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CHIEF INVESTMENT OFFICE

Viewpoint

Distortions Are Re-balancing And Markets Are Applauding

February 2023

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

IN BRIEF

- Overall, we are neutral Equities and Fixed Income due to our base case of a grind-it-out environment in 2023 but we see opportunities in total return sectors, dividend payers, high quality overall, and better opportunities in Small-caps and non-U.S. Equities later in the year.
- For now, the strong jobs data and healthy services spending are delaying the much discussed "recession," and the Federal Reserve (Fed) will likely remain hawkish. The manufacturing and housing segments of the economy are contracting but services are balancing this out.
- We maintain a preference for high quality bonds as 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.

In the coming months, we expect a grind-it-out equity market environment overall. In February, we expect more of a choppy trend as January's 6% gain in the S&P 500 and approximately 11% in the Nasdaq Composite Index have borrowed some return from February. Traditionally, strong market performance in January has led to a positive year, particularly after one as negative as 2022.

Overall, we are neutral Equities and Fixed Income due to our base case of a grind-it-out environment in 2023, but we see opportunities in total return sectors, dividend payers and high quality overall, and better opportunities in Small-caps and non-U.S. Equities later in the year.

In Fixed Income, we favor short-term bonds for cash flow and long-term bonds for total return. We expect rates at the back end of the yield curve to come down later in the year and then the short end of the yield curve to follow eventually. Finally, we expect credit opportunities to develop later in the year after some spread widening.

We highlight some interesting trends that have been filtering through the economy and capital markets recently, and which are leading to a rebalancing in the investment community.

- Despite higher rates and quantitative tightening (QT), financial conditions have been easy since October of 2022, as the U.S. dollar has been weaker, dollar liquidity higher, inflation gauges lower, a decline in long-term rates, and credit spreads narrow. This has been fueling a short-term equity market rally, particularly in the areas that underperformed the most in 2022.

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee did not make any tactical asset allocation adjustments. We remain neutral both Equities and Fixed Income, with a preference for U.S. Equities relative to International, and a preference for high quality Fixed Income. We expect a "grind-it-out" environment for markets over the next several months before stabilizing later in 2023.

View the CIO Asset Allocation Guidelines ▶

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Asset Class	CIO View: Underweight		Neutral	Overweight	
Global Equities			●		
U.S. Large Cap Growth			●		
U.S. Large Cap Value				●	
U.S. Small Cap Growth			●		
U.S. Small Cap Value			●		
International Developed		●			
Emerging Markets			●		
Global Fixed Income			●		
U.S. Governments				●	
U.S. Mortgages			●		
U.S. Corporates			●		
High Yield		●			
U.S. Investment-grade Tax Exempt			●		
U.S. High Yield Tax Exempt		●			
International Fixed Income			●		
Alternative Investments*					
Hedge Funds			●		
Private Equity			●		
Real Assets			●		
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.

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- The long-awaited and debated economic recession has been delayed. Healthy consumer and corporate balance sheets are supporting spending. The manufacturing and housing segments of the economy are contracting, but services are balancing this out.
- Strong jobs reports and specifically the employment data from January are due to goods-based spending still shifting to services areas. Big job gains in hotel, leisure, restaurants, etc. continue to confirm this. The labor market distortions from the pandemic cycle are still rebalancing themselves. Unemployment claims in the coming months are expected to rise as this rebalancing effect wanes and companies right-size their business models for the slower growth environment. However, BofA Global Research still expects the unemployment rate overall to stay below 6% from the January 3.4%, as the supply of labor remains structurally below average.
- Corporate earnings revisions have been slightly negative but not across the board or close to the bear-market scenarios many have been discussing. Earnings per share (EPS) announcements for Q4 2022 have so far been coming in basically flat, all things considered. Revenues have been supported, generally, by the higher prices, but unit volumes and margins are showing some weakness. Consensus earnings estimates for the S&P 500 have been shaved down to $224. The BofA Global Research estimate remains at $200 for 2023.
- Technology stocks have had a recent resurgence in January and early February. In our view, this is due to investors applauding the move by large bellwether companies in the sector to finally cut costs aggressively and right-size their expenses, significant short covering by hedge fund managers which helps to support share prices, semiconductor companies performing above expectations as supply chains have improved, and China reopening its economy. However, we believe there is more room to go before the Technology (Tech) sector's long-term workout is over. Tech will be needed to support automation, the internet of things, and Artificial Intelligence, but we don't expect the sector to be "*the*" leader in the next bull cycle.
- The Energy sector has been weak on a relative basis, as financial conditions have eased but we believe this area is due for a resurgence. The long-term supply-demand dynamics are still in favor of higher energy prices while cost containment remains top of mind. This supports higher free cash flows in the future, which potentially supports increases to dividends and stock buyback programs, in our opinion.

The Fed should hike two more times in March and May at 25 basis points (bps) each. This would move the so-called terminal federal funds rate to between 5.00% and 5.25%. We then expect the Fed to pause and continue to assess the incoming data through the balance of the year. Given our expectation that the money supply will likely continue to deflate and inflation continue to drop, the market may begin to debate the Fed's next move (i.e., cutting rates) by the end of the year. We will see. For now, the strong jobs data and healthy services spending are delaying the much discussed "recession," and the Fed will likely remain hawkish.

CIO INVESTMENT DASHBOARD AS OF FEBRUARY 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 is still at elevated levels but continues to show signs of moderating from the peak in mid-2022. U.S. corporate profit trends are less supportive as downgrades continue, with consensus now estimating annual earnings growth of 2.7% 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 by over 20% last year 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		According to FactSet, consensus expects earnings growth of 2.7% with revenue expansion of 2.3% in 2023, versus an estimated 4.1% earnings growth with 10.5% revenue in 2022. However, estimates are declining. According to the BofA Global Research Earnings Revision Ratio, analyst downgrades for earnings continue to outnumber upgrades globally, while sales forecasts are now falling in tandem.
Valuations		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 18.5x, down from 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		Real gross domestic product (GDP) grew by 2.9% in Q4 2022 at a seasonally adjusted annual growth rate. A rise in inventories accounted for over half of the contribution to this expansion, while fixed investment contracted for a third consecutive quarter. On the demand side, a strong labor market and a cushion of savings have sustained consumer spending for now. Less clear is their durability in the face of a burdensome cost of living and rising interest rates. BofA Global Research expects growth of 0.7% for 2023
Global Growth		Geopolitical tensions, elevated inflation and monetary tightening by global central banks are weighing on global economic growth. In Europe, inflation has been fueled by the conflict in Ukraine, though a milder winter has reduced fears of energy shortages significantly destabilizing the economic outlook. In China, there has been a shift away from the previous zero-COVID policy. The effects of this policy shift on economic activity remain uncertain. Overall, the global economy is expected to have expanded by 3.4% in 2022. This year it's expected to grow by 2.5%, according to BofA Global Research.
Monetary Policy / Inflation		The target policy interest rate was raised by 0.25% by the Federal Open Market Committee (FOMC) this month to 4.50% to 4.75%. BofA Global Research anticipates a terminal range of 5.00% to 5.25% to be reached this Spring. In slowing the pace of rate hikes, Fed Chairman Jerome Powell acknowledged recent disinflation. He also expressed less worry over easier financial conditions, remarks that were generally interpreted as less hawkish. 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) has stabilized at around 18, 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 cash levels remain elevated and 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 4.2.

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 couple of meetings, with BofA Global Research anticipating a 25 bps hike in March and May, 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. These conditions are likely to materialize later in 2023, and, therefore, despite a rally to start the year, 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 continues to weaken, 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, which should continue to benefit from elevated inflation in the near term and still trades at a discount to Growth. We remain neutral Small-cap Equities, which have lower-quality balance sheets, 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 in order 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. Although S&P 500 valuations moved higher in January, the P/E multiple is still attractive compared to a year ago. However, the current S&P 500 valuation is still not cheap given elevated interest rates and the uncertain earnings picture, and helps 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 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. Given our view that we are in a late-cycle environment, we remain neutral Consumer Staples, Industrials, Real Estate (RE) and Information Technology. Stronger relative earnings from Consumer Staples is 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. In the long run, Growth should benefit from accelerated secular investments in 5G, artificial intelligence, cloud computing, robotics and health infrastructure globally. However, current economic conditions suggest that investors may want to consider emphasizing Value, which is trading at a relative discount to Growth and is seeing better earnings trends.

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. 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]

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

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

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 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 benefits.

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 as recessionary signals increase. Ten-year Treasurys are currently hovering around 3.60%. Real yields—the yield after inflation is taken into account, as measured by Treasury Inflation-Protected Securities (TIPS)—are approximately 1.3% across the curve and are still attractive although they have decreased recently. 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.

The Fed hiked interest rates 25 bps in February, slowing the pace of rate hikes for the second consecutive meeting after a large amount of monetary policy tightening this late in a rate hike cycle. The targeted fed funds range is now 4.50% to 4.75%, and the market and Fed both currently expect approximately another 50 bps of rate hikes before the Fed stops raising rates at 5.00% to 5.25%. This is a recent change; the market had recently only expected a further 25 bps of rate hikes until this month's very strong employment report.

The Fed, however, continues to dissuade the market from expecting any rate cuts in 2023. The market expects the Fed to cut rates in the back half of 2023, and by 2024 the difference between Fed and market expectations is a full 125 bps. This is a major "gap" between the Fed and markets expectations that we are watching carefully, and needs to eventually resolve. Leading economic indicators are still negative, the 2s/10s Treasury yield curve is around 80 bps inverted, and the 3-month/10-year yield curve remains inverted as well. Inflation expectations remain stable around 2.25% to 2.5% across the curve, highlighting that the market believes the inflation spike is behind us and that current Fed policy will 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, and although it is still very real, rate risk is more two-sided now. 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 neutral duration versus a stated benchmark.

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 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,

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

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 towards 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%. Valuations provide modest compensation for credit losses and suggest reasonable returns over medium to longer time frames. However, as sentiment remains depressed and 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 are neutral U.S. Investment-grade Tax Exempt: Muni valuations versus Treasurys have become extremely rich, particularly at the front end and belly of the yield curve. In fact, AAA general obligation (GO) munis maturing within five years are yielding less than Treasurys on an after-tax basis, even for investors in the highest tax bracket; we believe this is unsustainable. Technicals have been quite strong, with typical seasonally low tax-exempt issuance and a pickup in retail demand. 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 QT since last year. As a result, MBS spreads have been under pressure and have widened significantly before retracing most of it and now being 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 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, the rewards and risks of the MBS sector are now more balanced.

ALTERNATIVE INVESTMENTS

We favor a strategic approach when allocating to Hedge Funds: Our outlook for Equity Hedge remains slightly positive for qualified investors. With the strong equity rally in January, we believe it demonstrates the importance of maintaining an allocation to this

strategy. Even as the market rallies, the opportunity set in shorting remains favorable in our opinion. However, navigating potentially swift and short-term market rallies like we have seen recently may prove challenging at times, particularly when rallies are led by lower-quality/more speculative companies. With that said, the abundance of cheap capital over the last decade led to a deterioration of many companies' capital allocation discipline. Amidst more scrutiny from investors, the combination of increased leverage, higher interest costs and high inflation driving higher expenses could provide a fruitful environment for shorting individual stocks over the medium term.

Looking at the year ahead, the outlook for Event Driven remains mixed but is improving. The opportunity set for Distressed strategies increasingly looks promising over the next 12 to 18 months. That said, there is a cognizance among managers that some patience is warranted when it comes to capital deployment, as market volatility is expected to remain elevated in the near term. Consistent with prior market downturns, Event Driven Multi-Strategy managers have been reducing exposure to equities and pivoting their portfolios toward a higher exposure in credit. Managers are taking a balanced approach gradually leaning into stressed and distressed credit situations, given the already rich opportunity set, while retaining enough dry powder for future capital deployment over the next several quarters.

As the outlook has improved for Relative Value, we have upgraded the strategy from an underweight closer to a neutral weight preference. Yields and spreads are substantially higher and wider year-over-year (YoY) across almost all of credit, including corporates, munis and asset-backed securities, which compensates investors for taking on credit risk significantly more today than previously. At this time, defaults are expected to rise closer to average levels, but it seems unlikely that they will spike in the near term, partially mitigating downside risks. Volatility has created opportunities to reallocate unconstrained portfolios to attractive risk-adjusted opportunities, though liquidity notably continues to remain poor.

The reversal in certain trends in Q4 made for a challenging environment for Macro strategies. However, for 2022, performance was strong, and we continue to be positive on this strategy. On a sub-strategy level in Q4, Global Macro managers navigated the changing environment somewhat better than Managed Futures. This could be because the possible shift in the global economy and the trajectory and speed of interest rate increases shows up first in fundamental signals before price and volume data in the futures markets. Many Managed Futures strategies that use Trend-Following models need to see a directional move before allocating capital in size. Strong trends that were very profitable in 2022, such as long the dollar vs. other developed market currencies and short Fixed Income, reversed and managers cut their risk to these trades. It is unclear whether these changes in direction are temporary or more permanent, but we believe that the opportunities for these strategies are far from over, and we continue to suggest a portion of capital be allocated to these types of managers.

We favor a strategic approach when allocating to Private Equity: In 2022**,** Private Credit delivered for investors by providing positive and growing income and generally outperformed most other Fixed Income investments. While traditional Fixed Income has performed better recently with the slowing of interest rate hikes, we believe that Private Credit will continue to provide strong current income to investors. With many funds yielding 8% to 10%, income-oriented investors will be well served by continuing to hold or add to this strategy. Direct lending portfolios experienced a low number of credit issues in 2022, and if the U.S. does not have a hard landing, credit defaults are unlikely to spike significantly higher. Generally, coverage ratios have declined only modestly, and we consider them to still be in a neutral zone. Floating rate resets were back-end loaded towards the end of 2022 and this pushed income up materially over the last six months.

The rapid repricing of yields and spreads over the past six months has improved the outlook for the Special Situations Private Equity (PE) strategy, in our view, from very limited and uninspiring to more attractive levels. Current corporate default rates remain low, but this may be changing. Moreover, forecasts for defaults in 2023 have now climbed to around

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.

2.3% for HY and 2.8% for leverage loans compared to long-term averages of 3.2% and 3.1%. Forecasts have also been ratcheting up in recent months in a game reminiscent of catch up, similar to the dynamics seen in inflation expectations and earnings estimates. It is quite plausible that stress could metastasize as debt service burdens increase immediately for floating rate borrowers and upon refinancing for fixed rate borrowers. If economic growth slows beyond expectations, the stress would be compounded. At a minimum, we believe we have rapidly returned to a neutral posture with our eye on a potentially sizable future opportunity set.

For Venture Capital and Growth Equity, we think it is likely that valuation resets will continue to trickle into current portfolios. The threat of a recession driven by rising interest rates portends a negative impact to portfolio company operating performance, as measured by their ability to meet targets and/or outperform the last two years. As a result, we anticipate an increase in the prevalence of down-rounds (financing in which a company sells shares of its capital stock at a price per share that is less than the price per share it sold shares for in an earlier financing), although companies will exhaust other options to conserve cash, with a view to delaying fundraising as much as possible. However, 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 companies striving to solve them. Historically, Venture Capital has funded these companies. The reset in valuations, along with a renewed focus on company fundamentals and profitability, implies that the opportunity set for Managers deploying capital now into the Venture and Growth strategies over the next 12 to 24 months should be robust. With the IPO exit window effectively closed for the time being, Funds that have exhibited discipline in reserving capital for future funding rounds should be better positioned to support their highest-quality assets through to exit while simultaneously increasing ownership positions, likely at more favorable prices.

We favor a strategic approach when allocating to Private Real Estate: In 2023, we remain constructive on Core/Core-plus RE as a strategic, long-term portfolio allocation, even as the macroeconomic landscape has changed dramatically from a year ago. As expected, 2022 saw a moderation of the exceptional performance delivered by the asset class in 2021, and yet the strategy delivered attractive total returns in 2022 on both a risk-adjusted basis and relative to long-term targets. 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 Real Estate remains a neutral asset category for Q1 2023. Rising interest rates adds to some uncertainty in this strategy, although Real Estate has a good historic record of outperforming during periods of inflation and economic growth.

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 pass-through 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: Commodity prices have been mixed for the past several months. Oil and its derivatives have slowly declined in the back half of 2022 and appear to be in a trading range. While the global economy appears to still be doing well, the lack of upward movement is somewhat baffling. Gold performed well in 2022 and continues to show strength. Copper has rallied recently, possibly indicating that a global recession is not on the horizon. China's reopening could possibly give a boost to a wide range of commodities. Overall, Commodities tend to do well in periods of elevated geopolitical risk and high inflation and offer good portfolio diversification.

The dollar had a very strong year until last November, when the trend reversed. The strength of the greenback up to that point came from three major forces: "safe haven" status in an uncertain geopolitical world; higher relative interest rates vs. Europe and Japan; and relatively better economic conditions. While it looks like the U.S. has reached peak inflation and that interest rate increases will likely be smaller going forward, the wind has gone out of the sails of this trade. As other global central banks continue to hike rates, the dollar will face further headwinds. In 2023, one risk to dollar strength is if inflation falls faster than the market expects and the Fed makes a dovish pivot.

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

- Signs that the U.S. economy is approaching a recession continue to proliferate, with inflation also falling much faster than expected. As a result, markets have been celebrating the end of the Federal Reserve's aggressive rate hiking cycle and the prospects for an economic soft landing. However, the main fallout from policy tightening is yet to occur, in our view, with the rapidly deteriorating corporate earnings outlook set to trigger rising unemployment in 2023.
- China's reopening is supporting global cyclical momentum, for now. From a low of 2.2% in early December, BofA Global Research raised its forecast for global GDP growth for this year to 2.5%. That is above the normal 2% recession threshold but below trend growth of 3.3%.

ECONOMIC FORECASTS (AS OF 2/3/2023)

	Q4 2022A	2022A	Q1 2023E	Q2 2023E	Q3 2023E	Q4 2023E	2023E
Real global GDP (% y/y annualized)	-	3.4*	-	-	-	-	2.5
Real U.S. GDP (% q/q annualized)	2.9	2.1	1.0	-0.5	-2.0	-1.5	0.7
CPI inflation (% y/y)	7.1	8.0	5.3	3.7	3.0	2.7	3.5
Core CPI inflation (% y/y)	6.0	6.1	5.2	4.3	3.3	2.8	3.9
Unemployment rate (%)	3.6	3.6	3.4	3.8	4.3	4.8	4.1
Fed funds rate, end period (%)	4.33	4.33	4.88	5.13	5.13	5.13	5.13

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 February 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 February 7, 2023.

CIO ASSET CLASS VIEWS AS OF FEBRUARY 7, 2023

Asset Class	CIO View: Underweight		Neutral	Overweight		Comments
Global Equities			●			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 Growth			●			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. Large-cap Value				●		
U.S. Small-cap Growth			●			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.
U.S. Small-cap Value			●			
International Developed		●				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			●			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.
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.
Global Fixed Income			●			Bonds have become significantly more attractive, and provide an even better ability to diversify multi-asset class portfolios by providing income and the ability to decline in yield substantially in an economic downturn. Neutral duration is preferred, balancing two-sided rate risk against significantly better valuations.
U.S. Governments				●		Nominal and real yields are now very attractive across the curve relative to the last 10 to 15 years. A Treasury allocation for liquidity, principal preservation and diversification is advised, as Treasurys provide the best short-term diversification benefits to equities among fixed income sectors. Interest rate volatility has increased and may remain high.
U.S. Mortgages			●			MBS spreads have rallied significantly and at around 40 bps are trading just wide of their 10-year average. At current levels, MBS spreads now appear only modestly attractive relative to Treasuries and Corporates. We remain neutral on the asset class overall but acknowledge risks to the upside in spreads over the near term given uncertainties on quantitative tightening and the macro backdrop.
U.S. Corporates			●			IG spreads are screening rich at around 120 bps, the tightest levels since April 2022. Valuations do not reflect risks of a recession over the next 12 months. We believe a modest up-in-quality/defensive tilt within a corporate allocation is prudent. 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).
International Fixed Income			●			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 still keeping longer-term rates artificially low.
High Yield		●				Valuations now present significantly more attractive medium- to long-term returns even after estimating credit losses. However, poor near-term sentiment and rising recession fears 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. High Yield Tax Exempt		●				An up-in-quality focus should help mitigate increased credit risk due to economic weakening.
U.S. Investment-grade Tax Exempt			●			Munis have become extremely rich relative to Treasurys at the front end and belly of the yield curve. Technicals are quite strong, with low issuance expected into February and fund flows turning positive. Fundamental conditions remain solid for now but may weaken due to pressure on tax revenues, as well as higher operating expenses and required pension contributions. We expect defaults to remain low, but a focus on higher credit quality will help mitigate potential spread widening.

* 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			Comments
	Underweight	Neutral	Overweight	
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.
Real Assets				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.

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 FEBRUARY 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			Comments
	Underweight	Neutral	Overweight	
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 medtech. Valuation remains attractive for the Healthcare sector.

Sector	CIO View (Underweight – Neutral – Overweight)	Comments
Energy	○ ○ ○ ● ○	Declining but still solid global energy demand, tight global inventories, 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 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. 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 break-evens. 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.
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 neutral 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.

Sector	CIO View Underweight Neutral Overweight	Comments
Real Estate	• • ● • •	Tighter financial conditions and higher cost of capital could slow growth in the RE 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.
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 semi-conductor 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 strong 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 pivot and the re-rating of Technology stocks. Valuations remain elevated and momentum is weak.
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 is neutral.
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 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 is weak.

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 FEBRUARY 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.

Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors.

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.

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

Important Disclosures

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

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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.

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