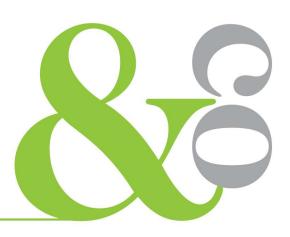
Investment Performance Review Period Ending June 30, 2019

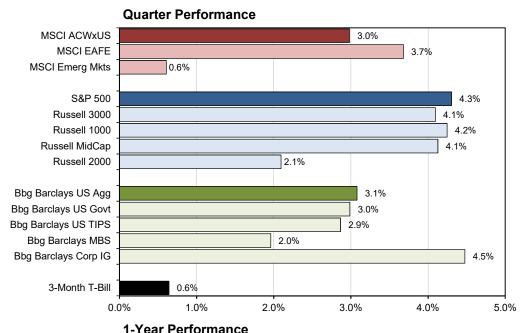
Port of Houston Authority 457(b) and 401(a) Plans Executive Summary

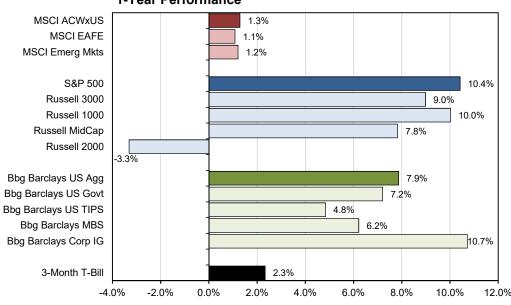


2nd Quarter 2019 Market Environment



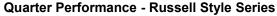
- Broad asset class returns were positive during the 2nd quarter of 2019 with both equity and fixed income indices extending their year-to-date gains. US stocks outperformed international stocks during a very volatile quarter. Equity indices rose to start the period as progress in global trade negotiations outweighed signs of weakness in macroeconomic data. However, trade discussions between the US and China fell apart in May prompting increased tariffs and sharp declines in equity markets. The softening in economic data, stubbornly low inflation and the threat of slower future growth caused by ongoing disruption in trade led the Federal Reserve (Fed) to communicate a shift toward a more accommodative policy stance. This change in central bank posture caused markets to rebound strongly, ending the quarter higher for the period. Fixed income returns were also positive during the quarter as the prospect of more accommodative monetary policy pushed interest rates lower, increasing bond prices. Within domestic equity markets, large cap stocks outperformed small cap equities during the quarter with the S&P 500 Index returning 4.3% versus a 2.1% return on the small cap Russell 2000 Index. US equity returns over the 1-year period were positive within large and mid cap stocks, returning 10.4% and 7.8% respectively, but small cap stocks posted a loss, falling -3.3%.
- Similar to US markets, international markets were volatile during the 2nd quarter as investors reacted to mixed economic data, heightened geopolitical uncertainly, particularly around the outlook for global trade and Brexit, and increased accommodation in central bank policy with the European Central Bank (ECB) and People's Bank of China (PBoC) pledging additional stimulus if needed. Developed markets outperformed emerging markets during the period with the MSCI EAFE Index returning 3.7% versus a 0.6% return on the MSCI Emerging Markets Index. Both developing and emerging markets posted modest gains over the 1-year period, returning 1.1% and 1.2% respectively.
- Fixed income returns were in line with equities during the 2nd quarter. The broad market Bloomberg Barclays Aggregate Index returned 3.1% as a more dovish stance from the Fed and other global central banks pushed interest rates lower across the US Treasury Yield Curve. The curve steepened but remained inverted with shorter-term maturities paying higher interest rates than those in the middle of the curve. Investment grade corporate issues were the best performing securities for the second quarter in a row, outperforming Treasury and securitized issues. The Bloomberg Barclays Corporate IG Index returned 4.5% for the period, as corporate credit had tailwinds due to greater interest rate sensitivity, higher yields and tightening credit spreads. Corporate issues also outperformed the other major fixed income sectors over the 1-year period, returning 10.7% versus a 7.9% return for the Bloomberg Barclays Aggregate Index.

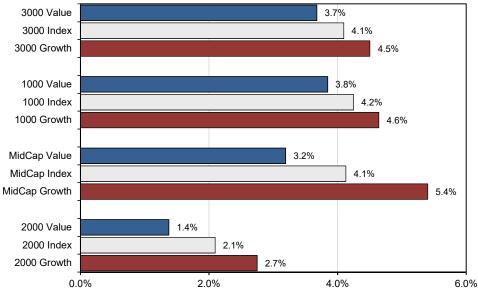




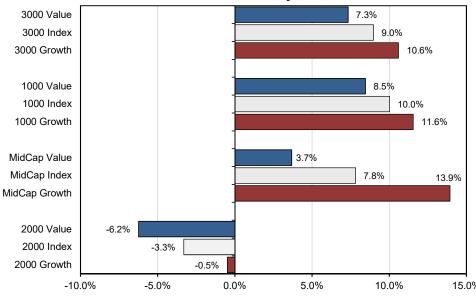


- US equity index returns were modestly positive across the style and capitalization spectrum for the 2nd quarter. Corporate earnings reported during the guarter surprised to the upside, but economic data released during the period showed signs of slowing growth. Developments around global trade were particularly prominent during the period, heavily influencing market sentiment. Positive developments in trade negotiations with China came to an abrupt halt in May leading the US to increase tariffs on \$200 billion of Chinese imports from 10% to 25% and announce that the US would consider tariffs on the remaining \$300 billion in goods imported from China. China retaliated by increasing the tariff range on \$60 billion of US goods from 5-10% to 5-25%. Additionally, the US instituted a ban on sales of technology equipment to Chinese telecommunications firm Huawei citing national security risks. China is expected to take similar action in retaliation although nothing has been announced. Trade talks are ready to resume and both sides have agreed to cease escalations following a meeting between President Trump and President Jinping at the G20 summit held at the end of the quarter. In addition, President Trump threatened a 5% tariff on all Mexican imports as a tact to reduce the level of illegal immigration at the US border with Mexico, and US waivers on sanctions for Iranian oil ended leading to increased tensions in the region that were further escalated after Iran downed a US drone. Despite these headwinds, markets rose following comments from an increasingly accommodative Fed as investors priced in greater odds of easy monetary policy going forward.
- During the quarter, higher market cap stocks outperformed lower market cap stocks across the style spectrum with the only exception being the outperformance of mid cap growth stocks relative to large cap growth stocks. The large cap Russell 1000 Index gained 4.2% during the period versus a 4.1% return for the Russell MidCap Index and a 2.1% gain on the small cap Russell 2000 Index as market participants may be moving toward the relative safety of large cap names as the economy continues to show growing signs of weakness. When viewed over the most recent 1-year period, large cap stocks outperformed relative to small cap stocks. The Russell 1000 returned 10.0% for the year while the Russell 2000 fell -3.3%.
- Growth indices outperformed value indices across the market cap spectrum during the 2nd quarter. Growth stocks have outperformed value in nine of the last ten quarters. The Russell MidCap Growth Index was the best performing style index for the period, returning 5.4% for the quarter with the small cap value index posting the lowest relative return, a gain of 1.4%. The trend of growth outperformance is also visible over the 1-year period as growth indices have benefitted from larger exposures to technology which has been a large driver of index performance over the last year, as well as a meaningful underweight to energy which has been a relative detractor.



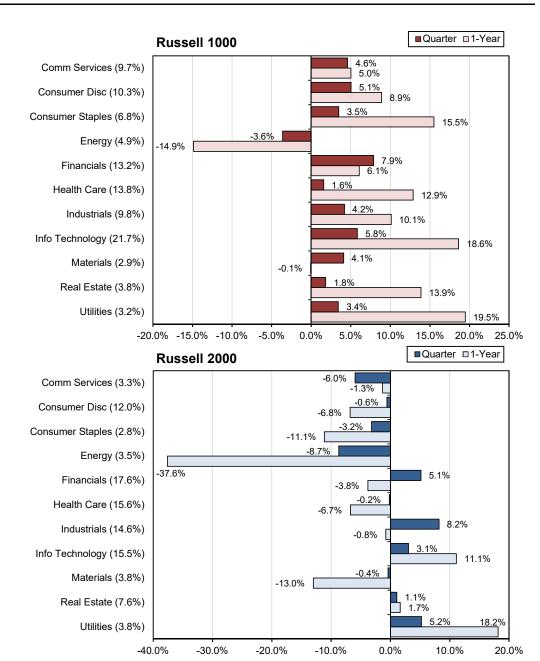


1-Year Performance - Russell Style Series





- Sector performance was broadly positive across large cap sectors for the 2nd quarter. There were gains for ten out of eleven sectors within the Russell 1000 Index during the period with four sectors outpacing the return of the index. Cyclical sectors such as technology, industrials and consumer discretionary were some of the best performers through the quarter returning 5.8%, 4.2% and 5.1% respectively. Financials also outperformed, returning 7.9%, as investors weighed the benefits of continued economic expansion due to easing monetary policy against the effects of lower interest rates on bank earnings. More defensive higher yielding sectors such as consumer staples, real estate and utilities underperformed for the quarter returning 3.5%, 1.8% and 3.4% respectively. The energy sector was the only large cap sector to post a negative return during the quarter, falling -3.6%, as headwinds from weakening economic data and low oil and natural gas prices weighed on 1st quarter earnings. Health care stocks also lagged as continued discussions in Washington around the potential for increased regulation on drug pricing acted as a headwind. Returns over the 1-year period were positive with nine out of eleven sectors posting gains, six of which were over 10%. Defensive sectors such as utilities, REITs and consumer staples performed well returning 19.5%, 13.9% and 15.5% respectively. Technology returns were also strong gaining 18.6%. Energy and materials were the only sectors to post negative results over the 1-year period with energy falling -14.9% and materials returning -0.1%.
- Quarterly results for small cap sectors were generally worse than their large capitalization counterparts with only two of eleven sectors (industrials and utilities) outperforming their corresponding large cap equivalents. Five of eleven sectors produced gains during the period with four of eleven economic sectors outpacing the Russell 2000 Index return for the quarter. Similar to large caps, cyclical sectors performed well on hopes that any Fed policy easing would counteract the recent weakness in economic growth. The industrials sector performed particularly well returning 8.2%, financials posted a 5.1% gain and technology returned 3.1%. Utilities also outperformed returning 5.2%. The largest detractors over the period were energy and communication services which returned -8.7% and -6.0% respectively. Over the trailing 1-year period, returns were broadly negative. Utilities and technology were relative bright spots returning 18.2% and 11.1%. The energy sector was an outlier in terms of negative returns losing -37.6% during the period. There were also notable losses in materials and consumer staples with materials losing -13.0% and consumer staples falling -11.1%.





Services sector

Top 10 Weighted Stocks							
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector			
Microsoft Corp	3.71%	14.0%	37.5%	Information Technology			
Apple Inc	3.44%	4.6%	8.6%	Information Technology			
Amazon.com Inc	2.85%	6.3%	11.4%	Consumer Discretionary			
Facebook Inc A	1.68%	15.8%	-0.7%	Communication Services			
Berkshire Hathaway Inc B	1.51%	6.1%	14.2%	Financials			
Johnson & Johnson	1.37%	0.3%	17.9%	Health Care			
JPMorgan Chase & Co	1.35%	11.3%	10.3%	Financials			
Alphabet Inc Class C	1.20%	-7.9%	-3.1%	Communication Services			
Exxon Mobil Corp	1.19%	-4.1%	-3.3%	Energy			
Alphabet Inc A	1.18%	-8.0%	-4.1%	Communication Services			

Top 10 Weighted Stocks						
Russell 2000	Weight	Weight 1-Qtr 1-Year Return Return		Sector		
Array BioPharma Inc	0.48%	90.0%	176.1%	Health Care		
The Trade Desk Inc A	0.37%	15.1%	142.8%	Information Technology		
Etsy Inc	0.36%	-8.7%	45.5%	Consumer Discretionary		
Coupa Software Inc	0.35%	39.2%	103.4%	Information Technology		
Five Below Inc	0.32%	-3.4%	22.8%	Consumer Discretionary		
Planet Fitness Inc A	0.31%	5.4%	64.9%	Consumer Discretionary		
HubSpot Inc	0.31%	2.6%	36.0%	Information Technology		
Haemonetics Corp	0.30%	37.6%	34.2%	Health Care		
Woodward Inc	0.30%	19.4%	48.0%	Industrials		
Ciena Corp	0.29%	10.1%	55.1%	Information Technology		

Top 10 Performing Stocks (by Quarter)							
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector			
Adient PLC	0.01%	87.3%	-50.0%	Consumer Discretionary			
Anadarko Petroleum Corp	0.13%	55.8%	-1.6%	Energy			
Cypress Semiconductor Corp	0.03%	49.8%	46.9%	Information Technology			
Okta Inc A	0.04%	49.3%	145.2%	Information Technology			
Erie Indemnity Co Class A	0.02%	43.2%	122.5%	Financials			
Heico Corp	0.02%	41.1%	83.9%	Industrials			
Legg Mason Inc-LeggMason RETAIL	0.01%	39.9%	14.4%	Financials			
Exact Sciences Corp	0.05%	36.3%	97.4%	Health Care			
Caesars Entertainment Corp	0.02%	36.0%	10.5%	Consumer Discretionary			
Ardagh Group SA	0.00%	35.9%	9.6%	Materials			

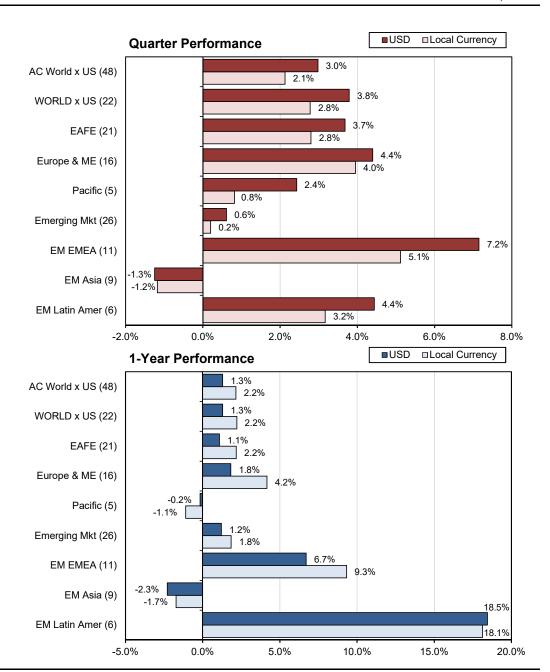
Top 10 Performing Stocks (by Quarter)							
Russell 2000	Weight 1-Qtr 1-Year Return Return			Sector			
lovance Biotherapeutics Inc	0.13%	157.8%	91.6%	Health Care			
Arqule Inc	0.06%	129.9%	99.1%	Health Care			
Adverum Biotechnologies Inc	0.03%	126.9%	124.3%	Health Care			
Chimerix Inc	0.01%	105.7%	-9.2%	Health Care			
Enphase Energy Inc	0.08%	97.5%	170.9%	Information Technology			
Maxar Technologies Inc	0.02%	94.8%	-84.0%	Industrials			
Array BioPharma Inc	0.48%	90.0%	176.1%	Health Care			
Melinta Therapeutics Inc	0.00%	87.3%	-79.1%	Health Care			
G1 Therapeutics Inc	0.03%	84.7%	-29.5%	Health Care			
Foundation Building Materials Inc	0.01%	80.7%	15.6%	Industrials			

Bottom 10 Performing Stocks (by Quarter)							
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector			
2U Inc	0.01%	-46.9%	-55.0%	Information Technology			
Alkermes PLC	0.01%	-38.2%	-45.2%	Health Care			
Range Resources Corp	0.01%	-37.7%	-58.0%	Energy			
Antero Resources Corp	0.00%	-37.4%	-74.1%	Energy			
Chesapeake Energy Corp	0.01%	-37.1%	-62.8%	Energy			
RPC Inc	0.00%	-36.5%	-48.8%	Energy			
Realogy Holdings Corp	0.00%	-35.8%	-67.4%	Real Estate			
The Chemours Co	0.02%	-34.7%	-44.2%	Materials			
United Therapeutics Corp	0.01%	-33.5%	-31.0%	Health Care			
Mylan NV	0.04%	-32.8%	-47.3%	Health Care			

Bottom 10 Performing Stocks (by Quarter)							
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector			
FuelCell Energy Inc	0.00%	-94.0%	-98.9%	Industrials			
Halcon Resources Corp	0.00%	-86.9%	-96.0%	Energy			
Pioneer Energy Services Corp	0.00%	-85.7%	-95.7%	Energy			
Eros International PLC	0.00%	-85.2%	-89.6%	Communication Services			
Superior Energy Services Inc	0.01%	-72.2%	-86.7%	Energy			
electroCore Inc	0.00%	-71.4%	-87.9%	Health Care			
Ultra Petroleum Corp	0.00%	-70.5%	-92.2%	Energy			
Nuvectra Corp	0.00%	-69.6%	-83.7%	Health Care			
Dean Foods Co	0.00%	-69.5%	-91.1%	Consumer Staples			
Kirkland's Inc	0.00%	-67.9%	-80.6%	Consumer Discretionary			



- Broad international equity returns were positive for the quarter in both local currency and USD terms. The MSCI ACWI ex US Index gained 2.1% in local currency terms and 3.0% in US dollar (USD) terms during the 2nd quarter. Similar to US markets, international equity investors balanced difficulties around global trade with central bank shifts toward more accommodative policies as a response to slowing global growth. Notably the ECB President Mario Draghi stated that further monetary policy action may need to be taken if inflation remains below target and the PBoC launched stimulus measures designed to encourage growth following the deterioration of trade negotiations with the US. Returns in USD largely outperformed those in local currency during the quarter as the USD depreciated against most major developed currencies following dovish Fed comments in June. However, the recent USD strength can still be seen over the 1-year period with USD returns trailing most local currency returns. Returns for the MSCI ACWI ex US Index were 2.2% in local currency terms and 1.3%in USD terms for the trailing year.
- Results for developed market international indices were positive in both local currency and USD terms during the 2nd quarter, with the MSCI EAFE Index returning 2.8% and 3.7% respectively. Outside of central bank policy and trade, there was notable news out of the UK with Prime Minister Theresa May resigning from her post after her Brexit withdrawal plan failed to gain parliamentary approval and a new vote for the office is currently underway. UK markets were pressured by continued uncertainty around Brexit with the UK having until October to strike an agreement with the European Union (EU) or withdraw with no agreement in place. Despite the growing uncertainty, the Bank of England (BoE) left monetary policy unchanged. Japan also underperformed as the yen appreciated due to its perceived safe haven status and trade headwinds were expected to affect its export driven economy. The MSCI EAFE Index returned 2.2% and 1.1% for the last twelve months in local currency and USD terms respectively.
- Emerging markets underperformed relative to developed markets for the 2nd quarter, slightly appreciating in both local currency and USD terms. The MSCI Emerging Markets Index gained 0.2% and 0.6% respectively. As expected, geopolitical tensions around trade put pressure on emerging market stocks, with Chinese equities underperforming relative to most countries. Latin American stocks performed well with Brazil and Argentina posting strong returns as commodity prices appreciated from recent lows at the end of 2018 and interest rates fell. Russian equities also performed well, benefiting from increasing commodity prices, but also had a tailwind from a decrease in the likelihood of future US sanctions. One year returns for the MSCI Emerging Market Index were 1.8% in local currency terms and 1.2% in USD terms.



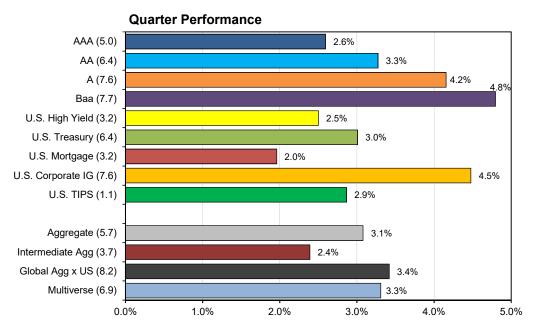


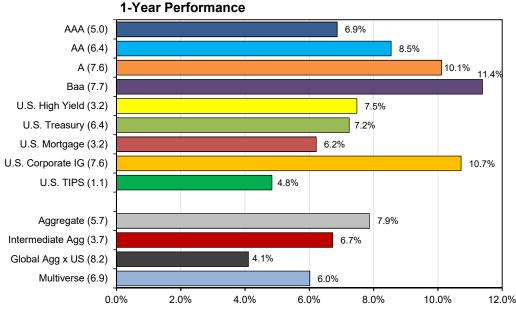
MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	4.0%	4.3%
Consumer Discretionary	11.1%	5.9%	-2.6%
Consumer Staples	11.7%	1.9%	4.8%
Energy	5.6%	0.4%	-5.5%
Financials	18.9%	4.3%	-2.9%
Health Care	11.2%	2.0%	7.5%
Industrials	14.8%	5.9%	2.4%
Information Technology	6.7%	6.6%	2.7%
Materials	7.4%	3.9%	0.2%
Real Estate	3.6%	-2.2%	2.3%
Utilities	3.6%	1.5%	9.8%
Total	100.0%	3.7%	1.1%
MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.9%	1.0%	5.6%
Consumer Discretionary	11.3%	3.8%	-3.6%
Consumer Staples	9.8%	2.2%	4.6%
Energy	7.2%	0.5%	-1.4%
Financials	21.9%	4.4%	2.0%
Health Care	8.3%	1.2%	4.2%
Industrials	11.9%	5.2%	2.9%
Information Technology	8.5%	4.0%	-0.7%
Materials	7.6%	2.9%	-0.5%
Real Estate	3.3%	-1.6%	4.3%
Utilities	3.3%	2.2%	10.1%
Total	100.0%	3.0%	1.3%
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	11.7%	-2.4%	4.5%
Consumer Discretionary	13.5%	-1.2%	-7.6%
Consumer Staples	6.6%	3.3%	0.9%
Energy	7.9%	1.2%	16.3%
Financials	25.2%	4.0%	11.9%
Health Care	2.6%	-6.6%	-24.7%
Industrials	5.3%	0.0%	4.1%
Information Technology	13.9%	-0.1%	-6.1%
Materials	7.6%	-1.2%	-1.9%
Real Estate	3.0%	-0.2%	10.1%
Utilities	2.7%	2.9%	9.0%
Total	100.0%	0.6%	1.2%

	MSCI-EAFE	MSCI-ACWIXUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	23.7%	15.8%	1.0%	-4.2%
United Kingdom	16.8%	11.2%	0.9%	-2.1%
France	11.4%	7.6%	6.5%	3.0%
Switzerland	9.3%	6.2%	8.4%	19.8%
Germany	8.8%	5.9%	7.1%	-3.8%
Australia	7.1%	4.8%	7.3%	6.6%
Hong Kong	4.0%	2.7%	1.0%	10.4%
Netherlands	3.6%	2.4%	5.8%	5.3%
Spain	3.0%	2.0%	2.6%	-2.1%
Sweden	2.7%	1.8%	4.9%	3.4%
Italy	2.3%	1.6%	2.9%	-0.7%
Denmark	1.7%	1.1%	1.6%	5.8%
Singapore	1.4%	0.9%	7.0%	8.3%
Finland	1.0%	0.7%	0.2%	-4.7%
Belgium	1.0%	0.7%	1.2%	-9.1%
Norway	0.7%	0.5%	2.4%	-4.3%
Israel	0.6%	0.4%	-3.6%	-4.5%
Ireland	0.5%	0.4%	4.7%	-9.2%
New Zealand	0.3%	0.2%	3.9%	16.0%
Austria	0.2%	0.2%	0.8%	-13.1%
Portugal	0.2%	0.1%	1.6%	-4.6%
Total EAFE Countries	100.0%	66.8%	3.7%	1.1%
Canada	100.070	6.8%	4.9%	3.3%
Total Developed Countries		73.6%	3.8%	1.3%
China		8.3%	-4.0%	-6.7%
Korea		3.3%	-1.0%	-9.1%
Taiwan		2.9%	0.9%	1.1%
India		2.4%	0.5%	7.9%
Brazil		2.0%	7.2%	39.4%
South Africa		1.6%	6.6%	-0.8%
Russia		1.1%	16.9%	27.1%
Thailand		0.8%	9.3%	19.8%
Saudi Arabia		0.8%	0.6%	11.0%
Mexico		0.7%	1.1%	-7.4%
Indonesia		0.6%	3.2%	20.3%
Malaysia		0.6%	1.2%	-0.8%
Philippines		0.3%	4.4%	19.7%
Poland		0.3%	3.5%	10.5%
Qatar		0.3%	0.6%	18.8%
Chile		0.3%	-5.6%	-12.1%
United Arab Emirates		0.2%	-2.7%	3.0%
Turkey		0.1%	2.8%	-17.1%
Colombia		0.1%	-2.4%	-3.7%
Peru		0.1%	-1.9%	3.5%
Argentina		0.1%	31.7%	15.8%
Greece		0.1%	16.2%	-9.2%
Hungary		0.1%	-4.1%	12.7%
		0.1%	2.6%	1.1%
Czech Republic				
Czech Republic		0.0%	7 90/-	5 /10/2
Egypt		0.0%	7.8%	5.4%
		0.0% 0.0% 26.4%	7.8% -20.8% 0.6%	5.4% -36.7% 1.2%



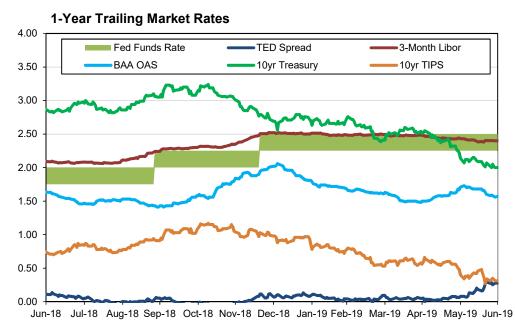
- Broad fixed income benchmarks built on their early 2019 gains during the 2nd guarter. During the 1st guarter, the Federal Open Market Committee (FOMC) reacted to a difficult end to 2018 by issuing guidance that the FOMC is no longer projecting any further interest rate increases through 2019. Federal Reserve Chair Jerome Powell also stated that the Fed would begin tapering the roll off from the planned balance sheet reduction program in May with a plan to halt the program entirely in September. The stoppage of the balance sheet reduction program represents an easing of monetary policy. The Fed took an increasingly dovish stance during the 2nd quarter reacting to softening economic data, tepid inflation and increased risks around global trade. While the committee left interest rates unchanged, the minutes from the June FOMC meeting indicate that the committee felt "downside risks to the outlook for economic activity had risen materially" during the quarter with several participants noting that a "near-term cut in the target range for the Federal Funds Rate could help cushion the effects of possible future adverse shocks to the economy". These comments led market participants to forecast greater odds of an interest rate cut this year, pushing markets higher. Interest rates fell across all maturities on the US Treasury Yield Curve with the greatest declines occurring in the mid- and long-term issues. The curve remains inverted with short-term maturities paying higher interest rates than issues in the mid- to long-end of the curve. The bellwether Bloomberg Barclays US Aggregate Index posted positive returns for both the 1st quarter and the 1-year period, returning 3.1% and 7.9% respectively.
- Within investment grade credit, lower quality issues outperformed higher quality issues as investors gravitated toward higher risk securities during the quarter. Lower quality issues also benefitted from their higher durations. 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 4.8% for the quarter, while AAA was the worst performing, returning 2.6%. High yield issues returned 2.5% for the quarter as these issues did not commensurately benefit from the drop in interest rates due to their lower durations. Returns over the 1-year period generally show lower quality securities outperforming higher quality issues.
- 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 2nd quarter. Investment grade corporate credit returned 4.5%, as falling interest rates benefitted these securities to a greater degree and credit spreads have continued to tighten since the end of 2018. When viewed over the 1-year period, corporate credit outperformed both Treasuries and mortgage backed securities. Corporate issues returned 10.7% versus a 6.2% return for mortgages and 7.2% gain on Treasury securities.

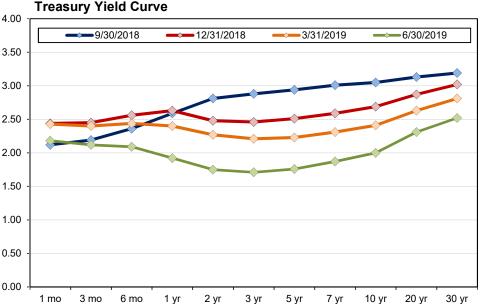






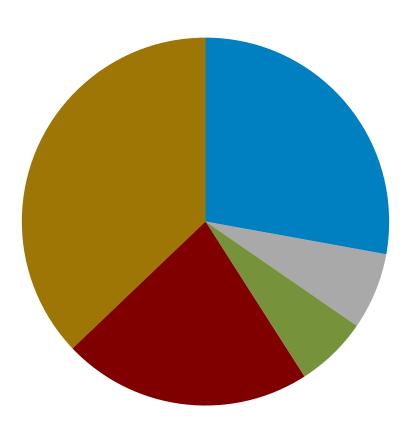
- Global fixed income returns were in line with their domestic counterparts, slightly outperforming during the 2nd guarter. These indices have lower, or in some cases (Germany, Japan), negative yields, but have higher durations. The returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. The USD depreciated against most other developed currencies, acting as a tailwind to global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was 3.4%. Global bonds still trail over the 1-year period with the Global Aggregate ex US Index returning 4.1% versus a 7.9% return on the domestically focused 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 guarter 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 the 10-year Treasury yield (green line) fell from recent high's greater than 3.0%, to 2.0% to end the guarter. 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 dropped steadily until they rose again in May and then later declined in June. This spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. These credit spreads have tightened by about 6 basis points over the last three months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate due to the tightening of US monetary policy during 2018. There have been no changes to the Federal Funds Rate in 2019.
- 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 steepening of the yield curve are clearly visible over the last quarter. As mentioned, the yield curve continues to invert as yields on shorter-term maturities fell less than interest rates in the middle- to long-end of the curve.

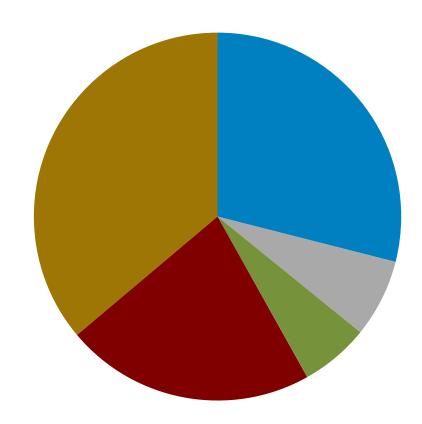






March 31, 2019 : \$50,292,321 June 30, 2019 : \$52,374,055

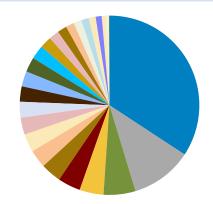


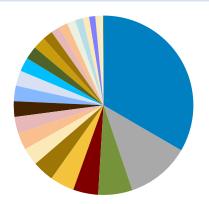


Asset Allocation by Segment			Asset Allocation by Segment		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
Domestic Equity	14,003,238	27.8	Domestic Equity	15,169,075	29.0
International Equity	3,395,334	6.8	International Equity	3,597,551	6.9
Domestic Fixed Income	3,185,119	6.3	Domestic Fixed Income	3,160,826	6.0
Cash Equivalent	7,094	0.0	Cash Equivalent	7,691	0.0
Target Date Funds	11,034,244	21.9	Target Date Funds	11,512,644	22.0
Fixed Account	18,667,292	37.1	Fixed Account	18,926,268	36.1



March 31, 2019 : \$50,292,321 June 30, 2019 : \$52,374,055

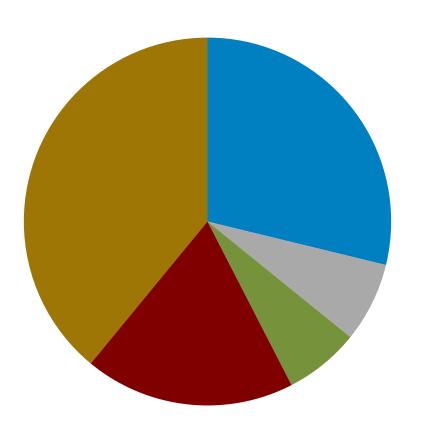


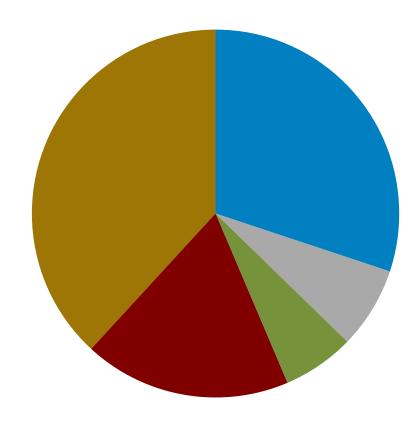


Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ Nationwide Fixed Account	17,222,890	34.2	Nationwide Fixed Account	17,484,812	33.4
■ MFS Growth R4 (MFEJX)	5,573,163	11.1	■ MFS Growth R4 (MFEJX)	5,982,523	11.4
Vanguard 500 Index (VFIAX)	2,888,393	5.7	Vanguard 500 Index (VFIAX)	3,226,779	6.2
American Funds 2030 Target Date (RDETX)	2,172,542	4.3	American Funds Europacific Growth R4 (REREX)	2,361,629	4.5
American Funds Europacific Growth R4 (REREX)	2,054,277	4.1	American Funds 2030 Target Date (RDETX)	2,286,487	4.4
DFA US Large Cap Value (DFLVX)	1,859,609	3.7	DFA US Large Cap Value (DFLVX)	2,013,484	3.8
Western Asset Core Plus Bond Fund (WACPX)	1,640,907	3.3	American Funds 2025 Target Date (RDDTX)	1,670,643	3.2
American Funds 2025 Target Date (RDDTX)	1,640,829	3.3	Western Asset Core Plus Bond Fund (WACPX)	1,609,003	3.1
Vanguard Total Bond Index (VBTLX)	1,544,212	3.1	Vanguard Total Bond Index (VBTLX)	1,551,823	3.0
■ Total Fixed Assets	1,444,402	2.9	American Funds 2040 Target Date (RDGTX)	1,470,893	2.8
American Funds 2040 Target Date (RDGTX)	1,387,702	2.8	American Funds 2035 Target Date (RDFTX)	1,466,021	2.8
American Funds 2035 Target Date (RDFTX)	1,382,461	2.7	■ Total Fixed Assets	1,441,457	2.8
Vanguard Total Intl Stock Index (VTIAX)	1,341,058	2.7	Vanguard Mid Cap Index (VIMAX)	1,309,406	2.5
Vanguard Mid Cap Index (VIMAX)	1,256,239	2.5	Vanguard Total Intl Stock Index (VTIAX)	1,235,922	2.4
American Funds 2045 Target Date (RDHTX)	1,067,205	2.1	American Funds 2045 Target Date (RDHTX)	1,168,054	2.2
American Funds 2010 Target Date (RDATX)	923,153	1.8	American Funds 2050 Target Date (RDITX)	957,217	1.8
American Funds 2050 Target Date (RDITX)	854,025	1.7	American Funds 2010 Target Date (RDATX)	835,019	1.6
Vanguard Small Cap Index (VSMAX)	752,145	1.5	Vanguard Small Cap Index (VSMAX)	817,549	1.6
Touchstone Mid Cap Growth Y (TEGYX)	728,776	1.4	Touchstone Mid Cap Growth Y (TEGYX)	796,383	1.5
Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	671,382	1.3	Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	727,944	1.4
American Funds 2015 Target Date (RDBTX)	629,933	1.3	American Funds 2015 Target Date (RDBTX)	596,689	1.1
American Funds 2020 Target Date (RDCTX)	552,209	1.1	American Funds 2020 Target Date (RDCTX)	585,853	1.1
American Funds 2055 Target Date (RDJTX)	380,003	0.8	American Funds 2055 Target Date (RDJTX)	420,693	0.8
American Beacon Small Cap Value Y (ABSYX)	273,532	0.5	American Beacon Small Cap Value Y (ABSYX)	295,008	0.6
American Funds 2060 Target Date (RDKTX)	44,183	0.1	American Funds 2060 Target Date (RDKTX)	55,076	0.1
Nationwide Government Money Fund (GMIXX)	6,844	0.0	Nationwide Government Money Fund (GMIXX)	6,588	0.0
Total Vanguard Treasury Money Market Fund (VUSXX)	249	0.0	Total Vanguard Treasury Money Market Fund (VUSXX)	1,103	0.0



March 31, 2019 : \$47,823,622 June 30, 2019 : \$49,594,115

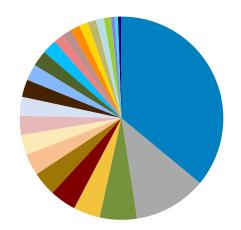


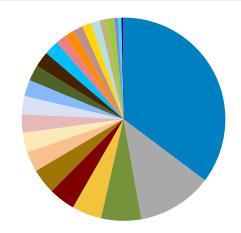


sset Allocation by Segment			Asset Allocation by Segment		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	13,772,337	28.8	■ Domestic Equity	14,925,083	30.1
International Equity	3,358,060	7.0	International Equity	3,557,732	7.2
Domestic Fixed Income	3,166,914	6.6	Domestic Fixed Income	3,140,348	6.3
■ Target Date Funds	8,859,020	18.5	Target Date Funds	9,044,683	18.2
Fixed Account	18,667,292	39.0	■ Fixed Account	18,926,268	38.2



March 31, 2019 : \$47,823,622 June 30, 2019 : \$49,594,115

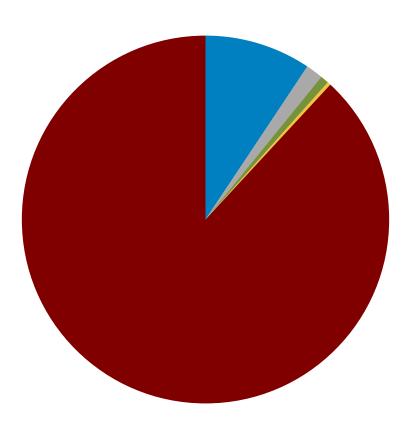


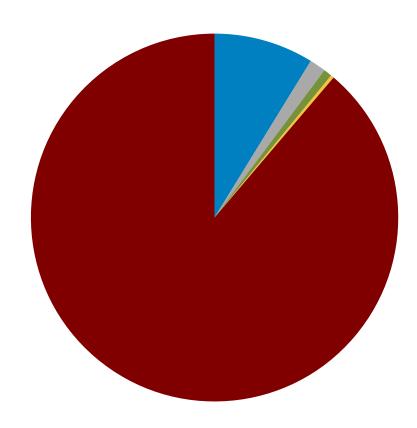


Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
457(b) Nationwide Fixed Account	17,222,890	36.0	457(b) Nationwide Fixed Account	17,484,812	35.3
457(b) MFS Growth R4 (MFEJX)	5,518,399	11.5	457(b) MFS Growth R4 (MFEJX)	5,930,015	12.0
457(b) Vanguard 500 Index (VFIAX)	2,818,334	5.9	457(b) Vanguard 500 Index (VFIAX)	3,149,582	6.4
457(b) American Funds Europacific Growth R4 (REREX)	2,029,300	4.2	457(b) American Funds Europacific Growth R4 (REREX)	2,335,411	4.7
457(b) American Funds 2030 Target Date (RDETX)	1,991,347	4.2	457(b) American Funds 2030 Target Date (RDETX)	2,080,925	4.2
457(b) DFA US Large Cap Value (DFLVX)	1,845,678	3.9	457(b) DFA US Large Cap Value (DFLVX)	1,997,839	4.0
457(b) Western Asset Core Plus Bond Fund (WACPX)	1,633,884	3.4	457(b) Western Asset Core Plus Bond Fund (WACPX)	1,600,845	3.2
457(b) Vanguard Total Bond Index (VBTLX)	1,533,030	3.2	457(b) Vanguard Total Bond Index (VBTLX)	1,539,503	3.1
457(b) American Funds 2025 Target Date (RDDTX)	1,448,834	3.0	457(b) American Funds 2025 Target Date (RDDTX)	1,452,286	2.9
457(b) Fixed Assets	1,444,402	3.0	457(b) Fixed Assets	1,441,457	2.9
457(b) Vanguard Total Intl Stock Index (VTIAX)	1,328,760	2.8	457(b) Vanguard Mid Cap Index (VIMAX)	1,292,480	2.6
457(b) Vanguard Mid Cap Index (VIMAX)	1,236,860	2.6	457(b) American Funds 2035 Target Date (RDFTX)	1,258,608	2.5
457(b) American Funds 2035 Target Date (RDFTX)	1,203,918	2.5	457(b) Vanguard Total Intl Stock Index (VTIAX)	1,222,322	2.5
457(b) American Funds 2040 Target Date (RDGTX)	1,116,406	2.3	457(b) American Funds 2040 Target Date (RDGTX)	1,161,210	2.3
457(b) Vanguard Small Cap Index (VSMAX)	742,220	1.6	457(b) Vanguard Small Cap Index (VSMAX)	810,567	1.6
457(b) American Funds 2045 Target Date (RDHTX)	725,315	1.5	457(b) Touchstone Mid Cap Growth Y (TEGYX)	775,129	1.6
457(b) Touchstone Mid Cap Growth Y (TEGYX)	714,873	1.5	457(b) American Funds 2045 Target Date (RDHTX)	768,105	1.5
457(b) American Funds 2050 Target Date (RDITX)	684,442	1.4	457(b) American Funds 2050 Target Date (RDITX)	729,734	1.5
457(b) American Funds 2015 Target Date (RDBTX)	629,933	1.3	457(b) Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	675,484	1.4
457(b) Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	623,401	1.3	457(b) American Funds 2015 Target Date (RDBTX)	596,689	1.2
457(b) American Funds 2020 Target Date (RDCTX)	535,948	1.1	457(b) American Funds 2020 Target Date (RDCTX)	565,095	1.1
457(b) American Beacon Small Cap Value Y (ABSYX)	272,572	0.6	457(b) American Beacon Small Cap Value Y (ABSYX)	293,987	0.6
457(b) American Funds 2055 Target Date (RDJTX)	247,997	0.5	457(b) American Funds 2055 Target Date (RDJTX)	259,378	0.5
457(b) American Funds 2010 Target Date (RDATX)	233,597	0.5	457(b) American Funds 2010 Target Date (RDATX)	125,603	0.3
457(b) American Funds 2060 Target Date (RDKTX)	41,282	0.1	457(b) American Funds 2060 Target Date (RDKTX)	47,051	0.1



March 31, 2019 : \$2,468,698



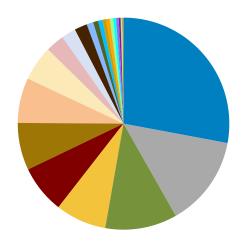


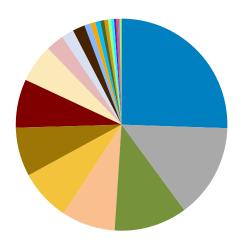
June 30, 2019 : \$2,779,940

Asset Allocation by Segment			Asset Allocation by Segment		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	230,901	9.4	■ Domestic Equity	243,991	8.8
International Equity	37,274	1.5	International Equity	39,818	1.4
Domestic Fixed Income	18,205	0.7	Domestic Fixed Income	20,478	0.7
Cash Equivalent	7,094	0.3	Cash Equivalent	7,691	0.3
■ Target Date Funds	2,175,224	88.1	Target Date Funds	2,467,961	88.8



March 31, 2019 : \$2,468,698 June 30, 2019 : \$2,779,940





Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
401(a) American Funds 2010 Target Date (RDATX)	689,556	27.9	401(a) American Funds 2010 Target Date (RDATX)	709,416	25.5
401(a) American Funds 2045 Target Date (RDHTX)	341,890	13.8	401(a) American Funds 2045 Target Date (RDHTX)	399,949	14.4
401(a) American Funds 2040 Target Date (RDGTX)	271,296	11.0	401(a) American Funds 2040 Target Date (RDGTX)	309,683	11.1
401(a) American Funds 2025 Target Date (RDDTX)	191,994	7.8	401(a) American Funds 2050 Target Date (RDITX)	227,483	8.2
401(a) American Funds 2030 Target Date (RDETX)	181,195	7.3	401(a) American Funds 2025 Target Date (RDDTX)	218,357	7.9
401(a) American Funds 2035 Target Date (RDFTX)	178,543	7.2	401(a) American Funds 2035 Target Date (RDFTX)	207,413	7.5
401(a) American Funds 2050 Target Date (RDITX)	169,583	6.9	401(a) American Funds 2030 Target Date (RDETX)	205,562	7.4
401(a) American Funds 2055 Target Date (RDJTX)	132,006	5.3	401(a) American Funds 2055 Target Date (RDJTX)	161,316	5.8
401(a) Vanguard 500 Index (VFIAX)	70,059	2.8	401(a) Vanguard 500 Index (VFIAX)	77,197	2.8
401(a) MFS Growth R4 (MFEJX)	54,765	2.2	401(a) MFS Growth R4 (MFEJX)	52,508	1.9
■ 401(a) Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	47,980	1.9	■ 401(a) Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	52,460	1.9
401(a) American Funds Europacific Growth R4 (REREX)	24,976	1.0	401(a) American Funds Europacific Growth R4 (REREX)	26,218	0.9
401(a) Vanguard Mid Cap Index (VIMAX)	19,379	0.8	401(a) Touchstone Mid Cap Growth Y (TEGYX)	21,253	8.0
401(a) American Funds 2020 Target Date (RDCTX)	16,261	0.7	401(a) American Funds 2020 Target Date (RDCTX)	20,758	0.7
401(a) DFA US Large Cap Value (DFLVX)	13,931	0.6	401(a) Vanguard Mid Cap Index (VIMAX)	16,926	0.6
401(a) Touchstone Mid Cap Growth Y (TEGYX)	13,902	0.6	401(a) DFA US Large Cap Value (DFLVX)	15,645	0.6
401(a) Vanguard Total Intl Stock Index (VTIAX)	12,298	0.5	401(a) Vanguard Total Intl Stock Index (VTIAX)	13,600	0.5
401(a) Vanguard Total Bond Index (VBTLX)	11,183	0.5	401(a) Vanguard Total Bond Index (VBTLX)	12,320	0.4
401(a) Vanguard Small Cap Index (VSMAX)	9,925	0.4	401(a) Western Asset Core Plus Bond Fund (WACPX)	8,158	0.3
401(a) Western Asset Core Plus Bond Fund (WACPX)	7,023	0.3	401(a) American Funds 2060 Target Date (RDKTX)	8,024	0.3
401(a) Nationwide Government Money Fund (GMIXX)	6,844	0.3	401(a) Vanguard Small Cap Index (VSMAX)	6,982	0.3
401(a) American Funds 2060 Target Date (RDKTX)	2,900	0.1	401(a) Nationwide Government Money Fund (GMIXX)	6,588	0.2
401(a) American Beacon Small Cap Value Y (ABSYX)	960	0.0	401(a) Vanguard Treasury Money Market Fund (VUSXX)	1,103	0.0
401(a) Vanguard Treasury Money Market Fund (VUSXX)	249	0.0	401(a) American Beacon Small Cap Value Y (ABSYX)	1,021	0.0



Fund	Manager Tenure	Style	Asset Level (millions)	Expense Ratio	Category Median Exp Ratio		utive Qtr & Rank) Year > Index	Ra	0 Year ank ı %-tile	Sharp	0 Year e Ratio ı %-tile	Positive Year	e 5 & 10 Alpha
DFA US Large Cap Value (DFLVX)	7.5	US Equity Large Cap Value	23,905.7	27 bps	89 bps	YES	YES	NO (3)	Yes	44	5	56 (1)	34	-1.05 (4)	-0.84 (2)
MFS Growth R4 (MFEJX)	17.3	US Equity Large Cap Growth	22,937.5	67 bps	89 bps	YES	YES	Yes	Yes	12	12	6	4	1.46	0.35
Touchstone Mid Cap Growth Y (TEGYX)	20.3	US Equity Mid Cap	1,161.9	102 bps	101 bps	YES	YES	Yes	NO (2)	29	45	24	49	0.70	-1.29 (2)
American Beacon Small Cap Value Y (ABSYX)	20.7	US Equity Small Cap	5,777.6	88 bps	111 bps	YES	YES	NO (4)	N/A (0)	21	N/A (5)	23	N/A (5)	-0.75 (3)	N/A
Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	7.9	US Equity Small Cap	1,138.3	84 bps	111 bps	YES	YES	Yes	Yes	34	24	33	29	0.94	1.28
American Funds Europacific Growth R4 (REREX)	27.7	Global Equity Large Cap	151,703.7	84 bps	97 bps	YES	YES	Yes	Yes	35	37	32	37	2.06	1.49
Western Asset Core Plus Bond Fund (WACPX)	12.7	US Fixed Income	28,387.1	45 bps	64 bps	YES	YES	Yes	Yes	4	5	10	14	1.16	2.58

Index Funds	Manager Tenure	Style	Asset Level (millions)	Expense Ratio	Category Median Exp Ratio		Year ng Error %-tile
Vanguard 500 Index (VFIAX)	3.3	US Equity Large Cap Blend	491,898.4	4 bps	89 bps	1	1
Vanguard Mid Cap Index (VIMAX)	21.3	US Equity Mid Cap	106,932.3	5 bps	101 bps	1	1
Vanguard Small Cap Index (VSMAX)	3.3	US Equity Small Cap	94,276.3	5 bps	111 bps	1	1
Vanguard Total Intl Stock Index (VTIAX)	11.0	Global Equity Large Cap	376,565.7	11 bps	97 bps	1	N/A
Vanguard Total Bond Index (VBTLX)	6.5	US Fixed Income	232,159.3	5 bps	64 bps	1	N/A

Target Date Funds	Manager Tenure	Style	Asset Level (millions)	Expense Ratio	Category Median Exp Ratio		utive Qtr & Rank	Ra	Year ink %-tile	Sharpe	O Year e Ratio - %-tile
American Funds 2010 Target Date (RDATX)	12.5	Target Date	3,353.6	69 bps	54 bps	YES	YES	29	20	29	3
American Funds 2015 Target Date (RDBTX)	12.5	Target Date	5,087.5	68 bps	64 bps	YES	YES	30	24	13	3
American Funds 2020 Target Date (RDCTX)	12.5	Target Date	15,540.4	69 bps	69 bps	YES	YES	16	14	8	8
American Funds 2025 Target Date (RDDTX)	12.5	Target Date	21,289.1	71 bps	67 bps	YES	YES	15	8	8	7
American Funds 2030 Target Date (RDETX)	12.5	Target Date	23,101.6	73 bps	71 bps	YES	YES	3	6	3	6
American Funds 2035 Target Date (RDFTX)	12.5	Target Date	18,285.3	74 bps	69 bps	YES	YES	4	7	4	5
American Funds 2040 Target Date (RDGTX)	12.5	Target Date	15,941.8	75 bps	74 bps	YES	YES	4	9	4	6
American Funds 2045 Target Date (RDHTX)	12.5	Target Date	11,654.2	75 bps	71 bps	YES	YES	4	7	4	2
American Funds 2050 Target Date (RDITX)	12.5	Target Date	9,765.6	77 bps	74 bps	YES	YES	3	6	3	5
American Funds 2055 Target Date (RDJTX)	9.5	Target Date	5,208.2	77 bps	72 bps	YES	YES	5	N/A (5)	4	N/A (5)
American Funds 2060 Target Date (RDKTX)	4.4	Target Date	1,720.6	79 bps	71 bps	YES	YES	N/A (5)	N/A (5)	N/A (5)	N/A (5)

Fund meets criteria

Fund does not currently meet criteria

Fund has not met criteria for more than 4 quarters

*Less than 4 consecutive quarterly returns below the index and peer rankings below the 75th percentile

"More than 4 quarters" evaluation criteria excludes Index Funds

							Perform	ance(%)						
	Q	TR	Y	TD	1	YR		YR	5 `	YR	7	YR	10	YR
Domestic Equity		(00)		(00)		(00)	44.40	(0.0)			40.00	(0)		/ - \
DFA US Large Cap Value (DFLVX)	3.09	(62)	14.22	(69)	2.96	(88)	11.10	(36)	7.15	(44)	13.30	(3)	14.36	(5)
Russell 1000 Value Index	3.84	(38)	16.24	(34)	8.46	(31)	10.19	(61)	7.46	(33)	12.09	(22)	13.19	(18)
IM U.S. Large Cap Value Equity (MF) Median	3.47		15.17		6.39		10.52		6.90		11.39		12.12	
Vanguard 500 Index (VFIAX)	4.30	(45)	18.53	(38)	10.38	(34)	14.15	(27)	10.68	(15)	13.94	(17)	14.67	(13
S&P 500 Index	4.30	(45)	18.54	(38)	10.42	(34)	14.19	(26)	10.71	(14)	13.98	(16)	14.70	(12
IM U.S. Large Cap Core Equity (MF) Median	4.17		17.88		9.26		13.11		9.33		12.89		13.36	
MFS Growth R4 (MFEJX)	6.55	(12)	25.46	(11)	14.84	(12)	19.91	(22)	14.43	(12)	16.78	(9)	16.59	(12
Russell 1000 Growth Index	4.64	(56)	21.49	(54)	11.56	(36)	18.07	(45)	13.39	(30)	15.76	(25)	16.28	(18
IM U.S. Large Cap Growth Equity (MF) Median	4.77		21.80		10.56		17.71		12.53		14.98		15.09	
Vanguard Mid Cap Index (VIMAX)	4.36	(54)	21.86	(43)	7.83	(43)	12.32	(49)	8.82	(43)	13.37	(30)	15.21	(21
CRSP U.S. Mid Cap TR Index	4.37	(54)	21.90	(43)	7.85	(42)	12.36	(48)	8.85	(42)	13.39	(29)	15.16	(22
IM U.S. Mid Cap Equity (MF) Median	4.56		20.78		6.26		12.16		7.78		12.14		13.57	
Touchstone Mid Cap Growth Y (TEGYX)	5.64	(66)	27.96	(34)	14.01	(39)	17.85	(31)	11.62	(29)	15.12	(27)	14.92	(45
Russell Midcap Growth Index	5.40	(70)	26.08	(63)	13.94	(41)	16.49	(40)	11.10	(35)	14.76	(31)	16.02	(20
IM U.S. Mid Cap Growth Equity (MF) Median	6.39		26.79		12.89		15.94		10.36		13.67		14.71	
American Beacon Small Cap Value Y (ABSYX)	1.71	(10)	14.17	(13)	-7.71	(30)	8.52	(35)	4.68	(21)	10.57	(10)	N/A	
Russell 2000 Value Index	1.38	(16)	13.47	(28)	-6.24	(19)	9.81	(16)	5.39	(13)	10.31	(16)	12.40	(26
IM U.S. Small Cap Value Equity (MF) Median	0.09		12.25		-9.17		7.42		3.31		8.58		11.36	
Vanguard Small Cap Index (VSMAX)	2.87	(16)	19.51	(8)	2.26	(5)	12.38	(15)	7.72	(17)	12.68	(10)	14.79	(8)
CRSP U.S. Small Cap TR Index	2.86	(16)	19.54	(8)	2.29	(5)	12.37	(15)	7.70	(17)	12.83	(8)	15.14	(7)
IM U.S. Small Cap Equity (MF) Median	0.99		13.06		-7.48		9.28		4.86		9.92		12.41	
Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	2.67	(32)	19.32	(26)	-1.46	(41)	14.65	(52)	9.25	(34)	12.96	(31)	15.48	(24
Russell 2000 Growth Index	2.75	(32)	20.36	(25)	-0.49	(32)	14.69	(51)	8.63	(41)	12.87	(31)	14.41	(39)
IM U.S. Small Cap Growth Equity (MF) Median	1.08		16.02		-3.54		14.74		7.07		11.05		13.35	
International Facility														
International Equity Vanguard Total Intl Stock Index (VTIAX)	2.75	(76)	13.27	(76)	0.57	(55)	8.94	(45)	2.31	(45)	6.55	(48)	N/A	
FTSE Global ex USA All Cap Index (Net)	2.85	(75)	13.35	(75)	0.50	(55)	9.19	(43)	2.40	(43)	6.70	(45)	6.97	(44
IM International Large Cap Equity (MF) Median	3.97	()	16.13	(- 0)	0.91	()	8.62	(: •)	2.05	(: •)	6.47	(: •)	6.72	(**)
American Funds Europacific Growth R4 (REREX)	3.78	(75)	17.40	(61)	1.57	(59)	10.45	(29)	4.09	(35)	8.06	(22)	7.78	(37
MSCI AC World ex USA (Net)	2.98	(92)	13.60	(98)	1.29	(63)	9.39	(54)	2.16	(73)	6.36	(71)	6.54	(73
IM International Large Cap Growth Equity (MF) Median	4.36	` '	17.79	` '	2.14	` '	9.61	` '	3.08	` '	6.92	` '	7.39	

^{*}The interest rate for the Guaranteed Income Fund is announced in advance. The current annualized rate of return is 3.5% from now until end of 2019.



							Perform	ance(%)						
	Q	TR	Y.	TD	1	YR	3 `	YR	5 `	YR	7	YR	10	YR
Target Date Funds														
American Funds 2010 Target Date (RDATX)	2.50	(86)	8.53	(75)	6.08	(49)	5.60	(66)	4.39	(29)	6.32	(22)	7.84	(20)
Morningstar Category Target-Date 2000-2010	2.87	(53)	9.13	(58)	5.93	(53)	5.82	(53)	3.89	(64)	5.34	(74)	6.70	(73)
IM Mixed-Asset Target 2010 (MF) Median	2.90		9.33		6.06		5.84		4.09		5.68		7.37	
American Funds 2015 Target Date (RDBTX)	2.62	(85)	9.20	(84)	6.34	(37)	6.09	(64)	4.70	(30)	7.03	(17)	8.33	(24)
Morningstar Category Target-Date 2011-2015	2.96	(49)	10.07	(52)	5.95	(51)	6.35	(50)	4.20	(57)	5.86	(76)	7.30	(77)
IM Mixed-Asset Target 2015 (MF) Median	2.95		10.17		6.05		6.32		4.37		6.44		8.03	
American Funds 2020 Target Date (RDCTX)	2.73	(78)	9.68	(79)	6.22	(37)	6.89	(49)	5.15	(15)	7.90	(7)	9.06	(14
Morningstar Category Target-Date 2016-2020	3.03	(55)	10.69	(51)	5.90	(51)	6.69	(57)	4.33	(55)	6.29	(60)	7.76	(61)
IM Mixed-Asset Target 2020 (MF) Median	3.07		10.71		5.90		6.85		4.42		6.67		8.19	
American Funds 2025 Target Date (RDDTX)	2.92	(74)	10.89	(76)	6.07	(47)	8.02	(40)	5.68	(15)	9.15	(4)	10.11	(8)
Morningstar Category Target-Date 2021-2025	3.17	(48)	11.88	(52)	5.97	(53)	7.86	(49)	4.92	(50)	7.40	(54)	8.81	(60
IM Mixed-Asset Target 2025 (MF) Median	3.16		11.93		6.01		7.83		4.90		7.50		9.17	
American Funds 2030 Target Date (RDETX)	3.00	(71)	12.25	(71)	5.91	(48)	9.51	(25)	6.53	(3)	10.09	(3)	10.87	(6)
Morningstar Category Target-Date 2026-2030	3.25	(46)	13.00	(51)	5.82	(49)	8.65	(50)	5.31	(51)	7.89	(61)	9.14	(61
IM Mixed-Asset Target 2030 (MF) Median	3.21		13.01		5.77		8.63		5.34		8.22		9.57	
American Funds 2035 Target Date (RDFTX)	3.12	(70)	14.02	(51)	5.79	(42)	10.75	(11)	7.16	(4)	10.65	(4)	11.22	(7)
Morningstar Category Target-Date 2031-2035	3.34	(44)	14.05	(49)	5.74	(45)	9.66	(47)	5.68	(53)	8.74	(53)	9.92	(56
IM Mixed-Asset Target 2035 (MF) Median	3.28		14.03		5.55		9.55		5.78		8.79		10.11	
American Funds 2040 Target Date (RDGTX)	3.11	(71)	14.56	(55)	5.70	(37)	11.19	(12)	7.36	(4)	10.89	(3)	11.41	(9)
Morningstar Category Target-Date 2036-2040	3.33	(45)	14.72	(51)	5.49	(44)	9.95	(54)	5.89	(50)	8.88	(65)	9.96	(63
IM Mixed-Asset Target 2040 (MF) Median	3.26		14.76		5.30		10.01		5.89		9.20		10.30	
American Funds 2045 Target Date (RDHTX)	3.19	(66)	14.77	(67)	5.66	(39)	11.41	(13)	7.52	(4)	11.00	(4)	11.48	(7)
Morningstar Category Target-Date 2041-2045	3.42	(42)	15.35	(49)	5.50	(46)	10.52	(47)	6.16	(49)	9.44	(53)	10.46	(58
IM Mixed-Asset Target 2045 (MF) Median	3.33		15.32		5.41		10.39		6.16		9.49		10.58	
American Funds 2050 Target Date (RDITX)	3.19	(68)	14.94	(65)	5.67	(37)	11.56	(9)	7.58	(3)	11.05	(3)	11.51	(6)
Morningstar Category Target-Date 2046-2050	3.39	(43)	15.45	(47)	5.32	(50)	10.37	(51)	6.13	(51)	9.24	(70)	10.28	(67
IM Mixed-Asset Target 2050 (MF) Median	3.32		15.39		5.32		10.38		6.14		9.60		10.63	
American Funds 2055 Target Date (RDJTX)	3.19	(70)	14.92	(74)	5.63	(39)	11.53	(14)	7.57	(5)	11.03	(5)	N/A	
Morningstar Category Target-Date 2055	3.42	(43)	15.63	(46)	5.35	(51)	10.71	(45)	6.33	(47)	N/A		N/A	
IM Mixed-Asset Target 2055 (MF) Median	3.35		15.51		5.36		10.63		6.26		9.74		10.65	
American Funds 2060 Target Date (RDKTX)	3.20	(72)	14.86	(84)	5.64	(43)	11.50	(22)	N/A		N/A		N/A	
Morningstar Category Target Date 2060+	3.46	(47)	15.79	(51)	5.40	(53)	10.86	(54)	N/A		N/A		N/A	
IM Mixed-Asset Target 2060+ (MF) Median	3.41		15.80		5.47		10.91		6.62		N/A		N/A	

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							Perform	ance(%)						
	Q	TR	Y.	TD	1 `	YR	3 `	YR	5	YR	7	YR	10	YR
Fixed Income														
Vanguard Total Bond Index (VBTLX)	3.07	(1)	6.11	(2)	7.85	(1)	2.22	(23)	2.89	(1)	2.54	(11)	3.82	(17)
Blmbg. Barc. U.S. Aggregate Float Adjusted	3.15	(1)	6.25	(1)	7.97	(1)	2.32	(19)	2.96	(1)	2.64	(8)	3.93	(15)
IM U.S. Intermediate Duration Fixed Income (MF) Median	1.87		3.87		5.25		1.61		1.77		1.65		2.70	
Western Asset Core Plus Bond Fund (WACPX)	3.90	(4)	8.22	(6)	9.46	(5)	4.20	(9)	4.28	(4)	4.24	(8)	6.70	(5)
Blmbg. Barc. U.S. Aggregate Index	3.08	(50)	6.11	(76)	7.87	(45)	2.31	(84)	2.95	(48)	2.62	(76)	3.90	(94)
IM U.S. Broad Market Core+ Fixed Income (MF) Median	3.07		6.81		7.77		3.07		2.93		3.08		4.90	
Nationwide Government Money Fund (GMIXX)	0.50	(63)	1.00	(62)	1.84	(65)	0.96	(62)	0.58	(62)	0.41	(62)	0.29	(66)
90 Day U.S. Treasury Bill	0.64	(2)	1.24	(5)	2.31	(8)	1.37	(11)	0.85	(12)	0.63	(11)	0.47	(11)
IM U.S. Taxable Money Market (MF) Median	0.52	. ,	1.05	. /	1.96	. /	1.06	. ,	0.64	. ,	0.46	. ,	0.33	. ,

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						Perform	nance(%)					
	Y	TD	20	18	20	17	20	116	20	15	20)14
Domestic Equity												
Domestic Equity DFA US Large Cap Value (DFLVX)	14.22	(69)	-11.65	(89)	18.97	(20)	18.89	(13)	-3.49	(49)	10.07	(69)
Russell 1000 Value Index	16.24	(34)	-8.27	(35)	13.66	(76)	17.34	(20)	-3.83	(57)	13.45	(9)
IM U.S. Large Cap Value Equity (MF) Median	15.17	(= 1)	-9.09	()	16.36	(1.5)	13.85	(==)	-3.58	(01)	10.82	(-)
Vanguard 500 Index (VFIAX)	18.53	(38)	-4.43	(31)	21.79	(39)	11.93	(26)	1.36	(32)	13.64	(16)
S&P 500 Index	18.54	(38)	-4.38	(31)	21.83	(38)	11.96	(26)	1.38	(32)	13.69	(16)
IM U.S. Large Cap Core Equity (MF) Median	17.88		-5.60		21.17		10.06		0.14		11.36	
MFS Growth R4 (MFEJX)	25.46	(11)	2.59	(15)	30.88	(36)	2.45	(47)	7.38	(31)	8.78	(72)
Russell 1000 Growth Index	21.49	(54)	-1.51	(58)	30.21	(41)	7.08	(8)	5.67	(54)	13.05	(23)
IM U.S. Large Cap Growth Equity (MF) Median	21.80		-0.85		29.47		2.17		6.01		10.46	
Vanguard Mid Cap Index (VIMAX)	21.86	(43)	-9.23	(45)	19.25	(46)	11.22	(54)	-1.34	(40)	13.76	(8)
CRSP U.S. Mid Cap TR Index	21.90	(43)	-9.22	(45)	19.30	(46)	11.25	(53)	-1.28	(39)	13.83	(7)
IM U.S. Mid Cap Equity (MF) Median	20.78		-10.40		18.40		11.63		-2.46		8.11	
Fouchstone Mid Cap Growth Y (TEGYX)	27.96	(34)	-3.52	(36)	24.47	(54)	4.88	(50)	1.13	(44)	13.23	(5)
Russell Midcap Growth Index	26.08	(63)	-4.75	(45)	25.27	(44)	7.33	(26)	-0.20	(56)	11.90	(11)
IM U.S. Mid Cap Growth Equity (MF) Median	26.79		-5.18		24.74		4.80		0.53		7.26	
American Beacon Small Cap Value Y (ABSYX)	14.17	(13)	-15.70	(51)	8.65	(45)	26.61	(58)	-5.10	(15)	4.61	(32)
Russell 2000 Value Index	13.47	(28)	-12.86	(27)	7.84	(55)	31.74	(22)	-7.47	(43)	4.22	(36)
IM U.S. Small Cap Value Equity (MF) Median	12.25		-15.68		8.33		28.69		-8.73		2.91	
Vanguard Small Cap Index (VSMAX)	19.51	(8)	-9.31	(23)	16.24	(18)	18.30	(74)	-3.64	(29)	7.50	(8)
CRSP U.S. Small Cap TR Index	19.54	(8)	-9.33	(23)	16.24	(18)	18.26	(74)	-3.68	(30)	7.54	(7)
IM U.S. Small Cap Equity (MF) Median	13.06		-13.22		10.32		22.36		-5.97		3.29	
Goldman Sachs Small Cap Growth Insights Instl (GSIOX)	19.32	(26)	-7.15	(57)	18.41	(41)	13.89	(35)	0.62	(25)	6.72	(6)
Russell 2000 Growth Index	20.36	(25)	-9.31	(73)	22.17	(30)	11.32	(54)	-1.38	(35)	5.60	(9)
IM U.S. Small Cap Growth Equity (MF) Median	16.02		-6.86		17.29		11.39		-3.32		0.65	
International Equity												
Vanguard Total Intl Stock Index (VTIAX)	13.27	(76)	-14.43	(40)	27.55	(45)	4.67	(11)	-4.26	(83)	-4.17	(31)
FTSE Global ex USA All Cap Index (Net)	13.35	(75)	-14.61	(40)	27.41	(45)	4.72	(11)	-4.29	(83)	-3.39	(27)
IM International Large Cap Equity (MF) Median	16.13		-15.27		26.64		0.39		-1.19		-5.50	
American Funds Europacific Growth R4 (REREX)	17.40	(61)	-15.22	(55)	30.70	(33)	0.69	(35)	-0.82	(62)	-2.66	(25)
MSCI AC World ex USA (Net)	13.60	(98)	-14.20	(44)	27.19	(65)	4.50	(11)	-5.66	(88)	-3.87	(34)
IM International Large Cap Growth Equity (MF) Median	17.79		-15.05		29.65		-0.58		-0.39		-4.76	

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						Perform	ance(%)					
	Y	ΓD	20	18	20	17	20)16	20	15	20)14
Target Date Funds												
American Funds 2010 Target Date (RDATX)	8.53	(75)	-2.80	(17)	9.98	(63)	7.13	(14)	-1.15	(46)	6.37	(2)
Morningstar Category Target-Date 2000-2010	9.13	(58)	-3.26	(33)	10.21	(53)	5.80	(59)	-1.31	(59)	4.09	(52
IM Mixed-Asset Target 2010 (MF) Median	9.33		-3.58		10.24		6.06		-1.20		4.11	
American Funds 2015 Target Date (RDBTX)	9.20	(84)	-3.04	(18)	10.77	(68)	7.23	(19)	-1.04	(38)	6.34	(8)
Morningstar Category Target-Date 2011-2015	10.07	(52)	-3.94	(53)	11.30	(52)	6.13	(66)	-1.40	(56)	4.45	(52
IM Mixed-Asset Target 2015 (MF) Median	10.17		-3.90		11.40		6.40		-1.29		4.47	
American Funds 2020 Target Date (RDCTX)	9.68	(79)	-3.08	(10)	12.50	(54)	6.66	(39)	-0.20	(7)	6.35	(8)
Morningstar Category Target-Date 2016-2020	10.69	(51)	-4.59	(53)	12.19	(59)	6.25	(55)	-1.59	(57)	4.73	(50
IM Mixed-Asset Target 2020 (MF) Median	10.71		-4.52		12.69		6.36		-1.44		4.72	
American Funds 2025 Target Date (RDDTX)	10.89	(76)	-3.77	(12)	14.90	(52)	6.91	(49)	-0.16	(6)	6.38	(20
Morningstar Category Target-Date 2021-2025	11.88	(52)	-5.39	(52)	14.59	(54)	6.75	(56)	-1.60	(61)	5.07	(53
IM Mixed-Asset Target 2025 (MF) Median	11.93		-5.26		14.95		6.87		-1.37		5.19	
American Funds 2030 Target Date (RDETX)	12.25	(71)	-4.53	(11)	17.97	(22)	7.34	(48)	0.18	(3)	6.69	(12
Morningstar Category Target-Date 2026-2030	13.00	(51)	-6.33	(51)	16.38	(58)	7.36	(47)	-1.81	(63)	5.08	(55
IM Mixed-Asset Target 2030 (MF) Median	13.01		-6.32		16.92		7.30		-1.47		5.18	
American Funds 2035 Target Date (RDFTX)	14.02	(51)	-5.52	(10)	20.63	(9)	7.65	(54)	0.23	(3)	6.66	(19
Morningstar Category Target-Date 2031-2035	14.05	(49)	-7.06	(48)	18.45	(56)	7.15	(68)	-1.75	(59)	5.20	(59
IM Mixed-Asset Target 2035 (MF) Median	14.03		-7.26		18.72		7.75		-1.53		5.40	
American Funds 2040 Target Date (RDGTX)	14.56	(55)	-5.85	(7)	21.59	(10)	7.82	(52)	0.21	(3)	6.60	(22
Morningstar Category Target-Date 2036-2040	14.72	(51)	-7.76	(46)	19.30	(58)	7.96	(50)	-2.00	(63)	5.29	(54
IM Mixed-Asset Target 2040 (MF) Median	14.76		-7.97		19.74		7.95		-1.66		5.38	
American Funds 2045 Target Date (RDHTX)	14.77	(67)	-5.90	(5)	21.98	(13)	7.93	(57)	0.20	(4)	6.72	(22
Morningstar Category Target-Date 2041-2045	15.35	(49)	-8.13	(49)	20.42	(56)	7.96	(56)	-1.81	(56)	5.34	(56
IM Mixed-Asset Target 2045 (MF) Median	15.32		-8.19		20.65		8.15		-1.65		5.55	
American Funds 2050 Target Date (RDITX)	14.94	(65)	-5.92	(5)	22.15	(12)	7.98	(55)	0.28	(3)	6.64	(25
Morningstar Category Target-Date 2046-2050	15.45	(47)	-8.44	(48)	20.41	(61)	8.23	(48)	-1.96	(59)	5.42	(55
IM Mixed-Asset Target 2050 (MF) Median	15.39		-8.54		20.80		8.10		-1.63		5.61	
American Funds 2055 Target Date (RDJTX)	14.92	(74)	-5.92	(5)	22.15	(15)	7.93	(59)	0.25	(3)	6.70	(28
Morningstar Category Target-Date 2055	15.63	(46)	-8.43	(49)	20.99	(54)	8.01	(56)	-1.62	(49)	5.51	(48
IM Mixed-Asset Target 2055 (MF) Median	15.51		-8.48		21.12		8.25		-1.67		5.43	
American Funds 2060 Target Date (RDKTX)	14.86	(84)	-5.95	(6)	22.09	(21)	8.00	(44)	N/A		N/A	
Morningstar Category Target Date 2060+	15.79	(51)	-8.51	(48)	21.22	(55)	8.02	(44)	N/A		N/A	
IM Mixed-Asset Target 2060+ (MF) Median	15.80		-8.66		21.30		7.86		-1.01		N/A	

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						Perform	ance(%)					
	Y ⁻	ΓD	20	18	20)17	20	16	20	15	20	14
Fixed Income												
Vanguard Total Bond Index (VBTLX)	6.11	(2)	-0.03	(83)	3.56	(4)	2.60	(24)	0.40	(55)	5.89	(1)
Blmbg. Barc. U.S. Aggregate Float Adjusted	6.25	(1)	-0.08	(85)	3.63	(3)	2.75	(20)	0.44	(55)	5.85	(1)
IM U.S. Intermediate Duration Fixed Income (MF) Median	3.87		0.65		1.68		1.76		0.51		2.01	
Western Asset Core Plus Bond Fund (WACPX)	8.22	(6)	-1.49	(70)	6.96	(2)	4.79	(33)	1.29	(2)	7.68	(6)
Blmbg. Barc. U.S. Aggregate Index	6.11	(76)	0.01	(20)	3.54	(77)	2.65	(83)	0.55	(13)	5.97	(32)
IM U.S. Broad Market Core+ Fixed Income (MF) Median	6.81		-0.94		4.49		4.19		-0.26		5.23	
Nationwide Government Money Fund (GMIXX)	1.00	(62)	1.40	(65)	0.46	(59)	0.04	(54)	0.00	(89)	0.00	(91)
90 Day U.S. Treasury Bill	1.24	(5)	1.87	(10)	0.86	(12)	0.25	(16)	0.03	(20)	0.04	(9)
IM U.S. Taxable Money Market (MF) Median	1.05	. ,	1.54	, ,	0.55	. ,	0.06		0.01	, ,	0.01	. ,

^{*}The interest rate for the Guaranteed Income Fund is announced in advance. The current annualized rate of return is 3.5% from now until end of 2019.

2019 Fiduciary Documentation

Quarterly	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th 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 procedure review				
Employee education review				
Fee analysis	✓	✓		
Plan recordkeeping & administration services review				
Other Projects				
Fiduciary Module	\checkmark	✓		

Cybersecurity & Recordkeeping – For Plan Sponsors

Some of the top cybersecurity risks facing Plan Sponsors are:

- Potential financial losses for participants
- Disruption of internal operations
- Potential financial costs to the institution
- Plan participants losing confidence
- Cost of remediation and litigation
- Fines and penalties the government may assess

What is a breach?*

Unauthorized use of sensitive personal information that creates a substantial risk of identity theft or fraud.

*Source: Federal Office of Management and Budget – Memo on Preparing for and Responding to a Breach of Personally Identifiable Information.



Preventative Measures to Consider – For Plan Sponsors

Plan Sponsors have options to help protect themselves and their participants from cyber attacks and breaches:

- Employees involved with the Plan should be properly trained on protecting Plan data.
- Consider a recordkeeper that offers cybersecurity guarantees and independent system audits
- Establish a Cybersecurity Policy*
 - Identify: List all the equipment and data
 - Protect: Control access, update software, and train employees
 - Detect: Monitor networks and computers for issues
 - Respond: Create a plan and test regularly
 - Recover: Repair, restore, and assess the breach
- Research potential cybersecurity insurance options

*Source: https://www.ftc.gov/tips-advice/business-center/small-businesses/cybersecurity/nist-framework



Cybersecurity Guarantees & System Audits

Most recordkeepers offer a security guarantee that protects Plan assets in the event there is an unauthorized distribution.

- Participants may need to take certain actions to be eligible for protection including:
 - Activating their account online
 - Enabling the multi-factor authentication feature
 - Maintaining the confidential nature of their account
 - Promptly reporting any suspicious activity

In addition, most recordkeepers are engaging CPAs to conduct independent reviews verifying internal information about their financials and systems:

Service Organization Control (SOC)*	Description
SOC 1 – Used for Auditing	Internal Control Over Financial Reporting
SOC 2 – Restricted Reports on Trust Services Criteria	Report On Controls for Security, Availability, Processing Integrity, Confidentiality Or Privacy

^{*}Source: https://www.aicpa.org/interestareas/frc/assuranceadvisoryservices/sorhome.html

Next Quarter's Module Topic: Financial Wellness



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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