

Investment Performance Review  
Period Ending June 30, 2017

## Washoe County 457 & 401a Plans

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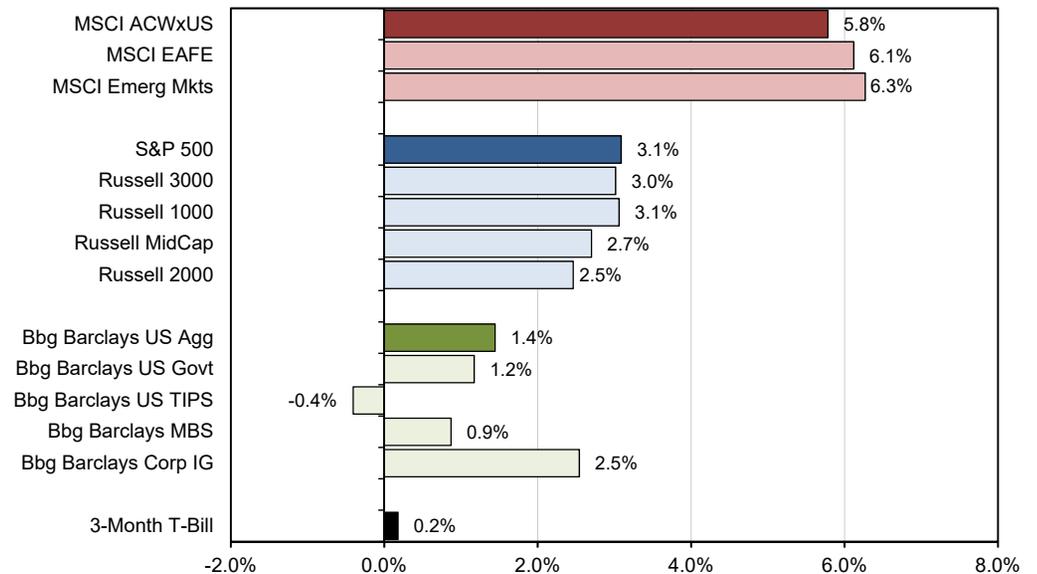


## **2nd Quarter 2017 Market Environment**

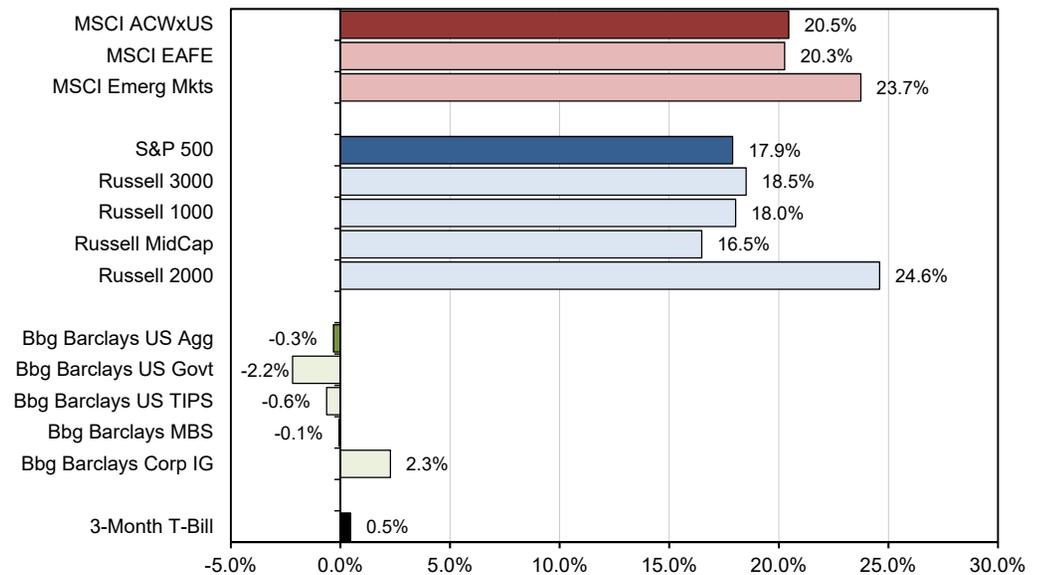


- Returns for the 2<sup>nd</sup> quarter of 2017 were positive for most major equity and fixed income indices. Broad domestic and international equity market performance was largely fueled by continued improvement in economic data worldwide. Domestic equities trailed international indices during the quarter. While U.S. economic fundamentals and corporate earnings growth were viewed positively, political concerns surrounding the pace of implementation of Trump administration expansive fiscal policy reforms and the fallout associated with the dismissal of FBI Director James Comey dampened investor enthusiasm. Despite these concerns, investor optimism remained high and many major domestic equity indices hit record levels during the quarter. Large cap stocks continued a year-to-date trend of outperformance relative to small cap equities with the S&P 500 Index returning 3.1% versus a 2.5% return for the Russell 2000 Index. However, small cap stock returns still show substantial outperformance relative to large cap indices over the one-year period due to their remarkable performance in the second half of 2016.
- International equity market benchmarks continued to outpace U.S. markets through the 2<sup>nd</sup> quarter of 2017 as both developed and emerging market international equities saw benefits from continued strength in global macroeconomic data, a weakening U.S. Dollar (USD) and ongoing accommodative global central bank policies. While the ongoing improvement in the global economy pushed international index returns higher, gains were tempered toward the end of the quarter as central banks began to signal an increased probability of a future reduction in stimulus. Emerging markets narrowly outperformed developed markets for the quarter. The MSCI Emerging Market Index returned 6.3% for the quarter and a solid 23.7% for the 1-year period. While weaker by comparison, the developed market MSCI EAFE Index also posted robust performance returning 6.1% for the quarter and 20.3% for the year.
- The yield curve flattened through the 2<sup>nd</sup> quarter of 2017 as interest rates in the U.S. declined through the majority of the second quarter before rising moderately in June. The rise in interest rates coincided with the Federal Open Market Committee's (FOMC) June meeting and their decision to further tighten monetary policy by raising short-term interest rates by 0.25%. The Fed also announced a plan to systematically shrink the size of its balance sheet, gradually reducing its securities holdings by tapering the amount they reinvest as securities mature. This can be viewed similarly to a tightening of monetary policy. Broad fixed income indices were generally positive through the quarter with the bellwether Bloomberg Barclays U.S. Aggregate Index returning 1.4% for the quarter. Benefitting from falling credit spreads, corporate credit was the only investment grade sector to post gains over the 1-year period returning 2.3% versus a -0.3% return for the Bloomberg Barclays U.S. Aggregate Index.

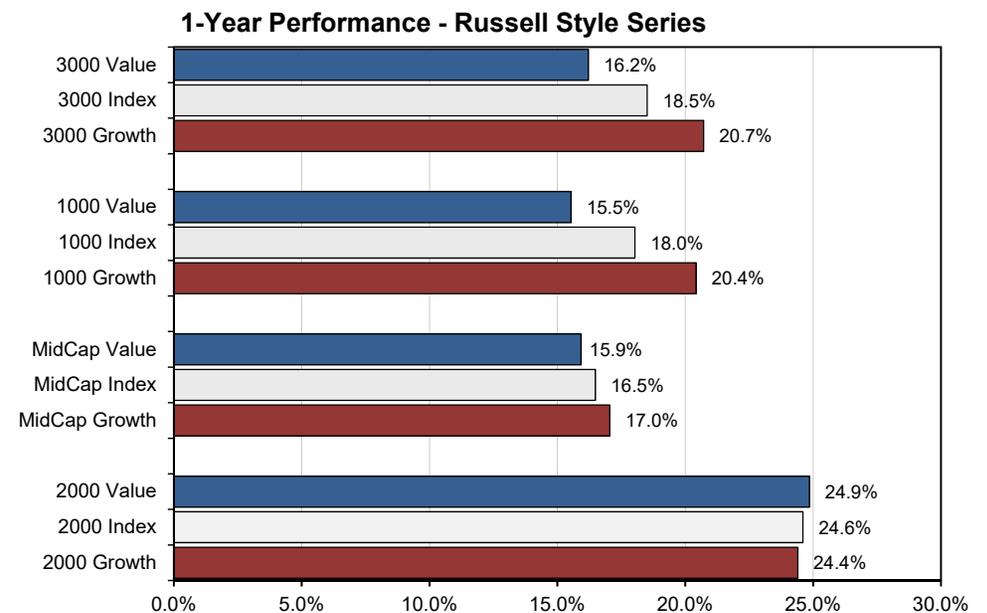
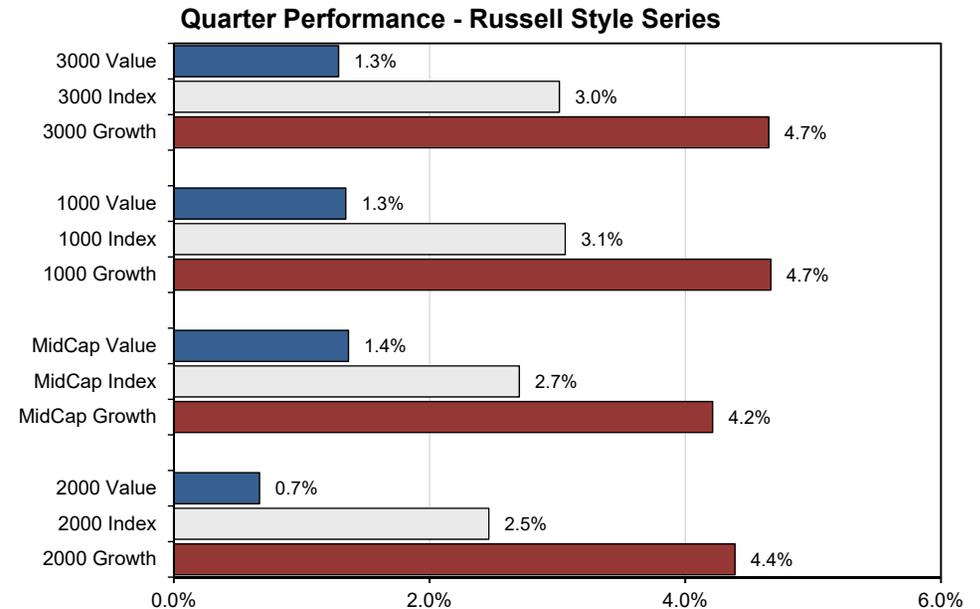
### Quarter Performance



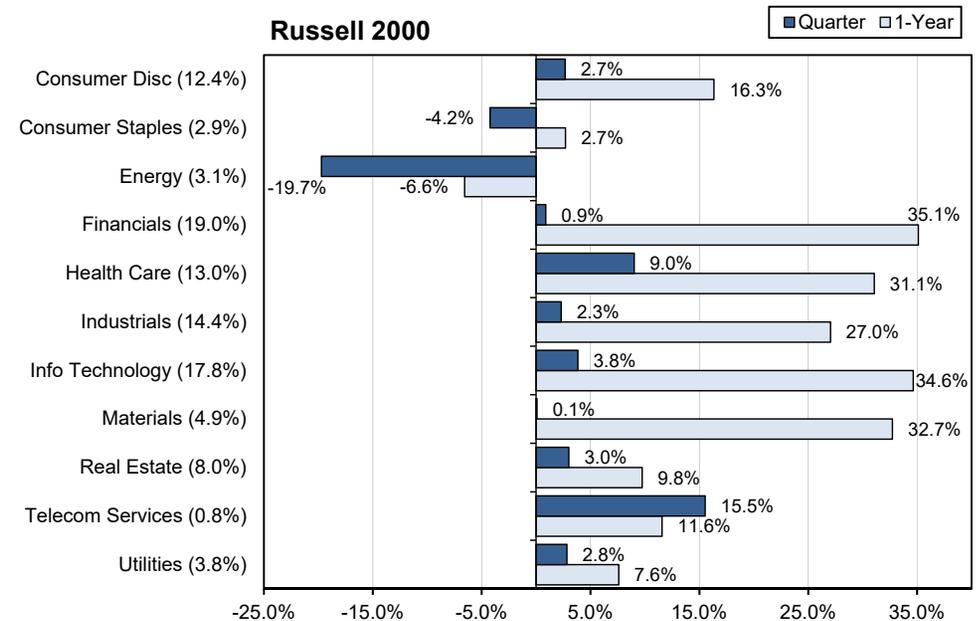
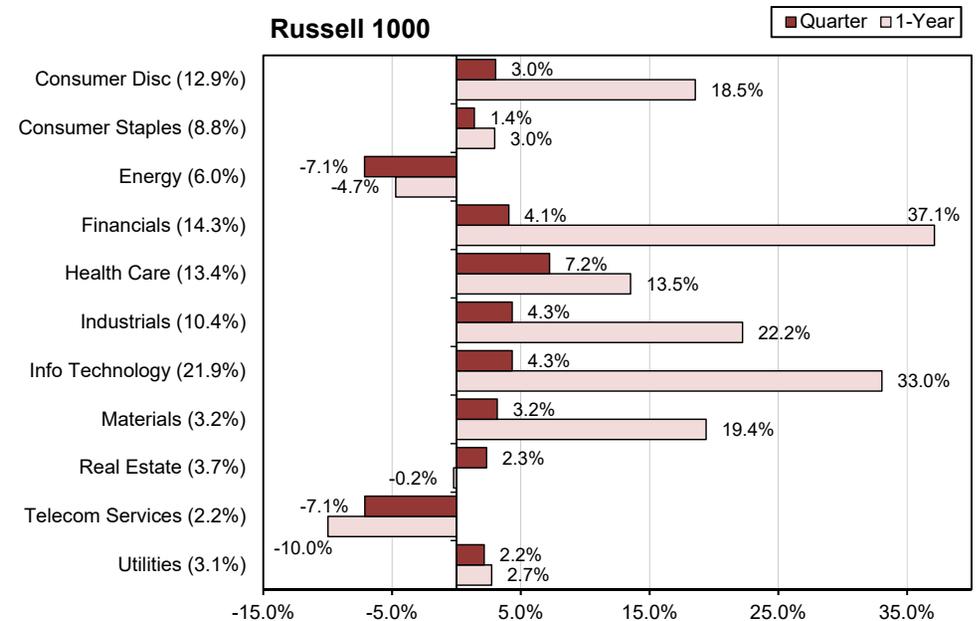
### 1-Year Performance



- U.S. equity index returns were positive across the style and capitalization spectrum for the 2<sup>nd</sup> quarter and the trailing 1-year period. Domestic equity index returns were driven by positive trends in economic data reported throughout the period including improvements in GDP, consumer and business sentiment, and employment. In addition, corporate earnings grew at a double digit pace for 1Q 2017 with most sectors showing improvement. U.S. equity returns were somewhat subdued by ongoing political concerns. Media attention surrounding the dismissal of FBI Director James Comey and the ongoing gridlock associated with the repeal and replacement of the Affordable Care Act has cast doubt on the current administration's ability to implement promised expansionary fiscal policy measures.
- Large cap stocks were the best performing capitalization segment for the quarter for both core and growth issues while mid cap equities posted a slight premium relative to other capitalizations within the value spectrum. While large cap stocks were the best performers, returns for the quarter fell in a narrow range for the period. Large-cap stocks represented by the Russell 1000 Index returned 3.1% for the quarter while the small cap Russell 2000 Index returned 2.5%. This return spread was partially due to the effects of rising interest rates and a falling USD. Conversely, over the 1-year period, small cap issues still maintain a considerable performance advantage, with the Russell 2000 returning 24.6% versus a return of 18.0% for the Russell 1000.
- Building on trends from the 1<sup>st</sup> quarter, index sector allocations were a substantial contributor to growth index outperformance during the 2<sup>nd</sup> quarter. Growth indices benefitted from significant underweights to the energy and telecommunications sectors, both of which lagged the broad index return. Growth benchmarks also benefitted from greater exposure to the information technology and health care sectors which posted strong sector returns. The Russell 2000 Value Index's return of 0.7% was the worst performing style index for the period. Over the 1-year period, growth indices outperformed value indices in the large and mid cap market capitalizations, but underperformed value equities within the small cap space.
- Domestic equity valuations appear stretched relative to historical levels based on Forward Price/Earnings ratios (P/E), with even the most reasonably valued indices trading above their historical P/E valuations. Index P/E valuations range from 112% to 134% of their respective 15-year P/E averages. The mid cap core and small cap value indices appear the most inexpensive and the large cap growth and small cap growth segments look the most overvalued.



- Sector performance within the Russell 1000 Index was largely positive for the 2<sup>nd</sup> quarter. Five of eleven economic sectors outpaced the Russell 1000 Index return, and nine of eleven sectors posted gains during the period. Energy trailed for the second consecutive quarter as crude prices continued to fall. While OPEC continues to take measures to limit production, accelerating output from shale producers in the U.S. fueled concerns of oversupply, putting downward pressure on prices. Telecommunication services was the only other large cap sector to post negative performance for the quarter, also returning -7.1%. Despite continued uncertainty surrounding potential reform, health care was the best performing sector in the large cap index, returning 7.2%. Technology and industrials also performed well as increasing business and consumer confidence and strong earnings pushed stock prices 4.3% higher in both sectors through the quarter. Over the trailing 1-year period, financials and technology were the best performing sectors in the Russell 1000, each returning greater than 30%. Eight of eleven large cap economic sectors posted positive returns for the 1-year period with six posting double digit returns.
- Small cap sector results generally lagged their large capitalization counterparts for the 2<sup>nd</sup> straight quarter. Six of eleven economic sectors outpaced the Russell 2000 Index return for the quarter, and nine of eleven sectors posted positive results for the period. Most of the sector trends observable in large cap index sector performance also impacted small cap sectors. However, small cap telecom services outperformed large cap telecom stocks by over 20%, returning 15.5%. Similar to large cap issues, energy was the biggest detractor, falling -19.7% for the quarter. Returns for health care were also solid through the quarter posting a 9.0% gain. Over the 1-year period, the materials, financials, health care and technology sectors each posted returns in excess of 30% and seven sectors had gains greater than 10%. Energy was the only Russell 2000 sector to post a negative return over last year, falling -6.6%.
- Using S&P 500 sector valuations as a proxy for the market, Forward P/E ratios for eight of the GICS sectors were higher than their long-term averages at quarter-end. Using these historical P/E measures, the energy, materials and utilities sectors appear the most extended. In contrast the technology, health care and telecommunications sectors were trading at a discount to their long-term average P/E ratios.



**The Market Environment**  
**Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000**  
As of June 30, 2017

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	3.24%	0.7%	53.5%	Information Technology
Microsoft Corp	2.23%	5.2%	38.0%	Information Technology
Amazon.com Inc	1.66%	9.2%	35.3%	Consumer Discretionary
Johnson & Johnson	1.54%	6.9%	12.0%	Health Care
Facebook Inc A	1.52%	6.3%	32.1%	Information Technology
Exxon Mobil Corp	1.48%	-0.6%	-10.7%	Energy
Berkshire Hathaway Inc B	1.40%	1.6%	17.0%	Financials
JPMorgan Chase & Co	1.39%	4.6%	51.0%	Financials
Alphabet Inc A	1.19%	9.7%	32.1%	Information Technology
Alphabet Inc C	1.18%	9.5%	31.3%	Information Technology

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Kite Pharma Inc	0.26%	32.1%	107.3%	Health Care
Gramercy Property Trust	0.23%	13.0%	11.8%	Real Estate
Catalent Inc	0.23%	23.9%	52.7%	Health Care
Medidata Solutions Inc	0.23%	35.6%	66.8%	Health Care
Parexel International Corp	0.23%	37.7%	38.2%	Health Care
Healthsouth Corp	0.22%	13.6%	27.5%	Health Care
Idacorp Inc	0.22%	3.6%	7.8%	Utilities
bluebird bio Inc	0.22%	15.6%	142.7%	Health Care
Fair Isaac Corp	0.22%	8.1%	23.4%	Information Technology
WGL Holdings Inc	0.22%	1.7%	21.1%	Utilities

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Wayfair Inc Class A	0.01%	89.9%	97.1%	Consumer Discretionary
Alnylam Pharmaceuticals Inc	0.03%	55.6%	43.7%	Health Care
SunPower Corp	0.00%	53.1%	-39.7%	Information Technology
First Solar Inc	0.01%	47.2%	-17.7%	Information Technology
Zillow Group Inc C	0.02%	45.6%	35.1%	Information Technology
Yum China Holdings Inc	0.06%	45.0%	N/A	Consumer Discretionary
Zillow Group Inc A	0.01%	44.5%	33.3%	Information Technology
Whole Foods Market Inc	0.06%	43.0%	33.9%	Consumer Staples
IAC/InterActiveCorp	0.03%	40.0%	83.4%	Information Technology
Akorn Inc	0.01%	39.3%	17.7%	Health Care

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Straight Path Communications Inc	0.08%	399.4%	549.3%	Telecommunication Services
Altimmune Inc	0.00%	294.3%	146.8%	Health Care
Global Sources Ltd	0.01%	142.4%	118.1%	Information Technology
Puma Biotechnology Inc	0.13%	134.9%	193.4%	Health Care
Angie's List Inc	0.03%	124.4%	96.5%	Information Technology
Conn's Inc	0.02%	118.3%	154.0%	Consumer Discretionary
Weight Watchers International Inc	0.05%	114.6%	187.4%	Consumer Discretionary
NantKwest Inc	0.01%	113.8%	22.0%	Health Care
NovoCure Ltd	0.05%	113.6%	48.2%	Health Care
Vivint Solar Inc	0.01%	108.9%	90.6%	Industrials

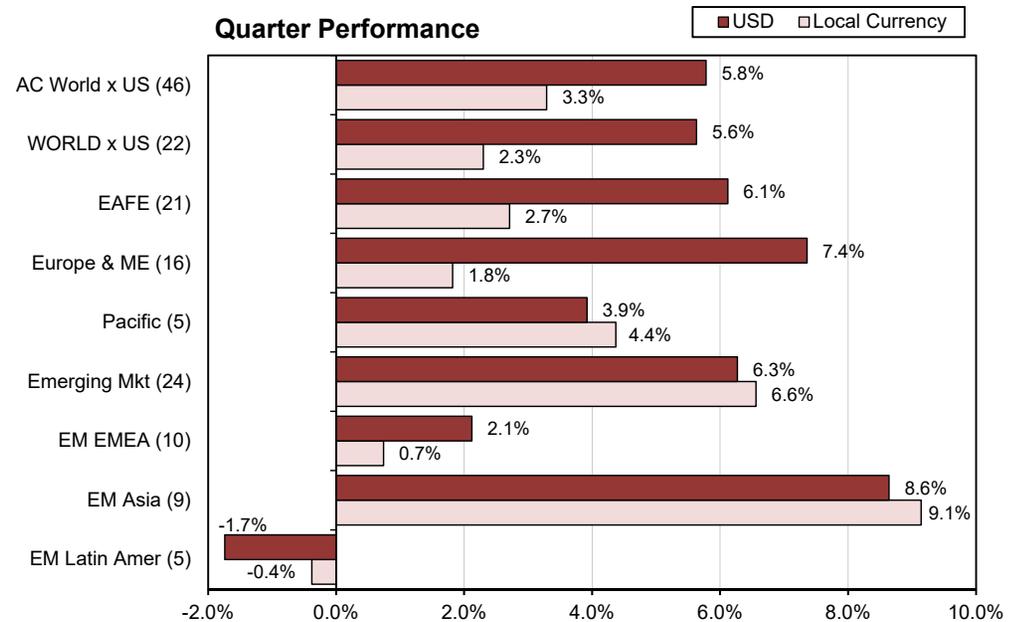
Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Frontier Communications Corp Class B	0.00%	-44.2%	-73.4%	Telecommunication Services
Enesco PLC Class A	0.00%	-42.3%	-46.6%	Energy
Weatherford International PLC	0.01%	-41.8%	-30.3%	Energy
Whiting Petroleum Corp	0.01%	-41.8%	-40.5%	Energy
Noble Corp PLC	0.00%	-41.5%	-55.9%	Energy
Nabors Industries Ltd	0.01%	-37.3%	-17.3%	Energy
Chicago Bridge & Iron Co NV	0.00%	-35.5%	-42.3%	Industrials
Diamond Offshore Drilling Inc	0.00%	-35.2%	-55.5%	Energy
Hertz Global Holdings Inc	0.00%	-34.4%	-73.8%	Industrials
United States Steel Corp	0.02%	-34.4%	32.4%	Materials

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
First NBC Bank Holding Co	0.00%	-99.3%	-99.8%	Financials
Seadrill Ltd	0.00%	-76.8%	-88.6%	Energy
Avinger Inc	0.00%	-76.4%	-96.2%	Health Care
Bonanza Creek Energy Inc	0.03%	-75.5%	-85.9%	Energy
EXCO Resources Inc	0.00%	-71.5%	-86.4%	Energy
XBiotech Inc	0.00%	-71.5%	-77.5%	Health Care
Vince Holding Corp	0.00%	-69.6%	-91.4%	Consumer Discretionary
NewLink Genetics Corp	0.01%	-69.5%	-34.7%	Health Care
Cobalt International Energy Inc	0.00%	-69.1%	-87.7%	Energy
Terravia Holdings Inc	0.00%	-67.8%	-91.1%	Materials

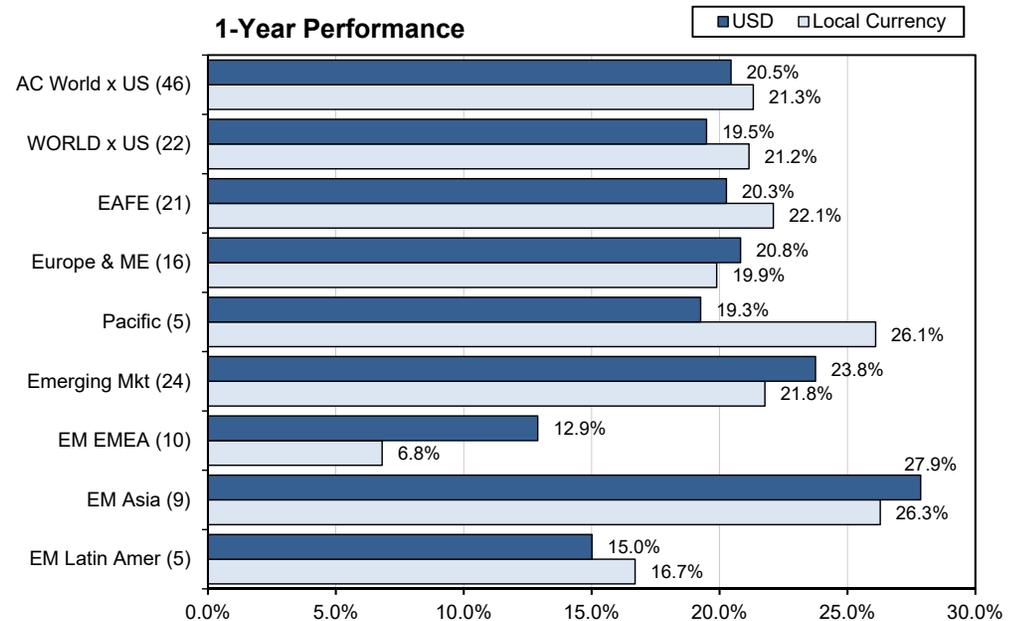


- International equity returns for the 2<sup>nd</sup> quarter were largely driven by ongoing improvement in the global economy, a weakening USD and political news in Europe and the U.K. Emerging markets were the greatest beneficiaries of these trends, outperforming developed economies for the second straight quarter. While USD strength remains on the high side of its 10-year range, the USD continued its year-to-date decline, providing further tailwinds to international index returns denominated in USD. However, the 1-year performance for broad international indices still show a modest negative currency impact due to USD strength.
- Broad developed market international index performance was positive for the 2<sup>nd</sup> quarter in both USD and local currency terms with the MSCI EAFE Index returning 6.1% and 2.7% respectively. Eurozone, U.K. and Japanese markets advanced on the back of positive macroeconomic data and strong corporate earnings. Similar to U.S. markets, ongoing political developments also had an effect on international markets with elections in France and the U.K. making headline news. In France, the presidential election of centrist candidate Emmanuel Macron calmed market fears of further break-up within the European Union. Macron's party also won parliamentary majority giving rise to optimism on the possibility of new economic reforms. In the U.K., Prime Minister Theresa May's decision to call special elections in an attempt to strengthen her party's parliamentary position prior to the start of Brexit negotiations had the opposite effect and resulted in a hung parliament, increasing the odds of a "hard Brexit" scenario. Markets gave back some gains towards the end of the quarter as central bank commentary indicated the increased possibility of tightened monetary policy in the future. When viewed over the last 12 months, developed market index performance is robust in both USD and local currency terms, with the MSCI EAFE returning 20.3% and 22.1% respectively.
- A supportive global economic environment and a weakening USD allowed emerging markets to build on their strong start to the year, outperforming developed markets, and returning 6.3% and 6.6% in USD and local currency terms respectively. Greece had a particularly good quarter, returning 33.8% in USD terms, after it was able to reach an agreement to obtain additional bailout funds needed to pay creditors. Russia, Qatar and Brazil were the worst performing countries in the index. Russia and Qatar both suffered from falling oil prices. Qatar was also subject to a blockade by several neighboring countries alleging that Qatar is responsible for supporting instability within the region. Brazilian equities fell as corruption allegations against its President, Michel Temer, increased political risk within the country, putting downward pressure on equity markets. One year returns on the MSCI Emerging Market Index are an impressive 23.8% in USD terms.

**Quarter Performance**



**1-Year Performance**



Source: MSCI Global Index Monitor (Returns are Net)



**The Market Environment**  
**U.S. Dollar International Index Attribution & Country Detail**  
As of June 30, 2017

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	12.1%	4.7%	24.2%
Consumer Staples	11.5%	7.6%	7.3%
Energy	4.7%	-0.7%	6.1%
Financials	21.5%	7.2%	39.8%
Health Care	10.8%	7.2%	4.6%
Industrials	14.5%	7.0%	24.5%
Information Technology	6.1%	9.5%	35.8%
Materials	7.5%	3.3%	33.1%
Real Estate	3.6%	4.6%	7.7%
Telecommunication Services	4.3%	4.8%	2.2%
Utilities	3.4%	7.2%	7.1%
<b>Total</b>	<b>100.0%</b>	<b>6.1%</b>	<b>20.3%</b>

MSCI - ACWlxUS	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	11.3%	5.6%	23.7%
Consumer Staples	9.9%	7.1%	6.5%
Energy	6.3%	-2.9%	6.5%
Financials	23.3%	5.7%	33.6%
Health Care	8.1%	7.2%	4.3%
Industrials	12.0%	6.8%	23.8%
Information Technology	10.8%	12.9%	41.9%
Materials	7.6%	1.7%	27.2%
Real Estate	3.2%	5.8%	9.1%
Telecommunication Services	4.4%	4.0%	3.3%
Utilities	3.1%	5.2%	5.9%
<b>Total</b>	<b>100.0%</b>	<b>5.8%</b>	<b>20.5%</b>

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	10.6%	8.4%	21.4%
Consumer Staples	6.8%	5.1%	2.5%
Energy	6.6%	-4.9%	15.9%
Financials	23.6%	3.9%	26.6%
Health Care	2.4%	4.4%	1.9%
Industrials	5.7%	3.9%	16.1%
Information Technology	26.6%	15.5%	46.9%
Materials	7.1%	-0.5%	28.1%
Real Estate	2.7%	11.4%	18.6%
Telecommunication Services	5.4%	2.0%	5.1%
Utilities	2.6%	-1.8%	1.6%
<b>Total</b>	<b>100.0%</b>	<b>6.3%</b>	<b>23.8%</b>

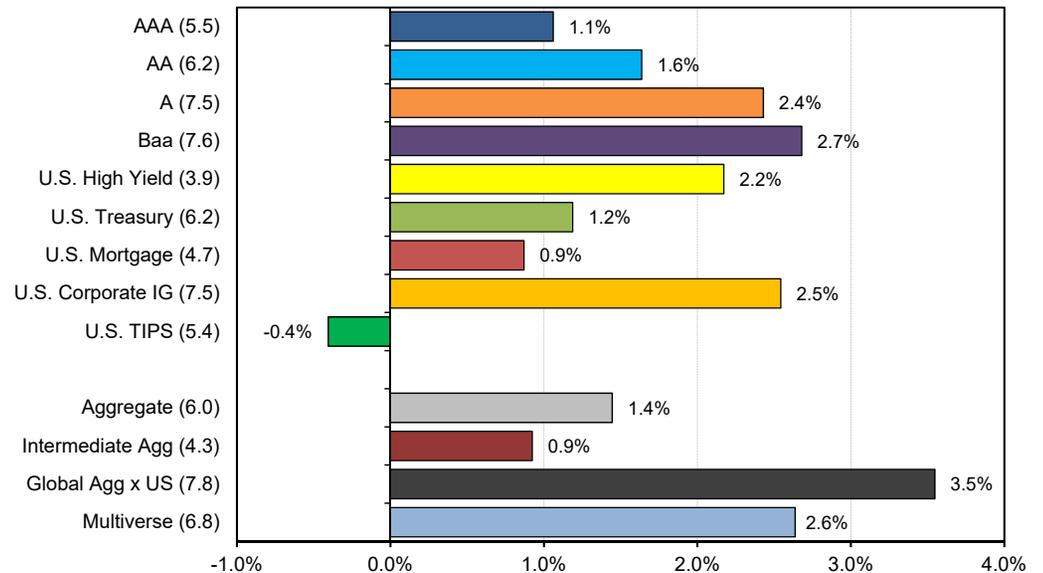
Country	MSCI-EAFE Weight	MSCI-ACWlxUS Weight	Quarter Return	1-Year Return
Japan	23.5%	16.3%	5.2%	19.2%
United Kingdom	17.7%	12.3%	4.7%	13.4%
France	10.5%	7.3%	9.1%	28.1%
Germany	9.5%	6.6%	6.4%	28.7%
Switzerland	8.5%	5.9%	9.0%	16.5%
Australia	7.1%	4.9%	-1.9%	18.3%
Netherlands	3.5%	2.5%	7.8%	28.2%
Hong Kong	3.5%	2.4%	7.2%	23.8%
Spain	3.5%	2.4%	7.9%	38.4%
Sweden	2.9%	2.0%	8.6%	26.7%
Italy	2.3%	1.6%	9.0%	30.9%
Denmark	1.8%	1.3%	15.3%	4.7%
Singapore	1.3%	0.9%	5.3%	14.9%
Belgium	1.1%	0.8%	4.8%	2.1%
Finland	1.0%	0.7%	13.4%	25.0%
Israel	0.7%	0.5%	6.5%	-2.3%
Norway	0.6%	0.4%	4.1%	14.9%
Ireland	0.5%	0.3%	3.8%	15.8%
Austria	0.2%	0.2%	21.8%	65.0%
New Zealand	0.2%	0.1%	8.1%	10.4%
Portugal	0.2%	0.1%	3.1%	15.2%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>69.6%</b>	<b>6.1%</b>	<b>20.3%</b>
Canada		6.6%	0.6%	11.7%
<b>Total Developed Countries</b>		<b>76.2%</b>	<b>5.6%</b>	<b>19.5%</b>
China		6.6%	10.6%	32.2%
Korea		3.7%	10.2%	34.9%
Taiwan		3.0%	8.8%	32.9%
India		2.1%	2.9%	17.5%
Brazil		1.6%	-6.7%	17.0%
South Africa		1.6%	3.5%	10.2%
Mexico		0.9%	7.2%	12.0%
Russia		0.8%	-10.0%	10.3%
Indonesia		0.6%	8.5%	17.2%
Malaysia		0.6%	5.1%	2.7%
Thailand		0.5%	2.4%	17.1%
Poland		0.3%	13.6%	42.6%
Philippines		0.3%	7.1%	-6.2%
Turkey		0.3%	19.3%	8.1%
Chile		0.3%	-2.1%	14.0%
United Arab Emirates		0.2%	1.3%	8.4%
Qatar		0.2%	-10.9%	-2.3%
Colombia		0.1%	2.5%	8.8%
Peru		0.1%	7.2%	17.2%
Greece		0.1%	33.8%	50.4%
Hungary		0.1%	19.4%	44.4%
Czech Republic		0.0%	8.1%	10.0%
Pakistan		0.0%	-2.3%	18.3%
Egypt		0.0%	3.2%	-2.1%
<b>Total Emerging Countries</b>		<b>23.8%</b>	<b>6.3%</b>	<b>23.8%</b>
<b>Total ACWlxUS Countries</b>		<b>100.0%</b>	<b>5.8%</b>	<b>20.5%</b>

Source: MSCI Global Index Monitor (Returns are Net in USD)

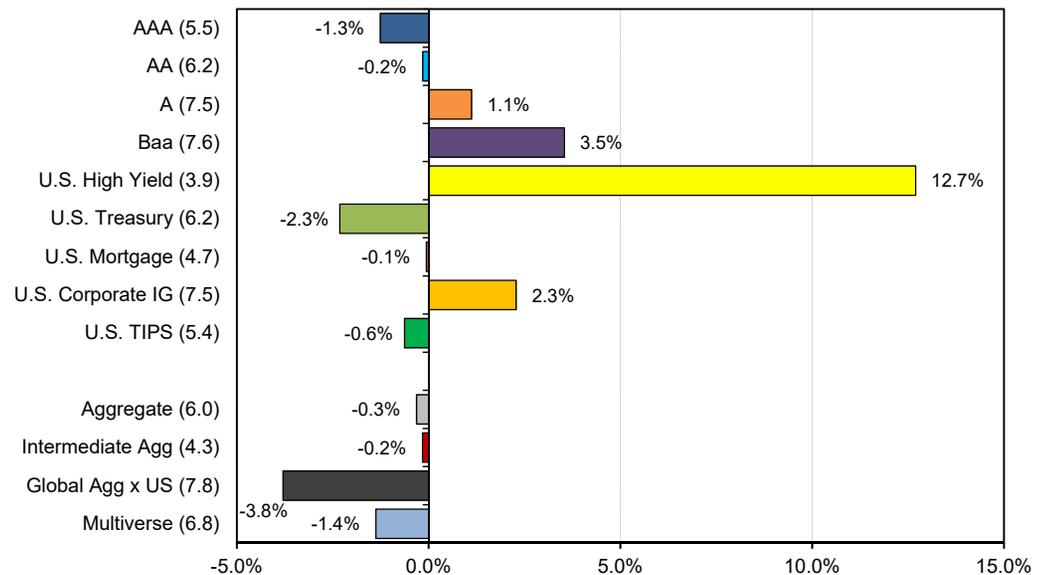


- Most broad fixed income benchmarks finished the 2<sup>nd</sup> quarter with modest gains. The Bloomberg Barclays U.S. Aggregate Index ended the quarter with a 1.4% increase. Interest rates fell through most of the period before rising near the end of the quarter. The Federal Open Market Committee (FOMC) voted to increase short-term interest rates by 25 basis points (bps) during their June meeting. This represented the third consecutive interest rate increase in the last 3 quarters. While inflation remains below target, the Fed viewed the economy as healthy enough to warrant continued tightening. This caused a flattening of the yield curve as short-term market yields rose through the quarter, but long term interest rates fell. The Fed also outlined plans to gradually reduce its balance sheet by slowing the rate of reinvestment of the Treasury and mortgage backed securities (MBS) it holds on its books as the securities mature. The amount reinvested each month will fall systematically, reducing the size of the Fed's balance sheet over time. Implementation of this plan could begin before the end of the year and would be viewed as further tightening of monetary policy. This news from the Fed put upward pressure on interest rates as the quarter came to a close. Most investment grade indices posting slightly negative returns over the last year. The Bloomberg Barclays U.S. Aggregate index returned -0.3% for the 1-year period.
- Lower quality bonds outperformed higher quality issues for both the quarter and 1-year period as contracting credit spreads from improvements in economic fundamentals acted as a tailwind to these issues. During the 2<sup>nd</sup> quarter credit spreads for high yield debt decreased by 19 bps versus only 9 bps for investment grade corporate issues. BAA issues more than doubled the return of AAA securities, returning 2.7% versus a more modest 1.1% for AAA debt. High yield debt has been the largest beneficiary of the strengthening economy, returning 2.2% for the quarter and 12.7% for the 1-year period.
- A review of sector performance shows investment grade credit outpacing other Treasuries, and MBS indices. As previously mentioned, corporate issues benefited from tightening credit spreads. MBS trailed Treasuries and investment grade corporates for the quarter as the Fed's plan to taper their ongoing reinvestment in agency MBS pushed spreads on MBS 5 bps higher while spreads tightened across all other fixed income sectors. TIPS posted the worst returns for the quarter, falling -0.4%, as lower inflation expectations drove prices lower. Led by a weakening USD, global bond indices posted solid results for the quarter. However, hawkish comments from several global central banks pared some gains at the end of the period. Fixed income returns over the 1-year period were broadly negative with only corporate issues posting gains. Despite a strong start to 2017, global bond returns trail domestic indices over the 1-year period with the Bloomberg Barclays Aggregate ex U.S. returning -3.8% for the period.

**Quarter Performance**

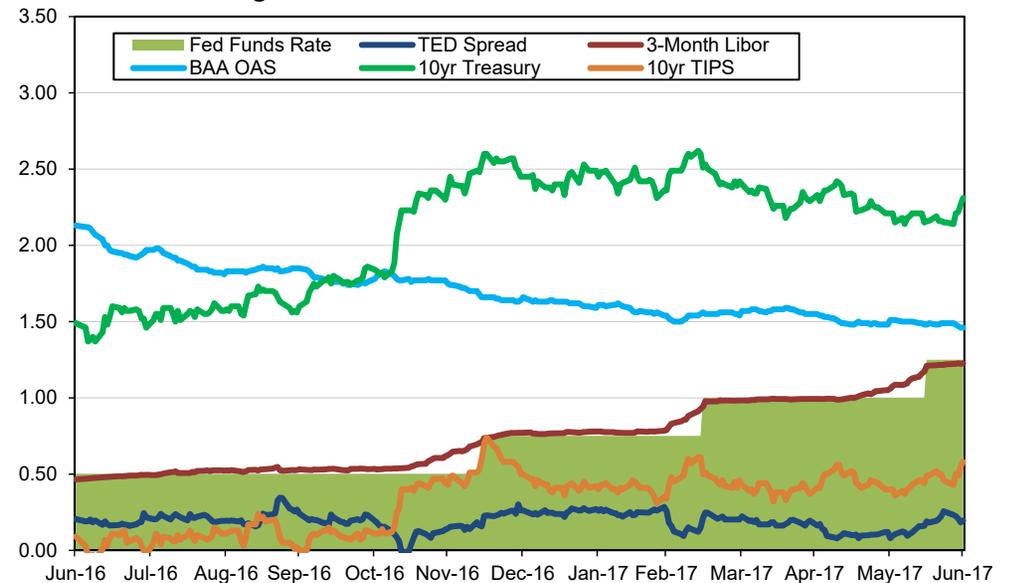


**1-Year Performance**

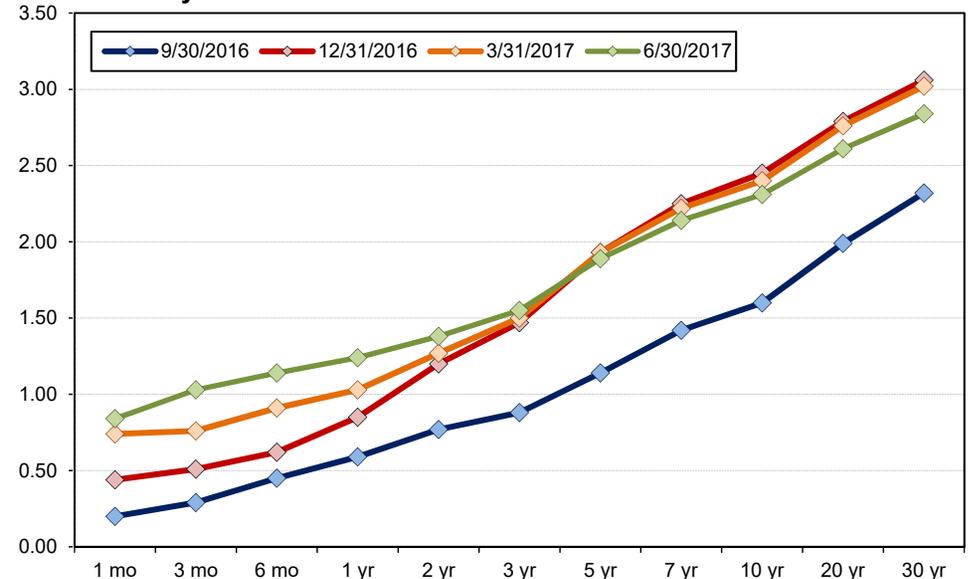


- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) rose dramatically in the 4<sup>th</sup> quarter of 2016, held largely steady during the 1<sup>st</sup> quarter of 2017 and then gradually fell through most of 2<sup>nd</sup> quarter before spiking at the end of June. The yield on the 10-year Treasury has fallen to 2.31% from 2.45% at the start of the year. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. This line illustrates a steady decline in credit spreads throughout 2016 and into 2017. This decline is equivalent to an interest rate decrease on corporate bonds, which produces a tailwind for corporate bond index returns. These credit spreads have tightened by about 65 bps over the last 12-months. The green shading at the bottom of the graph illustrates the continued increase in the Federal Funds Rate due to a less accommodative Fed monetary policy.
- The lower graph provides a snapshot of the U.S. Treasury yield curve at each of the last four calendar quarters. Similar to the 1<sup>st</sup> quarter, the yield curve flattened further throughout the 2<sup>nd</sup> quarter as yields on shorter-term maturities rose, while interest rates on the long end of the curve (5-years and beyond) continued to decline. Interest rate movement during the period was relatively muted, the significant upward shift in interest rates since the end of 2016 is clearly visible. Yields on the 3-month Treasury Bill have jumped by almost 75 bps since September 30, 2016. Yields on the 30-year Treasury Bond have increased by more than 50 bps over the same period.
- Despite the rise in short-term interest rates, most fixed income indices finished the 2<sup>nd</sup> quarter in positive territory. In a rising rate environment, it is generally expected that longer-duration market indices will fall more than equivalent lower-duration benchmarks. However, the magnitude of interest rate shifts across the term structure and spread movements can lead to atypical short-term results. Finally, while global benchmarks are impacted by the same local yield and duration factors as domestic benchmarks, the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. This currency effect can either be an offsetting benefit to negative yield and duration factors in a rising rate environment as it has been year-to-date, or it can further exacerbate negative performance as it did in 2016.

1-Year Trailing Market Rates



Treasury Yield Curve



**Evaluation Process**

This section presents charts and graphs that highlight the investment character of each portfolio analyzed. The performance, portfolio characteristics, risk profile, and style traits of each portfolio are compared against those of its benchmark(s) and other funds with similar objectives. Eight criteria-specific rankings are developed, and then combined, to establish each portfolio's overall status.

The table below describes the evaluation standards used. Significant changes in portfolio characteristics compared to historical positioning, large performance deficits, and risk or style shortcomings are fundamental factors in concluding if remedial action is advisable. However, a violation of one of more of the standards does not automatically require remedial action.

Investment Policy Criteria	Weighting	Summary of Evaluation
<b>Manager Performance</b>		
Investment Returns vs. Peer Group	20%	A fund is evaluated relative to where its 1, 3 and 5-year returns fall within its peer group. The results for each period are combined to determine total ranking (satisfactory, modest breach, significant concern). A similar process is used to evaluate the fund's performance relative to its benchmark(s).
Historical Performance vs. Benchmark	20%	
<b>Portfolio Characteristics</b>		
Adherence to Standards	10%	These criteria compare portfolio characteristics such as market capitalization, number of holdings, cash, and concentration of holdings against objective standards and benchmarks. For example, a fund with a high allocation to cash or with a high/low average market capitalization relative to its benchmark will receive a lower grade. Additionally, funds having less than three years of performance history or having manager tenure of less than three years will receive a lower grade.
Inception & Manager Tenure	10%	
<b>Risk Profile</b>		
Sharpe Ratio & Standard Deviation Relative to Peer Group	10%	A fund is evaluated relative to where its 3- and 5-year Sharpe ratio and standard deviation fall within its peer group. The results for each period are combined to determine total ranking. A similar process is used to evaluate the fund's Sharpe ratio and standard deviation relative to its benchmark(s).
Sharpe Ratio & Standard Deviation Relative to Benchmark	10%	
<b>Style Traits</b>		
Adherence to Investment Objectives	10%	A fund's style is evaluated based upon how closely it adheres to its stated investment objective and how stable its style has been historically. Criteria used to evaluate a fund's style traits include returns-based style analysis, statistics such as r-squared, and portfolio characteristics such as price/earnings ratio. Funds with style traits that are inconsistent with their stated objective or historically unstable receive lower grades.
Historical Style Stability	10%	
<b>Status</b>		
Overall Status		The results for all criteria are combined to determine an overall ranking for the fund. Rankings include Satisfactory, Modest Breach ("Guarded" status) and Significant Concern ("Watch List" status).

Note: Grades are based on AndCo's Proprietary scale



### Portfolio Evaluation Summary

This report provides opinions, analysis, and supporting statistical information concerning:

- the performance, volatility, and characteristics of each designated Plan fund
- the continuing suitability of each fund as a Plan investment option

### Portfolio Performance and Suitability of Plan Funds

Our overall evaluation of the Plan's investment funds may be summarized as follows:

Summary Evaluation	Number of Funds
Pass (Satisfactory)	15
Guarded	2
Watch	1

See the Plan Funds Observations and Comments, below, for further explanation.

### Plan Fund Observations and Comments

The majority of Plan funds have substantially achieved their category-specific standards for performance, controlled volatility, and portfolio characteristics. The charts in the following pages reveal some modest breaches compared to established

evaluation standards; however, we do not find divergences from the funds' stated objectives or styles that are worrisome except as discussed below.

### Fund Commentary

**Hartford Small Company** will be terminated from the plan on July 12, 2017, and will be replaced by the Wells Fargo Small Company Growth Fund.

**Hotchkis & Wiley Mid Cap Value** remains on Guarded status due to continued lagging returns relative to its benchmark and peers. The fund has underperformed the benchmark index over the three and five years periods, while outperforming during the latest twelve months. Relative peer group rankings are mixed in the near term, but remain strong over the longer term periods. The fund underperformed during the quarter at both the benchmark and peer group level. The fund has been fluctuating between guarded and watch status for the last six quarters. We will continue to monitor the fund at this time.

**Lazard Emerging Markets Fund** has been placed on Guarded status due to near term underperformance relative to its benchmark and peers. The fund has underperformed the benchmark index over the three and five years periods, while outperforming during the latest ten years. Relative peer group rankings have disappointed in the near term, and have deteriorated over the longer term periods. The fund significantly underperformed during the quarter at both the benchmark and peer group level. The fund was last placed on Watch and then Guarded status back in 2015 after suffering from relative peer and benchmark underperformance. The fund did have strong return in 2016, and the manager and strategy remain in tact.



**Portfolio Evaluation Summary**

- 1 Trailing 1, 3 and 5-year portfolio returns versus peer group
- 2 Historic performance relative to benchmark
- 3 Portfolio characteristics compared to established standards
- 4 At least 3 years of investment performance/At least 3 years with current fund manager
- 5 Sharpe ratio and standard deviation of fund relative to peer group
- 6 Sharpe ratio and standard deviation of fund relative to benchmark
- 7 Style consistent with fund objective
- 8 Style historically stable
- 9 Summary Evaluation

Pass (Satisfactory)
Guarded
Watch

Investment Funds	1	2	3	4	5	6	7	8	9
Lazard Emerging Markets Equity (LZOEX)	Guarded	Guarded	Pass	Pass	Guarded	Guarded	Pass	Pass	Guarded
DFA International Small Cap Value (DISVX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Funds EuroPacific Growth (REMGX)	Pass	Pass	Pass	Pass	Pass	Pass	Guarded	Pass	Pass
Hartford Small Company (HIASX)	Watch	Watch	Watch	Watch	Guarded	Guarded	Guarded	Guarded	Watch
Vanguard Small Cap Index Adm (VSMAX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
AMG Managers Skyline Special Equities (SKSEX)	Pass	Guarded	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hartford Mid Cap (HIMCX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Vanguard Mid Cap Index Adm (VIMAX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hotchkis & Wiley Mid Cap Value (HWMIX)	Guarded	Guarded	Pass	Pass	Guarded	Guarded	Pass	Pass	Guarded
American Funds Growth Fund of America (RGAGX)	Pass	Pass	Pass	Pass	Guarded	Pass	Pass	Pass	Pass
Wells Fargo Disciplined US Core (EVSIX)	Pass	Pass	Pass	Pass	Guarded	Pass	Pass	Pass	Pass
Vanguard Institutional Index (VINIX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Century Equity Income (AEUDX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Funds American Balanced (RLBGX)	Pass	Pass	Pass	Pass	Guarded	Pass	Pass	Pass	Pass
PIMCO High Yield (PHIYX)	Pass	Pass	Pass	Pass	Guarded	Pass	Pass	Pass	Pass
PIMCO Foreign Bond USD-Hedged (PFORX)	Pass	Pass	Pass	Pass	Guarded	Pass	Pass	Pass	Pass
Hartford Total Return Bond (HIABX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
MassMutual Guaranteed Interest Account	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass



**Historical Summary Evaluation**

Pass (Satisfactory)
Guarded
Watch

Investment Funds	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15	2Q15	1Q15
Lazard Emerging Markets Equity (LZOEX)	Pass	Pass	Pass	Pass	Pass	Watch	Watch	Guarded	Pass
DFA International Small Cap Value (DISVX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
American Funds EuroPacific Growth (RERGX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hartford Small Company (HIASX)	Watch	Watch	Watch	Watch	Watch	Guarded	Pass	Pass	Pass
Vanguard Small Cap Index Adm (VSMAX)	Pass	Pass	Pass	Pass	Pass	Pass			
AMG Managers Skyline Special Equities (SKSEX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hartford Mid Cap (HIMCX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Vanguard Mid Cap Index Adm (VIMAX)	Pass	Pass	Pass	Pass	Pass	Pass			
Hotchkis & Wiley Mid Cap Value (HWMIX)	Guarded	Guarded	Watch	Watch	Watch	Guarded	Pass	Pass	Pass
American Funds Growth Fund of America (RGAGX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Wells Fargo Disciplined US Core (EVSIX)	Pass	Pass							
Vanguard Institutional Index (VINIX)	Pass	Pass	Pass	Pass	Pass	Pass			
American Century Equity Income (AEUDX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Guarded	Guarded
American Funds American Balanced (RLBGX)	Pass	Pass	Pass	Pass	Pass	Pass			
PIMCO High Yield (PHIYX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
PIMCO Foreign Bond USD-Hedged (PFORX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hartford Total Return Bond (HIABX)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
MassMutual Guaranteed Interest Account	Pass	Pass	Pass	Pass	Pass	Pass			



**Asset Allocation Attributes**

	Jun-2017		Mar-2017		Dec-2016	
	(\$)	%	(\$)	%	(\$)	%
<b>Total 457 Fund</b>	<b>152,298,111</b>	<b>100.00</b>	<b>149,717,242</b>	<b>100.00</b>	<b>144,157,993</b>	<b>100.00</b>
<b>International Equity</b>						
Lazard Emerging Markets Equity (LZOEX)	1,313,040	0.86	1,261,686	0.84	1,083,495	0.75
DFA International Small Cap Value (DISVX)	1,541,638	1.01	1,462,847	0.98	1,353,060	0.94
American Funds EuroPacific Growth (RERGX)	4,555,752	2.99	4,357,033	2.91	3,990,593	2.77
<b>Domestic Equity</b>						
Hartford Small Company (HIASX)	2,278,493	1.50	2,135,867	1.43	2,159,074	1.50
Vanguard Small Cap Index (VSMAX)	2,480,986	1.63	2,265,051	1.51	1,845,028	1.28
AMG Managers Skyline Special Equities (SKSEX)	3,077,748	2.02	3,226,715	2.16	3,220,620	2.23
Hartford Mid Cap (HIMCX)	7,855,268	5.16	7,343,763	4.91	6,957,889	4.83
Vanguard Mid Cap Index (VIMAX)	2,110,294	1.39	1,923,922	1.29	1,612,174	1.12
Hotchkis & Wiley Mid Cap Value (HWMIX)	3,572,742	2.35	3,896,459	2.60	3,907,471	2.71
AF Growth Fund of America (RGAGX)	12,119,491	7.96	11,838,458	7.91	10,985,685	7.62
Wells Fargo Disciplined US Core (EVSIX)	12,245,347	8.04	11,981,256	8.00	11,625,985	8.06
Vanguard Institutional Index (VINIX)	9,873,167	6.48	9,064,965	6.05	8,077,455	5.60
American Century Equity Income (AEUDX)	7,445,564	4.89	7,639,060	5.10	7,213,898	5.00
<b>Balanced Fund</b>						
American Funds American Balanced (RLBGX)	5,073,638	3.33	4,880,419	3.26	4,612,834	3.20
<b>Fixed Income</b>						
PIMCO High Yield (PHIYX)	2,242,401	1.47	2,169,303	1.45	2,144,088	1.49
PIMCO Foreign Bond USD-Hedged (PFORX)	833,069	0.55	945,759	0.63	864,630	0.60
Hartford Total Return Bond (HIABX)	3,607,391	2.37	3,706,341	2.48	3,934,422	2.73
<b>Cash</b>						
MassMutual Guaranteed Interest Account	67,804,514	44.52	67,326,796	44.97	66,242,623	45.95
Loan Account	2,267,568	1.49	2,291,541	1.53	2,326,974	1.61



**Asset Allocation**  
**457 Retirement Models**  
As of June 30, 2017

**Asset Allocation Attributes**

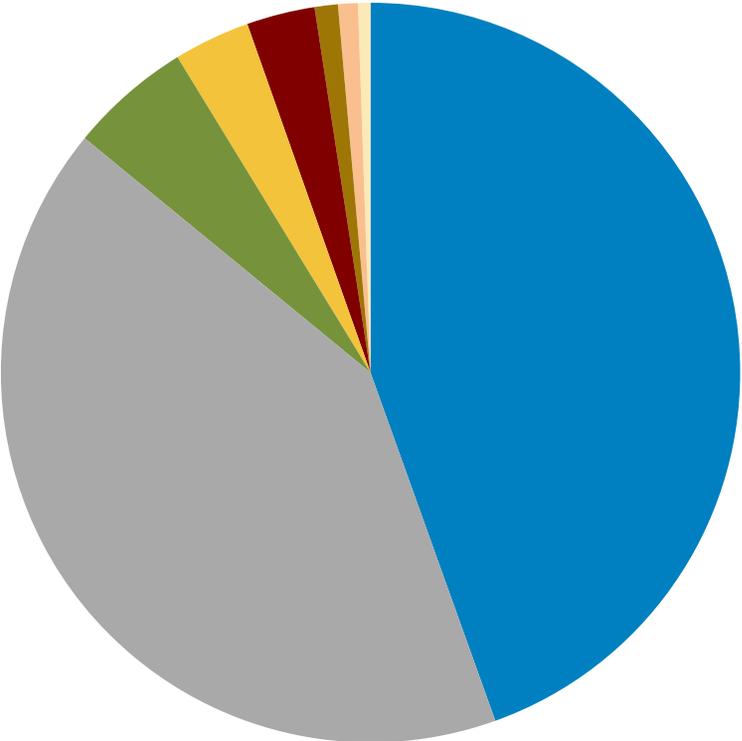
	Jun-2017		Mar-2017		Dec-2016	
	(\$)	%	(\$)	%	(\$)	%
WCAB 2060 Retirement	-	0.00	-	0.00	-	0.00
WCAB 2055 Retirement	453	0.01	-	0.00	-	0.00
WCAB 2050 Retirement	751,112	9.93	760,443	10.68	675,481	10.77
WCAB 2045 Retirement	400	0.01	-	0.00	-	0.00
WCAB 2040 Retirement	2,004,742	26.51	1,497,721	21.04	1,340,892	21.39
WCAB 2035 Retirement	183,443	2.43	175,005	2.46	143,392	2.29
WCAB 2030 Retirement	2,226,289	29.44	2,298,758	32.29	1,813,712	28.93
WCAB 2025 Retirement	615,143	8.13	592,803	8.33	263,423	4.20
WCAB 2020 Retirement	1,503,464	19.88	1,514,707	21.28	1,553,510	24.78
WCAB 2015 Retirement	-	0.00	-	0.00	-	0.00
WCAB 2010 Retirement	277,600	3.67	279,612	3.93	479,534	7.65
<b>Model Portfolios Total</b>	<b>7,562,646</b>	<b>100.00</b>	<b>7,119,048</b>	<b>100.00</b>	<b>6,269,945</b>	<b>100.00</b>



**Asset Allocation By Asset Class**  
**457 Total Plan**  
**As of June 30, 2017**

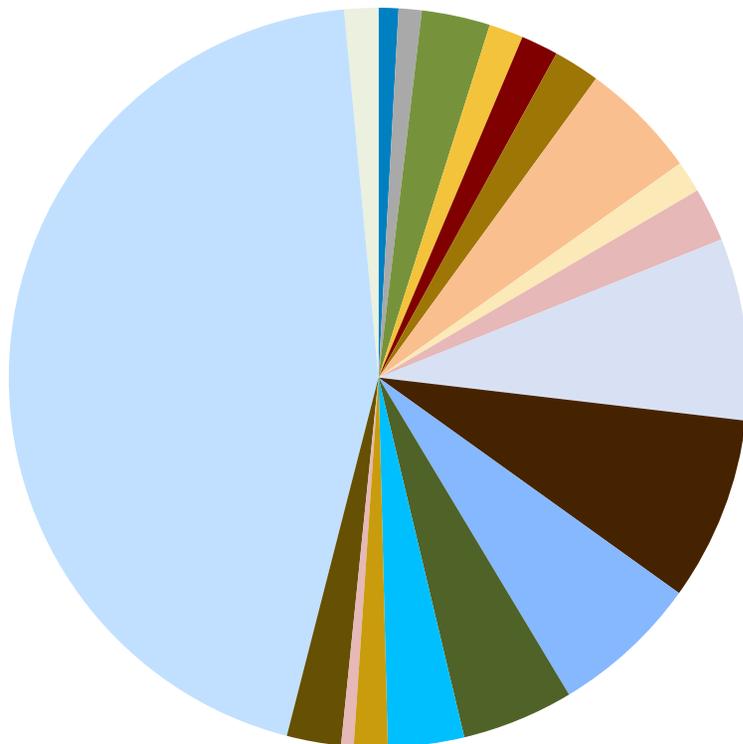
June 30, 2017 : \$152,298,111

Allocation	Market Value	Allocation
■ Cash	67,804,514	44.5
■ US Equity	63,059,100	41.4
■ US Fixed Income	8,117,360	5.3
■ US Balanced	5,073,638	3.3
■ International Equity	4,555,752	3.0
■ International-Developed Equity	1,541,638	1.0
■ International-Emerging Equity	1,313,040	0.9
■ International Fixed Income	833,069	0.5



**Asset Allocation By Manager**  
**457 Total Plan**  
As of June 30, 2017

June 30, 2017 : \$152,298,111



**Allocation**

	Market Value	Allocation
Lazard Emerging Markets Equity (LZOEX)	1,313,040	0.9
DFA International Small Cap Value (DISVX)	1,541,638	1.0
American Funds EuroPacific Growth (RERGX)	4,555,752	3.0
Hartford Small Company (HIASX)	2,278,493	1.5
Vanguard Small Cap Index (VSMAX)	2,480,986	1.6
AMG Managers Skyline Special Equities (SKSEX)	3,077,748	2.0
Hartford Mid Cap (HIMCX)	7,855,268	5.2
Vanguard Mid Cap Index (VIMAX)	2,110,294	1.4
Hotchkis & Wiley Mid Cap Value (HWMIX)	3,572,742	2.3
AF Growth Fund of America (RGAGX)	12,119,491	8.0
Wells Fargo Disciplined US Core (EVSIX)	12,245,347	8.0
Vanguard Institutional Index (VINIX)	9,873,167	6.5
American Century Equity Income (AEUDX)	7,445,564	4.9
American Funds American Balanced (RLBGX)	5,073,638	3.3
PIMCO High Yield (PHIYX)	2,242,401	1.5
PIMCO Foreign Bond USD-Hedged (PFORX)	833,069	0.5
Hartford Total Return Bond (HIABX)	3,607,391	2.4
MassMutual Guaranteed Interest Account	67,804,514	44.5
Loan Account	2,267,568	1.5



**Asset Allocation Attributes**

	Jun-2017		Mar-2017		Dec-2016	
	(\$)	%	(\$)	%	(\$)	%
<b>Total 401(a) Fund</b>	<b>10,578,402</b>	<b>100.00</b>	<b>10,230,688</b>	<b>100.00</b>	<b>9,795,910</b>	<b>100.00</b>
<b>International Equity</b>						
Lazard Emerging Markets Equity (LZOEX)	142,890	1.35	132,498	1.30	103,090	1.05
DFA International Small Cap Value (DISVX)	163,280	1.54	149,272	1.46	121,757	1.24
American Funds EuroPacific Growth (RERGX)	391,480	3.70	354,563	3.47	319,968	3.27
<b>Domestic Equity</b>						
Hartford Small Company (HIASX)	279,474	2.64	237,747	2.32	208,743	2.13
Vanguard Small Cap Index (VSMAX)	191,752	1.81	174,346	1.70	133,225	1.36
AMG Managers Skyline Special Equities (SKSEX)	319,917	3.02	307,174	3.00	291,029	2.97
Hartford Mid Cap (HIMCX)	651,719	6.16	600,429	5.87	546,946	5.58
Vanguard Mid Cap Index (VIMAX)	199,751	1.89	178,644	1.75	131,464	1.34
Hotchkis & Wiley Mid Cap Value (HWMIX)	325,507	3.08	318,121	3.11	320,714	3.27
American Funds Growth Fund of America (RGAGX)	665,465	6.29	621,280	6.07	550,717	5.62
Wells Fargo Disciplined US Core (EVSIX)	813,156	7.69	779,667	7.62	719,053	7.34
Vanguard Institutional Index (VINIX)	829,754	7.84	752,287	7.35	607,704	6.20
American Century Equity Income (AEUDX)	757,368	7.16	733,965	7.17	675,450	6.90
<b>Balanced Fund</b>						
American Funds American Balanced (RLBGX)	425,310	4.02	401,704	3.93	389,108	3.97
<b>Fixed Income</b>						
PIMCO High Yield (PHIYX)	171,705	1.62	152,606	1.49	137,566	1.40
PIMCO Foreign Bond USD-Hedged (PFORX)	105,586	1.00	91,592	0.90	59,669	0.61
Hartford Total Return Bond (HIABX)	462,200	4.37	458,296	4.48	408,169	4.17
<b>Cash</b>						
MassMutual Guaranteed Interest Account	3,465,917	32.76	3,562,287	34.82	3,830,136	39.10
Loan Account	216,171	2.04	224,212	2.19	241,402	2.46



**Asset Allocation  
401(a) Retirement Models  
As of June 30, 2017**

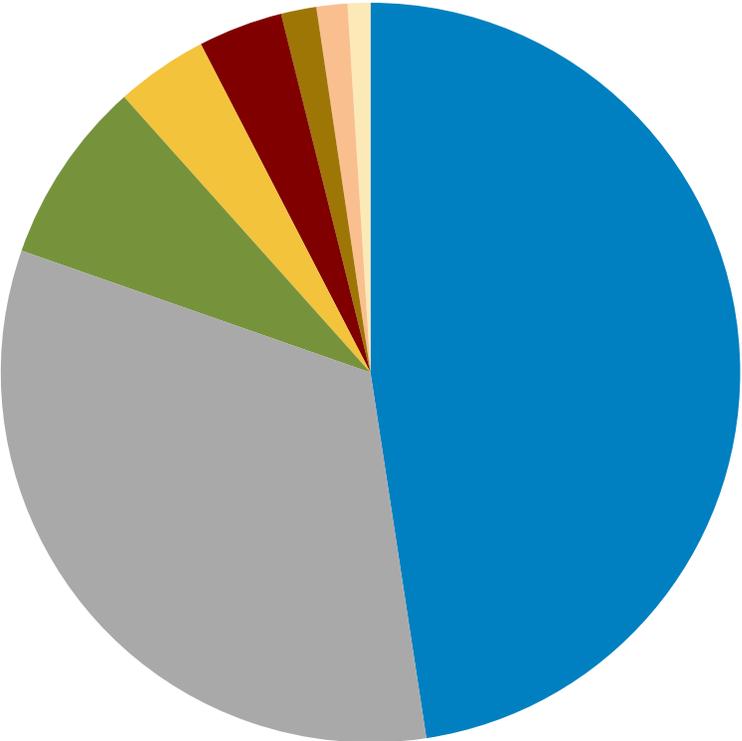
Asset Allocation Attributes	Jun-2017		Mar-2017		Dec-2016	
	(\$)	%	(\$)	%	(\$)	%
WCAB 2060 Retirement	-	0.00	-	0.00	-	0.00
WCAB 2055 Retirement	-	0.00	-	0.00	-	0.00
WCAB 2050 Retirement	39,025	3.56	35,774	3.03	31,990	5.22
WCAB 2045 Retirement	-	0.00	-	0.00	-	0.00
WCAB 2040 Retirement	115,659	10.56	109,663	9.27	102,054	16.65
WCAB 2035 Retirement	50,656	4.63	25,281	2.14	23,695	3.87
WCAB 2030 Retirement	165,627	15.12	309,663	26.19	147,104	24.00
WCAB 2025 Retirement	398,983	36.44	384,411	32.51	-	0.00
WCAB 2020 Retirement	5,811	0.53	5,035	0.43	4,218	0.69
WCAB 2015 Retirement	38,657	3.53	37,834	3.20	36,607	5.97
WCAB 2010 Retirement	280,634	25.63	274,913	23.25	267,205	43.60
<b>Total Model Portfolios</b>	<b>1,095,052</b>	<b>100.00</b>	<b>1,182,574</b>	<b>100.00</b>	<b>612,874</b>	<b>100.00</b>



**Asset Allocation By Asset Class**  
**401(a) Total Plan**  
**As of June 30, 2017**

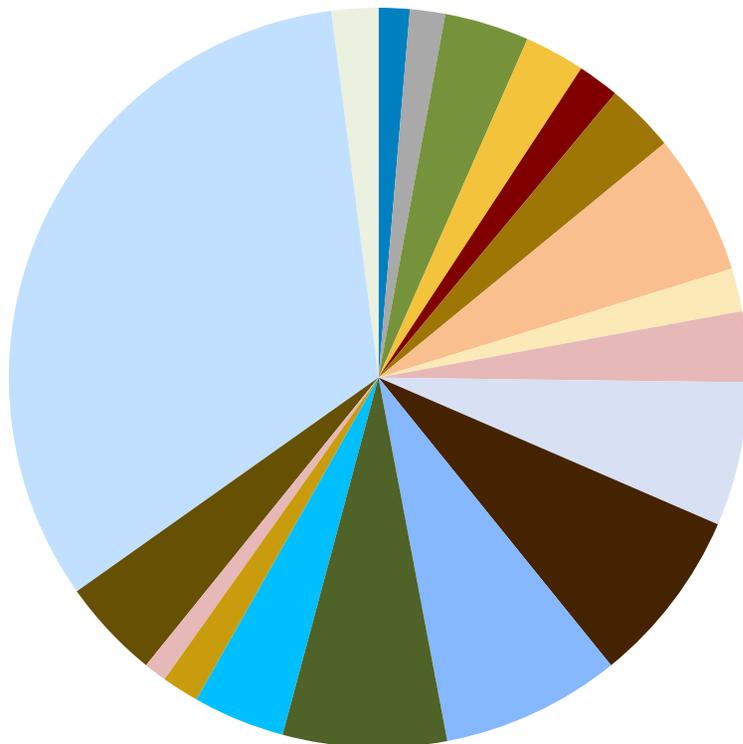
June 30, 2017 : \$10,578,402

Allocation	Market Value	Allocation
US Equity	5,033,864	47.6
Cash	3,465,917	32.8
US Fixed Income	850,077	8.0
US Balanced	425,310	4.0
International Equity	391,480	3.7
International-Developed Equity	163,280	1.5
International-Emerging Equity	142,890	1.4
International Fixed Income	105,586	1.0



**Asset Allocation By Manager**  
**401(a) Total Plan**  
As of June 30, 2017

June 30, 2017 : \$10,578,402



**Allocation**

	Market Value	Allocation
Lazard Emerging Markets Equity (LZOEX)	142,890	1.4
DFA International Small Cap Value (DISVX)	163,280	1.5
American Funds EuroPacific Growth (RERGX)	391,480	3.7
Hartford Small Company (HIASX)	279,474	2.6
Vanguard Small Cap Index (VSMAX)	191,752	1.8
AMG Managers Skyline Special Equities (SKSEX)	319,917	3.0
Hartford Mid Cap (HIMCX)	651,719	6.2
Vanguard Mid Cap Index (VIMAX)	199,751	1.9
Hotchkis & Wiley Mid Cap Value (HWMIX)	325,507	3.1
American Funds Growth Fund of America (RGAGX)	665,465	6.3
Wells Fargo Disciplined US Core (EVSIX)	813,156	7.7
Vanguard Institutional Index (VINIX)	829,754	7.8
American Century Equity Income (AEUDX)	757,368	7.2
American Funds American Balanced (RLBGX)	425,310	4.0
PIMCO High Yield (PHIYX)	171,705	1.6
PIMCO Foreign Bond USD-Hedged (PFORX)	105,586	1.0
Hartford Total Return Bond (HIABX)	462,200	4.4
MassMutual Guaranteed Interest Account	3,465,917	32.8
Loan Account	216,171	2.0



**Comparative Performance**  
**401(a) Trailing Returns**  
As of June 30, 2017

Comparative Performance	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR	
<b>International Equity</b>														
Lazard Emerging Markets Equity (LZOEX)	2.04	(94)	12.61	(89)	18.97	(63)	-1.87	(82)	2.83	(73)	3.76	(52)	2.17	(36)
MSCI Emerging Markets (Net) Index	6.27	(40)	18.43	(53)	23.75	(29)	1.07	(43)	3.96	(48)	3.87	(49)	1.92	(39)
IM Emerging Markets Equity (MF) Median	5.95		18.68		21.14		0.69		3.84		3.81		1.36	
DFA International Small Cap Value (DISVX)	6.33	(86)	14.55	(88)	28.80	(4)	4.16	(38)	13.74	(11)	11.47	(26)	3.55	(40)
MSCI AC World ex USA Small Cap (Net)	6.24	(88)	15.56	(80)	20.32	(58)	3.31	(55)	10.02	(59)	8.83	(77)	2.91	(55)
IM International SMID Cap Equity (MF) Median	8.29		17.76		21.29		3.61		10.69		10.45		3.13	
American Funds EuroPacific Growth (RERGX)	7.69	(12)	17.78	(7)	22.18	(24)	3.72	(1)	9.61	(9)	8.67	(8)	N/A	
MSCI EAFE (Net) Index	6.12	(47)	13.81	(61)	20.27	(46)	1.15	(37)	8.69	(22)	7.91	(19)	1.03	(35)
IM International Large Cap Core Equity (MF) Median	6.04		14.23		19.83		0.68		7.37		6.89		0.65	
<b>Domestic Equity</b>														
Hartford Small Company (HIASX)	5.44	(37)	12.75	(26)	22.84	(73)	2.64	(85)	11.19	(72)	12.95	(77)	5.88	(73)
Russell 2000 Growth Index	4.39	(61)	9.97	(40)	24.40	(66)	7.64	(43)	13.98	(39)	15.16	(44)	7.82	(41)
IM U.S. Small Cap Growth Equity (MF) Median	5.06		8.04		25.80		6.51		12.75		14.76		7.36	
Vanguard Small Cap Index (VSMAX)	1.95	(42)	5.76	(14)	19.14	(82)	6.78	(51)	14.13	(43)	15.02	(34)	7.83	(23)
Vanguard Spliced Small Cap Index	1.93	(43)	5.75	(14)	19.09	(82)	6.75	(51)	14.10	(43)	14.99	(35)	7.76	(25)
IM U.S. Small Cap Core Equity (MF) Median	1.71		2.52		22.11		6.79		13.71		13.92		5.92	
AMG Managers Skyline Special Equities (SKSEX)	1.10	(43)	1.55	(33)	23.26	(42)	5.94	(41)	15.70	(2)	15.68	(1)	7.52	(6)
Russell 2000 Value Index	0.67	(47)	0.54	(41)	24.86	(33)	7.02	(30)	13.39	(35)	13.50	(29)	5.92	(42)
IM U.S. Small Cap Value Equity (MF) Median	0.58		-0.43		21.70		5.33		12.69		12.66		5.66	
Hartford Mid Cap (HIMCX)	5.81	(25)	12.06	(54)	21.90	(22)	8.49	(25)	16.31	(6)	15.38	(16)	8.49	(13)
Russell Midcap Growth Index	4.21	(61)	11.40	(67)	17.05	(59)	7.83	(33)	14.19	(26)	15.24	(19)	7.87	(25)
IM U.S. Mid Cap Growth Equity (MF) Median	4.85		12.28		18.00		6.78		12.45		13.59		6.96	
Vanguard Mid Cap Index (VIMAX)	2.77	(27)	9.13	(12)	17.25	(38)	8.07	(14)	14.78	(13)	15.16	(10)	7.48	(16)
Vanguard Spliced Mid Cap Index	2.79	(26)	9.17	(11)	17.31	(37)	8.12	(13)	14.83	(12)	15.22	(9)	7.52	(14)
IM U.S. Mid Cap Core Equity (MF) Median	1.79		6.14		16.35		5.95		13.01		13.12		6.10	
Hotchkis & Wiley Mid Cap Value (HWMIX)	-1.33	(97)	-0.46	(96)	23.37	(12)	2.06	(94)	13.20	(75)	15.11	(15)	6.48	(48)
Russell Midcap Value Index	1.37	(55)	5.18	(39)	15.93	(66)	7.46	(22)	15.14	(16)	15.29	(10)	7.23	(28)
IM U.S. Mid Cap Value Equity (MF) Median	1.42		4.29		17.12		6.28		14.01		14.04		6.34	
American Funds Growth Fund of America (RGAGX)	4.00	(83)	12.51	(82)	21.93	(29)	10.17	(38)	15.95	(11)	15.18	(42)	N/A	
Russell 1000 Growth Index	4.67	(69)	13.99	(65)	20.42	(50)	11.11	(20)	15.30	(23)	16.48	(13)	8.91	(21)
IM U.S. Large Cap Growth Equity (MF) Median	5.34		15.30		20.41		9.69		14.16		14.89		8.03	

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.



**Comparative Performance**  
**401(a) Trailing Returns**  
As of June 30, 2017

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR	
Wells Fargo Disciplined US Core (EVSIX)	2.92	(55)	8.21	(63)	17.69	(46)	10.15	(7)	15.12	(9)	N/A		N/A	
S&P 500 Index	3.09	(47)	9.34	(35)	17.90	(43)	9.61	(15)	14.63	(19)	15.41	(12)	7.18	(20)
IM U.S. Large Cap Core Equity (MF) Median	3.02		8.76		17.24		8.06		13.63		14.09		6.32	
Vanguard Institutional Index (VINIX)	3.08	(48)	9.32	(36)	17.86	(44)	9.59	(15)	14.60	(20)	15.38	(13)	7.18	(20)
S&P 500 Index	3.09	(47)	9.34	(35)	17.90	(43)	9.61	(15)	14.63	(19)	15.41	(12)	7.18	(20)
IM U.S. Large Cap Core Equity (MF) Median	3.02		8.76		17.24		8.06		13.63		14.09		6.32	
American Century Equity Income (AEUDX)	1.64	(62)	5.82	(46)	12.37	(94)	10.06	(2)	N/A		N/A		N/A	
Russell 1000 Value Index	1.34	(73)	4.66	(72)	15.53	(74)	7.36	(22)	13.94	(19)	14.31	(14)	5.57	(31)
IM U.S. Large Cap Value Equity (MF) Median	2.04		5.64		17.28		6.64		13.01		13.04		4.86	
<b>Balanced Fund</b>														
American Funds American Balanced (RLBGX)	2.43	(60)	6.84	(53)	10.73	(53)	7.26	(1)	10.96	(6)	11.95	(3)	N/A	
American Balanced Fund Hybrid	2.26	(66)	5.77	(67)	8.50	(69)	6.14	(6)	8.39	(41)	9.35	(37)	6.14	(6)
IM All Balanced (MF) Median	2.69		7.03		11.10		3.91		7.73		8.52		4.36	
WCAB 2060 Retirement	3.14	(93)	8.66	(94)	N/A									
The WCAB 2060 Retirement Portfolio Policy	3.33	(85)	9.11	(85)	N/A									
IM Mixed-Asset Target 2055+ (MF) Median	3.87		10.18		16.74		5.44		10.65		11.13		N/A	
WCAB 2055 Retirement	3.14	(93)	8.66	(94)	N/A									
The WCAB 2055 Retirement Portfolio Policy	3.33	(85)	9.11	(85)	N/A									
IM Mixed-Asset Target 2055+ (MF) Median	3.87		10.18		16.74		5.44		10.65		11.13		N/A	
WCAB 2050 Retirement	3.13	(88)	8.61	(88)	17.84	(20)	6.19	(11)	11.52	(7)	11.72	(14)	N/A	
The WCAB 2050 Retirement Portfolio Policy	3.31	(79)	9.04	(78)	15.98	(62)	6.90	(1)	11.60	(6)	12.11	(5)	5.96	(4)
IM Mixed-Asset Target 2050 (MF) Median	3.84		10.01		16.48		5.24		10.35		10.78		4.25	
WCAB 2045 Retirement	3.11	(89)	8.55	(90)	N/A									
The WCAB 2045 Retirement Portfolio Policy	3.28	(81)	8.95	(84)	N/A									
IM Mixed-Asset Target 2045 (MF) Median	3.83		9.96		16.36		5.34		10.25		10.86		4.62	
WCAB 2040 Retirement	3.05	(82)	8.35	(85)	16.82	(23)	6.15	(8)	10.83	(20)	11.04	(25)	N/A	
The WCAB 2040 Retirement Portfolio Policy	3.17	(79)	8.59	(79)	14.91	(65)	6.53	(3)	10.69	(23)	11.18	(21)	5.75	(7)
IM Mixed-Asset Target 2040 (MF) Median	3.69		9.61		15.59		4.93		9.78		10.36		4.18	
WCAB 2035 Retirement	2.96	(82)	8.06	(79)	N/A									
The WCAB 2035 Retirement Portfolio Policy	3.04	(79)	8.16	(76)	N/A									
IM Mixed-Asset Target 2035 (MF) Median	3.58		9.20		14.58		4.93		9.40		10.23		4.57	
WCAB 2030 Retirement	2.79	(76)	7.40	(71)	15.04	(13)	5.80	(4)	9.94	(15)	10.25	(25)	N/A	
The WCAB 2030 Retirement Portfolio Policy	2.76	(76)	7.37	(71)	12.70	(50)	5.95	(3)	9.68	(23)	10.22	(25)	5.52	(5)
IM Mixed-Asset Target 2030 (MF) Median	3.19		8.31		12.70		4.34		8.63		9.37		4.06	

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.



**Comparative Performance**  
**401(a) Trailing Returns**  
As of June 30, 2017

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR	
WCAB 2025 Retirement	2.62	(69)	6.91	(66)	N/A		N/A		N/A		N/A		N/A	
The WCAB 2025 Retirement Portfolio Policy	2.53	(74)	6.65	(71)	N/A		N/A		N/A		N/A		N/A	
IM Mixed-Asset Target 2025 (MF) Median	2.87		7.35		11.08		4.09		7.97		9.09		4.36	
WCAB 2020 Retirement	2.46	(53)	6.43	(45)	12.18	(6)	5.26	(1)	8.55	(6)	8.91	(17)	N/A	
The WCAB 2020 Retirement Portfolio Policy	2.31	(66)	5.94	(62)	9.68	(40)	5.01	(2)	7.95	(16)	8.49	(33)	5.04	(5)
IM Mixed-Asset Target 2020 (MF) Median	2.48		6.30		9.06		3.47		6.71		7.76		3.82	
WCAB 2015 Retirement	2.19	(60)	5.60	(62)	N/A		N/A		N/A		N/A		N/A	
The WCAB 2015 Retirement Portfolio Policy	1.99	(81)	5.04	(84)	N/A		N/A		N/A		N/A		N/A	
IM Mixed-Asset Target 2015 (MF) Median	2.28		5.78		8.61		3.68		6.88		7.90		4.24	
WCAB 2010 Retirement	2.09	(37)	5.02	(38)	8.81	(6)	4.72	(1)	7.19	(1)	7.64	(1)	N/A	
The WCAB Income Retirement Portfolio Policy	1.80	(63)	4.26	(69)	6.22	(43)	3.87	(6)	5.99	(9)	6.57	(16)	4.37	(30)
IM Mixed-Asset Target Today (MF) Median	1.91		4.62		5.88		2.75		4.39		5.39		4.01	
<b>Fixed Income</b>														
PIMCO High Yield (PHIYX)	2.42	(8)	4.83	(21)	11.26	(42)	4.60	(8)	6.35	(24)	7.39	(29)	6.76	(22)
BofA Merrill Lynch High Yield Master II	2.14	(22)	4.91	(18)	12.75	(19)	4.48	(11)	6.92	(12)	8.03	(12)	7.54	(6)
IM U.S. High Yield Bonds (MF) Median	1.78		4.20		10.86		3.11		5.76		7.03		6.08	
PIMCO Foreign Bond USD-Hedged (PFORX)	0.48	(78)	1.12	(86)	1.98	(42)	4.83	(3)	5.46	(1)	5.63	(1)	6.78	(1)
Bloomberg Barclays Global Aggregate	2.60	(54)	4.41	(61)	-2.18	(83)	-0.35	(45)	0.78	(59)	2.39	(67)	3.69	(68)
IM International Fixed Income (MF) Median	2.93		6.28		1.19		-0.69		1.54		3.06		4.74	
Hartford Total Return Bond (HIABX)	2.05	(2)	3.34	(4)	2.36	(5)	2.73	(14)	3.10	(10)	3.97	(17)	4.35	(49)
Bloomberg Barclays U.S. Aggregate Index	1.45	(52)	2.27	(62)	-0.31	(73)	2.48	(27)	2.21	(54)	3.19	(57)	4.48	(40)
IM U.S. Broad Market Core Fixed Income (MF) Median	1.45		2.41		0.32		2.19		2.27		3.30		4.32	
<b>Cash</b>														
MassMutual Guaranteed Interest Account	0.92	(1)	1.86	(1)	3.81	(1)	3.94	(1)	3.96	(1)	N/A		N/A	
Ryan 3 Yr GIC Master Index	0.39	(94)	0.77	(94)	1.48	(91)	1.28	(100)	1.21	(100)	1.56	(100)	2.44	(76)
IM U.S. GIC/Stable Value (SA+CF) Median	0.46		0.90		1.79		1.82		1.78		2.16		2.66	

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**Comparative Performance**  
**401(a) Calendar Returns**  
As of June 30, 2017

Comparative Performance	2016		2015		2014		2013		2012		2011		2010		2009		2008		2007	
<b>International Equity</b>																				
Lazard Emerging Markets Equity (LZOEX)	20.17	(6)	-20.33	(90)	-4.39	(69)	-1.14	(48)	22.03	(18)	-18.02	(32)	22.43	(22)	69.14	(63)	-48.09	(17)	32.71	(74)
MSCI Emerging Markets (Net) Index	11.19	(30)	-14.92	(57)	-2.19	(43)	-2.60	(58)	18.23	(56)	-18.42	(36)	18.88	(44)	78.51	(26)	-53.33	(42)	39.38	(39)
IM Emerging Markets Equity (MF) Median	8.27		-14.09		-2.96		-1.45		18.79		-19.51		18.32		72.67		-54.63		36.70	
DFA International Small Cap Value (DISVX)	8.00	(18)	3.99	(41)	-4.99	(34)	32.39	(11)	22.26	(26)	-17.46	(56)	18.10	(79)	39.51	(85)	-41.68	(8)	2.95	(70)
MSCI AC World ex USA Small Cap (Net)	3.91	(31)	2.60	(44)	-4.03	(22)	19.73	(80)	18.52	(67)	-18.50	(72)	25.21	(16)	62.91	(25)	-50.23	(52)	10.76	(24)
IM International SMID Cap Core Equity (MF) Median	1.01		2.10		-5.78		24.09		20.17		-16.35		23.85		47.92		-48.85		8.21	
American Funds EuroPacific Growth (RERGX)	1.01	(66)	-0.48	(24)	-2.29	(20)	20.58	(40)	19.64	(25)	-13.31	(50)	9.76	(22)	N/A		N/A		N/A	
MSCI EAFE (Net) Index	1.00	(66)	-0.81	(27)	-4.90	(33)	22.78	(13)	17.32	(54)	-12.14	(34)	7.75	(43)	31.78	(33)	-43.38	(56)	11.17	(50)
IM International Large Cap Core Equity (MF) Median	1.70		-2.31		-5.95		19.96		17.67		-13.33		7.33		29.91		-42.56		11.16	
<b>Domestic Equity</b>																				
Hartford Small Company (HIASX)	2.04	(85)	-8.21	(84)	7.07	(14)	44.38	(39)	15.64	(18)	-3.36	(35)	24.13	(72)	29.29	(71)	-40.60	(30)	14.23	(16)
Russell 2000 Growth Index	11.32	(51)	-1.38	(43)	5.60	(16)	43.30	(46)	14.59	(24)	-2.91	(31)	29.09	(29)	34.47	(47)	-38.54	(16)	7.05	(52)
IM U.S. Small Cap Growth Equity (MF) Median	11.35		-3.29		1.40		42.56		11.82		-4.66		26.88		33.37		-42.85		7.45	
Vanguard Small Cap Index (VSMAX)	18.30	(80)	-3.64	(41)	7.50	(9)	37.81	(47)	18.24	(21)	-2.69	(38)	27.89	(21)	36.33	(28)	-36.00	(45)	1.24	(26)
Vanguard Spliced Small Cap Index	18.26	(80)	-3.68	(43)	7.54	(9)	37.77	(47)	18.20	(22)	-2.75	(39)	27.82	(22)	36.15	(28)	-36.20	(46)	1.20	(27)
IM U.S. Small Cap Core Equity (MF) Median	23.16		-4.09		3.73		37.19		15.23		-3.95		24.91		27.57		-36.61		-2.74	
AMG Managers Skyline Special Equities (SKSEX)	21.32	(85)	-6.05	(28)	4.02	(34)	51.59	(4)	19.34	(21)	-2.05	(39)	26.07	(37)	52.79	(13)	-40.15	(78)	-9.91	(71)
Russell 2000 Value Index	31.74	(25)	-7.47	(50)	4.22	(33)	34.52	(54)	18.05	(27)	-5.50	(59)	24.50	(56)	20.58	(82)	-28.92	(25)	-9.78	(71)
IM U.S. Small Cap Value Equity (MF) Median	28.86		-7.56		2.86		35.08		15.35		-3.28		24.84		28.72		-32.16		-5.52	
Hartford Mid Cap (HIMCX)	11.98	(6)	1.60	(33)	11.37	(14)	39.82	(16)	19.44	(9)	-7.92	(73)	23.45	(65)	30.96	(78)	-35.32	(5)	15.30	(52)
Russell Midcap Growth Index	7.33	(25)	-0.20	(49)	11.90	(11)	35.74	(44)	15.81	(32)	-1.65	(29)	26.38	(43)	46.29	(23)	-44.32	(48)	11.43	(73)
IM U.S. Mid Cap Growth Equity (MF) Median	4.93		-0.34		7.24		35.23		14.19		-4.71		25.29		39.97		-44.65		15.61	
Vanguard Mid Cap Index (VIMAX)	11.22	(80)	-1.34	(25)	13.76	(8)	35.15	(42)	15.99	(51)	-1.97	(33)	25.59	(20)	40.48	(17)	-41.78	(73)	6.17	(44)
Vanguard Spliced Mid Cap Index	11.25	(79)	-1.28	(23)	13.83	(7)	35.21	(41)	16.04	(50)	-1.91	(31)	25.69	(18)	40.49	(17)	-41.80	(74)	6.19	(43)
IM U.S. Mid Cap Core Equity (MF) Median	14.62		-3.30		8.98		34.31		16.02		-3.01		23.15		33.39		-38.80		4.91	
Hotchkis & Wiley Mid Cap Value (HWMIX)	21.00	(23)	-12.53	(94)	12.18	(23)	42.55	(5)	31.09	(1)	-8.60	(96)	34.41	(1)	56.49	(4)	-43.05	(86)	-16.96	(98)
Russell Midcap Value Index	20.00	(40)	-4.78	(50)	14.75	(11)	33.46	(75)	18.51	(23)	-1.38	(31)	24.75	(33)	34.21	(58)	-38.44	(54)	-1.42	(67)
IM U.S. Mid Cap Value Equity (MF) Median	18.48		-4.95		10.26		36.08		16.04		-3.86		22.14		36.94		-38.12		0.80	
American Funds Growth Fund of America (RGAGX)	8.82	(2)	5.70	(49)	9.63	(61)	34.29	(47)	20.98	(3)	-4.53	(76)	12.67	(71)	N/A		N/A		N/A	
Russell 1000 Growth Index	7.08	(7)	5.67	(50)	13.05	(22)	33.48	(55)	15.26	(47)	2.64	(10)	16.71	(33)	37.21	(41)	-38.44	(38)	11.81	(67)
IM U.S. Large Cap Growth Equity (MF) Median	1.95		5.63		10.51		33.95		14.82		-1.79		15.19		35.10		-39.81		13.71	

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**Comparative Performance**  
**401(a) Calendar Returns**  
As of June 30, 2017

	2016		2015		2014		2013		2012		2011		2010		2009		2008		2007	
Wells Fargo Disciplined US Core (EVSIX)	12.09	(26)	2.53	(17)	15.69	(3)	33.97	(23)	14.90	(58)	4.12	(15)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
S&P 500 Index	11.96	(28)	1.38	(28)	13.69	(15)	32.39	(41)	16.00	(40)	2.11	(25)	15.06	(25)	26.46	(50)	-37.00	(49)	5.49	(55)
IM U.S. Large Cap Core Equity (MF) Median	10.13		-0.42		11.37		31.85		15.41		-0.42		13.13		26.33		-37.13		5.88	
Vanguard Institutional Index (VINIX)	11.93	(28)	1.37	(28)	13.65	(15)	32.35	(42)	15.98	(40)	2.09	(25)	15.05	(25)	26.63	(49)	-36.95	(48)	5.47	(55)
S&P 500 Index	11.96	(28)	1.38	(28)	13.69	(15)	32.39	(41)	16.00	(40)	2.11	(25)	15.06	(25)	26.46	(50)	-37.00	(49)	5.49	(55)
IM U.S. Large Cap Core Equity (MF) Median	10.13		-0.42		11.37		31.85		15.41		-0.42		13.13		26.33		-37.13		5.88	
American Century Equity Income (AEUDX)	19.88	(10)	0.94	(4)	12.84	(14)	N/A		N/A		N/A									
Russell 1000 Value Index	17.34	(23)	-3.83	(49)	13.45	(8)	32.53	(48)	17.51	(26)	0.39	(23)	15.51	(21)	19.69	(72)	-36.85	(49)	-0.17	(63)
IM U.S. Large Cap Value Equity (MF) Median	14.13		-3.91		10.90		32.34		15.54		-2.46		12.92		23.95		-36.95		1.52	
<b>Balanced Fund</b>																				
American Funds American Balanced (RLBGX)	8.90	(18)	2.03	(3)	9.22	(5)	22.12	(19)	14.57	(23)	4.16	(6)	13.39	(34)	N/A		N/A		N/A	
American Balanced Fund Hybrid	7.38	(38)	1.21	(4)	9.85	(4)	14.08	(55)	10.13	(73)	5.28	(4)	11.29	(65)	16.34	(91)	-17.94	(13)	6.38	(45)
IM All Balanced (MF) Median	6.72		-1.66		4.73		15.18		12.12		-1.48		12.28		25.96		-29.53		6.01	
WCAB 2060 Retirement	N/A		N/A		N/A															
The WCAB 2060 Retirement Portfolio Policy	N/A		N/A		N/A															
IM Mixed-Asset Target 2055+ (MF) Median	8.12		-1.63		5.44		23.26		15.58		-4.66		14.78		30.80		-40.69		N/A	
WCAB 2055 Retirement	N/A		N/A		N/A															
The WCAB 2055 Retirement Portfolio Policy	N/A		N/A		N/A															
IM Mixed-Asset Target 2055+ (MF) Median	8.12		-1.63		5.44		23.26		15.58		-4.66		14.78		30.80		-40.69		N/A	
WCAB 2050 Retirement	11.88	(5)	-1.95	(56)	6.64	(25)	25.10	(23)	16.28	(25)	-4.13	(44)	17.93	(1)	33.46	(34)	-34.84	(6)	N/A	
The WCAB 2050 Retirement Portfolio Policy	9.74	(15)	-0.34	(14)	8.81	(3)	24.71	(27)	14.68	(72)	-0.69	(7)	14.29	(58)	26.79	(99)	-33.35	(1)	7.29	(28)
IM Mixed-Asset Target 2050 (MF) Median	8.19		-1.76		5.61		23.08		15.47		-4.38		14.80		31.42		-39.08		6.62	
WCAB 2045 Retirement	N/A		N/A		N/A															
The WCAB 2045 Retirement Portfolio Policy	N/A		N/A		N/A															
IM Mixed-Asset Target 2045 (MF) Median	8.20		-1.75		5.55		23.07		15.47		-4.03		15.03		31.12		-38.51		6.84	
WCAB 2040 Retirement	11.43	(5)	-1.44	(41)	6.39	(26)	22.17	(46)	15.41	(37)	-2.67	(24)	16.48	(9)	31.03	(49)	-31.07	(1)	N/A	
The WCAB 2040 Retirement Portfolio Policy	9.17	(18)	-0.24	(12)	8.23	(3)	21.96	(48)	13.52	(79)	-0.23	(6)	13.31	(70)	24.59	(95)	-30.38	(1)	7.27	(37)
IM Mixed-Asset Target 2040 (MF) Median	7.97		-1.74		5.38		21.68		14.92		-3.93		14.63		30.70		-38.09		6.55	
WCAB 2035 Retirement	N/A		N/A		N/A															
The WCAB 2035 Retirement Portfolio Policy	N/A		N/A		N/A															
IM Mixed-Asset Target 2035 (MF) Median	7.78		-1.66		5.39		20.79		14.75		-3.34		14.57		30.99		-36.09		7.49	
WCAB 2030 Retirement	11.11	(5)	-1.35	(41)	6.36	(20)	19.21	(41)	14.56	(36)	-1.71	(30)	15.53	(11)	29.56	(43)	-28.65	(1)	N/A	
The WCAB 2030 Retirement Portfolio Policy	8.41	(17)	-0.08	(6)	7.93	(1)	19.45	(38)	12.40	(76)	0.41	(8)	12.40	(79)	22.29	(94)	-27.19	(1)	7.13	(46)
IM Mixed-Asset Target 2030 (MF) Median	7.32		-1.62		5.17		17.89		13.71		-2.56		13.63		28.81		-36.38		6.48	

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.



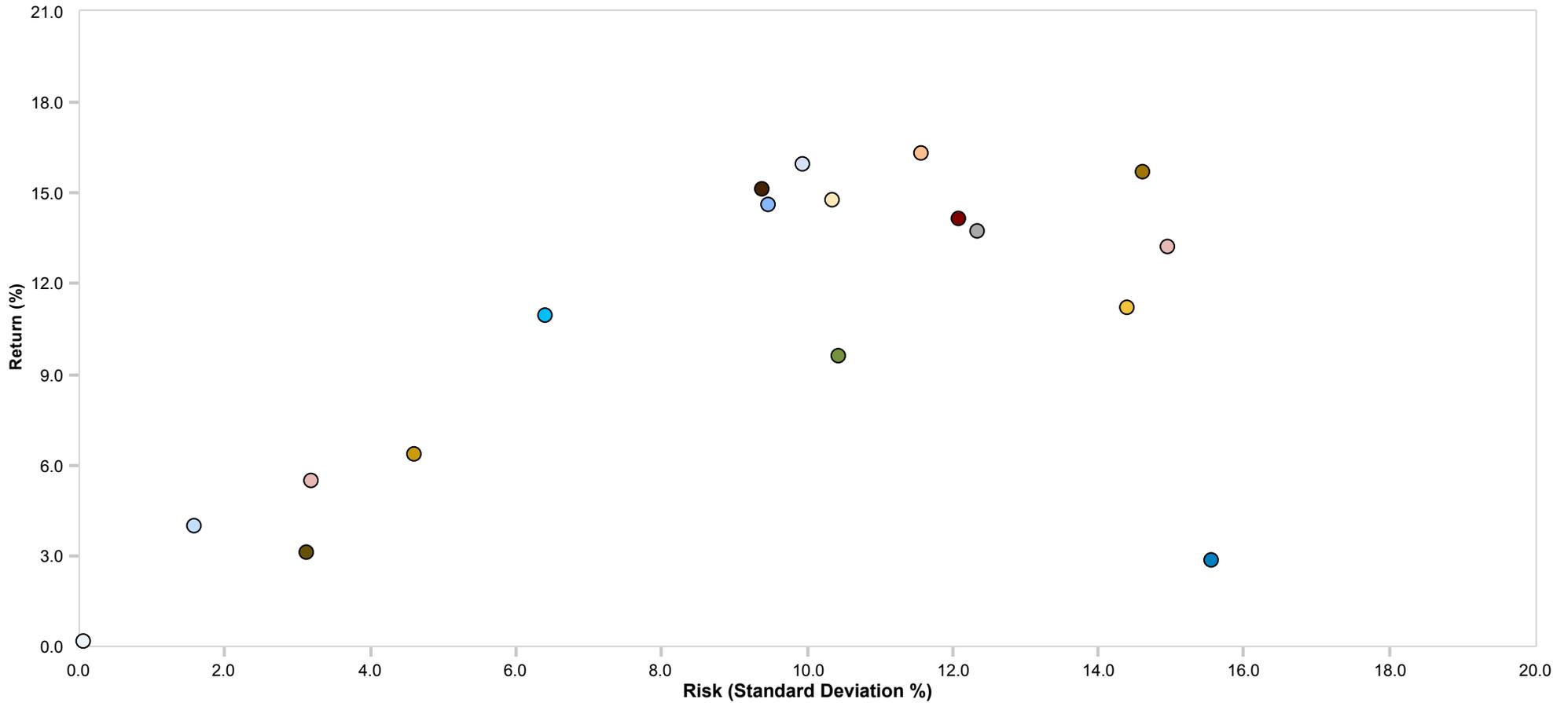
**Comparative Performance**  
**401(a) Calendar Returns**  
As of June 30, 2017

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
WCAB 2025 Retirement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The WCAB 2025 Retirement Portfolio Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM Mixed-Asset Target 2025 (MF) Median	6.87	-1.44	5.16	15.86	13.00	-2.03	13.42	28.95	-35.04	7.17
WCAB 2020 Retirement	9.56 (1)	-0.71 (24)	6.09 (12)	14.86 (27)	12.96 (28)	-0.23 (46)	13.65 (24)	25.92 (51)	-23.68 (13)	N/A
The WCAB 2020 Retirement Portfolio Policy	7.02 (27)	0.07 (6)	7.07 (1)	14.96 (26)	10.45 (72)	1.18 (21)	10.65 (82)	18.43 (93)	-21.50 (8)	7.02 (41)
IM Mixed-Asset Target 2020 (MF) Median	6.31	-1.45	4.72	11.83	11.53	-0.43	12.31	26.02	-31.77	6.26
WCAB 2015 Retirement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The WCAB 2015 Retirement Portfolio Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM Mixed-Asset Target 2015 (MF) Median	6.39	-1.30	4.47	10.42	10.81	-0.11	11.49	25.34	-29.31	6.10
WCAB 2010 Retirement	7.81 (6)	0.11 (3)	6.28 (2)	11.00 (2)	11.16 (8)	1.67 (79)	11.59 (9)	N/A	N/A	N/A
The WCAB Income Retirement Portfolio Policy	5.19 (49)	0.26 (1)	6.08 (4)	10.51 (5)	8.08 (69)	2.13 (71)	8.66 (70)	13.73 (82)	-14.85 (37)	6.70 (7)
IM Mixed-Asset Target Today (MF) Median	5.17	-1.42	3.86	5.33	8.90	2.84	9.52	18.14	-16.02	4.93
<b>Fixed Income</b>										
PIMCO High Yield (PHIYX)	12.68 (62)	-1.88 (22)	3.31 (12)	5.77 (70)	14.57 (53)	4.00 (37)	14.28 (45)	44.09 (64)	-23.62 (38)	3.67 (9)
BofA Merrill Lynch High Yield Master II	17.49 (4)	-4.64 (62)	2.50 (22)	7.42 (30)	15.58 (33)	4.38 (27)	15.19 (28)	57.51 (11)	-26.39 (61)	2.19 (40)
IM U.S. High Yield Bonds (MF) Median	13.39	-3.89	1.48	6.61	14.72	3.32	14.04	47.46	-24.95	1.84
PIMCO Foreign Bond USD-Hedged (PFORX)	7.03 (6)	0.40 (9)	11.16 (3)	0.90 (17)	11.19 (22)	6.77 (8)	9.19 (30)	19.04 (17)	-2.36 (80)	3.98 (83)
Bloomberg Barclays Global Aggregate	2.09 (57)	-3.15 (26)	0.59 (52)	-2.60 (37)	4.32 (79)	5.64 (17)	5.54 (69)	6.93 (66)	4.79 (33)	9.48 (41)
IM International Fixed Income (MF) Median	2.77	-6.00	0.63	-3.74	7.43	2.56	7.26	10.01	2.41	9.27
Hartford Total Return Bond (HIABX)	4.49 (9)	-0.59 (72)	5.89 (31)	-1.36 (26)	7.54 (20)	6.99 (37)	7.51 (41)	15.01 (31)	-7.62 (71)	4.67 (65)
Bloomberg Barclays U.S. Aggregate Index	2.65 (60)	0.55 (18)	5.97 (26)	-2.02 (53)	4.21 (80)	7.84 (11)	6.54 (69)	5.93 (90)	5.24 (11)	6.97 (9)
IM U.S. Broad Market Core Fixed Income (MF) Median	2.85	-0.01	5.55	-1.99	5.98	6.65	7.24	12.07	-3.42	5.29
<b>Cash</b>										
MassMutual Guaranteed Interest Account	3.94 (1)	4.00 (1)	4.00 (1)	4.00 (1)	4.00 (2)	4.00 (5)	N/A	N/A	N/A	N/A
Ryan 3 Yr GIC Master Index	1.39 (94)	1.16 (95)	1.03 (95)	1.06 (93)	1.48 (99)	2.44 (63)	3.53 (40)	4.49 (11)	4.79 (26)	4.52 (98)
IM U.S. GIC/Stable Value (SA+CF) Median	1.83	1.81	1.74	1.74	2.41	2.92	3.39	3.65	4.65	4.91

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.



Risk and Return



- Lazard Emerging Markets Equity (LZOEX)
- Hartford Small Company (HIASX)
- Hartford Mid Cap (HIMCX)
- American Funds Growth Fund of America (RGAGX)
- American Century Equity Income (AEUDX)
- PIMCO Foreign Bond USD-Hedged (PFORX)
- 90 Day U.S. Treasury Bill
- DFA International Small Cap Value (DISVX)
- Vanguard Small Cap Index (VSMAX)
- Vanguard Mid Cap Index (VIMAX)
- Wells Fargo Disciplined US Core (EVSIX)
- American Funds American Balanced (RLBGX)
- Hartford Total Return Bond (HIABX)
- American Funds EuroPacific Growth (RERGX)
- AMG Managers Skyline Special Equities (SKSEX)
- Hotchkis & Wiley Mid Cap Value (HWMIX)
- Vanguard Institutional Index (VINIX)
- PIMCO High Yield (PHIYX)
- MassMutual Guaranteed Interest Account

Calculation based on monthly periodicity.



Age Based Strategy Model Allocation by Broad Asset Class

Investment Name	Stocks	Bonds	Cash	Other	Total
Washoe County Age Based Strategy Model 2050	80.4%	13.2%	4.4%	1.9%	100.0%
Washoe County Age Based Strategy Model 2040	72.5%	16.9%	8.5%	2.1%	100.0%
Washoe County Age Based Strategy Model 2030	64.8%	21.6%	11.6%	2.0%	100.0%
Washoe County Age Based Strategy Model 2020	51.5%	29.1%	17.3%	2.1%	100.0%
Washoe County Age Based Strategy Model 2010	37.4%	33.8%	26.8%	1.9%	100.0%

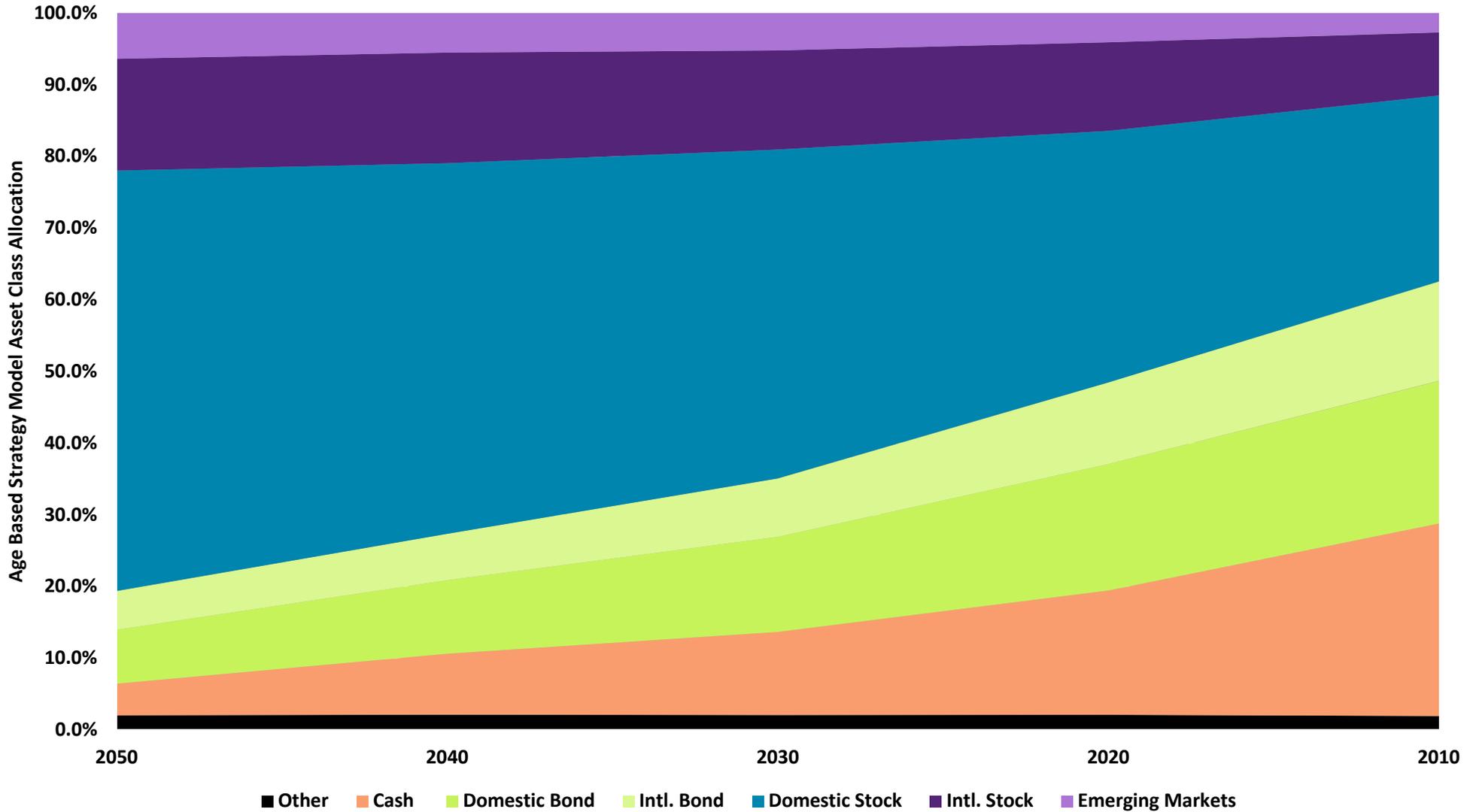


Age Based Strategy Model Allocation by Sub Asset Class

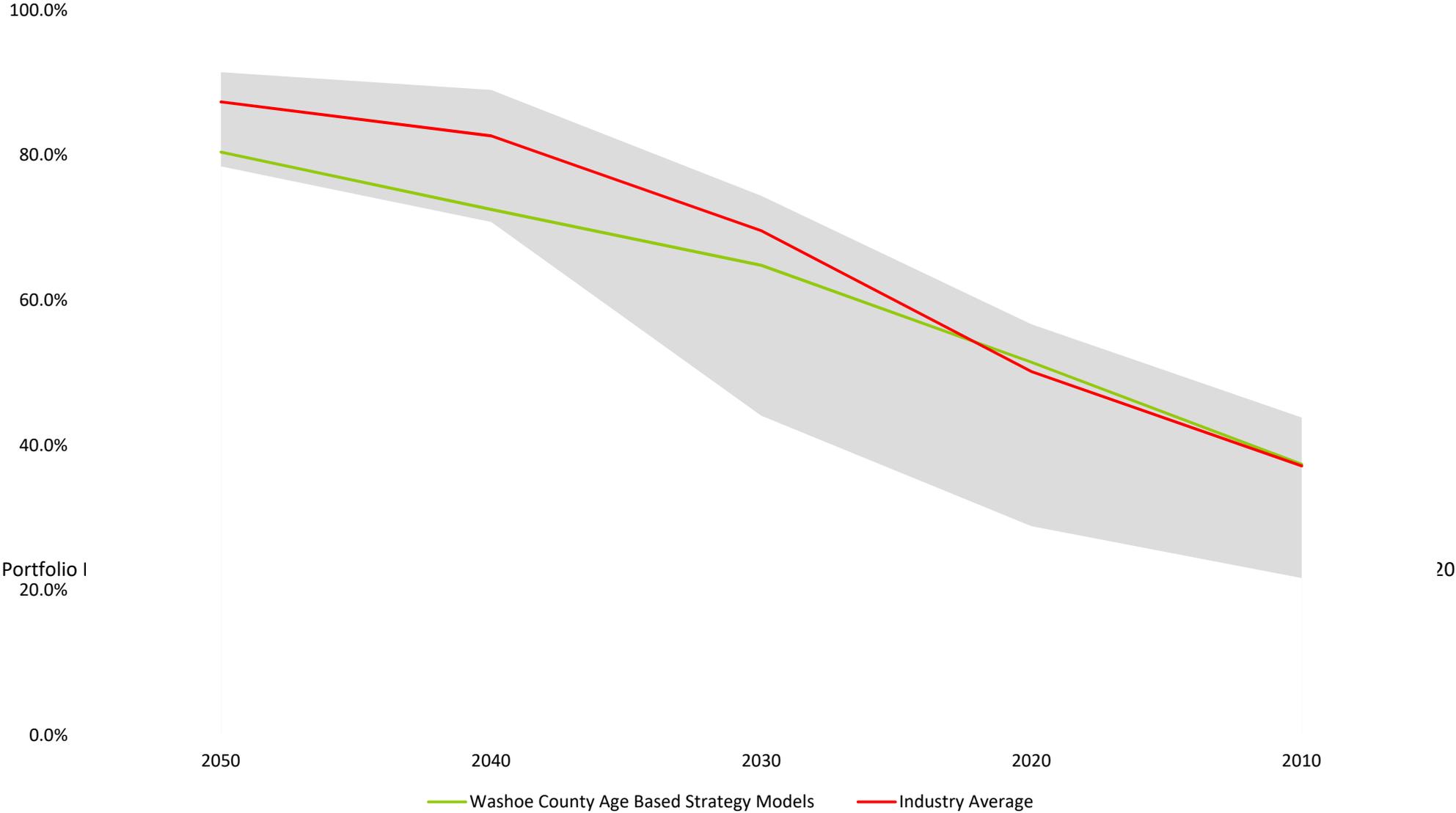
Investment Name	Emerging Markets	Intl. Stock	Domestic Stock	Intl. Bond	Domestic Bond	Cash	Other	Total
Washoe County Age Based Strategy Model 2050	6.4%	15.6%	58.6%	5.4%	7.5%	4.4%	2.0%	100.0%
Washoe County Age Based Strategy Model 2040	5.5%	15.4%	51.7%	6.5%	10.3%	8.5%	2.1%	100.0%
Washoe County Age Based Strategy Model 2030	5.2%	13.8%	45.9%	8.1%	13.3%	11.6%	2.1%	100.0%
Washoe County Age Based Strategy Model 2020	4.1%	12.4%	35.1%	11.4%	17.6%	17.3%	2.1%	100.0%
Washoe County Age Based Strategy Model 2010	2.7%	8.8%	25.9%	13.9%	19.9%	26.8%	2.0%	100.0%



Age Based Strategy Model Allocation Graph by Sub Asset Class



Age Based Strategy Model Equity Glide Path Ranges



**Fee and Expense Summary**

Mass Mutual requires 0.08% in revenue from the plan assets annually, 0.02% per quarter.

AndCo Consulting bills quarterly. The fee structure is 0.03% per annum, paid in quarterly cash payments excluding the WCAB Assets.

The WCAB Assets are billed at 0.10% per annum on invested assets, capped at \$10,000 per year.

**Plan Demographics**

Total Assets*	\$160,392,774
Number of Participants with a Balance (active and terminated)	2,348

**Expense Type Estimates (annual)**

	<b>Percent of Assets</b>	<b>Dollar Cost</b>	<b>% Cost</b>
MassMutual Recordkeeping fees	0.08%	<b>\$128,314</b>	0.08%
AndCo Consulting fees	0.03%	\$45,627	
AndCo Consulting fees WCAB	0.10%	\$8,302	
Total AndCo Consulting fees		<b>\$ 53,929</b>	0.03%
<b>Total plan expenses</b>		<b>\$ 182,243</b>	<b>0.11%</b>

**Revenue Sharing Estimates (annual)**

Revenue sharing from investment options	0.09%	\$148,431
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**Net billable to the plan (annual)**

<b>\$33,812</b>	<b>0.02%</b>
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**Annual average total plan recordkeeping and administrative cost per participant (gross)**

**\$78**

**Annual average total plan recordkeeping and administrative cost per participant (net)**

**\$14**

\*Does not include outstanding loan values



**Weighted Fee and Revenue Sharing Evaluation**

	Market Value	Expense Ratio	Expense Ratio Weighted Fee	Revenue Sharing	Administrative Fee \$
Lazard Emerging Markets Equity (LZOEX)	\$1,455,930	1.37%	\$19,946	0.40%	\$5,824
DFA International Small Cap Value (DISVX)	\$1,704,918	0.68%	\$11,593	0.00%	\$0
American Funds EuroPacific Growth (RERGX)	\$4,947,232	0.50%	\$24,736	0.00%	\$0
Hartford Small Company (HIASX)	\$2,557,967	0.72%	\$18,417	0.25%	\$6,395
Vanguard Small Cap Index (VSMAX)	\$2,672,738	0.08%	\$2,138	0.00%	\$0
AMG Managers Skyline Special Equities (SKSEX)	\$3,397,665	1.33%	\$45,189	0.25%	\$8,494
Hartford Mid Cap (HIMCX)	\$8,506,987	0.70%	\$59,549	0.25%	\$21,267
Vanguard Mid Cap Index (VIMAX)	\$2,310,045	0.08%	\$1,848	0.00%	\$0
Hotchkis & Wiley Mid Cap Value (HWMIX)	\$3,898,249	1.02%	\$39,762	0.40%	\$15,593
AF Growth Fund of America (RGAGX)	\$12,784,956	0.33%	\$42,190	0.00%	\$0
Wells Fargo Disciplined US Core (EVSIX)	\$13,058,503	0.48%	\$62,681	0.15%	\$19,588
Vanguard Institutional Index (VINIX)	\$10,702,921	0.04%	\$4,281	0.00%	\$0
American Century Equity Income (AEUDX)	\$8,202,932	0.59%	\$48,397	0.00%	\$0
American Funds American Balanced (RLBGX)	\$5,498,948	0.29%	\$15,947	0.00%	\$0
PIMCO High Yield (PHIYX)	\$2,414,106	0.55%	\$13,278	0.00%	\$0
PIMCO Foreign Bond USD-Hedged (PFORX)	\$938,655	0.50%	\$4,693	0.00%	\$0
Hartford Total Return Bond (HIABX)	\$4,069,591	0.52%	\$21,162	0.00%	\$0
MassMutual Guaranteed Interest Account	\$71,270,431	0.00%	\$0	0.10%	\$71,270
<b>TOTAL</b>	<b>\$160,392,774</b>	<b>0.27%</b>	<b>\$435,809</b>	<b>0.09%</b>	<b>\$148,431</b>



# Active vs. Passive: The Ongoing Debate

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According to Morningstar, passive investments received record inflows of over \$500 billion in 2016. Given the focus on fee transparency, equalization and litigation, some plan fiduciaries wonder if offering actively managed funds in their defined contribution plan entails more fiduciary risk than lower cost passive funds.

## Arguments For Passive

- ✓ Cost
- ✓ Eliminate periods of benchmark underperformance
- ✓ Easier to monitor
- ✓ Eliminate advisor conflicts
- ✓ Perceived performance advantages in all asset classes

## Arguments Against Passive

- × Capture 100% of every market downturn
- × Market inefficiencies still exist
- × Misperceptions of active management
- × Never achieve above-market return

## QUESTION:

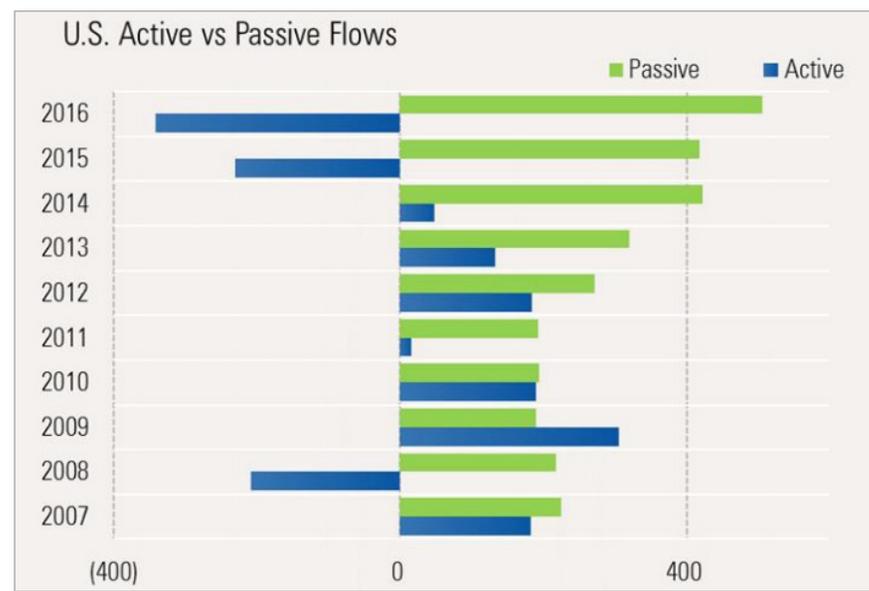
If you move to an all-passive menu, have you met your fiduciary responsibility to act exclusively in the best interests of plan participants and beneficiaries?



# Active vs. Passive: The Regulatory and Legal Landscape

## Consider...

- Regulations focus on whether plan fiduciaries **acted prudently** in the selection and monitoring of an investment. They do not dictate specific investment strategies.
- Litigation has centered around inappropriate share class usage and subsequent excessive fees.
- An actively managed fund may have the potential to deliver better long-term results net of fees.
- Actively managed funds may have the ability to offer better downside protection.
- Fiduciaries should consider other relevant factors when making an investment decision. They are not precluded from considering factors beyond investment cost or index tracking.



Source: Morningstar Direct Asset Flows Report

# Active vs. Passive: Best Practices

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- Document investment policies, processes and decisions.
- Evaluate, confirm, and document plan investment fees based on the needs of the plan and its participants.
- Do not automatically rely on a simple yes/no decision. In some asset classes and in some market cycles, active managers have regularly out-performed their passive peers.
- The fee savings from passive management as well as the opportunity for active managers to add alpha is different for each asset class.
- What may be right for one plan may be the wrong solution for another plan. There is no “one-size fits all approach” that is universally acceptable.
- Fiduciaries who prudently select and monitor an investment are not liable for any loss or underperformance of the fund.

*This content is provided for informational purposes only and should not be regarded as investment advice or as a recommendation regarding any particular course of action. AndCo does not provide legal or tax advice and you are encouraged to consult your own lawyer or accountant before making decisions with legal or tax implications.*



# 2017 Fiduciary Documentation

Quarterly	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Review of plan investments and compliance with investment policy statement	✓	✓	✓	✓
Follow required procedures, including documentation of all meetings and decisions	✓	✓	✓	✓
Review performance of providers	✓	✓	✓	✓
Annually				
Review QDIA selection	✓			
Allocation fund (Target Date or Risk-based) analysis	✓	✓	✓	✓
Investment policy statement review			✓	
Employee education review	✓	✓	✓	✓
Plan recordkeeping & administration services review				✓
Fee analysis	✓	✓	✓	✓
Other Projects				



Fund Information			Fund Investment Policy	
Portfolio Manager :	Team Managed	Ticker :	LZOEX	The Fund seeks long term capital appreciation by investing primarily in equity securities, principally common stocks of non -U.S. companies whose principal activities are located in emerging market countries and that Lazard believes are undervalued based on their earning, cash flow or asset values.
PM Tenure :		Inception Date :	01/08/1997	
Fund Assets :	\$1,469 Million	Portfolio Turnover :	12%	

Comparative Performance - Trailing							
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR
Lazard Emerging Markets Equity (LZOEX)	2.04 (94)	12.61 (89)	18.97 (63)	-1.87 (82)	2.83 (73)	3.76 (52)	2.17 (36)
MSCI Emerging Markets (Net) Index	6.27 (40)	18.43 (53)	23.75 (29)	1.07 (43)	3.96 (48)	3.87 (49)	1.92 (39)
IM Emerging Markets Equity (MF) 1st Quartile	7.08	20.49	24.21	2.04	5.50	5.20	2.60
IM Emerging Markets Equity (MF) Median	5.95	18.68	21.14	0.69	3.84	3.81	1.36
IM Emerging Markets Equity (MF) 3rd Quartile	4.60	15.65	16.33	-1.18	2.63	2.69	0.49

Comparative Performance - Calendar							
	2016	2015	2014	2013	2012	2011	2010
Lazard Emerging Markets Equity (LZOEX)	20.17 (6)	-20.33 (90)	-4.39 (69)	-1.14 (48)	22.03 (18)	-18.02 (32)	22.43 (22)
MSCI Emerging Markets (Net) Index	11.19 (30)	-14.92 (57)	-2.19 (43)	-2.60 (58)	18.23 (56)	-18.42 (36)	18.88 (44)
IM Emerging Markets Equity (MF) 1st Quartile	11.85	-10.22	-0.16	2.81	20.70	-17.42	21.85
IM Emerging Markets Equity (MF) Median	8.27	-14.09	-2.96	-1.45	18.79	-19.51	18.32
IM Emerging Markets Equity (MF) 3rd Quartile	4.04	-17.21	-5.10	-4.74	15.44	-23.06	16.42

Comparative Performance - Quarterly							
	Mar-2017	Dec-2016	Sep-2016	Jun-2016	Mar-2016	Dec-2015	Sep-2015
Lazard Emerging Markets Equity (LZOEX)	10.36 (74)	-2.85 (18)	8.74 (37)	4.73 (7)	8.61 (11)	-0.32 (62)	-19.12 (89)
MSCI Emerging Markets (Net) Index	11.44 (56)	-4.16 (34)	9.03 (28)	0.66 (84)	5.71 (29)	0.66 (48)	-17.90 (80)
IM Emerging Markets Equity (MF) 1st Quartile	13.02	-3.84	9.13	3.26	6.03	2.43	-14.50
IM Emerging Markets Equity (MF) Median	11.83	-5.19	7.85	2.06	3.59	0.36	-16.29
IM Emerging Markets Equity (MF) 3rd Quartile	10.22	-7.24	6.08	1.05	1.64	-1.09	-17.42

MPT Stats				Ranking vs. IM Emerging Markets Equity (MF) 4 Quarters Rolling Periods					
	1 YR	3 YR	5 YR	Periods	5-25	25-Median	Median-75	75-95	
Standard Deviation	9.05	16.71	15.56	Lazard Emerging Markets Equity (LZOEX)	28	10 (36%)	6 (21%)	8 (29%)	4 (14%)
Downside Risk	5.64	11.67	10.37	MSCI Emerging Markets (Net) Index	28	0 (0%)	19 (68%)	9 (32%)	0 (0%)
vs. MSCI Emerging Markets (Net) Index				Ranking vs. IM Emerging Markets Equity (MF) 12 Quarters Rolling Periods					
Alpha	-2.81	-2.79	-1.07	Periods	5-25	25-Median	Median-75	75-95	
Beta	0.95	1.01	1.04	Lazard Emerging Markets Equity (LZOEX)	28	9 (32%)	10 (36%)	6 (21%)	3 (11%)
Down Market Capture	121.96	112.88	110.88	MSCI Emerging Markets (Net) Index	28	1 (4%)	16 (57%)	11 (39%)	0 (0%)
Information Ratio	-1.03	-0.56	-0.19	Ranking vs. IM Emerging Markets Equity (MF) 20 Quarters Rolling Periods					
Tracking Error	3.83	5.05	4.80	Periods	5-25	25-Median	Median-75	75-95	
Up Market Capture	88.86	99.19	104.35	Lazard Emerging Markets Equity (LZOEX)	28	13 (46%)	8 (29%)	7 (25%)	0 (0%)
vs. 90 Day U.S. Treasury Bill				MSCI Emerging Markets (Net) Index	28	7 (25%)	14 (50%)	7 (25%)	0 (0%)
Sharpe Ratio	1.93	-0.04	0.25						



**Portfolio Characteristics**

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$)	43,449,312,126	68,310,310,080
Median Mkt. Cap (\$)	11,436,321,637	5,574,520,308
Price/Earnings ratio	12.6	14.1
Price/Book ratio	2.7	2.4
5 Yr. EPS Growth Rate (%)	4.5	10.6
Current Yield (%)	3.2	2.3
Beta (5 Years, Monthly)	1.04	1.00
Number of Stocks	72	845

**Top Ten Equity Holdings**

	Port. Wt	Bench. Wt	Qtr Rtrn	Contr. Rtrn
Taiwan Semiconductor	4.9	3.6	13.9	0.7
China Construction Bank Corp	4.5	1.4	1.4	0.1
Tata Consultancy Serv	3.4	0.4	-1.5	-0.1
Netease Inc	3.0	0.5	6.3	0.2
Baidu Inc	2.9	1.0	3.7	0.1
China Mobile Ltd	2.7	1.4	-2.5	-0.1
Sberbank of Russia OJSC	2.6	0.6	-9.8	-0.3
Cielo SA	2.4	0.2	0.4	0.0
SK Hynix Inc	2.4	0.7	30.4	0.7
Banco Do Brasil SA Bb Brasil	2.3	0.1	-23.2	-0.5

**Buy and Hold Sector Attribution - 1 Qtr**

	Allocation		Performance		Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Total
Consumer Discretionary	8.8	10.6	3.94	8.36	-0.04	-0.38	-0.42
Consumer Staples	6.5	7.0	0.10	5.25	0.01	-0.34	-0.33
Energy	9.2	7.1	-2.26	-4.65	-0.23	0.25	0.02
Financials	29.2	23.9	0.55	4.22	-0.10	-1.05	-1.15
Health Care	0.7	2.4	-8.12	4.43	0.04	-0.10	-0.06
Industrials	6.3	5.9	-0.20	4.07	0.00	-0.28	-0.29
Information Technology	23.8	25.0	6.15	15.52	-0.10	-2.13	-2.22
Materials	3.6	7.3	-4.94	-0.27	0.25	-0.16	0.09
Real Estate	0.0	2.6	0.00	11.49	-0.13	0.00	-0.13
Telecommunication Services	11.8	5.6	2.12	2.12	-0.27	0.00	-0.26
Utilities	0.1	2.7	17.04	-1.47	0.22	0.08	0.29
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>1.94</b>	<b>6.40</b>	<b>-0.36</b>	<b>-4.11</b>	<b>-4.47</b>

**Ten Best Performers**

	Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn
SK Hynix Inc	2.4	0.7	30.4	0.7
Hon Hai Precision Industry	1.2	1.3	28.6	0.4
Tupras-Turkiye Petrol Rafineleri AS	1.1	0.1	24.7	0.3
OTP Bank PLC	2.1	0.2	21.8	0.5
Turkiye Is Bankasi AS	1.1	0.1	20.9	0.2
Akbank	1.1	0.1	18.8	0.2
Kt&G Corp	0.7	0.3	17.2	0.1
Hero MotoCrop Ltd	1.9	0.1	16.2	0.3
China Shenhua Energy Co Ltd	0.9	0.2	15.0	0.1
KB Financial Group Inc	1.3	0.4	15.0	0.2

**Buy and Hold Region Attribution- 1 Qtr**

	Allocation		Performance		Attribution		
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Region	Total
EM Asia	49.5	61.1	6.17	8.13	-0.94	-0.17	-1.12
EM Europe	16.1	6.8	-0.09	2.63	-0.45	-0.32	-0.77
EM Latin America	15.5	12.6	-5.03	-1.86	-0.49	-0.23	-0.72
EM Mid East+Africa	10.0	8.4	0.36	2.12	-0.18	-0.07	-0.26
Frontier Markets	4.5	0.0	-6.53	0.00	0.00	-0.52	-0.52
North America	0.0	0.3	0.00	13.71	0.00	-0.02	-0.02
Pacific ex Japan	4.4	10.7	-4.04	12.28	-0.71	-0.35	-1.07
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>1.94</b>	<b>6.40</b>	<b>-2.78</b>	<b>-1.69</b>	<b>-4.47</b>

**Ten Worst Performers**

	Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn
Mobile TeleSystems PJSC	1.5	0.1	-24.0	-0.4
Banco Do Brasil SA Bb Brasil	2.3	0.1	-23.2	-0.5
PPC Ltd	0.3	0.0	-16.8	-0.1
Bharat Heavy Electricals Ltd	0.3	0.0	-16.7	-0.1
Natura Cosméticos SA	0.5	0.0	-15.1	-0.1
Gazprom PJSC	0.8	0.5	-11.9	-0.1
Magnit	0.4	0.2	-10.4	0.0
YPF	1.9	0.0	-9.8	-0.2
Sberbank of Russia OJSC	2.6	0.6	-9.8	-0.3
Woolworths Holdings Ltd, South Africa	0.8	0.1	-9.7	-0.1



**Fund Information**

Portfolio Manager : Team Managed  
PM Tenure :  
Fund Assets : -

Ticker :  
Inception Date : 08/09/1996  
Portfolio Turnover : 94%

**Fund Investment Policy**

The Fund seeks growth of capital by investing primarily in common stocks selected on the basis of potential for capital appreciation. Under normal circumstances, the Fund will invest at least 80% of its assets in common stocks of small capitalization companies.

**Comparative Performance - Trailing**

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR
Hartford Small Company (HIASX)	5.44 (37)	12.75 (26)	22.84 (73)	2.64 (85)	11.19 (72)	12.95 (77)	5.88 (73)
Russell 2000 Growth Index	4.39 (61)	9.97 (40)	24.40 (66)	7.64 (43)	13.98 (39)	15.16 (44)	7.82 (41)
IM U.S. Small Cap Growth Equity (MF) 1st Quartile	6.24	12.82	28.24	9.61	14.76	16.02	8.80
IM U.S. Small Cap Growth Equity (MF) Median	5.06	8.04	25.80	6.51	12.75	14.76	7.36
IM U.S. Small Cap Growth Equity (MF) 3rd Quartile	2.88	6.48	22.75	3.27	11.02	13.15	5.34

**Comparative Performance - Calendar**

	2016	2015	2014	2013	2012	2011	2010
Hartford Small Company (HIASX)	2.04 (85)	-8.21 (84)	7.07 (14)	44.38 (39)	15.64 (18)	-3.36 (35)	24.13 (72)
Russell 2000 Growth Index	11.32 (51)	-1.38 (43)	5.60 (16)	43.30 (46)	14.59 (24)	-2.91 (31)	29.09 (29)
IM U.S. Small Cap Growth Equity (MF) 1st Quartile	19.05	0.14	4.54	46.80	14.54	-2.14	30.08
IM U.S. Small Cap Growth Equity (MF) Median	11.35	-3.29	1.40	42.56	11.82	-4.66	26.88
IM U.S. Small Cap Growth Equity (MF) 3rd Quartile	7.14	-6.92	-2.14	37.64	9.10	-7.99	23.12

**Comparative Performance - Quarterly**

	Mar-2017	Dec-2016	Sep-2016	Jun-2016	Mar-2016	Dec-2015	Sep-2015
Hartford Small Company (HIASX)	6.93 (25)	0.56 (68)	8.34 (61)	3.47 (55)	-9.47 (77)	2.52 (47)	-15.23 (85)
Russell 2000 Growth Index	5.35 (39)	3.57 (33)	9.22 (56)	3.24 (57)	-4.68 (40)	4.32 (16)	-13.06 (61)
IM U.S. Small Cap Growth Equity (MF) 1st Quartile	6.85	5.08	12.44	5.58	-3.21	3.83	-10.23
IM U.S. Small Cap Growth Equity (MF) Median	3.90	2.57	10.60	3.74	-5.89	2.32	-12.41
IM U.S. Small Cap Growth Equity (MF) 3rd Quartile	1.51	0.02	7.13	0.95	-9.35	0.71	-14.38

**MPT Stats**

	1 YR	3 YR	5 YR
Standard Deviation	12.02	15.67	14.40
Downside Risk	6.19	11.76	9.59
vs. Russell 2000 Growth Index			
Alpha	0.17	-4.28	-1.80
Beta	0.93	0.95	0.95
Down Market Capture	77.68	101.69	96.00
Information Ratio	-0.34	-1.09	-0.62
Tracking Error	3.80	4.41	4.04
Up Market Capture	90.29	83.25	89.17
vs. 90 Day U.S. Treasury Bill			
Sharpe Ratio	1.75	0.23	0.80

**Ranking vs. IM U.S. Small Cap Growth Equity (MF) 4 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hartford Small Company (HIASX)	28	7 (25%)	10 (36%)	5 (18%)	6 (21%)
Russell 2000 Growth Index	28	5 (18%)	20 (71%)	3 (11%)	0 (0%)

**Ranking vs. IM U.S. Small Cap Growth Equity (MF) 12 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hartford Small Company (HIASX)	28	5 (18%)	13 (46%)	8 (29%)	2 (7%)
Russell 2000 Growth Index	28	10 (36%)	18 (64%)	0 (0%)	0 (0%)

**Ranking vs. IM U.S. Small Cap Growth Equity (MF) 20 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hartford Small Company (HIASX)	28	4 (14%)	13 (46%)	10 (36%)	1 (4%)
Russell 2000 Growth Index	28	13 (46%)	15 (54%)	0 (0%)	0 (0%)



Portfolio Characteristics			Top Ten Equity Holdings				
	Portfolio	Benchmark		Port. Wt	Bench. Wt	Qtr Rtrn	Contr. Rtrn
Wtd. Avg. Mkt. Cap (\$)	3,661,948,094	2,206,466,743	Knight Transportation Inc	2.8	0.3	18.4	0.5
Median Mkt. Cap (\$)	2,714,393,080	894,300,400	Insulet Corp	2.5	0.3	19.1	0.5
Price/Earnings ratio	30.5	26.4	Tower Semiconductor Ltd	2.5	0.0	3.5	0.1
Price/Book ratio	3.6	4.1	Planet Fitness Inc	2.3	0.2	21.1	0.5
5 Yr. EPS Growth Rate (%)	15.0	14.1	iShares Russell 2000 Growth ETF	2.3	0.0	4.4	0.1
Current Yield (%)	0.5	0.7	Marriott Vacations	2.2	0.2	18.2	0.4
Beta (5 Years, Monthly)	0.95	1.00	CoStar Group Inc	2.2	0.0	27.2	0.6
Number of Stocks	209	1,171	CoreSite Realty Corp	2.1	0.0	15.9	0.3
			Fair Isaac Corp	2.1	0.4	8.1	0.2
			Altra Industrial Motion Corp	2.0	0.1	2.6	0.1

Buy and Hold Sector Attribution - 1 Qtr								Ten Best Performers			
	Allocation		Performance		Sector	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total				
Consumer Discretionary	12.9	14.9	12.90	2.14	0.10	1.22	1.31	0.0	0.0	105.5	0.0
Consumer Staples	0.5	3.0	-4.90	-1.22	0.10	0.00	0.10	0.0	0.2	90.6	0.0
Energy	2.2	1.1	-21.16	-21.23	-0.32	0.01	-0.31	1.3	0.0	89.9	1.2
Financials	6.6	5.5	0.67	-0.91	-0.09	0.11	0.03	0.0	0.1	63.0	0.0
Health Care	19.2	21.6	8.36	9.58	-0.26	-0.22	-0.49	0.4	0.2	57.1	0.2
Industrials	18.7	15.8	1.22	0.60	-0.15	0.07	-0.08	0.7	0.0	53.9	0.4
Information Technology	29.0	25.5	11.16	5.47	0.10	1.67	1.77	0.3	0.4	49.7	0.2
Materials	4.2	5.4	-3.83	1.86	0.02	-0.25	-0.23	1.5	0.0	45.6	0.7
Other	1.6	0.0	4.40	0.00	0.00	0.00	0.00	0.4	0.3	43.3	0.2
Real Estate	5.1	5.5	2.24	6.58	-0.01	-0.22	-0.23	0.0	0.1	41.2	0.0
Telecommunication Services	0.0	0.9	11.86	26.79	-0.17	0.00	-0.17				
Utilities	0.0	0.8	0.00	5.43	-0.01	0.00	-0.01				
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>5.92</b>	<b>4.23</b>	<b>-0.70</b>	<b>2.39</b>	<b>1.69</b>				

Buy and Hold Style Attribution - 1 Qtr								Ten Worst Performers			
	Allocation		Performance		Style	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total				
Mid Growth	25.9	18.7	10.60	5.43	-0.08	1.24	1.16	0.3	0.0	-45.0	-0.1
Mid Neutral	9.4	9.5	8.82	0.16	-0.01	0.81	0.80	0.0	0.0	-37.3	0.0
Mid Value	13.2	3.1	-0.90	-0.02	-0.44	-0.10	-0.54	0.0	0.0	-36.2	0.0
Small Growth	20.8	24.5	5.31	8.79	-0.20	-0.66	-0.86	0.0	0.1	-32.2	0.0
Small Neutral	18.1	28.2	0.77	1.83	0.26	-0.17	0.09	0.0	0.0	-30.9	0.0
Small Value	5.6	11.5	9.19	2.38	0.13	0.35	0.48	0.0	0.2	-29.7	0.0
Unclassified	6.9	4.5	15.19	4.22	-0.03	0.58	0.55	0.0	0.1	-29.3	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>5.92</b>	<b>4.23</b>	<b>-0.36</b>	<b>2.05</b>	<b>1.69</b>	0.9	0.0	-27.9	-0.3
								0.0	0.0	-26.3	0.0
								0.7	0.1	-25.8	-0.2



**Fund Information**

Portfolio Manager : Majcher/Davis, Jr./Miles      Ticker : HWMIX  
PM Tenure : 1997--1997--1997      Inception Date : 01/02/1997  
Fund Assets : \$1,679 Million      Portfolio Turnover : 42%

**Fund Investment Policy**

The Fund seeks capital appreciation by normally investing at least 80% of its net assets plus borrowings for investment purposes in common stocks of mid capitalization U.S. companies. The Advisor currently considers mid-cap companies to be those with market capitalizations like those found in the Russell Midcap Index.

**Comparative Performance - Trailing**

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR
Hotchkis & Wiley Mid Cap Value (HWMIX)	-1.33 (97)	-0.46 (96)	23.37 (12)	2.06 (94)	13.20 (75)	15.11 (15)	6.48 (48)
<a href="#">Russell Midcap Value Index</a>	1.37 (55)	5.18 (39)	15.93 (66)	7.46 (22)	15.14 (16)	15.29 (10)	7.23 (28)
IM U.S. Mid Cap Value Equity (MF) 1st Quartile	1.92	6.13	20.42	7.20	14.64	14.81	7.28
IM U.S. Mid Cap Value Equity (MF) Median	1.42	4.29	17.12	6.28	14.01	14.04	6.34
IM U.S. Mid Cap Value Equity (MF) 3rd Quartile	0.10	3.24	15.32	5.42	13.19	12.72	5.04

**Comparative Performance - Calendar**

	2016	2015	2014	2013	2012	2011	2010
Hotchkis & Wiley Mid Cap Value (HWMIX)	21.00 (23)	-12.53 (94)	12.18 (23)	42.55 (5)	31.09 (1)	-8.60 (96)	34.41 (1)
<a href="#">Russell Midcap Value Index</a>	20.00 (40)	-4.78 (50)	14.75 (11)	33.46 (75)	18.51 (23)	-1.38 (31)	24.75 (33)
IM U.S. Mid Cap Value Equity (MF) 1st Quartile	20.84	-3.27	12.12	37.62	18.38	-0.87	25.89
IM U.S. Mid Cap Value Equity (MF) Median	18.48	-4.95	10.26	36.08	16.04	-3.86	22.14
IM U.S. Mid Cap Value Equity (MF) 3rd Quartile	16.23	-7.36	7.77	33.29	14.59	-6.80	20.35

**Comparative Performance - Quarterly**

	Mar-2017	Dec-2016	Sep-2016	Jun-2016	Mar-2016	Dec-2015	Sep-2015
Hotchkis & Wiley Mid Cap Value (HWMIX)	0.88 (96)	12.05 (3)	10.61 (2)	-3.63 (97)	1.31 (78)	0.12 (90)	-11.23 (86)
<a href="#">Russell Midcap Value Index</a>	3.76 (32)	5.52 (76)	4.45 (69)	4.77 (4)	3.92 (21)	3.12 (34)	-8.04 (27)
IM U.S. Mid Cap Value Equity (MF) 1st Quartile	3.99	9.41	6.27	3.41	3.73	3.46	-7.97
IM U.S. Mid Cap Value Equity (MF) Median	3.27	7.08	5.04	2.04	2.31	2.84	-9.46
IM U.S. Mid Cap Value Equity (MF) 3rd Quartile	2.63	5.63	4.32	0.89	1.67	2.08	-10.95

**MPT Stats**

	1 YR	3 YR	5 YR
Standard Deviation	15.44	16.80	14.96
Downside Risk	5.39	10.06	8.10
<a href="#">vs. Russell Midcap Value Index</a>			
Alpha	-3.75	-6.92	-5.23
Beta	1.72	1.35	1.29
Down Market Capture	120.80	143.18	132.75
Information Ratio	0.75	-0.49	-0.15
Tracking Error	9.48	8.92	7.67
Up Market Capture	142.00	101.60	106.27
<a href="#">vs. 90 Day U.S. Treasury Bill</a>			
Sharpe Ratio	1.42	0.19	0.90

**Ranking vs. IM U.S. Mid Cap Value Equity (MF) 4 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hotchkis & Wiley Mid Cap Value (HWMIX)	28	17 (61%)	2 (7%)	1 (4%)	8 (29%)
Russell Midcap Value Index	28	10 (36%)	11 (39%)	7 (25%)	0 (0%)

**Ranking vs. IM U.S. Mid Cap Value Equity (MF) 12 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hotchkis & Wiley Mid Cap Value (HWMIX)	28	21 (75%)	0 (0%)	1 (4%)	6 (21%)
Russell Midcap Value Index	28	17 (61%)	8 (29%)	3 (11%)	0 (0%)

**Ranking vs. IM U.S. Mid Cap Value Equity (MF) 20 Quarters Rolling Periods**

	Periods	5-25	25-Median	Median-75	75-95
Hotchkis & Wiley Mid Cap Value (HWMIX)	28	15 (54%)	6 (21%)	5 (18%)	2 (7%)
Russell Midcap Value Index	28	13 (46%)	14 (50%)	1 (4%)	0 (0%)



Portfolio Characteristics			Top Ten Equity Holdings				
	Portfolio	Benchmark		Port. Wt	Bench. Wt	Qtr Rtrn	Contr. Rtrn
Wtd. Avg. Mkt. Cap (\$)	8,903,028,993	13,456,408,191					
Median Mkt. Cap (\$)	5,442,932,040	6,998,960,450	ARRIS International plc	4.5	0.1	5.9	0.3
Price/Earnings ratio	12.6	19.4	Office Depot Inc	4.2	0.0	21.5	0.9
Price/Book ratio	1.8	2.1	Popular Inc	4.1	0.1	3.1	0.1
5 Yr. EPS Growth Rate (%)	13.6	9.2	Calpine Corp	4.1	0.1	22.4	0.9
Current Yield (%)	1.4	2.2	Goodyear Tire & Rubber Co	3.9	0.2	-2.6	-0.1
Beta (5 Years, Monthly)	1.29	1.00	Corning Inc	3.9	0.0	11.9	0.5
Number of Stocks	58	590	CIT Group Inc	3.7	0.3	13.8	0.5
			Telefonaktiebolaget LM Ericsson	3.5	0.0	8.0	0.3
			Citizens Financial Group Inc	3.4	0.5	3.7	0.1
			Kosmos Energy Ltd	3.2	0.0	-3.8	-0.1

Buy and Hold Sector Attribution - 1 Qtr								Ten Best Performers				
	Allocation		Performance		Sector	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn	
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total					
Consumer Discretionary	20.8	8.7	-0.03	4.28	0.36	-0.89	-0.53	Rent-A-Center Inc	0.3	0.0	33.0	0.1
Consumer Staples	1.8	3.3	-5.31	0.03	0.02	-0.09	-0.08	Calpine Corp	4.1	0.1	22.4	0.9
Energy	17.0	9.1	-17.04	-12.15	-1.10	-0.91	-2.01	Office Depot Inc	4.2	0.0	21.5	0.9
Financials	21.7	19.5	5.07	3.21	0.05	0.40	0.45	Staples Inc.	0.5	0.2	16.4	0.1
Health Care	2.0	4.2	2.42	8.29	-0.16	-0.11	-0.27	CIT Group Inc	3.7	0.3	13.8	0.5
Industrials	8.1	13.1	2.14	3.13	-0.09	-0.08	-0.17	Corning Inc	3.9	0.0	11.9	0.5
Information Technology	21.3	9.5	3.24	2.87	0.18	0.06	0.24	Willis Towers Watson plc	3.1	0.5	11.5	0.4
Materials	0.0	6.1	0.00	0.11	0.07	0.00	0.07	CDW Corp	2.0	0.0	8.7	0.2
Real Estate	1.0	14.0	-2.68	1.54	-0.04	0.06	0.02	Marvell Technology Group Ltd	1.6	0.2	8.6	0.1
Telecommunication Services	0.0	1.2	0.00	-0.65	0.02	0.00	0.02	PHH Corp	0.8	0.0	8.2	0.1
Utilities	6.3	11.4	8.18	1.77	-0.05	0.43	0.38					
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.62</b>	<b>1.25</b>	<b>-0.74</b>	<b>-1.13</b>	<b>-1.87</b>					

Buy and Hold Style Attribution - 1 Qtr								Ten Worst Performers				
	Allocation		Performance		Style	Attribution		Port. Wt	Bench. Wt	Qtr. Rtrn	Contr. Rtrn	
	Portfolio	Benchmark	Portfolio	Benchmark		Stock	Total					
Large Growth	0.0	0.7	0.00	-11.70	0.08	0.00	0.08	Cobalt International Energy Inc	1.9	0.0	-69.1	-1.3
Large Neutral	1.3	3.5	8.01	3.52	-0.07	0.06	0.00	Weatherford Intl	0.7	0.1	-41.8	-0.3
Large Value	6.5	8.0	4.74	0.51	0.01	0.28	0.29	Whiting Petroleum Corp	1.9	0.1	-41.8	-0.8
Mid Growth	2.4	5.0	7.70	3.68	-0.06	0.09	0.04	Marathon Oil Corp	1.4	0.3	-24.7	-0.4
Mid Neutral	6.7	27.4	-10.40	2.31	-0.21	-0.92	-1.14	Bed Bath & Beyond Inc.	2.0	0.1	-22.6	-0.5
Mid Value	60.7	50.4	-0.87	0.60	-0.07	-0.90	-0.97	Frank's International NV	0.3	0.0	-20.8	-0.1
Small Growth	0.6	0.1	-7.81	-4.88	-0.04	-0.02	-0.06	Embraer SA	0.9	0.0	-16.7	-0.2
Small Neutral	0.0	0.2	0.00	-1.76	0.01	0.00	0.01	Avnet Inc	1.5	0.1	-14.6	-0.2
Small Value	18.7	2.1	0.14	-5.23	-1.02	0.94	-0.08	Cairn Energy PLC, Edinburgh	2.4	0.0	-12.5	-0.3
Unclassified	3.0	2.5	1.90	5.48	0.01	-0.05	-0.04	Discovery Communications	1.9	0.1	-11.2	-0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.62</b>	<b>1.25</b>	<b>-1.35</b>	<b>-0.52</b>	<b>-1.87</b>					



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## Historical Activity

### Nov-2016

The Hartford Capital Appreciation Fund (HIACX) was replaced by the Wells Fargo Disciplined US Core Fund (EVSIX).

The Deutsche Real Assets Fund (AAAVX) was removed from the Plans. The remaining balances were mapped into the American Funds American Balanced Fund (RLBGX).

The Plan added WCAB Models 2015, 2025, 2035, 2045, 2055, and 2060. The 2010 Model was replaced by the Income Model.

### Dec-2015

The Plan was converted to the Mass Mutual platform. The following funds were changed:

The SSGA Index Fund were replaced by Vanguard Index Funds.

The Hartford Balanced was replaced by American Funds Balanced.

American Century Equity Income shares changed from ACIIX to AEUDX.

Deutsche Alternative Asset Allocation shares changed from AAAAX to AAAVX.

### Sep-2014

Lord Abbett Mid Cap Value closes 9/3/14. Assets will map to the Hotchkis & Wiley Mid Cap Value Fund on September 5, 2014.

### Oct-2013

Pimco Foreign Bond (US Hedged) (PFORZ) was added to the fund lineup.

### Apr-2011

The LifePath Funds were removed from the fund line-up.

### Mar-2011

The Barclays LifePath Target Date Funds will be mapped to the Hartford Advisors HLS Fund.

### Oct-2010

The following funds were moved to new share classes as follows:

American Funds EuroPacific Growth to R6 shares

SSgA Russell Small Cap to A shares

Lord Abbett Mid Cap Value to I shares

SSgA S&P Mid Cap Index to A shares

American Funds Growth Fund of America to R6 shares

SSgA S&P 500 Index to A shares

Pimco High Yield to Institutional shares.

### Dec-2009

The LifePath 2010 fund was wrapped in with the Life Path Retirement Fund.

### Sep-2009

Barclays merged with BlackRock. The LifePath funds took the BlackRock name.

**Feb-2009**

The Following new investment choices were added to the Plans:

American Century Capital, DFA Intl. Small Cap Value, DWS Alternative Asset Allocation, Lazard Emerging Markets, Lord Abbett Mid Cap Value.

**Sep-2007**

The Hartford Index HLS was replaced by the SSgA S&P 500 Flagship fund in the third quarter 2007. The TCW Opportunity Fund was renamed to the TCW Relative Value Small Cap Fund.

**Jun-2007**

The American Century Ultra Fund was removed from the fund lineup during the second quarter 2007.

**Mar-2005**

Changes to the fund lineup started on March 1, 2005 and concluded on March 31, 2005. Below is a list of the funds that were retained and a list of funds that were added to the lineup.

Retained Funds:

Hartford Small Company HLS  
Skyline Special Equities Portfolio, Hartford Mid-Cap HLS  
American Century Ultra, Hartford Capital Appreciation  
Hartford Index HLS  
American Century Equity Income  
Hartford Advisors HLS  
Hartford Total Return Bond HLS  
General "Declared Interest"

Introduced Funds:

American Funds EuroPacific  
TCW Opportunity  
Artisan Mid-Cap  
Hotchkis & Wiley Mid-Cap Value  
American Funds Growth Fund  
PIMCO High Yield  
General Account (Declared)  
Barclays Global Investors LifePath.



<b>Active Return</b>	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
<b>Alpha</b>	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
<b>Beta</b>	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
<b>Consistency</b>	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
<b>Distributed to Paid In (DPI)</b>	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
<b>Down Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
<b>Downside Risk</b>	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
<b>Excess Return</b>	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
<b>Excess Risk</b>	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
<b>Information Ratio</b>	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
<b>Public Market Equivalent (PME)</b>	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
<b>R-Squared</b>	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
<b>Return</b>	- Compounded rate of return for the period.
<b>Sharpe Ratio</b>	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
<b>Standard Deviation</b>	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
<b>Total Value to Paid In (TVPI)</b>	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
<b>Tracking Error</b>	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
<b>Treynor Ratio</b>	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
<b>Up Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.



AndCo compiled this report for the sole use of the client for which it was prepared. AndCo is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. AndCo uses the results from this evaluation to make observations and recommendations to the client.

AndCo uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. AndCo analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides AndCo with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause AndCo to believe that the information presented is significantly misstated.

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