# Warehouse Local #730 Legal Fund

## Investment Performance Analysis

## Period Ended
## December 31, 2018

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# Market Discussion Points 4Q | 2018

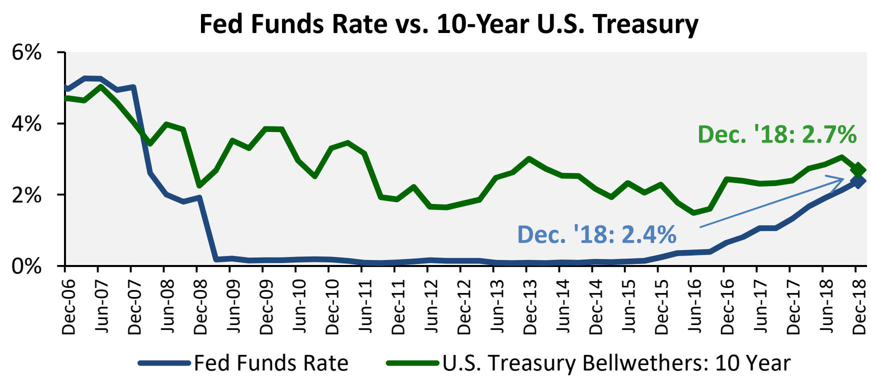
# Financial Market Performance

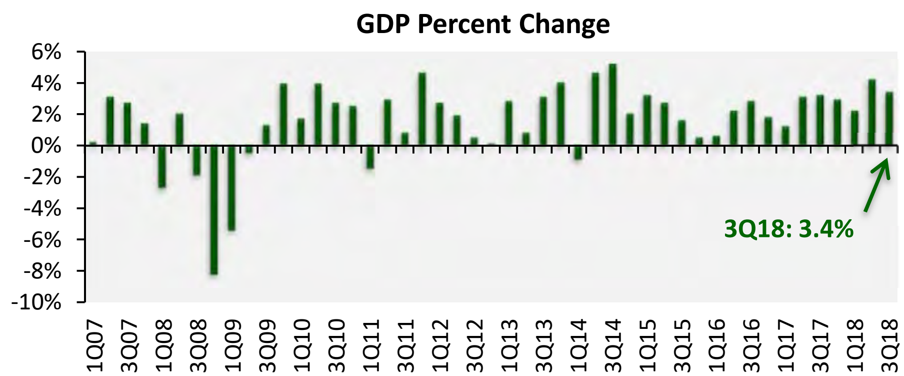
Periods Ending December 31, 2018

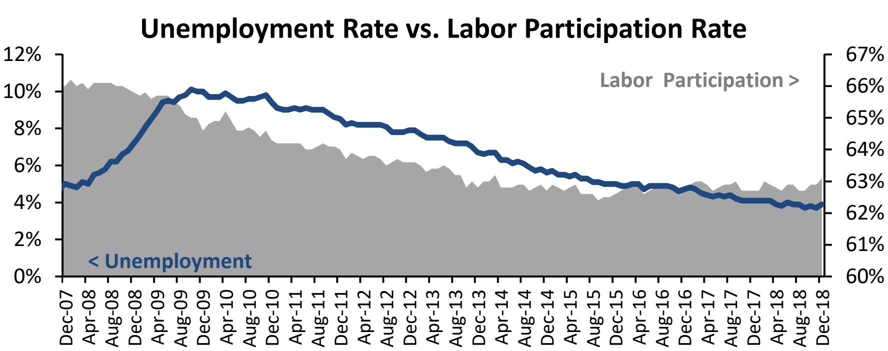
| Strategy | Sector | Index | QTR | YTD | 2017 | 2016 | 2015 | 2014 | 2013 | 1-Yr | 3-Yr | 5-Yr | 10-Yr | 20-Yr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stocks | **US Large Cap** | S&P 500 | -13.5 | -4.4 | 21.8 | 12.0 | 1.4 | 13.7 | 32.4 | -4.4 | 9.3 | 8.5 | 13.1 | 5.6 |
| | **US Small Cap** | Russell 2000 | -20.2 | -11.0 | 14.7 | 21.3 | -4.4 | 4.9 | 38.8 | -11.0 | 7.4 | 4.4 | 12.0 | 7.4 |
| | **All Country** | MSCI All Country World (net) | -12.8 | -9.4 | 24.0 | 7.9 | -2.4 | 4.2 | 22.8 | -9.4 | 6.6 | 4.3 | 9.5 | - |
| | **Non-US Developed** | MSCI EAFE (net) | -12.5 | -13.8 | 25.0 | 1.0 | -0.8 | -4.9 | 22.8 | -13.8 | 2.9 | 0.5 | 6.3 | 3.5 |
| | **Emerging Markets** | MSCI EM (net) | -7.5 | -14.6 | 37.3 | 11.2 | -14.9 | -2.2 | -2.6 | -14.6 | 9.3 | 1.7 | 8.0 | 8.5 |
| | **Int'l Small Cap** | MSCI EAFE Small Cap (net) | -16.1 | -17.9 | 33.0 | 2.2 | 9.6 | -5.0 | 29.3 | -17.9 | 3.7 | 3.1 | 10.5 | 7.4 |
| Bonds | **Treasury** | Bloomberg Barclays US Govt | 2.5 | 0.9 | 2.3 | 1.1 | 0.9 | 4.9 | -2.6 | 0.9 | 1.4 | 2.0 | 2.1 | 4.1 |
| | **Broad Market** | Bloomberg Barclays Aggregate | 1.6 | 0.0 | 3.5 | 2.7 | 0.6 | 6.0 | -2.0 | 0.0 | 2.1 | 2.5 | 3.5 | 4.6 |
| | **Intermediate** | Bloomberg Barclays Gov/Credit Int. | 1.7 | 0.9 | 2.1 | 2.1 | 1.1 | 3.1 | -0.9 | 0.9 | 1.7 | 1.9 | 2.9 | 4.2 |
| | **High Yield** | Bloomberg Barclays HY BaB 2% IC | -3.6 | -1.9 | 6.9 | 14.1 | -2.7 | 3.5 | 6.2 | -1.9 | 6.2 | 3.8 | 10.0 | - |
| | **Short Duration HY** | BofA ML HY Cash Pay BB 1-3 YR | -0.8 | 1.4 | 3.6 | 8.5 | 1.2 | 1.9 | 5.6 | 1.4 | 4.4 | 3.3 | 8.1 | - |
| | **Global Bonds** | FTSE WGBI | 1.8 | -0.8 | 7.5 | 1.6 | -3.6 | -0.5 | -4.0 | -0.8 | 2.7 | 0.8 | 1.5 | 3.7 |
| GTAA | **Unconstrained** | 65% MSCI World /35% FTSE WGBI | -8.1 | -5.7 | 17.0 | 5.6 | -1.6 | 3.0 | 15.1 | -5.7 | 5.3 | 3.4 | 7.1 | 4.6 |
| Real Estate | **Core** | NCREIF ODCE Equal Weighted | 1.6 | 8.2 | 7.8 | 9.3 | 15.2 | 12.4 | 13.3 | 8.2 | 8.4 | 10.5 | 6.8 | 8.3 |
| Hedge Fund of Funds | **Diversified FOFs** | HFRI HFOF Composite | -4.9 | -3.9 | 7.8 | 0.5 | -0.3 | 3.4 | 9.0 | -3.9 | 1.3 | 1.4 | 3.1 | 4.2 |
| | **Equity Long-Short** | HFRI Equity Hedge | -8.3 | -6.9 | 13.3 | 5.5 | -1.0 | 1.8 | 14.3 | -6.9 | 3.6 | 2.3 | 5.7 | 6.3 |
| Commodities | **Commodities** | Goldman Sachs Commodity | -22.9 | -13.8 | 5.8 | 11.4 | -32.9 | -33.1 | -1.2 | -13.8 | 0.5 | -14.5 | -5.8 | 0.6 |

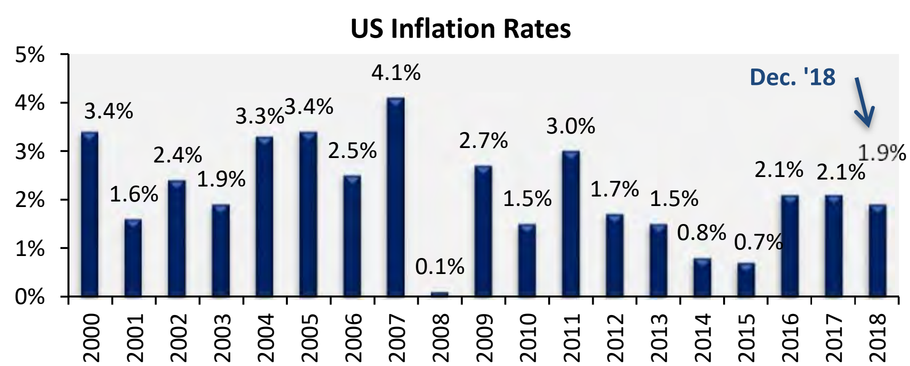
# U.S. Economy

It is likely that U.S. GDP growth peaked during the 2nd quarter at 4.2%. For the third quarter, GDP grew at 3.4% and early estimates for fourth quarter growth are below 3.0%. While a recession does not appear imminent, a number of soft data measures of economic activity such as manufacturing surveys have been weaker recently, suggesting the economy may be slowing at a faster pace than anticipated as the effects of tax cuts begin to fade. Given many of these metrics tend to be survey and confidence based, it is likely that the recent partial government shutdown and trade war rhetoric is weighing on soft data measures. Signs of an economic slowdown also appeared in the housing market where rising mortgage rates are impacting home affordability, which has resulted in a sharp drop in new home sales. Conversely, the strength of the U.S. consumer remains a bright spot. Average nonfarm payrolls increased 254,000 for the fourth quarter, the unemployment rate remains below 4% and wage growth is accelerating. Combined with a meaningful decline in oil prices, signs point toward strong consumer spending in 2019. While the strong job market is good for consumers, it could potentially begin to squeeze corporate profit margins as companies are forced to pay more for labor. Meanwhile, despite the tightening labor market, inflation appears to be under control, with recent readings below the Federal Reserve's 2% target.




Source: Top Left - The Federal Reserve; Top Right - Bureau of Economics, U.S. Department of Commerce; Bottom Left and Right: Bureau of Labor Statistics

# Asset Class Performance "Quilt"

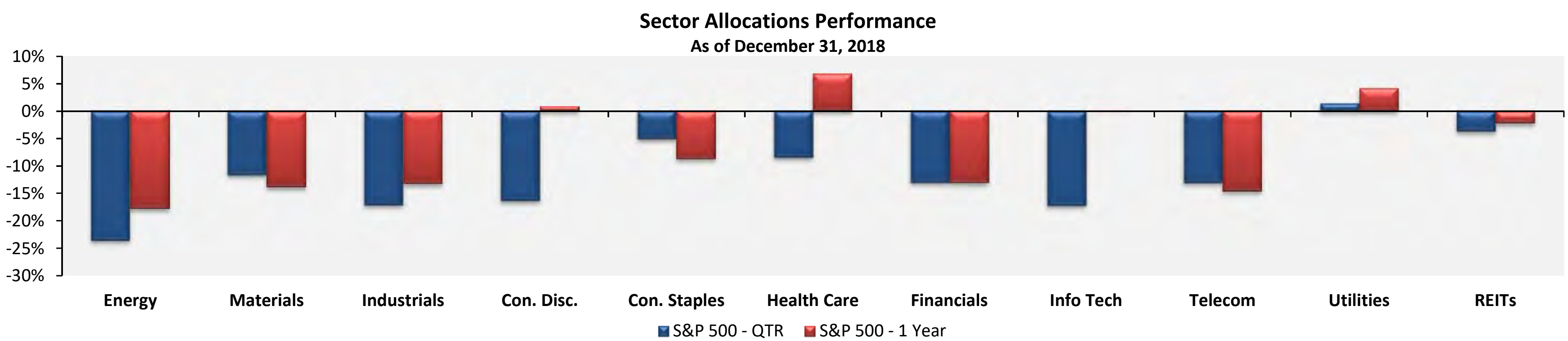
| 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 15 yrs Cum. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EM Equity 25.6% | EM Equity 34.0% | EM Equity 32.2% | EM Equity 39.4% | Fx Inc 5.2% | EM Equity 78.5% | Small Cap 26.9% | RE 16.0% | EM Equity 18.2% | Small Cap 38.8% | Large Cap 13.7% | RE 15.2% | Small Cap 21.3% | EM 37.3% | RE 8.2% | Mid Cap 8.9% |
| Mid Cap 20.2% | RE 21.4% | Int'l 26.3% | RE 16.0% | RE -10.0% | HY 57.5% | Mid Cap 25.5% | Fx Inc 7.8% | Int'l 17.3% | Mid Cap 34.8% | Mid Cap 13.2% | Large Cap 1.4% | HY 17.5% | Int'l 25.0% | SD HY 1.4% | RE 8.0% |
| Int'l 20.2% | Int'l 13.5% | Small Cap 18.4% | Int'l 11.2% | SD HY -14.0% | Mid Cap 40.5% | EM Equity 18.9% | HY 4.4% | Mid Cap 17.3% | Large Cap 32.4% | RE 12.5% | SD HY 1.2% | Mid Cap 13.8% | Large Cap 21.8% | Fx Inc 0.0% | EM 7.9% |
| Small Cap 18.3% | Mid Cap 12.6% | RE 16.3% | HFoF 10.3% | HFoF -21.4% | SD HY 36.1% | RE 16.4% | SD HY 4.4% | Small Cap 16.3% | Int'l 22.8% | Fx Inc 6.0% | Fx Inc 0.6% | Large Cap 12.0% | Mid Cap 18.5% | HY -2.3% | Large Cap 7.8% |
| GTAA 13.2% | HFoF 7.5% | Large Cap 15.8% | GTAA 9.9% | GTAA -25.4% | Int'l 31.8% | HY 15.2% | Large Cap 2.1% | Large Cap 16.1% | GTAA 15.3% | Small Cap 4.9% | HFoF -0.3% | EM 11.2% | GTAA 17.0% | HFoF -3.9% | Small Cap 7.5% |
| RE 13.0% | Large Cap 4.9% | Mid Cap 15.3% | Fx Inc 7.0% | HY -26.4% | Small Cap 27.2% | Large Cap 15.1% | GTAA -0.9% | HY 15.6% | RE 14.0% | HFoF 3.4% | Int'l -0.8% | RE 9.3% | Small Cap 14.7% | Large Cap -4.4% | HY 6.8% |
| Large Cap 10.9% | Small Cap 4.6% | GTAA 15.1% | Mid Cap 5.6% | Small Cap -33.8% | Large Cap 26.5% | SD HY 11.7% | Mid Cap -1.6% | RE 10.9% | HFoF 9.0% | GTAA 3.0% | GTAA -1.6% | SD HY 8.5% | HFoF 7.8% | GTAA -5.7% | GTAA 5.3% |
| HY 10.8% | GTAA 3.6% | HY 11.7% | Large Cap 5.5% | Large Cap -37.0% | GTAA 20.1% | GTAA 9.8% | Small Cap -4.2% | GTAA 10.9% | HY 7.4% | HY 2.5% | Mid Cap -2.4% | GTAA 5.6% | RE 7.8% | Mid Cap -9.1% | Int'l 4.7% |
| HFoF 6.9% | HY 2.7% | HFoF 10.4% | SD HY 3.9% | Mid Cap -41.5% | HFoF 11.5% | Int'l 7.8% | HFoF -5.7% | SD HY 10.2% | SD HY 5.6% | SD HY 1.9% | Small Cap -4.4% | Fx Inc 2.7% | HY 7.5% | Small Cap -11.0% | Fx Inc 3.9% |
| Fx Inc 4.3% | Fx Inc 2.4% | SD HY 9.9% | HY 2.2% | Int'l -43.4% | Fx Inc 5.9% | Fx Inc 6.5% | Int'l -12.1% | HFoF 4.8% | Fx Inc -2.0% | EM Equity -2.2% | HY -4.6% | Int'l 1.0% | SD HY 3.6% | Int'l -13.8% | HFoF 2.7% |
| | SD HY 2.4% | Fx Inc 4.3% | Small Cap -1.6% | EM Equity -53.3% | RE -29.8% | HFoF 5.7% | EM Equity -18.4% | Fx Inc 4.2% | EM Equity -2.6% | Int'l -4.9% | EM Equity -14.9% | HFoF 0.5% | Fx Inc 3.5% | EM -14.6% | |

Source: NCREIF, Wilshire. Large Cap Equity: S&P 500 Index, Mid Cap Equity: Russell Midcap Index, Small Cap Equity: Russell 2000 Index, International Equity: MSCI EAFE Index, Emerging Markets: MSCI EM Index, Fixed Income: Barclays Aggregate Index, High Yield Fixed Income: Merrill Lynch High Yield Master II Index, Short Duration High Yield Fixed Income: ML High Yield Cash Pay 1-3 Yr BB Index, Real Estate: NCREIF ODCE Equal Weighted Index, Hedge Fund of Funds: HFRI FOF Index, Global Tactical Asset Allocation: 65%MSCI World Equity/35% Citi World Gov't Bond Index. Inception date for the ML High Yield Cash Pay 1-3 Yr BB Index was January 1, 2005. Past performance is not indicative of future returns. Cumulative returns as of 12/31/18.

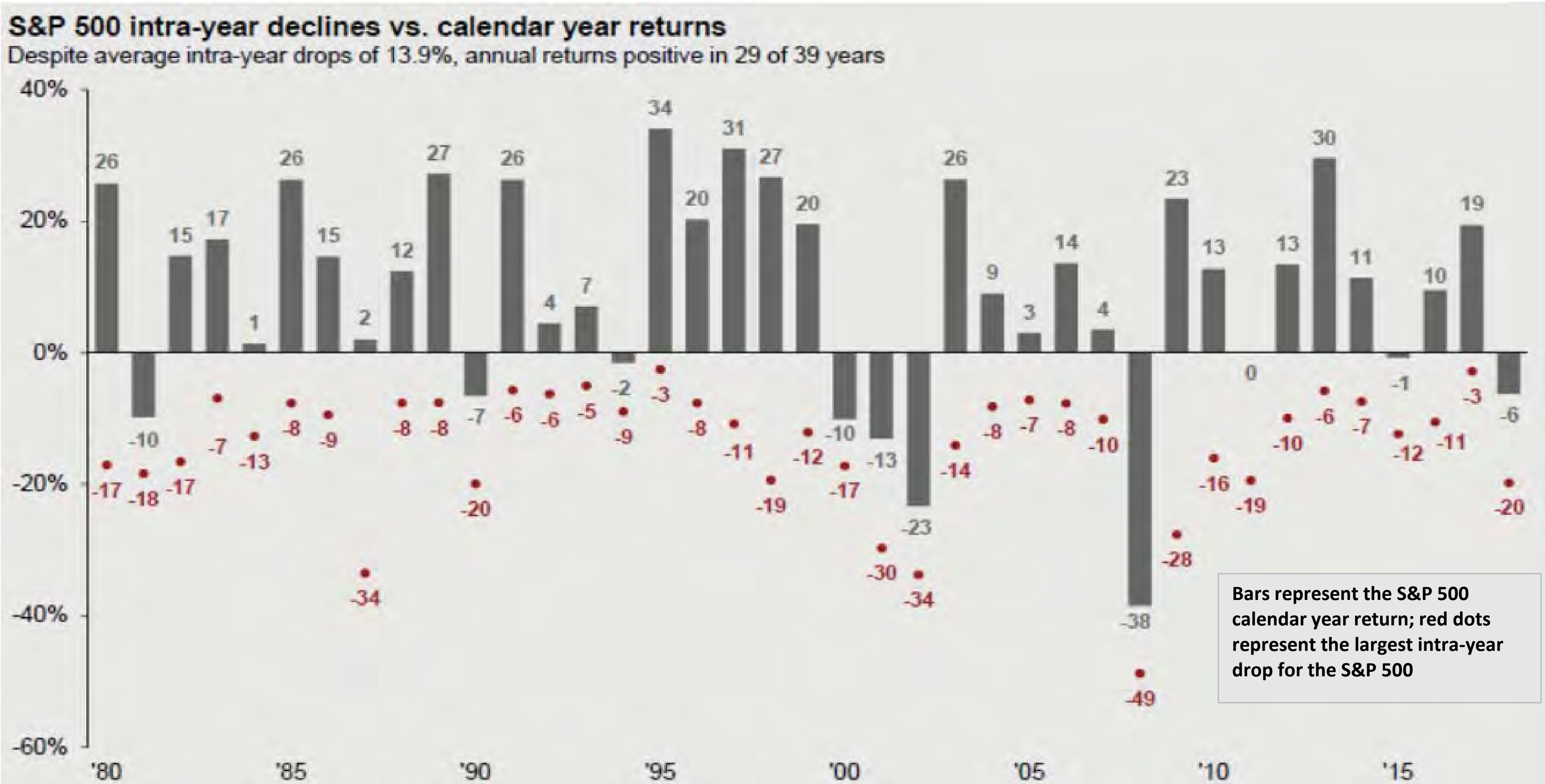
# U.S. Equity Market

Despite rebounding in the last week of December (the so called "Santa Claus Rally"), equity investors mostly received coal in their stockings this year. The U.S. equity market experienced their largest December decline since 1931, resulting in the worst year since 2008. Markets experienced extreme volatility over this period, with large intraday swings on low trading volume. A variety of factors appeared to weigh on stocks, including concerns about further increases in interest rates, forecasts for slowing corporate earnings growth in 2019, slowing global growth, and the ongoing trade dispute between the U.S. and China. The S&P 500 index returned -13.5% in the 4th quarter, taking the 2018 return to -4.4%. Small cap stocks entered a bear market (decline of 20% or more), with the Russell 2000 returning -20.2% for the quarter and -11.0% for the year. Value stocks outperformed Growth stocks for the quarter with the Russell 1000 Value returning -11.7% vs. -15.9% for the Russell 1000 Growth Index; however, the growth index still outperformed the value index by over 650 basis points this year. The energy sector was the worst performer for the quarter and the year as oil prices fell to an 18-month low on concerns of reduced demand due to slowing growth and increased supply from U.S. shale producers. Technology, industrials, and consumer discretionary sectors were among the worst performers for the quarter while defensive sectors such as utilities held up best. Utilities were the only sector to produce a gain for the quarter. The equity market sell-off resulted in U.S. equity valuations falling below their long-term average for the first time in several years. As of December 31, 2018, the S&P 500 was valued at 14.4x on a forward P/E basis, down from 16.8x at the start of the quarter. The 25-year average forward P/E for the index is 16.1x.

| Sector | Index | 4Q 18 | YTD | 2017 | 2016 | 2015 | 2014 | 2013 | 1-Year | 3-Year | 5-Year | 10-Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Large Cap** | S&P 500 | -13.5 | -4.4 | 21.8 | 12.0 | 1.4 | 13.7 | 32.4 | -4.4 | 9.3 | 8.5 | 13.1 |
| | Russell 1000 | -13.8 | -4.8 | 21.7 | 12.1 | 0.9 | 13.3 | 33.1 | -4.8 | 9.1 | 8.2 | 13.3 |
| | Russell 1000 Value | -11.7 | -8.3 | 13.7 | 17.3 | -3.8 | 13.5 | 32.5 | -8.3 | 7.0 | 6.0 | 11.2 |
| | Russell 1000 Growth | -15.9 | -1.5 | 30.2 | 7.1 | 5.7 | 13.1 | 33.5 | -1.5 | 11.2 | 10.4 | 15.3 |
| **Mid Cap** | Russell Mid-Cap | -15.4 | -9.1 | 18.5 | 13.8 | -2.4 | 13.2 | 34.8 | -9.1 | 7.0 | 6.3 | 14.0 |
| | Russell Mid-Cap Value | -15.0 | -12.3 | 13.3 | 20.0 | -4.8 | 14.7 | 33.5 | -12.3 | 6.1 | 5.4 | 13.0 |
| | Russell Mid-Cap Growth | -16.0 | -4.8 | 25.3 | 7.3 | -0.2 | 11.9 | 35.8 | -4.8 | 8.6 | 7.4 | 15.1 |
| **Small Cap** | Russell 2000 | -20.2 | -11.0 | 14.7 | 21.3 | -4.4 | 4.9 | 38.8 | -11.0 | 7.4 | 4.4 | 12.0 |
| | Russell 2000 Value | -18.7 | -12.9 | 7.8 | 31.7 | -7.5 | 4.2 | 34.5 | -12.9 | 7.4 | 3.6 | 10.4 |
| | Russell 2000 Growth | -21.7 | -9.3 | 22.2 | 11.3 | -1.4 | 5.6 | 43.3 | -9.3 | 7.2 | 5.1 | 13.5 |
| **Total Market** | Wilshire 5000 | -14.3 | -5.3 | 21.0 | 13.4 | 0.7 | 12.7 | 33.1 | -5.3 | 9.1 | 8.1 | 13.2 |
| | Russell 3000 | -14.3 | -5.2 | 21.1 | 12.7 | 0.5 | 12.6 | 33.6 | -5.2 | 9.0 | 7.9 | 13.2 |

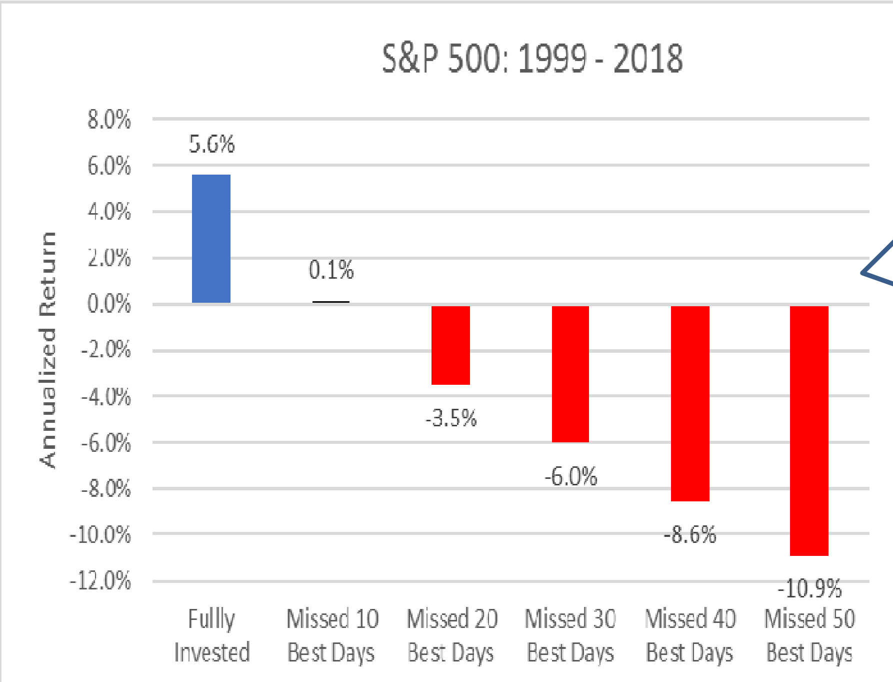


# Declines during calendar years are normal

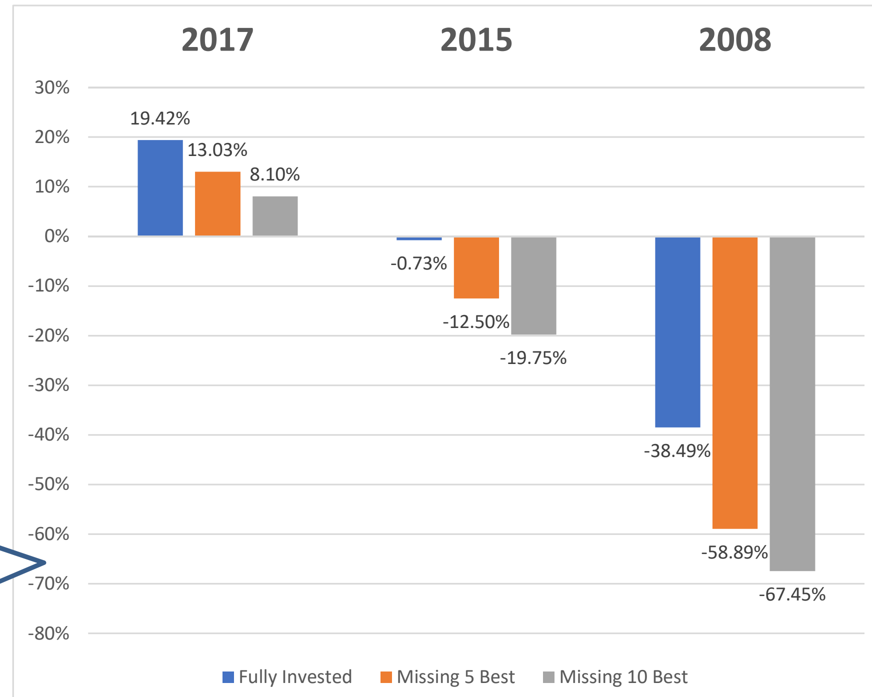



Bars represent the S&P 500 calendar year return; red dots represent the largest intra-year drop for the S&P 500
Source: Standard & Poor's, FactSet, J.P. Morgan Asset Management.

# Trying to time the market can cost investors significantly




Missing just the 10 best days over the last 20 years would have eliminated most of the positive performance during this period. Missing the 20 best days would have resulted in a negative annualized return for the period.




In up years (2017), flat years (2015), and down years (2008), missing the best days has a meaningfully negative effect on the investor's outcome.

Source: Standard & Poor's.

# Equity Style Performance "Quilt"

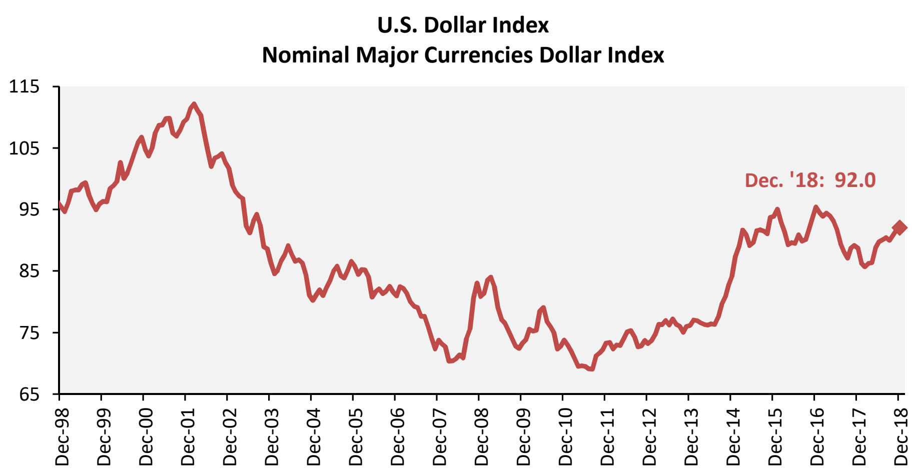
| 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 15 yrs Cum. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mid Value 23.7% | Mid Value 12.6% | Small Value 23.5% | Large Growth 11.8% | Small Value -28.9% | Mid Growth 46.3% | Small Growth 29.1% | Large Growth 2.6% | Mid Value 18.5% | Small Growth 43.3% | Mid Value 14.7% | Large Growth 5.7% | Small Value 31.7% | Large Growth 30.2% | Large Growth -1.5% | Mid Growth 9.0% |
| Small Value 22.3% | Mid Growth 12.1% | Large Value 22.2% | Mid Growth 11.4% | Large Value -36.8% | Large Growth 37.2% | Mid Growth 26.4% | Large Value 0.4% | Small Value 18.1% | Mid Growth 35.7% | Large Value 13.5% | Mid Growth -0.2% | Mid Value 20.0% | Mid Growth 25.3% | Mid Growth -4.8% | Large Growth 8.7% |
| Large Value 16.5% | Large Value 7.1% | Mid Value 20.2% | Small Growth 7.0% | Large Growth -38.4% | Small Growth 34.5% | Mid Value 24.8% | Mid Value -1.4% | Large Value 17.5% | Small Value 34.5% | Large Growth 13.0% | Small Growth -1.4% | Large Value 17.3% | Small Growth 22.2% | Large Value -8.3% | Mid Value 8.6% |
| Mid Growth 15.5% | Large Growth 5.3% | Small Growth 13.3% | Large Value -0.2% | Mid Value -38.4% | Mid Value 34.2% | Small Value 24.5% | Mid Growth -1.7% | Mid Growth 15.8% | Large Growth 33.5% | Mid Growth 11.9% | Large Value -3.8% | Small Growth 11.3% | Large Value 13.7% | Small Growth -9.3% | Small Growth 8.0% |
| Small Growth 14.3% | Small Value 4.7% | Mid Growth 10.7% | Mid Value -1.4% | Small Growth -38.5% | Small Value 20.6% | Large Growth 16.7% | Small Growth -2.9% | Large Growth 15.3% | Mid Value 33.5% | Small Growth 5.6% | Mid Value -4.8% | Mid Growth 7.3% | Mid Value 13.3% | Mid Value -12.3% | Large Value 7.0% |
| Large Growth 6.3% | Small Growth 4.2% | Large Growth 9.1% | Small Value -9.8% | Mid Growth -44.3% | Large Value 19.7% | Large Value 15.5% | Small Value -5.5% | Small Growth 14.6% | Large Value 32.5% | Small Value 4.2% | Small Value -7.5% | Large Growth 7.1% | Small Value 7.8% | Small Value -12.9% | Small Value 6.9% |

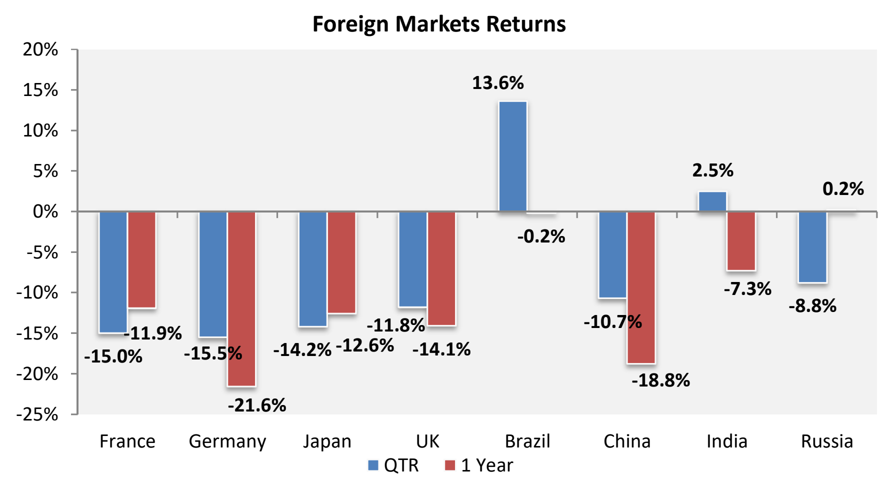
Source: Russell Investment Group, Wilshire. All data are based on Russell Indexes and represent total return for stated period. Each style is representative of corresponding Russell style index. Past performance is not indicative of future returns. Large Value: Russell 1000 Value Index; Large Growth: Russell 1000 Growth Index; Mid Value: Russell Mid Cap Value Index; Mid Growth: Russell Mid Cap Growth Index; Small Value: Russell 2000 Value Index; Small Growth: Russell 2000 Growth Index. Cumulative returns as of 12/31/18.

# International Equity Market

Non-U.S. markets also experienced large declines for the fourth quarter and generally fared worse than the U.S. for the year as the MSCI EAFE Index returned -12.5% for the quarter and -13.8% for 2018. A number of economic and political issues continue to weigh on the European market. Despite numerous signs of slowing growth, the European Central Bank ended its quantitative easing program in December based on firming wage growth. Uncertainty over the outcome of Brexit has been a major headwind for both consumer and business confidence in the U.K. The Japanese market was weak for the quarter, falling 14.2%, partially due to an appreciation of the Yen vs. the U.S. Dollar. Emerging markets, which significantly underperformed during the first nine months of the year, held up better during the fourth quarter, with the MSCI Emerging Markets index returning -7.5%. For the full year, emerging markets underperformed developed markets with a return of -14.6%. Over the past 20 years, Non-U.S. markets have traded at a 10% discount to U.S. markets on average. Due to the strong outperformance of the U.S. in recent years, non-U.S. markets closed 2018 at a 20% discount to the U.S. on a valuation basis.

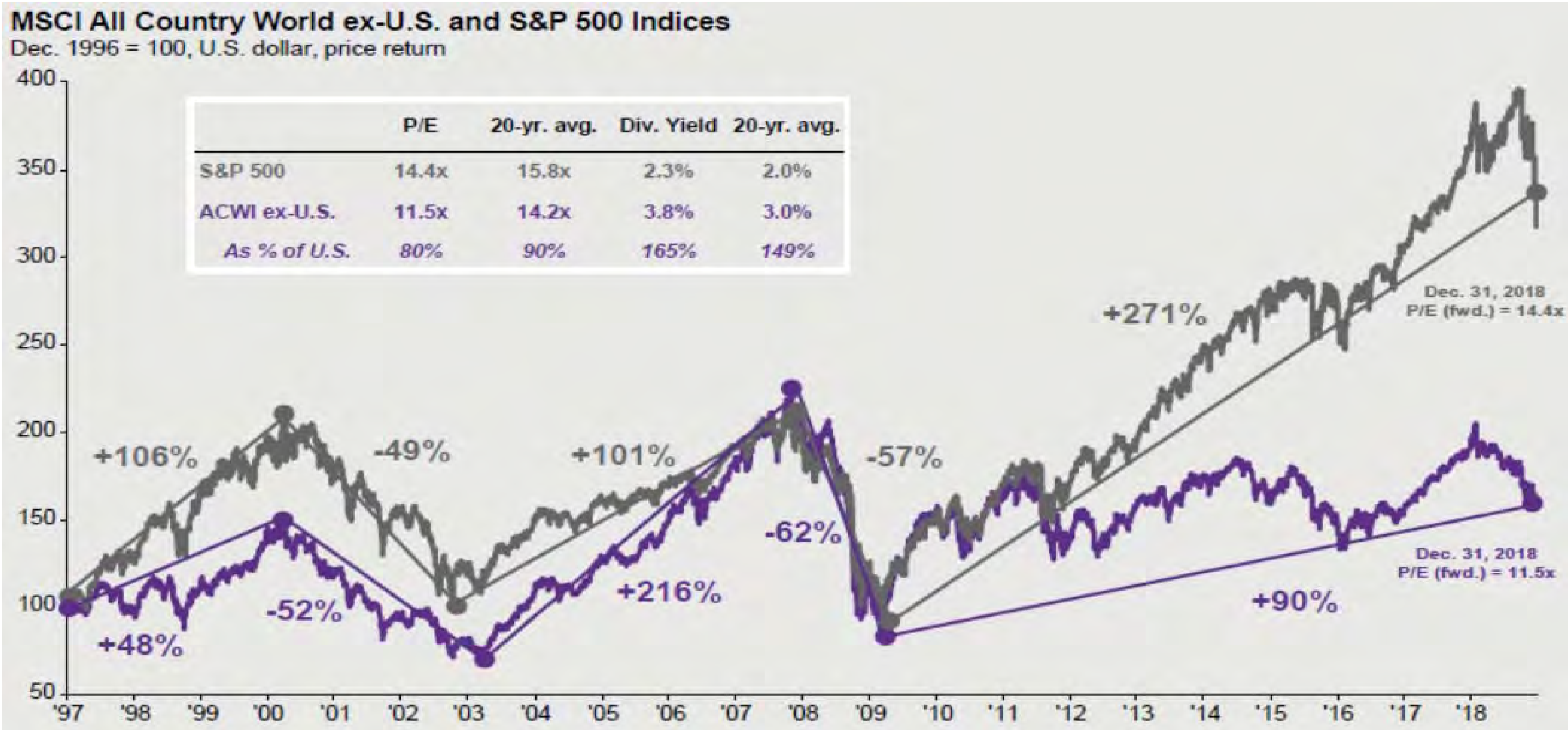
| Sector | Index | 4Q 18 | YTD | 2017 | 2016 | 2015 | 2014 | 2013 | 1-Year | 3-Year | 5-Year | 10-Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Global** | MSCI AC World Index (net) | -12.8 | -9.4 | 24.0 | 7.9 | -2.4 | 4.2 | 22.8 | -9.4 | 6.6 | 4.3 | 9.5 |
| | MSCI World Small Cap (net) | -16.8 | -14.4 | 23.8 | 11.6 | -1.0 | 1.8 | 28.7 | -14.4 | 5.8 | 3.6 | 11.8 |
| | MSCI World ex US (net) | -11.5 | -14.2 | 27.2 | 4.5 | -5.7 | -3.9 | 15.3 | -14.2 | 4.5 | 0.7 | 6.6 |
| | MSCI World ex US Small Cap (net) | -14.4 | -18.2 | 31.6 | 3.9 | 2.6 | -4.0 | 19.7 | -18.2 | 3.8 | 2.0 | 10.0 |
| **Developed ex US** | MSCI EAFE (net) | -12.5 | -13.8 | 25.0 | 1.0 | -0.8 | -4.9 | 22.8 | -13.8 | 2.9 | 0.5 | 6.3 |
| | MSCI EAFE Value (net) | -11.7 | -14.8 | 21.4 | 5.0 | -5.7 | -5.4 | 23.0 | -14.8 | 2.8 | -0.6 | 5.5 |
| | MSCI EAFE Growth (net) | -13.3 | -12.8 | 28.9 | -3.0 | 4.1 | -4.4 | 22.6 | -12.8 | 2.9 | 1.6 | 7.1 |
| | MSCI EAFE Small Cap (net) | -16.1 | -17.9 | 33.0 | 2.2 | 9.6 | -5.0 | 29.3 | -17.9 | 3.7 | 3.1 | 10.5 |
| **Emerging Markets** | MSCI Emerging Markets (net) | -7.5 | -14.6 | 37.3 | 11.2 | -14.9 | -2.2 | -2.6 | -14.6 | 9.3 | 1.7 | 8.0 |

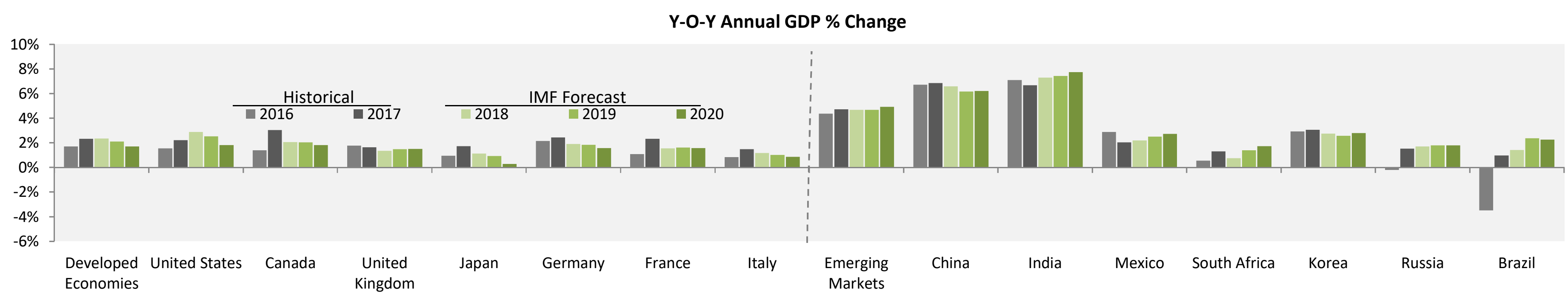



Left chart: The major currencies index is a weighted average of the foreign exchange values of the U.S. dollar against a subset of currencies in the broad index that circulate widely outside the country of issue. The weights are derived from those in the broad index. Source: The Federal Reserve. Right chart: Data as of December 31, 2018.

# International Equity Market




Top chart: Source - MSCI, Standard & Poor's, FactSet, J.P. Morgan Asset Management. Bottom chart: Annual percentages of constant price GDP are year-on-year changes; the base year is country-specific. Source: International Monetary Fund, World Economic Outlook Database, October 2018.

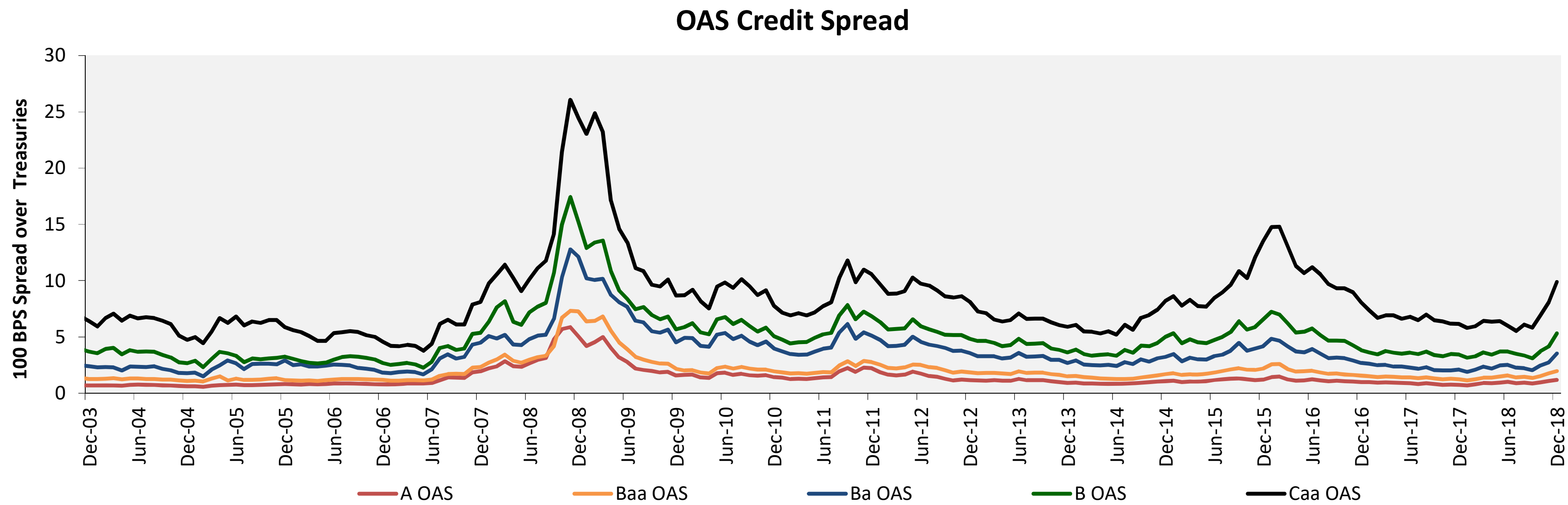
# U.S. Bond Market

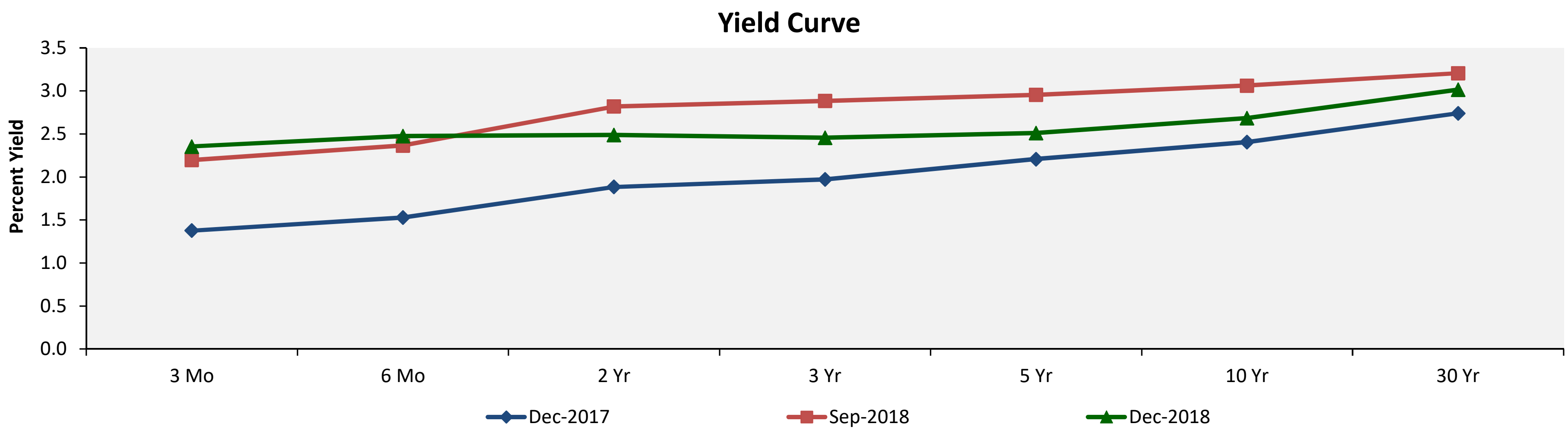
Fixed income markets were not immune from the volatility that equity markets experienced during the fourth quarter. The yield on the 10-year Treasury reached a seven-year high of 3.2% early in the quarter as Fed Chairman Powell made comments suggesting interest rates were “a long way” from the neutral level. Later in the quarter, Powell commented that rates were “just below” neutral, causing rates to decline with the 10-year Treasury ending the year at 2.69%. The yield curve flattened during the quarter with the yield spread between 2- and 10-year Treasuries narrowing to its tightest level since 2007. An inversion of these two key rates (when the 2-year yields more than the 10-year) is viewed a signal that recession could be on the horizon. The Fed raised rates 0.25% in December, the fourth increase for the year and ninth during this cycle. While Fed officials indicated they expect two additional hikes in 2019, the market is currently pricing in no further increases. Interest rates declined during the quarter which resulted in positive performance for investment grade bonds. For the quarter, the Bloomberg Barclays US Aggregate index returned 1.6% and was flat on the year. Lower credit quality segments of the market fared worse. High yield credit spreads reached their widest levels in more than a year, resulting in -3.6% return for the quarter and -1.9% for the yield for below investment grade bonds. Floating rate bank loans also underperformed as investors adjusted their expectation for future Fed hikes.

| Index | Yield | Duration | 4Q 18 | YTD | 2017 | 2016 | 2015 | 2014 | 2013 | 1-Year | 3-Year | 5-Year | 10-Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bloomberg Barclays Aggregate | 3.28 | 6.1 | 1.6 | 0.0 | 3.5 | 2.7 | 0.6 | 6.0 | -2.0 | 0.0 | 2.1 | 2.5 | 3.5 |
| Bloomberg Barclays Govt/Credit | 3.23 | 6.3 | 1.5 | -0.4 | 4.0 | 3.1 | 0.2 | 6.0 | -2.4 | -0.4 | 2.2 | 2.5 | 3.5 |
| Bloomberg Barclays Int Agg | 3.13 | 4.5 | 1.8 | 0.9 | 2.3 | 2.0 | 1.2 | 4.1 | -1.0 | 0.9 | 1.7 | 2.1 | 3.1 |
| Bloomberg Barclays Int Govt/Credit | 2.99 | 3.8 | 1.7 | 0.9 | 2.1 | 2.1 | 1.1 | 3.1 | -0.9 | 0.9 | 1.7 | 1.9 | 2.9 |
| Bloomberg Barclays HY Ba/B 2% IC | 7.06 | 4.4 | -3.6 | -1.9 | 6.9 | 14.1 | -2.7 | 3.5 | 6.2 | -1.9 | 6.2 | 3.8 | 10.0 |
| BofA ML HY Cash Pay BB 1-3 Yr. | 6.33 | 1.8 | -0.8 | 1.4 | 3.6 | 8.5 | 1.2 | 1.9 | 5.6 | 1.4 | 4.4 | 3.3 | 8.1 |
| Bloomberg Barclays Mortgage | 3.39 | 5.7 | 2.1 | 1.0 | 2.5 | 1.7 | 1.5 | 6.1 | -1.4 | 1.0 | 1.7 | 2.5 | 3.1 |
| Bloomberg Barclays Treasury | 2.61 | 6.0 | 2.6 | 0.9 | 2.3 | 1.0 | 0.8 | 5.1 | -2.8 | 0.9 | 1.4 | 2.0 | 2.1 |
| Bloomberg Barclays US TIPS | 2.81 | 7.3 | -0.4 | -1.3 | 3.0 | 4.7 | -1.4 | 3.6 | -8.6 | -1.3 | 2.1 | 1.7 | 3.6 |
| BofA ML 91 day T-Bills | 2.45 | 0.2 | 0.6 | 1.9 | 0.9 | 0.3 | 0.1 | 0.0 | 0.1 | 1.9 | 1.0 | 0.6 | 0.4 |


Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. *From January 1962 to May 1976 short-term bond is U.S. 1-year bond. Short-dated bond is 2-year from June 1976. Time to recession is calculated as the time between the final sustained inversion of the yield curve prior recession, and the onset of recession.

# Bond Market




**Source:** Bloomberg Barclays

# Interest Rate Sensitivity

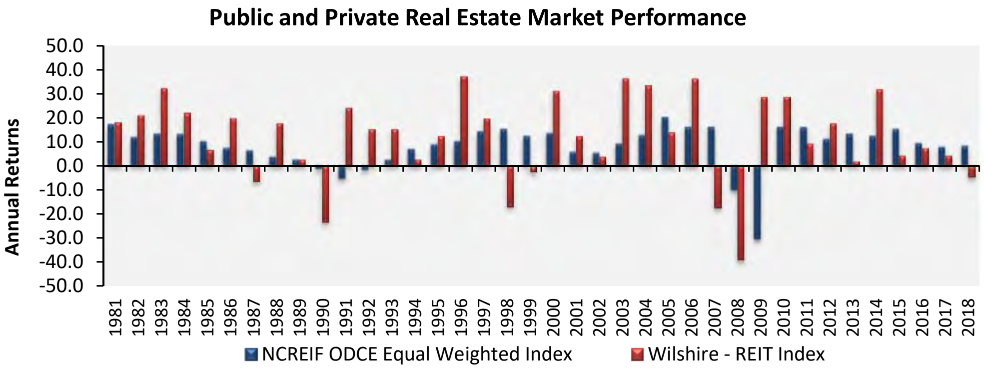
| 12 Month Holding Period - Annualized Returns as of 12/31/2018 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Yield Change | 10 Year Treasury | Bloomberg Barclays Aggregate | Bloomberg Barclays Int Govt/Credit | ML Gov/Corp Master | ML 1-3 yr Gov/Corp | Defensive ML US HY BB/B ND | Short Duration ML US HY BB/B 1-3 yr |
| (bps) | | US Aggregate | US Int Govt/Credit | | | | |
| -150 | 15.37 | 12.57 | 8.72 | 12.83 | 5.57 | 13.51 | 9.00 |
| -100 | 11.14 | 9.47 | 6.81 | 9.64 | 4.64 | 11.31 | 8.11 |
| -50 | 6.92 | 6.38 | 4.90 | 6.46 | 3.71 | 9.11 | 7.22 |
| -25 | 4.80 | 4.83 | 3.95 | 4.86 | 3.25 | 8.01 | 6.78 |
| 0 | 2.69 | 3.28 | 2.99 | 3.27 | 2.78 | 6.91 | 6.33 |
| 25 | 0.58 | 1.73 | 2.04 | 1.68 | 2.32 | 5.81 | 5.89 |
| 50 | -1.54 | 0.19 | 1.08 | 0.09 | 1.85 | 4.71 | 5.44 |
| 100 | -5.76 | -2.91 | -0.83 | -3.10 | 0.92 | 2.51 | 4.55 |
| 150 | -9.99 | -6.01 | -2.74 | -6.29 | -0.01 | 0.31 | 3.66 |
| 200 | -14.21 | -9.10 | -4.65 | -9.47 | -0.94 | -1.89 | 2.77 |
| 250 | -18.44 | -12.20 | -6.56 | -12.66 | -1.87 | -4.09 | 1.88 |
| 300 | -22.66 | -15.29 | -8.47 | -15.84 | -2.80 | -6.29 | 0.99 |
| 350 | -26.89 | -18.39 | -10.38 | -19.03 | -3.73 | -8.49 | 0.10 |
| 400 | -31.11 | -21.48 | -12.29 | -22.21 | -4.66 | -10.69 | -0.79 |
| 450 | -35.34 | -24.58 | -14.20 | -25.40 | -5.59 | -12.89 | -1.68 |
| 500 | -39.56 | -27.67 | -16.11 | -28.58 | -6.52 | -15.09 | -2.57 |
| Duration | 8.45 | 6.19 | 3.82 | 6.37 | 1.86 | 4.40 | 1.78 |

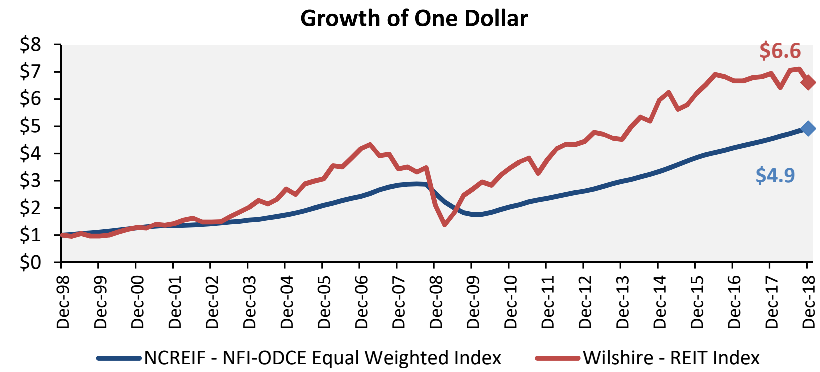
**FOR ILLUSTRATIVE PURPOSES ONLY:** For each index the current yield to worst as of 12/31/2018 was used as the base case annualized return. The annualized return sensitivity to a uniform increase or decrease in the yield curve was calculated by taking the index's Macaulay's (Modified) Duration to Worst as of 12/31/2018 multiplied by the percentage point change in the yield curve (basis point change divided by 100) and then appropriately adding or subtracting this implied percentage change in the value of the index (due to the shift in the yield curve) to the base case annualized return. This is a rough approximation of the annual return sensitivity to parallel shifts in the yield curve. **SOURCE:** PENN Capital Internal Research.

# Real Estate Market

Real estate produced a return in excess of 8% in 2018, making it one of a few assets classes that posted positive returns for the year. Over the last five years, real estate has achieved a 10.5% annual rate of return. In the current quarter, solid fundamentals in the warehouse sector helped to drive returns higher. However, the outlook is not as strong. Supply imbalances in nearly all sectors have been corrected by new construction. Rent growth is slowing in conjunction with lower demand for real estate from institutional investors. Pressure from rising interest rates may also impinge upon capitalization rates, which in turn may put pressure on valuations. Real estate returns will now depend on income of 4-5% and income growth of 3-4% for the majority of total return. Income returns of approximately 4-5% and appreciation of 1-3% indicate a long-term expected total return of 5-8%. Unless interest rates rise substantially, the income component of real estate should continue to be appealing to investors, especially foreign investors, and keep valuations at high levels.

| Sector | Index | 4Q 18 | YTD | 2017 | 2016 | 2015 | 2014 | 2013 | 1-Year | 3-Year | 5-Year | 10-Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **US Private** | NCREIF ODCE Equal Weighted | 1.6 | 8.2 | 7.8 | 9.3 | 15.2 | 12.4 | 13.3 | 8.2 | 8.4 | 10.5 | 6.8 |
| **US Public** | Wilshire REIT | -6.9 | -4.8 | 4.2 | 7.2 | 4.2 | 31.8 | 1.9 | -4.8 | 2.1 | 7.9 | 12.2 |



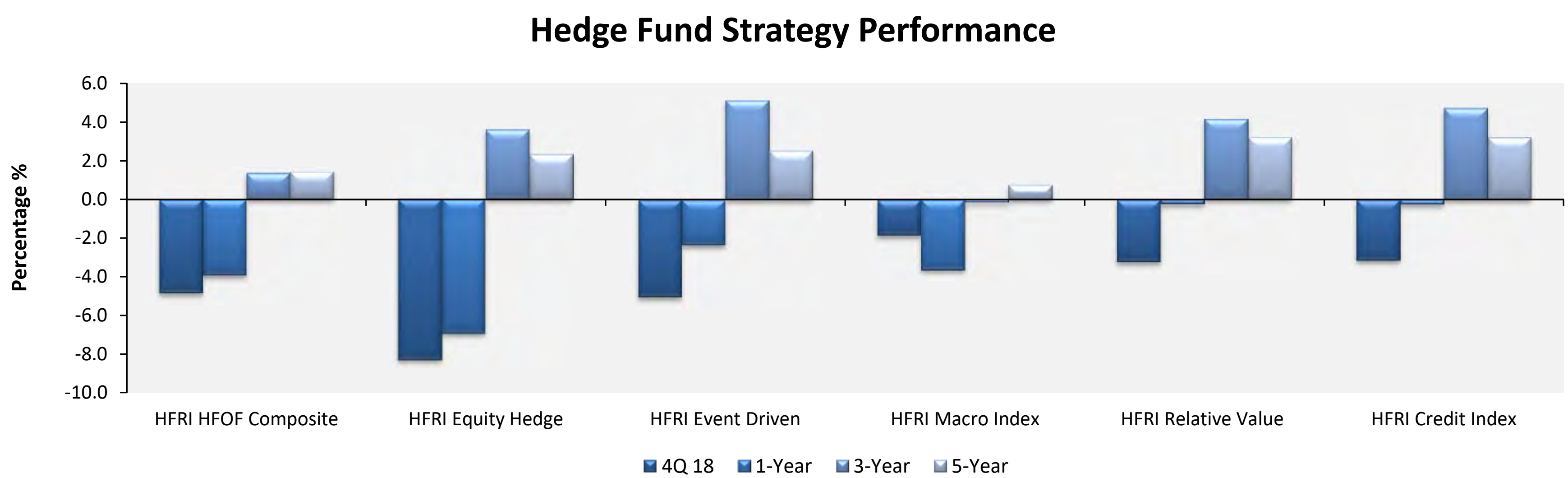

| | Total return (incl. income) 2018 | Total return (incl. income) 2019 | Total return (incl. income) 2020 | Total return (incl. income) 2018 to 2022 (per year) |
|---|---|---|---|---|
| **National, All Property Types (NPI)** | 7.1 | 5.7 | 4.4 | 5.4 |
| **Office** | 6.7 | 5.3 | 4.0 | 5.2 |
| **Retail** | 4.2 | 4.3 | 3.8 | 4.4 |
| **Industrial** | 12.4 | 8.2 | 5.7 | 7.3 |
| **Apartment** | 6.3 | 5.8 | 4.8 | 5.5 |

**Bottom chart:** Average of respondents' forecasts of the NCREIF Property Index (NPI) and sub-indices by property type. **Source:** Pension Real Estate Association Consensus Forecast Survey of the NCREIF Property Index Q4 2018.

# Hedge Fund of Funds Market

Hedge fund returns declined during the fourth quarter along with most other risk assets, pushing calendar year 2018 returns into negative territory. The HFRI Fund of Funds Composite declined 4.8% during the quarter, finishing the year at -3.9%. Hedge funds materially underperformed investment grade bonds (to which they are historically negatively correlated) during the quarter, as lower rates pushed bond prices higher. While most hedge fund strategies protected capital relatively well compared to broader equity markets, there were few places to hide as most hedge fund strategies declined during the quarter. Unsurprisingly, equity hedge was the worst performing hedge fund strategy during the quarter given the sell-off in equity markets globally, and the HFRI Equity Hedge Index declined 8.3%. Credit-oriented strategies were hurt by widening spreads during the quarter, but overall held up much better than other strategies during the year, as the HFRI Credit Index posted a modest loss of 25 basis points for the year. Managers with long equity volatility exposure (a subset of relative value) were rewarded as volatility spiked during the quarter, helping to soften the blow of losses in other areas of their portfolios.

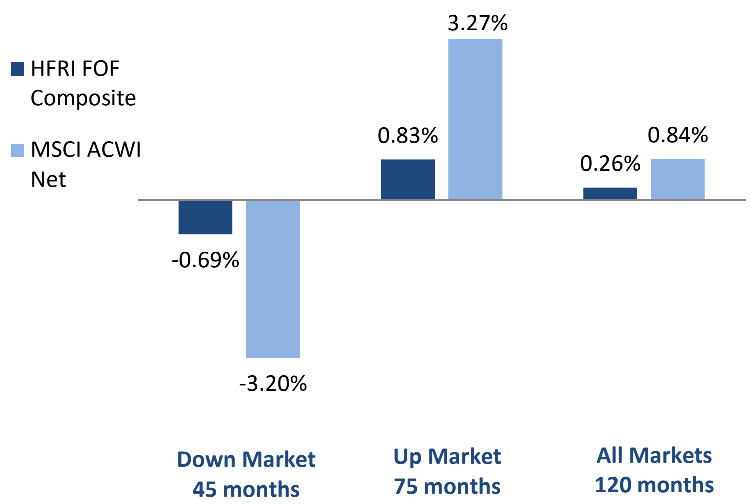
| Strategy | Index | 4Q 18 | YTD | 2017 | 2016 | 2015 | 2014 | 2013 | 1-Year | 3-Year | 5-Year | 10-Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fund of Funds** | HFRI HFOF Composite | -4.8 | -3.9 | 7.8 | 0.5 | -0.3 | 3.4 | 9.0 | -3.9 | 1.3 | 1.4 | 3.1 |
| **Equity Long-Short** | HFRI Equity Hedge | -8.3 | -6.9 | 13.3 | 5.5 | -1.0 | 1.8 | 14.3 | -6.9 | 3.6 | 2.3 | 5.7 |
| **Event Driven** | HFRI Event Driven | -5.0 | -2.4 | 7.6 | 10.6 | -3.6 | 1.1 | 12.5 | -2.4 | 5.1 | 2.5 | 6.5 |
| **Global Macro** | HFRI Macro Index | -1.9 | -3.6 | 2.2 | 1.0 | -1.3 | 5.6 | -0.4 | -3.6 | -0.2 | 0.7 | 1.1 |
| **Relative Value** | HFRI Relative Value | -3.2 | -0.2 | 5.1 | 7.7 | -0.3 | 4.0 | 7.1 | -0.2 | 4.1 | 3.2 | 6.9 |
| **Credit** | HFRI Credit Index | -3.1 | -0.3 | 6.0 | 8.6 | -1.0 | 3.0 | 9.0 | -0.3 | 4.7 | 3.2 | 7.5 |



# Hedge Fund of Funds Market

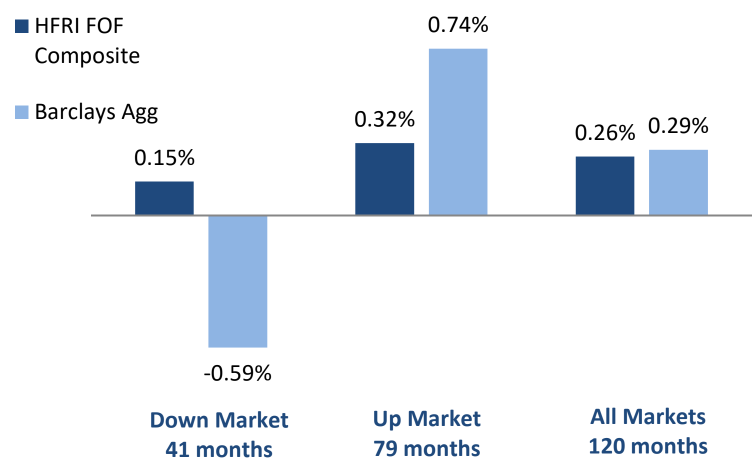
## Up/Down Capture vs. Equity

**Average Returns**
**December 2008 - December 2018**




## Up/Down Capture vs. Bonds

**Average Returns**
**December 2008 - December 2018**



# Warehouse Local #730 Legal Fund

Investment Performance Analysis

Period Ended

December 31, 2018

## Total Plan Growth of Assets

### Summary of Cash Flows

| | Fourth Quarter | One Year | Three Years | Five Years | Seven Years | Since 1/1/08 |
|---|---|---|---|---|---|---|
| Beginning Market Value | $868,724 | $853,750 | $806,120 | $803,598 | $806,296 | $521,361 |
| Net Cash Flow | -$6,066 | $4,463 | $33,993 | $18,854 | -$1,447 | $194,064 |
| Net Investment Change | $11,340 | $15,785 | $33,885 | $51,546 | $69,149 | $158,573 |
| Ending Market Value | $873,998 | $873,998 | $873,998 | $873,998 | $873,998 | $873,998 |

*The fund's fiscal year ends December 31.

## Current vs. Policy
### As of December 31, 2018

| | Current | Current | Policy | Policy Range | Difference | Difference |
|---|---|---|---|---|---|---|
| Investment Grade Fixed Income | $856,779 | 98.0% | 90.0% | 80.0% - 100.0% | 8.0% | $70,180 |
| Cash | $17,220 | 2.0% | 10.0% | 0.0% - 20.0% | -8.0% | -$70,180 |
| **Total** | **$873,998** | **100.0%** | **100.0%** | | | |

## Total Plan Performance (Gross of Fees)

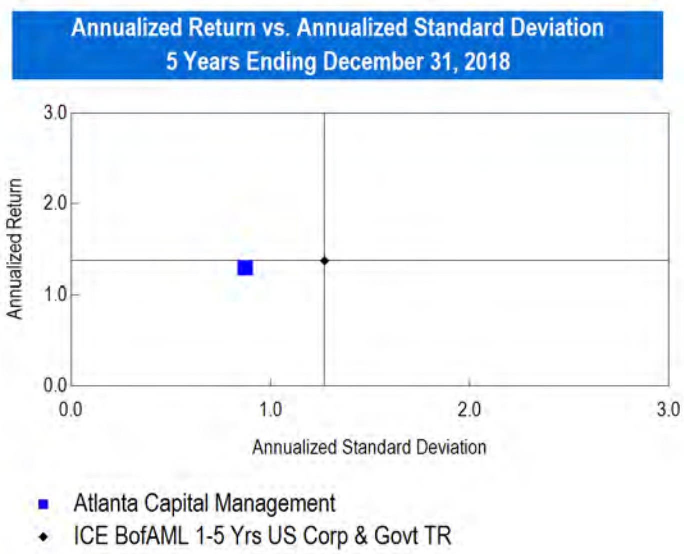
| | Market Value | % of Portfolio | Ending December 31, 2018 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2018 Q4 | 1 Yr | 3 Yrs | 5 Yrs | 7 Yrs | 10 Yrs | Inception | Inception Date |
| **Composite** | **$873,998** | **100.0%** | **1.3%** | **1.8%** | **1.3%** | **1.2%** | **1.2%** | **1.8%** | **3.0%** | **Apr-95** |
| **Total Investment Grade Fixed Income** | **$856,779** | **98.0%** | **1.3%** | **1.8%** | **1.4%** | **1.3%** | **1.3%** | **2.0%** | **2.4%** | **Oct-07** |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | | | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *2.2%* | *2.6%* | *Oct-07* |
| Atlanta Capital Management | $856,779 | 98.0% | 1.3% | 1.8% | 1.4% | 1.3% | 1.3% | -- | 1.7% | Jul-09 |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | | | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *1.4%* | -- | *2.1%* | *Jul-09* |
| **Total Cash** | **$17,220** | **2.0%** | **0.4%** | **1.6%** | **0.8%** | **0.5%** | **0.4%** | **0.3%** | **--** | **Oct-07** |
| *91 Day T-Bills* | | | *0.6%* | *1.9%* | *1.1%* | *0.6%* | *0.5%* | *0.4%* | -- | *Oct-07* |
| PNC Prime Money Market Fund | $17,220 | 2.0% | 0.4% | 1.6% | 0.8% | 0.5% | 0.4% | 0.3% | 2.2% | Apr-95 |
| *91 Day T-Bills* | | | *0.6%* | *1.9%* | *1.1%* | *0.6%* | *0.5%* | *0.4%* | *2.3%* | *Apr-95* |

| | Fiscal Year Ends December 31 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | Inception | Inception Date |
| **Composite** | **1.8%** | **1.0%** | **1.1%** | **0.9%** | **1.3%** | **0.3%** | **1.8%** | **2.0%** | **2.8%** | **5.2%** | **3.9%** | **3.0%** | **Apr-95** |
| **Total Investment Grade Fixed Income** | **1.8%** | **1.1%** | **1.2%** | **1.0%** | **1.3%** | **0.3%** | **2.1%** | **2.3%** | **3.3%** | **6.0%** | **4.5%** | **2.4%** | **Oct-07** |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | *1.4%* | *1.3%* | *1.6%* | *1.0%* | *1.5%* | *0.3%* | *2.5%* | *3.1%* | *4.2%* | *4.9%* | *4.6%* | *2.6%* | *Oct-07* |
| Atlanta Capital Management | 1.8% | 1.1% | 1.2% | 1.0% | 1.3% | 0.3% | 2.1% | 2.3% | 3.3% | -- | -- | 1.7% | Jul-09 |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | *1.4%* | *1.3%* | *1.6%* | *1.0%* | *1.5%* | *0.3%* | *2.5%* | *3.1%* | *4.2%* | *4.9%* | *4.6%* | *2.1%* | *Jul-09* |
| **Total Cash** | **1.6%** | **0.7%** | **0.1%** | **0.0%** | **0.0%** | **0.0%** | **0.1%** | **0.1%** | **0.1%** | **0.2%** | **2.5%** | **--** | **Oct-07** |
| *91 Day T-Bills* | *1.9%* | *0.9%* | *0.3%* | *0.0%* | *0.0%* | *0.0%* | *0.1%* | *0.0%* | *0.1%* | *0.1%* | *1.3%* | *0.5%* | *Oct-07* |
| PNC Prime Money Market Fund | 1.6% | 0.7% | 0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.1% | 0.2% | 2.5% | 2.2% | Apr-95 |
| *91 Day T-Bills* | *1.9%* | *0.9%* | *0.3%* | *0.0%* | *0.0%* | *0.0%* | *0.1%* | *0.0%* | *0.1%* | *0.1%* | *1.3%* | *2.3%* | *Apr-95* |

| Account Information | |
|---|---|
| Account Name | **Atlanta Capital Management** |
| Account Structure | **Separate Account** |
| Investment Style | **Active** |
| Inception Date | **7/01/09** |
| Account Type | **US Fixed Income** |
| Benchmark | **ICE BofAML 1-5 Yrs US Corp & Govt TR** |
| Universe | **eV US Short Duration Fixed Inc Gross** |

## Atlanta Capital Management
Ending December 31, 2018

| | Fourth Quarter | Inception 7/1/09 |
|---|---|---|
| Beginning Market Value | $845,523 | $571,388 |
| Net Cash Flow | $0 | $170,000 |
| Net Investment Change | $11,255 | $115,390 |
| Ending Market Value | $856,779 | $856,779 |




**3 Years Ending December 31, 2018**

| | Anlzd Return | Anlzd Standard Deviation | Up Mkt Capture Ratio | Down Mkt Capture Ratio |
|---|---|---|---|---|
| Atlanta Capital Management | 1.4% | 1.0% | 77.4% | 54.6% |
| ICE BofAML 1-5 Yrs US Corp & Govt TR | 1.4% | 1.3% | 100.0% | 100.0% |

**5 Years Ending December 31, 2018**

| | Anlzd Return | Anlzd Standard Deviation | Up Mkt Capture Ratio | Down Mkt Capture Ratio |
|---|---|---|---|---|
| Atlanta Capital Management | 1.3% | 0.9% | 74.1% | 52.2% |
| ICE BofAML 1-5 Yrs US Corp & Govt TR | 1.4% | 1.3% | 100.0% | 100.0% |

## Gross of Fee Performance

| | 2018 Q4 | 1 Yr | 3 Yrs | 5 Yrs | 2018 | 2017 | 2016 | 2015 | 2014 | Inception | Inception Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Atlanta Capital Management | 1.3% | 1.8% | 1.4% | 1.3% | 1.8% | 1.1% | 1.2% | 1.0% | 1.3% | 1.7% | Jul-09 |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *1.3%* | *1.6%* | *1.0%* | *1.5%* | *2.1%* | *Jul-09* |

| Account Information | |
|---|---|
| Account Name | **PNC Prime Money Market Fund** |
| Account Structure | **Separate Account** |
| Investment Style | **Active** |
| Inception Date | **4/01/95** |
| Account Type | **Cash** |
| Benchmark | **91 Day T-Bills** |
| Universe | |

**PNC Prime Money Market Fund**
Ending December 31, 2018

| | **Fourth Quarter** | **Since 10/1/07** |
|---|---|---|
| Beginning Market Value | $23,201 | $171,131 |
| Net Cash Flow | -$6,066 | -$159,125 |
| Net Investment Change | $85 | $5,214 |
| Ending Market Value | $17,220 | $17,220 |

**Gross of Fee Performance**

| | 2018 Q4 | 1 Yr | 3 Yrs | 5 Yrs | 2018 | 2017 | 2016 | 2015 | 2014 | Inception | Inception Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PNC Prime Money Market Fund | 0.4% | 1.6% | 0.8% | 0.5% | 1.6% | 0.7% | 0.1% | 0.0% | 0.0% | 2.2% | Apr-95 |
| *91 Day T-Bills* | *0.6%* | *1.9%* | *1.1%* | *0.6%* | *1.9%* | *0.9%* | *0.3%* | *0.0%* | *0.0%* | *2.3%* | *Apr-95* |

# Warehouse Local #730 Legal Fund

## Appendix

## Performance Summary (Net of Fees) - Annualized

| | Market Value | % of Portfolio | Ending December 31, 2018<br>2018 Q4 | 1 Yr | 3 Yrs | 5 Yrs | 7 Yrs |
|---|---|---|---|---|---|---|---|
| **Composite** | **$873,998** | **100.0%** | **1.3%** | **1.7%** | **1.2%** | **1.1%** | **1.1%** |
| **Total Investment Grade Fixed Income** | **$856,779** | **98.0%** | **1.3%** | **1.7%** | **1.2%** | **1.1%** | **1.1%** |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | | | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *1.4%* |
| Atlanta Capital Management | $856,779 | 98.0% | 1.3% | 1.7% | 1.2% | 1.1% | 1.1% |
| *ICE BofAML 1-5 Yrs US Corp & Govt TR* | | | *1.4%* | *1.4%* | *1.4%* | *1.4%* | *1.4%* |
| **Total Cash** | **$17,220** | **2.0%** | **0.4%** | **1.6%** | **0.8%** | **0.5%** | **0.4%** |
| *91 Day T-Bills* | | | *0.6%* | *1.9%* | *1.1%* | *0.6%* | *0.5%* |
| PNC Prime Money Market Fund | $17,220 | 2.0% | 0.4% | 1.6% | 0.8% | 0.5% | 0.4% |
| *91 Day T-Bills* | | | *0.6%* | *1.9%* | *1.1%* | *0.6%* | *0.5%* |

# Benchmark History

## As of December 31, 2018

| Composite | | |
|---|---|---|
| 4/1/2009 | Present | ICE BofAML 1-5 Yrs US Corp & Govt TR 90% / 91 Day T-Bills 10% |
| 4/1/1995 | 3/31/2009 | ICE BofAML 1-5 Yrs US Corp & Govt TR |

## Warehouse Local #730 Legal Fund

## Footnotes

- The PNC Money Market Fund transferred $195,000 to the PNC Limited Maturity Bond Fund on 4/15/08.
- Atlanta Capital was funded on 6/19/2009 with $567,765.47 from the PNC Limited Maturity Bond FUnd, which as a result was terminated, and $2,234.53 from the PNC Prime Money Market Fund.
- The following composite returns prior to 1st quarter 2010 do not include cash in the calculation of returns.
  - Total Domestic Fixed
- The Net of Fees returns in this report are estimated.  Fees do not include:  the investment consulting fee paid to IPS, investment manager incentive fees, custodian fees, or other administrative costs.
- Values, flows and returns for all commingled funds, mutual funds, partnerships, and all other alternative assets are provided by the firm anagng the assets and cannot be independently verified by IPS.
- Separately managed account returns are calculated by IPS using cuctodian data.

# ERISA Pension Investment Conference

**April 24 – 27, 2018**

- The following investment managers and providers attended and helped to defray the cost of IPS' annual ERISA Pension Investment Conference ("EPIC"). EPIC is an educational conference addressing various issues related to employee benefit plans. IPS does not give preferential treatment to investment managers or any other provider who may pay to attend EPIC.

Aberdeen Asset Management
Amalgamated Bank of Chicago
American Realty Advisors
ASB Capital Management
Atlanta Capital Management
BlackRock
Boyd Watterson
Brown Advisory
Chartwell Investment Partners
Christenson Investment Partners
Corbin Capital Partners
Corry Capital Advisors
Earnest Partners
Eaton Vance Management
EnTrustPermal
First Eagle Investment Mgmt.
Foundry Partners
Fred Alger Management
GAMCO Asset Management
GCM Grosvenor
Glouston Capital Partners
GoldenTree Asset Management
Great Lakes Advisors
Hach Rose Schirripa & Cheverie
Hamilton Lane Advisors
Hardman Johnston Global Advisors
HPS Investment Partners
Intercontinental Real Estate Corp.
Invesco Advisers, Inc.
Janus Henderson Investors
JP Morgan Asset Management
Kearney Capital LLC
Lord Abbett & Co.
LSV Asset Management
MacKay Shields
McMorgan & Company
MEPT/Bentall Kennedy
National Investment Services
Neuberger Berman
Patriot Financial Partners
PENN Capital Management
PNC Capital Advisors
Post Advisory Group
Principal Global Investors
Quantitative Management Associates
Rothschild Asset Management
Ryan Labs Asset Management
Schroders Investment Management
Segall Bryant & Hamill
Sierra Investment Partners
Smith Graham & Co.
The Boston Company
BNY Mellon Asset Management
Ullico Investment Company
Vista Underwriting Partners
Victory Capital Management
Washington Capital Management
WEDGE Capital Management
Wellington Management Company
Westfield Capital Management
William Blair & Company

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# ASSET ALLOCATION REVIEW

## Warehouse Local #730 Legal Fund

## March 27, 2019

# Annualized Expected Returns over 10-20 years

| Equity Asset Class | Return | Risk |
|---|---|---|
| U.S. Large Cap | 7.25% | 15.50 |
| U.S. Mid Cap | 7.50% | 17.50 |
| U.S. Smid Cap | 7.63% | 19.00 |
| U.S. Small Cap | 7.75% | 21.00 |
| International Large Cap | 7.75% | 17.00 |
| International Small Cap | 8.00% | 20.50 |
| Emerging Markets | 9.00% | 22.00 |
| Global Equity | 7.75% | 17.50 |

| Fixed Income Asset Class | Return | Risk |
|---|---|---|
| Cash Equivalents | 2.50% | 0.50 |
| Short-term Gov /Credit | 3.00% | 2.50 |
| Intermediate Investment Grade | 3.25% | 4.00 |
| Core Investment Grade | 3.50% | 5.00 |
| Mortgages | 4.50% | 5.00 |
| Short Duration High Quality High Yield | 5.00% | 6.50 |
| High Quality High Yield | 6.00% | 8.50 |
| Opportunistic High Yield | 6.25% | 8.75 |
| Multi-Sector Fixed Income | 5.00% | 6.50 |
| Short Duration Global Bonds | 4.00% | 6.00 |
| Core Plus Bonds | 4.00% | 6.00 |

| Alternatives Asset Class | Return | Risk |
|---|---|---|
| Multi-Strategy Hedge Fund of Funds | 4.75% | 6.50 |
| Opportunistic Strategies | 8.00% | 11.00 |
| Long Short Equity Hedge Fund of Funds | 5.75% | 10.00 |
| Global Tactical Asset Allocation | 6.75% | 13.00 |
| Core Real Estate | 7.00% | 10.00 |
| Value-Add Real Estate | 8.00% | 12.00 |
| Opportunistic Real Estate | 10.00% | 15.50 |
| REITS | 7.00% | 21.00 |
| Private Equity FOF | 10.00% | 20.00 |
| Private Equity Secondaries | 10.00% | 18.00 |
| Core Infrastructure | 6.50% | 12.00 |
| Value-Add Infrastructure | 9.00% | 16.00 |
| Risk Parity | 6.25% | 16.00 |
| Commodities | 3.75% | 18.00 |

INVESTMENT PERFORMANCE SERVICES, LLC

- IPS Investment Committee January 2019.
- Inflation expectation 2.00%.
- The above chart represents an annualized return forecast for different asset classes using index returns (net of fees). These forecasts are forward-looking assumptions based on reasonable beliefs of the IPS Investment Committee, but are not a guarantee of future performance. Actual results may differ from the forecast above.
- The information contained in this report is proprietary and confidential information. You are hereby notified that any dissemination, distribution, or copying of this document is strictly prohibited.

# Asset Class Constraints

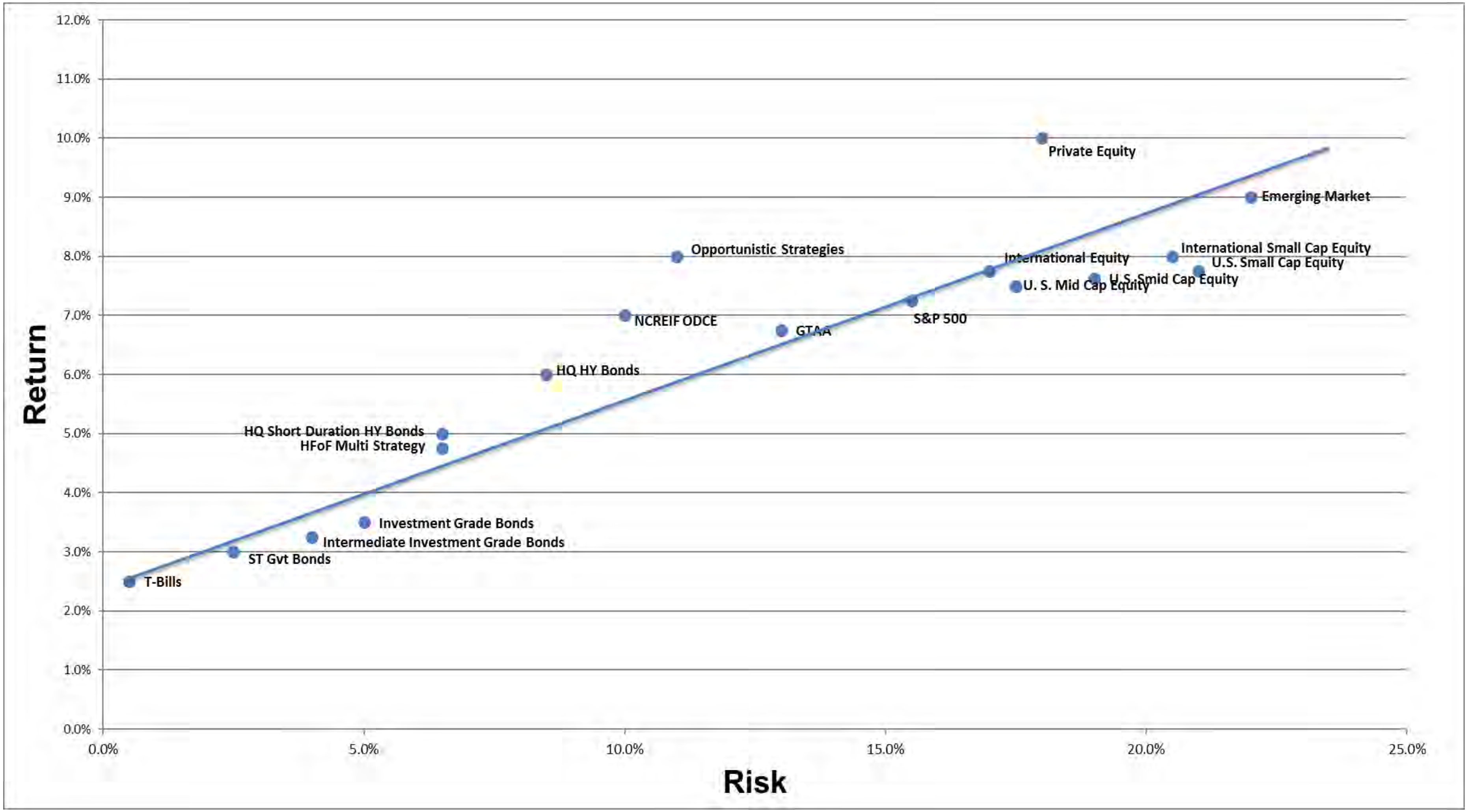
| | | |
|---|---|---|
| Total Domestic Equity | 20% | Max |
| Cash | 5% | Max |
| Fixed Investment Grade (Includes Short Term & Intermediate) | 20% | Min |
| High Quality High Yield Bonds (Includes Short Duration) | 30% | Max |
| Real Estate – Core | 10% | Max |
| Real Estate – Value Add | 5% | Max |
| Hedge Fund of Funds – Multi Strategy | 5% | Max |
| Opportunistic Strategies | 5% | Max |

The Asset Allocation modeling requires the mathematical construction of an efficient frontier of various portfolios with distinct asset allocations and risk and return characteristics. The modeling process also requires the imposition of constraints, so that the efficient frontier represents a prudently diversified portfolio with adequate consideration of the liquidity needs and investment time horizon. Unconstrained optimization frequently generates allocations that have superior risk/reward characteristics, but the resulting allocations may not be adequately diversified and/or may have high allocations to illiquid investments.

The constraints shown are used for modeling purposes only. They should not be construed as suggested or recommended allocations, or limits on allocations, to any asset class or investment strategy. Each client fund has different facts, circumstances, time horizon, risk tolerance levels, return objectives, investment preferences, cash flows, and liquidity requirements. As such, each client's investment policy may differ materially from the constraints shown above.

IPS Investment Committee January 2019.

# 2019 Capital Market Assumptions



# Asset Class Correlations

| Assumption table: | US Large Cap Equity | US Mid Cap Equity | US Smid Cap Equity | US Small Cap Equity | Int'l Equity | Int'l Small Cap Equity | Emerging Markets Equity | Cash | Short Term Govt / Credit | Interm. Invest. Grade | Core Invest. Grade | Short Duration High Yield | High Yield | Real Estate Core | Real Estate Value Add | Private Equity | HFoF Multi-Strategy | Opp. Strategies | GTAA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US Large Cap Equity | 1.00 | | | | | | | | | | | | | | | | | | |
| US Mid Cap Equity | 0.96 | 1.00 | | | | | | | | | | | | | | | | | |
| US Smid Cap Equity | 0.93 | 0.98 | 1.00 | | | | | | | | | | | | | | | | |
| US Small Cap Equity | 0.91 | 0.96 | 0.98 | 1.00 | | | | | | | | | | | | | | | |
| Int'l Equity | 0.89 | 0.86 | 0.82 | 0.78 | 1.00 | | | | | | | | | | | | | | |
| Int'l Small Cap Equity | 0.85 | 0.85 | 0.81 | 0.77 | 0.96 | 1.00 | | | | | | | | | | | | | |
| Emerging Markets Equity | 0.80 | 0.81 | 0.76 | 0.72 | 0.87 | 0.87 | 1.00 | | | | | | | | | | | | |
| Cash | -0.07 | -0.11 | -0.08 | -0.07 | -0.08 | -0.10 | -0.09 | 1.00 | | | | | | | | | | | |
| Short Term Govt / Credit | 0.01 | 0.02 | -0.01 | -0.05 | 0.14 | 0.16 | 0.21 | -0.01 | 1.00 | | | | | | | | | | |
| Int. Investment Grade | 0.04 | 0.07 | 0.02 | -0.02 | 0.15 | 0.18 | 0.24 | -0.11 | 0.86 | 1.00 | | | | | | | | | |
| Core Investment Grade | 0.02 | 0.04 | -0.01 | -0.05 | 0.12 | 0.14 | 0.20 | -0.10 | 0.79 | 0.97 | 1.00 | | | | | | | | |
| Short Duration High Yield | 0.57 | 0.66 | 0.61 | 0.55 | 0.63 | 0.69 | 0.70 | -0.23 | 0.26 | 0.33 | 0.28 | 1.00 | | | | | | | |
| High Yield | 0.65 | 0.72 | 0.68 | 0.63 | 0.72 | 0.74 | 0.76 | -0.23 | 0.21 | 0.28 | 0.25 | 0.93 | 1.00 | | | | | | |
| Real Estate Core | 0.12 | 0.08 | 0.09 | 0.10 | 0.03 | 0.00 | -0.08 | -0.11 | -0.42 | -0.20 | -0.16 | -0.20 | -0.10 | 1.00 | | | | | |
| Real Estate Value Add | 0.14 | 0.10 | 0.10 | 0.12 | 0.04 | 0.01 | -0.07 | -0.11 | -0.40 | -0.19 | -0.15 | -0.20 | -0.10 | 0.99 | 1.00 | | | | |
| Private Equity | 0.91 | 0.96 | 0.98 | 0.99 | 0.78 | 0.77 | 0.72 | -0.07 | -0.05 | -0.02 | -0.05 | 0.55 | 0.63 | 0.10 | 0.12 | 1.00 | | | |
| HFoF Multi-Strategy | 0.77 | 0.77 | 0.74 | 0.70 | 0.78 | 0.81 | 0.73 | -0.11 | -0.07 | -0.01 | -0.04 | 0.63 | 0.69 | 0.09 | 0.09 | 0.70 | 1.00 | | |
| Opp. Strategies | 0.69 | 0.76 | 0.72 | 0.68 | 0.75 | 0.77 | 0.79 | -0.21 | 0.21 | 0.27 | 0.23 | 0.91 | 0.98 | -0.12 | -0.12 | 0.68 | 0.69 | 1.00 | |
| GTAA | 0.94 | 0.91 | 0.86 | 0.82 | 0.96 | 0.93 | 0.88 | -0.06 | 0.21 | 0.24 | 0.21 | 0.62 | 0.70 | 0.05 | 0.06 | 0.82 | 0.76 | 0.74 | 1.00 |

A Correlation of 1.00 indicates two series move perfectly together while a -1.00 shows they move perfectly opposite one another.

# Efficient Frontier Analysis

| Efficient Frontier Report<br><br>Asset | Portfolio 1 | Portfolio 2 | Portfolio 3 | Portfolio 4 | Portfolio 5 | Portfolio 6 | Portfolio 7 | Portfolio 8 | Portfolio 9 | Portfolio 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| US Large Cap Equity | 0.00 | 0.00 | 0.00 | 1.16 | 2.63 | 4.16 | 5.74 | 9.07 | 13.61 | 20.00 |
| US Mid Cap Equity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| US Smid Cap Equity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| US Small Cap Equity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Int'l Equity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Int'l Small Cap Equity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Cash | 5.00 | 5.00 | 5.00 | 5.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Short Term Govt / Credit | 77.92 | 69.19 | 64.60 | 54.50 | 53.05 | 42.57 | 29.68 | 14.79 | 0.00 | 0.00 |
| Int. Investment Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Core Investment Grade | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.45 | 11.50 | 21.14 | 31.39 | 25.00 |
| Short Duration High Yield | 1.33 | 6.81 | 5.40 | 10.28 | 7.00 | 3.47 | 0.39 | 0.00 | 0.00 | 0.00 |
| High Yield | 0.00 | 0.00 | 0.00 | 4.06 | 12.19 | 20.35 | 27.70 | 30.00 | 30.00 | 30.00 |
| Real Estate Core | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| Real Estate Value Add | 0.75 | 4.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Private Equity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HFoF Multi-Strategy | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Opp. Strategies | 0.00 | 0.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| GTAA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Return | 3.60 | 3.90 | 4.20 | 4.49 | 4.78 | 5.06 | 5.34 | 5.61 | 5.88 | 6.14 |
| Risk | 1.84 | 1.92 | 2.13 | 2.55 | 3.10 | 3.69 | 4.32 | 4.96 | 5.64 | 6.38 |
| Return/Risk | 1.96 | 2.04 | 1.97 | 1.76 | 1.54 | 1.37 | 1.24 | 1.13 | 1.04 | 0.96 |

* Compound annual return.

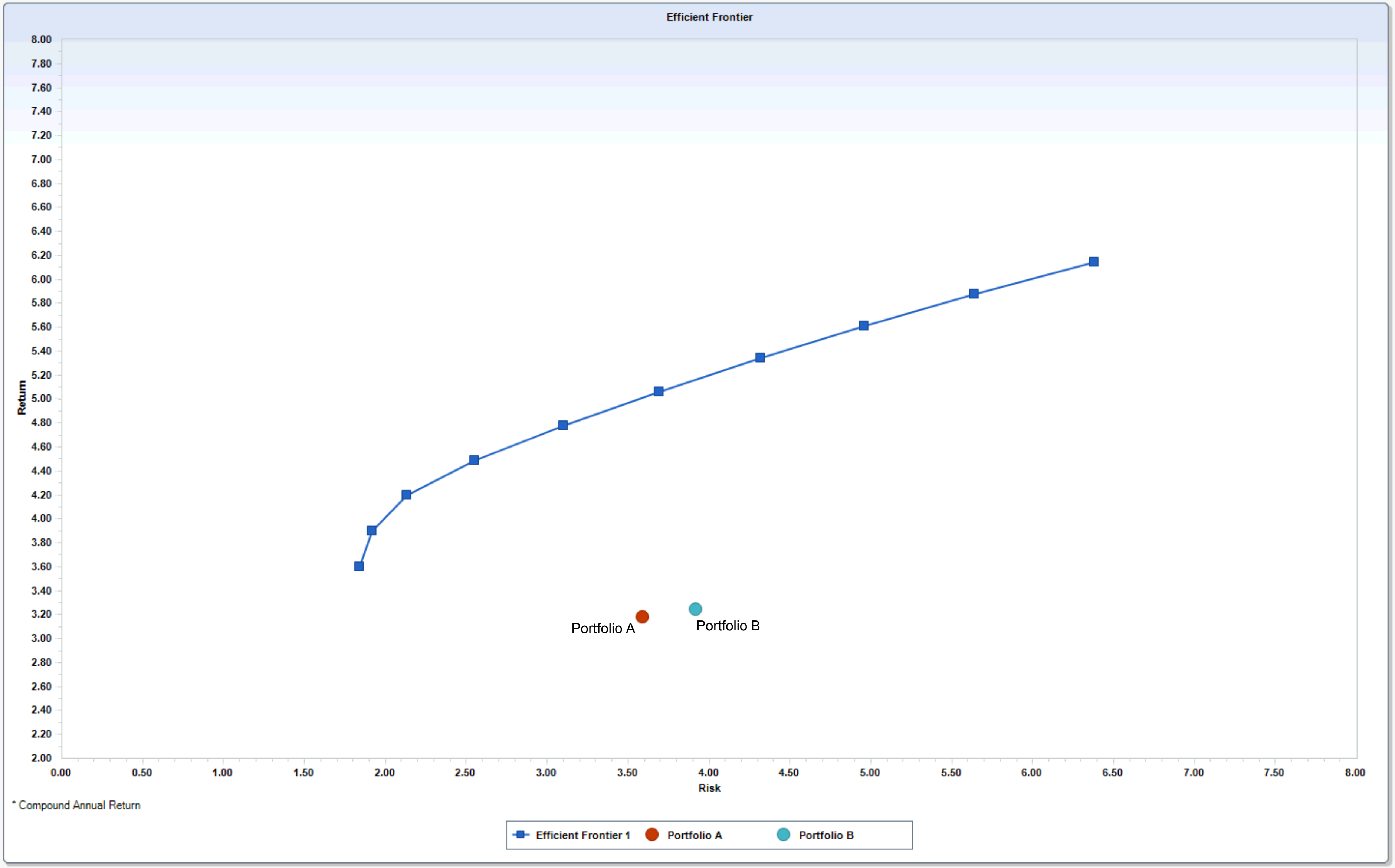
* Returns based on a geometric calculation.

# Current Policy Comparison

| | % Asset Class Targets | | | | | |
|---|---|---|---|---|---|---|
| | Fixed Income Interm | SDHY | Cash | Expected Return | Risk | Comments |
| Warehouse Local #730 Legal Fund<br><br>Portfolio A | 90.0 | 0.0 | 10.0 | 3.18% | 3.59 | Policy |
| | | | | | | |
| Actual<br><br>Portfolio B | 98.0 | 0.0 | 2.0 | 3.24% | 3.92 | Allocation as of January 31, 2019 |

| | |
|---|---|
| Green | Increase allocation |
| Red | Decrease allocation |
| Blue | New asset class |

# Efficient Frontier Comparison



# Glossary of Investment Terminology

| | |
|---|---|
| Total Return | The annual return on an investment including appreciation, depreciation and income (interest, dividends, net operating income). |
| Alpha | The excess return (positive or negative) generated by active portfolio management and security selection, relative to a benchmark. |
| Beta | A historical measure of an investment's volatility relative to the market. The beta of the market is 1.0 (as represented by a benchmark such as the S&P 500 Index). A beta of greater than 1.0 indicates an investment with greater volatility than the benchmark. A beta of less than 1.0 indicates less volatility than the benchmark. |
| Standard Deviation | Standard deviation is a statistical measurement of the dispersion of a set of data from its mean. The more spread apart the data are, the greater the standard deviation. |
| Risk | For an investment portfolio, risk is typically defined as the volatility of the returns, as measured by calculating the standard deviation. The risk does not necessarily indicate the risk of loss, but does indicate the risk of inconsistent returns. |
| Capture Ratio | Calculates how well a manager performs in a rising or falling market as a percentage of a benchmark. In a rising market, a percentage of 100 or better is preferred, and indicates the manager exceeded the benchmark (upside capture ratio). In a falling market, a percentage of less than 100 is preferred, indicating that the manager lost less than the benchmark (downside capture ratio). |
| Correlation | A statistical measure of how two asset classes perform in relation to each other. Asset classes with a correlation of 1.0 have perfect positive correlation (exactly the same). Assets with perfect negative correlation of -1.0 will perform equally but in opposite directions. |
| Efficient Frontier | A series of portfolios with the maximum expected return for any level of risk, which is calculated based on assumptions of risk, return and correlation. These portfolios are shown graphically on a risk and return chart, and represent the most efficient tradeoff between risk and return. |
| Market Cap | The dollar value of a corporation, which is calculated by multiplying the share price and the number of outstanding shares. |
| Large Cap | Stocks which typically have a market capitalization of $10 billion or higher. |
| Mid Cap | Stocks which typically have a market capitalization of $2 to $10 billion. |
| Small Cap | Stocks which typically have a market capitalization of $2 billion or less. |
| Geometric Calculation | Geometric Calculations are used when determining an annualized investment return and tends to dampen the effect of very high or very low values. The result is a number that is smaller than (or equal to) the arithmetic average of the values. |
| Compound Annual Returns | Compound annual returns show the annual investment return, assuming the investment grew at a constant rate, and reflects the impact of the time in the calculation of an investment return. |
| Return/Risk Ratio | The return/risk ratio is the expected return of an investment divided by the expected standard deviation (risk). When comparing return/risk ratios a higher value is presumed to be better than a lower value |

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