BANK OF AMERICA

CHIEF INVESTMENT OFFICE

Viewpoint

Remain On Guard: We Expect Stability Around the Corner

October 2022

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

IN BRIEF

- This month we are raising Fixed Income, tactically, to a slight overweight and increased overall credit quality, as real and absolute yields have become attractive for the first time in many years. With this adjustment, which was funded from the Cash asset class, we also look for opportunities to extend duration.
- Nominal economic growth will likely continue to lose momentum as the Federal Reserve (Fed) withdraws liquidity from the system.
- We remain neutral Equities, and see near-term risks for Equities coming from a global slowdown in growth and profits, persistently elevated levels of inflation and what we believe to be a Fed policy error. We would expect volatility to continue as financial conditions tighten as the Fed continues its interest rate hiking cycle.

In late September, equity markets touched new lows for the year and headed toward late 2020 levels. We experienced six straight days of losses in the S&P 500, which has happened only a handful of times over seven decades, according to Bloomberg. Bond yields rose sharply, investor sentiment fell to the weakest levels since last experienced in Q1 2009 (according to American Association of Individual Investors weekly survey), and the U.S. dollar strengthened further as the pound sterling touched a record low as did the off-shore Chinese Yuan. Global central banks are now in full tightening mode together, and the path of least resistance in this global financial desert has been down.

Given all of the unprecedented outliers that have developed in 2022, including the worst performance year on record so far for a combined stock and bond portfolio going back to the 1970s using Bloomberg data, the sharpest interest rate hiking cycle in five decades, the fastest and strongest increase in the U.S. dollar on a trade-weighted index basis, the wild price swings in commodities including oil, and 40-year-high inflation, where do we stand?

Our view is simple. This is a post-pandemic cycle that has developed into a reset period. Once earnings forecasts fully reset later this year, and inflation begins to show its true "directional" patterns that are beginning to build (see commodity prices, freight costs, the latest rent data and jobless claims), we believe the 2-year yield and the U.S. dollar begins to peak. This, in our view, helps create the stability very much needed.

We remain on guard and continue to assess the interplay among yields, risk assets, currencies, and how close we are to the end of the reset period. Yields have now become much more attractive for investors than at any time in the past 15 or so years. Equity valuations are getting closer to fair value, but we have further to go with earnings revisions, in our view. Therefore, for the time being we continue with a defensive tone across asset classes. At this month's Global Wealth & Investment Management Investment Strategy Committee meeting, we are raising Fixed Income, tactically, to a slight overweight and

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee raised our Fixed Income allocation to a slight overweight, relative to our strategic allocation, and funded it from Cash. Within Fixed Income, we raise U.S. Investment-grade Taxable to a slight overweight and International bonds to neutral. We remain neutral Equities with a preference for U.S. Large-cap, and remain "on guard" and continue to assess the interplay among yields, risk assets, currencies, and how close we are to the end of the reset period.

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

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

increased overall credit quality, as real and absolute yields have become attractive for the first time in many years. With this adjustment, which was funded from the Cash asset class, we also look for opportunities to extend duration. Later in the year, when signs appear that short-term yields and the U.S. dollar have peaked or when the deterioration in global economic data begins to subside, we would have plans ready to rebalance into specific Equity themes where necessary, while markets try to establish a final bottoming phase.

CIO INVESTMENT DASHBOARD

A global growth slowdown is continuing to unfold with economic data in the U.S., Europe and China weakening. Inflation is elevated in the U.S. and accelerating in Europe, while the property sector in China is weighing on consumer sentiment. Central banks in developed and emerging countries are tightening policy aggressively to combat inflationary pressures. Corporate profits currently remain supportive, with consensus estimating annual earnings growth of 7.2%, but downgrades have recently picked up. Corporate credit conditions remain generally supportive, but credit spreads have widened amid tightening financial conditions. Absolute valuations for U.S. Equities have declined slightly below historical averages amid the recent selloff, and investor sentiment remains extremely bearish. 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 over the next several quarters.

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		For 2022, earnings growth is expected at 7.2%, with revenue at 10.6% according to FactSet. However, estimates are beginning to decline. In Q3, earnings growth is expected at 2.5%, down from 6.2% growth in Q2. Globally, analyst downgrades for earnings increasingly outnumber upgrades, according to the BofA Global Research Global Earnings Revision Ratio.
Valuations		U.S. Equities are more attractive today, but still not cheap. The S&P 500 price-to-earnings (P/E) ratio (next 12 months) has fallen below 16.0x from 21.5x in late 2021 due in large part to price volatility. Rising interest rates have reduced the relative appeal of Equities versus Fixed Income.
U.S. Macro		Real gross domestic product (GDP) growth in Q2 2022 contracted by -0.6% on a seasonally adjusted annual growth rate. For Q3, the Atlanta Fed's GDPNow tracker forecasts growth of 2.7%. Consumption, business investment and exports are supporting growth, which has been weighed on by residential investment and inventories. On the demand side, a strong labor market and dwindling excess savings should continue to support consumer spending in the near-term. However, a rising cost of living, supply-chain challenges, rising interest rates and labor shortages, to a lesser extent, are headwinds to growth. BofA Global Research expects growth of 1.6% for 2022 and -0.6% in 2023.
Global Growth		Geopolitical tensions, elevated inflation and monetary tightening by global central banks are sustaining global uncertainty. In Europe, the conflict in Ukraine continues to exacerbate commodity-related inflation and destabilize the economic outlook. In China, a strategy to eliminate the coronavirus has dragged on consumption and the services sector and weakness in the property market has weighed on the economy. The global economy is expected to expand by 3.4% in 2022 and then by 2.3% in 2023, according to BofA Global Research.
Monetary Policy / Inflation		The Federal Open Market Committee's (FOMC) target policy interest rate range stands at 3.00% to 3.25%. BofA Global Research anticipates a terminal range of 4.75% to 5.00%, implying further hikes totaling 1.75% over the next four meetings. In September, the balance sheet runoff began operating at full capacity, at $95 billion per month in Treasury bonds and Mortgage-backed Securities (MBS). Measures of inflation such as the Consumer Price Index (CPI), the Producer Price Index (PPI) and the Personal Consumption and Expenditures Price Index remain elevated compared to historical averages, but some of these may have peaked.
Fiscal Policy		Fiscal stimulus in the U.S. in response to the pandemic totaled nearly 32% of GDP, according to Piper Sandler & Co Research. Designed in part to combat persistent inflation, the Inflation Reduction Act was signed into law. Alongside fiscal deficit reduction via measures to raise public revenues, including a 15% minimum corporate tax rate and prescription drug pricing reform, the legislation provides nearly $370 billion over 10 years for energy security and climate change projects, among other initiatives. This follows the authorization of a $280 billion plan to strengthen the country's industrial base, by investing in semiconductor production and research and development of new technologies.
Corporate Credit		High yield (HY) and Investment-grade (IG) credit spreads tightened over the summer. More recently, their renewed and general upward trend and elevated degree indicate less accommodative financial conditions and investor worries over the prospect of a notable economic slowdown.
Yield Curve		The 2s/10s Treasury yield curve recently touched its most inverted level in decades. The fed funds/10s curve is still positive but will likely invert in months ahead with additional Fed rate hikes. This curve has been a useful predictor of recessions.

Factor	Implication for Equities: Negative Neutral Positive	CIO View
Technical Indicators		The Chicago Board Options Exchange (CBOE) Volatility Index (VIX) has rebounded from its recent low in mid-August and is now near the highest level since June. Indicators of market breadth —including the cumulative advance/decline line for New York Stock Exchange (NYSE) Equities and the percentage of them above their 200-day moving average—have continued to deteriorate after improving in July.
Investor Sentiment		Bearish sentiment has risen to the highest level since 2009, according to the American Association of Individual Investors. Institutional portfolio cash levels are at the highest level since October 2001 and continue to signal a tactical contrarian "buy" signal, according to BofA Global Research's Fund Manager Survey. The BofA Bull & Bear Indicator also signals "buy," at 0.0.

Source: Chief Investment Office. Data as of October 4, 2022.

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. As growth moderates, profit estimates are beginning to follow as the Federal Reserve (Fed) pursues an aggressive tightening bias. BofA Global Research expects a 75 basis points (bps) interest rate hike at the November FOMC meeting followed by a 50 bps hike in December and two 25 bps hikes in February and March of 2023, bringing the target range to 4.75% to 5.00%. In addition, the Fed is expected to continue shrinking its balance sheet with the run-off cap doubling starting last month. We continue to favor U.S. Equities over International on a risk-adjusted basis and believe that tightening monetary policy will continue to pressure the riskier areas of the market. We remain slightly underweight European Equities and International Developed Market Equities given that Eurozone growth is likely to weaken on the back of the energy price shock, declining business and consumer confidence, and slowing money supply growth.

We are overweight U.S. Equities overall: The U.S. 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 benefit from higher levels of inflation. We remain neutral Small-cap Growth and Small-cap Value. Small-caps 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. However, we believe a neutral position is appropriate at this stage given their reasonably attractive absolute and relative valuation versus Large-caps.

We expect earnings per share (EPS) for the S&P 500 to improve to $218 in 2022 but decline in 2023 by 8% to $200 on economic weakness and margin pressures. S&P 500 valuations remain relatively attractive for long-term investors compared to the elevated levels seen earlier this year but are still not cheap given the cloudy earnings picture. 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 continued "on guard" stance is now leaning toward a more defensive tone. We continue to prefer sectors with strong free cash flows and attractive valuations like Energy and Financials and are also slightly overweight sectors like Real Estate (RE), Healthcare and Utilities, which are likely to provide some stability. Given our view that we are in a late-cycle environment, we remain neutral Information Technology, Industrials and Consumer Staples. We remain slightly underweight Materials as recession risk rises and the U.S. dollar strength weighs on the sector. We remain fully underweight Consumer Discretionary and Communication Services.

We believe 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 remain vulnerable to further escalation of the conflict in Eastern Europe, Fed tightening and U.S. dollar strength. We continue to expect a wide return dispersion between individual EM countries and regions. Central and Eastern European markets are most exposed to the Ukraine/Russia crisis through international sanctions and high dependency on natural gas imports. Cyclically oriented markets in Latin America, the Middle East and Africa should be relatively well positioned, in our view, as commodity prices remain elevated, while markets in Asia remain more at risk from high energy and food import prices. For the heavyweight Chinese market, we also see ongoing uncertainty related to economic and regulatory policy and growing concerns about the property sector. 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 Europe given headwinds to economic growth and corporate profits from higher energy prices, elevated inflation and an increasingly hawkish European Central Bank (ECB). Reduced gas supplies from Russia continues to contribute to the likelihood of further economic weakness across the region. Inflation has yet to peak, forcing the ECB to tighten monetary policy while balancing the risk caused to peripheral debt. We maintain a neutral view on Japanese Equities, which remain supported by large fiscal and monetary stimulus, though economic reopening has been sluggish. Despite these challenges, we believe long-term investors should consider maintaining some strategic exposure to International Developed Equities, as appropriate, as they trade at a steep discount relative to U.S. Equities, offer an attractive dividend yield, and provide strong diversification benefits.

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

FIXED INCOME

Fixed Income across most sectors has become more compelling given our view of rates and the economy. We have made a number of changes in positioning to reflect this, including increasing diversification, overall credit quality and duration where appropriate.

We are moving to slight overweight for Global Fixed Income: The U.S. nominal and real yield environment is the most compelling it has been in the last 15 years. 10-year Treasurys recently hit 4%, the highest since 2008. Meanwhile 5-year real yields—the yield achievable after inflation is taken into account— have increased from approximately -2% to almost +2% in less than one year. The market has not seen an increase in real yields of this magnitude this quickly since Treasury Inflation-Protected Securities (TIPS) were first issued in the late 1990s. The ability to now earn a positive, substantial yield on U.S.

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

Government-guaranteed securities after inflation is a welcome reprieve for savers after years of financial repression. We therefore have become significantly more positive on Fixed Income overall, as well as U.S. Governments where we have moved to neutral from slight underweight.

The Fed delivered another 75 bps interest rate hike in September, its third 75 bps hike in a row—a large amount of monetary policy tightening in a very short time frame. The targeted fed funds range is now 3% to 3.25%, and the market currently expects approximately another 150 bps of rate hikes before the Fed stops raising rates. This has the market predicting a peak fed funds rate of around 4.5% next year, although that estimate has been as high as 5% recently. Leading economic indicators have continued to roll over, with the 2s/10s Treasury yield curve now inverted by around 45 bps, the most since the technology-media-telecom (TMT) crisis in 2000. Inflation expectations continue to decrease markedly, highlighting that the market thinks the worst of the inflation problem is behind us, and the aggressive Fed policy will be enough to eventually get back to 2% inflation. Therefore, while long rates may continue to move up as short rates do, long rates are now becoming less sensitive to moves in short rates. The amount and extent of further upside in rates has diminished somewhat, in our opinion, although there is still further upside risk to be clear. Rate risk is therefore more two-sided now, and Fixed Income from this point forward will do an even better job of diversifying multi-asset class portfolios, in our opinion, since higher yields offer not only higher income but also potentially a better ability to move down substantially if another economic downturn occurs.

Against this backdrop, we are again increasing exposure both to Fixed Income and to duration in multi-asset class portfolios. We are now neutral duration versus a stated benchmark and are neutral on U.S. Treasurys.

We remain slightly overweight Investment-grade corporates and slightly underweight High Yield: IG credit spreads have been in a defined uptrend, i.e., higher highs and lower lows for the majority of the year. Amid a worsening macro backdrop and significant interest rate volatility, IG spreads recently notched fresh highs for the year, and, at around 165 to 170 bps, are now at the low end of what we would consider appropriate for pricing in a mild recession or soft landing scenario. While we continue to advocate for an up-in-quality tilt with regard to positioning within credit, we do believe that the recent backup presents investors with a more balanced risk/return opportunity, particularly for investors with a longer time horizon, not only in terms of spreads, but also all-in yields (around 5-6% for the ICE BofA IG Index), which are at the highest levels that we have seen since the Financial Crisis. However, we do not want to downplay the risks that spreads could gap further towards 200 bps, which historically has been more consistent with a recession. With corporate credit fundamentals in solid shape heading into this stage in the cycle, we would view any further backup toward 200 bps as an opportunity to add Investment-grade credit risk.

Credit losses in IG are generally manageable 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% after rallying into the mid 7%-range in early August. We believe valuations once again provide reasonable compensation for credit losses and suggest favorable returns over medium to longer time frames, although not as good compared to late June when yields were closer to 9%. 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. 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 moving from a slight underweight to a neutral position in Mortgage-backed Securities: To combat the inflation rate, which has risen to a five-decade high, the Fed has steadily tightened financial conditions by raising interest rates and engaging in quantitative tightening. As a result, MBS spreads have been under pressure and leaked

wider toward levels seen during market stress, such as the taper tantrum and the 2020 health crisis. Currently, both on an absolute and relative basis, MBS spreads have widened to attractive levels. A portion of the sector's risk has also been mitigated; the duration has significantly lengthened and further extension is now limited in a rising rate environment. Equally unfavorable for the MBS sector, interest rate volatility is also at levels last seen during the height of the health crisis. Last but not least, the technical picture for MBS demand has been challenged by banks' reduced saving and increased commercial and industrial (C&I) loan activities. Like the Fed, banks, who own a third of the MBS market, are largely absent from the MBS market. There is a likelihood that the spread will continue to widen given the Fed's lack of prior experience with quantitative tightening, in our view. particularly active MBS sales, and the shaky geopolitical environment, but the current spread level of 64, which is nearly twice the 10-year average of 34, offers long-term investors an attractive yield.

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

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.

We favor a strategic approach when allocating to Hedge Funds: The outlook for Event Driven strategies remains mixed, although the opportunity set has arguably improved in certain substrategies. We maintain a cautious posture with respect to distressed strategies but are closely watching the space, as it has the potential to rapidly become attractive. The same can be said for Merger Arbitrage. Deal spreads have widened YTD, offering higher prospective returns; however, Mergers & Acquisitions volumes have declined YoY and could continue to fall depending on economic conditions. In this environment, deal completion risk is elevated given volatile markets and an aggressive regulatory posture. While we are still cautious on Relative Value (RV) strategies, the outlook improved in Q2 with significant credit spread widening across multiple sectors, but has since contracted somewhat over the summer. Corporate high yield and non-agency structured credit are generally offering a more attractive risk-reward profile given recent market action, in the view of many RV managers.

With the increased volatility in markets we have seen so far in 2022, Global Macro Strategies performed well and we remain positive on this strategy. Macro managers typically made money from being short sovereign Fixed Income markets and long the U.S. dollar against currencies like the euro, pound and yen which depreciated. After clocking strong returns in the first half of 2022, many Commodities have drifted lower and many managers have cut risk and exposure to this sector. With the likelihood of a global

recession, demand for Commodities will likely weaken, but long-term fundamentals, particularly for energy markets, remain in place. Many macro managers had been predicting more monetary tightening was coming to combat inflation, and we saw this come to fruition in September. As rate expectations have risen, traditional markets may continue to struggle while opportunities for macro managers could be quite strong.

While Equity Hedge has underperformed other hedge fund strategies in 2022, it has significantly outperformed broad equity market indexes. We are positive on this strategy and continue to favor funds managed with low to moderate net exposure and factor in biases. In an environment of heightened volatility, we believe that a hedged and less constrained approach to investing in Equities (relative to traditional long-only funds) presents the opportunity to outperform broader Equities and this is what we have seen so far in 2022.

One of the major advantages Equity Hedge has over long-only managers is shorting, and this has added significantly to outperformance in 2022. Generally, short positions generated significant returns and alpha[2] in 2022, and we believe short exposure will continue to add value to a portfolio. As the likelihood of a recession is increasing, corporate earnings are likely to be challenged, which will negatively affect stock prices. Also, we are starting to see some P/E multiple contractions alongside increasing risk aversion. All this, combined with higher financing costs for companies and inflation driving higher expenses, the opportunity set for shorting is attractive.

We favor a strategic approach when allocating to Private Equity: Private Equity (PE) Buyout deal activity continues to slow, and many expect closed deal activity to diminish for the remainder of 2022 as announced deal flow has declined. Rising interest rates and falling public market indexes are also having a direct effect on the pricing environment, in many cases, with the cost of debt rising, the proportion of Equity has also risen. While we remain positive on Venture/Growth Equity over the long term, fund-raising momentum has slowed. Fund managers are preparing portfolio companies for persistent slowdown in fundraising, with burn rates now a renewed focus and alternative capital sources, such as debt, being explored. As Q2 returns are starting to come in, we are seeing the negative effect of public equity markets' decline on private market valuations. However, we believe it is important for diversification and long-term return expectations to remain committed to private markets. As companies stay private for longer, we believe investors should continue their allocation to private companies as appropriate to capture early and mid-stage growth.

Private Credit is an attractive category for income-oriented investors who are willing to take some credit risk, as it helps mitigate duration risk in the face of rising rates and provides a return premium over public liquid credit. Even as stress continues to build within the larger FI universe, credit defaults remain low, for now. Another positive for the strategy is that floating rate resets are coming, which are expected to be back-end loaded for the year. However, as the probability of a recession increases and some of the more vulnerable and highly leveraged companies face a slowing economy and high coupon payments, we could see defaults rise from historically low levels with negative implications for this strategy.

We favor a strategic approach when allocating to Private Real Estate: Despite growing economic uncertainty, we remain constructive on Core/Core-plus Real Estate. Returns in Q2 have moderated somewhat from the exceptional outperformance seen in 2021, and we expect that to continue over the near term. The asset class remains on track to deliver attractive risk-adjusted returns overall, and has the potential to outperform other asset classes that have suffered greater price volatility. However, higher interest rates have started to effect certain segments of the market, such as single family homes and new construction. We are monitoring the developments in the market to see how and when higher interest and cap rates influence developer sentiment and new projects.

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

Not surprisingly, transaction volume has recently begun to slow due to higher rates and borrowing costs. However, for non-traded real estate investment trusts (REITs) of sufficient size and dry powder, there may be opportunities to take advantage of recent volatility and acquire larger pools of assets from public counterparts at discounted prices. We remain neutral on Opportunistic Real Estate; however, higher rates and volatility could create interesting scenarios over the medium term.

While technically not classified as Real Estate, Private Infrastructure enjoys some of the positive characteristics of Real Estate 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 and the dollar: The dollar has been on a tear this year, with the U.S. Dollar Index recently reaching the highest level in two decades. We see a long list of drivers behind the surging greenback, including increasing central bank hawkishness especially on the Fed's part, an ongoing global growth slowdown, and rising risk aversion. It's our view that dollar strength will continue in the near term, with various implications for the global economy and portfolio strategy. This is generally positive to combat inflation in the U.S., but has the impact of exporting inflation to the rest of the world as they have to buy dollars to pay for many commodities.

After a strong start to the year, commodity prices have started to slide as the global economy slows and the likelihood of recession increases. The strong U.S. dollar is also crimping the demand from other countries as Commodities become more expensive in dollar terms. However, over the long term, we believe that positive fundamentals remain in place and a moderate allocation in an investors' portfolio could be additive from a return and a diversification perspective. Commodities tend to do well in periods of elevated geopolitical risk and high inflation, both of which are plaguing the current environment.

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

- Nominal economic growth will likely continue to lose momentum as the Fed withdraws liquidity from the system. Indeed, leading indicators of inflation are falling rapidly and the dollar's strength reflects the tightening money-supply situation. Declining real growth and inflation will squeeze corporate revenues and profits.
- Growth risks in the rest of the world, particularly Europe and EMs, remain elevated and are more acute than the U.S. The strong dollar is tightening financial conditions abroad. We maintain our preference for U.S. assets versus the rest of the world even as the U.S. economy slows.

ECONOMIC FORECASTS (AS OF 9/30/2022)

	2021A	Q1 2022A	Q2 2022A	Q3 2022A	Q4 2022E	2022E	2023E
Real global GDP (% y/y annualized)	6.1	-	-	-	-	3.4	2.3
Real U.S. GDP (% q/q annualized)	5.7	-1.6	-0.6	1.0*	0.5	1.6	-0.6
CPI inflation (% y/y)	4.7	8.0	8.6	8.2*	7.0	7.9	3.9
Core CPI inflation (% y/y)	3.6	6.3	6.0	6.2*	6.1	6.2	4.2
Unemployment rate (%)	5.4	3.8	3.6	3.6*	3.6	3.6	4.8
Fed funds rate, end period (%)	0.07	0.33	1.58	3.08	4.38	4.38	4.63

The forecasts in the table above 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. Past performance is no guarantee of future results. 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. BofA Global Research 2022 end period S&P 500 estimate is 3600; end period 10-year Treasury estimate is 3.65%; 2022 average West Texas Intermediate Oil estimate is $96.13/barrel.
Sources: BofA Global Research; GWIM ISC as of October 4, 2022. 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.

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.

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

2023 EPS	EPS Forward P/E (Next 12 months)				
	15.0x	16.0x	17.0x	18.0x	19.0x
$250	3,750	4,000	4,250	4,500	4,750
$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

For illustrative purposes only. Source: Chief Investment Office as of October 4, 2022.

CIO ASSET CLASS VIEWS

Asset Class	CIO View: Underweight		Neutral		Overweight	Comments
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				●		We have a slight preference for Value over Growth, given better absolute and relative valuations and ongoing economic reopenings. Higher interest rates should pressure Growth more, especially higher multiple, non-earning areas. We believe portfolios should incorporate both Growth and Value factors as appropriate.
U.S. Mid-cap				●		Our preference to stay higher up in the size scale keeps us favoring Large- and Mid-caps compared to Small-caps.
U.S. Small-cap			●			We are neutral Small-caps, as they have lower-quality balance sheets, a higher proportion of non-earning companies within the index, and less financial flexibility to generate shareholder payouts. However, they maintain reasonably attractive absolute and relative valuation versus Large-caps.
International Developed		●				International Developed Equities remain more vulnerable to rising oil and gas prices and elevated geopolitical risk, and underlying nominal growth is expected to trail behind U.S. levels.
Emerging Markets			●			We are neutral EM Equities overall, with resource-producer markets relatively well positioned, in our view, as commodity prices remain elevated. Key risks stem from further escalation of the conflict in central and Eastern Europe, rising U.S. interest rates, dollar strength and slower growth in China.
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		●				Downside risk stems from higher oil and gas prices and elevated geopolitical uncertainty in Eastern Europe, which may weigh on real household incomes, industrial profits and economic growth. Exchange rate weakness risks compounding inflation pressures.
U.K.			●			Domestic demand at risk from rising household fuel prices and higher rates as offsets to fiscal stimulus. Exchange rate weakness risks compounding inflation pressures. Post-Brexit withdrawal from the European Union single market remains a negative for medium-term growth.
Japan			●			Large fiscal and monetary stimulus are key sources of support for growth in the domestic economy, though market-based inflation expectations remain among the lowest for the major developed economies.
Pac Rim*			●			Large weighting in Financials and Materials should be a relative advantage as rates rise and commodity prices remain elevated. China exposure and international shifts on foreign policy toward Hong Kong remain an ongoing source of uncertainty for the region.

* 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.

CIO ASSET CLASS VIEWS (CONTINUED)

Asset Class	CIO View: Underweight	Neutral	Overweight	Comments
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 recommended, balancing two-sided rate risk against significantly better valuations.
U.S. Investment-grade Taxable		▶	●	Preference for credit and spread products relative to Treasurys, as spreads and ratios are relatively attractive as a percentage of Treasury yields. Consider short duration overall relative to a stated strategic benchmark. Maintain some allocation to Treasurys for liquidity and as a buffer to risk-off sentiment.
International	▶	●		International rates markets have become significantly more attractive as global central banks raise rates to 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.
Global High Yield Taxable		●		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. Any additions to HY, therefore, should have a long time horizon. Within HY, we prefer balanced exposure between floating-rate loans and HY unsecured.
Alternative Investments*				Given the differences in liquidity characteristics between 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 impact 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 impact on rates, commodities and foreign currencies.
Private Equity				We see opportunities across a number of different PE strategies. We believe that an allocation to buyout and Venture/Growth Equity managers gives investors access to new and innovative technologies as companies stay private for longer. Generally, Private Credit strategies have outperformed traditional Fixed Income portfolios so far this year, and they have the benefit of interest rate resets that will be coming later this year. However, credit and default risks rise as the economy contracts, so investors need to keep this in mind when contemplating an allocation.
Tangible Assets / Commodities				After a strong start to the year, commodity prices have started to slide as the global economy slows and the likelihood of recession increases. The strong U.S. dollar is also crimping the demand from other countries as Commodities become more expensive in dollars. 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 likelihood of slower GDP growth has not slowed down the CRE market yet. In the second quarter, all five major subsectors posted positive performance, with industrial leading by far, continuing the strength we saw in Q1 and last year; however, valuations look stretched. 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 36-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 as of October 4, 2022.

CIO EQUITY SECTOR VIEWS

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.

	CIO View			
Sector	**Underweight**	**Neutral**	**Overweight**	**Comments**
Energy			●	The potential for global disruptions, declining but still solid global energy demand, tight inventories, limited spare capacity, and the inflationary environment are supportive for Energy stocks. Higher energy prices combined with substantial cost-cutting initiatives over recent years built significant operating leverage into Energy companies. Further, earnings and free cash flow outlooks remain strong for upstream energy companies on higher realized oil and natural gas prices and continued capital discipline. There remains room for positioning and sentiment to improve for the sector despite strong outperformance. Lower capital expenditures (capex) budgets and fewer long cycle investments in the Energy sector over recent years could continue to support higher oil prices in the near and intermediate terms. Positive view on Energy for its cyclical reflation trade, but, longer term, the secular headwinds still confront the sector. Headwinds include the transition to clean energy, lower renewable energy costs and increasing 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. Despite strong YTD gains, Energy still provides attractive valuations, strong free cash flows and dividend growth, with positive momentum.
Utilities			●	Utilities maintain more stable and consistent earnings outlooks, especially relative to other more cyclical sectors. In addition, as we progress to later stages of this economic cycle, Utilities historically outperform in late cycle and during economic growth slowdowns, especially regulated utilities. Utilities provide more 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 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 stalled but defensive qualities remain.
Healthcare			●	Positive on the Healthcare sector's exposure to factors 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 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 like life science equipment and managed care. Large pharmaceutical companies (which make up roughly 60% of the Healthcare Index) 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. Medical devices and technology remain among the most challenging places within Healthcare due to cost pressures and potentially increasingly inconsistent end-market spending habits. Emphasize exposure to long-term positive trends in dental, life science/bioprocessing equipment, innovative and differentiated medical devices and managed care, as well as more intermediate opportunities in Large-cap biopharma. Valuation remains attractive for the Healthcare sector compared to the market, despite mixed valuations across the subsectors.
Financials			●	Banks face tough comps relative to 2021 earnings, which were enhanced by loan loss reserve releases. That said, we believe accelerating loan growth and higher interest rates should drive double-digit growth in net interest income in the second half of the year. With typically half of a bank's revenue coming from net interest income, this sets the stage for several quarters of above-trend revenue growth, which falls almost entirely to the bottom line. Importantly, this does not appear to be fully discounted in stock valuations or consensus earnings estimates. Enhanced earnings power should fuel ongoing capital return, which has been the cornerstone of the investment case for banks in recent years. Given structural headwinds in insurance, we prefer market exchanges that evolved into fee-based data and analytics providers. We also favor alternative asset managers, like Private Equity, which consistently draw fund inflows, typically benefit from low interest rates 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 valuations.

Sector	CIO View: Underweight	Neutral	Overweight			Comments
Real Estate				●		The outlook for Real Estate was stronger with inflation rising, but with some inflation measures moderating we would be more selective within the Real Estate sector. If growth slows and inflation remains elevated, Real Estate could be an asset in strong demand. 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. However, RE's positive correlation with inflation and opportunity to provide both a potential inflation hedge and attractive yield makes the sector attractive. Continue to emphasize longer-term secular trends in data centers, communication infrastructure, storage and industrial real estate. Valuation is neutral, and momentum has declined recently.
Information Technology			●			The Technology sector is neutral due to ongoing supply chain issues and margin risks for companies in the sector. Despite some of the most expensive Technology stocks experiencing significant valuation re-ratings this year, we remain concerned about rising rates and the potential for additional valuation re-ratings in the sector. Further, the potential remains for downward revisions that are more likely to impact higher-beta, higher-valuation companies. Especially as the semiconductor cycle continues to be driven by uncertain supply constraints versus historical demand drivers. This will most certainly impact margins as average selling prices (ASP) are now at risk at the slightest hint of demand cuts. Despite strong Cloud tailwinds software margins could also deteriorate as labor costs increase. We suggest a neutral weight in Tech, with a bias to higher quality and more fairly valued companies. We continue to encourage investors to be careful about unprofitable, expensive and long-duration Tech. 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, data centers, software, cybersecurity and semiconductors. Valuation is still elevated, and a move higher in interest rates could pressure multiples for high-growth and high-valuation tech stocks with little to no profits; therefore, look for GARP (growth at a reasonable price) in software and semiconductors. The Tech sector still generates significant free cash flow 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 weak momentum continues YTD.
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 over the balance of the year 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 CPG 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 new "safe haven" investment flows over various cycle outcomes despite the already reasonable valuations. Valuations are not cheap but momentum and relative performance has improved.
Industrials			●			The Industrial sector is neutral due to ongoing supply chain issues, mixed trends across industries, cautious guidance and divergent fundamental outlooks across subsectors within the Industrial sector. On a positive note, defense stocks have been currently outperforming, and potential improvements in the global capex cycle, including re-shoring of supply chains and manufacturing could support the construction, transportation, machinery, and freight and logistics industries longer term. However, fears of high inflation, tighter monetary policy and slower growth are weighing on general sentiment for Industrials. Valuation is slightly elevated, and momentum is neutral.
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 of 2021 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 do still see some near-term tailwinds for demand, such as bipartisan support for U.S. infrastructure spending and potentially loosening monetary policy 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 slowing.

Sector	CIO View: Underweight	Neutral	Overweight	Comments
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 in the third quarter, 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, going into the fall season, may revert back to a normalized spending pattern with a focus on back-to-school and return-to-work scenarios 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 to year end 2022, 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 going into the midterm elections, potential shifts in advertising spending, and 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 in 2022. Valuation is elevated and momentum has deteriorated.

Source: Chief Investment Office as of October 4, 2022. 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

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. Although constructed with a global lens, in today's tightly woven world, what transpires or disrupts in Asia has a tendency to emerge in Europe or North America, and vice versa. 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.

Theme	Comments
Big Data	The massive growth in unstructured data being created by connected machines, devices and systems is fueling data processing and data analytics. Complementing artificial intelligence technologies are replete with applications for big data. The size of the digital world and Internet of Things (IoT) is accelerating the migration of data and applications to a cloud computing environment. Data centers and cloud-based storage will likely capture incremental data created.
Demographics	Several demographic transitions serve as important arbiters of future growth. With elongated life expectancies globally, longevity for older populations will likely mean a renewed focus on healthcare, aged-care, financial, and consumer products and services for longer, serving as a multitrillion-dollar potential opportunity. Both the Millennials (born 1981-1996) and Gen Z (born 1997-2012) could have greater influence over the next decade on consumer spending and preferences. While we are neutral the EM asset class on a tactical basis, we believe the EM consumer represents a powerful middle-class consuming cohort over the longer term. Uplifting the bottom billions, or poorest socioeconomic group with growing access to electricity, internet and sanitation can also offer a demographic dividend for multinational companies.
Climate Change	With emphasis from the White House, a much greater focus is on health, renewable energy, clean water and sanitation, and other industries that tend to support a more sustainable future. Companies that embrace more climate-friendly business models and operations, as well as consumer products and services, are likely to enjoy sustained growth opportunities over the long term. Globally, nuclear energy is re-emerging and increasingly acknowledged as a 'green' energy solution. Other key investment opportunities: Renewable energy (solar, wind and hydrogen), as well as energy-efficiency such as building systems, water/waste management, and energy storage and distribution.
Future Mobility	The future of mobility hinges on next-gen infrastructure. This includes the telecom industry's deployment of the 5G network, which is expected to prove to be the greatest accelerant and enabler to smart cities (smart buildings, safety and security), autonomous vehicles and unmanned drones. The growing electric vehicle market will likely demand installation of charging equipment and fuel peripheral industries such as battery material demand.
Security	Expanding the IoT means security for a growing ecosystem of devices and end points. With the increase in time spent on online platforms, (as well as adoption of online payments/FinTech), data privacy/surveillance and governance is expected to play a larger role in a post-pandemic world, as will bolstering cybersecurity defenses and budgets. With the commercialization of space, cybersecurity will likely extend to space-based assets (think satellites, data links, weather monitoring and GPS).
Post-crisis World	In the post-crisis world, reshoring policies are increasingly focused on building more resiliency into supply chains, helping to sculpt tripolar supply chains pivoting between North America, Asia and Europe. A number of labor force dynamics have converged to place unprecedented demand on labor not only in the U.S. but around the world, hastening the need for industrial and service automation/robotics. The extraction, sourcing, use and management of the world's resources will stay in focus as both the agriculture and commodity complexes are stretched given the geopolitical backdrop. If the future entails increased investments into electric vehicles and greener energies, then the future will be mineral and material-intensive, calling for more mining of copper, lithium, nickel, manganese, cobalt and graphite, etc. Lastly, real assets in the post-crisis world are a key buffer to above-trend inflation.

Source: Chief Investment Office as of October 4, 2022.

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.

Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care.

Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output.

Consumption and Expenditure Price Index is one measure of U.S. inflation, tracking the change in prices of goods and services purchased by consumers throughout the economy.

ICE BofA Investment-grade (IG) Index tracks the performance of US dollar denominated investment grade rated corporate debt publicly issued in the US domestic market.

U.S. Dollar Trade-weighted Index is a measure of the value of the United States dollar relative to other world currencies.

U.S. Dollar Index is an index of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners' currencies.

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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.

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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.