

Executive Summary
Period Ending September 30, 2019

Town of Palm Beach Retirement System DC

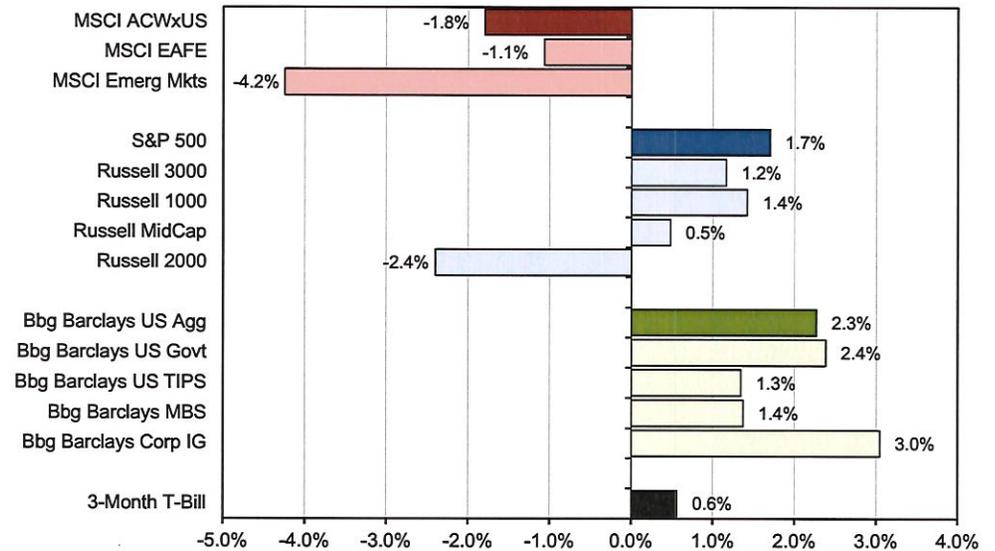


3rd Quarter 2019 Market Environment

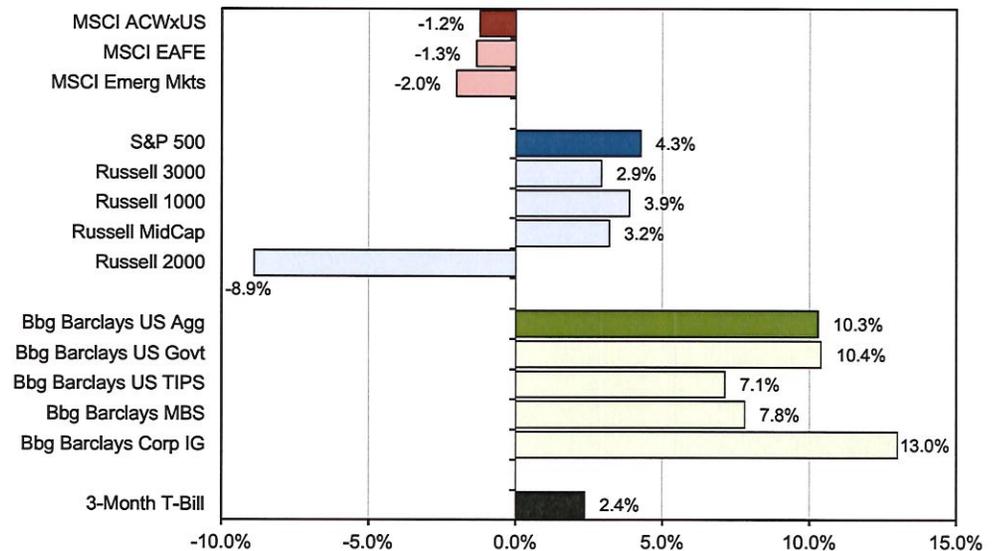


- Broad asset class returns were mixed during the 3rd quarter of 2019 with both US large cap equity and fixed income indices extending their year-to-date gains while US small cap and international indices declined. Volatility was high during the period as investors weighed the effects of ongoing trade disruption and slowing global economic data against the announcement of several new central bank stimulus measures. US stocks continued their year-to-date outperformance relative to international stocks during the period. US markets faced headwinds from continued escalation in the ongoing trade dispute with China, slowing economic data, particularly with regards to manufacturing, and political uncertainty following a late quarter impeachment inquiry against President Donald Trump. However, markets were supported by easing monetary policy from the Federal Reserve (Fed) which cut interest rates twice during the period. In general, lower risk assets performed better through the period as investors weighed the increased risk of a recession. Within domestic equity markets, large cap stocks outperformed small cap equities during the quarter with the S&P 500 Index returning 1.7% versus a -2.4% return on the small cap Russell 2000 Index. US equity returns over the 1-year period were positive for large and mid-cap stocks, returning 4.3% and 3.2% respectively, but small cap stocks posted a loss, falling -8.9%.
- International markets posted negative returns for the 3rd quarter. Similar to US markets, international returns were impacted by continued weakness in economic data, heightened geopolitical uncertainty around global trade and Brexit and newly announced stimulus measures from global central banks including the European Central Bank (ECB) and Peoples Bank of China (PBoC). International returns also faced headwinds from a strengthening US dollar (USD) which appreciated against most major currencies during the period. Developed markets continued their outperformance relative to emerging markets during the period with the MSCI EAFE Index falling -1.1% versus a -4.2% decline for the MSCI Emerging Markets Index. Both developing and emerging markets posted slight losses over the 1-year period, returning -1.3% and -2.0% respectively.
- Fixed income returns outperformed equities during the 3rd quarter as investors looked for relative safety amid the equity market volatility. The broad market Bloomberg Barclays Aggregate Index gained 2.3% as interest rates fell following central bank stimulus from the Fed and other global central banks. The US Treasury Yield Curve also inverted in August, contributing to growing concern around the potential for an upcoming recession. Investment grade corporate issues were the best performing securities for the third quarter in a row, returning 3.0%, outperforming Treasury and securitized issues. Corporate issues benefitted from their relatively high duration and yield. The bond market has meaningfully outperformed the equity market over the trailing 1-year period with the Bloomberg Barclays Aggregate posting a solid 10.3% return.

Quarter Performance



1-Year Performance

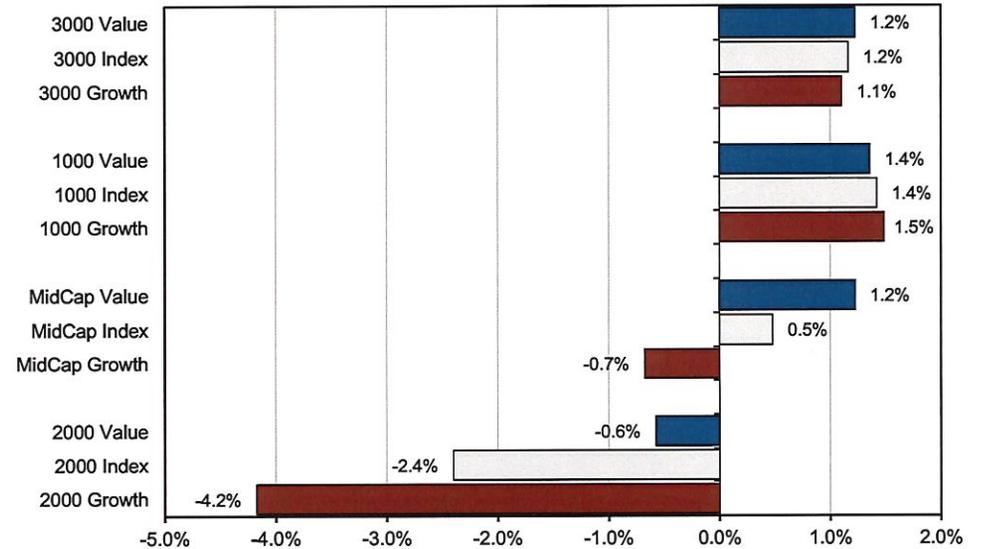


- US equity returns were modestly positive during the 3rd quarter, but results varied considerably across the style and capitalization spectrum. Data released during the quarter showed signs that the US economy could be slowing down. Weakening metrics around manufacturing and sentiment were particularly concerning and employment, typically a bright spot for the US economy, missed expectations for the pace of new jobs and hours worked. A likely contributor to the softening economic data is the ongoing trade war between the US and China. Despite last quarter's agreement to cease escalations following a meeting between President Trump and President Jinping at the G20 summit, the 3rd quarter saw the announcement and implementation of a series of new tariffs from both the US and China. Additionally, in response to new tariffs, the PBoC allowed the yuan to depreciate to its lowest level since 2008 leading US Treasury officials to accuse China of currency manipulation. Even with the apparent breakdown in relations between the two sides, both China and the US agreed to continue negotiations set to take place in October. Markets also reacted to the late quarter announcement of a formal impeachment inquiry against President Trump following a whistle blower report alleging that President Trump pressured the government of Ukraine to investigate the son of political opponent Joe Biden. Despite these substantial headwinds, the US equity market found support from Fed easing of monetary policy in the form of two separate interest rate cuts and ended the period with a gain. The Russell 3000 Index returned 1.2% and 2.9% for the quarter and 1-year period respectively.

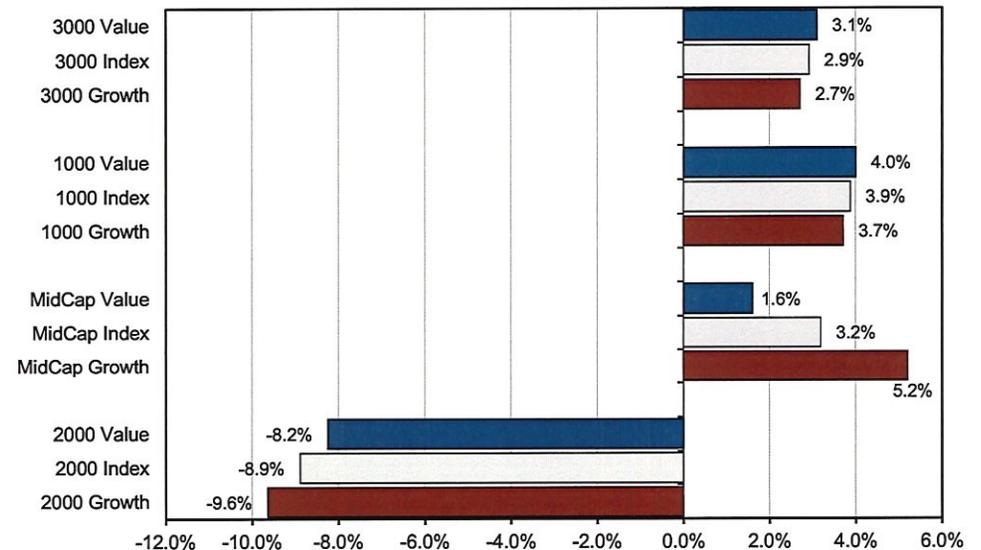
- During the quarter, higher market cap stocks outperformed lower market cap stocks across the style spectrum. The large cap Russell 1000 Index gained 1.4% during the period versus a -2.4% return for the small cap Russell 2000 Index. Investors may have been attracted to large cap names as a result of the quarter's volatility as large cap stocks are typically viewed as less risky than their small cap counterparts. When viewed over the most recent 1-year period, large cap stocks significantly outperformed small cap stocks with the Russell 1000 posting a 3.9% gain while the while the Russell 2000 had considerable losses, declining -8.9%.

- In general, value stocks outperformed growth stocks during the 3rd quarter as investors gravitated toward the relative safety these securities typically provide. However, large cap growth stocks slightly outperformed large cap value stocks due to favorable holdings in the technology and industrials sectors as well as a large underweight to the underperforming energy sector. The Russell 1000 Growth Index was the best performing style index for the period, returning 1.5%, with the small cap growth index posting the lowest relative return, a loss of -4.2%. Results over the 1-year period are mixed with value stocks outperforming in large and small cap and growth stocks outperforming in mid-cap.

Quarter Performance - Russell Style Series

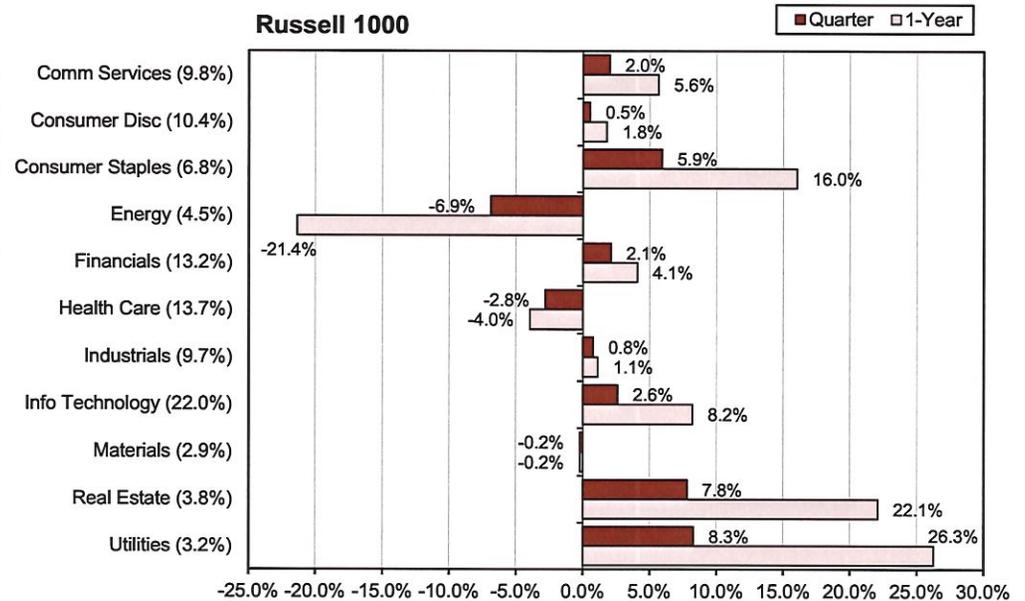


1-Year Performance - Russell Style Series



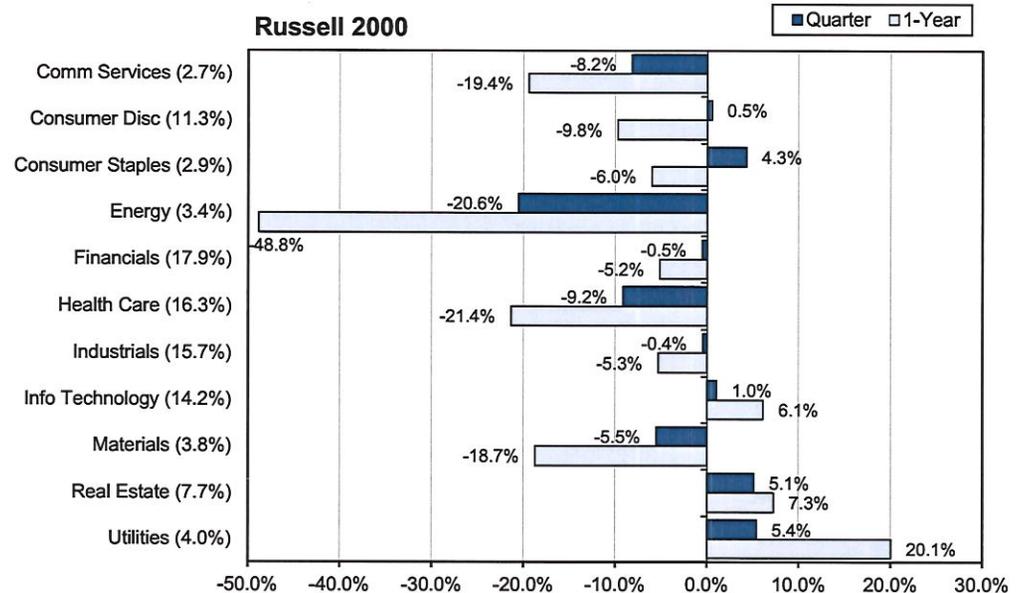
- Sector performance was mixed across large cap sectors for the 3rd quarter. There were gains for eight out of eleven sectors within the Russell 1000 Index during the period with six sectors outpacing the return of the index. Defensive sectors such as utilities, real estate and consumer staples were the best performers through the quarter returning 8.3%, 7.8% and 16.0% respectively as investors looked toward these sectors for their higher yields and lower historical volatility. Energy, health care and materials stocks were the worst performers during the period. Energy stocks fell -6.9% as crude oil prices fell during the period despite a sharp upward spike in September following a terrorist attack in Saudi Arabia that temporarily reduced the country's oil production, causing a large disruption in supply. Health care stocks also lagged, declining -2.8%, as discussions in Washington around the potential for increased regulation on drug pricing acted as a headwind. Health care reform has also been a major topic of discussion among candidates for the 2020 US Presidential election, creating additional uncertainty within the sector. Materials returned -0.2% as demand concerns weighed on the economically sensitive sector. Returns over the 1-year period were also generally positive with eight out of eleven sectors posting gains. Similar to the quarter's results, defensive sectors outperformed by a considerable margin. Utilities, real estate and consumer staples performed well returning 26.3%, 22.1% and 16.0% respectively. Technology returns were also strong gaining 8.2%. Energy, health care and materials were the only sectors to post negative results over the 1-year period with energy falling -21.4%, health care dropping -4.0% and materials returning -0.2%.

Russell 1000



- Quarterly results for small cap sectors were worse than their large capitalization counterparts with all eleven sectors trailing their corresponding large cap equivalents. Five of eleven economic sectors produced gains during the period with seven of eleven sectors outpacing the Russell 2000 Index return for the quarter. Similar to large caps, defensive sectors performed well as investors gravitated toward their relative safety and higher yields. Utilities were the best performers, returning 5.4% followed closely by REITs and consumer staples which returned 5.1% and 4.3% respectively. The cyclically oriented energy sector was the largest detractor for the period, posting a loss of -20.6%. Health care and communication services stocks also experienced notable declines, falling -9.2% and -8.2% respectively. Over the trailing 1-year period, returns were broadly negative. Utilities, real estate and technology were the only sectors to post gains returning 20.1%, 7.3% and 6.1%. The energy sector was an outlier in terms of negative returns dropping -48.8% during the period. There were also notable losses in health care, communication services and materials which declined -21.4%, -19.4% and -18.7% respectively.

Russell 2000



Source: Morningstar Direct
 As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.



The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of September 30, 2019

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	3.82%	4.1%	22.9%	Information Technology
Apple Inc	3.68%	13.6%	0.8%	Information Technology
Amazon.com Inc	2.61%	-8.3%	-13.3%	Consumer Discretionary
Facebook Inc A	1.55%	-7.7%	8.3%	Communication Services
Berkshire Hathaway Inc B	1.48%	-2.4%	-2.8%	Financials
JPMorgan Chase & Co	1.36%	6.0%	7.4%	Financials
Alphabet Inc Class C	1.35%	12.8%	2.1%	Communication Services
Alphabet Inc A	1.33%	12.8%	1.2%	Communication Services
Johnson & Johnson	1.25%	-6.4%	-3.8%	Health Care
Procter & Gamble Co	1.12%	14.2%	54.0%	Consumer Staples

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
NovoCure Ltd	0.34%	18.3%	42.7%	Health Care
Haemonetics Corp	0.33%	4.8%	10.1%	Health Care
Trex Co Inc	0.28%	26.8%	18.1%	Industrials
Science Applications International	0.27%	1.3%	10.4%	Information Technology
Portland General Electric Co	0.26%	4.8%	27.2%	Utilities
ONE Gas Inc	0.26%	7.0%	19.5%	Utilities
First Industrial Realty Trust Inc	0.26%	8.3%	29.3%	Real Estate
Southwest Gas Holdings Inc	0.26%	2.2%	18.2%	Utilities
Maximus Inc	0.25%	6.9%	20.4%	Information Technology
Teladoc Health Inc	0.25%	2.0%	-21.6%	Health Care

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Insulet Corp	0.04%	38.2%	55.7%	Health Care
CyrusOne Inc	0.03%	37.9%	28.8%	Real Estate
KLA Corp	0.09%	35.7%	61.1%	Information Technology
New York Community Bancorp Inc	0.02%	27.6%	28.7%	Financials
Entegris Inc	0.02%	26.3%	63.9%	Information Technology
Pilgrims Pride Corp	0.01%	26.2%	77.1%	Consumer Staples
Western Digital Corp	0.06%	25.4%	5.6%	Information Technology
DocuSign Inc	0.03%	24.6%	17.8%	Information Technology
Target Corp	0.19%	24.4%	24.3%	Consumer Discretionary
XPO Logistics Inc	0.02%	23.8%	-37.3%	Industrials

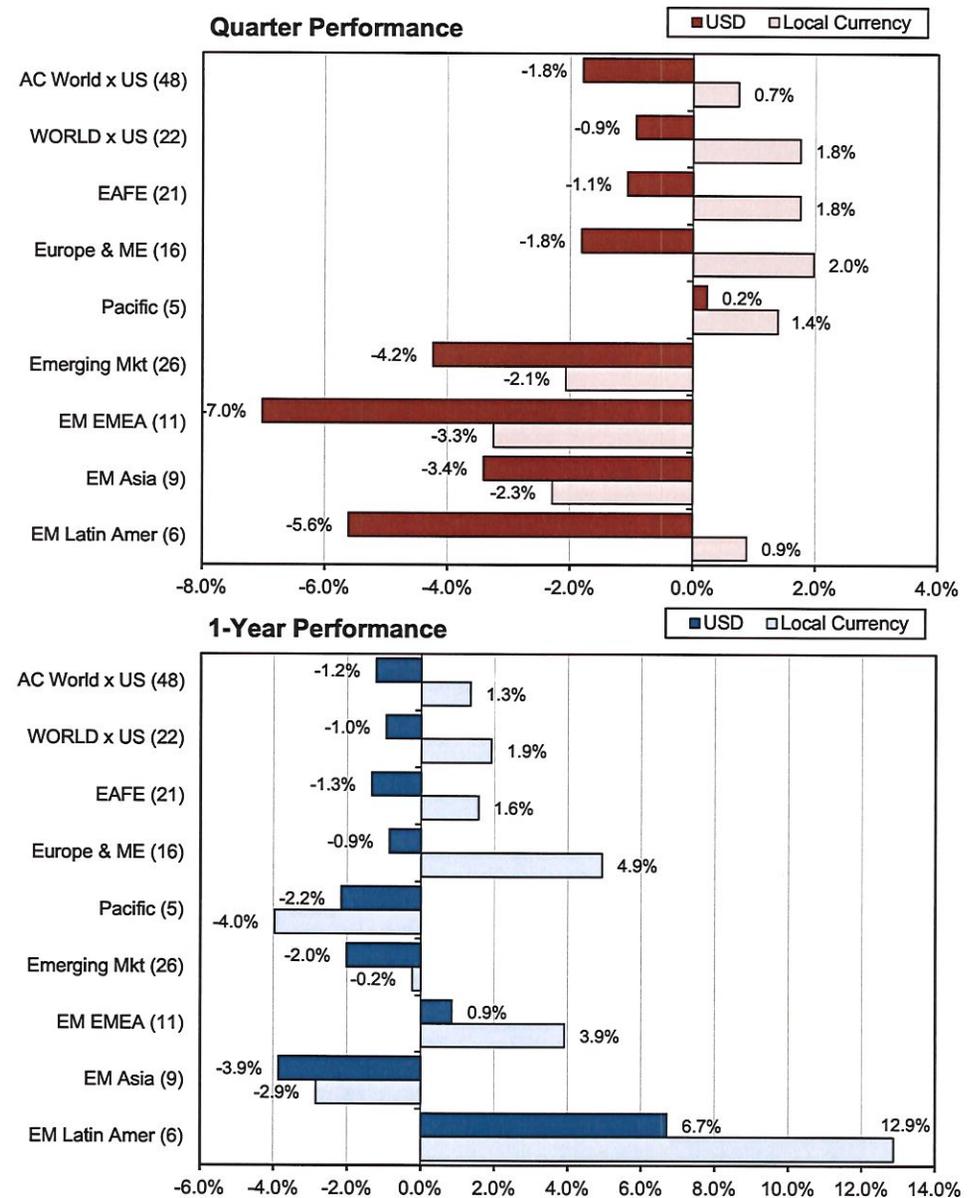
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
NextCure Inc	0.00%	105.9%	N/A	Health Care
Dova Pharmaceuticals Inc	0.01%	98.2%	33.3%	Health Care
WW International Inc	0.09%	98.0%	-47.5%	Consumer Discretionary
R.R.Donnelley & Sons Co	0.01%	94.7%	-27.6%	Industrials
Infinera Corp	0.05%	87.3%	-25.3%	Information Technology
Lannett Co Inc	0.02%	84.8%	135.8%	Health Care
Owens & Minor Inc	0.02%	81.6%	-64.4%	Health Care
Allakos Inc	0.08%	81.5%	74.8%	Health Care
Solid Biosciences Inc	0.01%	79.8%	-78.1%	Health Care
Ardelyx Inc	0.01%	74.7%	8.0%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
2U Inc	0.00%	-56.7%	-78.3%	Information Technology
PG&E Corp	0.02%	-56.4%	-78.3%	Utilities
Covetrus Inc	0.00%	-51.4%	N/A	Health Care
Sarepta Therapeutics Inc	0.02%	-50.4%	-53.4%	Health Care
Nektar Therapeutics Inc	0.01%	-48.8%	-70.1%	Health Care
DXC Technology Co	0.03%	-46.2%	-67.9%	Information Technology
Antero Resources Corp	0.00%	-45.4%	-82.9%	Energy
Range Resources Corp	0.00%	-45.0%	-77.3%	Energy
Pluralsight Inc Class A	0.00%	-44.6%	-47.5%	Information Technology
Fluor Corp	0.01%	-42.5%	-66.1%	Industrials

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Tocagen Inc	0.00%	-90.1%	-95.8%	Health Care
Waitr Holdings Inc Class A	0.00%	-79.6%	-88.1%	Consumer Discretionary
McDemott International Inc	0.02%	-79.1%	-89.0%	Energy
Sonim Technologies Inc	0.00%	-77.0%	N/A	Information Technology
Synlogic Inc	0.00%	-74.8%	-83.9%	Health Care
Mallinckrodt PLC	0.01%	-73.7%	-91.8%	Health Care
Clovis Oncology Inc	0.01%	-73.6%	-86.6%	Health Care
Bloom Energy Corp Class A	0.01%	-73.5%	-90.5%	Industrials
Chaparral Energy Inc Class A	0.00%	-71.5%	-92.4%	Energy
Pacific Drilling SA	0.01%	-69.3%	-99.7%	Energy



- Broad international equity returns were negative in USD terms for the 3rd quarter as US investors in international markets faced a meaningful headwind from a USD that strengthened against most major currencies. In local currency terms, developed markets were generally positive while emerging markets posted losses. The MSCI ACWI ex US Index gained 0.7% in local currency terms, but a USD investor experienced a loss of -1.8% due to the currency effect. Similar to US markets, international equity markets balanced headwinds from slowing economic data and concerns around global trade with tailwinds from central bank shifts toward more accommodative policies. Among others, the ECB and PBoC announced new stimulus measures during the quarter. The ECB cut its policy rate and committed to a new quantitative easing program and the PBoC announced new stimulus measures designed to encourage bank lending and reduce borrowing costs as it tries to counteract a cooling economy and the effects of its ongoing trade war with the US. The recent USD strength can also be seen over the 1-year period with USD returns trailing most local currency returns. Returns for the MSCI ACWI ex US Index were 1.3% in local currency terms and -1.2% in USD terms for the trailing year.
- Results for developed market international indices were generally positive in local currency terms, but negative in USD terms for the 3rd quarter, with the MSCI EAFE Index returning 1.8% and -0.9% respectively. Outside of central bank policy and trade, there were notable developments within the political sphere. In Europe, Christine Lagarde was nominated to succeed Mario Draghi as the head of the ECB. Japanese stocks rose as election results appeared to support continuity for Prime Minister Abe's ongoing policy efforts. In the UK, pro-Brexit Boris Johnson was appointed to prime minister, replacing Theresa May. The UK continues to face uncertainty around Brexit as its late October deadline to agree to a withdrawal agreement with the European Union (EU) quickly approaches. Stocks in Hong Kong fell as the government dealt with major pro-democracy protests throughout the quarter. The MSCI EAFE Index returned 1.6% and -1.3% for the last twelve months in local currency and USD terms respectively.
- Emerging markets continued their trend of 2019 underperformance relative to developed markets during the 3rd quarter, posting negative returns in both local currency and USD terms. The MSCI Emerging Markets Index fell -2.1% and -4.2% respectively. As expected, geopolitical tensions around trade continued to put pressure on emerging market stocks. Countries with greater sensitivities to commodity prices or a strong USD tended to underperform during the period. Argentina's stock market fell -46.8% as primary elections in the country saw the defeat of the country's current market friendly president. One year returns for the MSCI Emerging Market Index were -0.2% in local currency terms and -2.0% in USD terms.



Source: MSCI Global Index Monitor (Returns are Net)



The Market Environment
US Dollar International Index Attribution & Country Detail
As of September 30, 2019

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	-0.9%	-0.7%
Consumer Discretionary	11.5%	0.3%	-2.0%
Consumer Staples	12.0%	1.9%	6.9%
Energy	5.1%	-6.5%	-14.5%
Financials	18.6%	-2.6%	-6.3%
Health Care	11.6%	2.4%	4.3%
Industrials	14.7%	-2.0%	-2.1%
Information Technology	6.7%	-0.5%	1.8%
Materials	7.0%	-5.4%	-5.7%
Real Estate	3.6%	-1.3%	4.3%
Utilities	3.8%	2.4%	13.2%
Total	100.0%	-1.1%	-1.3%

MSCI - ACWxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.8%	-2.9%	-1.0%
Consumer Discretionary	11.4%	-0.7%	-1.6%
Consumer Staples	10.2%	1.5%	6.8%
Energy	6.7%	-4.6%	-9.8%
Financials	21.6%	-3.6%	-3.2%
Health Care	8.5%	1.1%	0.9%
Industrials	11.9%	-2.5%	-2.4%
Information Technology	8.9%	2.2%	4.1%
Materials	7.3%	-6.5%	-7.2%
Real Estate	3.2%	-3.1%	5.0%
Utilities	3.5%	1.3%	12.6%
Total	100.0%	-1.8%	-1.2%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	11.6%	-5.2%	-2.5%
Consumer Discretionary	13.1%	-3.1%	0.1%
Consumer Staples	6.9%	-0.8%	3.0%
Energy	7.7%	-4.0%	-2.3%
Financials	24.7%	-8.0%	1.6%
Health Care	2.6%	-6.6%	-24.2%
Industrials	5.4%	-5.2%	-4.4%
Information Technology	15.1%	5.6%	3.9%
Materials	7.3%	-10.7%	-15.9%
Real Estate	2.9%	-8.8%	6.8%
Utilities	2.8%	-3.6%	7.2%
Total	100.0%	-4.2%	-2.0%

Country	MSCI-EAFE Weight	MSCI-ACWxUS Weight	Quarter Return	1-Year Return
Japan	24.6%	16.5%	3.1%	-4.7%
United Kingdom	16.4%	11.0%	-2.5%	-2.9%
France	11.4%	7.6%	-1.7%	-1.6%
Switzerland	9.4%	6.3%	0.3%	12.0%
Germany	8.5%	5.7%	-4.0%	-7.1%
Australia	7.0%	4.7%	-1.4%	6.1%
Netherlands	4.0%	2.7%	2.4%	9.5%
Hong Kong	3.5%	2.4%	-11.9%	-1.8%
Spain	2.9%	2.0%	-3.8%	-3.5%
Sweden	2.6%	1.7%	-4.8%	-8.0%
Italy	2.3%	1.6%	-0.1%	3.9%
Denmark	1.8%	1.2%	-1.0%	2.3%
Singapore	1.3%	0.9%	-5.8%	-0.2%
Belgium	1.0%	0.7%	3.4%	-0.8%
Finland	1.0%	0.7%	-1.8%	-9.3%
Norway	0.7%	0.4%	-3.4%	-13.4%
Israel	0.6%	0.4%	-3.7%	-12.5%
Ireland	0.5%	0.4%	-0.6%	-4.6%
New Zealand	0.2%	0.2%	-2.9%	10.0%
Austria	0.2%	0.2%	-3.1%	-16.0%
Portugal	0.2%	0.1%	1.6%	-2.5%
Total EAFE Countries	100.0%	67.0%	-1.1%	-1.3%
Canada		7.0%	0.5%	3.0%
Total Developed Countries		74.0%	-0.9%	-1.0%
China		8.3%	-4.7%	-3.9%
Korea		3.2%	-4.5%	-13.8%
Taiwan		3.0%	5.2%	-0.2%
India		2.3%	-5.2%	4.7%
Brazil		2.0%	-4.6%	25.4%
South Africa		1.2%	-12.6%	-6.4%
Russia		1.0%	-1.4%	18.0%
Thailand		0.8%	-6.0%	-0.9%
Saudi Arabia		0.7%	-9.5%	4.0%
Mexico		0.7%	-1.7%	-14.8%
Indonesia		0.5%	-5.2%	11.9%
Malaysia		0.5%	-6.3%	-10.4%
Philippines		0.3%	-4.6%	13.1%
Poland		0.3%	-12.1%	-12.2%
Qatar		0.3%	-0.2%	5.0%
Chile		0.3%	-7.3%	-16.8%
United Arab Emirates		0.2%	-0.2%	-0.3%
Turkey		0.2%	11.7%	16.5%
Colombia		0.1%	-6.1%	-7.3%
Peru		0.1%	-9.3%	-4.0%
Greece		0.1%	-3.1%	6.8%
Hungary		0.1%	-3.9%	3.4%
Argentina		0.1%	-46.8%	-32.3%
Czech Republic		0.0%	-10.1%	-12.6%
Egypt		0.0%	7.4%	21.5%
Pakistan		0.0%	1.1%	-32.7%
Total Emerging Countries		26.0%	-4.2%	-2.0%
Total ACWxUS Countries		100.0%	-1.8%	-1.2%

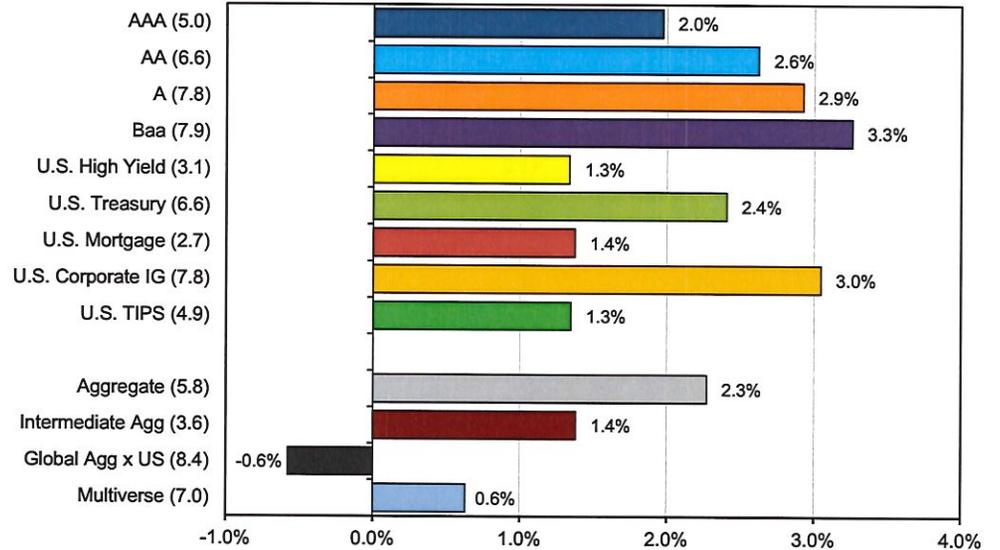
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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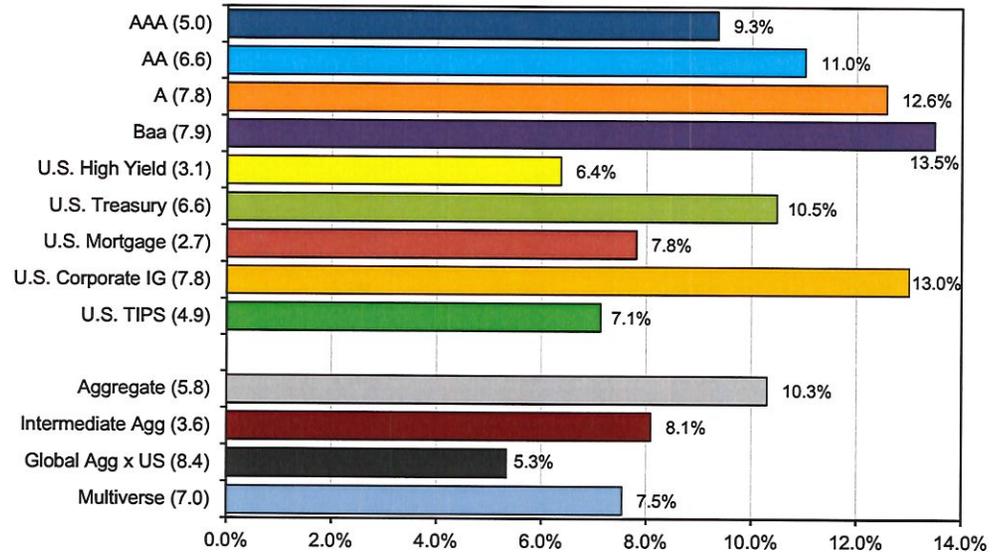


- Broad fixed income benchmarks continued their trend of 2019 gains during the 3rd quarter. Interest rates fell across the US Treasury Yield Curve through the quarter as the Fed continued to shift toward an easing of monetary policy in an attempt to combat slowing economic data. The Fed cut short-term interest rates twice during the period following their July and September meetings. In addition, it ended its balance sheet reduction plan in September which represents a further easing of monetary policy. After its September meeting, the Fed issued a statement commenting that future changes to monetary policy are not on a preset course and will be evaluated as the Fed receives new information on the state of the economy, but that Fed officials “will continue to monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion.” The Fed response provided market support in a quarter where we saw the formal inversion of the yield curve. Treasury yields on 2-year issues briefly surpassed the yield on 10-year issues in August. This inversion of the yield curve has historically preceded a recession within the next 6-24 months. However, the magnitude of the inversion was mild and short in duration with rates on the 10-year Treasury rising above the yield of the 2-year by early September. The bellwether Bloomberg Barclays US Aggregate Index posted positive returns for both the 3rd quarter and the 1-year period, returning 2.3% and 10.3% respectively.
- Within investment grade credit, lower quality issues outperformed higher quality issues during the quarter. Lower quality issues benefitted from their higher durations as interest rates fell during the quarter. On an absolute basis, without negating the duration differences in the sub-indices, Baa rated credit was the best performing investment grade credit quality segment returning 3.3% for the quarter, while AAA was the worst performing, returning 2.0%. High yield issues returned 1.3% for the quarter as these issues did not commensurately benefit from the drop in interest rates due to their relatively low durations. Returns over the 1-year period show lower quality securities outperforming higher quality issues with Baa rated issues returning 13.5% versus a 9.3% return for AAA securities.
- Investment grade corporates outperformed the more defensive Treasury and mortgage backed sectors of the Bloomberg Barclays US Aggregate Index’s three broad sectors during the 3rd quarter. Investment grade corporate credit returned 3.0%, as they benefitted from their higher sensitivity to interest rates, low credit spreads and high investor demand for yield. When viewed over the 1-year period, corporate credit outperformed both Treasuries and mortgage backed securities. Corporate issues returned 13.0% versus a 7.8% return for mortgages and 10.5% gain on Treasury securities.

Quarter Performance

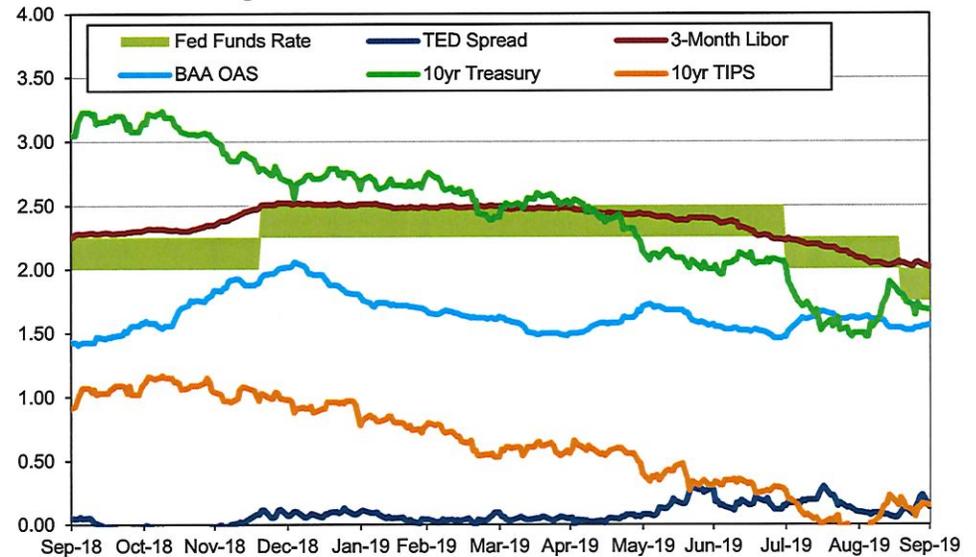


1-Year Performance

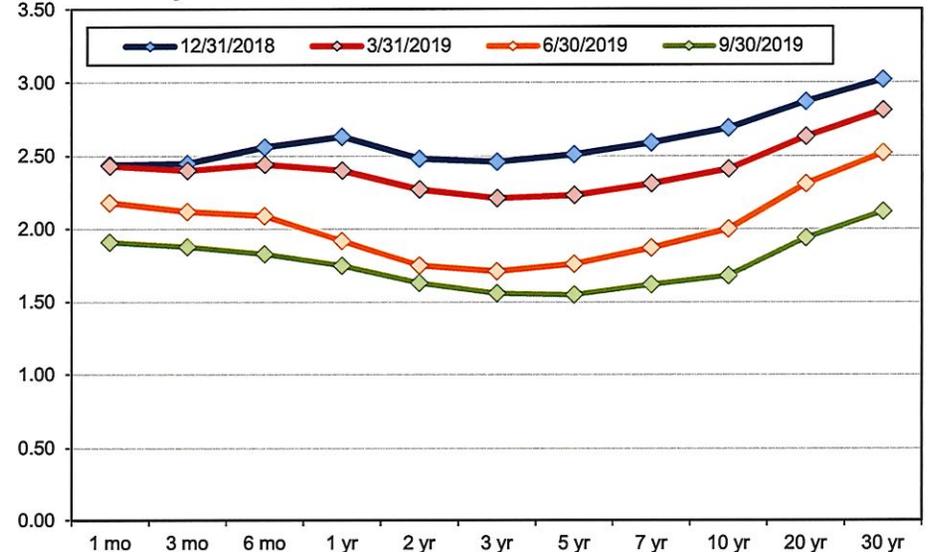


- Global fixed income returns underperformed their domestic counterparts during the 3rd quarter. These indices have lower, or in some cases (Germany, Japan), negative yields, but have higher durations. Given their higher durations, these issues would be expected to perform relatively well during periods of falling rates, however, the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. As mentioned, the USD appreciated against most other developed currencies during the quarter, acting as a headwind to global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was -0.6%. Global bonds also trailed over the 1-year period with the Global Aggregate ex US Index returning 5.3% versus a 10.3% return on the domestically focused Bloomberg Barclays Aggregate Index. As global growth has shown signs of stalling, several international central banks have started to step back from more restrictive postures. The ECB and the PBoC have moved toward an easing of monetary policy and implemented various stimulus programs designed to support their respective economies. The Bank of England and the Bank of Japan made no major policy changes during the quarter as they continue to review macroeconomic data within their respective countries.
- 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 over the last year, the 10-year Treasury yield (green line) fell from high's greater than 3.0%, to yields below 1.5% before ending the quarter at 1.68%. 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 an abrupt increase in credit spreads during the 4th quarter of 2018 as investors moved to higher quality assets during the quarter's risk-off environment. Subsequently, spreads declined steadily, remaining somewhat range bound with increases in May and August. There was little change through the quarter with spreads tightening by about 1 basis point. Spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. The green band across the graph illustrates the decrease in the Federal Funds Rate due to the recent easing in US monetary policy. The rate cuts in July and September have pushed the Fed Funds Rate to 1-year lows.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. The downward shift in interest rates as well as a general flattening of the yield curve are clearly visible over the last quarter. As mentioned, the yield curve continues to invert as yields on shorter- and middle-term maturities fell less than interest rates at the long-end of the curve.

1-Year Trailing Market Rates



Treasury Yield Curve



Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)



Asset Allocation
Total 457 and 401a Plans
As of September 30, 2019

Asset Allocation Attributes	Sep-2019		Jun-2019		Mar-2019		Dec-2018	
	(\$)	%	(\$)	%	(\$)	%	(\$)	%
Total 457 & 401a Plans	53,028,687	100.00	53,518,612	100.00	51,888,944	100.00	47,589,756	100.00
457 Plan- 300786	38,989,832	73.53	39,571,445	73.94	38,339,276	73.89	35,081,669	73.72
401a Plan- 106397	11,713,936	22.09	11,512,359	21.51	11,063,286	21.32	10,101,190	21.23
401a General DROP- 108334	-	0.00	-	0.00	-	0.00	9,239	0.02
401a Police DROP- 108335	-	0.00	-	0.00	-	0.00	72,837	0.15
401a Fire Share-106796	2,313,770	4.36	2,423,711	4.53	2,475,340	4.77	2,280,001	4.79
401a Fire Old DROP- 108552	11,149	0.02	11,098	0.02	11,041	0.02	44,821	0.09



Asset Allocation
Total Fund RHS Plans
As of September 30, 2019

Asset Allocation Attributes	Sep-2019		Jun-2019		Mar-2019		Dec-2018	
	(\$)	%	(\$)	%	(\$)	%	(\$)	%
	Total RHS Plans	4,008,429	100.00	3,945,518	100.00	3,843,572	100.00	3,381,651
RHS Old Plan	508,270	12.68	509,631	12.92	498,359	12.97	468,696	13.86
RHS Current Plan- 803116	3,500,159	87.32	3,435,886	87.08	3,345,213	87.03	2,912,955	86.14



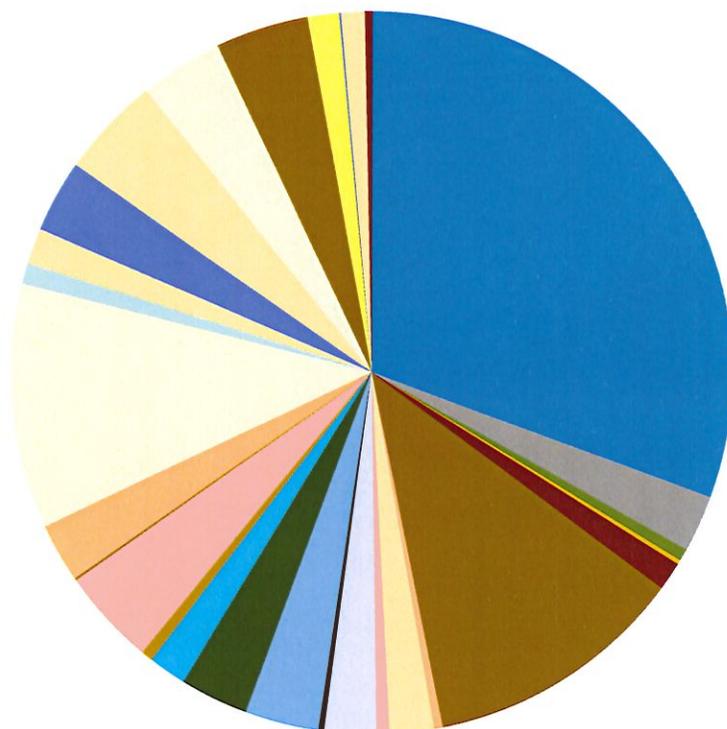
Asset Allocation By Manager

457 Plan- 300786

As of September 30, 2019

June 30, 2019 : \$39,571,445

Allocation



	Market Value	Allocation
Vantage Trust Plus Fund	12,096,322	30.6
TCW Total Return Bond Fund (TGLMX)	997,176	2.5
VT Vantagepoint Inftn Focused	219,209	0.6
Neuberger Berman High Yeild Fixed Income (NHILX)	79,504	0.2
VT Retirement Income Advantage	507,790	1.3
Vanguard 500 Index Fund (VFIAX)	4,614,943	11.7
VT Parnassus Core Equity (PRBLX)	150,389	0.4
VT Vantagepoint Equity Income	782,806	2.0
VT Invesco Diversified Dividend Fund (LCEYX)	231,899	0.6
VT Fidelity Diversified Intl (FDIVX)	916,145	2.3
VT Victory Sycamore Est Value (VEVYX)	100,851	0.3
Vanguard Mid Cap Index (VIMAX)	1,307,270	3.3
VT TimesSquare Mid Cap Growth (TMDPX)	1,207,939	3.1
VT Vantagepoint Discovery	671,445	1.7
Vanguard Small Cap Index (VSMAX)	208,003	0.5
VT Oppenheimer Discovery Fund (ODIYX)	1,705,147	4.3
Templeton Inst. Global Equity (TGESX)	36,352	0.1
Vanguard Total Int'l Stock Index (VTIAX)	1,045,706	2.6
VT Fidelity Contrafund (FCNTX)	4,340,317	11.0
VT Nuveen Real Estate Secs (FARCX)	375,283	0.9
Vanguard Target Retirement Income (VTINX)	629,381	1.6
Vanguard Target Retirement 2015 (VTXVX)	1,275,596	3.2
Vanguard Target Retirement 2020 (VTWNX)	1,801,329	4.6
Vanguard Target Retirement 2025 (VTTVX)	1,474,055	3.7
Vanguard Target Retirement 2030 (VTHR)	1,645,213	4.2
Vanguard Target Retirement 2035 (VTTHX)	557,558	1.4
Vanguard Target Retirement 2040 (VFORX)	34,538	0.1
Vanguard Target Retirement 2045 (VTIVX)	418,632	1.1
Vanguard Target Retirement 2050 (VFIFX)	140,646	0.4

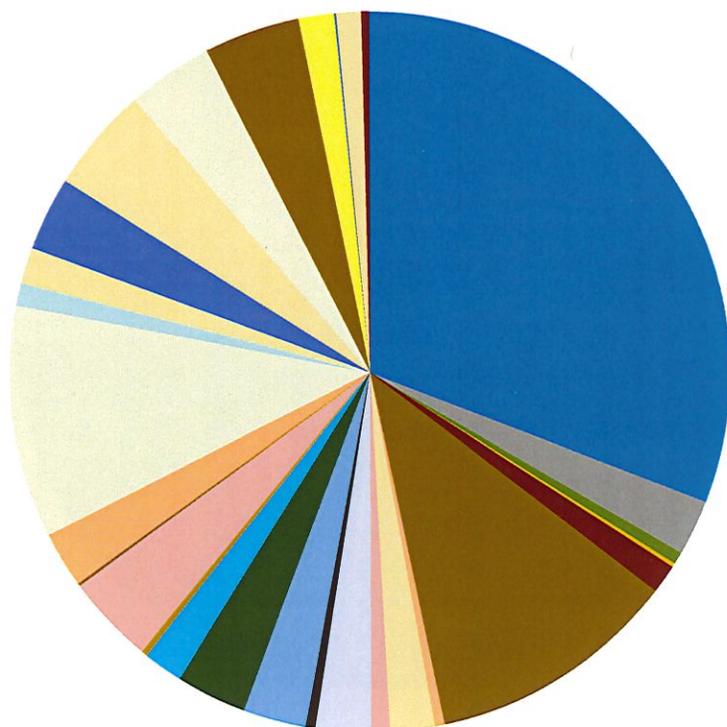


Asset Allocation By Manager
457 Plan- 300786
As of September 30, 2019

September 30, 2019 : \$38,989,832

Allocation

	Market Value	Allocation
■ Vantage Trust Plus Fund	12,051,573	30.9
■ TCW Total Return Bond Fund (TGLMX)	978,494	2.5
■ VT Vantagepoint Inftn Focused	214,282	0.5
■ Neuberger Berman High Yeild Fixed Income (NHILX)	77,140	0.2
■ VT Retirement Income Advantage	507,479	1.3
■ Vanguard 500 Index Fund (VFIAX)	4,369,230	11.2
■ VT Pamassus Core Equity (PRBLX)	171,598	0.4
■ VT Vantagepoint Equity Income	781,496	2.0
■ VT Invesco Diversified Dividend Fund (LCEYX)	326,318	0.8
■ VT Fidelity Diversified Intl (FDIVX)	962,153	2.5
■ VT Victory Sycamore Est Value (VEVYX)	169,406	0.4
■ Vanguard Mid Cap Index (VIMAX)	1,100,842	2.8
■ VT TimesSquare Mid Cap Growth (TMDPX)	1,230,666	3.2
■ VT Vantagepoint Discovery	694,398	1.8
■ Vanguard Small Cap Index (VSMAX)	104,908	0.3
■ VT Oppenheimer Discovery Fund (ODIYX)	1,565,042	4.0
■ Templeton Inst. Global Equity (TGESX)	45,236	0.1
■ Vanguard Total Int'l Stock Index (VTIAX)	977,340	2.5
■ VT Fidelity Contrafund (FCNTX)	4,093,474	10.5
■ VT Nuveen Real Estate Secs (FARCX)	403,979	1.0
■ Vanguard Target Retirement Income (VTINX)	623,121	1.6
■ Vanguard Target Retirement 2015 (VTXVX)	1,298,355	3.3
■ Vanguard Target Retirement 2020 (VTWNX)	1,838,082	4.7
■ Vanguard Target Retirement 2025 (VTTVX)	1,495,982	3.8
■ Vanguard Target Retirement 2030 (VTHRX)	1,675,796	4.3
■ Vanguard Target Retirement 2035 (VTTHX)	623,421	1.6
■ Vanguard Target Retirement 2040 (VFORX)	36,897	0.1
■ Vanguard Target Retirement 2045 (VTIVX)	430,794	1.1
■ Vanguard Target Retirement 2050 (VFIFX)	142,330	0.4



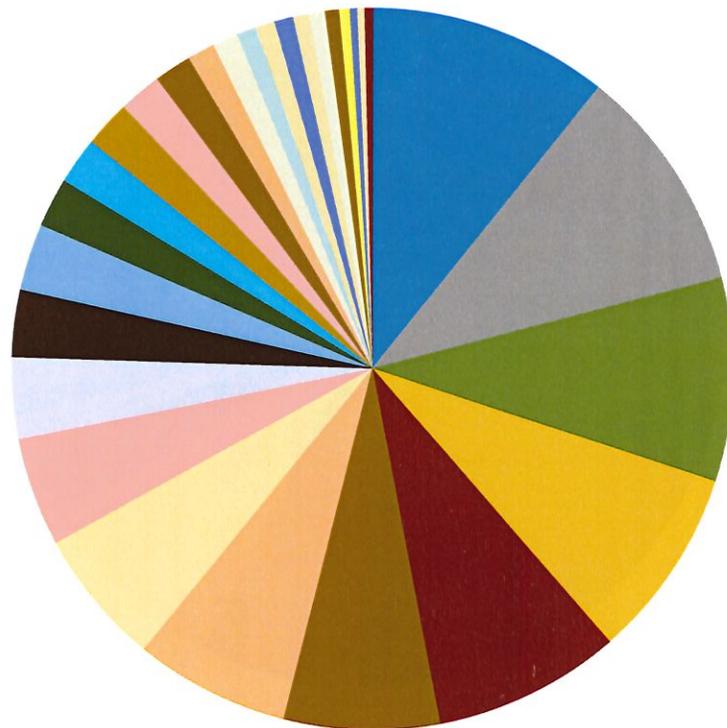
Asset Allocation By Manager

401a Plan- 106397

As of September 30, 2019

June 30, 2019 : \$11,512,359

Allocation



	Market Value	Allocation
Vantage Trust Plus Fund	802,039	7.0
Vantage Trust Cash Management (DPCXX)	193,409	1.7
TCW Total Return Bond Fund (TGLMX)	255,132	2.2
VT Vantagepoint Infitn Focused	83,410	0.7
Neuberger Berman High Yeild Fixed Income (NHILX)	15,609	0.1
VT Retirement Income Advantage	72,672	0.6
Vanguard 500 Index Fund (VFIAX)	969,124	8.4
VT Pamassus Core Equity (PRBLX)	131,028	1.1
VT Vantagepoint Equity Income	38,717	0.3
VT Invesco Diversified Dividend Fund (LCEYX)	97,471	0.8
VT Fidelity Contrafund (FCNTX)	221,632	1.9
VT Victory Sycamore Est Value (VEVYX)	30,932	0.3
Vanguard Mid Cap Index (VIMAX)	346,590	3.0
VT TimesSquare Mid Cap Growth (TMDPX)	80,516	0.7
VT Vantagepoint Discovery	240,314	2.1
Vanguard Small Cap Index (VSMAX)	102,465	0.9
VT Oppenheimer Discovery Fund (ODIYX)	701,797	6.1
Templeton Inst. Global Equity (TGESX)	37,214	0.3
Vanguard Total Int'l Stock Index (VTIAX)	560,368	4.9
VT Fidelity Diversified Intl (FDIVX)	241,606	2.1
VT Nuveen Real Estate Secs (FARCX)	142,451	1.2
Vanguard Target Retirement Income (VTINX)	54,159	0.5
Vanguard Target Retirement 2015 (VTXVX)	97,696	0.8
Vanguard Target Retirement 2020 (VTWNX)	1,167,481	10.1
Vanguard Target Retirement 2025 (VTTVX)	1,049,990	9.1
Vanguard Target Retirement 2030 (VTHR)	1,235,521	10.7
Vanguard Target Retirement 2035 (VTTHX)	982,595	8.5
Vanguard Target Retirement 2040 (VFORX)	799,676	6.9
Vanguard Target Retirement 2045 (VTIVX)	418,048	3.6
Vanguard Target Retirement 2050 (VFIFX)	342,698	3.0



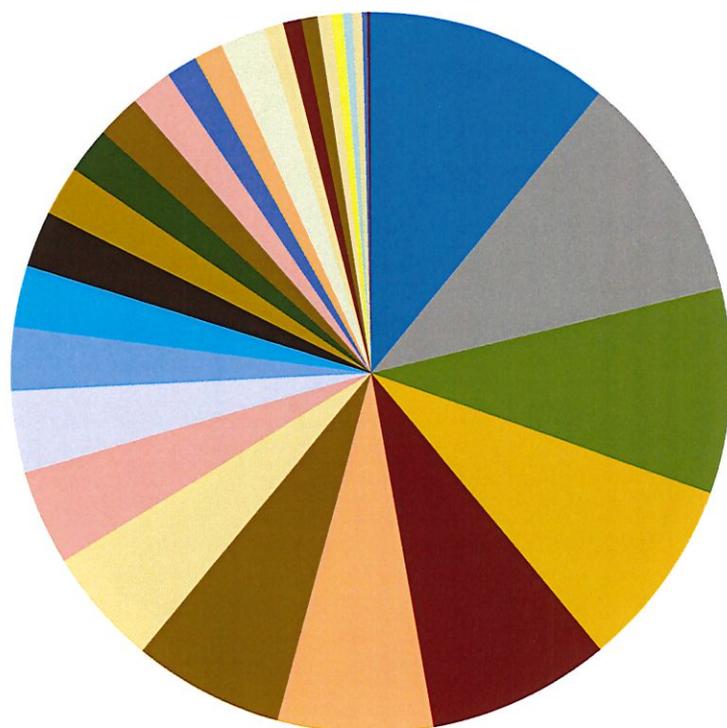
Asset Allocation By Manager

401a Plan- 106397

As of September 30, 2019

September 30, 2019 : \$11,713,936

Allocation



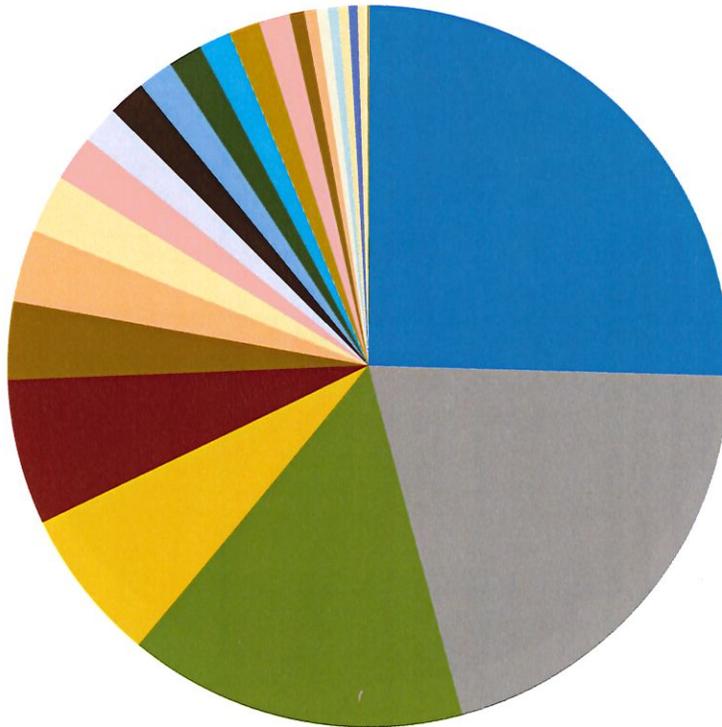
	Market Value	Allocation
Vantage Trust Plus Fund	791,561	6.8
Vantage Trust Cash Management (DPCXX)	231,648	2.0
TCW Total Return Bond Fund (TGLMX)	243,215	2.1
VT Vantagepoint Inftn Focused	73,592	0.6
Neuberger Berman High Yeild Fixed Income (NHILX)	14,841	0.1
VT Retirement Income Advantage	86,827	0.7
Vanguard 500 Index Fund (VFIAX)	959,226	8.2
VT Parnassus Core Equity (PRBLX)	114,539	1.0
VT Vantagepoint Equity Income	26,947	0.2
VT Invesco Diversified Dividend Fund (LCEYX)	163,981	1.4
VT Fidelity Contrafund (FCNTX)	217,302	1.9
VT Victory Sycamore Est Value (VEVYX)	94,126	0.8
Vanguard Mid Cap Index (VIMAX)	294,744	2.5
VT TimesSquare Mid Cap Growth (TMDPX)	122,031	1.0
VT Vantagepoint Discovery	261,145	2.2
Vanguard Small Cap Index (VSMAX)	52,053	0.4
VT Oppenheimer Discovery Fund (ODIYX)	620,485	5.3
Templeton Inst. Global Equity (TGESX)	49,635	0.4
Vanguard Total Int'l Stock Index (VTIAX)	507,706	4.3
VT Fidelity Diversified Intl (FDIVX)	323,059	2.8
VT Nuveen Real Estate Secs (FARCX)	152,226	1.3
Vanguard Target Retirement Income (VTINX)	57,005	0.5
Vanguard Target Retirement 2015 (VTXVX)	101,976	0.9
Vanguard Target Retirement 2020 (VTWNX)	1,205,867	10.3
Vanguard Target Retirement 2025 (VTTVX)	1,078,646	9.2
Vanguard Target Retirement 2030 (VTHR)	1,284,595	11.0
Vanguard Target Retirement 2035 (VTTHX)	1,005,650	8.6
Vanguard Target Retirement 2040 (VFORX)	814,233	7.0
Vanguard Target Retirement 2045 (VTIVX)	429,709	3.7
Vanguard Target Retirement 2050 (VFIFX)	335,367	2.9



Asset Allocation By Manager
401a Fire Share-106796
As of September 30, 2019

June 30, 2019 : \$2,423,711

Allocation



	Market Value	Allocation
■ Vantage Trust Plus Fund	615,122	25.4
■ TCW Total Return Bond Fund (TGLMX)	33,940	1.4
■ VT Vantagepoint Infitn Focused	16,149	0.7
■ Neuberger Berman High Yeild Fixed Income (NHILX)	2,203	0.1
■ Vanguard 500 Index Fund (VFIAX)	156,524	6.5
■ VT Pamassus Core Equity (PRBLX)	8,336	0.3
■ VT Vantagepoint Equity Income	11,173	0.5
■ VT Invesco Diversified Dividend Fund (LCEYX)	9,809	0.4
■ VT Fidelity Contrafund (FCNTX)	367,835	15.2
■ VT Victory Sycamore Est Value (VEVYX)	1,561	0.1
■ Vanguard Mid Cap Index (VIMAX)	168,100	6.9
■ VT TimesSquare Mid Cap Growth (TMDPX)	40,344	1.7
■ VT Vantagepoint Discovery	34,358	1.4
■ Vanguard Small Cap Index (VSMAX)	37,040	1.5
■ VT Oppenheimer Discovery Fund (ODIYX)	493,660	20.4
■ Templeton Inst. Global Equity (TGESX)	795	0.0
■ Vanguard Total Int'l Stock Index (VTIAX)	79,073	3.3
■ VT Fidelity Diversified Intl (FDIVX)	40,730	1.7
■ VT Nuveen Real Estate Secs (FARCX)	84,635	3.5
■ Vanguard Target Retirement Income (VTINX)	11,056	0.5
■ Vanguard Target Retirement 2020 (VTWNX)	12,457	0.5
■ Vanguard Target Retirement 2025 (VTTVX)	63,096	2.6
■ Vanguard Target Retirement 2030 (VTHR)	12,914	0.5
■ Vanguard Target Retirement 2035 (VTTHX)	50,494	2.1
■ Vanguard Target Retirement 2040 (VFORX)	38,845	1.6
■ Vanguard Target Retirement 2045 (VTIVX)	33,462	1.4
■ Vanguard Target Retirement 2050 (VFIFX)	-	0.0

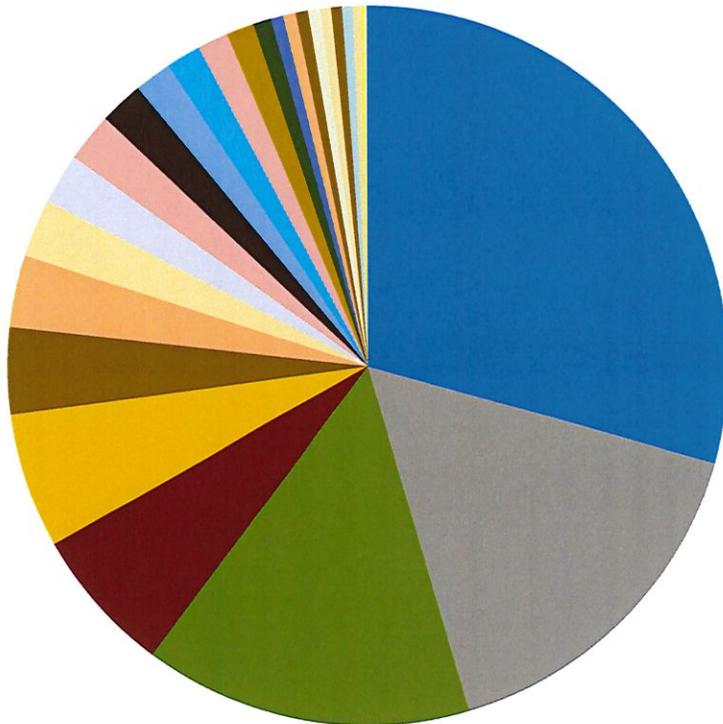


Asset Allocation By Manager
401a Fire Share-106796
As of September 30, 2019

September 30, 2019 : \$2,313,770

Allocation

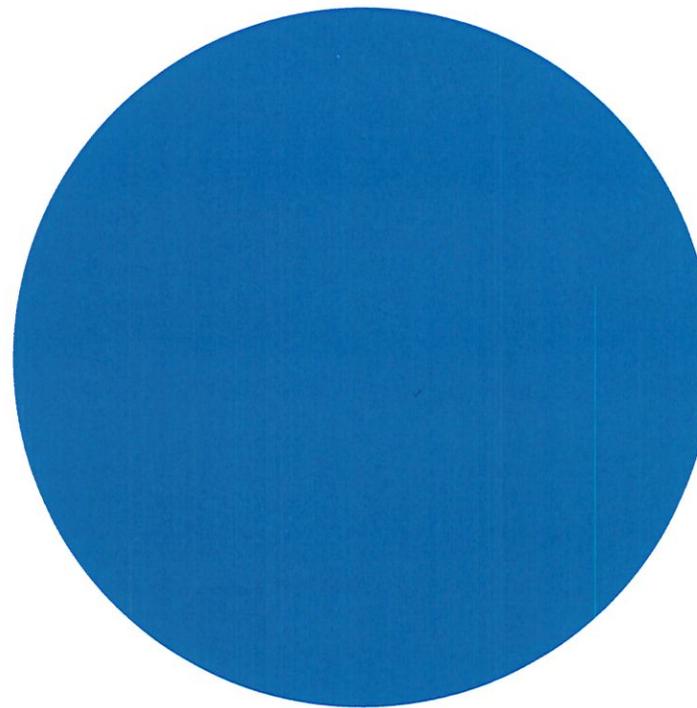
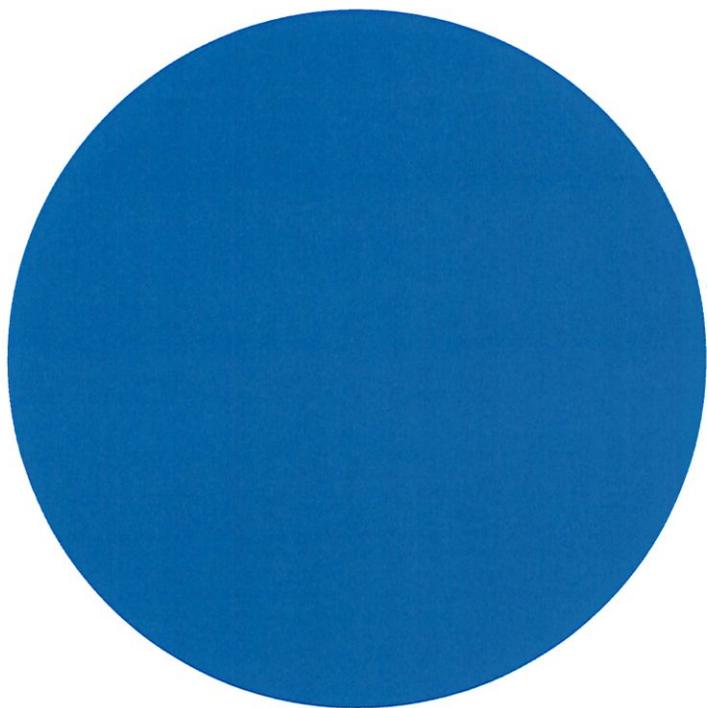
	Market Value	Allocation
■ Vantage Trust Plus Fund	679,346	29.4
■ TCW Total Return Bond Fund (TGLMX)	28,776	1.2
■ VT Vantagepoint Inftn Focused	12,702	0.5
■ Neuberger Berman High Yeild Fixed Income (NHILX)	2,241	0.1
■ Vanguard 500 Index Fund (VFIAX)	152,557	6.6
■ VT Pamassus Core Equity (PRBLX)	9,492	0.4
■ VT Vantagepoint Equity Income	11,083	0.5
■ VT Invesco Diversified Dividend Fund (LCEYX)	13,226	0.6
■ VT Fidelity Contrafund (FCNTX)	340,939	14.7
■ VT Victory Sycamore Est Value (VEVYX)	11,150	0.5
■ Vanguard Mid Cap Index (VIMAX)	140,291	6.1
■ VT TimesSquare Mid Cap Growth (TMDPX)	45,208	2.0
■ VT Vantagepoint Discovery	35,849	1.5
■ Vanguard Small Cap Index (VSMAX)	18,567	0.8
■ VT Oppenheimer Discovery Fund (ODIYX)	372,994	16.1
■ Templeton Inst. Global Equity (TGESX)	2,850	0.1
■ Vanguard Total Int'l Stock Index (VTIAX)	74,927	3.2
■ VT Fidelity Diversified Intl (FDIVX)	51,774	2.2
■ VT Nuveen Real Estate Secs (FARCX)	90,584	3.9
■ Vanguard Target Retirement Income (VTINX)	11,221	0.5
■ Vanguard Target Retirement 2020 (VTWNX)	12,602	0.5
■ Vanguard Target Retirement 2025 (VTTVX)	60,503	2.6
■ Vanguard Target Retirement 2030 (VTHRX)	13,025	0.6
■ Vanguard Target Retirement 2035 (VTTHX)	50,830	2.2
■ Vanguard Target Retirement 2040 (VFORX)	39,021	1.7
■ Vanguard Target Retirement 2045 (VTIVX)	32,009	1.4
■ Vanguard Target Retirement 2050 (VFIFX)	-	0.0



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June 30, 2019 : \$11,098

September 30, 2019 : \$11,149



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Vantage Trust Plus Fund	-	0.0	■ Vantage Trust Plus Fund	-	0.0
■ Vantage Trust Cash Management (DPCXX)	11,098	100.0	■ Vantage Trust Cash Management (DPCXX)	11,149	100.0
■ Vanguard 500 Index Fund (VFIAX)	-	0.0	■ Vanguard 500 Index Fund (VFIAX)	-	0.0



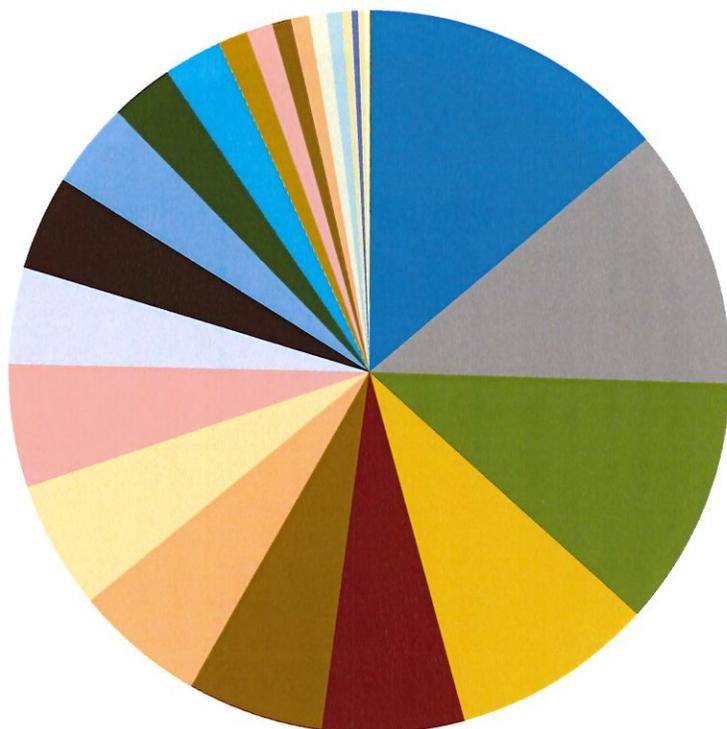
Asset Allocation By Manager

Total RHS Old Plan

As of September 30, 2019

June 30, 2019 : \$509,631

Allocation



	Market Value	Allocation
VT II Cash Management	-	0.0
Vantagepoint PLUS Fund S3	28,153	5.5
VT II VP Low Duration Bond Fund	310	0.1
VT II VP Core Bond Index	1,465	0.3
VT II VP Inflation Focused Fund	21,498	4.2
VT II VP 500 Stock Index	14,353	2.8
VT II VP Broad Market Index	57,146	11.2
VT II VP Equity Income Fund	1,431	0.3
VT II VP Growth Fund	13,305	2.6
VT II VP Mid/Small Company Index	4,318	0.8
VT II VP Aggressive Opp Fund	29,730	5.8
VT II VP International Fund	2,199	0.4
VT II VP Overseas Equity Index	4,122	0.8
VT II VP Milestone Retirement Income Fund	59,017	11.6
VT II VP Milestone 2010	31,118	6.1
VT II VP Milestone 2015	46,194	9.1
VT II VP Milestone 2020	32,334	6.3
VT II VP Milestone 2025	70,483	13.8
VT II VP Milestone 2030	19,607	3.8
VT II VP Milestone 2035	5,952	1.2
VT II VP Milestone 2040	1,232	0.2
VT II VP Milestone 2045	3,977	0.8
VT II VP MP Conservative Growth Fund	29,475	5.8
VT II VP MP Traditional Growth Fund	21,922	4.3
VT II VP MP Long-Term Growth Fund	6,773	1.3
VT II VP MP Global Equity Growth Fund	3,517	0.7
800533- VT II Vantagepoint Discovery	-	0.0

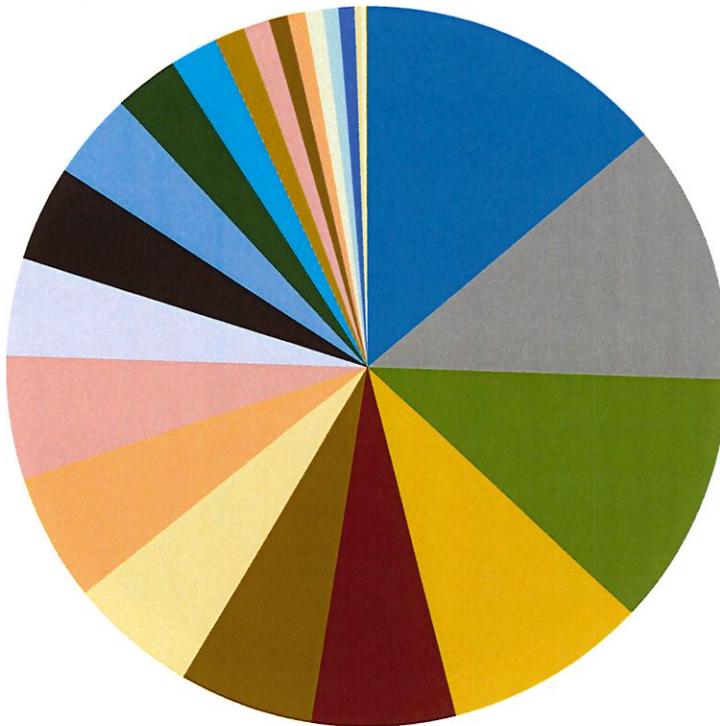


Asset Allocation By Manager
Total RHS Old Plan
As of September 30, 2019

September 30, 2019 : \$508,270

Allocation

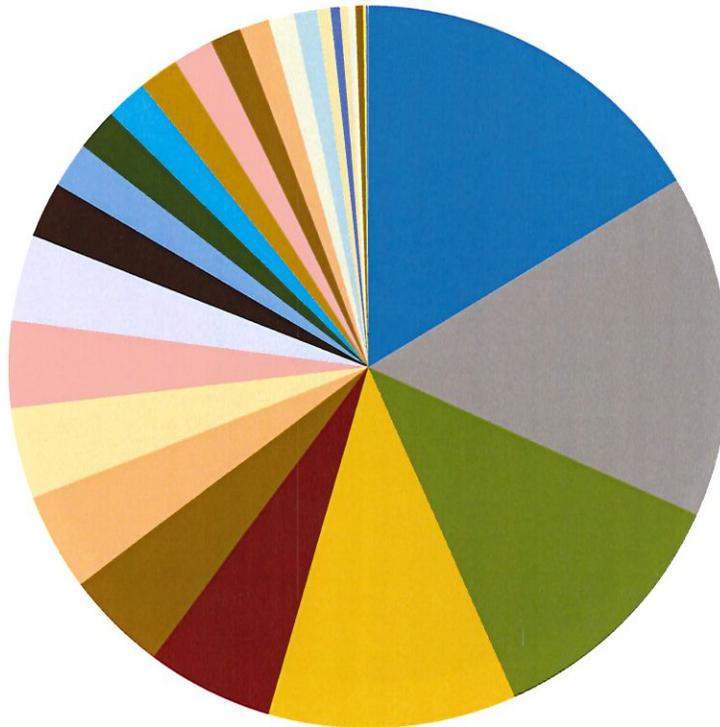
	Market Value	Allocation
VT II Cash Management	-	0.0
Vantagepoint PLUS Fund S3	28,279	5.6
VT II VP Low Duration Bond Fund	306	0.1
VT II VP Core Bond Index	1,493	0.3
VT II VP Inflation Focused Fund	21,755	4.3
VT II VP 500 Stock Index	14,565	2.9
VT II VP Broad Market Index	57,702	11.4
VT II VP Equity Income Fund	1,444	0.3
VT II VP Growth Fund	11,019	2.2
VT II VP Mid/Small Company Index	4,257	0.8
VT II VP Aggressive Opp Fund	29,021	5.7
VT II VP International Fund	-	0.0
VT II VP Overseas Equity Index	4,075	0.8
VT II VP Milestone Retirement Income Fund	59,256	11.7
VT II VP Milestone 2010	30,672	6.0
VT II VP Milestone 2015	46,343	9.1
VT II VP Milestone 2020	32,590	6.4
VT II VP Milestone 2025	70,757	13.9
VT II VP Milestone 2030	19,686	3.9
VT II VP Milestone 2035	5,964	1.2
VT II VP Milestone 2040	1,222	0.2
VT II VP Milestone 2045	3,975	0.8
VT II VP MP Conservative Growth Fund	29,348	5.8
VT II VP MP Traditional Growth Fund	22,077	4.3
VT II VP MP Long-Term Growth Fund	6,807	1.3
VT II VP MP Global Equity Growth Fund	3,490	0.7
800533- VT II Vantagepoint Discovery	2,166	0.4



Asset Allocation By Manager
RHS Current Plan
As of September 30, 2019

June 30, 2019 : \$3,435,886

Allocation



	Market Value	Allocation
VT II Cash Management	-	0.0
Vantagepoint PLUS Fund S3	141,017	4.1
VT II VP Low Duration Bond Fund	11,878	0.3
VT II VP Core Bond Index	35,984	1.0
VT II VP Inflation Focused Fund	14,367	0.4
VT II VP High Yield	234	0.0
VT II VP 500 Stock Index	195,673	5.7
VT II VP Broad Market Index	61,725	1.8
VT II VP Growth & Income Fund	20,423	0.6
VT II VP Equity Income Fund	69,845	2.0
VT II VP Growth Fund	156,583	4.6
VT II VP Mid/Small Company Index	39,245	1.1
VT II VP Aggressive Opp Fund	45,585	1.3
VT II VP Discovery Fund	48,400	1.4
VT II VP International Fund	12,188	0.4
VT II VP Overseas Equity Index	3,595	0.1
VT II VP Emerging Markets	149	0.0
VT II VP Milestone Retirement Income Fund	85,452	2.5
VT II VP Milestone 2010	62,060	1.8
VT II VP Milestone 2015	132,405	3.9
VT II VP Milestone 2020	398,678	11.6
VT II VP Milestone 2025	561,569	16.3
VT II VP Milestone 2030	527,578	15.4
VT II VP Milestone 2035	382,720	11.1
VT II VP Milestone 2040	133,581	3.9
VT II VP Milestone 2045	149,732	4.4
VT II VP Milestone 2050	64,542	1.9
VT II VP Milestone 2055	64,131	1.9
VT II VP MP Conservative Growth Fund	4,511	0.1
VT II VP MP Traditional Growth Fund	11,508	0.3
VT II VP MP Long-Term Growth Fund	532	0.0
VT II VP MP Global Equity Growth Fund	-	0.0



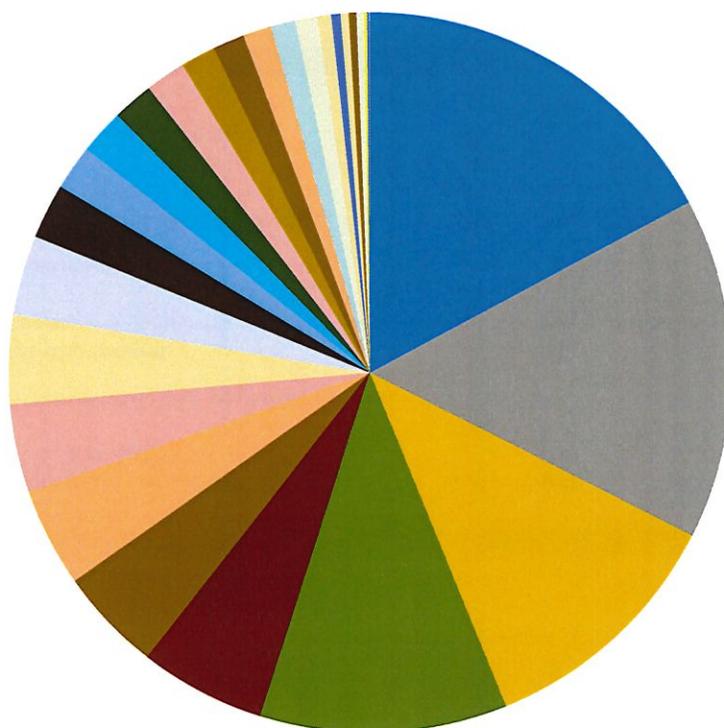
Asset Allocation By Manager

RHS Current Plan

As of September 30, 2019

September 30, 2019 : \$3,500,159

Allocation



	Market Value	Allocation
VT II Cash Management	-	0.0
Vantagepoint PLUS Fund S3	138,757	4.0
VT II VP Low Duration Bond Fund	11,994	0.3
VT II VP Core Bond Index	38,620	1.1
VT II VP Inflation Focused Fund	14,547	0.4
VT II VP High Yield	237	0.0
VT II VP 500 Stock Index	198,082	5.7
VT II VP Broad Market Index	62,977	1.8
VT II VP Growth & Income Fund	21,646	0.6
VT II VP Equity Income Fund	71,424	2.0
VT II VP Growth Fund	162,949	4.7
VT II VP Mid/Small Company Index	34,420	1.0
VT II VP Aggressive Opp Fund	44,491	1.3
VT II VP Discovery Fund	49,634	1.4
VT II VP International Fund	12,689	0.4
VT II VP Overseas Equity Index	3,685	0.1
VT II VP Emerging Markets	142	0.0
VT II VP Milestone Retirement Income Fund	86,269	2.5
VT II VP Milestone 2010	55,100	1.6
VT II VP Milestone 2015	124,168	3.5
VT II VP Milestone 2020	387,441	11.1
VT II VP Milestone 2025	603,373	17.2
VT II VP Milestone 2030	533,541	15.2
VT II VP Milestone 2035	397,868	11.4
VT II VP Milestone 2040	139,184	4.0
VT II VP Milestone 2045	155,244	4.4
VT II VP Milestone 2050	64,517	1.8
VT II VP Milestone 2055	70,239	2.0
VT II VP MP Conservative Growth Fund	4,296	0.1
VT II VP MP Traditional Growth Fund	12,049	0.3
VT II VP MP Long-Term Growth Fund	575	0.0
VT II VP MP Global Equity Growth Fund	-	0.0



Comparative Performance
Total 457 and 401a Plans
As of September 30, 2019

Comparative Performance														
	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
Stable Value/Cash Management Funds														
Vantage Trust Plus Fund	0.56		1.65		2.18		2.07		1.99		1.92		1.90	
90 Day U.S. Treasury Bill	0.56		1.81		2.38		1.99		1.54		1.20		0.96	
Difference	0.00		-0.16		-0.20		0.08		0.45		0.72		0.94	
VT Cash Management	0.46	(57)	1.47	(59)	1.93	(60)	1.56	(59)	1.14	(58)	0.85	(58)	0.68	(59)
90 Day U.S. Treasury Bill	0.56	(4)	1.81	(5)	2.38	(6)	1.99	(9)	1.54	(11)	1.20	(11)	0.96	(12)
Difference	-0.10		-0.34		-0.45		-0.43		-0.40		-0.35		-0.28	
IM U.S. Taxable Money Market (MF) Median	0.47		1.53		2.02		1.63		1.22		0.91		0.73	
Bond Funds														
TCW Total Return Bond Fund (TGLMX)	2.30	(28)	7.75	(83)	10.01	(41)	4.35	(29)	2.86	(50)	3.22	(66)	3.18	(47)
Blmbg. Barc. U.S. Aggregate Index	2.27	(33)	8.52	(57)	10.30	(24)	4.38	(27)	2.92	(45)	3.49	(48)	3.38	(27)
Difference	0.03		-0.77		-0.29		-0.03		-0.06		-0.27		-0.20	
IM U.S. Broad Market Core Fixed Income (MF) Median	2.16		8.68		9.81		4.10		2.86		3.46		3.11	
VT Vantagepoint Infn Focused	1.23	(30)	7.25	(39)	6.50	(25)	3.25	(31)	1.89	(42)	3.00	(35)	2.04	(30)
Bloomberg Barclays U.S. TIPS Index	1.35	(19)	7.58	(23)	7.13	(9)	3.71	(9)	2.21	(19)	3.29	(19)	2.45	(10)
Difference	-0.12		-0.33		-0.63		-0.46		-0.32		-0.29		-0.41	
IM U.S. TIPS (MF) Median	0.80		6.80		5.71		2.88		1.76		2.62		1.73	
Neuberger Berman High Yeild Fixed Income (NHILX)	1.72	(14)	11.26	(39)	6.26	(29)	4.22	(29)	4.97	(58)	6.48	(38)	4.32	(44)
ICE BofAML High Yield Master II	1.22	(52)	11.50	(32)	6.30	(29)	4.61	(16)	6.07	(13)	7.72	(4)	5.36	(9)
Difference	0.50		-0.24		-0.04		-0.39		-1.10		-1.24		-1.04	
IM U.S. High Yield Bonds (MF) Median	1.24		10.78		5.34		3.82		5.16		6.28		4.15	
Lifetime Income Fund														
VT Retirement Income Advantage	0.55	(87)	12.39	(12)	-0.83	(99)	2.55	(89)	4.86	(37)	5.72	(27)	4.11	(35)
Retirement Income Advantage	2.11	(5)	16.38	(1)	7.50	(8)	8.70	(1)	9.42	(1)	N/A		N/A	
Difference	-1.56		-3.99		-8.33		-6.15		-4.56		N/A		N/A	
IM Mixed-Asset Target Alloc Consv (MF) Median	1.08		10.14		5.07		3.67		4.48		5.14		3.70	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance
Total 457 and 401a Plans
As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
US Stock Funds														
Vanguard 500 Index Fund (VFIAX)	1.69	(40)	20.54	(36)	4.22	(39)	10.84	(28)	13.36	(25)	13.86	(14)	10.80	(16)
S&P 500 Index	1.70	(39)	20.55	(35)	4.25	(39)	10.87	(28)	13.39	(24)	13.90	(14)	10.84	(16)
Difference	-0.01		-0.01		-0.03		-0.03		-0.03		-0.04		-0.04	
IM U.S. Large Cap Core Equity (MF) Median	1.46		19.49		3.21		9.36		12.26		12.36		9.41	
VT Parnassus Core Equity (PRBLX)	2.31	(22)	22.98	(9)	11.17	(2)	13.81	(6)	13.51	(22)	13.43	(25)	10.80	(16)
S&P 500 Index	1.70	(39)	20.55	(35)	4.25	(39)	10.87	(28)	13.39	(24)	13.90	(14)	10.84	(16)
Difference	0.61		2.43		6.92		2.94		0.12		-0.47		-0.04	
IM U.S. Large Cap Core Equity (MF) Median	1.46		19.49		3.21		9.36		12.26		12.36		9.41	
VT Vantagepoint Equity Income	1.37	(53)	15.52	(65)	-1.02	(77)	3.61	(92)	7.84	(88)	10.01	(63)	5.77	(87)
Russell 1000 Value Index	1.36	(53)	17.81	(34)	4.00	(30)	6.69	(39)	9.43	(56)	11.08	(30)	7.79	(32)
Difference	0.01		-2.29		-5.02		-3.08		-1.59		-1.07		-2.02	
IM U.S. Large Cap Value Equity (MF) Median	1.41		16.67		1.87		6.12		9.67		10.35		7.17	
VT Invesco Diversified Dividend Fund (LCEYX)	3.31	(3)	19.21	(22)	8.45	(3)	6.52	(44)	7.87	(88)	8.88	(88)	8.10	(21)
Russell 1000 Value Index	1.36	(53)	17.81	(34)	4.00	(30)	6.69	(39)	9.43	(56)	11.08	(30)	7.79	(32)
Difference	1.95		1.40		4.45		-0.17		-1.56		-2.20		0.31	
IM U.S. Large Cap Value Equity (MF) Median	1.41		16.67		1.87		6.12		9.67		10.35		7.17	
VT Fidelity Contrafund (FCNTX)	-2.43	(88)	17.84	(88)	-1.29	(86)	10.94	(75)	14.88	(65)	13.77	(65)	11.59	(63)
Russell 1000 Growth Index	1.49	(16)	23.30	(25)	3.71	(33)	14.45	(31)	16.89	(27)	16.10	(19)	13.39	(22)
Difference	-3.92		-5.46		-5.00		-3.51		-2.01		-2.33		-1.80	
IM U.S. Large Cap Growth Equity (MF) Median	-0.01		21.44		2.32		13.21		15.72		14.43		12.20	
Vanguard Mid Cap Index (VIMAX)	0.61	(61)	22.60	(20)	3.65	(23)	8.43	(15)	10.67	(21)	11.16	(24)	9.20	(18)
Vanguard Mid Cap Hybrid	0.62	(60)	22.66	(18)	3.70	(21)	8.46	(14)	10.70	(19)	11.19	(22)	9.24	(16)
Difference	-0.01		-0.06		-0.05		-0.03		-0.03		-0.03		-0.04	
IM U.S. Mid Cap Core Equity (MF) Median	0.91		19.69		0.93		5.67		8.76		9.22		6.92	
VT Victory Sycamore Est Value (VEVYX)	2.10	(21)	21.61	(12)	3.10	(21)	7.63	(1)	10.17	(1)	11.88	(1)	10.79	(1)
Russell Midcap Index	0.48	(61)	21.93	(11)	3.19	(19)	8.45	(1)	10.69	(1)	11.57	(2)	9.10	(1)
Difference	1.62		-0.32		-0.09		-0.82		-0.52		0.31		1.69	
IM U.S. Mid Cap Value Equity (MF) Median	0.99		17.64		-3.11		3.07		6.59		8.18		5.91	
VT TimesSquare Mid Cap Growth (TMDPX)	0.48	(15)	26.87	(31)	7.48	(20)	13.27	(31)	14.20	(47)	13.04	(45)	10.58	(47)
Russell Midcap Growth Index	-0.67	(33)	25.23	(42)	5.20	(33)	12.87	(35)	14.50	(39)	13.68	(32)	11.12	(36)
Difference	1.15		1.64		2.28		0.40		-0.30		-0.64		-0.54	
IM U.S. Mid Cap Growth Equity (MF) Median	-1.37		24.19		3.02		11.79		13.95		12.57		10.45	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance
Total 457 and 401a Plans
As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
VT Vantagepoint Discovery	-1.19	(59)	18.10	(7)	-5.23	(16)	5.53	(2)	10.45	(2)	11.16	(15)	8.38	(37)
Russell 2000 Index	-2.40	(80)	14.18	(22)	-8.89	(35)	2.47	(33)	8.23	(33)	9.99	(38)	8.19	(39)
Difference	1.21		3.92		3.66		3.06		2.22		1.17		0.19	
IM U.S. Small Cap Core Equity (MF) Median	-0.92		12.64		-9.88		1.25		7.03		8.76		7.40	
Vanguard Small Cap Index (VSMAX)	-1.45	(64)	17.78	(8)	-3.81	(6)	5.95	(1)	9.62	(5)	10.93	(23)	8.62	(32)
Vanguard Small Cap Hybrid	-1.47	(64)	17.79	(8)	-3.80	(5)	5.95	(1)	9.61	(5)	10.92	(23)	8.60	(32)
Difference	0.02		-0.01		-0.01		0.00		0.01		0.01		0.02	
IM U.S. Small Cap Core Equity (MF) Median	-0.92		12.64		-9.88		1.25		7.03		8.76		7.40	
VT Oppenheimer Discovery Fund (ODIYX)	-4.01	(30)	25.55	(1)	-0.92	(6)	13.97	(7)	15.91	(3)	13.59	(6)	12.59	(6)
Russell 2000 Growth Index	-4.17	(31)	15.34	(22)	-9.63	(25)	4.60	(40)	9.79	(42)	10.37	(58)	9.08	(38)
Difference	0.16		10.21		8.71		9.37		6.12		3.22		3.51	
IM U.S. Small Cap Growth Equity (MF) Median	-5.12		7.15		-15.03		1.56		9.13		10.88		7.76	

International/Global Funds

Templeton Inst. Global Equity (TGESX)	-1.82	(74)	7.14	(92)	-8.98	(91)	-2.50	(91)	4.82	(87)	4.72	(91)	1.84	(87)
MSCI World (net)	0.53	(33)	17.60	(38)	1.83	(43)	6.43	(32)	10.21	(28)	10.49	(29)	7.18	(33)
Difference	-2.35		-10.46		-10.81		-8.93		-5.39		-5.77		-5.34	
IM Global Equity (MF) Median	-0.28		15.92		0.65		4.53		8.31		9.00		6.03	
Vanguard Total Int'l Stock Index (VTIAX)	-1.60	(41)	11.46	(50)	-1.56	(47)	0.02	(38)	6.06	(39)	6.95	(41)	3.16	(44)
FTSE Global ex USA All Cap Index (Net)	-1.65	(43)	11.48	(50)	-1.66	(49)	0.15	(37)	6.19	(37)	7.10	(38)	3.19	(43)
Difference	0.05		-0.02		0.10		-0.13		-0.13		-0.15		-0.03	
IM International Equity (MF) Median	-1.90		11.44		-1.94		-1.10		5.44		6.35		2.81	
VT Fidelity Diversified Intl (FDIVX)	0.13	(10)	17.88	(11)	1.20	(27)	1.78	(20)	6.43	(32)	6.31	(51)	4.44	(24)
MSCI EAFE (Net) Index	-1.07	(27)	12.80	(38)	-1.34	(45)	0.68	(31)	6.48	(32)	6.49	(48)	3.27	(41)
Difference	1.20		5.08		2.54		1.10		-0.05		-0.18		1.17	
IM International Equity (MF) Median	-1.90		11.44		-1.94		-1.10		5.44		6.35		2.81	

Real Estate

VT Nuveen Real Estate Secs (FARCX)	7.14	(1)	26.79	(5)	18.58	(5)	10.75	(17)	7.10	(33)	9.84	(12)	9.75	(1)
Wilshire U.S. REIT Index	7.88	(1)	27.21	(5)	18.39	(6)	10.96	(15)	7.21	(31)	9.80	(12)	10.17	(1)
Difference	-0.74		-0.42		0.19		-0.21		-0.11		0.04		-0.42	
IM Global Real Estate (MF) Median	4.42		21.29		13.80		8.52		6.15		7.97		6.75	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance
Total 457 and 401a Plans
As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
Target Date Funds														
Vanguard Target Retirement Income (VTINX)	1.52	(17)	10.29	(47)	6.75	(18)	5.02	(11)	5.10	(28)	5.70	(28)	4.57	(21)
Vanguard Target Income Composite Index	1.46	(20)	10.40	(44)	6.83	(17)	5.14	(9)	5.24	(23)	5.87	(24)	4.73	(18)
Difference	0.06		-0.11		-0.08		-0.12		-0.14		-0.17		-0.16	
IM Mixed-Asset Target Alloc Conserv (MF) Median	1.08		10.14		5.07		3.67		4.48		5.14		3.70	
Vanguard Target Retirement 2015 (VTXVX)	1.38	(16)	11.26	(49)	6.08	(15)	5.30	(12)	6.18	(31)	6.89	(33)	5.33	(23)
Vanguard Target 2015 Composite Index	1.35	(19)	11.36	(41)	6.17	(13)	5.47	(7)	6.36	(23)	7.10	(18)	5.51	(11)
Difference	0.03		-0.10		-0.09		-0.17		-0.18		-0.21		-0.18	
IM Mixed-Asset Target 2015 (MF) Median	0.92		11.23		5.10		4.61		5.80		6.54		4.82	
Vanguard Target Retirement 2020 (VTWNX)	1.16	(38)	12.61	(23)	5.29	(33)	5.58	(13)	7.08	(13)	7.82	(9)	5.97	(3)
Vanguard Target 2020 Composite Index	1.16	(38)	12.74	(19)	5.45	(28)	5.78	(6)	7.27	(6)	8.05	(3)	6.16	(1)
Difference	0.00		-0.13		-0.16		-0.20		-0.19		-0.23		-0.19	
IM Mixed-Asset Target 2020 (MF) Median	1.00		11.87		4.81		4.80		6.20		6.88		5.01	
Vanguard Target Retirement 2025 (VTTVX)	1.10	(34)	13.70	(19)	4.89	(35)	5.84	(14)	7.77	(13)	8.49	(10)	6.39	(5)
Vanguard Target 2025 Composite Index	1.07	(39)	13.82	(16)	5.02	(30)	6.05	(9)	7.98	(8)	8.73	(4)	6.58	(1)
Difference	0.03		-0.12		-0.13		-0.21		-0.21		-0.24		-0.19	
IM Mixed-Asset Target 2025 (MF) Median	0.92		12.94		4.50		5.00		6.96		7.66		5.50	
Vanguard Target Retirement 2030 (VTHR3)	0.89	(33)	14.28	(36)	4.15	(40)	5.89	(22)	8.29	(24)	8.99	(20)	6.67	(16)
Vanguard Target 2030 Composite Index	0.88	(36)	14.39	(31)	4.30	(34)	6.12	(14)	8.51	(14)	9.25	(11)	6.87	(8)
Difference	0.01		-0.11		-0.15		-0.23		-0.22		-0.26		-0.20	
IM Mixed-Asset Target 2030 (MF) Median	0.72		13.91		3.86		5.17		7.60		8.30		5.91	
Vanguard Target Retirement 2035 (VTTHX)	0.65	(40)	14.77	(48)	3.37	(36)	5.91	(28)	8.78	(28)	9.49	(23)	6.92	(23)
Vanguard Target 2035 Composite Index	0.68	(36)	14.96	(40)	3.57	(27)	6.17	(19)	9.01	(17)	9.76	(15)	7.13	(14)
Difference	-0.03		-0.19		-0.20		-0.26		-0.23		-0.27		-0.21	
IM Mixed-Asset Target 2035 (MF) Median	0.53		14.65		2.89		5.38		8.27		8.94		6.33	
Vanguard Target Retirement 2040 (VFORX)	0.49	(40)	15.35	(43)	2.63	(41)	5.95	(25)	9.28	(20)	9.98	(17)	7.15	(22)
Vanguard Target 2040 Composite Index	0.48	(40)	15.52	(38)	2.83	(35)	6.20	(20)	9.51	(13)	10.25	(10)	7.39	(12)
Difference	0.01		-0.17		-0.20		-0.25		-0.23		-0.27		-0.24	
IM Mixed-Asset Target 2040 (MF) Median	0.35		15.04		2.29		5.42		8.64		9.24		6.52	
Vanguard Target Retirement 2045 (VTIVX)	0.26	(51)	15.69	(48)	2.06	(49)	5.88	(32)	9.41	(23)	10.09	(21)	7.23	(23)
Vanguard Target 2045 Composite Index	0.31	(46)	15.92	(34)	2.32	(40)	6.16	(22)	9.66	(14)	10.39	(12)	7.49	(13)
Difference	-0.05		-0.23		-0.26		-0.28		-0.25		-0.30		-0.26	
IM Mixed-Asset Target 2045 (MF) Median	0.26		15.59		1.99		5.50		8.81		9.48		6.69	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance
Total 457 and 401a Plans
As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
Vanguard Target Retirement 2050 (VFIFX)	0.29	(42)	15.71	(47)	2.07	(44)	5.88	(33)	9.42	(30)	10.09	(21)	7.24	(23)
Vanguard Target 2050 Composite Index	0.31	(41)	15.92	(36)	2.32	(37)	6.16	(21)	9.66	(17)	10.39	(13)	7.49	(14)
Difference	-0.02		-0.21		-0.25		-0.28		-0.24		-0.30		-0.25	
IM Mixed-Asset Target 2050 (MF) Median	0.22		15.61		1.95		5.47		8.87		9.48		6.75	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance

Total RHS Plans

As of September 30, 2019

Comparative Performance														
	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
Stable Value/Cash Management Funds														
Vantagepoint PLUS Fund S3	0.50	(34)	1.49	(57)	1.91	(62)	1.66	(48)	1.53	(11)	1.44	(1)	1.40	(1)
90 Day U.S. Treasury Bill	0.56	(4)	1.81	(5)	2.38	(6)	1.99	(9)	1.54	(11)	1.20	(11)	0.96	(12)
Difference	-0.06		-0.32		-0.47		-0.33		-0.01		0.24		0.44	
IM U.S. Taxable Money Market (MF) Median	0.47		1.53		2.02		1.63		1.22		0.91		0.73	
Bond Funds														
VT II VP Low Duration Bond Fund	0.78	(34)	3.75	(41)	4.12	(44)	2.17	(64)	1.75	(73)	N/A		N/A	
ICE BofAML 1-3 Yr. Gov/Corp	0.70	(52)	3.44	(52)	4.65	(23)	2.44	(43)	1.84	(65)	1.71	(70)	1.60	(54)
Difference	0.08		0.31		-0.53		-0.27		-0.09		N/A		N/A	
IM U.S. Short Term Investment Grade (MF) Median	0.70		3.51		3.93		2.35		1.99		1.94		1.62	
VT II VP Core Bond Index	2.08	(63)	8.05	(77)	9.59	(60)	3.74	(72)	2.25	(82)	N/A		N/A	
Blmbg. Barc. U.S. Aggregate Index	2.27	(33)	8.52	(57)	10.30	(24)	4.38	(27)	2.92	(45)	3.49	(48)	3.38	(27)
Difference	-0.19		-0.47		-0.71		-0.64		-0.67		N/A		N/A	
IM U.S. Broad Market Core Fixed Income (MF) Median	2.16		8.68		9.81		4.10		2.86		3.46		3.11	
VT II VP Inflation Focused Fund	1.20	(33)	7.10	(43)	6.24	(32)	3.03	(42)	1.61	(61)	N/A		N/A	
Bloomberg Barclays U.S. TIPS Index	1.35	(19)	7.58	(23)	7.13	(9)	3.71	(9)	2.21	(19)	3.29	(19)	2.45	(10)
Difference	-0.15		-0.48		-0.89		-0.68		-0.60		N/A		N/A	
IM U.S. TIPS (MF) Median	0.80		6.80		5.71		2.88		1.76		2.62		1.73	
VT II VP High Yield	1.32	(43)	11.05	(43)	5.59	(45)	N/A		N/A		N/A		N/A	
Blmbg. Barc. U.S. Aggregate Index	2.27	(3)	8.52	(81)	10.30	(1)	4.38	(24)	2.92	(98)	3.49	(98)	3.38	(82)
Difference	-0.95		2.53		-4.71		N/A		N/A		N/A		N/A	
IM U.S. High Yield Bonds (MF) Median	1.24		10.78		5.34		3.82		5.16		6.28		4.15	
US Stock Funds														
VT II VP 500 Stock Index	1.58	(44)	20.01	(43)	3.64	(46)	10.23	(36)	12.71	(41)	N/A		N/A	
S&P 500 Index	1.70	(39)	20.55	(35)	4.25	(39)	10.87	(28)	13.39	(24)	13.90	(14)	10.84	(16)
Difference	-0.12		-0.54		-0.61		-0.64		-0.68		N/A		N/A	
IM U.S. Large Cap Core Equity (MF) Median	1.46		19.49		3.21		9.36		12.26		12.36		9.41	
VT II VP Broad Market Index	1.01	(68)	19.59	(49)	2.41	(58)	9.37	(50)	12.22	(51)	N/A		N/A	
S&P 500 Index	1.70	(39)	20.55	(35)	4.25	(39)	10.87	(28)	13.39	(24)	13.90	(14)	10.84	(16)
Difference	-0.69		-0.96		-1.84		-1.50		-1.17		N/A		N/A	
IM U.S. Large Cap Core Equity (MF) Median	1.46		19.49		3.21		9.36		12.26		12.36		9.41	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance

Total RHS Plans

As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
VT II VP Growth & Income Fund	0.68	(77)	19.30	(52)	2.58	(57)	8.67	(62)	12.44	(47)	N/A		N/A	
S&P 500 Index	1.70	(39)	20.55	(35)	4.25	(39)	10.87	(28)	13.39	(24)	13.90	(14)	10.84	(16)
Difference	-1.02		-1.25		-1.67		-2.20		-0.95		N/A		N/A	
IM U.S. Large Cap Core Equity (MF) Median	1.46		19.49		3.21		9.36		12.26		12.36		9.41	
VT II VP Equity Income Fund	1.32	(55)	15.45	(67)	-1.19	(79)	3.41	(93)	7.59	(92)	N/A		N/A	
Russell 1000 Value Index	1.36	(53)	17.81	(34)	4.00	(30)	6.69	(39)	9.43	(56)	11.08	(30)	7.79	(32)
Difference	-0.04		-2.36		-5.19		-3.28		-1.84		N/A		N/A	
IM U.S. Large Cap Value Equity (MF) Median	1.41		16.67		1.87		6.12		9.67		10.35		7.17	
VT II VP Growth Fund	-0.62	(61)	19.91	(70)	1.38	(62)	12.35	(62)	15.03	(62)	N/A		N/A	
Russell 1000 Growth Index	1.49	(16)	23.30	(25)	3.71	(33)	14.45	(31)	16.89	(27)	16.10	(19)	13.39	(22)
Difference	-2.11		-3.39		-2.33		-2.10		-1.86		N/A		N/A	
IM U.S. Large Cap Growth Equity (MF) Median	-0.01		21.44		2.32		13.21		15.72		14.43		12.20	
VT II VP Mid/Small Company Index	-1.35	(89)	17.38	(75)	-4.39	(81)	5.09	(57)	8.99	(46)	N/A		N/A	
Russell Midcap Index	0.48	(64)	21.93	(26)	3.19	(26)	8.45	(14)	10.69	(19)	11.57	(18)	9.10	(18)
Difference	-1.83		-4.55		-7.58		-3.36		-1.70		N/A		N/A	
IM U.S. Mid Cap Core Equity (MF) Median	0.91		19.69		0.93		5.67		8.76		9.22		6.92	
VT II VP Aggressive Opp Fund	-2.34	(62)	23.37	(59)	2.41	(57)	10.55	(71)	12.62	(71)	N/A		N/A	
Russell Midcap Growth Index	-0.67	(33)	25.23	(42)	5.20	(33)	12.87	(35)	14.50	(39)	13.68	(32)	11.12	(36)
Difference	-1.67		-1.86		-2.79		-2.32		-1.88		N/A		N/A	
IM U.S. Mid Cap Growth Equity (MF) Median	-1.37		24.19		3.02		11.79		13.95		12.57		10.45	
VT II VP Discovery Fund	-1.21	(60)	17.81	(8)	-5.52	(16)	5.29	(3)	10.17	(3)	N/A		N/A	
Russell 2000 Index	-2.40	(80)	14.18	(22)	-8.89	(35)	2.47	(33)	8.23	(33)	9.99	(38)	8.19	(39)
Difference	1.19		3.63		3.37		2.82		1.94		N/A		N/A	
IM U.S. Small Cap Core Equity (MF) Median	-0.92		12.64		-9.88		1.25		7.03		8.76		7.40	
International/Global Funds														
VT II VP International Fund	-0.68	(40)	13.11	(26)	-0.93	(50)	0.58	(31)	5.51	(37)	N/A		N/A	
MSCI EAFE (Net) Index	-1.07	(53)	12.80	(28)	-1.34	(52)	0.68	(31)	6.48	(22)	6.49	(30)	3.27	(19)
Difference	0.39		0.31		0.41		-0.10		-0.97		N/A		N/A	
IM International Equity Income (MF) Median	-0.98		10.06		-1.23		-0.50		4.61		5.44		1.36	
VT II VP Overseas Equity Index	-1.13	(54)	12.70	(29)	-1.43	(56)	0.37	(35)	6.02	(29)	N/A		N/A	
MSCI EAFE (Net) Index	-1.07	(53)	12.80	(28)	-1.34	(52)	0.68	(31)	6.48	(22)	6.49	(30)	3.27	(19)
Difference	-0.06		-0.10		-0.09		-0.31		-0.46		N/A		N/A	
IM International Equity Income (MF) Median	-0.98		10.06		-1.23		-0.50		4.61		5.44		1.36	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance

Total RHS Plans

As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
VT II VP Emerging Markets	-4.34	(70)	6.43	(66)	-1.70	(67)	N/A		N/A		N/A		N/A	
MSCI AC World ex USA	-1.70	(14)	12.06	(22)	-0.72	(59)	0.76	(21)	6.85	(27)	7.58	(54)	3.39	(22)
Difference	-2.64		-5.63		-0.98		N/A		N/A		N/A		N/A	
IM Emerging Markets Equity (MF) Median	-3.48		8.54		0.29		-1.79		5.24		7.84		2.03	
Target Date Funds														
VT II VP Milestone Retirement Income Fund	0.98	(60)	9.36	(68)	4.47	(62)	3.60	(53)	4.48	(51)	N/A		N/A	
Dow Jones U.S. Conservative Index	1.70	(11)	9.16	(72)	7.66	(7)	4.85	(13)	4.08	(69)	4.47	(78)	4.01	(37)
Difference	-0.72		0.20		-3.19		-1.25		0.40		N/A		N/A	
IM Mixed-Asset Target Alloc Consv (MF) Median	1.08		10.14		5.07		3.67		4.48		5.14		3.70	
VT II VP Milestone 2010	0.95	(49)	9.78	(70)	4.27	(97)	3.65	(95)	4.68	(87)	N/A		N/A	
Dow Jones U.S. Target 2010 Index	1.71	(2)	9.27	(88)	7.71	(1)	4.90	(17)	4.17	(93)	4.68	(94)	4.20	(74)
Difference	-0.76		0.51		-3.44		-1.25		0.51		N/A		N/A	
IM Mixed-Asset Target 2010 (MF) Median	0.95		10.47		5.50		4.43		5.41		6.12		4.60	
VT II VP Milestone 2015	0.75	(76)	10.64	(80)	3.74	(96)	3.77	(94)	5.18	(82)	N/A		N/A	
Dow Jones U.S. Target 2015 Index	1.65	(6)	9.88	(93)	7.60	(1)	5.07	(22)	4.69	(92)	5.33	(94)	4.71	(59)
Difference	-0.90		0.76		-3.86		-1.30		0.49		N/A		N/A	
IM Mixed-Asset Target 2015 (MF) Median	0.92		11.23		5.10		4.61		5.80		6.54		4.82	
VT II VP Milestone 2020	0.87	(63)	11.27	(70)	3.61	(85)	4.08	(79)	5.81	(64)	N/A		N/A	
Dow Jones U.S. Target 2020 Index	1.54	(12)	10.89	(73)	7.02	(6)	5.72	(8)	5.65	(68)	6.29	(69)	5.46	(26)
Difference	-0.67		0.38		-3.41		-1.64		0.16		N/A		N/A	
IM Mixed-Asset Target 2020 (MF) Median	1.00		11.87		4.81		4.80		6.20		6.88		5.01	
VT II VP Milestone 2025	0.69	(69)	12.60	(62)	2.99	(87)	4.21	(86)	6.40	(70)	N/A		N/A	
Dow Jones U.S. Target 2025 Index	1.40	(9)	12.36	(67)	6.08	(11)	6.31	(3)	6.80	(60)	7.47	(57)	6.34	(5)
Difference	-0.71		0.24		-3.09		-2.10		-0.40		N/A		N/A	
IM Mixed-Asset Target 2025 (MF) Median	0.92		12.94		4.50		5.00		6.96		7.66		5.50	
VT II VP Milestone 2030	0.53	(69)	13.71	(56)	2.31	(85)	4.33	(87)	6.92	(74)	N/A		N/A	
Dow Jones U.S. Target 2030 Index	1.23	(10)	13.99	(47)	5.07	(12)	6.91	(1)	7.97	(36)	8.63	(33)	7.15	(2)
Difference	-0.70		-0.28		-2.76		-2.58		-1.05		N/A		N/A	
IM Mixed-Asset Target 2030 (MF) Median	0.72		13.91		3.86		5.17		7.60		8.30		5.91	
VT II VP Milestone 2035	0.42	(61)	14.71	(49)	1.79	(82)	4.39	(88)	7.45	(84)	N/A		N/A	
Dow Jones U.S. Target 2035 Index	1.05	(10)	15.61	(19)	4.06	(13)	7.46	(1)	9.05	(16)	9.69	(16)	7.89	(1)
Difference	-0.63		-0.90		-2.27		-3.07		-1.60		N/A		N/A	
IM Mixed-Asset Target 2035 (MF) Median	0.53		14.65		2.89		5.38		8.27		8.94		6.33	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



Comparative Performance
Total RHS Plans
As of September 30, 2019

	QTR		YTD		1 YR		2 YR		3 YR		4 YR		5 YR	
VT II VP Milestone 2040	0.25	(62)	15.05	(50)	1.23	(82)	4.52	(85)	8.00	(75)	N/A		N/A	
Dow Jones U.S. Target 2040 Index	0.88	(7)	17.04	(5)	3.16	(24)	7.90	(1)	9.94	(2)	10.56	(2)	8.48	(1)
Difference	-0.63		-1.99		-1.93		-3.38		-1.94		N/A		N/A	
IM Mixed-Asset Target 2040 (MF) Median	0.35		15.04		2.29		5.42		8.64		9.24		6.52	
VT II VP Milestone 2045	0.12	(65)	15.52	(52)	0.98	(82)	4.73	(80)	8.46	(68)	N/A		N/A	
Dow Jones U.S. Target 2045 Index	0.76	(8)	18.05	(3)	2.41	(37)	8.17	(1)	10.53	(1)	11.13	(1)	8.87	(1)
Difference	-0.64		-2.53		-1.43		-3.44		-2.07		N/A		N/A	
IM Mixed-Asset Target 2045 (MF) Median	0.26		15.59		1.99		5.50		8.81		9.48		6.69	
VT II VP Milestone 2050	0.06	(67)	15.65	(50)	0.85	(79)	4.75	(78)	8.51	(67)	N/A		N/A	
Dow Jones U.S. Target 2050 Index	0.68	(9)	18.59	(3)	1.97	(50)	8.28	(1)	10.78	(1)	11.37	(1)	9.04	(1)
Difference	-0.62		-2.94		-1.12		-3.53		-2.27		N/A		N/A	
IM Mixed-Asset Target 2050 (MF) Median	0.22		15.61		1.95		5.47		8.87		9.48		6.75	
VT II VP Milestone 2055	0.16	(51)	15.84	(45)	1.21	(70)	5.02	(68)	N/A		N/A		N/A	
Dow Jones U.S. Target 2055 Index	0.66	(9)	18.69	(3)	1.90	(50)	8.28	(1)	10.79	(1)	11.38	(1)	9.04	(1)
Difference	-0.50		-2.85		-0.69		-3.26		N/A		N/A		N/A	
IM Mixed-Asset Target 2055 (MF) Median	0.16		15.73		1.88		5.49		8.95		9.59		6.81	
VT II VP MP Conservative Growth Fund	0.97	(62)	10.41	(44)	3.95	(73)	3.70	(49)	4.79	(41)	N/A		N/A	
Dow Jones U.S. Conservative Index	1.70	(11)	9.16	(72)	7.66	(7)	4.85	(13)	4.08	(69)	4.47	(78)	4.01	(37)
Difference	-0.73		1.25		-3.71		-1.15		0.71		N/A		N/A	
IM Mixed-Asset Target Alloc Consv (MF) Median	1.08		10.14		5.07		3.67		4.48		5.14		3.70	
VT II VP MP Traditional Growth Fund	0.74	(63)	13.15	(34)	2.89	(69)	4.72	(45)	6.85	(36)	N/A		N/A	
Dow Jones U.S. Moderate Index	1.10	(41)	14.77	(15)	4.52	(44)	7.04	(10)	8.17	(10)	8.76	(12)	7.23	(5)
Difference	-0.36		-1.62		-1.63		-2.32		-1.32		N/A		N/A	
IM Mixed-Asset Target Alloc Moderate (MF) Median	0.93		12.51		4.00		4.60		6.35		7.02		4.98	
VT II VP MP Long-Term Growth Fund	0.52	(21)	15.10	(67)	1.97	(24)	5.19	(42)	8.17	(67)	N/A		N/A	
Dow Jones U.S. Aggressive Index	0.57	(19)	20.13	(5)	1.16	(30)	8.69	(4)	11.65	(1)	12.29	(1)	9.70	(1)
Difference	-0.05		-5.03		0.81		-3.50		-3.48		N/A		N/A	
IM Mixed-Asset Target Alloc Aggressive Growth (MF) Median	0.09		15.80		0.23		4.90		8.74		9.04		6.35	
VT II VP MP Global Equity Growth Fund	-0.61	(95)	15.68	(83)	0.08	(82)	4.40	(98)	8.71	(95)	N/A		N/A	
S&P 500 Index	1.70	(39)	20.55	(35)	4.25	(39)	10.87	(28)	13.39	(24)	13.90	(14)	10.84	(16)
Difference	-2.31		-4.87		-4.17		-6.47		-4.68		N/A		N/A	
IM U.S. Large Cap Core Equity (MF) Median	1.46		19.49		3.21		9.36		12.26		12.36		9.41	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.
Alger replaced Nuveen 11/1/2014.



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2019 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	✓	✓	✓	
Regularly				
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				

Investment Policy Statements

“Section 404(a)(1)(D) of ERISA requires that fiduciaries follow the terms of the documents governing the operation of the plan, unless it would be imprudent to do so. The IPS is one of the documents governing the operation of the plan.”

– Fred Reish, Partner, DrinkerBiddle

“The preparation and maintenance of the Investment Policy Statement is the most critical function a fiduciary performs, for a well-written IPS becomes the narrative that defines how all of the investment-related responsibilities will be prudently managed.”

– Don Trone, Founder & CEO, 3ethos

“If an investment policy statement has been properly formulated and memorialized, all prudent procedures covered will fall into place. This is predicated upon the fact that liability usually occurs when the fiduciary has failed to act in this area as opposed to acting improperly.”

– The Department of Labor

Investment Policy Statements

Purpose of an Investment Policy Statement

The overall purpose of an Investment Policy Statement (IPS) is to define general investment goals and to establish a process for consistent and informed decision making in monitoring and evaluating the investments within the fiduciary's stewardship.

Reasons to create, approve and regularly review an IPS include:

- ✓ Provides evidence of a prudent investment decision making process
- ✓ Assists in defense against potential fiduciary liability
- ✓ Serves as a multi-generational document to support continuity in decision making as plan fiduciaries change
- ✓ Protects fiduciaries from making decisions based on external sources (participants, vendors, money managers, etc.)

Investment Policy Statements

Framework of an Investment Policy Statement

1. Information about the portfolio and who it ultimately serves
2. Definition and description of duties and responsibilities
3. Identification of Fiduciaries, legal constraints, unique conditions, and conflicts of interest
4. Statement of investment objectives, risk tolerance, time horizon, and liquidity requirements
5. Clearly defined performance objectives so oversight committees clearly understand how the portfolio is doing relative to stated performance and risk targets
6. Asset allocation definitions, strategic structure, and underlying investment guidelines
7. Identification of rebalancing and/or spending policies
8. Framework for selecting, monitoring, and potentially replacing investments
9. Process for IPS review and modification

Source: *The Masterplan: Critical Components of an Investment Policy Statement*, The Bogdahn Group blog 05/10/2016

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- 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.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- 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.
Distributed to Paid In (DPI)	- 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.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- 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.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- 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.
Public Market Equivalent (PME)	- 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.
R-Squared	- 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.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- 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.
Standard Deviation	- 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.
Total Value to Paid In (TVPI)	- 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
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- 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.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

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