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# Economic, Market & Monetary Consequences of Bank Failures

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Chief Investment Officer

**Luke Tilley**  
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**Meghan Shue**  
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**Steve Norcini**  
Senior Equity Portfolio Manager

All data as of February 28, 2023,  
unless otherwise noted.

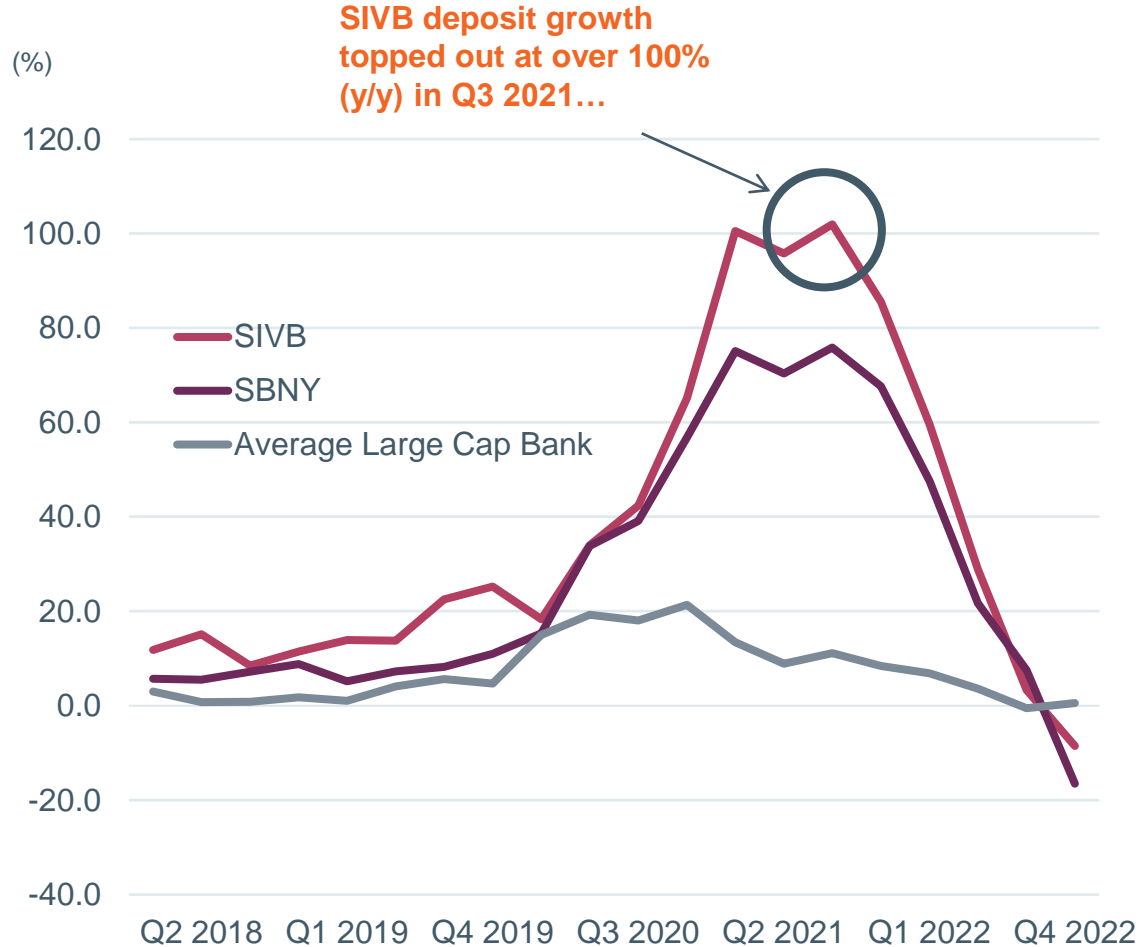


# Today's Agenda

- State of Affairs
- Economic and Monetary Implications
- Market and Portfolio Implications

# Deposits Surged for Silicon Valley Bank (SIVB) and Signature Bank (SBNY) as Treasury Values Declined

Year-over-year deposit growth (%)



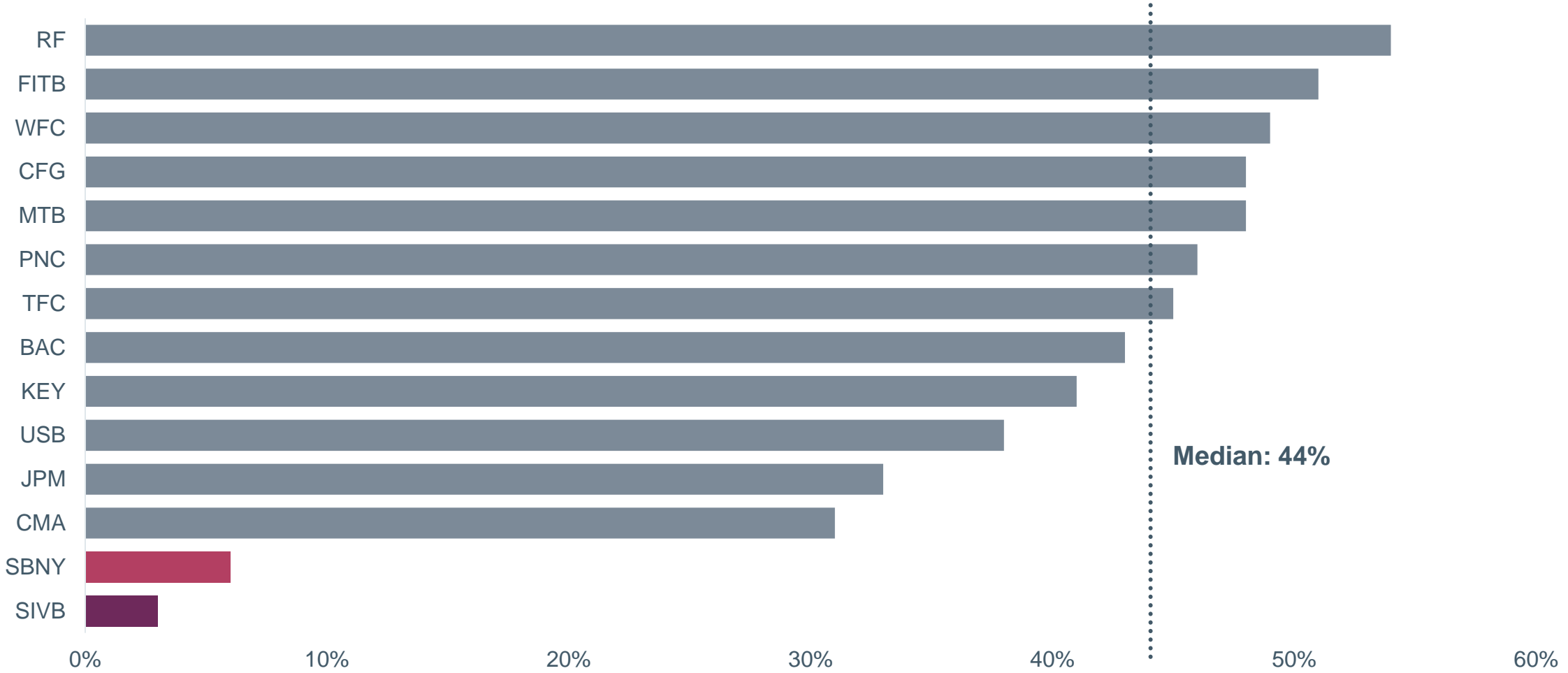
U.S. Treasury long index (total return, indexed to 2018)



Data on the left as of December 31, 2022. Source: Bloomberg, WTIA. Data on the right as of March 14, 2023. Source: Bloomberg. The U.S. Treasury long index measures the U.S. dollar denominated, fixed rate, nominal debt issued by the U.S. Treasury with 10 years or more to maturity.

# Concentrated Deposit Base

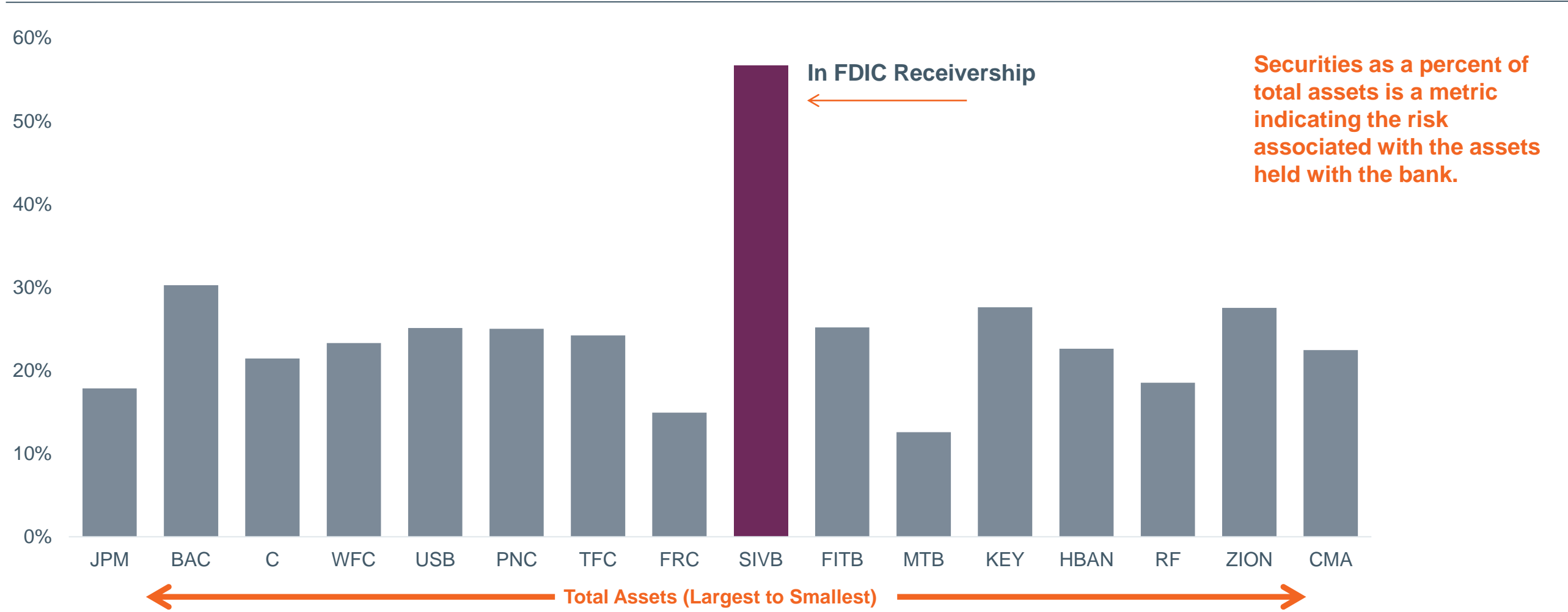
Deposit accounts <\$250k (% of total deposits)



Data as of December 31, 2022. Source: Bloomberg, Citi Insights. Banks are identified by their ticker. Please refer to Appendix for more information. The banks that are represented consist of the 11 stocks in the S&P Regional Bank Index and the 5 stocks in the S&P Diversified Bank Index.

# SIVB Took on High-Duration Risk

Securities as a percent of total assets



Data as of December 31, 2022. Source: Bloomberg, WTIA. The banks that are represented consist of the 11 stocks in the S&P Regional Bank Index and the 5 stocks in the S&P Diversified Bank Index.

## **U.S. Government Has Taken Steps to Stem the Crisis**

- Guaranteed all deposits of Silicon Valley Bank and Signature Bank
- Created the Bank Term Funding Program (BTFP) to ease liquidity pressures of other banks experiencing deposit outflows

# Bank Stress Looking Forward

- Domestic regional bank crisis appears to be under control
- Global systemically important bank (GSIB) crisis—too early to tell

# U.S. Inflation to Moderate but Remain Elevated

Consumer Price Index (CPI) inflation (% change, year over year)

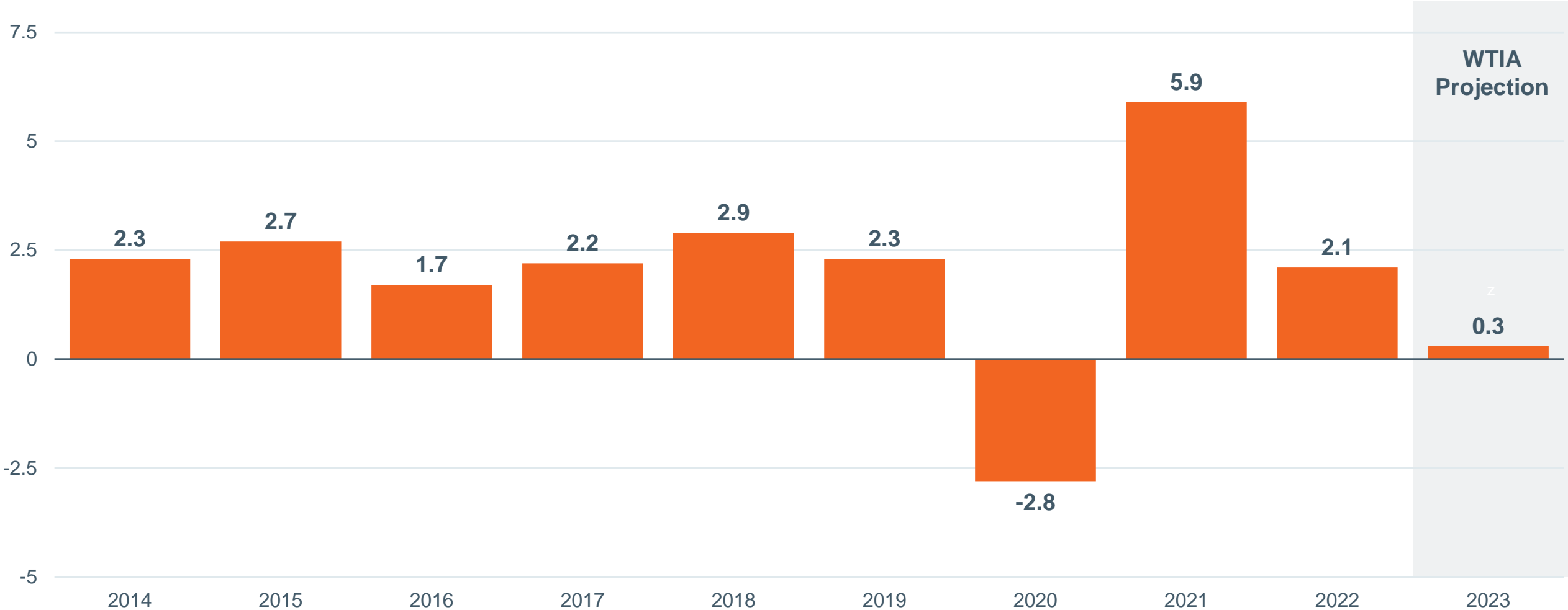


Data as of March 14, 2023. Sources: Bureau of Labor Statistics, WTIA.



# Mild Recession Expected in 2023

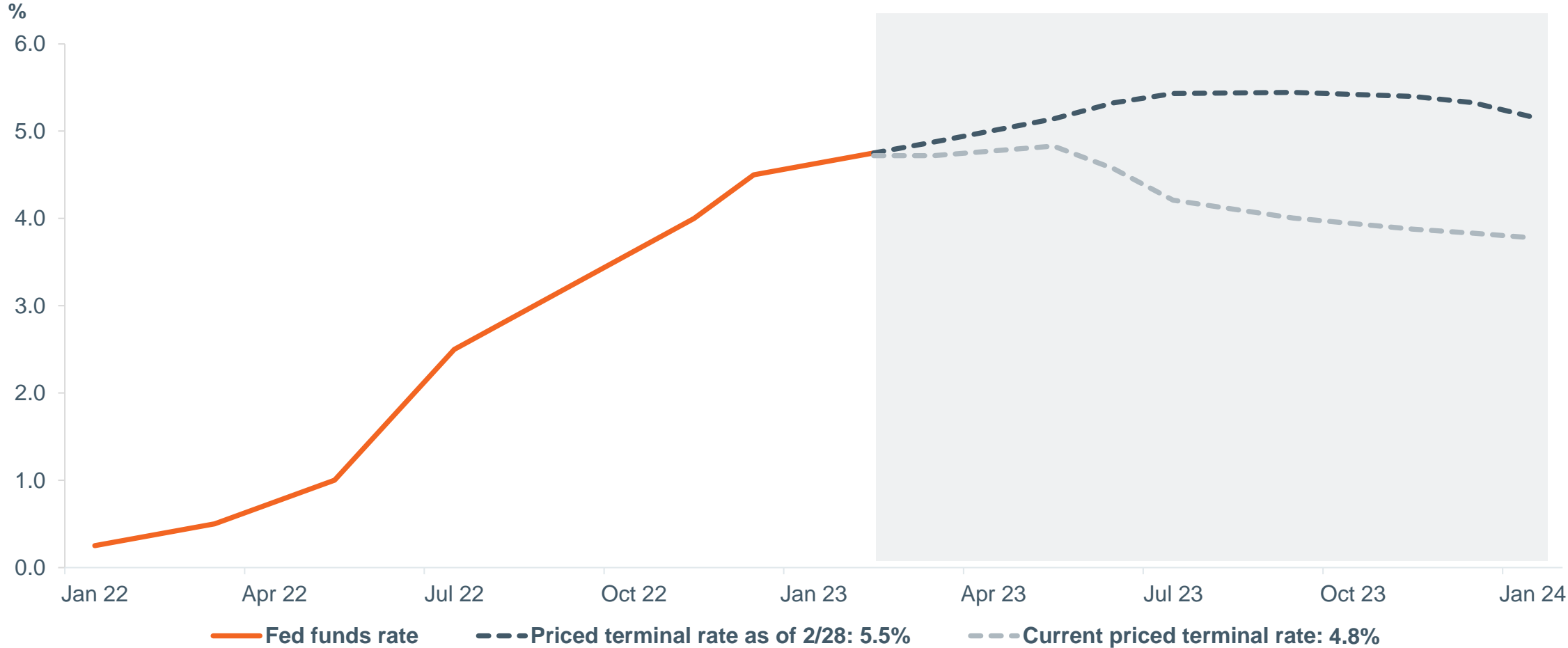
U.S. real gross domestic product (GDP, %)



Data as of February 28, 2022. Sources: Macrobond, Bureau of Economic Analysis, WTIA.

# Market Pricing Lower Fed Trajectory Following 2023 Bank Crises

Market pricing of the terminal fed funds rate (current vs. Feb. 28<sup>th</sup>, 2023)



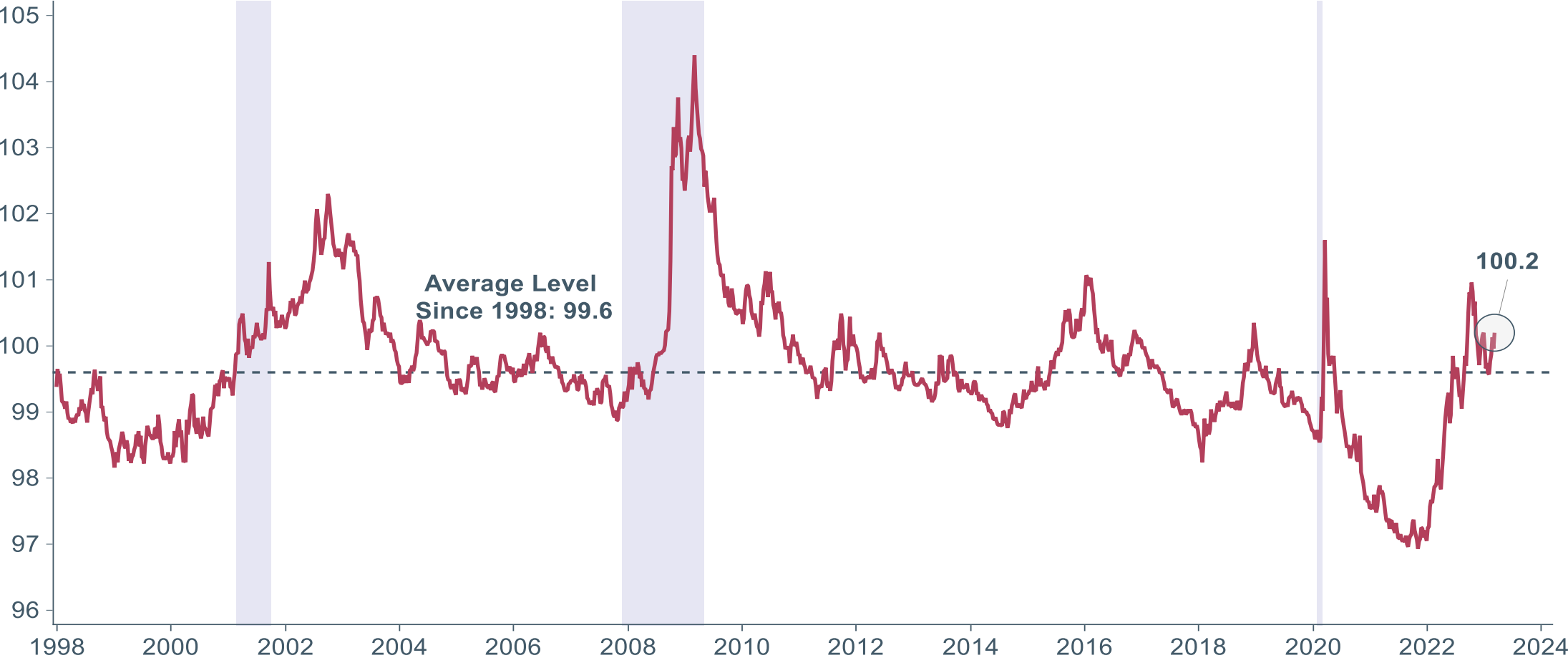
Data as of March 15, 2023. Source: Bloomberg, WTIA

## Three Potential Bases for Fed Pivot or Pause

- Continuing regional or GSIB crisis
- Tightened financial conditions
- Slowing economy

# Financial Conditions Tighten, but in Line With Historic Average

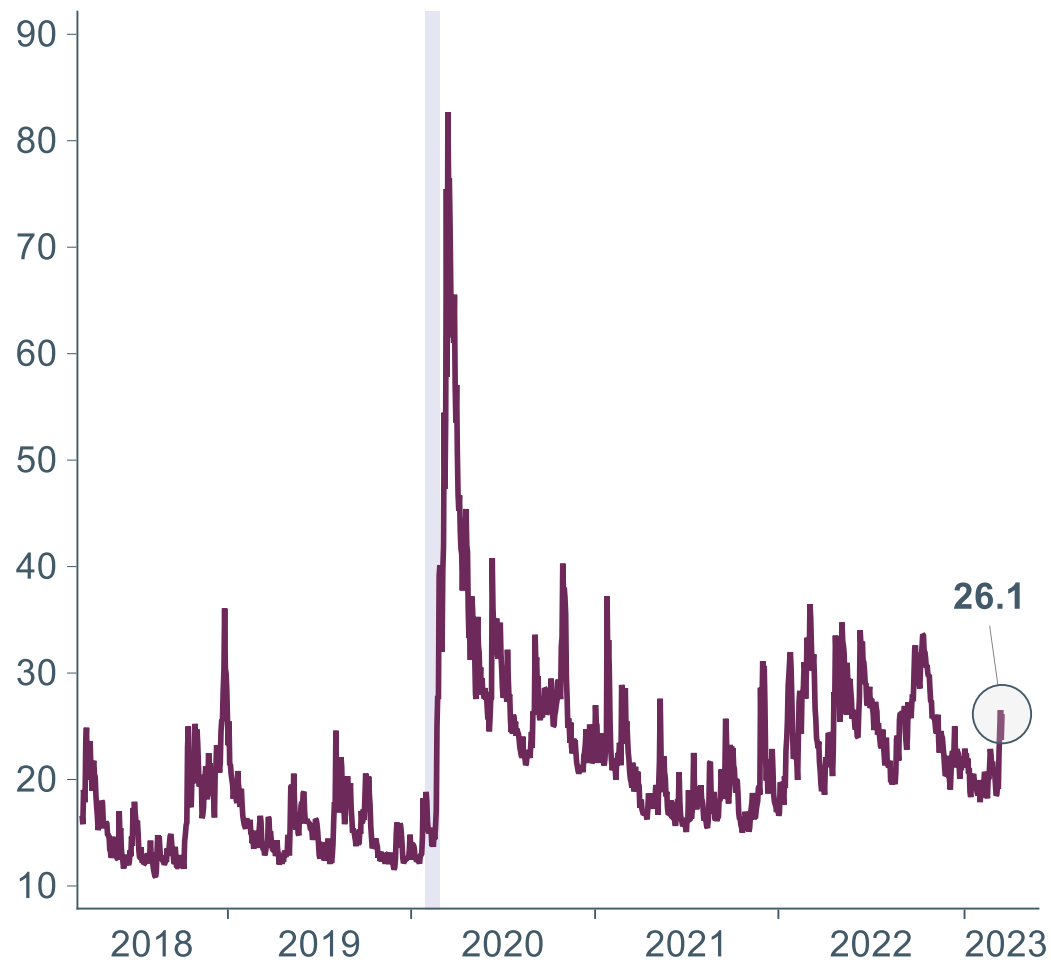
Goldman Sachs U.S. financial conditions index (1998–present)



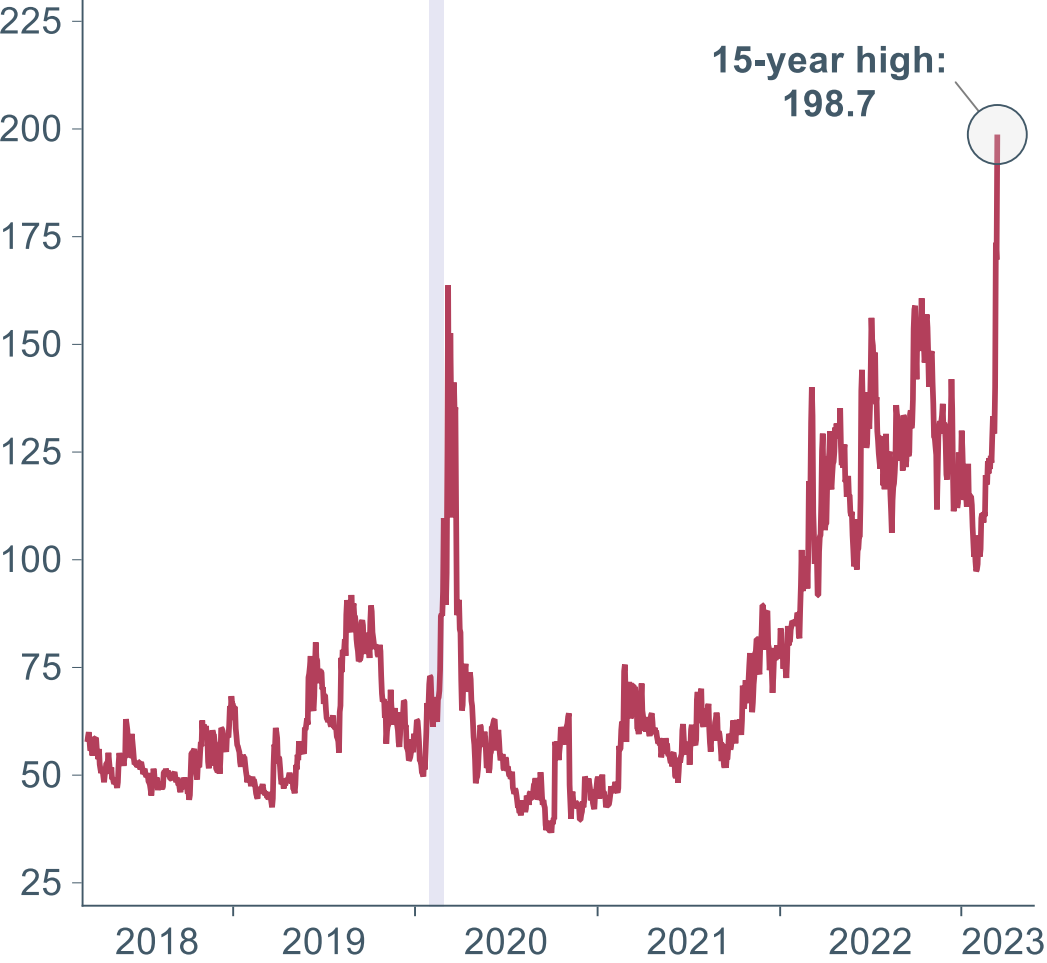
Data as of March 14, 2023. Sources: Goldman Sachs, Bloomberg. The index is defined as the weighted average of riskless interest rates, the exchange rate, equity valuations, and credit spreads, with weights that correspond to the direct impact of each variable on GDP.

# Bond Market Volatility Surges to 15-Year High

U.S. stock market volatility (VIX index)



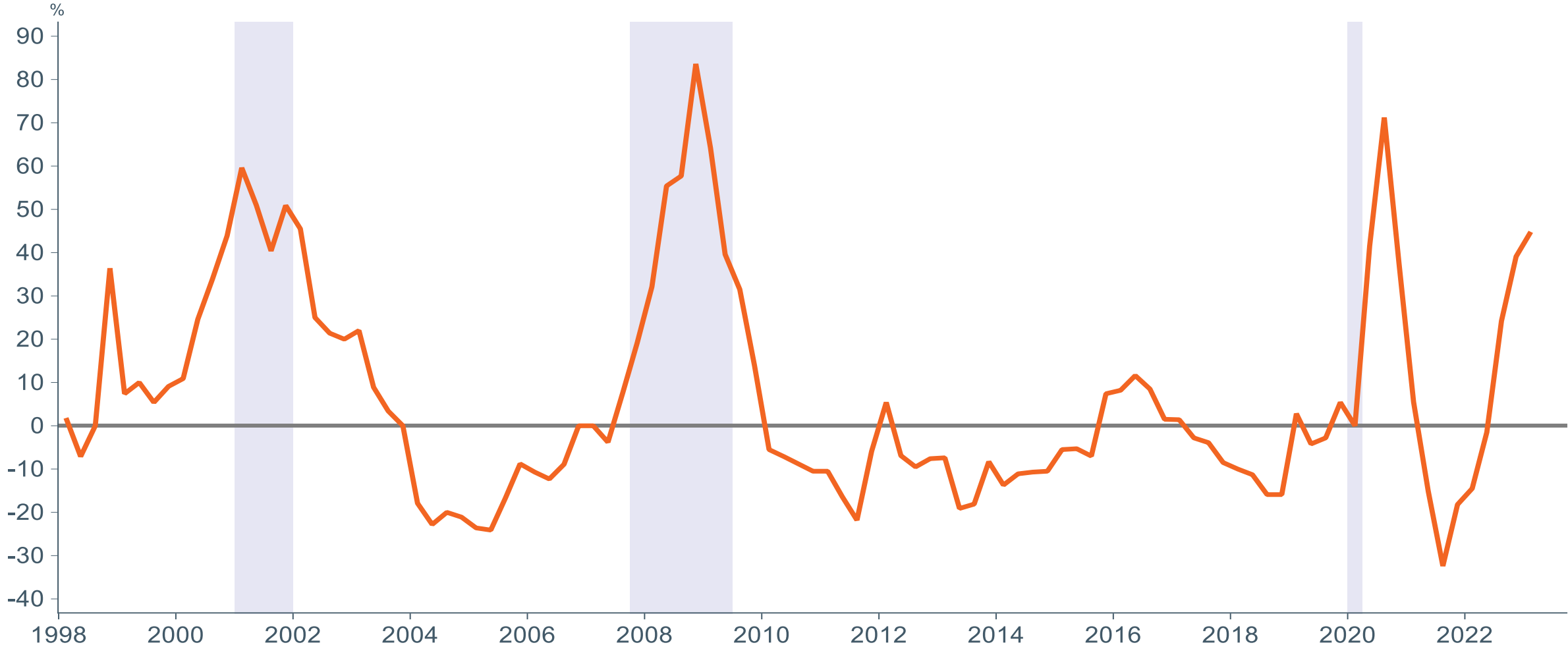
U.S. bond market volatility (MOVE index)



Data as of March 15, 2023. Sources: Bloomberg. The Chicago Board Options Exchange Volatility Index (VIX) is a real-time index that represents the market's expectations for the relative strength of near-term price changes of the S&P 500 Index (SPX). The Merrill Lynch Option Volatility Estimate (MOVE) Index measures U.S. interest rate volatility. The index tracks the movement in U.S. Treasury yield volatility implied by current prices of 1-month OTC options.

# Senior Loan Officer Survey Shows Rapid Tightening

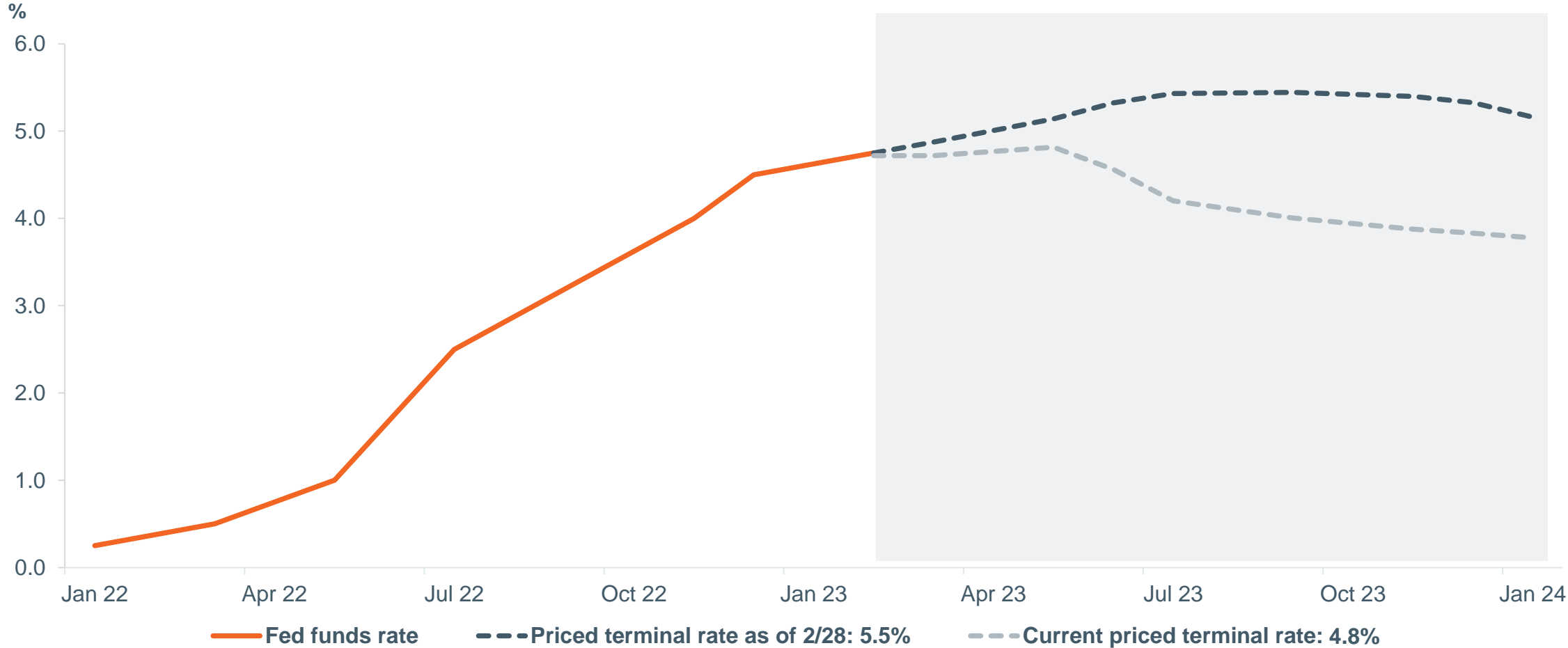
Net percent of domestic respondents tightening standards (C&I loans for large/medium firms)



Data as of January 31, 2023. Source: Bloomberg, Federal Reserve

# Rate Hike Expectation Sharply Lower Following 2023 Bank Crises

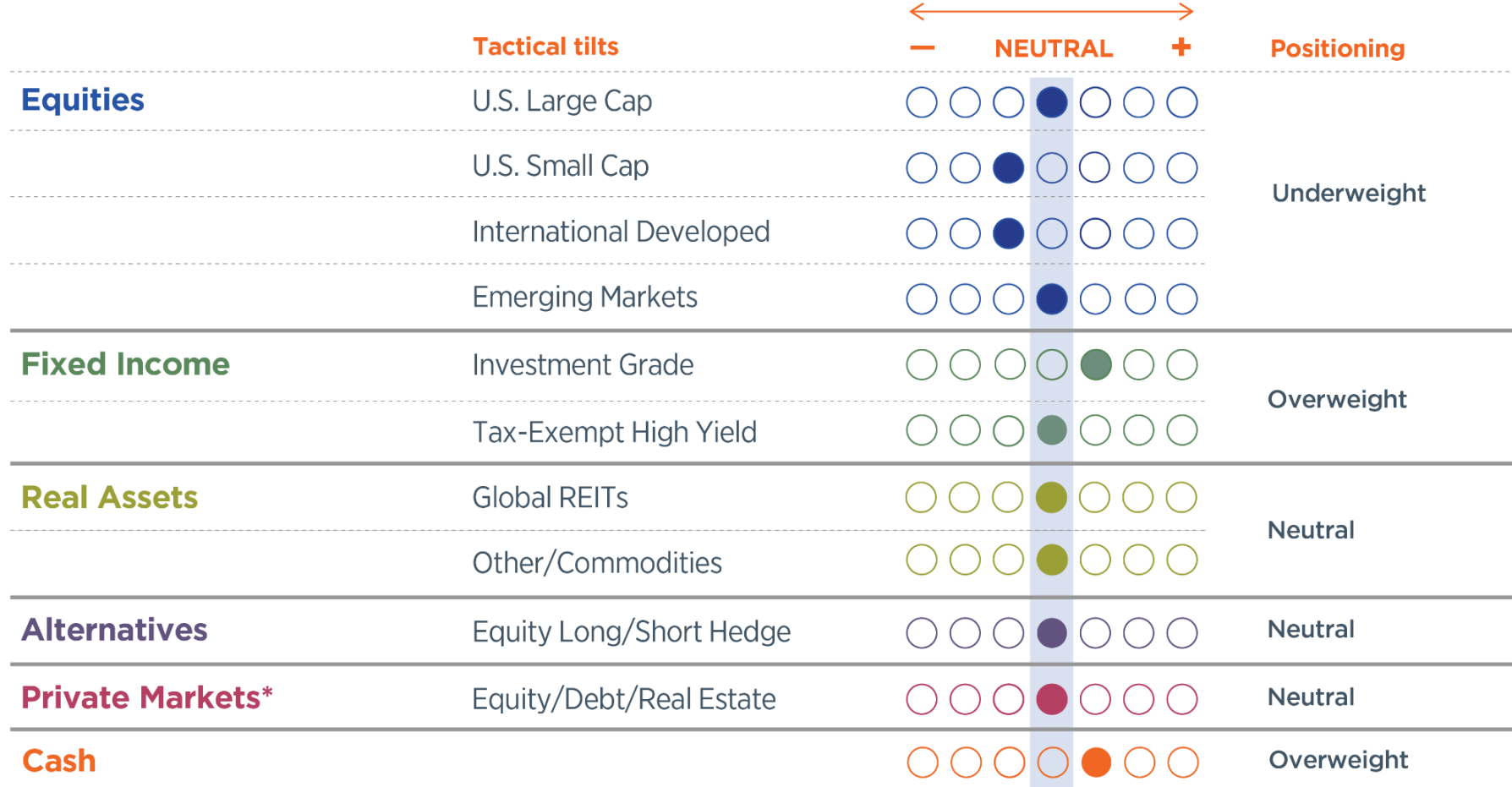
Market pricing of the terminal fed funds rate (current vs. Feb. 28<sup>th</sup>, 2023)



Data as of March 15, 2023. Source: Bloomberg, WTIA

# Current positioning

## High-net-worth portfolios with private markets\*



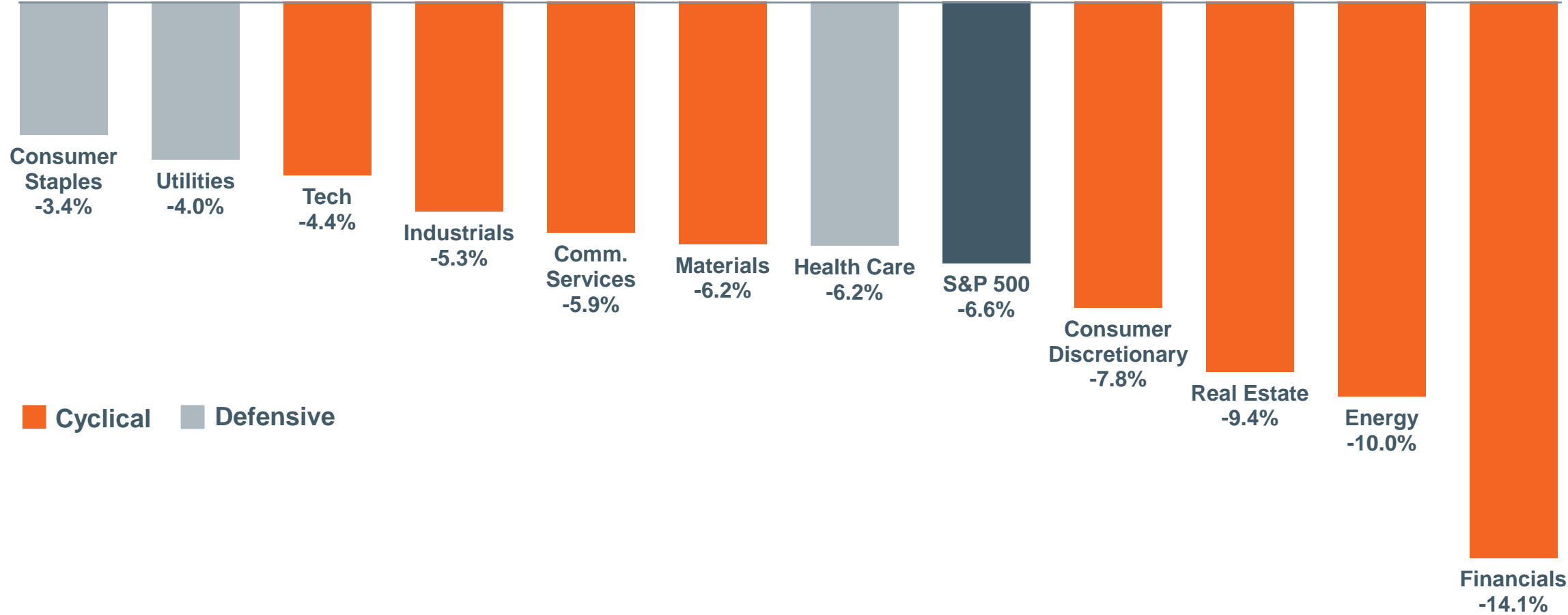
Data as of February 28, 2023. Positioning reflects our monthly tactical asset allocation (TAA) versus the long-term strategic asset allocation (SAA) benchmark. For an overview of our asset allocation strategies, please see the disclosures.

\*Private markets are only available to investors that meet Securities and Exchange Commission standards and are qualified and accredited. We recommend a strategic allocation to private markets we do not tactically adjust this asset class.



# Macro Headwinds Lead All Sectors Lower Over the Past Month

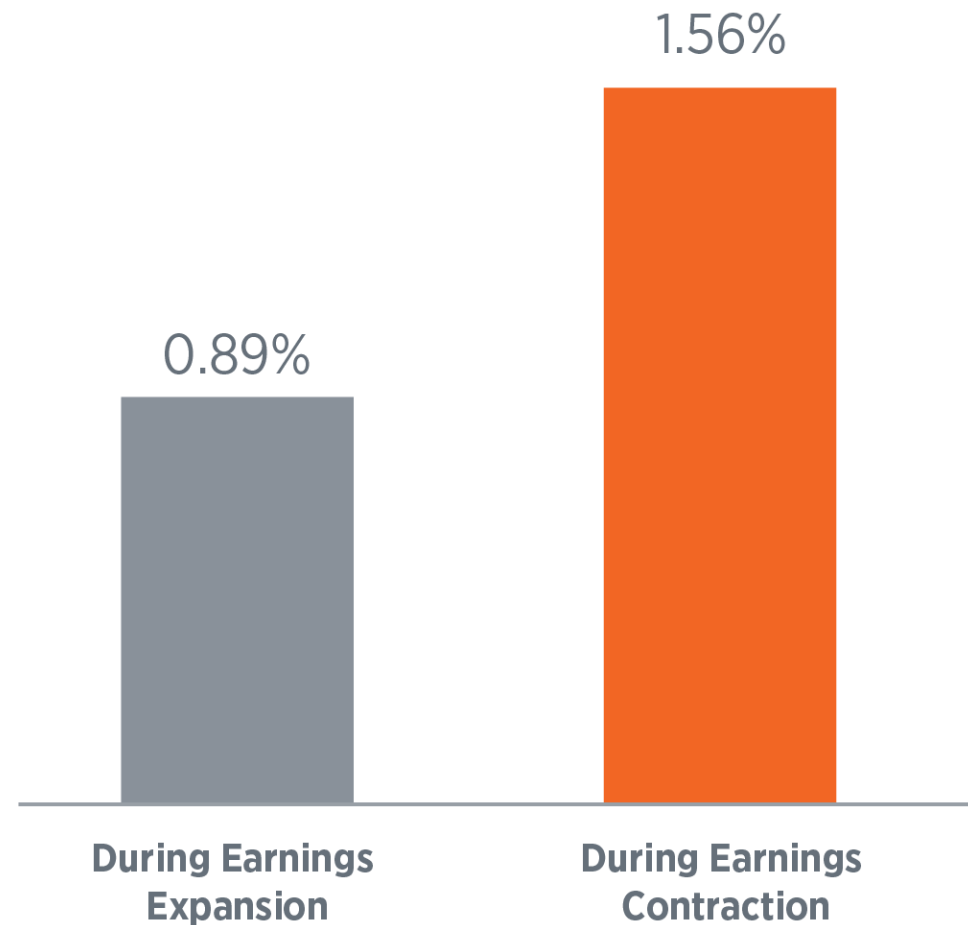
S&P 500 sector movements over the past 30 days



Data as of March 14, 2023. Source: Bloomberg

# Thematic Investment Spotlight: Quality

## Average Annualized Excess Return for Quality Factor



The **quality** factor includes:

- High *return on equity*
- Low *debt to equity*
- Low *earnings variability*

The **quality** factor has been shown to:

- Outperform the equity market (after controlling for other factors) over time
- Generate higher excess return during earnings contractions

Data includes monthly returns for the Barra quality factor from June 30, 1995 through December 30, 2022. Earnings expansions (contractions) are defined as a positive (negative) 3-month % change in S&P 500 EPS. The excess returns shown are the excess return generated by the quality factor over the MSCI USA index when controlling for other factors. Sources: Bloomberg, MSCI, WTIA. Past performance cannot guarantee future results. Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses such as management fees and transaction costs which will reduce returns.

# Tony Roth

## Chief Investment Officer

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### Expertise In

- Asset management
- Wealth management
- Equities
- Fixed income
- Hedge funds
- Alternative investments

Tony Roth is chief investment officer for Wilmington Trust Investment Advisors, Inc, the investment advisory arm of Wilmington Trust and M&T Bank. Tony plays a key role in developing and delivering investment services for our wealth, institutional, and brokerage clients. He provides strategic direction for the firm's asset management investment activities including asset allocation, manager research, and portfolio construction. Tony leads the firm's Investment Committee.

Tony joined Wilmington Trust in 2014 with extensive experience in wealth management and investment advisory. Prior to joining Wilmington Trust, he was chief investment officer (CIO) for Aquitaine Management in New York. Before that, he worked for UBS Wealth Management Americas as CIO, where he founded the Ultra High Net Worth Chief Investment Office. Earlier in his career, he was founder and co-head of the Advisory Services Division at Bear, Stearns & Co. Inc., served as director of the Family Wealth Group at Sanford C. Bernstein & Co., and was a tax attorney at Cleary Gottlieb in New York.

Tony earned his law degree from Harvard Law School. He holds a master's degree in French and international tax law from Université Panthéon Sorbonne, and graduated magna cum laude from Brown University with a degree in philosophy.

# Meghan Shue

## Head, Investment Strategy & Portfolio Construction

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### Expertise In

- Investment strategy
- Asset allocation
- Portfolio construction

Meghan is responsible for helping manage the end-to-end asset allocation process, developing market research, and communicating the investment team's market outlook and positioning to clients and prospective clients. She is a member of the Investment Committee, which is responsible for deriving the firm's strategic and tactical asset allocation positioning.

Meghan also oversees the firm's portfolio construction process, including implementation of asset class views through a variety of proprietary, non-proprietary, passive, active, and factor-based solutions. She is chair of the Portfolio Management Committee.

Prior to joining Wilmington Trust, Meghan was an investment strategist at Bessemer Trust, where she helped manage the asset allocation decision and implementation process, performed asset allocation and market research, and published pertinent thought leadership.

She holds an MBA with a concentration in finance from the University of Miami, where she was valedictorian of her graduating class. She also holds a bachelor's degree in engineering, with a concentration in operations research and financial engineering, from Princeton University.

Meghan is a regular CNBC contributor, and is frequently quoted in financial media communicating the firm's economic and market views.

# Luke Tilley

## Chief Economist and Department Head

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### Expertise In

- Economics
- Monetary policy

Luke is Chief Economist and Head of Economics, Asset Allocation & Quantitative Services for Wilmington Trust Investment Advisors (WTIA), a part of the M&T Bank family. Luke is also a member of WTIA's Investment Committee.

Prior to joining Wilmington Trust in 2015, Luke was an officer and economic advisor with the Federal Reserve Bank of Philadelphia. Earlier in his career, Luke worked as a senior economist at IHS Global Insight (now IHS Markit) and as an economist for the U.S. Department of Housing and Urban Development.

Luke holds a Ph.D. in economics from Temple University and a bachelor's degree in economics and history from James Madison University. He is a former adjunct faculty member at Temple University and formerly served on the board of directors of the Pennsylvania Economic Association. In addition, Luke is former president of the Philadelphia Council for Business Economics, a chapter of the National Association for Business Economics.

# Steve Norcini

## Head of Sustainable Investing and Senior Equity Portfolio Manager

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### Expertise In

- Fundamental equity investing
- Portfolio management
- Quantitative investing
- Hedging strategies
- ESG investing

Steve leads the efforts to provide clients with quality ESG offerings that seek to deliver higher risk-adjusted returns relative to traditional investment strategies, while aligning with clients' goals and values in support of fostering positive societal change. He serves as an analyst and senior portfolio manager for the ESG Equity and Disciplined Core strategies of Wilmington Trust Investment Advisors, Inc., the investment advisory arm of Wilmington Trust and M&T Bank.

Steve has more than a decade of in-depth fundamental equity investing and portfolio management experience. Prior to joining Wilmington Trust, he managed a long short equity portfolio for a multibillion dollar hedge fund that invests in multiple asset classes and strategies around the world. Steve was also responsible for the development of various fundamentally based quantitative investment and hedging strategies for the fund.

He holds a master's degree from Columbia Business School and a bachelor's degree in accounting from Fairfield University. Steve is also a member of the investment committee for the Chester County Community Foundation.

# Disclosures

## Advisory Service Providers

Wilmington Trust is a registered service mark used in connection with various fiduciary and non-fiduciary services offered by certain subsidiaries of M&T Bank Corporation including, but not limited to, Manufacturers & Traders Trust Company (M&T Bank), Wilmington Trust Company (WTC) operating in Delaware only, Wilmington Trust, N.A. (WTNA), Wilmington Trust Investment Advisors, Inc. (WTIA), Wilmington Funds Management Corporation (WFMC), and Wilmington Trust Investment Management, LLC (WTIM). Such services include trustee, custodial, agency, investment management, and other services. International corporate and institutional services are offered through M&T Bank Corporation's international subsidiaries. Loans, credit cards, retail and business deposits, and other business and personal banking services and products are offered by M&T Bank, member FDIC.

## Suitability

This material is provided for informational purposes only and is not intended as an offer or solicitation for the sale of any financial product or service or as a recommendation or determination by Wilmington Trust that any investment strategy is suitable for a specific investor. Investors should seek financial advice regarding the suitability of any investment strategy based on their objectives, financial situations, and particular needs. The investments or investment strategies discussed herein may not be suitable for every investor. This material is not designed or intended to provide legal, investment, or other professional advice since such advice always requires consideration of individual circumstances. If legal, investment, or other professional assistance is needed, the services of an attorney or other professional should be sought.

The opinions, estimates, and projections presented herein constitute the informed judgments of Wilmington Trust and are subject to change without notice. Expected return information in this presentation is derived from forecasting. Forecasts are subject to a number of assumptions regarding future returns, volatility, and the interrelationship (correlation) of asset classes. Actual events or results may differ from underlying estimates or assumptions, which are subject to various risks and uncertainties. No assurance can be given as to actual future market results or the results of Wilmington Trust's investment products and strategies. The information in this presentation has been obtained or derived from sources believed to be reliable, but no representation is made as to its accuracy or completeness.

**Investment products are not insured by the FDIC or any other governmental agency, are not deposits of or other obligations of or guaranteed by Wilmington Trust, M&T, or any other bank or entity, and are subject to risks, including a possible loss of the principal amount invested.**

Some investment products may be available only to certain "qualified investors"—that is, investors who meet certain income and/or investable assets thresholds. Any offer will be made only in connection with the delivery of the appropriate offering documents, which are available to pre-qualified persons upon request.

## An Overview of Our Asset Allocation Strategies

Wilmington Trust offers seven asset allocation models for taxable (high-net-worth) and tax-exempt (institutional) investors across five strategies reflecting a range of investment objectives and risk tolerances: Aggressive, Growth, Growth & Income, Income & Growth, and Conservative. The seven models are High Net Worth (HNW), HNW with Liquid Alternatives, HNW with Private Markets, HNW Tax Advantaged, Institutional, Institutional with Hedge LP, and Institutional with Private Markets. As the names imply, the strategies vary with the type and degree of exposure to hedge strategies and private market exposure, as well as with the focus on taxable or tax-exempt income. On a quarterly basis we publish the results of all of these strategy models versus benchmarks representing strategic implementation without tactical tilts.

Model Strategies may include exposure to the following asset classes: U.S. large-capitalization stocks, U.S. small-cap stocks, developed international stocks, emerging market stocks, U.S. and international real asset securities (including inflation-linked bonds and commodity-related and real estate-related securities), U.S. and international investment-grade bonds (corporate for Institutional or Tax Advantaged, municipal for other HNW), U.S. and international speculative grade (high-yield) corporate bonds and floating-rate notes, emerging markets debt, and cash equivalents. Model Strategies employing nontraditional hedge and private market investments will, naturally, carry those exposures as well. **Each asset class carries a distinct set of risks, which should be reviewed and understood prior to investing.**

# Disclosures

continued

## Allocations

Each strategy is constructed with target weights for each asset class. Wilmington Trust periodically adjusts the target allocations and may shift away from the target allocations within certain ranges. Such tactical adjustments to allocations typically are considered on a monthly basis in response to market conditions. The asset classes and their current proxies are: large-cap U.S. stocks: Russell 1000<sup>®</sup> Index; small-cap U.S. stocks: Russell 2000<sup>®</sup> Index; developed international stocks: MSCI EAFE<sup>®</sup> (Net) Index; emerging market stocks: MSCI Emerging Markets Index; U.S. inflation-linked bonds: Bloomberg/Barclays US Government ILB Index; international inflation-linked bonds: Bloomberg/Barclays World exUS ILB (Hedged) Index; commodity-related securities: Bloomberg Commodity Index; U.S. REITs: S&P US REIT Index; international REITs: Dow Jones Global exUS Select RESI Index; private markets: S&P Listed Private Equity Index; hedge funds: HFRI Fund of Funds Composite Index; U.S. taxable, investment-grade bonds: Bloomberg/Barclays U.S. Aggregate Index; U.S. high-yield corporate bonds: Bloomberg/Barclays U.S. Corporate High Yield Index; U.S. municipal, investment-grade bonds: S&P Municipal Bond Index; U.S. municipal high-yield bonds: Bloomberg/Barclays 60% High Yield Municipal Bond Index / 40% Municipal Bond Index; international taxable, investment-grade bonds: Bloomberg/Barclays Global Aggregate exUS; emerging bond markets: Bloomberg/Barclays EM USD Aggregate; and cash equivalents: 30-day U.S. Treasury bill rate.

## Risk Assumptions

**All investments carry some degree of risk.** The volatility, or uncertainty, of future returns is a key concept of investment risk. Standard deviation is a measure of volatility and represents the variability of individual returns around the mean, or average annual, return. A higher standard deviation indicates more return volatility. This measure serves as a collective, quantitative estimate of risks present in an asset class or investment (e.g., liquidity, credit, and default risks). Certain types of risk may be underrepresented by this measure. **Investors should develop a thorough understanding of the risks of any investment prior to committing funds.**

Diversification cannot ensure a profit or guarantee against a loss. There is no assurance that any investment strategy will be successful.

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.



# Disclosures

continued

## Index Descriptions

**The Bloomberg Barclays U.S. Aggregate Index** measures the performance of the entire U.S. market of taxable, fixed-rate, investment-grade bonds. Each issue in the index has at least one year left until maturity and an outstanding par value of at least \$250 million.

**The Bloomberg Barclays U.S. High Yield Corporate Index**, formerly known as Lehman Brothers U.S. High Yield Corporate Index, measures the performance of taxable, fixed-rate bonds issued by industrial, utility, and financial companies and rated below investment grade. Each issue in the index has at least one year left until maturity and an outstanding par value of at least \$150 million.

**The Bloomberg Barclays World Government Inflation-Linked Bond (WGILB) Index** measures the performance of investment grade, government inflation-linked debt from 12 different developed market countries.

**Bloomberg Commodity Index** measures the performance of 19 futures contracts on physical commodities. As of the annual reweighting of the components, no related group of commodities (for example, energy, precious metals, livestock, and grains) may constitute more than 33% of the index and no single commodity may constitute less than 2% or more than 15% of the index.

**The BofAML 3-Month T-Bill Index** is an unmanaged index that measures returns of three-month Treasury Bills.

**The Dow Jones Global ex-U.S. Index** is an equal-weighted stock index composed of the stocks of 150 top companies from around the world (excluding the U.S.) as selected by Dow Jones editors and based on the companies' long history of success and popularity among investors. The Global Dow is designed to reflect the global stock market and gives preferences to companies with global reach.

**The HFRX Global Hedge Fund Index** is designed to be representative of the overall composition of the hedge fund universe. It is composed of all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage, and relative value arbitrage. The strategies are asset weighted based on the distribution of assets in the hedge fund industry.

**The MSCI All-Country World Index ex USA** measures the performance of large- and mid-capitalization stocks in approximately 50 developed and emerging equity markets, excluding the United States.

**The MSCI EAFE® (net) Index** measures the performance of approximately 20 developed equity markets, excluding those of the United States and Canada. The total returns of the index are net of the maximum tax withholding rates that apply in many countries to dividends paid to nonresident investors.

**The MSCI Emerging Markets Index** captures large- and mid-cap representation across 26 emerging markets countries. With 1,198 constituents, the index covers approximately 85% of the free-float-adjusted market capitalization in each country.

**Russell 1000® Growth Index** measures the performance of those Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values.

**Russell 1000® Value Index** measures the performance of those Russell 1000 Index companies with lower price-to-book ratios and lower forecasted growth values.

**The Russell 2000® Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. As of its latest reconstitution, the index had a total market capitalization range of approximately \$128 million to \$1.3 billion.

**The Russell 3000® Index** measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market. As of its latest reconstitution, the index had a total market capitalization range of approximately \$128 million to \$309 billion.

**The S&P 500 Index** measures the performance of approximately 500 widely held common stocks listed on U.S. exchanges. Most of the stocks in the index are large-capitalization U.S. issues. The index accounts for roughly 75% of the total market capitalization of all U.S. equities.

# Disclosures

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**The S&P Composite Stock Price Index** (noted on slide 8) refers to the data series made popular in recent years by Yale Professor Robert Shiller, not to be confused with the S&P Composite 1500, an index that combines the S&P 500, the S&P Mid Cap 400, and the S&P Small Cap 600. Investing involves risks and you may incur a profit or a loss.

The Shanghai Containerized Freight Index is the most widely used index for sea freight rates for import China worldwide. This index has been calculated weekly since 2009 and shows the most current freight prices for container transport from the Chinese main ports, including Shanghai.

**The S&P Municipal Bond High-Yield Index** consists of bonds in the S&P Municipal Bond Index that are not rated or are rated below investment grade.

**The S&P Municipal Bond Index** is a broad, market value-weighted index that seeks to measure the performance of the U.S. municipal bond market.

**The S&P United States REIT Index** measures the investable U.S. real estate investment trust market and maintains a constituency that reflects the market's overall composition.

**Ibbotson Associates** acquired by Morningstar on March 1, 2006. Ibbotson Associates, Inc. offers asset allocation research and services to mutual fund firms, banks, broker-dealers, insurance companies, asset managers, and retirement plan providers in the United States and internationally.

## Definitions

**Standard deviation** is the measure of dispersion of a set of data from its mean. It measures the absolute variability of a distribution; the higher the dispersion or variability, the greater is the standard deviation and greater will be the magnitude of the deviation of the value from their mean.

Banks identified in this presentation represented by their tickers:

RF (Regions Financial Corporation)  
FITB (Fifth Third Bancorp)  
WFC (Wells Fargo & Co)  
CFG (Citizens Financial Group)  
MTB (M&T Bank Corp)  
PNC (PNC Financial Services Group Inc.)  
TFC (Truist Financial Group)  
BAC (Bank of America)  
KEY (KeyBank Corp.)  
USB (U.S. Bancorp)  
JPM (JP Morgan)  
CMA (Comerica Inc.)  
SNBY (Signature Bank of New York)  
SIVB (Silicon Valley Bank)  
C (Citigroup)  
FRC (First Republic Bank)  
HBAN (Huntington Bancshares Inc.)  
ZION (Zions Bancorporation NA)

# Disclosures

continued

References to specific securities are not intended and should not be relied upon as the basis for anyone to buy, sell, or hold any security. Holdings and sector allocations may not be representative of the portfolio manager's current or future investment and are subject to change at any time.

Reference to the company names mentioned in this example is merely for explaining the market view and should not be construed as investment advice or investment recommendations of those companies. Third-party trademarks and brands are the property of their respective owners.

Third parties referenced herein are independent companies and are not affiliated with M&T Bank or Wilmington Trust. Listing them does not suggest a recommendation or endorsement by Wilmington Trust.