AUGUST 2023

GLOBAL Portfolio Strategy

LPL Research

LEANING TOWARD FIXED INCOME AFTER STRONG JULY FOR STOCKS

LPL RESEARCH'S MONTHLY MARKET OUTLOOK

Key changes from July report:

No changes

Stocks rose nicely in July, as the S&P 500 Index returned 3.2% for the month, bringing its year-to-date gain to a stellar 20.7%. The fifth straight monthly gain for the index came amid expectations of a Federal Reserve (Fed) pause, resilient U.S. economic data, falling inflation that increased the odds of a soft landing for the U.S. economy, and a solid start to Q2 earnings season. The Dow Jones Industrial Average and Nasdaq Composite also fared well last month with gains of 3.4% and 4.1%, respectively.

Core bonds, as measured by the Bloomberg Aggregate Bond Index, were marginally lower for July as markets digested an eleventh rate hike and indications of a resilient US economy. Higher yields may mean another opportunity for investors to add to high quality fixed income.

As discussed in *Midyear Outlook 2023: The Path Toward Stability*, the LPL Research Strategic and Tactical Asset Allocation Committee (STAAC) sees the risk-reward trade-off between equities and fixed income as roughly balanced after recent strength in stocks and given higher yields.

INVESTMENT TAKEAWAYS:

- The STAAC maintains its recommended neutral equities allocation based on the Committee's assessment that the risk-reward trade-off between equities and fixed income is roughly balanced now that stock valuations are approaching a price-to-earnings ratio of 20, based on the S&P 500 Index, and fixed income offers the most attractive yields in decades.
- The Committee favors large cap stocks over their smaller brethren ahead of a likely economic slowdown in the second half.
- Style views remain neutral overall. Our technical analysis work points toward growth but valuations support value.
- The STAAC's regional preference remains developed international stocks over the U.S. and emerging markets (EM) due mostly to valuations, the potential for a weaker U.S. dollar, and more shareholder friendly management teams in Japan.
- If the Fed is finished raising rates in July, then we could soon start to see lower yields on intermediate-term fixed income securities. Our year-end 2023 target for the 10-year Treasury yield is 3.25% to 3.75%.
- The selloff in the banking sector has provided an attractive opportunity in preferred securities, however 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

	Negative	Neutral	Positive
Stocks			
Bonds			
Cash			

OUR ASSET CLASS & SECTOR CHOICES

Equity Asset Classes	Equity Sectors	Fixed Income	Alternative Asset Classes
■ Developed International Equities	■ Industrials	 Mortgage-Backed Securities Short Maturity High Quality Corporates Preferred Securities 	 Alt asset class choices - Global Macro, Short Term Managed Futures, and Multi-Strategy

2023 MARKET FORECASTS

Further Gains In 2023 May Be Tough to Come By

	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	\$213	\$213
S&P 500 Index Fair Value	4,300 - 4,400	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) near 19 and our S&P 500 earnings per share (EPS) forecast of \$230 in 2024.

2023 ECONOMIC FORECASTS

Downshift in Global Growth

GDP Growth (Y/Y%)	2023
United States	1.2%
Eurozone	0.6%
Advanced Economies	0.9%
Emerging Markets	3.8%
Global	2.3%

Source: LPL Research, Bloomberg

The economic forecasts may not develop as predicted.

All data, views, and forecasts herein are as of 08/03/23.



LPL RESEARCH STRATEGIC AND TACTICAL ASSET ALLOCATION COMMITTEE

LPL Research Tactical Asset Allocation as of 8/1/2023

INVESTMENT OBJECTIVE

	Aggre	essive G	rowth	h 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	95.0%	95.0%	0.0%	80.0%	80.0%	0.0%	60.0%	60.0%	0.0%	40.0%	40.0%	0.0%	20.0%	20.0%	0.0%
U.S. EQUITY	76.0%	76.0%	0.0%	64.0%	64.0%	0.0%	48.0%	48.0%	0.0%	32.0%	32.0%	0.0%	16.0%	16.0%	0.0%
Large Value	17.5%	16.0%	1.5%	14.5%	13.5%	1.0%	11.0%	10.0%	1.0%	7.0%	6.5%	0.5%	3.5%	3.5%	0.0%
Large Blend	17.0%	16.0%	1.0%	14.5%	13.5%	1.0%	11.0%	10.0%	1.0%	7.5%	7.0%	0.5%	4.0%	3.0%	1.0%
Large Growth	17.5%	16.0%	1.5%	14.5%	13.5%	1.0%	11.0%	10.0%	1.0%	7.0%	6.5%	0.5%	3.5%	3.5%	0.0%
Small/Mid Value	8.0%	9.5%	-1.5%	7.0%	8.0%	-1.0%	5.0%	6.0%	-1.0%	3.5%	4.0%	-0.5%	1.5%	2.0%	-0.5%
Small/Mid Blend	8.0%	9.0%	-1.0%	6.5%	7.5%	-1.0%	5.0%	6.0%	-1.0%	3.5%	4.0%	-0.5%	2.0%	2.0%	0.0%
Small/Mid Growth	8.0%	9.5%	-1.5%	7.0%	8.0%	-1.0%	5.0%	6.0%	-1.0%	3.5%	4.0%	-0.5%	1.5%	2.0%	-0.5%
INTERNATIONAL EQUITY	19.0%	19.0%	0.0%	16.0%	16.0%	0.0%	12.0%	12.0%	0.0%	8.0%	8.0%	0.0%	4.0%	4.0%	0.0%
Developed (EAFE)	16.0%	12.0%	4.0%	13.0%	10.0%	3.0%	10.5%	8.0%	2.5%	6.5%	5.0%	1.5%	4.0%	4.0%	0.0%
Emerging Markets	3.0%	7.0%	-4.0%	3.0%	6.0%	-3.0%	1.5%	4.0%	-2.5%	1.5%	3.0%	-1.5%	0.0%	0.0%	0.0%
BONDS	3.0%	0.0%	3.0%	18.0%	15.0%	3.0%	38.0%	35.0%	3.0%	58.0%	53.0%	5.0%	78.0%	70.0%	8.0%
U.S. CORE	3.0%	0.0%	3.0%	17.0%	15.0%	2.0%	36.0%	35.0%	1.0%	55.0%	53.0%	2.0%	74.0%	70.0%	4.0%
Treasuries	1.5%	0.0%	1.5%	8.5%	7.0%	1.5%	17.5%	16.0%	1.5%	27.0%	24.5%	2.5%	36.0%	32.5%	3.5%
MBS	1.0%	0.0%	1.0%	5.5%	4.5%	1.0%	12.0%	10.5%	1.5%	18.0%	15.5%	2.5%	24.5%	20.5%	4.0%
IG Corporates	0.5%	0.0%	0.5%	3.0%	3.5%	-0.5%	6.5%	8.5%	-2.0%	10.0%	13.0%	-3.0%	13.5%	17.0%	-3.5%
NON-CORE	0.0%	0.0%	0.0%	1.0%	0.0%	1.0%	2.0%	0.0%	2.0%	3.0%	0.0%	3.0%	4.0%	0.0%	4.0%
Preferred	0.0%	0.0%	0.0%	1.0%	0.0%	1.0%	2.0%	0.0%	2.0%	3.0%	0.0%	3.0%	4.0%	0.0%	4.0%
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.

 $\label{thm:measure} \mbox{Treasuries include other government related debt. MBS includes other securitized debt.}$

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



EQUITY ASSET CLASSES

Favor Large Caps and Developed International, Staying Neutral on Style

The STAAC maintains its recommended neutral equities allocation based on the Committee's assessment that the risk-reward trade-off between equities and fixed income is roughly balanced now that stock valuations are approaching a price-to-earnings ratio of 20, based on the S&P 500 Index, and fixed income offers the most attractive yields in decades. The Committee now favors large cap stocks over their smaller brethren due to potentially slower economic growth and tighter credit conditions, though two straight solid months for small caps, bolstered by attractive valuations, were encouraging. Technical analysis points to growth, but the technology sector is overbought from a technical analysis perspective and growth stock valuations are elevated. The Committee continues to slightly favor developed international stocks over U.S. due mostly to valuations, the potential for a weaker U.S. dollar, and increasingly more shareholder friendly management teams in Japan. Key risks to equities include overtightening by the Fed, broader military conflict in Europe, and escalation in U.S-China tensions.

	Sector	Overall View	Relative Trend	Rationale
tion	Large Caps	-		Large caps generally perform better during periods of economic uncertainty with stronger balance sheets and look better from a technical perspective. However, they are more expensive, mega-cap technology leadership is unlikely to be sustained through the remainder of the year, and relative performance has started to wane recently.
Market Capitalization	Mid Caps	•	•	Beneficiary of a potential soft landing while valuations are attractive, but credit conditions may tighten, merger and acquisition activity is tepid, and current technical analysis trends suggest caution is prudent. Recent improvement in market breadth is encouraging.
	Small Caps	•	•	The market's increasing confidence in a soft landing for the U.S. economy, regional bank stability, and attractive valuations helped drive solid small cap gains in July, though the LPL Research forecast for a mild recession within the next six to nine months suggests caution.
yle	Growth	•		The growth style, particularly technology-oriented companies, has benefited from falling inflation and superior earnings power this year. But valuations and higher interest rates have caused relative performance to level off the past two months. Technical analysis trends still lean growth.
Style	Value	-	-	Value stocks remain more attractively valued than historical averages and offer leverage to possible soft landing. The Committee maintains a positive bias toward growth due to strong technical analysis trends, falling inflation, and potentially lower interest rates.
	United States			The U.S. economy may be headed for a late-2023 or early-2024 recession and may have trouble outgrowing Europe and Japan in the coming year. So while falling inflation, the impending end of the Fed's rate hiking campaign, and resilient corporate profits have supported a U.S. market rally, valuations suggest developed international equities may offer more upside the rest of year.
Region	Developed International		•	The Committee continues to slightly favor developed international stocks over U.S. due mostly to more attractive valuations, the potential for a weaker U.S. dollar, and increasingly more shareholder friendly management teams in Japan. Recent lackluster growth in Europe is becoming an increasing concern.
	Emerging Markets	•		The Committee remains cautious toward emerging market equities due largely to disappointing earnings and ongoing geopolitical uncertainty. China stimulus, rebounding commodities prices, and Latin American re-shoring helped drive strong EM gains in July. The Committee favors Latin America exposure but China may be an interesting short-term trade.

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 Balanced Posture for Cyclicals and Defensives

The STAAC recommends a balanced mix of cyclical and defensive sectors. Among economically sensitive, or cyclical, sectors, the Committee recommends just one overweight (industrials), and just one underweight (consumer discretionary). Resilient capital investment activity continues to support the Committee's positive industrials sector view. Real estate, which is a recommended underweight, offers a mix of cyclical and defensive characteristics and faces heightened risk in the commercial real estate market.

	Sector	Overall View	Relative Trend	S&P Wgt	Rationale
	Materials			2.5	Broad commodities rebound, China stimulus, and rising odds of a soft landing for the U.S. economy helped drive outperformance in July. Potential U.S. dollar weakness could provide additional boost. Valuations are reasonable. Technicals are improving.
	Energy	_	-	4.3	Best sector performer in July as crude oil bounced. Support coming from OPEC+ supply cuts as well as an improving demand backdrop in the U.S. and China. Valuations remain attractive. Technicals improving. Potential U.S. dollar weakness a possible catalyst.
	Industrials			8.6	Capital expenditures, infrastructure and defense spending trends are favorable. Fair valuations and supportive technical analysis picture. Watching signs of deteriorating growth in Europe. Slower U.S. economy in second half is a key risk.
Cyclical	Communication Services	-		8.6	Excellent Q2 earnings season so far driven by digital media strength. Regulatory risk in social media lingers, but TikTok regulation could be helpful competitively. Valuations remain attractive. Strong earnings growth. Technicals look good.
	Consumer Discretionary	•		10.4	Biggest upside surprise so far during Q2 earnings season, strongest earnings growth among all sectors at 39.6%, and labor markets are holding up well, though valuations are elevated and services spending surge may have nearly played out. Technicals are favorable. Positive bias.
	Technology	•		27.8	After stellar first half, sector cooled some in July. Easing inflation and artificial intelligence enthusiasm are supportive. Rising interest rates haven't hurt yet but remain a risk. Valuations are elevated. Overbought but trend is your friend.
	Financials	_		12.7	Tighter financial conditions, higher capital requirements for second tier banks, and an inverted yield curve are among our concerns, but valuations are attractive, big banks have gotten stronger since SVB's failure, earnings are firming and technicals look better.
	Utilities	_		2.6	Utilities have been hurt by their defensiveness and regulatory pressure. Interest rate sensitivity may help if interest rates move lower as LPL Research expects. More market volatility in weak upcoming seasonal period could boost relative strength.
Defensive	Healthcare	_	•	13.3	Defensive sectors have remained out of favor as soft landing odds for the U.S. economy have improved. COVID-19 comparisons and key patent expirations are notable challenges for drug makers. Valuations are attractive but technicals remain poor.
Defe	Consumer Staples	-		6.7	Sector has lagged during young bull market, as is to be expected. Lower inflation helping ease margin pressures, but pricing power is waning, technicals remain weak, valuations aren't compelling, and markets still favor technology and cyclicals over defensives.
	Real Estate	•		2.5	Weak technical analysis trends while commercial real estate is a concern. Interest rate risk appears contained, at least in the near term. Solid yields and fair valuations but not an area we would look to for yield relative to core fixed income.

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.

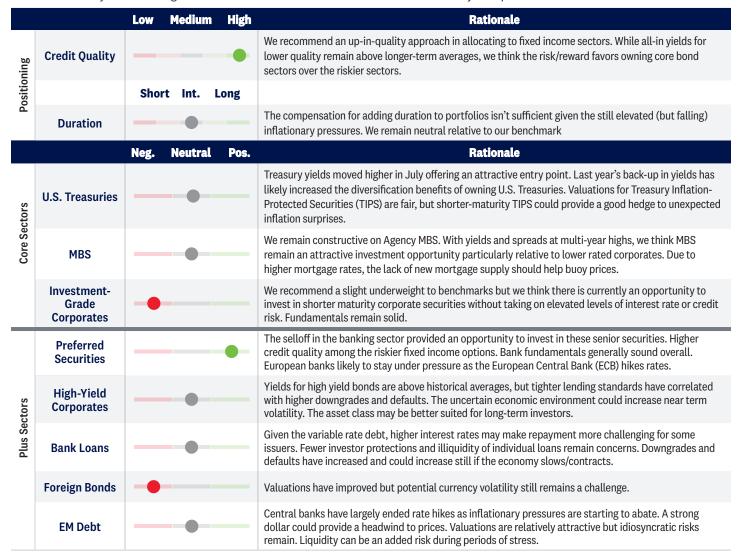


FIXED INCOME

Favor Up-In-Quality Approach with a (Small) Allocation to Preferreds

Longer-maturity Treasuries sold off during the month as the market repriced expectations for the Fed's policy path, pricing out some of the anticipated rate cuts throughout 2024 while also shifting the expected "neutral" rate higher. Yields on high quality fixed income sectors moved higher as well, offering investors another opportunity to take advantage of attractive valuations. Importantly, starting yields are the best predictor of long-term returns and with starting yields at levels last seen over a decade ago, the return prospects for fixed income have improved as well. That said, aside from preferred securities, valuations for riskier fixed income sectors remain rich relative to core sectors, 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 may have peaked but remain solid.



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 (MSS) 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.

Municipal bonds are subject to availability and change in price. They are subject to 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. Municipal bonds are federally tax-free but other state and local taxes may apply. If sold prior to maturity, capital gains tax could apply.



COMMODITIES

An Energy Boost

The broad commodity sector advanced in July, marking its first back-to-back monthly gain since last fall. A decline in the dollar coupled with higher energy prices helped drive the Bloomberg Commodity Index (BCOM) up 5.8%. Expectations for increased economic policy support in China further stoked demand for most commodities, especially crude oil.

WTI crude oil jumped 16% last month amid a five-week winning streak. In addition to China stimulus support, sizable stockpile drawdowns and the extension of OPEC+ production cuts into August supported the rally. Natural gas fell 5.0% and lagged behind its energy counterparts. Overall, evidence for a bottom in the energy commodity sector is building, and while we are maintaining our neutral view on the space due to the lack of an uptrend confirmation, we are removing our negative bias on the space this month.

Metals advanced in July amid broad-based buying pressure. Industrial metals edged out precious metals due to their increased leverage to China's economy (not to mention increased traction in the soft-landing narrative for the U.S. economy). Copper, widely considered a leading economic indicator, rallied 7.0% and reversed an emerging downtrend. Other metals such as aluminum and nickel followed suit with sizable gains in July. Despite the progress, there is insufficient technical evidence to make the call for a bottom being set in industrial metals, and therefore we maintain our neutral view on the space.

	Neg. Neutral Pos.	Relative Trend	Rationale
Energy			The technical setup for energy is improving. Crude oil has rallied back above its 200-day moving average (dma) and is drawing closer to the April highs at \$83.25. Bullish momentum and the recent shift in the futures curve into backwardation suggest oil could see a topside breakout above this key resistance level. Natural gas continues to generate higher highs and higher lows after finding support near \$2.00. We suspect upside could be capped at the \$3.00 resistance level. Based on the recent technical developments, we are removing our negative bias on energy, but maintaining
			our neutral view on the space until a new uptrend is confirmed.
Precious Metals			Precious metals advanced last month. Gold broke out from a bullish falling wedge formation after inflecting higher off support near \$1,900. Silver continued its streak of higher lows and confirmed support off the rising 200-dma.
			Both metals remain above longer-term uptrends, and we maintain our positive view on precious metals.
Industrial Metals	-•-		Increased exposure to China's economy and growing support for a soft landing in the U.S. underpinned last month's advance. Copper led gains and reversed an emerging downtrend. Follow-through buying will likely be contingent on less talk and more action on economic policy support in China.
			We maintain our neutral view on industrial metals.
Agriculture (Ag) & Livestock	-•-		Ag and livestock markets advanced last month, although they underperformed their commodity peers. Wheat captured most of the spotlight after Russian attacks in Ukraine left global supplies vulnerable. However, momentum in the rally quickly faded, and wheat is now trading back below its declining 200-dma. Soybeans also rolled over after a brief rally, while corn recently violated support off the 2021 lows. Strength in live cattle and lean hogs, which are both trending higher, offset weakness in the grains space.
			We remain neutral on ag and livestock.

Any futures referenced are being presented as a proxy, not as a recommendation. The fast price swings in commodities will result in significant volatility in an investor's holdings. Commodities include increased risks, such as political, economic, and currency instability, and may not be suitable for all investors.



ALTERNATIVE INVESTMENTS

Positive Performance Continued in July

Alternative investment strategies posted positive results in July, based on the Hedge Fund Research (HFR) indexes. Commodity focused strategies posted strong gains as many of these managers participated in the recovery in energy and agricultural complex that was driven by the combination of robust demand and supply constraints. Long/short equity strategies continued its positive streak. Performance among long-biased long/short equity funds was more pronounced, as the continued rally in the stock market provided a tailwind. Global Macro managers were generally positive as well. We observe many macro managers have already monetized on the structural, longer-term themed positions that they had carried over from last year and have been more tactical and relative value focused as they continued to see opportunities arising from the dispersions among countries and regions driven by varying policy actions and economic conditions. Managed Futures strategies posted mixed returns, with small bias towards losses coming from the short-term strategies.

As we monitor the economic and market developments, we continue to believe global macro managers can find robust rates and currency trading opportunities arising from active global central banks at different phases of the policy cycle. Short term managed futures that are designed to monetize from the spike in volatility or short term reversion from extended trends could also add value as the major asset classes are expected to have less directionality and more twist and turns.

Lastly, multi-strategy was up for the month as well, reflecting the strong performance of the overall liquid alternative universe. We expect multi-strategy funds to continue to provide additional sources of uncorrelated returns and the potential to mitigate traditional equity and bond market risks.

Please see https://www.hfr.com/indices for further information on the indices

Definition: The HFRI 400 (US) Hedge Fund Indices are global, equal-weighted indices comprised of the largest hedge funds that report to the HFR Hedge Fund Research 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.



GLOBAL PORTFOLIO STRATEGY

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.

Municipal bonds are subject to availability and change in price. They are subject to 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. Municipal bonds are federally tax-free but other state and local taxes may apply. If sold prior to maturity, capital gains tax could apply.

High yield/junk bonds (grade BB or below) are not investment grade securities, and are subject to higher interest rate, credit, and liquidity risks than those graded BBB and above. They generally should be part of a diversified portfolio for sophisticated investors.

Floating rate bank loans are loans issues by below investment grade companies for short term funding purposes with higher yield than short term debt and involve 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.

Preferred stock dividends are paid at the discretion of the issuing company. Preferred stocks are subject to interest rate and credit risk. As interest rates rise, the price of the preferred falls (and vice versa). They may be subject to a call feature with changing interest rates or credit ratings.

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 $\underline{lplresearch.com/definitions}$.

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.

The Strategic and Tactical Asset Allocation Committee (STAAC) is a division of LPL Research.

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