

Viewpoint

The Pivot Is On

December 2021

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

IN BRIEF

- As we look ahead to 2022, the still-developing macro and investment environment could contain new shifts (elevated inflation), adjustments (Federal Reserve (Fed) policy), some major pivots (cyclical rotation), and further structural changes (employment trends) away from some factors that dominated the pandemic cycle.
- In our base case for 2022, we expect a grind-it-out market environment in which valuations could remain flat or slightly decline but with profit growth to supersede this and Equity outperformance to continue.
- We remain constructive toward the Financials, Industrials, Energy and Materials sectors, which should benefit from the continued economic recovery and a steeper yield curve, and maintain our positive long-term outlook on Technology due to a secular rise in spending on innovation, productivity and the continued digitalization of the economy.
- Within Fixed Income, we favor credit overall especially Investment-grade. We continue to maintain a shorter duration stance.
- Qualified investors could also consider opportunities in Alternative Investments, which could add another layer of diversification to a portfolio.

As we begin transitioning from a pandemic-led pent-up demand cycle with multiple waves of growth to a potentially lower and smoother but still above-average nominal economic growth cycle, we believe “The Pivot Is On.” This still-developing macro and investment environment could contain new shifts (elevated inflation), adjustments (Fed policy), some major pivots (cyclical rotation) and further structural changes (employment trends) away from some factors that dominated the pandemic cycle. We discuss three scenarios below.

BASE CASE

For 2022, we expect a grind-it-out market environment in which valuations could remain flat or slightly decline but with profit growth to supersede this and Equity outperformance to continue. With 2021 mostly about much higher profits than expected and 2020 more about expanding multiples, we believe that for 2022, return expectations including dividends in the U.S. are likely to track profit growth. New variant worries should dissipate but the pandemic still keeps a full reopening at bay. Rotation toward cyclicals and more Value-oriented areas including small-caps is preferred and the long-duration, high-growth, little-to-no profit areas come under continued pressure.

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee did not make any tactical asset allocation adjustments. We reaffirm our positive view on Equities relative to Fixed Income with a preference for U.S. Equities relative to International. Maintain a disciplined approach to portfolio construction, and consider factors such as high quality, free cash flow, and dividend growth.

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

*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors.

CIO asset class views are relative to the CIO Strategic Asset Allocation (SAA) of a multi-asset portfolio.

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Investment products:

Are Not FDIC Insured	Are Not Bank Guaranteed	May Lose Value
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Sectors and industries with pricing power (Energy, Materials, Industrials—infrastructure-related—and Financials), economic leverage and strong profits growth mixed with attractive valuations dominate the year, in our view. Included in this environment, we expect dividend growth and higher-quality areas with low balance sheet leverage to also outperform. We still expect high free cash flow, strong balance sheet and mega Technology also to do well. This scenario may carry higher volatility and perhaps multiple pullbacks but we would leverage these as potential buying opportunities, particularly as we begin the year.

Yield drifts could go higher tracking inflation and stronger economic growth. The curve may shift upward and steeper between federal funds and the 10-year Treasury. We favor credit overall, especially Investment-grade, but we would maintain a shorter-duration stance.

Commodity exposure is favored via Equities, in our view, with gold being considered as a potential hedge on elevated inflation, although we do not foresee a direct correlation between its price and inflation throughout the year.

MOST BULLISH CASE

This Most Bullish Case could include an even better-than-expected profit growth as reopening worries fade, multiples slightly rise as capital investment, stronger consumer spending than anticipated, continued pricing power, liquidity remains high, and above-average revenue growth continues. In addition, new variants would turn out to be mild and the reopening of the economy accelerates.

The Fed removes ultra-accommodation, but the market is prepared for it given the high growth. The job market surpasses its expectations, but inflation creeps higher maintaining a negative real rate environment. Nominal economic growth surpasses consensus expectations handily.

Valuations actually expand slightly given the comfort level for risk rising. Yields back up and the curve steepens, keeping financial conditions stimulative.

Risk aversion wanes even if the “wall of worry” is maintained. A subtle rise in valuations mixed with very strong profit growth and still-healthy financial conditions would lead to Equity total returns closer to 15%-20% in the U.S., in our view.

A rotation to cyclicals is accelerated where Value, small-caps, reflationary sectors and industries outperform. Financials, Energy, Materials and Industrials are most preferred. Some mega Technology with high free cash flow should also do well, in our view.

Yields would back up more-than-expected and the Fed would likely remove policy faster and hike interest rates more than expected but, again, investors would most likely take this in stride.

Non-U.S. markets would likely rise in sympathy with the U.S. and could exhibit some quarterly outperformance. If the new variants fade quicker or are milder than expected, emerging markets (EM) would likely outperform for the first time in years.

This scenario is not without worry or pullbacks, but we would be buyers on weakness as we begin the year in Equities in this scenario.

DOWNSIDE CASE

This case is somewhat straightforward but includes more complexity, in our opinion.

This Downside Case, our least probable case, is one that could include lower valuations (pressured by rising rates due to much higher inflation, much lower liquidity, and slower growth—in other words, very low confidence in the future), a peak in corporate profits and a nominal economic growth backdrop that performs well below expectations.

The Fed would maintain its recent pivot, and accelerate tapering and raise rates into a much slower growth environment which creates rising real concerns over stagflation. In addition, new variants would become a force that slows growth down further but inflation creeps higher given extended goods buying and supply chain disruptions.

Cyclicals, commodities and reopening investments correct with Technology and Growth segments declining as well, given the potential for both slower growth (new variant worries) and higher short rates (tighter Fed).

The yield curve ultimately flattens and recycles the worries over stagflation. Gold could be considered a potential hedge but not directly, in our view.

Risk assets, namely higher beta areas including non-U.S. markets, would likely also come under pressure as the U.S. dominates the growth curve globally—a slower U.S. and slower China would lead to a slowdown globally, in our view.

More defensive assets, sectors and industries would be preferred including investments with strong dividend growth.

SUMMARY

In summary, our Base Case represents our highest probability scenario with the Most Bullish Case next and then the Downside Case. The commonality across all three scenarios is that we believe all things considered, high quality, free cash flows and dividend growth as factors are all attractive.

We still prefer more cyclical and Value exposure overall given our view that a large rotation toward these areas continues throughout 2022 mixed with strong mega Technology free cash flow companies. Finally, we significantly prefer Equities relative to Fixed Income in our Base Case.

There will be time much later down the road, post 2022, to worry more about the magnitude of Fed tightening (less liquidity) and how this could affect the broader growth level in the economy, corporate profits and Equity valuations.

CIO INVESTMENT DASHBOARD

The outlook for global economic activity remains strong despite having gradually moderated, with 83% of our proprietary growth indicators (a range of indicators across different economies, strategies, markets and asset classes) flagging a bullish or neutral signal, according to BofA Global Research. Elevated consumer net worth, savings and job growth should remain powerful supports, while risks from the spread of a more infectious coronavirus variant remain. Corporate earnings continue to demonstrate considerable momentum across styles, sectors and regions. Monetary and fiscal policy should incrementally tighten from here, but continue to provide an accommodative backdrop for Equities. Corporate credit conditions are generally benign, with credit spreads remaining in a tight range across Investment-grade (IG) and High Yield (HY). Relative valuations continue to favor Equities over Fixed Income, although a disorderly move higher in yields would be considered a headwind for Equities.

Investor sentiment is currently neutral. We are mindful of the potential for some profit-taking by investors in the near term amid concerns about inflation and another surge in coronavirus cases. However, any pullback is likely to be an opportunity to add to cyclical areas of the market, given higher levels of nominal growth and profits.

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

Factor	Implication for Equities			CIO View
	Negative	Neutral	Positive	
Earnings				In Q3, the S&P 500 and Europe STOXX 600 reported profits that positively surprised consensus estimates by roughly 9.3% and 7.7%, respectively, according to Bloomberg. While positive, the magnitude of the beats have diminished compared to earlier quarters. Still, upward earnings revisions point to a continued robust profits picture. In the U.S., profit margins overall remain resilient, as strong demand has boosted sales and offset higher costs. Year-over-year (YoY) growth in S&P 500 profits registered at 39% for Q3, according to FactSet
Valuations				U.S. Equity valuations are extended on an absolute basis but remain attractive compared to Fixed Income. S&P 500 price-to-earnings (P/E) ratio (next 12 months) is at 21x, higher than the historical average, but has declined this year as earnings have risen. The S&P 500 earnings yield is 335 basis points (bps) above the 10-year Treasury yield, indicating more upside for Equities relative to Fixed Income. Low-but-positive interest rates have been underpinning higher valuations for Equities by maintaining easier financial conditions while keeping deflationary concerns at bay.

Factor	Implication for Equities			CIO View
	Negative	Neutral	Positive	
U.S. Macro				U.S. economic growth has shown signs of reaccelerating in Q4, led by consumption, housing and a boost in exports, according to the Atlanta Fed's GDPNow tracker. On the demand side, consumer spending remains supported by an improving labor market, economic reopening, record-high household net worth and excess savings. Purchasing Managers' Index (PMI) surveys indicate the Manufacturing and Services sectors remain robust. Supply-chain challenges and labor shortages remain impediments to growth. Q3 real gross domestic product (GDP) grew by 2.1% quarter-over-quarter at a seasonally adjusted annualized rate, down from 6.7% in Q2. BofA Global Research expects growth of 5.6% for the full-year 2021, followed by 4.0% for 2022.
Global Growth				While we continue to move through the third reopening wave in the global economy, economic uncertainty has increased, due to an increase in new cases of the coronavirus and the discovery of a new variant. Elevated energy prices, particularly in Europe and China, also pose a risk to the economic outlook. Led by China and the U.S., the global economy is expected to grow by 5.8% in 2021 and 4.3% in 2022, according to BofA Global Research.
Federal Reserve/Inflation				The Fed has maintained its ultra-accommodative stance, aiming to achieve an average inflation rate of 2% over time and broad inclusive improvement in the labor market. However, the Federal Open Market Committee (FOMC) began tapering the central bank asset purchases in November, while commentary by Fed Chair Jerome Powell has fueled anticipation for a quicker pace of tightening monetary policy. Overall, inflation data, such as Consumer Price Index (CPI), Producer Price Index (PPI) and consumer expectation for prices, has surprised to the upside, driven by strong demand and constrained supply in the global economy.
Trade/Fiscal Policy				Including the Bipartisan Infrastructure Framework, approved in October, fiscal relief in the U.S. now equates to nearly 31% of GDP since the start of the pandemic. Policymakers are deliberating over the appropriate steps toward approving a broader budget plan to be put through the reconciliation process by the Democratic-controlled Congress. Lack of an agreement to raise or suspend the debt ceiling remains a risk.
Corporate Credit				Corporate credit conditions remain benign as a result of measures taken by the Fed and rising corporate earnings and cash flows. Recent volatility has led to slight widening of credit spreads across IG and HY. However, they remain tight, indicating financial conditions remain accommodative, and economic fundamentals are strong.
Yield Curve				Yield curves have flattened further, after recent stabilization. The 2/10s Treasury curve is at around 80 bps, down from its peak of 157 bps in March. Rates on the front-end have moved higher to reflect higher expectations for Fed hikes sooner rather than later. Rates on the back-end have been weighed down, partly due to low rates globally and coronavirus-related uncertainty. While the economic outlook remains positive, the curve may reflect some emerging concern of its sustainability.
Technical Indicators				In late November, the Chicago Board Options Exchange (CBOE) Volatility Index (VIX) level ascended to peak in early December at just over 31. Market breadth has regressed after improving somewhat. After challenging its all-time high, the cumulative advance/decline line for New York Stock Exchange (NYSE) Equities has declined to lows recorded in September. The percentage of NYSE stocks above their 200-day moving average has declined to around 40%, its lowest level since August of 2020.
Investor Sentiment				Amid more volatile individual investor sentiment, bears now outnumber bulls, according to the American Association of Individual Investors. Meanwhile, institutional portfolio cash levels have declined slightly from their highest level since July 2020, according to the Fund Manager Survey. The BofA Global Research Bull & Bear Indicator is at 4.9, signaling a neutral reading.

Source: Chief Investment Office. Data as of December 7, 2021.

EQUITIES

We expect Equities to outperform Fixed Income: Global Equities should benefit from higher nominal growth levels, healthy corporate profits, rising consumer spending and an improvement in the service sectors. Bond yields may rise as central banks become more hawkish in 2022; however yields still remain at historically low levels and supportive of valuations. The rise of a new variant is creating uncertainty in the near term; however medical advances allow local authorities to maintain a high threshold for shutdowns. We continue to favor U.S. Equities and are neutral International Developed Equities and Emerging Markets (EM).

We are overweight U.S. Equities overall: The U.S. remains our preferred equity region relative to the rest of the world, with stronger balance sheets on aggregate, robust economic growth prospects and strong earnings revisions. U.S. Large-caps generally offer a balance of Quality, Yield and Growth factors, while Small-caps offer higher cyclicality and more attractive relative valuations.

We expect earnings per share (EPS) for the S&P 500 to improve to \$206.50 in 2021, with potential for upside as earnings estimates trend higher. A strong manufacturing sector, capital expenditures (CapEx) and margin improvement also bolster the case for a stronger-than-expected earnings recovery. U.S. Equity valuations are extended on an absolute basis but remain attractive compared to Fixed Income. The rising exposure of the S&P 500 to

secular growth industries, lower levels of global interest rates and improving profit margins support higher multiples. In the near term, however, performance will likely be influenced by economic reopening, sentiment and policy developments. Near-term risks for Equities come from the new variant, China's slowdown and its effect on multinational earnings, a rise in energy prices and the upcoming debt ceiling negotiations. We would expect volatility to rise as financial conditions tighten as the Fed continues to taper and interest rates drift higher.

We remain constructive toward the Financials, Industrials, Energy and Materials sectors, which should benefit from the continued economic recovery and a steeper yield curve, and maintain our positive long-term outlook on Technology due to a secular rise in spending on innovation, productivity and the continued digitalization of the economy. We continue to maintain a positive outlook for the consumer; however, the Consumer Discretionary sector is discounting the reopening, and rising input costs pose a risk to margins. Healthcare is a diverse sector with a mix of defensive bond proxies and high-growth stocks that could face headwinds in this part of the cycle. However, we still believe the long-term trends in global healthcare spending are positive.

We believe portfolios should incorporate both Growth and Value factors that would simultaneously gain from cyclical and secular forces gaining traction. Growth should continue to benefit from accelerated secular investments in 5G, artificial intelligence, cloud computing, robotics and health infrastructure globally. However, current economic conditions suggest that investors may want to consider emphasizing Value, which has higher exposure to cyclical sectors that benefit from an improved pace of earnings growth and economic normalization. We also favor Small-cap Equities, given their cyclical nature, correlation to interest rates and inflation and the rising CapEx cycle. Both Value and small-caps are trading at discounted relative valuations.

We are neutral Emerging Market Equities: EM Equities have been relative underperformers this year given weaker fiscal support, slower vaccination rollouts in lower-income countries, a moderation in the growth outlook for China, and upside risks for U.S. inflation and interest rates. We nonetheless continue to expect a wide return dispersion between individual EM countries and regions. Cyclically-oriented markets in Latin America and EMEA (Europe, Middle East and Africa) should be well positioned as global economic activity continues to normalize, while markets in Asia with high exposure to digital industries remain long-term beneficiaries of the expanding digital economy. We also see trade tensions with the U.S. and intermittent shifts in regulatory policy causing periodic bouts of volatility for the heavyweight China market. This risk bears watching, as China comprises roughly 35% of broad EM indexes and, therefore, can create a policy-driven overhang in the medium term. The continued rise in EM consumer spending remains a big reason that we believe investors should maintain a strategic allocation to EM Equities. The emerging world now constitutes around 40% of global personal consumption expenditures (PCE) according to the United Nations, and ongoing convergence with developed economies should support GDP growth and corporate earnings over the longer term. We favor active management¹ when investing in EM, as fundamentals differ across countries, based on key vulnerabilities to commodity prices, borrowing costs, external financing conditions and other factors.

We are neutral International Developed Market Equities: International Equities have been mixed this year, as the pace of economic reopening, earnings recovery and relative valuation differs across countries. An uptick in coronavirus cases has recently weighed on European equities, but improving growth and elevated positive earnings revisions remain as tailwinds. Japanese equities remain well supported as their vaccine rollout has ramped higher, earnings revisions remain positive and additional fiscal stimulus was recently approved. Both Europe and Japan have strong sensitivities to global economic activity and should benefit as output continues to normalize. International Developed Equities have the potential to add cyclicity and Value orientation in portfolios.

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

EQUITY WATCH LIST

- Regional economic reopenings, coronavirus case trends, vaccination distribution timeline
- Rising expectations for Fed tightening as inflationary pressures persist
- Economic data for production, labor, consumer expectations, and credit and liquidity conditions
- Progression of earnings estimates amid margin pressures
- Fiscal policy adjustments, including additional spending packages and taxes
- Reorganization of global supply chains and U.S.-China relationship

FIXED INCOME

We are slightly underweight Fixed Income: We prefer short duration relative to a stated Fixed Income benchmark that is aligned to investment goals. The Fed indicated at its November FOMC meeting that tapering of bond purchases would begin in November and finish toward the middle of 2022, but is now signaling that it may have to accelerate that even further at its December FOMC meeting. This unanticipated communication change is causing Treasury market volatility and yield curve flattening, although tightening of monetary policy may ultimately be a catalyst for rates to eventually move higher in 2022 if inflation continues at a relatively high pace. Market inflation indicators have recently moved down dramatically—by approximately 45 bps in five years—and while this is partly due to the Fed potentially getting out from being behind the curve, some of it is likely due to an increasing liquidity premium, similar to the move witnessed in Investment-grade corporates.

The Fed seems to believe it must withdraw accommodation at a somewhat faster pace now, and this has become more consensus as the rates market is pricing in two fed funds rate hikes in 2022 versus none previously. Treasury market volatility may therefore continue to increase in the coming months as the market grapples with more persistent inflation and a more aggressive and proactive Fed. The 10s/30s spread continues to narrow. While not at a worrying level, the trend continues to bear watching. We expect a bear flattening of the Treasury curve over the coming months with rates rising overall, but characterized by sharper increases at the shorter-end. On balance, Fed policy still continues to be positive for risk assets, credit risk, economic growth and inflation, and negative for interest rate risk.

While there should be upside to Treasury rates over the medium term, Treasuries should still be considered for most investors' portfolios, especially to complement portfolios with equity risk. However, investors less focused on managing short-term Equity volatility, with all Fixed Income portfolios, or with better ability to withstand price volatility, should still underweight Treasury allocations while favoring high-quality, IG spread products—corporates and agency mortgage-backed securities (MBS). We still expect Fixed Income to be a diversifier—in the long run, coupon income is a larger determinant to total returns than price changes due to rate moves—and this diversification effect has proved true again during the recent volatility. Treasury/Equity correlations, which had broken down within the year, have reasserted themselves, consistent with our expectations.

We remain slightly overweight Investment-grade corporates and slightly underweight High Yield: Investment-grade corporates should continue to outperform Treasuries as the global economic recovery continues. That said, with spreads in the 90 to 100 bps range, we believe that excess returns versus duration-matched Treasuries are likely to come from carry and likely not from any significant spread tightening. The technical backdrop should remain supportive, underpinned by strong demand, particularly from institutional and foreign investors, in addition to waning net supply heading into 2022. Spread volatility in response to an unexpected or large move in Treasury yields, inflation or both remains a key risk; however, spreads have been relatively resilient thus

far. Given some of the strongest fundamental trends in decades, any move wider in spreads is likely to be short-term in nature and should be viewed as a potential buying opportunity.

Credit losses in IG are generally manageable and not a large component of spreads, but the same cannot be said in HY. Despite an improving fundamental backdrop, credit losses may rise and meaningfully reduce total returns. The yields now available in HY (roughly 4%) provide very meager compensation. Within HY allocations, we prefer larger allocations to secured floating-rate leveraged loans versus unsecured high-yield bonds, although both should be included, and we caution investors to be aware that strong near-term performance may not be sustainable.

We are neutral Mortgage-Backed Securities: Volatility has increased in both rates and mortgage markets. Combined with worries about Fed tapering, this has caused spreads in MBS to widen from single digits earlier this year to mid-30s now. The rapid move in Treasury yields since January 2021 has also caused mortgage duration extension from the low 2s to high 4s according to the Bloomberg U.S. MBS Index. Further duration extension is limited from here, as duration stands within one year of its highest level seen in the last two decades. Going forward, increased volatility and oscillating mortgage rates could mean higher prepayment risk, which may move MBS spreads even wider in compensation. It is prudent to position conservatively within the sector, in our opinion. Longer-run, MBS still looks attractive versus Treasuries with additional yield spread, and the sector is a very large component of the high-quality bond market. Therefore, investors should maintain a significant weight to the sector as appropriate for their particular investment objectives and risk tolerance, although the opportunity set is currently still greater in the IG corporate sector.

FIXED INCOME WATCH LIST

- Potential Fed policy error, letting inflation run too hot
- The 10s/30s spread, which if it continues to narrow may signal slowing growth
- Uneven Treasury market sell-off as taper progresses and policy interest rate hikes begin
- Signs of any risk aversion in terms of spreads, yields or new issue activity
- Infrastructure plan and potential changes in the tax code
- Dislocations in Commercial Real Estate (CRE) markets

ALTERNATIVE INVESTMENTS

Given the differences in liquidity characteristics between alternative investments (AI) and traditional investments, the Chief Investment Office (CIO) asset class views on AI portfolio positioning continue to be neutral-rated versus our strategic allocations. These types of investments, in our opinion, should not be viewed at the asset class level on a tactical basis, but rather the tactical positioning should be expressed at the sub-asset class level.

We will continue to provide strategy-level guidance for qualified AI investors. We believe allocations to AI can introduce differentiated returns that can help complement existing traditional holdings by potentially enhancing returns, helping to reduce risk and capitalizing on opportunities not available through traditional investments.

We favor a strategic approach when allocating to Hedge Funds: In line with our overall overweight view on Equities, we currently see favorable opportunities for select Hedge Fund strategies for qualified investors, such as Equity long/short. The tenacity of the coronavirus Delta variant caused U.S. GDP to dip in Q3 to the slowest pace since the recovery began in the spring of 2020. GDP growth appears to be regaining steam in Q4, and we are optimistic that the U.S. economy will be robust in 2022. However, as new strains of the coronavirus keep appearing, with the Omicron being the most recent, it is

unclear how contagious it is, what the effect will be on people (mild or severe symptoms) and what the efficacy of the current vaccines will be. This makes the future somewhat opaque, with the effect on GDP, inflation and interest rates unknowable.

As mentioned above, we are maintaining our moderately positive view for Equity Hedge strategies, unchanged from previous quarters. We continue to believe the market environment is attractive for skilled stock pickers. As the effect of the coronavirus-induced government stimulus abates, Equity Hedge managers are generally optimistic that company fundamentals should be a more significant driver of stock performance going forward. We believe such an environment to be conducive to alpha generation on both longs and shorts.

Equity Hedge Funds tend to have a quality bias in their long books. At the start of an economic recovery, low quality stocks tend to lead the early stages of a rally but then underperform once the recovery peaks after a few quarters and until the next recession. Some fund managers believe we are entering this second phase during which higher-quality stocks tend to outperform. If true, this could be a tailwind to Equity Hedge Funds' alpha generation going forward. S&P 500 pair-wise correlations are low at the time of this report's publication. If the correlations remain low, that should also contribute to a favorable stock selection backdrop for Equity Hedge managers as stocks are more likely to trade on fundamentals. Valuation levels are not favorable and elevated relative to their five- and ten-year averages. However, this could be conducive to an attractive opportunity set for short sellers. Despite the challenging and mostly technically driven dynamics in 2020 and year-to-date in 2021 related to Equity Hedge Funds' short positions, managers generally maintain their discipline although some decided to reduce the practice of shorting individual stocks. Managers focused on alpha shorts are generally constructive on the prospect of this practice as they expect there will be less competition going forward.

Recently, we have become more cautious on Event Driven and Relative Value strategies, as credit spreads have tightened meaningfully and now are well below historical levels. Rising interest rates may also be a headwind for some strategies, with the yield on the 10-year now in a higher range; while still low from a historical perspective, the trend is most likely upward. In addition, there is a lack of opportunities for distressed strategies. For qualified investors seeking diversified return streams, trading strategies (especially trend-following strategies) are currently benefiting from greater and more diverse opportunities than seen in recent years and have the potential to provide competitive and less-correlated returns. There is also a level of asset class diversification to consider, as these managers invest across all parts of the investment spectrum: stocks, bonds, currencies and Commodities.

We favor a strategic approach when allocating to Private Equity: We view these strategies as long-term potential portfolio return enhancers with unique access to specialized investments and strategies unavailable in traditional portfolio construction. We see opportunities across a number of different sectors as the global economy continues to rebound. After dislocations caused by the coronavirus, managers that allocated to buyout and distressed areas of the market last year are seeing robust returns as the U.S. consumer continues to spend, even as there was a dip in the Q3 GDP number. Within the broad Private Equity universe, we continue to favor special-situation strategies that could benefit from pockets of stress resulting from the pandemic and from secular shifts across sectors due to disruptive technologies. Private Credit strategies are benefiting from the concerns of higher interest rates, as many of these investments are more credit- than interest rate-sensitive. Also, many of these types of investments are floating rate, offering some buffer to higher rates compared to a traditional Fixed Income portfolio. These strategies may be of interest to qualified investors seeking potentially enhanced yield and may complement traditional Fixed Income holdings.

We favor a strategic approach when allocating to Private Real Estate: While conditions across the Commercial Real Estate (CRE) market continue to be closely tied to the return-to-office scenario, we are seeing some "green shoots" across a variety of Real Estate (RE) sectors. Industrial RE (particularly logistics and infrastructure) is the leading

sector and has rebounded strongly from the 2020 lows. Demand for multifamily housing continues to grow, and hotels and office properties have put up back-to-back positive numbers in Q2 and Q3. For prospective qualified investors, we continue to place emphasis on direct investments in well-located properties in strong regions of the country that exhibit attractive rent-roll and cash-flow characteristics and have the potential to bridge into the next cycle, helping to provide a long-term hedge against rising inflation. Additionally, given the increasing importance of eCommerce, we continue to believe the Industrial sector (warehouses, data centers, etc.) will likely be an area of growth as companies compete for position in an on-demand economy. Looking out further, there is a case to be made for adaptive reuse in certain parts of the CRE market. This strategy, which is primarily the domain of opportunistic/value-add managers, involves converting nonproducing assets into performing properties. In today's environment, that could mean converting retail, office or mall properties into residential, medical or fulfillment centers.

Commodities and the dollar: For investors, there is a growing list of reasons to shore up strategic exposure to commodity prices heading into 2022. Supply-side shortcomings related to coronavirus, bad weather and crop failures are short-term factors that may fade as tailwinds, but rising maritime-based geopolitical risk and positive commodity supply/demand dynamics related to de-carbonization efforts appear to have staying power. A weaker dollar, potentially driven by valuations, could eventually emerge as an additional catalyst. At the same time, investor flows are revisiting the diversification benefits of Commodities. From a business cycle timing perspective, Commodity allocations often exhibit relative outperformance versus stocks and bonds when the labor market is tight and inflation is bubbling over. Ultimately, global growth anchors demand and is the most important factor to consider when allocating to Commodities and that outlook is positive for 2022.

Positioning within Commodities could be important to help mitigate the risk of rising real interest rates. Rising real interest rates would have the biggest effect on Commodities like gold because the price of gold is largely determined by speculation relative to other more fundamental commodities. For this reason and others, we favor cyclical commodities (industrial commodities and energy, for example) over gold.

The U.S. dollar continues to benefit from relatively stronger economic growth and a Fed that has shifted its rhetoric to acknowledge higher inflation and a tight labor market, and that extremely accommodating monetary policy is coming to an end and higher interest rates are in the future. This has helped the dollar to remain strong, exploiting the relative interest rate advantage versus the developed world. However, relatively higher inflation expectations as compared to other developed countries could weigh on longer-term valuations.

Tangible assets: Over the long term, especially given the unprecedented fiscal stimulus and monetary reflation now in place, tangible assets—such as real estate, timber, and farm and ranch land—may benefit portfolios through increasing diversification, helping to position for higher inflation, generating cash flows and providing possible favorable social-impact opportunities.

MACRO STRATEGY

- The pandemic marked a secular shift in policy that has created a new dawn for the global economy, with major implications for investors. In most basic terms, it is a shift from the low-interest-rate, low-inflation, secular-stagnation environment that characterized the first two decades of the 21st century, to a higher nominal growth environment characterized by higher inflation, higher interest rates and stronger real growth. Monetary and fiscal policy have played key roles in this shift and remain accommodative even as the Fed begins tapering asset purchases.
- Overall, the macro backdrop supports stronger growth in cash flows and profits. We believe this is a positive backdrop for Equities.

ECONOMIC FORECASTS (AS OF 12/3/2021)

	2021E	Q1 2022E	Q2 2022E	Q3 2022E	Q4 2022E	2022E
Real global GDP (% y/y annualized)	5.8	-	-	-	-	4.3
Real U.S. GDP (% q/q annualized)	5.6	4.0	4.0	3.0	2.0	4.0
CPI inflation (% y/y)	4.7	6.8	5.5	4.5	3.1	5.0
Core CPI inflation (% y/y)	3.6	6.0	5.0	4.4	3.5	4.7
Unemployment rate (%)	5.4	3.9	3.7	3.6	3.5	3.7
Fed funds rate, end period (%)	0.13	0.13	0.38	0.63	0.88	0.88

The forecasts in the table above are the baseline view from BofA Global Research. The Global Wealth & Investment Management (GWIM) Investment Strategy Committee (ISC) may make adjustments to this view over the course of the year and can express upside/downside to these forecasts. **Past performance is no guarantee of future results.** There can be no assurance that the forecasts will be achieved. Economic or financial forecasts are inherently limited and should not be relied on as indicators of future investment performance.

A = Actual. E/* = Estimate. Note: BofA Global Research 2022 end period S&P 500 estimate is 4600; end period 10-year Treasury estimate is 2.00%; 2022 average West Texas Intermediate Oil estimate is \$82/barrel.

Sources: BofA Global Research; GWIM ISC as of December 7, 2021.

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When assessing your portfolio in light of our current guidance, consider the tactical positioning around asset allocation in reference to your own individual risk tolerance, time horizon, objectives and liquidity needs. Certain investments may not be appropriate, given your specific circumstances and investment plan. Certain security types, like hedged strategies and private equity investments, are subject to eligibility and suitability criteria. Your advisor can help you customize your portfolio in light of your specific circumstances.

The table below provides a rough indication of where the S&P 500 Index's central tendency could be, given various scenarios for EPS in 2022 and price-to-earnings (P/E) ratio multiples. These scenarios are not official price targets and are not meant to signal levels where portfolio actions may always be needed. However, during times of market volatility, it's useful to keep this basic framework in mind when considering whether to incrementally add to or trim risk from portfolios while staying invested in one's strategic asset allocation framework.

S&P 500 SCENARIOS BASED ON FORWARD P/E AND 2022 EPS

Forward P/E (Next 12 months)

2022 EPS	Forward P/E (Next 12 months)				
	18.0x	19.0x	20.0x	21.0x	22.0x
\$235	4,230	4,465	4,700	4,935	5,170
\$225	4,050	4,275	4,500	4,725	4,950
\$215	3,870	4,085	4,300	4,515	4,730
\$205	3,690	3,895	4,100	4,305	4,510
\$195	3,510	3,705	3,900	4,095	4,290
\$185	3,330	3,515	3,700	3,885	4,070
\$175	3,150	3,325	3,500	3,675	3,850

For illustrative purposes only. Forecasts are subject to change. Source: Chief Investment Office as of December 7, 2021.

CIO ASSET CLASS VIEWS

Asset Class	CIO View					Comments
	Underweight		Neutral		Overweight	
Equities	•	•	•	●	•	We retain our positive view on Equities based upon favorable relative valuations and improving global growth. Corporate profits remain in an uptrend as forward estimates have increased, policy remains supportive and global growth continues to accelerate. We remain overweight the U.S., neutral International Developed and neutral EM.
U.S. Large-cap	•	•	•	●	•	Growth should continue to benefit from accelerated secular trends, but Value, which has higher exposure to cyclical sectors, should benefit from an improved pace of earnings growth and economic normalization. We believe portfolios should incorporate both Growth and Value factors. At the sector level, we continue to favor Technology for long-term secular growth exposure but are also constructive near term on cyclical sectors like Industrials, Financials, Energy and Materials.
U.S. Mid-cap	•	•	•	●	•	Midcaps can break out from their consolidation phase since summer given healthy earnings revisions and elevated nominal economic activity.
U.S. Small-cap	•	•	•	●	•	Small-caps have relatively attractive valuations and could benefit from further cyclical rotation.
International Developed	•	•	●	•	•	Global economic recovery is expected to continue, which should benefit more cyclically oriented International Developed markets. A substantial monetary and fiscal policy drive in Europe and Japan paired with relatively attractive valuations is a support for international equities, though underlying rates of nominal growth are expected to trail behind U.S. levels.
Emerging Markets	•	•	●	•	•	We are neutral EM equities overall with cyclical regions well positioned for normalization in global activity and Asian markets geared to long-term growth in the digital economy. Potential risks from rising U.S. interest rates, domestic and U.S.-focused China policy, and slower vaccination rollouts in lower-income markets.
International						
North America	•	•	•	●	•	The U.S. remains our preferred region on corporate earnings and balance sheet strength, with a domestic demand-driven recovery likely to remain resilient as the economy continues to reopen. The U.S. also has greater fiscal and monetary stimulus in place, which supports reflationary assets including Equities.
Eurozone	•	•	●	•	•	Increased level of fiscal policy coordination across the European Union (EU) should provide additional support for domestic demand and may limit relative economic weakness, while exposure to cyclical sectors should benefit from normalization of economic activity.
U.K.	•	•	●	•	•	Post-Brexit withdrawal from the EU single market remains a negative for medium-term growth. Ongoing caution over uncertainty about final EU deal on financial services given significant economic and market exposure. Large weighting in cyclical sectors should benefit from normalization of economic activity. Rising coronavirus cases could present a potential headwind.
Japan	•	•	●	•	•	Large fiscal and monetary stimulus are key sources of support for growth in the domestic economy, though market-based inflation expectations remain among the lowest for the major developed economies. We expect long-term tailwinds from exposure to automation machinery and equipment including from robotics, while valuations remain attractive.
Pac Rim*	•	•	●	•	•	Large weighting in financials and other cyclical sectors should benefit from normalization of economic activity. China exposure and international shifts on foreign policy toward Hong Kong remain an ongoing source of uncertainty for the region.

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

CIO ASSET CLASS VIEWS (CONTINUED)

Asset Class	CIO View			Comments
	Underweight	Neutral	Overweight	
Fixed Income	• ●	•	• •	Bonds diversify multi-asset class portfolios by providing income and relative stability. Below-benchmark duration is preferred, as fiscal and monetary policy supports higher inflation, stronger nominal growth and higher long-term rates over the medium term.
U.S. Investment-grade Taxable	• ●	•	• •	Preference for credit and spread products to Treasuries, as risk-free assets are very expensive both in absolute terms and relative to inflation. Consider short duration overall. Some allocation to Treasuries for liquidity should be considered as a buffer to risk-off sentiment.
International	●	• •	• •	Compressed yields and risk premiums around the globe compared to the U.S., combined with potentially higher volatility in non-U.S. markets, present unfavorable risk/reward conditions for non-U.S. Fixed Income, in our view, justifying an underweight position.
Global High Yield Taxable	• ●	•	• •	Valuations present mediocre absolute long-term returns after estimating credit losses. Near-term performance may be reasonable—given where the economy is in the business cycle; however, we don't view the risk/reward favorably. Any additions to HY risk need to have a long time frame. Within HY, we prefer more floating-rate loan exposure versus HY unsecured, while allocating to both.
Alternative Investments*				Given the differences in liquidity characteristics between AI and traditional investments, the CIO asset class views on AI portfolio positioning continue to be neutral-rated versus our strategic allocations. These types of investments, in our opinion, should not be viewed at the asset class level on a tactical basis, but rather the tactical positioning should be expressed at the sub-asset class level. We will continue to provide strategy-level guidance for qualified AI investors. We believe allocations to AI can introduce differentiated returns that can help complement existing traditional holdings by potentially enhancing returns, helping to reduce risk and capitalizing on opportunities not available through traditional investments
Hedge Funds				We favor Equity long/short strategies for differentiated equity returns. A hedged approach to equity investments might offer a buffer in a higher volatility environment. We have recently become more cautious on Event Driven and Relative Value strategies as credit spreads are historically tight and rising interest rates could be a headwind. Also, there is a lack of opportunities in distressed investing.
Private Equity				We see opportunities across a number of different sectors as the global economy continues to rebound. After dislocations caused by the coronavirus, venture, buyout and equity-growth managers are seeing robust returns. Within the broad Private Equity universe, we continue to favor special-situation strategies that could benefit from secular shifts across sectors due to disruptive technologies. Private credit strategies will likely outperform a traditional Fixed Income portfolio as interest rates rise as many of these investments are more credit- than interest rate-sensitive, generally have a shorter duration and tend to be floating-rate securities.
Tangible Assets / Commodities				As the global economy continues to recover, demand for many Commodities remains strong, and we are seeing significant price appreciation across a wide swath of sectors. Problems and dislocations in global logistics are causing bottlenecks and aggravating the supply/demand imbalance, adding upward pressure on prices. Our outlook remains positive over the short and medium terms. An allocation to Tangible Assets/Commodities could be a good buffer to rising inflation.
Real Estate				While conditions across the CRE market continue to be closely tied to the return-to-office scenario, we are seeing some "green shoots" across a variety of Real Estate (RE) sectors. Industrial RE (particularly logistics and infrastructure) is the leading sector and has rebounded strongly from the 2020 lows. Demand for multifamily housing continues to grow, and hotels and office properties have put up back-to-back positive numbers in Q2 and Q3. Several key trends that are centered on demographics and eCommerce that were in place pre-coronavirus have accelerated as we enter a post-coronavirus world. Of course, some sectors and regions are more affected than others, and the recovery will be uneven.

Tactical qualitative investment strategy weightings are relative in nature versus the strategic weightings for a fully diversified portfolio. Weightings are based on the relative attractiveness of each asset class. Tactical strategy weightings are for a 12- to 36-month time horizon. CIO asset class views are relative to the CIO Strategic Asset Allocation (SAA) of a multi-asset portfolio. Because economic and market conditions change, recommended allocations may vary in the future. Asset allocation cannot eliminate the risk of fluctuating prices and uncertain returns. All sector and asset allocation recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors. **Alternative investments such as derivatives, hedge funds, private equity funds and funds of funds can result in higher return potential, but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest, your need for liquidity and your tolerance for risk.**

* Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors.

Source: Global Wealth & Investment Management Investment Strategy Committee as of December 7, 2021.

CIO EQUITY SECTOR VIEWS

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

Sector	CIO View			Comments
	Underweight	Neutral	Overweight	
Energy	•	•	•  •	The choppy reopening of the global economy, inflationary pressures and strong global energy demand are supportive for energy stocks. Higher energy prices combined with substantial cost-cutting initiatives over recent years built significant operating leverage into energy companies. Further, earnings and free cash flow outlooks remain solid for upstream energy companies on higher realized oil and natural gas prices and continued capital discipline. Additional cyclical and value rotations could improve flows, positioning and sentiment, and potentially pull some investors back into the sector. Lower CapEx budgets and fewer long cycle investments in the Energy sector over recent years could support higher oil prices in the near- and intermediate-term. Positive view on energy for cyclical reflation trade, but, longer-term the secular headwinds still confront the sector. Headwinds include the transition to clean energy, lower renewable energy costs and increasing Environmental, Social and Governance (ESG) focus by investors. Continue to emphasize companies that are low-cost producers with high free cash flows, balance sheet strength and low break-evens. Even after year-to-date gains, Energy still provides attractive valuations with neutral momentum.
Financials	•	•	•  •	Banks resumed stock buybacks and dividend increases based on excess capital instead of earnings power. In addition, loan loss reserve release should moderate after significant reserve releases in the first half of the year given a better macro backdrop and loan portfolio performance, which could be a modest tailwind to earnings and help enhance capital return. Given structural headwinds in Insurance, we prefer market exchanges that evolved into fee-based data and analytics providers. We also favor alternative asset managers, like Private Equity for qualified investors, which consistently draw fund inflows, typically benefit from low interest rates and maintain pricing power in management fees. U.S. banks remain well capitalized and, in our view, are likely to return more capital to shareholders in coming quarters in buybacks and dividends, and provide some attractive Price/Book valuations.
Industrials	•	•	•  •	The economic reopening and recovery are driving better fundamentals in cyclical end markets, including transportation, automotive, power, machinery and manufacturing, although aerospace is still relatively weaker given international flights are still below pre-coronavirus levels. Higher volumes amidst somewhat constrained supply are driving sequential earnings and prices higher. Broad-based improvements in orders and increasing backlogs signal healthy activity levels and volume trends could continue over the near-to-medium term. Further, potential improvements in the global CapEx cycle could support the transportation, machinery, and freight and logistics industries longer-term. Cyclical rotations and fund flows could also continue to support the Industrial stocks. Valuation is elevated, and momentum is neutral.
Materials	•	•	•  •	Remain constructive on the Materials sector given the inflationary backdrop, low inventories, strong demand trends and tight commodity markets. Supply constraints are helping to keep prices elevated. Low inventory levels relative to consumption are helping companies to pass through cost inflation and help protect margins, and could extend the cycle, as inventories need to be rebuilt. There is high potential operating leverage embedded in the sector, driven by lower-cost profiles when compared to prior cycles, which could help enhance profitability if volume growth trends persist. Packaging and specialty chemicals are benefiting from healthy U.S., consumer demand, while the greatest improvement in marginal demand is occurring in cyclical commodities exposed to automotive, construction and aerospace end markets, which have yet to fully recover. Valuation and momentum is neutral after recent consolidations.
Information Technology	•	•	•  •	The pandemic accelerated the digital transitions for many industries and supports the secular growth trends for cloud computing, machine learning and artificial intelligence (AI), data centers, software, cybersecurity and semiconductors. We are in the early innings for machine learning and AI, and the pandemic forced the adoption of digital payments by older generations who are now frequent users. This accelerated the digital payments industry by several years without cannibalizing future sales. Traditional hardware exposure is still increasingly commoditized. Valuation is extended, and a move higher in interest rates could pressure multiples for high-growth and high-valuation tech stocks; therefore, look for GARP (growth at a reasonable price) in software and cyclical exposure in semiconductors. Free cash flow, balance sheet strength, dividend growth and earnings growth remain strong fundamental drivers for the sector. Neutral on valuation and momentum.
Consumer Discretionary	•	•	•  •	Consumer Discretionary's relative performance peaked and made a turn lower, and higher costs could potentially pressure margins and earnings going forward. The consumer reopening cadence is entering the "mobility phase" as consumers are out of the house and engaging in pre-pandemic activities and events. The ongoing shift to omnichannel retailing should continue to alter consumer behaviors due to the pandemic. Favor strong global consumer brands with solid balance sheets and a history of dividend growth over weaker brick-and-mortar retailers that could face declining store traffic trends. Cyclical tailwinds from both housing and autos could provide additional potential upside opportunities to the growth outlook. The pent-up demand for reopening activities and services could be an additional catalyst for the consumer. Despite a solid outlook for the consumer as we head into 2022, rising input costs, higher freight costs, increased labor costs and supply chain disruptions could provide potential headwinds. Valuation is elevated, and momentum is stalling.

Sector	CIO View			Comments		
	Underweight	Neutral	Overweight			
Real Estate	•	•	●	•	•	The outlook for Real Estate has improved in 2021 and is reflected in stronger performance driven by progress in the reopening of the economy. Consumer and corporate changes like remote work, eCommerce, less business travel, etc., are potential longer-term headwinds for CRE companies (e.g., office), leisure (e.g., hotels), mall operators and owners. However, Real Estate's positive correlation with inflation, relative underweight positioning and opportunity to provide both a potential inflation hedge and reopening exposure makes the sector more attractive. Continue to emphasize longer-term secular trends in data centers, communication infrastructure and industrial real estate with a focus on eCommerce distribution facilities. Consider being selective in the sector with mixed outlooks for different sub-sectors of the Real Estate industry. Relatively attractive valuation and improving momentum.
Healthcare	•	•	●	•	•	Underperformance of the high-growth and high-valuation biotech and healthcare tech companies is overshadowing some of the opportunities presenting themselves in large pharma and life science equipment, and is creating some headwinds for the healthcare sector during the current economic recovery. Over the long term, we still expect rising spending on global healthcare—focused primarily on diagnostics, healthcare consumables, and drug development equipment/tools and differentiated medical devices. Emergency department visits and inpatient hospital admissions remain areas to watch and could have a notable effect on capital equipment spending and labor pressures. Drug pricing pressures appear to be fading in the near term with the assumption that pricing reforms are likely to be passed and viewed by investors as a clearing event. Large pharmaceutical companies are becoming more attractive as they trade at a large 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 pick up momentum. Emphasize exposure to long-term, positive trends in animal health, cost-savings medical technology and telemedicine, tools, diagnostics and select biotech, as well as more intermediate opportunities in large-cap pharma. Valuation is a bit extended in certain subsectors with lower momentum.
Communication Services	•	●	•	•	•	Traditional media continues to see pressure from cord-cutting, a negative trend for traditional cable and media companies, but the positive trends for internet usage, video streaming and gaming can provide growth in the sector. However, some of this growth was pulled forward last year due to the pandemic and work-from-home trends. Advertising could see a rebound to some degree, but regulatory uncertainties and concerns could be a near-term overhang for the sector. Recent new headlines increased scrutiny on some internet- and social media-focused companies. Valuation is attractive, and momentum has deteriorated.
Consumer Staples	●	•	•	•	•	Consumer Staples face tougher revenue and earnings comps as we lap the pandemic-driven stay-at-home benefits from last year. Ongoing risks of a rotation out of defensive positioning and into risk-on positioning is becoming more apparent, with greater visibility and availability of vaccines and the anticipation of a return to reopening activities. The potential for increases in labor, input, freight and packaging costs could further pressure year-over-year profitability as companies potentially increase promotional activity in an attempt to retain pandemic-affected consumers. Historically, Consumer Staples performance is a function of relative earnings growth and the sector could face decelerating earnings growth, especially compared to cyclical areas that are expected to see improving earnings growth. Relatively attractive valuation and lower momentum.
Utilities	●	•	•	•	•	Expect consistent earnings results; however, post the crisis, rotations out of defensive stocks continue to be a potential headwind. Further, the potential for rising interest rates is an additional headwind for this bond proxy sector. Emphasize utilities with growing renewable power generation from wind and solar and de-emphasize ones that rely strictly on coal-power generation. Earnings and dividend growth opportunities remain for utilities that can capitalize on the transition to greater renewable power generation and positive demographic trends. Relatively unattractive valuation and lower momentum.

Source: Chief Investment Office as of December 7, 2021.

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

CIO THEMATIC INVESTING

Taking the long view, the following themes and subthemes are considered among the most powerful structural forces in the world. They are macro in nature but carry significant risks and reward for companies, both large and small. Although constructed with a global lens, in today's tightly woven world, what transpires or disrupts in Asia has a tendency to emerge in Europe or North America, and vice versa. These themes are transformational and carry long-term implications for economic growth, the cost of capital and global earnings. Gaining exposure to these themes is a key ingredient to investing.

Theme	Comments
Big Data	The massive growth in unstructured data being created by connected machines, devices and systems is fueling data processing and Data Analytics . Complementing Artificial Intelligence technologies are replete with applications for big data. The size of the digital world and Internet of Things (IoT) is accelerating the migration of data and applications to a Cloud Computing environment. Data Centers and cloud-based Storage will likely capture incremental data created.
Demographics	Several demographic transitions serve as important arbiters of future growth. With elongated life expectancies globally, longevity for older populations will likely mean a renewed focus on healthcare, aged-care, financials, and consumer products and services for longer, serving as a multitrillion-dollar potential opportunity. Both the Millennials (born 1981-1996) and Gen Z (born 1997-2012) could have greater influence over the next decade on consumer spending and preferences. While we are neutral the EM asset class on a tactical basis, we believe the EM Consumer represents a powerful middle-class consuming cohort over the longer term. Uplifting the Bottom Billions , or poorest socioeconomic group with growing access to electricity, internet and sanitation can also offer a demographic dividend for multinational companies.
Climate Change	With emphasis from the new administration, a much greater focus is on health, renewable energy, clean water and sanitation, and other industries that tend to support a more sustainable future. Companies that embrace more climate-friendly business models and operations, as well as consumer products and services, are likely to enjoy sustained growth opportunities over the long term. Key investment opportunities: Renewable Energy (Solar , Wind and Hydrogen), Energy-Efficiency such as building systems, Water/Waste Management , and Energy Storage & Distribution .
Future Mobility	The future of mobility hinges on Next-Gen Infrastructure . This includes the telecom industry's deployment of the 5G network, which is expected to prove to be the greatest accelerant and enabler to Smart Cities (smart buildings, safety and security), Autonomous Vehicles and unmanned Drones . The growing Electric Vehicle market will likely demand installation of charging equipment and fuel peripheral industries such as battery material demand.
Security	Expanding the IoT means security for a growing ecosystem of devices and end points. With the increase in time spent on online platforms, (as well as adoption of online Payments/FinTech), Data Privacy/Surveillance and governance is expected to play a larger role in a post-pandemic world, as will bolstering Cybersecurity defenses and budgets. With the commercialization of space, cybersecurity will likely extend to Space -based assets (think satellites, data links, weather monitoring and GPS).
Post-coronavirus World	In the post-pandemic economic recovery, the factory of the future tends to be based closer to home and driven by Robotics (Industrial/Service Automation) not humans, hastening reshoring by creating Dual/Local Supply Chains , notably in high-end activities and manufacturing. The post-pandemic world will likely demand a new wave of Infrastructure investments, both mineral and material-intensive for cleaner and greener infrastructure. The fusion of Healthcare and Technology through HealthTech capabilities, should result in greater investments in telemedicine, disease surveillance and patient monitoring. Just as healthcare has gone digital, technology could increasingly dictate e-Everything , as we've seen eCommerce , eSports and eLearning gain traction. An increased focus on ESG factors and metrics promotes the shift toward stakeholder capitalism.

Source: Chief Investment Office as of December 7, 2021.

Index Definitions

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

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

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

Bloomberg US Mortgage Backed Securities Index tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

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

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

Purchasing Managers' Index (PMI) is a measure of the prevailing direction of economic trends in manufacturing.

Europe STOXX 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 180 index.

Important Disclosures

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

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

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

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

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

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

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

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

Nonfinancial assets, such as closely-held businesses, real estate, fine art, oil, gas and mineral properties, and timber, farm and ranch land, are complex in nature and involve risks including total loss of value. Special risk considerations include natural events (for example, earthquakes or fires), complex tax considerations, and lack of liquidity. Nonfinancial assets are not in the best interest of all investors. Always consult with your independent attorney, tax advisor, investment manager, and insurance agent for final recommendations and before changing or implementing any financial, tax, or estate planning strategy.

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

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