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CHIEF INVESTMENT OFFICE

Viewpoint

Decision Time

September 2022

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

IN BRIEF

- It is our view that this post-pandemic cycle in economic and market terms is unlike any other. There are many unknowns, including a wide swing in the money supply from growth to contraction. This creates a more volatile backdrop, with a wide range in equity market indexes in the short term, in our opinion.
- Leading economic indicators point to slower U.S. growth over the balance of the year.
- We maintain a neutral view on Equities as risks to economic growth and corporate profits remain skewed to the downside. As growth moderates, profit estimates are likely to follow as the Federal Reserve (Fed) pursues a more aggressive tightening bias.
- We still expect high-quality Fixed Income to be a diversifier—in the long run, coupon income is a larger determinant of total returns than price changes due to rate moves—and this diversification effect has historically proven true when rate volatility decreases.

In the past couple of months, we experienced a powerful rally in July and most of August that retraced 50% of the downdraft from the highs in late January to the mid-June lows in the S&P 500. On the flip side, through the balance of August, the market weakness has cut that comeback to only 25% as investors caught the eyes of global central banks (led by the Fed) and froze in the aggressive hawkish stares. While the roller coaster ride carried through other "rivers of volatility" re-emerged. These include: wider credit spreads, rising Treasury yields, a stronger dollar, falling commodity prices, European bond market fragility, and strains in some frontier markets. Our continued "on guard" stance is now leaning toward a more defensive tone as we analyze key trends across asset classes. In the coming weeks we believe it will likely become decision time regarding asset allocation for the back half of the reset period.

We expect the back half of the reset period to last approximately six to nine months. During this period, we believe corporate earnings will be adjusted lower, valuations will normalize, Treasury yields will likely peak, inflation will continue to fall, the European economic landscape will likely face one of the most difficult winter periods in decades, China will reflate, and the tightening of financial conditions by the Fed will start to bite even more. We also expect consumer balance sheets to remain reasonably healthy as the job market continues to show some resolve. In summary, it is our view that this post-

CIO ASSET CLASS VIEWS

This month, the Global Wealth & Investment Management Investment Strategy Committee did not make any tactical asset allocation adjustments. Our continued "on guard" stance is now leaning toward a more defensive tone as we analyze key trends across asset classes. We remain neutral Equities, with a preference for U.S. Equities relative to International, and a slight underweight to Fixed Income. We continue to emphasize broad portfolio diversification as we continue to monitor a post pandemic cycle that is unlike any other.

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	CIO View				
Asset Class	Underweight		Neutral	Overweight	
Global Equities			●		
U.S. Large Cap Growth			●		
U.S. Large Cap Value				●	
U.S. Small Cap Growth			●		
U.S. Small Cap Value			●		
International Developed		●			
Emerging Markets			●		
Global Fixed Income		●			
U.S. Governments		●			
U.S. Mortgages		●			
U.S. Corporates				●	
High Yield		●			
U.S. Investment Grade Tax Exempt			●		
U.S. High Yield Tax Exempt		●			
International Fixed Income	●				
Cash					

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

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pandemic cycle in economic and market terms is unlike any other. There are many unknowns, a wide swing in the money supply from growth to contraction, some classic core cycle signals and also quite a few counterintuitive trends. This creates a more volatile backdrop with wide ranges in equity market indexes in the short term, in our opinion.

Below, we outline some key thoughts investors should consider as they make asset allocation decisions in the coming weeks and months.

Balanced Investor

- Maximizing diversification across asset classes, including Alternatives for qualified investors where appropriate.
- Overweighting more defensive sectors such as Utilities and Healthcare and solid areas of free cash flow like Energy and dividend leaders.
- Using future areas of weakness in the months ahead to rebalance where appropriate.
- Focusing on long-term positioning early next year once earnings are reset.

More Defensive Investor

- Reducing exposure to Equities and/or credit in a tax-efficient manner if liquidity is needed.
- Waiting for better values in the coming months if Equity exposure is reduced.
- Focusing on liquidity in the short term but do not sway too far from your risk budget given the difficulty in timing the post-pandemic market environment.

Longer-term Investors With Excess Cash

- Looking for opportunities to increase higher-quality positions in Equities on extreme weakness later in the year—both at home and overseas.
- Adding to diversified sectors later in Q4 and early 2023 as the profits cycle stabilizes and the Fed ultimately pauses.
- Focusing on high free cash flow areas like Energy; more defensive areas in Healthcare and growth in Technology should be target sectors.
- Using excess cash opportunistically over time, not at a point in time.

Fixed Income Investors

- Adding to Treasurys, though rates may move a bit higher, and lengthening duration overall.
- Taking advantage of the backup in yields across the curve.
- Being selective on individual credits and focusing on after-tax yields.

We believe its “Decision Time”.

CIO INVESTMENT DASHBOARD

A global growth slowdown is unfolding with economic data in the U.S, Europe and China weakening. Inflation is elevated in the U.S. and accelerating in Europe, while the property sector in China is weighing on consumer sentiment. Central banks in developed and emerging countries are tightening policy aggressively to combat inflationary pressures. Corporate profits currently remain supportive, with consensus estimating annual earnings growth of 8.5%, but are likely to weaken as restrictive monetary policy fully filters through into the broad economy. Corporate credit conditions remain generally supportive, but credit spreads have widened amid tightening financial conditions. Absolute valuations for U.S. Equities remain slightly above historical averages, and investor sentiment remains bearish. We continue to believe that market volatility will rise for most asset classes and expect the “grind-it-out” environment to persist for markets over the next several months, especially as the mid-term elections draw near.

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 ←	For Q2, actual earnings for the S&P 500 slightly surpassed estimates. The year-over-year (YoY) growth rate for the quarter registered at 7.7%, supported by 15.5% growth in revenue. Annual growth for this year is expected at 8.5%, with revenue at 11.5% according to FactSet. While analyst downgrades for earnings outnumber upgrades globally overall, their limited scope so far suggests some resilience, according to BofA Global Research Global Earnings Revision Ratio.
Valuations	Neutral	Absolute valuations for U.S. Equities have become less extended and are slightly above their historical average. The S&P 500 price-to-earnings (P/E) ratio (next 12 months) has fallen to 16.5x from 21.5x in late 2021 due in large part to price volatility. Meanwhile, the S&P 500's earnings yield is 279 basis points (bps) above the 10-year Treasury yield. On this basis, relative to Fixed Income, valuations seem slightly attractive. However, economic uncertainty may dampen margin and profit estimates, weakening their anchor. Rising interest rates are also a risk reducing the relative appeal of Equities.
U.S. Macro	Neutral ←	Real gross domestic product (GDP) growth in Q2 2022 contracted by 0.6% on a seasonally adjusted annual growth rate. For Q3, the Atlanta Fed's GDPNow tracker forecasts a rebound of growth to 2.6%. Consumption, business investment and exports are supporting growth, which has been weighed on by residential investment and inventories. On the demand side, a strong labor market, economic reopening and excess savings should help support consumer spending. However, a rising cost of living, supply-chain challenges, rising interest rates, and labor shortages, to a lesser extent, are headwinds to growth. BofA Global Research expects growth of 1.3% for 2022 and -0.1% in 2023.
Global Growth	Neutral ←	Geopolitical developments are sustaining global uncertainty. In Europe, they are exacerbating commodity-related inflation and destabilizing the economic outlook. Additionally, tensions between the U.S. and China have recently increased. Meanwhile, a strategy to eliminate the coronavirus, which has dragged on consumption and the services sector, and weakness in the property market have weighed on China's economy. Officials have recently taken further policy steps to shore up the economic recovery. The global economy is expected to expand by 3.1% in 2022 and then by 2.6% in 2023, according to BofA Global Research.
Monetary Policy / Inflation	Negative ←	The Federal Open Market Committee's (FOMC) target policy interest rate range stands at 2.25% to 2.50%. BofA Global Research anticipates a year-end range of 3.50% to 3.75%, implying further hikes totaling 1.25% over the next three meetings. These forecasts suggest a peak in the rate of monetary policy tightening. However, Fed Chairman Jerome Powell raised the bar for a pivot to looser policy in comments at Jackson Hole Fed Summit. This month, the balance sheet runoff began operating at full capacity, at $95 billion per month in Treasury bonds and Mortgage-backed Securities (MBS). Recently, YoY inflation data, such as the Consumer Price Index (CPI), the Producer Price Index (PPI) and the Personal Consumption and Expenditures Price Index have undershot expectations. Some of these measures may have peaked.
Fiscal Policy	Neutral	Fiscal stimulus in the U.S. in response to the pandemic totaled nearly 31% of GDP. Designed in part to combat persistent inflation, the Inflation Reduction Act was signed into law. Alongside fiscal deficit reduction via measures to raise public revenues, including a 15% minimum corporate tax rate and prescription drug pricing reform, the legislation provides nearly $370 billion over 10 years for energy security and climate change projects, among other initiatives. This follows the authorization of a $280 billion plan to strengthen the country's industrial base, by investing in semiconductor production and research and development of new technologies.
Corporate Credit	Neutral ←	High yield (HY) and Investment-grade (IG) credit spreads narrowed during July through mid-August, after widening over the first half of the year to their fullest extent since Q3 of 2020. More recently, their renewed and general upward trend and elevated degree indicate less accommodative financial conditions and investor worries over the prospect of a notable economic slowdown.
Yield Curve	Neutral	Year-to-date (YTD), the all-important fed funds/10s curve has flattened, signaling growing concern over the sustainability of the business cycle, more in line with cautionary trends in other parts of the yield curve. Elevated rates on the front end have in part reflected raised anticipation for an aggressive interest-rate upcycle by the Fed. Rates on the back end have recently tempered their rise, reflecting raised economic uncertainty.
Technical Indicators	Neutral ←	The Chicago Board Options Exchange (CBOE) Volatility Index (VIX) has rebounded from its recent low near mid-August and stands above its 12-month and year-to-date averages. Indicators of market breadth —including the cumulative advance/decline line for New York Stock Exchange (NYSE) Equities and the percentage of them above their 200-day moving average—have begun to deteriorate after improving in July.
Investor Sentiment	Positive	Bearish sentiment remains within extreme territory, according to the American Association of Individual Investors. Institutional portfolio cash levels are off their highest since October 2001 but remain well above their long-term average and continue to signal a tactical contrarian "buy" signal, according to BofA Global Research's Fund Manager Survey. The BofA Bull & Bear Indicator also signals "buy," at 0.4.

Source: Chief Investment Office. Data as of September 6, 2022.

EQUITIES

We are neutral Equities: We maintain a neutral view on Equities as risks to economic growth and corporate profits remain skewed to the downside. As growth moderates, profit estimates are likely to follow as the Fed pursues a more aggressive tightening bias. BofA

Global Research expects 50 bps hikes at the September and November FOMC meetings followed by a 25 bps hike in December, bringing the target range to 3.50% to 3.75%. In addition, the Fed is expected to continue shrinking its balance sheet with the run-off cap doubling starting this month. We continue to favor U.S. Equities over International on a risk-adjusted basis and believe that tightening monetary policy will continue to pressure the riskier areas of the market. We remain slightly underweight European Equities and International Developed Market Equities given that Eurozone growth is likely to weaken on the back of the energy price shock, declining business and consumer confidence, and slowing money supply growth.

We are overweight U.S. Equities overall: The U.S. remains our preferred Equity region relative to the rest of the world given relatively stronger balance sheets on aggregate, healthy shareholder payouts, better consumer fundamentals and a greater degree of energy independence. We maintain a slight overweight to U.S. Large-caps given our higher quality bias, with a preference for Value, which should benefit from higher levels of inflation. We remain neutral Small-cap Growth and Small-cap Value. Small-caps have lower-quality balance sheets, a higher proportion of non-earning companies within the index, and less financial flexibility to generate shareholder payouts, which can be detrimental during an economic slowdown. However, we believe a neutral position is appropriate at this stage given their reasonably attractive absolute and relative valuation versus large-caps.

We expect earnings per share (EPS) for the S&P 500 to improve to $218 in 2022 but decline in 2023 by 8% to $200 on economic weakness and margin pressures. S&P 500 valuations remain relatively attractive for long-term investors compared to the elevated levels seen earlier this year but are still not cheap given the cloudy earnings picture. Near-term risks for Equities come from a global slowdown in growth and profits, persistently elevated levels of inflation and a Fed policy error. We would expect volatility to continue as financial conditions tighten as the Fed continues their hiking cycle.

We continue to prefer certain cyclical sectors with strong free cash flows and attractive valuations like Energy and Financials and are also slightly overweight defensive sectors like Real Estate (RE), Healthcare and Utilities, which are likely to provide some stability. Given our view that we are in a late-cycle environment, we remain neutral Information Technology, Industrials and Consumer Staples. We remain slightly underweight Materials as recession risk rises and the U.S. dollar strength weighs on the sector. We remain fully underweight Consumer Discretionary and Communication Services.

We believe portfolios should incorporate both Growth and Value factors that would simultaneously gain from cyclical and secular forces gaining traction. 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 is trading at a relative discount to Growth and is seeing better earnings trends.

We are neutral Emerging Market Equities: Emerging Market (EM) Equities appear attractively valued but remain vulnerable to further escalation of the conflict in Eastern Europe, Fed tightening and U.S. dollar strength. We continue to expect a wide return dispersion between individual EM countries and regions. Central and Eastern European markets are most exposed to the Ukraine/Russia crisis through international sanctions and high dependency on natural gas imports. Cyclically-oriented markets in Latin America, the Middle East and Africa should be relatively well positioned, in our view, as commodity prices remain elevated, while markets in Asia remain more at risk from high energy and food import prices. For the heavyweight Chinese market, we also see ongoing uncertainty related to economic and regulatory policy. The structural rise in EM consumer spending remains a big reason that we believe investors should consider maintaining a strategic allocation to EM Equities, as appropriate. The emerging world now constitutes around 40% of global Personal Consumption Expenditures (PCE) according to the United Nations, and ongoing convergence with developed economies should support GDP growth and corporate earnings over the longer term. We favor active management[1] when investing in EM, as fundamentals differ across countries based on fiscal capacity, external funding needs, corporate governance and other factors.

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

We are slightly underweight International Developed Market Equities: We continue to prefer U.S. versus International Developed given our higher-quality view. We remain slightly underweight Europe given headwinds to economic growth and corporate profits from higher energy prices, elevated inflation and a more hawkish European Central Bank (ECB). Potential for further reduced gas supplies from Russia, political upheaval in Italy and fallout from widespread heat waves have all contributed to the likelihood of further economic weakness across the region. Inflation has yet to peak, forcing the ECB to tighten monetary policy while balancing the risk caused to peripheral debt. We maintain a neutral view on Japanese Equities, which remain well supported by large fiscal and monetary stimulus, though stringent travel bans and elevated coronavirus cases have disrupted the country's plans for economic reopening. Despite these challenges, we believe long-term investors should consider maintaining some strategic exposure to International Developed Equities, as appropriate, as they trade at a steep discount relative to U.S. Equities, offer an attractive dividend yield, and provide strong diversification benefits.

EQUITY WATCH LIST

- Continued Fed tightening as inflationary pressures persist
- Economic data for production, labor, consumer expectations, and credit and liquidity conditions
- Progression of earnings estimates amid margin pressures
- Fiscal policy adjustments and taxes
- Reorganization of global supply chains and U.S.-China relationship
- Ongoing conflict in Eastern Europe

FIXED INCOME

We are underweight Fixed Income: The Fed delivered another 75 bps interest rate hike in July, its second in a row, a very large amount of monetary policy tightening in a short amount of time. The market now currently expects another 100+ bps of rate hikes before the Fed pauses, resulting in a peak fed funds rate of about 3.75% by the end of the year. Leading economic indicators have continued to roll over, with the 2s/10s Treasury yield curve now inverted by 30 bps—the most since the technology-media-telecom (TMT) crisis in 2000. While inflation —a lagging indicator—has only just started to decelerate, this all suggests that the market is fairly convinced that the declaration is likely to continue: Five-year inflation expectations have decreased markedly by approximately 100 bps to around 2.75%.

Against this backdrop, we recently increased exposure both to Fixed Income and to duration in multi-asset class portfolios. We are still slightly short duration versus a stated benchmark; however, as there is a non-zero risk that the Fed may eventually have to move to 4%+ on the fed funds rate to bring inflation back to 2%, which may potentially increase rates further on the short and long end. While that is not our base case, it is not a risk that can be completely dismissed and therefore slightly short duration balances the risks appropriately, in our opinion. The Fed seems to be finally getting out from behind the curve. Overall price action in Fixed Income and Equities seems to imply that the market feels that the Fed's current policy path is correct and will appropriately balance the risks of slowing inflation without severely hampering economic growth or causing an abrupt spike in unemployment. BofA Global Research is now forecasting a mild recession this year, returning to 1% real GDP growth in mid-2023.

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 municipals. Furthermore, lower-quality Fixed Income—preferreds and High Yield—continue to be significantly more attractive than last year, although we remain slightly underweight high yield following a rally during the summer months. We still expect high-quality Fixed Income to be a diversifier—in the long run, coupon income is a larger determinant of total

returns than price changes due to rate moves—and this diversification effect has historically proven true when rate volatility decreases.

We remain slightly overweight Investment-grade corporates and slightly underweight High Yield: IG credit spreads have been in a defined uptrend (i.e., higher highs and lower lows for the majority of the year). The first bout of volatility, to start the year, was largely driven by technical factors related to interest rate volatility flaring up. Investor angst then shifted from rates to recession and macro concerns as the Fed navigates an increasingly challenging inflation and growth backdrop. More recently, spreads tightened during most of July and August as rate volatility subsided, inflation showed early signs of peaking and the technical backdrop improved. While spreads at around 140 bps are not yet fully discounting a near-term or imminent recession, we believe that current valuations offer a more balanced risk/return opportunity, particularly given significantly more attractive all-in yields (around 4.75%) from a historical perspective.

Despite uncertainties with regard to the macro backdrop next year, we believe that corporate credit could modestly outperform Treasurys this year given strong underlying corporate credit fundamentals and liquidity, and also our view that most issuers should be well positioned to handle inflationary/cost pressures and/or slowing aggregate demand. Further widening in credit spreads in response to an unexpected or large move in Treasury yields, inflation or both remains a key risk; however, a move wider in spreads should be viewed as a repositioning opportunity absent a more material pickup in recession risk in 2023.

Credit losses in IG are generally manageable and not a large component of spreads or yields, but the same cannot be said in HY. Fortunately, HY yields-to-worst—while volatile of late—remain roughly around 8% after rallying into the mid 7%-range in early August. We believe valuations once again provide reasonable compensation for credit losses and imply favorable returns over medium to longer time frames, although not as good compared to late June when yields were closer to 9%. However, as sentiment remains depressed and concerns of a recession become more prevalent, yields could rise again, so there may still be additional price losses to come. We therefore maintain our slight underweight positioning. Within HY allocations, we prefer a balanced allocation between secured floating-rate leveraged loans and unsecured high yield bonds.

Muni yields have risen, with those on shorter-term maturities rising more than longer-term ones; however, the muni yield curve remains positively sloped in contrast to the inverted Treasury yield curve. Muni valuations relative to Treasurys are about average for short maturities but significantly cheaper than average for long maturities. We believe fundamental conditions remain solid for now. However, we note that public pension funding ratios have weakened due to poor YTD investment returns, and this increases budget pressures for state and local governments in the form of higher actuarially required contributions. We are also concerned that tax revenues could weaken if the economy goes into recession, and this could be further exacerbated by higher inflation-driven operating expenses. We expect munis to provide value over Treasurys for tax-sensitive investors, particularly longer-maturity bonds. We suggest investors shift their focus to higher credit quality in light of potential economic weakening.

We are slightly underweight Mortgage-backed Securities. This view is driven by concerns regarding the pace of quantitative tightening, along with reduced demand from commercial banks as loan demand recovers. Commercial banks may also reduce their purchases of MBS as deposits decline. Against this backdrop, MBS spreads have come under pressure and continue to leak wider. The rapid move in Treasury yields has also caused mortgage duration to extend from the low 2s seen in mid-last year to the high 5s, according to the Bloomberg U.S. MBS Index. However, due to higher mortgage rates, a smaller percentage of mortgages are currently eligible for refinancing, so duration extension may be limited in the future. That being said, interest rate volatility remains a key concern with regard to a pickup in prepayments. Furthermore, any miscommunication or negative surprise as a result of rising inflation, particularly as it relates to the Fed's balance sheet reduction, is a material risk. Hence, it is prudent to position conservatively within the sector, in our opinion. In the long run, MBS appears attractive versus Treasurys, and the sector is a large component of the high-quality bond market. Therefore, we

believe investors should maintain exposure as appropriate for their particular investment objectives and risk tolerance.

FIXED INCOME WATCH LIST

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

MACRO STRATEGY

- Leading economic indicators point to slower U.S. growth over the balance of the year. The economy will likely continue to lose momentum until the Fed stops draining liquidity with its aggressive quantitative tightening schedule. Declining real growth and inflation will squeeze corporate revenues and profits.
- Growth risks in the rest of the world, particularly Europe and EMs, remain elevated and are more acute than the U.S. We maintain our preference for U.S. assets versus the rest of the world even as the U.S. economy slows.

ECONOMIC FORECASTS (AS OF 9/2/2022)

	2021A	Q1 2022A	Q2 2022A	Q3 2022E	Q4 2022E	2022E
Real global GDP (% y/y annualized)	6.1	-	-	-	-	3.1
Real U.S. GDP (% q/q annualized)	5.7	-1.6	-0.6	-0.5	-2.0	1.3
CPI inflation (% y/y)	4.7	8.0	8.6	8.2	6.7	7.9
Core CPI inflation (% y/y)	3.6	6.3	6.0	6.0	5.5	6.0
Unemployment rate (%)	5.4	3.8	3.6	3.5	3.8	3.7
Fed funds rate, end period (%)	0.07	0.33	1.58	2.88	3.63	-

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

A = Actual. E/* = Estimate. BofA Global Research 2022 end period S&P 500 estimate is 3600; end period 10-year Treasury estimate is 2.75%; 2022 average West Texas Intermediate Oil estimate is $100/barrel.

Sources: BofA Global Research; GWIM ISC as of September 6, 2022. Forecasts are subject to change.

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

The table below provides a rough indication of where the S&P 500 Index's central tendency could be, given various scenarios for EPS in 2023 and price-to-earnings (P/E) ratio multiples. These scenarios are not official price targets and are not meant to signal levels where portfolio actions may always be needed. However, during times of market volatility, it's useful to keep this basic framework in mind when considering whether to incrementally add to or trim risk from portfolios while staying invested in one's strategic asset allocation framework.

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

2023 EPS	EPS Forward P/E (Next 12 months)				
	15.0x	**16.0x**	**17.0x**	**18.0x**	**19.0x**
$250	3,750	4,000	4,250	4,500	4,750
$240	3,600	3,840	4,080	4,320	4,560
$230	3,450	3,680	3,910	4,140	4,370
$220	3,300	3,520	3,740	3,960	4,180
$210	3,150	3,360	3,570	3,780	3,990
$200	3,000	3,200	3,400	3,600	3,800
$190	2,850	3,040	3,230	3,420	3,610

For illustrative purposes only. Source: Chief Investment Office as of September 6, 2022.

CIO ASSET CLASS VIEWS

Asset Class	CIO View					Comments
	Underweight		Neutral		Overweight	
Global Equities			●			We are neutral Equities as risks to economic growth and corporate profits have recently increased. We remain overweight the U.S. and neutral EM, with a slight underweight to International Developed.
U.S. Large-cap Growth			●			We have a slight preference for Value over Growth, given better absolute and relative valuations and ongoing economic reopenings. Higher interest rates should pressure Growth more, especially higher multiple, non-earning areas. We believe portfolios should incorporate both Growth and Value factors as appropriate.
U.S. Large-cap Value				●		
U.S. Small-cap Growth			●			We are neutral Small-caps, as they have lower-quality balance sheets, a higher proportion of non-earning companies within the index, and less financial flexibility to generate shareholder payouts. However, they maintain reasonably attractive absolute and relative valuation versus large-caps.
U.S. Small-cap Value			●			
International Developed		●				International Developed Equities remain more vulnerable to rising oil and gas prices and elevated geopolitical risk, and underlying nominal growth is expected to trail behind U.S. levels.
Emerging Markets			●			We are neutral EM Equities overall, with cyclically oriented markets relatively well positioned, in our view, as commodity prices remain high. Key risks stem from escalation of conflict in central and Eastern Europe, rising U.S. interest rates, dollar strength and economic and regulatory policy in China.
Global Fixed Income		●				Bonds diversify multi-asset class portfolios by providing income and relative stability. Below-benchmark duration is suggested as fiscal and monetary policy support higher inflation, stronger nominal growth and higher long-term rates over the medium term.
U.S. Governments		●				Yields are attractive across the curve relative to the last 10 years, but expensive relative to persistently higher inflation. Some Treasury allocation for liquidity and principal preservation is advised, as Treasurys provide the best short-term diversification benefits to Equities among Fixed Income sectors. Interest rate volatility has increased and may remain high.
U.S. Mortgages		●				Although the Fed has successfully started to tighten monetary policy without the MBS market overreacting, any miscommunication or persistent inflation leading to increased MBS balance sheet reduction remains a key risk. In addition, MBS purchases from banks may slow further as lending increases and/or deposits decline, presenting a headwind. Finally, recent geopolitical challenges can keep interest rate volatility elevated, a negative driver of MBS performance. In the short term, we expect MBS to underperform Treasurys and prefer conservative positioning in short-duration assets.
U.S. Corporates				●		Investment-grade spreads have widened around 40 to 50 bps YTD, but at +140 to 150 bps, are not yet quite discounting a U.S. recession. That being said, at current valuations, risks look more appropriately priced, particularly on an all-in yield basis. With credit curves still relatively flat we see the best risk adjusted opportunities in the front end of the curve, i.e.; three to five years.
International Fixed Income	●					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, justifying an underweight position.
High Yield		●				Valuations now present significantly more attractive medium to long-term returns even after estimating credit losses. However, poor near-term sentiment and rising recession fears may exacerbate near-term price losses. Any additions to HY, therefore, should have a long time horizon. Within HY, we prefer balanced exposure between floating-rate loans and HY unsecured.
U.S. High Yield Tax Exempt		●				HY muni valuations and credit spreads have widened due to weak technicals. We suggest up-in-quality to guard against potential economic weakening.
U.S. Investment-grade Tax Exempt			●			The muni yield curve has bear-steepened recently with shorter-term maturities rising more than longer-term ones, but is still positively sloped, in contrast to the inverted Treasury curve. Short-maturity muni valuations are about average relative to Treasurys, but long-maturity muni valuations are cheaper than average. Muni credit remains generally solid, but we note that weaker pension funding levels increase budget pressures. Tax revenues could also weaken if the economy goes into recession, and this could be further exacerbated by higher inflation-driven operating expenses. We expect munis to provide value over Treasurys for tax-sensitive investors, particularly longer-maturity bonds. We suggest investors shift their focus to higher credit quality in light of potential economic weakening.

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. Changes in economic conditions or other circumstances may adversely affect your investments. Source: Global Wealth & Investment Management Investment Strategy Committee as of September 6, 2022.

CIO THEMATIC INVESTING

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

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

Source: Chief Investment Office as of September 6, 2022.

Table 1: CIO U.S. Low Tax Sensitivity (Tier 0 liquidity) Asset Allocation Guidance for Merrill Clients

Tier 0 (highest liquidity): Highest liquidity needs with none of the portfolio invested in less liquid alternative asset categories

	All Fixed Income		Conservative		Moderately Conservative		Moderate		Moderately Aggressive		Aggressive		All Equity	
	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical
Equity	**0%**	**0%**	**26%**	**26%**	**43%**	**43%**	**59%**	**59%**	**74%**	**74%**	**88%**	**88%**	**98%**	**98%**
U.S. Large Cap Growth	0%	0%	7%	7%	12%	12%	17%	17%	21%	21%	25%	25%	29%	27%
U.S. Large Cap Value	0%	0%	8%	10%	15%	17%	19%	21%	24%	26%	28%	30%	31%	33%
U.S. Small Cap Growth	0%	0%	1%	1%	1%	1%	2%	2%	2%	2%	3%	3%	3%	2%
U.S. Small Cap Value	0%	0%	1%	1%	1%	1%	2%	2%	2%	2%	3%	3%	3%	4%
International Developed Equity	0%	0%	6%	4%	10%	8%	13%	11%	17%	15%	20%	18%	22%	21%
Emerging Markets	0%	0%	3%	3%	4%	4%	6%	6%	8%	8%	9%	9%	10%	11%
Fixed Income	**98%**	**98%**	**58%**	**56%**	**55%**	**53%**	**39%**	**37%**	**24%**	**22%**	**10%**	**8%**	**0%**	**0%**
U.S. Government	28%	25%	17%	14%	16%	13%	12%	9%	7%	4%	3%	2%	0%	0%
U.S. Mortgages	24%	22%	12%	11%	13%	12%	10%	9%	6%	5%	2%	0%	0%	0%
U.S. Corporates	25%	35%	17%	21%	16%	20%	13%	17%	8%	12%	3%	5%	0%	0%
U.S. High Yield	6%	4%	3%	2%	3%	2%	2%	1%	2%	1%	2%	1%	0%	0%
International Fixed Income	15%	12%	9%	8%	7%	6%	2%	1%	1%	0%	0%	0%	0%	0%
Cash	**2%**	**2%**	**16%**	**18%**	**2%**	**4%**	**2%**	**4%**	**2%**	**4%**	**2%**	**4%**	**2%**	**2%**

Source: Chief Investment Office as of September 6, 2022.

Table 2: CIO U.S. High Tax Sensitivity (Tier 0 liquidity) Asset Allocation Guidance for Merrill Clients

Tier 0 (highest liquidity): Highest liquidity needs with none of the portfolio invested in less liquid alternative asset categories

	All Fixed Income		Conservative		Moderately Conservative		Moderate		Moderately Aggressive		Aggressive		All Equity	
	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical	Strategic	Tactical
Equity	**0%**	**0%**	**24%**	**24%**	**41%**	**41%**	**57%**	**57%**	**72%**	**72%**	**88%**	**88%**	**98%**	**98%**
U.S. Large Cap Growth	0%	0%	7%	6%	12%	12%	17%	17%	21%	21%	26%	26%	29%	27%
U.S. Large Cap Value	0%	0%	8%	10%	14%	16%	19%	21%	24%	26%	29%	31%	31%	33%
U.S. Small Cap Growth	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	3%	3%	3%	2%
U.S. Small Cap Value	0%	0%	1%	1%	1%	1%	2%	2%	2%	2%	3%	3%	3%	4%
International Developed Equity	0%	0%	5%	3%	9%	7%	13%	11%	17%	15%	20%	18%	22%	21%
Emerging Markets	0%	0%	2%	3%	4%	4%	5%	5%	6%	6%	7%	7%	10%	11%
Fixed Income	**98%**	**97%**	**74%**	**72%**	**57%**	**55%**	**41%**	**39%**	**26%**	**24%**	**10%**	**8%**	**0%**	**0%**
U.S. Government	0%	0%	11%	12%	0%	2%	0%	2%	0%	2%	0%	2%	0%	0%
U.S. Mortgages	0%	0%	5%	4%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
U.S. Corporates	7%	9%	8%	12%	4%	8%	0%	2%	0%	2%	0%	2%	0%	0%
U.S. High Yield	9%	8%	3%	0%	4%	1%	4%	1%	3%	1%	0%	0%	0%	0%
U.S. Investment Grade Tax Exempt	60%	63%	28%	28%	29%	29%	32%	32%	19%	16%	6%	3%	0%	0%
U.S. High Yield Tax Exempt	9%	6%	4%	2%	4%	2%	4%	2%	4%	3%	4%	1%	0%	0%
International Fixed Income	13%	11%	15%	14%	14%	13%	1%	0%	0%	0%	0%	0%	0%	0%
Cash	**2%**	**3%**	**2%**	**4%**	**2%**	**4%**	**2%**	**4%**	**2%**	**4%**	**2%**	**4%**	**2%**	**2%**

Source: Chief Investment Office as of September 6, 2022.

Index Definitions

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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.

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

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