BANK OF AMERICA

CHIEF INVESTMENT OFFICE

Viewpoint

Heavy Humidity

March 2023

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

IN BRIEF

- With our view of a "grind it out" atmosphere for markets, weakness in growth around the corner, and yields to peak, we believe staying neutral stocks and bonds makes sense at this point.
- We believe the Federal Reserve (Fed) now pushes the funds rate to 5.25 to 5.50% when all is said and done, which includes three more 25 basis point (bps) interest rate hikes in March, May and June with the potential for further hikes depending on data in the coming months.
- This month we lowered our allocation to muni bonds to slight underweight from neutral. While we still like municipal credit and think that tax-free municipals should play a key role in portfolios for clients in a high tax bracket, valuations have become excessive versus Treasurys.
- During this "humid" period we expect choppiness in Equities at the index level but various opportunities (energy, infrastructure, big data, automation, robotics, etc.) "below the line" to develop throughout the year.

Stronger economic data in January and February, globally, mixed with stubbornly solid employment numbers has pushed yields higher. The backup in yields combined with tightening lending standards has recently pressured equity markets with the S&P 500 falling some 5% at the tail end of February.

Inflation is still trending lower but has flatlined recently even in the face of lower energy prices and wage growth. We expect slightly positive economic growth in the first half of 2023 primarily buoyed by still healthy consumer spending in the U.S., a less bumpy China reopening, and better-than-expected business confidence in Europe. This mixture is likely to further underpin yields in the very short term and keep central banks tightening. We believe the Fed now pushes the funds rate to 5.25 to 5.50% when all is said and done, which includes three more 25 basis point (bps) interest rate hikes in March, May and June with the potential for further hikes depending on data in the coming months.

As we move into Q2 and Q3, we expect:

- The recent increase in Treasury yields should slow down and eventually peak.
- Dollar strength to turn to weakness again around mid-year.
- Equity markets in the U.S. to remain stuck in a wide range with a "grind-it-out" type of atmosphere.

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC) adjusted our Fixed Income allocation by lowering Investment-grade Tax Exempt bonds to slight underweight, from neutral, and in turn adding to our Investment-grade Taxable position which was already a slight overweight. We remain neutral both Equities and Fixed Income, with a preference for U.S. Equities relative to International, and Value over Growth within our Equity allocation. We expect the "grind-it-out" environment for markets to continue in the near term.

Listen to the audio cast ▶

Asset Class	CIO View: 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		●			
U.S. Investment-grade Tax Exempt		●	◄		
U.S. High Yield Tax Exempt		●			
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 multi-asset portfolio.

Trust and fiduciary services are provided by Bank of America, N.A., Member FDIC and a wholly owned subsidiary of Bank of America Corporation ("BofA Corp.").
Investment products:

Are Not FDIC Insured	Are Not Bank Guaranteed	May Lose Value

Please see last page for important disclosure information.

- U.S. corporate earnings to experience some slight deterioration but margins remain elevated which generally supports profits.
- Non-U.S. Equities continue their slight outperformance relative to the U.S.
- The Fed ultimately pauses in June as inflation comes back down.
- With the yield curve still deeply inverted and leading economic indicators weak, growth should ultimately slow. For now, the resiliency of the consumer and the services economy continue to support employment trends.

With our view of a "grind-it-out" atmosphere, weakness in growth around the corner, and yields still to peak, we believe staying neutral stocks and bonds makes sense at this point. However, we are looking for longer-term opportunities to take advantage of weakness in Equities in the coming months given our belief that investors will ultimately look through the lower earnings trend for 2023 and expect profits to turn back up in 2024. In addition, inflation should eventually surprise to the downside given the fact that interest rate hikes are still filtering through the economy and lending standards get tighter. Small capitalization shares and non-U.S. Equities remain on our upgrade watch list, and we continue to favor "old economy" sectors, namely Energy, and more Value and higher-quality segments of the market. Short-term Fixed Income yields are very competitive compared to most other asset classes, which is likely to keep investors on the sidelines until the Fed is done. During this "humid" period, we expect choppiness in Equities at the index level but expect various opportunities (energy, infrastructure, big data, automation, robotics, etc.) "below the line" to develop throughout the year. In Fixed Income, we continue to cool on municipals given their historically rich levels, and we are looking for future opportunities to extend duration overall.

CIO INVESTMENT DASHBOARD AS OF MARCH 7, 2023

A global growth slowdown is continuing to unfold, with economic data broadly weakening, while global central banks are continuing to tighten policy to combat inflationary pressures. In the U.S., inflation has moderated from the peak in mid-2022 but is still well above the Feds 2% target. U.S. corporate profit trends are less supportive as downgrades continue, with consensus now estimating annual earnings growth of 2.1% for 2023. Corporate credit spreads are still not at levels that we would consider appropriate for pricing in a recession. Absolute valuations for U.S. Equities declined in February but are still not cheap given the cloudy earnings picture. Investor sentiment remains generally bearish despite having slightly improved from unusually low levels recently. We continue to believe that market volatility will be elevated for most asset classes and expect the "grind-it-out" environment to persist for markets in the near term before stabilizing later this year. In our view, asset allocation decisions could be more frequent this year as we move through the final phase of the reset period.

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	Neutral, trending toward Negative	According to FactSet, consensus expects both earnings and revenue growth of 2.1%, versus an estimated 3.9% earnings growth with 11.1% revenue in 2022. Yet estimates are declining. According to the BofA Global Research Earnings Revision Ratio, analyst downgrades for earnings and sales continue to outnumber upgrades globally. However, the rate of downgrades has slowed.
Valuations	Neutral, trending toward Negative	U.S. Equities have become more attractive but are still not cheap given the cloudy earnings picture. The S&P 500 price-to-earnings (P/E) ratio (next 12 months) is around 17.6x, down from roughly 21.4x in late 2021. Elevated interest rates will likely continue to reduce the relative appeal of Equities versus Fixed Income in the first half of the year.
U.S. Macro	Neutral, trending toward Negative	Real gross domestic product (GDP) grew by 2.7% in Q4 2022 at a seasonally adjusted annual growth rate. The Atlanta Fed's GDPNow tracker estimates growth of 2.0% in Q1 2023, supported by consumption and business capital expenditure. Residential investment and inventories are detractors. 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 growth of 1.0% for 2023.

Factor	Implication for Equities			CIO View
	Negative	Neutral	Positive	
Global Growth		●		Geopolitical tensions, elevated inflation and monetary tightening by global central banks raise uncertainty over the trajectory for global economic growth. In Europe, inflation has been fueled by the conflict in Ukraine and resilient business activity. In China, measures of economic growth have begun to recover after the government shifted away from its zero-COVID policy late last year. Overall, the global economy is expected to have expanded by 3.4% in 2022. This year it's expected to grow by 2.6%, according to BofA Global Research.
U.S. Monetary Policy / Inflation	●			The target policy interest rate, set by the Federal Open Market Committee (FOMC), stands at 4.50% to 4.75%. BofA Global Research anticipates a terminal range of 5.25% to 5.50% to be reached by late spring. Raising anticipation for a higher-for-longer interest rate trajectory has been recent inflation data, which has generally surpassed analysts' expectations. The pace of the balance sheet runoff continues, with the cap at $95 billion per month in Treasury bonds and Mortgage-backed Securities (MBS).
Fiscal Policy		← ●		According to the Brookings Institution, the fading of pandemic-era fiscal support, which totaled nearly 31% of GDP, has been dragging on U.S. economic growth. 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. Alongside measures to reduce the public fiscal deficit, it provides nearly $370 billion over 10 years for energy security and climate change projects, among other initiatives. Recently, the Treasury Department has employed temporary measures to postpone breaching the federal debt limit as policymakers negotiate to raise it.
Corporate Credit		●		High yield (HY) and Investment-grade (IG) credit spreads vacillated in 2022. This year they have declined. While indicating an easing, financial conditions remain generally elevated, reflecting investor worries over the prospect of 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. Moreover, the 2s/10s spread remains deeply inverted. 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) remains in a range between 18 and 23 since the start of the year, near historic averages. Measures of market breadth are improving, and the BofA Global Breadth Indicator is signaling "neutral."
Investor Sentiment			← ●	Though improving, bearish sentiment remains at a high level, according to the American Association of Individual Investors. Institutional portfolio higher cash levels continue to signal a tactical contrarian "buy" signal, according to BofA Global Research's Fund Manager Survey. The BofA Bull & Bear Indicator now signals "neutral," at 4.3.

Source: Chief Investment Office.

EQUITIES

We are neutral Equities: We maintain a neutral view on Equities, as risks to economic growth and corporate profits remain skewed to the downside. The Fed is likely to continue to hike policy rates in the next several meetings, with BofA Global Research anticipating 25 bps hikes in March, May and June while conducting balance sheet runoff. We expect stability in risk assets to come with peak labor market weakness, a stabilization in earnings downgrades, a spike in volatility, and core inflation moving lower toward the Fed's target. Since these conditions are likely to materialize later in 2023, a defensive and high-quality bias is warranted in the near term. We favor U.S. Equities on a risk-adjusted basis for now, but as interest rate differentials narrow and 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 on aggregate, healthy shareholder payouts, better consumer fundamentals and a greater degree of energy independence. We maintain a slight overweight to U.S. Large-caps given our higher-quality bias, with a preference for Value over Growth. We remain neutral Small-cap Equities, which have lower-quality balance sheets, rising cost of capital and 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 further in 2023, and margins need to expand relative to Large-caps to outperform consistently.

We expect earnings per share (EPS) for the S&P 500 to decline in 2023 by 9% to $200 on economic weakness and margin pressures. After moving higher in January, S&P 500

EQUITY WATCH LIST

- Continued Fed tightening as inflationary pressures persist
- 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
- Ongoing conflict in Eastern Europe

valuations fell in February and are attractive compared to the levels seen a year ago. However, current valuations are still not cheap given elevated interest rates and the uncertain earnings picture, helping to drive our neutral view on Equities. The valuation compression in 2022 was mostly due to the rise in rates; however, multiples could see another leg lower once the focus shifts to weaker fundamentals for earnings. Near-term risks for Equities come from a global slowdown in growth and profits, persistently elevated levels of inflation, higher interest rates and a Fed policy error. We would expect volatility to continue as financial conditions tighten as the Fed continues its hiking cycle.

Our "on guard" stance continues to tilt more defensive. From a sector perspective, we remain overweight Healthcare to reflect our preference for quality. We are slightly overweight Energy and Financials, which have strong free cash flows (FCF) and attractive valuations, and Utilities, which is likely to provide relative earnings stability. Despite some cyclical sectors outperforming year-to-date, we remain neutral Consumer Staples, Industrials, Real Estate (RE) and Information Technology. Stronger relative earnings from Consumer Staples are a positive, but historically high valuations and margin pressures are concerning. We remain slightly underweight Materials as recession risk rises and pricing power may have peaked in this sector. We remain fully underweight Consumer Discretionary and Communication Services.

We believe strategic portfolios should incorporate both Growth and Value factors that would simultaneously gain from cyclical and secular forces gaining traction. We currently maintain a preference for Value, which is trading at a relative discount to Growth, is seeing better earnings trends, and has led Growth when the Fed has 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 are neutral Emerging Market Equities: Emerging Market (EM) Equities appear attractively valued but may struggle to sustain a return advantage in an environment of high and still rising global interest rates and still relatively strong U.S. dollar. We continue to expect a wide return dispersion between individual EM countries and regions. The heavyweight Chinese market stands to benefit from an acceleration in growth following the dismantling of zero-Covid restrictions, policy support for the real estate market and regulatory relief in the technology sector. 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[1] 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 in Europe given headwinds to economic growth and corporate profits, still elevated headline inflation, upward pressures on core inflation and a hawkish European Central Bank (ECB). Natural gas prices have fallen from their crisis peaks, but ongoing curtailment of Russian supply and growing demand from China mean that supply constraints could re-emerge at a later stage. We maintain a neutral view on Japanese Equities, which could see additional tailwinds from China's economic reopening, though less monetary accommodation, higher interest rates, and a stronger currency are likely to 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 benefit.

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

FIXED INCOME

We are neutral on Fixed Income: Nominal and real rates are some of the most attractive in over a decade, while the economy is deteriorating later in the economic cycle and recessionary signals increase. Ten-year Treasurys are currently around 4%. Real yields—the yield after inflation is considered, as measured by Treasury Inflation-Protected Securities (TIPS)—are approximately 1.6% across the curve. The ability to now earn 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. This month, we are reducing our allocation to muni bonds to slight underweight, and in turn adding to our Investment-grade Taxable position which was already a slight overweight

Recently, market expectations for the fed funds rate have increased considering a very strong labor market and continued high inflation. The market currently expects at least 75 bps more of rate hikes before the Fed stops raising rates at 5.25% to 5.50%. This is a relatively recent change; the market had only expected a further 25 bps of rate hikes at the beginning of the year. This has closed the gap between market and Fed expectations for the path of rate hikes, with both expecting higher rates from here.

Leading economic indicators are still weak, money supply growth has gone negative, and both the 2s/10s Treasury yield curve and the fed funds/10-year yield curve remain inverted. Inflation expectations remain stable around 2.5% farther out the curve, highlighting that the market believes that the inflation spike is behind us and that Fed policy will eventually be enough to get back to lower inflation. Therefore, while long rates may continue to move up slightly, they are becoming less sensitive to moves in short rates, and the amount and extent of further upside in rates has diminished, in our opinion. Fixed Income will do an even better job of diversifying multi-asset class portfolios from this point forward, from our perspective, since higher yields offer not only higher income but also can potentially move down substantially if another economic downturn occurs. We are therefore currently neutral duration versus a stated benchmark but will continue to look for prudent opportunities to potentially extend duration in the future.

We are neutral Investment-grade corporates and remain slightly underweight High Yield: Investment-grade (IG) spreads have rallied significantly over the last several months and are appearing rich at around 120 bps on the ICE BofA Investment Grade Index—the tightest levels since April 2022. While all-in yields still look reasonably attractive, in our view, credit spreads do not appropriately reflect the risk of a recession over the next 12 months. We believe a modest up-in-quality/defensive tilt within a corporate allocation is prudent at this time until we see evidence that the gap in signaling between the credit and Treasury markets could close (i.e., data confirms a softer landing and/or a shorter shallow downturn). We continue to believe that there is a risk of a move wider toward 175 bps should economic data worsen. However, this should be viewed as a rebalancing opportunity given strength in corporate balance sheets for this point in the cycle. With curves still relatively flat, we see the best risk-adjusted opportunities in the front end of the curve (i.e., three to five years).

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 8.6%. 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 low 400 bps range, well below the 650 to 800+ 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 high yield bonds.

We lowered our allocation to U.S. Investment-grade Tax Exempt to slight underweight: This month we lowered our allocation to muni bonds to slight underweight from neutral. While we still like municipal credit and think that tax-free municipals should

FIXED INCOME WATCH LIST

- Deeper yield curve inversions
- Signs of any risk aversion or recessionary risk in terms of spreads, yields or new issue activity
- Signs of significantly negative Fixed Income fund flows
- Dislocations in Commercial Real Estate (CRE) markets
- Potential credit deterioration in the economic weakness

play a key role in portfolios for clients in a high tax bracket, valuations have become excessive versus Treasurys. At one point this year, AAA municipals eight years and shorter were more expensive than Treasurys on an after-tax basis. This was an excessive valuation, in our opinion, that would correct. While the shorter end of the municipal curve has started to correct, longer-dated municipals are still quite expensive versus both Treasurys and Investment-grade corporate bonds. We therefore suggest being slightly underweight in a multi-asset class and all-Fixed Income portfolios at this time. We do expect valuations to improve this year, through a combination of more supply and potentially deteriorating economic conditions. If that occurs as anticipated, we would consider moving back to a more favorable view given that municipals are a high-quality defensive asset class, particularly later in the economic cycle. We believe fundamental conditions remain strong for now, but budget pressures are likely to emerge due to weakening tax revenues, increased operating expenses, and higher required pension contributions. Positively, muni issuers were able to add to reserves over the last couple of years, and states' balance sheets are close to their strongest positions in decades. Therefore, we expect defaults on IG muni bonds to remain low. However, a focus on higher credit quality and lower-risk sectors (e.g., general obligations and essential service revenue bonds) should help mitigate the risk of spread widening. Extra caution may be warranted in higher-risk sectors, e.g., hospitals—which are experiencing higher labor and supply costs; transit—which is affected by the secular, post-coronavirus shift to remote work; and private higher education—which has seen declines in enrollment and weak revenue growth.

We are neutral Mortgage-backed Securities: Aiming to combat high inflation, which has risen to a four-decade high, the Fed has steadily tightened financial conditions by raising interest rates and engaging in Quantitative Tightening (QT) since last year. As a result, Mortgage-backed Securities (MBS) spreads have been under pressure and have widened significantly before retracing most of it and are now close to the 10-year average of 35 bps. At current levels, MBS spreads appear only modestly attractive relative to Treasurys and Investment-grade corporate bonds.

A portion of the key sector risk has been at least partially mitigated, with MBS duration now significantly lengthened and further extension limited in a rising-rate environment. 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' reduced savings and increased lending activity. Effectively, the Fed and financial institutions, which collectively own two-thirds of the MBS market, are fewer 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 rewards and risks of the MBS sector are now more balanced.

ALTERNATIVE INVESTMENTS

We favor a strategic approach when allocating to Hedge Funds: In an uncertain market environment, we believe Hedge Funds offer a solid value proposition for qualified investors. Within Hedge Fund strategies, we are most constructive on Equity Hedge and Macro trading strategies. Equity Hedge offers Equity exposure while also delivering the opportunity to take advantage of market declines through short positions. With higher interest rates, slowing global growth, and declining corporate earnings, shorting opportunities remain favorable, in our opinion. Many of these managers delivered positive short alpha in 2022 and 2023 could deliver similar results. In a parallel vein, Macro trading strategies had one of their best years in many years in 2022, and they have started 2023 on a positive note. The many factors that led to strong performance in 2022—durable trends in Fixed Income, rates and Foreign Exchange markets, interest rate differentials across developed markets, timing and pacing of central bank action, the Ukrainian war, and volatile commodity prices—could lead to continued positive returns. Many trends can last several years and provide ample opportunities for these directional agnostic managers.

The other two primary Hedge Fund strategies—Event Driven and Relative Value—are rated neutral but could see improving opportunities in 2023. The opportunity set for Distressed strategies increasingly looks promising over the next 12 to 18 months as more companies face the headwinds of higher borrowing and input costs. The outlook has improved for Relative Value, and we upgraded the strategy from underweight to neutral in Q4 2022. This proved prescient, as performance has recently picked up for these managers. Yields and spreads are substantially higher and wider than a year ago for almost all of credit, including corporates, munis and asset-backed securities. This higher yield, while painful on the path to it, now compensates investors significantly for taking credit risk. Volatility has created opportunities to reallocate unconstrained portfolios to attractive risk-adjusted opportunities, though liquidity notably continues to remain poor.

We favor a strategic approach when allocating to Private Equity: While the final numbers for Private Equity (PE) for 2022 are not yet in, it is likely to be a down year. Some strategies, like Venture, so far are showing declines that are close to public market equities, while Buyout funds are generally posting less severe losses. For Venture, Buyout and Growth Equity, we expect to see valuation pressures over the short term for existing portfolios, while attractive opportunity sets emerge for fresh capital. In the near term, we anticipate an increase in the prevalence of down-rounds (financing in which a company sells shares of its capital stock at a price that is less than the price attained from an earlier round), although companies will exhaust other options to conserve cash, with a view to delaying fundraising as much as possible. On the positive side, it is important to remember that there are still complicated problems that need solving, and there will continue to be innovative private companies striving to solve them. As always, we suggest investing methodically throughout a cycle to enhance vintage-year diversification and capitalize on new opportunities.

In 2022, Private Credit (PC) delivered for investors by providing positive and growing income and generally outperformed most other Fixed Income investments. With many PC funds now yielding 8% to 10%, income-oriented investors will be well served by continuing to hold or add to this strategy. Direct lending portfolios were largely insulated from credit issues in 2022, though it remains an open question as to how the coming year will unfold. Historically, PC has withstood recessions well in terms of defaults and recoveries compared to high yield bonds and other areas of consumer debt. Market strategists are forecasting default rates to climb off historic lows to more average levels in the coming year, though depending on the severity and duration of an economic slowdown, credit stress could spike beyond expectations. The other major PE strategy, Special Situations, has recently seen a transformation with the rapid repricing of yields and spreads over the past six months from very limited and uninspiring to more attractive, in our view. Even though corporate default rates currently remain low, forecasts are climbing for a rise in defaults in 2023. At a minimum, we believe we have rapidly returned to a neutral posture with our eye on a potentially sizable future opportunity set.

We favor a strategic approach when allocating to Private Real Estate: In 2023, we remain constructive on Core/Core-plus Real Estate (RE) as a strategic, long-term portfolio allocation, even as the macroeconomic landscape has changed dramatically from a year ago. Our outlook for 2023 includes continued moderation of performance expectations, driven by potential for further pressure on cap rates and tapering of the outsized rental income growth achieved in 2022. In a more challenging environment due to higher interest rates and recessionary pressures, we expect to see performance dispersion between funds driven by portfolio construction and sector allocations. Opportunistic RE remains a neutral asset category for Q1 2023. Rising interest rates adds to some uncertainty in this strategy, although RE has a good historic record of outperforming during periods of inflation and economic growth. For larger investment managers with a broad sourcing network, the uneven recovery from the pandemic in the RE substrategies (i.e., Retail, Office, Leisure) continues to create pockets of opportunities. With public market dislocations, larger general partners now have attractive areas to buy through public to private transactions. We remain favorably disposed to strategies with the scale and wherewithal to invest in broad based and diversified portfolios.

ALTERNATIVE INVESTMENTS

Given the differences in liquidity characteristics between Alternative Investments (AI) and traditional investments, the CIO asset class views on AI 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 AI investors. We believe allocations to AI 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.

While technically not classified as RE, Private Infrastructure enjoys some of the positive characteristics of RE and offers some interesting opportunities. Infrastructure assets are well positioned, in our view, in the current inflationary, possibly recessionary, environment. Underlying hard assets with collateral-based cash flows, inflation-linked earnings and contractual cost inflation passthrough are key features of many sectors within the infrastructure market. Additionally, the essential nature of services provided by infrastructure assets provides a level of resiliency in otherwise challenging macro environments, in addition to the diversification aspects relative to traditional debt and Equity investments.

Commodities: Global growth anchors demand for commodities and is near stall speed. China's re-opening is key pillar of support but growth in other parts of the world is slowing. As evidence, the JPMorgan Global Manufacturing Purchasing Manager's Index is at "50" suggesting global manufacturing is neither expanding nor contracting. The OECD Global Leading Indicator for G20 also suggests global growth is under pressure. BofA Global Research projects Brent crude oil prices will average $88 in 2023, close to current levels and will average $60-$80 over the medium term. Similarly, the outlook for industrial commodities is facing headwinds from weaker global growth ex-China. Sticky inflation is leading to higher real rates, which should pressure gold even as elevated geopolitical risk provides some attractiveness. We continue to believe gold is most effectively implemented as a strategic diversifier.

The U.S. dollar is following the path of U.S. real interest and relative real rates versus other major currencies. Sticky inflation and the Fed's renewed hawkishness will likely make a re-test of the near-term February bottom in the dollar difficult. The dollar's safe-haven status also looks attractive in the current geopolitical environment. Over the medium term, the dollar continues to look expensive, in our view.

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

MACRO STRATEGY

- Unseasonably warm winter weather in the U.S. and Europe, coupled with China's rapid reopening, have created positive economic surprises to start 2023. As a result, financial conditions have begun to tighten again as expectations for a higher-for-longer Fed terminal rate are priced into the financial markets, raising the odds of a 2023 recession, while corporate earnings continue to decline.
- U.S. earnings remain above their underlying trends since 2010. It's typical for earnings to fall below trend in recessions, which suggests another drop in earnings would be normal as pandemic demand excesses are wrung out of the economy over the next year or two.

ECONOMIC FORECASTS (AS OF 3/3/2023)

	Q4 2022A	2022A	Q1 2023E	Q2 2023E	Q3 2023E	Q4 2023E	2023E
Real global GDP (% y/y annualized)	-	3.4*	-	-	-	-	2.6
Real U.S. GDP (% q/q annualized)	2.7	2.1	1.0	0.5	-1.0	-2.0	1.0
CPI inflation (% y/y)	7.1	8.0	5.8	4.4	3.7	3.2	4.3
Core CPI inflation (% y/y)	6.0	6.1	5.5	4.9	4.0	3.3	4.4
Unemployment rate (%)	3.6	3.6	3.4	3.3	3.6	4.1	3.6
Fed funds rate, end period (%)	4.33	4.33	4.88	5.38	5.38	5.38	5.38

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 March 7, 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 March 7, 2023.

CIO ASSET CLASS VIEWS AS OF MARCH 7, 2023

Asset Class	CIO View (Underweight – Neutral – Overweight)	Comments
Equities	Neutral	We are neutral Equities as risks to economic growth and corporate profits have recently increased. We remain overweight the U.S. and neutral EM, with a slight underweight to International Developed.
U.S. Large-cap	Slight overweight	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	Slight overweight	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	Neutral	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	Slight underweight	International Developed Equities remain attractively valued, but the shift away from central bank policy tightening is likely to lag behind the U.S. Underlying rates of nominal growth are also expected to trail U.S. levels.
Emerging Markets	Neutral	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 remain attractive, but high and rising global rates remain a headwind.

Asset Class	CIO View: Underweight / Neutral / Overweight	Comments
International		
North America	○ ○ ○ ● ○	The U.S. remains our preferred region given balance sheet strength, better fundamentals for consumer spending and a lower likelihood of a deeper energy shock.
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 household fuel prices and mortgage rates. Historically weak exchange rate risks compounding inflation pressures. Post-Brexit withdrawal from the European Union single market remains a negative for medium-term growth.
Japan	○ ○ ● ○ ○	Some positive spillover expected from rising consumption in China, but headwinds likely to increase from rising domestic interest rates and exchange rate appreciation. Nominal growth expectations remain among the lowest for the major developed economies.
Pac Rim*	○ ○ ● ○ ○	Regional activity stands to benefit from improvement in Chinese consumer demand. Large weighting in Financials should be a relative advantage as rates rise.
Fixed Income	○ ○ ● ○ ○	Bonds are more attractive and provide good diversification for multi asset class portfolios with both reasonable income and the ability to decline substantially in yield in an economic downturn. Neutral duration is suggested, balancing continued inflation risk against significantly better valuations.
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.
U.S. Investment-grade Tax Exempt	○ ● ◄ ○ ○	This month we lowered our allocation to muni bonds to slight underweight from neutral. While we still like municipal credit and think that tax-free municipals should play a key role in portfolios for clients in a high tax bracket, valuations have become excessive versus Treasurys. While the shorter end of the municipal curve has started to correct, longer-dated municipals are still quite expensive versus both Treasurys and Investment-grade corporate bonds. We therefore suggest being slightly underweight in a multi-asset class and all-Fixed Income portfolios at this time.
U.S. High Yield Tax Exempt	○ ● ○ ○ ○	High yield munis are rich relative to Investment-grade munis. An up-in-quality focus should help mitigate increased credit risk due to economic weakening.

* 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.

Asset Class	CIO View: Underweight / Neutral / Overweight	Comments
Alternative Investments*		Given the differences in liquidity characteristics between AI and traditional investments, the CIO asset class views on AI 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 AI investors. We believe allocations to AI 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		The shift in Fed policy has led to greater volatility in the Equity and rate markets. An allocation to Hedge Funds has the potential to lower the effect of the volatility and possibly take advantage of the dislocation and sector rotation. For a Hedge Fund allocation at the strategy level, we continue to suggest incremental overweight to Equity Hedge strategies as part of a diversified portfolio of Hedge Fund strategies. Additionally, we continue to see opportunities in the macro space given the rise in geopolitical risk, the potential for uneven economic growth, interest rate differentials and inflation expectations between countries and regions and its effect on rates, commodities and foreign currencies.
Private Equity		While we remain positive on Buyout and Venture/Growth strategies, there could be headwinds in the near future with higher interest rates and possible down-rounds. Generally, Private Credit (PC) strategies outperformed traditional Fixed Income portfolios in 2022, as PC has floating rate resets, and we expect these funds to continue to do well. The rapid repricing of yields and spreads over the past six months has improved the outlook for the Special Situations strategy, in our view, from very limited to more attractive levels.

Asset Class	CIO View: Underweight / Neutral / Overweight	Comments
Tangible Assets / Commodities		Recently, commodity prices have stalled as the global economy slows and the likelihood of recession increases. Many commodities are stuck in a trading range, as the path of global economic growth is uncertain. However, over the long term, we believe that positive fundamentals remain in place, and a moderate allocation in an investors' portfolio could be additive. Commodities tend to do well in periods of elevated geopolitical risk and high inflation.
Real Estate		Higher interest rates and the possibility of a recession have started to slow down the CRE market. Four out of the five major subsectors posted moderate positive performance in Q3, with Office putting up the first negative number in a while. Performance was in the low-single digits after several quarters of strong growth, particularly in Industrial and Multi-Family. The macro backdrop is still positive for Core/Core-Plus Real Estate, which emphasizes quality investments in well-located and well-positioned assets in growing and liquid primary and secondary markets. Private Infrastructure offers interesting opportunities as many of these hard assets move up with inflation and can potentially provide a relatively good yield.

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 MARCH 7, 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 / Neutral / Overweight	Comments
Healthcare	Overweight	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 medtech. Valuation remains attractive for the Healthcare sector.
Energy	Slight Overweight	Declining but still solid global energy demand, tight global supplies, limited spare capacity, risk of potential global disruptions, and the decline in long-cycle energy investments are supportive 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. Further, earnings and free cash flow outlooks remain strong for energy companies relative to other sectors. There remains room for positioning and sentiment to improve for the sector despite strong outperformance over the last two years. Despite tougher year-over-year (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 free cash flows, balance sheet strength and low breakevens. After two years as the top-rated Equity sector, we remain overweight the Energy sector, but, due to tougher comps YoY it moves down on the sector list. Despite significant outperformance in recent years, Energy stocks still provide attractive valuations and strong dividends, but slowing momentum.

Sector	CIO View (Underweight – Neutral – Overweight)	Comments
Financials	○ ○ ○ ● ○	Banks should enjoy significant tailwinds from a higher interest rate regime after "underearning" on lending revenue since the global financial crisis. Coupled with loan growth, higher interest rates should drive double-digit growth in net interest income, with strong momentum that could carry through 2023. With typically half of a bank's revenue coming from net interest income, this sets the stage for above-trend revenue growth, which falls almost entirely to the bottom line. Importantly, this does not appear to be fully discounted in stock valuations, which remain well below cycle averages. Enhanced earnings power should fuel ongoing capital return, which has been the cornerstone of the investment case for banks in recent years. 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. U.S. banks remain well capitalized and, in our view, are likely to return more capital to shareholders in coming quarters in buybacks and dividends and provide some attractive Price/Book valuation.
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, 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 legislation provides a strong runway for future renewable energy investments and projects and also provides 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 above historical averages and momentum is weakening, 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 downside gross margin protection 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 has 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, which remain below pre-pandemic levels. Potential improvements in the global capex cycle, including re-shoring 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 weighing on general sentiment for Industrials. Valuation is slightly elevated, and momentum is improving.
Real Estate	○ ○ ● ○ ○	Tighter financial conditions and higher cost of capital could slow growth in the Real Estate sector. Higher interest rates 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 Real Estate sector. There are mixed outlooks among its subsectors as a result 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 owners. 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. However, RE's positive correlation with inflation and attractive yield keeps the sector at Neutral. Continue to emphasize longer-term secular trends in data centers, communication infrastructure (towers), storage and industrial real estate. Valuations and momentum are neutral.

Sector	CIO View					Comments
	Underweight		Neutral		Overweight	
Information Technology			●			The Technology sector is neutral despite improvements in supply chains, but margin risks remain for companies in the sector. 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, potential for higher rates 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. Investors are debating whether a bottom is in for semiconductor stocks, as the group is looking more attractive. 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 and more fairly valued 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, and 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 is improving.
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. Rising 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 recently improved.
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 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 back 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 that has been extended into 2023, 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 is negative.
Communication Services	●					We remain underweight the Communication Services sector due to concern for a heighted regulatory environment, potential shifts in advertising spending, and an increased competitive environment for content. Both European and U.S. advertising spend is slowing due to supply chain, inflation and ongoing macro uncertainties. 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 lower advertising spend. This is also being exacerbated by increased competition in the streaming wars just as the consumer comes out of binge-watching post-coronavirus. Long-duration stocks without profits could see additional valuation re-ratings. Valuations have declined and momentum improved to start the year.

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 MARCH 7, 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	Demographics	Climate Change
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.	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.	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	**Security**	**Post-crisis World**
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.	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).	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.

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.

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.

ICE BofA Investment-grade Index measures market performance of USD-denominated investment grade corporate debt publicly issued in the U.S. domestic market with a remaining term to final maturity.

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.

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. 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.

© 2023 Bank of America Corporation. All rights reserved.