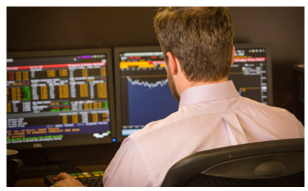
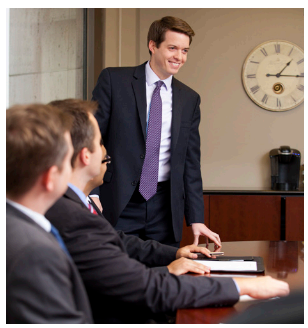
RESEARCH REVIEW

OCTOBER 2018





INSIDE THIS ISSUE

Nearly every major sub-asset category suffered steep declines in October, with the most pronounced downside volatility experienced in U.S. small cap growth equity. While it is difficult to isolate the primary culprit behind the selloff, a number of forces were likely to blame for the poor monthly performance, with examples including a continued rise in U.S. Treasury interest rates, diverging global economic fundamentals, growing U.S.-China trade war tensions, and a lack of clarity around the next chapter of Brexit. Across global equity, the poor year-to-date momentum behind international equities gathered pace in October, with domestic markets suffering less substantial declines. Despite the weak performance in nearly every major risky asset category, those investors seeking the perceived safety of fixed income were likely underwhelmed during the month, with both rate-sensitive (e.g., core bonds) and credit-sensitive (e.g., high yield bonds) posting negative performance. Real assets were also not spared, with sizable losses across energy, infrastructure, real estate-related assets, and commodities.

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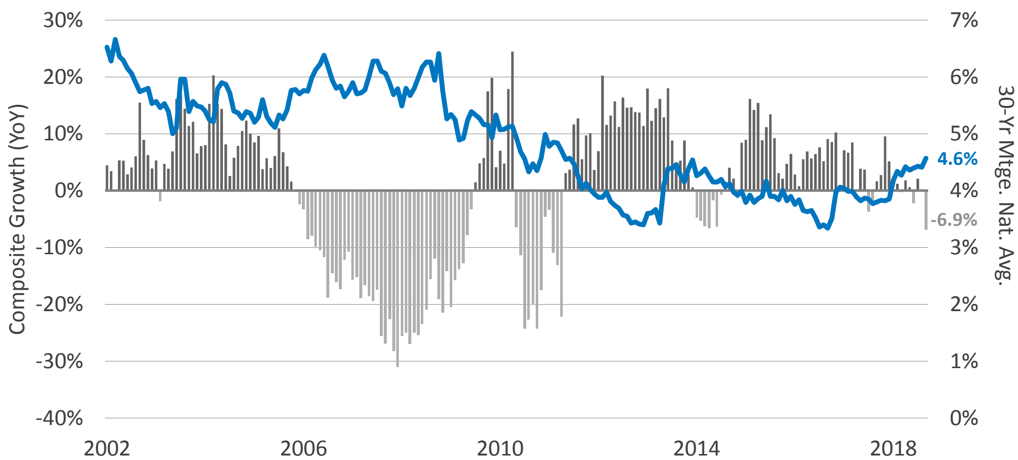
ECONOMIC UPDATE

U.S. Treasury Interest Rates Ascend to Seven-Year Highs

A dominant theme throughout 2018 has been the gradual rise in U.S. Treasury interest rates, the ascent of which has been fueled by accelerating inflation, strengthening economic growth, and ongoing Federal Reserve (Fed) rate hikes. In October, the yield on the 10-Year U.S. Treasury Note touched 3.23% and represented the highest interest rate since April 2011. Higher interest rates may serve as a welcomed trend for those that rely on interest income. The U.S. housing market, however, which accounts for an estimated 15-18% of gross domestic product according to the National Association of Home Builders, has not been supportive of the increase.

Treasury interest rates and mortgage rates have increased to seven-year highs, with the 30-year fixed-rate mortgage national average nearing 5% through October. This increase in lending rates helped slow the pace of home sales growth rates. The chart below juxtaposes an equal-weighted composite of existing, pending, and new home sales annual growth rates against the 30-year fixed rate mortgage national average.

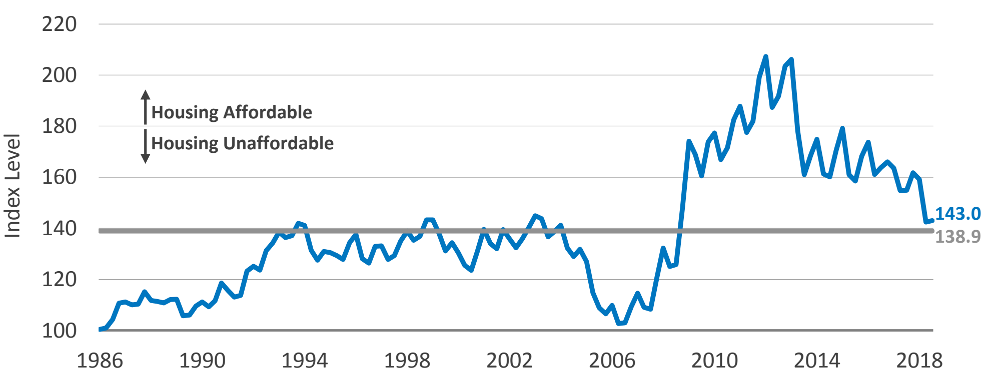
U.S. HOME SALES GROWTH AND MORTGAGE RATES



Data sources: Boomberg, L.P., Bankrate; data as of September 2018
Note: Composite = Equal-weighted mix of Existing, Pending, and New Home Sales.

With both Treasury and mortgage rates at a seven-year high, it is likely no coincidence that home sales growth rates, on average, are at their slowest pace since 2011. Additionally, steadily increasing home prices, modest wage pressures, and swelling lending rates have hampered home affordability, with the National Association of Realtors' *Home Affordability Composite* reflecting the least-affordable housing backdrop since 2008.

HOME AFFORDABILITY COMPOSITE



Data sources: National Association of Realtors, Bloomberg, L.P.; data as of 3Q 2018

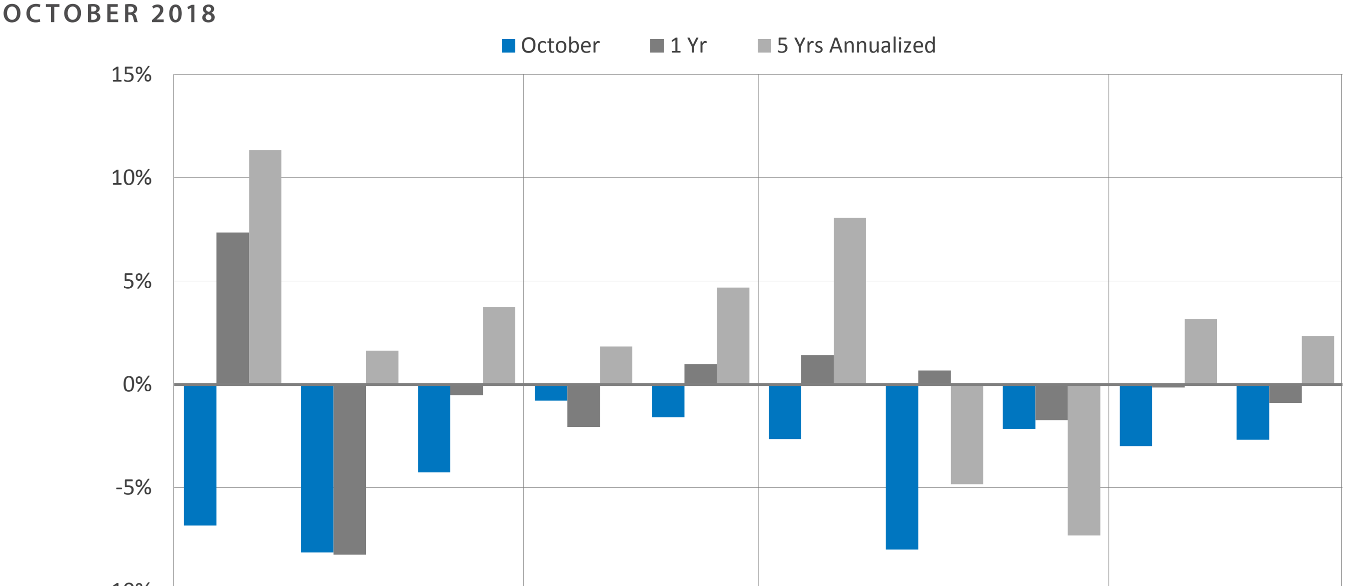
Interestingly, the gradual slowdown taking place in the housing market occurred during a period of strengthening domestic economic growth, leading to the question—just how weak would the housing market be if broader economic conditions were not as robust? Or conversely, just how strong would GDP growth be if the housing market were better equipped to handle the increase in borrowing costs?

The answers to these questions are unknowable, but the end result is the same; rising Treasury rates have driven mortgage rates higher, in turn slowing the housing market, which accounts for a material portion of overall GDP. Thankfully, other critical areas of the economy remain on solid footing, including an extremely tight labor market, solid consumption growth, and a rebounding industrial sector, among others. The slowdown in the housing market, while a trend worth monitoring, does not appear to be slowing the broader economy at the present time.

In summary, October was a painfully difficult month for those investors with exposure to nearly any asset category outside of cash, with key drivers including rising interest rates, persistent trade war tensions, and increasing signs of a slowdown abroad. With both Treasury and mortgage rates at a seven-year high, the U.S. housing market appears to be in the midst of a slowdown, the magnitude of which does not appear overly worrisome at this point in time.

MARKET RETURNS

OCTOBER 2018



	GLOBAL EQUITY			FIXED INCOME		REAL ASSETS			DIVERSIFYING STRATEGIES	
	S&P 500 Index	MSCI ACWI ex-U.S.	HFRI Equity Hedge Index	Blmbrg Barclays U.S. Agg Index	Blmbrg Barclays HY Index	FTSE NAREIT All Equity Index	Alerian MLP Index	Blmbrg Cmdty Index	HFRI Fund Wtd Comp. Index	HFRI Fund of Fund Index
October	-6.8%	-8.1%	-4.3%	-0.8%	-1.6%	-2.6%	-8.0%	-2.2%	-3.0%	-2.7%
1 Yr	7.3%	-8.2%	-0.5%	-2.1%	1.0%	1.4%	0.7%	-1.7%	-0.2%	-0.9%
5 Yrs Annualized	11.3%	1.6%	3.8%	1.8%	4.7%	8.1%	-4.8%	-7.3%	3.2%	2.3%

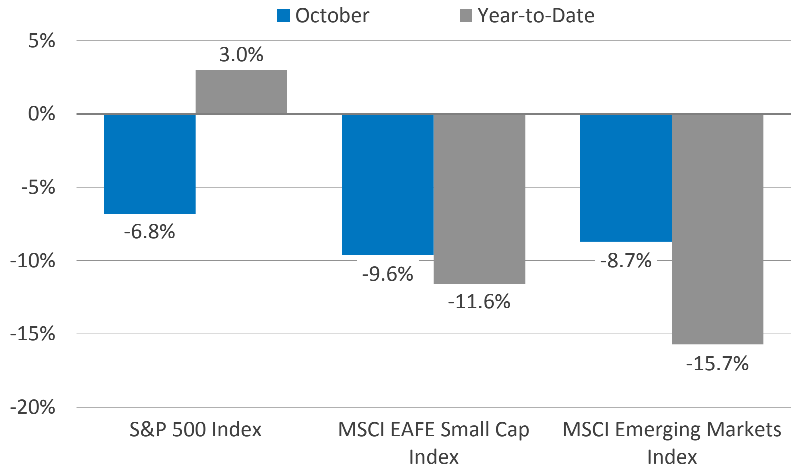
Data sources: Lipper, HedgeFund Research

GLOBAL EQUITY

- Volatility defined the month of October for the global stock market. The S&P 500 rose or fell more than 1% in a single day on ten occasions during the month. To put this in perspective, the S&P 500 had eight 1% swings during the entire year of 2017.
- Equity returns across the globe were negative during October. The S&P 500 was down almost 7%, while the MSCI Emerging Markets and MSCI EAFE indices were down only slightly more.
- During October, value began outperforming growth stocks across all capitalization (cap) spectrums and regions; however, both styles returned negative absolute values during the month. When comparing returns for the year-to-date periods, growth is still outperforming value across all market caps with the exception of micro-cap.
- Trade concerns hindered the Chinese economy, coupled with fears of a broader slowdown, as the year-over-year Chinese GDP growth report was lower than expectations. However, Chinese authorities announced a stimulus package consisting of policy measures, including potential tax cuts, to help prevent a wider slowdown of their economy.

EQUITY INDICES PERFORMANCE

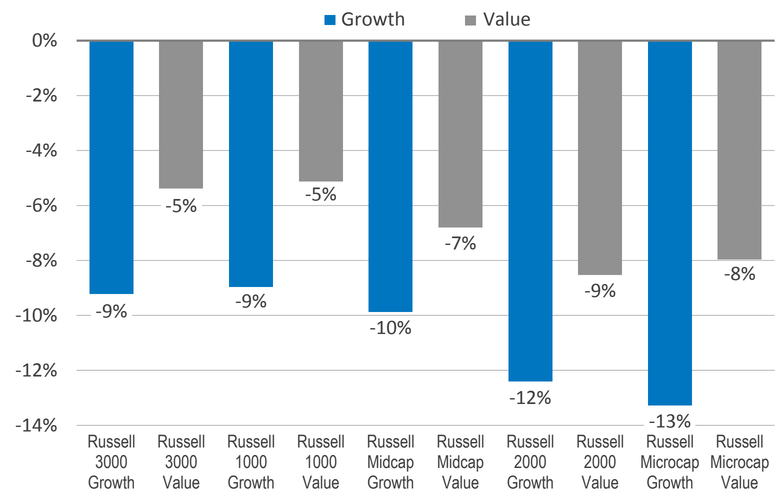
Returns in U.S. Dollars



Data source: MSCI, Standard & Poors

RUSSELL INDICES PERFORMANCE

Returns in U.S. Dollars

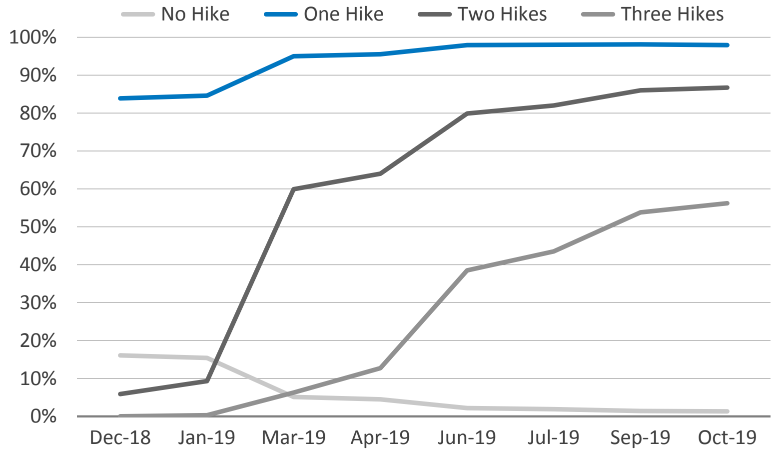


Data source: Russell

FIXED INCOME

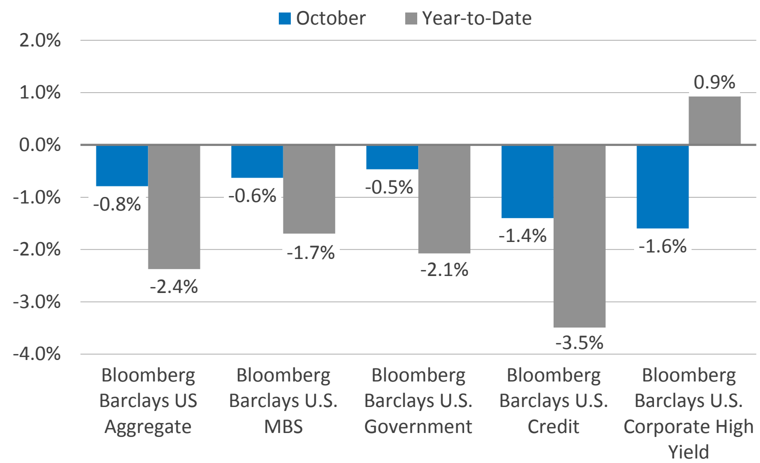
- The minutes from the Fed's September 25-26th meeting were released in mid-October, which touched on the Fed's continued commitment to tightening monetary policy through gradual increases of the federal funds rate.
- While volatility in the equity markets dominated headlines over the month, credit spreads widened, and higher quality credit outperformed lower quality issues.
- The 10-year Treasury yield touched a high of 3.23% in October, largely due to real yields moving higher and less so due rising inflation.
- Internationally, German government bonds rallied amid investor speculation that the European Central Bank (ECB) would extend its bond buying program, while Italian bond yields rose, due in part to the country's ongoing budget dispute.

IMPLIED PROBABILITY OF FED RATE HIKES



Data source: CME Group

BOND INDICES PERFORMANCE



Data sources: Boomberg, L.P., Barclays

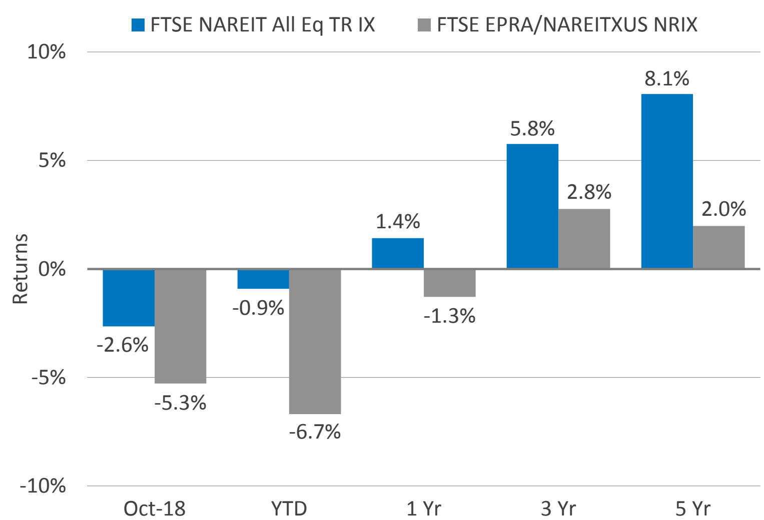
REAL ASSETS

REAL ESTATE

- REITs declined in October, with investor concerns regarding technology companies hitting the data center sector hardest. Additionally, slowing global growth weighed on the hotel sector despite the U.S. posting relatively strong GDP growth. Within the FTSE NAREIT Equity REITs Index, data centers (-11.5%) posted the lowest returns, followed by hotels (-10.0%) and office (-5.1%).
- In Asia, retail and office REITs delivered performance in line with expectations, with office REITs reporting negative rental reversions. Overall, REITs in Asia had to rely on organic growth and delivered weak distribution per unit.

DOMESTIC vs. INTERNATIONAL REIT RETURNS

As of October 31, 2018



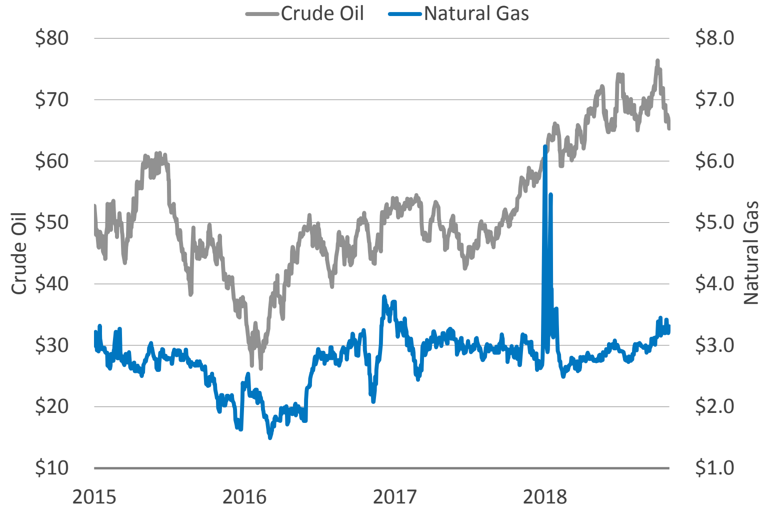
Data source: Bloomberg, L.P.

NATURAL RESOURCES

- Overall, commodities were under pressure during the month due to macroeconomic risks which came from continued fears of an escalating trade war between the U.S. and China.
- The energy complex declined from recent highs, with the WTI futures falling more than 10 percent over the month, mainly attributable to evolving expectations surrounding the sanctions against Iran's oil exports.
- The industrial metals space was also negatively impacted in October, as copper continued to be a focus amid concerns surrounding a Chinese slowdown. Other base metals sharply declined, including nickel, which experienced positive tail winds on expectations of growth in demand for electric vehicles.

PRICE OF CRUDE OIL AND NATURAL GAS

As of October 31, 2018



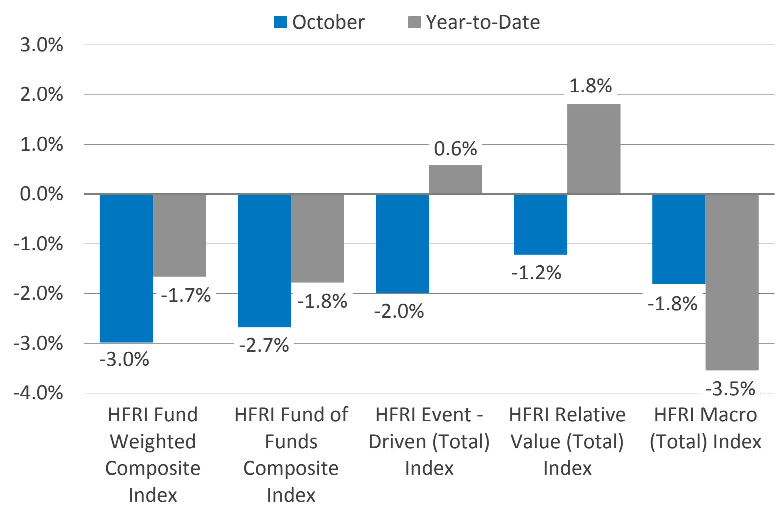
Data source: Energy Information Agency

DIVERSIFYING STRATEGIES

- Hedge funds focused on volatility trading had mixed results, as long volatility exposure was profitable but short volatility faced headwinds. Realized volatility in global equity markets was unmatched by moves in other risk assets, leading to attractive cross asset volatility trades.
- Systematic macro strategies had a challenging month due to trend reversals. Some discretionary strategies benefitted from trading in the stressed emerging markets as well as long U.S. dollar positioning.
- Event-driven strategies lost money, as merger arbitrage, distressed, and special situation equities all experienced losses. An uptick in merger activity, combined with increased market volatility, did provide opportunity for spread and volatility trading. Also weighing on the space was uncertainty surrounding deals seeking regulatory approval from China.

HFRI INDICES PERFORMANCE

Returns U.S. Dollars



Data source: HedgeFund Research

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All data is as of Octrober 31, 2018 unless otherwise noted.

INDICES

The Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships that provides investors with an unbiased, comprehensive benchmark for this emerging asset class.

Barclays Capital Fixed Income Indices is an index family comprised of the Barclays Capital Aggregate Index, Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, Municipal Index, High-Yield Index, and others designed to represent the broad fixed income markets and sectors within constraints of maturity and minimum outstanding par value. See https://ecommerce.barcap.com/indices/index.dxml for more information.

The CBOE Volatility Index (VIX) is an up-to-the-minute market estimate of expected volatility that is calculated by using real-time S&P 500 Index option bid/ask quotes. The Index uses nearby and second nearby options with at least 8 days left to expiration and then weights them to yield a constant, 30-day measure of the expected volatility of the S&P 500 Index. FTSE Real Estate Indices (NAREIT Index and EPRA/NAREIT Index) includes only those companies that meet minimum size, liquidity and free float criteria as set forth by FTSE and is meant as a broad representation of publicly traded real estate securities. Relevant real estate activities are defined as the ownership, disposure, and development of income-producing real estate. See www.ftse.com/Indices for more information.

HFRI Monthly Indices (HFRI) are equally weighted performance indexes, compiled by Hedge Fund Research Inc. (HFX), and are used by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 37 different categories by strategy, including the HFRI Fund Weighted Composite, which accounts for over 2000 funds listed on the internal HFR Database. The HFRI Fund of Funds Composite Index is an equal weighted, net of fee, index composed of approximately 800 fund- of- funds which report to HFR. See www.hedgefundresearch.com for more information on index construction.

J.P. Morgan's Global Index Research group produces proprietary index products that track emerging markets, government debt, and corporate debt asset classes. Some of these indices include the JPMorgan Emerging Market Bond Plus Index, JPMorgan Emerging Market Local Plus Index, JPMorgan Global Bond Non-US Index and JPMorgan Global Bond Non-US Index. See www.jpmorgan.com for more information.

Merrill Lynch high yield indices measure the performance of securities that pay interest in cash and have a credit rating of below investment grade. Merrill Lynch uses a composite of Fitch Ratings, Moody's and Standard and Poor's credit ratings in selecting bonds for these indices. These ratings measure the risk that the bond issuer will fail to pay interest or to repay principal in full. See www.ml.com for more information.

Morgan Stanley Capital International – MSCI is a series of indices constructed by Morgan Stanley to help institutional investors benchmark their returns. There are a wide range of indices created by Morgan Stanley covering a multitude of developed and emerging economies and economic sectors. See www.morganstanley.com for more information.

Russell Investments rank U.S. common stocks from largest to smallest market capitalization at each annual reconstitution period (May 31). The primary Russell Indices are defined as follows: 1) the top 3,000 stocks become the Russell 3000 Index, 2) the largest 1,000 stocks become the Russell 1000 Index, 3) the smallest 800 stocks in the Russell 1000 Index become the Russell Midcap index, 4) the next 2,000 stocks become the Russell 2000 Index, 5) the smallest 1,000 in the Russell 2000 Index plus the next smallest 1,000 comprise the Russell Microcap Index. See www.russell.com for more information.

S&P 500 Index consists of 500 stocks chosen for market size, liquidity and industry group representation, among other factors by the S&P Index Committee, which is a team of analysts and economists at Standard and Poor's. The S&P 500 is a market-value weighted index, which means each stock's weight in the index is proportionate to its market value and is designed to be a leading indicator of U.S. equities, and meant to reflect the risk/return characteristics of the large cap universe. See www.standardandpoors.com for more information.

Information on any indices mentioned can be obtained either through your consultant or by written request to information@feg.com

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Research and Investments Team as of date of publication.