MARCH 2022

GLOBAL Portfolio Strategy

LPL Research

WAR IN UKRAINE DAMPENS THE OUTLOOK FOR EUROPE

LPL RESEARCH'S MONTHLY MARKET OUTLOOK

Key changes from February's report:

 Downgrading developed international equities to negative from neutral Stocks fell in February, as the S&P 500 Index lost 3.3% for the month to bring the year-to-date decline to 8.2% as of February 28. Russia's invasion of Ukraine weighed on sentiment, pushing oil prices sharply higher and adding to already sky-high inflation. The economic cost of the conflict for the United States will likely remain minimal, but for Europe the cost will be higher due to the continent's greater reliance on Russian energy.

Amid the disheartening developments in Europe, some positives have emerged. The Federal Reserve will likely employ a go-slow approach to rate hikes, COVID-19 cases are plummeting, and earnings look good.

Despite the latest correction, we are sticking with our year-end 2022 S&P 500 Index fair value target range of 5,000—5,100, based on a price-to-earnings ratio (PE) of 21—21.5 and our 2023 earnings per share (EPS) estimate of \$235. Primary risks beyond a widening conflict in Europe include stubbornly high inflation and rising interest rates.

Despite elevated volatility to start the year, LPL Research continues to believe that tactical investors should tilt portfolios in favor of stocks over bonds relative to their respective targets.

INVESTMENT TAKEAWAYS:

- We expect solid economic and earnings growth to help U.S. stocks deliver solid gains in 2022. Despite the rough start to 2022, we believe the U.S. economic cycle is in its middle stages, leaving the chances of a solid year for stocks in 2022 quite high.
- Our value and growth style views are neutral. Slowing economic growth, a flatter yield curve, and earnings trends are bullish for the growth style, but value stocks are attractively valued, and should benefit more from the economy's reopening and the commodities boom.
- Our market cap views are balanced. Small cap valuations have become relatively attractive and they are more insulated from potential economic weakness in Europe, but as the economic cycle matures, we would expect large caps to resume leadership.
- We continue to recommend a slight underweight allocation to fixed income as higher rates may put some pressure on bond returns.
- Although we've seen a move slightly higher in yields recently, reduction of Federal Reserve (Fed) policy support and a strengthening global recovery may push yields still higher in the months ahead.
- As interest rates have moved off last year's record lows, we no longer think a max underweight to Treasury securities is warranted.
 While yields may move modestly higher from current levels, the biggest moves may have already occurred.



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
U.S. Equities	■ Financials ■ Real Estate	■ Mortgage-Backed Securities	■ Event Driven

2022 MARKET FORECASTS

Higher Earnings Support Further Gains for Stocks

	Previous	Current
10-Year U.S. Treasury Yield	1.75%-2.0%	1.75%-2.0%*
S&P 500 Index Earnings per Share	\$220	\$220
S&P 500 Index Fair Value	5,000-5,100	5,000-5,100**

Source: LPL Research, FactSet, Bloomberg

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

*As noted in our <u>Outlook 2022: Passing the Baton</u>, our year-end 2022 forecast for the U.S. 10-year Treasury yield is 1.75%-2.0%. The forecast reflects above-trend inflation, an aging demographic in need of income, higher global debt levels, and anticipated rebalancing into fixed income from equities.

**As also noted in our <u>Outlook 2022: Passing the Baton</u>, our year-end 2022 fair-value target range for the S&P 500 of 5,000-5,100 is based on a price-to-earnings ratio (PE) of 20-21.5 and our S&P 500 earnings per share (EPS) forecast of \$235 in 2023.

2022 ECONOMIC FORECASTS Solid Growth but Slight Downside Bias

	2021	2022
United States	5.7%	4.0% to 4.5%
Developed ex-U.S.	4.6%	3.5% to 4.0%
Emerging Markets	6.5%	4.75% to 5.25%
Global	5.9%	4.25% to 4.75%

Source: LPL Research, Bloomberg

The economic forecasts may not develop as predicted.

All data, views, and forecasts herein are as of 2/28/22.



LPL RESEARCH STRATEGIC AND TACTICAL ASSET ALLOCATION COMMITTEE

LPL Research Tactical Asset Allocation as of 3/1/2022

INVESTMENT OBJECTIVE

	Aggre	ssive G	rowth		Growth			owth wi Income			come wi erate Gr			ie with C eservati	
	ТАА	Benchmark	Difference	TAA	Benchmark	Difference	TAA	Benchmark	Difference	TAA	Benchmark	Difference	TAA	Benchmark	Difference
STOCKS	98.0%	95.0%	3.0%	85.0%	80.0%	5.0%	65.0%	60.0%	5.0%	45.0%	40.0%	5.0%	25.0%	20.0%	5.0%
U.S. EQUITY	80.4%	76.0%	4.4%	69.7%	64.0%	5.7%	53.3%	48.0%	5.3%	36.9%	32.0%	4.9%	20.5%	16.0%	4.5%
Large Value	12.6%	11.9%	0.7%	10.9%	10.0%	0.9%	8.3%	7.5%	0.8%	5.8%	5.0%	0.8%	3.2%	2.5%	0.7%
Large Blend	14.2%	13.5%	0.8%	12.4%	11.3%	1.0%	9.4%	8.5%	0.9%	6.5%	5.7%	0.9%	3.6%	2.8%	0.8%
Large Growth	23.4%	22.1%	1.3%	20.3%	18.6%	1.7%	15.5%	14.0%	1.5%	10.8%	9.3%	1.4%	6.0%	4.7%	1.3%
Small/Mid Value	10.1%	9.5%	0.5%	8.7%	8.0%	0.7%	6.7%	6.0%	0.7%	4.6%	4.0%	0.6%	2.6%	2.0%	0.6%
Small/Mid Blend	13.0%	12.3%	0.7%	11.3%	10.4%	0.9%	8.6%	7.8%	0.9%	6.0%	5.2%	0.8%	3.3%	2.6%	0.7%
Small/Mid Growth	7.1%	6.7%	0.4%	6.1%	5.6%	0.5%	4.7%	4.2%	0.5%	3.2%	2.8%	0.4%	1.8%	1.4%	0.4%
INTERNATIONAL EQUITY	17.6%	19.0%	-1.4%	15.3%	16.0%	-0.7%	11.7%	12.0%	-0.3%	8.1%	8.0%	0.1%	4.5%	4.0%	0.5%
Developed (EAFE)	10.4%	12.0%	-1.6%	8.9%	10.0%	-1.1%	7.4%	8.0%	-0.6%	4.7%	5.0%	-0.3%	4.5%	4.0%	0.5%
Emerging Markets	7.2%	7.0%	0.2%	6.4%	6.0%	0.4%	4.3%	4.0%	0.3%	3.4%	3.0%	0.4%	0.0%	0.0%	0.0%
BONDS	0.0%	0.0%	0.0%	13.0%	15.0%	-2.0%	33.0%	35.0%	-2.0%	53.0%	53.0%	0.0%	73.0%	70.0%	3.0%
U.S. CORE	0.0%	0.0%	0.0%	12.5%	15.0%	-2.5%	31.7%	35.0%	-3.3%	50.9%	53.0%	-2.1%	70.1%	70.0%	0.1%
Treasuries	0.0%	0.0%	0.0%	5.6%	6.8%	-1.1%	14.3%	15.8%	-1.5%	22.9%	23.9%	-1.0%	31.6%	31.5%	0.0%
MBS	0.0%	0.0%	0.0%	4.0%	4.5%	-0.5%	10.2%	10.5%	-0.3%	16.4%	15.9%	0.4%	22.5%	21.1%	1.5%
IG Corporates	0.0%	0.0%	0.0%	2.8%	3.7%	-0.9%	7.2%	8.7%	-1.5%	11.6%	13.2%	-1.6%	16.0%	17.4%	-1.4%
NON-CORE	0.0%	0.0%	0.0%	0.5%	0.0%	0.5%	1.3%	0.0%	1.3%	2.1%	0.0%	2.1%	2.9%	0.0%	2.9%
TIPS	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%
International	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%
Preferred	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%
High-Yield Corporates	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%
Bank Loans	0.0%	0.0%	0.0%	0.5%	0.0%	0.5%	1.3%	0.0%	1.3%	2.1%	0.0%	2.1%	2.9%	0.0%	2.9%
Emerging Markets	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 box allocations are based on lookthrough analysis of the domestic equity indexes used in our benchmark. While the indexes stay constant, style box allocations may drift over time.

Bond benchmark sector allocations are based on a look-through analysis of the major sector components of the Bloomberg Barcalys 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. Style box allocations only include domestic allocations.



EQUITY ASSET CLASSES

Maintaining Overweight to Stocks, Downgrading Developed International

We continue to favor stocks over bonds based on our expectation for above-trend economic growth in 2022 and continued solid earnings gains, despite recent volatility around Russia's Ukraine invasion and elevated inflation, which we believe is at or very near a peak. Amid heightened geopolitical concerns, some good news has emerged in terms of the Fed likely employing a go-slow approach to rate hikes, plummeting COVID-19 cases, and a solid fourth quarter earnings season. We expect greater economic impact in Europe than the United States due to the continent's reliance on Russian energy, leading to our downgrade of developed international equities this month after having previously warmed up to European markets.

	Sector	Overall View	Relative Trend	Rationale
tion	Large Caps	-		As the economic cycle matures in 2022, the environment may become more favorable for large cap companies as they typically perform better later in economic cycles. They are better positioned to manage global supply chain disruptions than small caps but are more exposed to weakness in Europe.
Market Capitalization	Mid Caps		•	As the economic cycle matures, mid caps may see less benefit from their early cycle characteristics. At the same time, we believe mid cap stock valuations are relatively attractive and the merger and acquisition environment remains robust.
Ма	Small Caps	-		Small cap stock valuations have become more attractive recently, merger activity remains healthy, and smaller companies are relatively more insulated from economic weakness in Europe than larger cap companies. However, small caps may struggle as the economic cycle matures.
Style	Growth	-	-	Slowing economic growth, a flatter yield curve, and earnings trends are bullish for the growth style, but growth stocks are relatively expensive and are unlikely to benefit as much from the economy's reopening as value stocks.
St	Value	-	-	Still-low interest rates with flattening yield curve create difficult economic conditions for value stocks. However, cyclical value stocks remain attractively valued and are benefiting from easing COVID-19 pressures and the developing commodities boom.
	United States	-		The Russia-Ukraine conflict strengthens our conviction in favoring U.S. equities over their developed international counterparts and delays the synchronized global expansion. The U.S. economy is better positioned than Europe to withstand higher energy costs, particularly Germany which is very reliant on Russian energy. The U.S. will benefit from safe haven flows.
Region	Developed International	•	-	Our downgrade of international equities reflects Europe's heavy reliance on Russian energy. Germany appears to be on the cusp of a recession. Prior to the Russian invasion of Ukraine, the outlook for Europe and Japan had begun to improve. We still believe a post-pandemic, synchronized global expansion will be supportive but that catalyst has been delayed.
	Emerging Markets	-	•	Our decision to upgrade emerging market equities to neutral last month reflected our desire to balance out geographic exposure and take advantage of attractive valuations. China's monetary policy stimulus and fewer regulatory headlines added to the case, but the near-term outlook is muddled. Some Russia spillover is certainly possible.

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

Surging Oil Makes Energy an Interesting Potential Short-Term Trade Idea

We maintain a slight preference for economically sensitive "cyclical" sectors, despite recent volatility related to war in Ukraine. However, as the economic cycle matures, we believe more balance between cyclical and defensive sectors is prudent. We maintain our positive financials and real estate views and our negative views of consumer staples and utilities. The rest of our sector views are neutral, though surging oil prices make energy an interesting short-term idea for active traders and our relative trend rating is positive. Beyond energy, in the short term (1-3 months) industrials and materials appear well positioned. Over the intermediate term (3-12 months), the outlook for technology and the growth sectors looks a bit better to us overall.

	Sector	Overall View	Relative Trend	S&P Wgt	Rationale
	Materials		-	2.6	Slower growth in China, a strong U.S. dollar, and delayed post-pandemic pickup in global growth offset benefits of infrastructure spending, higher metal prices, and inflation. Valuations are fair, not compelling.
	Energy	_		3.8	Russian supply disruptions further tighten an already tight global supply picture. Ukraine resolution could bring oil prices down sharply, a key risk, while U.S. and Mideast production will likely rise in response to higher prices. Global demand is solid.
	Industrials	_	•	7.9	Ongoing supply chain disruptions dampen the near-term outlook, though more infrastructure spending will eventually help and reopening benefits still lie ahead. Relative performance starting to improve. Fair valuations.
Cyclical	Communication Services	-	•	9.7	A toughening regulatory environment for this digital media-heavy sector, below-average estimated earnings growth in 2022, and weak technical analysis trends offset increasingly attractive valuations and keep us at neutral.
	Consumer Discretionary	-	•	11.8	Excess consumer savings, low debt service obligations are supportive but inflation is eroding purchasing power as oil surges. Relative strength has deteriorated. Not historically a strong mid-cycle performer. Valuations are high despite solid earnings gains.
	Technology	-	-	28.0	Strong fourth quarter earnings season. Solid fundamentals and positive technical analysis picture help offset the risk that higher interest rates pressure growth-stock valuations or work-from-home stocks struggle post-pandemic. Interesting buy-the-dip candidate.
	Financials	-		11.2	Prospects for higher interest rates and solid loan demand in 2022, though yield curve flattening and weaker European economies introduce risk. Watching technical analysis signals and interest rates closely. Valuations remain attractive.
	Utilities	•		2.6	While safe-haven demand is helping during the market correction, our view is it is too early in the economic cycle for utilities to sustain outperformance and valuations are getting rich. However, green-energy spending may get a boost and interest rate risk has moderated.
Defensive	Healthcare		-	13.5	Our recently upgraded view reflects the maturation of the economic cycle, improved technical analysis trends, and diminishing policy risk as the Build Back Better plan stalls. Demographic trends offer long-term support. Valuations are attractive.
Defe	Consumer Staples	•		6.3	Better relative performance in recent pullback makes sense, but slow-growth staples companies are getting squeezed by rising costs. Valuations look fair at best given midcycle economy, though interest rate risk has moderated.
	Real Estate	-		2.6	Benefits of reopening, the sector's tendency to effectively manage inflation, and healthy credit markets, are supportive. Bullish technical analysis trends. Defensive sectors have been attracting more interest recently. Interest rate risk moderating. 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.

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

High Quality Focus with Limited Exposure to Lower Quality Bonds

We suggest a blend of high-quality bonds with limited exposure to non-investment grade bonds in tactical portfolios. While we think the 10-year Treasury yield can end the year between 1.75%—2.00%, we think the big move higher in yields has already taken place. As such, we think it is no longer necessary to maintain a max underweight to interest rate sensitive fixed income assets. We've upgraded our view on Treasury securities to neutral. We still see some value in short-to-intermediate high quality corporate bonds, but credit spreads have little room for further tightening. For income-oriented investors willing to take on more risk, we think bank loans still make sense, where appropriate.

We favor **municipal bonds** as a high-quality option for taxable accounts, although valuations relative to Treasuries remain elevated. Additionally, for appropriate investors, **high yield municipal bonds** offer an attractive tax-equivalent yield.

		Low Medium High	Rationale
ng	Credit Quality		Credit spreads remain elevated, but the economic outlook may be supportive.
Positioning		Short Int. Long	
Pos	Duration	_	We think marginally reducing the underweight to interest-rate sensitive assets makes sense at this point in the cycle.
		Neg. Neutral Pos.	Rationale
	U.S. Treasuries		Yields have traded slightly higher recently but we expect them to continue to increase marginally from current levels. However, we think the big move higher in yields has already happened and have increased our view of Treasuries to neutral. Yield spreads to international sovereigns remain attractive. Inflation breakeven rates leave TIPS fairly valued.
	MBS		The Fed has reduced its MBS purchases, and balance sheet runoff is a potential risk this year, which may put upward pressure on yields. Valuations remain full but higher yields would likely attract additional yield buyers.
	Investment- Grade Corporates	•	Credit environment remains supportive. Leverage metrics have increased, but cash levels are high. Interest-rate sensitivity has increased. Tight credit spreads limit attractiveness although the short-to-intermediate part of the corporate credit curve offers value.
Sectors	Preferred Stocks		Higher credit quality among the riskier fixed income options. Bank fundamentals are sound overall. Can be rate sensitive but may be able to tolerate gradual increases.
	High-Yield Corporates	•	Valuations have grown rich versus history but fundamentals remain sound and default risks are low. They may be more attractive for income-oriented investors. We believe equities have more upside and high-quality options may be better diversifiers.
	Bank Loans	-	Economic environment is supportive and better sector mix than high yield. Higher interest rates may support demand. Fewer investor protections and illiquidity of individual loans remain concerns.
	Foreign Bonds	•	Rich valuations, interest-rate risk, and potential currency volatility are among the negatives.
	EM Debt	•	Central banks are becoming less accommodative as inflationary pressures in emerging markets are building, which provides 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 3 and 10 years, and short-term bonds are those with maturities of less than 3 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

Oil Looks like Little More than a Short-Term Trade or Russia Hedge

Our view of **industrial metals** remains positive, as prospects for solid economic growth in the U.S. in 2022 and more infrastructure spending help offset slowing demand from China and the potential that U.S. dollar headwinds persists until the Russia-Ukraine conflict is resolved.

Our **precious metals** view is neutral, though we acknowledge the bullish technical analysis setup for gold amid heightened geopolitical threats and prefer gold to silver. Looking beyond the short term, though stubbornly high inflation may be supportive, our still-positive U.S. economic outlook and expectation for rising interest rates present headwinds for defensive assets such as gold. We maintain our slight preference for industrial metals over their precious metal counterparts.

Our positive bias on **crude oil** last month was not positive enough as oil rallied from \$88 to over \$105 over the past month due to the Russia-Ukraine conflict and potential freezing out of Russian supply as a result of sanctions. Although oil may continue higher in the event of a more prolonged conflict that further disrupts Russian supplies in an already tight global oil market, and demand had been on an upswing as COVID-19 receded, we find crude overbought and prefer to stay at neutral for fear that the geopolitical premium comes out of the price quickly. Oil does have value as a near-term hedge against Russian instability and momentum is very strong, suggesting a possible short-term trading opportunity.

ALTERNATIVE INVESTMENTS

Another Month of Protection

Alternative investment strategies continued to provide strong downside protection during an extremely volatile month for both the equity and bond markets. Our preference for low-beta strategies that have historically acted as a way to diversify interest rate-related fixed income risk without simply adding stock-like exposure was beneficial during this environment and remains a focus going forward. These strategies include global macro, multi-strategy, equity market neutral, and our preferred solution—event driven. While these strategies all have their own characteristics, they've historically provided a risk/return profile similar to that of core fixed income, while having limited exposure to equity market movement. In contrast to core fixed income allocations, which struggle to play their traditional defensive role during periods of rising rates, these strategies may help protect portfolios in the current environment and act as a source of ballast.

We maintain a positive view on the event driven industry and our three main tailwinds for the industry—high corporate cash balances, low borrowing rates, and the private equity industry's dry powder—remain in place. A robust deal flow environment allows event driven strategies to be more selective in choosing underlying transactions and also moderates position crowding within the industry. The 2021 total volume of global merger and acquisitions is the largest in history. Ongoing risks associated with event driven strategies include the price impact of transactions failing, regulatory risk, and the potential impact of changes in the tax landscape.

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 <u>lplresearch.com/definitions.</u>

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Other Government Agency Guaranteed or Obligations

