

March 31, 2023



**The North Carolina Supplemental
Retirement Plans
Executive Summary**

**Investment Measurement Service
Quarterly Review**

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The North Carolina Supplemental Retirement Plans
March 31, 2023

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U.S. EQUITY

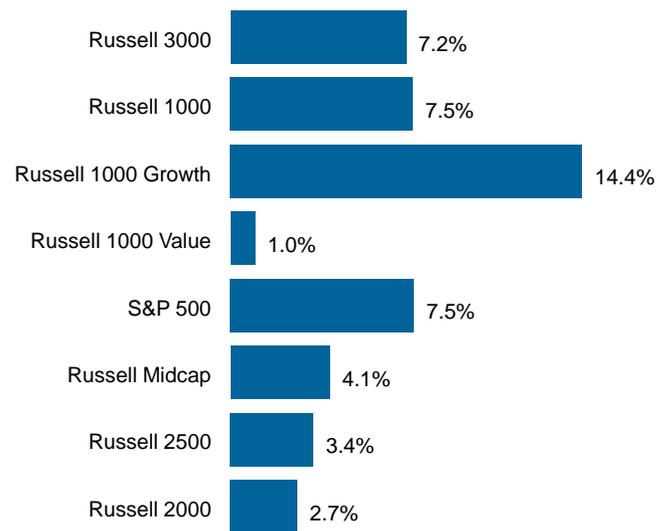
Markets gain, with exception of small cap value

- The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%.
- Russell 2000 Value was a notable exception and experienced a slight decline of 0.7% due to greater exposure to Financials, specifically banks.
- During the quarter, three sectors comprising 44% of the S&P 500 (and 63% of the Russell 1000 Growth Index) drove performance: Technology (+21.8%), Communication Services (+20.5%), and Consumer Discretionary (+16.1%).
- Financials, Energy, and Health Care posted negative returns for the quarter but had only a modest impact on total returns given smaller weights in respective benchmarks.
- Small caps (Russell 2000) underperformed large caps (Russell 1000) and growth outperformed value during the quarter, a reversal from 2022. Greater exposure to banks in Russell 2000 (8.3%) versus Russell 1000 (3.3%) was one differentiator for returns; strong returns for mega-cap Technology also increased divergence.

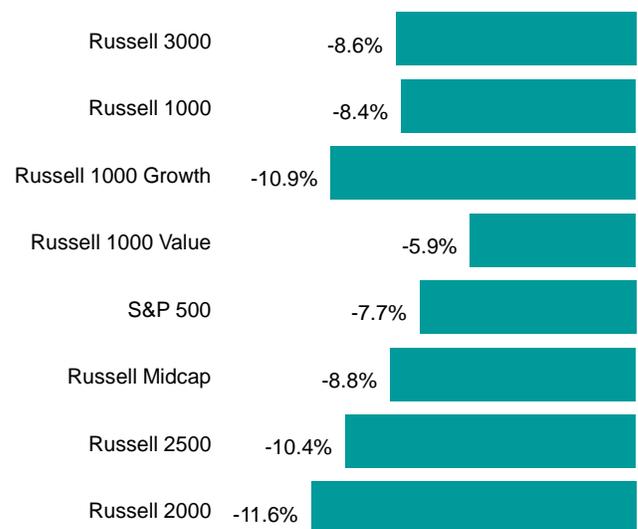
Large cap growth outperformance drivers

- The large cap growth outperformance was driven by increased valuations as interest rates declined and expectations of a more dovish Fed emerged.
- Asset managers may take a more cautious approach in equity markets into coming quarters as earnings estimates decline; expect a focus on quality, cash flow, defensive value names, and profitable growth stocks.
- Price multiples continue to be important as elevated valuations may compress if markets anticipate that monetary easing is not on the near-term horizon.
- Analyst estimates for future earnings are diverging, typically a sign of elevated economic turbulence.
- Investors “bought the dip” as stock performance reversed from the prior year; the worst-performing stocks for 2022 became best-performing stocks during 1Q23.

U.S. Equity: Quarterly Returns

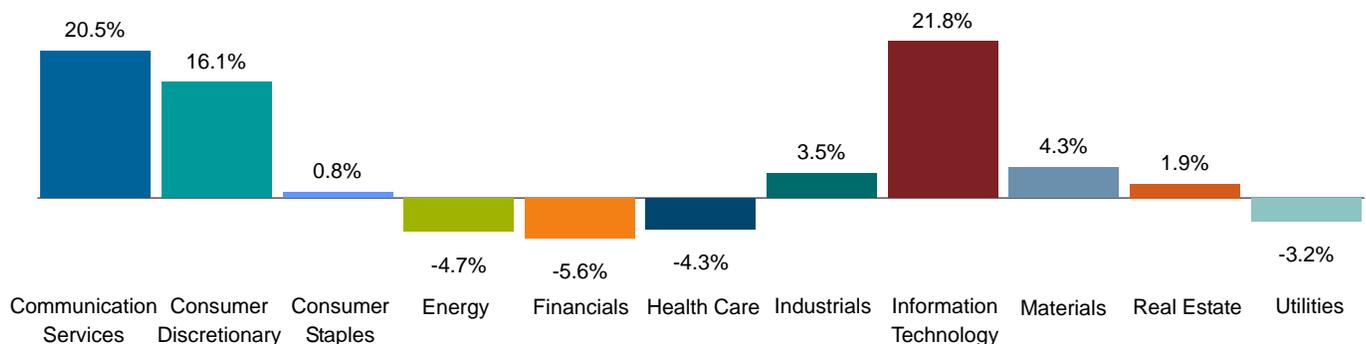


U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices

S&P Sector Returns, Quarter Ended 3/31/23



Source: S&P Dow Jones Indices

GLOBAL EQUITY

1Q23 brought global equity markets back to black

- Positive results despite hiccups
- 1Q23 was marked by the collapse of Silicon Valley Bank and Credit Suisse, which sent fears of a banking crisis across global markets.
- Despite a Fed hike during the period, investors began to price in lower rate expectations.
- Europe outperformed other regions, making up ground lost in 2022 as inflation eased and recession fears lessened.

Growth vs. value

- Growth outpaced value across developed and emerging markets.
- In a reversal from 2022, investors preferred growth alongside a drawdown in banks; Information Technology was the largest outperformer.

U.S. dollar vs. other currencies

- After some strength early in the quarter, the U.S. dollar declined 1% as interest rate differentials narrowed globally.

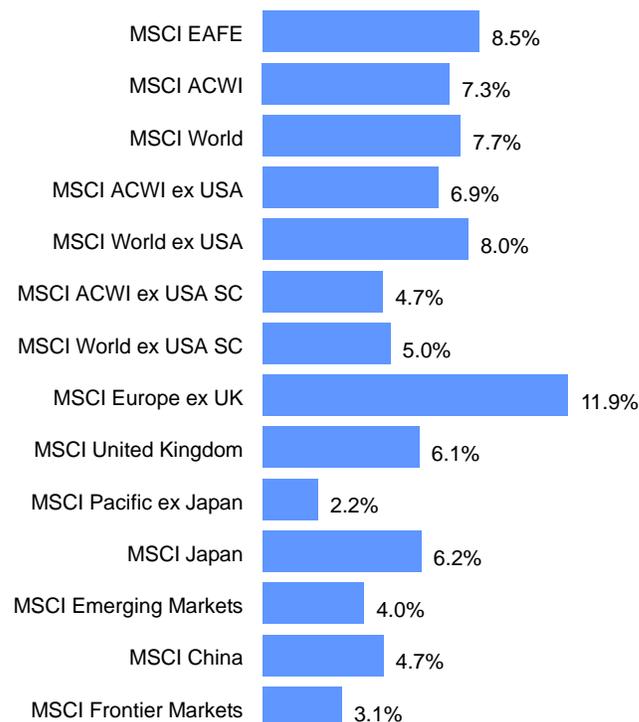
Developed markets outpace U.S.

- Outperformance of developed markets over the past year has been driven by Europe.
- Europe beat U.S. as the worst fears in the wake of the Russia-Ukraine War were not realized.
- Europe benefited from falling gas prices and China reopening.
- Value-growth dispersion was impacted less in developed markets relative to U.S. given the composition of the markets.
- EAFE Value outperformed Growth by 2.5 percentage points.
- S&P 500 Value outperformed Growth by 15.2 percentage points.
- Weak dollar in recent quarters helped global ex-U.S. equities.
- Since DXY Index reached a 20-year high in September 2022, it has fallen by 10%.

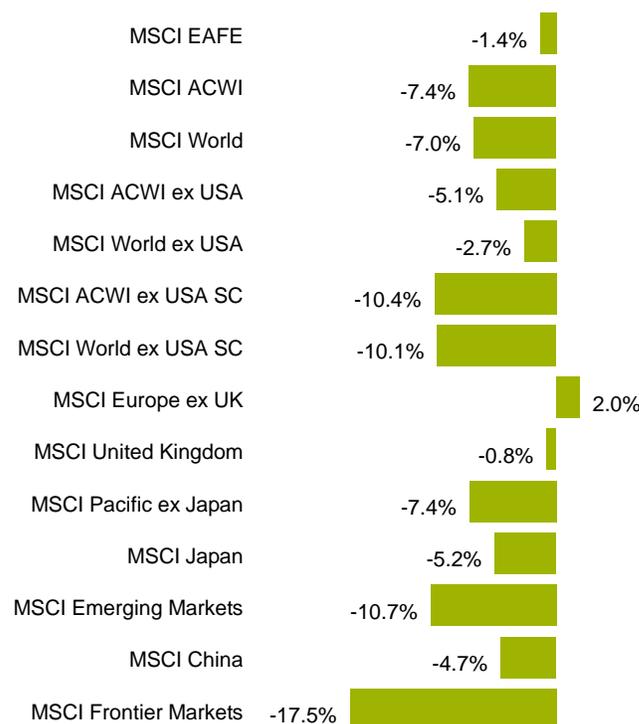
Will Europe continue to be a source of return?

- EPS growth expectations have fallen for both S&P 500 (-7%) and Europe (-9%).
- However, euro zone provides valuation support relative to the U.S.
- Euro zone trades at a 30% discount vs. the U.S.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



Source: MSCI

U.S. FIXED INCOME

Bloomberg Aggregate was positive in 1Q but mixed

- January: +3.1%
- February: -2.6%
- March: +2.5%

U.S. Treasury volatility was pronounced

- 2-year U.S. Treasury yield high was 5.08% on 3/8 and low was 3.77% on 3/24
- MOVE Index highest since 2008

Yield curve remained inverted but also volatile

- 2yr/10yr | 3/31: -58 bps; max 3/8: -109; min 3/23: -38
- 1yr/10yr | 3/31: -116 bps

Fed raised rates, bringing target to 4.75%–5.00%

- Median expectation from Fed is 5.1% for year-end 2023; market pricing in Fed cuts by year-end
- Inflation moderated but still high and job market tight

Sector performance mixed

- Corporate Industrials excess return: +58 bps
- Corporate Financials excess return: -39 bps
- RMBS excess return: -50 bps
- CMBS excess return: -74 bps
- High yield excess return: +123 bps

Valuations fair

- Credit spreads have not widened materially and are close to historical averages

MUNICIPAL BONDS

Indices gained in 1Q23

- Lower quality outperformed (AAA: +2.5%; AA: +2.7%; A: +3.0%; BBB: +3.7%)

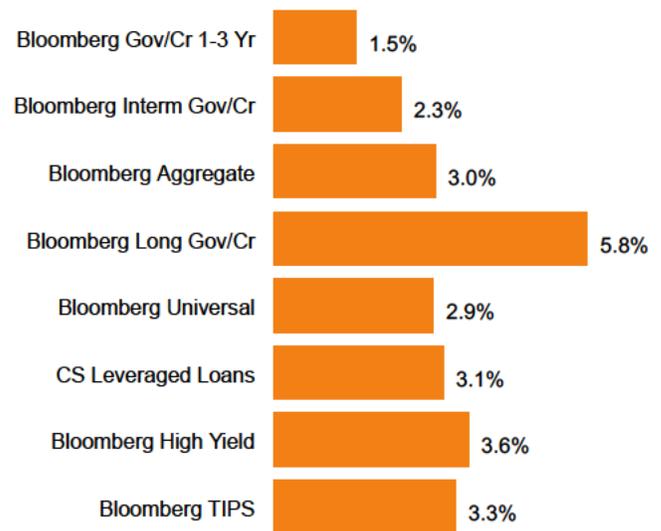
Muni curve inverted but less so than U.S. Treasuries

- 2-year AAA yield: 2.41%; 10-year AAA yield: 2.28%

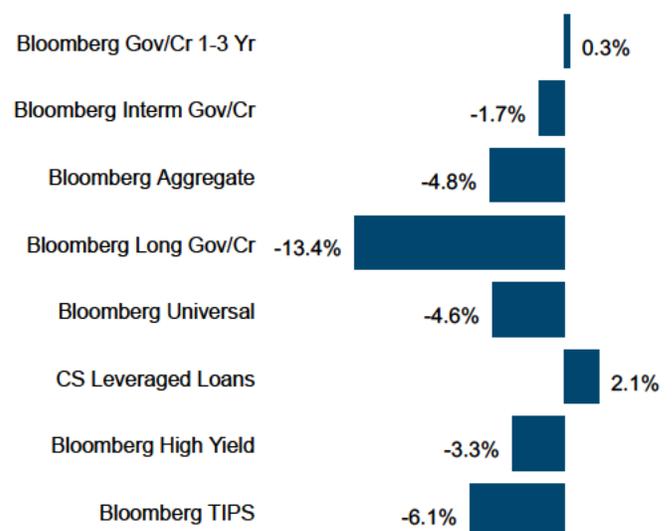
Valuations relative to U.S. Treasuries are rich

- 10-year AAA Muni/10-year U.S. Treasury yield ratio 65%; below 10-year average of 88%
- Over the last 10 years, 10-year ratio was richer 4% of the time
- After-tax yield of Muni Bond Index = 5.5%; Bloomberg IG Corporate = 5.2% (Source: Eaton Vance)

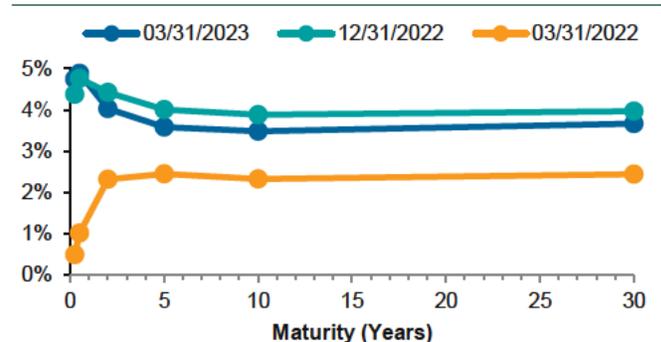
U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns



U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse

MUNICIPAL BONDS (continued)

Supply/demand

- Outflows nearly \$2 billion but lower than the \$22 billion in 1Q22
- Supply about 25% lower year-over-year
- Munis not immune to turmoil in banking, but fundamentals remain sound
- Banks are third largest holder of munis (about 15%) but thus far have not been sellers
- Municipals could be affected by tighter lending standards but likely result would be more public issuance
- "Rainy Day" fund balances and state tax revenues robust

GLOBAL FIXED INCOME

Global Aggregate was positive in 1Q but mixed

- January: +3.3%
- February: -3.3%
- March: +3.2%
- ECB and UK hiked rates; Japan held steady

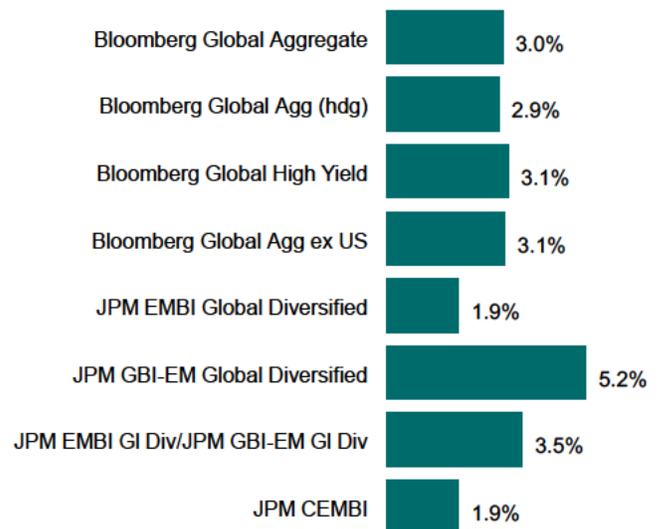
U.S. dollar was mixed but mostly lower

- Euro: +2% vs dollar
- British pound: +3% vs dollar
- Japanese yen: -1% vs dollar
- Australian dollar: -1% vs dollar
- Mexican peso: +8% vs dollar
- Brazilian real: +4% vs dollar

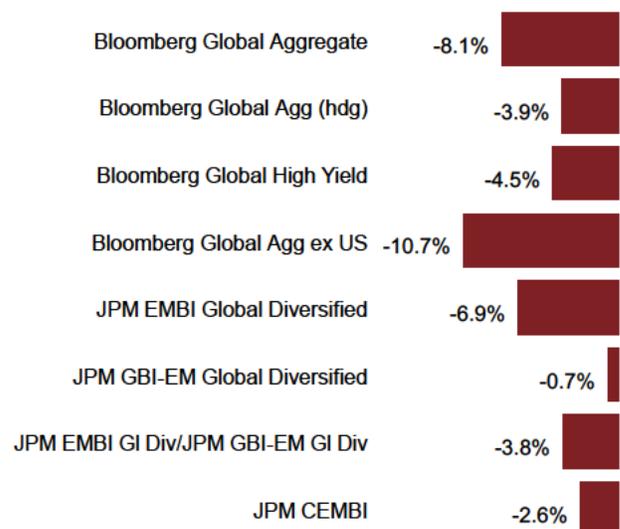
Emerging market debt delivered solid results

- EM currencies did well versus U.S. dollar, especially in Latin America; Latin America local currency return: +4.1%; unhedged in \$US: +9.8%

Global Fixed Income: Quarterly Returns

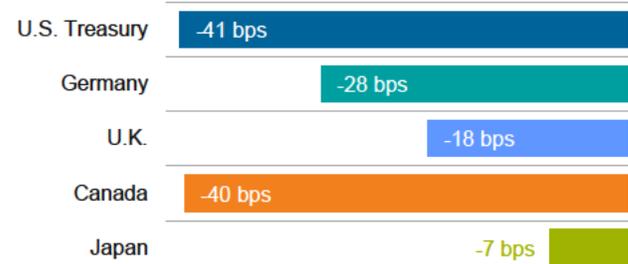


Global Fixed Income: One-Year Returns



Change in 10-Year Global Government Bond Yields

4Q22 to 1Q23



Sources: Bloomberg, JP Morgan

Investment Fund Balances

The table below compares the fund's investment fund balances as of March 31, 2023 with that of December 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 Funds

	March 31, 2023		Net New Invest.	Invest. Return	December 31, 2022	
	Market Value	Weight			Market Value	Weight
North Carolina SRP 401k & 457						
Tier II Passive	\$4,852,090,860	33.28%	\$44,320,432	\$271,815,994	\$4,535,954,434	32.73%
Fixed Income Passive	84,512,197	0.58%	756,030	2,579,140	81,177,026	0.59%
Treasury Inflation Protected	367,418,773	2.52%	5,363,000	10,419,555	351,636,217	2.54%
Large Cap Passive	3,438,378,912	23.58%	26,866,350	238,205,000	3,173,307,562	22.90%
International Passive	98,698,985	0.68%	2,444,679	5,988,084	90,266,222	0.65%
SMID Cap Passive	356,614,121	2.45%	(2,940,444)	11,994,104	347,560,461	2.51%
Inflation Responsive Fund	506,467,873	3.47%	11,830,817	2,630,110	492,006,946	3.55%
Tier II Active	\$9,729,551,590	66.72%	\$(81,661,539)	\$487,030,637	\$9,324,182,491	67.27%
Stable Value Fund	2,452,437,805	16.82%	(30,779,675)	14,968,010	2,468,249,471	17.81%
Fixed Income Fund	2,166,345,776	14.86%	39,665,189	70,160,926	2,056,519,661	14.84%
Large Cap Core Equity Fund	1,975,701,009	13.55%	(28,512,654)	163,139,253	1,841,074,410	13.28%
International Equity Fund	2,175,169,317	14.92%	(53,976,528)	205,102,923	2,024,042,921	14.60%
Small/Mid Cap Equity Fund	959,897,683	6.58%	(8,057,871)	33,659,526	934,296,028	6.74%
Total Fund	\$14,581,642,450	100.0%	\$(37,341,107)	\$758,846,632	\$13,860,136,925	100.0%

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, 2023. 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, 2023

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Passive (Net of Fee)										
Fixed Income Passive	3.15%	63	(4.77%)	30	(2.77%)	98	0.87%	76	0.85%	92
Blmbg Aggregate	2.96%	79	(4.78%)	35	(2.77%)	98	0.91%	71	0.88%	91
Callan Core Bond MFs	3.29%		(5.02%)		(1.79%)		1.17%		1.17%	
Treasury Inflation Protected Securities	2.92%	89	(3.33%)	12	2.82%	22	-		-	
Blmbg US TIPS 1-10 Yr	2.94%	88	(2.92%)	9	2.89%	21	3.18%	12	2.53%	35
Callan TIPS MFs	3.39%		(6.10%)		2.06%		2.81%		2.38%	
Large Cap Passive	7.49%	25	(7.75%)	50	18.58%	41	11.19%	26	12.41%	28
S&P 500 Index	7.50%	25	(7.73%)	50	18.60%	39	11.19%	26	12.42%	28
Callan Large Cap Core MFs	6.58%		(7.69%)		17.99%		10.02%		11.53%	
International Passive	6.61%	88	(4.51%)	75	11.63%	73	2.42%	70	5.95%	53
International Benchmark (1)	6.56%	88	(5.84%)	81	11.37%	83	2.24%	77	5.69%	57
Callan Non US Equity MFs	9.42%		(0.60%)		13.23%		3.12%		6.17%	
SMID Cap Passive	3.43%	40	(10.48%)	78	19.35%	62	6.58%	43	9.38%	41
Russell 2500 Index	3.39%	44	(10.39%)	78	19.42%	59	6.65%	41	9.46%	38
Callan SMID Core MFs	3.31%		(7.72%)		19.83%		6.26%		8.62%	
Inflation Responsive Fund	0.57%	46	(13.59%)	80	7.92%	78	3.08%	82	4.10%	70
Inflation Responsive Benchmark	0.39%	52	(13.94%)	81	7.72%	79	2.87%	83	2.89%	91
Callan Real Assets MFs	0.47%		(10.33%)		11.13%		4.38%		4.82%	
Tier 2: Active (Net of Fee)										
Stable Value Fund	0.61%	16	2.07%	17	2.00%	6	2.20%	3	2.14%	7
3 Yr US Treas Rolling	1.00%	1	3.68%	1	1.57%	42	1.76%	39	1.68%	50
T-Bill + 1.5%	1.43%	1	4.00%	1	2.39%	1	2.91%	1	2.71%	1
Callan Stable Value CT	0.54%		1.70%		1.49%		1.71%		1.68%	
Fixed Income Fund	3.36%	49	(5.73%)	61	(1.29%)	66	1.44%	27	1.66%	43
Blmbg Aggregate	2.96%	83	(4.78%)	27	(2.77%)	98	0.91%	75	0.88%	100
Callan Core Plus MFs	3.34%		(5.33%)		(0.90%)		1.24%		1.54%	
Large Cap Core Equity Fund	8.91%	38	(9.40%)	62	17.58%	47	9.97%	47	-	40
Russell 1000 Index	7.46%	46	(8.39%)	50	18.55%	32	10.87%	30	12.23%	40
Callan Lg Cap Broad MF	6.72%		(8.41%)		17.50%		9.73%		11.66%	
International Equity Fund	10.17%	28	(5.08%)	78	9.99%	88	2.27%	77	5.77%	55
International Benchmark (1)	6.56%	88	(5.84%)	81	11.37%	83	2.24%	77	5.69%	57
Callan Non US Equity MFs	9.42%		(0.60%)		13.23%		3.12%		6.17%	
Small/Mid Cap Equity Fund	3.55%	66	(7.51%)	36	20.87%	34	6.90%	49	-	57
Russell 2500 Index	3.39%	67	(10.39%)	70	19.42%	48	6.65%	54	9.46%	57
Callan SMID Broad MFs	5.32%		(8.75%)		19.13%		6.85%		9.91%	

(1) As of 9/30/21, International Benchmark consists of MSCI ACWI ex-US IMI, previously consisted of MSCI ACWI ex-US.

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, 2023. 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, 2023

	Last 10 Years		Last 15 Years		Since Inception
Tier 2: Passive (Net of Fee)					
Fixed Income Passive	1.29%	84	-		1.85% (10/10)
Blmbg Aggregate	1.36%	75	2.71%	89	1.92% (10/10)
Callan Core Bond MFs	1.51%		3.06%		-
Treasury Inflation Protected Securities	-		-		3.18% (7/18)
Blmbg US TIPS 1-10 Yr	1.55%	15	2.54%	70	3.21% (7/18)
Callan TIPS MFs	1.36%		2.77%		-
Large Cap Passive	12.18%	17	-		14.60% (4/09)
S&P 500 Index	12.24%	15	10.06%	19	14.67% (4/09)
Callan Large Cap Core MFs	11.15%		9.24%		-
International Passive	4.23%	76	-		7.53% (4/09)
International Benchmark (1)	4.05%	82	2.54%	79	7.42% (4/09)
Callan Non US Equity MFs	4.98%		3.58%		-
SMID Cap Passive	9.01%	40	-		13.51% (4/09)
Russell 2500 Index	9.07%	40	9.05%	35	13.57% (4/09)
Callan SMID Core MFs	8.39%		8.42%		-
Inflation Responsive Fund	1.77%	72	-		2.09% (9/11)
Inflation Responsive Benchmark	0.78%	90	1.83%		0.83% (9/11)
Callan Real Assets MFs	2.59%		-		-
Tier 2: Active (Net of Fee)					
Stable Value Fund	2.06%	8	-		2.42% (7/09)
3 Yr US Treas Rolling	1.43%	63	1.31%	98	1.26% (7/09)
T-Bill + 1.5%	2.37%	1	2.19%	26	2.17% (7/09)
Callan Stable Value CT	1.55%		1.84%		-
Fixed Income Fund	1.89%	48	-		3.45% (4/09)
Blmbg Aggregate	1.36%	90	2.71%	94	2.68% (4/09)
Callan Core Plus MFs	1.84%		3.37%		-
Large Cap Core Equity Fund	-		-		10.38% (10/17)
Russell 1000 Index	12.01%	40	10.02%	41	10.98% (10/17)
Callan Lg Cap Broad MF	11.33%		9.55%		-
International Equity Fund	4.67%	66	-		7.99% (4/09)
International Benchmark (1)	4.05%	82	2.54%	79	7.42% (4/09)
Callan Non US Equity MFs	4.98%		3.58%		-
Small/Mid Cap Equity Fund	-		-		7.20% (10/17)
Russell 2500 Index	9.07%	48	9.05%	55	6.97% (10/17)
Callan SMID Broad MFs	8.98%		9.11%		-

(1) As of 9/30/21, International Benchmark consists of MSCI ACWI ex-US IMI, previously consisted of MSCI ACWI ex-US.

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, 2023. 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, 2023

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Active (Net of Fee)										
Stable Value Fund	0.61%	16	2.07%	17	2.00%	6	2.20%	3	2.14%	7
3 Yr US Treas Rolling	1.00%	1	3.68%	1	1.57%	42	1.76%	39	1.68%	50
T-Bill + 1.5%	1.43%	1	4.00%	1	2.39%	1	2.91%	1	2.71%	1
Callan Stable Value CT	0.54%		1.70%		1.49%		1.71%		1.68%	
Fixed Income Fund	3.36%	49	(5.73%)	61	(1.29%)	66	1.44%	27	1.66%	43
Blmbg Aggregate	2.96%	83	(4.78%)	27	(2.77%)	98	0.91%	75	0.88%	100
Callan Core Plus MFs	3.34%		(5.33%)		(0.90%)		1.24%		1.54%	
TCW Core Plus	3.16%	68	(5.86%)	71	(2.05%)	86	1.34%	32	-	
Blmbg Aggregate	2.96%	83	(4.78%)	27	(2.77%)	98	0.91%	75	0.88%	100
Callan Core Plus MFs	3.34%		(5.33%)		(0.90%)		1.24%		1.54%	
Prudential Core Plus	3.59%	24	(5.64%)	57	(0.48%)	27	1.57%	15	2.14%	18
Blmbg Aggregate	2.96%	83	(4.78%)	27	(2.77%)	98	0.91%	75	0.88%	100
Callan Core Plus MFs	3.34%		(5.33%)		(0.90%)		1.24%		1.54%	
Large Cap Core Equity Fund	8.91%	38	(9.40%)	62	17.58%	47	9.97%	47	-	
Russell 1000 Index	7.46%	46	(8.39%)	50	18.55%	32	10.87%	30	12.23%	40
Callan Lg Cap Broad MF	6.72%		(8.41%)		17.50%		9.73%		11.66%	
Hotchkis & Wiley Large Cap Value	2.90%	18	(4.89%)	30	25.99%	5	8.64%	27	11.17%	19
Russell 1000 Value Index	1.01%	37	(5.91%)	58	17.93%	66	7.50%	55	9.02%	66
Callan Lg Cap Value MF	0.19%		(5.72%)		18.74%		7.64%		9.58%	
Macquarie Large Cap Value	(3.52%)	95	(6.82%)	71	16.48%	81	6.91%	71	8.58%	79
Russell 1000 Value Index	1.01%	37	(5.91%)	58	17.93%	66	7.50%	55	9.02%	66
Callan Lg Cap Value MF	0.19%		(5.72%)		18.74%		7.64%		9.58%	
Sands Capital Large Cap Growth	17.83%	11	(23.45%)	99	6.40%	99	7.43%	97	11.77%	85
Russell 1000 Growth Index	14.37%	41	(10.90%)	28	18.58%	7	13.66%	8	15.01%	9
Callan Large Cap Grwth MF	13.72%		(13.05%)		14.82%		10.89%		13.19%	
Loomis Sayles Large Cap Growth	21.57%	2	(4.26%)	2	16.36%	28	12.46%	20	14.60%	10
Russell 1000 Growth Index	14.37%	41	(10.90%)	28	18.58%	7	13.66%	8	15.01%	9
Callan Large Cap Grwth MF	13.72%		(13.05%)		14.82%		10.89%		13.19%	
BlackRock Russell 1000 Index	7.48%	25	(8.43%)	60	18.66%	38	10.87%	31	-	
Russell 1000 Index	7.46%	25	(8.39%)	59	18.55%	42	10.87%	31	12.23%	30
Callan Large Cap Core MFs	6.58%		(7.69%)		17.99%		10.02%		11.53%	

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, 2023. 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, 2023

	Last 10 Years		Last 15 Years		Since Inception
Tier 2: Active (Net of Fee)					
Stable Value Fund	2.06%	8	-		2.42% ^(7/09)
3 Yr US Treas Rolling	1.43%	63	1.31%	98	1.26% ^(7/09)
T-Bill + 1.5%	2.37%	1	2.19%	26	2.17% ^(7/09)
Callan Stable Value CT	1.55%		1.84%		-
Fixed Income Fund	1.89%	48	-		3.45% ^(4/09)
Blmbg Aggregate	1.36%	90	2.71%	94	2.68% ^(4/09)
Callan Core Plus MFs	1.84%		3.37%		-
TCW Core Plus	-		-		1.41% ^(1/17)
Blmbg Aggregate	1.36%	90	2.71%	94	1.05% ^(1/17)
Callan Core Plus MFs	1.84%		3.37%		-
Prudential Core Plus	-		-		2.28% ^(1/15)
Blmbg Aggregate	1.36%	90	2.71%	94	1.18% ^(1/15)
Callan Core Plus MFs	1.84%		3.37%		-
Large Cap Core Equity Fund	-		-		10.38% ^(10/17)
Russell 1000 Index	12.01%	40	10.02%	41	10.98% ^(10/17)
Callan Lg Cap Broad MF	11.33%		9.55%		-
Hotchkis & Wiley Large Cap Value	10.71%	18	-		14.61% ^(4/09)
Russell 1000 Value Index	9.13%	67	7.68%	57	12.61% ^(4/09)
Callan Lg Cap Value MF	9.41%		7.91%		-
Macquarie Large Cap Value	-		-		7.25% ^(6/15)
Russell 1000 Value Index	9.13%	67	7.68%	57	7.52% ^(6/15)
Callan Lg Cap Value MF	9.41%		7.91%		-
Sands Capital Large Cap Growth	11.38%	86	-		16.32% ^(4/09)
Russell 1000 Growth Index	14.59%	7	12.11%	8	16.47% ^(4/09)
Callan Large Cap Grwth MF	13.07%		10.82%		-
Loomis Sayles Large Cap Growth	-		-		14.07% ^(8/14)
Russell 1000 Growth Index	14.59%	7	12.11%	8	13.78% ^(8/14)
Callan Large Cap Grwth MF	13.07%		10.82%		-
BlackRock Russell 1000 Index	-		-		10.67% ^(11/17)
Russell 1000 Index	12.01%	24	10.02%	19	10.69% ^(11/17)
Callan Large Cap Core MFs	11.15%		9.24%		-

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, 2023. 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, 2023

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Active (Net of Fee)										
International Equity Fund	10.17%	28	(5.08%)	78	9.99%	88	2.27%	77	5.77%	55
International Benchmark (1)	6.56%	88	(5.84%)	81	11.37%	83	2.24%	77	5.69%	57
Callan Non US Equity MFs	9.42%		(0.60%)		13.23%		3.12%		6.17%	
Mondrian ACWI ex-US Value	8.83%	59	(1.35%)	57	12.50%	59	2.48%	67	4.97%	75
MSCI ACWI ex US	6.87%	84	(5.07%)	77	11.80%	69	2.47%	67	5.86%	54
MSCI ACWI ex US Value	5.16%	99	(4.00%)	73	13.82%	45	1.26%	87	5.00%	75
Callan Non US Equity MFs	9.42%		(0.60%)		13.23%		3.12%		6.17%	
Baillie Gifford ACWI ex-US Growth	13.02%	5	(5.11%)	78	9.05%	91	3.00%	57	7.30%	17
MSCI ACWI ex US	6.87%	84	(5.07%)	77	11.80%	69	2.47%	67	5.86%	54
MSCI ACWI ex US Growth	8.59%	62	(6.35%)	84	9.49%	89	3.36%	46	6.47%	45
Callan Non US Equity MFs	9.42%		(0.60%)		13.23%		3.12%		6.17%	
Acadian	3.85%	85	(8.95%)	59	-	-	-	-	-	-
MSCI ACWI ex US Small Cap	4.70%	78	(10.37%)	73	15.04%	36	1.67%	50	5.66%	57
Callan Intl Small Cap MFs	6.39%		(7.52%)		13.44%		1.67%		5.97%	
WCM	8.59%	15	(20.36%)	97	-	-	-	-	-	-
MSCI ACWI ex US Small Cap	4.70%	78	(10.37%)	73	15.04%	36	1.67%	50	5.66%	57
Callan Intl Small Cap MFs	6.39%		(7.52%)		13.44%		1.67%		5.97%	
Small/Mid Cap Equity Fund	3.55%	66	(7.51%)	36	20.87%	34	6.90%	49	-	
Russell 2500 Index	3.39%	67	(10.39%)	70	19.42%	48	6.65%	54	9.46%	57
Callan SMID Broad MFs	5.32%		(8.75%)		19.13%		6.85%		9.91%	
Earnest Partners Small/Mid Cap	5.64%	10	(5.28%)	28	-	-	-	-	-	-
Russell 2500 Index	3.39%	44	(10.39%)	78	19.42%	59	6.65%	41	9.46%	38
Callan SMID Core MFs	3.31%		(7.72%)		19.83%		6.26%		8.62%	
Wedge Small/Mid Cap Value	0.19%	85	(9.67%)	76	21.32%	74	4.05%	89	6.53%	90
Russell 2500 Value Index	1.40%	65	(10.53%)	86	21.80%	72	5.61%	78	7.97%	69
Callan SMID Value MFs	2.13%		(6.71%)		23.08%		6.55%		8.76%	
Brown Advisory Small/Mid Cap Growth	4.93%	85	(6.54%)	13	16.87%	28	8.81%	27	11.58%	36
Russell 2500 Growth Index	6.54%	59	(10.35%)	45	14.75%	50	6.82%	58	10.39%	69
Callan SMID Growth MFs	7.04%		(11.61%)		14.74%		7.30%		11.39%	
BlackRock Russell 2500 Index	3.45%	38	(10.65%)	79	19.68%	56	6.74%	40	-	
Russell 2500 Index	3.39%	44	(10.39%)	78	19.42%	59	6.65%	41	9.46%	38
Callan SMID Core MFs	3.31%		(7.72%)		19.83%		6.26%		8.62%	

(1) As of 9/30/21, International Benchmark consists of MSCI ACWI ex-US IMI, previously consisted of MSCI ACWI ex-US.

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, 2023. 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, 2023

	Last 10 Years		Last 15 Years		Since Inception
Tier 2: Active (Net of Fee)					
International Equity Fund	4.67%	66	-		7.99% ^(4/09)
International Benchmark	4.05%	82	2.54%	79	7.42% ^(4/09)
Callan Non US Equity MFs	4.98%		3.58%		-
Mondrian ACWI ex-US Value	4.11%	80	-		6.85% ^(4/09)
MSCI ACWI ex US	4.17%	78	2.62%	78	7.51% ^(4/09)
MSCI ACWI ex US Value	3.06%	97	1.82%	88	6.68% ^(4/09)
Callan Non US Equity MFs	4.98%		3.58%		-
Baillie Gifford ACWI ex-US Growth	5.90%	21	-		9.81% ^(4/09)
MSCI ACWI ex US	4.17%	78	2.62%	78	7.51% ^(4/09)
MSCI ACWI ex US Growth	5.08%	43	3.29%	59	8.18% ^(4/09)
Callan Non US Equity MFs	4.98%		3.58%		-
Acadian	-		-		(6.79%) ^(10/21)
MSCI ACWI ex US Small Cap	5.06%	70	4.21%	68	(10.76%) ^(10/21)
Callan Intl Small Cap MFs	5.54%		4.82%		-
WCM	-		-		(25.77%) ^(10/21)
MSCI ACWI ex US Small Cap	5.06%	70	4.21%	68	(10.76%) ^(10/21)
Callan Intl Small Cap MFs	5.54%		4.82%		-
Small/Mid Cap Equity Fund	-		-		7.20% ^(10/17)
Russell 2500 Index	9.07%	48	9.05%	55	6.97% ^(10/17)
Callan SMID Broad MFs	8.98%		9.11%		-
Earnest Partners Small/Mid Cap	-		-		1.12% ^(4/21)
Russell 2500 Index	9.07%	40	9.05%	35	(5.18%) ^(4/21)
Callan SMID Core MFs	8.39%		8.42%		-
Wedge Small/Mid Cap Value	7.24%	85	-		9.52% ^(1/12)
Russell 2500 Value Index	7.72%	71	8.09%	66	9.73% ^(1/12)
Callan SMID Value MFs	8.24%		8.48%		-
Brown Advisory Small/Mid Cap Growth	11.12%	14	-		14.78% ^(4/09)
Russell 2500 Growth Index	10.05%	54	9.70%	68	14.29% ^(4/09)
Callan SMID Growth MFs	10.23%		10.01%		-
BlackRock Russell 2500 Index	-		-		6.86% ^(11/17)
Russell 2500 Index	9.07%	40	9.05%	35	6.77% ^(11/17)
Callan SMID Core MFs	8.39%		8.42%		-

A	B	C	D	E	F C+D+E	G B*F	H	I F-H
Funds and Sub-Advisors	Assets*	Inv. Mgmt. Fee	Custodial Expenses ¹	NC Budget ²	Total Estimated Expense (%)	Total Estimated Annual Expenses (\$) ³	Callan Median Expense ⁴	Difference
North Carolina Stable Value Fund	\$2,452,437,805	0.2605%	0.0064%	0.0125%	0.28%	\$6,852,111	0.43%	-0.15%
Galliard	\$2,452,437,805	0.2605%	0.0000%			\$6,388,600	0.28%	-0.02%
North Carolina Fixed Income Passive Fund	\$84,512,197	0.0200%	0.0140%	0.0125%	0.05%	\$39,298	0.09%	-0.04%
Blackrock	\$84,512,197	0.0200%	0.0100%			\$16,902	0.04%	-0.02%
North Carolina Fixed Income Fund	\$2,166,345,776	0.1234%	0.0074%	0.0125%	0.14%	\$3,104,373	0.38%	-0.24%
50% TCW	\$1,087,655,142	0.1368%	0.0000%			\$1,487,912	0.21%	-0.07%
50% Prudential	\$1,078,690,665	0.1100%	0.0100%			\$1,186,560	0.21%	-0.10%
North Carolina Inflation Sensitive Fund	\$506,467,873	0.0900%	0.0111%	0.0125%	0.11%	\$575,348	0.85%	-0.74%
Blackrock	\$506,467,873	0.0900%	0.0100%			\$455,821	1.09%	-1.00%
North Carolina Large Cap Passive Fund	\$3,438,378,912	0.0050%	0.0019%	0.0125%	0.02%	\$667,046	0.16%	-0.14%
Blackrock	\$3,438,378,912	0.0050%	0.0100%			\$171,919	0.02%	-0.02%
North Carolina Large Cap Core Fund	\$1,975,701,009	0.2836%	0.0068%	0.0125%	0.30%	\$5,984,398	0.59%	-0.29%
18.75% Hotchkis & Wiley	\$351,798,676	0.4000%	0.0000%			\$1,407,195	0.40%	0.00%
18.75% Macquarie Large Cap Value	\$359,625,099	0.2765%	0.0000%			\$994,363	0.40%	-0.12%
18.75% Sands Capital Management	\$378,738,980	0.4500%	0.0000%			\$1,704,325	0.43%	0.02%
18.75% Loomis Sayles	\$394,117,342	0.3736%	0.0000%			\$1,472,422	0.43%	-0.06%
25% BlackRock Advisors Inc., Large Cap Index*	\$491,420,917	0.0050%	0.0100%			\$24,571	0.02%	-0.02%
North Carolina SMID Cap Passive Fund	\$356,614,121	0.0050%	0.0113%	0.0125%	0.03%	\$102,705	0.17%	-0.14%
Blackrock	\$356,614,121	0.0050%	0.0100%			\$17,831	0.03%	-0.03%
North Carolina SMID Cap Core Fund	\$959,897,683	0.3841%	0.0051%	0.0125%	0.40%	\$3,855,909	0.82%	-0.42%
30% Earnest Partners	\$290,091,784	0.4700%	0.0000%			\$1,363,431	0.68%	-0.68%
30% Wedge	\$279,875,034	0.4251%	0.0000%			\$1,189,749	0.66%	-0.23%
30% Brown Advisory	\$294,456,832	0.3832%	0.0000%			\$1,128,359	0.70%	-0.32%
10% BlackRock Advisors Inc., SMID Index*	\$95,380,390	0.0050%	0.0100%			\$4,769	0.04%	-0.04%
North Carolina International Passive Fund	\$98,698,985	0.0210%	0.0235%	0.0125%	0.06%	\$56,258	0.06%	0.00%
Blackrock	\$98,698,985	0.0210%	0.0200%			\$20,727	0.06%	-0.04%
North Carolina International Equity	\$2,175,169,317	0.3751%	0.0234%	0.0125%	0.41%	\$8,939,946	0.80%	-0.39%
43% Baillie Gifford Growth	\$947,793,219	0.2704%	0.0000%			\$2,562,833	0.51%	-0.24%
43% Mondrian Investment Partners Value	\$930,027,975	0.3858%	0.0000%			\$3,588,048	0.51%	-0.12%
7% Acadian	\$147,637,924	0.6516%	0.0000%			\$962,009	0.84%	-0.19%
7% WCM	\$149,427,346	0.7000%	0.0000%			\$1,045,991	0.84%	-0.14%
North Carolina TIPS Fund	\$367,418,773	0.0250%	0.0035%	0.0125%	0.04%	\$150,642	0.39%	-0.35%
Blackrock	\$367,418,773	0.0250%	0.0000%			\$91,855	0.11%	-0.09%
Total	\$14,581,642,451	0.1734%	0.0104%	0.0125%	0.21%	\$30,328,034	0.22%	

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

¹ Based on annualized monthly fee accruals as of 3/31/2023

² 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.

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

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.

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

	Large Cap Equity								
	3 Years to 03/31/2023		3 Years to 12/31/2022		3 Years to 09/30/2022		3 Years to 06/30/2022		5 Year Risk
	Above Benchmark	Above Peer Median							
Hotchkis & Wiley Large Cap Value									
Macquarie Large Cap Value									
Sands Capital Large Cap Growth									
Loomis Large Cap Growth									
	Small/Mid Cap								
	3 Years to 03/31/2023		3 Years to 12/31/2022		3 Years to 09/30/2022		3 Years to 06/30/2022		5 Year Risk
	Above Benchmark	Above Peer Median							
EARNEST Partners SMID Cap Core*									
WEDGE SMID Cap Value									
Brown Advisory									
	International Equity								
	3 Years to 03/31/2023		3 Years to 12/31/2022		3 Years to 09/30/2022		3 Years to 06/30/2022		5 Year Risk
	Above Benchmark	Above Peer Median							
Baillie Gifford ACWI ex US Growth									
Mondrian ACWI ex US Value									
Acadian*									
WCM*									
	Fixed Income								
	3 Years to 03/31/2023		3 Years to 12/31/2022		3 Years to 09/30/2022		3 Years to 06/30/2022		5 Year Risk
	Above Benchmark	Above Peer Median							
TCW Core Plus*									
Prudential Core Plus									
	Stable Value								
	3 Years to 03/31/2023		3 Years to 12/31/2022		3 Years to 09/30/2022		3 Years to 06/30/2022		5 Year Risk
	Above Benchmark	Above Peer Median							
Stable Value									

*Composite returns used to populate history; gross returns compared to index and separate account peer groups

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

Large Cap Equity									
	5 Years to 03/31/2023		5 Years to 12/31/2022		5 Years to 09/30/2022		5 Years to 06/30/2022		
	Above Benchmark	Above Peer Median	5 Year Risk						
Hotchkis & Wiley Large Cap Value									
Macquarie Large Cap Value*									
Sands Capital Large Cap Growth									
Loomis Large Cap Growth*									
Small/Mid Cap									
	5 Years to 03/31/2023		5 Years to 12/31/2022		5 Years to 09/30/2022		5 Years to 06/30/2022		
	Above Benchmark	Above Peer Median	5 Year Risk						
EARNEST Partners SMID Cap Core*									
WEDGE SMID Cap Value									
Brown Advisory									
International Equity									
	5 Years to 03/31/2023		5 Years to 12/31/2022		5 Years to 09/30/2022		5 Years to 06/30/2022		
	Above Benchmark	Above Peer Median	5 Year Risk						
Baillie Gifford ACWI ex US Growth									
Mondrian ACWI ex US Value									
Acadian*									
WCM*									
Fixed Income									
	5 Years to 03/31/2023		5 Years to 12/31/2022		5 Years to 09/30/2022		5 Years to 06/30/2022		
	Above Benchmark	Above Peer Median	5 Year Risk						
TCW Core Plus*									
Prudential Core Plus									
Stable Value									
	5 Years to 03/31/2023		5 Years to 12/31/2022		5 Years to 09/30/2022		5 Years to 06/30/2022		
	Above Benchmark	Above Peer Median	5 Year Risk						
Stable Value									

*Composite returns used to populate history; gross returns compared to index and separate account peer groups

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	<u>OVERALL STATUS</u>	<u>NOTES</u>
LARGE CAP CORE									
BlackRock	●	●	●	●	●	●	●	Satisfactory	Head of EII (ETF & Index Investments) Portfolio Management Amy Whitelaw stepped away from her role in February 2023. In conjunction BlackRock announced promotions to senior team members to expand the leadership team.
LARGE CAP VALUE									
Hotchkis & Wiley Large Cap Fundamental Value	●	●	●	●	●	●	●	Satisfactory	
Macquarie Large Cap Value Focus	●	●	●	●	●	●	●	Cautionary	Firm announced the July 2023 upcoming retirement of senior PM Bob Vogel. He will remain an active team member until his retirement. Former PM Ty Nutt retired in July 2019 and transitioned his lead 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 transitions. Very difficult performance results for first quarter 2023. Recent underperformance impacting long-term results; client and asset stability should be monitored going forward.
LARGE CAP GROWTH									
Loomis Sayles Large Cap Growth	●	●	●	●	●	●	●	Satisfactory	In 4Q22, Loomis announced a voluntary separation program which included several members of the central research analyst team. No portfolio managers were affected. Strategy had nearly \$5B in outflows in 2022, though it remains capacity constrained. AUM is now below high water mark. Near term performance, though improved, trailing index 3/5/7/10 year periods Continued lack of exposure to major benchmark holdings, such as Apple, have been a large driver of negative attribution.

● 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.

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	<u>OVERALL STATUS</u>	<u>NOTES</u>
Sands Capital Management Select Growth	●	●	●	●	●	●	●	Cautionary	Frank Sands Sr. passed away in March 2021; does not impact the day-to-day management. However, one of the four PMs on the strategy, Mike Sramek, [REDACTED] officially retired from the firm in December 2022. His tenure at the firm and overlap of the Focus strategies (of which he was the lead PM) necessitates continued due diligence around impact of his absence on portfolio management and the portfolio management structure going forward. Exposure to innovation/disruptive growth companies has increased return volatility in recent time periods; continuing to monitor team's buy and sell discipline, as well as approach to risk management, around these companies. Recent underperformance is not unexpected given market headwinds but has significantly impacted three year and longer time periods. Stability of asset base should be monitored; strategy experienced some outflows at the end of 2022.
SMID CAP CORE									
BlackRock	●	●	●	●	●	●	●	Satisfactory	Head of EII Portfolio Management Amy Whitelaw stepped away from her role in February 2023. In conjunction BlackRock announced promotions to senior team members to expand the leadership team.
EARNEST Partners SMID Core	●	●	●	●	●	●	●	Satisfactory	Ownership concentration is notable. Strategy market capitalization consistently larger than benchmark and peers.
SMID CAP VALUE									
WEDGE Capital US SMID Cap Value	●	●	●	●	●	●	●	Cautionary (on NC watch list)	Redemptions have significantly impacted the equity suite of strategies; fundamental equities strategies now only account for <30% of total assets under management. Changes have been made to the portfolio construction approach that may be beneficial for risk management but have yet to be realized in portfolio attribution. In 1Q 2021, Andrew Rosenberg joined the Mid Cap Value strategy as a co-portfolio manager, replacing Brian Pratt. In 1Q 2022, Darrin Witt, Financials analyst, joined the Small Cap Value strategy as a co-portfolio manager. In 1Q 2022, Stephen Ho, Energy analyst, departed the firm; role will not be replaced. In 1Q2023, Jason Boles, Technology/Retail analyst, announced his intent to depart the firm;

● 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.

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	NOTES
WEDGE Capital US SMID Cap Value (Continued)									separation will occur by June 30, 2023 and role will not be replaced. Due to recent and imminent analyst departures and no plans for staff replacements, small cap team will convert to a generalist structure to ensure broader coverage of the stock universe. Individual sleeves of the strategy, particularly the mid cap sleeve, have been challenged by performance and meaningful outflows. Will continue to monitor the aggregate Small/Mid Cap Value strategy for risks to asset stability. Strategy continues to underperform the Russell 2500 Value Index over multiple long-term periods due to stock selection issues. Strategy did outperform the index in calendar year 2022. Will continue to monitor the impact of recent portfolio changes on attribution.
SMID CAP GROWTH									
Brown Advisory US SMID Cap Growth	●	●	●	●	●	●	●	Satisfactory	Notable strategy AUM growth (mitigated by market decline); total securities near all-time high (but within expected range).
INTERNATIONAL EQUITY									
Baillie Gifford ACWI Ex-US Alpha	●	●	●	●	●	●	●	Satisfactory	The retirement of Portfolio Manager Angus Franklin in 6/2022, and the portfolio manager rotation of Toby Ross with Steve Vaughan in 9/2022 are expected to be seamless given the team-driven process and depth and breadth of the team. While short-term underperformance is disappointing, it remains within range based on philosophy, process and historical returns.
BlackRock	●	●	●	●	●	●	●	Satisfactory	Head of EII Portfolio Management Amy Whitelaw stepped away from her role in February 2023. In conjunction BlackRock announced promotions to senior team members to expand the leadership team.
Mondrian Investment Partners Focused ACWI Ex-US	●	●	●	●	●	●	●	Satisfactory (on NC watch list)	There have been a number of investment professional shifts on the team, but all were well telegraphed and resources remain robust. Hamish Parker, who served as chair on the ESG Steering Committee, retired in the first quarter of 2021; Alex Simcox, senior portfolio manager on the international strategy, assumed Parker's role as chair and as of January 2022 the Head of ESG Investment as well. Also in January 2022, Steven Dutaut took on the role of Head of Research - Europe & Asia. Finally, in July 2022 Andrew Porter, Senior Portfolio Manager, retired from the investment management industry and Chris Davis and Zsolt Mester, Portfolio Managers, became

● 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.

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	NOTES
									members of the International Equity Strategy Committee at that time.
Acadian ACW ex U.S. Small Cap	●	●	●	●	●	●	●	Satisfactory	Stable organization despite parent company BrightSphere who is expected sell its affiliates including Acadian; however, the terms of the firm and economic structure are expected to be intact similar to BHMS transaction in July 2020 and TS&W transaction in May 2021. Co-CEO structure streamlined succession; departures of portfolio managers Harry Gakidis and David Purdy during 2Q22 are expected to have a de minimis impact given the systematic nature of the process and depth and breadth of the team. The strategy has limited capacity.
WCM International Small Cap Growth Fund	●	●	●	●	●	●	●	Satisfactory	Co-CEO Kurt Winrich retired, effective 12/31/2021. Winrich continues to serve as chairman of the Board. The strategy has limited capacity.

CORE & CORE PLUS FIXED INCOME

BlackRock	●	●	●	●	●	●	●	Satisfactory	Head of EII Portfolio Management Amy Whitelaw stepped away from her role in February 2023. In conjunction BlackRock announced promotions to senior team members to expand the leadership team.
PGIM Core Plus Bond	●	●	●	●	●	●	●	Satisfactory	In January 2023 it was announced that Head of Fixed Income Michael Lillard will be retiring effective April 2024. Announced in January 2023, Multi-sector PM Michael Collins will be retiring from the firm, effective April 2024. However, the remaining PM team is strong and should provide continuity for the investment process.
TCW Core Plus	●	●	●	●	●	●	●	Satisfactory	Monitoring the CEO leadership transition which occurred at year-end 2022. Monitoring potential impacts to investment strategy consistency due to CIO Tad Rivelle's 2021 year-end retirement and leadership transitioning to other senior members of the investment team.

INFLATION SENSITIVE

BlackRock Strategic Completion Fund	●	●	●	●	●	●	●	Satisfactory	Head of EII Portfolio Management Amy Whitelaw stepped away from her role in February 2023. In conjunction BlackRock announced promotions to senior team members to expand the leadership team.
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● 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.

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	<u>OVERALL STATUS</u>	<u>NOTES</u>
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STABLE VALUE

Galliard Stable Value								Satisfactory	Continuing to monitor parent company's (Allspring) ownership change that occurred in November 2021. Wells was rebranded to Allspring Global Investments and Joseph Sullivan replaced Nico Marais as CEO. Assets 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.
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● 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.

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. Performance remains within expectations for a quality oriented, value strategy.

Performance in down markets has been mixed over the last three years. Mondrian performance was challenged during the COVID-related selloff in Q1 of 2020, which was unlike past market downturns. In that period 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 was expected given their value oriented and defensive style. Until more recently, the growth style of investing has been remarkably strong since the global financial crisis in 2008, which tends to be a headwind for value 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 competitive.

The portfolio outperformed the index in the first quarter (8.9% vs. 6.9%). Relative outperformance was driven by holdings in the UK where businesses serving the UK consumer performed well. This was partially offset by the portfolio's Singaporean holding in United Overseas Bank which was weak on concerns over peak net interest margins.

The portfolio benefitted from stock selection within the relatively weak financials sector. Banco Santander was one of the highest returning stocks in the portfolio following strong results and a more positive outlook. The portfolio also benefitted from strong returns in the health care sector where Dutch company Philips appreciated after it indicated some positive developments in its ongoing DreamStation litigation.

WEDGE Small/Mid Cap Value

Callan has been in regular contact with Wedge and is continually monitoring flows and assets under management. Strategy assets in Small/Mid stood at \$981 million at quarter end, while Small Cap strategy assets stood at \$330 and Mid Cap strategy assets under management were \$267 million.

WEDGE Capital Management was founded in 1984 and based in Charlotte, 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 Small/Mid 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.

The Small/Mid Cap Value composite return for the quarter was 0.27% (0.15% net of fee) versus the Russell 2500 Value Index return of 1.40%. The top contributors in the quarter included positive stock selection in Capital Goods, Consumer Staples, and Finance (REITs). Overweight Capital Goods and underweight REITs also added value. The main detractors in the quarterly relative performance included stock selection within Banks, Consumer Durables and Technology. Underweight higher P/E companies also detracted.

In recognition of the risks posed by declining assets under management, investment team changes, and declining conviction in long-term performance capabilities, Callan recommend the Board consider the following:

- 1) Perform a search to replace WEDGE with a strategy complementary to the existing managers in the SMID Cap strategy; and
- 2) When search process is complete, Callan and Staff will offer a recommendation for replacement.

**The North Carolina Supplemental Retirement Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023**

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error
Tier 2: Passive vs. Net of Fee Groups								
Fixed Income Passive (i) Callan Core Bond MFs Blmbg Aggregate	3.2 63	-4.8 30	-2.8 98	0.9 76		-0.1 79	-0.2 99	0.1 100
Treasury Inflation Protected (i) Callan TIPS MFs Blmbg US TIPS 1-10 Yr	2.9 89	-3.3 12	2.8 22	2.9 38		0.3 37	-0.1 36	2.0 69
Large Cap Passive (i) Callan Large Cap Core MFs S&P 500 Index	7.5 25	-7.7 50	18.6 41	11.2 26		0.5 24	0.0 25	0.0 100
International Passive (i) Callan Non US Equity MFs International Benchmark	6.6 88	-4.5 75	11.6 73	2.4 70		0.0 66	0.2 47	0.9 100
SMID Cap Passive (i) Callan SMID Core MFs Russell 2500 Index	3.4 40	-10.5 78	19.4 62	6.6 43		0.2 49	-1.0 93	0.1 100
Inflation Responsive Fund (i) Callan Real Assets MFs Inflation Responsive Benchmark	0.6 46	-13.6 80	7.9 78	3.1 82		0.1 78	0.7 10	0.3 100
Tier 2: Active vs. Net of Fee Groups								
Stable Value Fund Callan Stable Value CT T-Bill + 1.5%	0.6 16	2.1 17	2.0 6	2.2 3		4.4 8	-1.3 4	0.6 25
Fixed Income Fund Callan Core Plus MFs Blmbg Aggregate	3.4 49	-5.7 61	-1.3 66	1.4 27		0.0 26	0.2 27	2.3 69
TCW Core Plus Callan Core Plus MFs Blmbg Aggregate	3.2 68	-5.9 71	-2.1 86	1.3 32		-0.0 32	0.4 5	1.0 93

Returns:
■ above median
■ third quartile
■ fourth quartile

Return Consistency:
■ above median
■ third quartile
■ fourth quartile

Sharpe Ratio:
■ above median
■ third quartile
■ fourth quartile

Excess Return Ratio:
■ above median
■ third quartile
■ fourth quartile

Tracking Error:
■ below median
■ second quartile
■ first quartile

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

**The North Carolina Supplemental Retirement Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023**

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 Blmbg Aggregate	3.6 24	-5.6 57	-0.5 27	1.6 15		0.0 20	0.2 30	3.7 26
Large Cap Core Equity Fund Callan Lg Cap Broad MF Russell 1000 Index	8.9 38	-9.4 62	17.6 47	10.0 47		0.4 46	-0.2 59	3.6 82
Hotchkis & Wiley Large Cap Value Callan Lg Cap Value MF Russell 1000 Value Index	2.9 18	-4.9 30	26.0 5	8.6 27		0.3 68	0.1 41	9.6 7
Macquarie Large Cap Value Callan Lg Cap Value MF Russell 1000 Value Index	-3.5 95	-6.8 71	16.5 81	6.9 71		0.3 61	-0.1 73	3.9 51
Sands Capital Large Cap Growth Callan Large Cap Grwth MF Russell 1000 Growth Index	17.8 11	-23.4 99	6.4 99	7.4 97		0.2 98	-0.4 34	14.5 1
Loomis Sayles Large Cap Growth Callan Large Cap Grwth MF Russell 1000 Growth Index	21.6 2	-4.3 2	16.4 28	12.5 20		0.5 19	-0.2 15	6.2 29
BlackRock Russell 1000 Index (i) Callan Large Cap Core MFs Russell 1000 Index	7.5 25	-8.4 60	18.7 38	10.9 31		0.4 45	0.0 29	0.1 99
International Equity Fund Callan Non US Equity MFs International Benchmark	10.2 28	-5.1 78	10.0 88	2.3 77		0.0 75	0.0 76	3.0 95
Mondrian ACWI ex-US Value Callan Non US Equity MFs MSCI ACWI ex US	8.8 59	-1.4 57	12.5 59	2.5 67		0.1 65	0.0 67	5.1 57
Baillie Gifford ACWI ex-US Growth Callan Non US Equity MFs MSCI ACWI ex US	13.0 5	-5.1 78	9.0 91	3.0 57		0.1 59	0.1 61	7.9 18

Returns:
■ above median
■ third quartile
■ fourth quartile

Return Consistency:
■ above median
■ third quartile
■ fourth quartile

Sharpe Ratio:
■ above median
■ third quartile
■ fourth quartile

Excess Return Ratio:
■ above median
■ third quartile
■ fourth quartile

Tracking Error:
■ below median
■ second quartile
■ first quartile

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**The North Carolina Supplemental Retirement Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023**

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
Acadian Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	3.8 85	-9.0 59	21.1 7	5.2 4		0.2 4	0.8 1	4.6 81
WCM Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	4.7 78	-10.4 73	15.0 36	1.7 50		0.0 50		
Small/Mid Cap Equity Fund Callan SMID Broad MFs Russell 2500 Index	3.6 66	-7.5 36	20.9 34	6.9 49		0.2 46	0.1 36	2.2 100
Earnest Partners Small/Mid Cap Callan SMID Core MFs Russell 2500 Index	5.6 10	-5.3 28	21.5 27	9.9 8		0.4 3	0.5 6	6.4 22
Wedge Small/Mid Cap Value Callan SMID Value MFs Russell 2500 Value Index	0.2 85	-9.7 76	21.3 74	4.0 89		0.1 89	-0.6 91	2.8 99
Brown Advisory Small/Mid Cap Growth Callan SMID Growth MFs Russell 2500 Growth Index	4.9 85	-6.5 13	16.9 28	8.8 27		0.3 20	0.4 10	4.5 89
BlackRock Russell 2500 Index (i) Callan SMID Core MFs Russell 2500 Index	3.5 38	-10.7 79	19.7 56	6.7 40		0.2 44	0.2 30	0.5 100
	3.4 44	-10.4 78	19.4 59	6.6 41		0.2 48		

Returns:
■ above median
■ third quartile
■ fourth quartile

Return Consistency:
■ above median
■ third quartile
■ fourth quartile

Sharpe Ratio:
■ above median
■ third quartile
■ fourth quartile

Excess Return Ratio:
■ above median
■ third quartile
■ fourth quartile

Tracking Error:
■ below median
■ second quartile
■ first quartile

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**The North Carolina Supplemental Retirement Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023**

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 T-Bill + 1.5%	0.6 80	2.2 56	2.1 34	2.3 34		5.2 39	-1.0 34	0.6 20
	1.4 1	4.0 2	2.4 13	2.9 2		2.3 88		
Fixed Income Fund								
TCW Core Plus Callan Core Bond FI Blmbg Aggregate	3.2 45	-5.7 97	-1.9 67	1.5 31		0.0 31	0.6 21	1.0 58
	3.0 79	-4.8 64	-2.8 96	0.9 97		-0.1 96		
Prudential Core Plus Callan Core Bond FI Blmbg Aggregate	3.6 7	-5.6 94	-0.5 3	1.6 14		0.0 18	0.2 83	3.7 1
	3.0 79	-4.8 64	-2.8 96	0.9 97		-0.1 96		
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value Callan Large Cap Value Russell 1000 Value Index	3.0 17	-4.5 49	26.5 6	9.1 32		0.3 73	0.2 48	9.6 6
	1.0 37	-5.9 74	17.9 84	7.5 70		0.3 60		
Macquarie Large Cap Value Callan Large Cap Value Russell 1000 Value Index	-3.5 96	-6.5 82	16.8 89	7.2 76		0.3 62	-0.1 77	3.9 56
	1.0 37	-5.9 74	17.9 84	7.5 70		0.3 60		
Sands Capital Large Cap Growth Callan Large Cap Growth Russell 1000 Growth Index	17.9 3	-23.1 97	6.9 96	7.9 94		0.2 96	-0.4 52	14.5 3
	14.4 28	-10.9 40	18.6 20	13.7 14		0.5 23		
Loomis Sayles Large Cap Growth Callan Large Cap Growth Russell 1000 Growth Index	21.7 1	-3.9 5	16.8 36	12.9 24		0.5 26	-0.1 21	6.2 30
	14.4 28	-10.9 40	18.6 20	13.7 14		0.5 23		
BlackRock Russell 1000 Index (i) Callan Large Cap Core Russell 1000 Index	7.5 23	-8.4 72	18.7 43	10.9 46		0.4 54	0.1 44	0.1 99
	7.5 23	-8.4 71	18.6 47	10.9 46		0.4 53		

Returns:
■ above median
■ third quartile
■ fourth quartile

Return Consistency:
■ above median
■ third quartile
■ fourth quartile

Sharpe Ratio:
■ above median
■ third quartile
■ fourth quartile

Excess Return Ratio:
■ above median
■ third quartile
■ fourth quartile

Tracking Error:
■ below median
■ second quartile
■ first quartile

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**The North Carolina Supplemental Retirement Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023**

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	8.9 43	-1.0 41	12.9 62	2.9 76		0.1 73	0.1 73	5.1 51
MSCI ACWI ex US	6.9 87	-5.1 84	11.8 80	2.5 83		0.1 81		
Baillie Gifford ACWI ex-US Growth Callan NonUS Eq	13.1 3	-4.9 81	9.3 94	3.3 65		0.1 72	0.1 72	7.9 13
MSCI ACWI ex US	6.9 87	-5.1 84	11.8 80	2.5 83		0.1 81		
Acadian Callan Intl Small Cap	3.8 92	-9.0 77	21.1 5	5.2 3		0.2 3	0.8 3	4.6 79
MSCI ACWI ex US Small Cap	4.7 85	-10.4 82	15.0 46	1.7 43		0.0 40		
WCM Callan Intl Small Cap	8.6 22	-20.4 99	14.3 59	7.9 1		0.2 1	0.4 13	14.7 3
MSCI ACWI ex US Small Cap	4.7 85	-10.4 82	15.0 46	1.7 43		0.0 40		
Small/Mid Cap Equity Fund								
Earnest Partners Small/Mid Cap Callan Small/MidCap Core	5.8 23	-4.8 41	22.7 26	11.0 10		0.4 8	0.7 5	6.3 38
Russell 2500 Index	3.4 62	-10.4 80	19.4 73	6.6 68		0.2 67		
Wedge Small/Mid Cap Value Callan Small/MidCap Value	0.3 95	-9.3 95	21.8 77	4.5 88		0.1 85	-0.4 93	2.8 95
Russell 2500 Value Index	1.4 72	-10.5 98	21.8 77	5.6 78		0.2 76		
Brown Advisory Small/Mid Cap Growth Callan Sm/MidCap Growth	5.0 90	-6.2 15	17.3 38	9.3 39		0.3 40	0.5 33	4.5 92
Russell 2500 Growth Index	6.5 71	-10.4 47	14.7 63	6.8 74		0.2 70		
BlackRock Russell 2500 Index (i) Callan Small/MidCap Core	3.5 61	-10.6 81	19.7 72	6.7 67		0.2 67	0.2 59	0.5 100
Russell 2500 Index	3.4 62	-10.4 80	19.4 73	6.6 68		0.2 67		

Returns:
■ above median
■ third quartile
■ fourth quartile

Return Consistency:
■ above median
■ third quartile
■ fourth quartile

Sharpe Ratio:
■ above median
■ third quartile
■ fourth quartile

Excess Return Ratio:
■ above median
■ third quartile
■ fourth quartile

Tracking Error:
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■ second quartile
■ first quartile

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Investment Fund Balances

The table below compares the fund's investment fund balances as of March 31, 2023 with that of December 31, 2022.

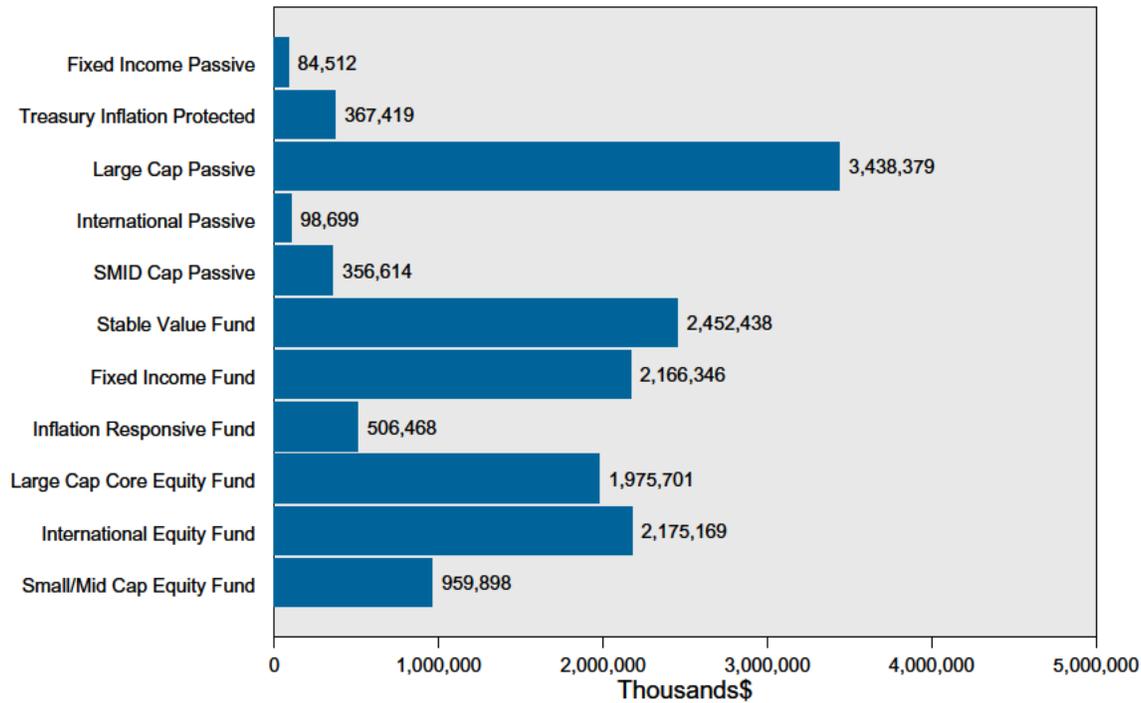
Asset Distribution Across Investment Funds

	March 31, 2023		December 31, 2022	
	Market Value	Weight	Market Value	Weight
North Carolina SRP 401k & 457				
Tier I: GoalMaker				
Post Retirement Conservative 11+	44,074,482	0.61%	38,734,643	0.57%
Post Retirement Conservative 6-10	138,973,465	1.91%	129,691,916	1.90%
Post Retirement Conservative 0-5	397,459,778	5.46%	388,919,207	5.69%
Pre Retirement Conservative 0-5	327,471,879	4.50%	316,413,796	4.63%
Pre Retirement Conservative 6-10	195,798,731	2.69%	190,223,812	2.78%
Pre Retirement Conservative 11-15	147,895,719	2.03%	141,618,088	2.07%
Pre Retirement Conservative 16-20	106,881,286	1.47%	101,509,874	1.48%
Pre Retirement Conservative 21-25	89,381,384	1.23%	83,300,012	1.22%
Pre Retirement Conservative 26+	98,164,374	1.35%	91,198,899	1.33%
Post Retirement Moderate 11+	49,405,537	0.68%	45,898,600	0.67%
Post Retirement Moderate 6-10	149,566,244	2.05%	138,154,480	2.02%
Post Retirement Moderate 0-5	447,465,923	6.15%	419,106,069	6.13%
Pre Retirement Moderate 0-5	633,882,465	8.71%	606,328,463	8.87%
Pre Retirement Moderate 6-10	609,193,426	8.37%	570,946,573	8.35%
Pre Retirement Moderate 11-15	508,032,035	6.98%	472,914,924	6.92%
Pre Retirement Moderate 16-20	391,204,574	5.37%	362,143,183	5.30%
Pre Retirement Moderate 21-25	285,573,252	3.92%	265,686,446	3.89%
Pre Retirement Moderate 26+	320,125,105	4.40%	293,562,046	4.29%
Post Retirement Aggressive 11+	19,147,961	0.26%	17,956,226	0.26%
Post Retirement Aggressive 6-10	49,554,800	0.68%	43,742,590	0.64%
Post Retirement Aggressive 0-5	174,646,660	2.40%	163,415,394	2.39%
Pre Retirement Aggressive 0-5	340,590,851	4.68%	323,284,842	4.73%
Pre Retirement Aggressive 6-10	414,512,113	5.69%	382,701,266	5.60%
Pre Retirement Aggressive 11-15	468,084,395	6.43%	430,068,373	6.29%
Pre Retirement Aggressive 16-20	380,022,247	5.22%	355,600,351	5.20%
Pre Retirement Aggressive 21-25	266,215,775	3.66%	249,632,962	3.65%
Pre Retirement Aggressive 26+	227,873,957	3.13%	213,881,887	3.13%
Tier I: GoalMaker Total	\$7,281,198,418	100.0%	\$6,836,634,922	100.0%

Changes in Investment Fund Balances Period Ended March 31, 2023

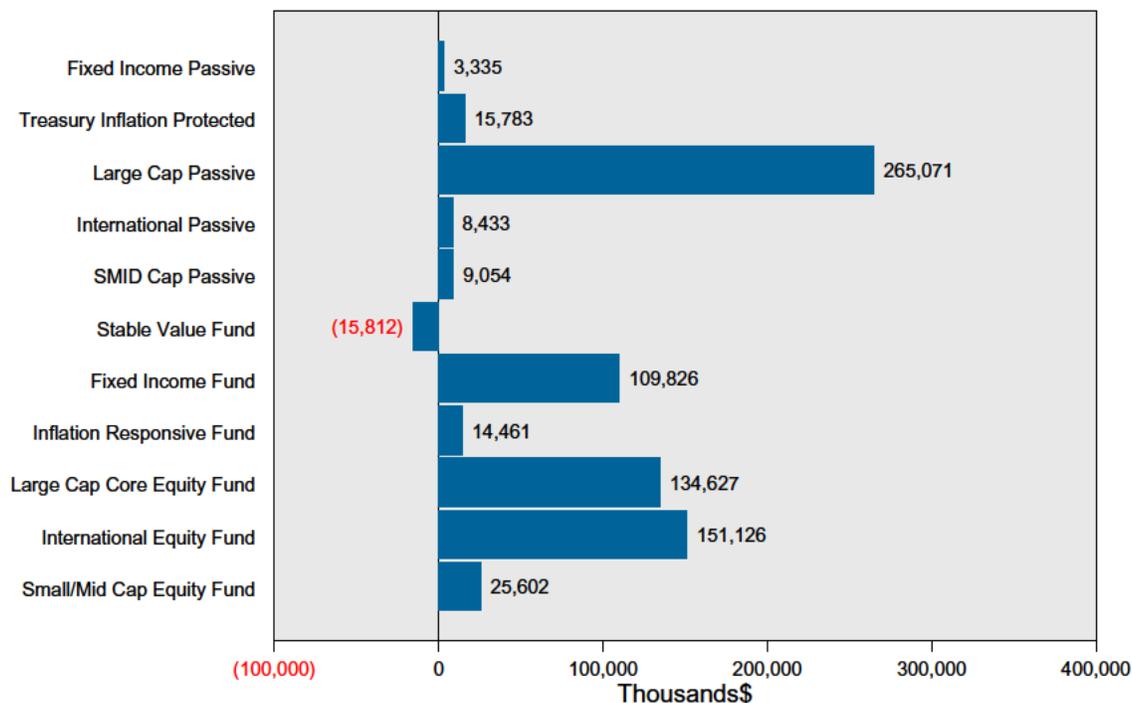
Allocation Across Investment Options

The chart below illustrates the allocation of the aggregate fund assets across the various investment options for the quarter ended March 31, 2023.



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, 2023. 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.



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 3/2023		3 Years Ended 12/2022		3 Years Ended 9/2022		3 Years Ended 6/2022	
Tier 2: Passive (Net of Fee)								
Fixed Income Passive	(2.77%)	98	(2.79%)	80	(3.28%)	82	(0.96%)	81
Blmbg Aggregate	(2.77%)	98	(2.71%)	78	(3.26%)	81	(0.93%)	78
Callan Core Bond MFs	(1.79%)		(2.41%)		(2.95%)		(0.60%)	
Large Cap Passive	18.58%	41	7.65%	54	8.15%	50	10.59%	38
S&P 500 Index	18.60%	39	7.66%	53	8.16%	50	10.60%	38
Callan Large Cap Core MFs	17.99%		7.69%		8.12%		10.21%	
International Passive	11.63%	73	0.04%	68	(1.78%)	56	1.29%	56
International Benchmark (1)	11.37%	83	(0.22%)	70	(1.76%)	56	1.02%	59
Callan Non US Equity MFs	13.23%		0.84%		(1.43%)		1.45%	
SMID Cap Passive	19.35%	62	4.91%	61	5.26%	40	5.85%	51
Russell 2500 Index	19.42%	59	5.00%	58	5.36%	38	5.91%	50
Callan SMID Core MFs	19.83%		5.25%		4.24%		5.96%	
Inflation Responsive Fund	7.92%	78	2.28%	83	1.50%	83	4.93%	73
Inflation Responsive Benchmark	7.72%	79	2.12%	84	1.37%	84	4.76%	73
Callan Real Assets MFs	11.13%		5.06%		4.21%		6.16%	

(1) As of 9/30/21, International Benchmark consists of MSCI ACWI ex-US IMI, previously consisted of MSCI ACWI ex-US.

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 3/2023		3 Years Ended 12/2022		3 Years Ended 9/2022		3 Years Ended 6/2022	
Tier 2: Active (Net of Fee)								
Stable Value Fund	2.00%	6	2.01%	6	2.05%	5	2.11%	4
3 Yr US Treas Rolling T-Bill + 1.5%	1.57%	42	1.30%	82	1.08%	93	0.93%	99
Callan Stable Value CT	2.39%	1	2.22%	2	2.09%	4	2.13%	3
	1.49%		1.50%		1.52%		1.57%	
Fixed Income Fund	(1.29%)	66	(2.40%)	48	(2.93%)	52	(0.43%)	34
Blmbg Aggregate	(2.77%)	98	(2.71%)	82	(3.26%)	80	(0.93%)	76
Callan Core Plus MFs	(0.90%)		(2.43%)		(2.84%)		(0.69%)	
TCW Core Plus	(2.05%)	75	(2.29%)	41	(2.79%)	43	(0.22%)	22
Blmbg Aggregate	(2.77%)	98	(2.71%)	78	(3.26%)	81	(0.93%)	78
Callan Core Bond MFs	(1.79%)		(2.41%)		(2.95%)		(0.60%)	
Prudential Core Plus	(0.48%)	27	(2.48%)	61	(2.98%)	62	(0.57%)	39
Blmbg Aggregate	(2.77%)	98	(2.71%)	82	(3.26%)	80	(0.93%)	76
Callan Core Plus MFs	(0.90%)		(2.43%)		(2.84%)		(0.69%)	
Large Cap Core Equity Fund	17.58%	47	5.99%	60	5.96%	59	7.57%	67
Russell 1000 Index	18.55%	32	7.35%	37	7.95%	36	10.17%	29
Callan Lg Cap Broad MF	17.50%		6.51%		6.34%		8.69%	
Hotchkis & Wiley Large Cap Value	25.99%	5	8.38%	26	5.84%	39	8.45%	34
Russell 1000 Value Index	17.93%	66	5.96%	77	4.36%	72	6.87%	72
Callan Lg Cap Value MF	18.74%		6.94%		5.07%		7.65%	
Macquarie Large Cap Value	16.48%	81	6.73%	60	4.28%	77	7.09%	66
Russell 1000 Value Index	17.93%	66	5.96%	77	4.36%	72	6.87%	72
Callan Lg Cap Value MF	18.74%		6.94%		5.07%		7.65%	
Sands Capital Large Cap Growth	6.40%	99	(2.28%)	98	0.45%	98	(0.32%)	99
Russell 1000 Growth Index	18.58%	7	7.79%	12	10.67%	6	12.58%	3
Callan Large Cap Grwth MF	14.82%		4.94%		7.18%		8.84%	
Loomis Sayles Large Cap Growth	16.36%	28	4.80%	52	6.01%	66	7.03%	71
Russell 1000 Growth Index	18.58%	7	7.79%	12	10.67%	6	12.58%	3
Callan Large Cap Grwth MF	14.82%		4.94%		7.18%		8.84%	
International Equity Fund	9.99%	88	(2.36%)	92	(3.39%)	80	(0.04%)	82
International Benchmark (1)	11.37%	83	(0.22%)	70	(1.76%)	56	1.02%	59
Callan Non US Equity MFs	13.23%		0.84%		(1.43%)		1.45%	
Mondrian ACWI ex-US Value	12.50%	59	(0.95%)	85	(2.67%)	66	1.37%	52
MSCI ACWI ex US	11.80%	69	0.07%	67	(1.52%)	52	1.35%	54
MSCI ACWI ex US Value	13.82%	45	0.06%	68	(2.15%)	62	0.56%	65
Callan Non US Equity MFs	13.23%		0.84%		(1.43%)		1.45%	
Baillie Gifford ACWI ex-US Growth	9.05%	91	(2.99%)	95	(3.66%)	85	(0.66%)	89
MSCI ACWI ex US	11.80%	69	0.07%	67	(1.52%)	52	1.35%	54
MSCI ACWI ex US Growth	9.49%	89	(0.40%)	74	(1.38%)	49	1.62%	46
Callan Non US Equity MFs	13.23%		0.84%		(1.43%)		1.45%	
Small/Mid Cap Equity Fund	20.87%	34	6.38%	31	6.19%	34	6.56%	33
Russell 2500 Index	19.42%	48	5.00%	47	5.36%	42	5.91%	45
Callan SMID Broad MFs	19.13%		4.75%		5.05%		5.77%	
Wedge Small/Mid Cap Value	21.32%	74	4.35%	81	2.57%	85	4.90%	98
Russell 2500 Value Index	21.80%	72	5.22%	72	4.52%	67	6.19%	61
Callan SMID Value MFs	23.08%		6.84%		5.71%		7.78%	
Brown Advisory Small/Mid Cap Growth	16.87%	28	4.88%	32	5.61%	37	4.25%	38
Russell 2500 Growth Index	14.75%	50	2.88%	49	4.76%	50	3.68%	40
Callan SMID Growth MFs	14.74%		2.78%		4.84%		2.99%	

(1) As of 9/30/21, International Benchmark consists of MSCI ACWI ex-US IMI, previously consisted of MSCI ACWI ex-US.

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, 2023. 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, 2023

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
Tier 2: Active (Gross of Fee) Stable Value Fund										
Galliard Stable Value	0.61%	80	2.17%	56	2.13%	34	2.33%	34	2.43%	(1/11)
3 Yr US Treas Rolling T-Bill + 1.5%	1.00%	2	3.68%	2	1.57%	89	1.76%	90	1.26%	(1/11)
Callan Stable Value SA	1.43%	1	4.00%	2	2.39%	13	2.91%	2	2.23%	(1/11)
	0.64%		2.19%		2.02%		2.24%		-	
Fixed Income Fund										
TCW Core Plus	3.19%	45	(5.72%)	97	(1.92%)	67	1.48%	31	1.56%	(1/17)
Blmbg Aggregate	2.96%	79	(4.78%)	64	(2.77%)	96	0.91%	97	1.05%	(1/17)
Callan Core Bond FI	3.16%		(4.57%)		(1.72%)		1.37%		-	
Prudential Core Plus	3.59%	7	(5.64%)	94	(0.48%)	3	1.61%	14	2.40%	(1/15)
Blmbg Aggregate	2.96%	79	(4.78%)	64	(2.77%)	96	0.91%	97	1.18%	(1/15)
Callan Core Bond FI	3.16%		(4.57%)		(1.72%)		1.37%		-	
Large Cap Core Equity Fund										
Hotchkis & Wiley Large Cap Value	3.00%	17	(4.48%)	49	26.48%	6	9.07%	32	15.13%	(4/09)
Russell 1000 Value Index	1.01%	37	(5.91%)	74	17.93%	84	7.50%	70	12.61%	(4/09)
Callan Large Cap Value	0.42%		(4.52%)		20.57%		8.28%		-	
Macquarie Large Cap Value	(3.45%)	96	(6.55%)	82	16.78%	89	7.20%	76	7.55%	(6/15)
Russell 1000 Value Index	1.01%	37	(5.91%)	74	17.93%	84	7.50%	70	7.52%	(6/15)
Callan Large Cap Value	0.42%		(4.52%)		20.57%		8.28%		-	
Sands Capital Large Cap Growth	17.95%	3	(23.09%)	97	6.86%	96	7.90%	94	16.89%	(4/09)
Russell 1000 Growth Index	14.37%	28	(10.90%)	40	18.58%	20	13.66%	14	16.47%	(4/09)
Callan Large Cap Growth	13.09%		(11.85%)		15.62%		11.62%		-	
Loomis Sayles Large Cap Growth	21.66%	1	(3.88%)	5	16.79%	36	12.88%	24	14.50%	(8/14)
Russell 1000 Growth Index	14.37%	28	(10.90%)	40	18.58%	20	13.66%	14	13.78%	(8/14)
Callan Large Cap Growth	13.09%		(11.85%)		15.62%		11.62%		-	
BlackRock Russell 1000 Index	7.48%	23	(8.42%)	72	18.66%	43	10.88%	46	10.67%	(11/17)
Russell 1000 Index	7.46%	23	(8.39%)	71	18.55%	47	10.87%	46	10.69%	(11/17)
Callan Large Cap Core	6.73%		(7.85%)		18.47%		10.62%		-	
International Equity Fund										
Mondrian ACWI ex-US Value	8.92%	43	(0.96%)	41	12.93%	62	2.88%	76	7.32%	(4/09)
MSCI ACWI ex US	6.87%	87	(5.07%)	84	11.80%	80	2.47%	83	7.51%	(4/09)
MSCI ACWI ex US Value	5.16%	98	(4.00%)	74	13.82%	48	1.26%	93	6.68%	(4/09)
Callan NonUS Eq	8.76%		(1.87%)		13.77%		3.99%		-	
Baillie Gifford ACWI ex-US Growth	13.08%	3	(4.86%)	81	9.32%	94	3.27%	65	10.24%	(4/09)
MSCI ACWI ex US	6.87%	87	(5.07%)	84	11.80%	80	2.47%	83	7.51%	(4/09)
MSCI ACWI ex US Growth	8.59%	55	(6.35%)	90	9.49%	92	3.36%	62	8.18%	(4/09)
Callan NonUS Eq	8.76%		(1.87%)		13.77%		3.99%		-	
Small/Mid Cap Equity Fund										
Earnest Partners Small/Mid Cap	5.75%	23	(4.83%)	41	-	-	-	-	1.62%	(4/21)
Russell 2500 Index	3.39%	62	(10.39%)	80	19.42%	73	6.65%	68	(5.18%)	(4/21)
Callan Small/MidCap Core	4.02%		(5.90%)		20.85%		7.73%		-	
Wedge Small/Mid Cap Value	0.31%	95	(9.26%)	95	21.83%	77	4.54%	88	10.19%	(1/12)
Russell 2500 Value Index	1.40%	72	(10.53%)	98	21.80%	77	5.61%	78	9.73%	(1/12)
Callan Small/MidCap Value	2.77%		(5.38%)		24.92%		7.24%		-	
Brown Advisory Small/Mid Cap Growth	5.02%	90	(6.16%)	15	17.29%	38	9.27%	39	15.36%	(4/09)
Russell 2500 Growth Index	6.54%	71	(10.35%)	47	14.75%	63	6.82%	74	14.29%	(4/09)
Callan Sm/MidCap Growth	7.85%		(10.82%)		16.22%		8.36%		-	
BlackRock Russell 2500 Index	3.45%	61	(10.65%)	81	19.68%	72	6.75%	67	6.86%	(11/17)
Russell 2500 Index	3.39%	62	(10.39%)	80	19.42%	73	6.65%	68	6.77%	(11/17)
Callan Small/MidCap Core	4.02%		(5.90%)		20.85%		7.73%		-	

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 3/2023		3 Years Ended 12/2022		3 Years Ended 9/2022		3 Years Ended 6/2022	
Tier 2: Active (Gross of Fee)								
Stable Value Fund								
Galliard Stable Value	2.13%	34	2.14%	32	2.18%	31	2.24%	35
3 Yr US Treas Rolling T-Bill + 1.5%	1.57%	89	1.30%	93	1.08%	95	0.93%	96
Callan Stable Value SA	2.39%	13	2.22%	29	2.09%	48	2.13%	52
	2.02%		2.05%		2.07%		2.14%	
Fixed Income Fund								
TCW Core Plus	(1.92%)	67	(2.16%)	50	(2.67%)	45	(0.10%)	20
Blmbg Aggregate	(2.77%)	96	(2.71%)	96	(3.26%)	95	(0.93%)	93
Callan Core Bond FI	(1.72%)		(2.16%)		(2.70%)		(0.44%)	
Prudential Core Plus	(0.48%)	3	(2.48%)	79	(2.98%)	81	(0.57%)	66
Blmbg Aggregate	(2.77%)	96	(2.71%)	96	(3.26%)	95	(0.93%)	93
Callan Core Bond FI	(1.72%)		(2.16%)		(2.70%)		(0.44%)	
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value	26.48%	6	8.82%	34	6.27%	48	8.89%	47
Russell 1000 Value Index	17.93%	84	5.96%	93	4.36%	89	6.87%	92
Callan Large Cap Value	20.57%		7.96%		6.07%		8.64%	
Macquarie Large Cap Value	16.78%	89	7.02%	66	4.57%	85	7.39%	79
Russell 1000 Value Index	17.93%	84	5.96%	93	4.36%	89	6.87%	92
Callan Large Cap Value	20.57%		7.96%		6.07%		8.64%	
Sands Capital Large Cap Growth	6.86%	96	(1.85%)	96	0.90%	96	0.13%	97
Russell 1000 Growth Index	18.58%	20	7.79%	28	10.67%	13	12.58%	11
Callan Large Cap Growth	15.62%		6.21%		7.85%		9.45%	
Loomis Sayles Large Cap Growth	16.79%	36	5.20%	60	6.42%	67	7.44%	77
Russell 1000 Growth Index	18.58%	20	7.79%	28	10.67%	13	12.58%	11
Callan Large Cap Growth	15.62%		6.21%		7.85%		9.45%	
International Equity Fund								
Mondrian ACWI ex-US Value	12.93%	62	(0.56%)	83	(2.29%)	78	1.76%	60
MSCI ACWI ex US	11.80%	80	0.07%	74	(1.52%)	67	1.35%	68
MSCI ACWI ex US Value	13.82%	48	0.06%	74	(2.15%)	74	0.56%	82
Callan NonUS Eq	13.77%		1.44%		(0.57%)		2.37%	
Baillie Gifford ACWI ex-US Growth	9.32%	94	(2.73%)	97	(3.41%)	93	(0.39%)	90
MSCI ACWI ex US	11.80%	80	0.07%	74	(1.52%)	67	1.35%	68
MSCI ACWI ex US Growth	9.49%	92	(0.40%)	83	(1.38%)	65	1.62%	64
Callan NonUS Eq	13.77%		1.44%		(0.57%)		2.37%	
Small/Mid Cap Equity Fund								
Wedge Small/Mid Cap Value	21.83%	77	4.81%	75	3.01%	80	5.35%	81
Russell 2500 Value Index	21.80%	77	5.22%	74	4.52%	68	6.19%	75
Callan Small/MidCap Value	24.92%		6.71%		6.18%		7.72%	
Brown Advisory Small/Mid Cap Growth	17.29%	38	5.30%	38	6.03%	38	4.68%	40
Russell 2500 Growth Index	14.75%	63	2.88%	67	4.76%	55	3.68%	63
Callan Sm/MidCap Growth	16.22%		3.52%		5.18%		4.10%	

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Conservative 11+	3.40%	(3.21%)	4.01%	-	-
Post Ret Conservative 11+ Index	3.13%	(2.52%)	3.56%	-	-
Post Retirement Conservative 6-10	3.56%	(3.40%)	4.08%	-	-
Post Ret Conservative 6-10 Index	3.23%	(2.71%)	3.59%	-	-
Post Retirement Conservative 0-5	3.68%	(3.86%)	4.55%	-	-
Post Ret Conservative 0-5 Index	3.32%	(3.27%)	4.00%	-	-
Pre Retirement Conservative 0-5	4.13%	(4.35%)	4.91%	3.85%	4.23%
Pre Ret Conservative 0-5 Index	3.62%	(3.82%)	4.36%	3.59%	3.90%
Pre Retirement Conservative 6-10	4.57%	(4.94%)	5.77%	4.10%	4.81%
Pre Ret Conservative 6-10 Index	3.91%	(4.54%)	5.26%	3.84%	4.48%
Pre Retirement Conservative 11-15	4.93%	(5.49%)	6.85%	4.51%	5.79%
Pre Ret Conservative 11-15 Index	4.18%	(5.23%)	6.39%	4.27%	5.45%
Pre Retirement Conservative 16-20	5.63%	(5.96%)	8.07%	4.88%	6.81%
Pre Ret Conservative 16-20 Index	4.65%	(5.82%)	7.80%	4.68%	6.50%
Pre Retirement Conservative 21-25	6.08%	(6.49%)	9.58%	-	-
Pre Ret Conservative 21-25 Index	5.01%	(6.52%)	9.45%	-	-
Pre Retirement Conservative 26+	6.46%	(6.66%)	11.18%	-	-
Pre Ret Conservative 26+ Index	5.28%	(6.86%)	11.25%	-	-

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended March 31, 2023

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Conservative 11+	-	-	3.55% ^(7/18)
Post Ret Conservative 11+ Index	-	-	3.27% ^(7/18)
Post Retirement Conservative 6-10	-	-	3.59% ^(7/18)
Post Ret Conservative 6-10 Index	-	-	3.30% ^(7/18)
Post Retirement Conservative 0-5	-	-	3.75% ^(7/18)
Post Ret Conservative 0-5 Index	-	-	3.46% ^(7/18)
Pre Retirement Conservative 0-5	4.00%	-	5.20% ^(7/09)
Pre Ret Conservative 0-5 Index	3.64%	3.76%	4.42% ^(7/09)
Pre Retirement Conservative 6-10	4.56%	-	5.99% ^(7/09)
Pre Ret Conservative 6-10 Index	4.18%	4.19%	5.15% ^(7/09)
Pre Retirement Conservative 11-15	5.53%	-	7.14% ^(7/09)
Pre Ret Conservative 11-15 Index	5.19%	5.08%	6.59% ^(7/09)
Pre Retirement Conservative 16-20	6.53%	-	8.35% ^(7/09)
Pre Ret Conservative 16-20 Index	6.20%	5.76%	7.93% ^(7/09)
Pre Retirement Conservative 21-25	-	-	5.29% ^(7/18)
Pre Ret Conservative 21-25 Index	-	-	5.13% ^(7/18)
Pre Retirement Conservative 26+	-	-	5.70% ^(7/18)
Pre Ret Conservative 26+ Index	-	-	5.56% ^(7/18)

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Moderate 11+	3.98%	(3.68%)	5.82%	-	-
Post Ret Moderate 11+ Index	3.57%	(3.18%)	5.52%	-	-
Post Retirement Moderate 6-10	4.28%	(4.14%)	6.19%	-	-
Post Ret Moderate 6-10 Index	4.28%	(3.65%)	7.84%	-	-
Post Retirement Moderate 0-5	4.60%	(4.78%)	6.65%	-	-
Post Ret Moderate 0-5 Index	4.01%	(4.42%)	6.24%	-	-
Pre Retirement Moderate 0-5	5.01%	(5.26%)	7.09%	4.61%	5.41%
Pre Ret Moderate 0-5 Index	4.27%	(4.96%)	6.73%	4.40%	5.12%
Pre Retirement Moderate 6-10	5.54%	(5.78%)	8.32%	4.94%	6.10%
Pre Ret Moderate 6-10 Index	4.61%	(5.64%)	8.09%	4.75%	5.80%
Pre Retirement Moderate 11-15	6.00%	(6.23%)	9.70%	5.33%	6.94%
Pre Ret Moderate 11-15 Index	4.95%	(6.26%)	9.61%	5.16%	6.65%
Pre Retirement Moderate 16-20	6.46%	(6.66%)	11.18%	5.75%	8.05%
Pre Ret Moderate 16-20 Index	5.28%	(6.86%)	11.25%	5.60%	7.78%
Pre Retirement Moderate 21-25	6.82%	(6.81%)	12.33%	-	-
Pre Ret Moderate 21-25 Index	5.55%	(7.09%)	12.59%	-	-
Pre Retirement Moderate 26+	7.09%	(6.93%)	13.60%	-	-
Pre Ret Moderate 26+ Index	5.77%	(7.34%)	13.98%	-	-

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	Returns for Periods Ended March 31, 2023		
	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Moderate 11+	-	-	4.25% ^(7/18)
Post Ret Moderate 11+ Index	-	-	4.03% ^(7/18)
Post Retirement Moderate 6-10	-	-	4.39% ^(7/18)
Post Ret Moderate 6-10 Index	-	-	4.49% ^(7/18)
Post Retirement Moderate 0-5	-	-	4.56% ^(7/18)
Post Ret Moderate 0-5 Index	-	-	4.33% ^(7/18)
Pre Retirement Moderate 0-5	5.07%	-	6.45% ^(7/09)
Pre Ret Moderate 0-5 Index	4.72%	4.61%	5.78% ^(7/09)
Pre Retirement Moderate 6-10	5.75%	-	7.21% ^(7/09)
Pre Ret Moderate 6-10 Index	5.43%	5.24%	6.77% ^(7/09)
Pre Retirement Moderate 11-15	6.54%	-	8.24% ^(7/09)
Pre Ret Moderate 11-15 Index	6.21%	5.75%	7.76% ^(7/09)
Pre Retirement Moderate 16-20	7.56%	-	9.45% ^(7/09)
Pre Ret Moderate 16-20 Index	7.24%	6.38%	9.11% ^(7/09)
Pre Retirement Moderate 21-25	-	-	5.99% ^(7/18)
Pre Ret Moderate 21-25 Index	-	-	5.87% ^(7/18)
Pre Retirement Moderate 26+	-	-	6.32% ^(7/18)
Pre Ret Moderate 26+ Index	-	-	6.20% ^(7/18)

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Aggressive 11+	4.77%	(4.28%)	9.35%	-	-
Post Ret Aggressive 11+ Index	4.19%	(3.98%)	7.71%	-	-
Post Retirement Aggressive 6-10	5.20%	(4.61%)	10.01%	-	-
Post Ret Aggressive 6-10 Index	4.50%	(4.38%)	8.48%	-	-
Post Retirement Aggressive 0-5	5.47%	(5.40%)	10.30%	-	-
Post Ret Aggressive 0-5 Index	4.69%	(5.27%)	8.75%	-	-
Pre Retirement Aggressive 0-5	5.87%	(6.17%)	11.03%	6.22%	7.14%
Pre Ret Aggressive 0-5 Index	4.95%	(6.18%)	9.73%	5.39%	6.38%
Pre Retirement Aggressive 6-10	6.49%	(6.44%)	11.71%	6.15%	7.53%
Pre Ret Aggressive 6-10 Index	5.32%	(6.56%)	11.01%	5.56%	6.94%
Pre Retirement Aggressive 11-15	6.82%	(6.81%)	12.71%	6.24%	8.22%
Pre Ret Aggressive 11-15 Index	5.55%	(7.09%)	12.59%	5.89%	7.80%
Pre Retirement Aggressive 16-20	7.05%	(6.91%)	13.54%	6.39%	9.14%
Pre Ret Aggressive 16-20 Index	5.73%	(7.30%)	13.77%	6.20%	8.83%
Pre Retirement Aggressive 21-25	7.24%	(7.04%)	14.06%	-	-
Pre Ret Aggressive 21-25 Index	5.87%	(7.49%)	14.60%	-	-
Pre Retirement Aggressive 26+	7.24%	(7.04%)	14.06%	-	-
Pre Ret Aggressive 26+ Index	5.87%	(7.49%)	14.60%	-	-

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended March 31, 2023

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Aggressive 11+	-	-	5.96% ^(7/18)
Post Ret Aggressive 11+ Index	-	-	4.87% ^(7/18)
Post Retirement Aggressive 6-10	-	-	6.18% ^(7/18)
Post Ret Aggressive 6-10 Index	-	-	5.14% ^(7/18)
Post Retirement Aggressive 0-5	-	-	6.22% ^(7/18)
Post Ret Aggressive 0-5 Index	-	-	5.21% ^(7/18)
Pre Retirement Aggressive 0-5	6.54%	-	8.01% ^(7/09)
Pre Ret Aggressive 0-5 Index	5.89%	5.55%	7.20% ^(7/09)
Pre Retirement Aggressive 6-10	6.95%	-	8.62% ^(7/09)
Pre Ret Aggressive 6-10 Index	6.41%	5.89%	7.91% ^(7/09)
Pre Retirement Aggressive 11-15	7.63%	-	9.38% ^(7/09)
Pre Ret Aggressive 11-15 Index	7.21%	6.43%	8.99% ^(7/09)
Pre Retirement Aggressive 16-20	8.50%	-	10.49% ^(7/09)
Pre Ret Aggressive 16-20 Index	8.17%	6.94%	10.26% ^(7/09)
Pre Retirement Aggressive 21-25	-	-	6.37% ^(7/18)
Pre Ret Aggressive 21-25 Index	-	-	6.30% ^(7/18)
Pre Retirement Aggressive 26+	-	-	6.37% ^(7/18)
Pre Ret Aggressive 26+ Index	-	-	6.30% ^(7/18)

Investment Fund Returns

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

	3 Years Ended 3/2023	3 Years Ended 12/2022	3 Years Ended 9/2022	3 Years Ended 6/2022
Tier 1: GoalMaker Funds (Net of Fee)				
Post Retirement Conservative 11+	4.01%	1.38%	1.12%	2.81%
Post Ret Conservative 11+ Index	3.56%	1.30%	0.93%	2.47%
Post Retirement Conservative 6-10	4.08%	1.24%	0.96%	2.73%
Post Ret Conservative 6-10 Index	3.59%	1.19%	0.80%	2.40%
Post Retirement Conservative 0-5	4.55%	1.31%	1.01%	2.86%
Post Ret Conservative 0-5 Index	4.00%	1.26%	0.87%	2.56%
Pre Retirement Conservative 0-5	4.91%	1.10%	0.77%	2.81%
Pre Ret Conservative 0-5 Index	4.36%	1.16%	0.72%	2.59%
Pre Retirement Conservative 6-10	5.77%	1.10%	0.71%	2.92%
Pre Ret Conservative 6-10 Index	5.26%	1.27%	0.78%	2.81%
Pre Retirement Conservative 11-15	6.85%	1.33%	0.93%	3.25%
Pre Ret Conservative 11-15 Index	6.39%	1.58%	1.09%	3.24%
Pre Retirement Conservative 16-20	8.07%	1.34%	0.91%	3.41%
Pre Ret Conservative 16-20 Index	7.80%	1.81%	1.26%	3.58%
Pre Retirement Conservative 21-25	9.58%	1.74%	1.30%	3.90%
Pre Ret Conservative 21-25 Index	9.45%	2.30%	1.76%	4.18%
Pre Retirement Conservative 26+	11.18%	2.19%	1.77%	4.37%
Pre Ret Conservative 26+ Index	11.25%	2.84%	2.29%	4.71%

Investment Fund Returns

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

	3 Years Ended 3/2023	3 Years Ended 12/2022	3 Years Ended 9/2022	3 Years Ended 6/2022
Tier 1: GoalMaker Funds (Net of Fee)				
Post Retirement Moderate 11+	5.82%	1.99%	1.73%	3.54%
Post Retirement Moderate 6-10	6.19%	1.86%	1.57%	3.53%
Post Ret Moderate 6-10 Index	7.84%	2.41%	1.86%	3.72%
Post Retirement Moderate 0-5	6.65%	1.73%	1.41%	3.53%
Pre Retirement Moderate 0-5	7.09%	1.52%	1.15%	3.45%
Pre Ret Moderate 0-5 Index	6.73%	1.81%	1.33%	3.45%
Pre Retirement Moderate 6-10	8.32%	1.63%	1.23%	3.66%
Pre Ret Moderate 6-10 Index	8.09%	2.07%	1.55%	3.79%
Pre Retirement Moderate 11-15	9.70%	1.89%	1.47%	3.99%
Pre Ret Moderate 11-15 Index	9.61%	2.43%	1.90%	4.24%
Pre Retirement Moderate 16-20	11.18%	2.19%	1.77%	4.37%
Pre Ret Moderate 16-20 Index	11.25%	2.84%	2.29%	4.71%
Pre Retirement Moderate 21-25	12.33%	2.45%	2.03%	4.67%
Pre Ret Moderate 21-25 Index	12.59%	3.19%	2.63%	5.08%
Pre Retirement Moderate 26+	13.60%	2.83%	2.43%	5.04%
Pre Ret Moderate 26+ Index	13.98%	3.59%	3.05%	5.48%

Investment Fund Returns

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

	3 Years Ended 3/2023	3 Years Ended 12/2022	3 Years Ended 9/2022	3 Years Ended 6/2022
Tier 1: GoalMaker Funds (Net of Fee)				
Post Retirement Aggressive 11+	9.35%	3.93%	3.67%	5.67%
Post Ret Aggressive 11+ Index	7.71%	2.73%	2.36%	4.17%
Post Retirement Aggressive 6-10	10.01%	3.91%	3.63%	5.76%
Post Ret Aggressive 6-10 Index	8.48%	2.86%	2.47%	4.40%
Post Retirement Aggressive 0-5	10.30%	3.61%	3.29%	5.60%
Post Ret Aggressive 0-5 Index	8.75%	2.67%	2.25%	4.37%
Pre Retirement Aggressive 0-5	11.03%	3.36%	3.00%	5.48%
Pre Ret Aggressive 0-5 Index	9.73%	2.73%	2.28%	4.57%
Pre Retirement Aggressive 6-10	11.71%	2.90%	2.49%	5.10%
Pre Ret Aggressive 6-10 Index	11.01%	2.84%	2.29%	4.70%
Pre Retirement Aggressive 11-15	12.71%	2.80%	2.38%	5.03%
Pre Ret Aggressive 11-15 Index	12.59%	3.19%	2.63%	5.08%
Pre Retirement Aggressive 16-20	13.54%	2.86%	2.46%	5.07%
Pre Ret Aggressive 16-20 Index	13.77%	3.50%	2.96%	5.39%
Pre Retirement Aggressive 21-25	14.06%	2.85%	2.45%	5.08%
Pre Ret Aggressive 21-25 Index	14.60%	3.71%	3.16%	5.61%
Pre Retirement Aggressive 26+	14.06%	2.85%	2.45%	5.08%
Pre Ret Aggressive 26+ Index	14.60%	3.71%	3.16%	5.61%

Galliard Stable Value Period Ended March 31, 2023

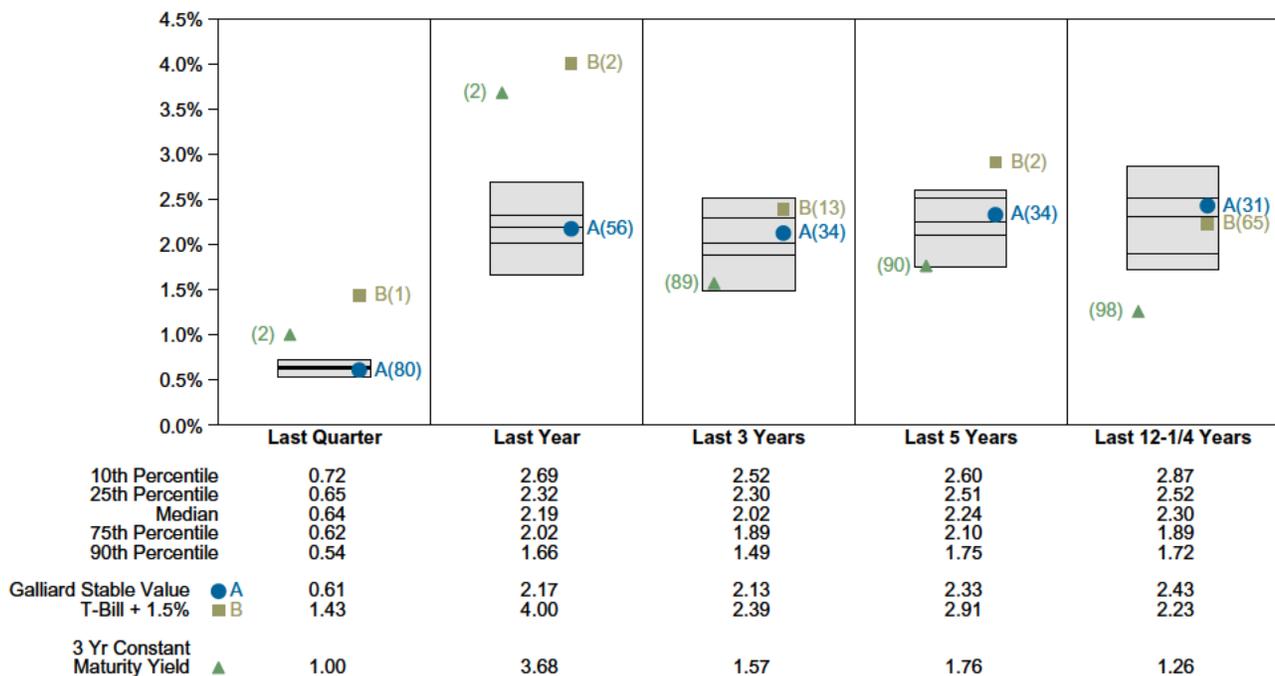
Investment Philosophy

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.

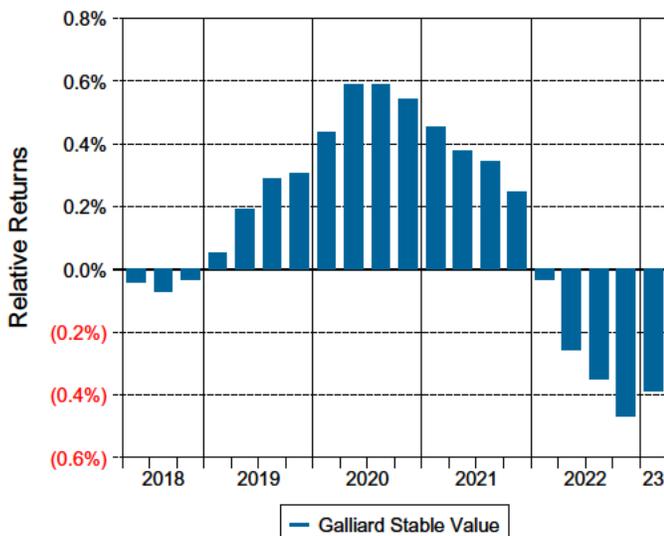
Quarterly Summary and Highlights

- Galliard Stable Value's portfolio posted a 0.61% return for the quarter placing it in the 80 percentile of the Callan Stable Value SA group for the quarter and in the 56 percentile for the last year.
- Galliard Stable Value's portfolio underperformed the 3 Yr Constant Maturity Yield by 0.39% for the quarter and underperformed the 3 Yr Constant Maturity Yield for the year by 1.51%.

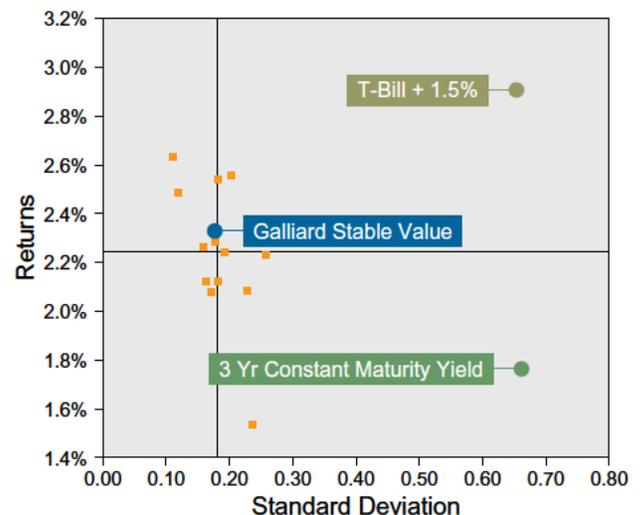
Performance vs Callan Stable Value SA (Gross)



Relative Returns vs
3 Yr Constant Maturity Yield



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



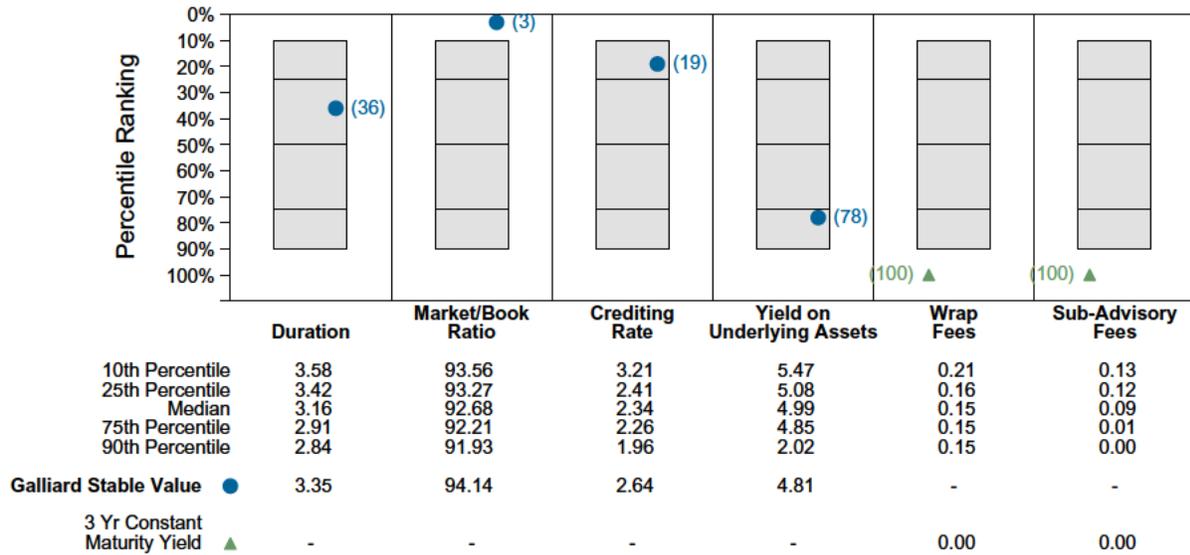
Galliard Stable Value

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.

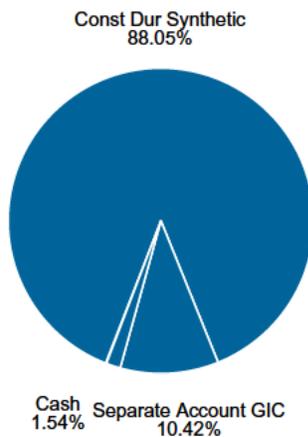
Portfolio Characteristics Percentile Rankings Rankings Against Callan Stable Value SA as of March 31, 2023



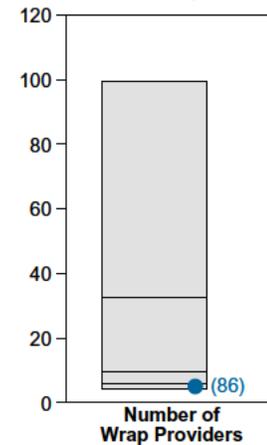
Wrap Structure and Diversification

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.

Portfolio Wrap Exposure March 31, 2023



Wrap Contract Diversification March 31, 2023



10th Percentile	99.5
25th Percentile	32.8
Median	9.5
75th Percentile	6.0
90th Percentile	4.2

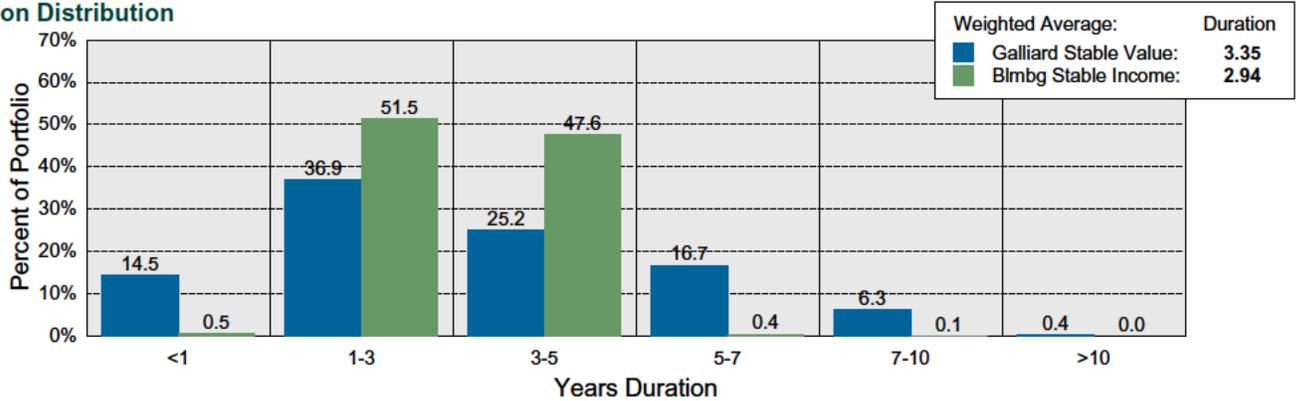
Galliard Stable Value ● 5.0

Galliard Stable Value Stable Value Portfolio Characteristics Summary As of March 31, 2023

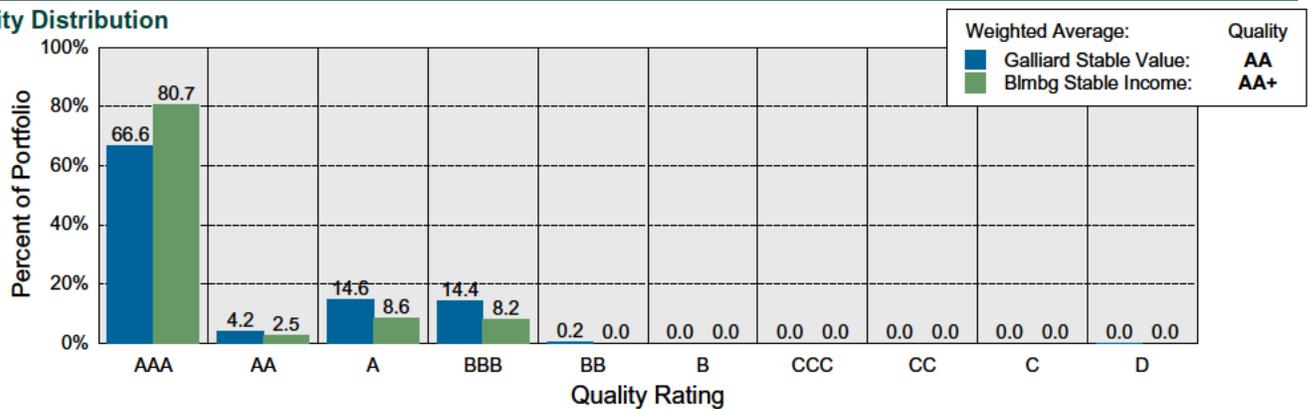
Portfolio Structure Comparison

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.

Duration Distribution



Quality Distribution



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.

SECURE 2.0 Signed into Law

The SECURE 2.0 Act of 2022 (SECURE 2.0) was signed into law by President Biden on Dec. 29, 2022. The Act was folded into the \$1.7 trillion Consolidated Appropriations Act 2023. Many of the provisions of SECURE 2.0 are geared toward providing increased access to defined contribution (DC) plans, helping boost participant savings levels and simplifying plan rules.

SECURE 2.0 represents a next step in retirement plan legislation following the Setting Every Community up for Retirement Enhancement (SECURE) Act of 2019. SECURE 2.0 includes nearly 100 provisions, and below we highlight the most noteworthy to DC plans.

- **Student Debt “Match”** – Expanding on the tenets laid out in the Abbott private letter ruling, employers will have the ability to make matching contributions in a DC plan with respect to participant student loan repayments, meaning student loan repayments will be treated as elective deferrals for the purposes of nondiscrimination testing and safe harbor rules. This will take effect in 2024 and applies to 401(k) plans, 403(b) plans, and 457(b) plans. This is an optional provision.
- **Roth Catch-Up Requirements** – Age 50+ catch-up contributions for employees whose compensation exceeds \$145,000 in the prior year must be made on a Roth basis. DC plans that do not offer Roth will need to add this additional catch-up source in the plan document and program the source with their recordkeeper. It is unclear if Roth would need to be offered for regular deferrals in a 401(k) plan, although it appears that Roth must be added as a regular deferral type in a 403(b) plan due to the universal availability requirement. The compensation limit will be subject to an annual cost-of-living adjustment in \$5,000 increments. This required modification will take effect in 2024 and applies to 401(k) plans, 403(b) plans, and 457(b) plans.
- **Increased Catch-Up Limits** – The limit on catch-up contributions for participants aged 60-63 will be increased to the greater of \$10,000 (indexed) or 150% of the regular catch-up contribution. This will take effect in 2025 and applies to 401(k) plans, 403(b) plans, and 457(b) plans but does not apply to 457(b) special catch-up provisions. Plans are not required to implement this provision.
- **Automatic Features for New Plans** – New DC plans established after the date of SECURE 2.0 enactment (Dec. 29, 2022) will be required to include automatic enrollment and automatic escalation features beginning with the 2025 plan year. These new plans will be required to automatically enroll participants at a rate between 3% and 10% of compensation and increase the deferral rate by at least 1% per year, up to at least 10% but not more than 15% of compensation.
- **Emergency Savings Accounts** – If offered by an employer, non-highly compensated employees will be able to contribute up to \$2,500 to an in-plan emergency savings account and take monthly withdrawals, as needed. Only employee contributions will be permitted to these accounts, which will be treated as Roth deferrals and receive related matching contributions. Participant assets in these accounts will be required to be invested in a liquid principal preservation option. This optional provision will take effect in 2024.

First Quarter 2023 DC Trends

- **Increased Age for Required Minimum Distributions (RMD)** – The RMD age will increase from 72 to 73 on January 1, 2023, and to 75 on January 1, 2033. This will apply to 401(a) plans, 401(k) plans, 403(b) plans, and 457(b) plans. Beginning in 2024, RMDs will no longer be required from Roth accounts in DC plans, furthering the benefit of those accounts. Finally, in response to a common plan operational failure, the penalty for missing a RMD payment was also reduced from 50% to 25%.
- **Qualified Longevity Annuity Contract (QLAC) Purchase Limit** – The previous limit on the purchase of a QLAC was the lesser of \$155,000 and 25% of an individual’s account balance. SECURE 2.0 removes the 25% limit and raises the dollar limit from \$155,000 to \$200,000 in 2023.
- **Cash Out Limit** – Previously, plan sponsors could “cash out” terminated participant balances under \$5,000 to an IRA. SECURE 2.0 increases the cash out limit to \$7,000. This provision will be effective for distributions after 2023.
- **Collective Investment Trusts and 403(b) Plans** – SECURE 2.0 includes language amending ERISA that paves the way for 403(b) plans to be able to invest in collective investment trusts and unregistered insurance company separate accounts. However, certain securities laws exemptions were not included in SECURE 2.0, meaning further legislation will be necessary before such investments are permitted in 403(b) plans.
- **Other topics** – Beyond the summary above, SECURE 2.0 also made changes to the “long-term part-time employee” eligibility requirements put in place by SECURE 2019, adds automatic portability options, enhances emergency withdrawal availability, establishes a “Retirement Lost and Found” searchable database, directs the DOL to provide guidance on asset allocation fund benchmarks, and much more, and much more. Callan will provide further updates in the upcoming weeks.

SECURE 2.0 represents a sweeping piece of retirement plan legislation intended to improve American workers’ retirement security and flexibility. Importantly, many provisions will require action from plan sponsors, recordkeepers, and other key players in the DC space. Plan fiduciaries may wish to consult with the appropriate parties to ensure necessary actions are taken in a timely manner.

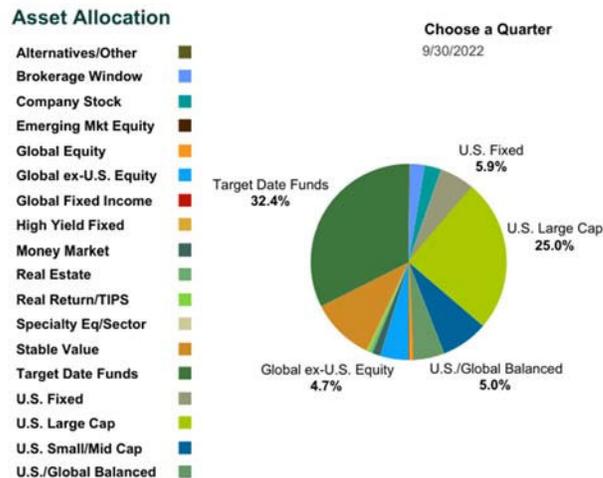
Structure Utilization

Asset Allocation

Capital Preservation and U.S. Fixed Income Gain

Stable value (10.0%), U.S. fixed income (5.9%), and money market (1.3%) were among the asset classes with the largest percentage increases in allocation. The increased allocation to stable value (0.5 percentage points from the previous quarter) came despite investor outflows, signaling the asset class was a relative outperformer.

Within equities, U.S. small/mid cap equity (7.8%) had a slight increase in allocation while U.S. large cap equity (25.0%) and global ex-U.S. equity (4.7%) had slight decreases. The lower allocation to global ex-U.S. equity came despite net inflows, highlighting the relative underperformance.



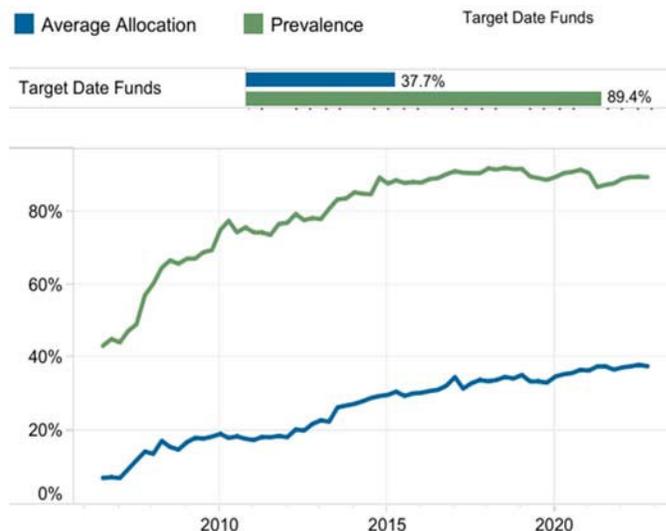
Prevalence

Prevalence of Balanced Funds Dips—Again—to Lowest Recorded Level

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

The prevalence of a balanced fund (40.9%) decreased again to its lowest level since the inception of the Index in 2006. This should not come as much of a surprise given that balanced funds and target date funds may have overlapping roles as diversified asset allocation options for participants who prefer to delegate the asset allocation decision to a professional manager.

Other notable movements included a 2.6 percentage point increase in the prevalence of a money market offering (52.3%) as well as a slight decrease in the prevalence of a brokerage window (41.7%).



Glossary

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

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

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

Equity Market Indicators

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

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

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

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

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

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

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

Fixed Income Market Indicators

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

Bloomberg 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 ratios 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.

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