# Callan

April 30, 2022

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 April 30, 2022, with the distribution as of March 31, 2022. 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**

	April 30, 2022 Market Value	Net New Inv.	Inv. Return	March 31, 2022 Market Value
North Carolina SRP 401k & 457				
Tier II Passive	\$4,860,568,219	\$209,444	\$(387,506,386)	\$5,247,865,161
Fixed Income Passive	87,825,980	(170,690)	(3,470,815)	91,467,485
Treasury Inflation Protected	356,412,684	(5,535,184)	(4,429,383)	366,377,251
Large Cap Passive	3,416,073,960	(5,221,152)	(326,542,086)	3,747,837,198
SMID Cap Passive	370,802,755	(1,316,706)	(34,646,264)	406,765,726
International Passive	91,784,464	(40,618)	(6,279,662)	98,104,744
Inflation Responsive Fund	537,668,374	12,493,794	(12,138,176)	537,312,757
Tier II Active	\$9,703,464,197	\$(15,790,861)	\$(586,334,938)	\$10,305,589,995
Stable Value Fund	2,412,354,625	6,924,504	3,431,047	2,401,999,074
Fixed Income Fund	2,052,493,331	(5,074,855)	(86,541,805)	2,144,109,991
Large Cap Core Equity Fund	2,065,398,284	(17,239,726)	(262,995,747)	2,345,633,757
Small/Mid Cap Equity Fund	994,728,907	(1,948,445)	(81,190,466)	1,077,867,818
International Equity Fund	2,178,489,051	1,547,661	(159,037,966)	2,335,979,356
Total Fund	\$14,564,032,415	\$(15,581,417)	\$(973,841,324)	\$15,553,455,156



The table below details the rates of return for the fund's investment managers over various time periods ended April 30, 2022. 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	(3.79%)	(7.50%)	(9.43%)	(8.51%)	
Blmbg Aggregate	(3.79%)	(7.51%)	(9.50%)	(8.51%)	
Treasury Inflation Protected Securities	(1.20%)	(1.24%)	(2.56%)	1.57%	
Blmbg US TIPS 1-10 Yr	(0.93%)	(1.47%)	(2.66%)	1.52%	
Large Cap Passive	(8.72%)	(8.17%)	(12.94%)	0.17%	
S&P 500 Index	(8.72%)	(8.17%)	(12.92%)	0.21%	
SMID Cap Passive	(8.53%)	(6.02%)	(13.85%)	(11.76%)	
Russell 2500 Index	(8.52%)	(6.02%)	(13.84%)	(11.73%)	
International Passive	(6.39%)	(9.39%)	(12.35%)	(11.50%)	
MSCI ACWI ex US	(6.28%)	(7.99%)	(11.38%)	(10.31%)	
Inflation Decreasing Fund	(2.249/)	4 220/	0.10%	9.74%	
Inflation Responsive Fund Inflation Responsive Benchmark	<b>(2.21%)</b> (2.16%)	<b>1.33%</b> 1.47%	0.10%	9.74% 9.99%	
BlackRock Strategic Completion	(2.23%)	1.30%	0.08%	9.77%	
BlackRock Custom Benchmark	(2.16%)	1.47%	0.23%	9.99%	



The table below details the rates of return for the fund's investment managers over various time periods ended April 30, 2022. 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: Passive (Net of Fee)					
Fixed Income Passive	0.35%	1.16%	1.31%	1.66%	
Blmbg Aggregate	0.38%	1.20%	1.36%	1.73%	
Large Cap Passive	13.84%	13.66%	12.36%	13.60%	
S&P 500 Index	13.85%	13.66%	12.38%	13.67%	
SMID Cap Passive	9.13%	9.35%	8.84%	11.13%	
Russell 2500 Index	9.20%	9.44%	8.88%	11.17%	
International Passive	3.98%	4.85%	3.48%	5.02%	
MSCI ACWI ex US	4.30%	4.94%	3.49%	5.04%	
Inflation Responsive Fund	8.63%	6.80%	5.13%	3.56%	
Inflation Responsive Benchmark	8.54%	6.09%	4.25%	2.29%	



The table below details the rates of return for the fund's investment managers over various time periods ended April 30, 2022. 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 3	Year to	Last	
	Month	Months	Date	Year	
Tier 2: Active (Net of Fee)					
Stable Value Fund	0.14%	0.40%	0.53%	1.65%	
3 Yr Constant Maturity Yield	0.24%	0.58%	0.69%	1.08%	
T-Bill + 1.5%	0.14%	0.43%	0.55%	1.58%	
Fixed Income Fund	(4.04%)	(7.98%)	(9.94%)	(8.35%)	
Blmbg Aggregate	(3.79%)	(7.51%)	(9.50%)	(8.51%)	
TCW Core Plus	(3.86%)	(7.77%)	(9.66%)	(8.56%)	
Blmbg Aggregate	(3.79%)	(7.51%)	(9.50%)	(8.51%)	
Prudential Core Plus	(4.21%)	(8.20%)	(10.21%)	(8.10%)	
Blmbg Aggregate	(3.79%)	(7.51%)	(9.50%)	(8.51%)	
Large Cap Core Equity Fund	(11.27%)	(11.85%)	(16.27%)	(9.39%)	
Russell 1000 Index	(8.91%)	(8.42%)	(13.59%)	(2.10%)	
Hotchkis & Wiley Large Cap Value	(8.05%)	(8.49%)	(5.30%)	(0.04%)	
Russell 1000 Value Index	(5.64%)	(4.10%)	(6.34%)	1.32%	
Macquarie Large Cap Value	(5.11%)	(4.19%)	(4.73%)	4.49%	
Russell 1000 Value Index	(5.64%)	(4.10%)	(6.34%)	1.32%	
Sands Capital Large Cap Growth	(20.09%)	(24.38%)	(36.83%)	(36.43%)	
Russell 1000 Growth Index	(12.08%)	(12.52%)	(20.03%)	(5.35%)	
Loomis SaylesLarge Cap Growth	(14.15%)	(15.56%)	(20.76%)	(13.21%)	
Russell 1000 Growth Index	(12.08%)	(12.52%)	(20.03%)	(5.35%)	
BlackRock Russell 1000 Index	(8.80%)	(8.33%)	(13.55%)	(1.98%)	
Russell 1000 Index	(8.91%)	(8.42%)	(13.59%)	(2.10%)	
Small/Mid Cap Equity Fund	(7.54%)	(6.53%)	(12.72%)	(8.85%)	
Russell 2500 Index	(8.52%)	(6.02%)	(13.84%)	(11.73%)	
Earnest Partners Small/Mid Cap	(7.57%)	(5.24%)	(10.90%)	(2.00%)	
Russell 2500 Index	(8.52%)	(6.02%)	(13.84%)	(11.73%)	
Wedge Small/Mid Cap Value	(6.09%)	(5.54%)	(8.81%)	(4.89%)	
Russell 2500 Value Index	(6.78%)	(3.26%)	(8.18%)	(3.70%)	
Brown Advisory Small/Mid Cap Growth	(8.57%)	(8.97%)	(17.88%)	(17.78%)	
Russell 2500 Growth Index	(11.42%)	(10.51%)	(22.32%)	(23.08%)	
BlackRock Russell 2500 Index	(8.51%)	(6.15%)	(13.99%)	(11.91%)	
Russell 2500 Index	(8.52%)	(6.02%)	(13.84%)	(11.73%)	
International Equity Fund	(6.80%)	(10.43%)	(14.74%)	(17.07%)	
MSCI ACWI ex US	(6.28%)	(7.99%)	(11.38%)	(10.31%)	
Mondrian ACWI ex-US Value	(4.59%)	(8.07%)	(6.87%)	(7.19%)	
MSCI ACWI ex US Value	(5.19%)	(5.90%)	(5.06%)	(4.20%)	
Baillie Gifford ACWI ex-US Growth	(8.56%)	(13.85%)	(21.59%)	(25.16%)	
MSCI ACWI ex US Growth	(7.44%)	(10.17%)	(17.41%)	(16.23%)	
WCM Appdian	(10.71%)	(13.72%)	(27.14%)	-	
Acadian MSCI ACWI ex US Small Cap	(5.13%) (6.46%)	(1.37%) (6.73%)	(7.00%) (12.55%)	(10.53%)	
MOOI ACTIVIES OF SITIALITY	(0.40 /0)	(0.7370)	(12.00/0)	(10.5576)	



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	Last	Last	Last	Last	
	3	5	7	10	
	Years	Years	Years	Years	
Tier 2: Active (Net of Fee)					
Stable Value Fund	2.16%	2.19%	2.11%	2.12%	
3 Yr Constant Maturity Yield	0.87%	1.42%	1.32%	1.12%	
T-Bill + 1.5%	2.25%	2.62%	2.38%	2.13%	
Fixed Income Fund	1.29%	2.10%	2.25%	2.56%	
Blmbg Aggregate	0.38%	1.20%	1.36%	1.73%	
TCW Core Plus	1.31%	1.90%	-	-	
Blmbg Aggregate	0.38%	1.20%	1.36%	1.73%	
Prudential Core Plus	1.33%	2.35%	2.65%	-	
Blmbg Aggregate	0.38%	1.20%	1.36%	1.73%	
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Large Cap Core Equity Fund	11.06%	-	-	-	
Russell 1000 Index	13.57%	13.44%	12.10%	13.53%	
Hotchkis & Wiley Large Cap Value	10.84%	10.02%	9.33%	12.27%	
Russell 1000 Value Index	9.58%	9.06%	8.68%	11.17%	
Macquarie Large Cap Value	8.73%	9.33%	-	-	
Russell 1000 Value Index	9.58%	9.06%	8.68%	11.17%	
Sands Capital Large Cap Growth	6.28%	13.44%	11.17%	12.58%	
Russell 1000 Growth Index	16.68%	17.28%	15.12%	15.56%	
Loomis SaylesLarge Cap Growth	10.68%	14.25%	13.69%	-	
Russell 1000 Growth Index	16.68%	17.28%	15.12%	15.56%	
Small/Mid Cap Equity Fund	9.02%	-	-	-	
Russell 2500 Index	9.20%	9.44%	8.88%	11.17%	
Wedge Small/Mid Cap Value	7.20%	5.76%	6.58%	9.86%	
Russell 2500 Value Index	9.10%	7.69%	8.00%	10.33%	
Brown Advisory Small/Mid Cap Growth	8.01%	11.23%	11.10%	12.25%	
Russell 2500 Growth Index	7.28%	10.12%	8.96%	11.43%	
International Equity Fund	3.15%	4.64%	3.97%	5.56%	
MSCI ACWI ex US	4.30%	4.94%	3.49%	5.04%	
Mondrian ACWI ex-US Value	2.80%	3.87%	2.93%	4.80%	
MSCI ACWI ex US Value	2.87%	3.27%	2.05%	3.95%	
Baillie Gifford ACWI ex-US Growth	3.57%	5.68%	5.26%	6.63%	
MSCI ACWI ex US Growth	5.25%	6.32%	4.70%	5.95%	



# Callan

March 31, 2022

The North Carolina Supplemental Retirement Plans Executive Summary

Investment Measurement Service Quarterly Review

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#### **U.S. EQUITY**

- The S&P 500 Index fell 4.6% in 1Q22, but was down more than 12% early in March before rallying into quarter-end.
- Value stocks sharply outpaced growth across capitalizations, with the spread exceeding 10% in both mid and small caps and just over 8% in large caps.
- Energy (+39%) was the best-performing sector given a 33% spike in WTI crude oil prices. Commodity-linked Materials and Utilities sectors also performed well on a relative basis.
- Communication Services (-12%), Consumer Discretionary (-9%), and Information Technology (-8%) were the worstperforming sectors.
- Uncertainty over rates, inflation, and geopolitical tensions all contributed to a volatile and risk-averse environment.
- Interestingly, the Russell Dynamic Index (-4.3%) outperformed the Russell Defensive Index (-5.9%) during the 1Q downturn.

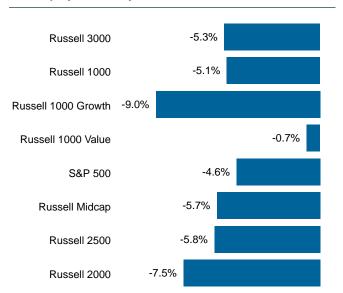
#### Historical small cap discount relative to large cap

 The Russell 2000 Index continues to underperform the Russell 1000 Index; the small cap index now trails large cap by almost 1,660 basis points cumulatively on a three-year basis and over 2,360 bps on a five-year basis.

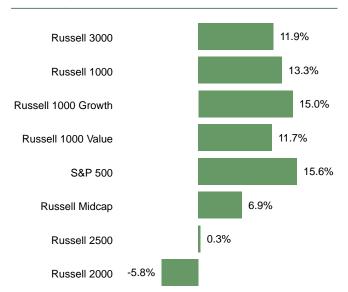
#### **Index concentration**

- Index concentration continues despite negative 1Q core index returns and falling earnings contribution.
- Among mega cap tech stocks, Apple and Microsoft now seen as providing downside protection
- Index concentration continues to cause active managers significant headwinds in the large cap growth space—the Russell 1000 Growth Index has nearly 50% of its capitalization in just the top 10 names (Apple and Microsoft are greater than 10% weights).

#### **U.S. Equity: Quarterly Returns**

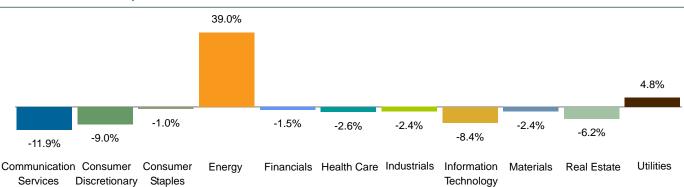


#### U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices

#### S&P Sector Returns, Quarter Ended 3/31/22



Source: S&P Dow Jones Indices



#### **GLOBAL EQUITY**

#### War in Ukraine stoked market volatility

- In the aftermath of invading Ukraine, Russia faced condemnation and sanctions that crippled its stocks, bonds, and currency and shocked the global markets.
- The fog of war exacerbated inflationary concerns and led to a surge in energy prices, as Russia is the second-largest natural gas provider and third-largest oil producer in the world.
- Energy exporters notably outperformed importers given the soaring prices.

#### Fears of COVID-19

- A resurgence of COVID-19 cases in Europe and Asia, specifically in China, weighed on the global recovery.
- China's zero-COVID policy has injected doubt into its 2022 projected GDP growth of 5.5%, which is already its lowest annual target in more than 25 years.

#### Growth vs. value

- Value sectors such as Energy, Materials, and Financials were in favor relative to growth sectors like Consumer Discretionary and Information Technology, due to recession fears and a tightening monetary cycle.
- However, Energy was the worst performer within emerging markets due to the removal of Russia from indices.

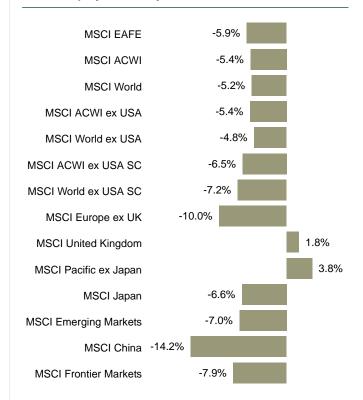
#### U.S. dollar vs. other currencies

 With the uncertainty of war, the U.S. dollar strengthened against other major currencies, including the yen, as the Bank of Japan maintained an easing policy.

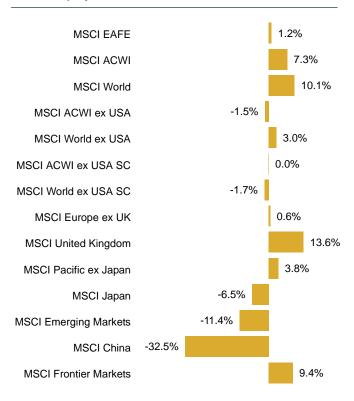
#### Value is attractive relative to history

- There are attractive valuations in multiple regions.
- Growth relative to value is more vulnerable as interest rates normalize.
- Global recovery from COVID and deficit in Energy should support value.
- Value sectors are underexposed in international indices relative to history.
- Value outperforms in "heating up" inflationary environments.

#### **Global Equity: Quarterly Returns**



#### **Global Equity: One-Year Returns**



Source: MSCI

#### **U.S. FIXED INCOME**

#### Bonds hit hard as rates rose sharply

- Bloomberg Aggregate worst quarterly return since 1980
- Curve flattened; as of 3/31 5-year U.S. Treasury yield was 10 bps higher than 10-year UST yield (2.42% vs. 2.32%).
- TIPS topped nominal Treasuries, and 10-year breakeven spread widened to 2.84% from 2.56% at year-end.
- Fed raised rates by 25 bps, with many more hikes expected this year.

#### Credit sectors underperformed

- Investment-grade corporates underperformed durationmatched U.S. Treasuries by 145 bps, RMBS by 71 bps.
- High yield "benefited" from less interest rate sensitivity and relatively higher exposure to the energy sector; excess return vs. U.S. Treasuries was 92 bps.
- Defaults remain low (less than 1%) and yield breeched 6%.

#### Leveraged loans performed relatively well

- Helped by floating rate coupons/low duration

#### Securitized sectors also performed well

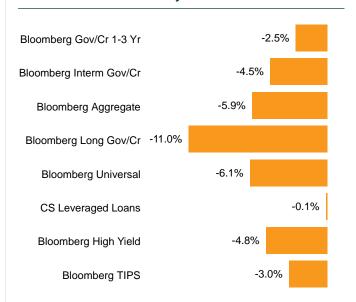
- Consumer ABS was the best within the sector due to its shorter duration profile and solid consumer spending.
- Conduit CMBS traded in line as the economy re-opens.
- Agency MBS saw duration extend by 0.4 year due to higher rates.
- The U.S. yield curve "bear-flattened" as the Fed pivoted to focus on higher-than-expected inflation.
- The U.S. yield curve (2Y/10Y) inverted on the last (intra) day of the quarter, which has not been seen since Aug. 2019.
- Despite rates moving higher this year, could the recent backup indicate a new regime of higher rates, or is the market simply trading to the higher end of this secular range that has persisted for nearly 40 years?

#### **MUNICIPAL BONDS**

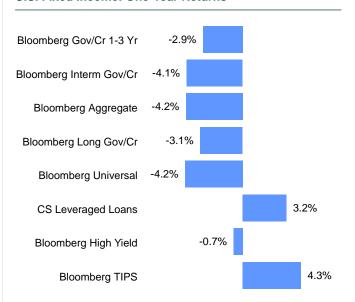
#### Municipal bond returns hurt by rising rates

- Bloomberg Municipal Bond Index suffered its worst quarterly return since 3Q81.
- Lower quality underperformed: BBB -7.1%; AAA -6.1%
- As with U.S. Treasuries, the muni yield curve flattened with 2-year yields rising more than 10-year and 30-year yields

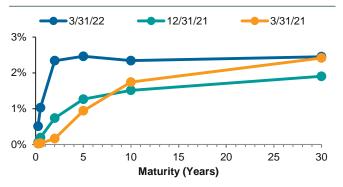
#### U.S. Fixed Income: Quarterly Returns



#### U.S. Fixed Income: One-Year Returns



#### U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse



#### **MUNICIPAL BONDS (cont.)**

#### Valuations relatively attractive

- 10-year AAA Muni/10-year U.S. Treasury ratio = 94%
- Up from 68% at year-end; 10-year median = 90%
- Municipal Bond Index after-tax yield = 4.4% (tax rate of 37%)

#### Supply/demand

- Heavy outflows in 1Q22 following record inflows in 2021
- \$22 billion in outflows in 1Q (one-fifth of 2021 inflows)
- Supply down modestly vs. 1Q21

#### Credit quality remains stable to improving

- Tax revenues continued to rise and reserve levels are high
- Upgrades outpaced downgrades

#### **GLOBAL FIXED INCOME**

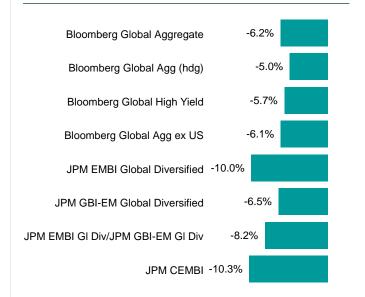
#### Negative returns driven by broad interest rate increases

 U.S. dollar appreciated against the Japanese yen, euro, and British pound.

#### Emerging market debt was not spared

- JPM Global Diversified hurt by rising rates in the U.S.
- GBI-EM hurt by rising local rates, but currency appreciation helped in Latin America and Africa.
- Russia removed from indices at a price of \$0 (-100% return).

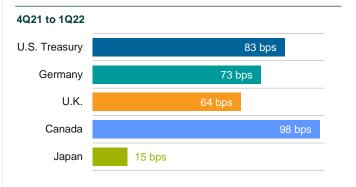
#### **Global Fixed Income: Quarterly Returns**



#### Global Fixed Income: One-Year Returns



#### Change in 10-Year Global Government Bond Yields



Sources: Bloomberg, JP Morgan



#### **Investment Fund Balances**

The table below compares the fund's investment fund balances as of March 31, 2022 with that of December 31, 2021. 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**

	March 3	31, 2022			December 31, 2021		
	Market		Net New	Invest.	Market		
	Value	Weight	Invest.	Return	Value	Weight	
North Carolina SRP 401k & 457							
Tier II Passive	\$5,247,865,161	33.74%	\$(106,687,053)	\$(215,784,327)	\$5,570,336,541	34.05%	
Fixed Income Passive	91,467,485	0.59%	(1,990,376)	(5,743,757)	99,201,618	0.61%	
Treasury Inflation Protected	366,377,251	2.36%	(3,921,703)	(5,044,607)	375,343,560	2.29%	
Large Cap Passive	3,747,837,198	24.10%	(47,243,683)	(186,095,461)	3,981,176,342	24.34%	
International Passive	98,104,744	0.63%	365,063	(6,630,524)	104,370,206	0.64%	
SMID Cap Passive	406,765,726	2.62%	(8,139,265)	(25,780,341)	440,685,332	2.69%	
Inflation Responsive Fund	537,312,757	3.45%	(45,757,089)	13,510,363	569,559,483	3.48%	
Tier II Active	\$10,305,589,995	66.26%	\$57,927,811	\$(541,382,009)	\$10,789,044,192	65.95%	
Stable Value Fund	2,401,999,074	15.44%	14,674,387	9,486,365	2,377,838,322	14.54%	
Fixed Income Fund	2,144,109,991	13.79%	8,977,666	(140,091,146)	2,275,223,470	13.91%	
Large Cap Core Equity Fund	2,345,633,757	15.08%	(51,222,112)	(143,803,080)	2,540,658,950	15.53%	
International Equity Fund	2,335,979,356	15.02%	101,862,493	(201,511,583)	2,435,628,446	14.89%	
Small/Mid Cap Equity Fund	1,077,867,818	6.93%	(16,364,623)	(65,462,565)	1,159,695,005	7.09%	
Total Fund	\$15,553,455,156	100.0%	\$(48,759,241)	\$(757,166,336)	\$16,359,380,734	100.0%	



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended March 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Passive (Net of Fee)										
Fixed Income Passive Blmbg Aggregate Callan Core Bond MFs	(5.86%) (5.93%) (5.83%)	53 56	(4.15%) (4.15%) (4.00%)	62 62	1.65% 1.69% 2.22%	89 88	2.10% 2.14% 2.47%	95 94	1.82% 1.87% 2.25%	91 88
Treasury Inflation Protected Securities Blmbg US TIPS 1-10 Yr Callan TIPS MFs	(1.37%) (1.74%) (2.61%)	22 25	4.16% 3.78% 3.84%	30 55	5.55% 5.45% 5.80%	61 65	- 3.88% 4.11%	71	3.24% 3.38%	57
Large Cap Passive S&P 500 Index Callan Large Cap Core MFs	(4.63%) (4.60%) (4.62%)	50 49	15.59% 15.65% 13.26%	26 26	18.92% 18.92% 17.52%	30 30	15.99% 15.99% 14.58%	21 21	13.98% 14.01% 12.51%	21 21
International Passive MSCI ACWI ex US Callan Non US Equity MFs	(6.37%) (5.44%) (7.74%)	31 27	(2.63%) (1.48%) (2.55%)	51 41	7.25% 7.51% 7.26%	51 47	6.71% 6.76% 6.47%	48 47	5.20% 5.19% 4.84%	43 43
SMID Cap Passive Russell 2500 Index Callan SMID Core MFs	(5.81%) (5.82%) (6.00%)	48 48	0.31% 0.34% 2.97%	73 72	13.73% 13.79% 13.30%	31 30	11.49% 11.57% 10.30%	20 17	9.95% 9.99% 9.12%	23 23
Inflation Responsive Fund Inflation Responsive Benchmark Callan Real Assets MFs	2.36% 2.44% 5.13%	75 74	17.68% 17.79% 18.02%	51 51	9.25% 9.11% 10.22%	71 71	7.38% 6.56% 7.84%	62 77	5.72% 4.77% 5.36%	38 75
Tier 2: Active (Net of Fee)										
Stable Value Fund 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value CT	<b>0.39%</b> 0.46% 0.41% 0.28%	<b>12</b> 2 11	<b>1.67%</b> 0.87% 1.56% 1.19%	<b>10</b> 90 20	2.18% 0.85% 2.31% 1.62%	<b>3</b> 98 2	<b>2.19%</b> 1.39% 2.63% 1.69%	<b>1</b> 87 1	2.12% 1.30% 2.37% 1.60%	<b>2</b> 89 1
Fixed Income Fund Blmbg Aggregate Callan Core Plus MFs	(6.15%) (5.93%) (6.14%)	<b>50</b> 45	<b>(3.48%)</b> (4.15%) (3.67%)	<b>33</b> 67	<b>2.77%</b> 1.69% 2.47%	<b>31</b> 92	<b>3.13%</b> 2.14% 2.71%	<b>17</b> 90	<b>2.80%</b> 1.87% 2.46%	<b>19</b> 95
Large Cap Core Equity Fund Russell 1000 Index Callan Lg Cap Broad MF	<b>(5.64%)</b> (5.13%) (5.70%)	<b>50</b> 45	<b>7.14%</b> 13.27% 11.88%	<b>78</b> 38	<b>17.16%</b> 18.71% 17.33%	<b>52</b> 37	- 15.82% 15.16%	47	- 13.72% 12.69%	42
International Equity Fund  MSCI ACWI ex US  Callan Non US Equity MFs	(8.52%) (5.44%) (7.74%)	<b>61</b> 27	(8.73%) (1.48%) (2.55%)	<b>88</b> 41	<b>6.85%</b> 7.51% 7.26%	<b>57</b> 47	<b>6.69%</b> 6.76% 6.47%	<b>48</b> 47	<b>5.62%</b> 5.19% 4.84%	<b>37</b> 43
Small/Mid Cap Equity Fund Russell 2500 Index Callan SMID Broad MFs	<b>(5.60%)</b> (5.82%) (8.97%)	<b>39</b> 39	<b>2.98%</b> 0.34% 1.14%	<b>43</b> 52	<b>13.44%</b> 13.79% 13.64%	<b>51</b> 49	- 11.57% 11.43%	49	- 9.99% 9.86%	49



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended March 31, 2022

	Last 10 Years		Last 15 Years		Since Inception	
	i cai s		i cais		шерион	
Tier 2: Passive (Net of Fee)						
Fixed Income Passive	2.17%	95	-		2.44% (10/10)	
Blmbg Aggregate	2.24%	94	3.56%	79	2.53% (10/10)	
Callan Core Bond MFs	2.55%		3.88%		-	
Treasury Inflation Protected Securities	<u>-</u>		_		4.99% (7/18)	
Blmbg US TIPS 1-10 Yr	2.24%	56	3.68%	64	4.91% (7/18)	
Callan TIPS MFs	2.46%		3.94%		-	
Large Cap Passive	14.57%	20	-		16.53% (4/09)	
S&P 500 Index	14.64%	19	10.26%	19	16.61% (4/09)	
Callan Large Cap Core MFs	13.34%		9.28%		-	
International Passive	5.56%	67	_		8.51% (4/09)	
MSCI ACWI ex US	5.55%	67	- 3.13%	61	8.54% (4/09)	
Callan Non US Equity MFs	6.14%	07	3.49%	01	0.54 /6 (4/09)	
Callan Non OS Equity Wil S	0.1476		3.4976		-	
SMID Cap Passive	12.04%	24	-		15.60% (4/09)	
Russell 2500 Index	12.09%	22	8.98%	29	15.66% (4/09)	
Callan SMID Core MFs	11.16%		8.16%		-	
Inflation Responsive Fund	3.92%	62	-		3.71% (9/11)	
Inflation Responsive Benchmark	2.62%	77	3.83%		2.35% (9/11)	
Callan Real Assets MFs	4.09%		-		-	
Tier 2: Active (Net of Fee)						
Stable Value Fund	2.12%	7	_		<b>2.44%</b> (7/09)	
3 Yr US Treas Rolling	1.10%	93	1.30%	100	1.07% (7/09)	
T-Bill + 1.5%	2.13%	6	2.33%	29	2.02% (7/09)	
Callan Stable Value CT	1.57%	U	2.01%	29	2.02 /6 (//09)	
Callali Glable Value C1	1.57 /0		2.0170		-	
Fixed Income Fund	3.11%	47	_		<b>4.19%</b> (4/09)	
Blmbg Aggregate	2.24%	99	3.56%	90	3.28% (4/09)	
Callan Core Plus MFs	3.03%	99	4.23%	90	3.20 /6 (4/09)	
Callan Core i las IVII s	0.0070		4.2070			
Large Cap Core Equity Fund	_		_		<b>15.33%</b> (10/17)	
Russell 1000 Index	- 14.53%	39	- 10.26%	46	15.81% (10/17)	
Callan Lg Cap Broad MF	13.62%	33	9.96%	40	13.5176 (16/17)	
Callan Eg Cap Broad Wil	13.02 /0		3.30 %			
International Equity Fund	6.15%	49	_		<b>9.06%</b> (4/09)	
MSCI ACWI ex US	5.55%	<b>49</b> 67	3.13%	61	8.54% (4/09)	
Callan Non US Equity MFs	6.14%	31	3.49%	51	- (4/09)	
Canal Hon Go Equity in G	0.1170		3.1070			
Small/Mid Cap Equity Fund	_		_		<b>10.77%</b> (10/17)	
Russell 2500 Index	12.09%	44	8.98%	57	11.26% (10/17)	
Callan SMID Broad MFs	11.61%		9.53%	٥.	- (10/17)	
	. 1.0 1 /0		0.0070			



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. 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		Last 7 Years	
Tier 2: Active (Net of Fee)	<b>Quartor</b>				10010		- i dui d		- rouro	
Stable Value Fund	0.39%	12	1.67%	10	2.18%	3	2.19%	1	2.12%	2
3 Yr US Treas Rolling	0.46%	2	0.87%	90	0.85%	98	1.39%	87	1.30%	89
T-Bill + 1.5%	0.41%	11	1.56%	20	2.31%	2	2.63%	1	2.37%	1
Callan Stable Value CT	0.28%		1.19%		1.62%		1.69%		1.60%	
Fixed Income Fund	(6.15%)	50	(3.48%)	33	2.77%	31	3.13%	17	2.80%	19
Blmbg Aggregate	(5.93%)	45	(4.15%)	67	1.69%	92	2.14%	90	1.87%	95
Callan Core Plus MFs	(6.14%)		(3.67%)		2.47%		2.71%		2.46%	
TCW Core Plus	(6.03%)	48	(4.04%)	62	2.71%	32	2.86%	38	_	
Blmbg Aggregate	(5.93%)	45	(4.15%)	67	1.69%	92	2.14%	90	1.87%	95
Callan Core Plus MFs	(6.14%)		(3.67%)		2.47%		2.71%		2.46%	
Prudential Core Plus	(6.26%)	64	(2.85%)	9	2.90%	25	3.45%	9	3.24%	12
Blmbg Aggregate	(5.93%)	45	(4.15%)	67	1.69%	92	2.14%	90	1.87%	95
Callan Core Plus MFs	(6.14%)		(3.67%)		2.47%		2.71%		2.46%	
Large Cap Core Equity Fund	(5.64%)	50	7.14%	78	17.16%	52	_		-	
Russell 1000 Index	(5.13%)	45	13.27%	38	18.71%	37	15.82%	47	13.72%	42
Callan Lg Cap Broad MF	(5.70%)		11.88%		17.33%		15.16%		12.69%	
Hotchkis & Wiley Large Cap Value	2.99%	15	12.61%	64	16.01%	24	12.01%	35	10.90%	28
Russell 1000 Value Index	(0.74%)	74	11.67%	77	13.02%	63	10.29%	72	9.73%	59
Callan Lg Cap Value MF	0.23%		13.65%		13.67%		11.03%		10.00%	
Macquarie Large Cap Value	0.40%	46	13.21%	59	11.20%	90	10.36%	71	-	
Russell 1000 Value Index	(0.74%)	74	11.67%	77	13.02%	63	10.29%	72	9.73%	59
Callan Lg Cap Value MF	0.23%		13.65%		13.67%		11.03%		10.00%	
Sands Capital Large Cap Growth	(20.95%)	100	(14.92%)	99	16.20%	85	19.46%	38	14.87%	64
Russell 1000 Growth Index	(9.04%)	23	14.98%	8	23.60%	5	20.88%	8	17.34%	5
Callan Large Cap Grwth MF	(11.31%)		7.53%		19.72%		19.09%		15.46%	
Loomis SaylesLarge Cap Growth	(7.69%)	13	6.77%	53	18.55%	67	18.41%	57	16.45%	18
Russell 1000 Growth Index	(9.04%)	23	14.98%	8	23.60%	5	20.88%	8	17.34%	5
Callan Large Cap Grwth MF	(11.31%)		7.53%		19.72%		19.09%		15.46%	
BlackRock Russell 1000 Index	(5.20%)	61	13.28%	50	18.75%	38	-		-	
Russell 1000 Index	(5.13%)	60	13.27%	50	18.71%	39	15.82%	26	13.72%	24
Callan Large Cap Core MFs	(4.62%)		13.26%		17.52%		14.58%		12.51%	



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last 10 Years		Last 15 Years		Since Inception	
Tier 2: Active (Net of Fee)						
Stable Value Fund	2.12%	7	-		<b>2.44%</b> (7/09)	
3 Yr US Treas Rolling	1.10%	93	1.30%	100	1.07% (7/09)	
T-Bill + 1.5% Callan Stable Value CT	2.13% 1.57%	6	2.33% 2.01%	29	2.02% (7/09)	
Callali Stable Value C1	1.57 /0		2.0176		-	
Fixed Income Fund	3.11%	47	-		<b>4.19%</b> (4/09)	
Blmbg Aggregate	2.24%	99	3.56%	90	3.28% (4/09)	
Callan Core Plus MFs	3.03%		4.23%		-	
TCW Core Plus	-		-		2.86% (1/17)	
Blmbg Aggregate	2.24%	99	3.56%	90	2.20% (1/17)	
Callan Core Plus MFs	3.03%		4.23%		-	
Prudential Core Plus	_		_		3.42% (1/15)	
Blmbg Aggregate	2.24%	99	3.56%	90	2.03% (1/15)	
Callan Core Plus MFs	3.03%		4.23%		-	
Large Cap Core Equity Fund	-		-		<b>15.33%</b> (10/17)	
Russell 1000 Index	14.53%	39	10.26%	46	15.81% (10/17)	
Callan Lg Cap Broad MF	13.62%		9.96%		-	
Hotchkis & Wiley Large Cap Value	13.10%	16	-		16.26% (4/09)	
Russell 1000 Value Index	11.70%	48	7.36%	57	14.17% (4/09)	
Callan Lg Cap Value MF	11.65%		7.61%		-	
Macquarie Large Cap Value	-		-		9.48% (6/15)	
Russell 1000 Value Index	11.70%	48	7.36%	57	9.64% (6/15)	
Callan Lg Cap Value MF	11.65%		7.61%		-	
Sands Capital Large Cap Growth	15.17%	62	-		20.13% (4/09)	
Russell 1000 Growth Index	17.04%	8	12.92%	12	18.89% (4/09)	
Callan Large Cap Grwth MF	15.54%		11.85%		-	
Loomis SaylesLarge Cap Growth	-		-		16.70% (8/14)	
Russell 1000 Growth Index	17.04%	8	12.92%	12	17.46% (8/14)	
Callan Large Cap Grwth MF	15.54%		11.85%		-	
BlackRock Russell 1000 Index	-		-		15.52% (11/17)	
Russell 1000 Index	14.53%	20	10.26%	19	15.53% (11/17)	
Callan Large Cap Core MFs	13.34%		9.28%		-	



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. 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		Last 7 Years	
Tier 2: Active (Net of Fee)										
International Equity Fund	(8.52%)	61	(8.73%)	88	6.85%	57	6.69%	48	5.62%	37
MSCI ACWI ex US Callan Non US Equity MFs	(5.44%) (7.74%)	27	(1.48%) (2.55%)	41	7.51% 7.26%	47	6.76% 6.47%	47	5.19% 4.84%	43
Mondrian ACWI ex-US Value	(2.39%)	11	(0.71%)	36	5.33%	85	5.17%	70	4.09%	66
MSCI ACWI ex US	(5.44%)	27	(1.48%)	41	7.51%	47	6.76%	47	5.19%	43
MSCI ACWI ex US Value	0.13%	3	3.31%	11	5.44%	82	4.67%	79	3.65%	73
Callan Non US Equity MFs	(7.74%)		(2.55%)		7.26%		6.47%		4.84%	
Baillie Gifford ACWI ex-US Growth	(14.26%)	87	(15.65%)	96	8.30%	35	8.41%	26	7.36%	17
MSCI ACWI ex US	(5.44%)	27	(1.48%)	41	7.51%	47	6.76%	47	5.19%	43
MSCI ACWI ex US Growth	(10.78%)	71	(6.16%)	77	9.12%	29	8.60%	25	6.51%	23
Callan Non US Equity MFs	(7.74%)		(2.55%)		7.26%		6.47%		4.84%	
Acadian	(1.97%)	6	_		_		_		_	
MSCI ACWI ex US Small Cap	(6.52%)	27	0.03%	23	10.22%	32	7.89%	49	7.24%	44
Callan Intl Small Cap MFs	(11.51%)		(3.59%)		8.93%		7.75%		6.85%	
WCM	(18.40%)	87	_		_		_		_	
MSCI ACWI ex US Small Cap	(6.52%)	27	0.03%	23	10.22%	32	7.89%	49	7.24%	44
Callan Intl Small Cap MFs	(11.51%)	۲,	(3.59%)	20	8.93%	02	7.75%	40	6.85%	
Small/Mid Cap Equity Fund	(5.60%)	39	2.98%	43	13.44%	51	-		-	
Russell 2500 Index	(5.82%)	39	0.34%	52	13.79%	49	11.57%	49	9.99%	49
Callan SMID Broad MFs	(8.97%)		1.14%		13.64%		11.43%		9.86%	
Earnest Partners Small/Mid Cap	(3.72%)	20	7.95%	17	_		_		_	
Russell 2500 Index	(5.82%)	48	0.34%	72	13.79%	30	11.57%	17	9.99%	23
Callan SMID Core MFs	(6.00%)		2.97%		13.30%		10.30%	••	9.12%	
Wedge Small/Mid Cap Value	(2.90%)	55	6.85%	38	10.96%	98	7.17%	94	7.22%	77
Russell 2500 Value Index	(1.50%)	42	7.73%	32	12.98%	65	9.19%	50	8.86%	45
Callan SMID Value MFs	(2.60%)	42	6.46%	32	13.70%	03	9.17%	30	8.72%	40
D	(40.400()		(4.040()		40.050/		40.700/		40.040/	
Brown Advisory Small/Mid Cap Growth		27	(4.81%)	33	12.85%	57	13.76%	66	12.21%	29
Russell 2500 Growth Index	(12.30%)	43	(10.12%)	69	12.99%	57	13.22%	68	10.53%	75
Callan SMID Growth MFs	(13.25%)		(7.18%)		13.93%		14.59%		11.21%	
BlackRock Russell 2500 Index	(5.99%)	50	0.11%	75	14.14%	25	-		-	
Russell 2500 Index	(5.82%)	48	0.34%	72	13.79%	30	11.57%	17	9.99%	23
Callan SMID Core MFs	(6.00%)		2.97%		13.30%		10.30%		9.12%	



The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last 10 Years		Last 15 Years		Since Inception	
Tier 2: Active (Net of Fee)						
International Equity Fund	6.15%	49	-		9.06% (4/09)	
MSCI ACWI ex US	5.55%	67	3.13%	61	8.54% (4/09)	
Callan Non US Equity MFs	6.14%		3.49%		-	
Mondrian ACWI ex-US Value	5.00%	80	-		7.50% (4/09)	
MSCI ACWI ex US	5.55%	67	3.13%	61	8.54% (4/09)	
MSCI ACWI ex US Value	4.24%	90	1.99%	84	7.55% (4/09)	
Callan Non US Equity MFs	6.14%		3.49%		-	
Baillie Gifford ACWI ex-US Growth	7.57%	19	-		11.05% (4/09)	
MSCI ACWI ex US	5.55%	67	3.13%	61	8.54% (4/09)	
MSCI ACWI ex US Growth	6.70%	29	4.14%	36	9.39% (4/09)	
Callan Non US Equity MFs	6.14%		3.49%		-	
Acadian	-		-		(1.97%)(1/22)	
MSCI ACWI ex US Small Cap	7.28%	60	4.64%	60	(6.52%)(1/22)	
Callan Intl Small Cap MFs	7.78%		4.80%		-	
WCM	-		_		(18.40%)(1/22)	
MSCI ACWI ex US Small Cap	7.28%	60	4.64%	60	(6.52%)(1/22)	
Callan Intl Small Cap MFs	7.78%		4.80%		-	
Small/Mid Can Equity Franc					<b>10.77%</b> (10/17)	
Small/Mid Cap Equity Fund Russell 2500 Index	12.09%	44	8.98%	57	11.26% (10/17)	
Callan SMID Broad MFs	11.61%	44	9.53%	57	11.20 /0 (10/1/)	
F					7.05%	
Earnest Partners Small/Mid Cap	-		-		7.95% (4/21)	
Russell 2500 Index	12.09%	22	8.98%	29	0.34% (4/21)	
Callan SMID Core MFs	11.16%		8.16%		-	
Wedge Small/Mid Cap Value	10.53%	68	-		11.60% (1/12)	
Russell 2500 Value Index	11.04%	44	7.59%	69	11.94% (1/12)	
Callan SMID Value MFs	10.79%		8.27%		-	
Brown Advisory Small/Mid Cap Growth	13.29%	30	-		16.61% (4/09)	
Russell 2500 Growth Index	12.69%	46	10.03%	67	16.44% (4/09)	
Callan SMID Growth MFs	12.62%		10.78%		-	
BlackRock Russell 2500 Index	-		-		11.28% (11/17)	
Russell 2500 Index	12.09%	22	8.98%	29	11.10% (11/17)	
Callan SMID Core MFs	11.16%		8.16%		-	



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

1st Quarter 2022

#### **Manager Assessment**

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	<u>NOTES</u>
LARGE CAP CORE									
BlackRock								Satisfactory	
LARGE CAP VALUE	ı	ı	ı	ı	ı	ı	1		Laws as letter and as a few areas in 1000 and
Hotchkis & Wiley Large Cap Fundamental Value	•	•	•	•	•	•	•	Satisfactory	Large relative underperformance in 1Q20 was followed by large relative outperformance in 4Q20 through 3Q21 due to cyclicals and Energy rally, resulting in large magnitude of outperformance relative to benchmark and peers over trailing one-year period. Large magnitude of outperformance resulted in improvement of 3/5/7 year periods, driven by cyclical exposure and greater exposure to value factor (e.g. stocks with low price/fundamentals). Performance results (and magnitude) within expectations given process and expected higher volatility.
Macquarie Large Cap Value Focus	•	•	•	•		•	•	Satisfactory	Team notable due to former PM Ty Nutt retirement in July 2019 and transition of role to Nik Lalvani - Macquarie promoted Associate PM Erin Ksenak to PM in December 2020 (4th voting member on the team) and analyst Vincent Celentano to Associate PM. Continue to monitor the team, process, and performance subsequent to transition. Cautionary on short-term performance causing below median long-term results; Energy overweight was the main detractor in recent periods. Notable Macquarie acquired Waddell & Reed Financial and entered into a long-term partnership with LPL Financial in December 2020.
LARCE CAR CROWTH									
Loomis Sayles Large Cap Growth	•	•	•	•	•	•	•	Satisfactory	Cautionary portfolio results; lagged the benchmark on a trailing 1/3/5 year period but within expectations given quality bias and concentration. Notable on growth in portfolio AUM to high water mark of \$84+ billion over last five years given concentration (35 holdings).
Sands Capital Management Select Growth	•	•	•	•	•	•	•	Satisfactory	Frank Sands Sr. passed away in March 2021; does not impact the day to day management. Current four- person PM team in place since 10/17. Disruption /innovation exposure has positively impacted results over recent time periods. Significant recent underperformance not unexpected but drastically impacted three year and longer time periods. Stability of asset base should be monitored.

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**

1st Quarter 2022

#### **Manager Assessment**

Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall
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**OVERALI** 

**NOTES** 

BlackRock								Satisfactory	
EARNEST Partners SMID Core		•		•	•		•	Satisfactory	Strategy market capitalization consistently larger than benchmark and peers.
SMID CAP VALUE									
WEDGE Capital US SMID Cap Value	•	•	•	•	•	•	•	Satisfactory (on NC watch list)	A partner of the firm (former co-lead of mid cap research) left due to a serious health issue in 4Q20. Portfolio continues to trail benchmark over most trailing periods due to a combination of poor stock selection (e.g. PG&E), style headwinds for low-multiple (value) strategies, and the underperformance of quality factors. Monitor client base stability closely.
SMID CAP GROWTH									
Brown Advisory US SMID Cap Growth	•	•	•	•	•		•	Satisfactory	Notable strategy AUM growth and total securities held near all-time high (but within expected range).
<b>INTERNATIONAL EQUIT</b>	Υ								
Baillie Gifford ACWI Ex-US Alpha	•	•	•	•	•	•	•	Satisfactory	Portfolio manager retirements, Andrew Strathde and Jonathan Bates in 2019 easily adjusted for given robust bench strength. While underperformance is disappointing, it remains within range based on philosophy, process and historical returns.
BlackRock								Satisfactory	
Mondrian Investment Partners Focused ACWI Ex-US	•	•	•	•	•	•	•	Satisfactory (on NC watch list)	Hamish Parker, who served as chair on the ESC Steering Committee, retired in the first quarter of 2021; Alex Simcox, senior portfolio manager on the international strategy, assumed Parker's role as chair. Additionally, in July 2022 Andrew Port Senior Portfolio Manager, plans to retire from the investment management industry and Chris Davand Zsolt Mester, Portfolio Managers, will becomembers of the International Equity Strategy Committee at that time.
Acadian ACW ex U.S. Small Cap	•	•	•	•	•	•	•	Satisfactory	Organization and Product Dynamics are notable to the following. The parent company plans to some affiliates which may include Acadian. Co-CEO John Chisholm plans to retire in June 2022, at which point Co-CEO Ross Dowd will serve as sole CEO. The strategy has limited capacity.

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**

1st Quarter 2022

#### **Manager Assessment**

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	NOTES
WCM International Small Cap Growth Fund	•	•	•	•	•	•	•	Satisfactory	Organization is "notable" to denote the retirement of Co-CEO Kurt Winrich, effective 12/31/2021. Winrich continues to serve as chairman of the Board. Product Dynamics is "notable" as the strategy remains soft-closed.
CORE & CORE PLUS FIX	(ED IN	COME				•			
BlackRock								Satisfactory	
PGIM Core Plus Bond	•	•	•	•	•	•	•	Satisfactory	The strategy underperformed in Q1 2022, primarily due to duration positioning and security selection within emerging markets.
TCW Core Plus	•	•	•	•	•	•	•	Satisfactory	Continuing to monitor AUM growth and any potential impact to consistency of the investment strategy due to Rivelle's retirement at end of year 2021.
INFLATION SENSITIVE									
BlackRock Strategic Completion Fund	•	•	•	•	•	•	•	Satisfactory	
STABLE VALUE									
Galliard Stable Value	•	•	•	•	•	•	•	Cautionary (on NC watch list)	"Cautionary" on ownership change - Wells Fargo announced sale of asset management group to private equity firms GTCR and Reverence Capital in 2021. Transaction closed in November 2021. The firm was rebranded to Allspring Global Investments and Joseph Sullivan replaced Nico Marais as CEO.   BAsset flows have stabilized since late 2020. The Galliard Stable Return Fund's put queue increased after the Wells recordkeeping sale to Principal in April 2019; it peaked in 2020 and has since decreased to 2017 levels.

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

1st Quarter 2022

#### **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 COVID-related 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 downturn. While Mondrian's underperformance for 2020 was disappointing, it is to be expected given their value oriented and defensive style. 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. While Mondrian's primary benchmark remains the MSCI ACWI ex-US, the performance relative to the value oriented benchmark remains favorable. Callan remains cautionary in light of the recent performance and modest AUM decline.

In a weak quarter for equity markets, portfolio returns exceeded the index, driven by strong stock selection. The portfolio returned -2.4% vs. -5.4% for the benchmark

The positive impact of the portfolio's overweight position in the strong UK equity market and the underweight position in the weak Dutch equity market more than offset the underweight position in the strong Canadian equity market. The Netherlands was the weakest performing market due to its high IT exposure which weighed on returns. In contrast, the UK was supported by high exposure to the energy and materials sectors.

Strong stock selection in Japan was driven by the position in NTT, the telecommunications and IT services providers, which was buoyed by an upward revision to profit guidance. In Singapore, United Overseas Bank was also strong as the central bank tightened monetary policy amid higher inflation.

The positive impact of the portfolio's overweight positions in the relatively strong energy and utilities sectors more than offset the underweight position in the strong materials sector.

Stock selection within the health care, financials and IT sectors added to relative returns. The underweight position in the strong Australian dollar and the overweight position in the weak Japanese yen held back relative returns.

# North Carolina Supplemental Retirement Plans Quarterly Manager Review Stoplight Report

1st Quarter 2022

#### **WEDGE Smid Cap Value**

Callan continues to recommend retaining Wedge and keeping the SMID Value strategy on the watch list after a thorough review of the people, process, philosophy and performance that occurred in Q1 2020. Callan maintains the view that Wedge should remain on watch list, but no further action should be taken at this time.

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 portfolios. 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.

Wedge announced in 2020 that a Partner of the firm would be stepping down. 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.

The Small/Mid Cap Value composite return for the quarter was -2.65% (-2.85% net of fee) versus the Russell 2500 Value Index return of -1.50%.

The top contributors in the quarter included positive stock selection in Energy, Health and Finance (Insurance).

The main detractors in the quarterly relative performance included stock selection within Retail, Basic Materials and Finance (Banks). Underweight Basic Materials also detracted.

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

TTOTTI Garonna Go				Cap Equity							
	3 Years to	03/31/2022	3 Years to		3 Years to	09/30/2021	3 Years to	06/30/2021			
	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											
				all/Mid Cap							
		03/31/2022	3 Years to		3 Years to		3 Years to				
	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 Core*											
WEDGE SMID Cap Value											
Brown Advisory											
				tional Equity							
		03/31/2022	3 Years to		3 Years to		3 Years to				
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer			
	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk		
Baillie Gifford ACWI ex US Growth											
Mondrian ACWI ex US Value											
Acadian											
WCM											
				ed Income							
		03/31/2022	3 Years to		3 Years to			06/30/2021			
	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*											
Prudential Core Plus											
	Stable Value										
	3 Years to 03/31/2022		3 Years to		3 Years to		3 Years to				
	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											

<sup>\*</sup>Composite returns used to populate history

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

TOTH GATOMIA OF				e Cap Equity				<u> </u>		
	5 Years to	03/31/2022	5 Years to	12/31/2021	5 Years to	09/30/2021	5 Years to	06/30/2021		
	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*										
				all/Mid Cap						
		03/31/2022		12/31/2021		09/30/2021		06/30/2021		
	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 Core*										
WEDGE SMID Cap Value										
Brown Advisory										
		22/24/2222		ational Equity		22/22/22/		20/20/2024		
		03/31/2022		12/31/2021		09/30/2021	5 Years to			
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer	- V - B) I	
D '''	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk	
Baillie Gifford ACWI ex US Growth										
Mondrian ACWI ex US Value										
Acadian										
WCM			Fire							
	5 V	00/04/0000		ed Income	5 V	00/00/0004	5 V	00/00/0004		
		03/31/2022		12/31/2021		09/30/2021		06/30/2021		
	Above	Above Peer	Above	Above Peer	Above	Above Peer	Above	Above Peer	5.V D. I	
T0W 0 DI #	Benchmark	Median	Benchmark	Median	Benchmark	Median	Benchmark	Median	5 Year Risk	
TCW Core Plus*										
Prudential Core Plus			-04	ble Velue						
	5 Vacre to	Stable Value           5 Years to 03/31/2022         5 Years to 12/31/2021         5 Years to 09/30/2021         5 Years to 06/30/2021								
	Above	Above Peer Median	Above	Above Peer Median	Above Benchmark	Above Peer Median	Above	Above Peer Median	5 Voor Dick	
Stable Value	Benchmark	Wedian	Benchmark	wedian	benchmark	wedian	Benchmark	Median	5 Year Risk	
Stable value										

<sup>\*</sup>Composite returns used to populate history

A	В	С	D	E	F	G	Н	I
					C+D+E	B*F		F-H
			Custodial		Total Estimated	Total Estimated	Callan Median	
Funds and Sub-Advisors	Assets*	Inv. Mgmt. Fee	Expenses <sup>1</sup>	NC Budget <sup>2</sup>	Expense (%)	Expenses (\$) 3	Expense <sup>4</sup>	Difference
North Carolina Stable Value Fund	\$2,401,999,074	0.2605%	0.0020%	0.0125%	0.28%	\$6,605,497	0.62%	
Galliard	\$2,401,999,074	0.2605%	0.0000%	0.012070	0.20%	\$6,257,208	0.28%	-0.02%
North Carolina Fixed Income Passive Fund	\$91,467,485	0.0200%	0.0226%	0.0125%	0.06%	\$50,399	0.07%	
Blackrock	\$91,467,485	0.0200%	0.0100%			\$18,293	0.02%	0.00%
North Carolina Fixed Income Fund	\$2,144,109,991	0.1237%	0.0102%	0.0125%	0.15%	\$3,138,977	0.38%	-0.23%
50% TCW	\$1,069,486,033	0.1374%	0.0000%			\$1,469,474	0.21%	-0.07%
50% Prudential	\$1,074,623,930	0.1100%	0.0100%			\$1,182,086	0.21%	-0.10%
North Carolina Inflation Sensitive Fund	\$537,312,757	0.0900%	0.0137%	0.0125%	0.12%	\$624,357	0.83%	-0.71%
Blackrock	\$537,312,757	0.0900%	0.0100%			\$483,581	0.76%	-0.67%
North Carolina Large Cap Passive Fund	\$3,747,837,198	0.0050%	0.0015%	0.0125%	0.02%	\$712,089	0.16%	-0.14%
Blackrock	\$3,747,837,198	0.0050%	0.0100%			\$187,392	0.02%	-0.02%
North Carolina Large Cap Core Fund	\$2,345,633,757	0.2823%	0.0090%	0.0125%	0.30%	\$7,126,035	0.62%	-0.32%
18.75% Hotchkis & Wiley	\$435,117,705	0.4000%	0.0000%			\$1,740,471	0.39%	0.01%
18.75% Macquarie Large Cap Value	\$428,177,716	0.2642%	0.0000%			\$1,131,246	0.39%	-0.13%
18.75% Sands Capital Management	\$465,027,162	0.4500%	0.0000%			\$2,092,622	0.43%	0.02%
18.75% Loomis Sayles	\$446,052,543	0.3650%	0.0000%			\$1,628,092	0.43%	-0.07%
25% BlackRock Advisors Inc., Large Cap Index*	\$571,258,615	0.0050%	0.0100%			\$28,563	0.03%	-0.03%
North Carolina SMID Cap Passive Fund	\$406,765,726	0.0050%	0.0156%	0.0125%	0.03%	\$134,639	0.07%	-0.04%
Blackrock	\$406,765,726	0.0050%	0.0100%			\$20,338	0.03%	-0.03%
North Carolina SMID Cap Core Fund	\$1,077,867,818	0.3776%	0.0161%	0.0125%	0.41%	\$4,378,299	0.82%	-0.41%
30% Earnest Partners	\$323,432,149	0.4700%	0.0000%			\$1,520,131	0.67%	-0.20%
30% Wedge	\$323,012,433	0.4084%	0.0000%			\$1,319,183	0.65%	-0.24%
30% Brown Advisory	\$325,213,101	0.3769%	0.0000%			\$1,225,728	0.69%	-0.31%
10% BlackRock Advisors Inc., SMID Index*	\$106,118,129	0.0050%	0.0100%			\$5,306	0.04%	-0.04%
North Carolina International Passive Fund	\$98,104,744	0.0210%	0.0384%	0.0125%	0.07%	\$70,537	0.06%	0.01%
Blackrock	\$98,104,744	0.0210%	0.0200%			\$20,602	0.06%	-0.04%
North Carolina International Equity	\$2,335,979,356	0.3742%	0.0258%	0.0125%	0.41%	\$9,635,915	0.80%	-0.39%
43% Baillie Gifford Growth	\$1,012,128,823	0.2666%	0.0000%			\$2,698,335	0.51%	-0.24%
43% Mondrian Investment Partners Value	\$993,952,870	0.3854%	0.0000%			\$3,830,694	0.51%	-0.12%
7% Acadian	\$163,374,659	0.6418%	0.0000%			\$1,048,539	0.84%	-0.20%
7% WCM	\$165,751,671	0.7000%	0.0000%			\$1,160,262	0.84%	-0.14%
North Carolina TIPS Fund	\$366,377,251	0.0250%	0.0104%	0.0125%	0.05%	\$175,495	0.35%	-0.30%
Blackrock	\$366,377,251	0.0250%	0.0000%			\$91,594	0.13%	-0.11%
Total	\$15,553,455,157	0.1733%	0.0150%	0.0125%	0.21%	\$32,652,240	0.26%	

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

<sup>&</sup>lt;sup>1</sup> Based on annualized monthly fee accruals as of 03/31/2022

<sup>&</sup>lt;sup>2</sup>The 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.

<sup>&</sup>lt;sup>3</sup> Manager fee estimates reflect investment management fee only, does not include \$31 per participant record-keeping fee.

<sup>&</sup>lt;sup>4</sup>The 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.

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 Gro	oups									
Fixed Income Passive (i) Callan Core Bond MFs Blmbg Aggregate		<b>-5.9</b> 53	<b>-4.1</b> 62 <b>-4.2</b> 62	<b>1.7</b> 89 1.7 88	<ul><li>2.1 95</li><li>2.1 94</li></ul>		<b>0.2</b> 94 0.2 89	<b>-0.5</b> 99	<b>0.1</b> 100	
Treasury Inflation Protected (i) Callan TIPS MFs		<b>-1.4</b> 22	<b>4.2</b> 30	<b>5.6</b> 61	<b>4.4</b> 31		0.9 22	<b>0.4</b> 20	<b>1.4</b> 72	
Blmbg US TIPS 1-10 Yr  Large Cap Passive (i)		-1.7 25 -4.6 50	3.8 55 <b>15.6</b> 26	5.5 65 <b>18.9</b> 30	3.9 71 <b>16.0</b> 21		1.0 3 0.8 28	0.0 20	<b>0.0</b> 100	
Callan Large Cap Core MFs S&P 500 Index		<b>-4</b> .6 49	15.6 26	18.9 30	16.0 21		0.8 28			
International Passive (i) Callan Non US Equity MFs MSCI ACWI ex US		<b>-6.4</b> 31	<b>-2.6</b> 51 -1.5 41	<b>7.2</b> 51 <b>7.5</b> 47	<b>6.7</b> 48 6.8 47		<b>0.3</b> 42 0.3 41	<b>-0.1</b> 53	<b>0.5</b> 100	
SMID Cap Passive (i) Callan SMID Core MFs		<b>-5.8</b> 48	<b>0.3</b> 73	<b>13.7</b> 31	<b>11.5</b> 20		0.4 29	<b>-1.2</b> 98	<b>0.1</b> 100	
Russell 2500 Index		-5.8 48	0.3 72	13.8 30	11.6 17		0.4 28			
Inflation Responsive Fund (i) Callan Real Assets MFs Inflation Responsive Benchmark		<b>2.4</b> 75 2.4 74	<b>17.7</b> 51 <b>17.8</b> 51	<b>9.3</b> 71 9.1 71	<b>7.4</b> 62 6.6 77		<b>0.6</b> 18 0.5 28	<b>1.0</b> 1	0.8 99	
Tier 2: Active vs. Net of Fee Grou	ıps	2.1 14	17.0 01	0.1 71	0.0 11		0.0 20			
Stable Value Fund Callan Stable Value CT		<b>0.4</b> 12	<b>1.7</b> 10	<b>2.2</b> 3	<b>2.2</b> 1		<b>6.3</b> 9	<b>-1.1</b> 3	<b>0.4</b> 36	
T-Bill + 1.5%		0.4 11	1.6 20	2.3 2	2.6 1		3.1 53			
Fixed Income Fund Callan Core Plus MFs		<b>-6.1</b> 50	<b>-3.5</b> 33	<b>2.8</b> 31	<b>3.1</b> 17		0.4 20	<b>0.5</b> 15	<b>2.2</b> 69	
Blmbg Aggregate  TCW Core Plus		-5.9 45 - <b>6.0</b> 48	-4.2 67 -4.0 62	1.7 92 <b>2.7</b> 32	2.1 90 <b>2.9</b> 38		0.2 84 <b>0.4</b> 27	0.8 1	<b>0.9</b> 94	
Callan Core Plus MFs Blmbg Aggregate		<b>-5</b> .9 45	-4.2 67	1.7 92	2.1 90		0.2 84			
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 Roll above roll third qu	artile	:	belov	ng Error: w median and quartile quartile

<sup>(</sup>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	
Prudential Core Plus Callan Core Plus MFs	<b>-6.3</b> 64	<b>-2.9</b> 9	<b>2.9</b> 25	<b>3.4</b> 9		<b>0.4</b> 21	<b>0.4</b> 28	<b>3.6</b> 25	
Blmbg Aggregate	<b>-5</b> .9 45	-4.2 67	1.7 92	2.1 90		0.2 84			
Large Cap Core Equity Fund Callan Lg Cap Broad MF	<b>-5.6</b> 50	<b>7.1</b> 78	<b>17.2</b> 52						
Russell 1000 Index	<b>-5</b> .1 45	13.3 38	18.7 37	15.8 47		0.8 43			
Hotchkis & Wiley Large Cap Value Callan Lg Cap Value MF	<b>3.0</b> 15	<b>12.6</b> 64	<b>16.0</b> 24	<b>12.0</b> 35		<b>0.4</b> 80	<b>0.2</b> 50	<b>9.3</b> 7	
Russell 1000 Value Index	-0.7 74	11.7 77	13.0 63	10.3 72		0.5 54			
Macquarie Large Cap Value Callan Lg Cap Value MF	<b>0.4</b> 46	<b>13.2</b> 59	<b>11.2</b> 90	<b>10.4</b> 71		<b>0.5</b> 51	<b>0.0</b> 70	<b>3.5</b> 59	
Russell 1000 Value Index	-0.7 74	11.7 77	13.0 63	10.3 72		0.5 54			
Sands Capital Large Cap Growth Callan Large Cap Grwth MF	<b>-21.0</b> 100	<b>-14.9</b> 99	<b>16.2</b> 85	<b>19.5</b> 38		<b>0.7</b> 93	<b>-0.1</b> 18	<b>13.9</b> 1	
Russell 1000 Growth Index	-9.0 23	15.0 8	23.6 5	20.9 8		1.0 11			
Loomis SaylesLarge Cap Growth Callan Large Cap Grwth MF Russell 1000 Growth Index	<b>-7.7</b> 13 <b>-9.0</b> 23	<b>6.8</b> 53 15.0 8	<b>18.5</b> 67 23.6 5	<b>18.4</b> 57 20.9 8		<b>1.0</b> 8	<b>-0.5</b> 53	<b>5.1</b> 37	
	<b>-5.2</b> 61	<b>13.3</b> 50	<b>18.7</b> 38	20.9 0		1.0 11			
BlackRock Russell 1000 Index (i) Callan Large Cap Core MFs Russell 1000 Index	- <b>5.2</b> 61	13.3 50	18.7 38	15.8 26		0.8 38			
International Equity Fund	<b>-8.5</b> 61	<b>-8.7</b> 88	<b>6.9</b> 57	<b>6.7</b> 48		0.3 46	<b>-0.0</b> 48	<b>2.4</b> 97	
Callan Non US Equity MFs MSCI ACWI ex US	-5.4 27	<b>-1.5</b> 41	7.5 47	6.8 47		0.3 41	-0.0 40	2.4 91	
Mondrian ACWI ex-US Value Callan Non US Equity MFs	<b>-2.4</b> 11	<b>-0.7</b> 36	<b>5.3</b> 85	<b>5.2</b> 70		<b>0.2</b> 67	<b>-0.4</b> 72	<b>4.3</b> 65	
MSCI ACWI ex US	-5.4 27	-1.5 41	7.5 47	6.8 47		0.3 41			
Baillie Gifford ACWI ex-US Growth Callan Non US Equity MFs	<b>-14.3</b> 87	<b>-15.6</b> 96	<b>8.3</b> 35	<b>8.4</b> 26		<b>0.3</b> 34	<b>0.2</b> 28	<b>7.2</b> 21	
MSCI ACWI ex US	-5.4 27	-1.5 41	7.5 47	6.8 47		0.3 41			
Returns:  above median  third quartile  fourth quartile  Return Consistency:  above median  third quartile  fourth quartile		Sharpe Rat above mo third qua fourth qu	edian rtile		Excess Re above r third qu	nedian artile	:	belo seco	ng Error: w median ond quartile quartile

<sup>(</sup>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 C	3 Year Return onsistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error
Acadian Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	ар	<b>-2.0</b> 6	<b>9.3</b> 2 0.0 23	<b>16.4</b> 5 10.2 32	<b>12.3</b> 8 7.9 49		<b>0.5</b> 4 0.3 41	<b>0.9</b> 1	<b>4.9</b> 66
WCM Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	ар	<b>-18.4</b> 87 -6.5 27	<b>-4.7</b> 54 0.0 23	<b>23.2</b> 1 10.2 32	<b>21.1</b> 1 7.9 49		<b>0.7</b> 1 0.3 41	<b>1.0</b> 1	<b>13.6</b> 6
Small/Mid Cap Equity Fund Callan SMID Broad MFs Russell 2500 Index		<b>-5.6</b> 39 -5.8 39	<b>3.0</b> 43 0.3 52	<b>13.4</b> 51 13.8 49	11.6 49		0.4 53		
Earnest Partners Small/Mi Callan SMID Core MFs Russell 2500 Index	id Cap	<b>-3.7</b> 20 <b>-5.8</b> 48	<b>8.0</b> 17 0.3 72	13.8 30	11.6 17		0.4 28		
Wedge Small/Mid Cap Val Callan SMID Value MFs Russell 2500 Value Index	ue	<b>-2.9</b> 55 <b>-1.5</b> 42	<b>6.8</b> 38 7.7 32	<b>11.0</b> 98 13.0 65	<b>7.2</b> 94 9.2 50		<ul><li>0.2 98</li><li>0.3 55</li></ul>	<b>-0.9</b> 93	<b>2.4</b> 90
Brown Advisory Small/Mid Callan SMID Growth MFs Russell 2500 Growth Index	d Cap Growth	<b>-10.2</b> 27 <b>-12.3</b> 43	<b>-4.8</b> 33 <b>-10.1</b> 69	<b>12.9</b> 57 13.0 57	<b>13.8</b> 66 13.2 68		<b>0.5</b> 61 0.5 65	<b>0.1</b> 59	<b>4.4</b> 98
BlackRock Russell 2500 In Callan SMID Core MFs Russell 2500 Index	ndex (i)	<b>-6.0</b> 50 <b>-5.8</b> 48	<b>0.1</b> 75 0.3 72	<b>14.1</b> 25 13.8 30	11.6 17		0.4 28		
Returns:  above median third quartile fourth quartile	Return Consistency: above median third quartile fourth quartile		Sharpe Rat above methird qua fourth que	edian rtile		Excess Real above rule third qu	nedian artile	: :	Tracking Error:     below median     second quartile     first quartile

<sup>(</sup>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	0.4 29	<b>1.8</b> 38	<b>2.3</b> 31	<b>2.3</b> 32		<b>7.3</b> 41	<b>-0.8</b> 32	<b>0.4</b> 31	
T-Bill + 1.5%  Fixed Income Fund	0.4 41	1.6 80	2.3 32	2.6 10		3.1 90			
TCW Core Plus Callan Core Bond FI	<b>-6.0</b> 76	<b>-3.9</b> 65	<b>2.8</b> 13	<b>3.0</b> 12		<b>0.4</b> 13		<b>0.9</b> 63	
Blmbg Aggregate	-5.9 69	-4.2 82	1.7 96	2.1 95		0.2 96		0.0	
Prudential Core Plus Callan Core Bond FI Blmbg Aggregate	<b>-6.3</b> 91 <b>-5.9</b> 69	<b>-2.9</b> 4 <b>-4.2</b> 82	<b>2.9</b> 10 <b>1.7</b> 96	<b>3.5</b> 3 2.1 95		<ul><li>0.4 13</li><li>0.2 96</li></ul>		<b>3.6</b> 1	
Large Cap Core Equity Fund									
Hotchkis & Wiley Large Cap Value Callan Large Cap Value	<b>3.1</b> 12	<b>13.1</b> 66	<b>16.5</b> 24	<b>12.5</b> 30		<b>0.4</b> 79	<b>0.2</b> 55	<b>9.3</b> 5	
Russell 1000 Value Index	-0.7 79	11.7 83	13.0 78	10.3 82		0.5 66			
Macquarie Large Cap Value Callan Large Cap Value Russell 1000 Value Index	<b>0.5</b> 49 -0.7 79	<b>13.5</b> 58 11.7 83	<b>11.5</b> 94 13.0 78	<b>10.7</b> 68 10.3 82		<ul><li>0.5 48</li><li>0.5 66</li></ul>		<b>3.5</b> 61	
Sands Capital Large Cap Growth Callan Large Cap Growth	<b>-20.9</b> 97	<b>-14.5</b> 97	<b>16.7</b> 91	<b>20.0</b> 37		<b>0.7</b> 93	<b>-0.1</b> 27	<b>13.9</b> 3	
Russell 1000 Growth Index  Loomis SaylesLarge Cap Growth  Callan Large Cap Growth	<b>-9.0</b> 33 <b>-7.6</b> 11	<b>7.2</b> 63	23.6 9 19.0 68	20.9 17 <b>18.9</b> 59		1.0 25 1.0 9	<b>-0.4</b> 55	<b>5.1</b> 31	
Russell 1000 Growth Index	<b>-9.0</b> 33	<b>15</b> .0 15	23.6 9	20.9 17		1.0 25			
BlackRock Russell 1000 Index (i) Callan Large Cap Core	<b>-5.2</b> 75	<b>13.3</b> 57	<b>18.8</b> 49	<b>15.9</b> 40		0.8 48		0.0 99	
Russell 1000 Index	<b>-5.1</b> 73	13.3 58	18.7 49	15.8 41		0.8 49			
Returns:  above median  third quartile  fourth quartile  Return Consistency:  above median  third quartile  fourth quartile		Sharpe Rat above month third qua fourth qu	edian rtile		Excess Real above real third questions fourth contracts.	artile	:	belo seco	ng Error: w median ond quartile quartile

<sup>(</sup>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		
International Fund										
Mondrian ACWI ex-US Value Callan NonUS Eq MSCI ACWI ex US	<b>-2.3</b> 14 <b>-5.4</b> 35	<b>-0.3</b> 43 <b>-1.5</b> 54	<b>5.7</b> 90 7.5 70	<b>5.6</b> 83 6.8 65		<b>0.2</b> 77 0.3 63	<b>-0.3</b> 82	<b>4.3</b> 58		
Baillie Gifford ACWI ex-US Growth Callan NonUS Eq	<b>-14.2</b> 93	<b>-15.4</b> 98	<b>8.6</b> 55	<b>8.7</b> 32		<b>0.3</b> 50		<b>7.3</b> 17		
MSCI ACWI ex US	-5.4 35	-1.5 54	7.5 70	6.8 65		0.3 63				
Acadian Callan Intl Small Cap MSCI ACWI ex US Small Cap	<b>-2.0</b> 6 <b>-6.5</b> 22	<b>9.3</b> 3 0.0 20	<b>16.4</b> 6 10.2 33	<b>12.3</b> 9 7.9 36		<b>0.5</b> 5 0.3 35	<b>0.9</b> 5	<b>4.9</b> 53		
WCM Callan Intl Small Cap	<b>-18.4</b> 96	<b>-4.7</b> 63	23.2 1	<b>21.1</b> 1		<b>0.7</b> 1	<b>1.0</b> 1	<b>13.6</b> 3		
MSCI ACWI ex US Small Cap	-6.5 22	0.0 20	10.2 33	7.9 36		0.3 35				
Small/Mid Cap Equity Fund										
Earnest Partners Small/Mid Cap Callan Small/MidCap Core	<b>-3.6</b> 22	<b>8.5</b> 17	<b>18.8</b> 7	<b>16.1</b> 5		<b>0.7</b> 5	<b>0.7</b> 8	<b>6.1</b> 35		
Russell 2500 Index	<b>-5</b> .8 54	0.3 90	13.8 57	11.6 48		0.4 52				
Wedge Small/Mid Cap Value Callan Small/MidCap Value Russell 2500 Value Index	<b>-2.8</b> 60 <b>-1.5</b> 45	<b>7.3</b> 68 7.7 55	<b>11.5</b> 82 13.0 70	<ul><li>7.7 77</li><li>9.2 69</li></ul>		<ul><li>0.2 83</li><li>0.3 49</li></ul>	<b>-0.6</b> 92	<b>2.4</b> 95		
Brown Advisory Small/Mid Cap Growth Callan Sm/MidCap Growth	<b>-10.1</b> 19	<b>-4.5</b> 45	<b>13.3</b> 70	<b>14.3</b> 70		<b>0.5</b> 61	<b>0.2</b> 64	<b>4.4</b> 94		
Russell 2500 Growth Index	-12.3 41	-10.1 80	13.0 74	13.2 77		0.5 75				
BlackRock Russell 2500 Index (i) Callan Small/MidCap Core	<b>-6.0</b> 55	<b>0.1</b> 91	<b>14.1</b> 50	<b>11.5</b> 49		<b>0.4</b> 52	<b>-0.8</b> 98	<b>0.1</b> 100		
Russell 2500 Index	<b>-5</b> .8 54	0.3 90	13.8 57	11.6 48		0.4 52				
Returns:  above median third quartile fourth quartile  Return Consistency: above median third quartile fourth 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		

<sup>(</sup>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 Fund Balances**

The table below compares the fund's investment fund balances as of March 31, 2022 with that of December 31, 2021.

### **Asset Distribution Across Investment Funds**

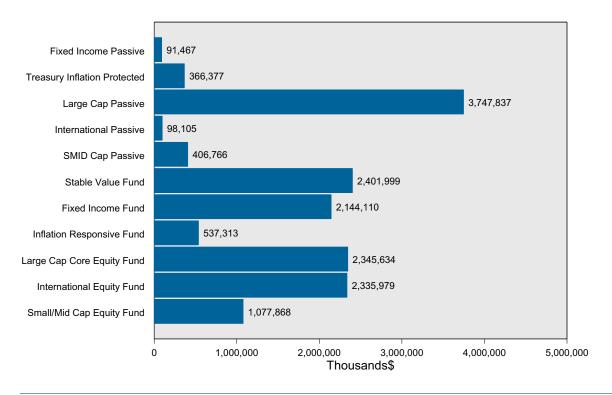
	March 31,	2022	December 31, 2021			
	Market		Market			
	Value	Weight	Value	Weight		
orth Carolina SRP 401k & 457						
ier I: GoalMaker						
Post Retirement Conservative 11+	35,614,778	0.47%	32,905,490	0.41%		
Post Retirement Conservative 6-10	126,877,207	1.68%	128,056,816	1.61%		
Post Retirement Conservative 0-5	414,214,664	5.48%	413,146,747	5.21%		
Pre Retirement Conservative 0-5	330,102,422	4.37%	325,199,503	4.10%		
Pre Retirement Conservative 6-10	200,040,575	2.65%	194,321,007	2.45%		
Pre Retirement Conservative 11-15	146,265,525	1.94%	142,309,078	1.79%		
Pre Retirement Conservative 16-20	104,690,634	1.39%	105,552,871	1.33%		
Pre Retirement Conservative 21-25	86,942,998	1.15%	88,579,898	1.12%		
Pre Retirement Conservative 26+	102,349,064	1.35%	106,132,590	1.34%		
Post Retirement Moderate 11+	40,314,965	0.53%	38,279,117	0.48%		
Post Retirement Moderate 6-10	139,986,804	1.85%	145,107,261	1.83%		
Post Retirement Moderate 0-5	453,092,672	5.99%	476,053,801	6.00%		
Pre Retirement Moderate 0-5	679,146,422	8.99%	717,249,362	9.04%		
Pre Retirement Moderate 6-10	633,007,467	8.38%	668,533,622	8.43%		
Pre Retirement Moderate 11-15	519,873,492	6.88%	553,081,354	6.97%		
Pre Retirement Moderate 16-20	405,360,161	5.36%	432,870,753	5.46%		
Pre Retirement Moderate 21-25	295,321,855	3.91%	310,560,756	3.91%		
Pre Retirement Moderate 26+	327,148,083	4.33%	343,823,881	4.33%		
Post Retirement Aggressive 11+	16,879,058	0.22%	17,281,209	0.22%		
Post Retirement Aggressive 6-10	45,221,205	0.60%	43,758,639	0.55%		
Post Retirement Aggressive 0-5	182,161,978	2.41%	194,271,988	2.45%		
Pre Retirement Aggressive 0-5	345,310,050	4.57%	374,986,594	4.73%		
Pre Retirement Aggressive 6-10	455,780,794	6.03%	499,011,753	6.29%		
Pre Retirement Aggressive 11-15	492,282,247	6.51%	520,136,440	6.56%		
Pre Retirement Aggressive 16-20	420,421,160	5.56%	456,042,071	5.75%		
Pre Retirement Aggressive 21-25	302,193,950	4.00%	326,990,627	4.12%		
Pre Retirement Aggressive 26+	257,559,267	3.41%	280,072,492	3.53%		
ier I: GoalMaker Total	\$7,558,159,497	100.0%	\$7,934,315,720	100.0%		



#### Changes in Investment Fund Balances Period Ended March 31, 2022

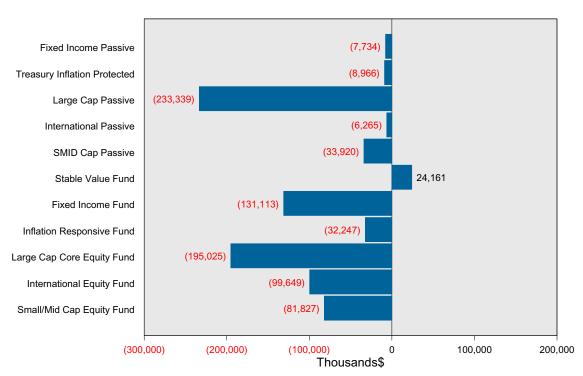
#### **Allocation Across Investment Options**

The chart below illustrates the allocation of the aggregate fund assets across the various investment options for the quarter ended March 31, 2022.



#### **Changes in Fund Values**

The chart below shows the net change in fund values across the various investment options for the quarter ended March 31, 2022. 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. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	3 Years Ended 3/2022		3 Years Ended 12/2021		3 Years Ended 9/2021		3 Years Ended 6/2021	
Tier 2: Passive (Net of Fee)								
Fixed Income Passive	1.65%	89	4.73%	95	5.29%	92	5.28%	96
Blmbg Aggregate	1.69%	88	4.79%	95	5.36%	91	5.34%	92
Callan Core Bond MFs	2.22%		5.49%		5.98%		5.99%	
Large Cap Passive	18.92%	30	26.09%	30	16.01%	28	18.69%	29
S&P 500 Index	18.92%	30	26.07%	30	15.99%	28	18.67%	29
Callan Large Cap Core MFs	17.52%		24.54%		14.47%		16.86%	
International Passive	7.25%	51	13.29%	61	8.18%	52	9.60%	43
MSCI ACWI ex US	7.51%	47	13.18%	63	8.03%	53	9.38%	44
Callan Non US Equity MFs	7.26%		14.48%		8.46%		8.62%	
SMID Cap Passive	13.73%	31	21.82%	25	12.39%	17	15.15%	15
Russell 2500 Index	13.79%	30	21.91%	20	12.47%	17	15.24%	14
Callan SMID Core MFs	13.30%		20.68%		10.34%		12.32%	
Inflation Responsive Fund	9.25%	71	11.22%	63	8.28%	34	7.32%	48
Inflation Responsive Benchmark	9.11%	71	11.03%	65	8.18%	36	7.05%	52
Callan Real Assets MFs	10.22%		11.71%		7.31%		7.21%	



# **Investment Fund Returns and Peer Group Rankings**

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 3/2022		3 Years Ended 12/2021		3 Years Ended 9/2021		3 Years Ended 6/2021	
Tier 2: Active (Net of Fee)								
Stable Value Fund 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value CT	<b>2.18%</b> 0.85% 2.31% 1.62%	<b>3</b> 98 2	<b>2.26%</b> 0.89% 2.49% 1.69%	<b>2</b> 99 1	<b>2.32%</b> 1.05% 2.68% 1.77%	<b>1</b> 98 1	<b>2.37%</b> 1.25% 2.84% 1.85%	<b>1</b> 98 1
Fixed Income Fund Blmbg Aggregate Callan Core Plus MFs	<b>2.77%</b> 1.69% 2.47%	<b>31</b> 92	<b>6.22%</b> 4.79% 5.96%	<b>33</b> 96	<b>6.64%</b> 5.36% 6.13%	<b>15</b> 89	<b>6.66%</b> 5.34% 6.20%	<b>15</b> 90
Prudential Core Plus Blmbg Aggregate Callan Core Plus MFs	2.90% 1.69% 2.47%	25 92	6.56% 4.79% 5.96%	12 96	6.87% 5.36% 6.13%	10 89	6.94% 5.34% 6.20%	10 90
Large Cap Core Equity Fund Russell 1000 Index Callan Lg Cap Broad MF	<b>17.16%</b> 18.71% 17.33%	<b>52</b> 37	<b>25.30%</b> 26.21% 25.48%	<b>51</b> 47	<b>17.05%</b> 16.43% 15.75%	<b>44</b> 47	<b>19.54%</b> 19.16% 18.13%	<b>45</b> 46
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	16.01% 13.02% 13.67%	24 63	20.29% 17.64% 17.57%	20 49	10.53% 10.07% 9.27%	23 33	12.89% 12.42% 11.76%	34 36
Macquarie Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	11.20% 13.02% 13.67%	90 63	14.77% 17.64% 17.57%	89 49	7.15% 10.07% 9.27%	85 33	9.93% 12.42% 11.76%	77 36
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	16.20% 23.60% 19.72%	85 5	34.40% 34.08% 30.98%	6 9	29.04% 22.00% 21.14%	1 29	30.12% 25.14% 24.11%	2 28
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	18.55% 23.60% 19.72%	67 5	27.98% 34.08% 30.98%	81 9	20.15% 22.00% 21.14%	70 29	23.66% 25.14% 24.11%	57 28
International Equity Fund  MSCI ACWI ex US  Callan Non US Equity MFs	<b>6.85%</b> 7.51% 7.26%	<b>57</b> 47	<b>14.25%</b> 13.18% 14.48%	<b>53</b> 63	<b>9.84%</b> 8.03% 8.46%	<b>39</b> 53	<b>11.69%</b> 9.38% 8.62%	<b>33</b> 44
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan Non US Equity MFs	5.33% 7.51% 5.44% 7.26%	85 47 82	9.55% 13.18% 8.24% 14.48%	90 63 95	6.21% 8.03% 3.81% 8.46%	70 53 86	7.79% 9.38% 5.22% 8.62%	62 44 84
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan Non US Equity MFs	8.30% 7.51% 9.12% 7.26%	35 47 29	19.04% 13.18% 17.82% 14.48%	23 63 32	13.47% 8.03% 11.94% 8.46%	13 53 26	15.52% 9.38% 13.23% 8.62%	8 44 21
Small/Mid Cap Equity Fund Russell 2500 Index Callan SMID Broad MFs	<b>13.44%</b> 13.79% 13.64%	<b>51</b> 49	<b>21.88%</b> 21.91% 22.40%	<b>55</b> 55	<b>11.72%</b> 12.47% 12.38%	<b>55</b> 49	<b>13.74%</b> 15.24% 15.09%	<b>58</b> 48
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan SMID Value MFs	10.96% 12.98% 13.70%	98 65	16.72% 18.31% 20.13%	98 77	7.05% 8.87% 9.27%	97 66	8.68% 10.60% 11.01%	99 61
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan SMID Growth MFs	12.85% 12.99% 13.93%	57 57	24.99% 25.09% 25.65%	56 56	16.30% 16.01% 16.40%	50 51	19.93% 20.15% 18.29%	46 45



# **Investment Fund Returns and Peer Group Rankings**

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are

## Returns and Rankings for Periods Ended March 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
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	0.42% 0.46% 0.41% 0.41%	29 19 41	1.81% 0.87% 1.56% 1.72%	38 94 80	2.31% 0.85% 2.31% 2.19%	31 97 32	2.34% 1.39% 2.63% 2.26%	32 95 10		(1/11) (1/11) (1/11)
Fixed Income Fund										
TCW Core Plus Blmbg Aggregate Callan Core Bond Fl	(6.00%) (5.93%) (5.81%)	76 69	(3.92%) (4.15%) (3.79%)	65 82	2.83% 1.69% 2.33%	13 96	3.01% 2.14% 2.70%	12 95		(1/17) (1/17)
Prudential Core Plus Blmbg Aggregate Callan Core Bond Fl	(6.26%) (5.93%) (5.81%)	91 69	(2.85%) (4.15%) (3.79%)	4 82	2.90% 1.69% 2.33%	10 96	3.53% 2.14% 2.70%	3 95	3.56% ( 2.03% (	(1/15) (1/15)
Large Cap Core Equity Fund										
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Large Cap Value	3.10% (0.74%) 0.45%	12 79	13.05% 11.67% 14.04%	66 83	16.46% 13.02% 14.59%	24 78	12.46% 10.29% 11.56%	30 82		(4/09) (4/09)
Macquarie Large Cap Value Russell 1000 Value Index Callan Large Cap Value	0.47% (0.74%) 0.45%	49 79	13.50% 11.67% 14.04%	58 83	11.50% 13.02% 14.59%	94 78	10.66% 10.29% 11.56%	68 82		(6/15) (6/15)
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	(20.86%) (9.04%) (10.01%)	97 33	( <mark>14.54%)</mark> 14.98% 9.25%	97 15	16.71% 23.60% 20.04%	91 9	19.99% 20.88% 19.42%	37 17		(4/09) (4/09)
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	(7.60%) (9.04%) (10.01%)	11 33	7.16% 14.98% 9.25%	63 15	18.98% 23.60% 20.04%	68 9	18.85% 20.88% 19.42%	59 17		(8/14) (8/14)
BlackRock Russell 1000 Index Russell 1000 Index Callan Large Cap Core	(5.20%) (5.13%) (4.59%)	75 73	13.29% 13.27% 13.91%	57 58	18.75% 18.71% 18.61%	49 49	- 15.82% 15.70%	41		(11/17) (11/17)
International Equity Fund										
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan NonUS Eq	(2.30%) (5.44%) 0.13% (6.66%)	14 35 1	(0.32%) (1.48%) 3.31% (1.00%)	43 54 13	5.73% 7.51% 5.44% 8.93%	90 70 92	5.58% 6.76% 4.67% 7.72%	83 65 91	8.54% (	(4/09) (4/09) (4/09)
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan NonUS Eq	(14.20%) (5.44%) (10.78%) (6.66%)	93 35 80	(15.43%) (1.48%) (6.16%) (1.00%)	98 54 86	8.59% 7.51% 9.12% 8.93%	55 70 47	8.71% 6.76% 8.60% 7.72%	32 65 33	8.54% (	(4/09) (4/09) (4/09)
Small/Mid Cap Equity Fund										
Earnest Partners Small/Mid Cap Russell 2500 Index Callan Small/MidCap Core	(3.60%) (5.82%) (5.70%)	22 54	8.51% 0.34% 4.68%	17 90	- 13.79% 14.14%	57	- 11.57% 11.48%	48	8.51% ( 0.34% ( -	(4/21) (4/21)
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	(2.80%) (1.50%) (2.65%)	60 45	7.29% 7.73% 7.77%	68 55	11.46% 12.98% 14.58%	82 70	7.72% 9.19% 9.99%	77 69	12.29% ( 11.94% ( -	(1/12) (1/12)
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan Sm/MidCap Growth	(10.09%) (12.30%) (13.19%)	19 41	(4.46%) (10.12%) (5.22%)	45 80	13.32% 12.99% 14.96%	70 74	14.28% 13.22% 16.08%	70 77		(4/09) (4/09)
BlackRock Russell 2500 Index Russell 2500 Index Callan Small/MidCap Core	(5.99%) (5.82%) (5.70%)	55 54	0.12% 0.34% 4.68%	91 90	14.14% 13.79% 14.14%	50 57	- 11.57% 11.48%	48	11.28% ( 11.10% (	(11/17) (11/17)



# **Investment Fund Returns and Peer Group Rankings**

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 3/2022		3 Years Ended 12/2021		3 Years Ended 9/2021		3 Years Ended 6/2021	
Tier 2: Active (Gross of Fee) Stable Value Fund								
Galliard Stable Value	2.31%	31	2.39%	31	2.45%	30	2.51%	27
3 Yr US Treas Rolling	0.85%	97	0.89%	97	1.05%	97	1.25%	97
T-Bill + 1.5%	2.31%	32	2.49%	25	2.68%	1	2.84%	1
Callan Stable Value SA	2.19%		2.26%		2.33%		2.40%	
Fixed Income Fund								
Prudential Core Plus	2.90%	10	6.56%	3	6.89%	4	6.99%	3
Blmbg Aggregate	1.69%	96	4.79%	93	5.36%	93	5.34%	93
Callan Core Bond FI	2.33%		5.57%		6.01%		6.04%	
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value	16.46%	24	20.74%	24	10.95%	36	13.32%	37
Russell 1000 Value Index	13.02%	78	17.64%	66	10.07%	55	12.42%	49
Callan Large Cap Value	14.59%		18.87%		10.21%		12.41%	
Macquarie Large Cap Value	11.50%	94	15.08%	95	7.44%	95	10.23%	88
Russell 1000 Value Index	13.02%	78	17.64%	66	10.07%	55	12.42%	49
Callan Large Cap Value	14.59%		18.87%		10.21%		12.41%	
Sands Capital Large Cap Growth	16.71%	91	34.97%	7	29.59%	2	30.67%	3
Russell 1000 Growth Index	23.60%	9	34.08%	19	22.00%	39	25.14%	37
Callan Large Cap Growth	20.04%		31.56%		21.35%		24.17%	
Loomis SaylesLarge Cap Growth	18.98%	68	28.44%	83	20.58%	58	24.11%	52
Russell 1000 Growth Index	23.60%	9	34.08%	19	22.00%	39	25.14%	37
Callan Large Cap Growth	20.04%		31.56%		21.35%		24.17%	
International Equity Fund								
Mondrian ACWI ex-US Value	5.73%	90	9.97%	92	6.62%	77	8.20%	69
MSCI ACWI ex US	7.51%	70	13.18%	67	8.03%	61	9.38%	56
MSCI ACWI ex US Value	5.44%	92	8.24%	97	3.81%	96	5.22%	93
Callan NonUS Eq	8.93%		15.49%		9.10%		9.81%	
Baillie Gifford ACWI ex-US Growth	8.59%	55	19.35%	23	13.77%	15	15.83%	10
MSCI ACWI ex US	7.51%	70	13.18%	67	8.03%	61	9.38%	56
MSCI ACWI ex US Growth	9.12%	47	17.82%	33	11.94%	29	13.23%	24
Callan NonUS Eq	8.93%		15.49%		9.10%		9.81%	
Small/Mid Cap Equity Fund								
Wedge Small/Mid Cap Value	11.46%	82	17.25%	76	7.56%	77	9.22%	74
Russell 2500 Value Index	12.98%	70	18.31%	74	8.87%	72	10.60%	59
Callan Small/MidCap Value	14.58%		20.68%		10.47%		11.52%	
Brown Advisory Small/Mid Cap Growth	13.32%	70	25.51%	68	16.80%	62	20.46%	60
Russell 2500 Growth Index	12.99%	74	25.09%	69	16.01%	68	20.15%	61
Callan Sm/MidCap Growth	14.96%		28.14%		18.44%		22.33%	



The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2022. 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	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Conservative 11+	(3.17%)	1.49%	5.71%	-	-
Post Ret Conservative 11+ Index	(2.94%)	1.54%	5.07%	-	-
Post Retirement Conservative 6-10	(3.48%)	1.17%	5.79%	-	-
Post Ret Conservative 6-10 Index	(3.19%)	1.31%	5.15%		-
Post Retirement Conservative 0-5	(3.76%)	1.23%	6.18%	-	-
Post Ret Conservative 0-5 Index	(3.45%)	1.33%	5.57%		-
Pre Retirement Conservative 0-5	(4.37%)	0.79%	6.55%	5.84%	4.97%
Pre Ret Conservative 0-5 Index	(3.94%)	1.14%	5.99%	5.36%	4.50%
Pre Retirement Conservative 6-10	(4.87%)	0.50%	7.14%	6.50%	5.56%
Pre Ret Conservative 6-10 Index	(4.31%)	1.17%	6.68%	6.03%	5.10%
Pre Retirement Conservative 11-15 Pre Ret Conservative 11-15 Index	(5.18%)	0.84%	7.94%	7.50%	6.48%
	(4.55%)	1.65%	7.59%	7.04%	6.06%
Pre Retirement Conservative 16-20	(5.62%)	0.76%	8.69%	8.50%	7.40%
Pre Ret Conservative 16-20 Index	(4.78%)	2.18%	8.51%	8.08%	7.03%
Pre Retirement Conservative 21-25	(5.80%)	1.44%	9.73%	-	-
Pre Ret Conservative 21-25 Index	(4.88%)	3.13%	9.69%	-	-
Pre Retirement Conservative 26+	(5.75%)	2.11%	10.60%	-	-
Pre Ret Conservative 26+ Index	(4.73%)	4.14%	10.68%	-	-



The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Conservative 11+	-	-	5.43% (7/18)
Post Ret Conservative 11+ Index	-	-	4.87% (7/18)
Post Retirement Conservative 6-10	-	-	5.54% (7/18)
Post Ret Conservative 6-10 Index	-	-	4.96% (7/18)
Post Retirement Conservative 0-5	-	-	5.89% (7/18)
Post Ret Conservative 0-5 Index	-	-	5.33% (7/18)
Pre Retirement Conservative 0-5	5.07%	-	5.98% (7/09)
Pre Ret Conservative 0-5 Index	4.54%	4.30%	5.09% (7/09)
Pre Retirement Conservative 6-10	5.80%	-	6.89% (7/09)
Pre Ret Conservative 6-10 Index	5.27%	4.72%	5.95% (7/09)
Pre Retirement Conservative 11-15	7.02%	-	8.20% (7/09)
Pre Ret Conservative 11-15 Index	6.57%	5.54%	7.58% (7/09)
Pre Retirement Conservative 16-20	8.26%	-	9.57% (7/09)
Pre Ret Conservative 16-20 Index	7.85%	6.13%	9.09% (7/09)
Pre Retirement Conservative 21-25	-	-	8.67% (7/18)
Pre Ret Conservative 21-25 Index	-	-	8.48% (7/18)
Pre Retirement Conservative 26+	-	-	9.26% (7/18)
Pre Ret Conservative 26+ Index	-	-	9.14% (7/18)



The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2022. 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	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)	1				
Post Retirement Moderate 11+ Post Ret Moderate 11+ Index	(3.45%) (3.10%)	2.17% 2.57%	7.03% 6.56%	-	-
Post Retirement Moderate 6-10 Post Ret Moderate 6-10 Index	(3.87%) (3.36%)	2.02% 2.95%	7.36% 7.73%	-	-
Post Retirement Moderate 0-5 Post Ret Moderate 0-5 Index	(4.51%) (4.01%)	1.65% 2.27%	7.80% 7.39%	-	-
Pre Retirement Moderate 0-5 Pre Ret Moderate 0-5 Index	(4.96%) (4.31%)	1.28% 2.25%	8.11% 7.78%	7.25% 6.84%	6.16% 5.76%
Pre Retirement Moderate 6-10 Pre Ret Moderate 6-10 Index	(5.35%) (4.56%)	1.27% 2.62%	8.87% 8.67%	8.01% 7.63%	6.84% 6.47%
Pre Retirement Moderate 11-15 Pre Ret Moderate 11-15 Index	(5.60%) (4.69%)	1.61% 3.30%	9.72% 9.66%	8.90% 8.55%	7.62% 7.29%
Pre Retirement Moderate 16-20 Pre Ret Moderate 16-20 Index	(5.75%) (4.73%)	2.11% 4.14%	10.60% 10.68%	9.98% 9.67%	8.57% 8.29%
Pre Retirement Moderate 21-25 Pre Ret Moderate 21-25 Index	(5.71%) (4.59%)	2.65% 5.05%	11.23% 11.40%	-	-
Pre Retirement Moderate 26+ Pre Ret Moderate 26+ Index	(5.70%) (4.54%)	3.23% 5.79%	11.92% 12.17%	- -	-



The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Moderate 11+	-	-	6.48% (7/18)
Post Ret Moderate 11+ Index	-	-	6.04% (7/18)
Post Retirement Moderate 6-10	-	-	6.79% (7/18)
Post Ret Moderate 6-10 Index	-	-	6.77% (7/18)
Post Retirement Moderate 0-5	-	-	7.21% (7/18)
Post Ret Moderate 0-5 Index	-	-	6.79% (7/18)
Pre Retirement Moderate 0-5	6.42%	-	7.43% (7/09)
Pre Ret Moderate 0-5 Index	5.93%	5.13%	6.67% (7/09)
Pre Retirement Moderate 6-10	7.28%	-	8.30% (7/09)
Pre Ret Moderate 6-10 Index	6.86%	5.73%	7.81% (7/09)
Pre Retirement Moderate 11-15	8.24%	-	9.47% (7/09)
Pre Ret Moderate 11-15 Index	7.85%	6.20%	8.95% (7/09)
Pre Retirement Moderate 16-20	9.51%	-	10.82% (7/09)
Pre Ret Moderate 16-20 Index	9.17%	6.72%	10.48% (7/09)
Pre Retirement Moderate 21-25	-	-	9.69% (7/18)
Pre Ret Moderate 21-25 Index	-	-	9.62% (7/18)
Pre Retirement Moderate 26+	-	-	10.16% (7/18)
Pre Ret Moderate 26+ Index	-	-	10.14% (7/18)



The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2022. 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	Last 7 Years
Γier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Aggressive 11+	(4.02%)	2.69%	10.03%	-	-
Post Ret Aggressive 11+ Index	(3.51%)	3.51%	8.23%	-	-
Post Retirement Aggressive 6-10	(4.38%)	2.69%	10.51%	-	-
Post Ret Aggressive 6-10 Index	(3.78%)	3.78%	8.83%		-
Post Retirement Aggressive 0-5	(4.97%)	2.35%	10.80%	-	-
Post Ret Aggressive 0-5 Index	(4.31%)	3.49%	9.23%		-
Pre Retirement Aggressive 0-5	(5.40%)	2.43%	11.22%	9.50%	7.93%
Pre Ret Aggressive 0-5 Index	(4.62%)	3.81%	9.98%	8.49%	7.13%
Pre Retirement Aggressive 6-10	(5.72%)	2.09%	11.29%	9.80%	8.26%
Pre Ret Aggressive 6-10 Index	(4.70%)	4.16%	10.56%	9.04%	7.64%
Pre Retirement Aggressive 11-15	(5.71%)	2.65%	11.61%	10.39%	8.82%
Pre Ret Aggressive 11-15 Index	(4.59%)	5.05%	11.40%	9.89%	8.41%
Pre Retirement Aggressive 16-20	(5.72%)	3.03%	11.91%	11.10%	9.50%
Pre Ret Aggressive 16-20 Index	(4.55%)	5.60%	12.01%	10.77%	9.24%
Pre Retirement Aggressive 21-25	(5.65%)	3.51%	12.11%	-	-
Pre Ret Aggressive 21-25 Index	(4.43%)	6.27%	12.45%	-	-
Pre Retirement Aggressive 26+	(5.65%)	3.51%	12.11%	-	-
Pre Ret Aggressive 26+ Index	(4.43%)	6.27%	12.45%	-	-



The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Aggressive 11+	-	-	8.87% (7/18)
Post Ret Aggressive 11+ Index	-	-	7.36% (7/18)
Post Retirement Aggressive 6-10 Post Ret Aggressive 6-10 Index	-	-	9.26% (7/18) 7.84% (7/18)
Post Retirement Aggressive 0-5	-	-	9.55% (7/18)
Post Ret Aggressive 0-5 Index	-		8.19% (7/18)
Pre Retirement Aggressive 0-5	8.15%	-	9.21% (7/09)
Pre Ret Aggressive 0-5 Index	7.41%	6.07%	8.33% (7/09)
Pre Retirement Aggressive 6-10	8.69%	-	9.90% (7/09)
Pre Ret Aggressive 6-10 Index	8.09%	6.36%	9.14% (7/09)
Pre Retirement Aggressive 11-15	9.57%	-	10.76% (7/09)
Pre Ret Aggressive 11-15 Index	9.13%	6.81%	10.36% (7/09)
Pre Retirement Aggressive 16-20	10.64%	-	11.98% <sub>(7/09)</sub>
Pre Ret Aggressive 16-20 Index	10.33%	7.17%	11.77% <sub>(7/09)</sub>
Pre Retirement Aggressive 21-25 Pre Ret Aggressive 21-25 Index	-	-	10.26% (7/18) 10.31% (7/18)
Pre Retirement Aggressive 26+	-	-	10.26% (7/18)
Pre Ret Aggressive 26+ Index		-	10.31% (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 3/2022	3 Years Ended 12/2021	3 Years Ended 9/2021	3 Years Ended 6/2021	
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Conservative 11+	5.71% 5.07%	8.44% 7.57%	7.07% 6.26%	7.29% 6.49%	
Post Retirement Conservative 6-10	5.79%	8.72%	7.27%	7.58%	
Post Ret Conservative 6-10 Index	5.15%	7.82%	6.41%	6.72%	
Post Retirement Conservative 0-5	6.18%	9.42%	7.70%	8.09%	
Post Ret Conservative 0-5 Index Pre Retirement Conservative 0-5	5.57% 6.55%	8.52% 10.26%	6.86% 8.26%	7.26% 8.79%	
Pre Ret Conservative 0-5 Index	5.99%	9.33%	7.38%	7.90%	
Pre Retirement Conservative 6-10	7.14%	11.39%	8.92%	9.61%	
Pre Ret Conservative 6-10 Index	6.68%	10.48%	8.05%	8.71%	
Pre Retirement Conservative 11-15	7.94%	12.67%	9.60%	10.45%	
Pre Ret Conservative 11-15 Index	7.59%	11.83%	8.80%	9.62%	
Pre Retirement Conservative 16-20	8.69%	14.01%	10.28%	11.36%	
Pre Ret Conservative 16-20 Index	8.51%	13.21%	9.46%	10.47%	
Pre Retirement Conservative 21-25	9.73%	15.55%	11.01%	12.28%	
Pre Ret Conservative 21-25 Index	9.69%	14.86%	10.27%	11.46%	
Pre Retirement Conservative 26+	10.60%	16.78%	11.46%	12.92%	
Pre Ret Conservative 26+ Index	10.68%	16.16%	10.75%	12.12%	



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 3/2022	3 Years Ended 12/2021	3 Years Ended 9/2021	3 Years Ended 6/2021	
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Moderate 11+	7.03%	10.35%	8.12%	8.58%	
Post Retirement Moderate 6-10	7.36%	11.05%	8.55%	9.14%	
Post Ret Moderate 6-10 Index	7.73%	11.40%	8.16%	8.91%	
Post Retirement Moderate 0-5	7.80%	12.02%	9.16%	9.91%	
Pre Retirement Moderate 0-5	8.11%	12.74%	9.59%	10.46%	
Pre Ret Moderate 0-5 Index	7.78%	11.92%	8.78%	9.60%	
Pre Retirement Moderate 6-10	8.87%	14.06%	10.26%	11.33%	
Pre Ret Moderate 6-10 Index	8.67%	13.29%	9.46%	10.47%	
Pre Retirement Moderate 11-15	9.72%	15.42%	10.88%	12.15%	
Pre Ret Moderate 11-15 Index	9.66%	14.73%	10.13%	11.33%	
Pre Retirement Moderate 16-20	10.60%	16.78%	11.46%	12.92%	
Pre Ret Moderate 16-20 Index	10.68%	16.16%	10.75%	12.12%	
Pre Retirement Moderate 21-25	11.23%	17.66%	11.77%	13.37%	
Pre Ret Moderate 21-25 Index	11.40%	17.09%	11.05%	12.55%	
Pre Retirement Moderate 26+	11.92%	18.64%	12.09%	13.86%	
Pre Ret Moderate 26+ Index	12.17%	18.13%	11.41%	13.07%	



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 3/2022	3 Years Ended 12/2021	3 Years Ended 9/2021	3 Years Ended 6/2021	
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Aggressive 11+	10.03%	14.23%	10.86%	11.69%	
Post Ret Aggressive 11+ Index	8.23%	11.99%	8.67%	9.47%	
Post Retirement Aggressive 6-10	10.51%	15.11%	11.32%	12.30%	
Post Ret Aggressive 6-10 Index	8.83%	12.93%	9.18%	10.11%	
Post Retirement Aggressive 0-5	10.80%	15.91%	11.80%	12.90%	
Post Ret Aggressive 0-5 Index	9.23%	13.78%	9.72%	10.77%	
Pre Retirement Aggressive 0-5	11.22%	16.88%	12.19%	13.46%	
Pre Ret Aggressive 0-5 Index	9.98%	15.03%	10.35%	11.56%	
Pre Retirement Aggressive 6-10	11.29%	17.40%	12.18%	13.64%	
Pre Ret Aggressive 6-10 Index	10.56%	15.95%	10.65%	12.00%	
Pre Retirement Aggressive 11-15	11.61%	18.06%	12.15%	13.76%	
Pre Ret Aggressive 11-15 Index	11.40%	17.09%	11.05%	12.55%	
Pre Retirement Aggressive 16-20	11.91%	18.61%	12.16%	13.90%	
Pre Ret Aggressive 16-20 Index	12.01%	17.94%	11.33%	12.97%	
Pre Retirement Aggressive 21-25	12.11%	18.93%	12.13%	13.95%	
Pre Ret Aggressive 21-25 Index	12.45%	18.50%	11.49%	13.20%	
Pre Retirement Aggressive 26+	12.11%	18.93%	12.13%	13.95%	
Pre Ret Aggressive 26+ Index	12.45%	18.50%	11.49%	13.20%	



## Galliard Stable Value Period Ended March 31, 2022

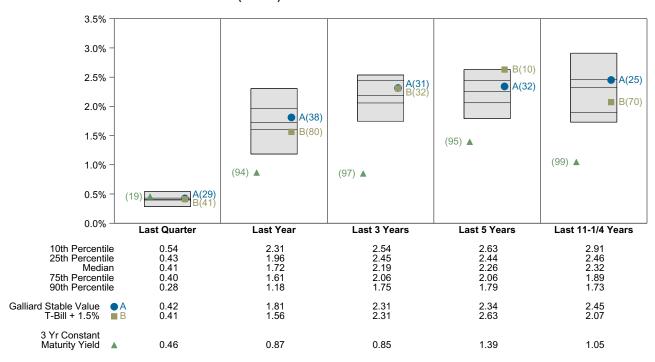
#### **Investment Philosophy**

Galliard manages stable value portfolios with a focus on principal preservation, liquidity, and income generation. These goals are balanced with a conservative approach to underlying fixed income portfolios and active wrap contract management. Galliard's fixed income team seeks to generate diversified sources of income over treasuries by emphasizing higher quality sectors, while external managers are systematically reviewed and approved as subadvisers to complement the overall structure.

#### **Quarterly Summary and Highlights**

- Galliard Stable Value's portfolio posted a 0.42% return for the quarter placing it in the 29 percentile of the Callan Stable Value SA group for the quarter and in the 38 percentile for the last year.
- Galliard Stable Value's portfolio underperformed the 3 Yr Constant Maturity Yield by 0.03% for the quarter and outperformed the 3 Yr Constant Maturity Yield for the year by 0.94%.

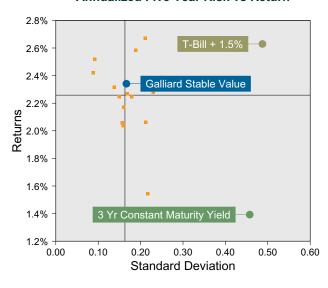
## Performance vs Callan Stable Value SA (Gross)



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%)2017 2018 2019 2020 2021 22 Galliard Stable Value

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



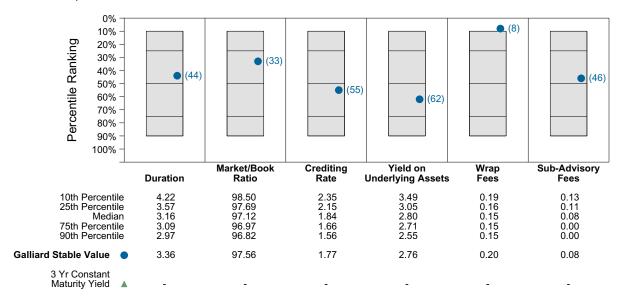


# Galliard Stable Value Stable Value Characteristics Analysis Summary

#### **Portfolio Characteristics**

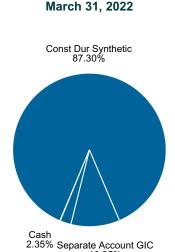
This graph compares the stable value fund's portfolio characteristics with the range of characteristics for the portfolios which make up the fund's style group. This analysis illustrates whether the fund's current structure is consistent with other funds employing the same style.

## Portfolio Characteristics Percentile Rankings Rankings Against Callan Stable Value SA as of March 31, 2022



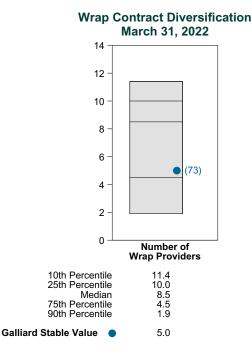
#### Wrap Structure and Diversification

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.



10.35%

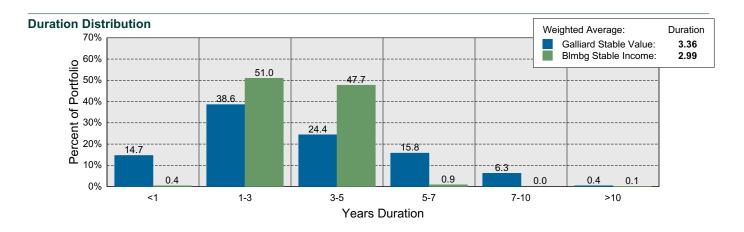
**Portfolio Wrap Exposure** 

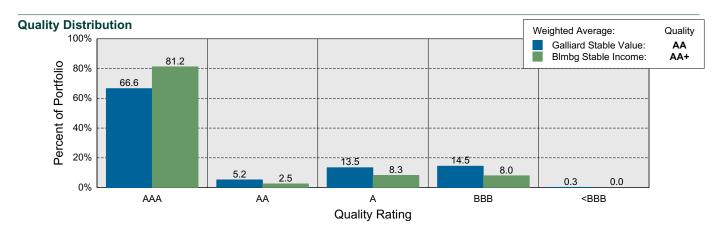


## Galliard Stable Value Stable Value Portfolio Characteristics Summary As of March 31, 2022

#### **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.

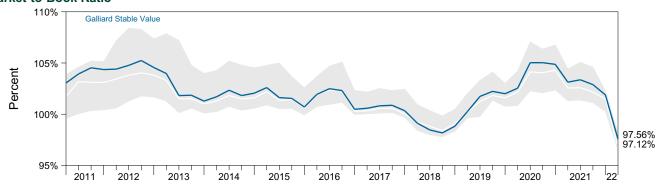




#### Market-to-Book Ratio Over Time

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





## **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 Aggregate** 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.

