



10 Market Themes for 2Q 2023

As of April 1, 2023

www.arrowrootfamilyoffice.com

10 Market Themes for 2Q 2023

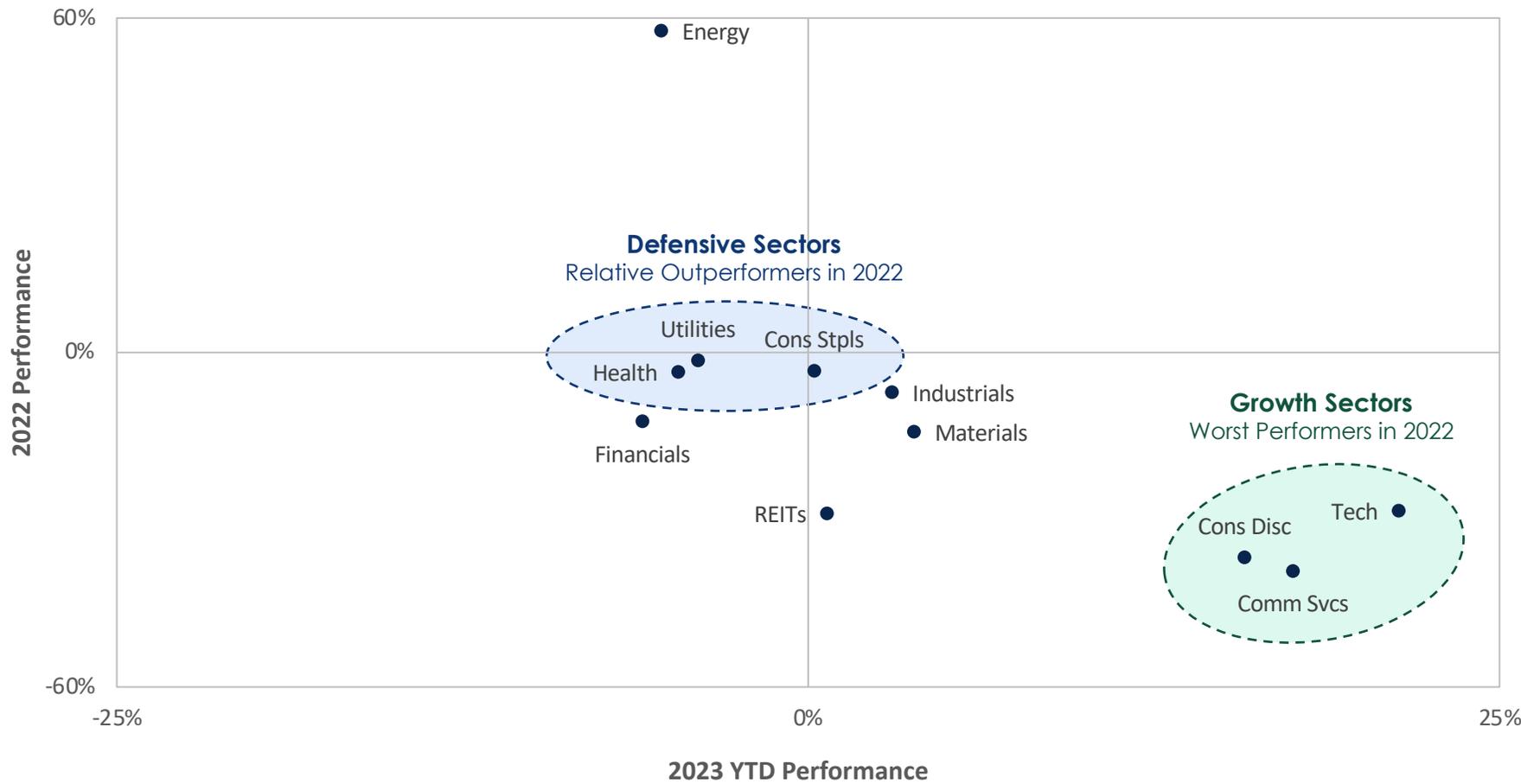
This collection of market insights highlights 10 themes we believe are most likely to shape the investment environment this quarter.

2Q 2023

- 1 U.S. Sector Performance Reverses During 1Q 2023
- 2 S&P 500's Valuation Multiple – Overvalued or Undervalued?
- 3 A Simple Explanation of Recent Bank Failures
- 4 Banks Tighten Lending Standards for Consumer & Business Loans
- 5 A Look at Interest Rate Increases Across Tightening Cycles
- 6 Unpacking Recent Interest Rate Volatility in the U.S. Treasury Market
- 7 Labor Market Participation Rebounds Despite Early Retirements
- 8 Global Oil Prices Drop to 16-Month Low Due to Demand Concerns
- 9 Is the Housing Market Cooling Off? A Deep Dive into Home Price Trends
- 10 Corporate Profit Margins & Small Business Survey Results

U.S. Sector Performance Reverses During 1Q 2023

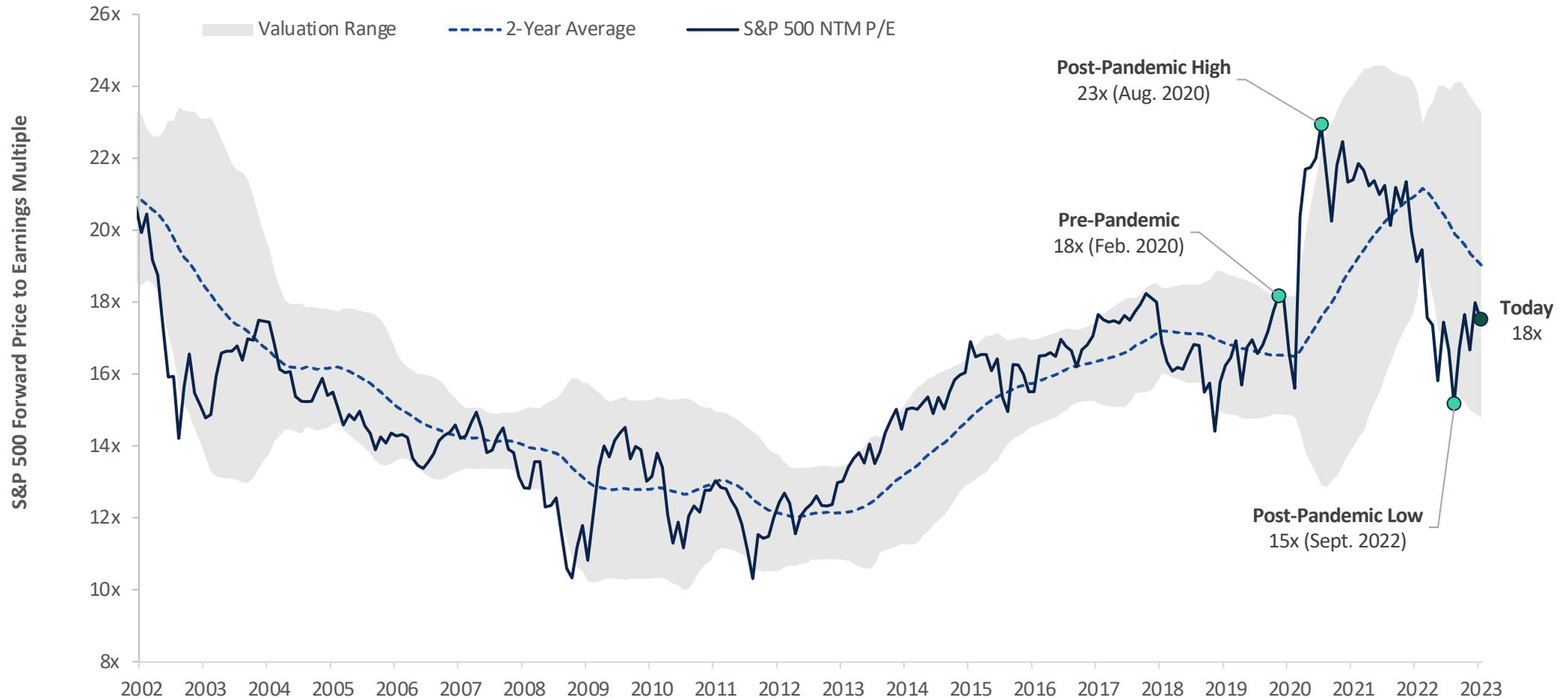
2Q 2023



Disclosures: All performance data represents price returns for each sector and does not reflect any management fees, transaction costs or expenses. Past performance does not guarantee future results. Sectors are represented by the following ETFs: SPDR Consumer Discretionary Sector ETF (XLY), SPDR Consumer Staples Sector ETF (XLP), SPDR Financial Sector ETF (XLF), SPDR Health Care Sector ETF (XLV), SPDR Industrial Sector ETF (XLI), SPDR Materials Sector ETF (XLB), SPDR Technology Sector ETF (XLK), Vanguard Real Estate ETF (VNQ), SPDR Utilities Sector ETF (XLU), SPDR Energy Sector ETF (XLE), and Vanguard Communication Services ETF (VOX).

S&P 500's Valuation Multiple – Overvalued or Undervalued?

2Q 2023



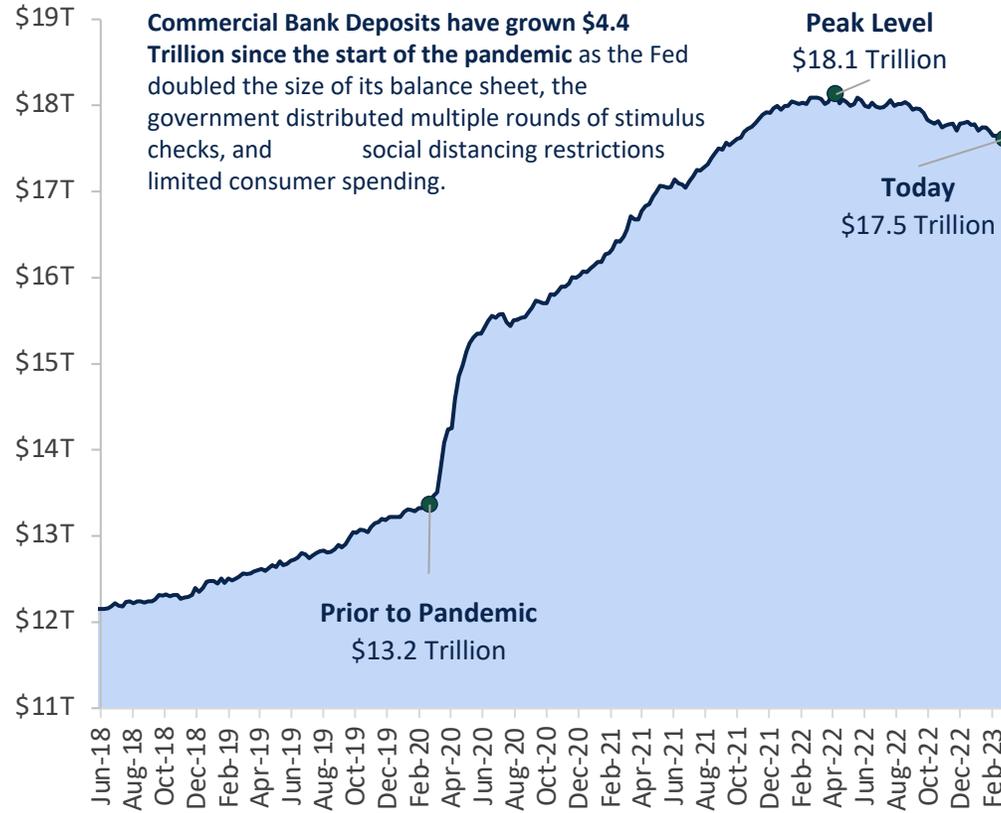
Disclosures: Valuations are based on the reported next twelve-month price-to-earnings (P/E) multiple for the State Street SPDR S&P 500 ETF (SPY). The valuation range represents the rolling +/- 2 standard deviation of the valuation multiple. Standard deviation is a measure of how spread out a set of data is from its average. Data as of March 31, 2023.

A Simple Explanation of Recent Bank Failures

Total U.S. Commercial Bank Deposits

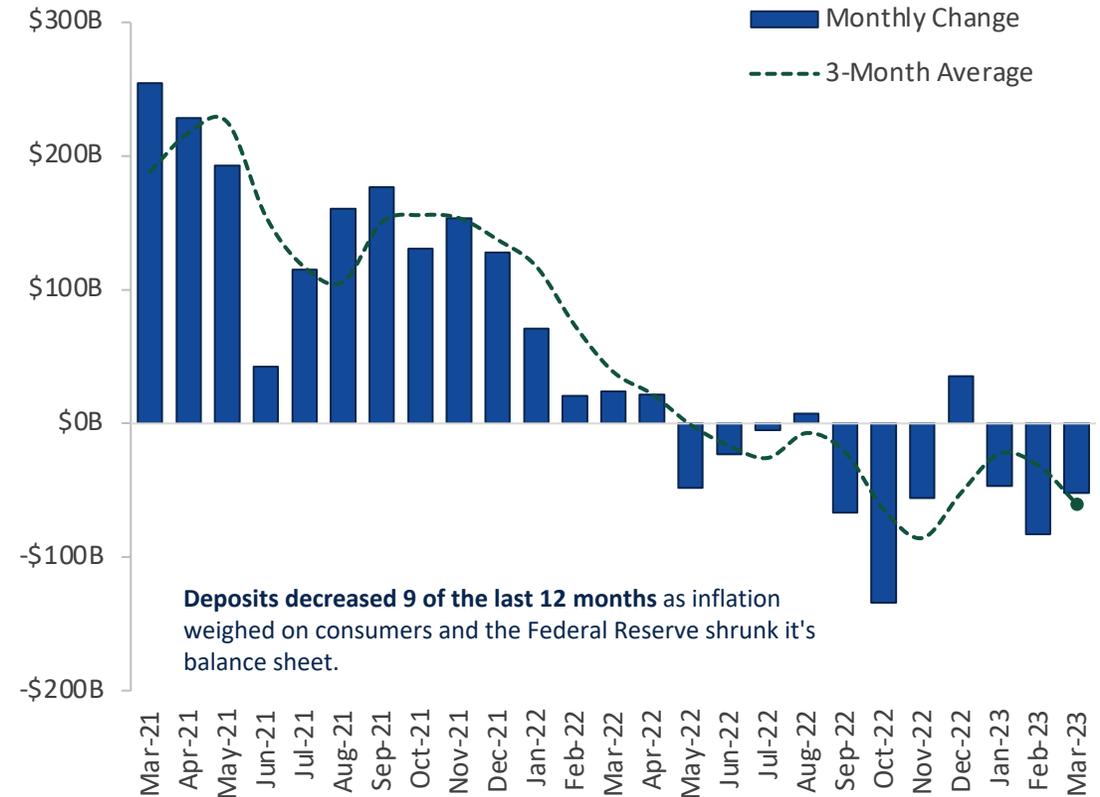
In USD Trillions

2Q 2023



Monthly Change in U.S. Commercial Bank Deposits

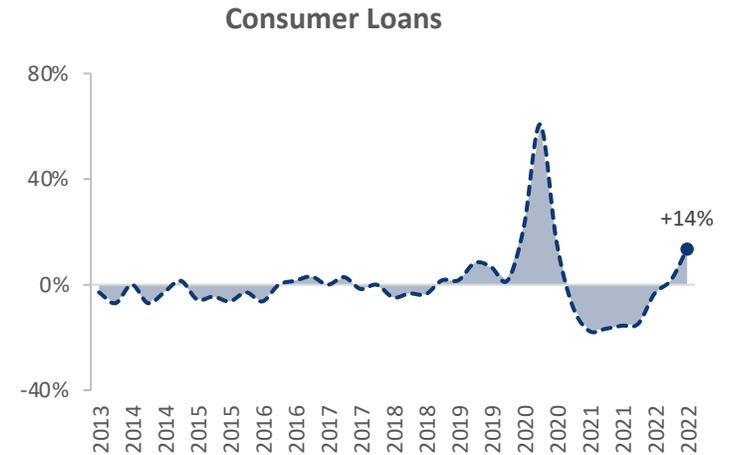
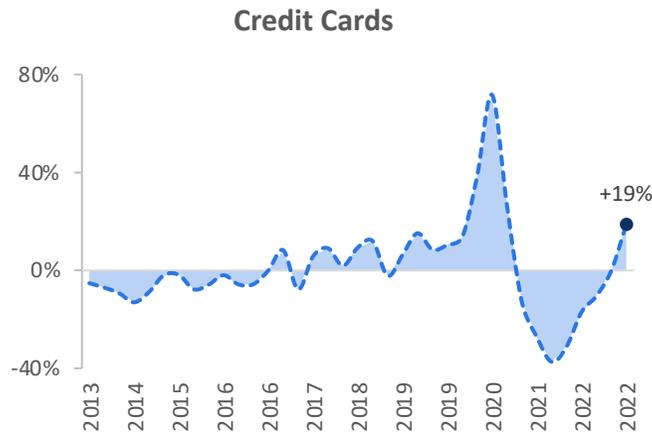
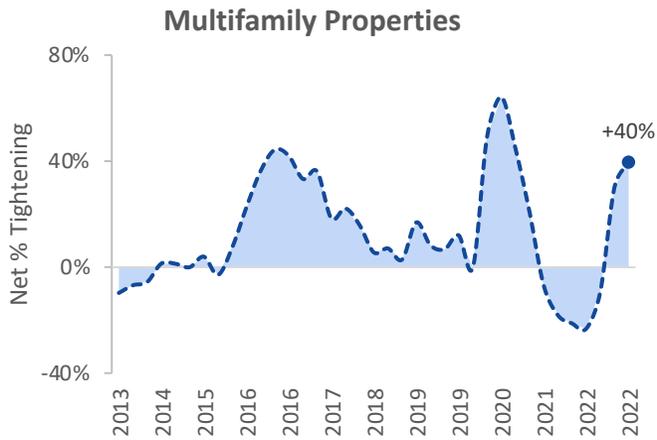
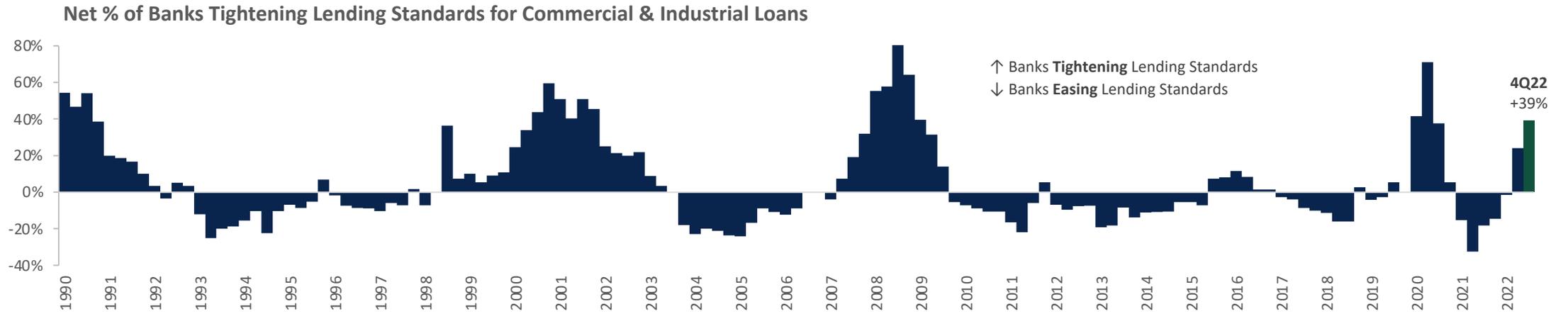
In USD Billions



Disclosures: Data is sourced from the U.S. Federal Reserve System as of March 15, 2023.

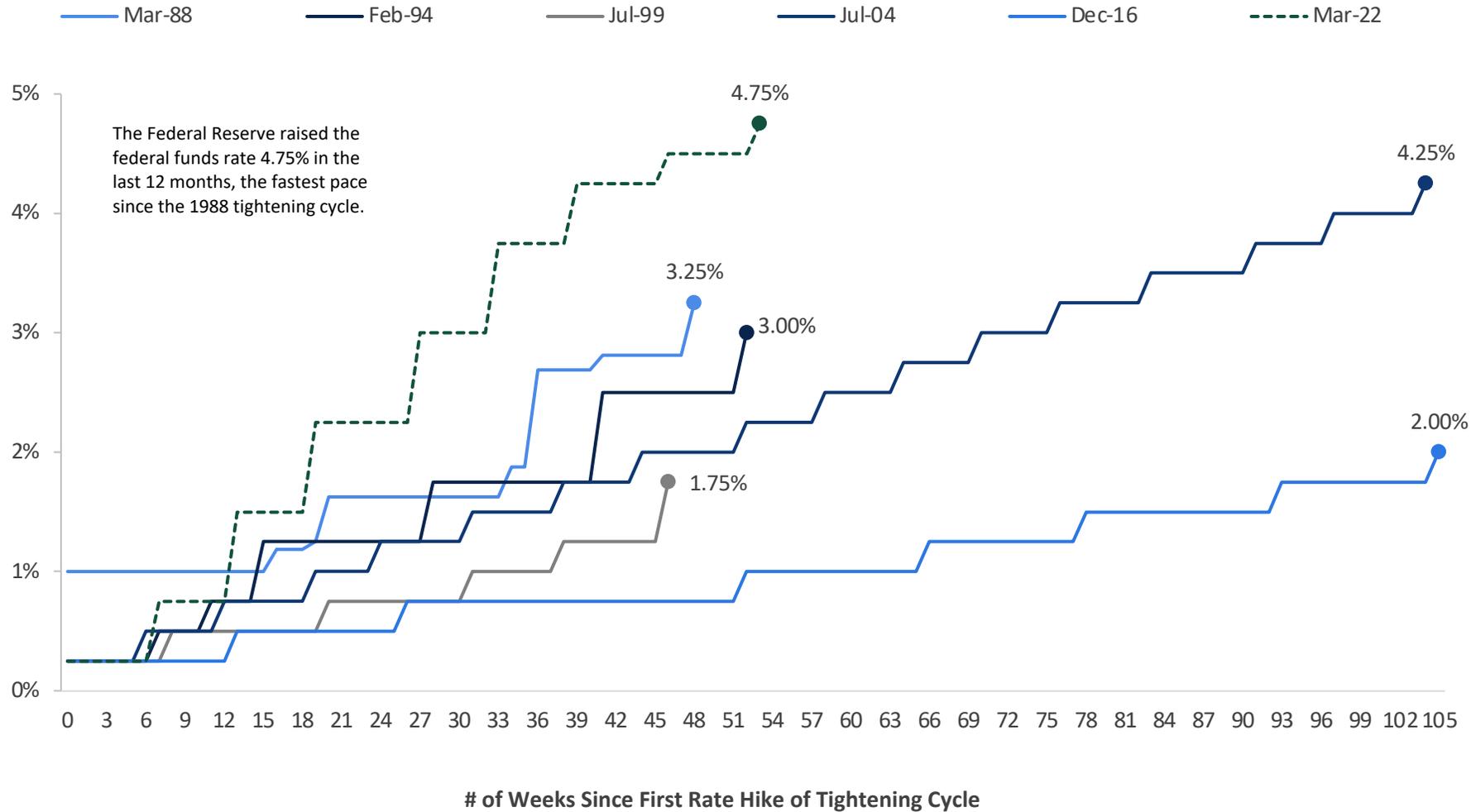
Banks Tighten Lending Standards for Consumer & Business Loans

2Q 2023



Disclosures: Data is sourced from U.S. Federal Reserve System and based on quarterly datapoints. Data as of 12/31/2022.

A Look at Interest Rate Increases Across Tightening Cycles

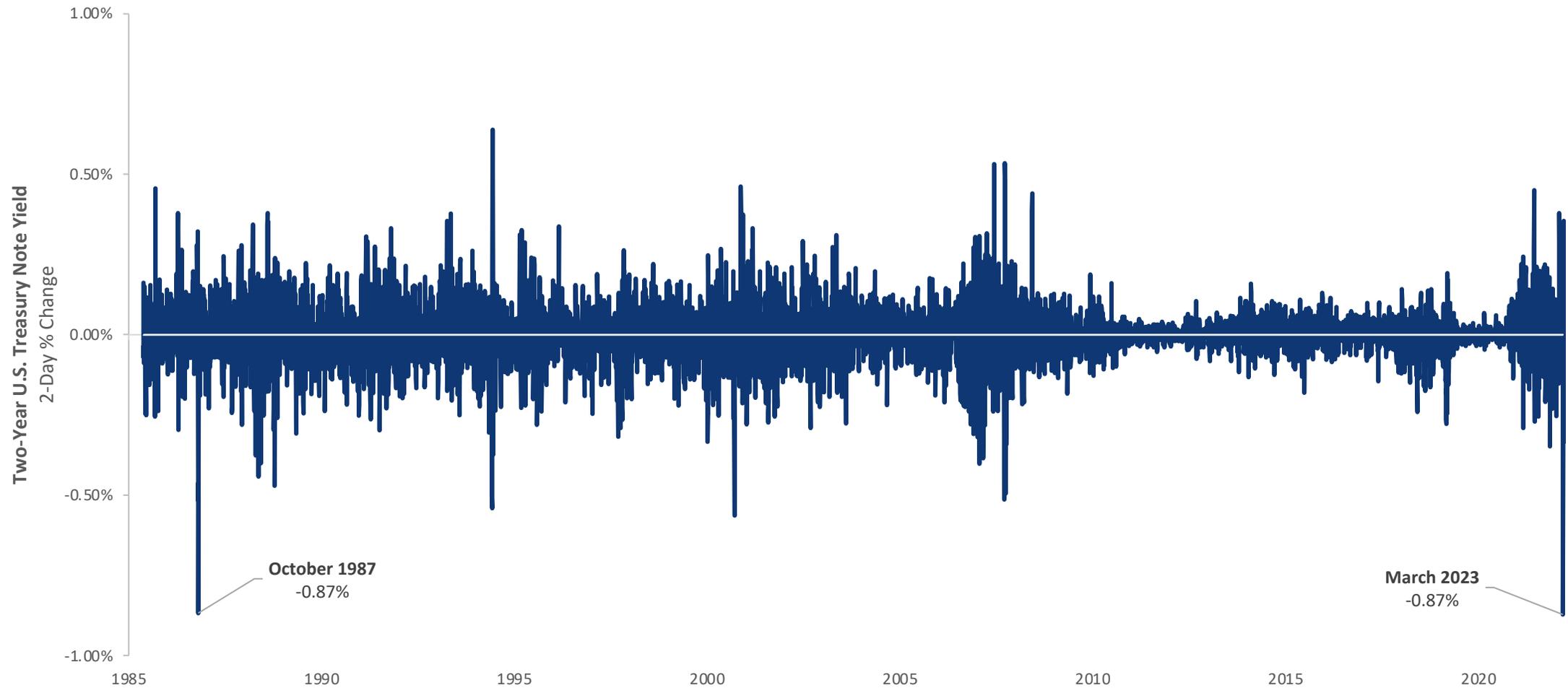


2Q 2023

Disclosures: Data is sourced from the U.S. Federal Reserve as of 3/27/2023. Change in federal funds rates is indexed to zero the week of the first interest rate hike for each tightening cycle.

Unpacking Recent Interest Rate Volatility in the U.S. Treasury Market

2Q 2023



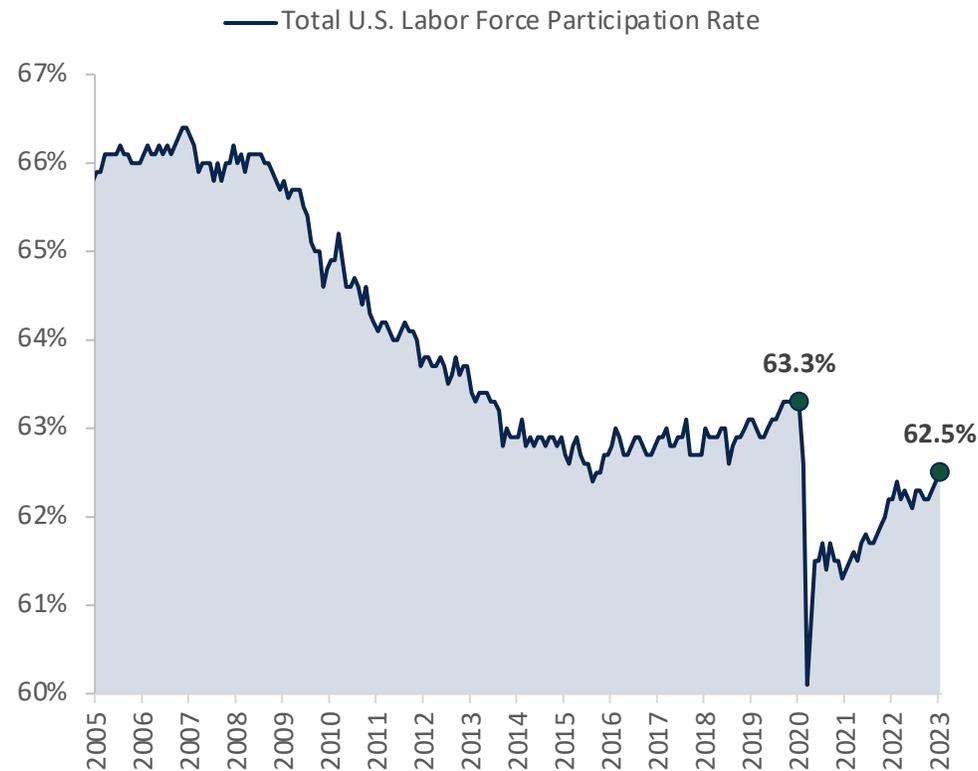
Disclosures: Data is sourced from U.S. Treasury Department.

Labor Market Participation Rebounds Despite Early Retirements

U.S. Labor Force Participation Rate

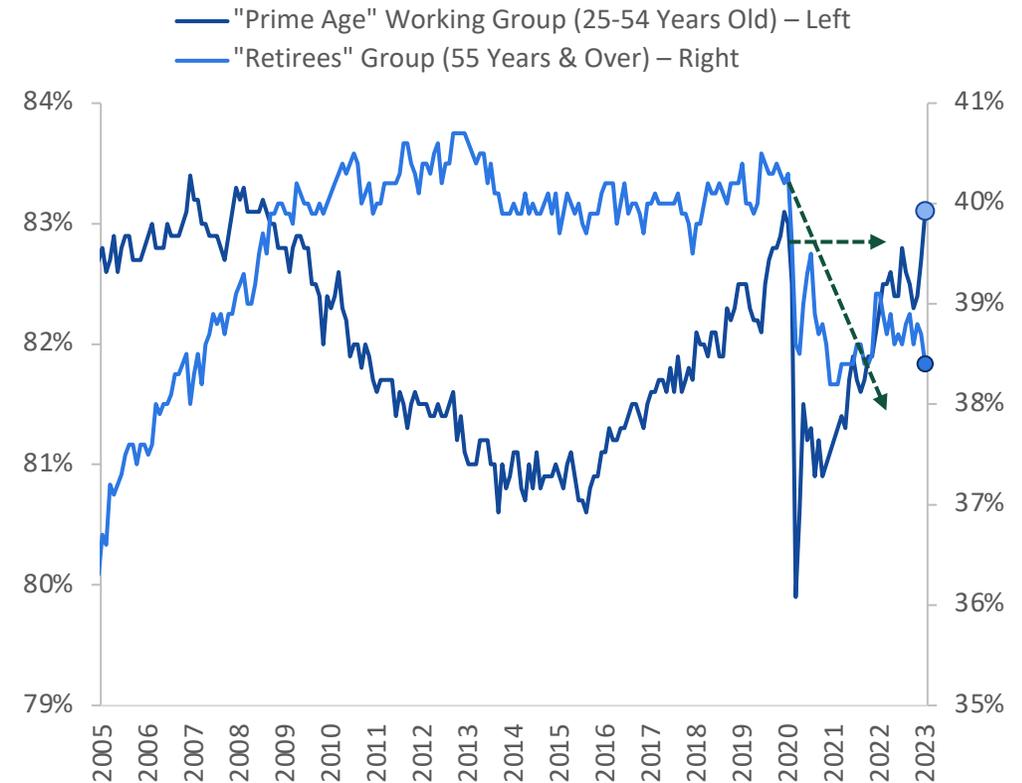
Seasonally adjust since 2005

2Q 2023



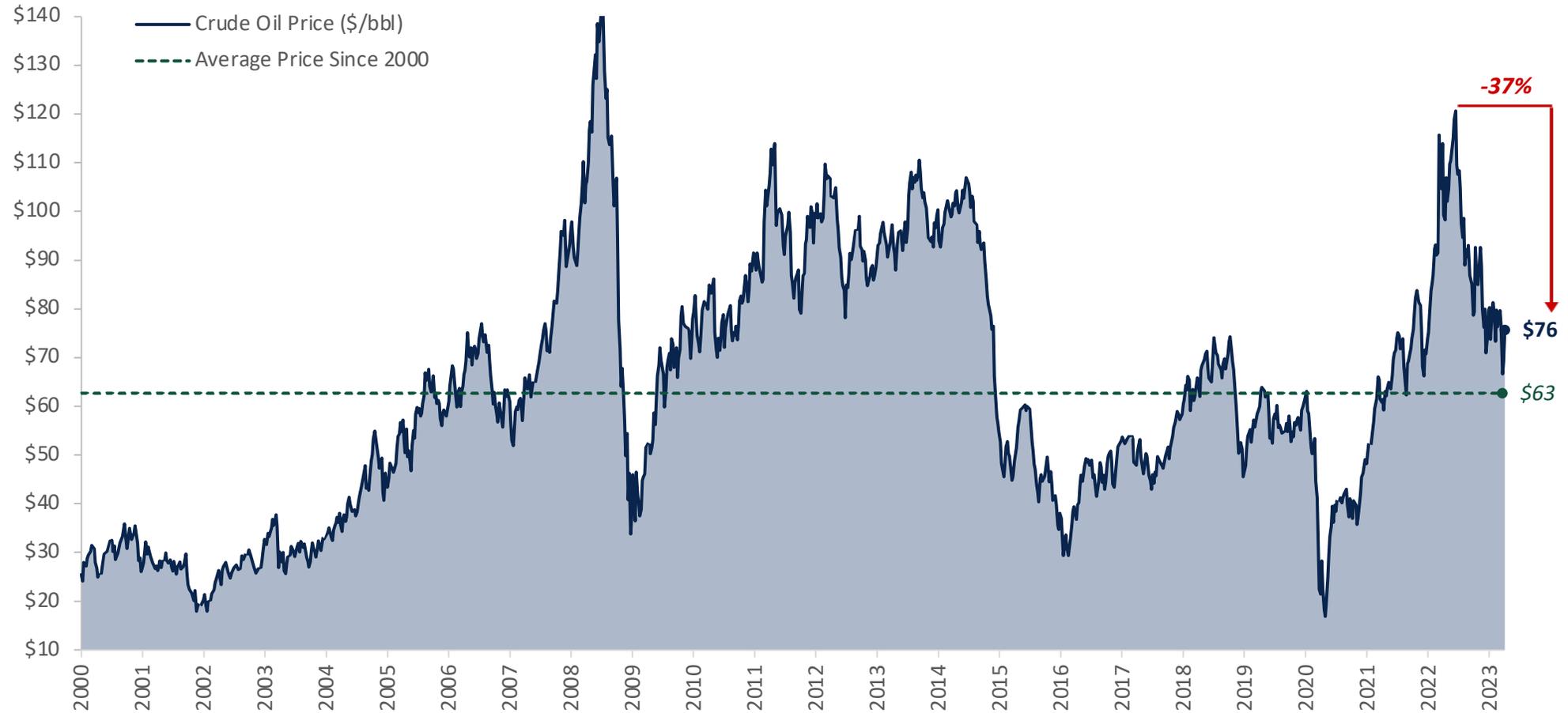
U.S. Labor Force Participation Rate by Age Group

Seasonally adjusted since 2005



Disclosures: Data is sourced from U.S. Department of Labor as of March 31, 2023, for the time period from March 2005 through February 2023.

Global Oil Prices Drop to 16-Month Low Due to Demand Concerns



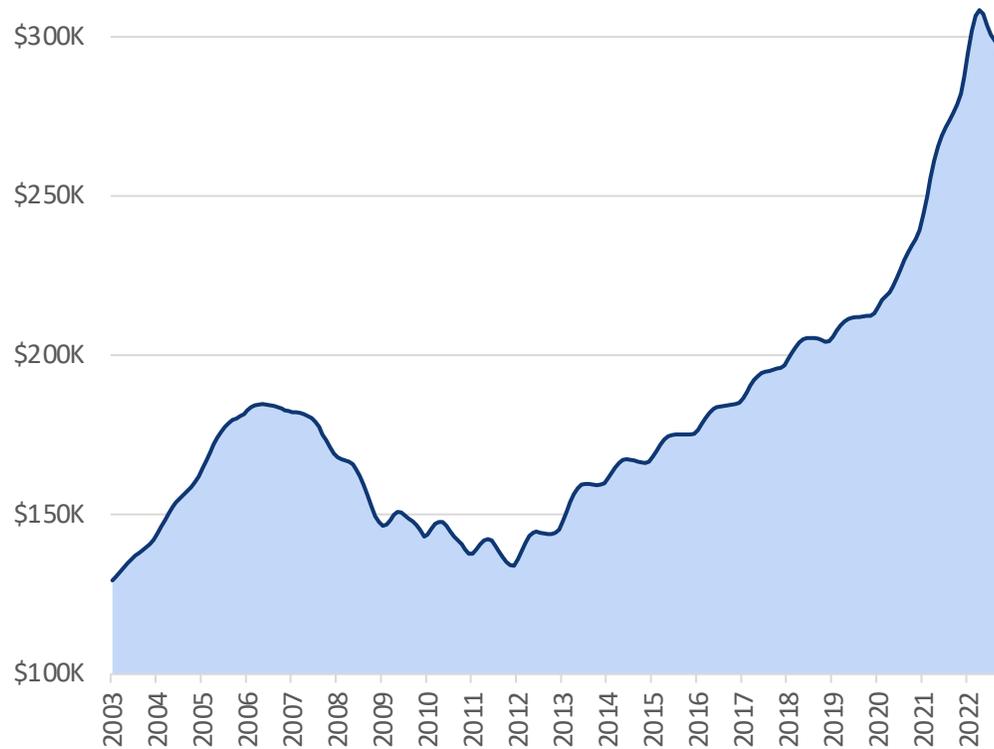
Disclosures: Data is sourced from the U.S. Energy Information Administration as of March 31, 2023.

2Q 2023

Is the Housing Market Cooling Off? A Deep Dive into Home Price Trends

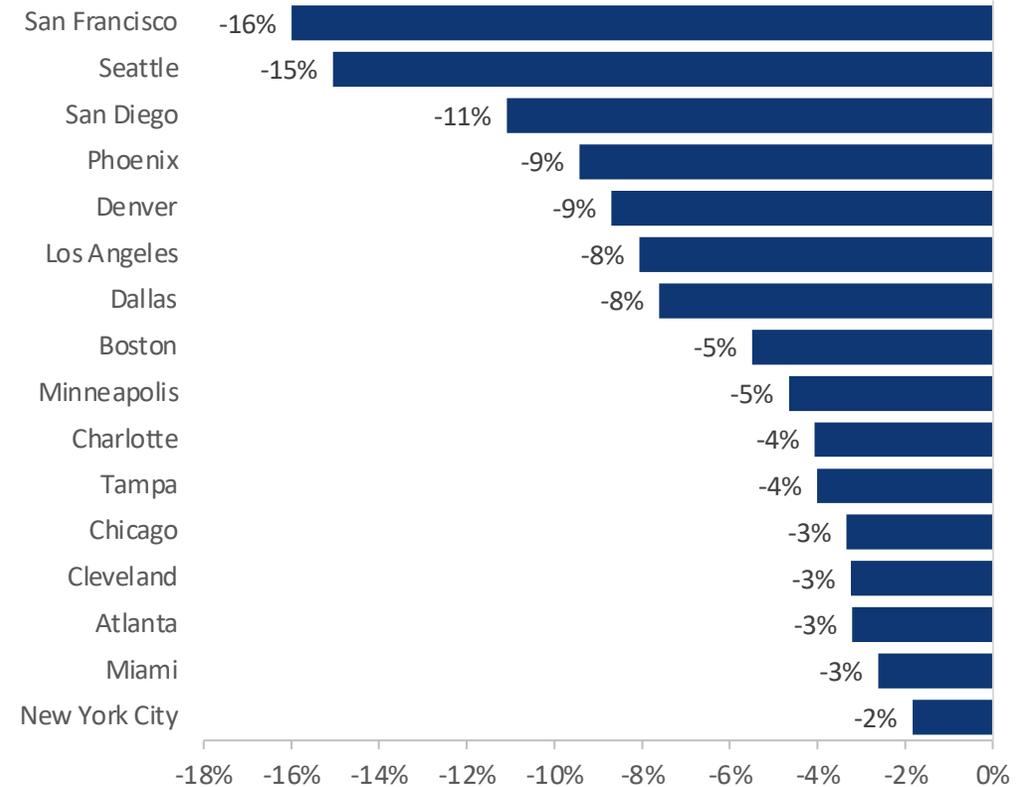
U.S. National Home Price Index
Monthly Home Prices Since 2003

2Q 2023



Disclosures: Data is sourced from Federal Reserve for the period ended December 31, 2022.

Percentage Change from Peak Home Prices By City
Current Price Index vs the Peak Home Price for Each City

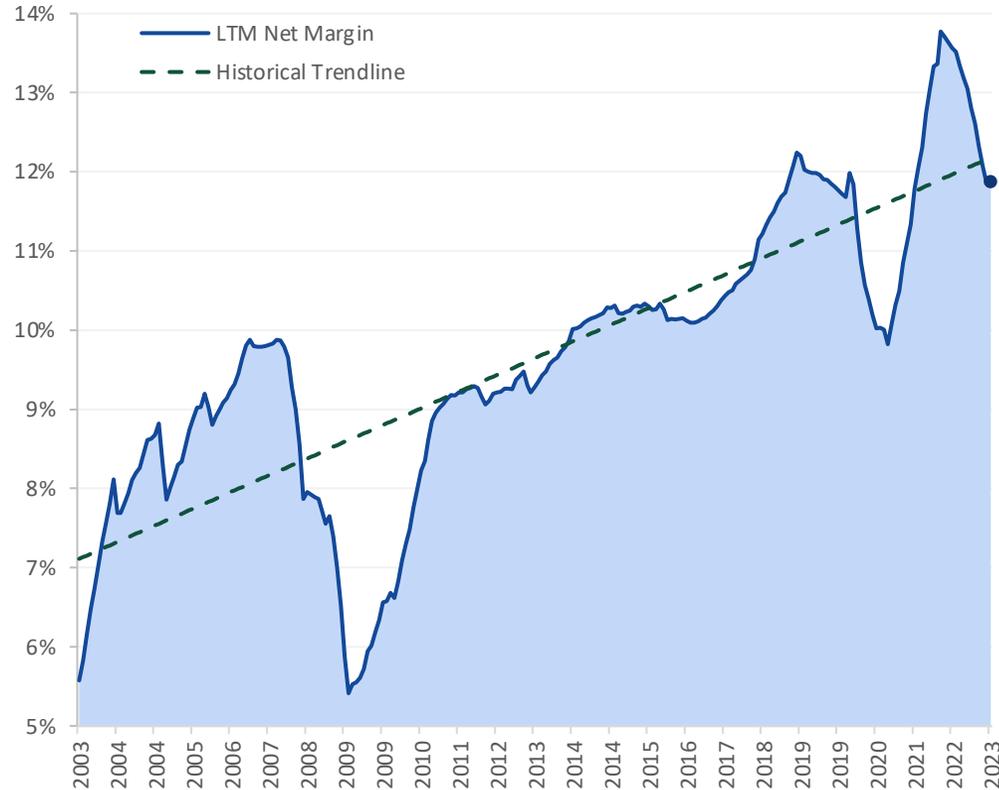


Corporate Profit Margins & Small Business Survey Results

S&P 500 Corporate Profit Margins

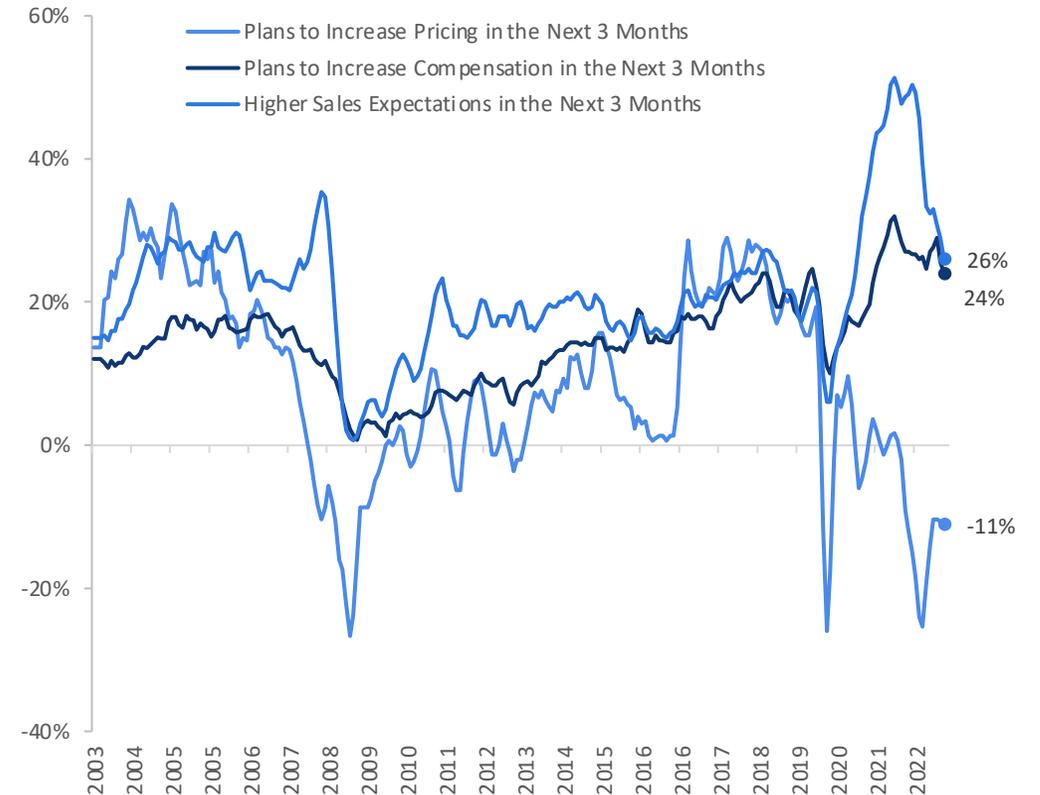
Last 12-month net margin since 2003

2Q 2023



Small Business Expectation for Business Activity

Survey results smoothed by 3-month average



Disclosures: Data is sourced from Federal Reserve and NFIB. Last 12-month net margins are based on the State Street SPDR S&P 500 ETF (SPY) and calculated as the sum of last 12-month earnings divided by the sum of last 12-month total sales.

Definitions

2Y / 10Y / 30-Year Treasury Bonds	Treasuries are debt obligations issued and backed by the full faith and credit of the U.S. government.
Bitcoin Futures	CME's Bitcoin futures contract, ticker symbol BTC, is a USD cash-settled contract based on the CME CF Bitcoin Reference Rate (BRR), which serves as a once-a-day reference rate of the U.S. dollar price of bitcoin. The BRR aggregates the trade flow of major bitcoin spot exchanges during a one-hour calculation window into the U.S. dollar price of one bitcoin as of 4 p.m. London Time.
CBOE Market Volatility Index (VIX)	Measures the market's expectations of future volatility and is based on S&P 500 options activity
Consumer Price Index (CPI)	Measures the changes in the price level of a basket of consumer goods and services purchased by households.
Federal Fund's Rate	The target interest rate set by the Federal Reserve at which commercial banks borrow and lend excess reserves overnight.
Federal Reserve	The Federal Reserve System is the central bank of the United States. It was founded by Congress in 1913 to provide the nation with a safer, more flexible, and more stable monetary and financial system
Forward Price to Earnings Ratio	The forward P/E ratio (or forward price-to-earnings ratio) divides the current share price of a company by the estimated future ("forward") earnings per share (EPS) of that company.
Growth Stocks	Growth stocks are companies expected to grow sales and earnings at a faster rate than the market average.
Inflation	A general rise in price level relative to available goods and services.
ISM Purchasing Managers Index (PMI)	The ISM manufacturing index, also known as the purchasing managers' index (PMI), is a monthly indicator of U.S. economic activity based on a survey of purchasing managers at more than 300 manufacturing firms. It is considered to be a key indicator of the state of the U.S. economy.
Price Return	The rate of return on an investment portfolio, where the return measure takes into account only the capital appreciation of the portfolio, not including income generated in the form of interest or dividends.
Prime Interest Rate	A base rate used by banks to price short-term consumer and business loans.
Real Earnings	Usual weekly earnings represent earnings before taxes and other deductions and include any overtime pay, commissions, or tips usually received. Real Earnings adjust these dollar amounts the Consumer Price Index.
Real Yield	The interest rate earned on a fixed income investment after factoring in the impact of inflation as measured by the Consumer Price Index (CPI).
Total Return	Return on a portfolio of investments including capital appreciation and income received on the portfolio.
U.S. Labor Participation Rate	The percentage of the population that is either working or actively looking for work
U.S. Total Payrolls	A measure of the number of U.S. workers in the economy that excludes proprietors, private household employees, unpaid volunteers, farm employees, and the unincorporated self-employed. This measure accounts for approximately 80 percent of the workers who contribute to Gross Domestic Product (GDP).
Unemployment Rate	A lagging economic indicator which is calculated as the percent of the labor force that is jobless.
Value Stocks	Stocks that are inexpensive relative to the broad market based on measures of fundamental value (e.g., price to earnings or price to book).

2Q 2023

Disclosures and Legal Notice

- Investing involves risk, including the possible loss of principal. Stock markets can be volatile. Investments in securities of small and medium capitalization companies may involve greater risk of loss and more abrupt fluctuations in market price than investments in larger companies. Investments in fixed-income instruments are subject to the possibility that interest rates could rise, causing their values to decline. High yield and unrated debt securities are at a greater risk of default than investment grade bonds and may be less liquid, which may increase volatility. Investors in asset-backed securities, including mortgage-backed securities and collateralized loan obligations (“CLOs”), generally receive payments that are part interest and part return of principal. These payments may vary based on the rate loans are repaid. Some asset-backed securities may have structures that make their reaction to interest rates and other factors difficult to predict, making their prices volatile and they are subject to liquidity and valuation risk. CLOs bear similar risks to investing in loans directly, such as credit, interest rate, counterparty, prepayment, liquidity, and valuation risks. Loans are often below investment grade, may be unrated, and typically offer a fixed or floating interest rate.
- This material is distributed or presented for informational or educational purposes only and should not be considered a recommendation of any particular security, strategy or investment product, or as investing advice of any kind. This material is not provided in a fiduciary capacity, may not be relied upon for or in connection with the making of investment decisions, and does not constitute a solicitation of an offer to buy or sell securities. The content contained herein is not intended to be and should not be construed as legal or tax advice and/or a legal opinion. Always consult a financial, tax and/or legal professional regarding your specific situation.
- This material contains opinions of the author, but not necessarily those of Arrowroot Family Office LLC or its subsidiaries. The opinions contained herein are subject to change without notice. Forward looking statements, estimates, and certain information contained herein are based upon proprietary and non-proprietary research and other sources. Information contained herein has been obtained from sources believed to be reliable, but are not assured as to accuracy. No part of this material may be reproduced or referred to in any form, without express written permission of Arrowroot Family Office, LLC. There is neither representation nor warranty as to the current accuracy of, nor liability for, decisions based on such information. Past performance is not indicative of future results..

2Q 2023



Thank You

 **ARROWROOT**
Family Office