

CHIEF INVESTMENT OFFICE

# Chart Book

## When Oceans Collide

July 2023  
Q2 2023

There are powerful forces that tend to develop “when oceans collide.” A similar dynamic can take place with two separate macroeconomic regimes that are experiencing a collision and heading toward a full transition. Adjusting portfolios to include new drivers of return such as small capitalization shares, infrastructure-related investments, and the industrial sector, as the macro cycle transitions in the next year is paramount, in our view.

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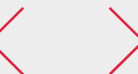
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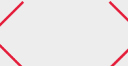
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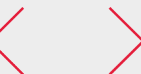
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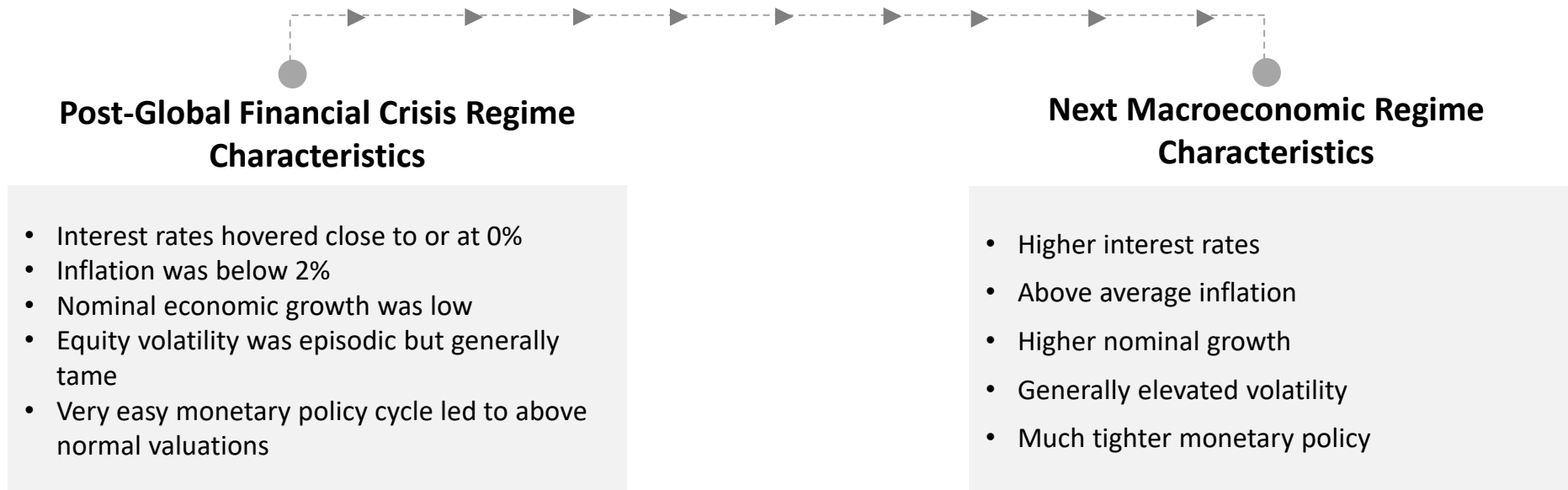
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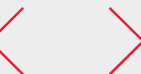
# Macroeconomic Regimes are Experiencing a Collision

There are powerful forces that tend to develop “when oceans collide.” A similar dynamic can take place with two separate macroeconomic regimes that are experiencing a collision and heading toward a full transition. As we get closer to the end of the Federal Reserve (Fed) hiking cycle, we are transitioning to a new macroeconomic regime that is very different than its predecessor. In the next regime, drivers of economic growth and profits could include energy transition systems, infrastructure assets, generative artificial intelligence, laboratory sciences and innovation in healthcare, semiconductors and robotics.



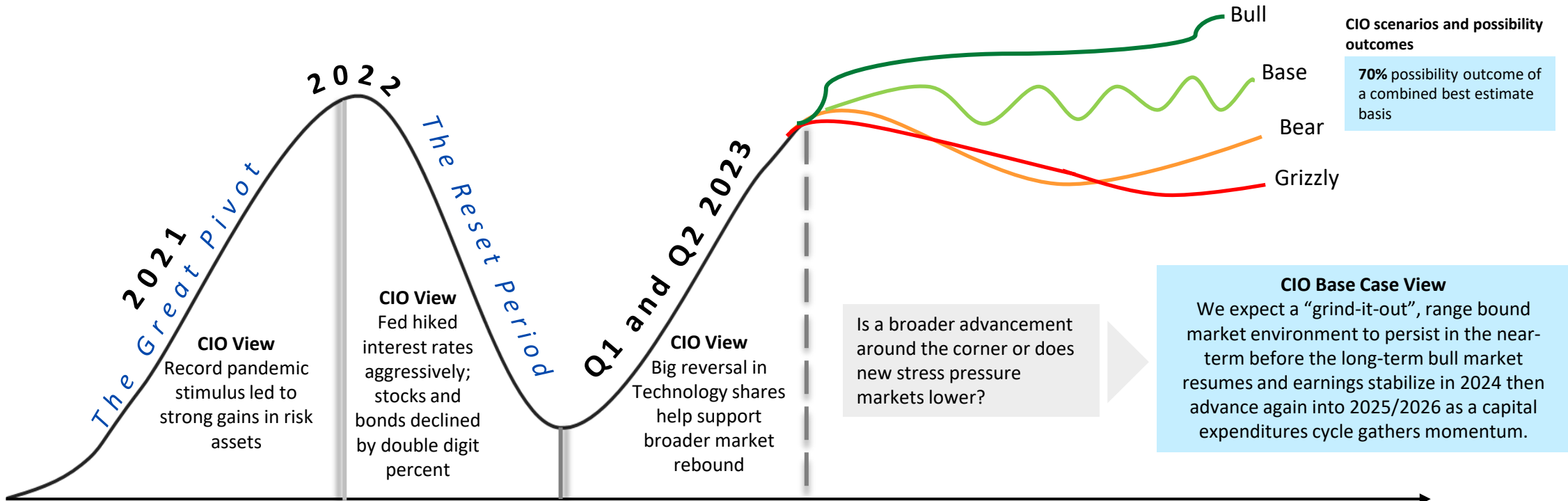
We believe that as this transition firmly takes hold building diversified portfolios across and within asset classes, including Alternatives\*, is imperative. With new drivers of returns, we expect new asset and sub-asset classes to become more important in the foreseeable future relative to the recent past. Infrastructure, small capitalization shares, and the industrial sector are just a few examples of new potential leaders in the near future. Adjusting portfolios as the cycle transitions in the next year for the upcoming powerful forces is paramount, in our view.

\*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors. Source: Chief Investment Office as of June 30, 2023. The Chief Investment Office (CIO) views and opinions expressed are for informational purposes only, are made as of the date of this material, and are subject to change without notice. **FOR INFORMATIONAL PURPOSES ONLY.**



# What Is The Next Move?

## Q3 and Q4 2023 and Beyond



**SCENARIO 1 BULL CASE**  
(approximately 20% possibility outcome)

- Economy remains stable in 2023
- Inflation turns lower across the board
- Fed engineers a soft landing
- Earnings growth for 2023 remains positive
- U.S. dollar weakens
- Equity “catch-up” phase builds
- Capital investment cycle becomes a major tailwind to earnings

**SCENARIO 2 BASE CASE**  
(approximately 50% possibility outcome)

- A ‘limbo’ period that includes a growth “recession” later in 2023
- Earnings slightly decline but remain stable
- Liquidity gets tighter but not too restrictive
- Yield curve normalizes some
- The Fed skip becomes a longer term pause
- Long-term bull market resumes once earnings stabilize in 2024

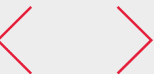
**SCENARIO 3 BEAR CASE** (approximately 20% possibility outcome)

- Deeper stagflation environment than expected heading into 2024
- Fed policy remains overly tight for longer
- Earnings decline more than 20% from June 2023 – June 2024
- Equity valuation takes another leg lower as rates stay high
- Financial instability becomes visible in stressed areas
- Fed is forced to cut rates

**SCENARIO 4 GRIZZLY CASE**  
(approximately 10% possibility outcome)

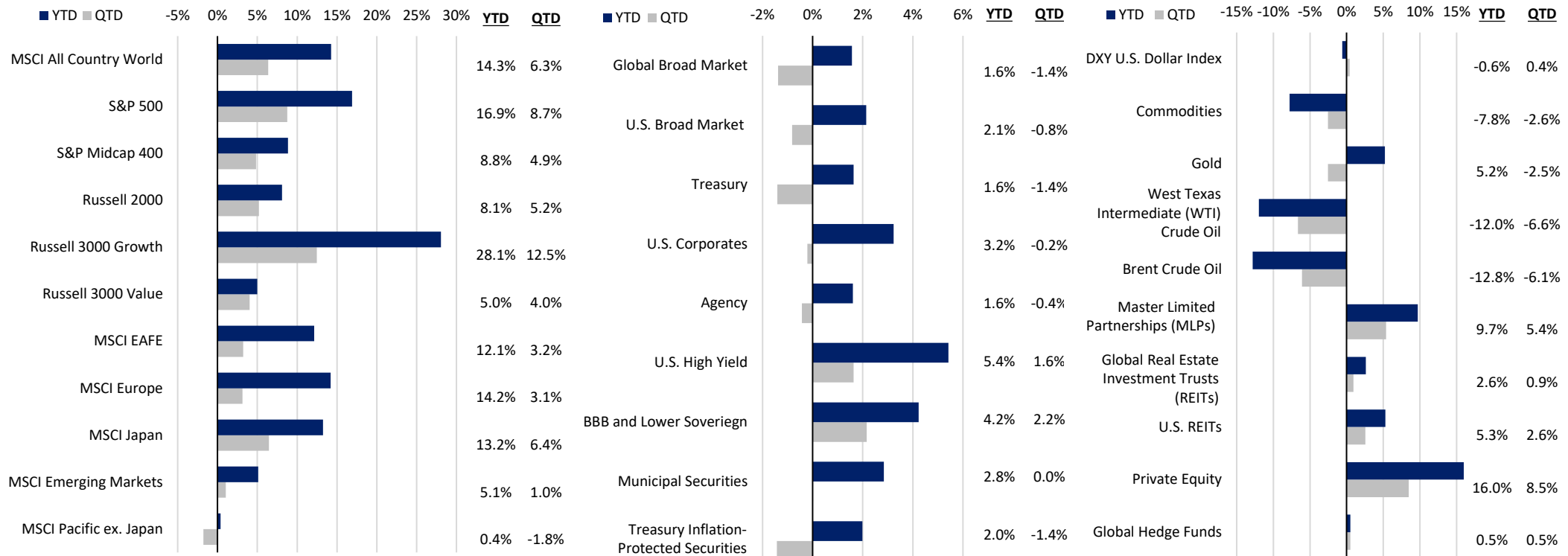
- Sharp economic hard landing not just deterioration in 2024
- Fed policy requires new emergency measures
- Contains the sharpest fall in earnings from June 2023 – June 2024
- Equity valuations turn lower by two or more notches
- Major stress hits the commercial property sector and regional banking sector

Black line represents the lifecycle of the CIO economic process and is not meant to represent any specific investment, index or performance of any kind. Source: CIO. Data as of June 30, 2023. CIO views are subject to change. **FOR INFORMATIONAL PURPOSES ONLY.** Economic or financial forecasts are inherently limited and should not be relied on as indicators of future investment performance. **Please refer to appendix for important disclosures.**

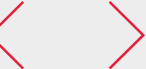


# 2nd Quarter Recap & Major Index Total Returns

- While markets recovered from the regional banking sector shock in Q1, concerns around the health of the global financial system remained in focus amid a slower-than-expected China reopening, the ongoing Ukraine/Russia conflict and persistent global Central Bank tightening. BofA Global Research\* expects global growth to slow to 3.0% in 2023 and 2.6% in 2024. U.S. real GDP is projected to grow 1.8% in 2023 and 0.1% in 2024, with China and the Euro area expected to grow 5.7% and 0.4% in 2023 and 5.0% and 0.8% in 2024, respectively.
- Global Equities still managed to see positive performance for the quarter, with Growth outperforming Value, and Large-caps leading Small- and Mid-caps. Emerging Markets also performed positively, while Asia Pacific (ex-Japan) lost traction. Fixed Income fell as expectations for the possibility for additional monetary policy tightening remained in focus. The 2-year and 10-year U.S. Treasury yields rose for the quarter but remain below their year-to-date highs.
- The broad commodities market declined, led by oil, on increased recession worries. Gold ended lower for the quarter as investors weighed slowing economic momentum with improved risk appetites.

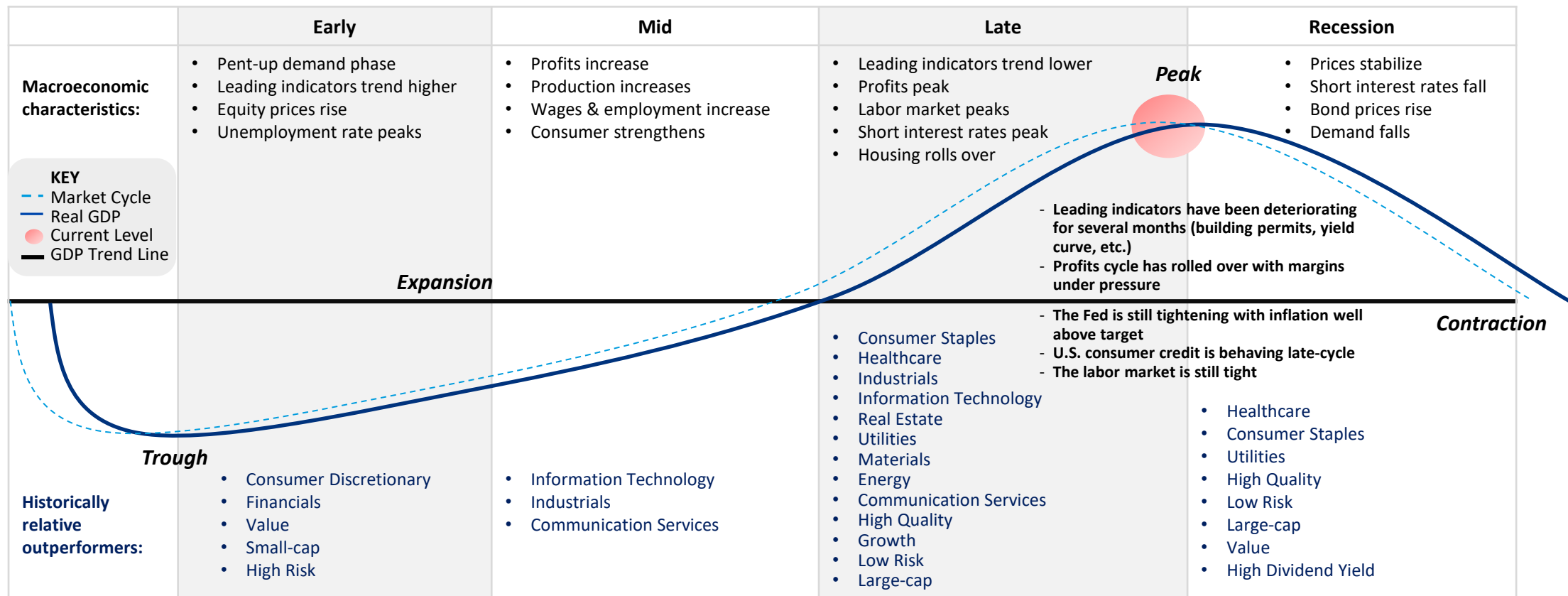


**\*\*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors** Source: Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY** Equity Returns illustrated as Gross Total Returns. All Fixed Income categories are represented by ICE BofA indexes. Other asset classes represented by the following indexes: MLPs (Alerian MLP Total Return Index), Commodities (Bloomberg Commodity Total Return Index), Gold (Gold Spot Price), U.S. REITs (FTSE NAREIT U.S. REITs Total Return), Global REITs (FTSE NAREIT Global REITs Total Return), Private Equity (LPX 50 TR USD Index), and Global Hedge Funds (HFRX Global Hedge Fund Index). Brent Crude Oil is a classification of sweet light crude oil and is a major benchmark price for oil purchases worldwide. WTI crude oil reflects the Bloomberg West Texas Intermediate Cushing Crude Oil Spot Price. The price is derived by adding spot market spreads to the NYMEX contract. Units are in U.S. dollars per barrel and is traded intraday. \*BofA Global Research is research produced by BofA Securities, Inc. ("BofAS") and/or one or more of its affiliates. BofAS is a registered broker-dealer, Member SIPC, and wholly owned subsidiary of Bank of America Corporation. **Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for asset class proxies, index definitions and important disclosures.**

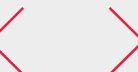


# Macro Strategy – Global Themes & Trends

## Business Cycle Dashboard



Source: Chief Investment Office. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies and index definitions.**

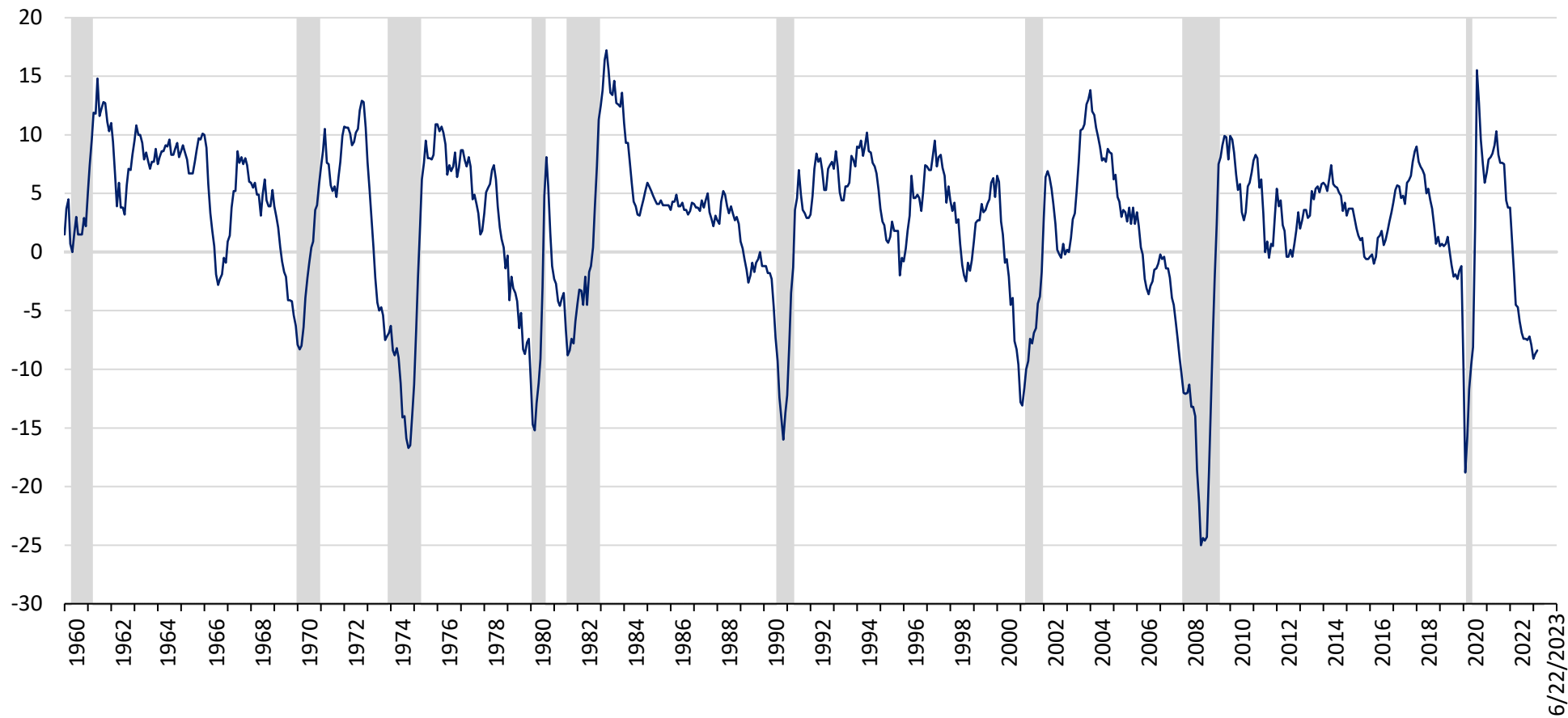


# Leading Indicators Suggest Real Growth Under Pressure

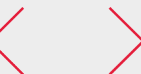
Leading economic indicators continue to point to downside risk to the economy. Coincident indicators like industrial production and jobs growth are beginning to follow suit. The combination of weak real growth and falling inflation leaves us cautious on the profits cycle and risk assets like Equities.

Leading indicators are currently pointing toward a recession in the U.S.

Leading Index: Six-Month % Change



Gray areas represent recession periods. Source: The Conference Board Leading Economic Index. Data as of June 22, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**





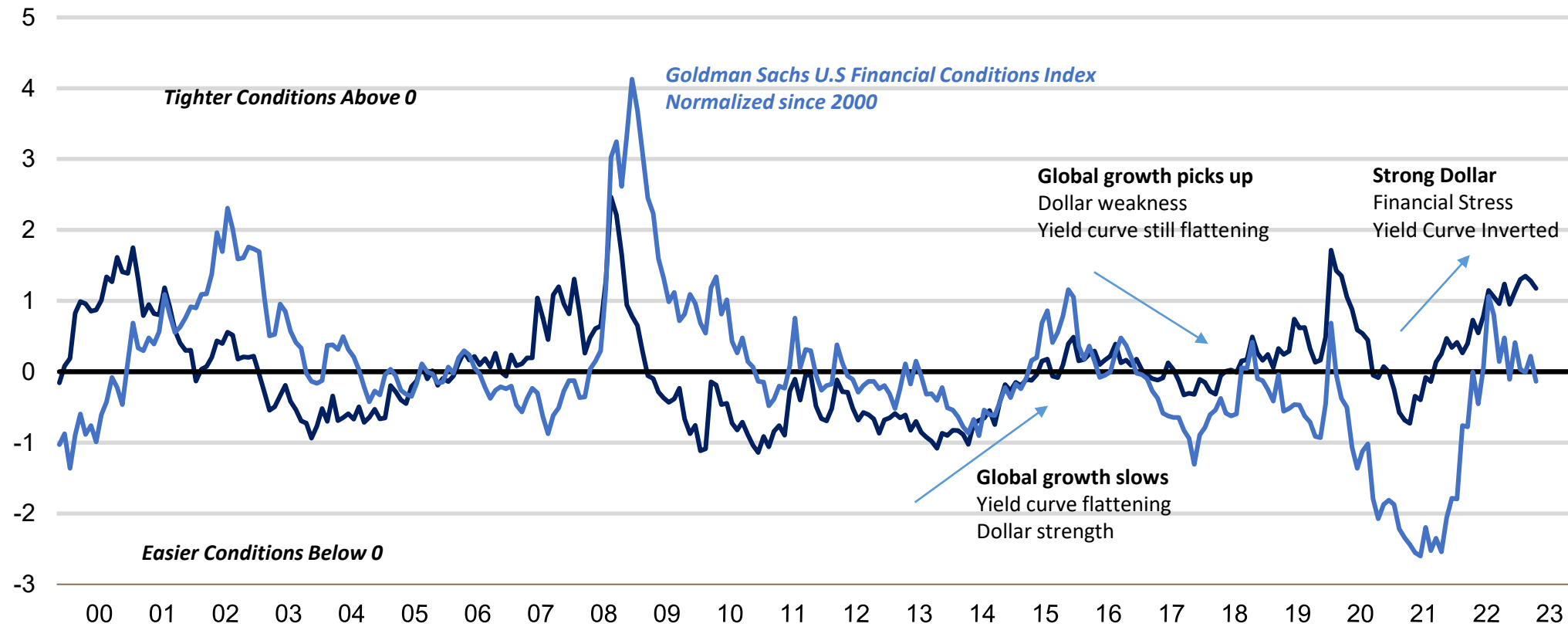
# Tighter Financial Conditions A Headwind For Growth and Risk Assets

With the yield curve inverted, the U.S. dollar relatively strong and geopolitical risk adding to financial stress, financial conditions are tight, on balance.

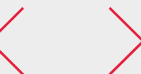
## CIO Macro Financial Conditions Indicator

**Normalized Credit Components:**

Yield Curve, Leading Credit Index, BofA Global Financial Stress Index, Real Broad Trade Weighted Dollar Index

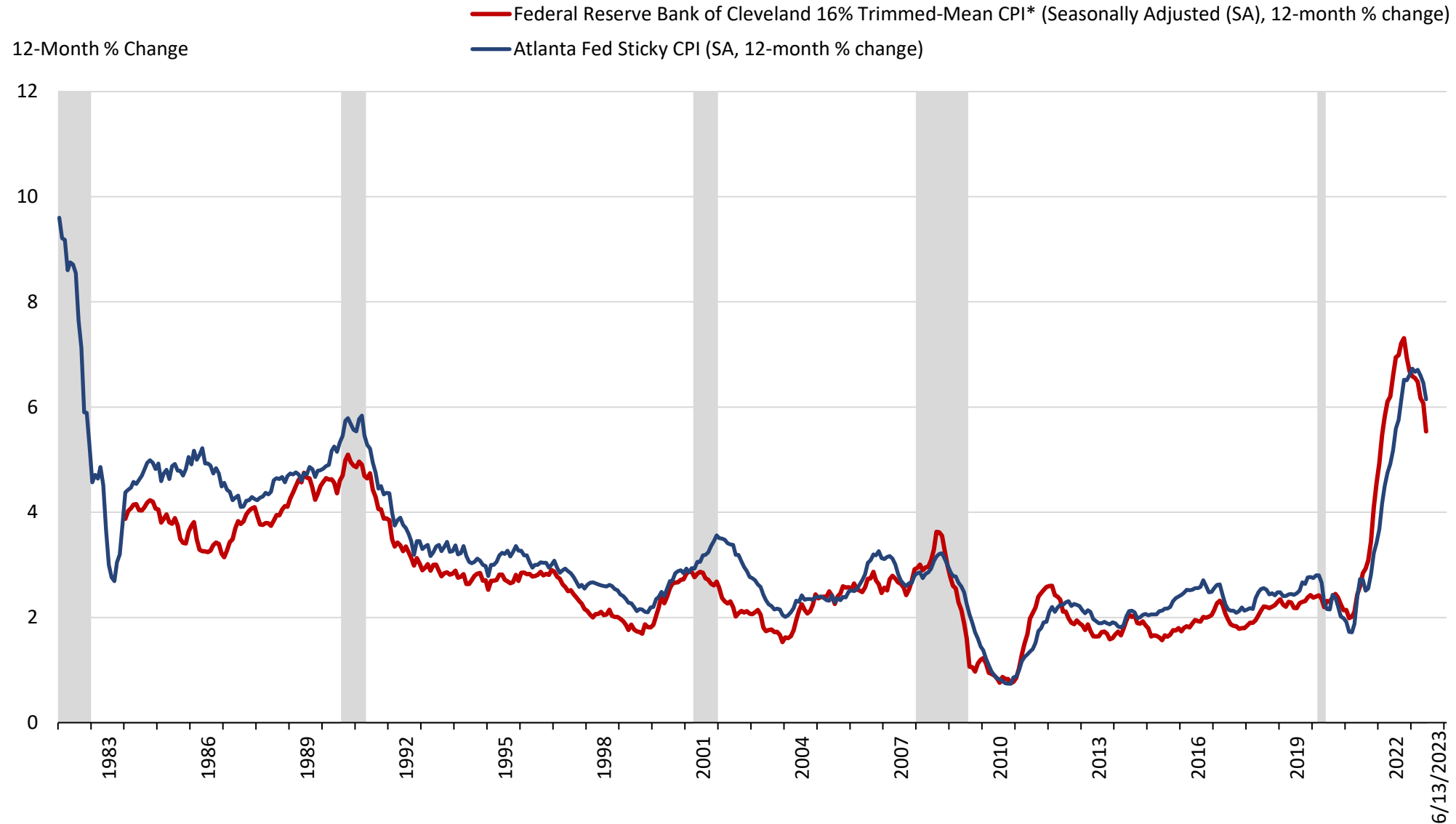


Sources: Bloomberg; Chief Investment Office. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# Fed Still Fighting Sticky Inflation

Services sector inflation remains sticky and core inflation is well above the Fed's 2.0% target.

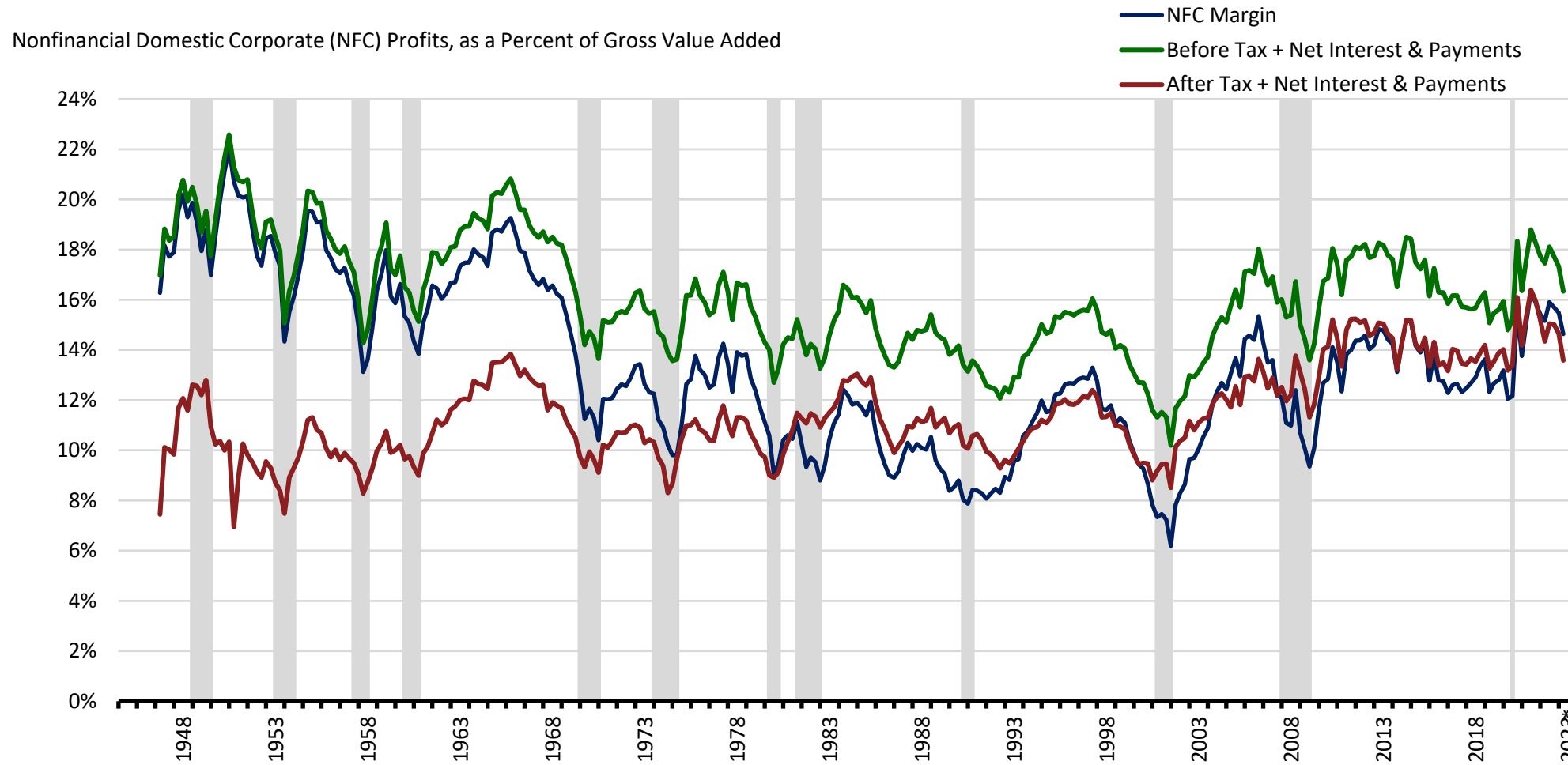


\*Consumer Price Index. Gray areas represent recession periods. Sources: Federal Reserve Bank of Atlanta, Haver Analytics. Data as of June 13, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# Resilient Labor Market and Consumer Services Spending at the Expense Of Profits and Productivity

With both real growth and inflation slowing, top-line growth is under pressure. At the same time, labor costs are sticky and are putting pressure on margins. Contracting profit margins typically mean more Equity volatility and wider high yield credit spreads.

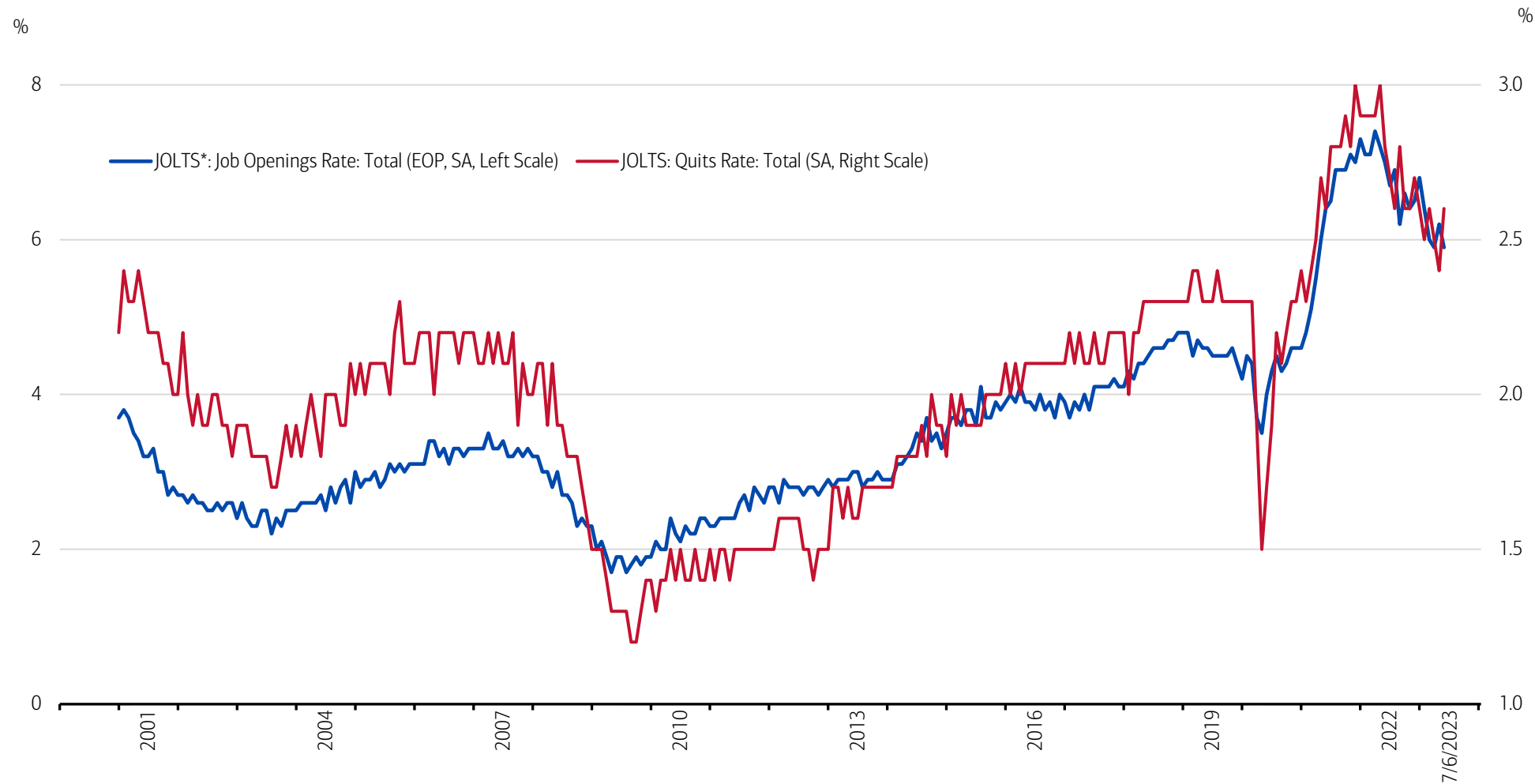


Gray areas represent recession periods. Profits data represent domestic nonfinancial corporate profits with adjustments for inventory valuation and capital consumption. Sources: Bureau of Economic Analysis; Haver Analytics. \*Data as of May 25, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# Leading Employment Indicators Trend Weaker

Historically, a rise in the unemployment rate often creates the negative feedback loop with demand and profits that leads to a recession. Leading employment indicators like job openings and job quits are weakening.

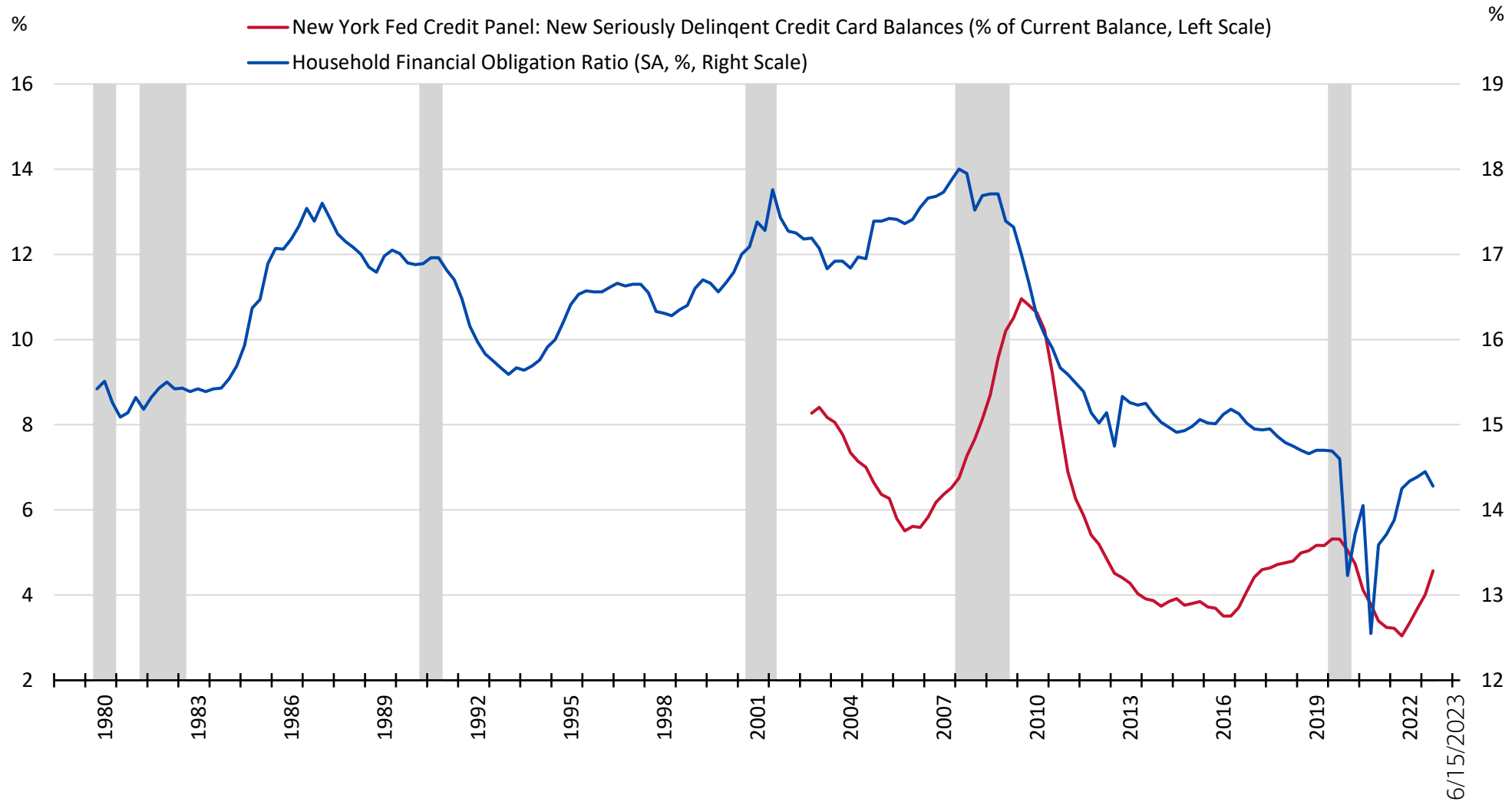


\*Job Openings and Labor Turnover Survey (JOLTS). Source: Bureau of Labor Statistics, Haver Analytics. Data as of July 6, 2023. Latest data available. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# Consumer Health: Clear Skies For Now But Turbulence Ahead?

Consumer balance sheets remain flush with cash and services spending has been resilient, but consumers are increasingly turning to credit cards and delinquencies are rising. Financial conditions are tightening. Rising household net worth has been a tailwind for consumer spending, but we are keeping an eye on Equity and home prices.

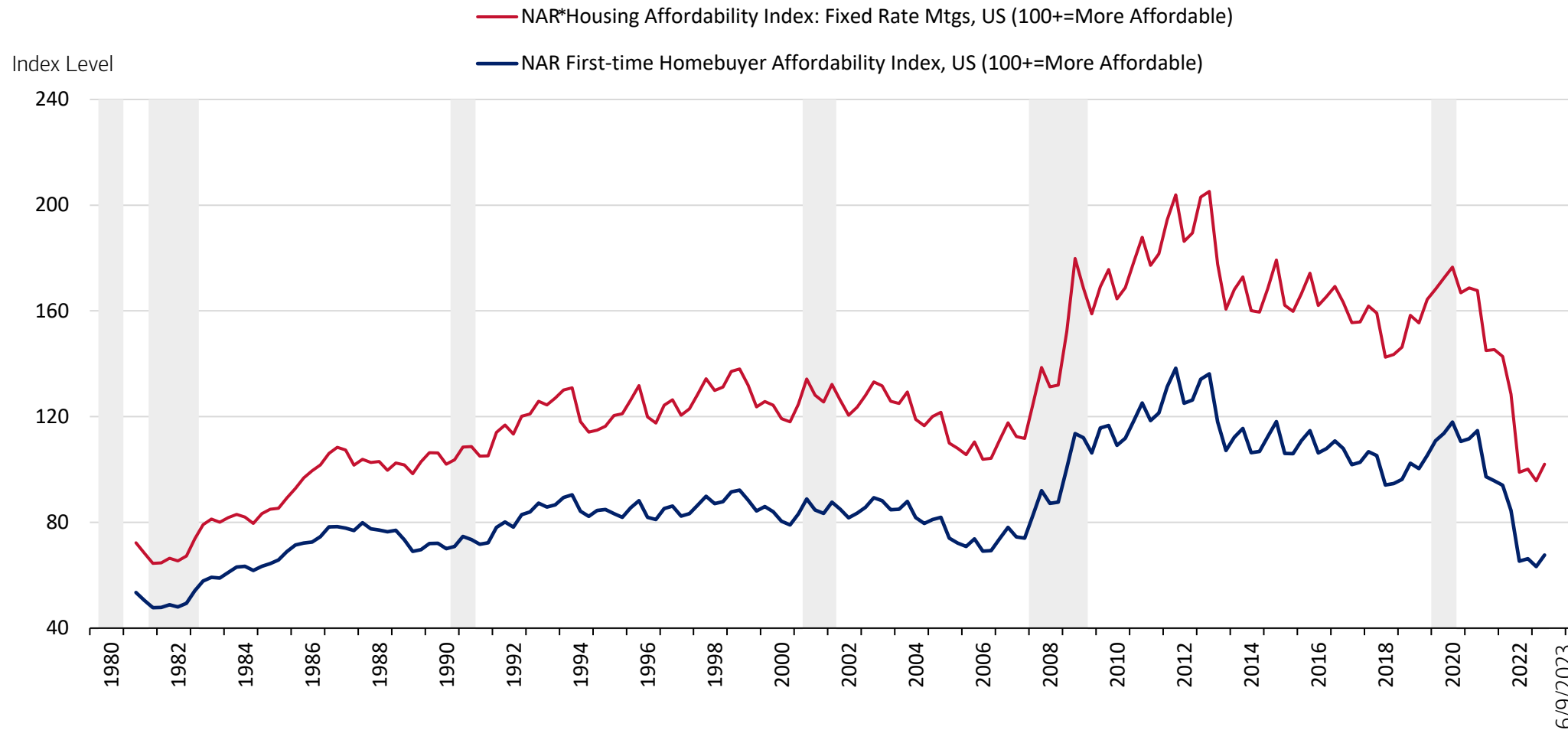


Gray areas represent recession periods. Sources: Federal Reserve Bank of New York; Federal Reserve Board/Haver Analytics. Data as of June 15, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# Housing Market Mixed: Lean Housing Inventory Helps New Construction But Affordability Challenging

Affordability is a significant headwind for many buyers leading to recessionary levels of activity and downward pressure on prices. Still, incredibly lean inventories for existing homes are supporting new housing construction allowing residential investment to shows of stabilization more recently.



Gray areas represent recession periods. \*NAR=National Association of Realtors. Source: National Association of Realtors. Data as of June 9, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# Global Equity Market Sector Exposures by Major Region

Sector exposure to Information Technology has been a relative tailwind for U.S. Equities compared to the rest of the world. Higher prospective corporate investment in artificial intelligence capability would continue to benefit the U.S. over International Equity markets.

## Equity sector weightings by region

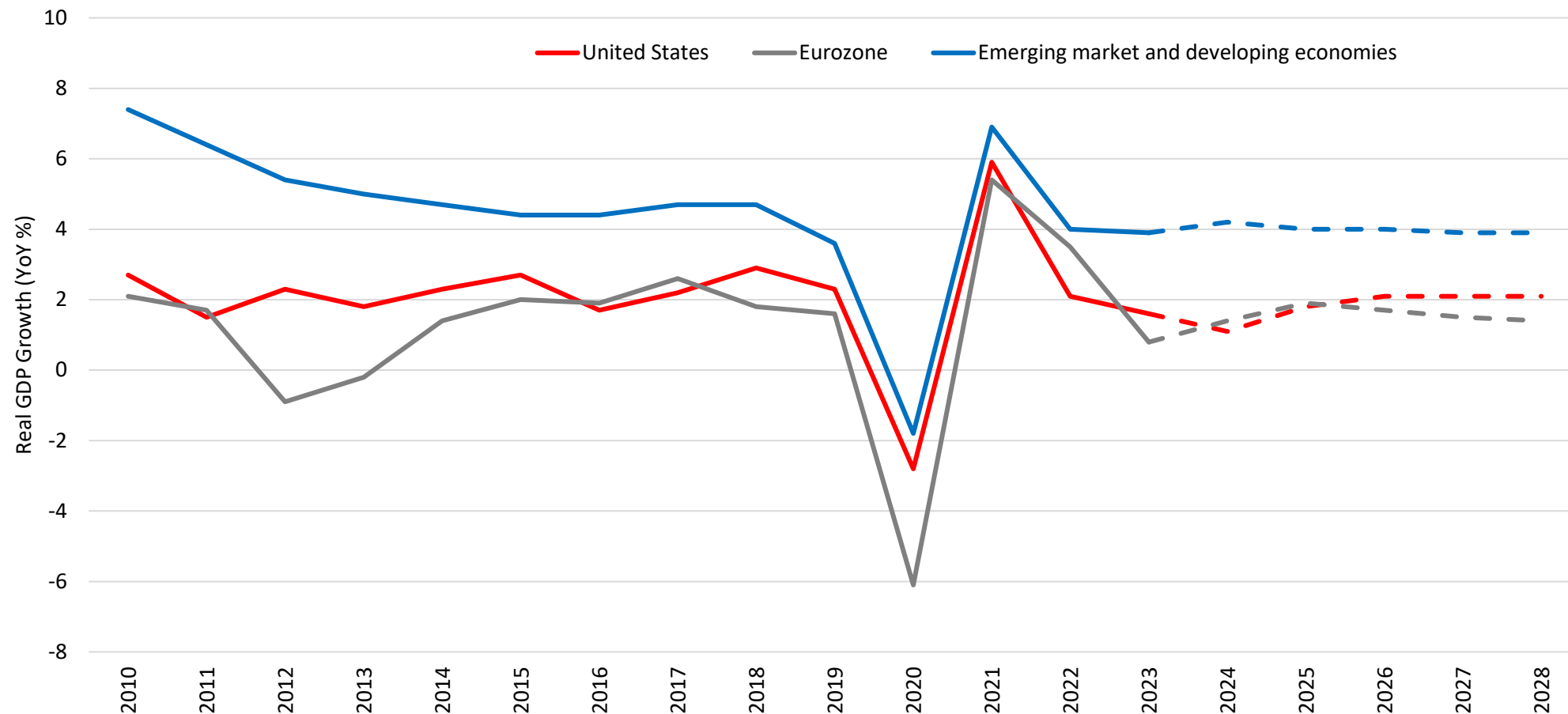
Share of market capitalization

	Global	U.S.	Eurozone	China	Japan	Emerging Markets (EM)	EM Asia	Latin America	EM Europe	Developed Markets (DM)	DM ex-U.S.	Global ex-U.S.
<b>Information Technology</b>	20%	26%	12%	6%	13%	19%	24%	1%	0%	20%	8%	11%
<b>Financials</b>	15%	11%	16%	16%	12%	22%	18%	25%	34%	14%	21%	21%
<b>Healthcare</b>	13%	16%	8%	6%	10%	4%	5%	2%	2%	15%	12%	10%
<b>Consumer Discretionary</b>	10%	10%	15%	30%	18%	14%	16%	2%	10%	10%	10%	11%
<b>Industrials</b>	10%	9%	15%	6%	22%	6%	6%	8%	12%	11%	15%	12%
<b>Consumer Staples</b>	8%	7%	8%	6%	7%	6%	6%	16%	6%	8%	10%	9%
<b>Communication Services</b>	7%	7%	4%	19%	9%	10%	10%	6%	7%	6%	4%	6%
<b>Energy</b>	6%	5%	6%	3%	1%	5%	4%	10%	12%	6%	6%	6%
<b>Materials</b>	5%	3%	6%	3%	4%	9%	6%	23%	9%	4%	8%	8%
<b>Utilities</b>	3%	3%	7%	3%	1%	3%	3%	6%	7%	3%	3%	3%
<b>Real Estate</b>	3%	3%	1%	4%	3%	2%	2%	1%	0%	3%	2%	2%

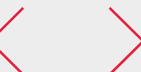
Source: MSCI sector indexes. Data as of December 31, 2022. Latest data available. Columns may not sum to 100% due to rounding. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**

# Emerging Markets in Aggregate are Poised for Growth

The emerging world now constitutes around 40% of global Personal Consumption Expenditures (PCE) according to the United Nations, and ongoing convergence with developed economies should support GDP growth and corporate earnings over the longer term. Estimates by the International Monetary Fund out to 2028 suggest that real GDP growth for Emerging Markets (EM) in aggregate will settle above U.S. and Eurozone real growth. We continue to expect a wide return dispersion between individual EM countries and regions, and consider maintaining strategic exposure.



Source: International Monetary Fund. Data as of June 30, 2023. Dashed portion of line indicates estimate. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies, index definitions and important disclosures.**





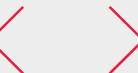
# Global Equities Summary & Charts



## CIO Equities Asset Class View

Asset Class	Underweight	Slightly Underweight	Neutral	Slightly Overweight	Overweight
Global Equities	●	●	●	●	●
U.S. Large-cap Growth	●	●	●	●	●
U.S. Large-cap Value	●	●	●	●	●
U.S. Small-cap Growth	●	●	●	●	●
U.S. Small-cap Value	●	●	●	●	●
International Developed	●	●	●	●	●
Emerging Markets	●	●	●	●	●

Source: GWIM Investment Strategy Committee (GWIM ISC) as of July 11, 2023. Please refer to the July 2023 Viewpoint for more detail weightings information. The Chief Investment Office (CIO) views and opinions expressed are for informational purposes only, are made as of the date of this material, and are subject to change without notice. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies and index definitions.**



# New Technical Bull Market But Keep Crosscurrents in Mind

Equities entered a new bull market, but a sustainable improvement will rely on positive change in the fundamental backdrop. Multiple crosscurrents may create a mixed backdrop from here.

## S&P 500 Price Level



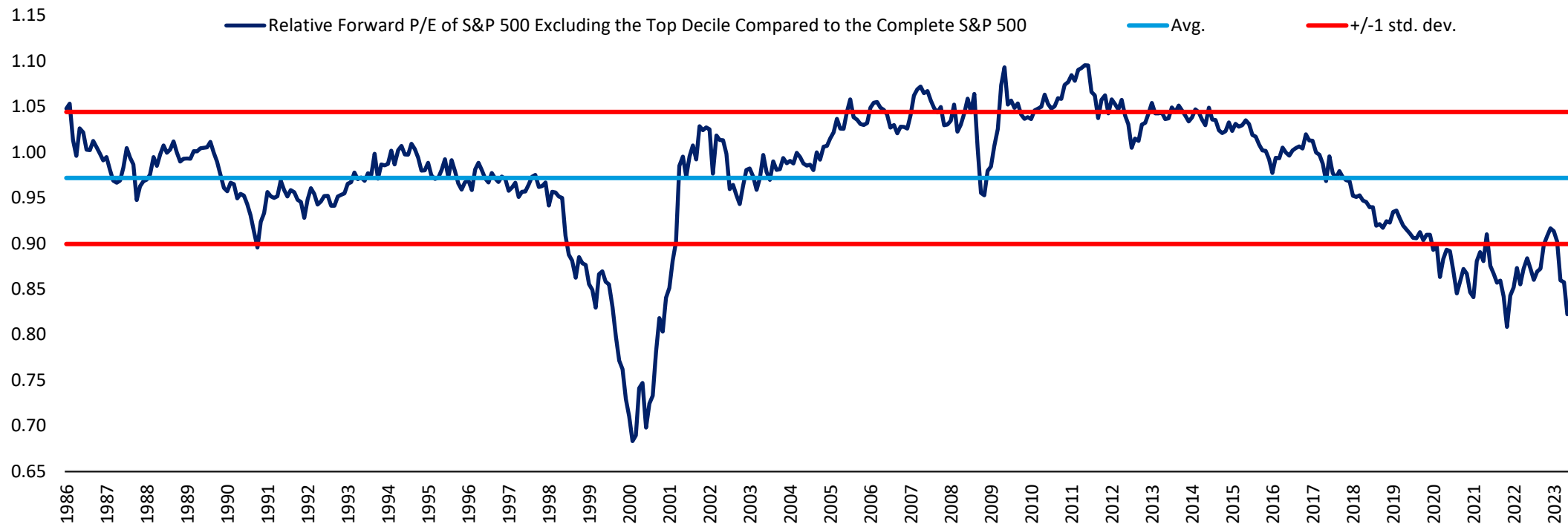
Source: Chief Investment Office; Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# The Valuation Dichotomy Within the S&P 500 Paints a Mixed Picture

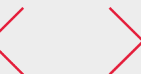
The forward price-to-earnings (P/E) ratio suggests the S&P 500 isn't cheap. This premium is found in a smaller share of the constituents of the index. Reflecting a similar dynamic, a low participation of stocks in this year's rally of the S&P 500 also raises worry over concentration risk. An optimistic take is that a larger portion of the index is not as expensive compared to history. A diversification opportunity may exist and cheaper Value-oriented segments of the Equity market may be beneficial, in particular if the rally ultimately broadens out, as the economy successfully absorbs tightened monetary policy at a limited cost to growth.

Compared to the top decile, the rest of the S&P 500 trades at a notable discount, according to relative forward P/E ratios.



**As of June 30: The S&P 500 trades at 19.2x forward earnings.**  
**Excluding the top 50 stocks, the forward P/E drops to 15.9x (vs. historical average of 15.3x for S&P 500 excluding top 50 stocks since 1986).**

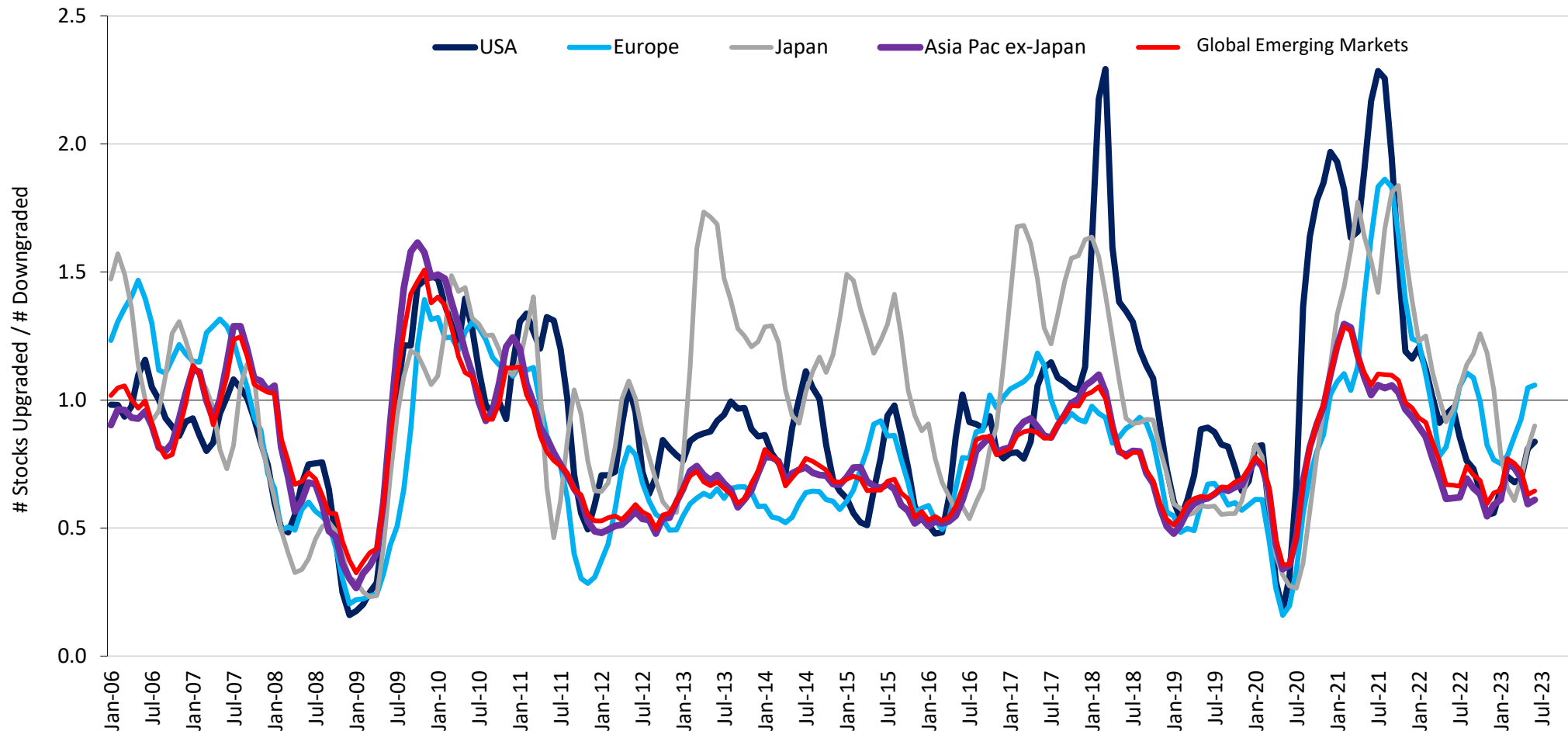
Sources: Bloomberg, BofA Global Research. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**



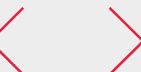
# Earnings Estimates Worldwide Remain Pressured

Critical for a sustained Equity rally, in our view, the fundamental backdrop for Equities remains on shaky ground.

For the majority of important economic regions, greater are downgrades to earnings estimates than upgrades, according to the BofA Global Earnings Revision Ratio.



Source: BofA Global Research. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for asset class and sector proxies, index definitions and important disclosures.**



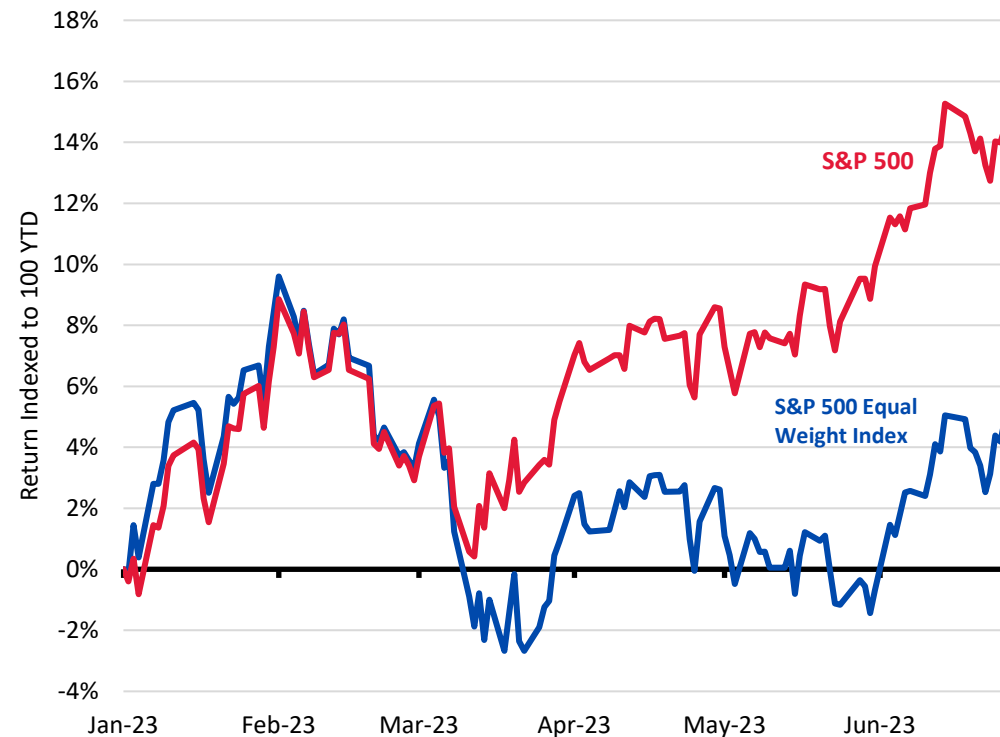
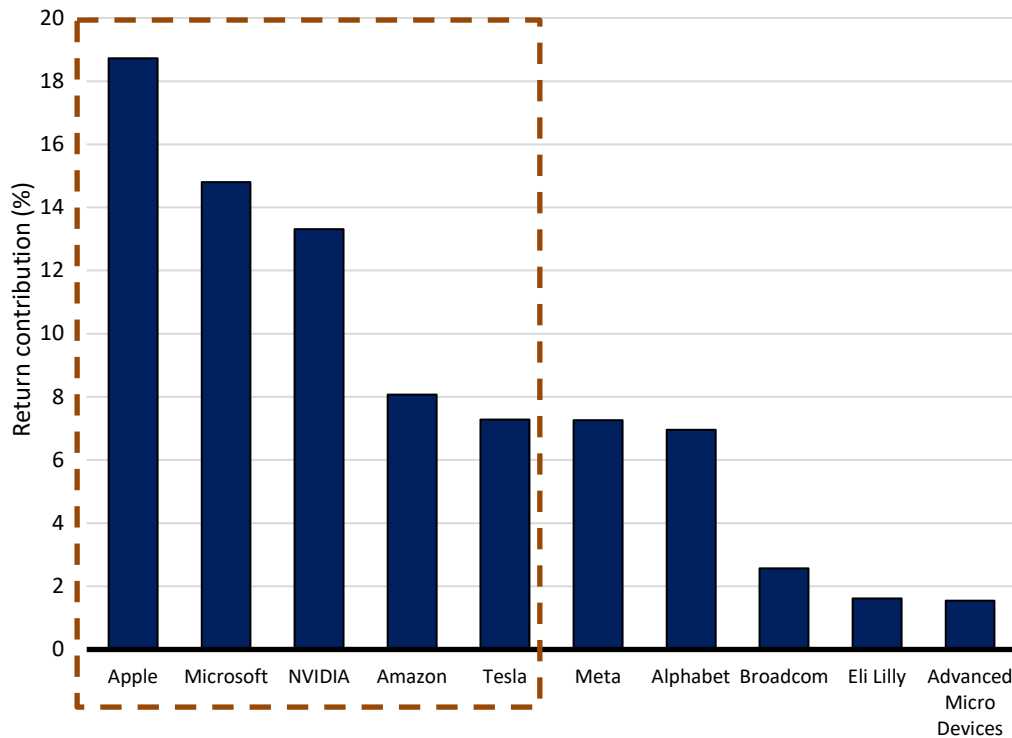
# Equity Market Breadth Remains Narrow

Only a handful of the largest-weighted stocks in the S&P 500 Index are responsible for most of the year-to-date (YTD) gains. While narrow market breadth is not a consistent indicator of future Equity market returns, there is opportunity for the rest of the stocks in the indexes to close the gap and see better performance going forward. In our view, this would improve market internals and be a positive signal for Equities.

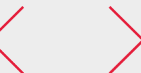
Five stocks in the S&P 500 alone are responsible for over 60% of the YTD gain in the index.

There is a significant performance gap between the S&P 500 Equal Weighted Index and the S&P 500 Market Cap Weighted Index.

S&P 500 Constituents Return Contribution Over the First Half of 2023



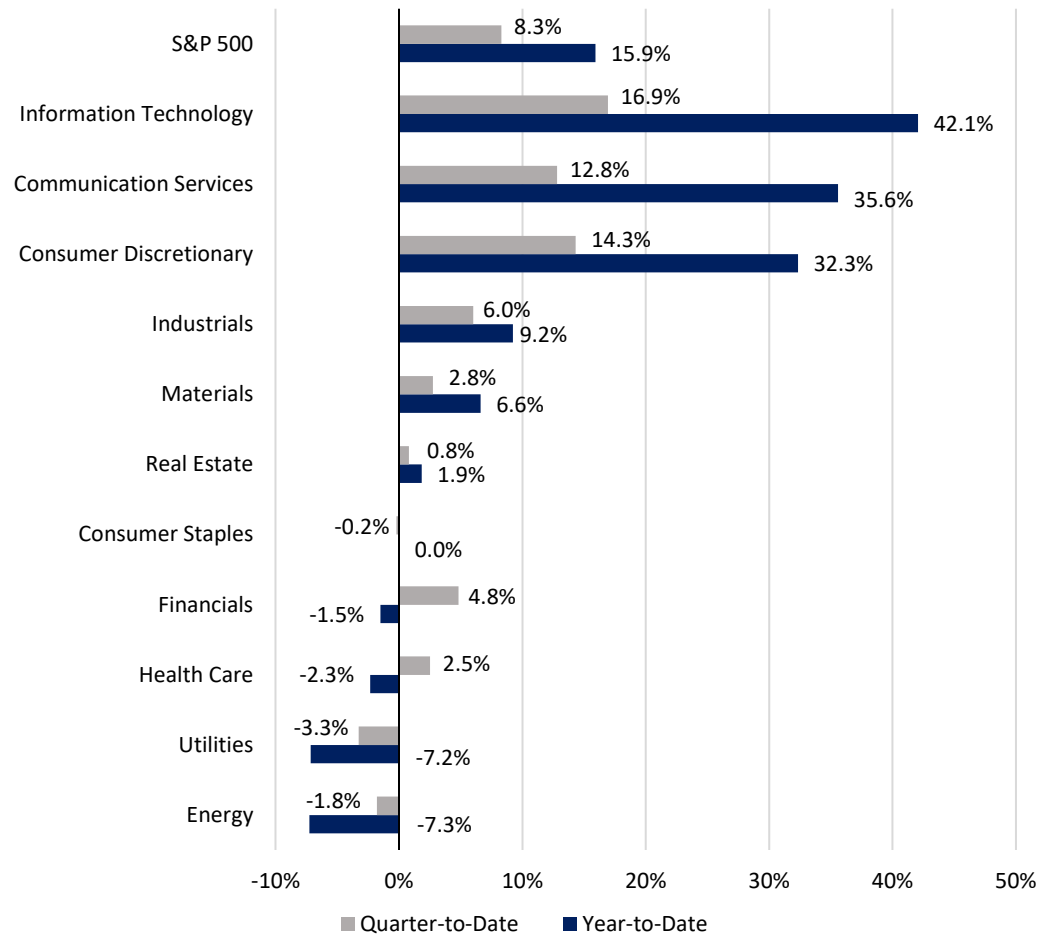
Sources: (Left) Bloomberg. Data as of June 30, 2023. Note: Alphabet class A and C were combined. (Right) Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**



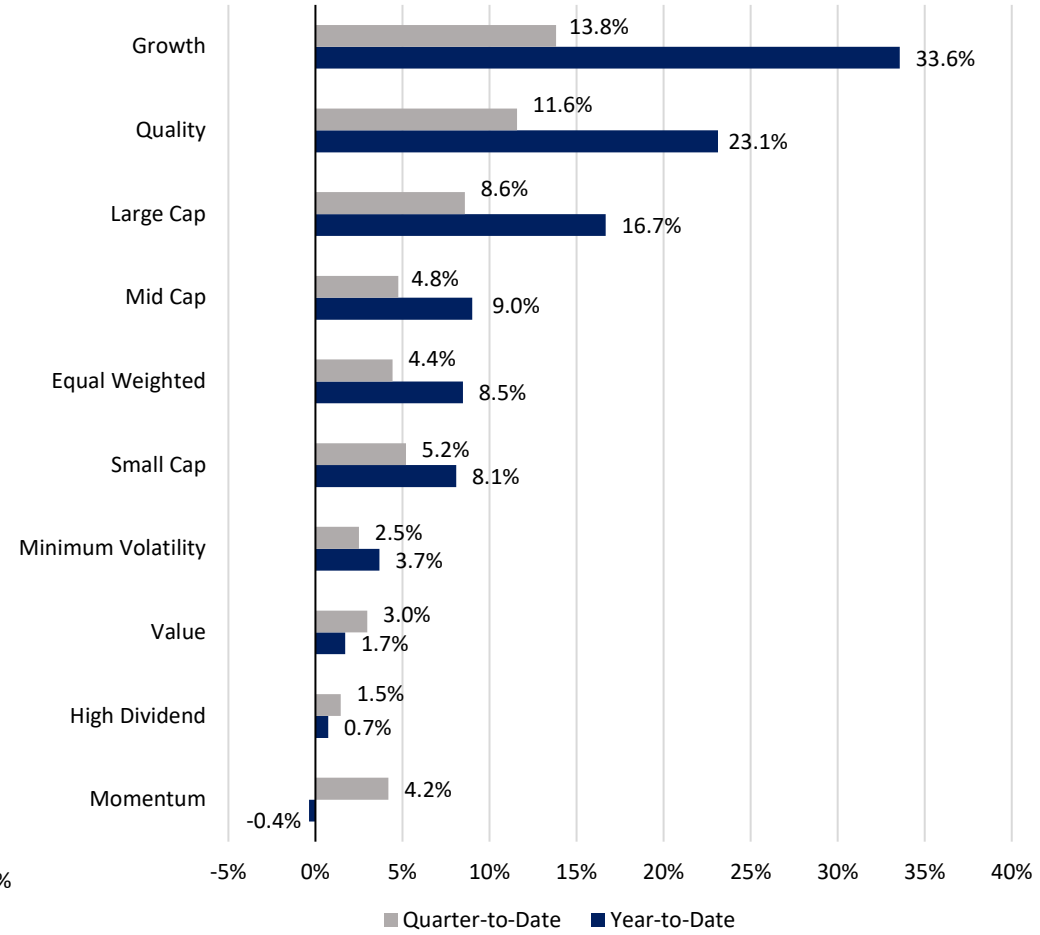
# Sector and Factor Performance Barometer

We expect a 'grind-it-out' environment to persist for Equities in the second half of the year. We expect stability in risk assets to come with a determined Federal Reserve path, cooler price levels and a peak in labor market weakness. As these conditions are likely to come to fruition later in 2023, we believe diversification, balance and a focus on high-quality investments is warranted in the near term to create a solid foundation for the newly established bull market.

Performance by S&P 500 Index Sector



Performance by Factor



Sources: Bloomberg. Data as of June 30, 2023. Index performance reflects price performance only and does not include dividends or other income. Note: Large-cap, Mid-cap and Small-cap are represented by Russell Indexes. Equal Weighted, Value, Growth, Quality, High Dividend, Minimum Volatility and Momentum are represented by MSCI Indexes. **FOR INFORMATIONAL PURPOSES ONLY. Past performance is no guarantee of future results. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class and sector proxies, index definitions and important disclosures.**



# Risk Monitor: Improved Sentiment; Shaky Fundamentals

Our “on guard” portfolio posture reflects a negative tilt in our risk monitor. Economic resilience in the U.S. and Europe surprised pessimistic consensus forecasts earlier this year. China’s economic reopening progressed, though not as smoothly as had been expected by investors. Monetary policy on the whole has remained inclined to ensuring inflation is better controlled.

We are monitoring the potential for a realization of the following upside and downside risks to the investment outlook.

Investor pessimism has declined. The prospect of an economic soft-landing, an end to tightening monetary policy and resilient Equity markets has factored in rising optimism.

## Upside risk factors

U.S. corporate margins rebound. An economic soft landing buoys revenues. Artificial intelligence contains costs.

Worry over China’s economic stability induces a larger stimulus response.

U.S.-China ties stabilize, laying the groundwork for better coordination in tackling other global challenges.

In the U.S. and Europe, a quicker-than-forecast fall in inflation decisively ends the upcycle in policy interest rates.

## Downside risk factors

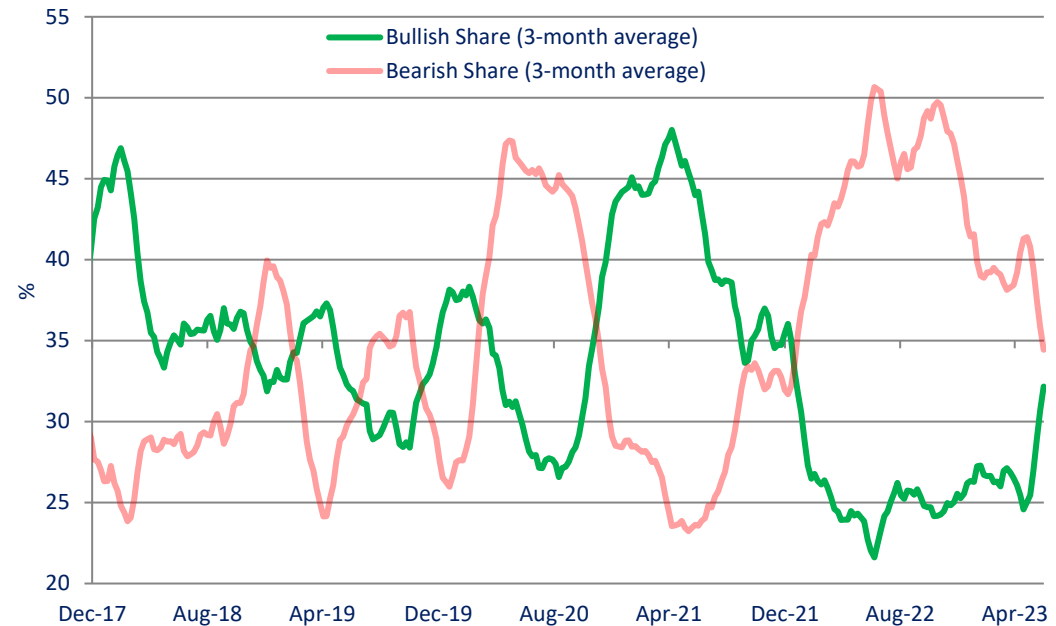
To maintain inflation-fighting credibility, central banks keep interest rates high.

A recessionary climate in Germany spreads to other European economies.

In the U.S., fiscal tightening weighs on demand. Worsening Commercial Real Estate outlook restricts credit creation.

Geopolitical escalation quickens disorderly deglobalization.

American Association of Individual Investors Sentiment Survey



**\*High cash levels among institutional investors and elevated pessimism supports the case for plenty of buying power, should the environment improve.**

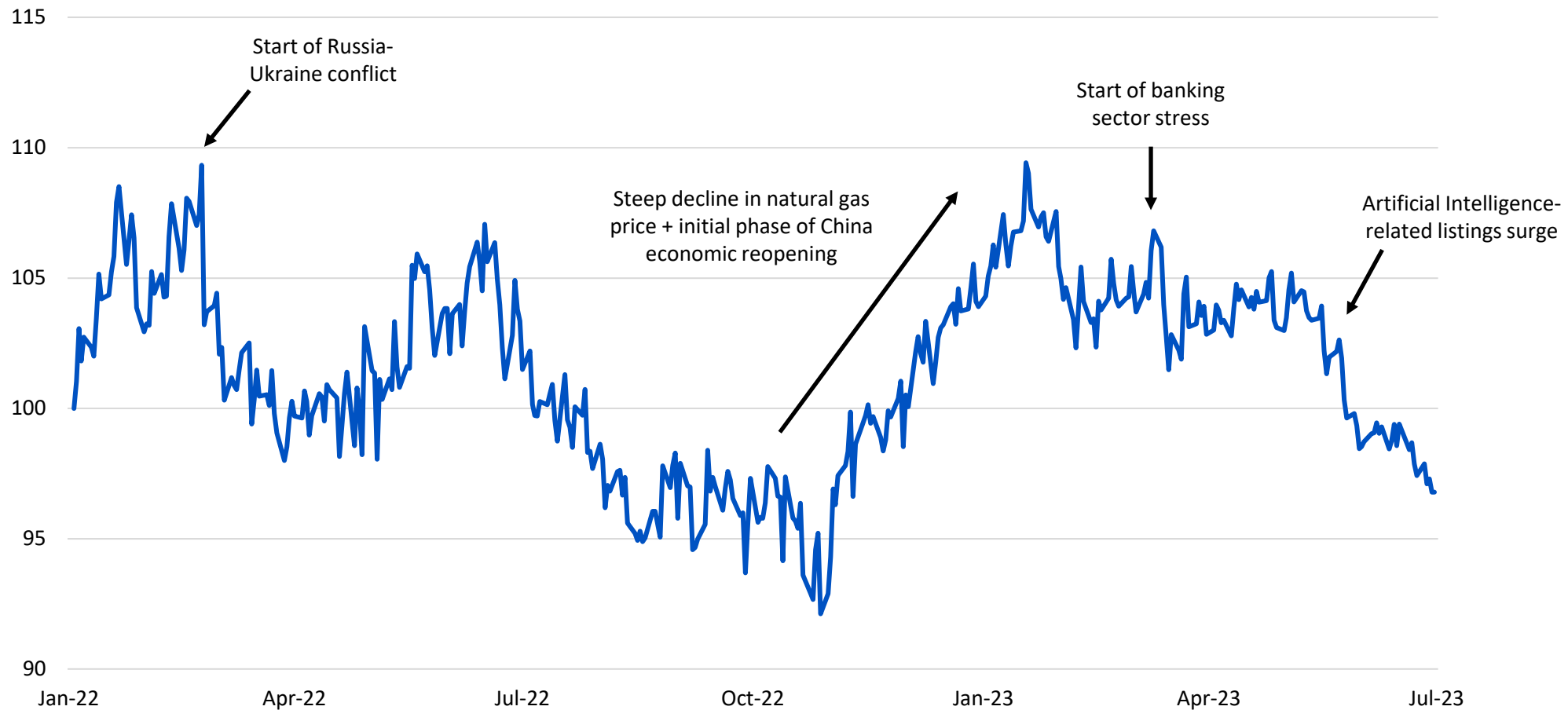
Sources: (Left) CIO. (Right) American Association of Individual Investors: Shares do not add up to 100% due to the share of neutral investors (excluded from the chart). (Bottom) \*Conclusions are drawn from BofA Global Fund Manager Survey and Bull/Bear indicator. Data as of June 29, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



# International Markets Have Retreated From Their Relative Peaks

Non-U.S. Equity markets have given back most of their late-2022/early-2023 outperformance. The one-time boosts from economic reopening in China and falling natural gas prices in Europe have faded, while the banking sector stress and positive shift in sentiment on the technology outlook have been key turning points.

**Global ex-U.S. Equity vs. U.S. Equity Relative Index level**  
January 1, 2022 = 100



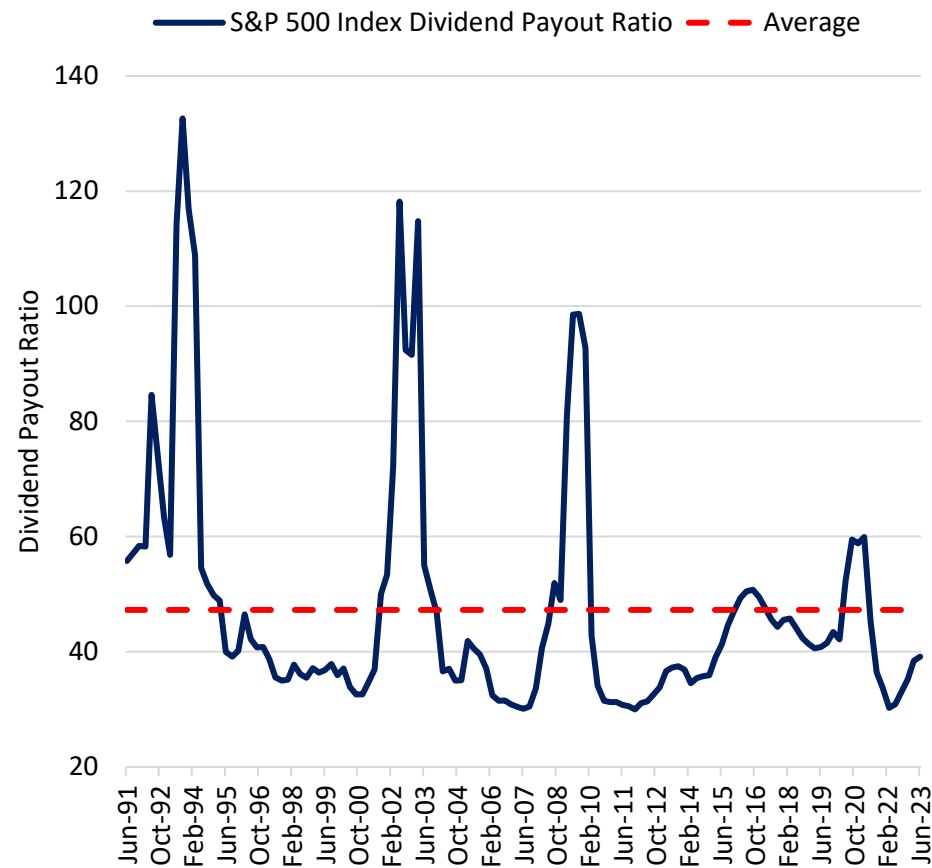
Source: Chief Investment Office, Bloomberg. Data as of June 30, 2023. Equity indices are MSCI All-Country World ex-U.S. and MSCI U.S. Indices shown in price terms (USD). **FOR INFORMATIONAL PURPOSES ONLY. Past performance is no guarantee of future results. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



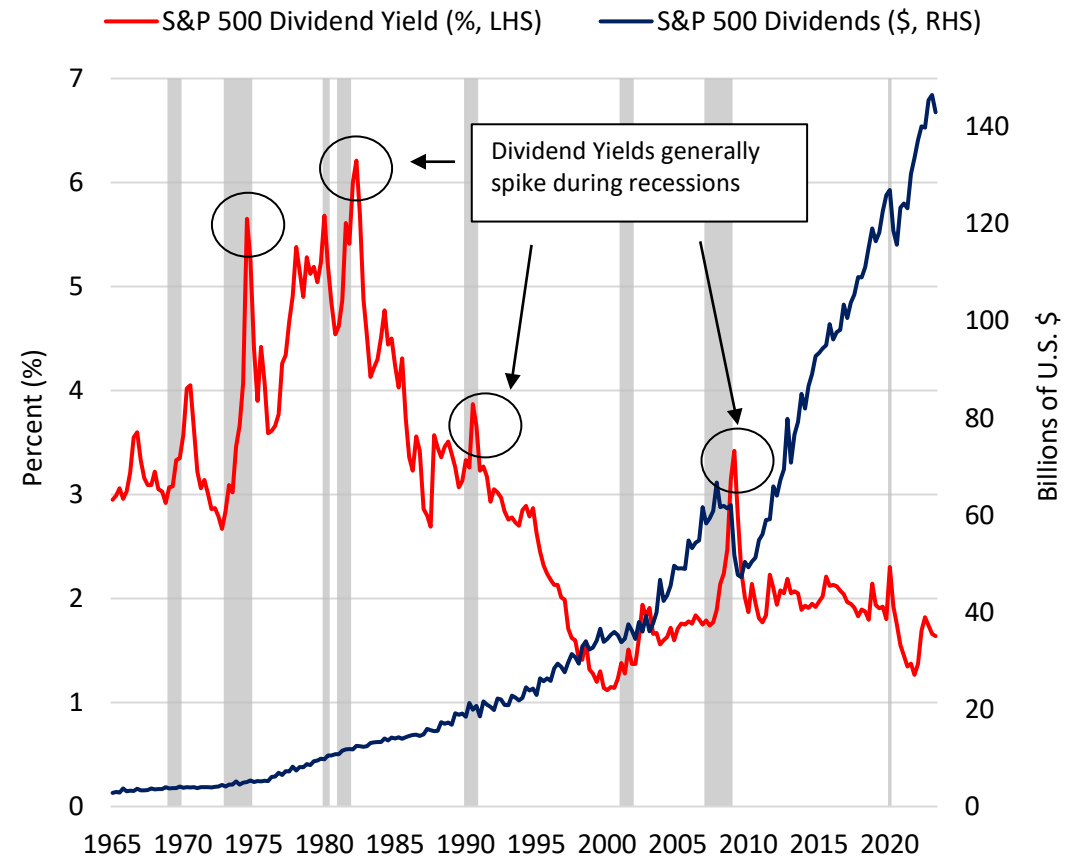
# Applying a Total Return Mindset To Portfolios

The opportunity to derive income from financial assets has improved as the macroeconomic environment has shifted. In our view, total return contributions from dividends should be an increasingly important consideration moving forward.

The dividend payout ratio for the S&P 500 Index remains below the long term average, suggesting that companies may have room to raise dividends.



The amount of dividends paid in dollar terms has grown substantially over the years and dividend yields have historically increased during past economic downturns.

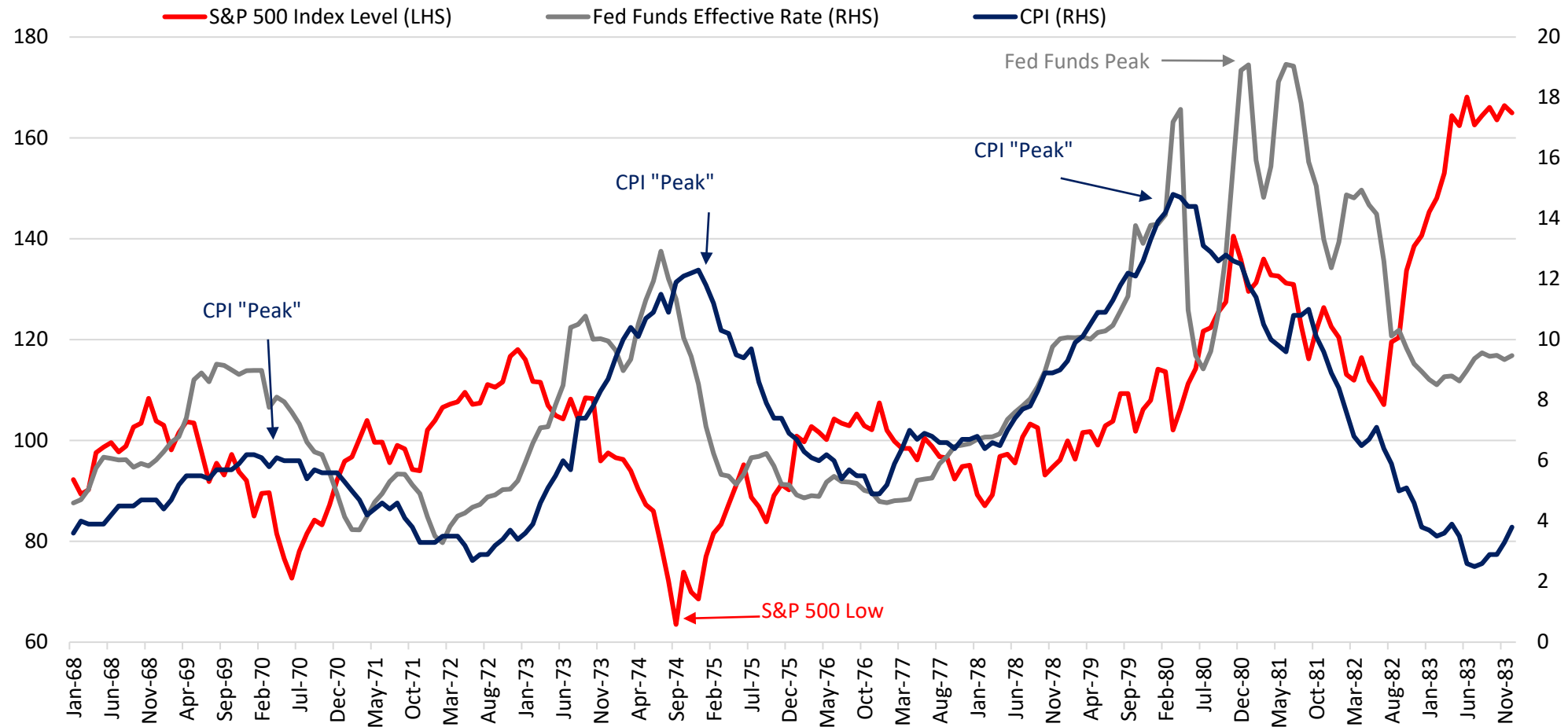


Sources: (Left) Bloomberg. Data as of June 30, 2023. Latest data available. (Right) Haver Analytics. Data as of June 30, 2023. Gray areas represent recession periods. **FOR INFORMATIONAL PURPOSES ONLY. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**

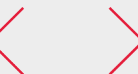


# Inflation and Equity Strategy

In the U.S., inflation has moderated from the peak in mid-2022 but is still well above the Fed's 2% target. Inflationary episodes are rare, and while there are significant distinctions, comparisons have been made between the inflationary episode of the 1970s and today. The 1970s saw three peaks in inflation before it was finally subdued. Notably, the S&P 500 made its bottom in 1974, almost six years before the final peak in inflation and almost seven years before the peak in rates.



Source: Bloomberg. Data from January 1, 1968 - December 31, 1983. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class and sector proxies, index definitions and important disclosures.**



# Fixed Income Summary & Charts



## CIO Fixed Income Asset Class View

Asset Class	Underweight	Slightly Underweight	Neutral	Slightly Overweight	Overweight
Global Fixed Income	•	•	●	•	•
U.S. Governments	•	•	•	●	•
U.S. Mortgages	•	•	●	•	•
U.S. Corporate	•	•	●	•	•
High Yield	•	●	•	•	•
U.S. Investment-grade Tax Exempt	•	●	•	•	•
U.S. High Yield Tax Exempt	•	●	•	•	•
International Fixed Income	•	•	●	•	•

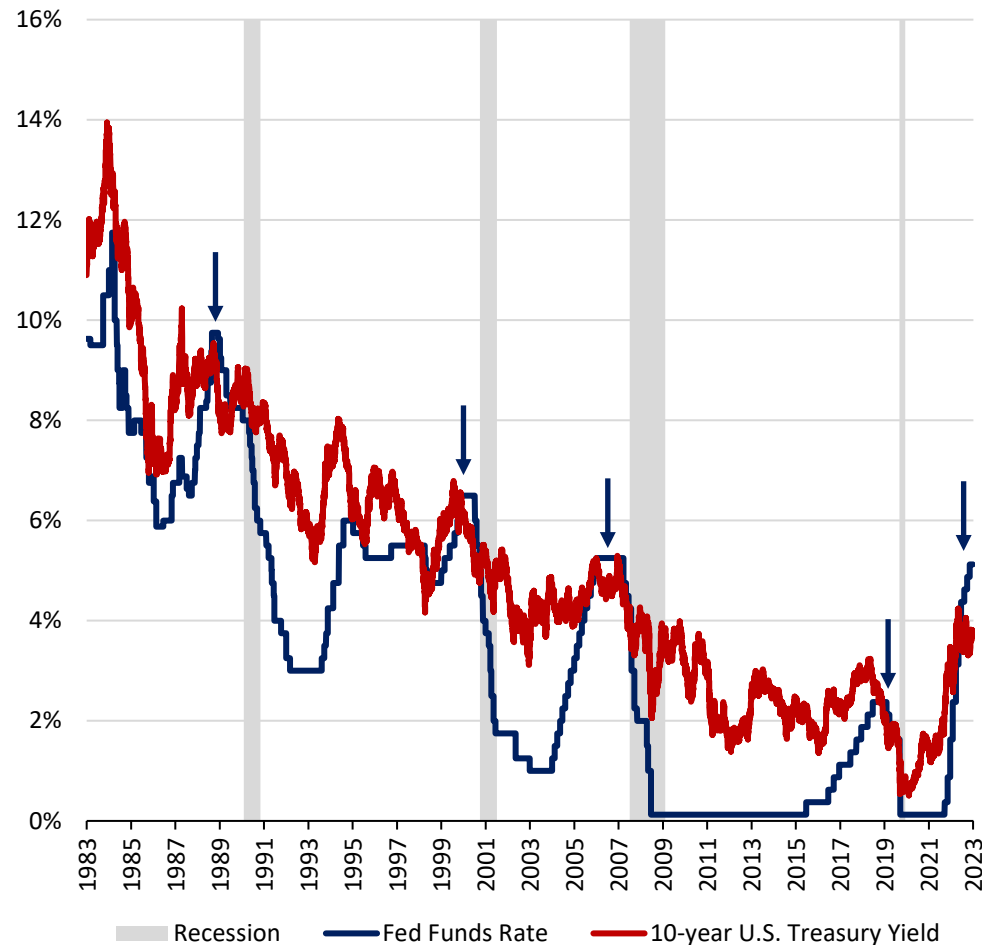
Source: GWIM Investment Strategy Committee (GWIM ISC) as of July 11, 2023. Please refer to the July 2023 Viewpoint for more detail weightings information. The Chief Investment Office (CIO) views and opinions expressed are for informational purposes only, are made as of the date of this material, and are subject to change without notice. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for asset class proxies and index definitions.**



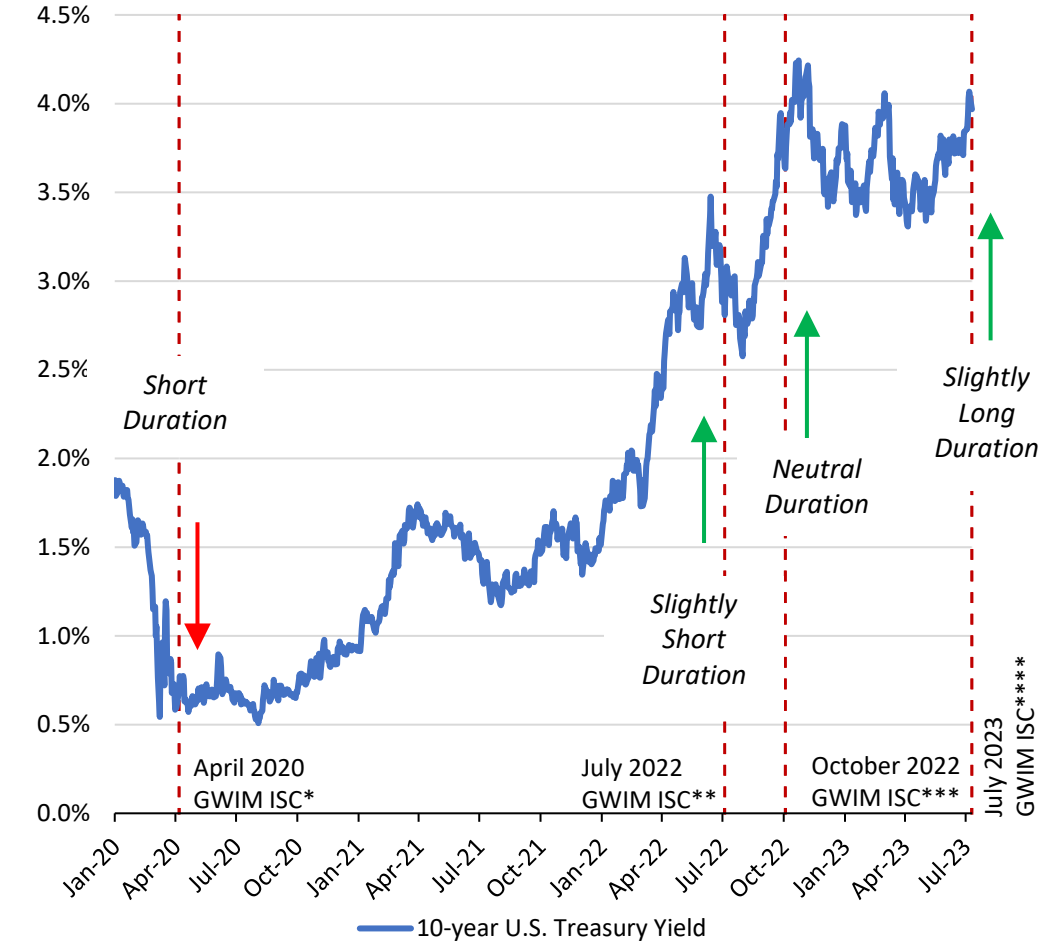
# Duration Management Through the Interest Rate Cycle

We moved to a slightly long duration position versus a stated benchmark based on current business cycle dynamics and given that the fed funds (FF)/10-year curve (10s) may have reached peak inversion. Tactical allocation changes based on the rate cycle are only one component, though. The primary determinant of an investor's duration should be the investment horizon—longer time frames should be matched to longer durations, and vice versa.

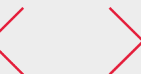
**An inverted FF/10s curve preceded each recession over the last 50 years.**



**CIO duration recommendations through the current interest rate cycle.**

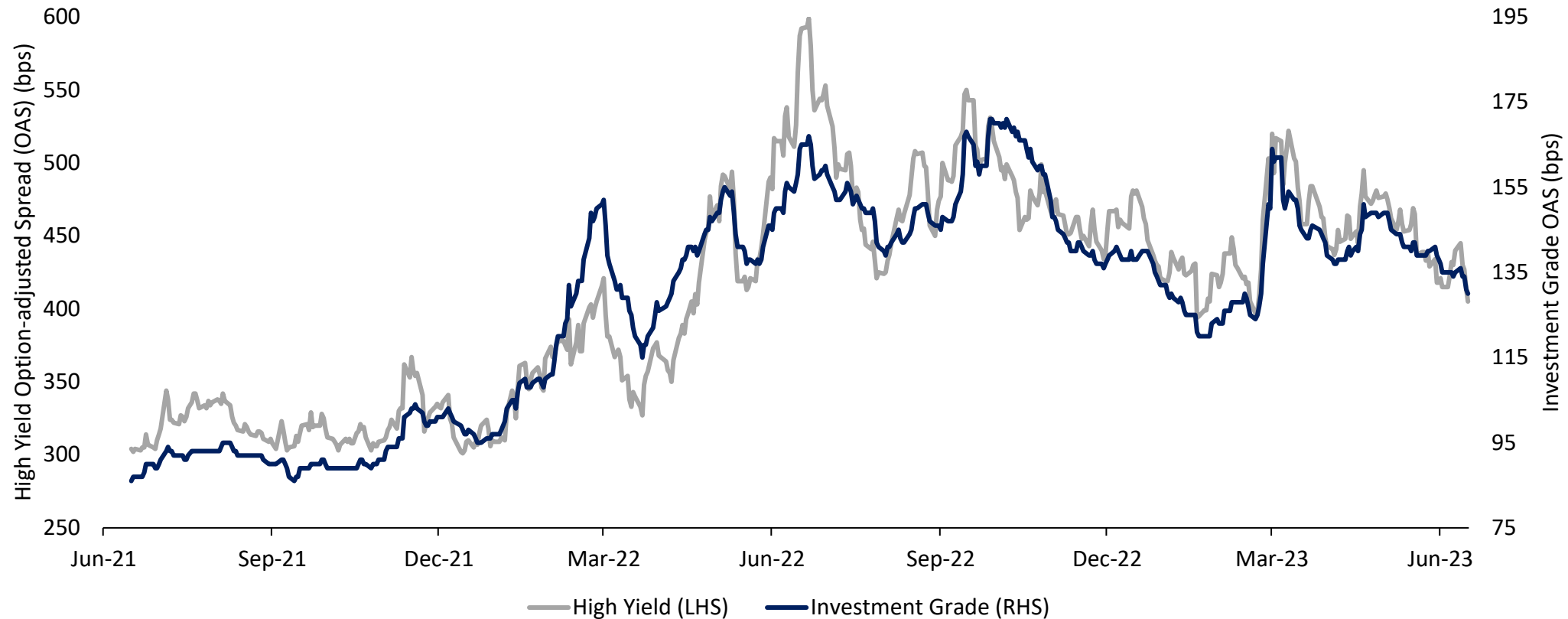


(Left) Blue arrows indicate inversions, when the Fed Funds rate is above the 10-year Treasury yield. Gray areas represent recession periods. (Right) Note: The chart shows all duration recommendations from January 2020 to January 2023 from Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC) (see Viewpoints \*April 2020, \*\*July 2022, \*\*\*October 2022, \*\*\*\*July 2023). Arrows indicate relative move versus prior guidance; red down arrow is shortening duration; up green arrow is lengthening duration. Red dotted lines are approximate dates only. Sources: Bloomberg, Chief Investment Office. Data as of July 11, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**



# Credit Markets Appear Unfazed

Credit markets continue to defy the odds of a looming economic slowdown – pricing in a very low probability of a recession over the next 12 months. While we expect a more benign default cycle, we don’t believe that current valuations offer a compelling risk/return opportunity. We continue to favor an up-in-quality bias and favor Investment Grade (IG) over High Yield (HY).



Spread Ranges & Market Implied Probability of a Recession

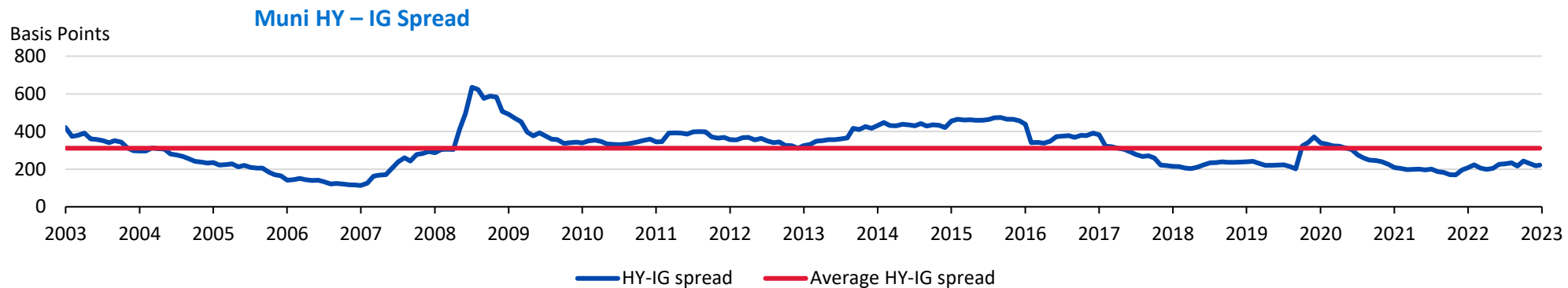
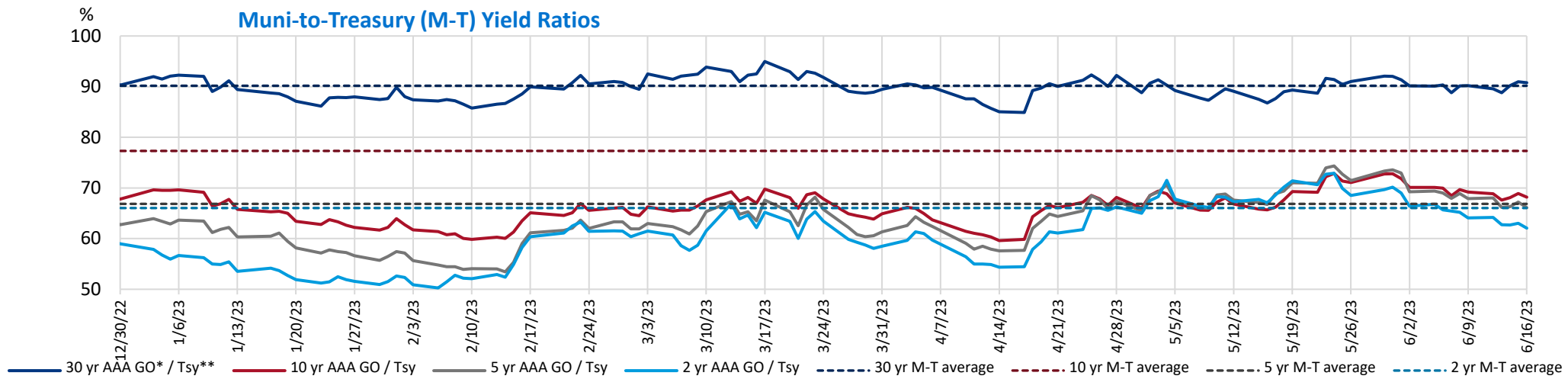
	IG	HY	A	BBB	BB	B	CCC
Current OAS (bps)	130	405	110	161	264	428	943
Implied Recession Probability	20%	11%	20%	19%	18%	15%	7%
<i>Recession Minimum</i>	102	356	77	131	204	354	867
<i>Recession Median</i>	244	820	238	290	532	863	1933
<i>Recession Maximum</i>	622	2117	598	781	1439	2084	4107

Sources: ICE BofA; Chief Investment Office. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**

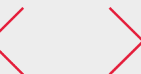


# Munis Q2 2023: Rich Valuations, We Favor IG over HY

While we believe that tax-free municipals should play a key role in portfolios for those in a high tax bracket, low issuance has caused muni valuations to remain expensive relative to Treasuries at certain parts of the yield curve (e.g., maturities around 10 years); we believe these should be slightly underweighted. We believe fundamental conditions remain strong for now, but with economic uncertainty high (deeply inverted yield curve, still-high inflation, and monetary tightening), budget pressures could increase due to stagnant or declining tax revenues, increased operating expenses, and stress in commercial real estate. With the reward for venturing below the IG spectrum low (narrower-than-average credit spreads), we would favor Muni IG over Muni HY at this time.



\*General Obligation. \*\*Treasury. Sources: TM3, Bloomberg. Data as of June 16, 2023. Note that M-T averages are since January 1, 2018 and omit the period from March 1, 2020 to December 31, 2020 to eliminate distortions from extraordinarily high ratios immediately after the onset of the pandemic. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for asset class proxies, index definitions and important disclosures.**



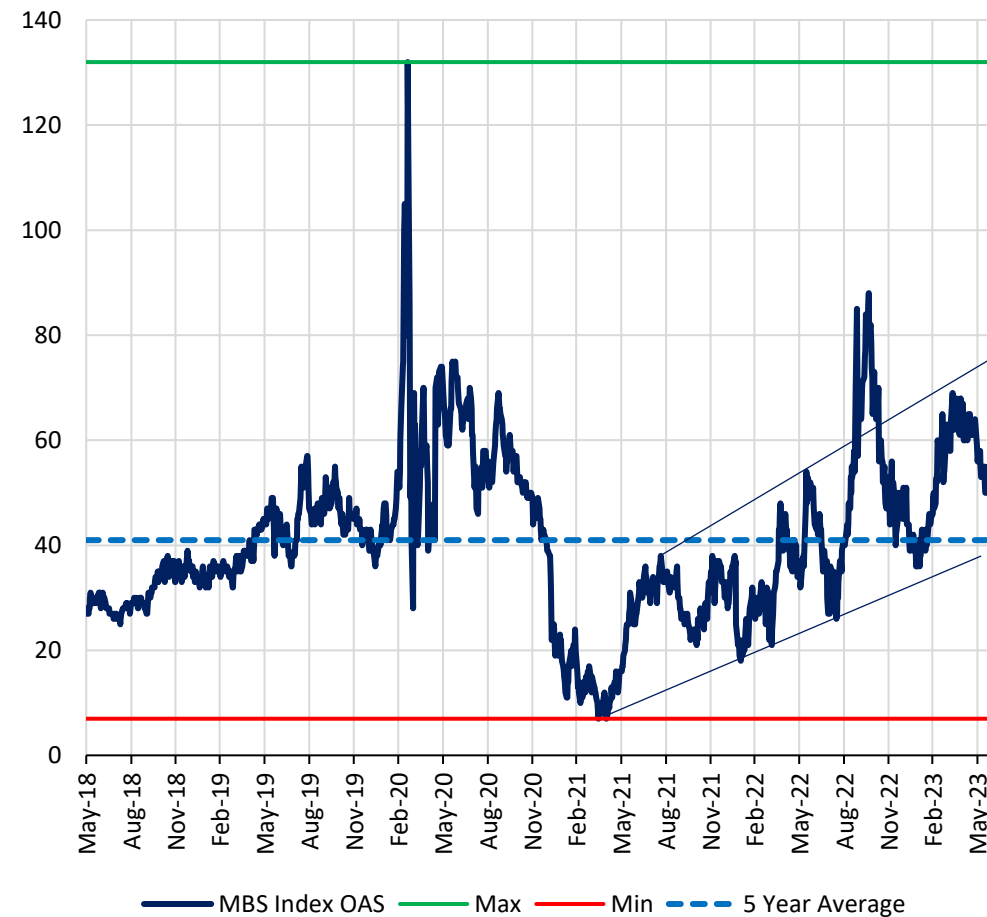
# Spreads Widening for Agency Mortgage-Backed Securities

MBS spreads continue to push wider, a trend that has been intact since April 2021. Wider spread levels and a recent drop in volatility have helped attract MBS buyers, and while the index spread is tighter over the last month, valuations still look reasonably attractive at 1.25x the 5-year average. We are closely watching market demand as banks have backed off from the sector and the Federal Reserve MBS portfolio continues to run off.

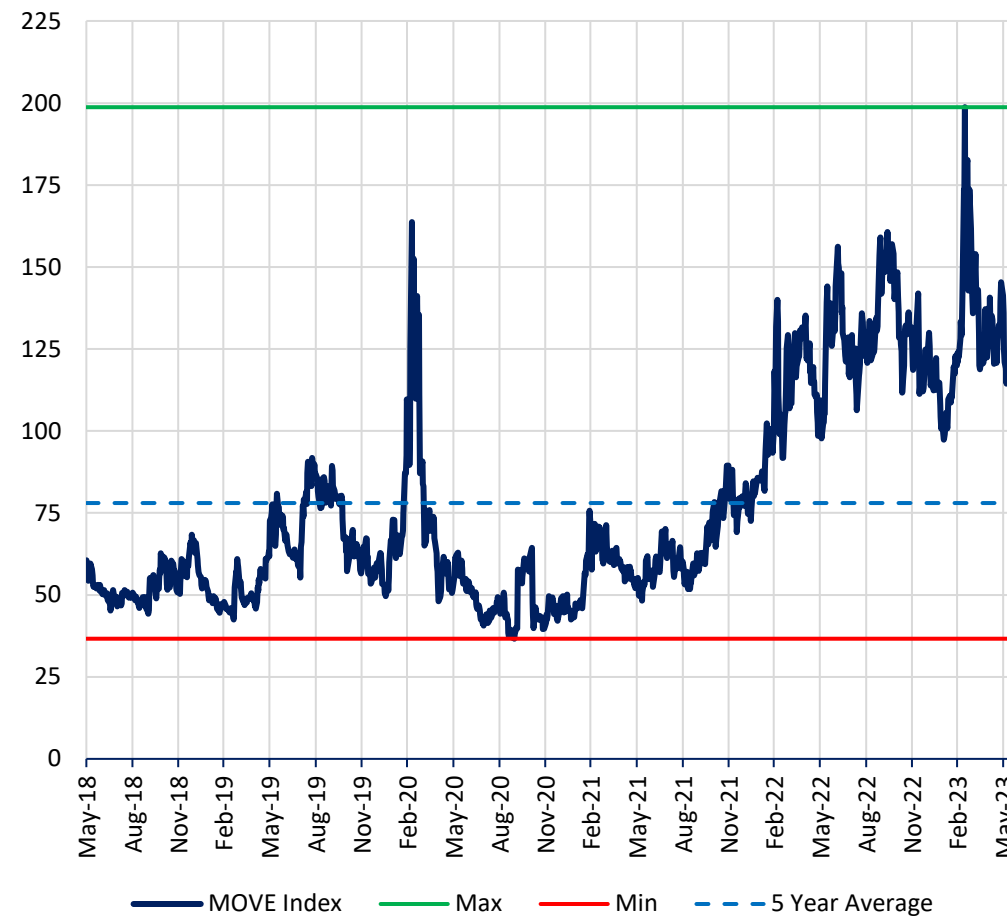
**MBS spreads have risen significantly from the single-digit lows recorded in 2021, as the Fed implements measures to curb persistently high inflation.**

**Falling volatility is a positive for callable securities such as Agency MBS.**

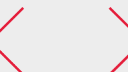
MBS Option-Adjusted Spread (OAS) (Basis Points)



MOVE (Interest Rate Volatility) Index



Sources: Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**



# Alternative Investments Summary & Charts



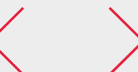
## CIO Alternative Investments\* Asset Class View

We favor a strategic approach when allocating to Alternative Investments.



**ALTERNATIVE INVESTMENTS NOTE:** Given the differences in liquidity characteristics between Alternative Investments and traditional investments, the Alternative Investments portfolio positioning and CIO asset class views have been neutral rated versus our strategic allocations. These types of investments, in our opinion, should not be viewed at the asset class level on a tactical basis, rather the tactical positioning should be expressed at the subasset level.

\*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors. Source: GWIM Investment Strategy Committee (GWIM ISC) as of July 11, 2023. Please refer to the July 2023 Viewpoint for more detail weightings information. For **INFORMATIONAL purposes only**. The Chief Investment Office (CIO) views and opinions expressed are for informational purposes only, are made as of the date of this material, and are subject to change without notice. **Please refer to appendix for asset class proxies and index definitions.**



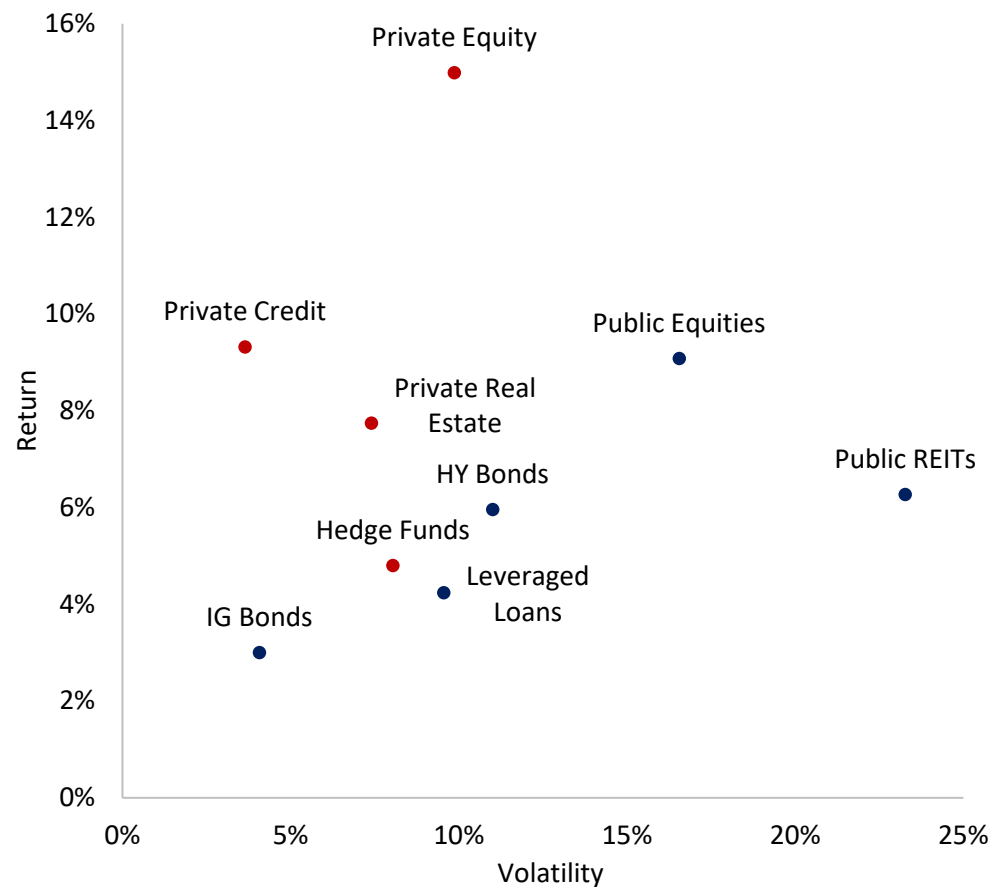


# Alternative Investments\*

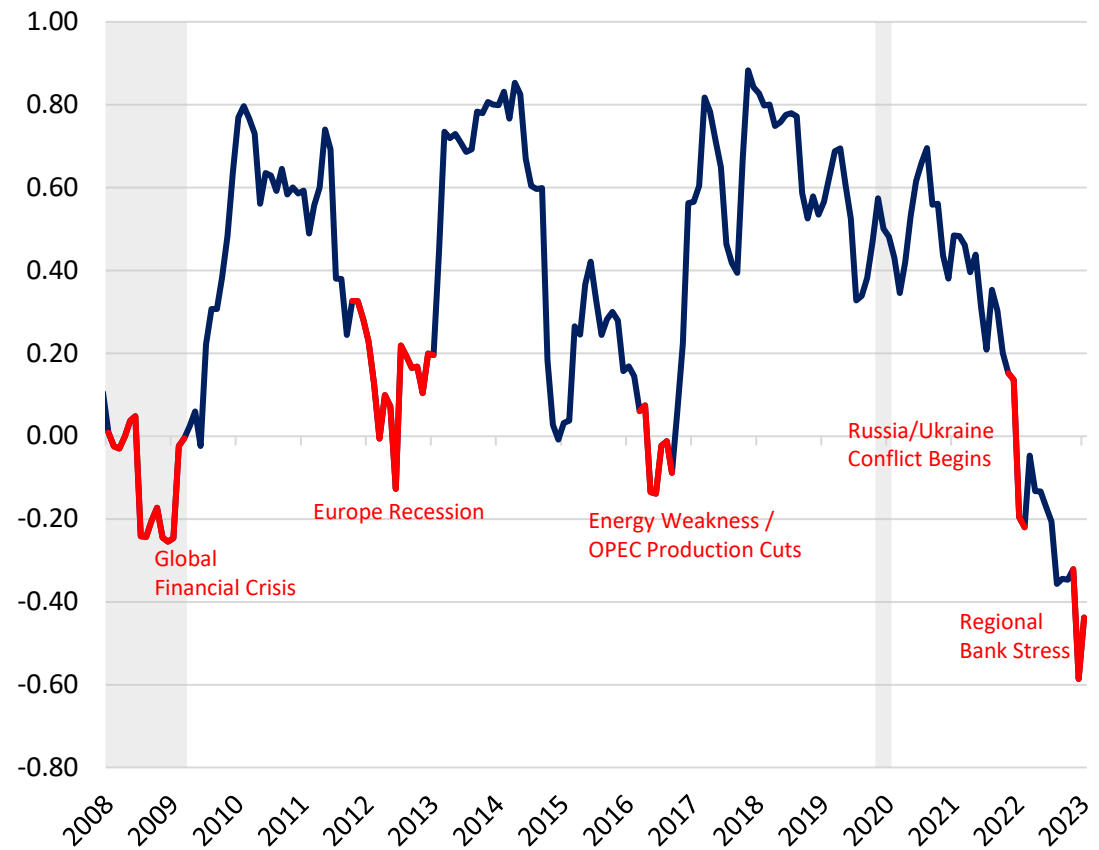
Alternative Investments have delivered compelling historical return and risk profiles, improving portfolio efficiency when implemented in properly diversified and methodical manners.

Hedge Funds may provide diversification and additional sources of alpha. Macro hedge funds, for instance, have historically exhibited low correlations to traditional asset classes, and in particular have displayed “crisis alpha” during periods of market dislocation.

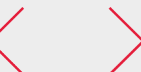
Private vs. Public Asset Class Returns and Risk



Hedge Fund Correlation with a 60/40 portfolio

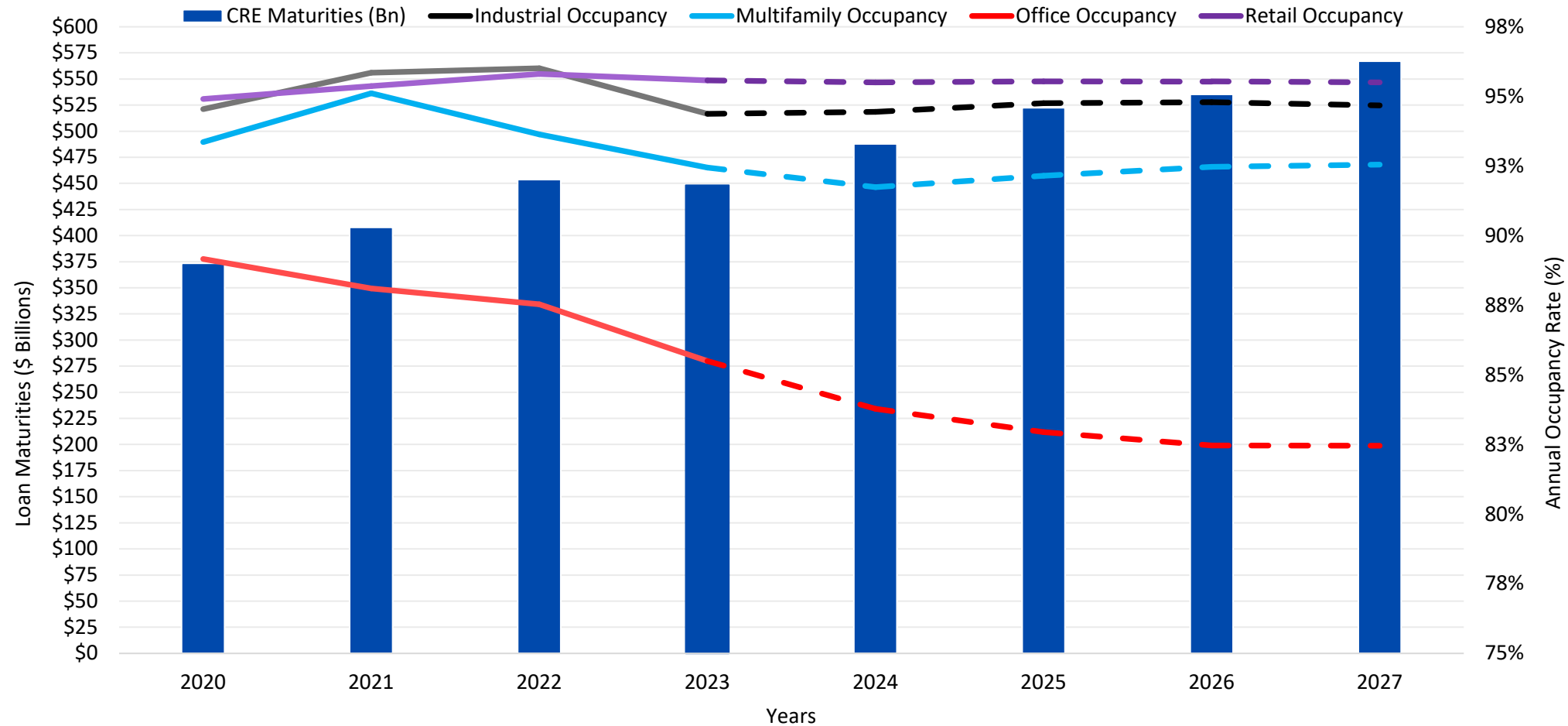


\*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors. Sources: (Left) Bloomberg, Refinitiv EIKON, eVestment, Cliffwater, National Council of Real Estate Investment Fiduciaries (NCREIF). Data as of December 31, 2022 spanning 7/1/05 – 12/31/22. Latest data available. (Right) Bloomberg. Hedge Fund is represented by HFRI Macro Index. 60/40 portfolio represented by Bloomberg U.S. Equity: Fixed Income 60:40 Index. Correlation is calculated on a 12-month rolling basis. Gray areas represent recession periods. Highlighted crisis periods are approximate dates only. Data as of May 31, 2023. Latest data available. **Indexes are unmanaged and do not take into account fees or expenses. Past performance does not guarantee future results. Please refer to appendix for asset class and sector proxies, index definitions and important information.**



# Commercial Real Estate Rogue Wave

The Commercial Real Estate (CRE) sector is heading toward a wave of loan maturities, with crosscurrents impacting the asset pricing and occupier markets. The Office subsector is particularly vulnerable as occupancy rates trend lower and property values are deflated by softening cash flows, elevated interest rates and cap rates, and tightening lending standards. Multifamily occupancies are expected to bottom out, as is Industrial and Retail which should be able to ride the wave over the next several years. Pressure on lenders to tightly manage CRE loan performance may have a dampening effect on liquidity and values across the sector.



Sources: CoStar Group. Data as of June 30, 2023. Historical vacancy rates 2020 – 2023; forecasted vacancy rates 2023 – 2027. TREPP: commercial and multifamily residential loan maturities 2020 – 2027. Loan maturities represented in billions. **Past performance is no guarantee of future results. Please refer to appendix for asset class and sector proxies, index definitions and important disclosures.**



# Deeper Into a Late Economic Cycle, Real Assets and FAANG 2.0 Could Offer Important Diversification Benefits

At the intersection of the economy and markets, real assets with a low correlation to stocks and bonds can provide a potential bridge through economic softness by compounding current yields and positioning for economic re-expansion when long-term rates decline.

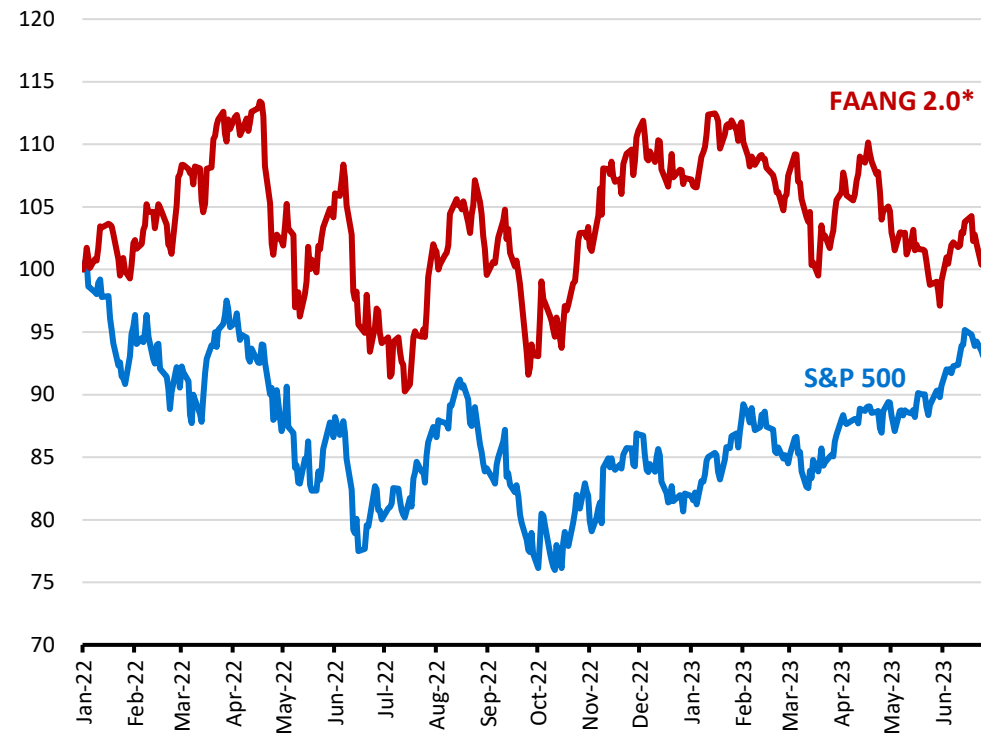
The original FAANG acronym was made up of company-specific tech leaders. FAANG 2.0 reflects a new world of geopolitical risks and resource/hard asset intensity.

Favoring Real Assets, FAANG 2.0 has recently outperformed the S&P 500 on a total return basis.

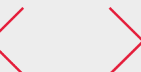
<b>F</b> (Fuels)	<ul style="list-style-type: none"> <li>Notwithstanding the poor YTD performance of ‘fuels’ and Energy more broadly, we continue to favor “old economy” sectors that potentially offer strong free cash flows and attractive valuations.</li> <li>Declining but still solid global energy demand, tight global supplies, limited spare capacity, risk of potential global disruptions, and the decline in long-cycle energy investments are supportive near-term.</li> </ul>
<b>A</b> (Aerospace & Defense)	<ul style="list-style-type: none"> <li>Defense stocks<sup>1</sup> outperformed the broader market in 2022 amid a protracted war and greater military spending commitments.</li> <li>Defense spending by many nations across Europe and Asia are on track for record military outlays in the years ahead.</li> <li>Restocking America’s depleted stockpiles of munitions augurs for higher spending over the balance of this decade.</li> </ul>
<b>A</b> (Agriculture)	<ul style="list-style-type: none"> <li>The planet will need to produce more food in the next 4 decades than in the past 8,000 years.</li> <li>Equipment shortages, higher input costs, climate challenges, burgeoning demand from emerging market middle class all suggest more upside earnings potential for the global agricultural complex.</li> </ul>
<b>N</b> (Nuclear & Renewables)	<ul style="list-style-type: none"> <li>Nuclear energy has the highest capacity factor of any energy source, producing reliable, carbon-free power more than 92% of the time—twice as reliable as coal or natural-gas plants and almost three times more than wind and solar plants.<sup>2</sup></li> <li>An estimate of \$2.8 trillion will be invested in energy in 2023 with more than \$1.7 trillion going to clean energy, including renewable power, nuclear, grids, storage, low-emission fuels, efficiency improvements and end-use renewables and electrification.<sup>3</sup></li> </ul>
<b>G</b> (Gold & Metals/ Minerals)	<ul style="list-style-type: none"> <li>Viewed as a “safe haven” asset, gold has benefitted YTD, underscoring worries over inflation, war and a banking crisis.</li> <li>The Electric Vehicle (EV) transition will be mineral intensive. A typical EV requires 6-times the mineral inputs of a conventional car according to the International Energy Agency.</li> </ul>

**FAANG 2.0 vs. S&P 500 performance since the beginning of 2022**

Total Return Indexed to 100 (Jan. 1, 2022)



Sources: (Left) <sup>1</sup> S&P Aerospace and Defense Sub Industry vs. S&P 500 Index. Data as of December 30, 2022. <sup>2</sup>The U.S. Department of Energy, March 23, 2021-latest data available. <sup>3</sup>IEA, Global Energy Review 2023. (Right) \*The Bloomberg FAANG 2.0 Index is constructed to track the performance of companies that have their primary business activities involved in Fuel (F), Aerospace & Defense (A), Agriculture (A), Nuclear and Renewable Energy (N), and Gold and Other Base & Precious Metals (G). Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY.**



# Portfolio Strategy

## CIO Asset Classes and Sector Views

Asset Class	Underweight	Slightly Underweight	Neutral	Slightly Overweight	Overweight
<b>Global Equities</b>	●	●	●	●	●
U.S. Large-cap Growth	●	●	●	●	●
U.S. Large-cap Value	●	●	●	●	●
U.S. Small-cap Growth	●	●	●	●	●
U.S. Small-cap Value	●	●	●	●	●
International Developed	●	●	●	●	●
Emerging Markets	●	●	●	●	●
<b>Global Fixed Income</b>	●	●	●	●	●
U.S. Governments	●	●	●	●	●
U.S. Mortgages	●	●	●	●	●
U.S. Corporate	●	●	●	●	●
High Yield	●	●	●	●	●
U.S. Investment-grade Tax Exempt	●	●	●	●	●
U.S. High Yield Tax Exempt	●	●	●	●	●
International Fixed Income	●	●	●	●	●
<b>Alternative Investments*</b>					
Hedge Funds					
Private Equity					
Real Assets					

Sector	Underweight	Slightly Underweight	Neutral	Slightly Overweight	Overweight
Healthcare	●	●	●	●	●
Energy	●	●	●	●	●
Utilities	●	●	●	●	●
Consumer Staples	●	●	●	●	●
Information Technology	●	●	●	●	●
Communication Services	●	●	●	●	●
Industrials	●	●	●	●	●
Financials	●	●	●	●	●
Materials	●	●	●	●	●
Real Estate	●	●	●	●	●
Consumer Discretionary	●	●	●	●	●

**ALTERNATIVE INVESTMENTS NOTE:** Given the differences in liquidity characteristics between Alternative Investments and traditional investments, the Alternative Investments portfolio positioning and CIO asset class views have been neutral rated versus our strategic allocations. These types of investments, in our opinion, should not be viewed at the asset class level on a tactical basis, rather the tactical positioning should be expressed at the subasset level.

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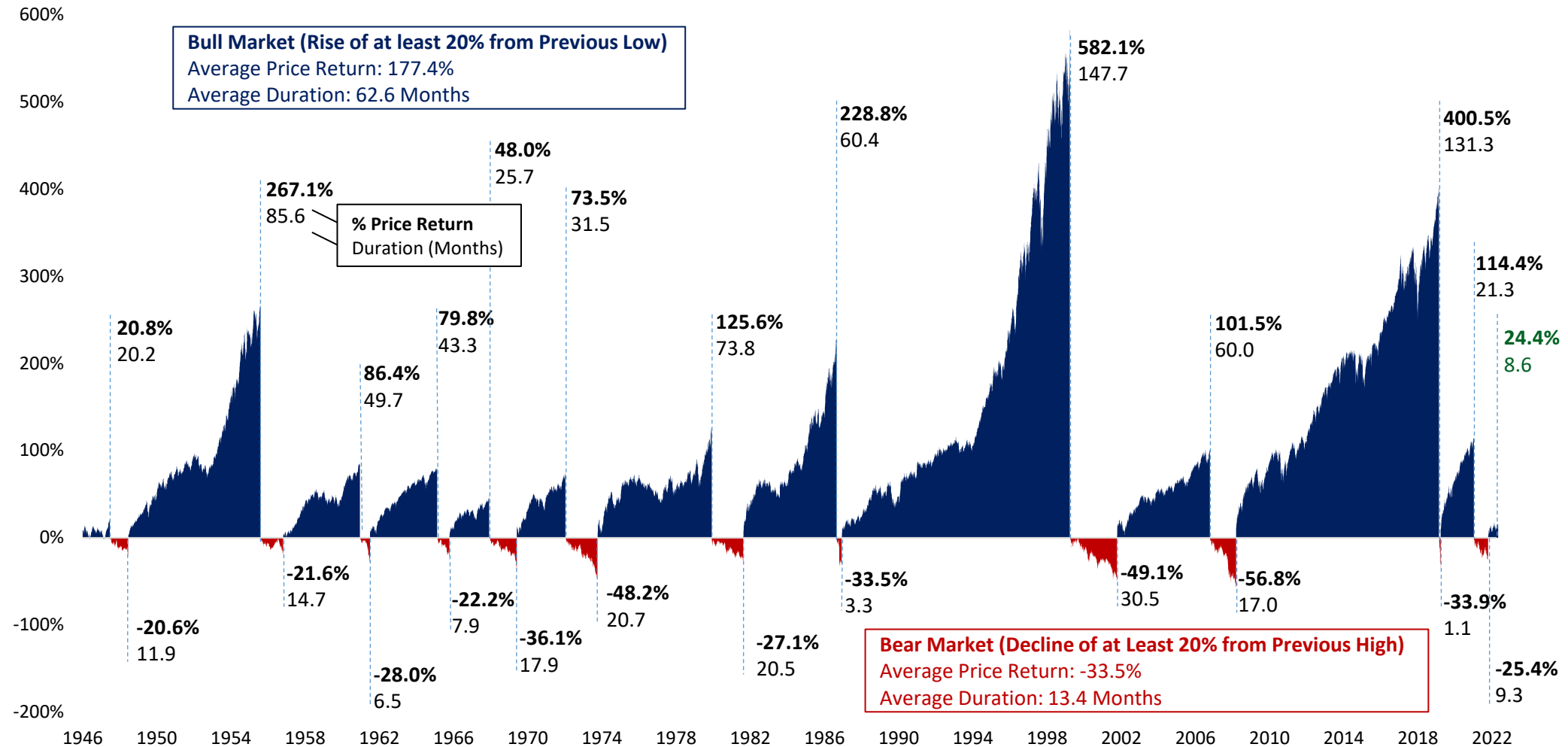


# Recoveries Follow Downturns: We Continue To Emphasize Diversification

While every cyclical bear market is different in terms of duration, declines and recoveries, every major market downturn in the past has been followed by a recovery. We continue to emphasize diversification across and within asset classes as an evergreen principle of long term investing.

**S&P 500 Period Price Return**

**A History of U.S. Equity Cyclical Bull and Bear Markets**



Asset allocation and diversification do not ensure a profit or protect against loss in declining markets. Sources: Bloomberg; Yardeni Research. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**

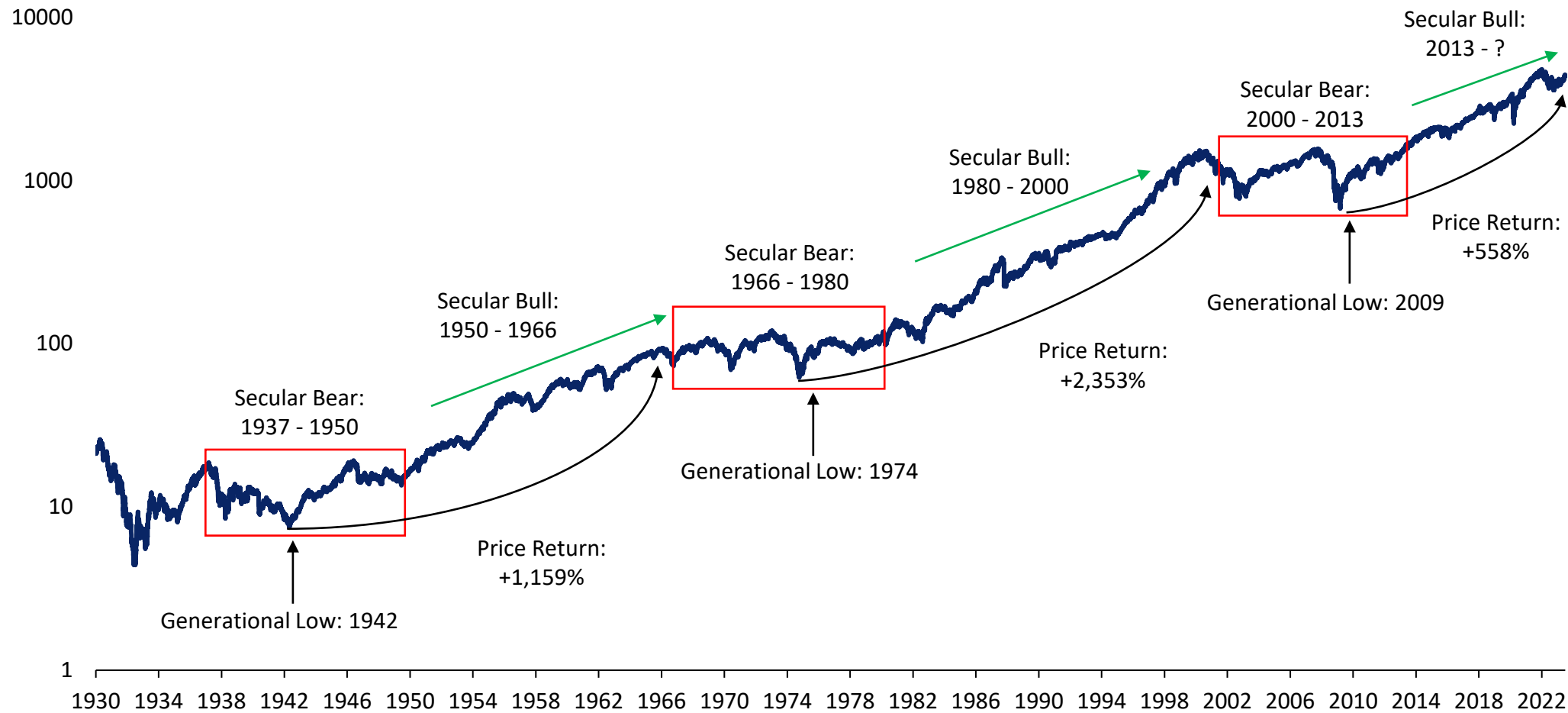


# The Secular Bull Should be Set to March On...

Secular bull markets are long term uptrends in Equities that generally undergo multiple business and market cycles. It is our view that the ongoing secular bull cycle will continue forward powered by an acceleration in innovation, the build out of domestic supply chains and high-tech manufacturing, investment toward energy transition and the rising participation of Millennials in the economy.

S&P 500 Index (Log Scale)

## A History of U.S. Equity Secular Bull and Bear Markets



Sources: Chief Investment Office, BofA Global Research; Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY.** Asset allocation and diversification do not ensure a profit or protect against loss in declining markets. Past performance is no guarantee of future results. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.

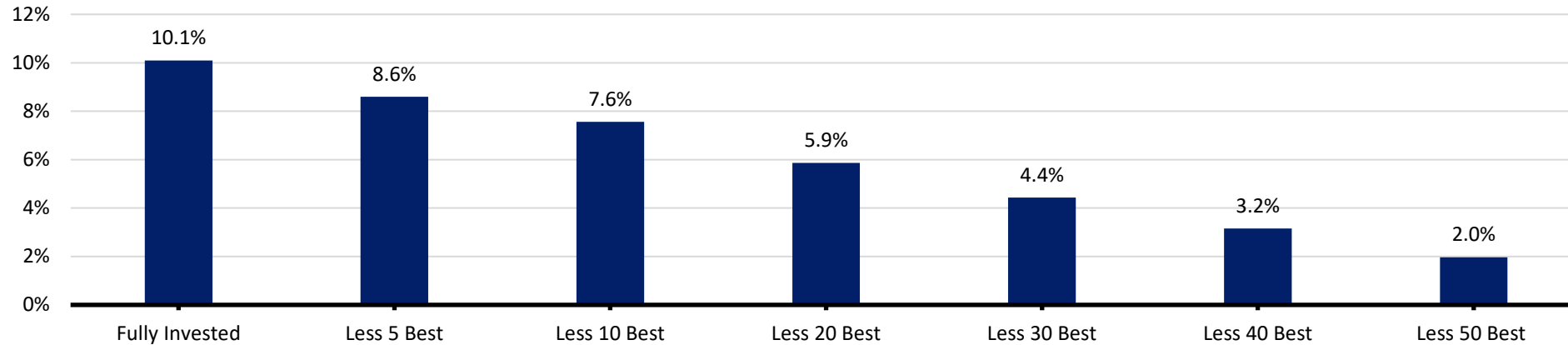


# Time in the Market Matters

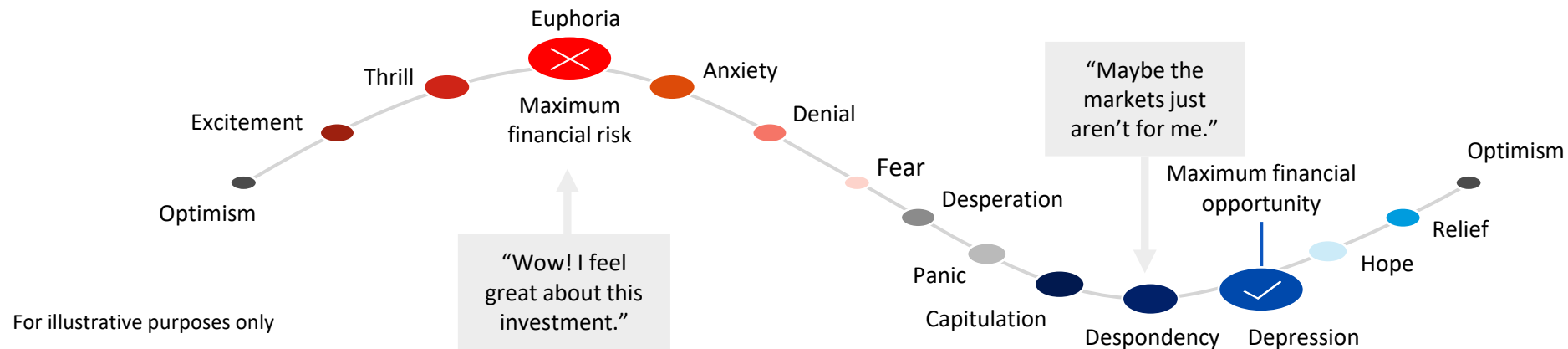
*Time in the market* is a necessary ingredient for a successful investment strategy, opposed to *timing the market*. In an attempt to invest at the “perfect time,” investors are likely to impair their returns. Indiscriminately pulling back from the market due to the market volatility could negatively effect portfolios and financial plans.

Excluding the best days of performance for the S&P 500 drastically cuts down returns.

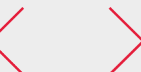
S&P 500 Compound Annual Growth Rate  
January 1, 1990 - June 30, 2023



Planning can help avoid making emotional investing decisions.

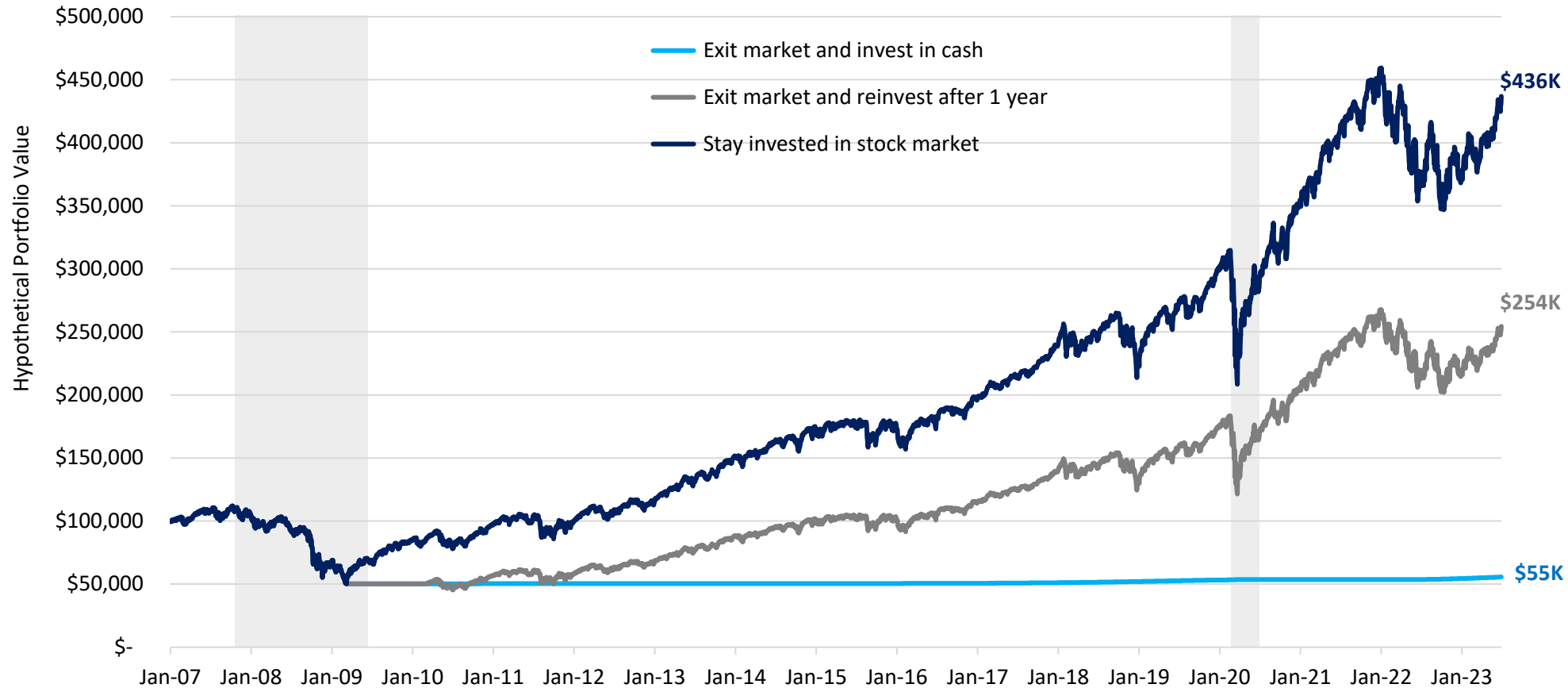


Sources: (Upper) Bloomberg, Chief Investment Office. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY.** Data reflects S&P 500 Total Return Index performance going back to 1990 incrementally omitting top performing days. (Lower) Westcore Funds/Denver Investment Advisors LLC. 1998. June 30, 2023. **Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for asset class proxies and index definitions.**



# Staying the Course Can Help Deliver Better Outcomes

Professionally managed investment solutions that stay invested in the market throughout periods of uncertainty may help achieve better long term outcomes.



Source: Bloomberg. Data as of June 30, 2023. Gray areas represent recession periods. The market is represented by the S&P 500 Index. Cash is represented by the ICE BofA U.S. 3-Month Treasury Bill Index. For illustrative purposes only and not indicative of any investment. The data assumes reinvestment of income and does not account for taxes or transaction costs. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class disclosures and index definitions.**





# CIO Thematic Investing



## Demographics

- Millennials
- Gen Z
- Emerging Market Consumer
- Bottom Billions
- Longevity



## Big Data

- Artificial Intelligence
- Data Analytics
- Internet of Things (IoT)
- Cloud Computing
- Data Centers/Storage



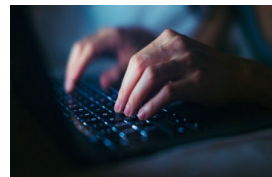
## Climate Change

- Clean Energy/Renewables
- Nuclear
- Water / Waste Management
- Energy Efficiency
- Energy Storage & Distribution



## Future Mobility

- EVs & Battery Value Chain
- Next-Gen Infrastructure
- Smart Cities
- Autonomous Vehicles
- Drones



## Security

- Cybersecurity
- Payments/IoT Protection
- Space
- Data Privacy/Surveillance
- Aerospace & Defense



## Post-Crisis World

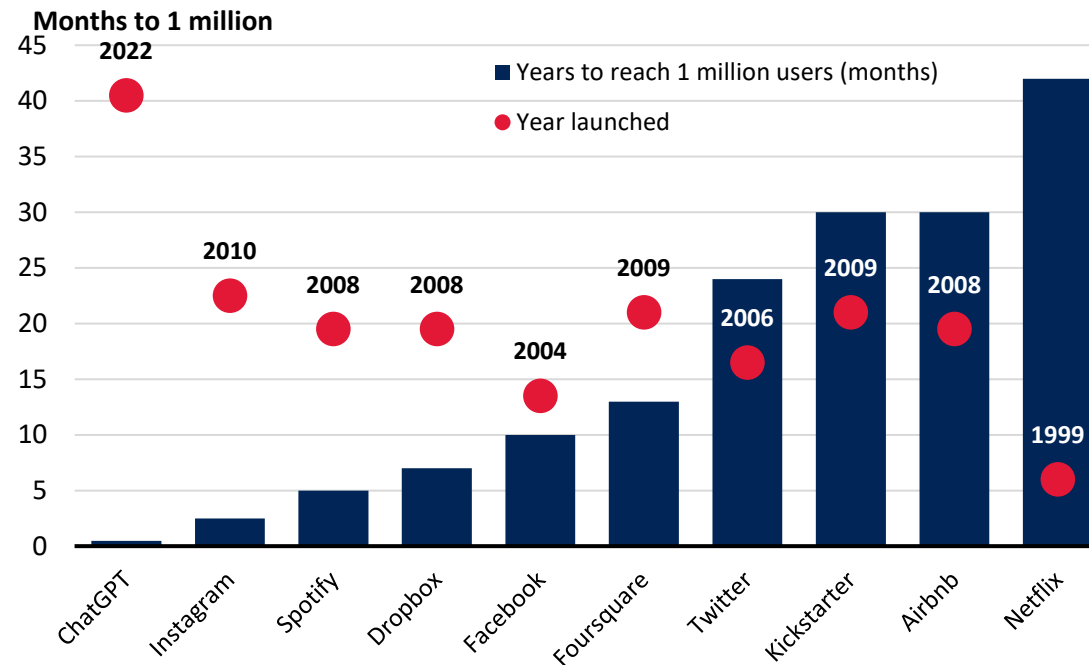
- Tri-Polar Supply Chains
- Industrial/Service Automation (Robotics)
- Resource Markets: Agriculture, Commodities, etc.
- Metals & Mining
- Hard Assets/Inflation Beneficiaries

Taking the long view, we believe the following themes and subthemes are important structural forces in the world. These themes are transformational and carry long-term implications for economic growth, the cost of capital and global earnings. Gaining exposure to these themes is a key ingredient to investing, in our view.

## Artificial Intelligence

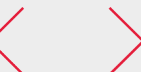
The machines are coming (again) and this time, fast. Generative Artificial Intelligence (GAI) was all the rage over the second quarter of 2023. The prospect that a machine can generate work across industry—not just coding, but draft college papers and a law brief, to marketing materials—could collapse the cost of creation to (near) zero, and thus potentially generate economic value. The GAI promise has contributed to narrow breadth in the Equity markets in search of Artificial Intelligence beneficiaries. The investment case: Best-in-breed in this new growth area could be considered high-quality overall.

### The Adoption Curve Accelerates



Kickstarter users = 1 million backers, Airbnb = one million nights booked, Instagram and Foursquare = one million downloads. Source: BofA Global Research. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY.**

Please refer to appendix for important disclosures.



# Potential Diversification Benefits of Thematic-orientated Sustainable and Impact Investments

In addition to providing the capital needed to develop new markets and new solutions, thematic-oriented strategies also may be diversifying to a portfolio. Many themes can have either low or no correlation to each other, which implies that adding themes to a traditionally balanced portfolio could offer additional sources of both return and risk.

**Thematic investments do differ from the more diversified sustainable and impact strategies and tend to have a more defined set of outcomes, if not a direct impact objective. However, due to the fact that these investments tend to target one or a handful of themes, there can be a smaller universe of companies or issuers in which to invest. As a result, outcome- or impact-oriented strategies have the potential for outsized returns as they tend to be in new or higher-growth parts of the market, but often with a higher volatility of return, especially in the public markets and over shorter time periods.**

	Affordable housing	Alternative energy	Clean water and sanitation	Digital divide	Education and job training	Financial inclusion	Health	Multi-theme	Resource efficiency	Resource stewardship	Safety and security	Sustainable agriculture and nutrition
Affordable housing	1.00											
Alternative energy	0.17	1.00										
Clean water and sanitation	0.17	0.23	1.00									
Digital divide	0.33	0.13	0.24	1.00								
Education and job training	0.12	0.18	0.18	0.18	1.00							
Financial inclusion	0.49	0.24	0.18	0.28	0.27	1.00						
Health	-0.06	0.20	-0.05	-0.05	0.19	0.00	1.00					
Multi-theme	0.16	0.20	0.08	0.10	0.18	0.29	0.19	1.00				
Resource efficiency	0.16	0.55	0.27	0.11	0.21	0.27	0.18	0.31	1.00			
Resource stewardship	0.17	0.29	0.35	0.20	0.03	0.08	0.03	0.18	0.47	1.00		
Safety and security	-0.15	0.19	-0.19	-0.17	0.04	-0.02	0.46	0.16	0.15	-0.04	1.00	
Sustainable agriculture and nutrition	0.27	0.16	0.08	0.31	0.05	0.11	0.13	0.16	0.17	0.29	0.03	1.00

Source: Wellington Management, 12/1/2015-12/31/2022, updated annually. Equally weighted portfolios were constructed representing each one of the 10 themes in Wellington Management's proprietary impact investing universe, which consists of public companies identified as impact companies. The portfolios included each company held in their respective theme. Correlations for each thematic portfolio were determined by calculating the one-year rolling weekly excess return over the MSCI All Country World Index. Cross correlations of the excess returns were then computed. **FOR INFORMATIONAL PURPOSES ONLY. There is no guarantee that sustainable and impact investments that apply Environmental, Social and Governance ("ESG") strategies will be successful.** There are many factors to take into consideration when building an investment portfolio and it's important to remember ESG factors are only one component to potentially consider and should always be used alongside fundamental analysis. **Past performance is no guarantee of future results.**

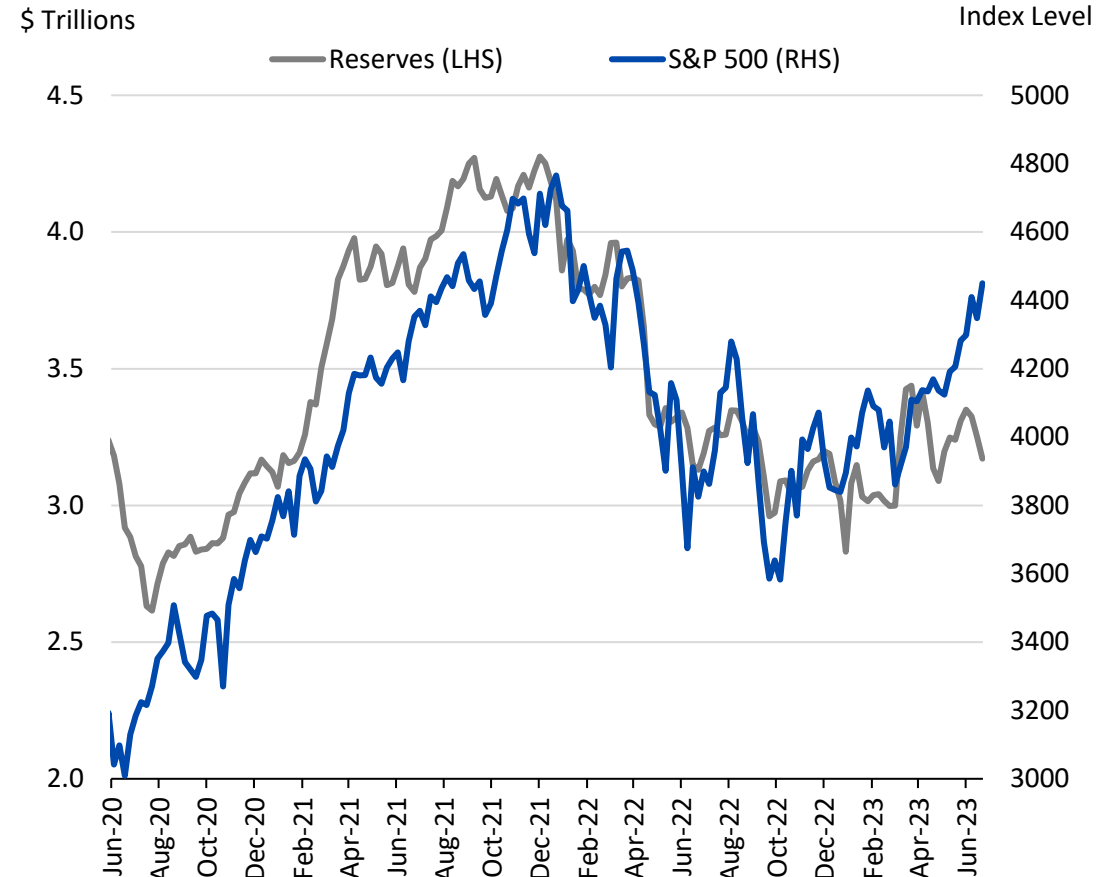
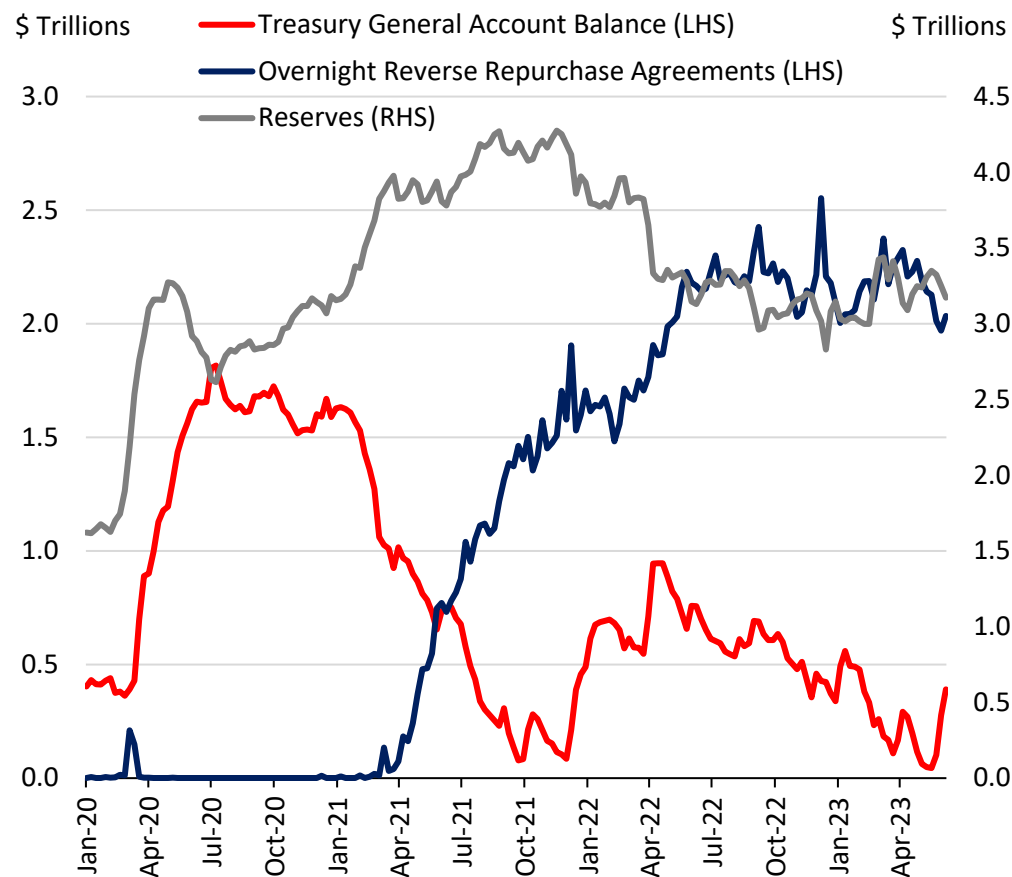


# Liquidity Set to Tighten

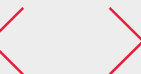
Now that the debt ceiling extension has been passed, a drain on liquidity is likely, as the Treasury needs to increase its cash account. Increasing the Treasury General Account drains money from the broader markets, with various degrees of impact on risk assets depending on the source of funds used. There are two general sources of funds: money market funds (MMFs) can draw from their Federal Reserve “checking account” (reverse repurchase program (ON RRP)) or MMFs/others can draw from the commercial banking system, which will effect bank’s “checking accounts” at the Fed (reserves).

**The Treasury General Account will be replenished in the coming months.**

**The more funds that come from reserves and not the ON RRP, the more likely that is to create market volatility.**



Sources: Federal Reserve, Bloomberg. Data as of June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class proxies, index definitions and important disclosures.**

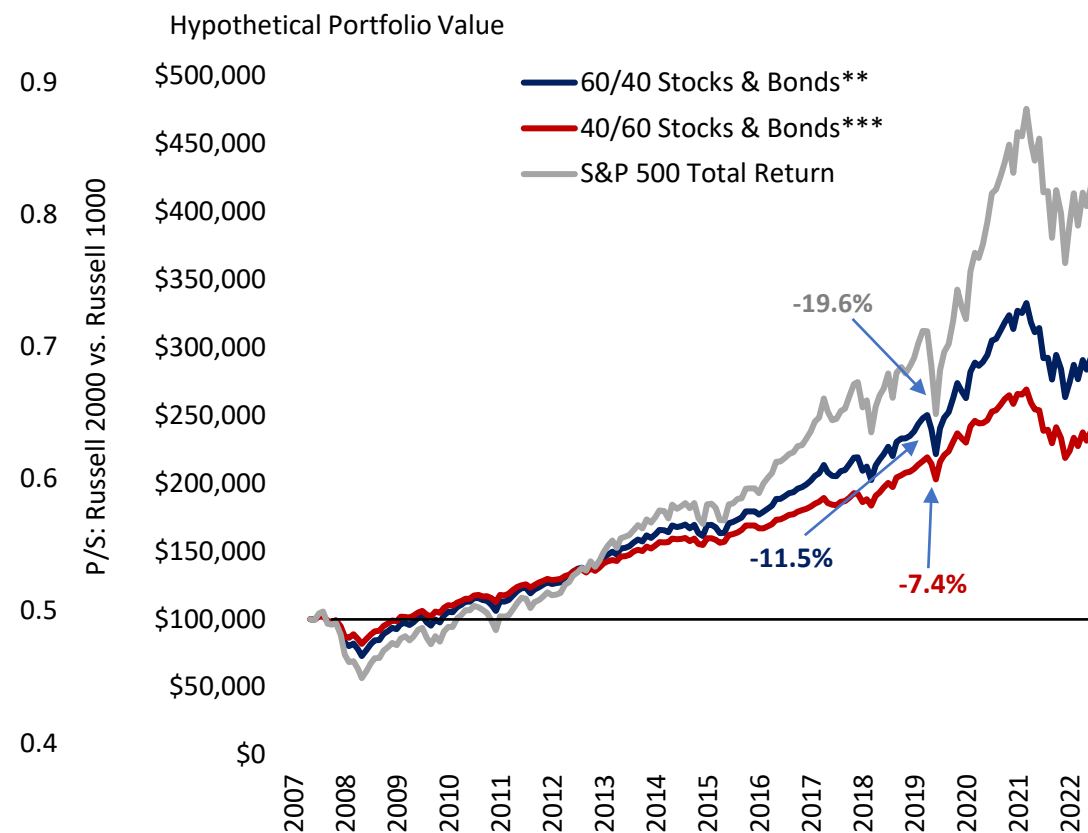
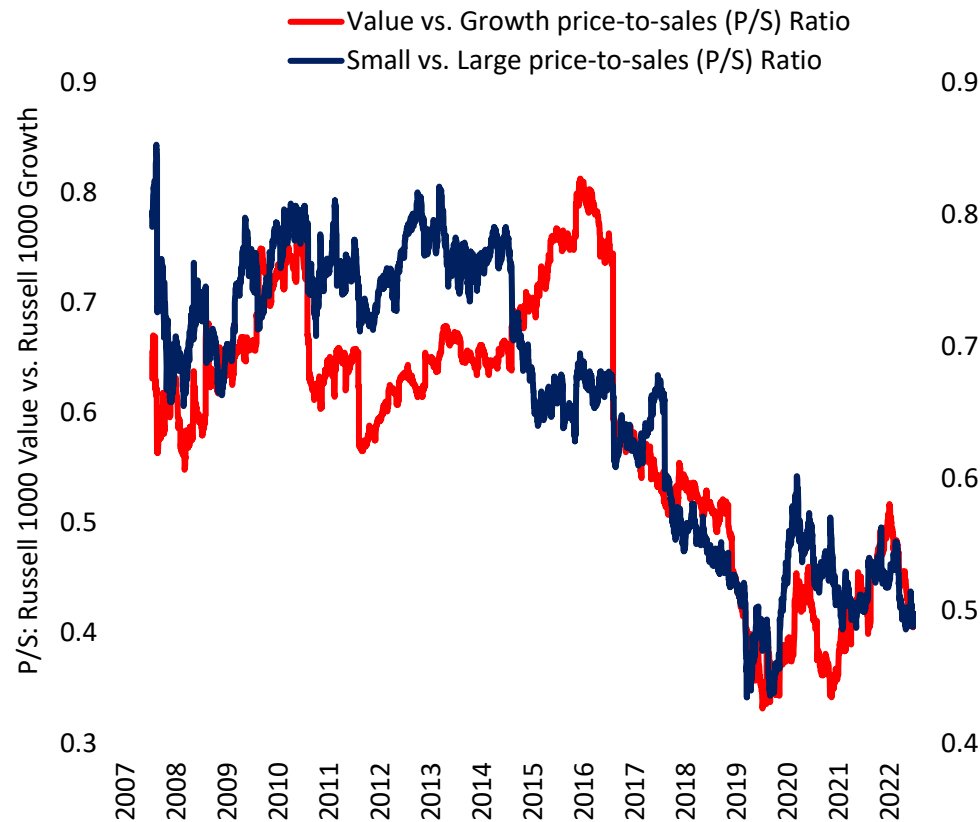


# Continue With A Balanced Approach as Oceans Collide

We believe in a well diversified portfolio as the macroeconomic environment continues to shift over the next several months, with appropriate exposures to both Growth and Value factors, Small-caps and Large-caps, and Equities and Fixed Income.

Well diversified portfolios should include exposure to both Value and Small-caps, both of which currently maintain relatively attractive valuations.

Diversification benefits have helped balanced portfolios see more muted drawdowns during previous market declines.



Sources: (Left) Bloomberg. Data as of June 30, 2023. (Right) Bloomberg. Data as of June 30 2023. Dates referenced for highlighted drawdown period: 1/31/2020 – 3/31/2020. \*\*Bloomberg U.S. Equity: Fixed Income 60:40 Index. \*\*\*Bloomberg U.S. Equity: Fixed Income 40:60 Index. **FOR INFORMATIONAL PURPOSES ONLY. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class disclosures and index definitions.**



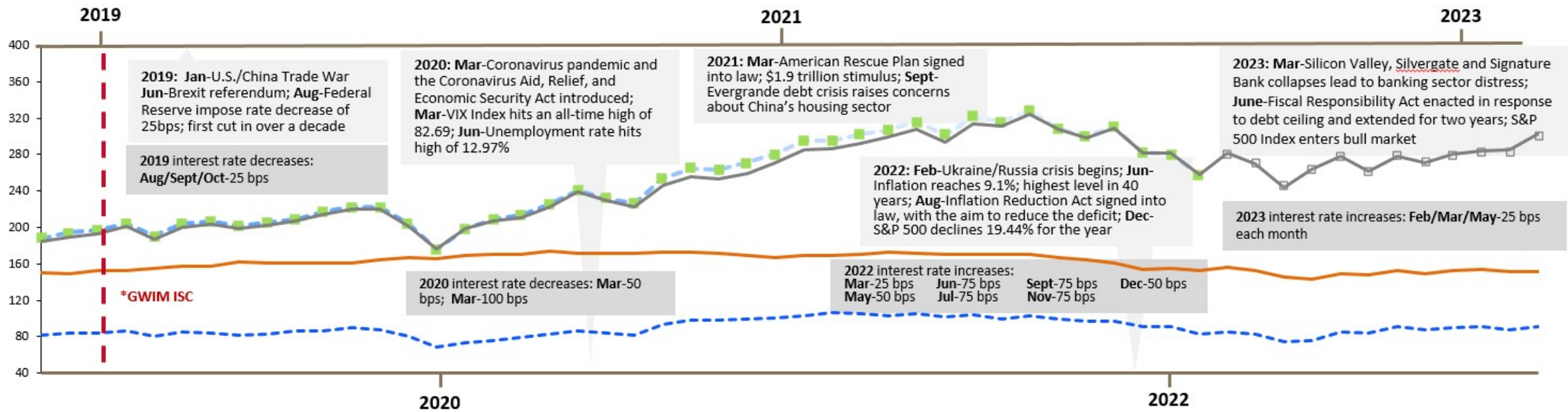
# Investment Strategy Committee Tactical Strategy Timeline

GWIM ISC Tactical Shifts

**2019:** Lowered Int'l Dev. Markets exposure to slightly UW; added the balance to U.S. Large-cap Equities to maintain our overall Equity exposure; lowered allocation to global Equities, both Int'l Dev. and EMs, in favor of cash and further increased U.S. Large-cap Equities relative to the rest of the world.

**2021:** Rebalanced from Equities into bonds in line with our tactical weights following market drifts. Upgraded Materials to a slight OW and RE to a slight UW. Raised Energy to a slight OW; lowered Technology to a slight OW; lowered Consumer Staples to full UW. Raised Equities slightly, and lowered Cash allocation; upgraded U.S. Small-cap Value to slight OW, and EMs to neutral; lowered U.S. Large-caps to slight overweight; raised Mortgage-backed Securities (MBS) to neutral; further lowered U.S. Treasuries. Upgraded Financials and Industrials to slight OW; upgraded Materials to Neutral; lowered Consumer Staples to slight UW.

**2023: Apr:** lowered Equity sector Financials to neutral; Real Estate to slight underweight; raising Communication Services to neutral. **Mar:** lowered Investment-grade Tax Exempt bonds to slight underweight and added to our Investment-grade Taxable position which was already a slight overweight. **Jan:** shifted to neutral tactical positioning overall, and adjusted our Fixed Income allocation to neutral. Within U.S. Equities sectors, upgraded Healthcare to overweight, and lowered Real Estate to Neutral



GWIM ISC Tactical Shifts

**2020:** Upgraded Int'l Dev. Market Equities, specifically Europe, to neutral; reduced the magnitude of the OW for U.S. Large-cap Equities; lowered EMs allocation to UW; U.S. Mortgages to slightly UW; increased corporate investment-grade (IG) to a slight OW; raised EM Equities to neutral; reduced large UW to Int'l Dev. Markets Equities in half, but remained slightly UW relative to long-term, strategic allocations.

**2022:** Raised Fixed Income allocation to a slight OW and funded it from Cash; raised U.S. Investment-grade Taxable to a slight OW and International bonds to neutral. Lowered Equities to neutral from slight OW by lowering U.S. Small-cap stocks; increased U.S. IG Taxable to neutral within Fixed Income; decreased Materials to slight UW; increased Consumer Staples to neutral and Utilities to slight OW; lowered Consumer Discretionary to UW. Lowered Equity (European) to OW and Int. Dev. To slightly UW. Proceeds added to cash and Fixed Income. Increased RE and Healthcare to slight OW; increased Utilities to neutral; Decreased Consumer Discretionary to slight UW; Technology and Industrials down to neutral; Communication Services down to UW. Reduced our allocation to MBS from neutral to slightly UW, with the proceeds moved to IG corporate bonds.

**Legend**

- S&P 500 Price Index
- - - MSCI All-Country World Price Index (ex U.S.)
- Bloomberg U.S. Aggregate Bond Index

**Tactical Weight in All U.S. Equities**

- Overweight
- Slightly Overweight
- Neutral
- Slightly Underweight
- Underweight

Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC). S&P 500, MSCI All-Country World Price Index (ex-U.S.) and Bloomberg US Aggregate Bond Index are all normalized at a level of 100 as of 12/31/2019

— U.S. Trust Investment Strategy Committee prior to 2018 and from 2018 as GWIM ISC. Sources: GWIM ISC as of July 11, 2023. Data: FactSet as of June 30, 2023. **Past performance is no guarantee of future results. Please refer asset class proxies, asset class disclosures and index definitions at the end of this presentation. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Please refer to appendix for asset class proxies and index definitions.**



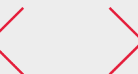
# Economic Forecasts & Asset Class Performance

7/10/2023	2022A	Q1 2023A	Q2 2023E	Q3 2023E	Q4 2023E	2023E
Real global GDP (% y/y annualized)	3.6*	-	-	-	-	3.0
Real U.S. GDP (% q/q annualized)	2.1	2.0	1.5	1.0	0.5	1.8
CPI inflation (% y/y)	8.0	5.8	4.1	3.3	2.9	4.0
Core CPI inflation (% y/y)	6.1	5.6	5.3	4.6	4.0	4.8
Unemployment rate (%)	3.6	3.5	3.6	3.7	3.9	3.7
Fed funds rate, end period (%)	4.33	4.83	5.13	5.63	5.63	5.63

The forecasts in the table above are the base line view from BofA Global Research team. The Global Wealth & Investment Management (GWIM) Investment Strategy Committee (ISC) may make adjustments to this view over the course of the year and can express upside/downside to these forecasts.

A=Actual. E/=Estimate.

Sources: BofA Global Research; GWIM ISC as of July 11, 2023. **FOR INFORMATIONAL PURPOSES ONLY.** BofA Global Research is research produced by BofA Securities, Inc. ("BofAS") and/or one or more of its affiliates. BofAS is a registered broker-dealer, Member SIPC, and wholly owned subsidiary of Bank of America Corporation. There can be no assurance that the forecasts will be achieved. There is no guarantee that this trend will continue. **Please refer to appendix for glossary and important disclosures.**



# U.S.-Oriented Investor Historical Asset Class Performance

Key Market Index Returns, 2013 – Q2 2023, Highest to Lowest

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
US Large cap Value 13.45%	US Large cap Growth 5.67%	US Small cap Value 31.74%	Emerging Markets 37.28%	International Fixed Income 3.17%	US Large cap Growth 36.39%	US Large cap Growth 38.49%	US Small cap Value 28.27%	Inflation 6.45%	US Large cap Growth 29.02%
US Large cap Growth 13.05%	US Mortgage Backed 1.46%	High Yield Fixed Income 17.34%	US Large cap Growth 30.21%	Cash 1.87%	US Small cap Growth 28.48%	US Small cap Growth 34.63%	US Large cap Growth 27.60%	Cash 1.46%	US Small cap Growth 13.55%
International Fixed Income 9.07%	International Fixed Income 1.35%	US Large cap Value 17.34%	International Equity 24.21%	Inflation 1.68%	US Large cap Value 26.54%	Emerging Markets 18.31%	US Large cap Value 25.16%	US Large cap Value -7.54%	International Equity 11.29%
US Corporate Master 7.51%	U.S. Government & Quasi 0.84%	US Small cap Growth 11.32%	US Small cap Growth 22.17%	US Mortgage Backed 1.00%	International Equity 22.49%	60/40 Allocations 12.76%	International Equity 12.62%	High Yield Fixed Income -11.10%	60/40 Allocations 9.20%
US Mortgage Backed 6.07%	Inflation 0.73%	Emerging Markets 11.19%	60/40 Allocations 15.80%	U.S. Government & Quasi 0.83%	US Small cap Value 22.39%	US Corporate Master 9.81%	60/40 Allocations 10.51%	US Mortgage Backed -11.88%	High Yield Fixed Income 5.34%
U.S. Government & Quasi 5.88%	Cash 0.05%	US Large cap Growth 7.08%	US Large cap Value 13.66%	US Large cap Growth -1.51%	60/40 Allocations 19.45%	U.S. Government & Quasi 8.16%	Inflation 7.04%	International Fixed Income -11.89%	US Large cap Value 5.12%
US Small cap Growth 5.60%	US Corporate Master -0.63%	US Corporate Master 5.96%	US Small cap Value 7.84%	US Corporate Master -2.25%	Emerging Markets 18.42%	International Equity 7.59%	High Yield Fixed Income 5.29%	U.S. Government & Quasi -12.74%	Emerging Markets 4.89%
60/40 Allocations 4.88%	60/40 Allocations -1.20%	60/40 Allocations 5.78%	High Yield Fixed Income 7.48%	High Yield Fixed Income -2.26%	High Yield Fixed Income 14.40%	High Yield Fixed Income 6.20%	US Small cap Growth 2.83%	International Equity -14.29%	International Fixed Income 3.24%
US Small cap Value 4.22%	US Small cap Growth -1.38%	International Fixed Income 5.19%	US Corporate Master 6.48%	60/40 Allocations -5.64%	US Corporate Master 14.23%	US Small cap Value 4.63%	Cash 0.05%	US Small cap Value -14.48%	US Corporate Master 3.23%
High Yield Fixed Income 2.45%	International Equity -3.04%	International Equity 2.75%	International Fixed Income 2.51%	US Large cap Value -8.27%	International Fixed Income 7.57%	International Fixed Income 4.20%	US Corporate Master -0.95%	US Corporate Master -15.44%	US Small cap Value 2.50%
Inflation 0.76%	US Large cap Value -3.83%	Inflation 2.07%	US Mortgage Backed 2.45%	US Small cap Growth -9.31%	U.S. Government & Quasi 6.95%	US Mortgage Backed 4.09%	US Mortgage Backed -1.21%	60/40 Allocations -16.22%	Inflation 2.34%
Cash 0.03%	High Yield Fixed Income -4.55%	US Mortgage Backed 1.67%	U.S. Government & Quasi 2.42%	US Small cap Value -12.86%	US Mortgage Backed 6.51%	US Large cap Value 2.80%	International Fixed Income -1.67%	Emerging Markets -20.09%	Cash 2.24%
Emerging Markets -2.19%	US Small cap Value -7.47%	U.S. Government & Quasi 1.15%	Inflation 2.24%	International Equity -14.09%	Inflation 2.29%	Inflation 1.30%	U.S. Government & Quasi -2.33%	US Small cap Growth -26.36%	US Mortgage Backed 1.92%
International Equity -4.32%	Emerging Markets -14.92%	Cash 0.33%	Cash 0.86%	Emerging Markets -14.58%	Cash 2.28%	Cash 0.67%	Emerging Markets -2.54%	US Large cap Growth -29.14%	U.S. Government & Quasi 1.63%

Source: Morningstar Direct & CIA System. Income and dividends are included in all returns figures. Excludes alternative investments. 60/40 Allocations is a blend of 60% MSCI ACWI NR USD and 40% Bloomberg US Aggregate Bond TR USD. Performance of 60/40 Allocations is intended to illustrate the effect of asset allocation and diversification. It is not an advertisement or representation of any investment advisory products or services offered by Merrill. Data as of \*June 30, 2023. **FOR INFORMATIONAL PURPOSES ONLY. Results shown are based on an index and are illustrative; they assume reinvestment of income and no transaction costs or taxes. Indexes are unmanaged. Direct investment cannot be made in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class and sector proxies, methodology and important disclosures.**

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[PORTFOLIO STRATEGY](#)

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[APPENDIX](#)

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# U.S.-Oriented Investor Historical Asset Class Volatility

Annualized Standard Deviations of Key Asset Classes 2013 – Q2 2023,  
Highest to Lowest

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
US Small cap Growth 15.45%	Emerging Markets 16.91%	US Small cap Growth 18.40%	US Small cap Value 9.27%	US Small cap Growth 20.17%	US Small cap Growth 17.57%	US Small cap Value 37.31%	US Large cap Growth 13.16%	US Small cap Growth 25.56%	US Small cap Value 20.92%
US Small cap Value 14.81%	US Small cap Growth 15.81%	US Small cap Value 17.05%	Emerging Markets 6.26%	US Small cap Value 17.23%	US Small cap Value 17.49%	US Small cap Growth 32.98%	US Small cap Value 12.96%	US Large cap Growth 24.81%	US Small cap Growth 17.07%
Emerging Markets 13.01%	International Equity 14.47%	Emerging Markets 17.02%	US Small cap Growth 5.71%	US Large cap Growth 16.69%	Emerging Markets 15.75%	US Large cap Value 27.59%	US Small cap Growth 12.46%	US Small cap Value 24.65%	Emerging Markets 15.95%
International Equity 9.33%	US Large cap Growth 13.45%	International Equity 12.57%	US Large cap Value 5.20%	Emerging Markets 14.79%	US Large cap Value 12.94%	International Equity 25.77%	US Large cap Value 12.00%	Emerging Markets 20.70%	International Equity 14.55%
US Large cap Growth 8.90%	US Small cap Value 12.40%	US Large cap Value 10.65%	US Large cap Growth 4.38%	US Large cap Value 13.50%	US Large cap Growth 12.84%	US Large cap Growth 25.44%	Emerging Markets 10.61%	International Equity 20.43%	US Large cap Value 13.84%
US Large cap Value 7.94%	US Large cap Value 12.38%	US Large cap Growth 10.55%	International Equity 3.72%	International Equity 11.84%	International Equity 11.14%	Emerging Markets 24.95%	International Equity 9.60%	US Large cap Value 20.35%	US Large cap Growth 11.85%
60/40 Allocations 5.31%	60/40 Allocations 7.71%	60/40 Allocations 6.44%	High Yield Fixed Income 2.11%	60/40 Allocations 7.57%	60/40 Allocations 7.06%	High Yield Fixed Income 14.70%	60/40 Allocations 5.91%	60/40 Allocations 14.47%	60/40 Allocations 9.66%
High Yield Fixed Income 4.32%	High Yield Fixed Income 6.16%	High Yield Fixed Income 5.76%	International Fixed Income 2.07%	U.S. Government & Quasi 3.52%	High Yield Fixed Income 4.90%	60/40 Allocations 14.65%	US Corporate Master 3.82%	High Yield Fixed Income 11.38%	US Corporate Master 7.86%
US Corporate Master 2.92%	U.S. Government & Quasi 3.78%	US Corporate Master 4.72%	60/40 Allocations 1.77%	High Yield Fixed Income 3.49%	U.S. Government & Quasi 4.55%	US Corporate Master 10.42%	U.S. Government & Quasi 3.62%	US Corporate Master 9.98%	U.S. Government & Quasi 6.74%
U.S. Government & Quasi 2.27%	US Corporate Master 3.69%	U.S. Government & Quasi 4.42%	U.S. Government & Quasi 1.71%	US Corporate Master 3.00%	US Corporate Master 3.72%	U.S. Government & Quasi 4.79%	International Fixed Income 2.94%	US Mortgage Backed 9.01%	US Mortgage Backed 6.49%
US Mortgage Backed 2.19%	International Fixed Income 2.96%	International Fixed Income 3.19%	US Corporate Master 1.67%	US Mortgage Backed 2.87%	International Fixed Income 3.17%	International Fixed Income 3.46%	High Yield Fixed Income 2.52%	U.S. Government & Quasi 6.50%	High Yield Fixed Income 5.97%
International Fixed Income 1.54%	US Mortgage Backed 1.43%	US Mortgage Backed 2.33%	US Mortgage Backed 1.28%	International Fixed Income 1.56%	US Mortgage Backed 1.82%	US Mortgage Backed 1.42%	US Mortgage Backed 1.32%	International Fixed Income 6.32%	International Fixed Income 3.73%
Inflation 1.27%	Inflation 1.16%	Inflation 0.70%	Inflation 0.72%	Inflation 0.96%	Inflation 0.73%	Inflation 1.12%	Inflation 0.81%	Inflation 1.94%	Inflation 1.00%
Cash 0.01%	Cash 0.03%	Cash 0.05%	Cash 0.09%	Cash 0.10%	Cash 0.10%	Cash 0.30%	Cash 0.01%	Cash 0.43%	Cash 0.15%

Source: Morningstar Direct & CIA System. 60/40 Allocations is a blend of 60% MSCI ACWI NR USD and 40% Bloomberg US Aggregate Bond TR USD. Performance of 60/40 Allocations is intended to illustrate the effect of asset allocation and diversification. It is not an advertisement or representation of any investment advisory products or services offered by Merrill. \*Data as of June 30, 2023. Standard deviation is a statistical measurement of the range of an asset class's total returns over the respective calendar years. In general, a higher standard deviation means greater volatility. All volatility figures are based on monthly returns. **FOR INFORMATIONAL PURPOSES ONLY. Results shown are based on an index and are illustrative. Indexes are unmanaged. Direct investment cannot be made in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class and sector proxies, methodology and important disclosures.**

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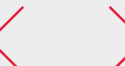
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# U.S. Equities

## Historical Sector Performance

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
Energy 31.54%	Energy 31.37%	Real Estate 41.48%	Energy 34.40%	Cons Staples -15.43%	Technology 61.72%	Real Estate 32.32%	Utilities 19.91%	Financials 28.81%	Cons Disc 43.08%	Real Estate 30.19%	Cons Disc 10.11%	Energy 27.36%	Technology 38.83%	Health Care 6.47%	Technology 50.29%	Technology 43.89%	Energy 54.64%	Energy 65.72%	Technology 42.77%
Real Estate 28.79%	Utilities 16.84%	Comm Svcs 36.80%	Materials 22.53%	Health Care -22.81%	Materials 48.59%	Cons Disc 27.66%	Cons Staples 13.99%	Cons Disc 23.92%	Health Care 41.46%	Utilities 28.98%	Health Care 6.89%	Comm Svcs 23.48%	Materials 23.84%	Utilities 4.11%	Comm Svcs 32.69%	Cons Disc 33.30%	Real Estate 46.19%	Utilities 1.57%	Comm Svcs 36.24%
Utilities 24.28%	Real Estate 12.56%	Energy 24.21%	Utilities 19.38%	Utilities -28.98%	Cons Disc 41.31%	Industrials 26.73%	Health Care 12.73%	Real Estate 19.74%	Industrials 40.68%	Health Care 25.34%	Cons Staples 6.60%	Financials 22.80%	Cons Disc 22.98%	Cons Disc 0.83%	Financials 32.13%	Comm Svcs 23.61%	Financials 35.04%	Cons Staples -0.62%	Cons Disc 33.06%
Comm Svcs 19.86%	Financials 6.48%	Utilities 20.99%	Technology 16.31%	Comm Svcs -30.49%	Real Estate 27.10%	Materials 22.20%	Real Estate 11.39%	Comm Svcs 18.31%	Financials 35.63%	Technology 20.12%	Technology 5.92%	Industrials 18.86%	Financials 22.18%	Technology -0.29%	Industrials 29.37%	Materials 20.73%	Technology 34.53%	Health Care -1.95%	Industrials 10.19%
Industrials 18.03%	Health Care 6.46%	Financials 19.19%	Cons Staples 14.18%	Cons Disc -33.49%	Industrials 20.93%	Energy 20.46%	Comm Svcs 6.26%	Health Care 17.89%	Technology 28.43%	Cons Staples 15.98%	Real Estate 4.68%	Materials 16.69%	Health Care 22.08%	Real Estate -2.22%	Real Estate 29.01%	Health Care 13.45%	Materials 27.28%	Industrials -5.48%	Materials 7.74%
Cons Disc 13.24%	Materials 4.42%	Cons Disc 18.64%	Industrials 12.03%	Energy -34.87%	Health Care 19.70%	Comm Svcs 18.97%	Cons Disc 6.13%	Industrials 15.35%	Cons Staples 26.14%	Financials 15.20%	Comm Svcs 3.40%	Utilities 16.28%	Industrials 21.03%	Cons Staples -8.38%	Cons Disc 27.94%	Industrials 11.06%	Health Care 26.13%	Financials -10.53%	Real Estate 3.79%
Materials 13.20%	Cons Staples 3.58%	Materials 18.63%	Comm Svcs 11.95%	Industrials -39.92%	Financials 17.22%	Cons Staples 14.11%	Energy 4.72%	Materials 14.97%	Materials 25.60%	Industrials 9.83%	Financials -1.53%	Technology 13.85%	Cons Staples 13.49%	Comm Svcs -12.53%	Cons Staples 27.61%	Cons Staples 10.75%	Cons Disc 24.43%	Materials -12.27%	Cons Staples 1.28%
Financials 10.89%	Industrials 2.32%	Cons Staples 14.36%	Health Care 7.15%	Real Estate -42.31%	Cons Staples 14.89%	Financials 12.13%	Technology 2.41%	Technology 14.82%	Energy 25.07%	Cons Disc 9.68%	Industrials -2.53%	Cons Disc 6.03%	Utilities 12.11%	Financials -13.03%	Utilities 26.35%	Utilities 0.48%	Comm Svcs 21.57%	Real Estate -26.13%	Financials -0.53%
Cons Staples 8.16%	Technology 0.99%	Industrials 13.29%	Cons Disc -13.21%	Technology -43.14%	Energy 13.82%	Technology 10.19%	Industrials -0.59%	Cons Staples 10.76%	Utilities 13.21%	Materials 6.91%	Utilities -4.84%	Cons Staples 5.38%	Real Estate 10.85%	Industrials -13.29%	Materials 24.58%	Financials -1.69%	Industrials 21.12%	Technology -28.19%	Health Care -1.48%
Technology 2.56%	Comm Svcs -5.63%	Technology 8.42%	Real Estate -17.85%	Materials -45.66%	Utilities 11.91%	Utilities 5.46%	Materials -9.75%	Energy 4.61%	Comm Svcs 11.47%	Comm Svcs 2.99%	Materials -8.38%	Real Estate 3.39%	Energy -1.01%	Materials -14.70%	Health Care 20.82%	Real Estate -2.17%	Cons Staples 18.63%	Cons Disc -37.03%	Energy -5.52%
Health Care 1.68%	Cons Disc -6.36%	Health Care 7.53%	Financials -18.63%	Financials -55.32%	Comm Svcs 8.93%	Health Care 2.90%	Financials -17.06%	Utilities 1.29%	Real Estate 1.60%	Energy -7.78%	Energy -21.12%	Health Care -2.69%	Comm Svcs -1.25%	Energy -18.10%	Energy 11.81%	Energy -33.68%	Utilities 17.67%	Comm Svcs -39.89%	Utilities -5.69%

Source: Morningstar Direct. U.S. equities represented by the S&P 500 Index GIC sectors. Returns calculated are total returns. **FOR INFORMATIONAL PURPOSES ONLY. Results shown are based on an index and are illustrative; they assume reinvestment of income and no transaction costs or taxes. Indexes are unmanaged. Direct investment cannot be made in an index. \*Data as of June 30, 2023. Past performance is no guarantee of future results. Please refer to appendix for asset class and sector proxies and important disclosures.**

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# Globally-Oriented Investor

Historical Asset Class Performance Key Market Index Returns, 2013 – Q2 2023, Highest to Lowest



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2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
North America 11.90%	Japan 9.57%	Global HY / EM 14.74%	Emerging Markets 37.28%	Global Governments 2.56%	North America 30.70%	North America 19.94%	North America 26.44%	Inflation 6.45%	North America 16.43%
Global Governments 8.15%	Global Mortgage 1.34%	North America 11.57%	Developed Europe ex-UK 26.82%	Cash 1.87%	Developed Europe ex-UK 24.81%	Emerging Markets 18.31%	United Kingdom 18.50%	Cash 1.46%	Developed Europe ex-UK 15.17%
Global Corporates 7.71%	Global Governments 1.26%	Emerging Markets 11.19%	Developed Asia Pacific ex-Japan 25.88%	Inflation 1.68%	United Kingdom 21.05%	Japan 14.48%	Developed Europe ex-UK 15.66%	United Kingdom -4.84%	Japan 13.00%
Global Mortgage 6.17%	Inflation 0.73%	Developed Asia Pacific ex-Japan 7.85%	Japan 23.99%	Global Mortgage 1.35%	Japan 19.61%	60/40 Allocations 12.76%	60/40 Allocations 10.51%	Developed Asia Pacific ex-Japan -5.94%	60/40 Allocations 9.20%
60/40 Allocations 4.88%	Cash 0.05%	Global Corporates 6.08%	United Kingdom 22.30%	Global Corporates -0.87%	60/40 Allocations 19.45%	Developed Europe ex-UK 10.91%	Inflation 7.04%	Global Mortgage -11.36%	United Kingdom 8.43%
Inflation 0.76%	Global Corporates -0.24%	60/40 Allocations 5.78%	North America 20.89%	Global HY / EM -3.83%	Emerging Markets 18.42%	Global Corporates 8.15%	Developed Asia Pacific ex-Japan 4.68%	Global Governments -12.37%	Global HY / EM 5.03%
Cash 0.03%	Developed Europe ex-UK -0.65%	Global Governments 3.70%	60/40 Allocations 15.80%	60/40 Allocations -5.64%	Developed Asia Pacific ex-Japan 18.36%	Global HY / EM 7.02%	Japan 1.71%	Global HY / EM -12.79%	Emerging Markets 4.89%
Global HY / EM -0.44%	North America -0.90%	Japan 2.38%	Global HY / EM 10.49%	North America -5.73%	Global HY / EM 13.10%	Developed Asia Pacific ex-Japan 6.55%	Global HY / EM 0.80%	Global Corporates -14.06%	Global Corporates 3.11%
Developed Asia Pacific ex-Japan -0.47%	60/40 Allocations -1.20%	Global Mortgage 2.21%	Global Corporates 5.77%	Developed Asia Pacific ex-Japan -10.30%	Global Corporates 12.51%	Global Governments 5.62%	Cash 0.05%	60/40 Allocations -16.22%	Global Governments 2.62%
Emerging Markets -2.19%	Global HY / EM -2.49%	Inflation 2.07%	Global Mortgage 2.56%	Japan -12.88%	Global Governments 7.34%	Global Mortgage 4.15%	Global Corporates -0.76%	Japan -16.65%	Inflation 2.34%
Japan -4.02%	United Kingdom -7.56%	Cash 0.33%	Global Governments 2.35%	United Kingdom -14.15%	Global Mortgage 6.48%	Cash 1.61%	Global Mortgage -1.06%	Developed Europe ex-UK -17.96%	Cash 2.24%
United Kingdom -5.39%	Developed Asia Pacific ex-Japan -8.47%	United Kingdom -0.10%	Inflation 2.24%	Emerging Markets -14.58%	Inflation 2.29%	Inflation 1.30%	Global Governments -2.01%	North America -19.53%	Global Mortgage 1.97%
Developed Europe ex-UK -6.55%	Emerging Markets -14.92%	Developed Europe ex-UK -0.56%	Cash 0.86%	Developed Europe ex-UK -15.14%	Cash 2.28%	United Kingdom -10.47%	Emerging Markets -2.54%	Emerging Markets -20.09%	Developed Asia Pacific ex-Japan 0.32%

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Source: Morningstar Direct and CIA System. Income and dividends are included in all returns figures. 60/40 Allocations is a blend of 60% MSCI ACWI NR USD and 40% Bloomberg US Aggregate Bond TR USD. Performance of 60/40 Allocations is intended to illustrate the effect of asset allocation and diversification. It is not an advertisement or representation of any investment advisory products or services offered by Merrill. \*Data as of June 30, 2023. FOR INFORMATIONAL PURPOSES ONLY. Results shown are based on an index and are illustrative; they assume reinvestment of income and no transaction costs or taxes. Indexes are unmanaged. Direct investment cannot be made in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class and sector proxies, methodology and important disclosures.



# Globally-Oriented Investor

## Historical Asset Class Volatility Annualized Standard Deviations of Key Asset Classes 2013 – Q2 2023, Highest to Lowest

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
Developed Asia Pacific ex-Japan 15.31%	Emerging Markets 16.91%	Emerging Markets 17.02%	Developed Asia Pacific ex-Japan 6.80%	Emerging Markets 14.79%	Emerging Markets 15.75%	Developed Asia Pacific ex-Japan 31.34%	Developed Europe ex-UK 12.83%	Developed Asia Pacific ex-Japan 23.17%	Developed Asia Pacific ex-Japan 18.43%
Emerging Markets 13.01%	United Kingdom 16.84%	Developed Asia Pacific ex-Japan 16.77%	United Kingdom 6.78%	North America 14.49%	United Kingdom 13.23%	United Kingdom 28.53%	United Kingdom 11.79%	Developed Europe ex-UK 22.63%	Developed Europe ex-UK 16.36%
Developed Europe ex-UK 12.21%	Developed Asia Pacific ex-Japan 16.23%	Developed Europe ex-UK 14.12%	Developed Europe ex-UK 6.72%	Developed Europe ex-UK 13.75%	North America 12.50%	Developed Europe ex-UK 27.18%	Emerging Markets 10.61%	North America 21.94%	Emerging Markets 15.95%
United Kingdom 11.82%	Japan 15.36%	Japan 13.37%	Emerging Markets 6.26%	Japan 12.13%	Developed Europe ex-UK 11.99%	North America 25.79%	North America 10.48%	Emerging Markets 20.70%	United Kingdom 15.26%
Japan 8.69%	Developed Europe ex-UK 14.26%	United Kingdom 11.75%	Japan 5.05%	Developed Asia Pacific ex-Japan 11.97%	Developed Asia Pacific ex-Japan 11.92%	Emerging Markets 24.95%	Developed Asia Pacific ex-Japan 10.45%	Japan 19.93%	North America 11.53%
North America 8.00%	North America 12.99%	North America 10.00%	North America 3.47%	United Kingdom 11.92%	Japan 9.29%	Japan 20.43%	Japan 6.96%	United Kingdom 19.17%	Japan 11.20%
60/40 Allocations 5.31%	60/40 Allocations 7.71%	Global HY / EM 6.45%	Global HY / EM 2.24%	60/40 Allocations 7.57%	60/40 Allocations 7.06%	Global HY / EM 17.33%	60/40 Allocations 5.91%	60/40 Allocations 14.47%	60/40 Allocations 9.66%
Global HY / EM 5.29%	Global HY / EM 6.31%	60/40 Allocations 6.44%	Global Governments 1.78%	Global HY / EM 3.98%	Global HY / EM 5.49%	60/40 Allocations 14.65%	Global HY / EM 3.77%	Global HY / EM 12.00%	Global HY / EM 6.93%
Global Corporates 2.23%	Global Corporates 3.31%	Global Corporates 3.97%	60/40 Allocations 1.77%	Global Mortgage 2.46%	Global Governments 3.68%	Global Corporates 9.29%	Global Governments 3.17%	Global Corporates 8.93%	Global Corporates 6.43%
Global Mortgage 1.83%	Global Governments 3.13%	Global Governments 3.74%	Global Corporates 1.64%	Global Governments 2.19%	Global Corporates 3.06%	Global Governments 2.71%	Global Corporates 2.95%	Global Mortgage 8.06%	Global Mortgage 5.82%
Global Governments 1.72%	Global Mortgage 1.52%	Global Mortgage 2.22%	Global Mortgage 1.23%	Global Corporates 2.13%	Global Mortgage 1.83%	Global Mortgage 1.21%	Global Mortgage 1.30%	Global Governments 5.94%	Global Governments 4.99%
Inflation 1.27%	Inflation 1.16%	Inflation 0.70%	Inflation 0.72%	Inflation 0.96%	Inflation 0.73%	Inflation 1.12%	Inflation 0.81%	Inflation 1.94%	Inflation 1.00%
Cash 0.01%	Cash 0.03%	Cash 0.05%	Cash 0.09%	Cash 0.10%	Cash 0.10%	Cash 0.30%	Cash 0.01%	Cash 0.43%	Cash 0.15%

Source: Morningstar Direct & CIA System. 60/40 Allocations is a blend of 60% MSCI ACWI NR USD and 40% Bloomberg US Aggregate Bond TR USD. Performance of 60/40 Allocations is intended to illustrate the effect of asset allocation and diversification. It is not an advertisement or representation of any investment advisory products or services offered by Merrill. Data as of June 30, 2023. Standard deviation is a statistical measurement of the range of an asset class's total returns over the respective years. In general, a higher standard deviation means greater volatility. All volatility figures are based on monthly returns. **FOR INFORMATIONAL PURPOSES ONLY. Results shown are based on an index and are illustrative. Indexes are unmanaged. Direct investment cannot be made in an index. Past performance is no guarantee of future results. Please refer to appendix for glossary, asset class and sector proxies, methodology and important disclosures.**

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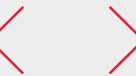
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# Glossary

**Alpha** is a measure of the active return on an investment, the performance of that investment compared with a suitable market index.

**Capital Expenditures (CapEx)** is money spent by a business or organization on acquiring or maintaining fixed assets, such as land, buildings, and equipment.

**Dividend** is the distribution of some of a company's earnings to a class of its shareholders, as determined by the company's board of directors.

**Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA)** is a measure of a company's overall financial performance and is used as an alternative to net income in some circumstances.

**Earnings Per Share (EPS) Growth** is an illustration of the growth of earnings per share over time, this profitability metric is often depicted in a year-over-year fashion.

**Emerging Market** is a country that is progressing toward becoming advanced, as shown by some liquidity in local debt and Equity markets and the existence of some form of market exchange and regulatory body.

**Equity Risk Premium** is an equal to the difference between the rate of return received from riskier Equity investments (e.g. S&P 500) and the return of risk-free securities.

**Equal Weighted** is a proportional measure that gives the same importance to each stock in a portfolio or index fund, regardless of a company's size.

**Factor Investing** is an investment strategy that tends to target specific drivers of asset class returns (such as earnings growth, for example) while also often enhancing diversification and reducing volatility.

**High Yield Leverage Debt** is a bank loan to a company that has a large amount of debt.

**Inflation** refers to a general progressive increase in prices of goods and services in an economy.

**GDP - Nominal: Gross Domestic Product (GDP)** equals the total income of everyone in the economy or the total expenditure on the economy's good and services. GDP includes only the value of final goods and services. Nominal GDP measures the value of goods and services at current dollar prices.

**GDP - Real: The chain-weighted GDP** measure of goods and services at constant dollar prices. The base year changes continuously over time (e.g., 1995, process measures real growth from 1995 to 1996). The figures are then linked to a chain that can compare goods and services in any two years. Chain-weighted figures never let prices get too far out of date.

**Growth** is a style of investment strategy focused on capital appreciation. Those who follow this style, known as growth investors, invest in companies that exhibit signs of above-average growth, even if the share price appears expensive

**Momentum Investing** is a system of buying stocks or other securities that have had high returns over the past three to twelve months, and selling those that have had poor returns over the same period.

**Option-adjusted spread (OAS)** is the measurement of the spread of a fixed-income security rate and the risk-free rate of return, which is then adjusted to take into account an embedded option.

**Price/Earnings (P/E) Ratio** is the ratio of the price of a stock and the company's earnings per share, this valuation metric is often quoted on a forward twelve month or trailing twelve month basis.

**Price-to-Book Ratio** compares a company's market value to its book value.

**Price-to-sales (P/S) Ratio** is a valuation metric for stocks. It is calculated by dividing the company's market capitalization by the revenue in the most recent year; or, equivalently, divide the per-share stock price by the per-share revenue.

**Quality Investing** is an investment strategy based on a set of clearly defined fundamental criteria that seeks to identify companies with outstanding quality.

**Redemption** is the return of an investor's principal on a fixed income security such as a bond, mutual fund or preferred stock

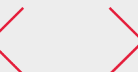
**Standard Deviation** is an annualized Standard Deviation is a statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution.

**Spread** is the difference between the bid and ask price or between the high and low price. For securities, it refers to the difference in yield on different securities.

**Valuation** is a financial assessment of the worth of an item.

**Value** is an investment strategy that involves picking stocks that appear to be trading for less than their intrinsic or book value.

**Yield Curve** is a curve on a graph in which the yield of fixed-interest securities is plotted against the length of time they have to run to maturity.



# Asset Class and Sector Proxies

Securities indexes assume reinvestment of all distributions and interest payments. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Indexes are all based in U.S. dollars.

**Inflation/IA SBBI US Inflation:** The Consumer Price Index for All Urban Consumers, or CPI-U, is used by IA SBBI to measure inflation, which is the rate of change of consumer goods prices. All inflation measures are constructed by the U.S. Department of Labor, Bureau of Labor Statistics, Washington.

**Cash/ IA SBBI US 30 Day TBill TR USD & ICE BofA US 1-3-Month Treasury Bill Index:** For the IA SBBI U.S. Treasury Bill Index, the CRSP U.S. Government Bond File is the source from 1926 to 1976. Each month a one-bill portfolio containing the shortest-term bill having not less than one month to maturity is constructed. (The bill's original term to maturity is not relevant). For the ICE BofA 1-3 Month U.S. Treasury Index: Is a subset of the Bank of America 0-1 Year U.S. Treasury Index including all securities with a remaining term to final maturity less than three months.

## EQUITY

**Bloomberg U.S. Equity 60:40 Index** is a complete set of global families covering over 99% of the available free float market cap in 49 developed and emerging countries and are available in global, regional, country, and sector exposures, in various currencies and returns (price/total/net).

**U.S. Large-cap Growth/Russell 1000 Growth Total Return Index** measures the performance of the large-cap growth segment of the U.S. Equity universe. It includes those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

**U.S. Large-cap Value/Russell 1000 Value Total Return Index** measures the performance of the large-cap value segment of the U.S. Equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower expected growth values.

**U.S. Mid Cap/Russell Mid cap Index** measures performance of the 800 smallest companies in the Russell 1000 Index.

**U.S. Small cap Growth/Russell 2000 Growth Total Return Index** measures the performance of the broad growth segment of the U.S. Equity universe. It includes those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

**U.S. Small-cap Value/Russell 2000 Value Total Return Index** measures the performance of the large-cap value segment of the U.S. Equity universe. It includes those Russell 2000 companies with lower price-to-book ratios and lower expected growth values.

**International Equity/MSCI Daily TR Net World Ex USA Index** captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries – excluding the United States. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

**Emerging Markets/MSCI Daily TR Net EM Index** captures large and mid cap representation across 23 Emerging Markets countries and targets coverage of approximately 85% of the free float adjusted market capitalization in each country.

**North America/MSCI Daily TR Net North America Index** is designed to measure the performance of the large and mid cap segments of the US and Canada markets. The index covers approximately 85% of the free float-adjusted market capitalization in the US and Canada.

**Developed Europe ex-UK/ MSCI Daily TR Net Europe Ex U.K. Index** captures large and mid cap representation across 14 Developed Markets (DM) countries in Europe. The index covers approximately 85% of the free float-adjusted market capitalization across European Developed Markets excluding the UK.

**UK/MSCI Daily TR Net UK Index** is designed to measure the performance of the large and mid cap segments of the UK market. The index covers approximately 85% of the free float-adjusted market capitalization in the UK.

**Japan/ MSCI Daily TR Net Japan Index** is designed to measure the performance of the large and mid cap segments of the Japanese market. The index covers approximately 85% of the free float-adjusted market capitalization in Japan.

**Developed Asia Pacific ex-Japan/ MSCI Daily TR Net Pacific Ex Japan Index** captures large and mid cap representation across 2 Developed Markets countries (Hong Kong and Singapore) and 8 Emerging Markets countries (China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand) in Asia. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

**Nasdaq-100 Index** is a stock market index made up of 101 equity securities issued by 100 of the largest non-financial companies listed on the Nasdaq stock exchange.

## FIXED INCOME

**Bloomberg Fixed Income 60:40 Index** is designed to measure cross-asset market performance in the US.

**Investment-grade/U.S. Government & Quasi Government/ICE BofA AAA U.S. Treasury/Agency Master Index** tracks the performance of US dollar denominated US Treasury and non-subordinated US agency debt issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch). In addition, qualifying securities must have at least one year remaining term to final maturity, at least 18 months to maturity at time of issuance, a fixed coupon schedule and a minimum amount outstanding of \$1 billion for sovereigns and \$250 million for agencies.

**U.S. Mortgage Backed/ ICE BofA Mortgage Master Index** tracks the performance of US dollar denominated fixed rate and hybrid residential mortgage pass-through securities publicly issued by US agencies in the US domestic market. 30-year, 20-year, 15-year and interest-only fixed rate mortgage pools are included in the Index provided they have at least one year remaining term to final maturity and a minimum amount outstanding of at least \$5 billion per generic coupon and \$250 million per production year within each generic coupon.

**U.S. Corp Master/BBB/Sovereign/ICE BofA U.S. Corp Master Index** tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of \$250 million.

**USD High Yield/ICE BofA High Yield Cash Pay Index** tracks the performance of US dollar denominated below investment grade corporate debt, currently in a coupon paying period, that is publicly issued in the US domestic market.

**U.S. Municipal High Yield/Bloomberg High Yield Municipal Index** is a benchmark that covers the high yield portion of the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds

**International Fixed Income/ICE BofA Global Broad Market TR ex USD Index (Hedged)** tracks the performance of investment grade debt publicly issued in the major domestic and eurobond markets, including sovereign, quasi-government, corporate, securitized and collateralized securities, excluding all securities denominated in US dollars.

**Global Governments/ICE BofA Global Govt Bond Index + ICE BofA Global Large Cap Quasi-Govt Index (Hedged):** (i) The ICE BofA Global Government Index tracks the performance of publicly issued investment grade sovereign debt denominated in the issuer's own domestic currency. (ii) The ICE BofA Global Large Cap Quasi-Government Index tracks the performance of large capitalization investment grade quasi-government debt publicly issued in the major domestic and euro-bond markets, including agency, foreign government, local government, supranational and government guaranteed securities. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch).

**Global Corporates/ICE BofA Global Broad Market Corp Index (Hedged)** tracks the performance of investment grade corporate debt publicly issued in the major domestic and euro-bond markets. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date and a fixed coupon schedule.

**Treasury Inflation-Protected Securities (TIPS) /ICE BofA U.S. Inflation-Linked Treasury Index** tracks the performance of U.S. dollar-denominated inflation linked sovereign debt publicly issued by the U.S. government in its domestic market.

**Global Mortgages/ICE BofA Global Broad Market Collateralized Index (Hedged)** tracks the performance of investment grade securitized and collateralized debt, including mortgage backed, asset backed, commercial mortgage backed, covered bond, and US mortgage pass-through securities publicly issued in the major domestic and euro-bond markets. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch).

**Global High Yield/Emerging Market/ICE BofA Global HY Country External Corp & Govt + ICE BofA Global High Yield Index (Unhedged):** (i) The ICE BofA Global High Yield Country External Corporate & Government Index tracks the performance of USD and EUR denominated emerging market debt, including sovereign, quasi-government and corporate securities. (ii) The ICE BofA Global High Yield Index tracks the performance of USD, CAD, GBP and EUR denominated below investment grade corporate debt publicly issued in the major domestic or euro-bond markets.

**Leveraged Loans/Morningstar LSTA US Leveraged Loan Index** is designed to measure the performance of the 100 largest facilities in the US leveraged loan market.

## ALTERNATIVE INVESTMENTS/COMMODITIES/REAL ESTATE

**Private Equity/Cambridge Associates LLC US Private Equity Index<sup>®</sup>** is a horizon calculation based on data compiled from 1,468 US private equity funds (buyout, growth equity, private equity energy and subordinated capital funds), including fully liquidated partnerships, formed between 1986 and 2017. Pooled horizon return, net of fees, expenses, and carried interest.

**Hedge Funds/HFRX Global Hedge Fund Index** is designed to be representative of the overall composition of the hedge fund universe. It is comprised 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.

**Public Real Estate/Commercial/REITs/FTSE NAREIT All Equity REITs Total Return Index** tracks the performance of all Equity REITs not designated as Timber REITs or Infrastructure REITs. NAREIT Index a market capitalization-weighted index that includes all tax-qualified real estate investment trusts (REITs) that are listed on the New York Stock Exchange, the American Stock Exchange or the NASDAQ National Market.

**Natural Gas/Bloomberg Energy Total Return** is composed of futures contracts on crude oil, heating oil, unleaded gasoline, and natural gas. It reflects the return on fully collateralized futures positions and is quoted in USD.

**Private Credit/Cambridge Associates Private Credit Index** is a horizon calculation based on data compiled from 461 credit opportunities (i.e. general credit opps and distressed), subordinated capital (i.e. mezzand capital appreciation opps), and senior debt (i.e. direct lending) funds, including fully liquidated partnerships, formed between 1986 and 2018.

## SECTORS

**S&P 500 sub-sectors and industry groups Global Industry Classification Standard (GICS<sup>®</sup>) /S&P 500 Total Return Index** including Information Technology Total Return (TR) USD; Consumer Discretionary TR USD; Industrials TR USD; Real Estate TR USD; Communication Services TR USD; Materials TR USD; Financials TR USD; Consumer Staples TR USD; Utilities; Energy TR USD; Healthcare TR USD; Pharmaceuticals; Banks; Telecommunications; REITs.

**MSCI Sector Indexes** are derived from the broad MSCI USA Investable Market Index (IMI), which includes over 2,400 large, mid and small cap stocks, covering approximately 99% of the free float adjusted market capitalization in the U.S. Each security in the equity universe is classified into one of the eleven sectors defined by the Global Industry Classification Standard (GICS<sup>®</sup>) including Information Technology; Consumer Discretionary; Industrials; Real Estate; Communication Services; Materials; Financials; Consumer Staples; Utilities; Energy; Healthcare; Pharmaceuticals; Banks; Telecommunications; REITs.

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## APPENDIX

# Index Definitions

Securities indexes assume reinvestment of all distributions and interest payments. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Indexes are all based in U.S. dollars.

**Alerian MLP Index** is a composite of the 50 most prominent energy master limited partnerships and is calculated by Standard & Poor's using a float-adjusted, market capitalization-weighted methodology. The total return index is calculated on an end-of-day basis and is disseminated daily through its ticker symbol, AMZX, on the New York Stock Exchange.

**Bloomberg Commodity Index** is a broadly diversified commodity price index distributed by Bloomberg Index Services Limited.

**Bloomberg FAANG 2.0 Index** is constructed to track the performance of companies that are engaged in national and natural resource security.

**Bloomberg U.S. Dollar Index** tracks the performance of a basket of 10 leading global currencies versus the U.S. Dollar.

**Bloomberg U.S. Treasury Index** measures the performance of public obligations of the U.S. Treasury.

**Bloomberg US Corporate Index** measures the investment grade, fixed-rate, taxable corporate bond market.

**Bloomberg U.S. Municipal Index** covers the USD-denominated long-term tax exempt bond market.

**Bloomberg U.S. Large Cap Total Return Index** is a float market-cap-weighted benchmark of the 500 most highly capitalized US companies.

**Bloomberg U.S. Aggregate Bond Total Return** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

**BofA Global Financial Stress Index** is cross-market gauge of risk, hedging demand and investment flows.

**Global Broad Market Index** is a market capitalization-weighted index maintained by Standard and Poor's (S&P) providing a broad measure of global equities markets.

**Brent Crude Oil** is a classification of sweet light crude oil and is a major benchmark price for oil purchases worldwide.

**Consumer Price Index** is a monthly measurement of U.S. prices for household goods and services. It reports inflation (rising prices) and deflation (falling prices).

**Conference Board Leading Economic Index** is an American economic leading indicator intended to forecast future economic activity.

**Dow Jones Industrial Average Index** is a stock market index of 30 prominent companies listed on stock exchanges in the United States.

**Gold** reflects the gold spot price and is quoted in U.S. dollars per Troy Ounce.

**Home Builders: Housing Market Index** checks the pulse of the single-family housing market, according to a monthly survey of NAHB members.

**HFR1 500 Fund Weighted Composite Index** is a global, equal-weighted index of the largest hedge funds that report to the HFR Database which are open to new investments and offer quarterly liquidity or better

**HFRX Macro Hedge Fund Index** is a global, equal-weighted index of hedge funds with minimum assets under management of USD \$500MM which report to the HFR Database and are open to new investments.

**ICE BofA US High Yield Index** is market capitalization weighted and is designed to measure the performance of U.S. dollar denominated below investment grade (commonly referred to as "junk") corporate debt publicly issued in the U.S. domestic market.

**Leading Credit Index** is the ticker symbol and the popular name for the, a popular measure of the stock market's expectation of volatility based on S&P 500 index options.

**LBMA Gold Price Precious Metals Index** are the global benchmark prices for unallocated gold and silver delivered in London.

**LPX 50 TR USD Index** is a global index that consists of the 50 largest liquid LPE companies covered by LPX Group.

**MSCI All Country World Index (ACWI)** captures large and mid cap representation across 23 Developed Markets (DM) and 23 Emerging Markets (EM) countries.

**MSCI ACWI ex USA Index** captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 23 Emerging Markets (EM) countries.

**MSCI EAFE (Europe, Australasia, and Far East) Index** comprises 21 MSCI country indices, representing the Developed Markets outside of North America.

**MSCI Emerging Markets Index** captures large and mid cap representation across 23 Emerging Markets (EM) countries.

**MSCI Europe Index** is a free float-adjusted market capitalization index designed to measure Developed Market Equity performance in Europe. As of July 2009, the index consisted of 15 Developed Market country indexes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland.

**MSCI Japan Index** is designed to measure the performance of the large and mid cap segments of the Japanese market. With 319 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

**MSCI Pacific ex Japan Index** captures large and mid cap representation across 4 of 5 Developed Markets (DM) countries in the Pacific region (excluding Japan). With 150 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

**MSCI USA High Dividend Yield Index** targets companies with high dividend income and quality characteristics and includes companies that have higher than average dividend yields that are both sustainable and persistent.

**NAR First time Homebuyers/Housing Affordability Index** measures whether or not a typical family earns enough income to qualify for a mortgage loan on a typical home at the national and regional levels based on the most recent price and income data.

**National Federation of Independent Business(NFIB) U.S. Small-Business Optimism** Index is compiled from a survey that is conducted each month by the National Federation of Independent Business (NFIB) of its members. The index is a composite of 10 seasonally adjusted components based on the following questions: plans to increase employment, plans to make capital outlays, plans to increase inventories, expect economy to improve, expect real sales higher, current inventory, current job openings, expected credit conditions, now a good time to expand, and earnings trend.

**NCREIF Farmland Index** is a quarterly time series composite return measure of investment performance of a large pool of individual farmland properties acquired in the private market for investment purposes only.

**NCREIF Timberland Index** is a quarterly time series composite return measure of investment performance of a large pool of individual timber properties acquired in the private market for investment purposes only.

**NCREIF U.S. Real Estate/Proerty Index** is a quarterly time series composite return measure of investment performance of a large pool of US Real Estate properties.

**Real Broad Trade-Weighted Dollar Index** is a measure of the value of the United States dollar relative to other world currencies.

**Real Estate Investment Trust/FTSE NAREIT Global Index** is a free float, market capitalization-weighted real estate index designed to represent publicly traded Equity REITs and listed property companies globally.

**Russell 1000 Value Index** measures the performance of the large-cap value segment of the U.S. Equity universe.

**Russell 1000 Growth Index** measures the performance of the large- cap growth segment of the US Equity universe.

**Russell 1000 Large-cap Index** comprises about 92% of the total market cap of all listed stocks in the U.S. Equity market. It is considered a bellwether index for large-cap investing.

**Russell 2000 Mid-cap Index** measures performance of the 800 smallest companies in the Russell 1000 Index.

**Russell 2000 Small-cap Index** refers to a stock market index that measures the performance of the 2,000 smaller companies included in the Russell 3000 Index.

**Russell 2000 Index** measures the performance of the small-cap segment of the U.S. Equity universe.

**Russell 2000 Growth Index** measures the performance of the small- cap growth segment of the US Equity universe

**Russell 3000 Index** is a market-capitalization-weighted Equity index that seeks to track 3000 of the largest U.S.-traded stocks

**Russell 3000 Value Index** is a market-capitalization weighted Equity index maintained by the Russell Investment Group and based on the Russell 3000 Index, which measures how U.S. stocks in the Equity value segment perform by including only value stocks.

**S&P 500/Price Index** measures the value of the stocks of the 500 largest corporations by market capitalization listed on the New York Stock Exchange or Nasdaq.

**S&P Mid-cap 400 Index** is a stock market index from S&P Dow Jones Indices. The index serves as a barometer for the U.S. mid-cap equities sector and is the most widely followed mid-cap index Tether (USDT) is a stable coin; a crypto asset pegged to the price of an underlying asset, backed by equivalent value.

**S&P 1500 Index** is a stock market index of US stocks made by Standard & Poor's. It includes all stocks in the S&P 500, S&P 400, and S&P 600. This index covers approximately 90% of the market capitalization of U.S. stocks.

**S&P Goldman Sachs Commodities Index CME** serves as a benchmark for investment in the commodity markets and as a measure of commodity performance over time.

**S&P 500® Quality Index** is designed to track high quality stocks in the S&P 500 by quality score, which is calculated based on return on equity, accruals ratio and financial leverage ratio.

**The Measure of CEO Confidence: Business Executive Confidence Index** is based on CEOs' perceptions of current and expected business and industry conditions.

**U.S. dollar index (DXY)** is a measure of the U.S. dollar's value relative to the majority of its most significant trading partners S&P 500 Index is a stock market index tracking the performance of 500 large companies listed on stock exchanges in the United States. It is one of the most commonly followed Equity indices.

**WTI crude oil** reflects the Bloomberg West Texas Intermediate Crushing Crude Oil Spot Price. The price is derived by adding spot market spreads to the NYMEX contract. Units are in U.S. dollars per barrel and is traded intraday.

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# Important Disclosures

**Investing involves risk, including the possible loss of principal. Past performance is no guarantee of future results.**

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Nonfinancial assets, such as closely-held businesses, real estate, fine art, oil, gas and mineral properties, and timber, farm and ranch land, are complex in nature and involve risks including total loss of value. Special risk considerations include natural events (for example, earthquakes or fires), complex tax considerations, and lack of liquidity. Nonfinancial assets are not in the best interest of all investors. Clients should always consult with your independent attorney, tax advisor, investment manager, and insurance agent for final recommendations and before changing or implementing any financial, tax, or estate planning strategy.

Investors should bear in mind that the global financial markets are subject to periods of extraordinary disruption and distress. During the financial crisis of 2008-2009, many private investment funds incurred significant or even total losses, suspended redemptions or otherwise severely restricted investor liquidity, including increasing the notice period required for redemptions, instituting gates on the percentage of fund interests that could be redeemed in any given period and creating side-pockets and special purpose vehicles to hold illiquid securities as they are liquidated. Other funds may take similar steps in the future to prevent forced liquidation of their portfolios into a distressed market. In addition, investment funds implementing alternative investment strategies are subject to the risk of ruin and may become illiquid under a variety of circumstances, irrespective of general market conditions.

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