Callan

October 31, 2020

The North Carolina Supplemental Retirement Plans

Investment Measurement Service Monthly Review

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Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of October 31, 2020, with the distribution as of September 30, 2020. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	October 31, 2020 Market Value	Net New Inv.	Inv. Return	September 30, 2020 Market Value
North Carolina SRP 401k & 457				
Tier II Passive	\$3,642,548,903	\$(18,190,412)	\$(75,926,439)	\$3,736,665,754
Fixed Income Passive	110,120,383	490,310	(488,749)	110,118,822
Treasury Inflation Protected	286,627,880	3,149,965	(1,271,550)	284,749,464
Large Cap Passive	2,876,554,384	(17,401,838)	(77,990,278)	2,971,946,500
SMID Cap Passive	295,154,875	(3,578,099)	5,432,944	293,300,030
International Passive	74,091,380	(850,751)	(1,608,806)	76,550,938
Tier II Active	\$9,397,948,752	\$(2,343,675)	\$(58,878,803)	\$9,459,171,230
Stable Value Fund	2,319,517,135	37,013,436	4,508,322	2,277,995,376
Fixed Income Fund	1,975,250,503	3,474,454	(9,495,814)	1,981,271,863
Inflation Responsive Fund	427,947,391	(1,043,333)	(6,170,002)	435,160,726
Large Cap Core Equity Fund	1,914,352,141	(24,653,610)	(28,445,796)	1,967,451,546
Small/Mid Cap Equity Fund	862,068,583	(8,335,216)	12,695,652	857,708,147
International Equity Fund	1,898,812,999	(8,799,407)	(31,971,166)	1,939,583,572
Total Fund	\$13,040,497,655	\$(20,534,087)	\$(134,805,242)	\$13,195,836,984



The table below details the rates of return for the fund's investment managers over various time periods ended October 31, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

		Last	Year		
	Last	3	to	Last	
	Month	Months	Date	Year	
Tier 2: Passive (Net of Fee)					
Fixed Income Passive	(0.44%)	(1.30%)	6.29%	6.16%	
Blmbg Barclays Aggregate	(0.45%)	(1.30%)	6.32%	6.19%	
Treasury Inflation Protected Securities	(0.44%)	0.68%	6.35%	7.08%	
Blmbg US TIPS 1-10 Yr	(0.41%)	0.64%	6.24%	7.00%	
Large Cap Passive	(2.65%)	0.38%	2.79%	9.74%	
S&P 500 Index	(2.66%)	0.37%	2.77%	9.71%	
SMID Cap Passive	1.81%	3.68%	(4.25%)	1.95%	
Russell 2500 Index	1.81%	3.67%	(4.11%)	2.12%	
International Passive	(2.16%)	(0.46%)	(7.31%)	(2.43%)	
MSCI ACWI ex US	(2.15%)	(0.47%)	(7.47%)	(2.61%)	



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	Last	Last	Last	Last	
	3	5	7	10	
	Years	Years	Years	Years	
Tier 2: Passive (Net of Fee)					
Fixed Income Passive	5.01%	4.04%	3.71%	3.46%	
Blmbg Barclays Aggregate	5.06%	4.08%	3.78%	3.55%	
Large Cap Passive	10.45%	11.71%	11.47%	12.93%	
S&P 500 Index	10.42%	11.71%	11.53%	13.01%	
SMID Cap Passive	4.44%	8.11%	7.43%	10.54%	
Russell 2500 Index	4.54%	8.18%	7.48%	10.60%	
International Passive	0.04%	4.60%	2.50%	3.53%	
MSCI ACWI ex US	(0.19%)	4.26%	2.33%	3.43%	



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		Last	Year		
	Last	3	to	Last	
	Month	Months	Date	Year	
Tier 2: Active (Net of Fee)					
Stable Value Fund	0.20%	0.58%	2.03%	2.48%	
3 Yr Constant Maturity Yield	0.02%	0.04%	0.31%	0.58%	
T-Bill + 1.5%	0.13%	0.40%	1.89%	2.42%	
Fixed Income Fund	(0.48%)	(0.99%)	6.97%	7.00%	
Blmbg Barclays Aggregate	(0.45%)	(1.30%)	6.32%	6.19%	
TCW Core Plus	(0.31%)	(0.79%)	7.93%	7.90%	
Blmbg Barclays Aggregate	(0.45%)	(1.30%)	6.32%	6.19%	
Prudential Core Plus	(0.65%)	(1.19%)	6.08%	6.20%	
Blmbg Barclays Aggregate	(0.45%)	(1.30%)	6.32%	6.19%	
Inflation Responsive Fund	(1.42%)	(0.61%)	(6.12%)	(5.59%)	
Inflation Responsive Benchmark	(1.43%)	(0.68%)	(6.37%)	(5.85%)	
BlackRock Strategic Completion	(1.42%)	(0.60%)	(6.06%)	(5.52%)	
BlackRock Custom Benchmark	(1.43%)	(0.68%)	(6.37%)	(5.85%)	
Black Cox Castom Benorman	(1.4070)	(0.0070)	(0.07 70)	(0.0070)	
Large Cap Core Equity Fund	(1.50%)	1.56%	5.56%	13.06%	
Russell 1000 Index	(2.41%)	0.92%	3.83%	10.87%	
Hotchkis & Wiley Large Cap Value	1.74%	0.88%	(18.65%)	(13.40%)	
Russell 1000 Value Index	(1.31%)	0.24%	(12.74%)	(7.57%)	
Macquarie Large Cap Value	(2.70%)	(2.27%)	(14.27%)	(9.00%)	
Russell 1000 Value Index	(1.31%)	0.24%	(12.74%)	(7.57%)	
Sands Capital Large Cap Growth	(1.23%)	5.44%	44.81%	56.85%	
Russell 1000 Growth Index	(3.40%)	1.56%	20.11%	29.22%	
Loomis SaylesLarge Cap Growth	(2.50%)	2.78%	19.30%	28.70%	
Russell 1000 Growth Index	(3.40%)	1.56%	20.11%	29.22%	
BlackRock Russell 1000 Index	(2.40%)	0.95%	3.80%	10.88%	
Russell 1000 Index	(2.41%)	0.92%	3.83%	10.87%	
Small/Mid Cap Equity Fund	1.43%	2.52%	(4.39%)	1.62%	
Russell 2500 Index	1.81%	3.67%	(4.11%)	2.12%	
Earnest Partners Small/Mid Cap Value	2.15%	1.43%	(2.66%)	2.76%	
Russell 2500 Value Index	2.26%	2.79%	(16.54%)	(11.92%)	
Wedge Small/Mid Cap Value	2.49%	2.51%	(17.73%)	(13.95%)	
Russell 2500 Value Index	2.26%	2.79%	(16.54%)	(11.92%)	
Brown Advisory Small/Mid Cap Growth	(0.69%)	2.24%	8.00%	15.80%	
Russell 2500 Growth Index	1.18%	4.92%	12.90%	21.71%	
BlackRock Russell 2500 Index Russell 2500 Index	2.00% 1.81%	3.90% 3.67%	(3.14%) (4.11%)	3.11% 2.12%	
International Equity Fund	(1.68%)	(0.09%)	(4.49%)	1.15%	
Mondrian ACWI ex-US Value	(1.59%)	(1.86%)	(16.33%)	(12.20%)	
Baillie Gifford ACWI ex-US Growth	(1.71%)	1.81%	8.24%	15.66%	
MSCI ACWI ex US	(2.15%)	(0.47%)	(7.47%)	(2.61%)	



The table below details the rates of return for the fund's investment managers over various time periods ended October 31, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Last	Last	Last	Last	
	3	5	7	10	
	Years	Years	Years	Years	
Tier 2: Active (Net of Fee)					
Stable Value Fund	2.42%	2.23%	2.12%	2.33%	
3 Yr Constant Maturity Yield	1.70%	1.51%	1.33%	1.10%	
T-Bill + 1.5%	3.16%	2.70%	2.37%	2.14%	
Fixed Income Fund	5.88%	5.04%	4.42%	4.13%	
Blmbg Barclays Aggregate	5.06%	4.08%	3.78%	3.55%	
TCW Core Plus	5.91%	-	-	-	
Blmbg Barclays Aggregate	5.06%	4.08%	3.78%	3.55%	
Prudential Core Plus	5.92%	5.60%	-	-	
Blmbg Barclays Aggregate	5.06%	4.08%	3.78%	3.55%	
Inflation Responsive Fund	1.25%	3.27%	1.65%	-	
Inflation Responsive Benchmark	0.73%	1.67%	0.12%	0.64%	
Large Cap Core Equity Fund	11.08%	_	_	_	
Russell 1000 Index	10.63%	11.79%	11.46%	13.05%	
Hotchkis & Wiley Large Cap Value	(1.69%)	4.67%	5.69%	9.22%	
Russell 1000 Value Index	1.94%	5.82%	6.50%	9.48%	
Macquarie Large Cap Value	2.23%	5.51%	-	-	
Russell 1000 Value Index	1.94%	5.82%	6.50%	9.48%	
Sands Capital Large Cap Growth	27.59%	20.82%	17.36%	19.03%	
Russell 1000 Growth Index	18.77%	17.32%	16.09%	16.31%	
Loomis SaylesLarge Cap Growth	16.80%	17.12%	-	-	
Russell 1000 Growth Index	18.77%	17.32%	16.09%	16.31%	
	0.440/				
Small/Mid Cap Equity Fund	3.44%	- 0.400/	- - - - - - - - - -	40.000/	
Russell 2500 Index	4.54%	8.18%	7.48%	10.60%	
Earnest Partners Small/Mid Cap Value	3.51%	9.35%	8.69%	11.07%	
Russell 2500 Value Index	(2.14%)	3.91%	4.06%	7.84%	
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Russell 2500 Value Index	(2.14%)	3.91%	4.06%	7.84%	
Brown Advisory Small/Mid Cap Growth	12.08%	13.53%	11.52%	13.62%	
Russell 2500 Growth Index	12.80%	13.30%	11.51%	13.77%	
International Equity Fund	2.04%	6.09%	4.27%	5.24%	
Mondrian ACWI ex-US Value	(3.19%)	1.67%	0.98%	2.69%	
Baillie Gifford ACWI ex-US Growth	7.63%	10.82%	7.89%	8.16%	
MSCI ACWI ex US	7.0070	10.02 /0	7.0570	0.1070	



Callan

September 30, 2020

The North Carolina Supplemental Retirement Plans Executive Summary

Investment Measurement Service Quarterly Review

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U.S. EQUITY

Gains YTD

- S&P +8.9% for the quarter, bringing YTD to +5.6%
- Consumer Discretionary (+15%) and Industrials (+13%) dominated, with Tech (+12%) a close third in risk-on market.
- S&P 500 YTD would be negative if not for Facebook, Microsoft, Amazon, Alphabet, and Apple, representing 33% of the return.
- YTD, pandemic punished some sectors, rewarded others
- Tech +29% YTD; Cons. Disc. +23% (online retailers +60%)
- Energy -48% amid declining crude and natural gas prices
- Demand from hotels/cruise lines/airlines down as those industries have dropped 40%+

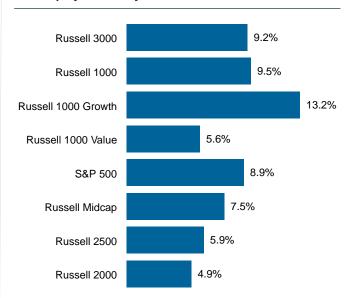
Small cap reverses to trail large cap

- Following a stellar 2Q20 recovery, small cap trailed large.
- Behind large cap by a wide margin over last 12 months

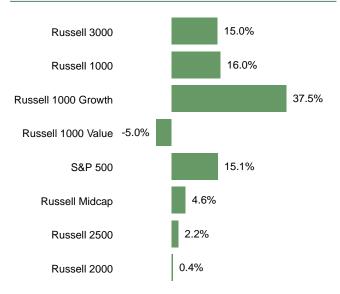
Growth continues to outpace value across market caps

- Growth, value dispersion near all-time high driven by Tech
- YTD RUS1G +25% vs. RUS1V -12%
- Growth stock P/E near 2x historical average across market caps
- Today's index concentration surpasses levels seen in the late 90's Dot-Com boom.
- Index concentration of the top five names is at 5 standard deviations above the 30-year average of approximately 13%.
- Large and small value indices continue to underperform large and small growth in 3Q20 and YTD.
- Higher interest rates, a steeper yield curve, economic growth, and improving consumer confidence are among the catalysts that could result in value outperforming.
- S&P 500 Index currently delivers a dividend yield well above the 10-year Treasury, which can help support current valuation levels.

U.S. Equity: Quarterly Returns

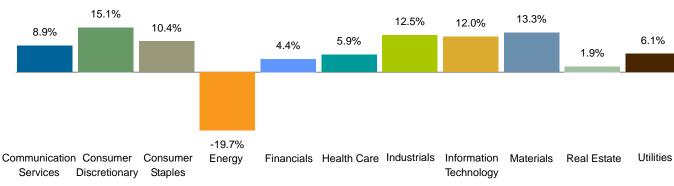


U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices

S&P Sector Returns, Quarter Ended September 30, 2020



Source: S&P Dow Jones Indices



GLOBAL/GLOBAL EX-U.S. EQUITY

Continued recovery into 3Q20

- Returns broadly positive across developed and emerging markets but muted YTD
- Recent support from ultra-low interest rates and upward earnings revisions
- EM recovery driven by global risk-on environment; key countries within EM (China and South Korea) have better managed the pandemic
- Small cap continued to outperform large as lockdowns eased and business confidence improved.

Rebound for cyclicals

- Materials, Industrials, and Consumer Discretionary outperformed as consumption and production resumed.
- Factor performance led by momentum (rebound) and volatility (risk-on market mentality)

U.S. dollar vs. other currencies

 U.S. dollar lost ground versus every developed market currency on expectation of lower-for-longer U.S. rates due to Fed's shift in approach toward inflation and employment.

COVID-19 exacerbated outperformance of growth vs. value

- Growth outpaced value by 34% year-to-date as of Sept. 30.
- Extremely narrow market with performance dominated by Tech
- Growth benefited from strong performance by Information Technology (27%), while Financials (-22%) and Energy (-46%) weighed on value.
- YTD performance gap between growth and value has not been seen over the past 45 years.

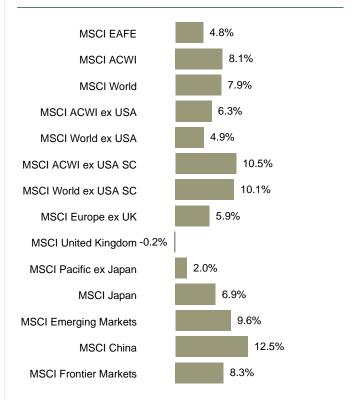
What may stoke value rotation?

- Higher bond yields may be needed to drive value rebound.
- Bond yields correlated to value/growth since the GFC

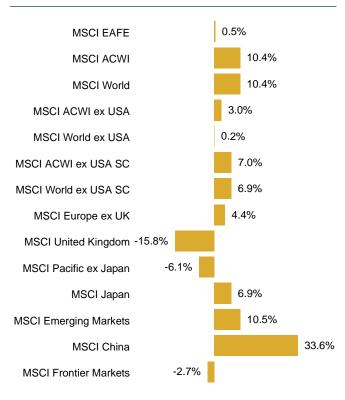
Key drivers: global recovery, U.S. elections

- Management of COVID-19 a key variable to recovery
- Advanced economies have struggled to contain the pandemic relative to emerging markets.
- Asian currencies have maintained resiliency relative to the U.S. dollar due to better COVID-19 management and economic outlook.
- Greater probability of Democratic sweep is expected to pressure USD to the downside on a medium-term basis.
- Potentially easier fiscal policy and a larger budget deficit in the aftermath of a "Blue Wave" may yield lower dollar.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



Source: MSCI



U.S. FIXED INCOME

Treasury yields largely unchanged

- 10-year UST yield at 0.69% in 3Q20, up 3 bps from 2Q20 but off sharply from year-end level of 1.92%
- TIPS did well as inflation expectations rose from 1.34% to 1.63%.
- No rate hikes expected until at least 2023

Bloomberg Barclays Aggregate roughly flat

- Corporate and CMBS the strongest investment grade sectors as investors hunted for yield
- Corporate supply (\$1 trillion YTD) at a record as companies rushed to take advantage of ultra-low interest rates

Risk-on sentiment helped high yield and loans

- Non-investment grade sectors rallied, but remain roughly flat YTD.
- The high yield bond market also experienced high levels of net new issuance (over \$120 billion YTD).

Munis boosted by favorable supply/demand dynamics

- Robust demand and muted supply of tax-exempt municipals
- Issuance in taxable municipals sharply higher
- Tax revenues better than expected, but challenges remain and stimulus uncertain (but needed)

High yield trended higher in quality

- BB/Ba-rated debt, the highest-quality category within high yield, experienced a surge of new issuance as 2020 remains a year of record new issuance across corporate debt.
- Reconstitution of downgraded investment grade debt into high yield has also added to the category.
- BBs now represents over half of the Bloomberg Barclays US High Yield Index.
- Historically, composition changes have generated market inefficiencies that managers can seek to exploit.

Default rate has trended higher, but below GFC levels

 Additionally, spreads at the height of COVID-19 implied a 16.8% default rate, but thus far defaults have been well below market expectations at 5.77%.

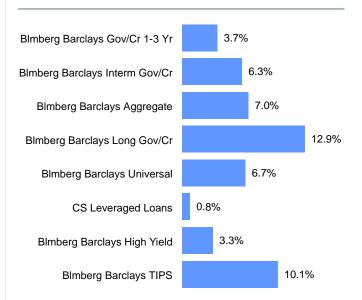
High yield spreads have rallied; managers are putting a greater focus on security selection

- Recovery rates remain low relative to the 30-year average, concentrated within pandemic-sensitive sectors (particularly retail and energy) and subordinated debt.
- The ratio of downgrades to upgrades is higher than in 2008.

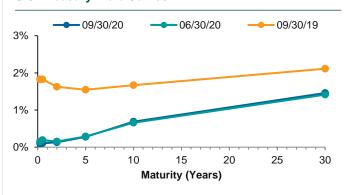
U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns



U.S. Treasury Yield Curves



Sources: Bloomberg, Bloomberg Barclays, Credit Suisse



GLOBAL FIXED INCOME

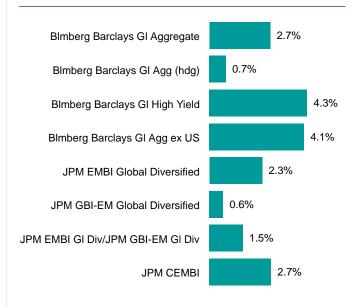
Global fixed income rose amid rate cuts

- Central banks continued to act aggressively to provide support via rate cuts, asset purchase programs, and other forms of stimulus.
- Broad-based U.S. dollar weakness dampened hedged returns as the USD lost 4% versus the euro and the British pound, and 2% versus the yen.
- Over 70% of global sovereign debt has negative real yields, a record high, according to JP Morgan.

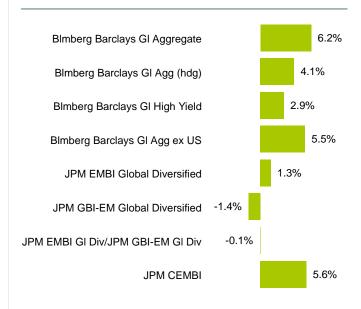
Emerging market debt made up ground

- Emerging market debt indices gained in 3Q20 but remain down from year-end.
- U.S. dollar-denominated index (EMBI Global Diversified) outperformed local currency as U.S. rates fell; returns were mixed across the 70+ constituents, but most were positive.
- Local currency index (GBI-EM Global Diversified) was up slightly but returns varied widely among constituents: Russia:
 -8%; Brazil: -3%; Mexico and S. Africa: +6%
- Staggered inclusion of China bonds continued with the weight rising to 7% in the JPM GBI-EM Global Diversified Index.

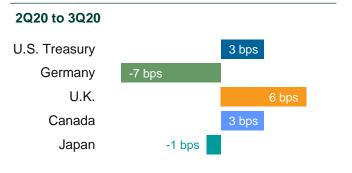
Global Fixed Income: Quarterly Returns



Global Fixed Income: One-Year Returns



Change in 10-Year Global Government Bond Yields



Sources: Bloomberg, Bloomberg Barclays, JP Morgan



A	В	С	D	E	F	G	Н	1
					C+D+E	B*F		F-H
			Custodial		Total Estimated	Total Estimated	Callan Median	
Funds and Sub-Advisors	Assets*	Inv. Mgmt. Fee	Expenses 1	NC Budget ²	Expense (%)	Expenses (\$) 3	Expense ⁴	Difference
NorthCarolina Stable Value Fund	\$2,277,995,376		0.0018%	0.025%	0.30%	\$6,868,156	0.33%	-0.03%
Galliard	\$2,282,777,798	0.275%	0.0000%	0.02070	0.0070	\$6,270,791	0.28%	-0.01%
North Carolina Fixed Income Passive Fund	\$110,118,822	0.020%	0.0255%	0.025%	0.07%	\$77,634	0.15%	-0.08%
Blackrock	\$110.118.822	0.020%	0.0100%			\$22.024	0.02%	0.00%
North Carolina Fixed Income Fund	\$1,981,271,863	0.125%	0.0103%	0.025%	0.16%	\$3,179,941	0.39%	-0.23%
50% TCW	\$991,325,664	0.140%	0.0000%			\$1,391,821	0.22%	-0.08%
50% Prudential	\$989,946,227	0.110%	0.0100%			\$1,088,941	0.22%	-0.11%
North Carolina Inflation Sensitive Fund	\$435,160,726	0.090%	0.0153%	0.025%	0.13%	\$567,014	0.83%	-0.70%
Blackrock	\$435,160,747	0.090%	0.0100%			\$391,645	0.75%	-0.66%
North Carolina Large Cap Passive Fund	\$2,971,946,500	0.005%	0.0115%	0.025%	0.04%	\$1,233,358	0.17%	-0.13%
Blackrock	\$2,971,946,500	0.005%	0.0100%			\$148,597	0.03%	-0.03%
North Carolina Large Cap Core Fund	\$1,967,451,546	0.285%	0.0081%	0.025%	0.32%	\$6,260,431	0.65%	-0.33%
18.75% Hotchkis & Wiley	\$355,516,977	0.400%	0.0000%			\$1,422,068	0.41%	-0.01%
18.75% Macquarie Large Cap Value	\$366,375,898	0.275%	0.0000%			\$1,007,900	0.40%	-0.12%
18.75% Sands Capital Management	\$387,231,742	0.450%	0.0000%			\$1,742,543	0.43%	0.02%
18.75% Loomis Sayles	\$373,890,029	0.378%	0.0000%			\$1,411,809	0.43%	-0.05%
25% BlackRock Advisors Inc., Large Cap Index*	\$484,436,904	0.005%	0.0100%			\$24,222	0.03%	-0.03%
North Carolina SMID Cap Passive Fund	\$293,300,030	0.005%	0.0146%	0.025%	0.04%	\$130,812	0.17%	-0.13%
Blackrock	\$293,300,030	0.005%	0.0100%			\$14,665	0.03%	-0.03%
North Carolina SMID Cap Core Fund	\$857,708,147	0.321%	0.0154%	0.025%	0.36%	\$3,098,900	0.86%	-0.50%
23.75% Earnest Partners	\$203,044,399	0.470%	0.0000%			\$954,309	0.66%	-0.19%
23.75% Wedge	\$197,922,044	0.476%	0.0000%			\$941,713	0.67%	-0.19%
23.75% Brown Advisory	\$210,172,256	0.401%	0.0000%			\$842,370	0.74%	-0.34%
28.75% BlackRock Advisors Inc., SMID Index*	\$246,024,759	0.005%	0.0100%			\$12,301	0.03%	-0.03%
North Carolina International Passive Fund	\$76,550,938	0.021%	0.0359%	0.025%	0.08%	\$62,695	0.13%	-0.05%
Blackrock	\$76,550,938	0.021%	0.0200%			\$16,076	0.08%	-0.06%
North Carolina International Equity	\$1,939,583,572	0.325%	0.0258%	0.025%	0.38%	\$7,296,713	0.81%	-0.43%
50% Baillie Gifford Growth	\$972,340,448	0.264%	0.0000%			\$2,564,062	0.52%	-0.26%
50% Mondrian Investment Partners Value	\$966,194,819	0.387%	0.0000%			\$3,741,106	0.52%	-0.13%
North Carolina TIPS Fund	\$284,749,464	0.025%	0.0127%	0.025%	0.06%	\$178,538	0.16%	-0.10%
Blackrock	\$284,749,464	0.025%	0.0000%			\$71,187	0.14%	-0.12%
Total	\$13,195,836,984	0.182%	0.0161%	0.025%	0.22%	\$28,954,192	0.33%	

*Individual Manager Assets do not sum to Fund asset class totals due to residual/closing accounts.

¹ Based on annualized monthly fee accruals as of 09/30/2020

²The cost of the budget associated with the management of the Supplemental Retirement Plans, borne by each investment option in proportion to the pro-rate share of the applicable assets in that fund.

³ Manager fee estimates reflect investment management fee only, does not include \$31 per participant record-keeping fee.

⁴The median expenses for White Label composites are compared against their respective Callan Mutual Fund Institutional Universe, while the individual managers are compared to peers with the same vehicle and strategy assets. The total fund median represents asset-weighted investment management fees for plans greater than \$1 billion in the Callan DC index.

North Carolina Supplemental Retirement Plans Active Management Scorecard - Rolling 3 Years

			Large	e Cap Equity					
	3 Years to	09/30/2020	3 Years to	06/30/2020	3 Years to	03/31/2020	3 Years to	12/31/2019	
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	5 Year Risk
Hotchkis & Wiley Large Cap Value									
Macquarie Large Cap Value									
Sands Capital Large Cap Growth									
Loomis Large Cap Growth									
			Sma	all/Mid Cap					
		09/30/2020	3 Years to	06/30/2020		03/31/2020		12/31/2019	
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	5 Year Risk
EARNEST Partners SMID Cap Value									
WEDGE SMID Cap Value									
Brown Advisory									
				ational Equity					
		09/30/2020	3 Years to 06/30/2020		3 Years to 03/31/2020		3 Years to 12/31/2019		
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	5 Year Risk
Baillie Gifford ACWI ex US Growth									
Mondrian ACWI ex US Value									
				ed Income					
		09/30/2020		06/30/2020		03/31/2020		12/31/2019	
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer	5.V 5: I
TOM O DI *	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk
TCW Core Plus*									
Prudential Core Plus			Ct	able Value					
	2 Voore to	09/30/2020		06/30/2020	2 Voore to	02/24/2020	2 Voore to	12/21/2010	
	Above	Above Peer	Above	Above Peer	3 Years to 03/31/2020 Above Above Peer		3 Years to 12/31/2019 Above Above Peer		
	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk
Stable Value		THE SIGHT						THE SIGN.	

^{*}Composite returns used to populate history

North Carolina Supplemental Retirement Plans Active Management Scorecard - Rolling 5 Years

			Large	e Cap Equity								
	5 Years to	09/30/2020	5 Years to	06/30/2020	5 Years to	03/31/2020	5 Years to	12/31/2019				
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer				
	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk			
Hotchkis & Wiley Large Cap Value												
Macquarie Large Cap Value*												
Sands Capital Large Cap Growth												
Loomis Large Cap Growth*												
·			Sma	all/Mid Cap								
	5 Years to 09/30/2020		5 Years to	06/30/2020	5 Years to	03/31/2020	5 Years to	12/31/2019				
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer				
	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk			
EARNEST Partners SMID Cap Value												
WEDGE SMID Cap Value												
Brown Advisory												
	International Equity											
		09/30/2020	5 Years to 06/30/2020		5 Years to 03/31/2020		5 Years to 12/31/2019					
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer	5.V D. I			
D :::: 0::: 14014!! 110.0	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk			
Baillie Gifford ACWI ex US Growth												
Mondrian ACWI ex US Value			Etc.	ad la a a ma								
	E Voore to	09/30/2020		ed Income 06/30/2020	E Voore to	03/31/2020	E Voore to	12/31/2019				
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer				
	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk			
TCW Core Plus*	Delicilliaik	Median	Deficilitation	Median	Deficilitate	Median	Denominark	Median	J Teal Nisk			
Prudential Core Plus												
Tradential Core Flas			St	able Value								
	5 Years to	09/30/2020		06/30/2020	5 Years to	03/31/2020	5 Years to	12/31/2019				
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer				
	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk			
Stable Value												

^{*}Composite returns used to populate history

North Carolina Supplemental Retirement Plans Quarterly Manager Review **Stoplight Report**

3rd Quarter 2020

Manager Assessment

	Organization	People	Process and Philosophy	Product Dynamics	Short Term Performance	Long Term Performance	Overall	OVERALL STATUS	<u>NOTES</u>			
LARGE CAP CORE												
BlackRock								Satisfactory				
LARGE CAP VALUE												
Hotchkis & Wiley Large Cap Fundamental Value	•	•	•	•	•	•	•	Satisfactory	Organization and personnel stable following 1Q20 market dislocation; relative underperformance in 1Q20 followed by outperformance in 2Q20, and relative underperformance again in 3Q20 led to relative underperformance YTD 2020. Results also lag benchmark index over trailing 1/3/5/7 year periods, driven by overweight to more cyclical industry and sectors weight and greater exposure to value factor headwinds (e.g. stocks with low price-to-fundamentals multiples). Results are within expectations given process but worth highlighting.			
Macquarie Large Cap Value Focus	•	•	•	•	•	•	•	Cautionary	Lead PM Ty Nutt retired in July 2019, transitioned role to Nik Lalvani; continuing to monitor the team, process, and performance. Macquarie promoted analyst Erin Ksenak to Associate PM at the end of 2019. Difficult Q3 results put the strategy behind Rus1V YTD.			
LARGE CAP GROWTH	ı	ı	ı	ı	1	1	1	Г	B ** 1 * 1			
Loomis Sayles Large Cap Growth	•	•	•	•	•	•		Satisfactory	Positive short- and long-term results driven by weight to Technology; notable growth in asset base but mitigated by Loomis' policy on limiting inflows.			
Sands Capital Management Select Growth	•	•	•	•	•	•	•	Satisfactory	Firm remains stable and in good financial condition. Current four-person PM team in place for three years (10/17). Very strong performance continues as the concentrated, high growth, disruption/innovation continues to be rewarded in the market. Short and long-term results top decile.			
SMID CAP CORE	_	_	_	_	_		_	T				
BlackRock SMID CAP VALUE								Satisfactory				

Positive status; no issues
 Notable status; noteworthy item with no concerns
 Cautionary status; noteworthy item & monitoring closely
 Under Review status; noteworthy item with concerns

Product Dynamics: reflects noteworthy highlights of the portfolio and strategy including assets and portfolio characteristics. Short-Term Performance: reflects periods of three years and under with a focus on whether or not the manager is performing within expectations.

Long-Term Performance: reflects periods of five years and longer with a focus on whether or not the manager is performing within expectations.



North Carolina Supplemental Retirement Plans Quarterly Manager Review **Stoplight Report**

3rd Quarter 2020

Manager Assessment

				_					
	Organization	People	Process and Philosophy	Product Dynamics	Short Term Performance	Long Term Performance	Overall	OVERALL STATUS	<u>NOTES</u>
EARNEST Partners SMID Value	•	•	•	•	•	•	•	Satisfactory	Strong results YTD 2020, outpacing index in 1Q, 2Q, and 3Q20 due to stock selection in Health Care and Technology and avoiding stocks with cyclical exposure; short- and long-term results outpace benchmark over multiple trailing periods, benefitting from a style bias to core.
WEDGE Capital US SMID Cap Value	•	•	•	•		•	•	Satisfactory (on NC watch list)	In November 2020, Brian Pratt, co-lead of mid cap research, left the firm due to a serious health issue. Andrew Rosenberg, lead of the large cap team, joined Mike Ritzer as the new co-lead of mid cap research. Stable process - firm is focused on value investing utilizing a combination of quantitative tools and fundamental research. Portfolio trails benchmark over the trailing 3-, 5-, and 7-year periods due to a combination of poor stock selection (PG&E), cyclical exposure, and value style headwinds.
Brown Advisory US SMID Cap Growth	•	•	•	•	•	•	•	Satisfactory	1Q20, 2Q20, and 3Q20 results outpaced benchmark index and fund is outperforming relative to benchmark over trailing 1/3/5/7 periods. Strategy AUM above \$5.0 billion and holdings (79) at an all-time high (previously 75) -notable but not actionable.
INTERNATIONAL EQUIT	<u>Y</u>								The depth and breadth of the team
Baillie Gifford ACWI Ex-US Alpha	•	•	•	•	•	•	•	Satisfactory	enabled a seamless transition after the retirements of PMs Andrew Strathdee and Jonathan Bates in 2019. The strategy is expected to perform well in up markets while protecting on the downside due to the quality growth process employed. The long-term investment horizon of the team has shown to add significant alpha over time.
BlackRock								Satisfactory	

[•] Positive status; no issues • Notable status; noteworthy item with no concerns • Cautionary status; noteworthy item & monitoring closely • Under Review status; noteworthy item with concerns

Product Dynamics: reflects noteworthy highlights of the portfolio and strategy including assets and portfolio characteristics. Frouted Synamics: reflects periods of three years and under with a focus on whether or not the manager is performing within expectations.

Long-Term Performance: reflects periods of three years and longer with a focus on whether or not the manager is performing within expectations.



North Carolina Supplemental Retirement Plans Quarterly Manager Review Stoplight Report

3rd Quarter 2020

Manager Assessment

				_					
	Organization	People	Process and Philosophy	Product Dynamics	Short Term Performance	Long Term Performance	Overall	OVERALL STATUS	<u>NOTES</u>
Mondrian Investment Partners Focused ACWI Ex-US	•	•	•	•		•	•	Satisfactory (on NC watch list)	Hamish Parker, chair on the ESG Steering Committee, plans to retire 1Q21. Alex Simcox, senior PM on the international strategy, will assume Parker's role as chair. Liz Desmond appointed Deputy CEO in 2018; Desmond's day to day responsibilities have not changed and she continues to manage the International Equity group and portfolios. The process and its ability to protect in down markets are still intact, as witnessed by the outperformance in 2018; but performance in 2019 and YTD through 6/30/20 has lagged the broad benchmark as growth continues to outperform value. Notably, strategy is outperforming the value index in all annualized time periods.
CORE & CORE PLUS FIX BlackRock	(ED IN	COME						Satisfactory	
PGIM Core Plus Bond	•		•	•	•	•	•	Satisfactory	Deep bench of investors leverage a robust risk management process to implement portfolios; strong risk-adjusted performance; focus on structured credit, particularly CLOs, proved to be a major headwind through Q1 2020, however, focus has been at the top of the capital structure where technicals were drivers of returns; David Brown, a vice president on the Agency MBS team, announced retirement in May 2020.
TCW Core Plus	•	•	•	•	•	•	•	Satisfactory	More conservative approach versus Core Plus peers, defensive posture fared well during Q1 2020 volatility; Head of Credit Research, Jamie Farnham, was replaced by special situations analyst Steve Purdy in 2018, transition has been well received thus far by team. "Notable" status for the organization reflects a cyber attack in June 2020 - TCW's response was swift and they followed the firm's recovery plan.

Positive status; no issues Notable status; noteworthy item with no concerns Cautionary status; noteworthy item & monitoring closely Under Review status; noteworthy item with concerns

Product Dynamics: reflects noteworthy highlights of the portfolio and strategy including assets and portfolio characteristics.

Short-Term Performance: reflects periods of three years and under with a focus on whether or not the manager is performing within expectations.

Long-Term Performance: reflects periods of five years and longer with a focus on whether or not the manager is performing within expectations.



North Carolina Supplemental Retirement Plans Quarterly Manager Review **Stoplight Report**

3rd Quarter 2020

Manager Assessment

	Organization	People	Process and Philosophy	Product Dynamics	Short Term Performance	Long Term Performance	Overall	OVERALL STATUS	<u>NOTES</u>
									Continuing to monitor AUM growth and any potential impact to consistency of the investment strategy.
INFLATION SENSITIVE	1	ı	1	1	ı	1		T	
BlackRock Strategic Completion Fund	•	•	•	•	•	•		Satisfactory	
STABLE VALUE		1	1	1	ı	1		T	
Galliard Stable Value					•		•	Under Review (on NC watch list)	Organizational stability remains uncertain. Parent company WF is rumored to be exploring the sale of the asset management division. Hypothetically if Galliard were to be carved out, it maintains the investment capabilities and front office to stand on its own, however, back office and compliance would need to be rebuilt due to 2019's business realignment. Additional recent organizational changes include the founding partners' retirements in late 2019 and the sale of WF's recordkeeping business which represented a third of the Wells Fargo Stable Return Fund's AUM at the time of sale. The Fund's put queue has increased since the sale. Some concerns over key executive turnover, however, Galliard spent several years planning for succession. The renegotiation of long-term compensation arrangements was a positive in regards to retaining talent and assets.

Product Dynamics: reflects noteworthy highlights of the portfolio and strategy including assets and portfolio characteristics. Short-Term Performance: reflects periods of three years and under with a focus on whether or not the manager is performing within expectations.

Long-Term Performance: reflects periods of five years and longer with a focus on whether or not the manager is performing within expectations.



[•] Positive status; no issues • Notable status; noteworthy item with no concerns • Cautionary status; noteworthy item & monitoring closely • Under Review status; noteworthy item with concerns

North Carolina Supplemental Retirement Plans Quarterly Manager Review Stoplight Report

3rd Quarter 2020

Wedge Smid Cap

WEDGE Capital Management was founded in 1984 and based in North Carolina. The organization is 100% employee owned by eight partners. WEDGE employs a well-resourced investment team with significant experience in the industry and at the firm. The Smid Value strategy is a 50/50 blend of WEDGE Small Cap Value and Mid Cap Value portfolio. The investment approach is a fundamentally based, value-oriented discipline, employing up front quantitative screens and qualitative analysis. Quantitative screens search for attractive value and quality characteristics to define a pool of candidates; fundamental research is then applied to identify attractive unrecognized value opportunities. WEDGE believes they can produce superior long term returns by employing rigorous quantitative research and independent qualitative analysis.

The WEDGE Smid Value strategy has produced competitive performance results, outperforming the Russell 2500 Value Index on a long-term basis. WEDGE significantly underperformed in fourth quarter 2016 when higher risk, lower quality securities performed very well post-election; this time period negatively weighs on the five year results. Underperformance over the last year is also influenced by an underweight to REITs as well as stock selection in consumer durables and utilities. A notable detractor within utilities was PG&E, which was sold in mid-January prior to the bankruptcy filing.

Effective August 31, 2019, Wedge agreed to a new fee schedule that lowered the investment management fee from 0.61% to 0.52%. With the proceeds from the consolidation of managers, the effective fee schedule is 0.48%.

The typical performance pattern would suggest Wedge to lag vertical up markets with narrow leadership and typically protects in down markets. 2020 is a notable exception, largely a result of style themes overwhelming stock selection dynamics particularly in the first half of the year.

The Small/Mid Cap Value composite return for the most recent quarter was 2.51% (2.30% net of fee) versus the benchmark Russell 2500 Value Index return of 3.54%. Year-to-date, the composite return was -22.19% (-22.70% net of fee) and the benchmark return was -18.39%.

On Nov 3, 2020, Wedge announced Brian Pratt, General Partner, would be stepping down as a result of a medical issue. Callan believes the departure is notable, but is not cause for immediate action due to the team approach and experience/tenure of remaining team members at Wedge. The Smid Value strategy is supported by nine investment team members, including three that also support the Large Cap Value strategies. Wedge drew from the large cap team for Pratt's replacement as institutional demand for active large cap strategies continue to wane. While the team remains well-resourced, there have been more departures than additions in the last five years, at a time when the firm's asset base and number of accounts has come down as well. Callan continues to closely monitor the firm's personnel resources and assets under management.

North Carolina Supplemental Retirement Plans Quarterly Manager Review Stoplight Report

3rd Quarter 2020

Mondrian International

Mondrian's value driven investment philosophy is based on the belief that investments need to be evaluated in terms of their fundamental long-term value. In the management of international equity assets, they invest in securities where rigorous dividend discount analysis identifies value in terms of the long term flow of income.

Mondrian's fundamental approach employs a combination of top-down and bottom-up processes to identify quality businesses trading at favorable valuation defined by four-stage dividend discount model. The strategy offers defensive-value characteristics with an absolute-return performance pattern. As such, the strategy has delivered long-term outperformance relative to the index and peers by consistently compounding excess returns garnered from downside protection.

Performance in down markets has been mixed more recently as the selloff in Q1 of 2020 was unlike past market downturns. Different from past downturns, the more speculative and expensive stocks held their value, while lower priced stocks with better fundamentals sold off more in the first quarter. While Mondrian's underperformance year-to-date is disappointing, it is to be expected given their value oriented and defensive style. However, all eyes are on performance should markets rotate back to more valuation sensitive approaches. The growth style of investing has been remarkably strong since the global financial crisis in 2008, which tends to be a headwind for all of their strategies on a relative basis. Callan remains cautionary in light of the recent performance and modest AUM decline.

During the third quarter of 2020, Mondrian underperformed the benchmark with a return of -3.5% versus the benchmark return of -2.5%. The positive impact of the underweight position in the weak Australian and Canadian equity markets was broadly offset by the overweight position in the weak Italian equity market and the underweight position in the strong Danish equity market. Strong stock selection in France was more than offset by stock selection in Japan and the UK. The overweight position in the strong IT sector was more than offset by the overweight position in the weak energy sector. Stock selection within sectors held back relative returns. Although the portfolio benefitted from strong stock selection in the IT sector, this was more than offset by stock selection in the financials and health care sectors. The portfolio benefitted from the overweight position in the strong Japanese yen and the underweight position the weak Canadian dollar. This was broadly offset by weakness in the British pound which continued to be volatile amid ongoing Brexit negotiations.

Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2020 with that of June 30, 2020. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Funds

	Septembe	r 30, 2020			June 3	0, 2020
	Market		Net New	Invest.	Market	
	Value	Weight	Invest.	Return	Value	Weight
North Carolina SRP 401k & 457						
Tier II Passive	\$3,736,665,754	28.32%	\$(70,694,458)	\$278,709,555	\$3,528,650,657	28.01%
Fixed Income Passive	110,118,822	0.83%	2,965,157	645,926	106,507,739	0.85%
Treasury Inflation Protected	284,749,464	2.16%	11,160,083	6,916,711	266,672,670	2.12%
Large Cap Passive	2,971,946,500	22.52%	(75,161,640)	249,947,163	2,797,160,977	22.20%
International Passive	76,550,938	0.58%	(504,650)	4,553,981	72,501,607	0.58%
SMID Cap Passive	293,300,030	2.22%	(9,153,408)	16,645,774	285,807,664	2.27%
Tier II Active	\$9,459,171,230	71.68%	\$89,001	\$387,785,589	\$9,071,296,640	71.99%
Stable Value Fund	2,277,995,376	17.26%	27,333,037	13,373,648	2,237,288,691	17.76%
Fixed Income Fund	1,981,271,863	15.01%	37,644,321	31,675,362	1,911,952,179	15.17%
Inflation Responsive Fund	435,160,726	3.30%	5,135,485	16,837,127	413,188,114	3.28%
Large Cap Core Equity Fund	1,967,451,546	14.91%	(47,779,910)	152,183,885	1,863,047,571	14.79%
International Equity Fund	1,939,583,572	14.70%	(26,844,531)	128,616,006	1,837,812,097	14.59%
Small/Mid Cap Equity Fund	857,708,147	6.50%	4,600,598	45,099,560	808,007,988	6.41%
Total Fund	\$13,195,836,984	100.0%	\$(70,605,457)	\$666,495,144	\$12,599,947,297	100.0%



Investment Fund Balances

The table below compares the fund's investment fund balances as of September 30, 2020 with that of June 30, 2020.

Asset Distribution Across Investment Funds

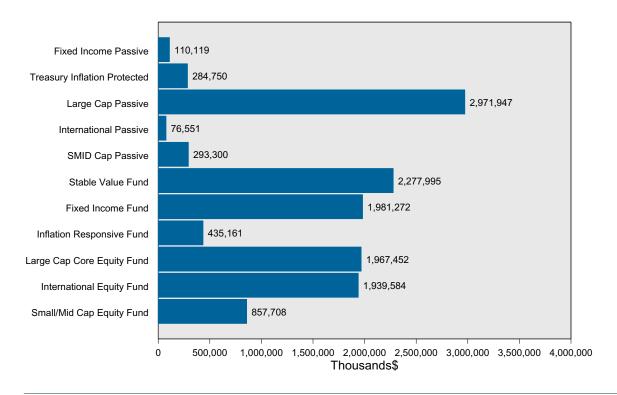
	September 3	30, 2020	June 30), 2020
	Market		Market	
	Value	Weight	Value	Weight
North Carolina SRP 401k & 457				
Γier I: GoalMaker				
Post Retirement Conservative 11+	22,902,094	0.36%	18,208,656	0.30%
Post Retirement Conservative 6-10	94,852,680	1.48%	89,420,794	1.49%
Post Retirement Conservative 0-5	345,873,409	5.39%	330,180,975	5.49%
Pre Retirement Conservative 0-5	295,601,344	4.60%	283,137,635	4.71%
Pre Retirement Conservative 6-10	174,402,184	2.72%	166,917,322	2.77%
Pre Retirement Conservative 11-15	121,355,713	1.89%	118,465,820	1.97%
Pre Retirement Conservative 16-20	90,101,662	1.40%	90,834,913	1.51%
Pre Retirement Conservative 21-25	70,379,903	1.10%	67,179,386	1.12%
Pre Retirement Conservative 26+	89,139,803	1.39%	87,106,720	1.45%
Post Retirement Moderate 11+	23,249,977	0.36%	21,454,078	0.36%
Post Retirement Moderate 6-10	97,958,934	1.53%	87,566,053	1.46%
Post Retirement Moderate 0-5	371,212,783	5.78%	347,639,825	5.78%
Pre Retirement Moderate 0-5	573,224,576	8.93%	540,855,011	8.99%
Pre Retirement Moderate 6-10	559,805,635	8.72%	536,220,139	8.91%
Pre Retirement Moderate 11-15	431,552,831	6.72%	414,914,511	6.90%
Pre Retirement Moderate 16-20	343,879,676	5.35%	330,276,105	5.49%
Pre Retirement Moderate 21-25	243,706,561	3.79%	230,203,221	3.83%
Pre Retirement Moderate 26+	270,367,515	4.21%	256,898,426	4.27%
Post Retirement Aggressive 11+	10,915,408	0.17%	9,944,140	0.17%
Post Retirement Aggressive 6-10	127,045,110	1.98%	29,473,062	0.49%
Post Retirement Aggressive 0-5	138,838,092	2.16%	127,937,825	2.13%
Pre Retirement Aggressive 0-5	285,506,529	4.45%	272,545,577	4.53%
Pre Retirement Aggressive 6-10	404,734,565	6.30%	378,336,320	6.29%
Pre Retirement Aggressive 11-15	390,931,526	6.09%	372,932,278	6.20%
Pre Retirement Aggressive 16-20	366,904,426	5.71%	350,697,882	5.83%
Pre Retirement Aggressive 21-25	248,127,756	3.86%	237,638,819	3.95%
Pre Retirement Aggressive 26+	229,899,527	3.58%	218,134,175	3.63%
Fier I: GoalMaker Total	\$6,422,470,219	100.0%	\$6,015,119,668	100.0%



Changes in Investment Fund Balances Period Ended September 30, 2020

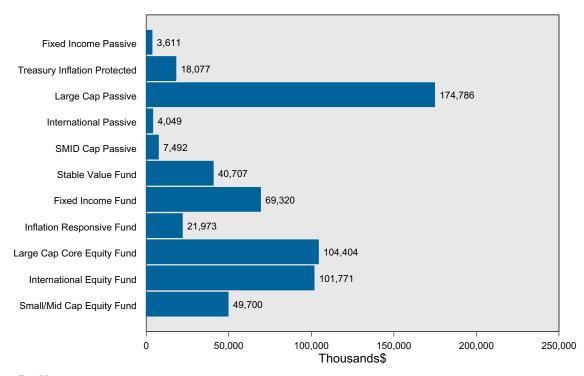
Allocation Across Investment Options

The chart below illustrates the allocation of the aggregate fund assets across the various investment options for the quarter ended September 30, 2020.



Changes in Fund Values

The chart below shows the net change in fund values across the various investment options for the quarter ended September 30, 2020. The change in value for each fund is the result of a combination of 3 factors: 1) market movements; 2) contributions or disbursements into or out of the funds by the participants (and any matching done by the company); and 3) transfers between funds by the participants.





The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception
Tier 2: Passive (Net of Fee)									
Fixed Income Passive	0.62%	95	6.94%	72	5.18%	69	4.13%	76	3.54% (10/10)
Blmbg Barclays Aggregate	0.62%	95	6.98%	71	5.24%	64	4.18%	74	3.64% (10/10)
Callan Core Bond MFs	1.17%		7.58%		5.43%		4.46%		-
Treasury Inflation Protected Securities	2.58%	74	7.89%	63	_		_		5.84% (7/18)
Blmbg US TIPS 1-10 Yr	2.51%	75	7.75%	63	4.56%	70	3.66%	70	5.78% (7/18)
Callan TIPS MFs	3.17%		9.17%		5.33%		4.29%		-
Large Cap Passive	8.93%	39	15.17%	36	12.30%	24	14.14%	22	15.62% (4/09)
S&P 500 Index	8.93%	39	15.15%	36	12.28%	24	14.15%	22	15.70% (4/09)
Callan Large Cap Core MFs	8.30%		12.49%		9.82%		12.23%		-
International Passive	6.25%	53	3.20%	55	1.40%	50	6.47%	43	8.11% (4/09)
MSCI ACWI ex US	6.25%	53	3.00%	56	1.16%	51	6.23%	44	8.04% (4/09)
Callan Non US Equity MFs	6.54%		4.37%		1.35%		5.38%		-
SMID Cap Passive	5.86%	29	2.05%	14	4.34%	21	8.90%	19	14.28% (4/09)
Russell 2500 Index	5.88%	28	2.22%	13	4.45%	20	8.97%	19	14.35% (4/09)
Callan SMID Core MFs	4.86%		(4.91%)		0.94%		6.72%		-



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	1
Tier 2: Active (Net of Fee)										
Stable Value Fund 3 Yr US Treas Rolling	0.59% 0.04%	2 99	2.51% 0.69%	1 99	2.41% 1.75%	2 78	2.23% 1.53%	2 85	2.53% 1.12%	(7/09) (7/09)
T-Bill + 1.5% Callan Stable Value CT	0.41% 0.43%	57	2.60% 1.93%	1	3.19% 1.92%	1	2.70% 1.71%	1		(7/09)
Fixed Income Fund	1.65%	53	7.84%	34	6.12%	8	5.18%	26	5.24%	(4/09)
Blmbg Barclays Aggregate Callan Core Plus MFs	0.62% 1.71%	98	6.98% 7.36%	58	5.24% 5.34%	60	4.18% 4.83%	85	4.35% -	(4/09)
TCW Core Plus Blmbg Barclays Aggregate	1.18% 0.62%	92 98	8.62% 6.98%	17 58	6.03% 5.24%	12 60	- 4.18%	85	5.63% 5.03%	(1/17) (1/17)
Callan Core Plus MFs	1.71%	30	7.36%	30	5.34%	00	4.83%	00	-	(1/17)
Prudential Core Plus Blmbg Barclays Aggregate Callan Core Plus MFs	2.13% 0.62% 1.71%	20 98	7.17% 6.98% 7.36%	57 58	6.28% 5.24% 5.34%	5 60	5.87% 4.18% 4.83%	5 85	5.20% 3.82% -	(1/15) (1/15)
Inflation Responsive Fund Inflation Responsive Benchmark Callan Real Assets MFs	4.09% 4.03% 4.23%	60 62	(2.82%) (3.11%) (1.70%)	59 60	1.93% 1.29% 1.22%	33 43	4.06% 2.21% 2.85%	37 81	1.30% (0.24%) -	(9/11) (9/11)
BlackRock Strategic Completion BlackRock Custom Benchmark Callan Real Assets MFs	4.09% 4.03% 4.23%	60 62	(2.76%) (3.11%) (1.70%)	59 60	- 1.56% 1.22%	38	- 2.67% 2.85%	64	2.45% 2.15% -	(12/18) (12/18)
Large Cap Core Equity Fund Russell 1000 Index Callan Lg Cap Broad MF	8.20% 9.47% 9.19%	58 47	16.67% 16.01% 15.02%	46 49	12.47% 12.38% 11.52%	47 47	- 14.09% 13.14%	46	12.47% 12.38% -	(10/17) (10/17)
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	1.47% 5.59% 4.72%	92 34	(13.06%) (5.03%) (4.76%)	92 55	(1.60%) 2.63% 2.65%	89 51	5.86% 7.66% 7.62%	76 49	13.10% 12.51% -	(4/09) (4/09)
Macquarie Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	2.74% 5.59% 4.72%	87 34	(6.45%) (5.03%) (4.76%)	61 55	3.08% 2.63% 2.65%	43 51	7.84% 7.66% 7.62%	44 49	5.04% 5.02% -	(6/15) (6/15)
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	15.56% 13.22% 11.62%	13 27	62.04% 37.53% 34.91%	1 34	29.48% 21.67% 21.08%	1 40	23.93% 20.10% 19.17%	1 24	23.26% 18.92% -	(4/09) (4/09)
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	10.80% 13.22% 11.62%	74 27	34.43% 37.53% 34.91%	53 34	19.06% 21.67% 21.08%	73 40	19.99% 20.10% 19.17%	28 24	17.73% 17.17% -	(8/14) (8/14)
BlackRock Russell 1000 Index Russell 1000 Index Callan Large Cap Core MFs	9.52% 9.47% 8.30%	25 28	15.97% 16.01% 12.49%	34 33	12.38% 9.82%	24	- 14.09% 12.23%	23	11.75% 11.88% -	(11/17) (11/17)



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
Tier 2: Active (Net of Fee)										
International Equity Fund MSCI ACWI ex US College New US Equity MEa	6.98% 6.25%	47 53	7.76% 3.00% 4.37%	38 56	3.33% 1.16%	40 51	8.08% 6.23%	34 44	9.29% (4/09) 8.04% (4/09)	
Callan Non US Equity MFs	6.54%		4.37%		1.35%		5.38%		-	
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan Non US Equity MFs	3.29% 6.25% 2.28% 6.54%	84 53 89	(6.83%) 3.00% (10.83%) 4.37%	81 56 93	(2.16%) 1.16% (5.09%) 1.35%	78 51 83	3.38% 6.23% 2.14% 5.38%	77 44 82	6.36% (4/09) 8.04% (4/09) 5.90% (4/09)	
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan Non US Equity MFs	10.76% 6.25% 10.16% 6.54%	15 53 16	23.66% 3.00% 17.54% 4.37%	8 56 13	9.19% 1.16% 7.33% 1.35%	6 51 14	13.10% 6.23% 10.16% 5.38%	3 44 11	12.70% (4/09) 8.04% (4/09) 10.05% (4/09) -	
Small/Mid Cap Equity Fund Russell 2500 Index Callan SMID Broad MFs	5.61% 5.88% 6.52%	61 59	1.41% 2.22% 6.56%	58 57	3.48% 4.45% 9.13%	57 57	- 8.97% 10.30%	55	3.48% (10/17) 4.45% (10/17)	
Earnest Partners Small/Mid Cap Value Russell 2500 Value Index Callan SMID Value MFs	5.31% 3.54% 4.16%	21 61	1.92% (12.62%) (10.40%)	7 68	4.00% (2.69%) (2.36%)	6 63	10.32% 4.65% 4.55%	1 43	14.05% (4/09) 11.83% (4/09)	
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan SMID Value MFs	2.44% 3.54% 4.16%	81 61	(15.12%) (12.62%) (10.40%)	96 68	(4.84%) (2.69%) (2.36%)	96 63	2.81% 4.65% 4.55%	80 43	8.00% (1/12) 8.02% (1/12) -	
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan SMID Growth MFs	8.58% 9.37% 9.05%	55 40	17.34% 23.37% 21.82%	68 48	13.02% 13.36% 13.83%	58 56	15.25% 14.19% 13.50%	38 42	17.18% (4/09) 17.26% (4/09)	
BlackRock Russell 2500 Index Russell 2500 Index Callan SMID Core MFs	5.89% 5.88% 4.86%	28 28	3.02% 2.22% (4.91%)	12 13	- 4.45% 0.94%	20	- 8.97% 6.72%	19	4.26% (11/17) 4.03% (11/17) -	



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 9/2020		3 Years Ended 6/2020		3 Years Ended 3/2020		3 Years Ended 12/2019	
Tier 2: Passive (Net of Fee)								
Fixed Income Passive	5.18%	69	5.26%	59	4.77%	14	3.99%	70
Blmbg Barclays Aggregate	5.24%	64	5.32%	48	4.82%	9	4.03%	64
Callan Core Bond MFs	5.43%		5.31%		4.27%		4.17%	
Large Cap Passive	12.30%	24	10.75%	22	5.12%	28	15.28%	20
S&P 500 Index	12.28%	24	10.73%	23	5.10%	28	15.27%	20
Callan Large Cap Core MFs	9.82%		8.89%		3.07%		13.63%	
International Passive	1.40%	50	1.38%	49	(1.71%)	48	10.18%	49
MSCI ACWI ex US	1.16%	51	1.14%	50	(1.96%)	49	9.87%	50
Callan Non US Equity MFs	1.35%		1.04%		(2.03%)		9.96%	
SMID Cap Passive	4.34%	21	3.97%	19	(3.20%)	29	10.23%	25
Russell 2500 Index	4.45%	20	4.08%	18	(3.10%)	28	10.33%	24
Callan SMID Core MFs	0.94%		1.07%		(5.16%)		8.56%	



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 9/2020		3 Years Ended 6/2020		3 Years Ended 3/2020		3 Years Ended 12/2019	
Tier 2: Active (Net of Fee)								
Stable Value Fund 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value CT	2.41% 1.75% 3.19% 1.92%	2 78 1	2.38% 1.86% 3.27% 1.91%	3 58 1	2.34% 1.97% 3.33% 1.88%	6 38 1	2.29% 2.03% 3.17% 1.82%	6 21 1
Fixed Income Fund Blmbg Barclays Aggregate Callan Core Plus MFs	6.12% 5.24% 5.34%	8 60	5.93% 5.32% 5.12%	4 43	4.57% 4.82% 3.80%	8 3	5.03% 4.03% 4.39%	13 81
Prudential Core Plus Blmbg Barclays Aggregate Callan Core Plus MFs	6.28% 5.24% 5.34%	5 60	5.97% 5.32% 5.12%	4 43	4.28% 4.82% 3.80%	25 3	5.79% 4.03% 4.39%	4 81
Inflation Responsive Fund Inflation Responsive Benchmark Callan Real Assets MFs	1.93% 1.29% 1.22%	33 43	1.58% 0.48% 0.92%	35 59	(0.62%) (1.83%) (2.03%)	31 48	5.45% 3.99% 4.98%	43 67
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	(1.60%) 2.63% 2.65%	89 51	(0.91%) 1.82% 2.32%	87 61	(5.70%) (2.18%) (2.23%)	86 50	10.22% 9.68% 10.14%	47 57
Macquarie Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	3.08% 2.63% 2.65%	43 51	3.80% 1.82% 2.32%	30 61	(1.17%) (2.18%) (2.23%)	39 50	10.33% 9.68% 10.14%	46 57
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	29.48% 21.67% 21.08%	1 40	26.08% 18.99% 19.02%	1 50	15.63% 11.32% 11.33%	3 50	24.52% 20.49% 20.50%	3 50
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	19.06% 21.67% 21.08%	73 40	17.46% 18.99% 19.02%	60 50	12.26% 11.32% 11.33%	37 50	20.17% 20.49% 20.50%	57 50
International Equity Fund MSCI ACWI ex US Callan Non US Equity MFs	3.33% 1.16% 1.35%	40 51	2.95% 1.14% 1.04%	38 50	(0.47%) (1.96%) (2.03%)	38 49	11.57% 9.87% 9.96%	34 50
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan Non US Equity MFs	(2.16%) 1.16% (5.09%) 1.35%	78 51 83	(1.66%) 1.14% (3.95%) 1.04%	77 50 83	(3.76%) (1.96%) (6.48%) (2.03%)	69 49 82	8.91% 9.87% 6.89% 9.96%	62 50 80
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan Non US Equity MFs	9.19% 1.16% 7.33% 1.35%	6 51 14	7.86% 1.14% 6.07% 1.04%	4 50 13	3.09% (1.96%) 2.53% (2.03%)	3 49 10	14.68% 9.87% 12.89% 9.96%	4 50 13
Small/Mid Cap Equity Fund								
Earnest Partners Small/Mid Cap Value Russell 2500 Value Index Callan SMID Value MFs	4.00% (2.69%) (2.36%)	6 63	4.44% (2.60%) (1.90%)	3 57	(2.24%) (8.40%) (8.53%)	6 45	10.97% 6.12% 6.63%	3 55
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan SMID Value MFs	(4.84%) (2.69%) (2.36%)	96 63	(4.74%) (2.60%) (1.90%)	89 57	(10.57%) (8.40%) (8.53%)	87 45	5.13% 6.12% 6.63%	64 55
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan SMID Growth MFs	13.02% 13.36% 13.83%	58 56	12.13% 12.10% 12.03%	48 48	3.71% 3.35% 3.35%	47 50	15.63% 15.17% 15.64%	50 62



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	<u>n</u>
Tier 2: Active (Gross of Fee) Stable Value Fund										
Galliard Stable Value 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value SA	0.63% 0.04% 0.41% 0.56%	13 98 89	2.64% 0.69% 2.60% 2.41%	11 98 14	2.56% 1.75% 3.19% 2.43%	19 93 1	2.39% 1.53% 2.70% 2.30%	11 94 1	2.53% 1.11% 2.15%	(1/11) (1/11) (1/11)
Fixed Income Fund										
TCW Core Plus Blmbg Barclays Aggregate Callan Core Bond FI	1.21% 0.62% 1.12%	28 93	8.75% 6.98% 7.88%	11 89	6.19% 5.24% 5.70%	8 96	- 4.18% 4.70%	97	5.79% 5.03% -	(1/17) (1/17)
Prudential Core Plus Blmbg Barclays Aggregate Callan Core Bond Fl	2.13% 0.62% 1.12%	1 93	7.17% 6.98% 7.88%	82 89	6.39% 5.24% 5.70%	5 96	6.04% 4.18% 4.70%	1 97	5.39% 3.82% -	(1/15) (1/15)
Inflation Responsive Fund										
BlackRock Strategic Completion BlackRock Custom Benchmark Callan Real Assets	4.11% 4.03% 4.26%	59 68	(2.67%) (3.11%) (2.22%)	55 64	- 1.56% 2.00%	66	2.67% 3.90%	84	3.08% 2.69% -	(11/18) (11/18)
Large Cap Core Equity Fund										
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Large Cap Value	1.56% 5.59% 4.72%	92 32	(12.73%) (5.03%) (4.68%)	89 54	(1. <mark>22%)</mark> 2.63% 2.74%	90 51	6.31% 7.66% 7.61%	77 49	13.62% 12.51% -	(4/09) (4/09)
Macquarie Large Cap Value Russell 1000 Value Index Callan Large Cap Value	2.80% 5.59% 4.72%	82 32	(6.19%) (5.03%) (4.68%)	62 54	3.36% 2.63% 2.74%	37 51	8.14% 7.66% 7.61%	36 49	5.34% 5.02%	(6/15) (6/15)
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	15.69% 13.22% 11.50%	7 20	62.71% 37.53% 34.40%	2 31	30.03% 21.67% 20.93%	3 46	24.51% 20.10% 18.90%	3 32	23.86% 18.92% -	(4/09) (4/09)
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	10.90% 13.22% 11.50%	64 20	34.92% 37.53% 34.40%	46 31	19.50% 21.67% 20.93%	64 46	20.45% 20.10% 18.90%	26 32	18.18% 17.17% -	(8/14) (8/14)
BlackRock Russell 1000 Index Russell 1000 Index Callan Large Cap Core	9.52% 9.47% 9.05%	41 42	15.97% 16.01% 13.39%	36 36	- 12.38% 11.26%	30	- 14.09% 13.41%	24	11.76% 11.88% -	(11/17) (11/17)
International Equity Fund										
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan NonUS Eq	3.38% 6.25% 2.28% 7.18%	88 59 95	(6.47%) 3.00% (10.83%) 4.71%	88 56 98	(1.79%) 1.16% (5.09%) 2.30%	76 57 96	3.80% 6.23% 2.14% 6.36%	82 51 95	6.84% 8.04% 5.90%	(4/09) (4/09) (4/09)
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan NonUS Eq	10.84% 6.25% 10.16% 7.18%	15 59 19	24.00% 3.00% 17.54% 4.71%	8 56 17	9.49% 1.16% 7.33% 2.30%	10 57 18	13.48% 6.23% 10.16% 6.36%	4 51 17	13.17% 8.04% 10.05%	(4/09) (4/09) (4/09)
Small/Mid Cap Equity Fund										
Earnest Partners Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	5.42% 3.54% 4.64%	29 75	2.35% (12.62%) (12.62%)	13 50	4.46% (2.69%) (3.18%)	12 46	10.84% 4.65% 4.60%	7 48	14.64% 11.83% -	(4/09) (4/09)
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	2.55% 3.54% 4.64%	79 75	(14.76%) (12.62%) (12.62%)	78 50	(4.34%) (2.69%) (3.18%)	69 46	3.44% 4.65% 4.60%	65 48	8.71% 8.02% -	(1/12) (1/12)
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan Sm/MidCap Growth	8.68% 9.37% 9.64%	71 62	17.88% 23.37% 26.39%	78 56	13.57% 13.36% 15.11%	72 73	15.84% 14.19% 15.82%	47 65	17.80% 17.26% -	(4/09) (4/09)
BlackRock Russell 2500 Index Russell 2500 Index Callan Small/MidCap Core	5.89% 5.88% 4.90%	37 37	3.03% 2.22% (2.48%)	23 25	- 4.45% 3.14%	40	8.97% 8.24%	34	4.27% 4.03% -	(11/17) (11/17)



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 9/2020		3 Years Ended 6/2020		3 Years Ended 3/2020		3 Years Ended 12/2019	
Tier 2: Active (Gross of Fee) Stable Value Fund								
Galliard Stable Value 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value SA	2.56% 1.75% 3.19% 2.43%	19 93 1	2.54% 1.86% 3.27% 2.40%	21 86 3	2.50% 1.97% 3.33% 2.37%	20 85 3	2.45% 2.03% 3.17% 2.34%	20 83 4
Fixed Income Fund								
Prudential Core Plus Blmbg Barclays Aggregate Callan Core Bond FI	6.39% 5.24% 5.70%	5 96	6.10% 5.32% 5.68%	10 87	4.43% 4.82% 4.77%	84 41	5.96% 4.03% 4.38%	1 89
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Large Cap Value	(1. <mark>22%)</mark> 2.63% 2.74%	90 51	(0.52%) 1.82% 2.33%	85 62	(5.31%) (2.18%) (1.99%)	84 52	10.67% 9.68% 10.28%	35 67
Macquarie Large Cap Value Russell 1000 Value Index Callan Large Cap Value	3.36% 2.63% 2.74%	37 51	4.09% 1.82% 2.33%	22 62	(0.89%) (2.18%) (1.99%)	32 52	10.63% 9.68% 10.28%	37 67
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	30.03% 21.67% 20.93%	3 46	26.63% 18.99% 18.34%	3 44	16.16% 11.32% 11.11%	6 48	25.08% 20.49% 20.60%	6 51
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	19.50% 21.67% 20.93%	64 46	17.89% 18.99% 18.34%	55 44	12.69% 11.32% 11.11%	32 48	20.62% 20.49% 20.60%	50 51
International Equity Fund								
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan NonUS Eq	(1.79%) 1.16% (5.09%) 2.30%	76 57 96	(1.28%) 1.14% (3.95%) 1.94%	74 56 95	(3.38%) (1.96%) (6.48%) (1.23%)	72 62 94	9.33% 9.87% 6.89% 10.22%	69 58 93
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan NonUS Eq	9.49% 1.16% 7.33% 2.30%	10 57 18	8.17% 1.14% 6.07% 1.94%	9 56 18	3.41% (1.96%) 2.53% (1.23%)	13 62 19	15.03% 9.87% 12.89% 10.22%	10 58 22
Small/Mid Cap Equity Fund								
Earnest Partners Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	4.46% (2.69%) (3.18%)	12 46	4.91% (2.60%) (2.96%)	8 42	(1.78%) (8.40%) (8.62%)	9 48	11.48% 6.12% 6.25%	9 51
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	(4.34%) (2.69%) (3.18%)	69 46	(4.21%) (2.60%) (2.96%)	71 42	(10.05%) (8.40%) (8.62%)	72 48	5.75% 6.12% 6.25%	53 51
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan Sm/MidCap Growth	13.57% 13.36% 15.11%	72 73	12.70% 12.10% 13.79%	65 67	4.26% 3.35% 6.69%	57 68	16.22% 15.17% 18.22%	58 69



The table below details the rates of return for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended September 30, 2020

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Conservative 11+	2.81%	7.54%	-	-	6.43% (7/18)
Post Ret Conservative 11+ Index	2.29%	6.45%	-	-	5.70% (7/18)
Post Retirement Conservative 6-10	2.90%	7.71%	_	-	6.64% (7/18)
Post Ret Conservative 6-10 Index	2.34%	6.58%	-	-	5.87% (7/18)
Post Retirement Conservative 0-5	3.07%	7.82%	_	-	6.80% (7/18)
Post Ret Conservative 0-5 Index	2.51%	6.79%	-	-	6.06% (7/18)
Pre Retirement Conservative 0-5	3.38%	8.33%	6.16%	5.97%	6.15% (7/09)
Pre Ret Conservative 0-5 Index	2.78%	7.24%	5.51%	5.38%	5.16% (7/09)
Pre Retirement Conservative 6-10	3.79%	8.59%	6.50%	6.71%	7.05% (7/09)
Pre Ret Conservative 6-10 Index	3.18%	7.44%	5.76%	6.07%	5.97% (7/09)
Pre Retirement Conservative 11-15	4.23%	8.82%	6.97%	7.95%	8.34% (7/09)
Pre Ret Conservative 11-15 Index	3.65%	7.75%	6.21%	7.31%	7.61% (7/09)
Pre Retirement Conservative 16-20	4.86%	9.10%	7.44%	9.24%	9.71% (7/09)
Pre Ret Conservative 16-20 Index	4.29%	7.82%	6.54%	8.54%	9.07% (7/09)
Pre Retirement Conservative 21-25	5.46%	9.25%	_	_	7.47% (7/18)
Pre Ret Conservative 21-25 Index	4.96%	7.97%	-	-	6.50% (7/18)
Pre Retirement Conservative 26+	5.99%	9.04%	_	_	7.06% (7/18)
Pre Ret Conservative 26+ Index	5.57%	7.60%	-	-	6.03% (7/18)



The table below details the rates of return for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended September 30, 2020

	Last Quarter	Last Year			Since Inception
Tier 1: GoalMaker Funds (Net of Fee))				
Post Retirement Moderate 11+	3.51%	8.18%	-	-	6.66% (7/18)
Post Ret Moderate 11+ Index	3.06%	7.06%	-	-	5.93% (7/18)
Post Retirement Moderate 6-10	3.77%	8.42%	-	-	6.94% (7/18)
Post Ret Moderate 6-10 Index	4.01%	6.82%	-	-	5.33% (7/18)
Post Retirement Moderate 0-5	4.03%	8.78%	-	_	7.34% (7/18)
Post Ret Moderate 0-5 Index	3.50%	7.70%	-	-	6.56% (7/18)
Pre Retirement Moderate 0-5	4.35%	8.97%	6.73%	7.17%	7.43% (7/09)
Pre Ret Moderate 0-5 Index	3.79%	7.78%	5.98%	6.53%	6.52% (7/09)
Pre Retirement Moderate 6-10	4.88%	9.08%	6.92%	7.92%	8.22% (7/09)
Pre Ret Moderate 6-10 Index	4.34%	7.80%	6.08%	7.23%	7.57% (7/09)
Pre Retirement Moderate 11-15	5.42%	9.09%	7.14%	8.80%	9.30% (7/09)
Pre Ret Moderate 11-15 Index	4.94%	7.76%	6.23%	8.08%	8.58% (7/09)
Pre Retirement Moderate 16-20	5.99%	9.04%	7.43%	10.01%	10.58% (7/09)
Pre Ret Moderate 16-20 Index	5.57%	7.60%	6.46%	9.29%	10.02% (7/09)
Pre Retirement Moderate 21-25	6.45%	8.92%	-	_	6.80% (7/18)
Pre Ret Moderate 21-25 Index	6.08%	7.27%	-	-	5.65% (7/18)
Pre Retirement Moderate 26+	6.85%	8.74%	-	-	6.51% (7/18)
Pre Ret Moderate 26+ Index	6.55%	7.02%	-	-	5.34% (7/18)



The table below details the rates of return for the Fund's investment funds over various time periods ended September 30, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended September 30, 2020

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Aggressive 11+	4.37%	9.01%	-	-	7.06% (7/18)
Post Ret Aggressive 11+ Index	3.96%	7.81%	-	-	6.29% (7/18)
Post Retirement Aggressive 6-10	4.76%	9.39%	_	-	7.30% (7/18)
Post Ret Aggressive 6-10 Index	4.34%	8.12%	-	-	6.47% (7/18)
Post Retirement Aggressive 0-5	4.99%	9.51%	_	_	7.58% (7/18)
Post Ret Aggressive 0-5 Index	4.54%	8.35%	-	-	6.76% (7/18)
Pre Retirement Aggressive 0-5	5.43%	9.47%	7.13%	8.21%	8.67% (7/09)
Pre Ret Aggressive 0-5 Index	4.98%	8.31%	6.34%	7.55%	7.87% (7/09)
Pre Retirement Aggressive 6-10	5.96%	9.33%	7.12%	8.78%	9.39% (7/09)
Pre Ret Aggressive 6-10 Index	5.53%	7.85%	6.15%	8.03%	8.56% (7/09)
Pre Retirement Aggressive 11-15	6.45%	8.92%	7.16%	9.58%	10.22% (7/09)
Pre Ret Aggressive 11-15 Index	6.08%	7.27%	6.10%	8.80%	9.65% (7/09)
Pre Retirement Aggressive 16-20	6.78%	8.72%	7.36%	10.75%	11.47% (7/09)
Pre Ret Aggressive 16-20 Index	6.46%	6.99%	6.29%	9.99%	11.03% (7/09)
Pre Retirement Aggressive 21-25	7.05%	8.54%	_	_	6.30% (7/18)
Pre Ret Aggressive 21-25 Index	6.78%	6.70%	-	-	5.07% (7/18)
Pre Retirement Aggressive 26+	7.05%	8.54%	_	_	6.30% (7/18)
Pre Ret Aggressive 26+ Index	6.78%	6.70%	-	-	5.07% (7/18)



The table below details the rates of return for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 9/2020	3 Years Ended 6/2020	3 Years Ended 3/2020	3 Years Ended 12/2019	
Tier 1: GoalMaker Funds (Net of Fee)					
Pre Retirement Conservative 0-5	6.16%	5.60%	3.23%	6.41%	
Pre Ret Conservative 0-5 Index	5.51%	5.14%	3.19%	5.85%	
Pre Retirement Conservative 6-10	6.50%	5.95%	3.25%	7.39%	
Pre Ret Conservative 6-10 Index	5.76%	5.42%	3.14%	6.70%	
Pre Retirement Conservative 11-15	6.97%	6.54%	3.61%	8.85%	
Pre Ret Conservative 11-15 Index	6.21%	5.97%	3.42%	8.05%	
Pre Retirement Conservative 16-20	7.44%	7.08%	3.86%	10.49%	
Pre Ret Conservative 16-20 Index	6.54%	6.37%	3.50%	9.53%	



The table below details the rates of return for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 9/2020	3 Years Ended 6/2020	3 Years Ended 3/2020	3 Years Ended 12/2019	
Tier 1: GoalMaker Funds (Net of Fee)					
Pre Retirement Moderate 0-5 Pre Ret Moderate 0-5 Index	6.73% 5.98%	6.08% 5.52%	3.06% 2.87%	8.02% 7.32%	
Pre Retirement Moderate 6-10	6.92%	6.27%	2.91%	9.06%	
Pre Ret Moderate 6-10 Index	6.08%	5.60%	2.57%	8.21%	
Pre Retirement Moderate 11-15	7.14%	6.52%	2.85%	10.26%	
Pre Ret Moderate 11-15 Index	6.23%	5.77%	2.38%	9.31%	
Pre Retirement Moderate 16-20	7.43%	6.92%	3.00%	11.83%	
Pre Ret Moderate 16-20 Index	6.46%	6.09%	2.38%	10.78%	



Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 9/2020	3 Years Ended 6/2020	3 Years Ended 3/2020	3 Years Ended 12/2019	
Tier 1: GoalMaker Funds (Net of Fee)					
Pre Retirement Aggressive 0-5	7.13%	6.34%	2.58%	9.52%	
Pre Ret Aggressive 0-5 Index	6.34%	5.69%	2.19%	8.68%	
Pre Retirement Aggressive 6-10	7.12%	6.32%	2.31%	10.43%	
Pre Ret Aggressive 6-10 Index	6.15%	5.50%	1.73%	9.44%	
Pre Retirement Aggressive 11-15	7.16%	6.41%	2.18%	11.56%	
Pre Ret Aggressive 11-15 Index	6.10%	5.48%	1.42%	10.48%	
Pre Retirement Aggressive 16-20	7.36%	6.80%	2.49%	12.99%	
Pre Ret Aggressive 16-20 Index	6.29%	5.85%	1.64%	11.87%	



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return (3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error
Tier 2: Passive vs. Net of Fee Groups								
Fixed Income Passive (i) Callan Core Bond MFs	0.6 95	6.9 72	5.2 69	4.1 76		0.9 54	-0.8 100	0.1 100
Blmbg Barclays Aggregate	0.6 95	7.0 71	5.2 64	4.2 74		0.9 50		
Treasury Inflation Protected (i) Callan TIPS MFs Blmbg US TIPS 1-10 Yr	2.6 74 2.5 75	7.9 637.7 63	5.8 24 4.6 70	4.6 24 3.7 70		1.0 12 0.9 37	0.9 5	1.0 90
Large Cap Passive (i)	8.9 39	15.2 36	12.3 24	14.1 22		0.8 27	-0.2 25	0.0 99
Callan Large Cap Core MFs S&P 500 Index	8.9 39	15.1 36	12.3 24	14.1 22		0.8 26		
International Passive (i) Callan Non US Equity MFs	6.3 53	3.2 55	1.4 50	6.5 43		0.3 43	0.5 31	0.5 100
MSCI ACWI ex US	6.3 53	3.0 56	1.2 51	6.2 44		0.3 45		
SMID Cap Passive (i) Callan SMID Core MFs	5.9 29	2.0 14	4.3 21	8.9 19		0.3 22	-0.7 61	0.1 99
Russell 2500 Index	5.9 28	2.2 13	4.5 20	9.0 19		0.3 22		
Tier 2: Active vs. Net of Fee Groups								
Stable Value Fund Callan Stable Value CT	0.6 2	2.5 1	2.4 2	2.2 2		7.5 14	-1.3 1	0.4 25
T-Bill + 1.5%	0.4 57	2.6 1	3.2 1	2.7 1		3.4 49		
Fixed Income Fund Callan Core Plus MFs	1.7 53	7.8 34	6.1 8	5.2 26		1.0 30	0.5 16	2.1 71
Blmbg Barclays Aggregate	0.6 98	7.0 58	5.2 60	4.2 85		0.9 58		
TCW Core Plus Callan Core Plus MFs	1.2 92	8.6 17	6.0 12	4.0		0.0 ==		
Blmbg Barclays Aggregate	0.6 98	7.0 58	5.2 60	4.2 85		0.9 58	0.5	2.5
Prudential Core Plus Callan Core Plus MFs	2.1 20	7.2 57	6.3 5	5.9 5		1.0 42	0.5 15	3.5 24
Blmbg Barclays Aggregate	0.6 98	7.0 58	5.2 60	4.2 85		0.9 58		
Returns: above median third quartile fourth quartile Return Consistency: above median third quartile fourth quartile		Sharpe Rati above mo third qua fourth qu	edian rtile		Excess Real above real third questions	nedian artile	:	Tracking Error: ■ below median ■ second quartile ■ first quartile

⁽i) - Indexed scoring method used. Green: manager & index ranking differ by <= +/- 10%tile. Yellow: manager & index ranking differ by <= +/- 20%tile. Red: manager & index ranking differ by > +/- 20%tile.



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return (3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
Inflation Responsive Fund Callan Real Assets MFs	4.1 60	-2.8 59	1.9 33	4.1 37		0.3 28	1.6 3	1.2 99	
Inflation Responsive Benchmark	4.0 62	-3.1 60	1.3 43	2.2 81		0.1 66			
BlackRock Strategic Completion Callan Real Assets MFs	4.1 60	-2.8 59							
BlackRock Custom Benchmark	4.0 62	-3.1 60	1.6 38	2.7 64		0.2 47			
Large Cap Core Equity Fund Callan Lg Cap Broad MF	8.2 58	16.7 46	12.5 47						
Russell 1000 Index	9.5 47	16.0 49	12.4 47	14.1 46		0.7 46			
Hotchkis & Wiley Large Cap Value Callan Lg Cap Value MF	1.5 92	-13.1 92	-1.6 89	5.9 76		0.2 86	-0.3 66	6.8 8	
Russell 1000 Value Index	5.6 34	-5.0 55	2.6 51	7.7 49		0.4 47			
Macquarie Large Cap Value Callan Lg Cap Value MF Russell 1000 Value Index	2.7 87 5.6 34	-6.4 61	3.1 43 2.6 51	7.8 44		0.4 43	0.0 47	4.3 29	
		-5.0 55		7.7 49		0.4 47		44.0	
Sands Capital Large Cap Growth Callan Large Cap Grwth MF Russell 1000 Growth Index	15.6 13 13.2 27	62.0 1 37.5 34	29.5 1 21.7 40	23.9 1 20.1 24		0.9 56	0.3 6	11.3 1	
Loomis SaylesLarge Cap Growth Callan Large Cap Grwth MF	10.8 74	34.4 53	19.1 73	20.0 28		1.1 3	-0.0 27	5.5 30	
Russell 1000 Growth Index	13.2 27	37.5 34	21.7 40	20.1 24		1.0 19			
BlackRock Russell 1000 Index (i) Callan Large Cap Core MFs	9.5 25	16.0 34							
Russell 1000 Index	9.5 28	16.0 33	12.4 24	14.1 23		0.7 29			
International Equity Fund Callan Non US Equity MFs	7.0 47	7.8 38	3.3 40	8.1 34		0.4 31	1.1 3	1.7 98	
MSCI ACWI ex US	6.3 53	3.0 56	1.2 51	6.2 44		0.3 45			
Mondrian ACWI ex-US Value Callan Non US Equity MFs	3.3 84	-6.8 81	-2.2 78	3.4 77		0.1 74	-0.7 73	3.8 61	
MSCI ACWI ex US	6.3 53	3.0 56	1.2 51	6.2 44		0.3 45			
Returns: above median third quartile fourth quartile Return Consistency: above median third quartile fourth quartile		Sharpe Rati above mo third qua fourth qu	edian rtile		Excess Real above rule third qu	nedian artile	:	belo seco	ng Error: w median ond quartile quartile

⁽i) - Indexed scoring method used. Green: manager & index ranking differ by <= +/- 10%tile. Yellow: manager & index ranking differ by <= +/- 20%tile. Red: manager & index ranking differ by > +/- 20%tile.



Investment Manager		Last Quarter Return	Last Year Return	3 Year Return	5 Year Return (3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
Baillie Gifford ACWI ex-US Gro Callan Non US Equity MFs MSCI ACWI ex US	wth	10.8 15 6.3 53	23.7 8 3.0 56	9.2 6 1.2 51	13.1 3 6.2 44		0.6 3 0.3 45	1.3 1	5.2 32	
Small/Mid Cap Equity Fund Callan SMID Broad MFs		5.6 61	1.4 58	3.5 57						
Russell 2500 Index Earnest Partners Small/Mid Ca Callan SMID Value MFs	p Value	5.9 59 5.3 21	2.2 57 1.9 7	4.5 57 4.0 6	9.0 55 10.3 1		0.3 54 0.4 1	1.0 1	5.6 26	
Russell 2500 Value Index Wedge Small/Mid Cap Value Callan SMID Value MFs		3.5 61 2.4 81	-12.6 68 -15.1 96	-2.7 63 -4.8 96	4.6 43 2.8 80		0.2 47 0.1 79	-0.8 89	2.3 99	
Russell 2500 Value Index Brown Advisory Small/Mid Cap	Growth	3.5 61 8.6 55	-12.6 68 17.3 68	-2.7 63 13.0 58	4.6 43 15.2 38		0.2 47 0.6 44	0.2 38	5.3 38	
Callan SMID Growth MFs Russell 2500 Growth Index BlackRock Russell 2500 Index	(i)	9.4 40 5.9 28	23.4 48 3.0 12	13.4 56	14.2 42		0.6 49			
Callan SMID Core MFs Russell 2500 Index	(1)	5.9 28 5.9 28	2.2 13	4.5 20	9.0 19		0.3 22			
Returns: above median third quartile fourth quartile	Return Consistency: above median third quartile fourth quartile	Sharpe Ratio: above median third quartile fourth quartile		Excess Return Ratio: above median third quartile fourth quartile			:	Tracking Error: ■ below median ■ second quartile ■ first quartile		

⁽i) - Indexed scoring method used. Green: manager & index ranking differ by <= +/- 10%tile. Yellow: manager & index ranking differ by <= +/- 20%tile. Red: manager & index ranking differ by > +/- 20%tile.



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
Tier 2: Active vs. Gross of Fee Groups Stable Value Fund									
Galliard Stable Value Callan Stable Value SA	0.6 13	2.6 11	2.6 19	2.4 11		9.6 32	-0.8 5	0.4 28	
T-Bill + 1.5% Fixed Income Fund	0.4 89	2.6 14	3.2 1	2.7 1		3.4 90			
TCW Core Plus Callan Core Bond FI	1.2 28	8.8 11	6.2 8	4.9 28		1.2 6	0.9 18	0.8 61	
Blmbg Aggregate	0.6 93	7.0 89	5.2 96	4.2 97		0.9 94		0.5	
Prudential Core Plus Callan Core Bond FI Blmbg Aggregate	2.1 1 0.6 93	7.2 827.0 89	6.4 5 5.2 96	6.0 1 4.2 97		1.0 490.9 94		3.5 1	
Inflation Responsive Fund									
BlackRock Strategic Completion Callan Real Assets BlackRock Custom Benchmark	4.1 59 4.0 68	-2.7 55 -3.1 64	1.9 56	3.0 742.7 84		0.2 65 0.2 76	6.1 4	0.1 96	
Large Cap Core Equity Fund	4.0 68	-3.1 64	1.0 66	2.7 84		0.2 76			
Hotchkis & Wiley Large Cap Value Callan Large Cap Value	1.6 92	-12.7 89	-1.2 90	6.3 77		0.2 85	-0.2 69	6.8 10	
Russell 1000 Value Index	5.6 32	-5.0 54	2.6 51	7.7 49		0.4 43			
Macquarie Large Cap Value Callan Large Cap Value Russell 1000 Value Index	2.8 82 5.6 32	-6.2 62 -5.0 54	3.4 37 2.6 51	8.1 36 7.7 49		0.4 320.4 43		4.3 36	
Sands Capital Large Cap Growth Callan Large Cap Growth	15.7 7	62.7 2	30.0 3	24.5 3		0.9 49		11.3 1	
Russell 1000 Growth Index	13.2 20	37.5 31	21.7 46	20.1 32		1.0 26			
Loomis SaylesLarge Cap Growth Callan Large Cap Growth Russell 1000 Growth Index	10.9 64	34.9 46	19.5 64 21.7 46	20.4 26 20.1 32		1.1 6 1.0 26	0.1 28	5.5 23	
Returns: above median third quartile fourth quartile Return Consistency above median third quartile fourth quartile fourth quartile	<i>y</i> :	37.5 31 Sharpe Rat above m third qua fourth qu	io: edian rtile	ZU.1 32	Excess Re above r third qu fourth q	eturn Ratio median artile	'	belog seco	g Error: w median and quartile quartile



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return Co	3 Year Return ensistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
BlackRock Russell 1000 Index (i)	9.5 41	16.0 36	12.4 29	14.1 24		0.7 33	1.8 1	0.0 99	
Callan Large Cap Core Russell 1000 Index	9.5 42	16.0 36	12.4 30	14.1 24		0.7 34			
International Fund	0.0 42	10.0 30	12.4 30	14.1 24		0.7 54			
Mondrian ACWI ex-US Value Callan NonUS Eq	3.4 88	-6.5 88	-1.8 76	3.8 82		0.2 80	-0.6 83	3.8 53	
MSCI ACWI ex US	6.3 59	3.0 56	1.2 57	6.2 51		0.3 48			
Baillie Gifford ACWI ex-US Growth Callan NonUS Eq	10.8 15	24.0 8	9.5 10	13.5 4		0.6 9	1.4 2	5.2 28	
MSCI ACWI ex US	6.3 59	3.0 56	1.2 57	6.2 51		0.3 48			
Small/Mid Cap Equity Fund									
Earnest Partners Small/Mid Cap Value Callan Small/MidCap Value	5.4 29	2.4 13	4.5 12	10.8 7		0.5 6	1.1 6	5.6 29	
Russell 2500 Value Index	3.5 75	-12.6 50	-2.7 46	4.6 48		0.2 49			
Wedge Small/Mid Cap Value Callan Small/MidCap Value	2.5 79	-14.8 78	-4.3 69	3.4 65		0.1 65	-0.5 89	2.3 96	
Russell 2500 Value Index	3.5 75	-12.6 50	-2.7 46	4.6 48		0.2 49			
Brown Advisory Small/Mid Cap Growth Callan Sm/MidCap Growth	8.7 71	17.9 78	13.6 72	15.8 47		0.6 54	0.3 49	5.3 39	
Russell 2500 Growth Index	9.4 62	23.4 56	13.4 73	14.2 65		0.6 60			
BlackRock Russell 2500 Index (i) Callan Small/MidCap Core	5.9 37	3.0 23							
Russell 2500 Index	5.9 37	2.2 25	4.5 40	9.0 34		0.3 41			
Returns: above median third quartile fourth quartile	sy:	Sharpe Rat above me	edian rtile		above r	artile	:	seco	v median nd quartile
fourth quartile fourth quartile		fourth qu	artile		fourth q	luartile		first o	juartile

⁽i) - Indexed scoring method used. Green: manager & index ranking differ by <= +/- 10%tile. Yellow: manager & index ranking differ by <= +/- 20%tile. Red: manager & index ranking differ by > +/- 20%tile.



Galliard Stable Value Period Ended September 30, 2020

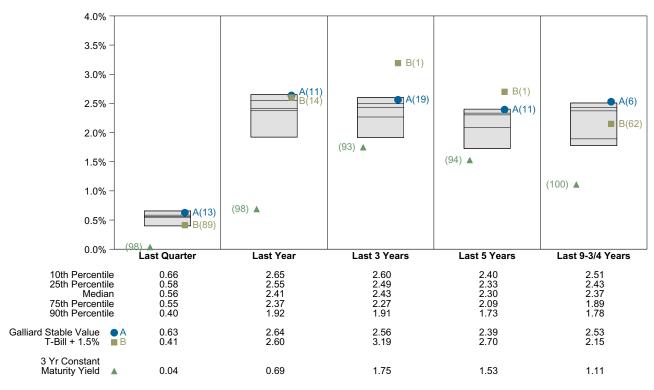
Investment Philosophy

Galliard's primary emphasis in managing the stable value is safety of principal. Investment strategies and security selection are designed and implemented with this primary objective in mind. Liquidity is another key concern, for it must be sufficient to accommodate participant changes and provide plan sponsor flexibility.

Quarterly Summary and Highlights

- Galliard Stable Value's portfolio posted a 0.63% return for the quarter placing it in the 13 percentile of the Callan Stable Value SA group for the quarter and in the 11 percentile for the last year.
- Galliard Stable Value's portfolio outperformed the 3 Yr Constant Maturity Yield by 0.59% for the quarter and outperformed the 3 Yr Constant Maturity Yield for the year by 1.95%.

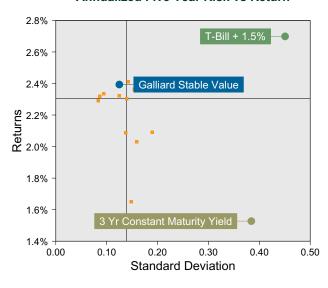
Performance vs Callan Stable Value SA (Gross)



Relative Returns vs 3 Yr Constant Maturity Yield

0.70% 0.60% 0.50% Relative Returns 0.40% 0.30% 0.20% 0.10% 0.00% (0.10%)(0.20%)2016 2017 2018 2019 2020 Galliard Stable Value

Callan Stable Value SA (Gross)
Annualized Five Year Risk vs Return



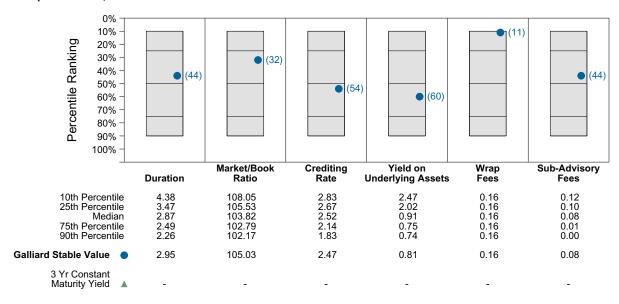


Galliard Stable Value Stable Value Characteristics Analysis Summary

Portfolio Characteristics

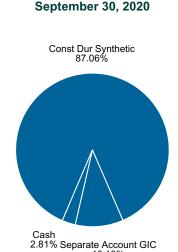
This graph compares the stable value fund's portfolio characteristics with the range of characteristics for the portfolios which make up the fund's style group. This analysis illustrates whether the fund's current structure is consistent with other funds employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Stable Value SA as of September 30, 2020



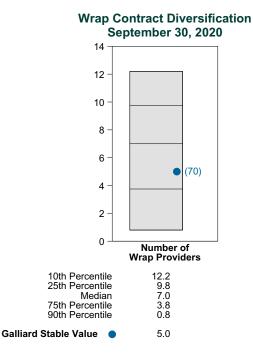
Wrap Structure and Diversification

The graph below represents the stable value fund's wrap contract structure as of the most recent reporting period. The fund's overall wrap structure may include exposure to constant duration or maturing synthetic GIC contracts, traditional GIC contracts, cash, or other exposures. These contracts allow stable value portfolios to maintain book value accounting practices and a stable net asset value.



10.13%

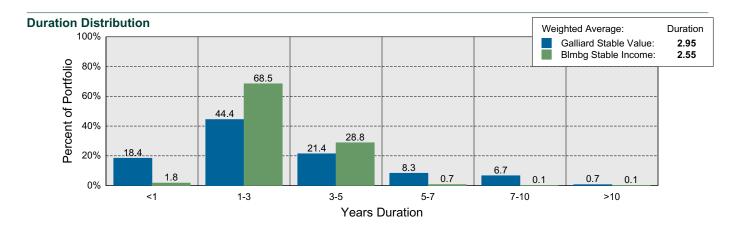
Portfolio Wrap Exposure

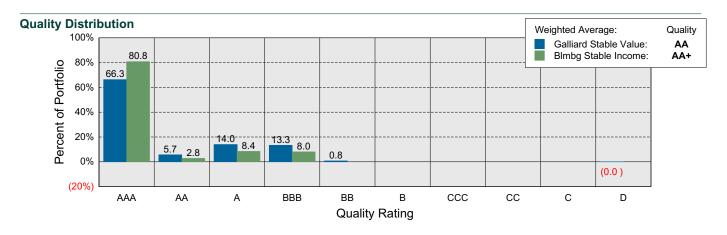


Galliard Stable Value Stable Value Portfolio Characteristics Summary As of September 30, 2020

Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from two perspectives that have the greatest influence on return. The first chart compares the portfolio's duration distribution versus the benchmark, and the second chart compares the distributions across quality ratings.

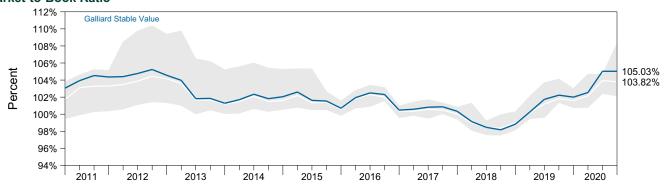




Market-to-Book Ratio Over Time

The chart below depicts the historical movement of the stable value portfolio's market-to-book ratio over time. This statistic measures the overall "health" of the underlying portfolio. Portfolios with market-to-book ratios closer to 100% will be better positioned to absorb flows and should offer greater return stability over time. As a backdrop the range (from 10th to 90th percentile) is shown along with a white median line for the Callan Stable Value SA Universe.

Market-to-Book Ratio





Third Time Is the Charm? DOL Re-Proposes Fiduciary Rule – July 1, 2020

The U.S. Department of Labor (DOL) issued a proposed regulation addressing fiduciary advice to defined contribution (DC) plan participants. The rule deals with parties that receive additional compensation from transactions involving retirement accounts (e.g., investment recommendations or rollovers).

The DOL's 2016 fiduciary rule was struck down by the Fifth Circuit Court of Appeals in 2018, leaving a complicated 1975era regulation in place. The existing rule includes a five-part test to determine fiduciary status and prohibits those fiduciaries from self-dealing unless they qualify for an exemption.

The proposed rule creates an exemption that would allow fiduciaries providing investment advice to receive compensation for advice or rollovers, as long as they act in their clients' best interests. Fiduciaries could qualify for the exemption by following impartial conduct standards as outlined in a 2018 Labor Department field assistance bulletin, including: earning reasonable compensation, not making misleading statements, and telling customers they are acting as fiduciaries. Under the DOL's new proposal, providers would also be required to document reasons for recommending a rollover and why it would be in the best interest of the investor.

The proposed rule, which the DOL says is "aligned" with the Securities and Exchange Commission's (SEC) Regulation Best Interest (Reg BI), applies to registered investment advisers, broker-dealers, banks, insurance companies, and their employees, agents and representatives. However, brokers who adhere to Reg BI will likely be deemed as being in compliance with the new DOL rule.

The timing of this proposed rule is noteworthy. As we saw with the 2016 fiduciary rule, the outcome of November's election may significantly impact the approval and/or deployment of new regulations.

The DOL has opened a 30-day comment period for the new proposed rule. Plan sponsors should consider the impact of the new regulation on their defined contribution plans and confer with their vendors to understand how their service model, including call center or face-to-face meetings, will be impacted by the still-evolving advice landscape.

Fine-tuning CARES Act Implementation – July 6, 2020

The coronavirus relief bill, known as the CARES Act, expanded access to retirement assets for participants who were impacted by the pandemic. The near lightning speed of the bill's drafting and passage meant that a number of provisions needed regulatory guidance.

The CARES Act was signed into law on March 27, 2020. Drafting this legislation was expedited, which means there is a limited congressional record to clarify provisions. The Internal Revenue Service (IRS) has issued two Notices and a FAQ to clarify how defined contribution (DC) plan sponsors should implement the provisions, touching on required notices, tax reporting, and recordkeeping.

Notice 2020-50

What was covered: The Notice addresses how to process coronavirus-related distributions (CRDs) and more liberal loan provisions. These provisions are optional.

What you need to know: This Notice expanded the group of participants who are eligible to take CRDs, larger loans, or suspend loan repayments to include members of the participant's household. Previously, the group was limited to the participant, spouse, and dependents.

The Notice also addressed how loan suspensions and subsequent reamortization would be managed. Qualified individuals are allowed to suspend repayments until the end of 2020. Loan repayments would not be required until 12 months following the suspension, and the loan term may be extended by 12 months.

The Notice provided a sample self-certification statement for participants looking to take advantage of the CARES Act provisions.

What to do: Based on how the law was drafted, the plan sponsor and/or their recordkeepers will need to be able to track a floating repayment date for CRDs—the Act permits participants to repay CRDs within three years of the date the distribution was taken. This additional level of complexity may create risk for plans that allow participants to repay their CRD(s).

Plan sponsors will need to ensure tax reporting for CRDs is accurate and that loan suspensions are administered correctly by their service providers. Plan sponsors or their recordkeeper will need to establish a means of tracking who is an eligible participant, their self-certification, and the date CRDs were taken.

Notice 2020-51

What was covered: The IRS provided additional guidance on waived required minimum distributions (RMDs). RMD payments are required annually and can be paid at any time in the tax year, although the initial distribution can be delayed until April 1 of the next tax year. RMDs are based on the account balance as of December 31 of the prior year and cannot be rolled over.

What you need to know: The CARES Act waived 2019 RMDs that would be paid in 2020. However, due to the timing, participants who were required to take a distribution by April 1, or had regularly scheduled RMDs, may have been forced to take a distribution at a time when the market was experiencing severe dislocation. While RMDs were suspended during the Global Financial Crisis in 2009, and participants were allowed to repay the RMDs, the CARES Act did not explicitly allow this option. The IRS Notice specifically allows participants to roll their RMDs into a DC plan, if permitted, or an IRA by August 31, 2020. It also addressed the later starting date established by the SECURE Act, passed in December 2019, and various nuances of tax reporting.

What to do: The Notice included a model amendment that plan sponsors can use to amend the plan document. Plan amendments related to CARES Act must be adopted no later than the last day of the first plan year beginning on or after January 1, 2022 (January 1, 2024, for governmental plans).

The IRS has indicated that RMD failures are one of the most common administration errors. The many changes to RMD processing due to the CARES Act and SECURE Act add additional complexity and potential for error. Plan sponsors may wish to audit RMDs in 2020 and 2021 to ensure those payments are processed and reported correctly.

The pandemic has forced plan sponsors and recordkeepers to react quickly and agilely. Deploying the CARES Act provisions required prompt action, but the underlying infrastructure to support may still be in development (e.g., tax reporting is not required until 2021). While many plan sponsors delegate authority to administer the plan to their recordkeeper, the fiduciary retains the responsibility to ensure accurate administration. Plan sponsors should work with their providers to understand how the CARES Act provisions are implemented, tracked, and reported. Plan sponsors should also consider auditing these provisions to confirm they were processed correctly.

Learning from Litigation – August 5, 2020

While managing the global coronavirus pandemic has been at the forefront for employers, ERISA litigation has continued apace in the background. Callan will be exploring a select few litigation themes over the coming weeks.

A review of 29 complaints filed in the first half of 2020 shows that the litigation spans industries, plan sizes, plaintiff counsel, and allegations. Over the next few weeks, we will review trends in litigation and the impact of specific cases.

The median plan assets in new lawsuits filed in the first half of 2020 was \$1.6 billion, and the average participant count was 19,000. However, it is noteworthy that approximately one-third of lawsuits filed in the first half of the year had less than \$1 billion in plan assets or less than 10,000 participants.

Allegations have followed consistent themes: 85% of lawsuits challenged fund selection, and more than three-quarters of those also challenged the target date fund selection. 75% of lawsuits challenged recordkeeping fees in one form or another.

New trends in litigation include:

- Challenging the inclusion of managed accounts as a plan service 14%
- Indirect compensation (e.g., managed account revenue, float) to recordkeepers 18%
- Fraud and participant losses 7%

Of note, 12 different law firms filed new lawsuits in 2020. New players are entering this arena with varying levels of competency.

In addition to the new lawsuits filed during the first two quarters of 2020, eight lawsuits were settled during this time period. The median settlement amount was \$10.5 million or .16% of plan assets. The average time between the date filed and the date settled was 3.4 years. 80% of the cases settled dealt with fund selection and 50% dealt with recordkeeping fees. The median plan size was \$1.9 billion in plan assets and 38,000 participants.

The ongoing litigation in the face of the pandemic reinforces the need to continue managing and reviewing fees, funds, and services. Plan sponsors should continue to carefully monitor investment options, review plan fees, and follow any written governance documentation, including the investment policy statement. Additionally, plan fiduciaries should document the process and decisions made around vendor selection and fees to demonstrate their due diligence.

2020 Litigation: Fund Selection - August 12, 2020

One of the most common allegations in ERISA defined contribution (DC) plan litigation has revolved around fund selection and monitoring. This trend continued with new lawsuits filed during the first half of 2020, although the alleged failures spanned a number of areas.

A review of 29 complaints filed in the first half of 2020 shows that the litigation spans industries, plan sizes, plaintiff counsel, and allegations. 85% of those lawsuits challenged fund selection, and more than three-quarters of those also challenged the target date fund selection.

Of those lawsuits that alleged a failure in fund selection:

- The most common allegation was the failure to investigate lower cost fund options (76%).
- The argument over active versus passive was raised in 60% of those lawsuits.
- 52% alleged that the plan fiduciary should have investigated collective investment trusts (CITs).
- 36% alleged that select funds had underperformed their benchmark, while 12% alleged that the funds had too short of a performance track record and were therefore imprudent.
- Only one alleged that the plan included too many funds, in contrast to prior litigation where that was a more common allegation.
- Two alleged that the plan sponsor should have selected a stable value fund instead of a money market fund. One additional lawsuit challenged the money market fund selected based on performance compared to its benchmark.

The majority of these lawsuits also addressed the target date fund (TDF), often through the same lens of fund selection as described above. Only three lawsuits directly challenged whether the fund was an appropriate default selection for the DC plan in question.

- Lower cost allegations were less common (55%) than those seen with other fund selection.
- The prudence in selecting active managers was broached in 36% of new lawsuits. A potential rationale for this lower number may be the presence of a passive manager currently.

- 18% of the lawsuits alleged that the plan fiduciary should have selected a CIT; another 18% alleged underperformance; and yet another 18% alleged the fund performance was too short for it to be a prudent selection. Note: it was not the same 18% of lawsuits making each of these allegations.
- One lawsuit alleged that offering more than one TDF suite was imprudent (the plan in question offered three separate TDF suites).

Plan sponsors should consider the asset classes included in the DC plan and the funds that fall into those categories. Documenting the regular review of fund performance, style consistency, fees, and risk profile will act as a hedge against these claims. In particular, plan sponsors should review and confirm that the TDF suite offered to participants is appropriate based on the 2013 guidance provided by the Department of Labor's Employee Benefits Security Administration. Additionally, plan sponsors should keep a close eye on the current legal climate to avoid potential legal issues of their own. The focus and decision-making process as a fiduciary should always be in the best interest of the participants.

2020 Litigation: Case Study in Monitoring Fees - August 20, 2020

Monitoring and documenting the review of recordkeeping fees was a common theme in new litigation filed during the first half of 2020. 75% of lawsuits challenged recordkeeping fees in one form or another.

Among the many flavors of litigation in 2020, the settlement in Moitoso et al. vs. FMR LLC et al. has a unique nuance. A \$28.5 million settlement from Fidelity's parent company was reached in this lawsuit on June 18. Among the issues addressed in the complaint and in the case history was whether the plan fiduciaries had actually monitored administrative fees.

In response to a 2014 lawsuit, Fidelity implemented a system that returned any administration fees generated by Fidelity to active participant accounts, and those employees effectively paid no fees. At the same time, the plan sponsor modified the plan design to include the administration fee credit in the employer contribution calculation. These changes did impact terminated participants to some extent.

In Moitoso, the plaintiffs claimed the plan fiduciaries failed to manage the plan in a prudent and loyal manner, and the case history notes that Fidelity "does not dispute that the Plan Fiduciaries declined to monitor recordkeeping expenses." In essence, the judge hearing the case noted that their "argument rests on the proposition that 'there is no breach of a duty to be cost-conscious where there are no costs." The court concluded "the Plan Fiduciaries were negligent in failing to monitor recordkeeping expenses, an important component of the administration of their fiduciary duties."

While fees are only part of the complaint, and it is unclear how much weight they were given in the settlement, it was noteworthy that the lack of monitoring prevented this claim from being dismissed prior to the court's ruling.

Although fees are a common theme in litigation, this lawsuit focuses not on excessive fees, but rather that the plan fiduciaries did not monitor fees to confirm the expenses were reasonable. An important component of plan governance is reviewing and monitoring the funds and fees, and documenting the process. Plan sponsors should consider benchmarking their fees regularly and maintaining records that demonstrate the due diligence process.

2020 Litigation: The Age-Old Question—Active or Passive? - August 28, 2020

A number of lawsuits filed in 2020 have alleged that the presence of an active strategy target date fund (TDF) is imprudent when a similar passive strategy was available from the same investment manager. The complaints focus both on the fee differential and comparative performance.

TDFs typically have two primary purposes in a DC plan. First, they serve the stated function of the investment—to provide a diversified investment portfolio and structured glidepath to meet the needs of investors based on their target retirement date. The second is based on the unique purpose of TDFs in many DC plans—to serve as a default investment vehicle for participants who do not make an affirmative investment election. The Pension Protection Act of 2006 (PPA) made TDFs one of three types of investments that could serve as the qualified default investment alternative (QDIA) for such participants. This legislation spurred a seismic shift in the DC plan investment landscape; according to the Callan DC Index™, in March 2006 (pre-PPA) only 37% of plans offered a TDF compared to more than 90% today.

While 75% of lawsuits filed during the first half of 2020 addressed TDFs, 8 of the 29 lawsuits filed in the first half of 2020 have attacked either or both purposes based on the use of active target date strategies when a passive strategy was available from the same investment manager. Another five lawsuits were filed in July 2020 with the same argument. The lawsuits that addressed the use of an active TDF series compared to their passive sister series of TDFs were filed by three different law firms. While each litigator used largely similar language in their complaints, there were distinctions between the claims asserted by each. The majority of complaints in our review addressed the use of active strategies when, according to one complaint, "the equity glide paths of the two fund families appear nearly identical." That complaint also alleges that not only are the fees higher in an active suite compared to the passive strategy with the same investment manager, the funds also take on greater risk and, for certain plans, invest in underperforming funds. While using similar language, a different litigator alleged that there was a "high correlation of the [passive] funds' holdings with the Plan's funds holdings ... any difference was immaterial," but found that the passive strategy had no material difference in the risk/return profile of the funds.

Beyond the question of whether the TDFs were appropriate plan investments broadly, two of the lawsuits (out of three filed by one particular law firm) questioned whether or not the active TDF was the prudent choice for the QDIA. The definition of the QDIA is encapsulated in ERISA §404(c), which generally allows fiduciaries to be relieved of liability for participants' investment decisions providing a slew of requirements are met. This protection is extended for participants who are defaulted into a QDIA, assuming an additional barrage of requirements are followed. The process to select and monitor the QDIA is itself a fiduciary duty.

In February 2013, the Employee Benefits Security Administration (EBSA) released its guide on Target Date Retirement Funds—Tips for ERISA Plan Fiduciaries. According to the EBSA, the general guidance is geared "to assist plan fiduciaries in selecting and monitoring TDFs and other investment options in 401(k) and similar participant-directed individual account plans." Callan believes that from the Department of Labor's (DOL) perspective, a higher standard may apply to TDF decision-making. The DOL Tips provide a framework for reviewing the suitability of a target date solution for a specific plan given its demographics and plan design. Plan sponsors should consider reviewing the target date funds' composition, evaluating fees relative to performance, determining whether the glidepath is appropriate for the plan participants, and maintaining records that demonstrate the due diligence process and outcomes. Callan also recommends reviewing all target date offerings should the investment manager offer multiple versions.

DOL Proposes Tightened Proxy Voting Guidelines - September 3, 2020

Earlier this week the Department of Labor (DOL) proposed a rule that would prohibit ERISA-covered plan fiduciaries from expending plan assets to vote proxies unless doing so adds economic value to the plan.

The proposal comes amid a flurry of other regulatory activity by the DOL, including a revised fiduciary rule and new guidance around including private equity and evaluating environmental, social, and governance (ESG) factors in defined contribution (DC) plans.

Over the years, the DOL has issued guidance regarding the fiduciary act of managing plan assets that are shares of corporate stock. The fiduciary obligations of prudence and loyalty to participants require the fiduciary to vote proxies on issues that may affect the value of the investment. However, the fiduciary is only required to cast a vote when there is an economic impact. Generally the responsibility to vote on proxies is described in the plan document or investment management agreements.

The department's new proposal dovetails with SEC guidance finalized in 2020 and would create a refined set of circumstances in which plan fiduciaries may engage in proxy voting. The introduction to the proposed rule notes that the DOL "is concerned that the costs for fiduciaries to prudently exercise proxy voting rights often will exceed any potential economic benefits to a plan." Specifically, the rule would require a fiduciary to determine whether voting would result in clear economic consequences for the plan. If the fiduciary determines that a vote would have a financial impact, voting on the matter would be permitted. However, if the vote would not result in a material financial impact on the plan, the fiduciary would be prohibited from voting.

In addition, the rule would require fiduciaries to document their proxy voting activities and the rationale behind certain voting decisions or, if a separate party was responsible for proxy voting, to monitor the process and decisions made by that party. Moreover, the proposed rule indicates that a fiduciary may adopt proxy voting policies establishing certain "permitted practices" (e.g., quantitative threshold of materiality), and the fiduciary may then apply those policies to proxy votes. The proposed rule would also require that the policies be reviewed every two years.

The business-friendly rule suggests that a fiduciary may adopt a policy of voting proxies in accordance with management's recommendations on proposals that would not have a significant impact on the value of the plan's investment. It also suggests that the proposed rule is necessary due to the "recent increase in the number of environmental and social shareholder proposals." It goes on to note that "many of these proposals have little bearing on share value or other relation to plan interests."

One possible consequence of the proposal is a chilling effect on proxy voting, particularly in situations where it may be difficult to determine or prove that the subject of a vote would have a clear financial impact on the plan. Just as the DOL's proposed ESG rule may seemingly create a larger hurdle for ESG adoption in DC plans, the proposed proxy voting rule may make it more difficult for plan fiduciaries to vote on matters tied to non-economic considerations, which may or may not include ESG considerations.

The DOL has opened a 30-day comment period for the proposed rule. Given the more than 8,000 comments submitted in response to the proposed ESG rule (with most opposing it), the proposed proxy rule may also see a flurry of feedback.

Plan sponsors should consider their current proxy voting arrangements and ensure the processes are clearly outlined and documented. In addition, sponsors should continue to monitor the situation and stay abreast of future developments, particularly following the comment period.

2020 Litigation: Allegations Over Misuse of Participant Data – September 8, 2020

New litigation filed during the first half of 2020 included allegations that participant data was misused to cross-sell services outside of the defined contribution (DC) plan. Other complaints alleged that third-party fraud revealed insufficient protections and safeguards around participant data and accounts, amounting to a breach of fiduciary duty.

Over the last several years as DC plan litigation has matured, new allegations have been explored by plaintiffs' counsel. The Employee Retirement Income Security Act (ERISA) establishes plan sponsor's duties to retain records. Section 107 of ERISA requires that the plan sponsor retain records used to support plan filings. Section 209 describes the responsibilities to maintain participant records that are used to determine benefits. Although the plan's recordkeeper may maintain these records, the responsibility to manage and produce these records lies with the employer and the "plan administrator" as designated by ERISA.

During the first six months of 2020, two new lawsuits were filed alleging that plan fiduciaries had failed to manage the plan with loyalty or prudence and engaged in prohibited transactions by allowing the plan's service providers to collect and use "Confidential Plan Participant Data" for profit. According to the complaints, this lapse demonstrated that the plan fiduciaries failed to act in the exclusive interest of participants. The lawsuits state that "fiduciaries must negotiate as if their own money and information is at stake" and, as described in one of the cases, "consider whether participants would be better served by avoiding enabling the use of participant data for any purpose outside the DC plan."

In addition, two other lawsuits filed in 2020 addressed incidents of fraud and the failure of both plan sponsors and plan recordkeepers to protect participant data and account assets. While the facts of the cases vary, it is important to note that the plan fiduciary is responsible for monitoring the recordkeeper and its security protocols for participant data.

In light of the current pandemic and resulting work-from-home initiatives, there is the potential for increased incidents of fraud from a number of different actors. Plan sponsors should remind employees and plan participants of proper cybersecurity practices in a time of increased cyber vulnerability.

Plan sponsors should not only continue to carefully monitor investment options and plan fees but should also be cognizant of new and arising issues, such as the use and safeguarding of participant data by service providers. Maintaining a close eye on the current legal climate should increase sponsors' awareness and help them avoid potential legal issues of their own.

Plan sponsors should confirm how the ownership of plan records is addressed in contractual agreements, along with limiting the use of participant records to those actions needed to administer and maintain the DC plan. In addition, information security vigilance is more important than ever. Plan sponsors should follow a prudent process to manage cyber-risk and secure plan data, and document those efforts. This could include a security audit and regular reporting from the recordkeeper on the status of information security protocols.

APPENDIX			

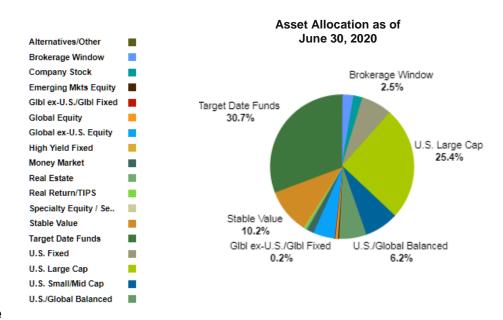
Structure Utilization

Asset Allocation

Equities See Largest Increase in Allocation

The percentage of assets allocated to U.S. large cap increased by more than 1.6 percentage points, bringing the overall allocation to 25.4%. Strong performance relative to fixed income and other asset classes drove the increase and offset the effect of net outflows. U.S. small/mid cap (7.7%) and global ex-U.S. equity (4.9%) saw the next largest increases in allocation from the previous quarter.

On the other hand, stable value (10.2%) had the largest decrease in allocation after having the largest gain during the previous quarter. Following stable value, U.S. fixed income (6.9%) and U.S./global balanced (6.2%) saw the next largest decreases in allocation.



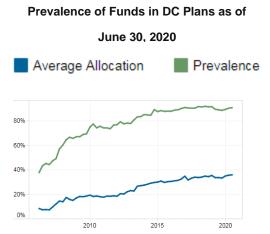
Prevalence

Money Market Prevalence Increases

In the prevalence of funds table, the green bars indicate the prevalence of asset classes within DC plans, while the blue bars show the average allocation to that particular asset class when offered as an option.

The prevalence of a money market offering (47.7%) increased by nearly 4 percentage points from the previous quarter and sits at its highest mark since the third quarter of 2017. Conversely, the percentage of plans offering stable value (75.2%) decreased by about 1 percentage point.

The percentage of plans offering global equity (15.6%) and real return/TIPS (35.8%) both dipped by more than 1 percentage point. On the other hand, the prevalence of a high yield offering (5.5%) increased by about 75 basis points and sits at its highest mark since 2017.



Glossary

Total Pure Equity - The sum of "pure" equity across the glide path. Pure equity is composed of large-cap domestic equity, small/mid-cap domestic equity, international equity, emerging market equity and global equity. Excluded are REIT exposures.

Total Target Date Family Performance - The weighted performance across all of the underlying target date vintages. Family performance can be weighted equally, according to client assets within each vintage or according to manager assets within each vintage.

Callan Consensus - An equally weighted index of the universe of available TDF "series" or "families" (currently 44) including both mutual funds and collective trusts. The funds' glidepaths are mapped into 26 asset classes. The CAI Consensus Glidepath Index is created as an equal-weighted average of all the provider glidepaths, and will change dynamically over time as provider glidepaths evolve and/or the provider universe expands.

Equity Market Indicators

The market indicators included in this report are regarded as measures of equity or fixed income performance results. The returns shown reflect both income and capital appreciation.

Russell 1000 Growth measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Value contains those Russell 2000 securities with a less than average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-earning ratios, higher dividend yields and lower forecasted growth values than the Growth universe.

Russell 2500 Growth Index measures the performance of those Russell 2500 companies with higher price-to-book ratios and higher forecasted growth values.

Russell Mid Cap Growth measures the performance of those Russell Mid Cap Companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index.

Standard & Poor's 500 Index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The index is capitalization-weighted, with each stock weighted by its proportion of the total market value of all 500 issues. Thus, larger companies have a greater effect on the index.

Fixed Income Market Indicators

90-Day U.S. Treasury Bills provide a measure of riskless return. The rate of return is the average interest rate available on the beginning of each month for a Treasury Bill maturing in ninety days.

Bloomberg Barclays Aggregate Bond Index is a combination of the Mortgage Backed Securities Index and the intermediate and long-term components of the Government/Credit Bond Index.



International Equity Market Indicators

Morgan Stanley Capital International (MSCI) EAFE Index is composed of approximately 1000 equity securities representing the stock exchanges of Europe, Australia, New Zealand and the Far East. The index is capitalization-weighted and is expressed in terms of U.S. dollars.



Callan Databases

In order to provide comparative investment results for use in evaluating a fund's performance, Callan gathers rate of return data from investment managers. These data are then grouped by type of assets managed and by the type of investment manager. Except for mutual funds, the results are for tax-exempt fund assets. The databases, excluding mutual funds, represent investment managers who handle over 80% of all tax-exempt fund assets.

Equity Funds

Equity funds concentrate their investments in common stocks and convertible securities. The funds included maintain well-diversified portfolios.

Core Equity - Mutual funds whose portfolio holdings and characteristics are similar to that of the broader market as represented by the Standard & Poor's 500 Index, with the objective of adding value over and above the index, typically from sector or issue selection. The core portfolio exhibits similar risk characteristics to the broad market as measured by low residual risk with Beta and R-Squared close to 1.00.

Large Cap Growth - Mutual Funds that invest mainly in large companies that are expected to have above average prospects for long-term growth in earnings and profitability. Future growth prospects take precedence over valuation levels in the stock selection process. Invests in companies with P/E ratios, Price-to-Book values, Return-on-Assets values, Growth-in-Earnings values above the broader market. The companies typically have zero dividends or dividend yields below the broader market. Invests in securities which exhibit greater volatility than the broader market as measured by the securities' Beta and Standard Deviation.

Large Cap Value - Mutual funds that invest in predominantly large capitalization companies believed to be currently undervalued in the general market. The companies are expected to have a near-term earnings rebound and eventual realization of expected value. Valuation issues take precedence over near-term earnings prospects in the stock selection process. Invests in companies with P/E rations and Price-to-Book values below the broader market. Usually exhibits lower risk than the broader market as measured by the Beta and Standard Deviation.

Non-U.S. Equity Style Mutual Funds - Mutual funds that invest their assets only in non-U.S. equity securities but exclude regional and index funds.

Small Capitalization (Value) - Mutual funds that invest in small capitalization companies that are believed to be currently undervalued in the general market. Valuation issues take precedence over near-term earnings prospects in the stock selection process. The companies are expected to have a near-term earnings rebound and eventual realization of expected value. Invests in companies with P/E ratios, Return-on-Equity values, and Price-to-Book values below the broader market as well as the small capitalization market segment. The companies typically have dividend yields in the high range for the small capitalization market. Invests in securities with risk/reward profiles in the lower risk range of the small capitalization market.

Small/Middle Capitalization - Managers who invest primarily in small to middle capitalization range companies with market capitalization below core equity companies. The market capitalization is about the upper quartile of the Small Cap group and the lower decile of the Mid Cap group. The Small/Mid Cap Broad style invests in securities with greater volatility than the broader market as measured by the risk statistics Beta and Standard Deviation. This style consists of the Small/Mid Cap Growth and the Small/Mid Cap Value Style Groups and other funds classified strictly as Small/Mid Cap Broad.



Callan Databases

In order to provide comparative investment results for use in evaluating a fund's performance, Callan gathers rate of return data from investment managers. These data are then grouped by type of assets managed and by the type of investment manager. Except for mutual funds, the results are for tax-exempt fund assets. The databases, excluding mutual funds, represent investment managers who handle over 80% of all tax-exempt fund assets.

Fixed Income Funds

Fixed Income funds concentrate their investments in bonds, preferred stocks, and money market securities. The funds included maintain well-diversified portfolios.

Core Bond - Mutual Funds that construct portfolios to approximate the investment results of the Bloomberg Barclays Capital Government/Credit Bond Index or the Bloomberg Barclays Capital Aggregate Bond Index with a modest amount of variability in duration around the index. The objective is to achieve value added from sector and/or issue selection.

Stable Value - The Stable Value database group is comprised of funds that invest primarily in Guaranteed Investment Contracts (GICs) and Synthetic Investment Contracts (SICs) to provide principal protection, stable book value and a guaranteed rate of return over a contractually specified time period. Common benchmarks for the universe include but not limited to, are the Ryan Labs GIC Master indices and the Hueler Stable Value Index.



Risk/Reward Statistics

The risk statistics used in this report examine performance characteristics of a manager or a portfolio relative to a benchmark (market indicator) which assumes to represent overall movements in the asset class being considered. The main unit of analysis is the excess return, which is the portfolio return minus the return on a risk free asset (3 month T-Bill).

Alpha measures a portfolio's return in excess of the market return adjusted for risk. It is a measure of the manager's contribution to performance with reference to security selection. A positive alpha indicates that a portfolio was positively rewarded for the residual risk which was taken for that level of market exposure.

Beta measures the sensitivity of rates of portfolio returns to movements in the market index. A portfolio's beta measures the expected change in return per 1% change in the return on the market. If a beta of a portfolio is 1.5, a 1 percent increase in the return on the market will result, on average, in a 1.5 percent increase in the return on the portfolio. The converse would also be true.

Downside Risk stems from the desire to differentiate between "good risk" (upside volatility) and "bad risk" (downside volatility). Whereas standard deviation punishes both upside and downside volatility, downside risk measures only the standard deviation of returns below the target. Returns above the target are assigned a deviation of zero. Both the frequency and magnitude of underperformance affect the amount of downside risk.

Excess Return Ratio is a measure of risk adjusted relative return. This ratio captures the amount of active management performance (value added relative to an index) per unit of active management risk (tracking error against the index.) It is calculated by dividing the manager's annualized cumulative excess return relative to the index by the standard deviation of the individual quarterly excess returns. The Excess Return Ratio can be interpreted as the manager's active risk/reward tradeoff for diverging from the index when the index is mandated to be the "riskless" market position.

Information Ratio measures the manager's market risk-adjusted excess return per unit of residual risk relative to a benchmark. It is computed by dividing alpha by the residual risk over a given time period. Assuming all other factors being equal, managers with lower residual risk achieve higher values in the information ratio. Managers with higher information ratios will add value relative to the benchmark more reliably and consistently.

R-Squared indicates the extent to which the variability of the portfolio returns are explained by market action. It can also be thought of as measuring the diversification relative to the appropriate benchmark. An r-squared value of .75 indicates that 75% of the fluctuation in a portfolio return is explained by market action. An r-squared of 1.0 indicates that a portfolio's returns are entirely related to the market and it is not influenced by other factors. An r-squared of zero indicates that no relationship exists between the portfolio's return and the market.

Relative Standard Deviation is a simple measure of a manager's risk (volatility) relative to a benchmark. It is calculated by dividing the manager's standard deviation of returns by the benchmark's standard deviation of returns. A relative standard deviation of 1.20, for example, means the manager has exhibited 20% more risk than the benchmark over that time period. A ratio of .80 would imply 20% less risk. This ratio is especially useful when analyzing the risk of investment grade fixed-income products where actual historical durations are not available. By using this relative risk measure over rolling time periods one can illustrate the "implied" historical duration patterns of the portfolio versus the benchmark.

Residual Portfolio Risk is the unsystematic risk of a fund, the portion of the total risk unique to the fund (manager) itself and not related to the overall market. This reflects the "bets" which the manager places in that particular asset market. These bets may reflect emphasis in particular sectors, maturities (for bonds), or other issue specific factors which the manager considers a good investment opportunity. Diversification of the portfolio will reduce or eliminate the residual risk of that portfolio.



Risk/Reward Statistics

Rising Declining Periods refer to the sub-asset class cycles vis-a-vis the broader asset class. This is determined by evaluating the cumulative relative sub-asset class index performance to that of the broader asset class index. For example, to determine the Growth Style cycle, the S&P 500 Growth Index (sub-asset class) performance is compared to that of the S&P 500 Index (broader asset class).

Sharpe Ratio is a commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's risk level (standard deviation). The result is a measure of return gained per unit of risk taken.

Sortino Ratio is a downside risk-adjusted measure of value-added. It measures excess return over a benchmark divided by downside risk. The natural appeal is that it identifies value-added per unit of truly bad risk. The danger of interpretation, however, lies in these two areas: (1) the statistical significance of the denominator, and (2) its reliance on the persistence of skewness in return distributions.

Standard Deviation is a statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (ie. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

Total Portfolio Risk is a measure of the volatility of the quarterly excess returns of an asset. Total risk is composed of two measures of risk: market (non-diversifiable or systematic) risk and residual (diversifiable or unsystematic) risk. The purpose of portfolio diversification is to reduce the residual risk of the portfolio.

Tracking Error is a statistical measure of a portfolio's risk relative to an index. It reflects the standard deviation of a portfolio's individual quarterly or monthly returns from the index's returns. Typically, the lower the Tracking Error, the more "index-like" the portfolio.

Treynor Ratio represents the portfolio's average excess return over a specified period divided by the beta relative to its benchmark over that same period. This measure reflects the reward over the risk-free rate relative to the systematic risk assumed.

Note: Alpha, Total Risk, and Residual Risk are annualized.



List of Callan's Investment Manager Clients

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Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name
Aberdeen Standard Investments
Acadian Asset Management LLC
AEGON USA Investment Management Inc.
AllianceBernstein
Allianz
American Century Investments
Amundi Pioneer Asset Management
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Atlanta Capital Management Co., LLC
Aviva Investors Americas
AXA Investment Managers
Baillie Gifford International, LLC
Baird Advisors
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC

Manager Name BlackRock
BMO Global Asset Management
BNP Paribas Asset Management
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
BrightSphere Investment Group
Brown Brothers Harriman & Company
Cambiar Investors, LLC
CapFinancial Partners, LLC
Capital Group
Carillon Tower Advisers
CastleArk Management, LLC
Causeway Capital Management LLC
Chartwell Investment Partners
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.



Manager Name

Columbia Management Investments

Columbus Circle Investors

Credit Suisse Asset Management

D.E. Shaw Investment Management, L.L.C.

DePrince, Race & Zollo, Inc.

Dimensional Fund Advisors LP

Doubleline

Duff & Phelps Investment Management Co.

DWS

EARNEST Partners, LLC

Eaton Vance Management

Epoch Investment Partners, Inc.

Fayez Sarofim & Company

Federated Hermes, Inc.

Fidelity Institutional Asset Management

Fiera Capital Corporation

First Hawaiian Bank Wealth Management Division

First State Investments

Fisher Investments

Franklin Templeton

Fred Alger Management, Inc.

GAM (USA) Inc.

GCM Grosvenor

Glenmeade Investment Management, LP

GlobeFlex Capital, L.P.

Goldman Sachs

Green Square Capital Advisors, LLC

Guggenheim Investments

GW&K Investment Management

Harbor Capital Group Trust

Hartford Investment Management Co.

Heitman LLC

Hotchkis & Wiley Capital Management, LLC

Income Research + Management, Inc.

Insight Investment Management Limited

Intech Investment Management, LLC

Intercontinental Real Estate Corporation

Invesco

Investec Asset Management North America, Inc.

Ivy Investments

Manager Name

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

KeyCorp

Lazard Asset Management

Legal & General Investment Management America

Lincoln National Corporation

Longview Partners

Loomis, Sayles & Company, L.P.

Lord Abbett & Company

Los Angeles Capital Management

LSV Asset Management

MacKay Shields LLC

Macquarie Investment Management (MIM)

Manulife Investment Management

Marathon Asset Management, L.P.

McKinley Capital Management, LLC

Mellor

MetLife Investment Management

MFS Investment Management

MidFirst Bank

Mondrian Investment Partners Limited

Montag & Caldwell, LLC

Morgan Stanley Investment Management

Mountain Pacific Advisors, LLC

MUFG Union Bank, N.A.

Natixis Investment Managers

Neuberger Berman

Newton Investment Management

Nikko Asset Management Co., Ltd.

Nile Capital Group LLC

Northern Trust Asset Management

Nuveen

P/E Investments

Pacific Investment Management Company

Parametric Portfolio Associates LLC

Pathway Capital Management

Peregrine Capital Management, LLC

Perkins Investment Management



Manager Name

PFM Asset Management LLC

PGIM Fixed Income

PineBridge Investments

PNC Capital Advisors, LLC

Polen Capital Management

Principal Global Investors

Putnam Investments, LLC

QMA LLC

RBC Global Asset Management

Regions Financial Corporation

Robeco Institutional Asset Management, US Inc.

Rothschild & Co. Asset Management US

S&P Dow Jones Indices

Schroder Investment Management North America Inc.

SLC Management

Smith Graham & Co. Investment Advisors, L.P.

State Street Global Advisors

Stone Harbor Investment Partners L.P.

Strategic Global Advisors

T. Rowe Price Associates, Inc.

Manager Name

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Thornburg Investment Management, Inc.

Tri-Star Trust Bank

UBS Asset Management

USAA Real Estate

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management, Inc.

Voya

WCM Investment Management

WEDGE Capital Management

Wellington Management Company LLP

Wells Fargo Asset Management

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC

