GLOBAL PORTFOLIO STRATEGY

LPL Research

MARCH 2023

HIGHER FOR LONGER

LPL RESEARCH'S MONTHLY MARKET OUTLOOK

Key changes from February report:

- Upgraded small and midcap stocks to positive from neutral
- Downgraded large cap stocks from neutral to negative
- Upgraded value stocks from neutral to positive
- Downgraded growth stocks to negative from neutral

Stocks gave back some of their January gains in February as market participants priced in more rate hikes by the Federal Reserve (Fed) in response to a series of higher-than-expected inflation readings for January. The S&P 500 slipped 2.4% for the month, led lower by weakness in the energy and real estate sectors. The growth-oriented Nasdaq held up a bit better, falling 1%, while the Dow Jones Industrial lagged with a 3.9% loss.

Core bonds, as measured by the Bloomberg Aggregate Bond Index, were down 2.6% during the month, reversing the fast start to the year. Treasury yields were generally higher in February due to the increased rate hiking expectations.

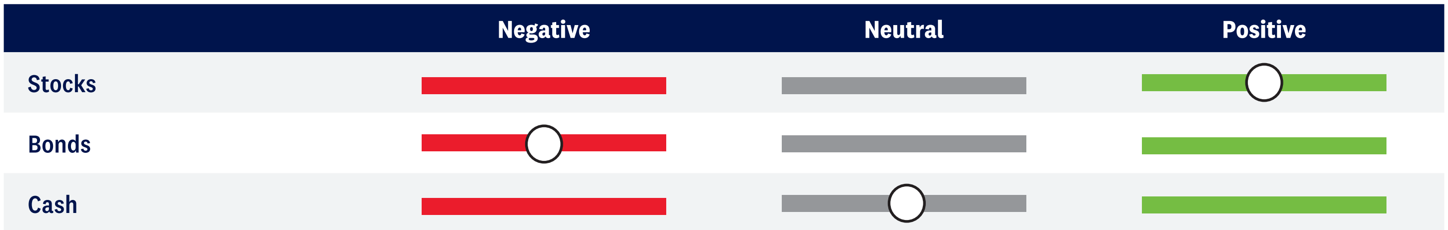
In response to expectations that the Fed will keep interest rates higher for longer, the Strategic and Tactical Asset Allocation Committee's (STAAC) slightly lowered its year-end S&P 500 fair value target to 4,300-4,400, based on a price-to-earnings ratio of 18 and 2024 S&P 500 earnings per share forecast of $240, and shifted some equities to fixed income in the recommended asset allocation for March.

INVESTMENT TAKEAWAYS:

- The STAAC has slightly reduced its overweight equities allocation but maintains its preference for stocks over bonds. Equity valuations have become less attractive, relative to fixed income, following the recent increase in interest rates.
- The Committee favors value-style stocks based on relative valuations and technical analysis, despite the strong start to the year for growth stocks. Growth may need a steadier economy and lower inflation to sustain strength.
- The Committee maintains a slight preference for U.S. stocks over their non-U.S. counterparts despite premium valuations. The economic resilience of Europe should be recognized, but the U.S. dollar is a wildcard and the U.S. is further along in its inflation fight.
- We continue to recommend a slight underweight allocation to fixed income as we think there is greater upside potential in equities.
- The Fed's determination to keep rates higher for longer caused U.S. Treasury yields to move significantly higher in 2022. Our year-end 2023 target for the 10-year Treasury yield is 3.25% to 3.75%.
- The risk/reward for core bond sectors (U.S. Treasury, Agency mortgage-backed securities (MBS), investment-grade corporates) is more attractive than plus sectors, in our view.

BROAD ASSET CLASS VIEWS

LPL Research's Views on Stocks, Bonds, and Cash



OUR ASSET CLASS & SECTOR CHOICES

Equity Asset Classes	Equity Sectors	Fixed Income	Alternative Asset Classes
▪ U.S. Equities ▪ Value Stocks ▪ Small/Midcap Stocks	▪ Healthcare ▪ Energy ▪ Industrials	▪ Mortgage-Backed Securities ▪ Short Maturity High Quality Corporates	▪ Low-Beta Alts (Event Driven, Market Neutral, Multi-Strategy)

2023 MARKET FORECASTS

Path to Double-Digit Gains for Stocks in 2023 Has Gotten More Challenging

	Previous	Current
10-Year U.S. Treasury Yield	3.25% to 3.75%	3.25% to 3.75%*
S&P 500 Index Earnings per Share	$220	$220
S&P 500 Index Fair Value	4,400-4,500	4,300-4,400**

Source: LPL Research, FactSet, Bloomberg

All indexes are unmanaged and cannot be invested into directly. The economic forecasts may not develop as predicted.

*Our year-end 2023 forecast for the U.S. 10-year Treasury yield is 3.25% to 3.75%. The forecast moderating inflation, reduced Fed policy support, an aging demographic in need of income, higher global debt levels, and the expected end to the Fed rate hiking campaign in 2023.

**Our year-end 2023 fair-value target range for the S&P 500 of 4,300-4,400 is based on a price- to-earnings ratio (PE) of 18 and our S&P 500 earnings per share (EPS) forecast of $240 in 2024.

2023 ECONOMIC FORECASTS

Downshift in Global Growth

GDP Growth (Y/Y%)	2022	2023
United States	1.3% to 1.9%	0.2% to 0.8%
Eurozone	1.1% to 1.7%	-0.4% to 0.2%
Advanced Economies	1.4% to 2%	0.1% to 0.7%
Emerging Markets	2.6% to 3.2%	2.9% to 3.5%
Global	1.7% to 2.3%	1.3% to 1.9%

Source: LPL Research, Bloomberg

The economic forecasts may not develop as predicted.

All data, views, and forecasts herein are as of 02/28/23.

LPL RESEARCH STRATEGIC AND TACTICAL ASSET ALLOCATION COMMITTEE

LPL Research Tactical Asset Allocation as of 3/1/23

INVESTMENT OBJECTIVE

	Aggressive Growth			Growth			Growth with Income			Income with Moderate Growth			Income with Capital Preservation		
	TAA	Benchmark	Difference	TAA	Benchmark	Difference	TAA	Benchmark	Difference	TAA	Benchmark	Difference	TAA	Benchmark	Difference
STOCKS	98.0%	95.0%	3.0%	83.0%	80.0%	3.0%	63.0%	60.0%	3.0%	43.0%	40.0%	3.0%	23.0%	20.0%	3.0%
U.S. EQUITY	80.3%	76.0%	4.3%	68.0%	64.0%	4.0%	51.7%	48.0%	3.7%	35.2%	32.0%	3.2%	18.4%	16.0%	2.4%
Large Value	19.3%	15.9%	3.4%	16.2%	13.4%	2.8%	12.5%	10.1%	2.4%	8.4%	6.7%	1.7%	4.4%	3.3%	1.1%
Large Blend	16.9%	16.0%	0.9%	14.4%	13.5%	0.9%	10.9%	10.1%	0.8%	7.4%	6.7%	0.7%	3.9%	3.4%	0.5%
Large Growth	14.3%	15.9%	-1.6%	12.2%	13.4%	-1.2%	9.3%	10.1%	-0.8%	6.3%	6.7%	-0.4%	3.2%	3.3%	-0.1%
Small/Mid Value	11.4%	9.4%	2.0%	9.6%	7.9%	1.7%	7.3%	5.9%	1.4%	5.0%	4.0%	1.0%	2.6%	2.0%	0.6%
Small/Mid Blend	9.9%	9.4%	0.5%	8.4%	7.9%	0.5%	6.3%	5.9%	0.4%	4.3%	3.9%	0.4%	2.3%	2.0%	0.3%
Small/Mid Growth	8.5%	9.4%	-0.9%	7.2%	7.9%	-0.7%	5.4%	5.9%	-0.5%	3.8%	4.0%	-0.2%	2.0%	2.0%	0.0%
INTERNATIONAL EQUITY	17.7%	19.0%	-1.3%	15.0%	16.0%	-1.0%	11.3%	12.0%	-0.7%	7.8%	8.0%	-0.2%	4.6%	4.0%	0.6%
Developed (EAFE)	12.4%	12.0%	0.4%	10.4%	10.0%	0.4%	8.4%	8.0%	0.4%	5.4%	5.0%	0.4%	4.6%	4.0%	0.6%
Emerging Markets	5.3%	7.0%	-1.7%	4.6%	6.0%	-1.4%	2.9%	4.0%	-1.1%	2.4%	3.0%	-0.6%	0.0%	0.0%	0.0%
BONDS	0.0%	0.0%	0.0%	15.0%	15.0%	0.0%	35.0%	35.0%	0.0%	55.0%	53.0%	2.0%	75.0%	70.0%	5.0%
U.S. CORE	0.0%	0.0%	0.0%	15.0%	15.0%	0.0%	35.0%	35.0%	0.0%	55.0%	53.0%	2.0%	75.0%	70.0%	5.0%
Treasuries	0.0%	0.0%	0.0%	6.9%	6.9%	0.0%	16.0%	16.0%	0.0%	25.2%	24.3%	0.9%	34.4%	32.0%	2.4%
MBS	0.0%	0.0%	0.0%	4.7%	4.4%	0.3%	11.1%	10.4%	0.7%	17.4%	15.7%	1.7%	23.7%	20.8%	2.9%
IG Corporates	0.0%	0.0%	0.0%	3.4%	3.7%	-0.3%	7.9%	8.6%	-0.7%	12.4%	13.0%	-0.6%	16.9%	17.2%	-0.3%
NON-CORE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CASH	2.0%	5.0%	-3.0%	2.0%	5.0%	-3.0%	2.0%	5.0%	-3.0%	2.0%	7.0%	-5.0%	2.0%	10.0%	-8.0%

For investors who have their own benchmarks, we would recommend emphasizing underweights or overweights relative to the individual benchmark at the most similar overall risk level.

Equity benchmark style weights are equally distributed across growth, core, and value. Cap weights are based on the underlying holdings of the domestic benchmark indexes.

Bond benchmark sector allocations are based on a look-through analysis of the major sector components of the Bloomberg US Aggregate Bond Index.

Treasuries include other government related debt. MBS includes other securitized debt.

Abbreviations: TAA - tactical asset allocation; MBS - mortgage-backed securities; IG corporates - investment-grade corporates; TIPS - Treasury inflation-protected securities.

EQUITY ASSET CLASSES

Reducing Equities Overweight as Interest Rate Headwinds Strengthen

The STAAC has slightly reduced its overweight equities allocation but maintains its preference for stocks over bonds. Equity valuations have become less attractive relative to fixed income following the recent increase in interest rates. The Committee favors value-style stocks based on relative valuations and technical analysis, despite the strong start to the year for growth stocks. Growth may need a steadier economy and lower inflation to sustain strength. The Committee maintains a slight preference for U.S. stocks over their non-U.S. counterparts despite premium valuations. The economic resilience of Europe should be recognized, supporting a neutral view of developed international equities, but the U.S. dollar is a wildcard and the U.S. is further along in its inflation fight. STAAC maintains a cautious outlook for emerging market equities due to soft earnings and geopolitical uncertainty, while technical conditions have deteriorated even as China's reopening unfolds. A potentially overly aggressive Fed that causes a hard landing, broader military conflict in Europe, and U.S-China tensions remain key risks.

	Sector	Overall View	Relative Trend	Rationale
Market Capitalization	Large Caps			Large caps generally perform better during periods of economic uncertainty with stronger balance sheets, but they are more expensive than their small cap brethren and may lag in early stages of the next bull market. Technical analysis picture has weakened.
	Mid Caps			Likely beneficiary of eventual improving economic outlook though halted merger and acquisition activity, as a result of tighter financial conditions, removes a potential positive catalyst. Midcap valuations are near 20-year lows versus large caps and technical analysis trends have improved.
	Small Caps			Attractive valuations and improving technical analysis trends are supportive of small caps. If recession fears calm, small caps may sustain year-to-date outperformance relative to large caps. We would favor the higher quality S&P 600 Index over the Russell 2000.
Style	Growth			The growth style may benefit from better economic conditions and superior earnings power in the first half of 2023. However, patience is prudent as we wait for a more favorable economic environment for growth, including lower inflation and greater interest rate stability.
	Value			The Committee maintains its preference for value-style stocks based on relative valuations, a positive energy sector view, cautious outlook for the mega-cap technology stocks, and technical analysis signals still pointing toward value.
Region	United States			Our outlook calls for the U.S. economy to outperform Europe's in 2023, though Europe's economic resilience in the face of its energy crisis has helped improve the outlook for developed international equities. STAAC expects falling inflation, the impending end of the Fed's rate hiking campaign, and resilient corporate profits may support attractive domestic equity returns in 2023.
	Developed International			Solid year-to-date performance of non-U.S. stocks, resilience of European economies, and attractive valuations have narrowed the gap between U.S. and developed international equities, supporting the STAAC's recently upgraded neutral view. The U.S. dollar is a wildcard.
	Emerging Markets			The Committee maintains its cautious outlook for emerging market equities due to soft earnings and geopolitical uncertainty. Technical conditions have deteriorated some even as China's reopening unfolds. The U.S. dollar is a wildcard.

Relative trend is an assessment of the intermediate term price trend and performance between various asset classes and sectors. For regions and styles the relative trends are compared to each other.

EQUITY SECTORS

Favor Energy, Healthcare, and Industrials

The STAAC has positive views of the energy, healthcare, and industrials sectors. The supply-demand backdrop for energy remains favorable as China reopens and the long-term price uptrend remains intact despite the slow start to the year. Healthcare tends to perform well late in economic cycles with its relative earnings stability and should benefit from favorable demographic trends, though difficult COVID-19 comparisons and key patent expirations are notable risks. Resilient capital investment activity and positive technical analysis trends continue to support the Committee's positive industrials sector view. The macroeconomic outlook will likely become more favorable for growth sectors in the coming months, but we would urge patience toward the consumer discretionary and technology sectors until macroeconomic conditions and the technical analysis picture improve.

	Sector	Overall View	Relative Trend	S&P Wgt	Rationale
Cyclical	Materials			2.8	Support from infrastructure spending and China's reopening remains, but U.S. dollar tailwind has waned and metals prices may be rolling over. Falling natural gas prices should help chemical company profits. Technicals have improved and valuations look reasonable.
Cyclical	Energy			4.9	Remains in a long-term uptrend despite pullback late last year. Constrained production could keep supply fairly tight as China's reopening progresses. Valuations still reasonable despite huge rally over the past two years. U.S. dollar is a wildcard.
Cyclical	Industrials			8.5	Capital expenditures and defense spending trends are supportive despite elevated recession risk. Infrastructure a potential catalyst. Fair valuations. Positive technicals suggest improving outlook amid still-challenging global economic environment.
Cyclical	Communication Services			7.7	A difficult regulatory environment for this digital media-heavy sector and preference for value underpin our negative view. But a strong start to 2023 and resilience displayed during fourth quarter earnings season are notable. Attractive valuations.
Cyclical	Consumer Discretionary			10.6	Inflation is eroding purchasing power, the sector is historically not a good mid-to-late cycle performer, valuations are elevated, and earnings estimates are seeing outsized cuts. Not a group we would chase despite still-solid consumer balance sheets, healthy job market.
Cyclical	Technology			27.2	Despite prospects for a more favorable macro environment this year, neither earnings nor valuations justify optimism currently. Recommend only a modest underweight at this point until macroeconomic environment improves. Technical picture is better.
Cyclical	Financials			11.7	Near-term outlook for loan growth and capital markets activity is constrained. Inverted yield curve still weighing on banks. But earnings growth will likely resume in 2023, valuations remain attractive, and technical analysis trends are encouraging.
Defensive	Utilities			2.8	Green-energy spending trends and elevated recession risk could offer relative support, but utilities have been hurt by cyclical sector leadership and the recent jump in interest rates. Technical analysis trends suggest a more cautious view may be warranted.
Defensive	Healthcare			14.4	Soft economy, stable earnings, and demographics are supportive. Recent underperformance reflects market's preference for cyclical stocks, tough COVID-19 comparisons, and key patent expirations. Attractive valuations. Near oversold levels.
Defensive	Consumer Staples			6.7	Sector is likely to lag the broad market when the next bull market begins. Lower inflation could help ease margin pressures in coming quarters. Staples companies demonstrated resilience during earnings season as estimates held firm. Technicals have softened, creating a mixed bag.
Defensive	Real Estate			2.7	Negative view primarily reflects weak technical analysis trends. February losses reversed January gains. Key risks include rising interest rates and commercial real estate challenges. Solid yields and fair valuations.

Because of its narrow focus, specialty sector investing, such as healthcare, financials, or energy, will be subject to greater volatility than investing more broadly across many sectors and companies. Relative trend is an assessment of the intermediate term price trend and performance between various asset classes and sectors. For sectors each sector's relative trend is versus the S&P 500.

FIXED INCOME

Too Far, Too Fast but Opportunities Have Improved

Fed rate hike expectations increased in February, bringing Treasury yields higher as well. After falling 0.50% to start the year, the 10-year Treasury yield reversed course and ended the month 0.05% higher than where it ended 2022. While performance for core bonds was negative for the month, the longer-term prospects for fixed income improved. We continue to recommend investors take advantage of any back-up in yields by adding to high-quality fixed income. However, valuations for riskier fixed income sectors remain rich, in our view.

We favor **municipal bonds** as a high-quality option for taxable accounts with tax-equivalent yields as attractive as they've been in over a decade. Additionally, for appropriate investors, we believe **high yield municipal bonds** offer an attractive tax-equivalent yield; however, we would expect additional volatility as economic growth concerns increase. Fundamentals in both markets remain solid though.

		Low	Medium	High	Rationale
Positioning	Credit Quality			●	We recommend an up-in-quality approach in allocating to fixed income sectors. While all-in yields for lower quality remain above longer-term averages, we think the risk/reward favors owning core bond sectors over the riskier sectors.
		Short	Int.	Long	
	Duration		●		Despite the move higher in yields in February, the compensation for adding duration to portfolios isn't sufficient given the still elevated inflationary pressures. We remain neutral relative to our benchmark
		Neg.	Neutral	Pos.	Rationale
Core Sectors	U.S. Treasuries		●		Treasury yields are above our yearend forecast, but given the still elevated inflationary pressures, we could still see higher yields in the near term. The recent back-up in yields has likely increased the diversification benefits of owning U.S. Treasuries. Valuations for Treasury Inflation-Protected Securities (TIPS) are fair but shorter-maturity TIPS could provide a good hedge to unexpected inflation surprises.
	MBS		●		We remain constructive on Agency MBS. With yields and spreads at multi-year highs, we think MBS remain an attractive investment opportunity. The Fed has stopped new MBS purchases and balance sheet runoff is a potential risk though.
	Investment-Grade Corporates		●		The corporate credit curve remains very flat so we think there is currently an opportunity to invest in shorter maturity corporate securities without taking on elevated levels of interest rate or credit risk. Fundamentals remain solid.
Plus Sectors	Preferred Securities		●		Higher credit quality among the riskier fixed income options. Bank fundamentals sound overall. Can be rate sensitive but may be able to tolerate gradual increases. Valuations have improved recently. European banks likely to stay under pressure as the European Central Bank (ECB) hikes rates.
	High-Yield Corporates		●		Yields for high yield bonds are above historical averages, but the additional compensation for owning risk is below longer-term averages. The uncertain economic environment could increase near term volatility. The asset class may be better suited for income-oriented investors.
	Bank Loans		●		Given the variable rate debt, higher interest rates may make repayment more challenging for some issuers. Fewer investor protections and illiquidity of individual loans remain concerns. Downgrades and defaults may increase if the economy slows/contracts.
	Foreign Bonds	●			Valuations have improved but potential currency volatility still remains a challenge.
	EM Debt		●		Central banks are tightening aggressively as inflationary pressures remain stubbornly higher and a strong dollar could provide a headwind to prices. Valuations are relatively attractive but idiosyncratic risks remain. Liquidity can be an added risk during periods of stress.

Yield spread is the difference between yields on differing debt instruments, calculated by deducting the yield of one instrument from another. The higher the yield spread, the greater the difference between the yields offered by each instrument. The spread can be measured between debt instruments of differing maturities, credit ratings, and risk. Bank loans are loans issued by below investment-grade companies for short-term funding purposes with higher yield than short-term debt and involve risk. For the purposes of this publication, intermediate-term bonds have maturities between three and 10 years, and short-term bonds are those with maturities of less than three years.

All bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and are subject to availability and change in price. Corporate bonds are considered higher risk than government bonds but normally offer a higher yield and are subject to market, interest rate, and credit risk, as well as additional risks based on the quality of issuer, coupon rate price, yield, maturity, and redemption features. Investing in foreign and emerging market debt (EMD) securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical and regulatory risk, and risk associated with varying settlement standards. High-yield/junk bonds are not investment-grade securities, involve substantial risks, and generally should be part of the diversified portfolio of sophisticated investors. Municipal bonds are subject to availability, price, and market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise. Interest income may be subject to the alternative minimum tax. Federally tax-free but other state and local taxes may apply. Mortgage-backed securities (MBS) are subject to credit, default, prepayment risk that acts much like call risk when you get your principal back sooner than the stated maturity, extension risk, the opposite of prepayment risk, market, and interest rate risk.

COMMODITIES

Dollar Tailwinds Turn into Headwinds

A rebound in the U.S. dollar against the currencies of the country's major trading partners created headwinds for the broad commodities complex. Oversold conditions, coupled with rising interest rates due to an upward shift in the expected federal funds terminal rate, underpinned over a 2% rally in the greenback. As measured by the Bloomberg Commodity Index (BCOM), commodities dropped over 5%, marking a third straight monthly decline. Industrial metals lagged due to double-digit declines in aluminum, zinc, and nickel. Copper held up relatively well and remained in an uptrend. Precious metals also struggled as gold, silver, and platinum pulled back from overbought levels. While the recent selling pressure created technical damage across the metals complex, the industrial and precious metals groups are holding above their 200-day moving average on an absolute and relative basis (compared to BCOM). Based on this backdrop and the prospect for the dollar to resume its downtrend, we maintain our positive view on **precious** and **industrial** metals.

Our **energy** commodities view is neutral with a negative bias. Weakness in natural gas markets once again weighed heavily on the broader energy space, as prices faced a combination of elevated supply and underwhelming heating demand. Futures are down nearly 40% this year and reached historically oversold levels, sparking a recent relief rally. However, there is insufficient technical evidence to confirm a bottom has been set. Crude oil declined as fear over rising rates offset demand optimism from China's reopening. The supply side for oil remains constructive and supported by OPEC+, which is unlikely to change production quotas this year due to elevated uncertainty over the global economy. Furthermore, Russian supplies face increased scrutiny as countries begin to implement import sanctions. Technically, crude oil has made some minor progress, but futures have yet to reverse their downtrend.

	Neg. Neutral Pos.	Relative Trend	Rationale
Energy			Oil prices remained range bound as futures traded in their tightest monthly range since June 2021. Fear over rising rates weighed on demand and largely offset recent positive developments from China's reopening. Technically, WTI will need to clear $82.50 to confirm a breakout from its bottom formation. Natural gas remains weak, although oversold conditions have recently sparked a sizable relief rally. We maintain our neutral view on energy commodities with a negative bias.
Precious Metals			Gold, silver, and platinum all pulled back from overbought levels. While the recent selling pressure created some technical damage, the probability for a bottom being set in precious metals remains high, and we maintain our positive view on the space.
Industrial Metals			Industrial metals faced selling pressure last month as the prospect of higher for longer rates reversed upside momentum from China's reopening. Copper weathered the selling pressure relatively well and held above its uptrend. Despite the recent setback, we believe the bullish demand catalysts for industrial metals, including China's reopening and increased global infrastructure spending, are still in play. We maintain our positive view on the space.
Agriculture (Ag) & Livestock			Ag was not immune from dollar headwinds and declined last month. Weakness in grains weighed on the space. Selling in wheat was notable as ample supply dragged down futures for a fifth straight month and below key support from the December lows. Chinese demand has helped drive cattle futures to record highs, while a potential bottom recently formed in lean hogs. Overall, there has been limited technical progress in the space and we remain neutral on ag and livestock.

ALTERNATIVE INVESTMENTS

Multi-Alternative Strategies Outperform

Alternative investment strategies rebounded from a lackluster January to deliver attractive risk-adjusted returns during February. We continue to advocate for diversifying alternative investment exposure across several low-beta allocations. Specifically, in the event driven, market neutral, and low-beta single and multi-manager strategies. While all of these strategies have their own characteristics, at their core, they exhibit limited equity market and interest rate sensitivity. We believe these allocations may help preserve portfolios in the current environment and act as a source of ballast during potential periods of high volatility. These characteristics were on display in 2022 and reinforced the benefit of these strategies within the context of a broader portfolio. In regards to the event-driven industry, we're closely watching how the increase in interest rates will further impact the merger and acquisition backdrop. To date, we've seen a significant decrease in announced deals. Due to this environment, we believe further diversification across market neutral and multi-strategy strategies may provide additional sources of uncorrelated returns and the potential to mitigate traditional equity and bond market risks.

IMPORTANT DISCLOSURES

This material has been prepared for informational purposes only, and is not intended as specific advice or recommendations for any individual. There is no assurance that the views or strategies discussed are suitable for all investors and they do not take into account the particular needs, investment objectives, tax and financial condition of any specific person. To determine which investment(s) may be appropriate for you, please consult your financial professional prior to investing. Any economic forecasts set forth may not develop as predicted and are subject to change.

Stock investing involves risk including loss of principal. Because of their narrow focus, sector investing will be subject to greater volatility than investing more broadly across many sectors and companies. Value investments can perform differently from the market as a whole and can remain undervalued by the market for long periods of time. The prices of small and mid-cap stocks are generally more volatile than large cap stocks. Bonds are subject to market and interest rate risk if sold prior to maturity.

Bond values will decline as interest rates rise and bonds are subject to availability and change in price. Corporate bonds are considered higher risk than government bonds. Municipal bonds are subject to availability and change in price. Interest income may be subject to the alternative minimum tax. Municipal bonds are federally tax-free but other state and local taxes may apply. If sold prior to maturity, capital gains tax could apply. U.S. Treasuries may be considered "safe haven" investments but do carry some degree of risk including interest rate, credit, and market risk. Bond yields are subject to change. Certain call or special redemption features may exist which could impact yield. Mortgage-backed securities are subject to credit, default, prepayment, extension, market and interest rate risk.

Credit Quality is one of the principal criteria for judging the investment quality of a bond or bond mutual fund. Credit ratings are published rankings based on detailed financial analyses by a credit bureau specifically as it relates to the bond issue's ability to meet debt obligations. The highest rating is AAA, and the lowest is D. Securities with credit ratings of BBB and above are considered investment grade. Duration is a measure of the sensitivity of the price (the value of principal) of a fixed-income investment to a change in interest rates. It is expressed as a number of years.

Alternative investments may not be suitable for all investors and should be considered as an investment for the risk capital portion of the investor's portfolio. The strategies employed in the management of alternative investments may accelerate the velocity of potential losses.

Event driven strategies, such as merger arbitrage, consist of buying shares of the target company in a proposed merger and fully or partially hedging the exposure to the acquirer by shorting the stock of the acquiring company or other means. This strategy involves significant risk as events may not occur as planned and disruptions to a planned merger may result in significant loss to a hedged position.

Commodity-linked investments may be more volatile and less liquid than the underlying instruments or measures, and their value may be affected by the performance of the overall commodities baskets as well as weather, geopolitical events, and regulatory developments. The fast price swings in commodities and currencies will result in significant volatility in an investor's holdings.

Investing in foreign and emerging markets securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks. All information is believed to be from reliable sources; however, LPL Financial makes no representation as to its completeness or accuracy.

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. EPS serves as an indicator of a company's profitability. Earnings per share is generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio.

Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period, though GDP is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory.

All index data from FactSet.

For a list of descriptions of the indexes referenced in this publication, please visit our website at lplresearch.com/definitions.

Managed futures are speculative, use significant leverage, may carry substantial charges, and should only be considered suitable for the risk capital portion of an investor's portfolio.