CHIEF INVESTMENT OFFICE

Viewpoint

When Oceans Collide

July 2023

All data, projections and opinions are as of the date of this report and subject to change.

IN BRIEF

- As we get closer to the end of the Federal Reserve (Fed) interest rate hiking cycle, we are transitioning to a new macroeconomic regime—one of much higher interest rates, above average inflation, higher nominal growth, generally elevated volatility, and much tighter monetary policy.
- Within Fixed Income, nominal and real rates are some of the most attractive in over a decade. The combination of increasing recessionary risk, a hawkish Fed concerned with reducing liquidity and managing down inflation, and high nominal and inflation-adjusted yields led the GWIM ISC to move to a slightly long position on duration this month.
- Heading into the second half of 2023, overall risk is still elevated amid slowing earnings, higher interest rates, and geopolitical uncertainty. In this environment, we believe it is prudent to stay well diversified and maintain a balanced portfolio.

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. For more than a decade, post the 2008/2009 Global Financial Crisis, interest rates hovered close to or at 0%, inflation was below 2%, nominal economic growth was low, equity volatility was episodic but generally tame, and a very easy monetary policy cycle led to above normal valuations. As we get closer to the end of the Fed interest rate hiking cycle we are transitioning to a new macroeconomic regime. A regime very different from its predecessor. This cycle includes much higher interest rates, above average inflation, higher nominal growth, generally elevated volatility, and much tighter monetary policy.

In the first half of this year, equity markets have rallied significantly, with the Nasdaq Composite Index rising by over 30%, which is the largest increase to begin a year in 40 years. Technology shares led the advance as new enthusiasm regarding future profits leveraged to generative artificial intelligence gathered momentum in Q2, and asset managers increased their exposure. Overall, the first half could be described as resilient. The much anticipated "recession" has been delayed, the earnings deterioration has been less than expected, negative investor sentiment sticky, and financial conditions not as tight as expected. Investors grabbed several ladders to climb the "wall of worry," which included three regional bank failures and a consistently increasing geopolitical risk environment. However, despite this, investors continue to be surprised by the strong equity returns around the globe in the first six months.

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC) did not make any adjustments to the current tactical asset allocation across our portfolios. However, given the level of portfolio drift in certain areas, we are actively rebalancing portfolios, and where appropriate, we are lengthening duration in Fixed Income. We also remain committed to our balanced approach to portfolio construction with an emphasis on higher quality across the board.

Listen to the audio cast ▶

	CIO View				
Asset Class	Underweight		Neutral	Overweight	
Equities	·	·	●	·	·
U.S. Large-cap	·	·	·	●	·
U.S. Mid-cap	·	·	·	●	·
U.S. Small-cap	·	·	●	·	·
International Developed	·	●	·	·	·
Emerging Markets	·	·	●	·	·
Fixed Income	·	·	●	·	·
U.S. Investment-grade Taxable	·	·	·	●	·
International	·	·	●	·	·
Global High Yield Taxable	·	●	·	·	·
Alternative Investments*					
Hedge Funds			●		
Private Equity			|		
Real Estate			|		
Tangible Assets / Commodities			●		
Cash					

*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors.
CIO asset class views are relative to the CIO Strategic Asset Allocation (SAA) of a multi-asset portfolio.

While we wait for the final waves when the two oceans collide, the most important driver of the second half of 2023 and, most likely, the first half of 2024 is corporate earnings. It would not come as a surprise to us if concerns rise later this year, driven by tighter financial conditions, less liquidity as Treasury issuance picks up, an increase in headline risk regarding office commercial property exposure, or a surprise earnings miss by a bellwether. However, we believe companies are much more prepared for a growth slowdown and less liquidity being available than in previous cycles and the "already poor investor sentiment" has been waiting on many of these concerns for over 12 months. Therefore, if pockets of weakness in prices develop, we would use that as dollar cost averaging and/or rebalancing opportunities. Our base case expects earnings to bottom in the next 12 months before reaccelerating again later in 2024. At this point, we should be into the new macro regime and a new durable, long-term Equity bull market.

We believe that as this transition firmly takes hold building diversified portfolios across and within asset classes, including alternatives, for qualified investors, is imperative. With new drivers of returns, we expect new asset and subasset classes to become more important in the foreseeable future relative to the recent past. Infrastructure, small-capitalization shares, perhaps non-U.S. investments, and the Industrial sector are just a few examples of new potential leaders in the near future. It is paramount, in our view, to adjusting portfolios as the cycle transitions in the next year for the upcoming powerful forces.

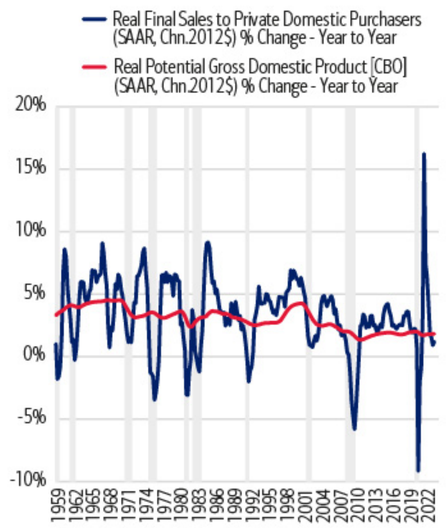
With all the cross currents continuing to filter through the global economy, how is the next six months likely to unfold in terms of growth, inflation, the job market, and key economic gauges? In the U.S., the balance of macroeconomic data continues to signal sluggish real growth over the rest of the year and an eventual recession. BofA Global Research believes the recession will begin early next year. As Exhibit 1 shows, in the post-World War II period, in the absence of an outsized fiscal stimulus package like we saw in the 1950s and mid-1960s, when the growth in core demand (real final sales to private domestic purchasers) falls below potential growth, it is hard to avoid a recession.

The labor market is the transmission mechanism from initial demand weakness into a full-fledged recession. Job losses tend to lead to weaker demand and, in this case, would reinforce a domestic profits cycle that is already contracting. While the labor market has been surprisingly resilient, rising layoffs and declining job openings suggest the unemployment rate will continue to move higher into year-end. Labor hoarding in the post-pandemic world is a unique dynamic, but we think the slowdown in nominal economic growth and a continuation of the profit's recession will pressure firms to take more aggressive cost-cutting initiatives in the second half, including labor.

Inflation will play a key role in the profits cycle. Higher inflation for longer would support earnings growth and jobs. Here we think resolution of the debt ceiling and the related liquidity drain combined with past monetary tightening will reignite a more aggressive disinflationary trend. While this is positive for investors hoping for an end to monetary tightening, it will negatively affect the profits cycle via weaker topline growth. We also think it's worth flagging that base effects in the summer might lead to headline inflation metrics appearing sticky, making the Fed's posturing difficult and adding to interest rate volatility.

The global growth cycle appears unlikely to provide a significant boost to U.S. growth and profits over the balance of the year. Cyclical momentum, as gauged by the Global Manufacturing Purchasing Managers' Index (PMI) ex-U.S., remains under pressure. China's reopening was a source of global resilience in the first part of the year but fizzled out. Stimulus efforts thus far have been modest, as it appears policymakers are prioritizing economic security over past forms of stimulus like credit stimulus and real estate construction. In contrast with the U.S., consumers In China also appear to be in balance sheet repair mode. Europe also appears unlikely to lift global growth over the balance of the year, with Germany already in a technical recession and the European Central Bank (ECB) firmly in inflation-fighting mode.

Exhibit 1: Real Demand Growth Falls Below Potential Growth Before Recessions.



Source: Bureau of Economic Analysis; Congressional Budget Office (CBO). Data as of June 29, 2023.

A glass-half-full view of the macro backdrop includes the following: 1) U.S. consumer and corporate balance sheets are pillars of support, though we see some signs of cracks in the armor of the former in terms of rising credit card delinquencies. 2) New housing construction and sales in the U.S. are firming as existing home inventories are very lean. The U.S. has already seen a deep contraction in real residential real estate. 3) Fiscal stimulus and reshoring initiatives continue to support strong growth in investment spending in some sectors. All of this should ease the severity of the coming recession.

Lastly, the equity market and high-yield spreads are notably disconnected from a macroeconomic-based investment strategy framework that suggests 2024 corporate earnings will remain under pressure with the potential for downside risk. Over the last few business cycles, however, the S&P 500 has behaved more coincident with economic data, rather than leading, suggesting weaker jobs data could be a headwind over the balance of the year. Overall, the macro message is one of caution over 2024 earnings prognostications.

What does the Chief Investment Office (CIO) view as the most compelling opportunities in the next few years across the capital markets? Long-term investment opportunities pivot around demographics and longevity (Healthcare), defense and cybersecurity (Large-cap U.S. defense leaders) and infrastructure plays (Industrials, Materials and Energy). In particular, owing to massive fiscal programs like the 2022 Inflation Reduction Act, we believe we are in the early innings of a manufacturing/construction supercycle that will extend well into the second half of this decade. Generative artificial intelligence is another long-term theme that favors large U.S. technology leaders. The ongoing digitalization of the world economy also favors big tech and automation leaders.

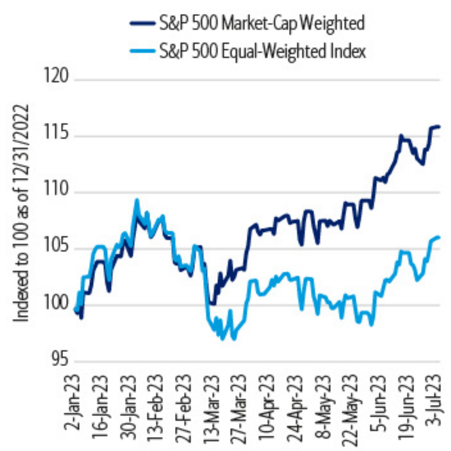
What have been the key drivers of the sharp upward momentum in the equity markets, and where do we go from here? Does the CIO expect the equity markets to broaden out from the narrow breadth? The S&P 500 returned 15.9% during the first half of this year, surpassing an average return of 3.6% over the same time frame in data since 1928, according to BofA Global Research. The Information Technology and Communications Services sectors led the charge, with returns of 42.1% and 35.6%, respectively. Comprising 41% of the S&P 500, we believe their outperformance has stemmed from the attractive higher-quality attributes, such as strong corporate balance sheets, of their constituents, which help reduce a reliance on markets to finance their operations. More recently, the arrival of artificial intelligence, as an additional long-term growth driver, has bolstered investor optimism.

Yet another defining characteristic of the Equity rally has been its narrow market breadth. Market breadth is an indicator of how many stocks in an index are participating and moving the same direction as the overall index. This can be illustrated by a widened gap between the S&P 500 and its equal-weighted measure, which downplays the dominance of the top performers (Exhibit 2). Some worry that this disparity may be a harbinger of further market declines.

Looking back, weak breadth hasn't been a consistent indicator of future returns, with examples of both rallies and declines following these periods, nor is it an automatic reason to sell Equities. Sectors that have lagged now exhibit cheaper relative valuations. Moreover, there is notable overlap between these and Value-oriented segments, more strongly linked to nearer-term economic growth. With an eye on diversification, our neutral stance on Equities considers these positive elements as an offset to uncertainty created by the many present-day crosscurrents in economies and financial markets.

In the U.S., economic resilience has raised the potential for a growth recession, where an outright contraction is avoided despite an increase in unemployment. In this scenario, for example, an eventual slowdown in the services sector could coincide with a rebounding goods-producing one, as pandemic-related distortions fade, alongside a revival in housing. We continue to watch corporate profits closely for signs of resilience and recovery. Looking ahead, broader participation in the Equity rally will likely usher in the next sustained bull market and benefit well-diversified portfolios.

Exhibit 2: Is All Well If Performance Outside of Growth-oriented Equity Segments Is Not As Exuberant?



Source: Chief Investment Office. Data as of July 4, 2023. **Past performance is no guarantee of future results.** Performance would differ if a different time period was displayed. Short-term performance shown to illustrate more recent trend. **Please refer to index definitions at the end of this report. It is not possible to invest directly in an index.**

Has the Technology sector run too far? Is Energy likely to remain in a slump? What is the CIO's latest thinking on sectors? The Technology sector has been the best performing sector year-to-date (YTD)—July 6, 2023—gaining +40.1% followed by the Communication Services sector at +35.8% YTD, and both sectors are leading the major Equity indexes higher in the first half of this year. In our view, two key catalysts are driving the strong performance, including 1) a rotation to higher-quality Growth stocks as economic growth slows and, the Fed continues to tighten monetary policy, and 2) investors adding to positioning in these two sectors to gain exposure to the Q2 artificial intelligence (AI) boom. Positioning in both sectors was sharply reduced last year on weak performance from both sectors, and investors added back to both sectors over the course of the first half. After the very sharp rally YTD and with the Technology sector back to within a couple percent of all-time highs set in December 2021, there could be some consolidation of recent gains from the AI rally. We continue to favor neutral positioning compared to the Equity benchmarks in both sectors due to secular growth trends and the fundamental strength of the mega cap Technology and Communication Services companies. The mega caps have provided fortress balance sheets, strong free cash flow (FCF) generation, increasing cash returns to shareholders and declining but still good longer-term earnings visibility.

Energy is the worst performing sector YTD after being the best performing sector in both 2021 and 2022. Despite the weak first-half performance we continue to emphasize the Energy sector which has the lowest valuation of any sector and solid environment to generate FCF to support attractive dividends and stock buybacks for shareholders. We are finishing the seasonally weaker part of the year for energy companies and entering a stronger demand period. In addition, energy companies have very tough YoY comparisons against last year's record FCF and earnings. Weaker natural gas and natural gas liquids (NGL) commodity prices and lower oil prices YoY are resulting in 2023 earnings estimates resetting lower for energy companies. However, with Organisation of the Petroleum Exporting Countries (OPEC+) cutting production, uncertainty regarding Russian production and exports, continued capital discipline from U.S. energy companies and tight global supply and demand balances, we emphasize the Energy sector for income-focused investors and for the ongoing energy transition.

Our sector preferences were defensive and offsides for the first half of 2023; however, we believe patience is needed, as tighter monetary policy has delayed effects on the economy and corporate profits, the consumer continues to work down excess savings from the pandemic, and company guidance is gradually becoming more cautious. With Q1 earnings better than feared, a strong job market and resilient consumer spending, the defensive sectors underperformed, and cyclical sectors outperformed in the first half of the year. We believe a balance between Value and Growth in Equity portfolios is needed, with many mixed signals in the current environment, and emphasize sectors like Healthcare that contain both Value and Growth stocks.

What is the CIO's view on the non-U.S. markets relative to the U.S.? What about the medium-term prospects for the Emerging Markets overall? Despite their relatively strong start to the year, we are still cautious on the outlook for non-U.S. markets. The early-year investor optimism over international equity markets stemmed from two major positive shocks in the form of China's relaxation of pandemic restrictions and the steep fall in European natural gas prices. Each gave a respective boost to these large markets as well as the broader Asia-Pacific region from late-2022.

But their effect has since faded. Levels of consumption and service activity in China remain high but have decelerated over recent months. Relief in the consumer internet sector from the ending of the regulatory crackdown has been replaced by new curbs on access to Western technology in semiconductors and chipmaking equipment. And targeted support for local property developers to finance housing completions has failed to kickstart a wider recovery in housing demand. Economies in the rest of Asia should continue to see positive spillovers from the recovery in Chinese consumer demand, though disappointment over the rate of improvement is likely to limit the extent of the market effect. And for Latin America, we do not expect to see the same boost from industrial commodities that has typically come during past periods of construction-led Chinese growth. Any additional stimulus measures implemented over the coming months are likely to remain moderate and targeted away from the fixed investment.

Meanwhile in Europe, natural gas prices have stabilized (even rising slightly over recent months), and the consumer discretionary sector has given up its leadership in the equity market on the back of China's lost demand momentum. Furthermore, markets firmly expect the ECB to raise interest rates later this month, with at least one more hike likely in September. Following its June policy decision, the ECB made major upward revisions of 0.5 percentage points to its core inflation estimates for both 2023 and 2024 largely on expectations for labor costs. And higher shipping prices for commodity deliveries due to drought conditions in Germany and lower river Rhine levels pose further upside inflation risk. A more hawkish turn from the central bank over the coming months could put additional relative pressure on European markets.

Elsewhere within developed markets, Japan may continue to receive near-term support from accommodative monetary policy and the recent campaign from regulators pushing corporates to boost shareholder value by using their high cash holdings for more buybacks or payouts. However, monetary policy is likely to be normalized in the second half of the year, which should make for higher rates and a stronger currency and could hurt export-driven segments of the local market.

Two key additional turning points this year have been the March banking sector stress and the May surge in artificial intelligence-related listings. Both have come as further relative setbacks for international markets given their higher exposure to financials and lower exposure to technology (Exhibit 3).

What are the drivers of liquidity, and what will the next phases of liquidity likely be for markets in the second half of the year? The Fed is trying to gradually reduce market liquidity via quantitative tightening (QT)—reducing the amount of bonds that the Fed owns. The Fed's QT plan is to continue to reduce the Fed's securities holdings until "reserve balances are somewhat above the level [the Fed] judges to be consistent with ample reserves."[1] Since getting up to full speed in September 2022, QT has reduced securities on the Fed's balance sheet by $729 billion.[2]

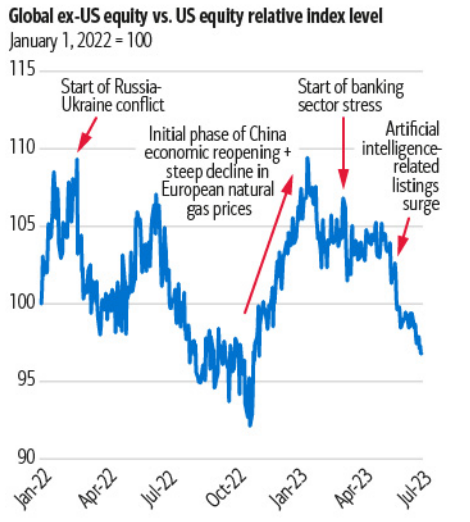
There is a major issue with this plan, however: There is not a direct, one-for-one connection between QT and reserves. Reserve balances have also been affected by the size of the U.S. Treasury General Account, the Fed's Overnight Reverse Repurchase Program, demand for hard currency, and any other Fed lending activity to banks—for example, discount window borrowing, or the Bank Term Funding Program. So, while Fed security holdings declined by $729 billion since QT started running full speed, reserves have declined only $77 billion—only about 1/10th as much.[3]

The two main reasons that the liquidity drain has been significantly less than QT have been (1) the debt ceiling issue and (2) Fed lending to deal with regional banking issues. The Treasury spent down its General Account to avoid breaching the debt ceiling, which increased bank reserves, while Fed lending directly to banks also increased borrowed reserves in the market. Both have basically offset QT and the Fed's ability to withdraw liquidity from markets.

With the debt ceiling now behind us, the U.S. Treasury is issuing more Treasury bills to restock its Treasury General Account. However, the proceeds from this debt issuance are still not draining reserves. A significant amount of proceeds is coming not from reserves but directly from money market funds out of the Fed's Overnight Reverse Repurchase Facility. This lack of reserve drain has been very positive for liquidity metrics and therefore for risk assets—High Yield (HY) credit spreads and Equities, for example—in our opinion.

[1] "Plans for Reducing the Size of the Federal Reserve's Balance Sheet." Federal Reserve, May 4, 2022.
[2] Fed System Open Market Account Total Holdings. Federal Reserve; Bloomberg. As of June 2023.
[3] US Reserve Balances with Federal Reserve Banks. Federal Reserve; Bloomberg. As of June 2023.

Exhibit 3: International Markets Have Retreated From Their Relative Peaks.



Source: Chief Investment Office, Bloomberg. Data as of June 2023. Equity indices are MSCI All-Country World ex-US and MSCI US. Indices shown in price terms (USD). **Past performance is no guarantee of future results.** Performance would differ if a different time period was displayed. Short-term performance shown to illustrate more recent trend. **Please refer to index definitions at the end of this report. It is not possible to invest directly in an index.**

However, the next phase will still undoubtedly be a reduction in market liquidity, in our opinion, since that is one of the Fed's primary and specific stated means to combat economic growth and inflation. BofA Global Research estimates that ample reserves are approximately $2.5 trillion at the moment, which is more than $670 billion below their current amount. So, we believe the Fed will continue with QT until it has the desired effect: a significant reduction in market liquidity as measured by commercial bank reserves. In our opinion, the fact that we are late cycle heading into a recession, and the Fed will continue to drain liquidity while risk assets are at good but not recessionary levels, underpins our balanced, diversified and up-in-quality current asset allocation recommendations.

Given the continued yield curve inversion and latest Fed actions, what is the CIO's current thinking on Fixed Income? We believe we are firmly in a late cycle, and a recession is likely within the next 12 months, consistent with BofA Global Research estimates. Our own analysis shows that recessions likely follow within nine to 18 months of a fed funds to 10-year inversion.[4] Given, the most recent inversion began in November of 2022, this recession timing is entirely consistent with history. The continued inversion is still one of the best harbingers of the recession, in our opinion.

At the same time, both nominal yields and yields adjusted for inflation expectations (so-called "real yields") are remarkably attractive. The 10-year and 30-year Treasury yields are currently above 4% again. Real yields are 1.75% to 2.15% across the curve, with the 5-year Treasury Inflation-Protected Securities (TIPS) yield the highest it has been since a brief risk-off period during the global financial crisis in 2008.[5] Note that, as comparison, the 5-year TIPs was actually very close to -2% during the vast majority of 2021. That highlights how attractive this valuation is, in our opinion.

This combination of increasing recessionary risk, a hawkish Fed concerned with reducing liquidity and managing down inflation, and high nominal and inflation-adjusted yields led the GWIM ISC to move to a slight overweight position on duration this month. This is a not a full overweight position; to the extent that rates get significantly more attractive we do have the ability to go longer, if we believed it to be prudent, later in the year.

Within Fixed Income, we remain up-in-quality. We are slightly positive Treasurys and do not expect any further moves near term on that asset class. While we are currently neutral on Agency Mortgage-backed Securities (MBS), that is a good defensive asset class with relatively high nominal spreads, and we are favorable and looking for opportunities to add exposure in the short term. We are also currently neutral on Investment-grade (IG) corporates; however, we have increasing concerns on valuations relative to recessionary risks and may look to reduce exposure as we move later into this year, depending upon how spreads and yields progress versus the economy. We maintain our slight negative view on high yield, as current spreads are below 400 basis points (bps) and 80 bps tighter on the year, very inconsistent with a near-term recession.[6]

What is the CIOs overall view on asset allocation, diversification, and portfolio strategy for the second half of 2023? How are the CIO Portfolios positioned? Heading into the second half of 2023, overall risk is still elevated amid higher interest rates, slowing earnings, a possible recession and geopolitical uncertainty. In this environment, we believe it is prudent to stay well diversified and maintain a balanced portfolio. We remain neutral across asset classes relative to strategic benchmarks at the highest level, while we wait for more data on the magnitude of an economic slowdown and conviction to make a tactical shift. But caution is not inaction; we continue to stay fully invested—for example, having even a small strategic allocation to Growth and Technology this year made a big difference in performance.

We continue to favor the U.S. over the rest of world in Equites and maintain a defensive Equity-sector position to buffer portfolios in a slowing growth environment. Opportunities to add to Equities for long-term exposure could present themselves ahead, and therefore we

[4] "Chief Investment Office Fixed Income Strategy—Inversions, Recessions, Steepenings and Flattenings: Duration Management Through the Interest Rate Cycle." June 2022.
[5] Source: Bloomberg. As of July 6, 2023.
[6] Ibid.

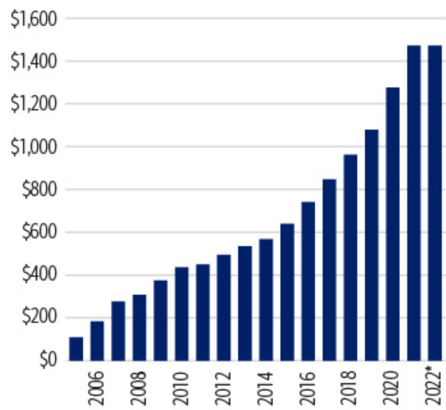
continue to monitor areas for future upgrade including Small-caps and non-U.S. investments, especially Emerging Markets (EM) (with a weakening dollar). We are favorable on U.S. Governments and maintain an up-in-quality/defensive tilt within corporate credit. As the interest rate hiking cycle heads into the late innings, we moved to a slightly long duration position versus a stated benchmark this month. While the short end of the yield curve may be attractive right now, long term investors should start to think about re-investment risk as the tightening cycle ends. We continue to see opportunities in segments of Alternative Investments, for qualified investors, such as Macro Strategies, Private Credit and Infrastructure. Alternative Investments are another tool to help investors stay well diversified and invested during difficult markets.

How does the CIO view the Private Credit landscape currently? Private Credit is at an interesting juncture. The asset class has been in the spotlight in recent years with significant attention and interest from investors, asset managers and the financial press. With structural tailwinds at its back, we believe Private Credit is poised to continue its absolute and relative growth as a major player in leveraged finance.

The opportunity set for fresh capital looks appealing. Yields have climbed to north of 11.5%.[7] Spreads to public leveraged credit, after spending much of 2022 near zero, have widened to approximately 200 bps to 300 bps. Private Credit providers have also been aggressively stepping into a void left by the recent retreat of public leveraged credit (high-yield bonds and broadly syndicated loans). The asset class has grown rapidly to $1.5 trillion, with its share of total leveraged finance expanding from less than 5% in 2005 to approximately 20% in 2022 (Exhibit 4).

Situated higher in the capital structure, Private Credit may provide a more defensive posture compared to areas such as Private Equity and Private Real Estate, where investor concerns on valuations remain. That said, the potential for increasing defaults and deteriorating interest coverage remain risks at this stage in the cycle. Manageable maturities and better covenant protections compared to public leveraged credit partly mitigate these risks. Investors should note, however, that while it is a "yielding" asset class, Private Credit is more closely associated with Equity risk factors. As such, Private Credit can play a role in a portfolio by virtue of its risk-adjusted returns and potential for income generation; however, investors should be careful equating it to the higher-quality Fixed Income segments of traditional asset classes.

Exhibit 4: Private Credit Market Size (billions).



*Estimates. Source: PitchBook, Inc. As of September 30, 2022.

CIO INVESTMENT DASHBOARD AS OF JULY 11, 2023

Resilient first half economic data has pushed expectations for the widely anticipated recession into early 2024, but near-term risks remain. A global growth slowdown is continuing to unfold, with macro data broadly weakening as the lagged effects of tighter monetary policy filter through the economy. In the U.S., inflation has moderated from the peak in mid-2022 but has proven to be stickier than anticipated and remains well above the Fed's 2% target. U.S. corporate profit trends are less supportive, with consensus now estimating annual earnings growth of 0.8% for 2023, according to FactSet. Tighter financial and liquidity conditions are becoming increasingly likely. Absolute valuations for U.S. Equities remain elevated, with the S&P 500 forward price-to-earnings (P/E) ratio hovering around 19.2x, above its long-term average. Market breadth is narrow with just a handful of stocks driving the majority of YTD gains at the index level. Investor sentiment remains relatively bearish despite having recently shown signs of improvement. We expect a "grind-it-out," range bound market environment to persist as we move through the second half of the year.

[7]Cliffwater Direct Lending Index, as of March 31, 2023. Three-year takeout yield.

Current readings on the key drivers of Equities for investors to consider, with arrows representing the recent trend:

Factor	Implication for Equities (Negative / Neutral / Positive)	CIO View
Earnings		According to FactSet, actual S&P 500 revenue and earnings growth in 2022 was 11.1% and 3.9%, respectively. Accordingly, this year, consensus expects growth of 2.3% and 0.8%. In Q2, estimates call for sales growth of -0.3%, and profits decline of -7.3%, on a year-over-year (YoY) basis. Profit estimates for this year overall have stopped declining. According to BofA Global Research, Europe is seeing upgrades to profit forecasts outnumber downgrades. In contrast, the Global Earnings Revision Ratio signals that downgrades eclipse in the U.S., Japan and EMs, despite some improvement in China. Downgrades outpace upgrades in 14 of 20 countries and in all 16 tracked industries.
Valuations		The S&P 500 P/E ratio (next 12 months) is around 19.2x, up from 16.8x at the end of 2022. U.S. Equities are still not cheap given the cloudy earnings picture. Moreover, elevated interest rates should continue to suppress the relative appeal of Equities versus Fixed Income.
U.S. Macro		Real gross domestic product (GDP) grew by 2.0% in Q1 2023 at a seasonally adjusted annual growth rate, after growth of 2.6% in Q4 2022. BofA Global Research estimates growth of 1.5% in Q2 with growth in consumption helped by improvement in housing and investment data. On the demand side, a strong labor market and a cushion of savings have helped support consumer spending. Less clear is their durability in the face of a burdensome cost of living and rising interest rates. BofA Global Research expects GDP growth of 1.8% for 2023.
Global Growth		Elevated inflation and monetary tightening by global central banks are raising uncertainty over the trajectory for global economic growth. The Euro area fell into recession in the first quarter of this year. Despite a strong labor market, its tautness has factored in elevated core inflation and tight monetary policy. In China, the pace of the economic recovery has moderated, raising both worry over its sustainability and anticipation for stimulus measures. Authorities in the U.S. have taken steps to ease bank-related stress, which has weighed on credit creation. Overall, the global economy was expected to have expanded by 3.6% in 2022. This year, it's expected to grow by 3.0%, according to BofA Global Research.
U.S. Monetary Policy / Inflation		BofA Global Research anticipates a terminal policy interest range of 5.50% to 5.75%, compared to 5.00% to 5.25% today. Market expectations signal a peak in the upcycle by November, followed by cuts afterwards, as disinflation progresses. The pace of the balance sheet runoff continues, with the cap at $95 billion per month in Treasury bonds and MBS.
Fiscal Policy		U.S. pandemic-era fiscal support totaled nearly 31% of GDP. While its fading has dragged on economic growth, the Brookings Institution reports that this hinderance has lessened. Since that initiative, a $280 billion plan to strengthen the country's industrial base, by investing in semiconductor production and research and development of new technologies, has been authorized. Also approved was the 2022 Inflation Reduction Act. Among other initiatives, it provides nearly $370 billion over 10 years for energy security and climate change projects. An agreement by top officials to raise the debt ceiling has been signed into law following months of negotiations.
Corporate Credit		HY and IG credit spreads have remained in a range this year. They are off their February levels, which were the lowest since April 2022. Contained, they are also below their March highs. However, they are higher relative to their degree in 2021, due to worry that monetary policy and financial system stress may tighten credit markets further and induce a notable economic slowdown.
Yield Curve		Inversions, whereby longer-dated yields are below shorter-dated ones, exist across the Treasury yield curve. This includes the 3-month/10s and the fed funds/10s segments. The 2s/10s spread is approaching its level of maximum inversion, set in early March. Anticipation for tighter monetary policy has strengthened. Overall, the Treasury market suggests a higher probability of a recession in the U.S.
Technical Indicators		The Chicago Board Options Exchange (CBOE) Volatility Index (VIX) has fallen below a range of around 16 to 20, which held from April to early June. At between 13 to 14, it stands under historical averages. Measures of market breadth, such as the percentage of New York Stock Exchange stocks closing above their 200-day moving average and the cumulative advance/decline indicator, are still showing notable relative weakness. The BofA Global Breadth Indicator is signaling "neutral."
Investor Sentiment		According to the American Association of Individual Investors, bearish sentiment has declined while optimism has become more prevalent among retail investors. To a lesser degree, higher institutional portfolio cash levels continue to signal a tactical contrarian "buy" signal, according to BofA Global Research's Fund Manager Survey. Meanwhile, the BofA Bull & Bear Indicator now signals "neutral," at 3.2.

Source: Chief Investment Office.

EQUITIES

We are neutral Equities: Risks to economic growth remain as expectations for a mild recession in the U.S. have recently been pushed out. The Fed is likely to maintain its higher-for-longer stance, with BofA Global Research now anticipating two more 25 bps interest rate hikes this year and the first rate cut in May of 2024. Against this backdrop, Equities grinded higher in the first half of this year on the back of better-than-feared Q1 earnings, labor market strength and resilient consumers. Catalysts that could potentially drive the equity market higher include core inflation moving lower toward the Fed's target, a bottoming or turn higher in earnings trends, deterioration in the labor market and a shift toward more accommodative monetary policy. Since these conditions have yet to materialize, a defensive and high-quality bias is warranted in the near term. We continue to favor U.S. Equities on a risk-adjusted basis for now, but as interest rate differentials narrow—and if the dollar weakens—non-U.S. markets could see new tailwinds. We remain slightly underweight European Equities and International Developed Market Equities.

We are slightly overweight U.S. Equities overall: The U.S. currently remains our preferred Equity region relative to the rest of the world, given relatively stronger balance sheets in aggregate and better consumer fundamentals. Our high-quality bias favors U.S. Large-caps with strong fundamentals and the ability to produce healthy shareholder payouts. We remain neutral Small-cap Equities, which have lower-quality balance sheets, rising cost of capital, a higher proportion of non-earning companies within the index, and less financial flexibility to generate shareholder payouts, which can be detrimental during an economic slowdown. In our view, Small-caps could be leaders of the next decade but need to stabilize in 2023, and margins need to expand relative to Large-caps to outperform consistently.

We expect 2023 earnings per share (EPS) for the S&P 500 to remain relatively flat compared to 2022's earnings. In our view, analyst's estimates are still too high for 2023 and 2024. Once the focus shifts to weaker fundamentals for earnings, valuation multiples could potentially see another leg lower from current levels. S&P 500 valuations have risen from 16.8x at the end of 2022 to around 19.2x today. Additional near-term risks for Equities come from a global slowdown in growth and profits, persistently elevated levels of inflation, higher interest rates, a Fed policy error and tightening credit conditions. Given these factors, we maintain a neutral stance.

Our "on guard" stance continues to tilt more defensive. From a sector perspective, we emphasize Healthcare to reflect our preference for quality at a reasonable price. We are still constructive on Energy, which has strong FCF, attractive valuations and is entering a seasonally stronger period in the second half. Despite some cyclical sectors outperforming in the first half, investors have been rotating out of some non-Tech cyclicals, and while we are constructive on Industrials and Information Technology long term, we maintain our neutral view in the near term. We de-emphasize Materials, as recession risk remains, and pricing power may have peaked in this sector. We remain underweight Consumer Discretionary as risks remain for future job cuts and consumers continue to work down excess savings from the pandemic. We remain slightly underweight Real Estate (RE) and neutral Financials, as both areas have recently come under pressure due to regional bank stress and concerns regarding CRE. The higher costs of deposits and higher cost of capital are likely to weigh on earnings for both the Financials and RE sectors in coming quarters. We remain neutral Communication Services after it being the worst performing sector in 2022. Performance is improving this year, as company management teams are adjusting their business models for greater efficiency and lower costs. In addition, consensus earnings estimates were already reduced, and valuation multiples compressed in 2022. We are closely monitoring earnings trends across all sectors. Importantly, company guidance and outlooks for the remainder of 2023 will be key in the second quarter earnings season, which starts soon. In general, company guidance is gradually turning more cautious.

We believe strategic portfolios should continue to incorporate both Growth and Value factors that would simultaneously gain from cyclical and secular forces gaining traction. We currently maintain a slight preference for Value, which is trading at a relative discount to Growth and has led Growth when the Fed paused in past periods of elevated inflation. However, in the long run, Growth should benefit from accelerated secular investments in 5G, artificial intelligence, cloud computing, robotics and health infrastructure globally. We continue to suggest a disciplined and balanced approach for long-term investors.

EQUITY WATCH LIST

- Inflationary pressures are moving lower but remain above the Fed's target level.
- Economic data for production, labor, consumer expectations, and credit and liquidity conditions
- Progression of earnings estimates amid margin pressures
- Reorganization of global supply chains and U.S.-China relationship
- Heightened geopolitical risk and ongoing conflict in Eastern Europe
- Pressures within the Office segment of Commercial Real Estate (CRE)

We are neutral Emerging Market Equities: EM Equities appear attractively valued but may struggle to sustain a return advantage in an environment of persistently high global interest rates, a still relatively strong U.S. dollar and any potential broadening in banking sector stress. We continue to expect a wide return dispersion between individual EM countries and regions. Growth in the heavyweight Chinese market remains strong, but the initial rebound from the abandoning of zero-Covid restrictions appears to have lost momentum. Regulatory relief in the RE market and Technology sector nonetheless remains supportive. Asian markets more broadly should see positive spillovers from the improvement in Chinese consumer demand. Central and Eastern European markets remain most exposed to the Russia-Ukraine crisis through trade links and high dependency on natural gas imports, while market direction in Latin America, the Middle East and Africa should remain broadly tied to the direction of natural resource prices. The structural rise in EM consumer spending remains a big reason that we believe investors should consider maintaining a strategic allocation to EM Equities, as appropriate. 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. We favor active management[8] when investing in EM, as fundamentals differ across countries based on fiscal capacity, external funding needs, corporate governance and other factors.

We are slightly underweight International Developed Market Equities: We continue to prefer U.S. versus International Developed given our higher-quality view. We remain slightly underweight Europe given headwinds to economic growth and corporate profits, greater exposure to any potential broadening in banking sector stress, upward pressures on core inflation and a hawkish ECB. Natural gas prices have fallen from their crisis peaks, but ongoing curtailment of Russian supply and growing Chinese demand mean that supply constraints could reemerge at a later stage. We maintain a neutral view on Japanese Equities, which should see additional tailwinds from near-term monetary support and demand strength from China. Nonetheless an eventual normalization of interest rates and a stronger currency may ultimately be relative hurdles for export-exposed Japanese markets. We believe long-term investors should maintain some strategic exposure to International Developed Equities, as appropriate, given that they trade at a discount relative to U.S. Equities, contain more of a balance between Value and Growth sectors, offer an attractive dividend yield and provide strong diversification benefits.

FIXED INCOME

We are neutral on Fixed Income: Nominal and real rates are some of the most attractive in over a decade and have risen again recently. The Fed paused its rate hike campaign at the June Federal Open Market Committee meeting but signaled that more hikes are likely. Markets, however, are currently only pricing in one more additional increase in the fed funds rate during this hiking cycle. This disconnect should be watched carefully and may increase volatility somewhat. Banking system stress is still relatively low, yet the economy is still deteriorating and later in the economic cycle as recessionary signals increase. Ten-year Treasurys are currently just under 4%. Real yields—the yield after inflation is considered, as measured by TIPS—are approximately 1.5% to 2% across the curve. The 5-year TIPS is currently yielding 2%, the highest since 2008. Earning a positive, substantial yield on U.S. government-guaranteed securities after inflation is a welcome reprieve for savers after years of financial repression. We are therefore favorable on Fixed Income near term while being slightly positive on U.S. Governments, although our positioning is neutral relative to Equities on the 12- to 18-month time horizon.

Banking sector stress remains relatively low, but lending standards will likely continue to tighten. Leading economic indicators remain weak, money supply growth is still negative,

FIXED INCOME WATCH LIST

- Deeper yield-curve inversions, or increased rate volatility in either direction
- Increased risk aversion or recessionary risk via spreads, yields or new issue activity
- Signs of significantly negative Fixed Income fund flows
- Dislocations in CRE markets
- Potential credit deterioration in the economic weakness

[8] Active management seeks to outperform benchmarks through active investment decisions such as asset allocation and investment selection.

and yield curves remain inverted, although they have steepened somewhat from record levels. Inflation expectations remain stable at around 2.25% across the curve, highlighting that the market believes that the inflation problem is behind us and that Fed policy will successfully bring inflation back to target. We moved to a slightly long duration position versus a stated benchmark this month. We may continue to look for prudent opportunities to potentially extend duration further in the future if longer-term rates rise substantially from here.

We are neutral Investment-grade corporates and remain slightly underweight High Yield: IG spreads have rallied from YTD wides seen during Q1 as concerns regarding stress in the Banking sector have largely subsided. That said, financial conditions continue to tighten, with growth likely coming in below trend over the next several quarters which will put modest pressure on fundamentals. Credit markets appear unfazed, however, as attractive all-in yields of >5% continue to attract buyers, and IG spreads in the 120 bps to 130 bps range imply a low probability (20% to 30%) of a recession over the next 12 months. As valuations screen relatively rich amid an uncertain macro backdrop, a modest up-in-quality/defensive tilt within a corporate allocation is prudent. We continue to believe that the near-term path of least resistance for spreads could be wider and that 150 bps to 175 bps remains a more attractive range to potentially reposition Fixed Income portfolios in credit.

Credit losses in IG are generally minimal and not a large component of spreads or yields, but the same cannot be said in HY. Fortunately, HY yields-to-worst—while volatile of late—remain roughly around 9%. Valuations provide modest compensation for credit losses and suggest reasonable returns over medium to longer time frames. However, as sentiment remains depressed and as concerns of a recession become more prevalent, yields could rise again, so there may still be additional price losses to come. Spreads, moreover, are in the 500 bps range, below the 650 bps to 800+ bps level seen in many recessions. We therefore maintain our slight underweight positioning. Within HY allocations, we prefer a balanced allocation between secured floating-rate leveraged loans and unsecured HY bonds.

We are neutral Mortgage-backed Securities: Aiming to combat high inflation, the Fed has steadily tightened financial conditions by raising interest rates and engaging in QT. Weaker technical dynamics have caused MBS spreads to gyrate this year before settling in the low 50 bps to 60 bps range over the last several weeks. We believe that MBS spreads appear modestly attractive relative to Treasurys and IG corporate bonds but remain neutral at this time, waiting for a more attractive entry point.

Duration extension, a key risk for MBS investors, has been at least partially mitigated, with MBS duration now significantly lengthened. However, interest rate volatility remains elevated at levels last seen during the height of the pandemic, which is negative for MBS investors. Furthermore, the technical picture for MBS demand appears challenged by banks' liquidity concerns, reduced savings and increased lending activity. Effectively, the Fed and financial institutions, which collectively own two-thirds of the MBS market, are less active participants currently. Given the Fed's lack of experience with QT and the unsettling geopolitical situation, it's probable that the MBS spreads will resume widening. Consequently, we believe the risk/reward relationship in the MBS sector is now more balanced.

ALTERNATIVE INVESTMENTS

We favor a strategic approach when allocating to Hedge Funds, Private Equity, Private Real Estate and Tangible Assets. Within Alternative Investments (Alts) asset classes, however, we see opportunities and challenges in the current environment for qualified investors.

Alts have not been immune to negative investor sentiment, which can be seen in anemic fundraising activity, in second half of 2022 and continuing into this year. For those seeking exposure to Alts, we would remind investors of the importance of strategic allocations—consistent commitments are required to realize the return premiums and diversification benefits of the asset class. In the same way that missing out on the best performance days of public equity markets can erode long-term returns, forgoing the best performing vintages in private markets strategies—which have historically occurred in and around market downturns—can undermine the risk and return profiles Alts are intended to deliver.

Moreover, despite the concerns investors have had with risk assets since Q4 2021, Alts have, to date, performed as expected. Through year-end 2022, peak-to-trough drawdowns in Private Equity (PE), Private RE and Hedge Funds (HF) have been smaller than public Equities. There may be further valuation declines in the coming quarters, particularly in PE and Private RE; however, thus far in the current cycle, Alts have once again proved their mettle.

Hedge Funds: As we have noted previously, the alpha environment has been disappointing this year in contrast to 2022. Through May, HF have returned 1.2%.[10] Equity Hedge (EH) strategies in aggregate have been hurt this year by underperformance on the short side of their portfolios. After a strong three-year stretch, Macro strategies have seen weakness in 2023 stemming from short positioning in U.S. interest rates, which rallied strongly during the regional banking crisis.

We continue to maintain favorable outlooks on both EH and Macro strategies despite this year's challenges. To the extent that market breath widens beyond its current narrow range, EH managers should be able to capitalize on a greater alpha opportunity set. Depending on how the economic cycle unfolds from here, Macro strategies could potentially find themselves operating in a more muted environment; however, the flipside scenario of a higher-for-longer interest rate and inflation environment could surprise investors and create cross-asset volatility of which Macro managers could take advantage.

Private Equity: Consistent with the broader rally in public Equities since late last year, we have seen some early signs of performance stabilization in PE, in particular Buyout strategies. That said, our expectation is still for Buyout and Venture Capital (VC) to continue to face performance headwinds in the near term. The higher cost-of-capital environment has kept exit activity at depressed levels—according to PitchBook, Q1 of 2023 PE exit volume of $55 billion was the lowest quarterly level over the past decade outside of Q1 2013 and Q2 of 2020. There is a growing backlog of deals, from initial public offerings (IPO) to other Mergers & Acquisitions, which portends future opportunity, but it appears more time is needed for PE markets to unlock.

In this vein, Secondaries strategies within PE continue to be an area of interest and activity. Due in part to significantly reduced exit activity, PE limited partners (LP) and general partners (GP) have increasingly turned to Secondaries as a potential route for liquidity. Secondaries transaction volumes have increased significantly over the last three years, from $60 billion in 2020 to $111 billion in 2022.[11] In the current environment, allocators continue to seek liquidity and opportunity in transacting on LP interests. At the same time, GP-led secondaries have rapidly grown either to extend the life of a fund or trophy asset, or to provide weary investors with liquidity.

Private Real Estate: The macro backdrop for Private RE remains challenging. The asset class is facing a surging wave of loan maturities, with crosscurrents affecting valuations and occupancies. The Office subsector is particularly vulnerable, as we have highlighted previously. The regional banking crisis only served to increase the risk of tightening credit standards from an important class of lenders at an inopportune time for CRE.

ALTERNATIVE INVESTMENTS WATCH LIST

- Return to zero interest-rate-policy (ZIRP) stagnation reducing opportunity for Macro Hedge Funds
- Greater-than-expected defaults impacting Private Credit
- For CRE, slowdowns in net operating income growth in multifamily rentals and industrials/data centers and/or increased distressed sales
- Whether "down rounds"[9] become commonplace in Venture Capital

[9] Down rounds are when a company raises a financing round of venture capital funding and the pre-money valuation of the company is lower than the post-money valuation of the previous round. Down rounds are different from bridge rounds, which help founders extend their last round of fundraising.

[10] HFRI Fund-Weighted Composite Index. As of May 31, 2023.

[11] PitchBook. As of April 20, 2023.

Once again, however, subsector and geographic differentiation are warranted. Occupancies are expected to bottom out in Multifamily, Industrial and Retail, all of which should be able to weather this phase of reset. The Sunbelt remains vibrant. Distress is expected to rise but may take longer to play out compared to recent cycles. For the longer term, Private RE continues to make sense as a strategic allocation given the diversification benefits and income features.

Commodities: Global growth anchors demand for commodities and U.S. economic growth remains stagnant, Europe is in a recession and China's reopening fizzled. Thus, cyclical commodity prices like industrial metals and oil experienced double-digit declines in the first half of the year. The JPMorgan Global Manufacturing PMI fell in June and remains in contraction territory at 48.8. We believe global growth and commodity demand will remain muted in the second half of the year. Elevated geopolitical risk supported gold prices in the first half but rising real interest rates have emerged as a headwind. We continue to believe gold is most effectively implemented as a strategic diversifier.

The Bloomberg U.S. Dollar Index depreciated very slightly in the first half of the year as the Fed signaled a slower pace of rate hikes while other developed central banks are still aggressively raising policy rates. Over the medium term, the dollar continues to look expensive, in our view.

Tangible assets: As inflation remains elevated, tangible assets—such as RE, timber, and farm and ranch land—have historically done well in a high-inflationary environment and can add potential diversification benefit to a traditional portfolio. It can also add a diversification benefit to Hedge Funds and PE investments.

MACRO STRATEGY

- In the U.S., the balance of macroeconomic data continues to signal sluggish real growth over the rest of the year and an eventual recession. The labor market is the transmission mechanism from initial demand weakness into a full-fledged recession and leading indicators are slowly weakening.
- The global growth cycle appears unlikely to provide a significant boost to U.S. growth and profits over the balance of the year. Cyclical momentum, as gauged by the Global Manufacturing PMI ex-U.S., remains under pressure. China's reopening was a source of global resilience in the first part of the year but fizzled out and growth in Europe is near zero.
- The U.S. equity market and high yield spreads are notably disconnected from a macroeconomic-based profits outlook that suggests 2024 corporate earnings will remain under pressure with the potential of downside risk.

ECONOMIC FORECASTS (AS OF 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 are the baseline view from BofA Global Research. 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. There can be no assurance that the forecasts will be achieved. Economic or financial forecasts are inherently limited and should not be relied on as indicators of future investment performance.
A = Actual. E/* = Estimate.
Sources: BofA Global Research; GWIM ISC as of July 11, 2023. Forecasts are subject to change.
When assessing your portfolio in light of our current guidance, consider the tactical positioning around asset allocation in reference to your own individual risk tolerance, time horizon, objectives and liquidity needs. Certain investments may not be appropriate, given your specific circumstances and investment plan. Certain security types, like hedged strategies and private equity investments, are subject to eligibility and suitability criteria. Your advisor can help you customize your portfolio in light of your specific circumstances.

S&P 500 SCENARIOS BASED ON FORWARD P/E AND 2023

The table below provides a rough indication of where the S&P 500 Index's central tendency could be, given various scenarios for EPS in 2023 and price-to-earnings (P/E) ratio multiples. These scenarios are not official price targets and are not meant to signal levels where portfolio actions may always be needed. However, during times of market volatility, it's useful to keep this basic framework in mind when considering whether to incrementally add to or trim risk from portfolios while staying invested in one's strategic asset allocation framework.

2023 EPS	EPS Forward P/E (Next 12 months)				
	15.0x	16.0x	17.0x	18.0x	19.0x
$240	3,600	3,840	4,080	4,320	4,560
$230	3,450	3,680	3,910	4,140	4,370
$220	3,300	3,520	3,740	3,960	4,180
$210	3,150	3,360	3,570	3,780	3,990
$200	3,000	3,200	3,400	3,600	3,800
$190	2,850	3,040	3,230	3,420	3,610
$180	2,700	2,880	3,060	3,240	3,420

For illustrative purposes only. Source: Chief Investment Office as of July 11, 2023.

CIO ASSET CLASS VIEWS AS OF JULY 11, 2023

Asset Class	CIO View: Underweight		Neutral	Overweight		Comments
Equities			●			We are neutral Equities as risks to economic growth and corporate profits remain. We remain overweight the U.S. and neutral EM, with a slight underweight to International Developed.
U.S. Large-cap				●		We have a slight preference for Value over Growth, given better absolute and relative valuations. Higher interest rates should pressure Growth more, especially higher multiple, non-earning areas. We believe portfolios should incorporate both Growth and Value factors as appropriate.
U.S. Mid-cap				●		Our preference to stay higher up in the size scale keeps us favoring Large- and Mid-caps compared to Small-caps.
U.S. Small-cap			●			We are neutral Small-caps, as they have lower-quality balance sheets, a higher proportion of non-earning companies within the index, and less financial flexibility to generate shareholder payouts. However, they maintain reasonably attractive absolute and relative valuation versus Large-caps.
International Developed		●				International Developed Equities remain attractively valued, but additional central bank policy tightening is likely to exceed the U.S. Underlying rates of nominal growth are also expected to trail U.S. levels.
Emerging Markets			●			We are neutral EM Equities overall with regional markets likely to be driven by relative exposures to Chinese growth, the ongoing Russia-Ukraine conflict and natural resource prices. Valuations appear attractive, but high global rates remain a headwind.

Asset Class	CIO View: Underweight		CIO View: Neutral		CIO View: Overweight	Comments
International						
North America				●		The U.S. remains our preferred region given balance sheet strength, better fundamentals for consumer spending and healthy shareholder payouts.
Eurozone		●				Lower natural gas prices are a source of relief, but key risks stem from elevated inflation, hawkish central bank policy, weaker economic growth and the potential for energy supply constraints to re-emerge amid the ongoing Russia-Ukraine conflict.
U.K.			●			Domestic demand at risk from still high mortgage rates. Historically weak exchange rate risks compounding inflation pressures. Withdrawal from European Union single market remains a negative for medium-term growth.
Japan			●			Near-term support expected from monetary accommodation and consumption strength in China, but headwinds likely to increase from eventual normalization of interest rates. Nominal growth expectations remain among the lowest for the major developed economies.
Pac Rim*			●			Regional activity stands to benefit from strong Chinese consumer demand. Large weighting in Financials increases vulnerability to any potential broadening in banking sector stress.
Fixed Income			●			Bonds are attractive and provide portfolio diversification benefits, with reasonable income and the potential to decline in yield in an economic downturn. Slightly long duration is suggested, balancing significantly better valuations against further limited additional Fed rate hikes.
U.S. Investment-grade Taxable				●		Preference for Treasurys relative to credit and spread products, as nominal and real rates are some of the most attractive in over a decade, while the economy deteriorates later in the economic cycle and recessionary signals increase.
International			●			International rates markets have become significantly more attractive as global central banks raise rates to help fight inflation, no longer trading at a significant discount to the U.S. except in Japan where the Bank of Japan is keeping longer-term rates artificially low.
Global High Yield Taxable		●				Valuations now present more attractive medium- to long-term returns even after estimating credit losses. However, poor near-term sentiment and rising recession concerns may exacerbate near-term price losses, and spreads are not at recessionary levels. Any additions to HY, therefore, should have a long time horizon. Within HY, we prefer balanced exposure between floating rate loans and HY unsecured.
Alternative Investments*						Given the differences in liquidity characteristics between Alternative Investments and traditional investments, the CIO asset class views on Alts portfolio positioning continue to be 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, but rather the tactical positioning should be expressed at the sub-asset class level. We will continue to provide strategy-level guidance for qualified Alts investors. We believe allocations to Alts can introduce differentiated returns that can help complement existing traditional holdings by potentially enhancing returns, helping to reduce risk and capitalizing on opportunities not available through traditional investments.
Hedge Funds			●			An allocation to HFs has the potential to reduce volatility and add some diversification to portfolios. At the strategy level, we continue to favor EH and Macro strategies (as part of a diversified portfolio of HF) given the macro environment.
Private Equity			●			Buyout and Venture/Growth strategies will likely continue to face performance headwinds in the near term given the pressures from higher rates. Prospectively, we see potential opportunities for current- and coming-year vintages given lower entry valuations and the long-term nature of the strategies. Given the challenging exit environment, Secondaries continue to attract investor interest. Private Credit faces credit deterioration risks in a slowdown, though the strategy is enjoying attractive yields and has historically proven resilient.
Tangible Assets / Commodities			●			Global growth anchors demand for commodities and remains weak as the U.S. economy cools. Thus, cyclical commodities like copper and oil remain under pressure. Financial stress, fiscal budget woes and elevated geopolitical risk are giving some tactical support to gold but we continue to believe gold is most effectively implemented as a strategic diversifier. Over the medium term, the dollar continues to look expensive, in our view.
Real Estate			●			CRE has been in the spotlight given cost-of-capital pressures and more recently questions about regional banks' appetite for CRE mortgages. We expect more of a slow-moving reset, with significant variation by sector and geography, rather than a GFC-style collapse. CRE lending and distressed strategies may emerge as opportunities. Private Infrastructure offers interesting long-term yield opportunities as many of these hard assets often have contractual cost inflation pass-throughs.

* Pacific Rim refers to the geographic area surrounding the Pacific Ocean. The Pacific Rim covers the western shores of North America and South America, and the shores of Australia, eastern Asia and the islands of the Pacific. Tactical qualitative investment strategy weightings are relative in nature versus the strategic weightings for a fully diversified portfolio. Weightings are based on the relative attractiveness of each asset class. Tactical strategy weightings are for a 12- to 18-month time horizon. CIO asset class views are relative to the CIO Strategic Asset Allocation (SAA) of a multi-asset portfolio. Because economic and market conditions change, recommended allocations may vary in the future. Asset allocation cannot eliminate the risk of fluctuating prices and uncertain returns. All sector and asset allocation recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors. **Alternative investments such as derivatives, hedge funds, private equity funds and funds of funds can result in higher return potential, but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest, your need for liquidity and your tolerance for risk.** **Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors. Source: Global Wealth & Investment Management Investment Strategy Committee.

CIO EQUITY SECTOR VIEWS AS OF JULY 11, 2023

The CIO Equity sector view is developed by applying a multi-input process combining the CIO's factor views and fundamental bottom-up industry outlook with top-down macro-economic changes and trends. The factor approach emphasizes valuation and momentum as key inputs, with a fundamental overlay taking into consideration forward-looking views of growth, profits, policy, events and sentiment as well as inclusion of certain investment themes. BofA Global Research's sector strategy views are also captured as an input into the CIO process. Our sector views are developed with a 12- to 18-month outlook but are revisited monthly by the GWIM Investment Strategy Committee.

Sector	CIO View: Underweight	CIO View: Neutral	CIO View: Overweight	Comments
Healthcare			●	Consider using recent weakness to position in larger biopharma stocks with attractive valuations. In an environment where financial conditions are tightening and economic growth is slowing, Healthcare stocks provide attractive characteristics, including quality, dividend growth, dividend yield and lower beta. Healthcare fundamentals to date have been able to withstand much of the macro pressures seen globally. Distributors, life science equipment and large biopharma are best positioned, in our view, to weather pressure on margins, while innovation and breadth of portfolio should continue to allow for modest price taking in areas of medical technology and devices. Large pharmaceutical companies remain attractive as they trade at a material discount to Healthcare sector peers and the broader market. Further, significant cash on strong balance sheets, combined with more aggressive business development efforts and a greater focus on explaining long-term growth drivers make large pharma more attractive over the intermediate term. Over a longer duration, drug pricing headwinds may return as demographic shifts put more pressure on government payors and as value-based care initiatives gain momentum. Emphasize exposure to long-term positive trends in life science/bioprocessing equipment, innovative and differentiated medical devices and animal health, as well as more intermediate opportunities in large-cap biopharma and diversified med tech. Valuation remains attractive and momentum is neutral but improving recently for the Healthcare sector.
Energy			●	Declining but still solid global energy demand, tight global supplies, OEPC+ supply cuts, limited spare capacity, risk of potential global disruptions, and the decline in long-cycle energy investments are supportive for Energy stocks. Higher energy prices combined with substantial cost-cutting initiatives and capital discipline over recent years built significant operating leverage into Energy companies. Despite declines in energy prices this year, earnings and FCF outlooks remain strong in absolute terms for energy companies relative to other sectors. There remains room for positioning to improve for the sector despite strong outperformance over the last two years. Despite tougher YoY comps in 2023, remain positive on the Energy sector due to valuation, earnings power and higher cash returns to shareholders through base dividends, variable dividends, and stock buybacks. Further, China's reopening, while likely choppy and not linear, could add to global demand for energy and support prices at higher levels as the year progresses. Longer term, secular headwinds still confront the sector, including the transition to clean energy, lower renewable energy costs and Environmental, Social and Governance (ESG) focus by investors. Continue to emphasize companies that are low-cost producers with high FCF, balance sheet strength and low break-evens. After two years as the top-rated Equity sector, we remain overweight the Energy sector, but, due to tougher comps and lower energy commodity prices YoY it moves down on the sector list. Energy stocks still provide attractive valuations and strong dividends but weaker momentum.
Utilities			●	Utilities provide stable and consistent earnings outlooks, especially relative to other more cyclical sectors. In addition, as we progress through later stages of this economic cycle, Utilities historically outperform in the late cycle and during economic growth slowdowns, especially regulated utilities. Utilities provide greater balance and lower beta and help pair with our cyclical exposure in equity portfolios. We expect consistent earnings results despite slowing economic growth. There is also the potential for higher interest rates that could potentially weigh on this interest rate-sensitive sector and be a potential headwind near term as a bond proxy sector. For the longer term, we emphasize Utilities with growing renewable power generation from wind and solar and de-emphasize ones that rely strictly on coal-power generation. The 2022 Inflation Reduction Act (IRA) legislation provides a strong runway for future renewable energy investments and projects while also providing visibility and greater certainty for future earnings and dividend growth. Prefer utilities that can capitalize on the energy transition to greater renewable power generation and positive demographic trends. Valuation is neutral and momentum is weaker, but defensive qualities remain.
Consumer Staples		●		The prospects for continued consistent demand for essential consumer packaged goods (CPG) products from an even more conservative consumer may support relatively better top-line revenue growth, when also coupled with selective but moderating retail price increases. Input and ingredient cost pressures could moderate further and may provide some modest defense to margins over time. The Consumer Staples sector has historically outperformed other cyclical areas of the market during a period of negative earnings revisions due to the recurring nature of consumer product company revenue streams, leading to better relative earnings growth. More visible and predictable earnings and a less severe period of downside earnings revisions help support the sector's relative valuation. Consistent cash flows through varying economic cycles help support higher dividend payouts and increased shareholder capital returns. The defensive characteristics of the sector could potentially attract "safe haven" investment flows over various cycle outcomes despite the already elevated valuations. Valuations are expensive, but momentum and relative performance have improved.

Sector	CIO View Underweight Neutral Overweight	Comments
Information Technology	• • ● • •	The Technology sector is neutral despite improvements in supply chains and recent flight-to-quality and artificial intelligence driven flows into mega-cap Technology stocks. However, margin risks remain for companies in the sector as IT budgets and technology investments are showing signs of slowing. Despite some of the most expensive Technology stocks experiencing significant valuation re-ratings last year, we remain concerned about 2023 enterprise spending being under greater scrutiny on tighter spending budgets and the potential for additional valuation re-ratings in the sector. Further, the potential remains for downward earnings revisions that are more likely to affect higher-beta, higher-valuation companies. Despite strong long-term Cloud trends, software margins could continue to deteriorate, as cloud consumption could potentially come under some pressure near term and is not immune to a macro slowdown. We suggest a neutral weight in Tech, with a bias to higher-quality companies with both strong FCF and balance sheets. We continue to encourage investors to be careful about unprofitable, expensive, and long-duration Tech companies. The pandemic accelerated the digital transitions for many industries, but, over the longer term, we remain positive on the secular growth trends for cloud computing, machine learning and artificial intelligence, and data centers, software, cybersecurity, and semiconductors. Valuations in the sector declined in 2022 but are still elevated, especially after the recent rally in artificial intelligence-related companies. Further, any additional moves higher in interest rates could pressure multiples for high-growth and high-valuation tech stocks with low to no profits; therefore, look for GARP (growth at a reasonable price) in software and semiconductors. The Tech sector still generates significant FCF and dividend growth and remain long term fundamental drivers for the sector. Technology is deflationary by nature; therefore, long-term investors should look to add to transformational and industry leading businesses on weakness from the Fed's tightening and the re-rating of Technology stocks. Valuations remain elevated and momentum improved.
Communication Services	• • ● • •	We are neutral on the Communication Services sector, as some of the largest companies in this sector have higher-quality fundamental characteristics and could be more attractive in an economic slowdown. Despite our concern for ongoing regulatory oversight and the never-ending battle over content, management teams are now adjusting their business models to reduce costs and become more efficient. Ad spending is moving from e-commerce to travel and leisure, hence advertisers are having to shift their targeting. Retailers are suffering from rising costs and slowing sales, which could drive changes in advertising spend. We are more constructive on the sector based on three key factors: 1) valuation multiples were largely de-risked last year; 2) earnings estimates were reduced; 3) and more importantly, broad cost reduction plans could create potential earnings upside. Valuations are neutral and momentum improved.
Industrials	• • ● • •	The Industrial sector is neutral, driven by divergent fundamental outlooks across subsectors. Softening domestic end markets, ongoing supply chain issues, elevated labor and energy costs, cautious guidance, and weaker export demand driven by Europe and China are weighing on the outlook for industrial conglomerates and transports. On the positive side, the global threat environment is heating up and driving an improving outlook for defense budgets in the U.S., Europe and Southeast Asia, underpinning favorable dynamics for defense companies. Aerospace is benefiting as well from the ongoing recovery in consumer and business air travel. Potential improvements in the global capex cycle, including reshoring of supply chains and manufacturing, and investment in new equipment after years of focusing on productivity, could support the construction, transportation, machinery, and freight and logistics industries longer term. However, elevated inflation, tighter monetary policy and slower growth are headwinds near term and weighing on general sentiment for Industrials. Valuation is slightly elevated, and momentum is neutral.
Financials	• • ● • •	We are neutral on the Financials sector. Despite the arrival of a high-interest rate regime, U.S. banks collectively have seen nearly $0.5 trillion in deposit outflows so far this year, according to Fed data, exacerbated by the recent high-profile bank failures. Depositors have sought the perceived safety of the biggest banks and the higher yield offered by money market funds. Funding pressure will likely lead to tighter credit standards and slow the pace of lending going forward. Despite headwinds, net interest income is still expected to grow modestly this year and improve earnings power, and valuations appear to already discount a lot of potential bad news. Risks to the downside appear balanced compared to potential upside for banks, with prospects for big banks relatively better than smaller regional banks. Capital return will remain the cornerstone of the investment case for banks. Overall, the volatility of the financial sector should improve with the recent addition of large e-payment networks that have been stable earnings compounders historically. We also favor life insurers which gain significant tailwinds from higher interest rates with higher-yielding investment portfolios. Investment income accounts for roughly one-third of life insurance revenues. Given structural headwinds in property and casualty insurance, we prefer alternative asset managers, like PE, which consistently draw fund inflows, typically find their most lucrative investment opportunities in times of economic stress and maintain pricing power in management fees.
Materials	• ● • • •	Slower global growth, weaker commodity prices and tighter monetary conditions factor into our more cautious view on the Materials sector. We are seeing deceleration in the positive pricing cycle that has been driven by favorable supply and demand conditions over the last two years. Higher interest rates in the developed world and ongoing trials securing labor and materials are pushing industrial project timelines to the right, and with the additional challenge of higher energy costs, we are seeing some formerly profitable projects be reconsidered. Meanwhile, the supply side continues working at maximum capacity to meet the demand levels and thus may end up overshooting. We see this reflected in rising inventory level data across some value chains and are increasingly cautious as the dynamic may spread and become a trend. We want to reposition investment portfolios ahead of a potential contraction in the pricing cycle, as rising inventories and slowing volumes give buyers more bargaining power. Multiples could meaningfully contract if we start to see persistent pricing declines across the commodity complex. Such a trend would give some intermediaries relief on costs, but if they are also experiencing volumes decline, operating leverage could be at risk. We still see some near-term tailwinds for demand, such as bipartisan support for U.S. infrastructure spending and reopening policies in China, but on balance risks for performance are growing relative to potential rewards. Amidst softening demand trends and expected supply growth in the near term, consensus estimates appear elevated. As a result, the underlying sector valuation is neutral, while momentum is stalling.

Sector	CIO View					Comments
	Underweight		Neutral		Overweight	
Real Estate		●				We are underweight the RE sector on CRE concerns. Tighter financial conditions and higher cost of capital could slow growth and weigh on earnings in the RE sector. Higher interest rates could increase refinancing risks and increase interest expenses which could be a downside risk to sector earnings in 2023. RE was a higher conviction sector when inflation was rising, but with some inflation measures moderating and higher costs of capital for the industry, we would be more selective within the RE sector. There are mixed outlooks among its subsectors because of consumer and corporate changes like remote work, eCommerce, less business travel, etc., that are potential longer-term headwinds for CRE companies (e.g., office), mall operators and retail related property owners as companies consolidate real estate footprints. With interest rates moving higher, the cost of capital for real estate growth projects could be a headwind depending how long rates remain elevated. Furthermore, risks are rising for downward pressure on rental rates as lease contracts expire and new contracts are negotiated. Continue to emphasize longer-term secular trends in data centers, communication infrastructure (towers), storage and industrial real estate. Valuations are neutral and momentum turned negative.
Consumer Discretionary	●					Following a protracted period of above-trend post-pandemic spending levels, the consumer is facing persistent and troublesome inflation headwinds that could result in a more conservative discretionary spending pattern as a slowing economy and potential employment security issues gradually weigh on consumer confidence. Big-ticket purchases of autos and homes have been deferred due to supply restraints and higher average selling prices, and, as a result, the consumer has pivoted to travel and leisure experiences that drove demand for hotels, airlines and theme parks. The potential exists for consumers to retrench and assess their personal financial position, further deferring big-ticket purchases, including travel and leisure, until they feel more confident about the economy and other macro headwind factors. A retrenched consumer may revert to normalized spending patterns that drive demand for essentials only as the consumer attempts to deleverage their balance sheet and draw down savings balances for everyday needs. The ongoing period of declining real disposable income is being punctuated by stubbornly high energy costs and ongoing consumer goods inflation and potentially exacerbated by the removal of the student loan forbearance, which could provide an additional strain on household incomes. The earnings revision life cycle has historically led to several quarters of negative earnings estimate revisions and declining relative valuations versus the more stable consumer products companies. Valuation for the sector is still elevated and momentum improved.

Source: Chief Investment Office. All sector and asset allocation recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors.

CIO THEMATIC INVESTING AS OF JULY 11, 2023

Taking the long view, the following themes and subthemes are considered among the most powerful structural forces in the world. They are macro in nature but carry significant risks and reward for companies, both large and small. 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.

Big Data

The massive growth in unstructured data being created by connected machines, devices and systems is fueling data processing and data analytics. Complementing artificial intelligence technologies are replete with applications for big data. The size of the digital world and Internet of Things (IoT) is accelerating the migration of data and applications to a cloud computing environment. Data centers and cloud-based storage will likely capture incremental data created.

Demographics

Several demographic transitions serve as important arbiters of future growth. With elongated life expectancies globally, longevity for older populations will likely mean a renewed focus on healthcare, aged-care, financial, and consumer products and services for longer, serving as a multitrillion-dollar potential opportunity. Both the Millennials (born 1981-1996) and Gen Z (born 1997-2012) could have greater influence over the next decade on consumer spending and preferences. While we are neutral the EM asset class on a tactical basis, we believe the EM consumer represents a powerful middle-class consuming cohort over the longer term. Uplifting the bottom billions, or poorest socioeconomic group with growing access to electricity, internet and sanitation can also offer a demographic dividend for multinational companies.

Climate Change

With emphasis from the White House, a much greater focus is on health, renewable energy, clean water and sanitation, and other industries that tend to support a more sustainable future. Companies that embrace more climate-friendly business models and operations, as well as consumer products and services, are likely to enjoy sustained growth opportunities over the long term. Globally, nuclear energy is re-emerging and increasingly acknowledged as a 'green' energy solution. Other key investment opportunities: Renewable energy (solar, wind and hydrogen), as well as energy-efficiency such as building systems, water/waste management, and energy storage and distribution.

Future Mobility

The future of mobility hinges on next-gen infrastructure. This includes the telecom industry's deployment of the 5G network, which is expected to prove to be the greatest accelerant and enabler to smart cities (smart buildings, safety and security), autonomous vehicles and unmanned drones. The growing electric vehicle market will likely demand installation of charging equipment and fuel peripheral industries such as battery material demand.

Security

Expanding the IoT means security for a growing ecosystem of devices and end points. With the increase in time spent on online platforms, (as well as adoption of online payments/FinTech), data privacy/surveillance and governance is expected to play a larger role in a post-pandemic world, as will bolstering cybersecurity defenses and budgets. With the commercialization of space, cybersecurity will likely extend to space-based assets (think satellites, data links, weather monitoring and GPS).

Post-crisis World

In the post-crisis world, reshoring policies are increasingly focused on building more resiliency into supply chains, helping to sculpt tripolar supply chains pivoting between North America, Asia and Europe. A number of labor force dynamics have converged to place unprecedented demand on labor not only in the U.S. but around the world, hastening the need for industrial and service automation/robotics. The extraction, sourcing, use and management of the world's resources will stay in focus as both the agriculture and commodity complexes are stretched given the geopolitical backdrop. If the future entails increased investments into electric vehicles and greener energies, then the future will be mineral- and material-intensive, calling for more mining of copper, lithium, nickel, manganese, cobalt and graphite, etc. Lastly, real assets in the post-crisis world are a key buffer to above-trend inflation.

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.

Equity/S&P 500 Index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market.

Nasdaq Composite is a stock market index that includes almost all stocks listed on the Nasdaq stock exchange.

Global Manufacturing Purchasing Managers' Index (PMI) ex-U.S. is an index of the prevailing direction of economic trends in the manufacturing and service sectors.

Cliffwater Direct Lending Index is an asset-weighted index of 12,000+ directly originated middle market loans totaling $276 billion as of March 31, 2023.

Bloomberg U.S. dollar Index

HFRI Fund Weighted Composite 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.

Chicago Board Options Exchange (CBOE) Volatility Index (VIX) is a real-time market index that represents the market's expectation of 30-day forward-looking volatility.

JPMorgan Purchasing Managers' Index (PMI) consists of a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting.

Important Disclosures

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

Bank of America, Merrill, their affiliates, and advisors do not provide legal, tax, or accounting advice. Clients should consult their legal and/or tax advisors before making any financial decisions.

This information should not be construed as investment advice and is subject to change. It is provided for informational purposes only and is not intended to be either a specific offer by Bank of America, Merrill or any affiliate to sell or provide, or a specific invitation for a consumer to apply for, any particular retail financial product or service that may be available.

The Chief Investment Office (CIO) provides thought leadership on wealth management, investment strategy and global markets; portfolio management solutions; due diligence; and solutions oversight and data analytics. CIO viewpoints are developed for Bank of America Private Bank, a division of Bank of America, N.A., ("Bank of America") and Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S" or "Merrill"), a registered broker-dealer, registered investment adviser and a wholly owned subsidiary of Bank of America Corporation ("BofA Corp.").

The Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC) is responsible for developing and coordinating recommendations for short-term and long-term investment strategy and market views encompassing markets, economic indicators, asset classes and other market-related projections affecting GWIM.

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.

All recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors.

Asset allocation, diversification and rebalancing do not ensure a profit or protect against loss in declining markets.

Keep in mind that dollar cost averaging cannot guarantee a profit or prevent a loss. Since such an investment plan involves continual investment in securities regardless of fluctuating price levels, you should consider your willingness to continue purchasing during periods of high or low price levels.

Dividend payments are not guaranteed, and are paid only when declared by an issuer's board of directors. The amount of a dividend payment, if any, can vary over time.

Investments have varying degrees of risk. Some of the risks involved with equity securities include the possibility that the value of the stocks may fluctuate in response to events specific to the companies or markets, as well as economic, political or social events in the U.S. or abroad. Small cap and mid cap companies pose special risks, including possible illiquidity and greater price volatility than funds consisting of larger, more established companies. Investing in fixed-income securities may involve certain risks, including the credit quality of individual issuers, possible prepayments, market or economic developments and yields and share price fluctuations due to changes in interest rates. When interest rates go up, bond prices typically drop, and vice versa. Bonds are subject to interest rate, inflation and credit risks. Municipal securities can be significantly affected by political changes as well as uncertainties in the municipal market related to taxation, legislative changes, or the rights of municipal security holders. Income from investing in municipal bonds is generally exempt from federal and state taxes for residents of the issuing state. While the interest income is tax-exempt, any capital gains distributed are taxable to the investor. Income for some investors may be subject to the Federal Alternative Minimum Tax. Investments in high-yield bonds (sometimes referred to as "junk bonds") offer the potential for high current income and attractive total return, but involves certain risks. Changes in economic conditions or other circumstances may adversely affect a junk bond issuer's ability to make principal and interest payments. Treasury bills are less volatile than longer-term fixed income securities and are guaranteed as to timely payment of principal and interest by the U.S. government. Mortgage-backed securities are subject to credit risk and the risk that the mortgages will be prepaid, so that portfolio management may be faced with replenishing the portfolio in a possibly disadvantageous interest rate environment. Investments in foreign securities (including ADRs) involve special risks, including foreign currency risk and the possibility of substantial volatility due to adverse political, economic or other developments. These risks are magnified for investments made in emerging markets. Investments in a certain industry or sector may pose additional risk due to lack of diversification and sector concentration. Investments in real estate securities can be subject to fluctuations in the value of the underlying properties, the effect of economic conditions on real estate values, changes in interest rates, and risk related to renting properties, such as rental defaults. There are special risks associated with an investment in commodities, including market price fluctuations, regulatory changes, interest rate changes, credit risk, economic changes and the impact of adverse political or financial factors.

Alternative investments are speculative and involve a high degree of risk.

Alternative investments are intended for qualified investors only. Alternative Investments such as derivatives, hedge funds, private equity funds, and funds of funds can result in higher return potential but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest, your need for liquidity, and your tolerance for risk.

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. 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.

Sustainable and Impact Investing and/or Environmental, Social and Governance (ESG) managers may take into consideration factors beyond traditional financial information to select securities, which could result in relative investment performance deviating from other strategies or broad market benchmarks, depending on whether such sectors or investments are in or out of favor in the market. Further, ESG strategies may rely on certain values based criteria to eliminate exposures found in similar strategies or broad market benchmarks, which could also result in relative investment performance deviating.