LPL RESEARCH

PORTFOLIO COMPASS

May 16 2018

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.

CONTENTS

All performance referenced herein is as of May 15, 2018, unless otherwise noted.

*As noted in our *Weekly Market Commentary* on February 26, 2018, we expect a 10–12% S&P 500 Index total return in 2018, driven by GDP growth of 2.75–3.0%, 15% S&P 500 earnings growth, and a target price-to-earnings ratio (PE) of 19.5.

COMPASS CHANGES

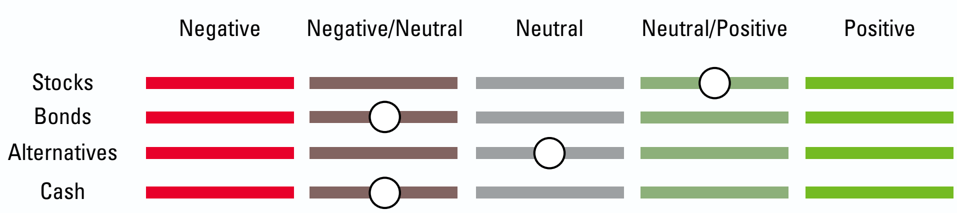
- None.

INVESTMENT TAKEAWAYS

- Our 2018 earnings forecast for S&P 500 Index companies is $152.50. Assuming a trailing 12-month price-to-earnings (PE) ratio of 19–20, we believe the S&P 500 would be fairly valued in the range of 2950–3000 by year-end 2018, representing a double-digit return from current index levels.*
- We expect value to benefit from a more favorable interest rate environment for financials in 2018.
- Small and mid cap stocks may get a boost from tax reform, merger and acquisition activity, and their more domestic focus compared with larger cap companies.
- Strong growth and attractive valuations to help emerging markets (EM) offset tighter global monetary policy.
- We emphasize a blend of high-quality intermediate bonds, with a preference for investment-grade corporates and mortgage-backed securities (MBS) over Treasuries, and a small allocation to less interest rate–sensitive sectors, such as bank loans or high-yield bonds, for suitable investors.
- Our expectation for three Federal Reserve (Fed) rate hikes in 2018 and a moderate pickup in economic growth and inflation may be a headwind for fixed income.
- Balance sheet normalization isn't likely to impact Treasuries or MBS prices near term, but it is worth monitoring over time.
- From a technical perspective, the S&P 500 price continues to operate above its 200-day moving average, increasing the likelihood of a sustained long-term bullish trend.

BROAD ASSET CLASS VIEWS

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



LPL Financial

MACROECONOMIC VIEWS

	Economic Factor	Outlook	Investing Impact
ECONOMY	U.S. GDP Growth	We expect gross domestic product (GDP) of 2.75–3.0% in 2018.*	Absence of a recession would likely support equity markets.
	Consumer Spending	New tax law, a strong labor market, and stock gains may help.	Supports consumer cyclicals, but potential growth in business spending may be more important.
	Business Spending	New tax law and deregulation are supportive; watching trade policy.	Industrials would be most likely to benefit; upside for technology but some policy risks.
	Housing	Tight supply and years of underbuilding suggest upside, but higher rates are a potential headwind.	A stronger turnaround could support housing and financials stocks.
	Import/Export	Weaker dollar helps exports; service sector exports strong; uncertainty around trade.	May support technology and business services; some uncertainty for multinationals.
	Labor Market	Unemployment near multi-decade low; early signs of wage pressure appearing.	May put modest pressure on margins.
	Inflation	Early signs of a potential pick-up but still well contained.	Interest rates likely to rise but only gradually. May help financials.
	Business Cycle	Still mid-cycle but have likely moved into latter third.	Equity markets may have room to run, but expect more volatility.
	Dollar	Short-term strength as recent data in Japan, Europe disappoints.	Weakness has benefited earnings for U.S. multinationals.
	Global GDP Growth	Improvement likely in 2018, helped by potential fiscal stimulus. Trade uncertainty remains a risk.	Upside with risks for global multinationals; global diversification may provide benefits.
POLICY	Fiscal	New tax law will provide stimulus; infrastructure may be more challenging.	May provide a short-term economic lift, but government debt still a potential long-term headwind.
	Monetary	Cautious rate hike path likely to continue. Balance sheet normalization has begun.	May be a modest headwind for quality bonds.
	Government	Republicans have made progress on agenda but midterms loom.	May contribute to higher stock volatility.
RISKS	Financial	Political environment may lead to looser credit standards and accelerate deregulation.	Net positives in the short term, but higher volatility is normal for this point in the business cycle.
	Geopolitical & Other	Monitoring Chinese economy, North Korean tensions, Islamic State, and trade.	May contribute to higher stock volatility.
OVERSEAS	Developed Overseas	Risks from European elections have declined; Brexit negotiation still presents challenges.	International equities may provide diversification benefits.
	Emerging Markets	China growth may have peaked but EM growth outlook remains solid.	Faster growth excluding China may help lift low valuations.
FINANCIAL CONDITIONS	Corporate Profits	Strong earnings growth expected in 2018 due to new tax law and improving global growth.	May support stock market gains in 2018.
	Main Street	Fed Beige Book supports positive outlook.	Supports cyclical sector performance.

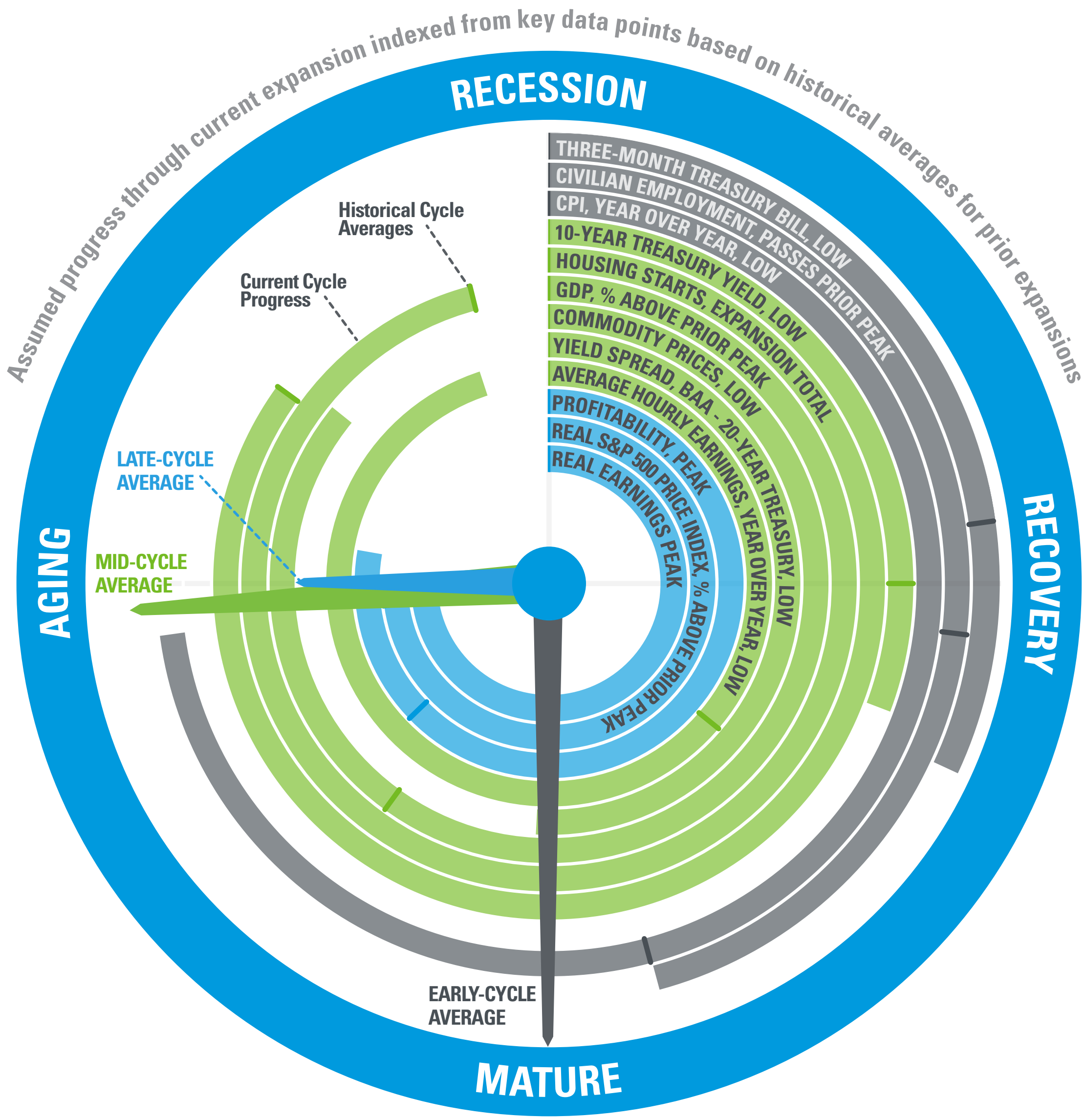
Source: LPL Research, U.S. Department of Energy, Haver Analytics 05/15/18

*Our forecast for GDP growth of 2.75–3.0% is based on the historical mid-cycle growth rate of the last fifty years; extra weight is given to the current cycle with a small upward adjustment due to the expected impact of the new tax law. Economic growth is affected by changes to inputs such as: business and consumer spending, housing, net exports, capital investments, and government spending. Potential delays in passing major fiscal policies introduce some risk to the downside.

WHAT WE'RE WATCHING

The Cycle Clock suggests we are in the mid-to-late stage of the current expansion. Monetary policy is still exhibiting mid-cycle behavior, with lows from yields still relatively recent. Some items relating to corporate profits are showing late-cycle behavior, although they may reset if profits improve.

> *"What We're Watching"* features indicators that are key to the current LPL Research macroeconomic outlook. Economic and market dynamics will dictate featured topics and their durability.



Sources: LPL Research, Federal Reserve, U.S. Bureau of Economic Analysis (BEA), U.S. Bureau of Labor Statistics, U.S. Bureau of the Census, Standard & Poor's, Robert Shiller, National Bureau of Economic Research, Haver Analytics 05/15/18

The 10-year Treasury yield hit a new low for the current cycle in July 2016 (based on the daily average), shifting us to earlier in the cycle by that metric.

A new tightening in yield spreads occurred in January 2018.

The Real Earnings Peak hit a new high for the current cycle in December 2017, shifting us to earlier in the cycle by that metric.

Data for all series are as of 05/14/18. Starting point for all series is June 1954 except housing starts (March 1961), hourly earnings (December 1970), and commodity prices (December 1970). Real prices and real earnings determined using the Consumer Price Index for all urban consumers (CPI-U). Commodity prices are based on the GSCI Total Return Index. Profitability is based on real profit per unit value added for non-financial corporate business based on current production as calculated by the BEA.

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 in subsequent pages.

Characteristics	EQUITY ASSET CLASSES	EQUITY SECTORS	FIXED INCOME
BEST OVERALL IDEAS	EM U.S. Stocks	Financials Industrials Technology	Bank Loans Investment-Grade Corporates MBS
Fundamentals	U.S. Small Caps U.S. Stocks	Financials Industrials Technology	Bank Loans Treasury Inflation-Protected Securities (TIPS)
Technicals	EM U.S. Small Caps U.S. Stocks	Energy Financials Technology	Bank Loans TIPS Municipal Bonds
Valuations	EM Large Foreign Master Limited Partnerships (MLP)	Healthcare Telecommunications	MBS

Characteristics	ALTERNATIVE ASSET CLASSES
BEST OVERALL IDEAS	Long/Short Equity
Catalysts	Event Driven Global Macro
Trading Environment	Long/Short Equity
Volatility	Global Macro Long/Short Equity Managed Futures

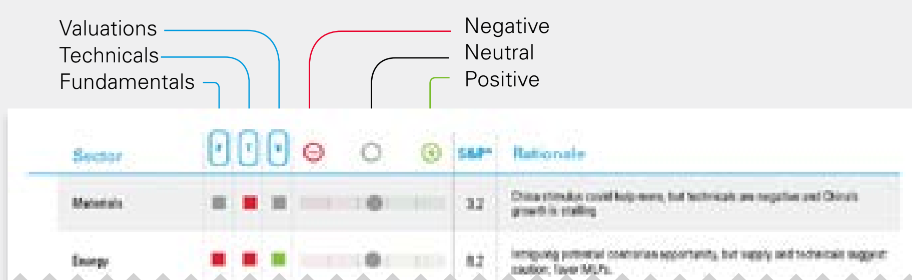
READING THE PORTFOLIO COMPASS

RATING	ICON	
Negative	■	●
Negative/Neutral		●
Neutral	■	●
Positive/Neutral		●
Positive	■	●
Previous Position	◌	

Fundamental, technical, and valuation characteristics for each category are shown by their blue icons below, and displayed as colored squares.

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.

Rationales for our views are provided on the right side.



Global macro strategy is a hedge fund strategy that selects it 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

Our 2018 S&P 500 earnings per share forecast is $152.50, representing mid-teens growth. Assuming a trailing 12-month PE ratio of 19–20, we believe the S&P 500 would be fairly valued in the range of 2950–3000 by year-end 2018, representing a double-digit return for 2018. We expect value to benefit from a more favorable interest rate environment for financials in 2018. Small and mid caps may get a boost from the new tax law and increasing acquisition activity. Strong economic growth and attractive valuations may help EM equities offset tighter global monetary policy and trade risks.

	Sector	F	T	V	⊖ ○ ⊕	Rationale
Style/Capitalization	Large Growth	Gray	Gray	Red	Between ⊖ and ○	Large caps benefit relatively less from tax reform, though repatriated overseas cash by large cap companies is supportive. We expect improving economic growth, better financials sector performance, and lower relative valuations to help value begin to reverse a decade of underperformance versus growth, based on the Russell indexes.
	Large Value	Green	Gray	Gray	Between ○ and ⊕	
	Mid Growth	Gray	Green	Green	Between ○ and ⊕	Mid cap valuations have become attractive relative to large caps and we may see more merger and acquisition activity with the new tax law and repatriation of overseas cash. Relatively greater focus on U.S. may help.
	Mid Value	Gray	Gray	Green	Between ○ and ⊕	
	Small Growth	Green	Green	Gray	Between ○ and ⊕	Small caps benefit from a lower corporate tax rate and increasing acquisition activity. U.S. trade policy favoring domestic production may also help given relatively bigger U.S. focus. Aging business cycle is the key risk.
	Small Value	Green	Gray	Gray	Between ○ and ⊕	
Region	U.S. Stocks	Green	Green	Red	Between ○ and ⊕	Among developed markets, we remain U.S. focused supported by solid economic growth, a strong earnings backdrop, and still reasonable valuations.
	Large Foreign	Red	Gray	Gray	○	Though valuations are attractive, we continue to have structural concerns in Europe, where growth may be peaking. Our outlook for Japan is positive. Gains from weak dollar may end up being short-lived. We are monitoring overseas data, trade policy, geopolitical risk, and currency movements to assess international opportunities.
	Small Foreign	Red	Gray	Gray	○	
	EM	Gray	Green	Green	Between ○ and ⊕	We expect strong economic growth and attractive valuations to help EM equities offset tighter global monetary policy and global trade risks. Near-term earnings outlook remains very strong.
MLPs	MLPs	Gray	Green	Green	○	Rich yields, strong U.S. production, and deregulation help. Latest rebound has come amid higher interest rates and as business models transition.

Investing in 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 maintain our preference for cyclical sectors as the U.S. economic expansion continues. We expect industrials to benefit from solid global demand and potential acceleration in capital spending, though volatility around trade policy headlines may persist. Financials remain positioned to benefit from deregulation that may free up capital for lending and dividends, as well as a potentially steeper yield curve and higher interest rates in 2018. Strong earnings growth has enabled technology to perform well despite increasing regulatory risk. Technical momentum offsets oil price risk for energy following the latest rally, leaving us at neutral.

	Sector	F	T	V	− ○ +	S&P*	Rationale
Cyclical	Materials					2.9	Infrastructure potential, earnings rebound, and burgeoning inflation help, but currency tailwind unlikely to persist and China tariffs are a concern.
Cyclical	Energy					6.3	OPEC/Russia production cuts, Mideast conflict, and solid global demand help, but expected U.S. supply response to higher prices may cap oil's additional upside.
Cyclical	Industrials					9.9	Drivers include potential pickup in global growth, U.S. business spending, and defense spending. Volatility around trade policy headlines may persist.
Cyclical	Consumer Discretionary					12.7	Solid earnings, tax cuts, and technical strength support a positive bias but e-commerce disruption, high oil prices, and mature business cycle keep us cautious.
Cyclical	Technology					25.8	Solid earnings, business spending pickup, and productivity enabling role help offset higher valuations, regulatory risk.
Cyclical	Financials					14.6	Deregulation and tax reform help, plus potential catalysts include steeper yield curve, higher interest rates, and potential for stronger loan demand.
Defensive	Utilities					2.8	Rising interest rates and our preference for cyclical sectors drive caution, though earnings growth has picked up some and valuations have become more reasonable.
Defensive	Healthcare					13.9	Valuations are attractive, spending outlook is relatively stable, and demographics provide a tailwind, but policy risk remains.
Defensive	Consumer Staples					6.6	We favor cyclical sectors, while defensive, dividend-oriented sectors are being dragged down by rising interest rates; provided little cushion in latest stock market correction.
Defensive	Telecommunications					1.8	Positive bias amid rich yields, low valuations, deregulation, and possible boost from expanded communications sector in 2018; still wary of lackluster growth and interest rate risk.
Defensive	Real Estate					2.7	Struggled with rising interest rates, provided little cushion during recent correction, and little benefit from new tax law; fundamentals still healthy with rich yields.

* 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.

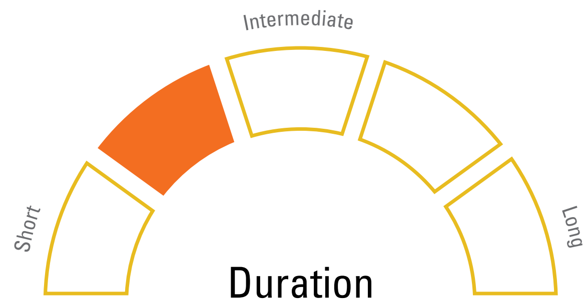
Because of its narrow focus, specialty sector investing, such as healthcare, financials, or energy, will be subject to greater volatility than investing more broadly across many sectors and companies.

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

Municipal bonds (as measured by the Bloomberg Barclays Municipal Bond Index) registered its third monthly loss of the year in April, losing 0.36% as interest rates resumed a move higher. Tax reform drove a late-2017 surge in municipal issuance, which continues to have an impact on the volume of new issues, though supply has started to creep higher recently. Municipal bonds' credit quality remains generally good; problem issuers remain isolated and have not impacted the broader market.

Maintaining a cautious approach as valuations remain rich, but still prefer corporate bonds to government bonds.



Interest rate sensitivity is less defensive but still lower than the benchmark due to expensive valuations.

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
Tax-Free Bonds	Munis–Short-Term					Valuations relative to Treasuries have richened in recent weeks, and remain expensive relative to history.
Tax-Free Bonds	Munis–Intermediate-Term					Valuations relative to Treasuries remain on the expensive side, but we still believe yield is attractive relative to interest rate risk.
Tax-Free Bonds	Munis–Long-Term					Long-term yields are more attractive than short-term yields, though higher duration may be a headwind if rates continue to rise.
Tax-Free Bonds	Munis–High-Yield					Valuations remain expensive, though additional yield continues to be a factor. Long duration may be a headwind if rates continue to rise.

(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 availably 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 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. 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 coupled with a small allocation to less interest rate–sensitive sectors such as bank loans or high-yield bonds for suitable investors. We remain concerned about rising rates putting pressure on fixed income in 2018, and the late 2017 tax law adds slightly to that concern, and may also lead to additional Treasury issuance in the near term. Improved consumer demand and business investment could help corporate profits, though inflationary pressures 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 alternatives remain elevated relative to history. However, heavy supply and rising levels of growth and inflation could be headwinds moving forward.
Taxable Bonds – U.S.	TIPS					Breakeven inflation remains slightly above the Fed's 2% target. Interest rate sensitivity could be a headwind.
Taxable Bonds – U.S.	MBS					Yield per unit of duration remains attractive relative to other high-quality options, but Fed balance sheet normalization remains a risk over time.
Taxable Bonds – U.S.	Investment-Grade Corporates					Spreads have widened recently, but remain tight on a historical basis. We still find incremental value in corporate bonds.
Taxable Bonds – U.S.	Preferred Stocks					Fundamentals are firm for U.S. banks, but valuations continue to warrant caution. Higher interest rate sensitivity remains a risk.
Taxable Bonds – U.S.	High-Yield Corporates					Average yield spread at 3.3% is near our estimate of fair value but leaves little room for error. Yields remain attractive. Oil price or equity market weakness could be negative drivers.
Taxable Bonds – U.S.	Bank Loans					Floating rates may benefit holders if short-term rates continue to rise, though valuations are less attractive than they were last year and call risk is a concern in some areas of the sector.
Taxable Bonds – Foreign	Foreign Bonds–Hedged					Fading easing bias of foreign central banks could lead to rising rates and pressure on performance.
Taxable Bonds – Foreign	Foreign Bonds–Unhedged					Potential currency volatility, low yields, and unattractive valuations are negatives.
Taxable Bonds – Foreign	EMD					Spreads widened significantly during late April, but tightened again in May and remain tight relative to history. Potential for protectionist trade policy remains a risk.

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 (TIPS) help eliminate inflation risk to your portfolio, as the principal is adjusted semiannually for inflation based on the Consumer Price Index (CPI)—while providing a real rate of return guaranteed by the U.S. government.

COMMODITIES & ALTERNATIVE ASSET CLASSES

Still high U.S. production may make it hard for oil prices to sustain prices at or above $70, although global demand has firmed, Iranian production is coming off the market, Saudi/Russia production cuts may be extended beyond 2018, and the U.S. summer driving season has arrived. Industrial metal rally has taken a pause but U.S. and China demand outlooks remain strong. Recent run-up in the U.S. dollar presents a headwind for precious metals. Agriculture prices may be breaking down and are not being helped by supply problems. We remain constructive on long/short equity strategies, which continue to benefit from low levels of internal correlation among stocks and sectors.

	Sector	F	T	V	−	○	+	Rationale
Commodities	Industrial Metals							Volatility around Russian sanctions and Chinese trade tensions may persist, but global demand outlook remains solid and more U.S. infrastructure spending is still possible.
	Precious Metals							Recent dollar strength, rising interest rates, and our preference for riskier assets suggest caution. Watching inflation and market's level of risk tolerance. Negative bias.
	Energy							U.S. production may cap further upside for oil which has eclipsed our mid-$60s fair value estimate. Global demand and Mideast tensions have provided support recently.
	Agricultural							Supply problems haven't helped as agriculture prices appear to be breaking down. Negative bias.

	Sector	TE	CT	VO	−	○	+	Rationale
Alternatives	Long/Short Equity							We remain cautious on more directional equity managers and favor those with conservative or variable net exposures. The strategy continues to benefit from low levels of correlation between sectors and favorable sector positioning. We remain aware of underlying factor exposures, given the potential for rapid market rotation.
	Event Driven							Promising outlook as tax reform and continued global growth may increase the corporate activity opportunity set. We prefer managers who consistently hedge equity beta and focus on idiosyncratic event-related risk.
	Managed Futures							Equity beta has slowly increased after the drastic reduction following the Q1 sell-off. We continue to favor either multi-managers or a combination of uncorrelated trading strategies to smooth and 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.

LEGEND	CHARACTERISTICS	ICON	DEFINITION
	Catalysts	CT	Potential for favorable macroeconomic and/or idiosyncratic market developments that may benefit the investment strategy.
	Trading Environment	TE	Market characteristics present sufficient investment opportunities for this investment style.
	Volatility	VO	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 affect 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

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.

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.

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.

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 USD-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.

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