

June 19 2019

# NAVIGATING THE MARKETS

The *Portfolio Compass* provides a snapshot of LPL Research’s views on equity, equity sectors, fixed income, and alternative asset classes. This monthly publication illustrates our current views and will change as needed over a 3- to 12-month time horizon.

The top down is an important part of our asset allocation process. As a result, we have a macro section including our views of the global economy and key drivers of those views, and a section on what we are watching that might change those views.

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## COMPASS CHANGES

- Bank loans view lowered from Neutral to Negative/Neutral
- Industrial metals view lowered from Neutral to Negative/Neutral

## INVESTMENT TAKEAWAYS

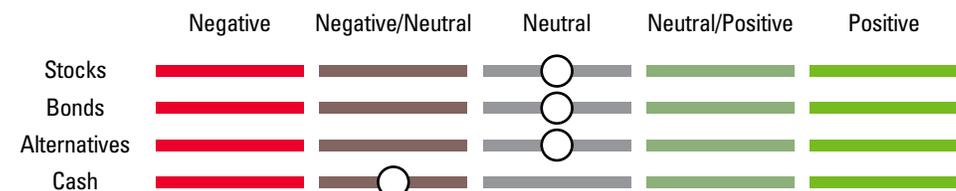
- We maintain our year-end 2019 fair value target for the S&P 500 Index of 3,000. Despite a slight reduction in our 2019 S&P 500 earnings forecast and heightened trade tensions, we maintain our market weight equities recommendation.\*
- We maintain our slight preference for value due to attractive relative valuations after a sustained period of growth outperformance.
- We expect a transition to large cap market leadership and away from small cap stocks in 2019 as the economic cycle ages.
- We favor emerging markets (EM) equities for their solid economic growth trajectory, favorable demographics, attractive valuations, and our continued expectation that the United States and China will reach a trade agreement in the coming months.
- Slower but still solid economic growth and modest inflationary pressure may be headwinds for fixed income. However, the pause by the Federal Reserve (Fed) and potential for a summer rate cut reduce the near-term risk of higher short-term interest rates.
- We emphasize a blend of high-quality intermediate bonds, with a preference for investment-grade corporates (IGC) and mortgage-backed securities (MBS) over Treasuries. MBS provide a diversifying source of yield within the investment-grade space, while economic growth is supportive of IGCs.
- The S&P 500 remains in a sideways trend, giving technical confirmation to our market-weight stance for U.S. equities. While breadth remains strong, defensive sectors continue to lead the market, and we will likely need to see a rotation to cyclical stocks for equities to deliver significant upside in the near term.

All performance referenced herein is as of June 17, 2019, unless otherwise noted.

\*As noted in our *Outlook 2019*, we expect an 8–10% S&P 500 Index total return in 2019, driven by near 2.5% gross domestic product (GDP) growth, 6–7% S&P 500 earnings growth, and a target price-to-earnings ratio (PE) of 17.5.

## BROAD ASSET CLASS VIEWS

LPL Research’s views on stocks, bonds, cash, and alternatives are illustrated below.



# MACROECONOMIC VIEWS

	Economic Factor	Outlook	Investing Impact
ECONOMY	<b>U.S. GDP Growth</b>	We expect GDP of near 2.5% in 2019.*	Absence of a recession would likely support equity markets.
	<b>Consumer Spending</b>	Fiscal stimulus, a strong labor market, and stock gains may help.	Supports consumer cyclicals, but potential growth in business spending may be more important.
	<b>Business Spending</b>	Tax reform and deregulation are supportive; watching trade policy.	Industrials would be most likely to benefit; upside for technology but some policy risks.
	<b>Housing</b>	Lower rates, growing inventory are helping, but still a sellers' market.	May not offer opportunities until the next cycle.
	<b>Import/Export</b>	Service sector exports strong; uncertainty around trade.	May support technology and business services; some uncertainty for multinationals.
	<b>Labor Market</b>	Unemployment near multidecade low; wage gains support consumer spending.	Wages may start to pressure profit margins; Fed watching closely but not at worrisome levels.
	<b>Inflation</b>	Still well contained despite modest wage, input cost pressures.	Interest rates likely to rise further, but only gradually.
	<b>Business Cycle</b>	Some late cycle signs but economy not overheating.	Equity markets may have room to run, but volatility may continue.
	<b>Dollar</b>	Upward trend has continued.	Trend may flatten, but for now still a headwind for international equities.
	<b>Global GDP Growth</b>	Slowing likely in 2019. Trade uncertainty remains a risk.	May contribute to equity volatility with added potential risk for global multinationals.
POLICY	<b>Fiscal</b>	Tax reform and deregulation supporting growth.	May provide an economic lift, but trade, policy uncertainty limiting some of the impact.
	<b>Monetary</b>	Fed on pause. May see a hike in the second half of the year.	Monetary tightening less of a risk as long as inflation stays contained.
	<b>Government</b>	Fiscal stimulus likely outweighs tariff impact.	Policy uncertainty may be delaying capital spending decisions.
RISKS	<b>Financial</b>	Political environment may lead to looser credit standards and accelerate deregulation.	Short term positive; longer term may enable economic and market excesses to build.
	<b>Geopolitical &amp; Other</b>	China, trade, Brexit remain in focus.	May contribute to higher stock volatility.
OVERSEAS	<b>Developed Overseas</b>	Anti-Eurozone populism, Brexit uncertainty, slower growth are concerns.	Potential diversification benefits, but returns may lag U.S.
	<b>Emerging Markets (EM)</b>	Trade risk remains; there are pockets of stress, but EM growth outlook overall still looks good.	Low valuations and strong growth offer EM upside potential once trade situation is resolved.
FINANCIAL CONDITIONS	<b>Corporate Profits</b>	We estimate mid-single-digit S&P 500 earnings growth in 2019.	Upside potential versus current expectations may support markets.
	<b>Main Street</b>	Policy uncertainty impacting sentiment, but may be starting to rebound.	Continued economic expansion could support additional bull market gains.

Source: LPL Research

The opinions voiced in this material are for general information only and are not intended to provide or be construed as providing specific investment advice or recommendations for your clients. Any economic forecasts set forth in the presentation may not develop as predicted and there can be no guarantee that strategies promoted will be successful.

\*Our forecast for GDP growth of near 2.5% is based on baseline potential GDP growth of 2.0%, using current trend growth and longer-term expected growth drivers, low probability of recession, and an upward adjustment due to the expected continued impact of fiscal stimulus. Economic growth is affected by changes to inputs such as business and consumer spending, housing, net exports, capital investments, and government spending.

## ASSET CLASS & SECTOR TOP PICKS

Below we provide our top overall ideas across the various asset classes and sectors covered in this publication, as well as our best ideas within the three disciplines of our investment process: fundamentals, technicals, and valuations. More details on these and other investment ideas can be found on subsequent pages.

Characteristics	EQUITY ASSET CLASSES	EQUITY SECTORS	FIXED INCOME	Characteristics	ALTERNATIVE ASSET CLASSES
<b>BEST OVERALL IDEAS</b>	EM Equities Large Value Equities	Industrials Technology	Investment-Grade Corporates MBS	<b>BEST OVERALL IDEAS</b>	Event Driven
<b>Fundamentals</b>	Large Value Equities	Industrials Technology	Investment-Grade Corporates MBS	<b>Catalysts</b>	Event Driven Global Macro
<b>Technicals</b>	U.S. Equities	Consumer Discretionary Technology	Investment-Grade Corporates	<b>Trading Environment</b>	Long/Short Equity
<b>Valuations</b>	EM Equities Large Value Equities Master Limited Partnerships (MLP)	Financials Healthcare Industrials	EM Debt	<b>Volatility</b>	Global Macro Long/Short Equity

## READING THE PORTFOLIO COMPASS

RATING	ICON	DESCRIPTION
Negative	■ ●	Fundamental, technical, and valuation characteristics for each category are shown by their blue icons below, and displayed as colored squares.
Negative/Neutral	■ ●	Negative, neutral, or positive views are illustrated as a colored circle positioned over the scale, whereas an outlined black circle with an arrow indicates change, and shows the previous view.
Neutral	■ ●	Rationales for our views are provided on the right side.
Positive/Neutral	■ ●	
Positive	■ ●	
Previous Position	⊙	

Global macro strategy is a hedge fund strategy that selects its holdings primarily on the macroeconomic and political views of various countries, and is subject to numerous risks such as: geopolitical, derivative, commodity, volatility, currency, and regulatory.

Long/short equity strategies are subject to normal alternative investment risks, including potentially higher fees, while there is additional management risk, as the manager is attempting to accurately anticipate the likely movement of both their long and short holdings. There is also the risk of "beta-mismatch," in which long positions could lose more than short positions during falling markets.

## EQUITY ASSET CLASSES

We maintain our year-end 2019 fair value target for the S&P 500 Index of 3,000. Despite a slight reduction in our 2019 S&P 500 earnings forecast and heightened trade tensions, we maintain our market weight equities recommendation. We expect attractive relative valuations compared with growth to help buoy value stocks. We expect a transition to large cap market leadership and away from small caps in 2019 as the economic cycle ages, trade issues may be resolved, and the U.S. dollar potentially hits resistance. Our positive emerging markets (EM) view is based on solid economic growth, favorable demographics, attractive valuations, and our expectation that the United States and China will reach a trade agreement in the coming months.

	Sector	F	T	V	⊖	○	⊕	Rationale
Style/Capitalization	Large Growth	■	■	■	●	○	●	As the business cycle ages, and the dollar's uptrend potentially reverses, large caps may sustain market leadership. U.S.-China trade dispute remains a wildcard, but a deal could help large caps. We maintain our slight preference for value due to attractive relative valuations after a sustained period of growth outperformance and our positive financials sector view.
	Large Value	■	■	■	●	○	●	
	Mid Growth	■	■	■	●	○	●	Mid cap valuations are attractive relative to large caps, but earnings growth doesn't stand out. As with large caps, relative valuations point to value over growth.
	Mid Value	■	■	■	●	○	●	
	Small Growth	■	■	■	●	○	●	As the economic cycle ages in 2019 and financial conditions potentially tighten, small caps may lag. A potential trade deal may benefit larger cap companies relatively more than their smaller counterparts.
	Small Value	■	■	■	●	○	●	
Region	U.S.	■	■	■	●	○	●	Among developed markets, we remain U.S. focused, supported by stronger—albeit slower—economic growth, fiscal stimulus, and expected steady but slower earnings gains.
	Large Foreign	■	■	■	●	○	●	Economic growth in Europe and Japan is lackluster and weakening. GDP growth in EM is likely to more than double the pace of developed international economies in 2019, and we believe policy uncertainty is actually higher in Europe, notably the U.K. and Italy, than in EM.
	Small Foreign	■	■	■	●	○	●	
	EM	■	■	■	●	○	●	Our positive EM view is based on a solid economic growth, favorable demographics, and attractive valuations. We continue to expect a U.S.-China trade deal in the months ahead but the path to a potential deal has become more muddled.
MLPs	MLPs	■	■	■	●	○	●	Sensible choice for income-oriented accounts due to high yields. Strong U.S. energy production outlook, acquisition activity, and dip in market interest rates are supportive.

Investing in master limited partnerships (MLPs) involves additional risks as compared with the risks of investing in common stock, including risks related to cash flow, dilution, and voting rights. MLPs may trade less frequently than larger companies due to their smaller capitalizations, which may result in erratic price movement or difficulty in buying or selling. MLPs are subject to significant regulation and may be adversely affected by changes in the regulatory environment, including the risk that an MLP could lose its tax status as a partnership. Additional management fees and other expenses are associated with investing in MLP funds.

## EQUITY SECTORS

We continue to prefer cyclical sectors as the U.S. economic expansion continues. We expect industrials to benefit from a potential pickup in capital spending, though that is contingent on a trade deal with China, which we expect in the next several months. Although financials face a headwind from a flat yield curve, we believe the sector is well positioned to benefit from deregulation, rising dividend payouts, and a potentially more favorable interest rate environment over time. Our biases toward potential near-term changes include energy (negative) and healthcare (positive).

	Sector	F	T	V	⊖	○	+	S&P*	Rationale
Cyclical	Materials	■	■	■	●	○	●	2.8	Valuations are low and a China trade deal is a possible catalyst but an infrastructure program is far off and technicals are weak.
	Energy	■	■	■	●	○	●	4.9	Supply cuts overseas, geopolitical tensions, and decent global demand have lifted oil near fair value, though U.S. supply may cap upside. Negative bias.
	Industrials	■	■	■	●	○	●	9.3	We expect a U.S.-China trade deal later this summer, which should bolster business confidence and help spur capital investment; slower growth overseas is a headwind.
	Communication Services	■	■	■	●	○	●	10.2	No longer a defensive sector after 2018 revamp. Our cautious views on media and traditional telecom offset a strong growth outlook for former tech stocks.
	Consumer Discretionary	■	■	■	●	○	●	10.3	May retail sales were solid, but valuations are rich and the sector tends to do relatively worse late in business cycles.
	Technology	■	■	■	●	○	●	21.3	Solid spending in areas targeting productivity enhancements, focusing on mobile, cloud computing, automation, and artificial intelligence (AI).
	Financials	■	■	■	●	○	●	13.1	Valuations have become more attractive after a difficult 2018; deregulation, higher dividend payouts, and a potentially steeper yield curve may help in 2019.
Defensive	Utilities	■	■	■	●	○	●	3.4	Lower interest rates and a potential Fed rate cut forthcoming help, but valuations are high and we continue to favor cyclical sectors.
	Healthcare	■	■	■	●	○	●	14.2	Healthcare spending outlook remains solid, buoyed by demographics. Policy uncertainty has left valuations attractive. Suggest patience, watching technicals for opportunities.
	Consumer Staples	■	■	■	●	○	●	7.4	We favor cyclical sectors steering us away from staples; lackluster growth outlook offsets reduced interest rate risk with a Fed rate cut potentially on tap.
	Real Estate	■	■	■	●	○	●	3.1	Fundamentals still look pretty good, yields are attractive, and interest rates have fallen; we still prefer more economically sensitive sectors, but the outlook has improved.

\* S&P 500 Weight (%)

Investing in real estate/REITs involves special risks such as potential illiquidity and may not be suitable for all investors. There is no assurance that the investment objectives of this program will be attained.

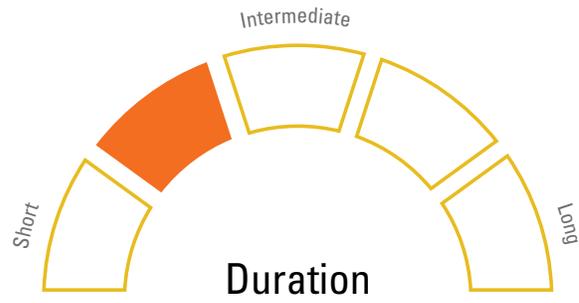
Because of its narrow focus, specialty sector investing, such as healthcare, financials, or energy, will be subject to greater volatility than investing more broadly across many sectors and companies.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a nondiversified portfolio. Diversification does not ensure against market risk.

# FIXED INCOME



Maintaining a more cautious approach as we move later cycle, but still prefer corporate bonds to government bonds.



Recommended interest rate sensitivity is still lower than the benchmark due to expectations of gradually rising rates, relatively attractive shorter-term yields.

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.

Sector	F	T	V	⊖	○	⊕	Rationale
Munis–Short-Term	■	■	■	—●—			Valuations relative to Treasuries remain expensive compared to history. Supply dynamics still attractive.
Munis–Intermediate-Term	■	■	■	—●—			Valuations relative to Treasuries remain on the expensive side. Supply dynamics remain attractive.
Munis–Long-Term	■	■	■	—●—			Valuations neutral relative to Treasuries, but absolute levels looking more expensive. Higher rate sensitivity may be a headwind if rates rise. Supply dynamics remain attractive.
Munis–High-Yield	■	■	■	—●—			Becoming more cautious as we move later cycle. Some long-term headwinds from pension obligations. Supply dynamics remain attractive. Low yields for sector on an absolute basis.

(Continued on next page)

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.

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.

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.

## FIXED INCOME (CONTINUED)

For fixed income allocations, we continue to emphasize a blend of high-quality intermediate bonds in tactically oriented portfolios. We remain concerned about rising rates putting pressure on fixed income looking forward. Slowing but still above-trend economic growth could support corporate profits, but moderate inflationary pressure may offset these benefits for fixed income investors. We maintain a cautious approach with credit-sensitive areas of the market, but a “coupon-clipping” environment may still aid suitable investors.

Sector	F	T	V	⊖	○	⊕	Rationale
Taxable Bonds – U.S.	Treasuries	■	■	■	●		Yield spreads to overseas sovereigns remain elevated but hedging costs lower attractiveness. Supply, economic growth, and inflation normalization could be headwinds. Other options look more attractive.
	TIPS	■	■	■		●	Break-even inflation sits just below Fed's 2% target. Interest rate sensitivity could be a headwind.
	MBS	■	■	■		●	Diversifying source of yield among high-quality options.
	Investment-Grade Corporates	■	■	■		●	We still find incremental value in corporate bonds due to the economic backdrop.
	Preferred Stocks	■	■	■		●	Fundamentals are firm for U.S. banks. Higher interest rate sensitivity remains a risk.
	High-Yield Corporates	■	■	■		●	Yields remain attractive and economy supportive, but a less effective diversifier than higher-quality options. Risk from trade leaves fundamentals about balanced.
	Bank Loans	■	■	■	●	●	Weaker investor protections, potential for Fed to lower rates decreases attractiveness. Economy remains supportive.
Taxable Bonds – Foreign	Foreign Bonds– Hedged	■	■	■	●		Rich valuations, risk from rising rates may pressure performance.
	Foreign Bonds– Unhedged	■	■	■	●		Potential currency volatility, low yields, and unattractive valuations are negatives.
	EM Debt	■	■	■		●	Dovish central banks improve the valuation picture. Trade policy and geopolitical tensions remain risks.

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.

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.

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.

Treasury Inflation-Protected Securities, or TIPS, are subject to market risk and significant interest rate risk as their longer duration makes them more sensitive to price declines associated with higher interest rates.

## COMMODITIES & ALTERNATIVE ASSET CLASSES

International supply cuts and geopolitical tensions are supportive of WTI Crude, though the U.S. supply overhang remains and the global demand outlook has softened. Industrial metals are caught in the crosshairs of the U.S.-China trade dispute, suggesting caution is warranted. Grain prices have rebounded as delayed plantings have offset tariff pressures. The event-driven investing outlook remains promising as tax reform and healthy deal flow support the corporate activity opportunity set.

	Sector	F	T	V	⊖	○	⊕	Rationale
Commodities	Industrial Metals	■	■		●	○		Slowing global growth and trade tensions have hit industrial metal prices, notably copper. Watching for potential U.S.-China trade deal or possible U.S. infrastructure bill.
	Precious Metals	■	■			●		We continue to favor riskier assets, but potential Fed rate cut and possibly weaker U.S. dollar keep us at neutral.
	Energy	■	■			●		International supply cuts and geopolitical tensions are supportive of WTI Crude, though the U.S. supply overhang remains and the global demand outlook has softened. Negative bias.
	Agricultural	■	■		●			Still in a downtrend amid trade tensions, but grain prices have bounced recently amid delayed plantings due to heavy rains, offsetting tariff pressures.

	Sector	T	C	V	⊖	○	⊕	Rationale
Alternatives	Long/Short Equity	■	■	■			●	Conservative market positioning during May proved beneficial as the industry delivered attractive downside protection during the month. While average net exposure remains low, the industry maintains an overweight to the IT and healthcare sectors.
	Event Driven	■	■	■			●	Following a slow start to the year, event driven has continued to produce steady and attractive risk-adjusted returns with limited correlation to traditional markets.
	Managed Futures	■	■	■		●		Positive YTD performance has been driven by long fixed income holdings, while a moderately long equity exposure has had a mixed impact recently. We favor multimangers or combinations of uncorrelated trading strategies to smooth, diversify return profiles.
	Global Macro	■	■	■		●		Global macro strategies continue to provide diverse exposure sets and have provided attractive downside protection during equity sell-offs. Shifts in fiscal policy, global political uncertainty, and economic divergences provide an attractive opportunity set.

	CHARACTERISTICS	ICON	DEFINITION
LEGEND	Catalysts		Potential for favorable macroeconomic and/or idiosyncratic market developments that may benefit the investment strategy.
	Trading Environment		Market characteristics present sufficient investment opportunities for this investment style.
	Volatility		The current volatility regime provides a constructive environment that an investment of this style can capitalize on.

Alternative strategies 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.

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.

## IMPORTANT DISCLOSURES

All performance referenced is historical and is no guarantee of future results.

There is no assurance that the techniques and strategies discussed are suitable for all investors or will yield positive outcomes. The purchase of certain securities may be required to effect some of the strategies.

All indexes are unmanaged and cannot be invested into directly. Unmanaged index returns do not reflect fees, expenses, or sales charges. Index performance is not indicative of the performance of any investment.

### Stock and Pooled Investment Risks

The payment of dividends is not guaranteed. Companies may reduce or eliminate the payment of dividends at any given time.

Value investments can perform differently from the market as a whole. They can remain undervalued by the market for long periods of time.

Investing in stock includes numerous specific risks including: the fluctuation of dividend, loss of principal, and potential illiquidity of the investment in a falling market.

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.

The prices of small and mid cap stocks are generally more volatile than large cap stocks.

### Bond and Debt Equity Risks

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. However, the value of fund shares is not guaranteed and will fluctuate.

### Alternative Risks

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.

Managed futures strategies use systematic quantitative programs to find and invest in positive and negative trends in the futures markets for financials and commodities. Futures and forward trading is speculative, includes a high degree of risk that the anticipated market outcome may not occur, and may not be suitable for all investors.

## INDEX DEFINITIONS

The S&P 500 Index is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

The Bloomberg Barclays U.S. Municipal Bond Index covers the U.S. dollar-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds.

The Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. Russell 1000 Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

## DEFINITIONS

A cyclical stock is an equity security whose price is affected by ups and downs in the overall economy. Cyclical stocks typically relate to companies that sell discretionary items that consumers can afford to buy more of in a booming economy and will cut back on during a recession.

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. Rising interest rates mean falling bond prices, while declining interest rates mean rising bond prices. The bigger the duration number, the greater the interest rate risk or reward for bond prices.

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.

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.

The simple moving average is an arithmetic moving average that is calculated by adding the closing price of the security for a number of time periods and then dividing this total by the number of time periods. Short-term averages respond quickly to changes in the price of the underlying, while long-term averages are slow to react.

The Beige Book is a commonly used name for the Federal Reserve's (Fed) report called the Summary of Commentary on Current Economic Conditions by Federal Reserve District. It is published just before the Federal Open Market Committee (FOMC) meeting on interest rates and is used to inform the members on changes in the economy since the last meeting.

Technical analysis is a methodology for evaluating securities based on statistics generated by market activity, such as past prices, volume and momentum, and is not intended to be used as the sole mechanism for trading decisions. Technical analysts do not attempt to measure a security's intrinsic value, but instead use charts and other tools to identify patterns and trends. Technical analysis carries inherent risk, chief amongst which is that past performance is not indicative of future results. Technical analysis should be used in conjunction with Fundamental analysis within the decision-making process and shall include but not be limited to the following considerations: investment thesis, suitability, expected time horizon, and operational factors, such as trading costs are examples.

The PE ratio (price-to-earnings ratio) is a measure of the price paid for a share relative to the annual net income or profit earned by the firm per share. It is a financial ratio used for valuation: a higher PE ratio means that investors are paying more for each unit of net income, so the stock is more expensive compared to one with lower PE ratio.

Alpha measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive (negative) Alpha indicates the portfolio has performed better (worse) than its Beta would predict.

Beta measures a portfolio's volatility relative to its benchmark. A Beta greater than 1 suggests the portfolio has historically been more volatile than its benchmark. A Beta less than 1 suggests the portfolio has historically been less volatile than its benchmark.

Idiosyncratic risk can be thought of as the factors that affect an asset such as a stock and its underlying company at the microeconomic level. Idiosyncratic risk has little or no correlation with market risk, and can therefore be substantially mitigated or eliminated from a portfolio by using adequate diversification.

This Research material was prepared by LPL Financial, LLC.

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