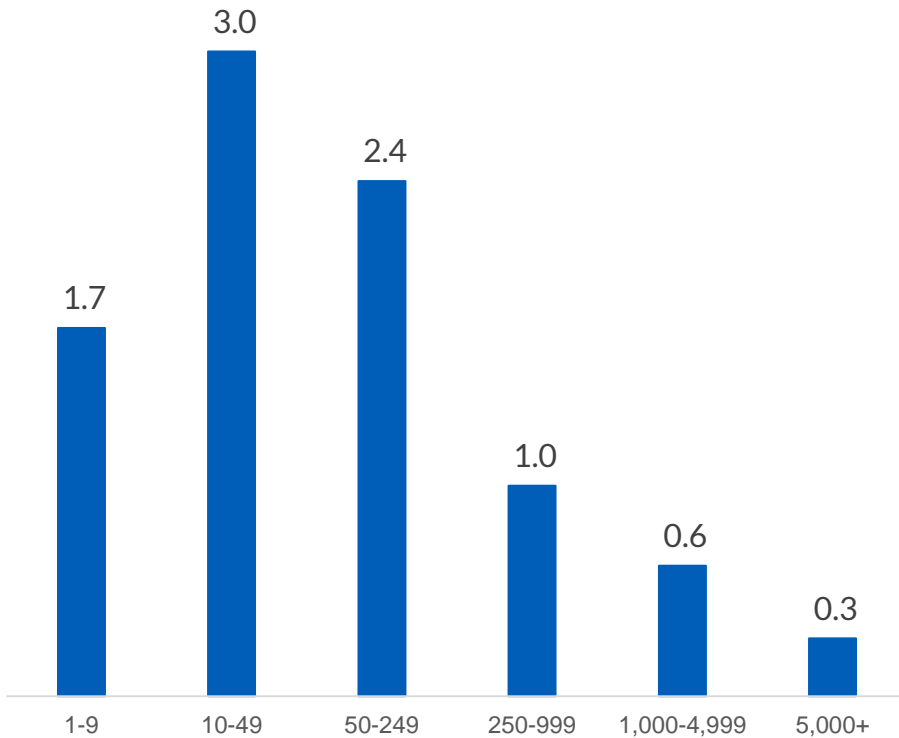


Data current as of April 30, 2023  
 Source: Bureau of Labor Statistics  
 Information is subject to change and is not a guarantee of future results.

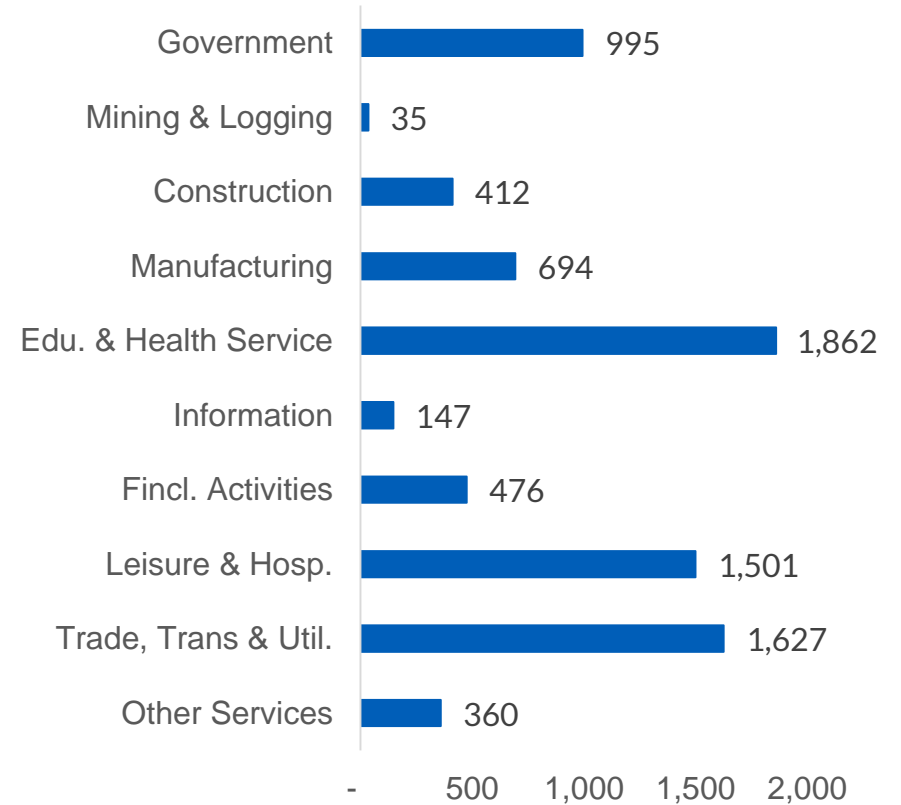


# Labor

Job Opening by Company Size  
'000, seasonally adjusted, February 2023



Job Openings: February 2023  
'000, seasonally adjusted



Data current as of April 30, 2023

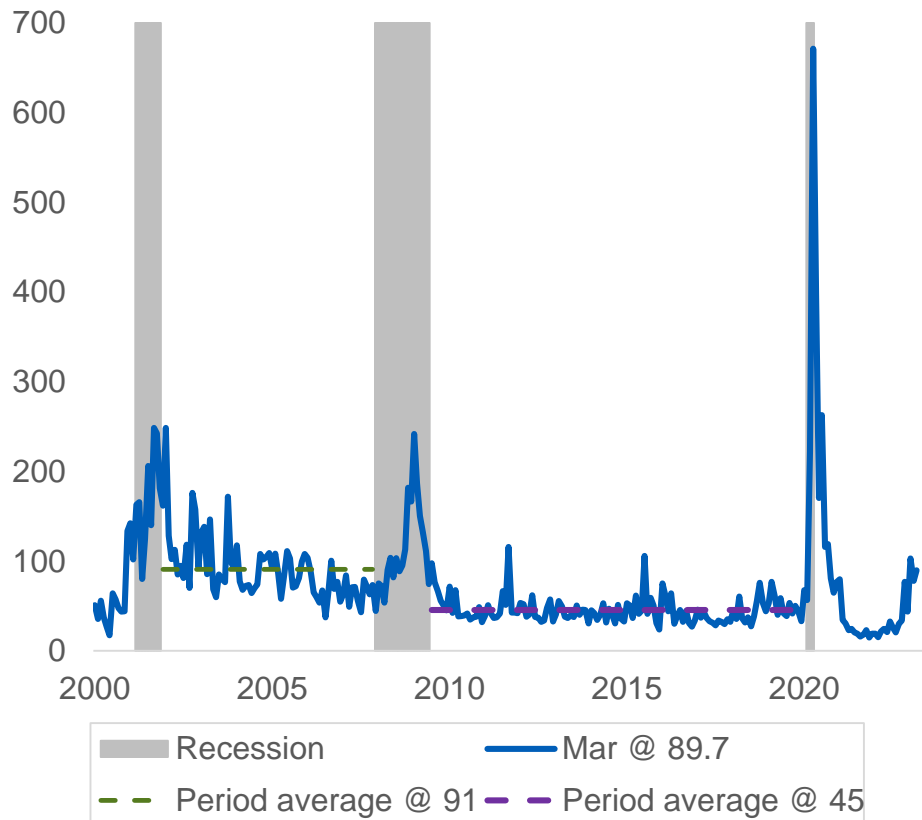
Source: Bureau of Labor Statistics

Information is subject to change and is not a guarantee of future results.

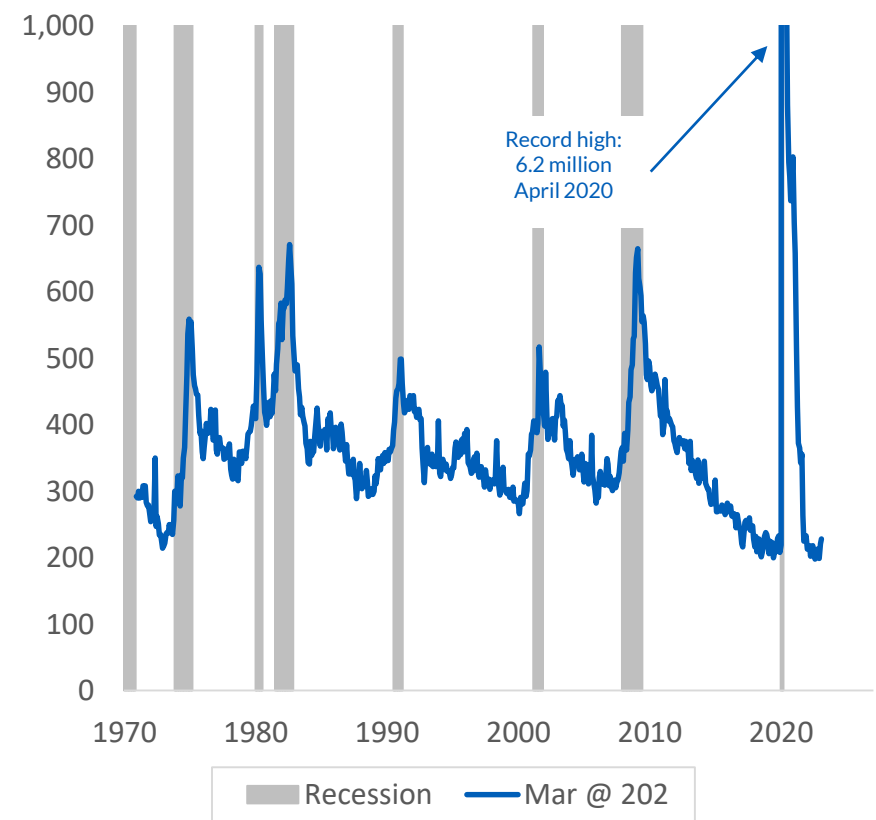


# Labor

Job Cut Announcements  
Challenger, Gray & Christmas, '000



Initial Claims for Unemployment Insurance  
'000, seasonally adjusted



Data current as of April 30, 2023

Source: Challenger, Gray & Christmas, Bureau of Labor Statistics

Information is subject to change and is not a guarantee of future results.



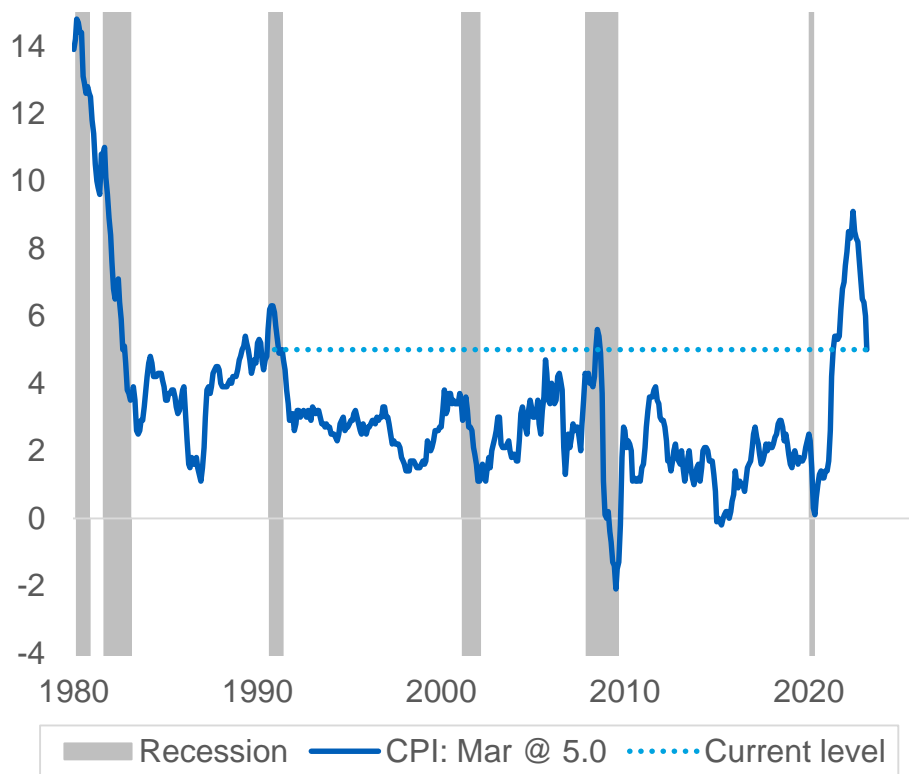
# Inflation



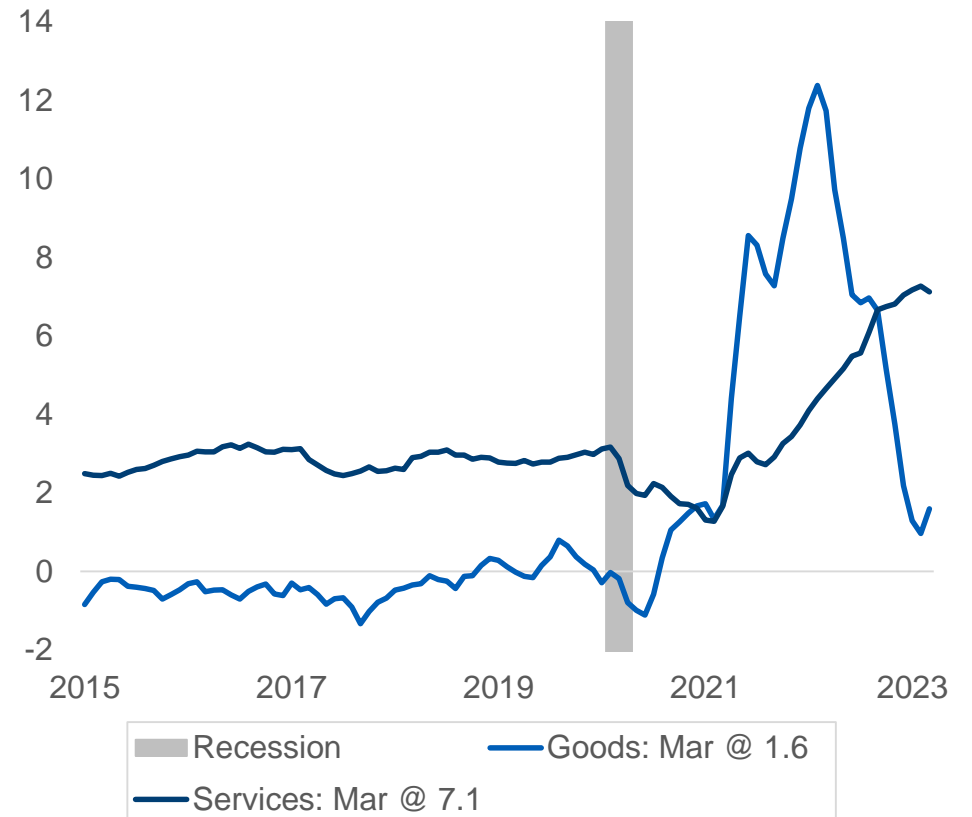


# Inflation

Consumer Price Index  
% change, y-o-y, seasonally adjusted



Core CPI: Goods and Services  
% change, year-over-year, seasonally adjusted

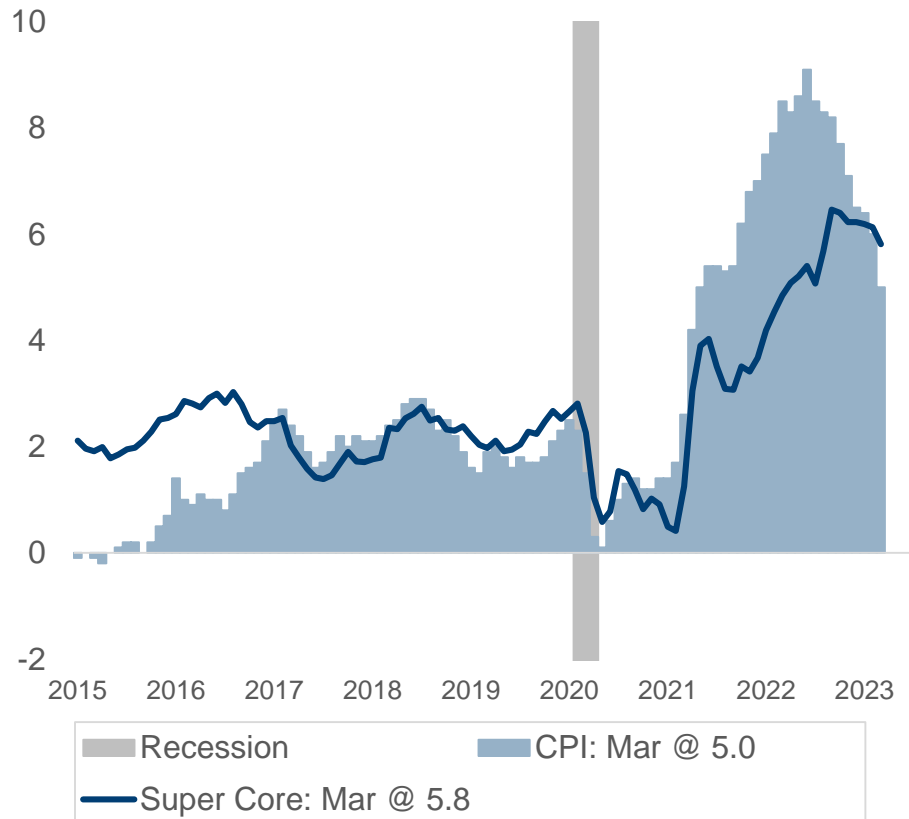


Data current as of April 30, 2023  
 Source: Bureau of Labor Statistics  
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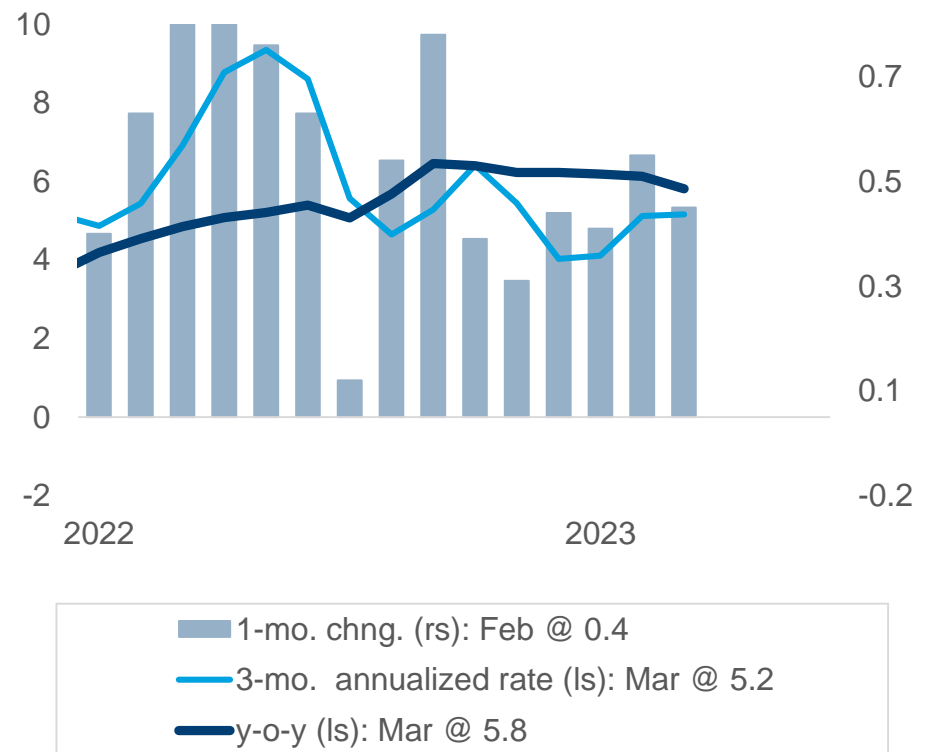


# Inflation

CPI: Services less Shelter (SuperCore)  
% change, y-o-y, seasonally adjusted



CPI: Services less Shelter (SuperCore)  
% change, seasonally adjusted

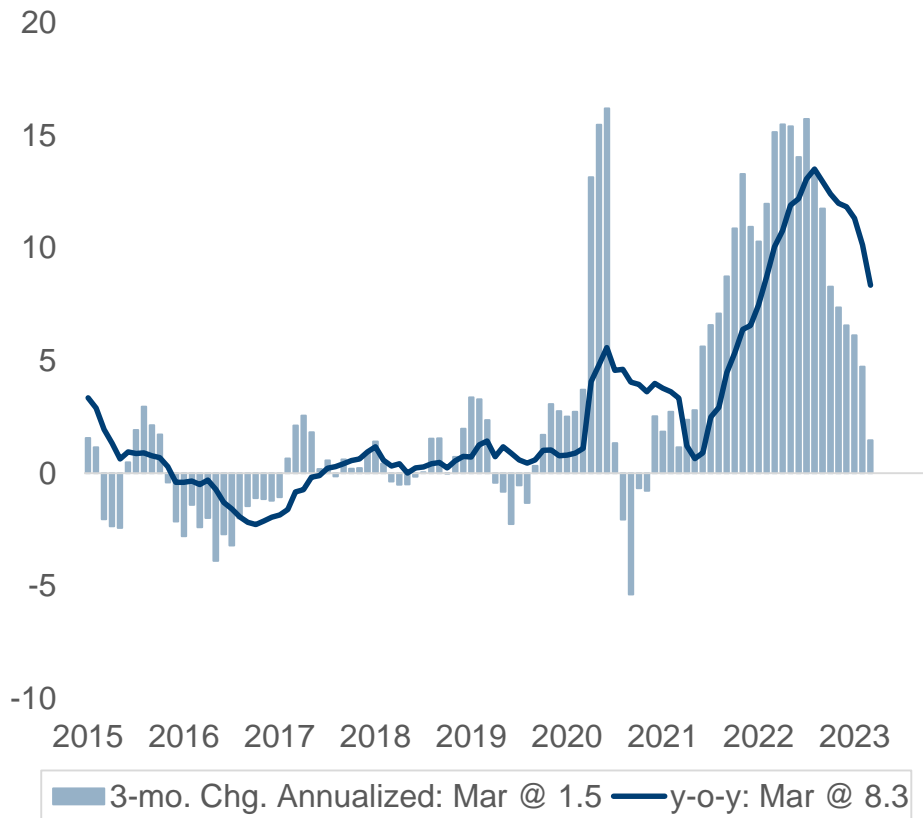


Data current as of April 30, 2023  
 Source: Bureau of Labor Statistics  
 Information is subject to change and is not a guarantee of future results.

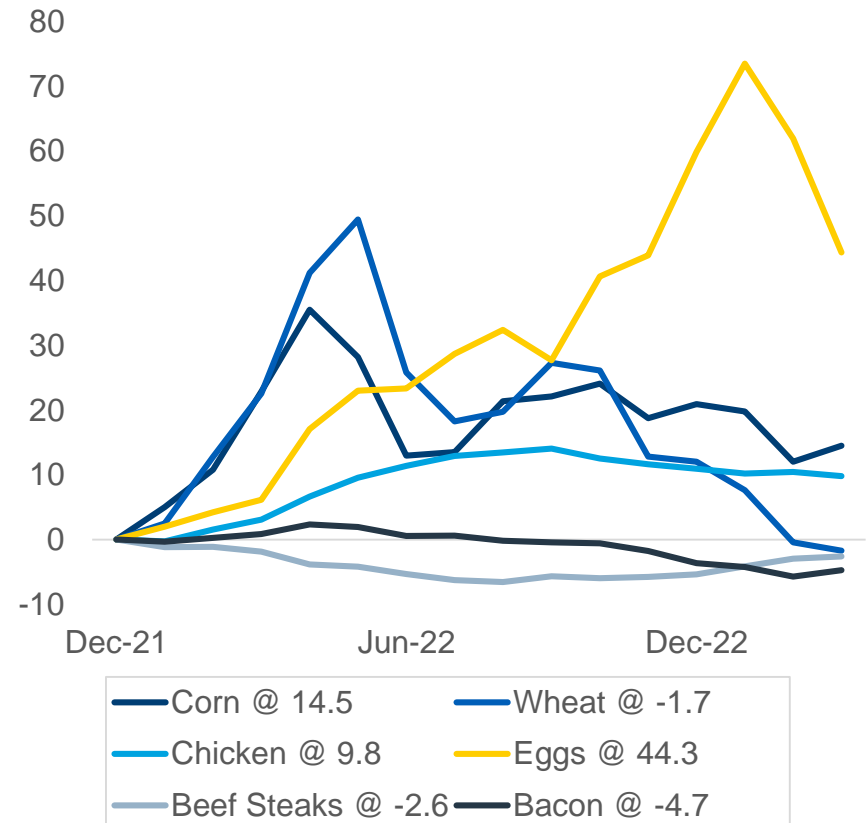


# Inflation

CPI - Food at Home  
% change, seasonally adjusted



Various Food Commodities  
% change since December 2021 a/o March 2023

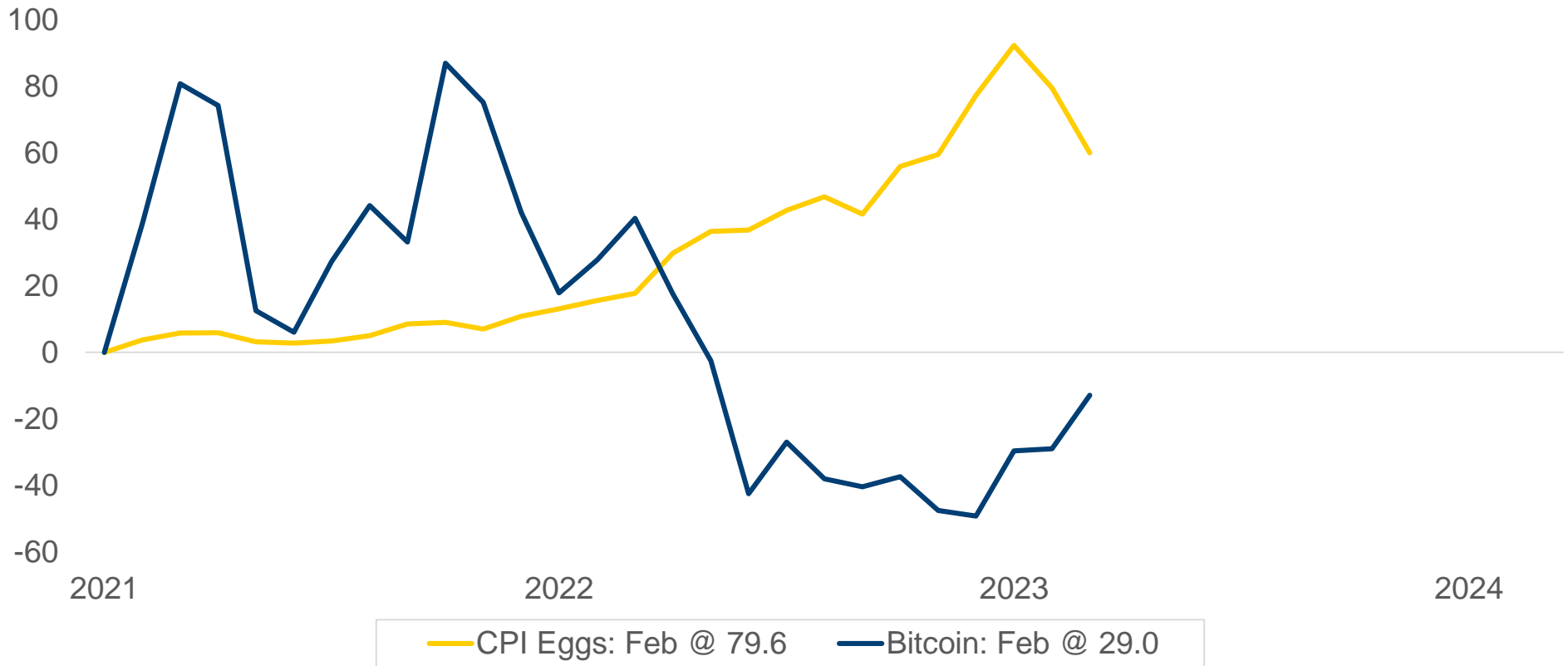


Data current as of April 30, 2023  
 Source: Bureau of Labor Statistics  
 Information is subject to change and is not a guarantee of future results.



# Inflation

Eggs v. Bitcoin  
% change, indexed at "0" on March 2021



Data current as of April 30, 2023

Source: Bureau of Labor Statistics, Bloomberg, spot price

Information is subject to change and is not a guarantee of future results.

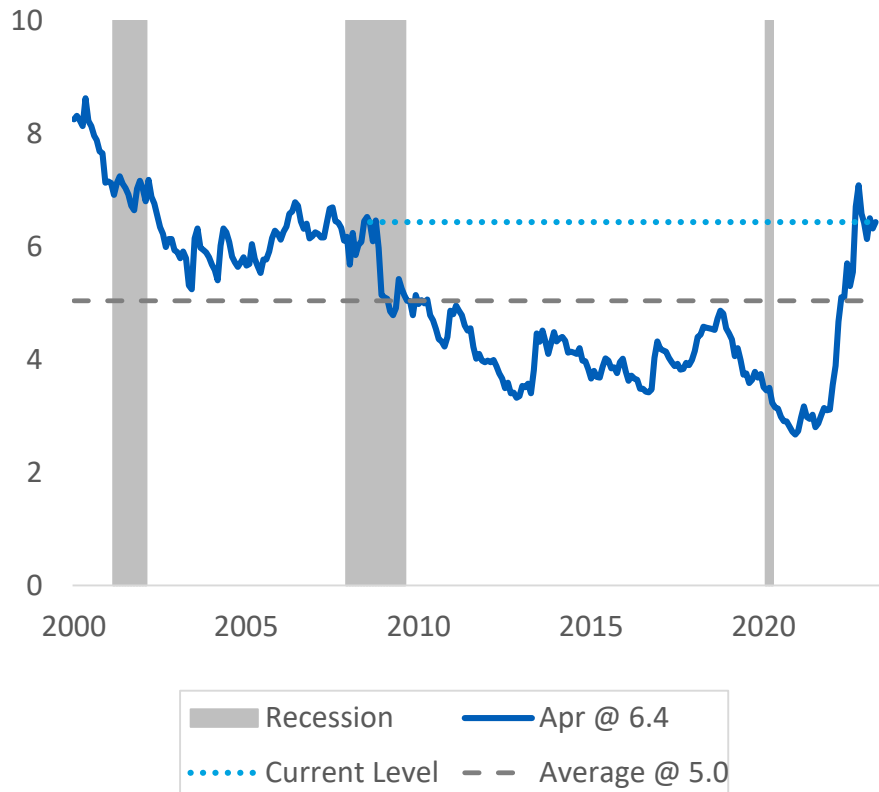


# Housing

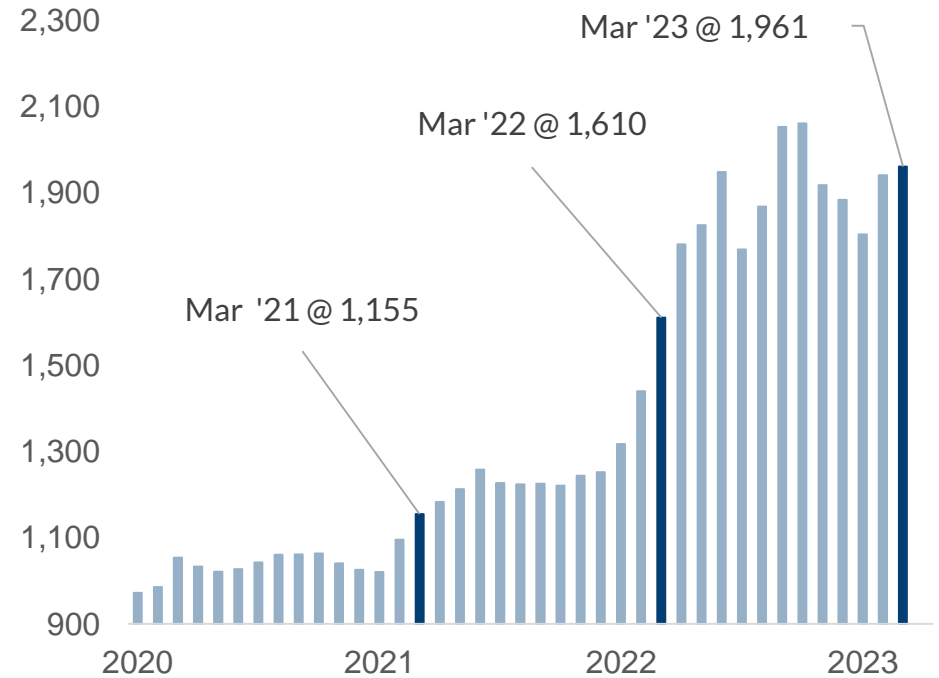


# Housing

Mortgage Rates  
%, 30-year Fixed Rate Mortgage



Monthly Mortgage Payment - Median Existing Home  
\$, 30-year fixed rate mortgage, 80% financing



Data current as of April 30, 2023

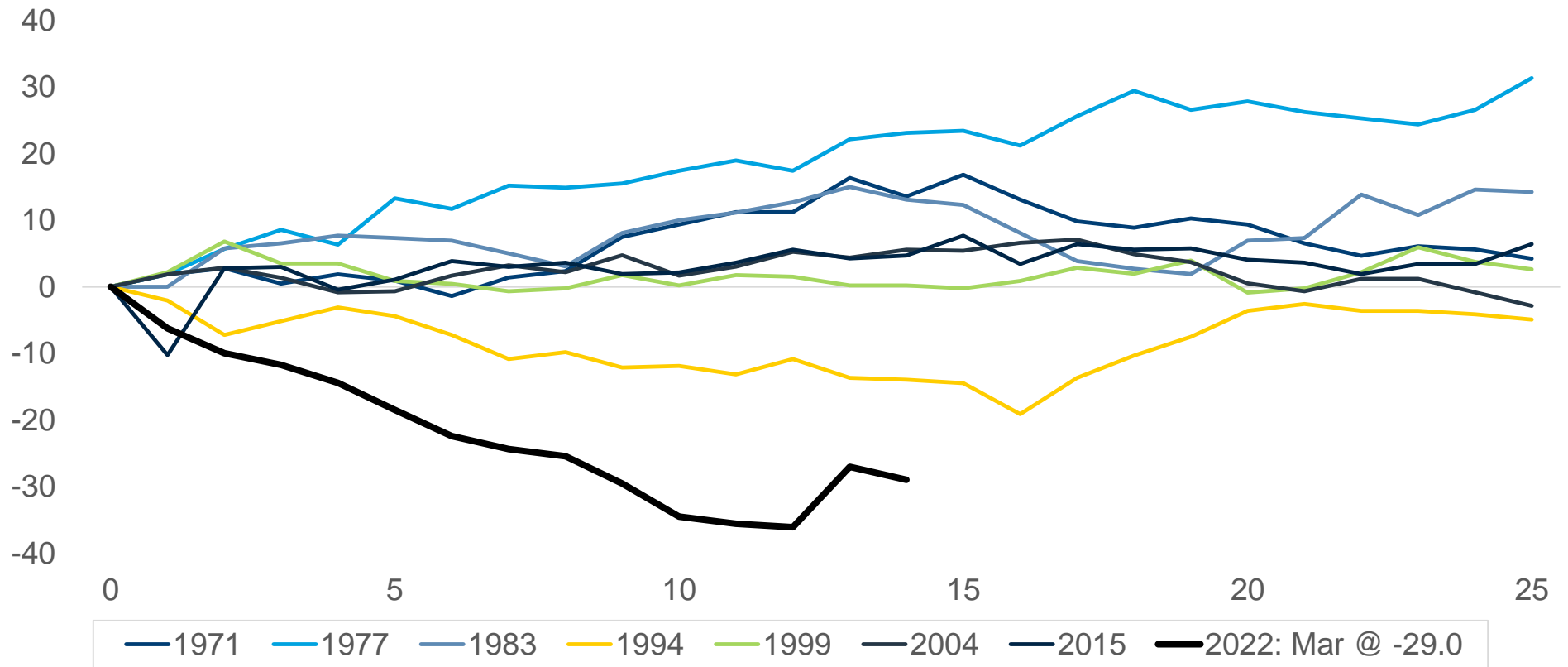
Source: FreddieMac, National Association of Realtors, CNR Research

Information is subject to change and is not a guarantee of future results.



# Housing

Existing One Family Home Sales  
cumulative % change since start of Fed hiking cycle



Data current as of April 30, 2023  
 Source: FreddieMac, National Association of Realtors  
 Information is subject to change and is not a guarantee of future results.



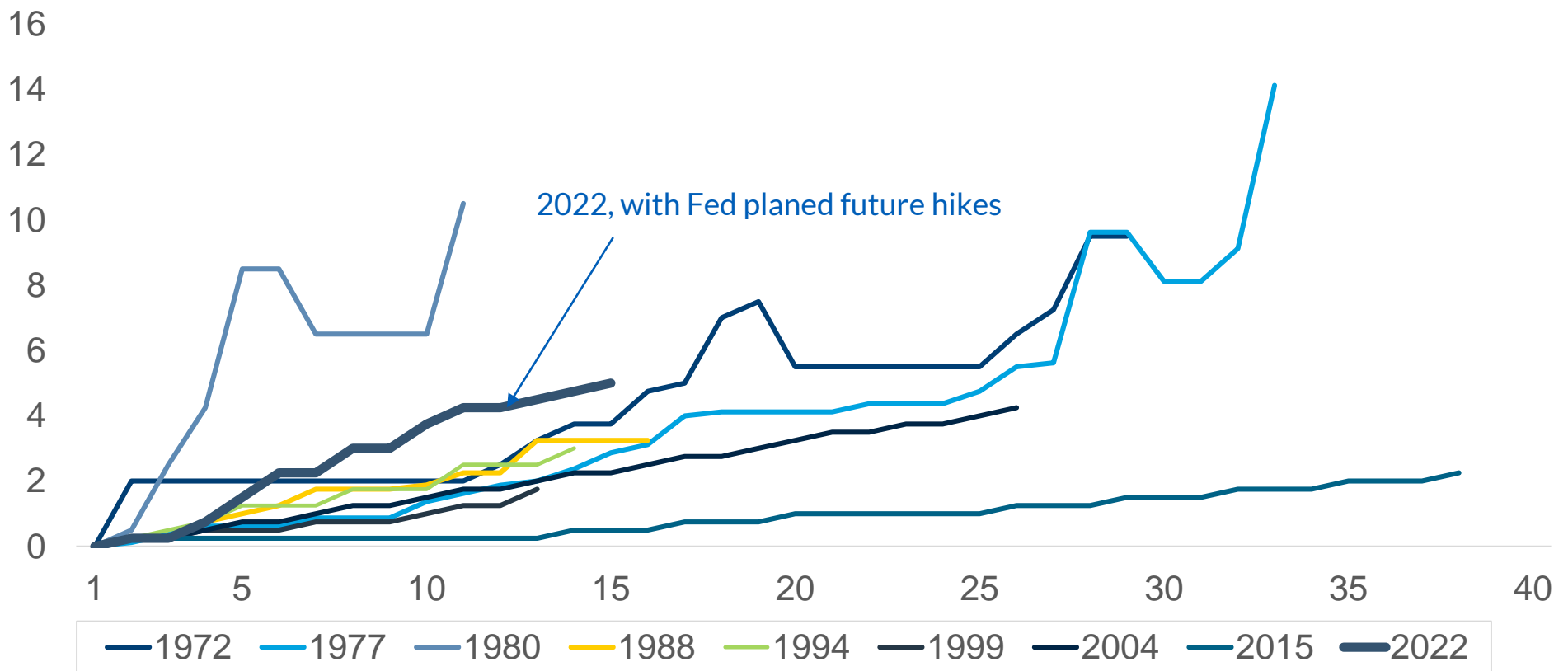
# The Fed





# The Fed

## Federal Funds Rate Across Tightening Cycles *change in percentage points, months*



Data current as of March 31, 2023

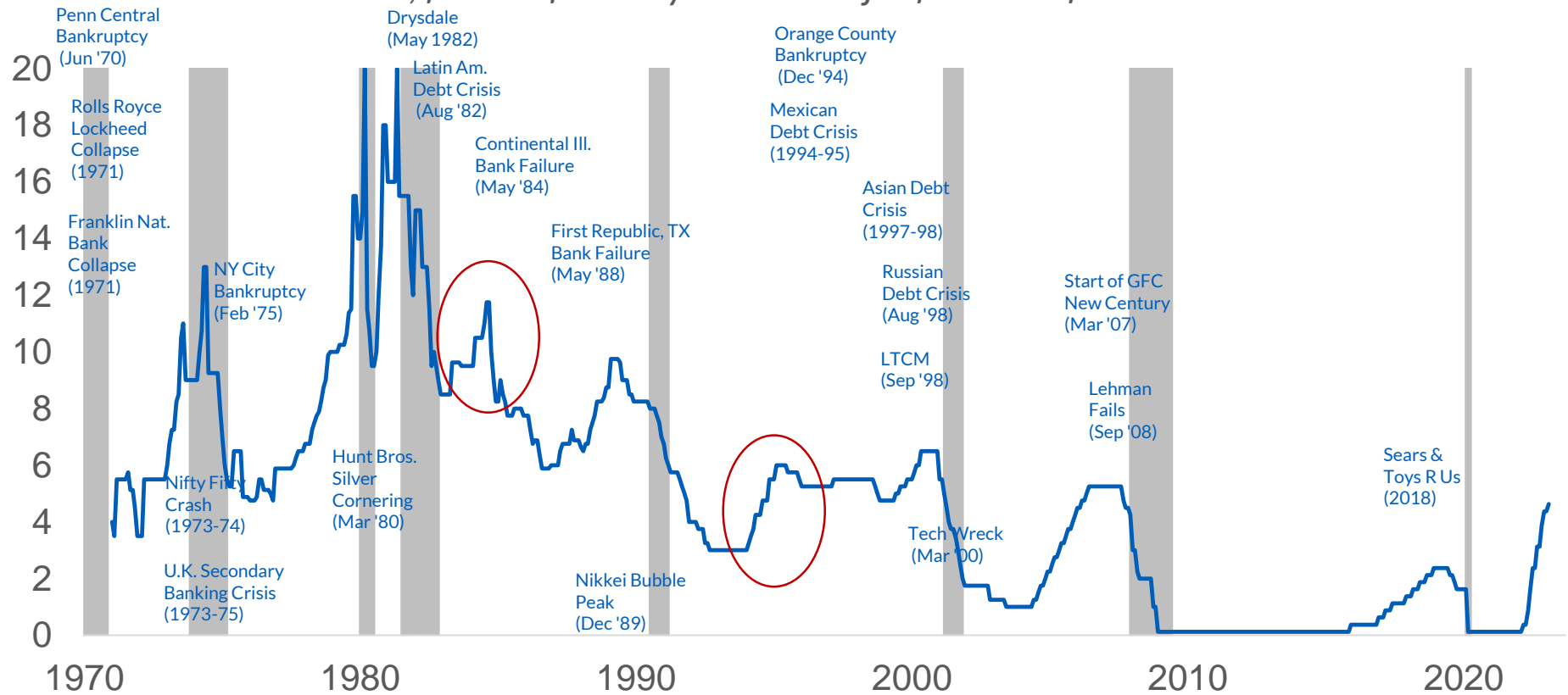
Source: Federal Reserve

Information is subject to change and is not a guarantee of future results.



# The Fed

Median Federal Funds Rate  
 %, federal funds cycle and major financial failures



Data current as of March 31, 2023

Source: Federal Reserve, dates for financial failures are from Wikipedia

Information is subject to change and is not a guarantee of future results.

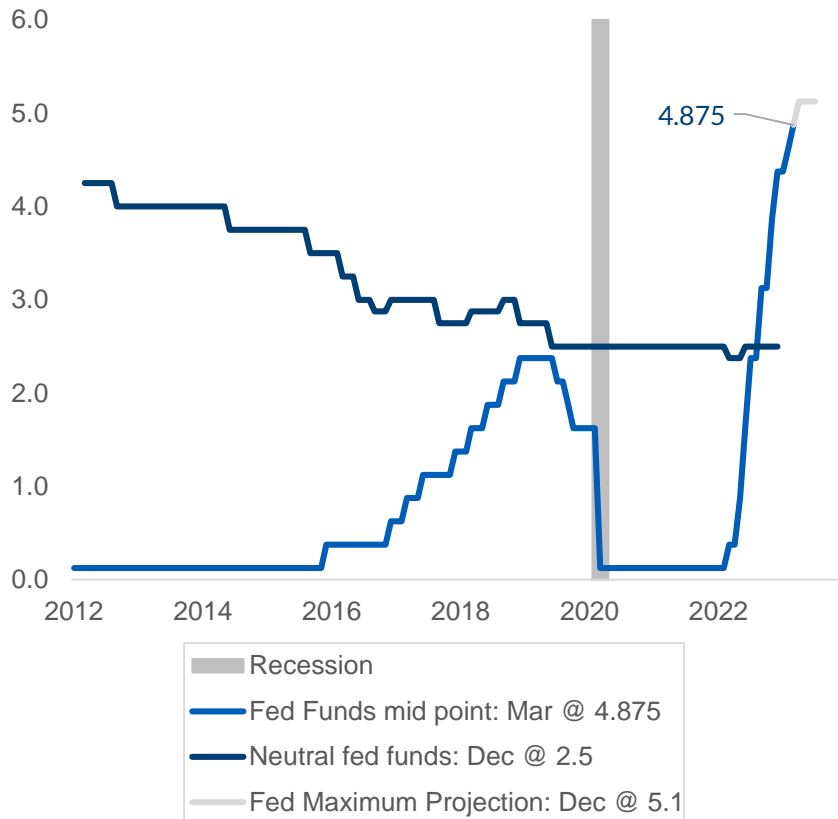


# The Fed

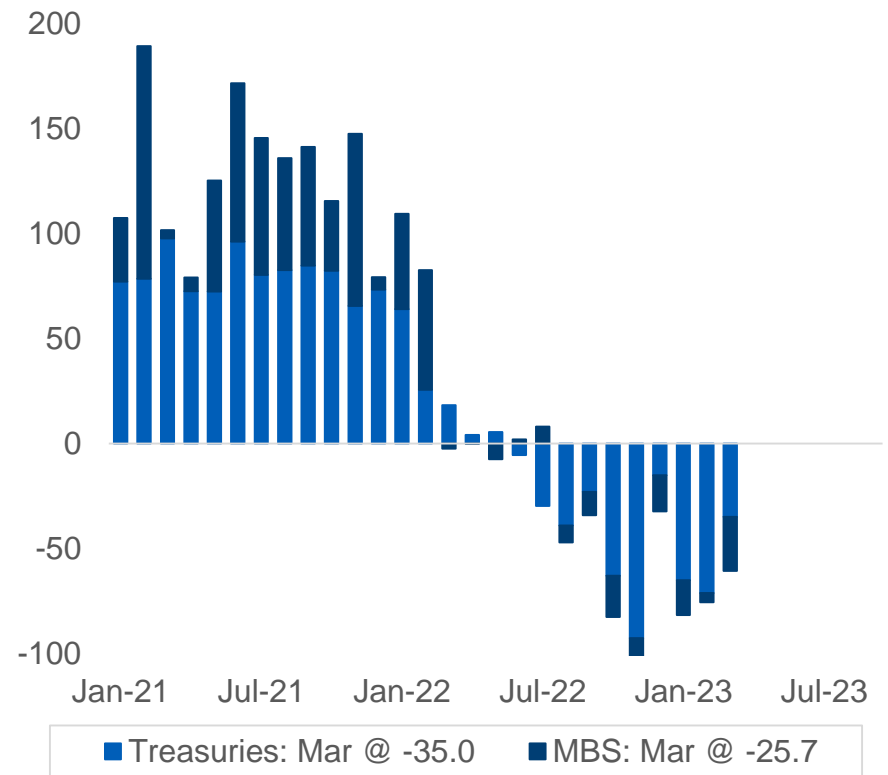
The Three “P’s” of the Fed, peak, pause pivot.

The federal funds rate is near its peak, so the Fed will pause from future hikes to observe how the economy will respond to cumulative interest rate changes. The Fed believes they will wait until next year before the pivot toward a lower federal funds rate.

Federal Funds & Neutral Federal Funds (%)



Fed Bond Portfolio - Monthly Change \$, billions



Data current as of April 25, 2023

Source: Federal Reserve

Information is subject to change and is not a guarantee of future results.

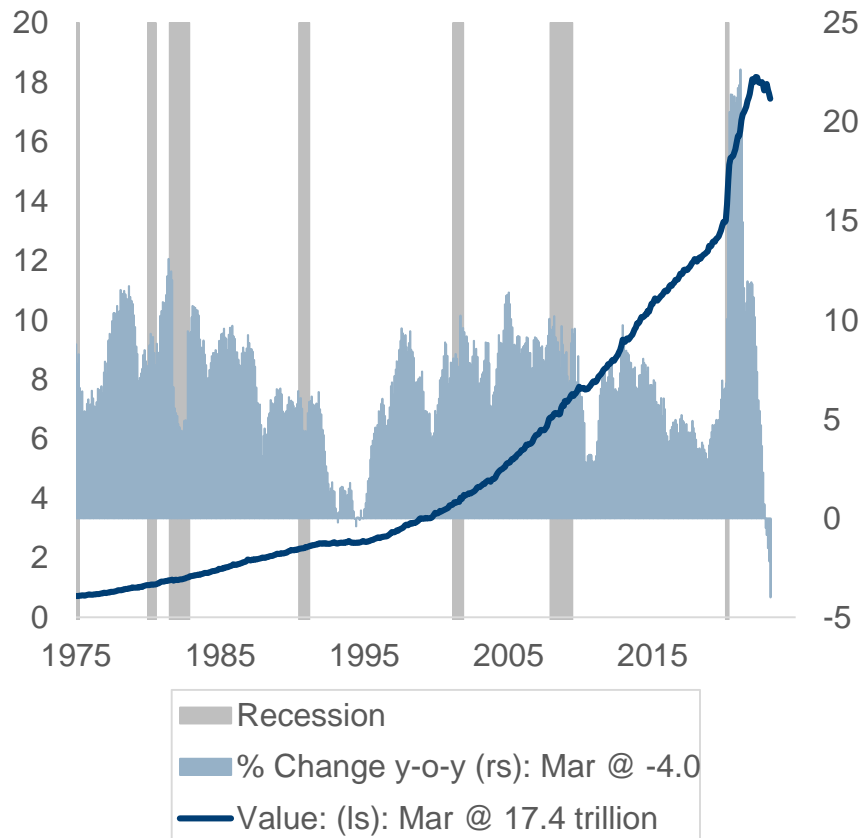


# Banking

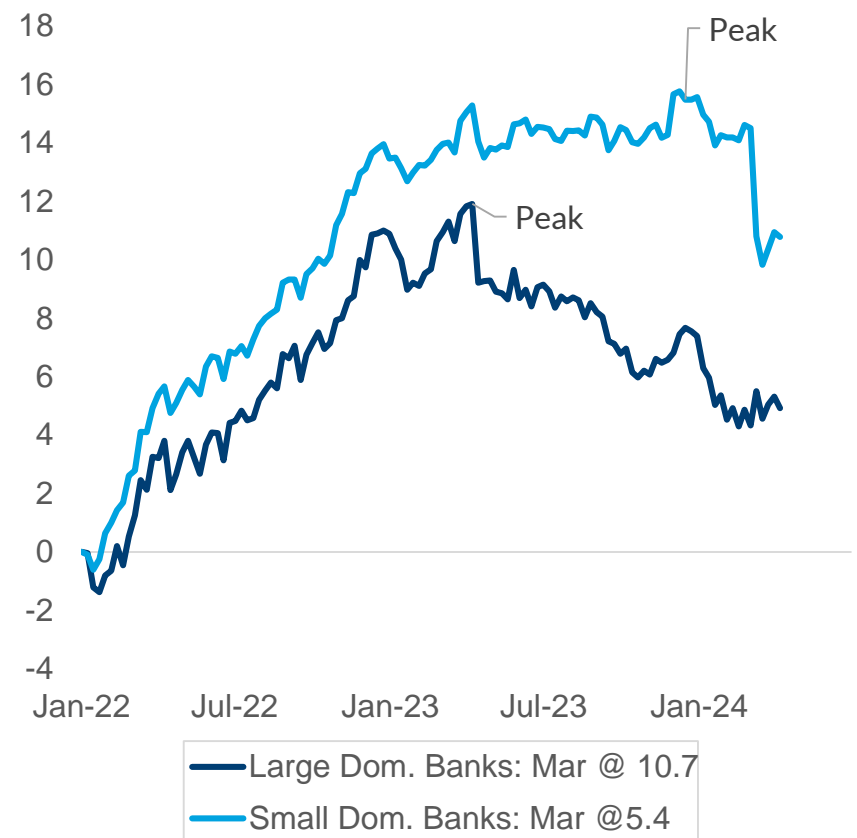


# Banking System

Bank Deposits: U.S. Commercial Banks  
\$, trillions, % change y-o-y, not seasonally adjusted



Bank Deposits - Domestic Commercial Banks  
%, cumulative change from January 6, 2022



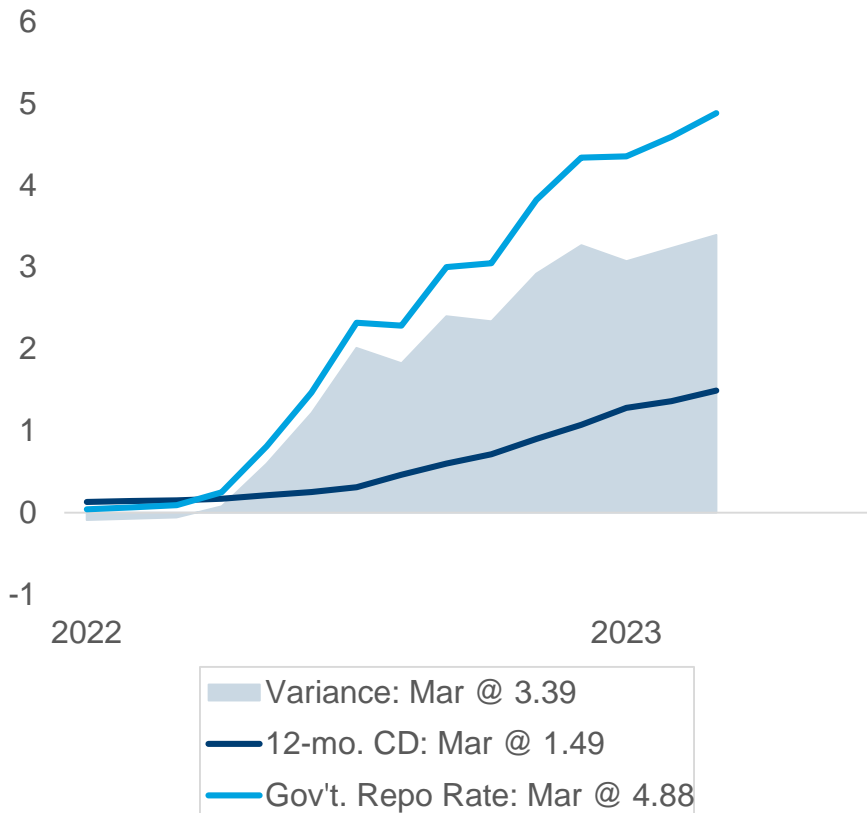
Data current as of April 30, 2023  
 Source: Federal Reserve Bank of New York  
 Information is subject to change and is not a guarantee of future results.



# Banking System

Banks are competing with government money market funds that offer substantially higher yields. It is causing some depositor to move their money.

Selected Short-Term Interest Rates  
%



Bank Deposits and Gov't Money Market Funds  
change in value, since January 2022, \$, billions

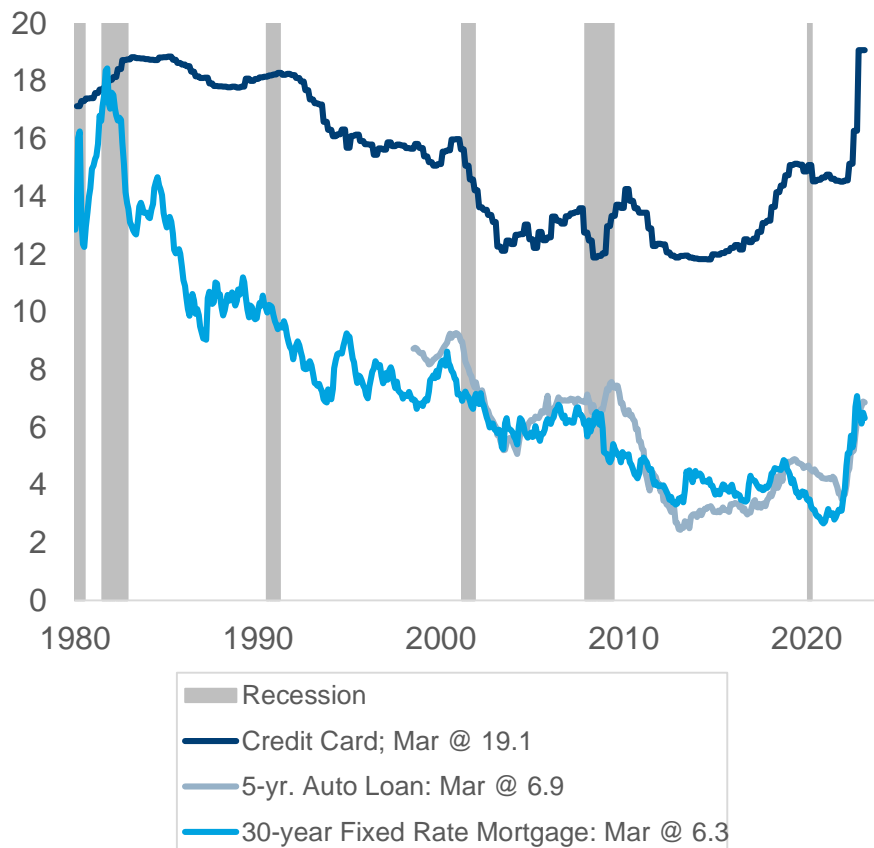


Data current as of April 30, 2023  
Source; FDIC, Bloomberg Composite Rate,  
Information is subject to change and is not a guarantee of future results.

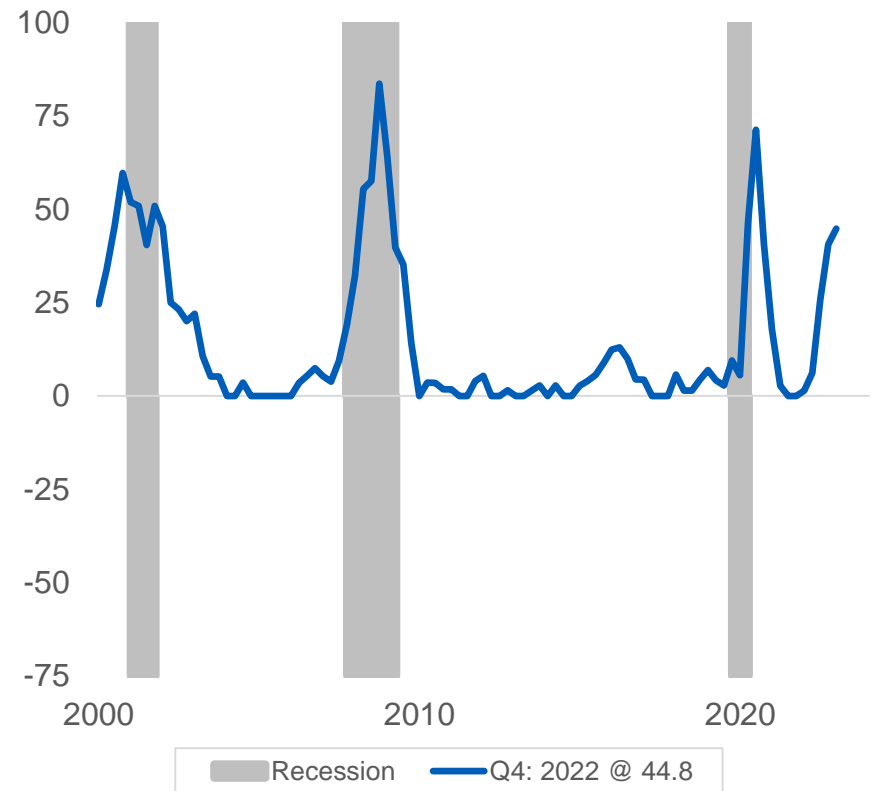


# Banking

Interest Rate on Popular Loans (%)



Tightening of Credit Standards  
%, not seasonally adjusted

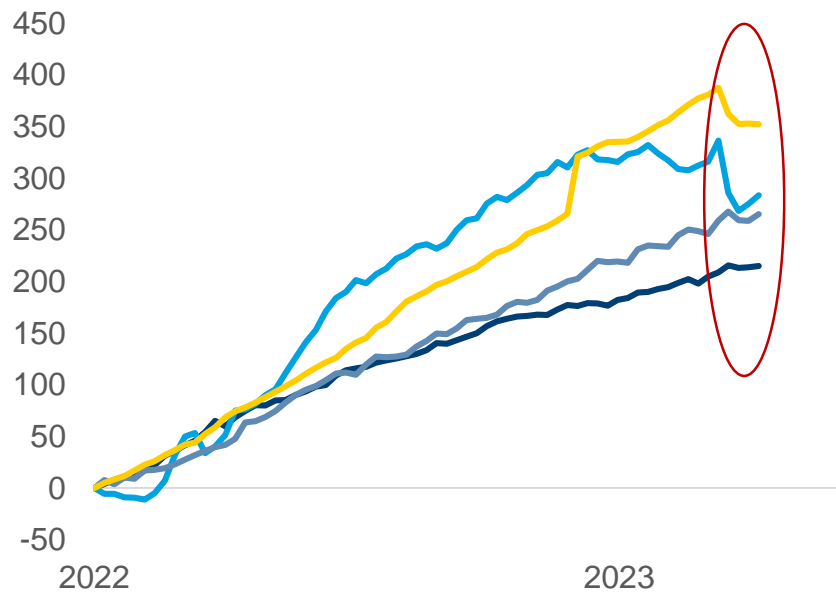


Data current as of April 30, 2023  
 Source: Federal Reserve, Bankrate.com, FreddieMac  
 Information is subject to change and is not a guarantee of future results.

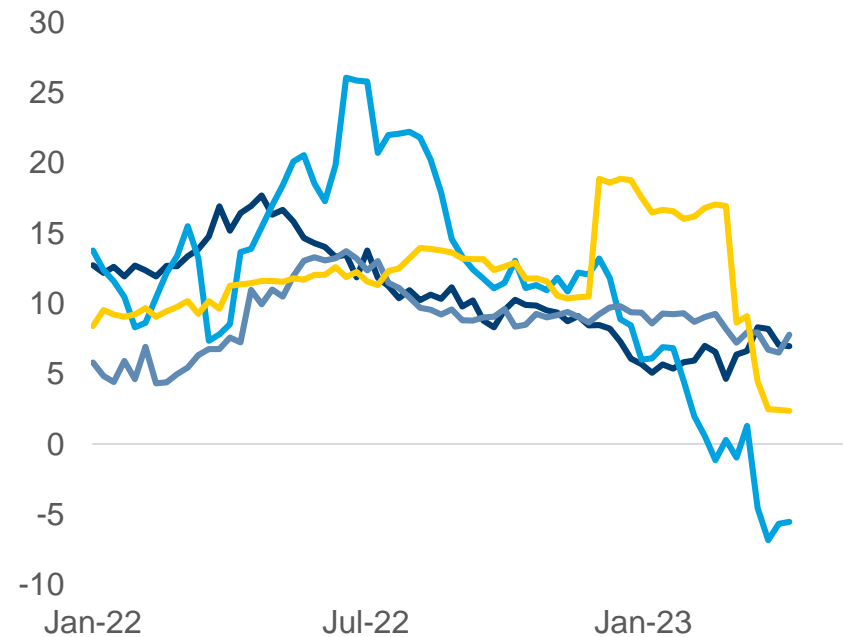


# Banking

Lending at Commercial Banks  
change in value since January 5, 2022 \$,  
billions



Change in Lending  
3-month change, annualized, %



— Consumer: Apr 12 @ 515.2  
 — Comm. & Indust.: Apr 12 @ 283.6  
 — Residential RE: Apr @ 265.2  
 — Commerical RE: Apr 12 @ 352.4

— Consumer: Apr 12 @ 7.0  
 — Comm. & Indust.: Apr 12 @ -5.5  
 — Residential RE: Apr @ 7.8  
 — Commerical RE: Apr 12 @ 2.4

Data current as of April 30, 2023

Source: Federal Reserve

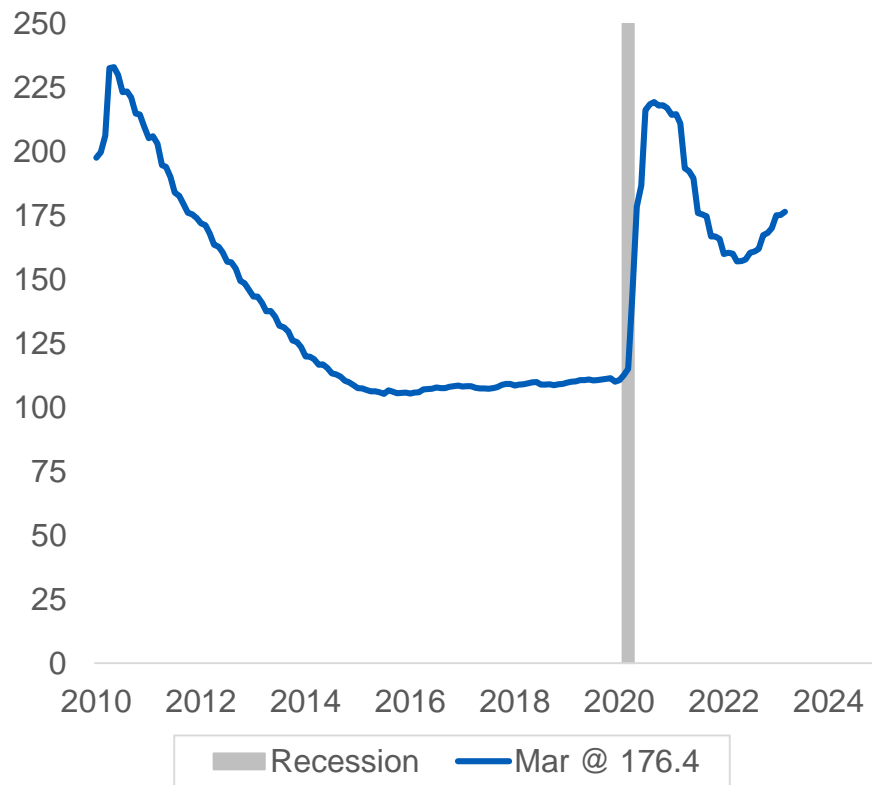
Information is subject to change and is not a guarantee of future results.



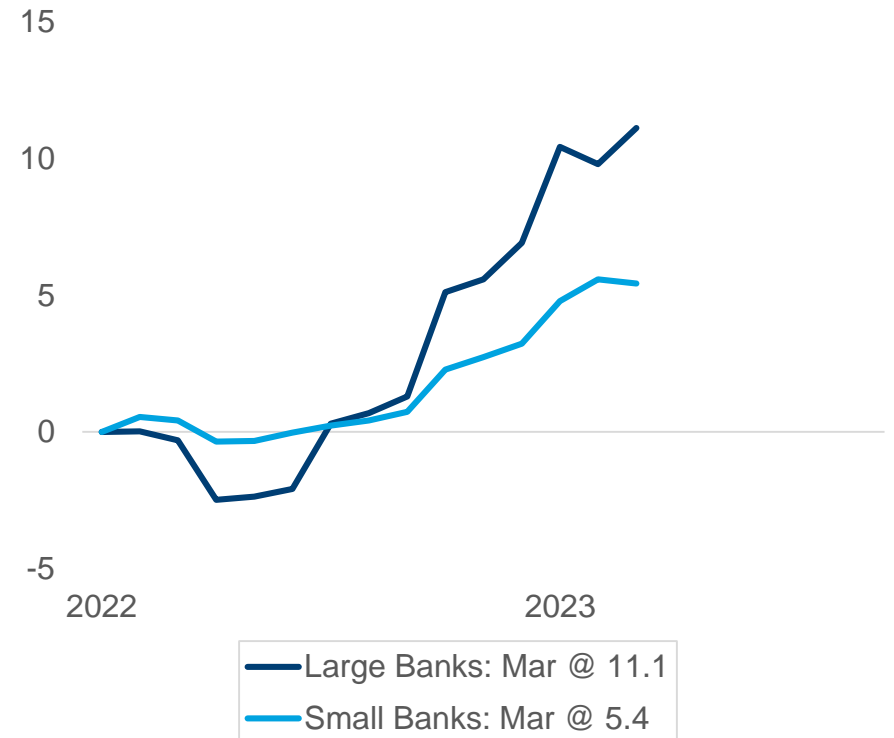


# Banking System

Allowance for Loan and Lease Losses  
Domestic Commercial Banks  
\$, billions, not seasonally adjusted



Allowance for Loan and Lease Losses  
Domestic Commercial Banks  
change from January 2022, \$, billions, not  
seasonally adjusted

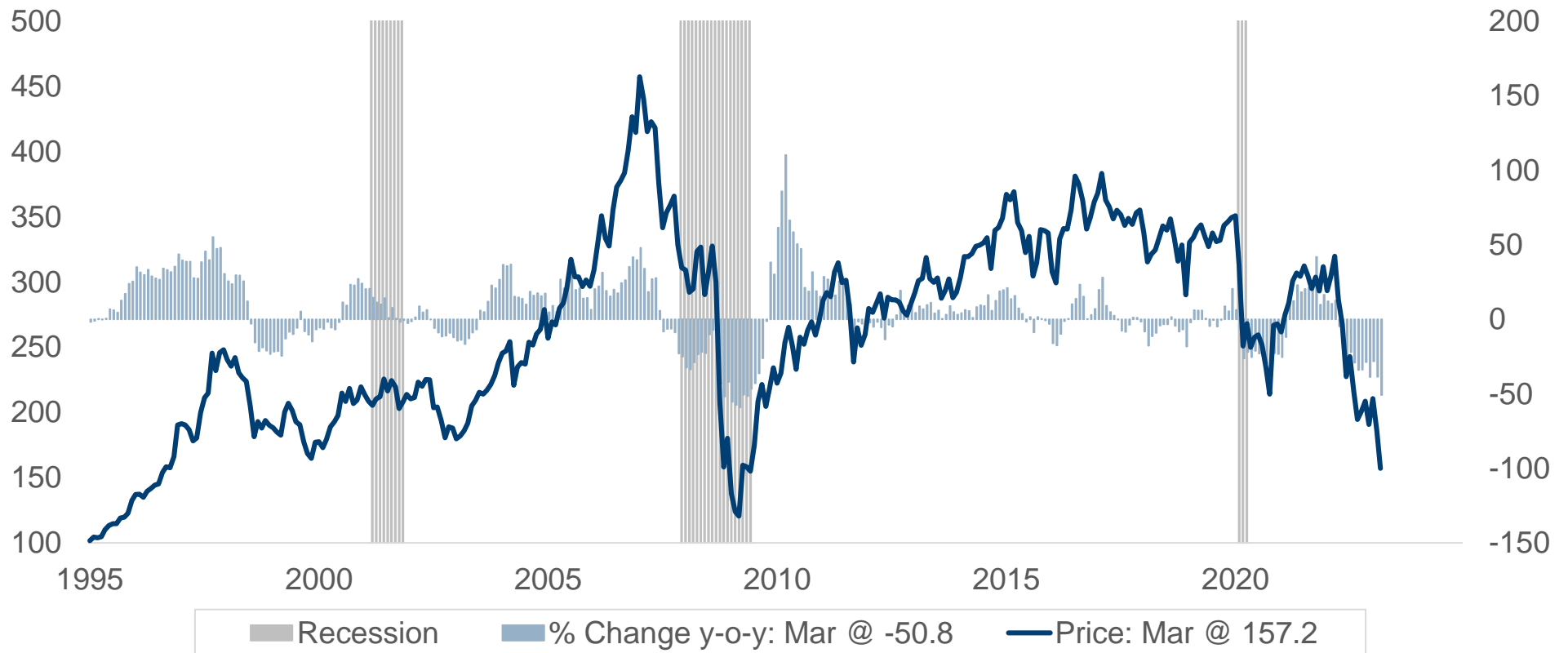


Data current as of April 30, 2023  
Source; Federal Reserve, Nareit, CoStar  
Information is subject to change and is not a guarantee of future results.



# Banking System

Bloomberg REIT Office Property Index  
price and % change, y-o-y



Data current as of April 30, 2023

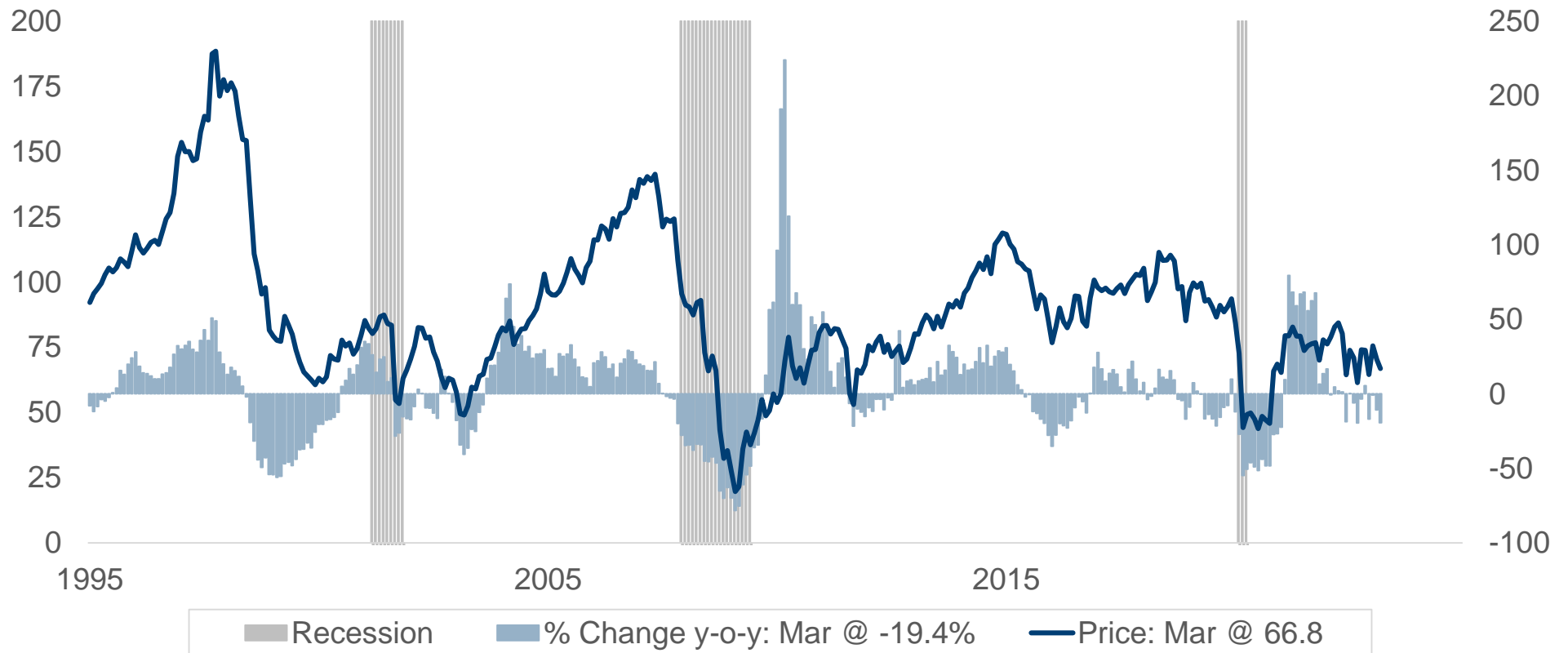
Source: Bloomberg, not for use as a financial benchmark

Information is subject to change and is not a guarantee of future results.



# Banking System

Bloomberg REIT Hotels Index  
price & percent change, y-o-y



Data current as of April 30, 2023

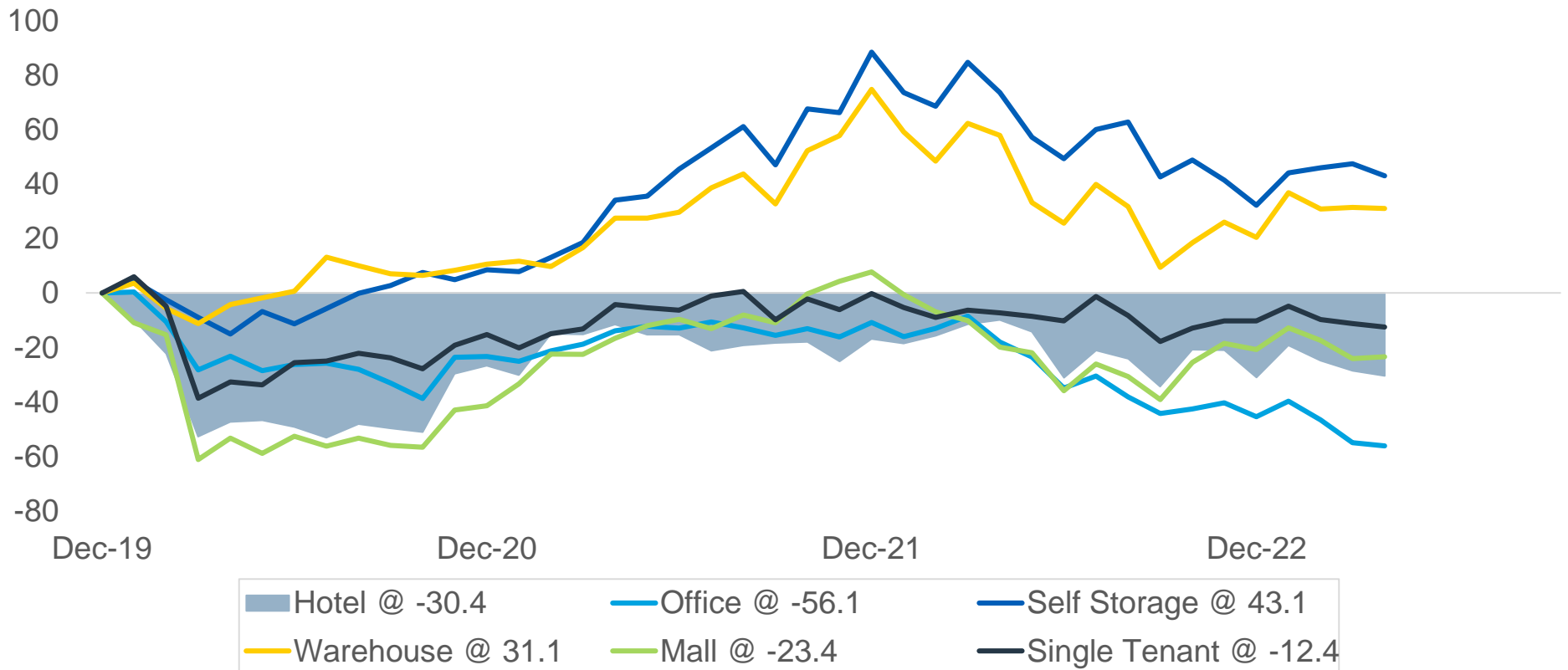
Source: Bloomberg, not for use as a financial benchmark

Information is subject to change and is not a guarantee of future results.



# Banking System

REIT: Selective Relative Performance  
 % change since December 31, 2019 to April 30, 2023



Data current as of April 30, 2023  
 Source: Bloomberg, not for use as a financial benchmark  
 Information is subject to change and is not a guarantee of future results.

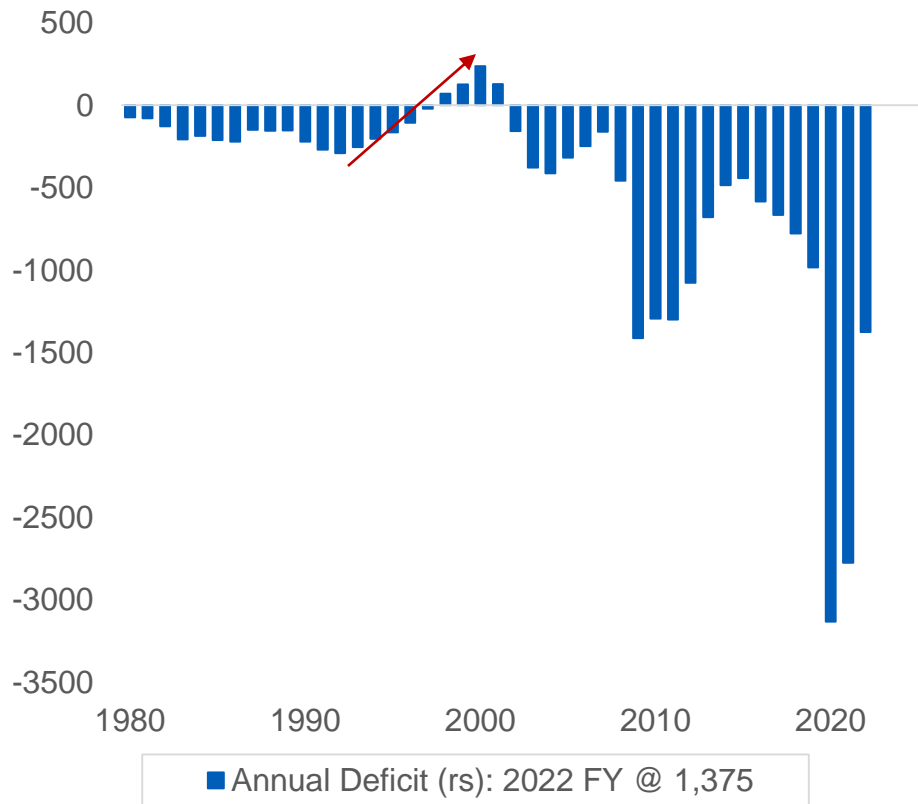


# Federal Debt

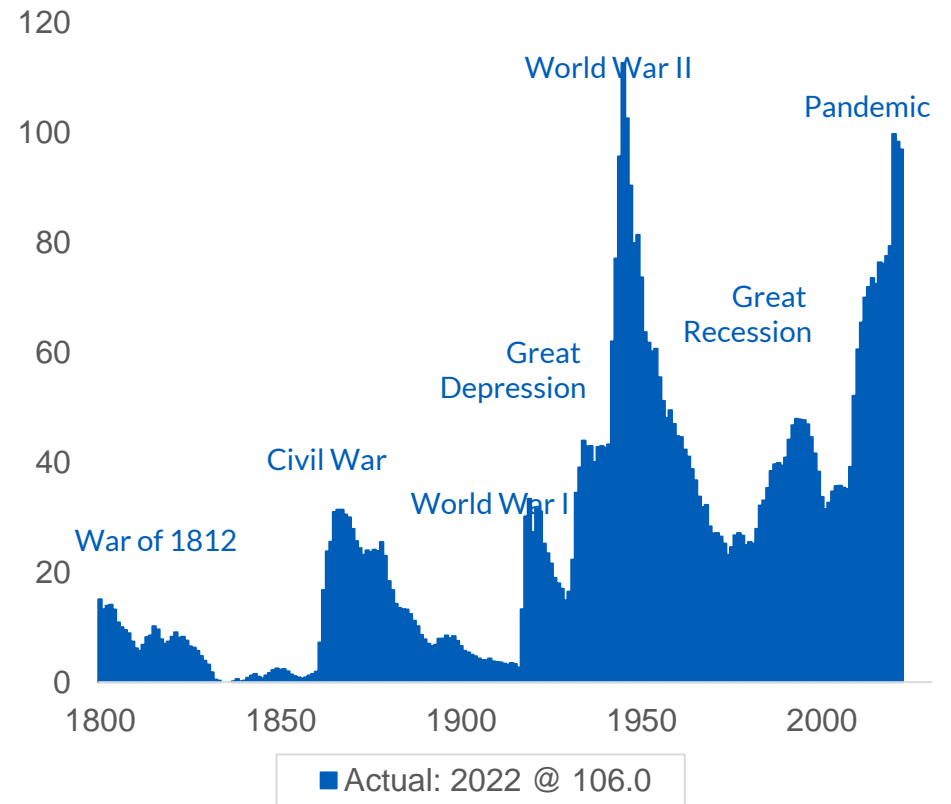


# Federal Debt

Federal Deficit and Debt  
%, millions of dollars



Federal Debt  
percent of GDP



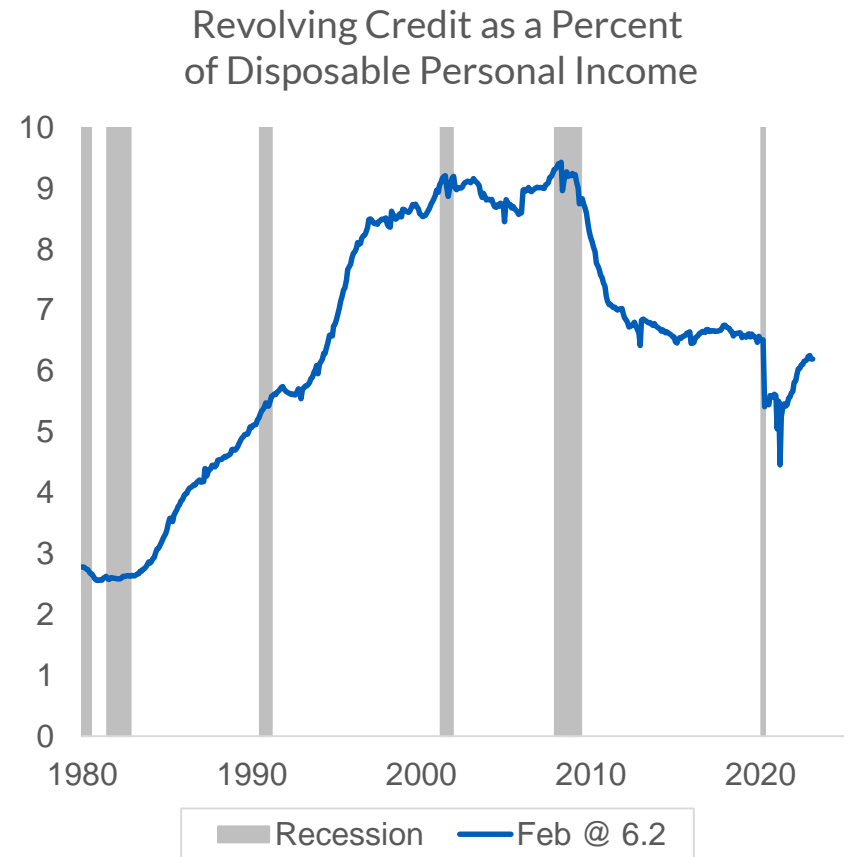
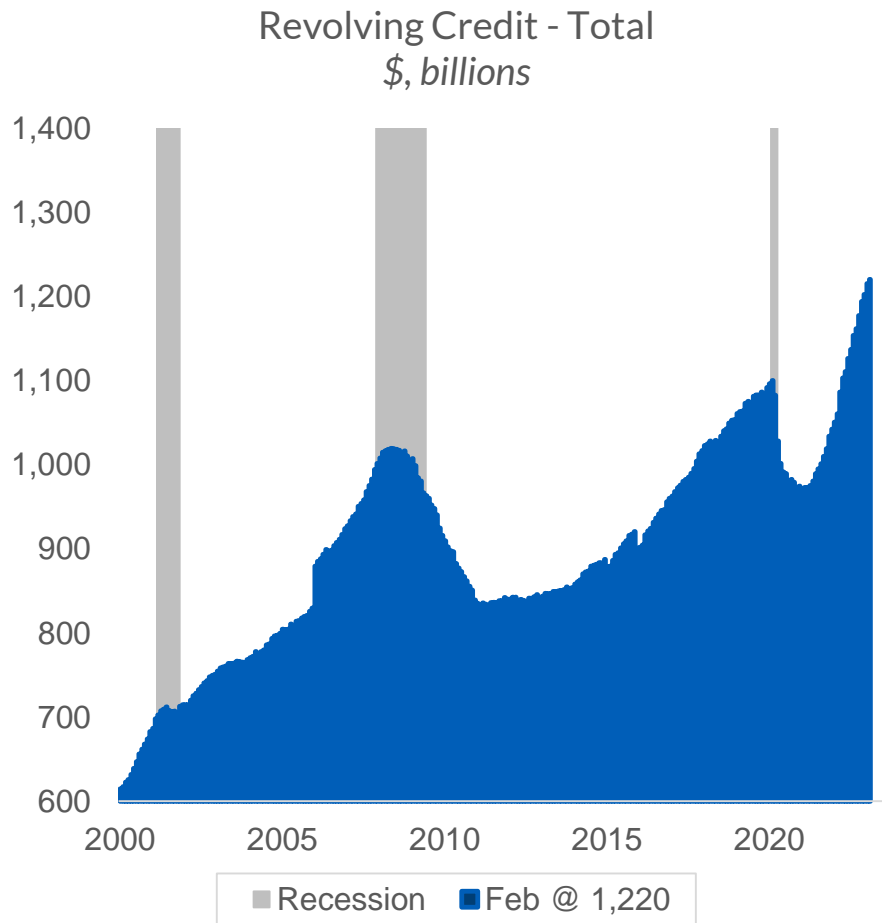
Data current as of April 30, 2023  
 Source: Federal Reserve  
 Information is subject to change and is not a guarantee of future results.



# Conclusion



# Conclusion



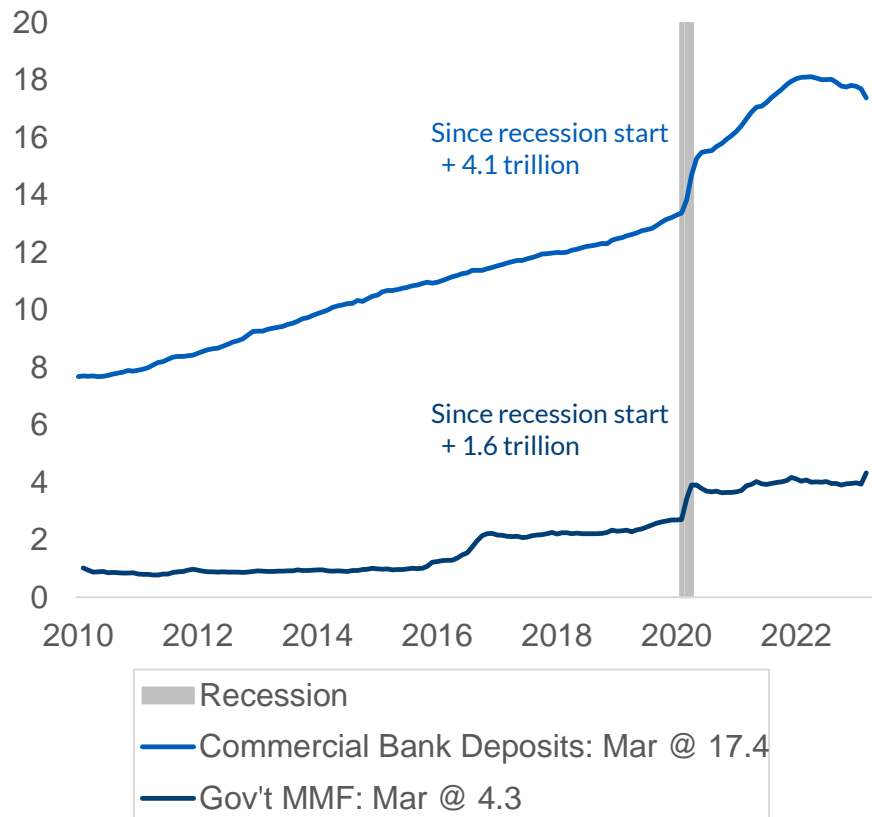
Data current as of April 30, 2023  
 Source: Federal Reserve, Bureau of Economic Research  
 Information is subject to change and is not a guarantee of future results.



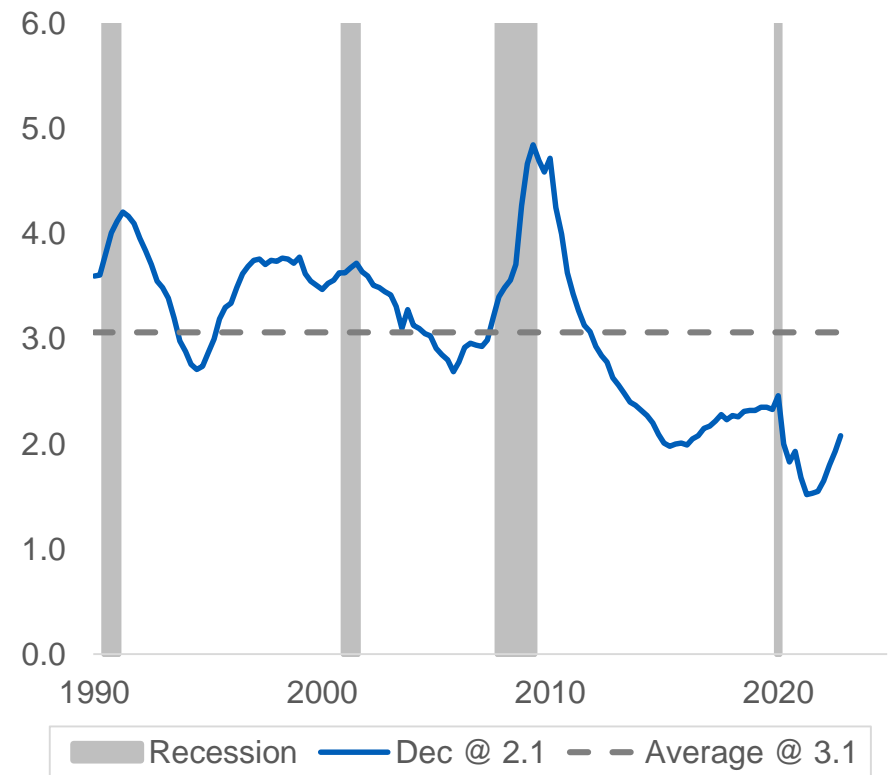


# Conclusion

Available Cash & Money Market Funds  
\$, trillion



Delinquency Rates for All Consumer Loans  
%, seasonally adjusted

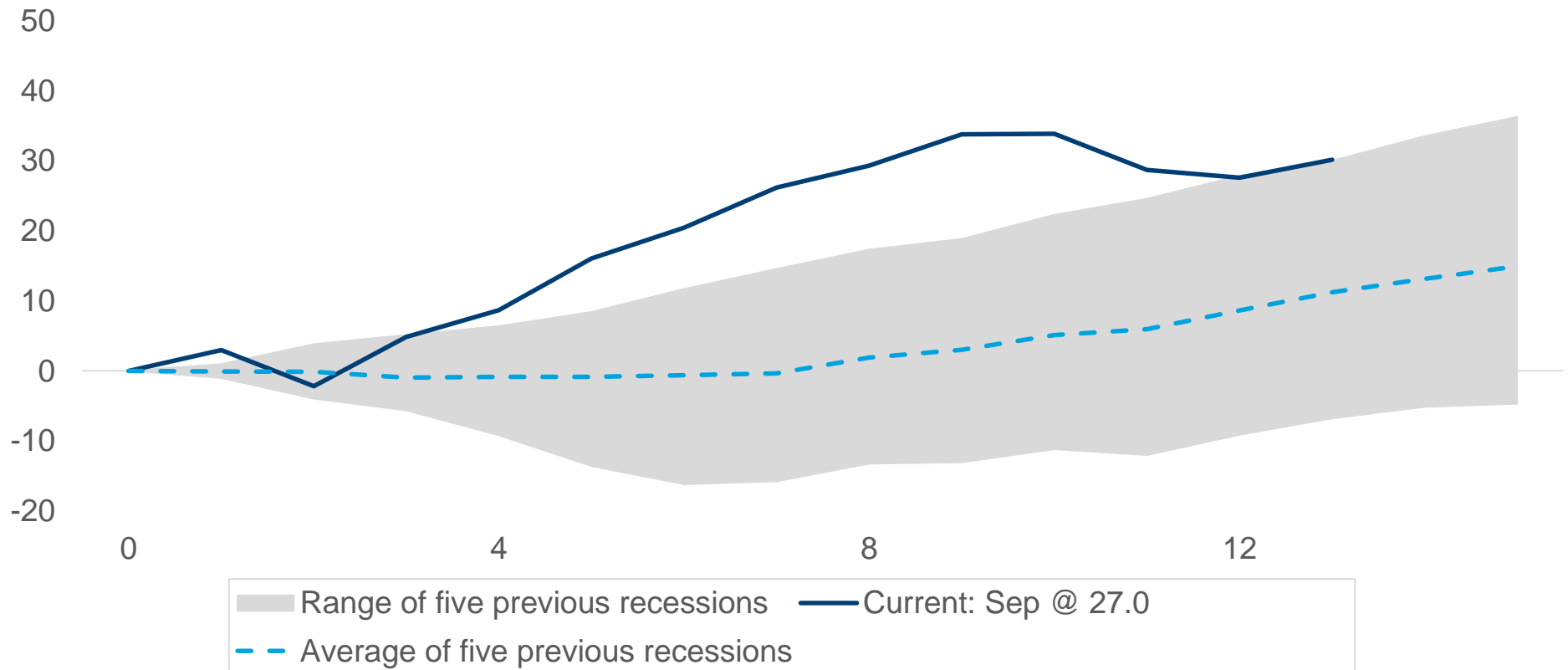


Data current as of April 30, 2023  
 Source: Federal Reserve, Investment Company Institute,  
 Information is subject to change and is not a guarantee of future results.



# Conclusion

Household Net Worth  
*% cumulative change, indexed at 0.0 at pre-recession level, NSA*



Data current as of April 30, 2023

Source: Federal Reserve

Information is subject to change and is not a guarantee of future results.



# Q&A



# Index Definitions

**Consumer Price Index (CPI).** A consumer price index (CPI) measures changes in the price level of a market basket of consumer goods and services purchased by households. The CPI is a statistical estimate constructed using the prices of a sample of representative items whose prices are collected periodically.

**Real estate sector or REITs.** Concentrating assets in the real estate sector or REITs may disproportionately subject a portfolio to the risks of that industry, including the loss of value because of adverse developments affecting the real estate industry and real property values. Investments in REITs may be subject to increased price volatility and liquidity risk; concentration risk is high.



# Important Disclosures

Non Deposit Investment Products are: Not FDIC Insured, Not Bank Guaranteed, May Lose Value

The information presented does not involve the rendering of personalized investment, financial, legal, or tax advice. This presentation is not an offer to buy or sell, or a solicitation of any offer to buy or sell any of the securities mentioned herein.

Certain statements contained herein may constitute projections, forecasts and other forward-looking statements, which do not reflect actual results and are based primarily upon a hypothetical set of assumptions applied to certain historical financial information. Readers are cautioned that such forward-looking statements are not a guarantee of future results, involve risks and uncertainties, and actual results may differ materially from those statement. Certain information has been provided by third-party sources and, although believed to be reliable, it has not been independently verified and its accuracy or completeness cannot be guaranteed.

Past performance or performance based upon assumptions is no guarantee of future results.

Indices are unmanaged and one cannot invest directly in an index. Index returns do not reflect a deduction for fees or expenses.

Any opinions, projections, forecasts, and forward-looking statements presented herein are valid as on the date of this document and are subject to change.

All investing is subject to risk, including the possible loss of the money you invest. As with any investment strategy, there is no guarantee that investment objectives will be met and investors may lose money. Diversification does not ensure a profit or protect against a loss in a declining market. Past performance is no guarantee of future performance.

There are inherent risks with fixed income investing. These risks may include interest rate, call, credit, market, inflation, government policy, liquidity or junk bond risks. When interest rates rise, bond prices fall. This risk is heightened with investments in longer-duration fixed income securities and during periods when prevailing interest rates are low or negative.

