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CHIEF INVESTMENT OFFICE

Viewpoint

The Buffalo Is Back

July 2024

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IN BRIEF

- While economic surprises have been negative lately, leading indicators and easing global central-bank policies point to the slow global expansion gaining traction in the second half of 2024 and 2025.
- This buffalo market period could reestablish a bull trend once the concerns dissipate and investors' focus, once again, shifts back to the core fundamental narrative.
- In this context, volatility is likely to increase considerably matching the pattern that has been typical in election years between the summer months and November.
- Within Fixed Income, we re-affirm our view to be slightly long duration, which balances out reasonable yields while near-term rate cuts are expected versus the risk of some positive economic uncertainty while inflation is still not at the Federal Reserve's (Fed) target. We also reiterate our preference for rate risk over credit risk generally in Fixed Income.

A few years back, we first discussed a market environment that contained more characteristics of a buffalo than a true bull. In the simplest of terms, a "buffalo" market, in our view, is potentially heavier, tends to roam for a period of time, and likely gets tired after a strong run, but is still in the "bull" family. In other words, as we head into the second half of 2024 with the S&P 500 Index up roughly 17%[1] and the broader market index, the Wilshire 5000 Index, up about 15%[2], the potential for more of a "roaming" period for Equities has increased.

The narrow Equity leadership should continue given the still strong earnings growth momentum by the mega caps largely in the Information Technology sector. However, with valuation levels close to their high-water marks for the year and with geopolitical winds (globally and in the U.S.) accelerating, we are more than likely going to experience range-bound trading for a few months, albeit with a slight positive tone. This buffalo market period could reestablish a bull trend once the concerns dissipate, and investors' focus, once again, shifts back to the core fundamental narrative. In this case, profit growth for the S&P 500 heading into 2025 is likely to be reset higher given the prospects for easier financial conditions and the strong capital investment in Generative Artificial Intelligence (GAI) which is gaining wider adoption.

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC) did not make any tactical asset allocation adjustments. We maintain an overweight to Equities, with a preference for higher quality U.S. Large- and Small-caps, and still favor a significant allocation to bonds in a diversified portfolio. We view weak episodes in the markets as a buying opportunity for long term Equity investors.

View the CIO Asset Allocation Guidelines ▶

Listen to the audio cast ▶

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		●			
International Fixed Income			●		
High Yield		●			
U.S. Investment-grade Tax Exempt		●			
U.S. High Yield Tax Exempt		●			
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 a multi-asset portfolio.

[1] Bloomberg. Data as of July 8, 2024.
[2] Ibid.

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In addition, we expect a roaming period for bond yields, credit spreads, the U.S. dollar and commodity prices generally. In this context, volatility is likely to increase considerably, matching the pattern that has been typical in U.S. election years between the summer months and November. If the buffalo gets tired and takes a rest or possibly gets spooked by one headline or another, we would view that weak episode as a buying opportunity for long term Equity investors.

Our main true bull market thesis over the next decade continues to center around the view that our economy and capital markets are much more “asset light” now versus “asset heavy” in decades prior, which allows for more rapid innovation, lower fixed costs and, generally, a much nimbler environment to produce strong operating leverage and attractive profit margins. In the years ahead, however, as the need and the pent-up demand for investing in productive assets increases at the same time the supply shrinks, we expect the prices of a wide array of assets to increase at a solid rate, thereby creating a potentially attractive investment environment, in our opinion.

What is our view of the macro landscape for the second half of the year?

Slow global expansion likely to continue. While economic surprises have been negative lately, leading indicators and easing global central bank (CB) policies point to the slow global expansion gaining traction in the second half of 2024 and in 2025. Tolerance for higher inflation that prevailed before the pandemic is keeping nominal growth in a new higher range that boosts corporate revenues and profits. The Fed stands ready to support growth as the fiscal boost from the pandemic fades and unemployment rises. The key to further gains in risk assets is falling inflation.

Quantitative measures, such as the Federal Reserve Bank of Chicago’s National Financial Conditions Index (NFCI), have shown easier financial conditions since the Fed stopped raising rates last summer. Financial conditions have eased considerably further since the Fed pivot late last fall, when Fed Chair Powell signaled that policy would be cutting interest rates rather than raising them more. On balance, the NFCI shows financial conditions have reversed all of the tightening pressures that occurred while the Fed was raising rates in 2022 and early 2023.

In addition to telegraphing rate cuts for 2024, the Fed has dialed back the pace of Quantitative Tightening (QT), which has also helped ease financial conditions, especially with the Treasury managing its cash balances to help offset what would otherwise be a drain on bank reserves from the Fed’s QT. Better liquidity is evident in improved money growth dynamics after the shrinkage that occurred while the Fed was raising rates. For example, Alpine Macro research found that their “money pulse indicator, which tracks the second derivative of M2[3], has improved significantly in recent months.” This reacceleration of money growth coincides with Chair Powell’s pivot last year and the ensuing global stock rally, which is a powerful leading indicator of economic growth.

While monetary policy has turned easier, the U.S. economy is still coming off the inflationary highs that were fueled by the pandemic fiscal stimulus. Most U.S. consumers are feeling the pressure from prices that have outstripped income gains over the past four years. This pressure is not evenly distributed. Low-income households are showing the most need to economize because of the rising prices of essentials. High-interest income and rising asset prices have kept the highest income brackets spending, especially on leisure and travel activities. The Transportation Security Administration reports new highs for passengers moving through airports in recent weeks. This mix of consumer dynamics is reflected in an unusually diverse set of relative performance outcomes within the Consumer Discretionary sector.

There’s some evidence that the stress is moving up the income scale, however. Overall, the Atlanta Fed GDPNow estimate for Q2 consumer spending has steadily dropped from 4.0%

[3] M2 is a measure of the U.S. money stock that includes currency and coins held by the non-bank public, checkable deposits, and travelers' checks plus savings deposits (including money market deposit accounts), small time deposits under $100,000, and shares in retail money market mutual funds.

on April 26 to just 1.1% in the July 3 estimate. Slowing consumer spending growth reflects softening job and wage growth, as businesses dial back hiring in this weakening demand environment, already pushing unemployment up from a 3.4% low point to 4.1% in June. Basically, wages are finally moving up faster than prices, pressuring profit margins and causing businesses to slow hiring. Downside margin pressure and slowing consumer demand seem to fly in the face of analysts' rising expectations for profits in the year ahead.

The overwhelming source of profit growth in the past two years has been in those companies that are benefiting from the boom in new technology, which is transforming the economy at an accelerating rate. This new growth and wealth are disproportionately concentrated in the U.S. For example, just 1% of the U.K.'s FTSE 100 index comprises of technology (tech) companies compared to roughly 33%[4] of the S&P 500. This tech-centric U.S. market accounts for much of the big performance gap between different countries' equity markets.

Finally, the U.S. had more pandemic stimulus than most countries and thus more growth and more inflation. As a result, inflation is still higher in the U.S., interest rates are higher, and the economy is in more of a late-cycle phase. Other countries are already cutting rates and, with lower inflation, are showing more early-cycle tendencies. This is apparent in recent earnings revisions ratios, which are showing more improvement outside the U.S.

"The Fed put" seems to have reassured markets that monetary policy will ride to the rescue before rising unemployment causes a recession. This "soft landing" policy goal is keeping optimism elevated, and slowing inflation is boosting confidence in the Fed's ability to credibly lower rates.

Zero rates, Quantitative Easing (QE) and negative real interest rates characterized an anomalous period when monetary policy was working to support demand and avoid deflation, while the private sector worked off its excessively leveraged balance sheet. Now, with private sector finances in good shape, the government sector is the source of what are likely to be increasing debt-related problems. Real interest rates fluctuated mainly between 2% and 4% during the decades before the negative real-rate period. As more of the burden for financing fiscal excesses falls outside the realm of central banks, it makes sense that Treasury bond investors will require a higher positive real rate to compete with other investment options.

The global shift from raising rates to cutting rates as inflation comes down has triggered an upswing in the Global Wave compiled by BofA Global Research. This indicator has improved for six straight months consistent with leading indicators showing the economy moving further into expansion territory (Exhibit 1). Risk and cyclical assets tend to do well in this environment, as we've seen with a broad array of global equity indexes so far this year. For many countries, this improving economic dynamic is relatively new.

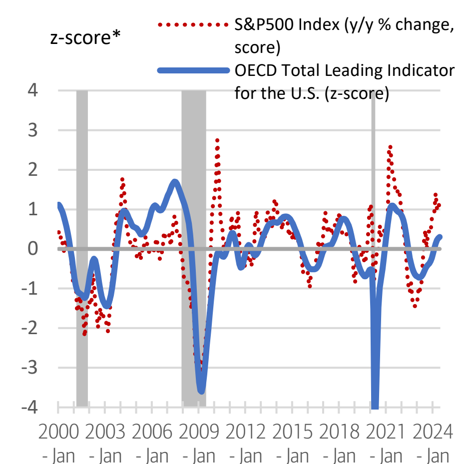
Elections around the world are highlighting the backdrop of unsustainable government spending as, for example, in France. In the U.S., the election is not expected to change the outlook for a growing debt problem that is keeping long-term rates above their prepandemic levels and making the zero-rate QE policies of the prior decade unlikely to be revisited given the new, higher inflation environment. While the election outcome will affect the mix of taxes and spending in significant ways for the market, there is no appetite for fiscal retrenchment on either side. As a result, even though the Fed is likely to cut short-term rates as necessary to keep unemployment low, long rates are likely to remain relatively sticky while inflation remains above the Fed's 2% target.

What do we expect from monetary policy over the near term?

Since July 2023—when the Fed last raised rates—we advocated a measured and historically informed "big picture" view of Fixed Income markets. We eschewed specific

[4] Bloomberg. Data as of July 8, 2024.

Exhibit 1: Leading Indicators and Equities Up Since Fed Pivot.



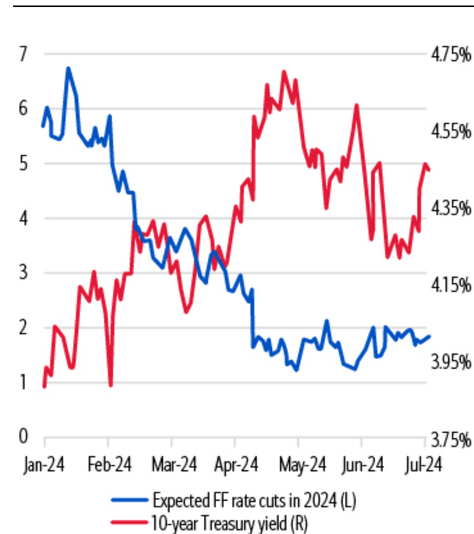
*z-score=number of standard deviations from the mean of the data set. Source: The Organization for Economic Cooperation and Development (OECD)/Haver Analytics as of July 8, 2024. **Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Past performance is no guarantee of future results.**

forecasts for the number and timing of rate cuts, and consistently articulated that the Fed is "at or near" the end of its rate hike campaign.

That steady direction has been warranted against substantial rate volatility. Toward the end of 2023, after the 10-year Treasury yield touched 5%, Chair Powell became extremely dovish and eventually talked the 10-year down to 3.8% with up to approximately 7 rate cuts expected at the beginning of this year. This forecast seemed puzzlingly aggressive and we, therefore, did not change our view. The number of rate cuts expected by the market then steadily dropped from around 7 to between one and two, where it has remained since May; that seems much more reasonable to us (Exhibit 2).

We believe rate hikes do work (and have worked) to slow the economy, and therefore remain convinced that the Fed has likely finished its rate hike campaign and is now closer to eventual rate cuts. Our base case is that those rate cuts begin at the back end of this year. At the same time, we are cognizant that the future may develop much differently than expected. While a small probability, surprises may occur that could even lead to another potential rate hike. As just one hypothetical example, the outcome of 2024 elections leading to an increase in animal spirits, consumer spending and further economic resilience necessitating even tighter financial conditions. Our view will therefore balance our base case for near-term cuts against the risks and potential opportunities of the unexpected occurring.

Exhibit 2: Expected Rate Cuts Decreased and Long-term Yield Increased.



Source: Bloomberg, as of July 2, 2024. **Past performance is no guarantee of future results.**

How are we viewing America's widening federal budget deficit and attendant risks to the capital markets?

We continue to carefully monitor the finances of the U.S. federal government. In the first eight months of fiscal year (FY) 2024, the federal budget deficit totaled $1.2 trillion, up $38 billion from the same period a year ago.[5] For this fiscal year, the deficit is expected to total $1.6 trillion, or around 6% of gross domestic product (GDP). In terms of outlays, a factor we are watching are net outlays on interest on public debt—interest payments soared $185 billion in the first eight months of FY 2023 due to rising debt levels and higher interest rates. The better news: The federal government's gross debt as percentage of GDP remains around 100%, which is very manageable given the dynamic, innovative-led U.S. economy. Meanwhile, foreign demand for U.S. securities remains robust, which helps explain the underlying strength of the U.S. dollar. In general, America's deficits and debt, in addition to other financial metrics, remain amendable to sustainable U.S. economic growth and the dollar maintaining its world reserve currency status.

How does this inform our Fixed Income positioning?

With nominal and real yields near twenty-year highs, we find the general valuation picture compelling in Fixed Income, particularly if economic weakness were to continue. We therefore reaffirm our view to be slightly long duration, which balances out these reasonable yields while near-term rate cuts are expected versus the risk of some positive economic uncertainty while inflation is still not at the Fed's target. We also reiterate our preference for rate risk over credit risk generally in Fixed Income, preferring Treasurys and Agency Mortgage-backed Securities (MBS); MBS durations have already extended and their relative valuations versus credit are attractive. Credit products, meanwhile, are generally pricing in 0% chance of a recession; we do not disagree with that as the likely outcome, but that probability seems too low to us. At current spread levels, forward excess Investment-grade (IG) returns have historically been negative; we therefore suggest staying up-in-quality until better opportunities present themselves. For municipals, technical conditions this summer should keep valuations rich; these may cheapen in the fall and, if so, that may provide another opportunity for new purchases at better levels.

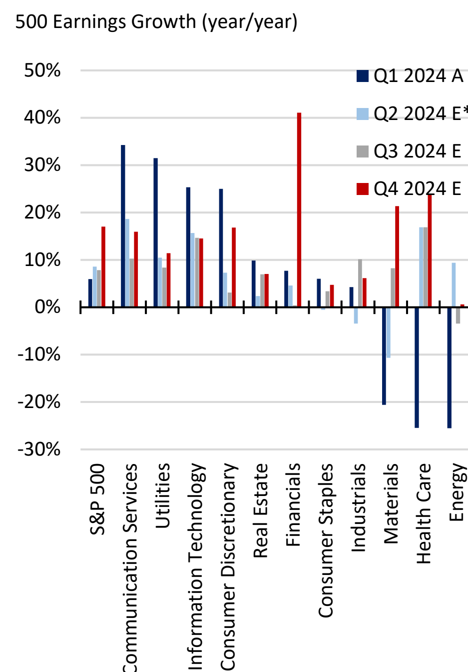
[5] Congressional Budget Office.

What are our latest thoughts on U.S. Equities? What opportunities should new allocations of capital consider?

While the appreciation of the U.S. equity market has been disproportionately driven by a minority group of mega cap Growth stocks, we believe the rally may broaden over the coming months and quarters given a positive earnings outlook. In fact, the main engine driving stock prices higher in the first half of the year was not price-to-earnings (P/E) multiple expansion, but earnings growth. To be sure, there has been a wide dispersion in earnings results, with some earnings notably negative year-over-year (YoY) in Q1, including the Energy, Materials and Healthcare sectors. However, some of the largest companies in the S&P 500 delivered 20%+ earnings growth in Q1 and in some specific cases, significantly higher.

In the second half, we anticipate resilient economic growth to foster a broadening profits cycle. All S&P 500 sectors are forecasted to see positive YoY earnings growth by Q4, notably with those sectors that reported significant earnings contractions in Q1 returning to strong growth (Exhibit 3). In turn, this evolution should benefit sectors that have lagged yet are well positioned for a continued economic expansion. We reflect this thesis in our team's portfolio strategy, which includes a slight overweight on U.S. Small-caps and select cyclical and Value-oriented sectors in the S&P 500. We recommend investors consider using excess cash to support new positions in these segments if they stand under their appropriate risk-adjusted benchmarks.

Exhibit 3: Earnings Growth Is Expected To Broaden Out.



A=Actual; E=Estimates. *Blended estimates. Source: FactSet. Data as of July 8, 2024.

Moreover, a continued cooling in inflation and an easing bias in monetary policy from the Fed should help improve financing conditions for the economy. This scenario should be favorable for U.S. Small-caps, in our view, which also trade at attractive valuations. For example, the relative forward P/E multiple between the Russell 2000 Index, a benchmark index for this cohort, and Russell 1000 Index, a reference for Large-cap stocks, stands around 26% below its long-term average. Other measures show an even larger discount.[6]

Improving earnings growth has historically yielded outperformance in Value over Growth. The former also trades at a sizable discount compared to the latter when analyzed through different valuation methods. Overall, we expect Growth to still see momentum ahead and remain a cornerstone of Equity portfolios given very strong fundamental characteristics, but we caution overexposure to Growth and recommend a balanced approach with Value as the market and earnings cycle broadens.

We therefore continue to incorporate cyclical-Value exposure in our sector views by maintaining overweight allocations to areas like Energy, Industrials and Consumer Discretionary. We continue to emphasize Healthcare to reflect a balance between Value and Growth and potential upside to earnings estimates in future quarters. In general, we see diversification advantages in allocating to these sectors, particularly if optimism tied to the innovative Technology sector normalizes.

What are our latest thoughts on non-U.S. equity markets?

We maintain our cautious stance on non-U.S. Equities across both developed and emerging markets. Structural weaknesses in Europe from slower nominal GDP growth and less exposure to AI-driven expansion in the Technology sector (for which the index market capitalization share is roughly half the U.S. level) remain persistent headwinds. And the recent rise in political uncertainty following the European Union (EU) parliamentary elections could further increase risk premiums due to investor concerns over fiscal policy, regulatory policy and higher credit risk, and their effect on interest rates and economic growth. Meanwhile the likelihood of earlier and more aggressive interest rate cuts from the European Central Bank (ECB) than from the Fed should exert downward pressure on local exchange rates and common currency returns. Japan is the only major market that is expected to see policy rate increases in 2024, but uncertainty over the path of Bank of Japan (BoJ) interest rate policy and currency intervention should make for further yen volatility. At the same time, the market should continue to receive support from sustained positive inflation and the Tokyo Stock Exchange campaign to boost

[6] According to BofA Global Research as of July 5, 2024.

shareholder value by pushing corporates to use their high cash holdings for more buybacks and payouts. Emerging markets (EM) remain dominated by their two largest economies of China and India, which now account for close to half of total EM market cap. China is likely to remain constrained by ongoing weakness in the real estate sector, in addition to concerns over domestic regulatory tightening and foreign export controls. Meanwhile India should continue to be supported by growth tailwinds from the digitization of the local economy, the rise of the consumer class and the relocation of manufacturing supply chains despite the recent loss of electoral support for the Modi government. For EM more broadly, we expect only limited positive effect from any prospective Fed rate cuts given more balanced current account positions than in past cycles. Therefore, despite relatively attractive valuations in non-U.S. Equities, we continue to favor the U.S. over international markets.

What are our top investment themes unfolding in the coming years?

Innovation tailwinds continue to build as a handful of long-term trends and themes have developed in just the last six months. In what has been a concentrated equity market year-to-date (YTD), thematic narratives have provided direction to the market. For example, what has transpired—high hopes and lofty valuations have been assigned to the most visible Artificial Intelligence (AI) beneficiaries, while geopolitical conflicts and wars ran hot, and copious amounts of debt and deficit concerns plagued the investment outlook.

Still, longer-term growth opportunities exist that we believe have the potential to drive growth in earnings for applicable companies and industries. The multiyear, secular AI buildout in front of us requires physical infrastructure necessary to support and power AI. Energy-intensive AI workloads necessitate substantially more power than traditional computing, with an already ailing national grid upgrade and modernization in order. AI-related demand could add hundreds of megawatts, if not gigawatts, of datacenter capacity annually in order to train and run large language models. Elsewhere, industrial policies conjuring resource protectionism of supply chains and various commodities have added emphasis from government calls for onshoring of manufacturing. Security matters—whether endpoint cybersecurity, or the remilitarization and restocking of our munitions, given the geopolitical realities of our time as the world lives through increased conflict.

As these themes evolve, implementing thematic exposures within a diversified portfolio could provide secular investment opportunities as a compliment to a core portfolio.

What are our views on commodities such as oil, gold and copper? Are gold and copper price uptrends just a short-term phenomenon or do we expect investment demand to carry through longer term?

Commodities. Beyond the supply-demand dynamics of particular commodities, the important macro influences on commodity pricing are favorable or neutral. Real rates are neutral—having normalized around a 2% level (consistent with long run growth) with no expectation of significant upside risk. The dollar is neutral—remaining firm but with no expectation of significant upside risk. Inflation is positive—still running stronger than the Fed's long-run target. Economic growth is positive to neutral, with the expansion intact for the present.

The typical futures-based commodity portfolio implementation has additional implications for return expectations. It starts with an index-like return on some broad basket of commodities, layers on a return on cash collateral, which now exceeds 5%, and adds potential active components from commodity selection and from "roll yield"—an incremental return from positioning in near or longer-term contracts. Absent an economic slowdown (because there is cyclical risk), commodities could be an appealing portfolio diversifier, with return potential greater than Fixed Income.

Upside oil price pressures should prove short-lived. The oil market is navigating a complex interplay of short-term and long-term supply/demand dynamics and risks. According to the Energy Information Administration (EIA), global oil inventories fell in the

first half of 2024 and are expected to decline further through early 2025 due to OPEC+[7] production restraint. Attacks on Red Sea commercial ships and a rough start to the U.S. hurricane season make it easy to see why Brent oil prices rose again towards $90/barrel. Upward price pressures are likely to prove temporary, however. OPEC+ plans to unwind some supply curtailments from October 2024 to October 2025 to address market share losses to U.S. and other producers in the Americas. Amidst global demand headwinds, this creates risks of oversupply in 2025. According to BofA Global Research, Brent may moderate to around $78/barrel by the end of 2025. Long term, the oil market also faces loosening conditions as global supply capacity is expected to increase way more than demand through 2030. The latter is seen increasingly restrained by rising electric vehicle (EV) penetration, biofuel use, fuel efficiency gains and a shift away from oil for power generation. The IEA projects global consumption to plateau in 2026 and peak in 2030, leading to abundant surplus capacity and sustained downward pressure on prices. In this context, prices are unlikely to sustain levels much above $100/barrel for the foreseeable future. Only a softer price environment would trigger project cancellations.

AI and electrification favor copper. Copper prices surged by about 30% to a record $5.12/pound this year through May due to mine closures, speculative buying linked to GAI and hopes for stronger Chinese economic growth. Despite a retreat, prices remain roughly 20% higher YTD. Preliminary data show unexpected increases in both mining and refined copper supply, which is particularly strong in China, where inventories reached unusually high levels. With low stockpiles elsewhere, Chinese copper exports doubled from one year ago to record levels in May, significantly contributing to the sharp copper price reversal of the past month. Without meaningful economic stimulus or reduced output in China, global refined copper inventories are expected to rise slightly in 2024 and 2025, restraining prices. Longer term, though, increased demand tied to AI, EVs, green energy and the expansion of power grids around the world points to substantial potential supply deficits and higher prices. Indeed, tight copper mine supply, declining ore quality, environmental concerns and increased capital intensity of new mines could lead to a price "supercycle". According to mining experts, the industry needs copper prices higher by 25% to 30% to incentivize new mining developments. As a result, there's a shortage of new mine construction. What's more, even if approved soon, mines take years to come online.

Gold. The dollar price of gold has about doubled since 2018, driven by deteriorating U.S.-China relations, increased U.S. government debt and inflation due to the pandemic and the Russia-Ukraine war. Broad-based CB purchases have been key to gold's ascent. Record CB demand in 2022 and 2023 was led by China, which has increased its gold reserves while reducing U.S. Treasury holdings. The surge in CB demand has outpaced gold supply growth, pushing prices up about 30% since 2022 to balance the market. Elevated interest rates have reduced investment in gold-backed exchange-traded funds (ETFs) for eight consecutive quarters through Q1 2024[8]. China bucked the trend with ETF investment at new highs. Looking forward, anticipated Fed interest rate cuts, a likely weakening of the dollar from overvalued territory, untethered U.S. government debt, and geopolitical tensions may lift gold prices further. According to a recent World Gold Council (WGC) survey, about 30% of central banks intend to increase their gold reserves in the next twelve months. BofA Global Research projects $2,750/ounce through 2025 and potentially up to $3,000/ounce within 12 to 18 months.

What's our latest thinking across Private Real Estate (PRE), Private Credit (PC) and Private Equity (PE) in general?

PC has in certain ways represented the flip side of the coin to PE and PRE in the post-pandemic era. While higher interest rates have created challenges for levered or long-duration asset classes such as PE and PRE, most lending strategies, including PC, have benefited from higher yields. In turn, despite being more senior in the capital structure, PC

[7] Organization of the Petroleum Exporting Countries.
[8] World Gold Council as of April 30, 2024.

has outperformed PE and PRE over the two-year period from 2022 to 2023 with the help of a resilient macroeconomic backdrop.[9]

While the environment remains broadly favorable for PC, we see potential inflections for all three private asset classes coming into focus. The gathering headwinds for PC are twofold. In terms of overall yields, spreads have tightened this year amid renewed competition from public leveraged credit markets and base rates are expected to decline contingent on Fed rate cuts. In addition, credit losses will likely pick up the longer that rates remain high given the strains placed on private borrowers' balance sheets by elevated interest expense burdens. Meanwhile, PE and PRE have been slogging through a multiyear adjustment period. Within PE, Buyout strategies have remained relatively resilient; however, Venture Capital (VC) and Growth Equity strategies have experienced sizable drawdowns.[10] And while the revaluation process in PRE has been slow, cap rates have been steadily climbing and Commercial Real Estate (CRE) prices now stand -20% from their peak in 2021.[11]

A common thread between PC, PE and PRE has been reduced transaction activity amid the higher cost of capital environment. With the prospect of lower interest rates on the horizon, or at least reduced uncertainty regarding monetary policy, deal volumes are expected to pick up in the second half and into 2025. A more active deal environment would be particularly beneficial for PE and PRE in terms of facilitating price discovery and restarting the private markets investment flywheel. Potential inflation surprises, however, continue to loom as risks that could quickly hamper budding PE and RE recoveries.

CIO INVESTMENT DASHBOARD AS OF JULY 9, 2024

Our view for the remainder of 2024 remains constructive. While valuations for U.S. Equities remain elevated relative to long-term averages, with the S&P 500 forward P/E ratio hovering around 21.0x, earnings are becoming more supportive with consensus estimating annual earnings growth of 10.9% for 2024, according to FactSet. We continue to see crosscurrents in the market landscape and anticipate bouts of choppiness as the buffalo market roams through the summer months but ultimately maintain a positive bias for equity markets this year.

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

Factor	Implication for Equities (Negative / Neutral / Positive)	CIO View
Earnings	Neutral, trending toward Positive (→)	According to FactSet, S&P 500 revenue and earnings grew by 2.8% and 1.0%, last year, respectively. Accordingly, for 2024, consensus expects growth of 5.0% and 10.9%. Revenue growth for Q2 is expected to be 4.3%, compared to an expansion in Q1 of 4.3%. Profits for Q2 are anticipated to have grown by 8.6%, after a Q1 result of 6.0%. Meanwhile, according to BofA Global Research, a continued global earnings recovery is signaled by the ongoing improvement in the three-month average of the Global Earnings Revision Ratio, which now stands above its long-term average. Showing improvement, the number of upgrades to profit estimates surpasses downgrades in 7 of 20 countries and in 5 of 16 tracked industries.
Valuations	Between Negative and Neutral, trending toward Negative (←)	The S&P 500 P/E ratio (next 12 months) stands at just over 21.0x, above its long-term average and at its highest level in over 2.5 years. This headline measure suggests that U.S. Equities remain expensive, though relative discounts can be found in areas like Small-cap and Value.
U.S. Macro	Between Negative and Neutral, trending toward Negative (←)	Following an expansion of 2.5% last year, real GDP grew by 1.4% in Q1 2024 at a seasonally adjusted annual growth rate. Excluding volatile measures in trade and inventories, final sales to domestic purchasers rose by a solid 2.4%, cooling from 3.5%. Recent data suggests a further normalization in economic growth. BofA Global Research expects GDP growth of 2.0% for Q2 and 2.6% for all of 2024.

[9] Refinitiv EIKON, Cambridge Associates. As of June 17, 2024.
[10] Refinitiv EIKON, Cambridge Associates, PitchBook. As of June 17, 2024.
[11] Green Street's Commercial Price Index. As of July 5, 2024.

Factor	Implication for Equities			CIO View
	Negative	Neutral	Positive	
Global Growth				The global economy has shown resilience in the face of diverse headwinds. Growth in the euro area has stabilized to begin the year, while cooling inflation has allowed for a slight loosening of monetary policy. An unwind of extraordinary programs to buffer against energy market volatility and a budget consolidation in Germany have factored into an overall tightening fiscal stance. Meanwhile, the fallout of regional parliamentary elections has raised political uncertainty. In China, officials have taken greater measures to help combat weakness in the property market and financial stress. In the U.S., consumption in general has remained a sturdy economic support. After growth of 3.5% and 3.0% in 2022 and 2023 respectively, the global economy is expected to slightly accelerate in 2024 to growth of 3.2%, according to BofA Global Research. This compares to average growth of 3.8% from 2000 to 2019, according to the International Monetary Fund.
U.S. Monetary Policy / Inflation				While holding its benchmark interest rate steady, the Federal Open Market Committee (FOMC) in May unveiled a plan beginning in June to temper the pace at which Treasury bond holdings mature and roll off the Central Bank's balance sheet. Overall, policymakers prefer to wait for greater evidence that inflation is on a sustained track towards the central bank's inflation target. Meanwhile, market expectations call for close to two cuts of 0.25% this year. BofA Global Research expects one cut in December, which would take the present target range of 5.25%-5.50% to 5.00%-5.25% by the end of the year.
Fiscal Policy				U.S. pandemic-era fiscal support totaled nearly 31% of GDP, much of which has faded. Longer-term initiatives include the 2022 CHIPS and Science Act, a $280 billion plan to bolster the country's technological industrial base, and the 2022 Inflation Reduction Act (IRA), a $370 billion effort largely to develop a renewable energy supply chain, among other elements. This year in March, a $1.2 trillion spending package was authorized, avoiding a government shutdown, and keeping federal agencies funded until October. There are also ongoing negotiations on a tax bill which aims to retroactively enhance the child tax credit while liberalizing certain corporate tax provisions.
Corporate Credit				U.S. High Yield (HY) and IG credit spreads generally reflect lessened concern about an economic slowdown. Overall, spreads remain within a range in place since April.
Yield Curve				Inversions, whereby longer-dated yields are below shorter-dated ones, exist in most sections across the U.S. Treasury yield curve. These include the fed funds (FF)/10s, 3-month/10s and 2/10s segments. While the magnitude of these inversions has decreased year-to-date, the Treasury market suggests a heightened probability of a recession in the U.S. overall.
Technical Indicators				The S&P 500 remains above its 200-day moving average, which is also in an uptrend. Measures of market breadth, such as the percentage of New York Stock Exchange stocks closing above their 200-day moving average and the cumulative advance/decline indicator, suggest a lack of participation in the recent advance in the index.
Investor Sentiment				According to the American Association of Individual Investors, bullish sentiment continues to outweigh bearish sentiment. Meanwhile, the Chicago Board Options Exchange (CBOE) Volatility Index (VIX) remains below its YTD and 12-month averages, suggesting lessened demand for hedges against volatility in the S&P 500. Meanwhile, cash levels in institutional portfolios still signal "neutral," according to the BofA Global Research Fund Manager Survey. The BofA Bull & Bear Indicator is also flashing a neutral signal at 6.1.

Source: Chief Investment Office.

EQUITIES

We are slightly overweight Equities: Equities climbed higher in the first half of the year amid resilient consumer spending, better than expected corporate profits, and investors' unchecked enthusiasm for a handful of technology companies. While the potential for episodic volatility persists amid softening economic data, elevated geopolitical risk, and the upcoming U.S. presidential election, we continue to see tailwinds for Equities moving forward. These include a sustained earnings recovery, equity fund inflows, the potential for broadening market leadership, still relatively stable consumers and the anticipation for easier monetary policy later this year.

We are slightly overweight U.S. Equities: The U.S. currently remains our preferred Equity region relative to the rest of the world, given relatively stronger balance sheets in aggregate and better consumer fundamentals. Our outlook for U.S. Large-caps is positive, with strong fundamentals and the ability to produce healthy shareholder payouts. We maintain a slight overweight to Small-cap Equities on very attractive valuations, lower interest rates and cost of capital, a potential earnings inflection in 2025, and a potentially favorable election year backdrop. Small-caps could be leaders of the next decade if interest rates remain at reasonable levels and fundamentals improve.

We continue to incorporate cyclical exposure in our sector views by maintaining overweight allocations to areas like Energy, Consumer Discretionary and Industrials. Infrastructure- related investments and projects related to secular growth trends in electric power demand, energy transmission and distribution, cloud and data center builds and next-generation AI-focused semiconductor technology that is increasingly power hungry could drive multiyear demand for select cyclical stocks. We continue to emphasize

EQUITY WATCH LIST

- Heightened geopolitical risk and conflict in the Middle East
- Inflationary pressures are moving lower but remain above the Fed's target level
- Economic data for production, labor, consumer expectations, and credit and liquidity conditions
- Progression of earnings estimates amid margin pressures
- Reorganization of global supply chains and U.S.-China relationship
- Pressures within the Office segment of Commercial Real Estate (CRE)
- A broader rotation that favors Small-caps, cyclicals and Emerging Markets

Healthcare to reflect a balance between Value and Growth, low positioning and negative sentiment coming out of 2023, and our preference for quality at a reasonable price. We maintain overweight exposure to Energy for strong free cash flows (FCF), capital return to shareholders, seasonal strength and as a hedge for energy security, inflation reaccelerating and geopolitical tensions. Energy remains the cheapest sector on valuation metrics and can provide some attractive FCF yields. We are less favorable on defensive sectors like Consumer Staples where some consumers are trading down for better pricing and value. The picture for Utilities is mixed driven by the higher cost of capital that could delay some renewable energy projects, but on the other hand, the trends in AI and data centers could drive increased power demand in the coming years. While we are constructive on Information Technology (IT) and Communications Services as longer-term thematic trends, we maintain our neutral view in the near term on elevated valuations and crowded positioning post-strong outperformance. We deemphasize Materials as demand slows, supplies increase, and pricing power remains questionable. With interest rates moving lower over the last couple of months, we are neutral Real Estate (RE) and prefer being selective in the RE subsectors due to positive fundamentals in some areas of RE but weaker trends in other areas like CRE. We remain neutral Financials, as higher interest rates and higher capital reserves could increase volatility, but valuations are attractive, and banks re-rated in 2023. Risks remain for higher costs of deposits, and the higher cost of capital could weigh on earnings for both the Financials and RE sectors.

We believe strategic portfolios should continue to incorporate both Growth and Value factors that would simultaneously benefit from the possibility of cyclical and secular forces gaining traction. Momentum in Growth is likely to continue amid double digit earnings growth for some of the largest growth stocks and sustained enthusiasm for AI, but we caution investors against overexposure. Value continues to trade at a relative discount to Growth and may benefit from lower interest rates later this year. We continue to suggest a disciplined and balanced approach between Value and Growth for long-term investors and emphasize the importance of diversification in portfolios.

We are neutral Emerging Market Equities: EM Equities appear attractively valued, but any prospective Fed rate cuts are unlikely to have a major positive effect given small current account deficits across the EM universe. We continue to expect a wide return dispersion between individual EM countries and regions. Growth in the heavyweight China market is likely to remain soft on a protracted basis, given structural weakness in the construction sector and constraints on the Technology sector from a tighter domestic regulatory environment and global export controls. Stronger domestic demand in the broader Asia-Pacific region should help to offset external weakness from China exposure. Central and Eastern European markets remain most exposed to the Russia-Ukraine war 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, particularly on any broadening of the Israel-Hamas conflict. The structural rise in EM consumer spending remains a big reason why 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 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[12] 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. Regionwide growth appears to have stabilized, but downside risk remains from the potential for fiscal tightening in high-budget-deficit EU countries and increased political uncertainty following EU parliamentary elections. Natural gas prices have fallen from their crisis peaks, but ongoing curtailment of Russian supply and growing demand from Asia mean that supply constraints could reemerge at a later stage. We maintain a neutral view on Japanese Equities. Uncertainty over future BoJ interest rate and intervention policy should make for further yen volatility, though tailwinds from sustained positive inflation and corporate reforms remain intact. As aggregate net energy importers,

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

International Developed markets would also be more vulnerable to any potential rise in energy prices on any broadening of the Middle East conflict. 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, can offer attractive dividend yields, and provide diversification.

FIXED INCOME

We are slightly underweight Fixed Income: We are still favorable on a significant allocation to bonds in diversified portfolios but are slightly overweight Equities currently.

Rates remain largely range-bound, as economic and inflation data has been largely in-line to weaker than expected. Chair Powell continues to emphasize a fairly dovish view of the inflation picture and the likely path of rates of the next 12 months.

We are slightly positive on U.S. Governments. Nominal and real rates are still some of the most attractive in 20 years and provide good income-generating power, in our opinion, as well as a reasonably priced hedge to macroeconomic risk. Real yields—the yield after inflation, as measured by Treasury Inflation-Indexed Securities—are 2.15% to 2.30% across the curve, the high end of the range since 2008. Substantially positive yields above inflation on U.S. government-guaranteed securities is a welcome relief for savers after years of financial repression. We still suggest a slightly long-duration position versus a stated benchmark to take advantage of these higher yields, and as prudent positioning against macro risk in the increased Equity positioning of a diversified portfolio.

We are slightly underweight both Investment-grade Corporates and High Yield. For IG, this reflects our view that despite relatively attractive all-in yields of around 5.5%, credit spreads screen rich—exceedingly so in some parts of the market, such as high-quality Industrials. Credit markets have fully embraced the improved macro and technical backdrops and while tighter monetary policy could linger longer than expected, we believe this has little effect on the intermediate-term outlook, with recent data supporting the case of a reacceleration of growth in the U.S.—which is positive for risk assets over the short term.

That being said, current valuations already fully reflect this improved macro backdrop, as IG spreads trend just above post-2008/2009 Great Financial Crisis (GFC) lows of around 95 to 100 basis points (bps). Investor demand has surprised to the upside, with new deals well oversubscribed and, in some cases, pricing with negative concessions. As supply moderates into the summer, the seasonal technical tailwind could drive a modest grind tighter over the short term—or at least range-bound spreads at historically low levels. While certainly a welcomed sign of investor risk appetites, these conditions are not sustainable over the long term, and the bottom line is that we don't see that much room for further compression in spreads.

To be clear, we don't see a risk or catalyst for spreads to move materially wider over the intermediate term, and history has shown that credit spreads can trend at low/rich levels for an extended period (i.e., late 1990s and mid-2000s). With the U.S. economy on strong footing, any move wider in credit spreads would likely be more contained, in our view. However, the margin for error at current valuations remains slim. On average, at starting spread levels of 100 bps or less, IG underperforms duration-matched Treasurys 12 months forward.

We therefore believe that an up-in-quality and defensive tilt within a corporate allocation is prudent and would look to re-risk portfolios should we see spreads move above 100 bps—all else being equal.

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 around 8%. Valuations provide modest compensation for credit losses and suggest reasonable returns over medium-to-longer time frames. Spreads, however, are currently in the 300 bps range, below the 650 bps to 800+ bps level seen in many recessions, and, similar to IG, fully reflect a soft/no-landing outcome and a moderation or improvement in default losses over the next 12 months. We therefore maintain our slight underweight positioning and see better risk-adjusted opportunities in other asset classes

FIXED INCOME WATCH LIST

- Resilient or resurgent inflation
- Increased risk aversion or recessionary risk via spreads, yields or new issue activity
- Signs of significantly negative Fixed Income fund flows
- Dislocations in CRE markets
- Potential credit deterioration if economic weakness

such as Equities. Within HY allocations, we prefer a balanced allocation between secured floating-rate leveraged loans and unsecured HY bonds.

We are slightly underweight both U.S. Investment-grade Tax Exempt and U.S. High Yield Tax Exempt: Weak technical factors in May caused tax-exempt municipal bond valuations to reach their cheapest levels of the year in the first week of June. Since then, lower new issuance, higher redemptions, and opportunistic buying have caused muni valuations to richen again, although not to the extremely rich levels seen during Q1 2024. We believe technical conditions will remain strong through August, keeping valuations rich during that period. However, we expect technical factors to weaken again in September, with higher new issuance and lower redemptions, providing muni investors with another good entry point at that time. We believe municipal credit quality remains generally solid, with most states projecting abundant levels of rainy-day funds in fiscal years 2024 and 2025. However, with over 20,000 municipal issuers, there are certainly credit outliers to the downside, and some subsectors face particular challenges. For example, demographic shifts are causing fewer applications to colleges and universities, and higher labor costs are adversely affecting hospitals and other healthcare institutions. Therefore, credit selection will remain an important determinant of portfolio returns.

We are slightly overweight Mortgage-backed Securities: Aiming to bring down stubbornly high inflation, the Fed has steadily tightened financial conditions by raising interest rates and engaging in QT. Weaker technical dynamics led to a material widening of MBS spreads last year, breaking into the 70 bps range in October 2023 before retracing back to the current mid-40s to mid-50s bps range. In our opinion, the current level of MBS spreads after the rally still represents value when compared to corporates, using the long-term average.

Duration extension, which is a key risk for MBS investors, has been substantially mitigated, with MBS duration now significantly lengthened. Another important risk, interest rate volatility, remains elevated at levels that make MBS bonds more appealing, as their spreads are likely to outperform should interest rate volatility subside. Although weak demand from the Fed, financial institutions holding two-thirds of the MBS market and an unsettling geopolitical/macro environment make it possible for MBS spreads to widen further, MBS spreads and yields appear attractive relative to Treasurys and IG corporate bonds over the long term.

ALTERNATIVE INVESTMENTS

Unlike Traditional asset classes, establishing and exiting allocations to Alternative Investments (Alts) can be a long-dated process given liquidity constraints. Because of their illiquid and long-term nature, Alts should be viewed in terms of strategic allocations. Therefore, our views on Alts strategies within each asset class reflect potential tilts in new dollar deployment based on relative opportunity, in contrast to a tactical repositioning in public markets.

Some key CIO principles for qualified investors to consider when investing in Alts include:

- **Think strategically and long term:** Alts are largely illiquid and therefore require a long time horizon when incorporating into portfolios.
- **Invest methodically, including in downturns:** A properly implemented Alts program requires a consistent commitment, particularly within private markets strategies; withdrawing during periods of volatility can undermine the long-term benefits of the asset classes and result in underallocation.
- **Diversify:** Seek diversification by strategies and managers. Investing methodically within private markets strategies also improves vintage year diversification.
- **Prioritize high-conviction managers:** Performance dispersion is significantly wider within Alts than in Traditional investment strategies; manager selection is therefore a potential opportunity.

Hedge Funds: While YTD performance remains compelling, Hedge Funds (HF) were unable to capture much of the rally in equity markets in June. Most HF strategies have

CIO Views on Alts Strategies

Hedge Funds

Equity Hedge +	
Bull case	Potential alpha* generation opportunities for low net strategies in volatile or high dispersion markets; short alpha improving after difficult start last year; low net better positioned if Equities sell off
Bear case	Return of concentrated and beta**-driven market would limit opportunity set

Event Driven	
Bull case	Higher rates pressuring levered balance sheets creating potential for distressed; merger deal spreads moderately wide and higher risk-free rate positive for merger arbitrage
Bear case	Distress may not materialize in size or may be delayed; low mergers & acquisition volumes and high regulatory uncertainty

Relative Value	
Bull case	Still in world of higher yields; economic resiliency supportive of credit; decent dispersion in HY
Bear case	Spreads not attractively wide; potential increase in credit risk and defaults in coming year

Macro +	
Bull case	Possible "higher-for-longer" rate regime could create cross-asset volatility in rates and foreign exchange; next leg down in inflation could prove more challenging to achieve
Bear case	Fed pause could take direction out of Fixed Income; choppy markets difficult for trend-following; interest rate volatility declining

* Alpha is the excess return of an investment relative to the return of a benchmark index **Beta is a measure of a stock's volatility in relation to the overall market. **Bull case** is an environment or set of factors that could represent tailwinds for the strategy. **Bear case** is an environment or set of factors that could represent headwinds for the strategy. **+ symbol** indicates the strategies CIO views as having the most favorable opportunity set for new investment within the Alts asset classes.

posted gains in the mid-to-high single digits range through the first half of the year, and alpha generation has been solid, particularly short alpha coming from Equity Hedge (EH) strategies.[13] As previously noted, the environment in the first half of the year has broadly been conducive to stock selection for both fundamental and quantitative long/short strategies. However, the past couple months have been more challenging for HFs overall, with June standing out as one of the weaker periods this year in terms of relative returns. EH strategies have experienced deteriorating alpha from long positions, while Macro strategies have generally been hampered recently by short Treasurys positioning. We continue to expect higher levels of dispersion and potential Fixed Income and currency volatility driving an attractive opportunity set for EH and Macro strategies, respectively.

Private Equity: PE notched modest gains in Q4, though full year 2023 performance notably lagged public Equities.[14] Earnings releases from the set of prominent publicly listed Alternatives asset managers, which can serve as a rough gauge of industry trends, suggest modestly positive PE performance in Q1 2024 in the low single-digits range, but once again are trailing public Equities. Buyout strategies have been resilient, if muted, over the recent rate-hiking cycle and continue to exhibit outperformance over time horizons extending back three years and longer. VC has been enduring a more acute valuation reset that, while not as severe as the dot-com peak-to-trough drawdown, has exceeded declines during the 2008/2009 Great Financial Crisis.[15] Thematically, PE strategies have been contending for more than two years with a slower velocity of capital recycling. With higher interest rates and a changed relative value landscape across asset classes, institutional investors have in turn placed even greater emphasis on distributions from their PE allocations. The need for capital remains high across private markets, particularly in the startup ecosystem where VC and PE growth investors have retrenched. For now, PE strategies are still contending with high interest rates, making the comparison versus debt more challenging.

The macro backdrop has bolstered the fundamental outlook for PC while at the same time bringing renewed competition from public leveraged credit markets. The premiums that PC maintained to start the year combined with greater risk appetite have unleashed a wave of refinancings and caused spreads to narrow. The interest expense burden on borrowers will be a growing risk factor the longer interest rates stay at these levels and may give rise to higher default rates. Importantly, the earnings outlook for middle market borrowers remains positive and is expected to keep widespread distress at bay into 2025. We continue to expect PC and public credit markets to engage in push-and-pull competition over the course of the cycle even while PC continues growing on a structural basis. The multi-trillion-dollar pile of PE dry powder alone is expected to drive a sizable opportunity set for PC over the coming years. We continue to emphasize partnering with established and well-resourced managers, and think PC is best positioned within a diversified allocation to Alts and should be tactically compared to other Alts asset classes and strategies.

Private Real Estate: PRE entered the year with optimism that the asset class would bottom-out and find market clearing prices. The stickiness of interest rates has likely pushed back the beginning of a recovery, though performance momentum and fair value estimates suggest a bottom may be in sight. Accordingly, deal activity has remained anemic. Market participants are still hoping for a pick-up in activity in the second half of the year driven by clarity on the interest rate picture and slowly improving return expectations.

Overall, PRE values have declined 5% in the past year and approximately 20% from the recent peak,[16] suggesting the valuation reset has been working its way through the system. New supply is hampering rent growth in certain sectors and geographies, such as apartments and industrial; however, supply growth is projected to ease in the coming year. Publicly listed real estate investment trusts (REITs) have traded at smaller discounts relative to net asset value (NAV) this year compared to last, and other estimates of fair value (including relative to bonds) suggest PRE valuations are not meaningfully rich or cheap overall, though with significant variation by sector.

We continue to expect systemic issues to be contained but for the PRE cycle to continue to play out as a slow burn. As suggested, reduced interest rate uncertainty would likely spur

Private Equity

Buyout	
Bull case	Current vintages likely attractive for long-term given lower valuations and profitability focus; within PE, Secondaries benefiting from secular growth and institutional investors seeking liquidity; deal activity likely to surge if rates and inflation fall
Bear case	Higher rates require larger Equity investments; deal and exit activity still low

Venture/Growth	
Bull case	Significant correction in the last two years benefits capital providers; AI could drive investment supercycle; early VC stages more insulated than later stages; falling rates would likely be tailwind
Bear case	Ex-AI VC market still challenged; VCs focused on supporting portfolio companies; initial public offering drought continues; timelines extended plus increased risk of dilution; higher rates drag on unprofitable companies

Special Situations	
Bull case	Default rates rising; "higher-for-longer" would increase pressure on levered balance sheets; RE-adjacent opportunities; companies seeking creative financing before maturities
Bear case	Fed-engineered soft or no landing could smooth out credit cycle, keeping it more average

Private Credit +	
Bull case	High current yields; healthy spread to public credit over time; economic resiliency supportive of credit; secular tailwinds supporting growth; fresh capital can underwrite to current risks
Bear case	Credit risk likely to rise & lower-quality most at risk; regulatory scrutiny; public leveraged credit competition; significant capital allocating to PC

Real Assets

Private Real Estate	
Bull case	Supply/demand imbalance in Residential driving secular opportunities; sectors like Data Centers rising; transaction cap rates slowly reflecting lower valuations; lower mortgage rates may unlock markets; lending strategies offering compelling profiles; distressed/opportunistic could emerge given stress
Bear case	Appraisal cap rates slower to fully adjust; transactions remain depressed; pressure rising in value-add multi-family financed with floating-rate debt

Infrastructure +	
Bull case	Within RE, Infrastructure to continue benefiting from fiscal spend; large need for energy transition and upgrading ageing infrastructure; potential to be inflation beneficiary if new resting rate structurally higher
Bear case	Higher rates challenging project financing; lower inflation could mitigate relative attractiveness

Bull case is an environment or set of factors that could represent tailwinds for the strategy. **Bear case** is an environment or set of factors that could represent headwinds for the strategy. **+ symbol** indicates the strategies CIO views as having the most favorable opportunity set for new investment within the Alts asset classes.

[13] HFR, Inc. BofA Capital Strategy Group. Morgan Stanley Prime Brokerage. As of June 30, 2024.
[14] Cambridge Associates, PitchBook, Inc. As of December 31, 2023.
[15] PitchBook, Inc. As of December 31, 2023.
[16] Green Street's Commercial Price Index. As of July 5, 2024.

transaction activity and aid in price discovery. New capital deployment in general, and PRE lending strategies in particular look interesting. For the longer term, PRE continues to make sense as a strategic allocation given the diversification benefits and income features.

Infrastructure: Within RE, Infrastructure remains a key long-term theme. The U.S. has a widely acknowledged ageing infrastructure base that will require significant public and private investment. Hundreds of billions of dollars have already been earmarked for infrastructure spend through several federal bills in recent years. Infrastructure also has direct links to the Energy Transition theme, which will play out over the coming decades. In addition, Infrastructure has historically performed well on a relative basis during inflationary periods and has the potential to improve diversification in portfolios.

Tangible Assets: Global growth anchors demand for commodities and has recently lost momentum as U.S. and global economic data have consistently missed to the downside. The JP Morgan Global Manufacturing Purchasing Managers' Index (PMI) is in expansion territory, but the level suggests slow growth. The stable but weak global demand backdrop is reflected in industrial metals, where aggregate indexes have been flattish over the last two years. We believe global growth and commodity demand will remain muted, but geopolitical risk and geoeconomic maneuvering are wild cards for energy commodity prices. Looking forward, anticipated Fed interest rate cuts, a likely weakening of the dollar from overvalued territory, untethered U.S. government debt, and geopolitical tensions may lift gold prices further. We continue to believe gold is most effectively implemented as a strategic diversifier.

With the Fed eventually shifting to an easier monetary policy stance as growth slows, the dollar will likely remain under pressure even as it has exhibited bouts of strength. Importantly, the U.S. dollar remains overvalued versus a number of major currencies.

Tangible Assets

Bull case	Geopolitical risk could spill over and pressure commodities supply; macro factors including currency could support oil prices; potential for diversification and inflation hedge
Bear case	Muted global growth may reduce demand support; increasing energy supply has offset Mid-East tensions; real rates staying high could pressure "safe" havens like gold

Bull case is an environment or set of factors that could represent tailwinds for the strategy. **Bear case** is an environment or set of factors that could represent headwinds for the strategy. **+ symbol** indicates the strategies CIO views as having the most favorable opportunity set for new investment within the Alts asset classes.

MACRO STRATEGY

- In the U.S., macro momentum is slowing, and economic data consistently surprises to the downside. The unemployment rate rose to 4.1% in June while job growth weakened and was concentrated in the government and healthcare sectors. The June Institute for Supply Management manufacturing and nonmanufacturing indexes both surprised to the downside falling below 49 (below 50 indicates contraction).
- Still, the profits cycle, massive fiscal stimulus and ample monetary liquidity remain supportive of economic growth and risk-assets in the near term. The outlook for monetary liquidity is less certain over the rest of the year.
- Low financial obligations relative to firm nominal personal income gains and rising net worth continues to support robust consumer spending even as the labor market softens.
- The global manufacturing PMI continues to suggest global cyclical momentum remains weak.

ECONOMIC FORECASTS (AS OF 7/5/2024)

	Q1 2024A	Q2 2024A	Q3 2024E	Q4 2024E	2024E	2025E
Real global GDP (% y/y annualized)	-	-	-	-	3.2	3.3
Real U.S. GDP (% q/q annualized)	1.4	2.0*	2.5	2.0	2.6	2.1
CPI inflation (% y/y)	3.2	3.3*	2.9	2.7	3.0	2.1
Core CPI inflation (% y/y)	3.8	3.5*	3.4	3.3	3.5	2.7
Unemployment rate (%)	3.8	4.0*	4.0	4.0	3.9	4.1
Fed funds rate, end period (%)	5.33	5.33	5.38	5.13	5.13	4.13

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 July 9, 2024. 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 2024 EPS

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 2024 and 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.

2024 EPS	EPS Forward P/E (Next 12 months)				
	17.0x	18.0x	19.0x	20.0x	21.0x
$265	4,505	4,770	5,035	5,300	5,565
$255	4,335	4,590	4,845	5,100	5,355
$245	4,165	4,410	4,655	4,900	5,145
$235	3,995	4,230	4,465	4,700	4,935
$225	3,825	4,050	4,275	4,500	4,725
$215	3,655	3,870	4,085	4,300	4,515
$205	3,485	3,690	3,895	4,100	4,305

For illustrative purposes only. Source: Chief Investment Office as of July 9, 2024.

CIO ASSET CLASS VIEWS AS OF JULY 9, 2024

Asset Class	CIO View					Comments
	Underweight		Neutral	Overweight		
Global Equities				●		We are slightly overweight Equities and see the potential for a sustained rotation into cyclicals and Small-caps, while mega cap Growth stocks remain core positions in Equity portfolios. 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. We believe portfolios should incorporate both Growth and Value factors as appropriate.
U.S. Large-cap Value				●		
U.S. Small-cap Growth				●		We maintain a slight overweight to Small-caps on the historically wide valuation gap between Large-caps and Small-caps, the declining cost of capital, and the stable U.S. consumer.
U.S. Small-cap Value				●		
International Developed		●				International Developed Equities appear attractively valued, but underlying rates of nominal growth are expected to trail U.S. levels. International markets also remain more vulnerable to any potential broadening of conflicts in Ukraine and the Middle East.
Emerging Markets			●			We are neutral EM Equities overall with regional markets likely to be driven by relative exposures to weaker China growth, the ongoing Russia-Ukraine conflict and natural resource prices. Valuations appear attractive, but any Fed rate cuts are unlikely to have a major positive impact.
International						
North America				●		The U.S. remains our preferred region given balance sheet strength, better fundamentals for consumer spending and healthy shareholder payouts.
Eurozone		●				Regional growth appears to have stabilized, but risks remain from potential fiscal tightening in high-budget-deficit EU countries, increased political uncertainty and the potential for energy supply constraints to reemerge amid the ongoing Russia-Ukraine and Middle East conflicts.
U.K.			●			Domestic demand at risk from still high mortgage rates, alongside uncertainty over fiscal policy under new government. Withdrawal from EU single market remains a negative for medium-term growth.
Japan			●			Uncertainty over future BoJ interest rate and intervention policy should make for further yen volatility. Sustained positive inflation and official efforts to increase corporate returns to shareholders a potential boost for valuation.
Pac Rim*			●			Regional activity to be dampened by exposure to weaker Chinese growth but offset by relative strength in domestic demand. Large weighting in Financials increases vulnerability to any potential broadening in banking sector stress.
Global Fixed Income		●				Bonds remain attractive and provide good diversification for multi-asset class portfolios with both reasonable income and the ability to decline substantially in yield in an economic downturn. Slightly long-duration positioning recommended, balancing the risk of further tightening/higher yields against significantly better valuations.
U.S. Governments				●		Nominal and real yields are 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 can provide short-term diversification benefits to Equities among Fixed Income sectors. Rate volatility has increased and may remain high.
U.S. Mortgages				●		MBS spreads have tightened to the mid-40's (bps) after a notable rally since the beginning of Q4 in 2023, and they have been range-bound YTD. This is still 1.3x the 10-year average making MBS more attractive relative to Treasury and Corporate in terms of yield and spreads. With a longer-term horizon in mind, we are slightly overweight on the asset class, recognizing that there are near-term upside risks in spreads due to the unpredictability of QT and the macro environment.
U.S. Corporates		●				We remain slightly underweight IG Corporates despite a modest backup in spreads over the last month. This reflects our view that while all in yields may still be compelling, credit spreads have rallied sharply, YTD, and at around 95 bps, remain priced for a strong macro backdrop and leave little room for error. At current valuations, IG tends to underperform Treasurys modestly on an excess return basis 12-months forward. Therefore, a slightly underweight position is appropriate until a better entry point presents itself.
International Fixed Income			●			International rates markets have become significantly more attractive as global CBs raise rates to fight inflation, no longer trading at a significant discount to the U.S. except in Japan where the BoJ is still keeping longer-term rates artificially low.
High Yield		●				Valuations present more attractive medium-to-long-term returns even after estimating credit losses. However, increased recession concerns could cause near-term price losses, and spreads are not at recessionary levels. Any additions to HY, therefore, should have a long time horizon. Within HY, we prefer balanced exposure between floating-rate loans and HY unsecured.
U.S. Investment-grade Tax Exempt		●				Muni valuations richened in June due to seasonally heavy redemptions, a trend that is likely to be sustained through August. Fundamental conditions remain generally favorable, and so low credit quality could continue to outperform high credit quality. However, investors should be selective in certain muni subsectors like private higher education and health care that face particular challenges.
U.S. High Yield Tax Exempt		●				HY munis are rich relative to IG munis, with tighter than average credit spreads. An up-in-quality focus should help mitigate increased credit risk due to potential economic weakening.

* Pacific Rim refers to the geographic area surrounding the Pacific Ocean. The Pacific Rim covers the western shores of North America and South America, and the shores of Australia, eastern Asia and the islands of the Pacific. 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.

CIO EQUITY SECTOR VIEWS AS OF JULY 9, 2024

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	
Energy			●	Despite signs of slowing demand, we remain overweight the Energy sector for three key reasons: 1) Attractive valuation as the lowest valued sector in the S&P 500 on cash flows and earnings; 2) High FCF generation at current oil price levels and attractive FCF yields and; 3) The decline in Energy in 2023 combined with negative sentiment and low conviction for Energy provides an attractive hedge for energy security, inflation, disruptions in energy production and geopolitical risks. OPEC+ extended their production cuts through the end of Q3 2024, and the decline in capital expenditures for long-cycle energy investments in recent years also supports Energy prices and stocks. Above-average energy prices combined with substantial cost-cutting initiatives and capital discipline over recent years built significant operating leverage into Energy companies. We also highlight higher cash returns to shareholders through base dividends, variable dividends, and stock buybacks. Longer term, secular headwinds still confront the sector, including the transition to clean energy, lower renewable energy costs and sustainability-focused by investors. Continue to emphasize companies that are low-cost producers with high FCF, balance sheet strength and low break-even oil prices. Energy stocks still provide attractive valuations and strong dividends with moderating momentum.
Healthcare			●	Consider positions in larger biopharma stocks with attractive relative valuations and upcoming catalysts. In an environment where financial conditions are in flux, Healthcare stocks provide attractive characteristics, including quality, dividend growth, dividend yield and lower beta. Healthcare fundamentals have been able to withstand much of the macro pressures seen globally, but flows last year were weak in the Healthcare sector. Further, in 2023 negative earnings revisions were made by analysts across the sector. Distributors, medical devices, and large biopharma are best positioned, in our view, to weather pressure on margins, while a return to a more normalized environment should benefit life science equipment and tools companies as we progress through 2024. As a whole, 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 medical technology. Valuation remains attractive and momentum is neutral.
Consumer Discretionary			●	With a resilient consumer, a strong job market and better-than-expected economic backdrop, we are overweight Consumer Discretionary. Slightly lower energy costs, wage increases and a strong job market with only selective job cuts confined largely to the technology-related industries is helping to maintain solid consumer spending. Consumers remain resilient and are finding ways to alter their budgets to accommodate both experiences and necessities. Further, with inflation declining from the highs experienced last summer and interest rates also moving lower, this is helping to improve consumer confidence. Consumer retail channels are shifting back to online spending as value-oriented consumers utilize alternative payment methods to supplement their spending and seek out bargains. More evidence of economic strength and a resilient consumer could help support relative earnings growth and relative valuation levels. Valuation for the sector is elevated and momentum is improving.
Industrials			●	There are multiple thematic drivers for Industrials over the next three to five years including improving outlooks for international defense budgets outside the U.S. as the global risk environment is elevated, underpinning favorable dynamics for defense companies. Aerospace is benefiting as well from the ongoing recovery in consumer and business air travel and a multiyear backlog of commercial plane orders to build and delayed deliveries. Potential improvements in the global capital expenditures cycle, including the normalization and reshoring of supply chains and manufacturing, and investment in new equipment after years of focusing on productivity, and fiscal stimulus plans could support the construction, transportation, machinery, and freight and logistics industries longer term. However, weaker import/export demand from Europe and China could be a near-term drag on earnings growth for industrial conglomerates and transport stocks. Secular growth drivers like the evolution of AI and increased power demand support the longer-term view for Industrials, and near term the sector provides exposure to short-cycle/early-cycle areas. Valuation is slightly elevated, and momentum is neutral.

Sector	CIO View			Comments
	Underweight	Neutral	Overweight	
Information Technology		●		The Technology sector is neutral despite improvements in supply chains and AI-driven flows into mega-cap Technology stocks. However, margin risks remain for companies in the sector and the potential remains for downward earnings revisions that are more likely to affect higher-beta, higher-valuation companies. Despite strong long-term Cloud and AI 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 IT, with a bias to larger and higher-quality companies with strong earnings growth, FCF and balance sheets. We continue to encourage investors to be careful about unprofitable, expensive, and long-duration IT 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 AI, data centers, software, cybersecurity, and semiconductors. Valuations in the sector declined in 2022 but were still elevated after rising again in 2023 and to start 2024, especially after the rally in AI-related companies. Further, any additional moves higher in interest rates could pressure multiples for high-growth and high-valuation technology stocks with low to no profits; therefore, look for GARP (growth at a reasonable price) in software and semiconductors. The IT sector still generates significant FCF, dividend growth and remain long-term fundamental drivers for the sector. Technology is deflationary by nature; therefore, long-term investors should look to add to transformational and industry-leading businesses on market weakness. Valuations remain elevated and momentum remains strong.
Communication Services		●		We are neutral on the Communication Services sector, as some of the largest companies in this sector provide high quality fundamental characteristics and could be more attractive in a slow-growth economic environment. Despite our concern for ongoing regulatory oversight and the never-ending battle over content, management teams are now adjusting their business models to reduce costs and become more efficient. Ad spending is moving from e-commerce to travel and leisure, hence advertisers are having to shift their targeting. Retailers are suffering from rising costs and slowing sales, which could drive changes in advertising spend. We are more constructive on the sector based on three key factors: 1) Valuation multiples were largely de-risked last year; 2) Earnings estimates were reduced; and 3) More importantly, broad cost-reduction plans could create potential earnings upside. Valuations are a little rich and momentum remains strong.
Financials		●		We are neutral on the Financials sector but would note incremental fundamentals seem to be improving in some subsectors. U.S. banks collectively had roughly $0.5 trillion in deposit outflows last year, according to Fed data, and more than $0.75 trillion since peaking in April 2022. Depositors have sought the perceived “safety” of the biggest banks and the higher yield offered by money market funds. Funding pressure coupled with capital discipline has modestly tightened credit standards and slowed the pace of lending, but anticipated Fed cuts later this year would alleviate pressure on both fronts. Despite headwinds, bigger banks are better positioned than regional peers (especially regarding CRE exposure) and valuations still remain below the thru-the-cycle median level which is supportive of additional merger & acquisitions activity. Risks to the downside appear balanced compared to potential upside for banks. Capital return will remain the cornerstone of the investment case for banks. Overall, the volatility of the Financials sector should improve with the recent addition of large e-payment and credit card networks that have been stable earnings compounders historically. We also favor life insurers, which gain significant tailwinds from higher interest rates with higher-yielding investment portfolios. Investment income accounts for roughly one-third of life insurance revenues. Given structural headwinds in property and casualty insurance, we prefer, for qualified investors, alternative asset managers, like PE, that consistently draw fund inflows, typically find their most lucrative investment opportunities in times of economic stress and maintain pricing power in management fees. Overall, valuation is attractive, and momentum stalled over recent months, but fundamentals won’t markedly improve until rates move lower and until further clarity around regulatory capital requirements.
Real Estate		●		The decline in interest rates from 2023 peak levels reduces some but not all risks regarding refinancing and the cost of capital for RE projects. Further, expectations of Fed rate cuts in the future in addition to negative positioning and very bearish sentiment last year in the RE sector could lead to increased Equity portfolio exposure to the sector. However, interest rates are still elevated compared to the zero-rate policy environment, therefore increased interest expenses could still weigh on RE sector earnings in coming quarters. We would be more selective within the RE sector and prefer neutral sector exposure. There are mixed outlooks among its subsectors because of consumer and corporate changes like remote work, eCommerce, less business travel, etc., that are potential longer-term headwinds for CRE companies (e.g., office), mall operators and retail-related property owners as companies consolidate RE footprints. Furthermore, risks are rising for downward pressure on rental rates as lease contracts expire and new contracts are negotiated. Continue to emphasize longer-term secular trends in data centers, communication infrastructure (towers), storage and industrial RE. Valuations and momentum are neutral.
Utilities	●			Utility investors continue to balance implications from a still elevated cost of capital compared to the past decade with accelerating electricity demand forecasts driven by the AI boom, which are expected to drive a renewed push for investment in renewable energy and grid hardening projects at utilities. Regulatory reviews are an important risk factor for the sector, and we note this risk is elevated in 2024 as state-level regulators have become increasingly sensitive to passing along increases to ratepayers who are financially stretched by lingering inflation. Utilities historically provide reliable earnings and outperform in the late cycle and during economic growth slowdowns, especially regulated utilities that provide a defensive hedge to portfolios. Utilities have provided greater balance and lower beta and helped diversify cyclical Equity exposure in portfolios. For the longer-term, we emphasize Utilities with growing renewable power generation from solar and de-emphasize ones that rely strictly on coal-power generation. Over the next decade, the IRA legislation provides a strong runway for future renewable energy investments and projects—though we expect noise about potential IRA repeal to dominate ahead of the November election, with potential for volatility among Utility stocks perceived as IRA “leaders.” We prefer Utilities with strong balance sheets, constructive regulatory mechanisms, and low-volatility business models. Unregulated Independent Power Producers (IPPs) are a small subsector that we currently favor given exposure to growth from rising AI and data center demand. Valuation is slightly elevated, and momentum recently deteriorated as Utilities underperformed the broader market over recent weeks.

Sector	CIO View					Comments
	Underweight		Neutral	Overweight		
Materials		●				Pockets of slower global growth and weaker commodity prices factor into our more cautious view on the Materials sector for 2024. We are seeing deceleration in the pricing cycle from higher pricing levels in 2022 and 2023. Higher interest rates in the developed world and ongoing trials securing labor and materials are pushing some project timelines to the right, and, with the additional challenge of higher energy costs, we are seeing some formerly profitable projects being reconsidered. On the supply side, concerns remain around too much new capacity in the future for petrochemicals and commodity chemicals with questions regarding demand levels for 2024. Multiples could expand or contract dependent on pricing across the commodity complex. Downward pricing pressure 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 longer-term tailwinds for demand, such as bipartisan support for U.S. infrastructure and energy transition spending, AI growth and renewable power buildouts over the longer term; however, mixed data and the slower-than-expected growth and activity in China makes the risk-reward outlook less attractive with both inflation and pricing power moving lower. Earnings revision trends could be mixed this year. As a result, the underlying sector valuation is neutral, and momentum recently declined.
Consumer Staples	●					Remain underweight the more defensive Consumer Staples sector and prefer exposure to the more cyclical Consumer Discretionary sector. Broad-based slowdown in demand for consumer-packaged goods products is a function of trade down, substitution and a more discerning bargain seeking consumer. Demand for needs and necessities across personal care and household products has held up better than most other consumer packaged goods products. It's too early to tell whether the popularity of the new weight loss drugs is affecting food and beverage volumes or whether consumers are altering their budgets to reflect the still elevated consumer goods prices. Without a predictable return to positive volume growth, traditional consumer packaged goods companies will struggle to show improvement in profits and margins needed to support current relative valuation levels. Valuations are rich and momentum has stalled.

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

CIO THEMATIC INVESTING AS OF JULY 9, 2024

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 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.

Theme	Description
ARTIFICIAL INTELLIGENCE (AI)	Building on last year's AI-enthusiasm, the next act for **Generative AI** is about adoption and deployment. The promise that AI will eventually aid productivity and efficiencies while reducing costs is also hastening the need for complementary industrial and service **Robotics/Automation**. Use cases of Generative AI and robotics within **Healthcare Innovation** abound, with the potential to aid drug discovery, age-related disease treatments and gene therapies/ mapping. The massive growth in unstructured data being created and processed by machines, devices and systems is feeding **Big Data Analytics and Storage**. An ongoing migration of data and applications to **Cloud Computing** infrastructure as well as hardware providers supports the AI data boom.
DEMOGRAPHICS	Several demographic transitions serve as important arbiters of future growth. That's true about the **Great Wealth Transfer** of over $84 trillion in assets likely to be inherited through 2045, according to Cerulli Associates. As main recipients, both the Millennials (born 1981-1996) and Gen Z (born 1997-2012) could have greater influence on consumer spending patterns and preferences. Tax treatment and business regulation continue to drive an intra-U.S. migration, while a **Global Migration** cycle is also underway given displaced populations owing to conflict, forced migration and other factors. Changing the face of consumerism globally is the **Emerging Market Consumer**, which represents a powerful middle-class cohort with rising incomes and improved health outcomes. With lengthening life expectancies globally, **Global Ageing** puts a renewed focus on healthcare, aged-care, financial, and consumer products and services. So too does the **Silver Tsunami** of ageing and wealthy Baby Boomers, who represent the bulk of consumer spending in the U.S.
INFRASTRUCTURE	Infrastructure needs today span physical infrastructure well beyond its useful life, to energy assets, both traditional and renewable. As the sought-after **Energy Transition** toward renewable energy sources such as solar, wind, hydrogen, and nuclear remain in focus, so does reliable **Energy Storage** and **Distribution** of our energy sources. If the **Future Mobility** of the global car fleet is electric, Electric Vehicle (EV) production demands more mining of copper, lithium, nickel, manganese, cobalt and graphite, etc. to produce EVs as compared to internal combustion engines. Other key investment opportunities exist given disruptions through climate related events, cyber threats, or general impairments to the **National Grid**; but also globally, the risk of scarcity/stress to resource facilities among **Water/Waste Management**.
SECURITY	**Industrial Policies** are in, as the "visible hand" of the government is just as prominent as the "invisible hand" of the private sector, with hundreds of billions of dollars committed from the White House to incentivize security and self-reliance of suppliers and resources. Regulation pertaining to **Surveillance** and adjacent technologies, as well as legislation of data privacy rights will be a topic on Capitol Hill in 2024. Of national security concern, defense spending in the years ahead likely remains elevated given ongoing Ukraine-Russia and Israel-Hamas wars in addition to simmering U.S.-China tensions. **Aerospace and Defense** should benefit from the remilitarization in the wake of shrinking stockpiles. Ongoing and sophisticated ransomware and data breaches bolsters **Cybersecurity** budgets across industries. With the commercialization of space, security extends to **Space** and space-based assets (such as drones, satellites, data links, weather monitoring and Global Positioning System (GPS).
POLYCRISIS	Growing conflict and crisis globally can be described as **Multipolar Disorder,** leading to unforeseen realities for the macroeconomic backdrop and markets. **Resource Protectionism** has been on the rise as the extraction, sourcing and management of the world's resources will stay in focus with commodities, metals and mining complexes already stretched. Although net zero commitments are widespread, the current path to **Decarbonization** targets remains narrow. Also at crisis levels, global debt reached a staggering $307 trillion last year according to Institute of International Finance, putting in focus **Debt and Deficit** concerns. A million people in the U.S. have died of drug overdose since 2000 while suicide rates are at their highest level in over 80 years—All tragedies related to **Deaths of Despair**, and of particular impact to our healthcare system.

Index Definitions

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

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

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.

Global manufacturing purchasing managers' index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors.

J.P. Morgan Global Manufacturing PMI data gives a detailed look at the manufacturing sector including the pace of manufacturing growth and the direction of growth for this sector.

Brent Crude Oil Futures reflects a generic ICE Brent Crude futures contract, which is a deliverable contract based on EFP delivery with an option to cash settle.

Wilshire 5000 Index is a market-capitalization-weighted index of the market value of all American stocks actively traded in the United States.

National Financial Conditions Index is a weighted average of a large number of variables (105 measures of financial activity) each expressed relative to their sample averages and scaled by their sample standard deviations.

U.K. FTSE 100 Index is the United Kingdom's best-known stock market index of the 100 most highly capitalized blue chip companies listed on the London Stock Exchange.

Russell 2000 Index is a small-cap U.S. stock market index that makes up the smallest 2,000 stocks in the Russell Index.

Russell 1000 Index is a U.S. stock market index that tracks the highest-ranking 1,000 stocks in the Russell 3000 Index, which represent about 93% of the total market capitalization of that index.

Institute for Supply Management (ISM) manufacturing index is a composite index that gives equal weight to new orders, production, employment, supplier deliveries, and inventories.

Institute for Supply Management (ISM) non-manufacturing index is an index used to assess the performance of services companies in the US.

Green Street's Commercial Price Index is a time series of unleveraged U.S. commercial property values that captures the prices at which commercial real estate transactions are currently being negotiated and contracted.

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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.

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