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RESEARCH REVIEW MAY 2016



The Death of Diversification?

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Much has been written lately suggesting that the benefits of diversification are fading or have become nonexistent. Numerous players in the institutional investing field have published material suggesting the diversified portfolio, often broadly called "the endowment model," is dead. We at FEG are not subscribers to these claims, and cite a famous Mark Twain quote (or an adaptation thereof) as an eloquent, succinct, and appropriate response regarding the supposed end of the benefits of diversification: "Reports of my demise have been greatly exaggerated."

To clarify, as we consider it, diversification or the endowment model is a philosophical approach to investing—not necessarily a predefined asset allocation. In its October 2010 endowment report, the Harvard Management Company defined the endowment model as "a theory and practice of investing... [that] is characterized by highly-diversified, long-term portfolios that differ from a traditional stock/bond mix in that they include allocations to less-traditional and less-liquid asset categories, such as private equity and real estate as well as absolute return strategies." Perpetual institutions such as university endowments and community foundations have the luxury of a very long investing horizon.

Our initial—and somewhat acerbic—response to these claims regarding the death of diversification is to consider the sources. Those without the resources or expertise to advise on the complexities of a diversified portfolio, or those with a specific product to sell, might not be impartial in their condemnation.

We acknowledge our own bias in this argument—if the endowment model truly is dead, no one would need advisors of any kind, much less those with expertise in unique or non-traditional asset classes or manager due diligence. However, we have not noticed any of these claims being published in what are generally considered to be reputable periodicals.

Has something so fundamentally changed in the markets such that the Jack Meyers, a highly successful CIO of the Harvard endowment from 1990-2005, and David Swensens, the CIO at Yale University since 1985 and often credited as the father of the endowment model, of the world are simply wasting their time and the resources of the institutions that employ them? Have global geopolitics, creative QE/monetary policy, and wildly swinging commodity prices so disrupted the world of investing that we can now repossess all of the doctorates and honors bestowed upon the likes of Harry Markowitz, Bill Sharpe, Eugene Fama, and others?

Can we really make a reasoned argument that the endowment model (i.e. diversification) is dead? We at FEG submit that the answer is a resounding "No!" Our beliefs on the merits of diversification can be summed up with the words of the great thespian and comedian, Gene Wilder in the classic film, *Young Frankenstein*, "It's alive!!!"

The Behavior

There are academic explanations for the behavior of those suggesting diversification is no longer beneficial or necessary. To be clear, the rationale for these claims are explained, but we are not suggesting the claims themselves are justified.

Recency bias is a great place to begin. Recency bias is the tendency to think that trends and patterns observed in the recent past will continue in the future. Regret theory and loss aversion are two more. Regret theory posits that when facing a decision, individuals may anticipate the possibility of feeling regret after the uncertainty is resolved and thus incorporate their desire to eliminate or reduce this possibility into their choice. Loss aversion refers to an individual's tendency to strongly prefer the benefits of avoiding losses to the benefits of acquiring gains. These biases are often implicit and unspoken, but rampant in committee dynamics. Committees and staff do not want to appear imprudent and would most likely—whether they would admit it or not—prefer a suboptimal allocation that ensures performance close to their peers over a thoughtful one that risks performance that lags their peers. A large part of our role as advisors is to help clients overcome these subconscious tendencies, which, if not addressed, can lead to a failure to reach investment goals.

The Results

Our quantitative analysis begins with some basic assumptions. First, we assume a completely naïve and undiversified portfolio will be represented by a 60% S&P500/40% Barclays Aggregate mix (60/40). We will define a diversified portfolio as one that includes the addition of numerous asset classes to the mix as they became reasonably available through time (i.e. there is an index with published historical data). We will save the time and space of adding them incrementally and simply show the performance of a fully diversified portfolio through time vs. the naïve 60/40.

At different times (when the index data becomes available), the diversified portfolio uses global equities, high-yield and distressed debt, buyouts and venture capital, hedged equity, REITs and private real estate, commodities, MLPs (Master Limited Partnerships), private natural resources, and diversified hedge fund of funds.*

The difference in ending values of the two portfolios is eye-popping. The portfolios went from a common beginning value of \$100MM to ending values with a difference of over \$285MM. We could safely remove any one or two asset classes that were the greatest contributors to the overage and the materiality of the difference would remain, providing a strong foundation in support of diversification.

What is even more convincing are the payouts, shown on the right. Using a 5% annual payout for both portfolios the diversified portfolio finishes the 40+ year horizon with an annual payout of over \$50MM, while the 60/40 finishes with an annual payout of almost \$35MM. The diversified portfolio has a current annual payout over 40% higher than the naïve 60/40. Over the horizon shown, *the cumulative difference in payout is over \$310MM between the two portfolios.* We suspect that each of our clients could do a great deal of good with those extra funds, and we simply want to provide them with the opportunity to do so.

GROWTH OF \$100MM DIVERSIFIED vs. 60/40 EQUITY/BOND PORTFOLIO



ANNUAL DISTRIBUTIONS BASED ON 5% PAYOUT RATE



For Illustrative Purposes only. Past performance is not indicative of future results. 60/40 Equity/Bond Portfolio is comprised of the S&P 500 Index and the Barclays Capital U.S. Aggregate Index. The diversified portfolio is detailed in the appendix and uses additional equity, fixed income, real assets, and diversifying strategies to broaden allocations beyond the 60/40 portfolio. Portfolio size is assumed at \$100 million as a typical endowment size. Starting year of 1972 chosen based on inception of BAGG. Returns presented are Total Returns. Investments cannot be made directly in an index. Please see appendix for full disclosures.

Data sources: Lipper, Hedge Fund Research Inc, Thomson Reuters; data as of 12/31/2015.

Data sources: Lipper, Hedge Fund Research Inc, Thomson Reuters; data as of 12/31/2015.

Lest we be accused of gaming the results, the maximum collective allocation to illiquid asset classes private equity, venture capital, private distressed debt, private real estate, and private natural resources in any one period was 24%. For investors with perpetual time horizons, we believe 24% of a portfolio in illiquid, draw-down vehicles seems entirely reasonable.

We could further our argument for diversification with the math of it all. We can save the parade of Greek letters and formulas and skip to the punch line: adding any asset (or asset class) to a portfolio with a correlation (ρ) of less than one to the other assets in the portfolio will improve the risk profile of the portfolio. The lower the correlation—down to a low of -1.0—the more improvement to the portfolio risk profile. This improvement can be visualized as the efficient frontier. Are today's cynics suggesting that these principles are no longer relevant and have become obsolete?



Shifting combinations of existing asset classes allows for movement along the efficient frontier, which enables an investor to seek (a) more expected return for a given risk budget, or (b) less volatility for a given return target. Diversification adds new asset classes and can shift the efficient frontier to a level of higher return per unit of risk and lower risk per unit of return, theoretically providing a more desirable set of portfolio allocation choices.

Source: Fund Evaluation Group, LLC For illustrative purposes only. Efficient Frontier is based on historical data and can shift substantially based on changes to underlying allocations. Past performance is not indicative of future results.

The Outlook

Looking to the future does not provide any support for the naïve 60/40 portfolio either. One of the best estimates for the expected future 10-year return on the Barclays Aggregate is its current yield. That will get you a bit over 2% for 40% of your portfolio. On a fairly historic run since the financial crisis, the S&P 500 is expensive by most measures. With corporate profits easing and the end of QE somewhere on the horizon, expectations for U.S. equity returns are tepid, at best. This chart shows a very transparent approach to estimating the expected real return for a 60/40 blend. It is fairly uninspiring, to be generous, and certainly does not add much in the way of support for the argument against diversification.

So where does that leave us? We can acknowledge the imperfections in the underlying assumptions of modern portfolio theory such as perfect markets efficiency, stable correlations, normal return distribution, etc., but return to the conviction that a well-constructed, diversified asset allocation can provide a more stable and likely more successful path to one's objective. These are benefits that a naïve portfolio is unlikely to provide.

EXPECTED REAL RETURN OF A HYPOTHETICAL U.S. 60/40 STOCK / BOND PORTFOLIO



Data source: Robert Shiller and Standard & Poor's, adapted from AQR. U.S. stocks expected real return calculated from 50% of the earnings yield*1.0107 plus 50% dividend yield + 1.5% to account for real earnings growth. U.S. bond yield is the government rate - FEG's 10-year inflation forecast. Investments cannot be made directly in an index. Past performance is not indicative of future results. Please see appendix for full disclosure.

The Unique

Unique, opportunistic strategies comprise what many associate with the idea of the endowment model. We have researched and vetted what we believe to be a number of creative and thoughtful ideas over the years such as student loans, niche income producing agriculture, an EAFE* ETF with dynamic currency hedging, and a number of niche hedged equity and credit strategies, among others. These are not typically ideas that would be considered standard portions of a basic asset allocation, but they make intuitive sense to include in a portfolio because they represent unique opportunities in inefficient areas which allow those with expert knowledge to exercise their skill.

Diversification at the macro (asset allocation) level is often a risk mitigation exercise, minimizing risk for a desired level of return. Diversification at the micro (manager implementation) level is often a return enhancement tool. Ignoring diversification or brushing unique ideas aside under the guise of "too much diversification," an overly restrictive investment policy, or fear of differing too greatly from peers, feels dangerously close to shirking one's fiduciary responsibility. These strategies are precisely what is needed to inject that "something different" that can benefit a portfolio. Beliefs and approaches on how best to diversify will continue to evolve, but none of the creative destruction credibly calls into question the merits of diversification itself.

Conclusion

Does experiencing a unique 3-, 5-, or even 10-year performance period or the imperfections in the efficient market hypothesis provide proof that diversification and the endowment model is dead? Absolutely not.

Investing has always been an imprecise process; a mix of art and science. Perhaps current distortions from government intervention have made investment analysis (i.e. the science) more difficult and magnified those distortions, but our view is that fundamentals are like gravity; sooner or later the pull towards fundamentals and valuation will occur. Investing has always required rigorous analysis paired with good judgment. The preponderance of analytical types in our business fret during periods where fundamentals and data do not directly drive markets. Some that lack good judgment may point to the recent past and proclaim a new paradigm. Those with better perspective and judgment look to their long-term goals and understand that diversification is essential to reaching those goals.

We continuously challenge our beliefs and processes in an attempt to find better ways to help our clients achieve their investment objectives. Questioning the benefits of diversification is not an argument that has ever had much merit. While heeding the headline seekers regarding the death of the endowment model may greatly reduce direct investment costs and simplify a portfolio in the short-term, we believe this hasty response may lead to far greater consequences down the road, as institutions choosing this path will likely fall far short of their objectives.

Economic Update

First Quarter GDP Upwardly-Revised

Released by the Bureau of Economic Analysis (BEA) on Friday, May 27, the second estimate of First Quarter gross domestic product (GDP) showed that real GDP advanced 0.8% in the First Quarter—versus the initial estimate of a 0.5%. Year-over-year (YoY), real GDP held steady at 2.0%. During the quarter, fixed investment suffered the first drag on aggregate GDP since the First Quarter of 2011, with a 0.3 percentage point detraction. Personal consumption growth continued to remain a bright spot, as the personal consumption expenditure component of GDP contributed 1.3 percentage points. The May 27 GDP report also included the BEA's first estimate of First Quarter corporate profits, which increased 0.3% quarter-over-quarter (QoQ) to \$1.897 trillion from \$1.890 trillion. YoY corporate profit growth rebounded to -5.8%—from -11.5% in the Fourth Quarter 2015—but continued to remain weak by historical standards.



Data sources: Federal Reserve, NBER, Bloomberg, L.P.; Data as of 1Q 2016 Note: Gray bars represent recessionary periods

Labor Market Fundamentals Deteriorate in May

Ongoing improvement in U.S. labor market fundamentals appeared to have encountered meaningful resistance in May, as net new jobs added during the month (i.e., "nonfarm payrolls") printed at a paltry 38,000 versus the Bloomberg consensus estimate of a 160,000 monthly gain. The 38,000 payrolls print was the weakest reading since September 2010. Additionally, April's payroll reading was downwardly-revised to 123,000 from the initial estimate of 160,000, while May's headline unemployment rate (U-3) improved to 4.7% from 5.0% in April. The 0.3 percentage point decline in the U-3 appeared to be a bright spot; however, digging under the surface showed that while an impressive 484,000 persons dropped off the "number of unemployed persons" data set, 458,000 persons dropped out of the labor force completely in May, which helped drive the labor force participation rate back down to 62.6% during the month.

Wage growth held steady at 2.5% (YoY) in May—where it has largely remained since 2010—while inflationadjusted (real) wage growth is currently running at a modest 1.3% rate as of April (the data is released on a lag due to the price deflator). Moreover, comprehensive gauges of labor market fundamentals, including the Fed's Labor Market Conditions Index (LMCI) and the Conference Board's Employment Trends Index (ETI) appear to have potentially hit cyclical peaks in late 2015. The Fed's LMCI has suffered five consecutive negative monthly readings through May (first chart), while the Conference Board's ETI sits near cyclicallyhigh levels and has witnessed a steady decline in its YoY growth rate since 2015 (second chart).

The ongoing theme of weakening labor market fundamentals—which we have described on numerous occasions in the Research Review over the past few quarters—appears to have gathered pace in May. Although drawing any clear-cut recessionary conclusions from recent labor-related weakness remains challenging, the ongoing economic expansion which commenced July 2009—now the fourth longest since the mid-1800s, according to the National Bureau of Economic Research—clearly seems to be exhibiting symptoms of exhaustion.



Data sources: Federal Reserve, NBER, Bloomberg, L.P.; data as of May 2016 Note: Shaded areas represent recessionary periods



Data sources: Conference Board, Bloomberg, L.P.; data as of May 2016 Note: Shaded areas represent recessionary periods

Global Equity

U.S. Equity

- The U.S. stock market, represented by the Russell 3000 Index, gained 1.8% in May. U.S. stocks have been the best performing region year-to-date (YTD), returning 3.4%.
- Small cap stocks (+2.3%) continued to rally, followed by large (+1.8%) and mid cap (+1.6%) stocks. Returns on small cap stocks have turned positive YTD (+2.3%), but still trail their larger cap peers. Mid cap stocks have been the best performing market capitalization YTD at 5.0%.
- Of the 10 GICS sectors, six posted gains in May. The technology sector—which has lagged the market this year was the best-performing sector at 5.4%, followed by financials (+2.4%) and healthcare (+2.3%). The commodity-oriented sectors, including energy (-1.1%) and materials (-0.4%), were the biggest laggards during the month despite the rally in oil prices.
- Utilities and Telecommunication Services—which are historically more defensive and interest rate sensitive—have been the best performers YTD, up 14.9% and 13.2%, respectively. Healthcare is the only sector that has posted negative returns YTD, down 1.9%.
- Growth and momentum stocks rebounded, primarily driven by strong performance in the technology and healthcare sectors. Small cap growth (+2.7%) performed best, followed by large cap growth (+1.9%) and small cap value stocks (+1.8%).
- Value has outperformed growth across all market capitalizations YTD, with the widest spread in the small cap universe (+5.8% vs. -1.1%).

RUSSELL INDICES PERFORMANCE



Data source: Russell

MAY RUSSELL 3000 SECTOR PERFORMANCE



Data source: Russell

MAY RUSSELL INDICES PERFORMANCE



International Equity

All returns in local currency unless otherwise indicated.

INTERNATIONAL DEVELOPED MARKETS

- International developed equity markets posted solid gains in May (+1.9%). Currency fluctuations, however, had a meaningfully negative impact on U.S. investors due to the dollar's rally against most other major currencies. Returns for U.S. investors were negative (-0.9%) after adjusting for currency changes.
- The U.S. dollar appreciated against the Canadian dollar (+4.1%), Japanese yen (+3.5%), and the euro (+2.6%).
- International developed markets have declined -3.6% YTD (-1.1% in U.S. dollar terms), trailing U.S., emerging, and frontier markets indices. Currency movements have had a positive impact on U.S. investors YTD.
- Pacific markets gained 2.2% (-1.4% in U.S. dollar terms), led by strong local market results in Australia (+2.8%) and Japan (+2.6%). European markets also performed well, driven by positive markets in France (+2.7%) and the Nordic countries (+2.5%), including Finland and Denmark.
- Small cap stocks, as measured by the MSCI EAFE Small Cap Index, gained 3.4% (+0.5% in U.S. dollar terms) in May, outperforming large cap stocks and extending their relative outperformance for the year.



EMERGING MARKETS

- Emerging markets, as measured by the MSCI Emerging Markets Index, declined -0.8% in May (-3.7% in U.S. dollar terms), underperforming developed markets. Emerging markets have gained 1.8% YTD (+2.3% in U.S. dollar terms), outperforming international developed markets but trailing U.S. stocks.
- After a strong start to the year, Latin America was the worst performing region in the emerging markets, with returns declining 6.1% (-10.8% in U.S. dollar terms). Equity markets in Brazil declined 9.9% (-13.7% in U.S.

dollar terms) amid the heightened political uncertainty. Brazil has been one of the world's best performing equity markets this year, up 22.5% in U.S. dollars and 11.5% in local currency.

- The Asian emerging markets gained 0.7% (-1.2% in U.S. dollar terms), led by solid returns in the Philippines (+4.2%), India (+3.4%), and Taiwan (+2.9%).
- The impact of currency fluctuations was negative for U.S.-based investors. The U.S. dollar appreciated against most emerging market currencies, including, most notably, against the South African rand (+14.5%) and Brazilian real (+4.9%).



FRONTIER MARKETS

- Frontier markets gained 1.7% in May (+1.0% in U.S. dollar terms), bringing the YTD performance to 2.6% (+3.1% in U.S. dollar terms).
- Returns in all regions were positive, led by gains in Africa (+5.8%) and Asia (+3.0%). Nigerian markets gained 15.5%, followed by gains in Pakistan (+2.8%) and Argentina (+0.3%). Performance in Argentina has been notable YTD (+13.0%), driven by continued political reform.

MSCI INDICES PERFORMANCE





Hedged Equity

- Performance for the year through May turned positive for the HFRI Equity Hedge (Total) Index following its 0.8% May return, ending the month up 0.2% YTD. The long-only S&P 500 Index and the MSCI ACWI Index returned 0.4% and 1.5% in May, bringing YTD performance to 3.6% and 1.9%, respectively. Despite the recovery from a challenging beginning to 2016, hedged equity benchmarks continued to lag long-only indices, as several managers have been cautious about adding exposure following February's deleveraging and short squeeze.
- Hedged equity sub-index returns were generally positive, as only the HFRI EH: Short Bias Index (-2.9%) was down more than 5 basis points (bps). Conversely, equity market neutral managers generated positive alpha, illustrated by the 0.8% return of the HFRI EH: Equity Market Neutral Index, bringing YTD performance slightly positive.
- Relative performance was mixed across fundamental-oriented and quantitatively-driven strategies. The HFRI EH: Fundamental Growth Index and the HFRI EH: Fundamental Value Index returned 1.0% and 0.5%, respectively, while the HFRI EH: Quantitative Directional Index retuned 0.8%.
- Sector specialists generated strong performance, continuing to benefit from the recovery in energy, materials, healthcare, and technology. The HFRI EH: Sector Energy/Basic Materials Index returned 2.8%, and the HFRI EH: Sector Technology/Healthcare Index returned 2.3%.
- The broad HFRI Emerging Markets (Total) Index returned -0.5% with disparate regional performance. The top-performing regional indices were the HFRI Emerging Markets: MENA Index and the HFRI Emerging Markets: India Index, which gained 2.3% and 1.9%, respectively. The largest regional detractor was the HFRI Emerging Markets: Latin America Index (-3.4%), in part due to political headwinds in Brazil.



Fixed Income

OVERVIEW

- Returns from the Barclays U.S. Aggregate Bond Index (BAGG) were flat in May. Agency mortgagebacked securities returned 0.1%. Investment-grade and U.S. government securities also had flat returns for the month.
- Investment-grade commercial mortgage-backed securities (CMBS), a smaller component of the BAGG, increased 0.1% during the month.
- Emerging market debt (EMD) local currency posted a loss of 3.0%, and dollar-denominated EMD decreased 0.3%.



BARCLAYS BOND INDICES PERFORMANCE

RATES

- The 2-year note yield remained at 0.78%, while the 10-year note yield decreased 11 bps to 1.72% and the 30-year bond yield decreased 14 bps to 2.54%.
- Inflation expectations decreased during the month. The 10-year break-even rate of inflation decreased 14 bps to 1.57% and concluded the month 43 bps below the Fed's 2.0% target. The yield on the benchmark 10-year Treasury Inflation-Protected Securities (TIPS) moved 15 bps higher to 0.27%, and the Barclays U.S. TIPS Index posted a loss of 0.7% during the month.

CREDIT

- Investment-grade corporate bonds had flat returns for the month. Utilities were the best sector, up 0.9%. Financials were up 0.1% and industrials were down 0.3%.
- Both fixed-income risk sectors posted slight gains with a 0.6% return for the Barclays U.S. Corporate High Yield Index and a 0.7% return for bank loans.

Real Assets

DOMESTIC REITS

- Real estate investment trusts (REITs), as measured by the FTSE NAREIT All Equity Index, gained 2.3% in May. Strong real estate fundamentals have boosted profitability even as lofty asset prices have made acquisitions more difficult.
- At the end of May, REITs' dividend yield stood at 4.3%, versus a yield of 1.9% for the 10-year Treasury.¹
- Industrial REITs exhibited the strongest returns, gaining 6.0%, with a 14.2% return YTD. High occupancy levels and relatively low amounts of new supply have positively impacted the sector's fundamentals. Additionally, consumer confidence remains at elevated levels, helping drive retail demand and subsequent demand for industrial warehousing.
- Conversely, the lodging/resorts sector declined 2.8%. A strong U.S. dollar continued to hamper demand from international travelers to the U.S. Furthermore, there is uncertainty among investors about the future of the sector due to a robust supply pipeline which has raised concerns about overbuilding, as well as other disruptive market forces, such as Airbnb.
- The compression of implied REIT capitalization rates may have found a bottom. All property types have cap rates either at or below their pre-financial crisis levels, and some cap rates have even increased in recent months. A significant reversal is not widely expected, but it could be a sign of a peak in the real estate cycle.



FTSE NAREIT ALL EQUITY INDEX Sector Returns - May 2016

INTERNATIONAL REAL ESTATE SECURITIES

- International real estate securities, as measured by the FTSE EPRA/NAREIT Developed Ex-U.S. Total Return Index, declined 2.4% in U.S. dollar terms in May.²
- While most of the international property markets exhibited negative returns, European market returns were positive, (+0.3%). Uncertainty around a Brexit from the European Union has increased volatility across the region, specifically in the U.K. The confluence of these implications have been witnessed in the YTD outperformance of the Europe Ex-U.K. index (+8.2%) versus the broader European index (+2.9%), which includes the U.K.
- Conversely, Asian property markets declined 4%. Performance across the region was weak, as Japan, Hong Kong, and Singapore markets declined 4.6%, 3.6%, and 5.5%, respectively. Negative interest rates throughout the region may be driving Asian capital to foreign investments, negatively impacting demand for commercial properties.



FTSE EPRA / NAREIT DEVELOPED MARKET INDICES Regional Returns (U.S. dollars) - May 2016

COMMODITIES

- Commodities, as measured by the Bloomberg Commodity Index (BCOM), declined 0.2% during May, but are still up 8.6% YTD. The continued rally within the energy complex was more than offset by declines in the industrial and precious metal sectors.³
- The livestock sector posted the strongest return, gaining 3.4%. Memorial Day and the kickoff to the summer grilling season—coupled with low retail prices for beef—stimulated demand. The U.S. Department of Agriculture predicted an increase in beef production for the first time since 2010, which could drive prices lower and further stimulate consumption as the year continues.

- Additionally, the energy sector continued its rally for the fourth straight month, gaining 3.1%. Supply disruptions from Canadian wildfires and militant attacks on Nigerian pipelines have contributed to an easing of the worldwide glut of crude oil, positively impacting futures prices.
- Conversely, the industrial metals sector declined 7.3%. Following a 23% rally in April, iron ore futures plummeted 24% in May. Regulators in China worked to prevent the drop from strengthening, as signs emerged of increased supplies and stockpiles.⁴



REAL ASSETS FOOTNOTES

- ¹ All performance data from www.nareit.com. Accessed on 8 May 2016.
- ² All performance data from FTSE EPRA/NAREIT Indexes, Bloomberg L.P. Accessed on 8 May 2016.
- ³ All performance data from Bloomberg L.P. Accessed on 8 May 2016.

⁴ Bloomberg Commodity Index (BCOM) Tables & Charts – May 2016.

Diversifying Strategies

- The HFRI Fund Weighted Composite Index returned 0.4%. Performance was mixed amongst strategy subindices, with gains from relative value and event-driven managers outweighing losses from global macro strategies.
- The HFRI Event-Driven (Total) Index returned 1.3%. Only the HFRI ED: Activist Index (-0.4%) generated negative performance. Activists continued to struggle, largely due to idiosyncratic headwinds affecting widely held positions. Distressed and special situations managers benefitted from a rally in risk assets and the rebound of energy prices, as the HFRI ED: Distressed/Restructuring Index and the HFRI ED: Special Situations Index returned 2.1% and 1.9%, respectively. The HFRI ED: Merger Arbitrage Index gained 0.9%, influenced by successful closings of large deals such as TWC/Charter and SanDisk/Western Digital.
- The HFRI Relative Value (Total) Index returned 1.1%. Each relative value sub-strategy generated positive performance for the month, led by the 2.1% return of the HFRI RV: Volatility Index. The HFRI RV: Yield Alternatives Index and the HFRI RV: Fixed Income Convertible Arbitrage Index each returned 2.0%.
- The HFRI Macro (Total) Index returned -1.1%, and sub-index performance was mixed. Discretionary macro managers broadly outperformed systematic managers with the HFRI Macro: Discretionary Thematic Index and the HFRI Macro: Systematic Diversified Index, returning 0.4% and -2.1%, respectively. Discretionary managers tended to benefit from diverging central bank policies across developed markets, while systematic trend followers suffered from reversals in precious metals and currency markets.



HFRI INDICES PERFORMANCE Returns in U.S. Dollars

Appendix

				HFRI					Thomson			S&P		Thomson	
		MSCI	MSCI	Hedged	Thomson	Thomson	Barclays	Merrill	Distressed	FTSE	Thomson	GSCI	Alerian	Private Natl	HFRI FOF
	S&P 500	EAFE	ACWI	Equity	Buyout	Venture	U.S. Agg	Lynch HY	Debt	NAREIT	Private RE	Comm	MLP	Resource	Conservative
Dec-72	32%	22%	0%	0%	0%	0%	36%	0%	0%	7%	0%	3%	0%	0%	0%
Dec-82	31%	20%	0%	0%	0%	3%	36%	0%	0%	7%	0%	3%	0%	0%	0%
Dec-85	31%	16%	0%	0%	0%	3%	27%	9%	0%	7%	0%	3%	0%	0%	0%
Dec-87	24%	16%	0%	0%	7%	3%	25%	9%	0%	3%	3%	3%	0%	7%	0%
Dec-88	0%	0%	40%	0%	7%	3%	25%	5%	4%	3%	3%	3%	0%	7%	0%
Dec-90	0%	0%	29%	5%	7%	3%	11%	5%	4%	3%	3%	3%	0%	7%	20%
Dec-96	0%	0%	25%	5%	7%	3%	11%	5%	4%	3%	3%	3%	4%	7%	20%

DIVERSIFIED PORTFOLIO USED IN ANALYTICS IS AS PER BELOW

The 60/40 and Diversified portfolios shown on pages 3, 4, and 5 are represented by the index within each asset class. As such, the returns shown in the chart are those of the indices. The results do not necessarily represent the actual asset allocation of any client or investor portfolio and may not reflect the impact that material economic and market factors might have had on investment decisions. Investment results achieved by actual client accounts may differ from the results portrayed. Diversification or asset allocation does not assure or guarantee better performance and cannot eliminate risk of investment loss. Investments cannot be made directly in an index. No representation is being made that any fund or account will or is likely to achieve profits or losses similar to those shown herein. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently realized by any particular trading program. One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. Hypothetical performance results are presented for illustrative purposes only. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in achieving the returns have been stated or fully considered. Changes in the assumptions may have a material impact on the hypothetical returns presented.

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All data is as of May 31, 2016 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. 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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