

July 31, 2022



## **The North Carolina Supplemental Retirement Plans**

**Investment Measurement Service  
Monthly Review**

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## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of July 31, 2022, with the distribution as of June 30, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

### Asset Distribution Across Investment Managers

	July 31, 2022 Market Value	Net New Inv.	Inv. Return	June 30, 2022 Market Value
<b>North Carolina SRP 401k &amp; 457</b>				
<b>Tier II Passive</b>	<b>\$4,836,279,905</b>	<b>\$(14,155,999)</b>	<b>\$366,390,235</b>	<b>\$4,484,045,670</b>
Fixed Income Passive	87,031,336	(1,066,893)	2,074,525	86,023,703
Treasury Inflation Protected	361,814,293	(1,289,956)	11,417,436	351,686,814
Large Cap Passive	3,423,146,658	(7,225,131)	289,214,189	3,141,157,600
SMID Cap Passive	366,623,175	(1,838,756)	34,417,786	334,044,145
International Passive	89,023,809	110,035	3,301,048	85,612,726
Inflation Responsive Fund	508,640,634	(2,845,298)	25,965,252	485,520,681
<b>Tier II Active</b>	<b>\$9,613,788,526</b>	<b>\$5,227,160</b>	<b>\$378,895,116</b>	<b>\$9,229,666,250</b>
Stable Value Fund	2,470,066,430	17,762,518	3,838,522	2,448,465,389
Fixed Income Fund	2,130,088,782	316,969	52,575,906	2,077,195,907
Large Cap Core Equity Fund	1,991,030,563	(15,260,185)	160,892,460	1,845,398,288
Small/Mid Cap Equity Fund	990,433,918	(451,436)	78,813,012	912,072,341
International Equity Fund	2,032,168,834	2,859,294	82,775,216	1,946,534,324
<b>Total Fund</b>	<b>\$14,450,068,431</b>	<b>\$(8,928,839)</b>	<b>\$745,285,350</b>	<b>\$13,713,711,920</b>

## Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended July 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended July 31, 2022

	Last Month	Last 3 Months	Year to Date	Last Year
<b>Tier 2: Passive (Net of Fee)</b>				
Fixed Income Passive	2.44%	1.48%	(8.09%)	(9.12%)
Blmbg Aggregate	2.44%	1.49%	(8.16%)	(9.12%)
Treasury Inflation Protected Securities	3.25%	0.69%	(1.88%)	(0.95%)
Blmbg US TIPS 1-10 Yr	3.60%	1.00%	(1.69%)	(0.78%)
Large Cap Passive	9.22%	0.38%	(12.61%)	(4.68%)
S&P 500 Index	9.22%	0.39%	(12.58%)	(4.64%)
SMID Cap Passive	10.33%	0.10%	(13.76%)	(11.31%)
Russell 2500 Index	10.35%	0.14%	(13.72%)	(11.27%)
International Passive	3.85%	(3.59%)	(15.50%)	(15.34%)
MSCI ACWI ex US	3.42%	(4.80%)	(15.63%)	(15.26%)
<b>Inflation Responsive Fund</b>	<b>5.38%</b>	<b>(3.72%)</b>	<b>(3.63%)</b>	<b>(0.31%)</b>
Inflation Responsive Benchmark	5.34%	(3.95%)	(3.73%)	(0.34%)
BlackRock Strategic Completion	5.36%	(3.75%)	(3.67%)	(0.34%)
BlackRock Custom Benchmark	5.34%	(3.95%)	(3.73%)	(0.34%)

## Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended July 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended July 31, 2022

	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
<b>Tier 2: Passive (Net of Fee)</b>				
Fixed Income Passive	(0.24%)	1.23%	1.63%	1.58%
Blmbg Aggregate	(0.21%)	1.28%	1.67%	1.65%
Large Cap Passive	13.35%	12.83%	12.20%	13.74%
S&P 500 Index	13.36%	12.83%	12.22%	13.80%
SMID Cap Passive	9.00%	8.87%	8.66%	11.60%
Russell 2500 Index	9.07%	8.95%	8.70%	11.66%
International Passive	3.24%	2.61%	3.63%	5.19%
MSCI ACWI ex US	2.91%	2.45%	3.46%	5.04%
<b>Inflation Responsive Fund</b>	<b>6.78%</b>	<b>5.71%</b>	<b>5.33%</b>	<b>2.89%</b>
Inflation Responsive Benchmark	6.59%	5.11%	4.30%	1.73%

## Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended July 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended July 31, 2022

	Last Month	Last 3 Months	Year to Date	Last Year
<b>Tier 2: Active (Net of Fee)</b>				
<b>Stable Value Fund</b>	<b>0.15%</b>	<b>0.44%</b>	<b>0.97%</b>	<b>1.67%</b>
3 Yr Constant Maturity Yield	0.23%	0.70%	1.40%	1.70%
T-Bill + 1.5%	0.17%	0.51%	1.07%	1.71%
<b>Fixed Income Fund</b>	<b>2.53%</b>	<b>0.61%</b>	<b>(9.38%)</b>	<b>(10.24%)</b>
Blmbg Aggregate	2.44%	1.49%	(8.16%)	(9.12%)
TCW Core Plus	2.76%	1.25%	(8.53%)	(9.29%)
Blmbg Aggregate	2.44%	1.49%	(8.16%)	(9.12%)
Prudential Core Plus	2.30%	(0.02%)	(10.22%)	(11.13%)
Blmbg Aggregate	2.44%	1.49%	(8.16%)	(9.12%)
<b>Large Cap Core Equity Fund</b>	<b>8.76%</b>	<b>(1.54%)</b>	<b>(17.56%)</b>	<b>(14.21%)</b>
Russell 1000 Index	9.31%	0.01%	(13.58%)	(6.87%)
Hotchkis & Wiley Large Cap Value	7.52%	(0.16%)	(5.45%)	(0.12%)
Russell 1000 Value Index	6.63%	(0.79%)	(7.08%)	(1.43%)
Macquarie Large Cap Value	4.32%	(1.10%)	(5.78%)	1.93%
Russell 1000 Value Index	6.63%	(0.79%)	(7.08%)	(1.43%)
Sands Capital Large Cap Growth	11.64%	(8.01%)	(41.89%)	(44.81%)
Russell 1000 Growth Index	12.00%	0.73%	(19.44%)	(11.93%)
Loomis Sayles Large Cap Growth	10.94%	0.09%	(20.69%)	(18.79%)
Russell 1000 Growth Index	12.00%	0.73%	(19.44%)	(11.93%)
BlackRock Russell 1000 Index	9.28%	(0.23%)	(13.75%)	(6.95%)
Russell 1000 Index	9.31%	0.01%	(13.58%)	(6.87%)
<b>Small/Mid Cap Equity Fund</b>	<b>8.64%</b>	<b>0.80%</b>	<b>(12.02%)</b>	<b>(9.37%)</b>
Russell 2500 Index	10.35%	0.14%	(13.72%)	(11.27%)
Earnest Partners Small/Mid Cap	10.67%	3.48%	(7.79%)	(0.28%)
Russell 2500 Index	10.35%	0.14%	(13.72%)	(11.27%)
Wedge Small/Mid Cap Value	7.40%	(1.19%)	(9.90%)	(6.28%)
Russell 2500 Value Index	9.68%	(0.45%)	(8.59%)	(3.38%)
Brown Advisory Small/Mid Cap Growth	7.37%	0.49%	(17.48%)	(19.67%)
Russell 2500 Growth Index	11.41%	1.18%	(21.40%)	(22.34%)
BlackRock Russell 2500 Index	10.29%	(0.29%)	(14.24%)	(11.77%)
Russell 2500 Index	10.35%	0.14%	(13.72%)	(11.27%)
<b>International Equity Fund</b>	<b>4.25%</b>	<b>(4.95%)</b>	<b>(18.96%)</b>	<b>(20.83%)</b>
MSCI ACWI ex US	3.42%	(4.80%)	(15.63%)	(15.26%)
Mondrian ACWI ex-US Value	0.76%	(4.24%)	(10.82%)	(10.85%)
MSCI ACWI ex US Value	1.33%	(5.85%)	(10.61%)	(10.00%)
Baillie Gifford ACWI ex-US Growth	6.81%	(4.52%)	(25.14%)	(28.13%)
MSCI ACWI ex US Growth	5.50%	(3.92%)	(20.65%)	(20.51%)
WCM	8.46%	(10.39%)	(34.72%)	-
Acadian	6.43%	(7.03%)	(13.54%)	-
MSCI ACWI ex US Small Cap	5.78%	(6.77%)	(18.47%)	(18.62%)


## Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended July 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended July 31, 2022

	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
<b>Tier 2: Active (Net of Fee)</b>				
<b>Stable Value Fund</b>	<b>2.08%</b>	<b>2.18%</b>	<b>2.11%</b>	<b>2.09%</b>
3 Yr Constant Maturity Yield	0.95%	1.48%	1.39%	1.18%
T-Bill + 1.5%	2.08%	2.60%	2.40%	2.14%
<b>Fixed Income Fund</b>	<b>0.31%</b>	<b>1.95%</b>	<b>2.41%</b>	<b>2.36%</b>
Blmbg Aggregate	(0.21%)	1.28%	1.67%	1.65%
TCW Core Plus	0.62%	1.96%	-	-
Blmbg Aggregate	(0.21%)	1.28%	1.67%	1.65%
Prudential Core Plus	0.07%	2.00%	2.77%	-
Blmbg Aggregate	(0.21%)	1.28%	1.67%	1.65%
<b>Large Cap Core Equity Fund</b>	<b>10.15%</b>	<b>-</b>	<b>-</b>	<b>-</b>
Russell 1000 Index	12.91%	12.55%	11.89%	13.69%
Hotchkis & Wiley Large Cap Value	10.56%	9.02%	9.25%	12.69%
Russell 1000 Value Index	8.88%	8.26%	8.61%	11.10%
Macquarie Large Cap Value	8.11%	8.67%	8.67%	-
Russell 1000 Value Index	8.88%	8.26%	8.61%	11.10%
Sands Capital Large Cap Growth	3.11%	9.70%	9.46%	12.46%
Russell 1000 Growth Index	16.05%	16.30%	14.76%	15.95%
Loomis Sayles Large Cap Growth	10.38%	12.29%	13.03%	-
Russell 1000 Growth Index	16.05%	16.30%	14.76%	15.95%
<b>Small/Mid Cap Equity Fund</b>	<b>9.30%</b>	<b>-</b>	<b>-</b>	<b>-</b>
Russell 2500 Index	9.07%	8.95%	8.70%	11.66%
Wedge Small/Mid Cap Value	6.86%	5.16%	6.34%	10.18%
Russell 2500 Value Index	9.27%	7.34%	8.14%	10.60%
Brown Advisory Small/Mid Cap Growth	6.28%	10.25%	10.37%	13.03%
Russell 2500 Growth Index	6.93%	9.59%	8.54%	12.20%
<b>International Equity Fund</b>	<b>1.78%</b>	<b>2.17%</b>	<b>3.65%</b>	<b>5.53%</b>
MSCI ACWI ex US	2.91%	2.45%	3.46%	5.04%
Mondrian ACWI ex-US Value	2.37%	1.93%	2.53%	4.75%
MSCI ACWI ex US Value	1.78%	0.73%	2.04%	3.80%
Baillie Gifford ACWI ex-US Growth	1.66%	2.91%	5.20%	6.67%
MSCI ACWI ex US Growth	3.52%	3.83%	4.62%	6.08%

June 30, 2022



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

**Investment Measurement Service  
Quarterly Review**

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**June 30, 2022**

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## U.S. EQUITY

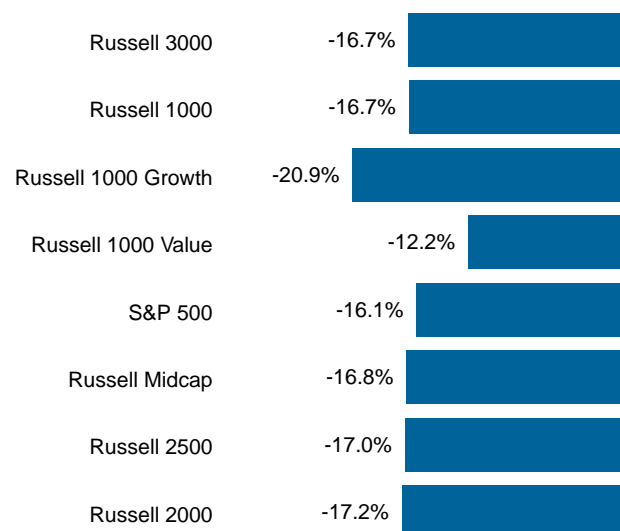
## All major indices fall

- The S&P 500 plunged 16.1% in 2Q22; all major U.S. indices across styles and market cap ranges fell in the quarter.
- All sectors posted negative returns in the quarter. Energy continued to be the best-performing sector, and the only sector that has posted a gain year-to-date (YTD).
- Large cap stocks nominally outpaced smaller cap stocks. The performance spread between the Russell 1000 and the Russell 2000 Index was around 50 basis points.
- Value stocks have outperformed growth stocks across the market capitalization spectrum.
- Consumer Discretionary (-26%), Communication Services (-21%), and Information Technology (-20%) were the worst-performing sectors.

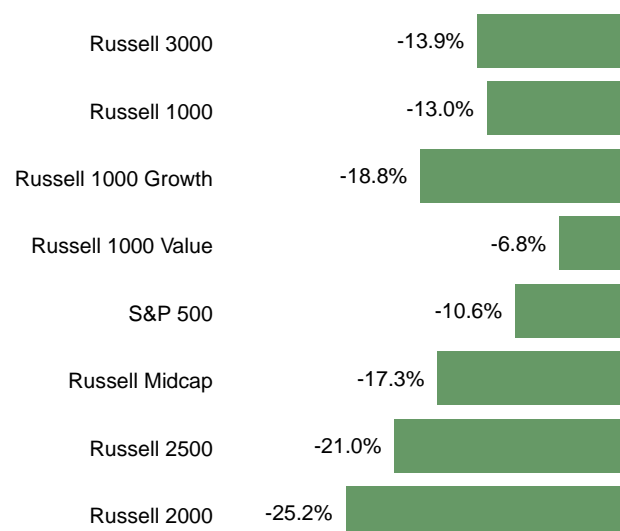
## Volatile environment hits equity markets

- Rising interest rates and inflation along with geopolitical headlines all contributed to a volatile and risk-averse environment.
- Macroeconomic headlines and data releases will continue to impact equity markets.
- Inflation, rising interest rates, and supply-chain disruptions are all headwinds for equity markets.
- Active large cap growth managers have underperformed the Russell 1000 Growth Index meaningfully recently.
- Large tech firms that have sold-off (e.g., Meta) have become an increasingly large proportion of the value index.
- Federal Reserve interest rate hikes may derail the economy, resulting in lower corporate earnings in the near- to intermediate-term.
- With a potential economic slowdown, sell-side analysts have been cutting corporate earnings estimates.
- Longer-duration growth assets, such as growth stocks, are vulnerable during periods of high inflation because of higher interest rates discounting way-out future earnings.

## U.S. Equity: Quarterly Returns

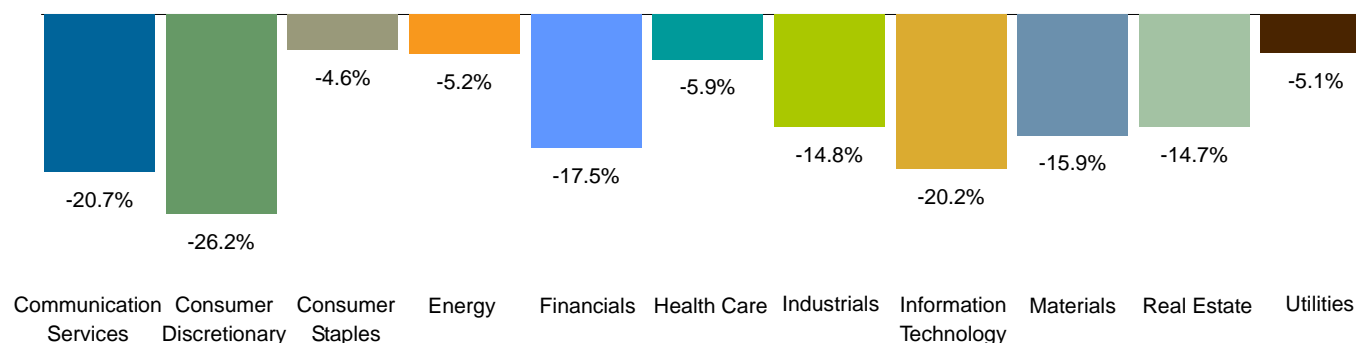


## U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&amp;P Dow Jones Indices

## S&amp;P Sector Returns, Quarter Ended 6/30/22



Source: S&amp;P Dow Jones Indices

**GLOBAL EQUITY**

- The war in Ukraine tested an already fragile supply chain, led to energy demand/supply imbalances, and created an inflationary environment that sparked fears of a recession.
- Slowing global growth and recession risk became clearer toward quarter-end, leading investors toward higher-quality and lower-volatility areas of the market to offer protection.

**Wide divergence in country returns**

- Optimism that the worst is behind China's COVID-19 lockdown buoyed the country to the only gain in 2Q22.
- Japan suffered from a weak yen, slowing growth, and continued supply chain disruptions.

**Growth vs. value**

- Value continues to outperform growth as most monetary policies focus on tightening.
- Energy was the only sector with positive YTD results.
- Information Technology had the worst sector return as interest rate increases dampened long duration growth attractiveness.

**U.S. dollar vs. other currencies**

- The U.S. dollar strengthened further against other major currencies given its global dominance and perceived safety.

**The rise of the dollar**

- The dollar hit a 20-year high after rising roughly 10% YTD.
- The dollar hit parity with the euro; first time since 2002.
- The yen dipped to a 24-year low against the dollar.

**Strong dollar may burden global ex-U.S. markets**

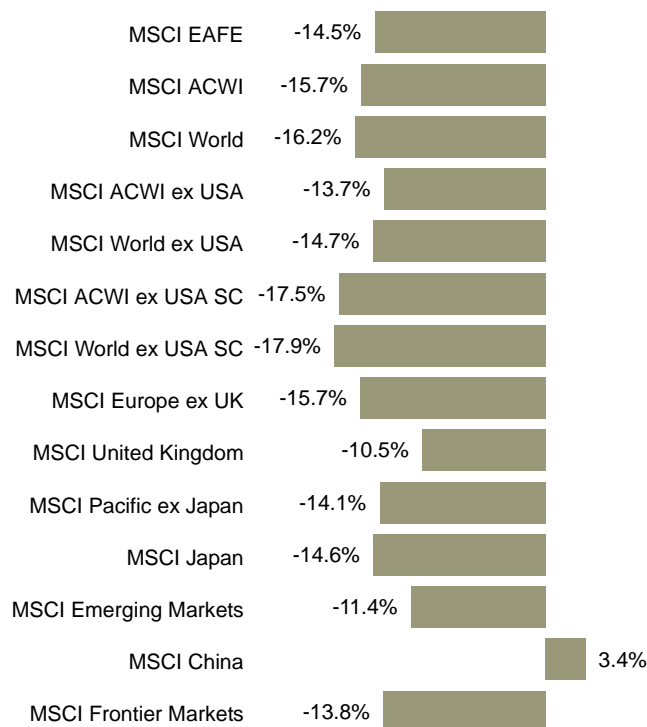
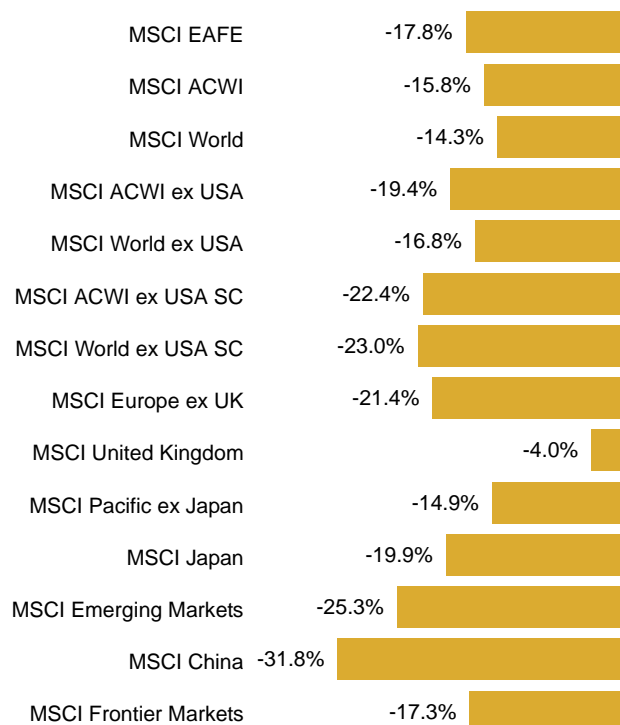
- Strong currency yields purchasing power.
- Dollar-denominated debt compounded by depreciating local currencies weighs on the economy.
- The dollar and global ex-U.S. equity have exhibited negative correlation over the past four decades.

**EM has fared better relative to prior downturns**

- EM historically declined 26% during prior S&P 500 drawdowns greater than 10%.
- As of 2Q22, EM has corrected by 18% YTD.

**China presents upside opportunity**

- Although divergence of China and EM ex-China is notable, China may support EM should fears of a U.S. recession fuel further drawdown.
- China offers favorable growth and valuation relative to other emerging markets.

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

Source: MSCI

## U.S. FIXED INCOME

## Bonds hit hard as rates rise sharply (again)

- Bloomberg US Aggregate Bond Index posted its worst six-month return in its history.
- Yield curve flirted with inversion, but 2-year/10-year yield spread was slightly positive at quarter-end.
- TIPS underperformed nominal Treasuries, and 10-year breakeven spreads fell to 2.33% from 2.84% at 3/31/22.
- Fed raised rates by 75 bps, the largest increase since 1994, with further hikes expected.
- Market pricing reflects Fed Funds rate of 3.4% at year-end.

## Spread sectors underperformed

- Investment grade corporates underperformed like-duration U.S. Treasuries by 205 bps; RMBS by 98 bps.
- High yield underperformed as spreads widened; excess return vs. U.S. Treasuries was -792 bps, hurt by equity market performance and worries over the impact of higher rates on the economy
- Leveraged loans held up relatively well with lower-quality credits generally underperforming.

## Securitized sectors continue to hang in

- Agency RMBS spreads widened in response to interest rate volatility.
- ABS spreads tightened, led by credit cards.

## MUNICIPAL BONDS

## Returns hurt by rising rates

- Lower quality continued to underperform
- BBB: -4.5%; AAA: -2.5% (YTD BBB: -11.3%; AAA: -8.5%)
- Munis outperformed U.S. Treasuries (Bloomberg US Treasury: -3.8%)

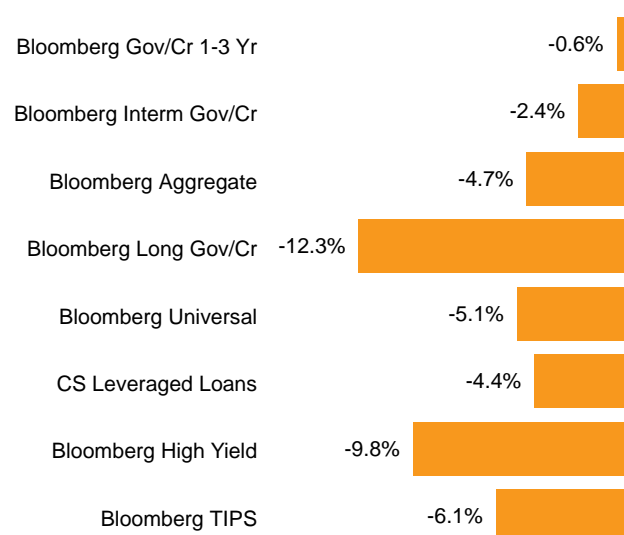
## Valuations relative to U.S. Treasuries at fair value

- 10-year AAA Muni/10-year U.S. Treasury yield ratio roughly 90%; in line with 10-year average
- Municipal Bond Index after-tax yield = 5.4% (source: Eaton Vance)

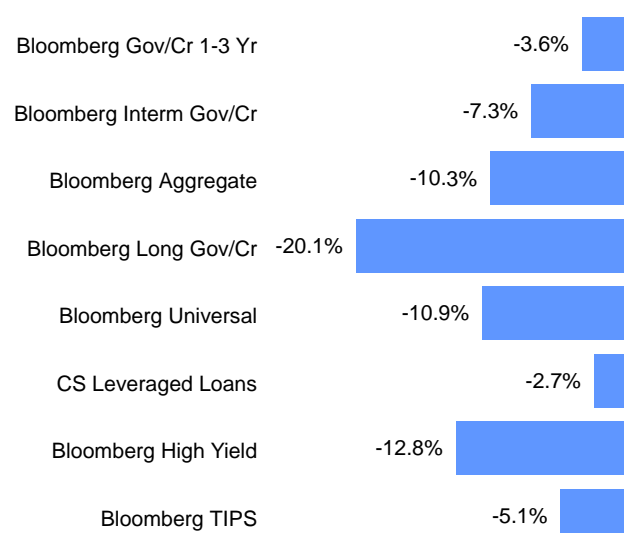
## Supply/demand

- Outflows of \$76 billion YTD; highest cycle outflow since data series began in 1992
- YTD supply down 14% vs. last year

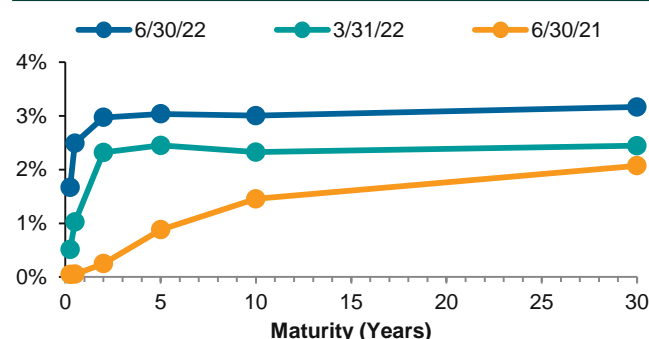
## U.S. Fixed Income: Quarterly Returns



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



## U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse

## GLOBAL FIXED INCOME

## Negative returns driven by broad interest rate increases

- U.S. dollar continued to appreciate vs. yen, euro, and pound.
- Double-digit negative returns were widespread across developed markets.

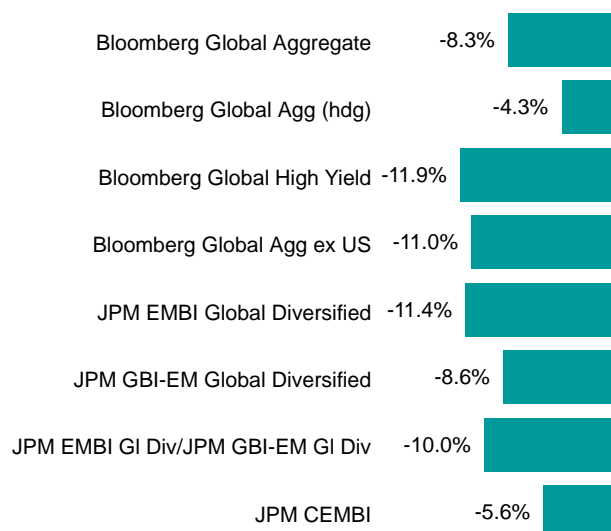
## Inflation and global recession fears drag on EMD

- All countries in the USD-denominated JPM EMBI Global Diversified Index posted negative returns, hurt by rising rates in the U.S.
- Local currency markets across the JPM GBI-EM Global Diversified were down only slightly, but USD strength eroded returns for U.S. investors.

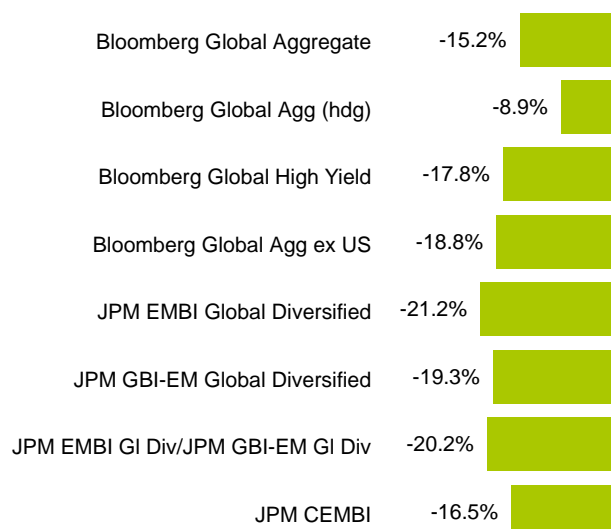
## Interest rates significantly increased

- First-half returns worst since inflation of 1970s
- Global phenomenon driven by recent inflationary pressure
- All fixed income asset classes negatively impacted
- Developed market duration becoming more compelling after broad repricing

## Global Fixed Income: Quarterly Returns

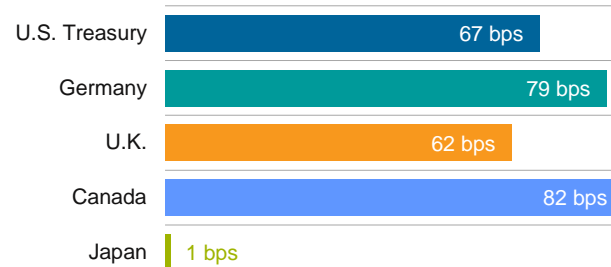


## Global Fixed Income: One-Year Returns



## Change in 10-Year Global Government Bond Yields

## 1Q22 to 2Q22



Sources: Bloomberg, JP Morgan

## Investment Fund Balances

The table below compares the fund's investment fund balances as of June 30, 2022 with that of March 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

### Asset Distribution Across Investment Funds

	June 30, 2022			March 31, 2022		
	Market Value	Weight	Net New Invest.	Invest. Return	Market Value	Weight
North Carolina SRP 401k & 457						
Tier II Passive	\$4,484,045,670	32.70%	\$(2,001,821)	\$(761,817,671)	\$5,247,865,161	33.74%
Fixed Income Passive	86,023,703	0.63%	(1,155,164)	(4,288,617)	91,467,485	0.59%
Treasury Inflation Protected	351,686,814	2.56%	(1,347,556)	(13,342,881)	366,377,251	2.36%
Large Cap Passive	3,141,157,600	22.91%	(2,561,665)	(604,117,933)	3,747,837,198	24.10%
International Passive	85,612,726	0.62%	394,625	(12,886,643)	98,104,744	0.63%
SMID Cap Passive	334,044,145	2.44%	(3,800,379)	(68,921,201)	406,765,726	2.62%
Inflation Responsive Fund	485,520,681	3.54%	6,468,319	(58,260,396)	537,312,757	3.45%
Tier II Active	\$9,229,666,250	67.30%	\$(2,910,565)	\$(1,073,013,180)	\$10,305,589,995	66.26%
Stable Value Fund	2,448,465,389	17.85%	36,146,500	10,319,815	2,401,999,074	15.44%
Fixed Income Fund	2,077,195,907	15.15%	58,989,849	(125,903,933)	2,144,109,991	13.79%
Large Cap Core Equity Fund	1,845,398,288	13.46%	(42,748,614)	(457,486,855)	2,345,633,757	15.08%
International Equity Fund	1,946,534,324	14.19%	(41,775,434)	(347,669,597)	2,335,979,356	15.02%
Small/Mid Cap Equity Fund	912,072,341	6.65%	(13,522,866)	(152,272,610)	1,077,867,818	6.93%
Total Fund	\$13,713,711,920	100.0%	\$(4,912,385)	\$(1,834,830,850)	\$15,553,455,156	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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
<b>Tier 2: Passive (Net of Fee)</b>										
Fixed Income Passive	(4.69%)	13	(10.28%)	27	(0.96%)	81	0.83%	83	1.38%	90
Blmbg Aggregate	(4.69%)	13	(10.29%)	28	(0.93%)	78	0.88%	76	1.42%	87
Callan Core Bond MFs	(5.07%)		(10.70%)		(0.60%)		1.12%		1.62%	
Treasury Inflation Protected Securities	(3.65%)	27	(1.95%)	22	3.38%	26	-		-	
Blmbg US TIPS 1-10 Yr	(3.42%)	26	(2.03%)	23	3.37%	26	3.24%	32	2.75%	40
Callan TIPS MFs	(6.14%)		(5.38%)		3.04%		3.06%		2.68%	
Large Cap Passive	(16.11%)	54	(10.66%)	43	10.59%	38	11.31%	28	11.12%	15
S&P 500 Index	(16.10%)	54	(10.62%)	43	10.60%	38	11.31%	28	11.14%	15
Callan Large Cap Core MFs	(15.81%)		(11.58%)		10.21%		10.23%		9.92%	
International Passive	(13.10%)	46	(19.83%)	52	1.29%	56	2.57%	44	3.02%	44
MSCI ACWI ex US	(13.73%)	53	(19.42%)	48	1.35%	54	2.50%	45	2.92%	45
Callan Non US Equity MFs	(13.46%)		(19.63%)		1.45%		2.31%		2.71%	
SMID Cap Passive	(17.01%)	78	(21.03%)	75	5.85%	51	6.97%	30	7.11%	34
Russell 2500 Index	(16.98%)	78	(21.00%)	75	5.91%	50	7.04%	29	7.16%	33
Callan SMID Core MFs	(15.20%)		(16.93%)		5.96%		6.41%		6.43%	
Inflation Responsive Fund	(10.65%)	73	(2.60%)	69	4.93%	73	4.97%	70	4.23%	36
Inflation Responsive Benchmark	(10.79%)	74	(2.62%)	69	4.76%	73	4.24%	79	3.14%	77
Callan Real Assets MFs	(9.99%)		0.99%		6.16%		5.42%		3.98%	
<b>Tier 2: Active (Net of Fee)</b>										
<b>Stable Value Fund</b>	<b>0.42%</b>	<b>19</b>	<b>1.66%</b>	<b>13</b>	<b>2.11%</b>	<b>3</b>	<b>2.18%</b>	<b>2</b>	<b>2.11%</b>	<b>2</b>
3 Yr US Treas Rolling	0.71%	1	1.49%	21	0.93%	97	1.46%	81	1.37%	82
T-Bill + 1.5%	0.48%	12	1.67%	12	2.13%	3	2.61%	1	2.39%	1
Callan Stable Value CT	0.32%		1.23%		1.56%		1.67%		1.62%	
<b>Fixed Income Fund</b>	<b>(5.83%)</b>	<b>46</b>	<b>(11.42%)</b>	<b>54</b>	<b>(0.43%)</b>	<b>34</b>	<b>1.54%</b>	<b>20</b>	<b>2.15%</b>	<b>22</b>
Blmbg Aggregate	(4.69%)	3	(10.29%)	12	(0.93%)	76	0.88%	75	1.42%	88
Callan Core Plus MFs	(5.95%)		(11.37%)		(0.69%)		1.08%		1.76%	
<b>Large Cap Core Equity Fund</b>	<b>(19.67%)</b>	<b>69</b>	<b>(20.12%)</b>	<b>67</b>	<b>7.57%</b>	<b>67</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Russell 1000 Index	(16.67%)	56	(13.04%)	52	10.17%	29	11.00%	40	10.78%	33
Callan Lg Cap Broad MF	(16.14%)		(12.66%)		8.69%		10.17%		9.90%	
<b>International Equity Fund</b>	<b>(15.02%)</b>	<b>76</b>	<b>(25.62%)</b>	<b>81</b>	<b>(0.04%)</b>	<b>82</b>	<b>1.99%</b>	<b>54</b>	<b>3.06%</b>	<b>43</b>
MSCI ACWI ex US	(13.73%)	53	(19.42%)	48	1.35%	54	2.50%	45	2.92%	45
Callan Non US Equity MFs	(13.46%)		(19.63%)		1.45%		2.31%		2.71%	
<b>Small/Mid Cap Equity Fund</b>	<b>(14.21%)</b>	<b>27</b>	<b>(15.87%)</b>	<b>37</b>	<b>6.56%</b>	<b>33</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Russell 2500 Index	(16.98%)	49	(21.00%)	49	5.91%	45	7.04%	48	7.16%	47
Callan SMID Broad MFs	(17.10%)		(21.97%)		5.77%		6.91%		7.05%	

## 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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last 10 Years		Last 15 Years		Since Inception
<b>Tier 2: Passive (Net of Fee)</b>					
Fixed Income Passive	1.48%	93	-		1.96% (10/10)
Blmbg Aggregate	1.54%	85	3.26%	79	2.04% (10/10)
Callan Core Bond MFs	1.78%		3.58%		-
Treasury Inflation Protected Securities	-		-		3.89% (7/18)
Blmbg US TIPS 1-10 Yr	1.75%	24	3.46%	60	3.88% (7/18)
Callan TIPS MFs	1.59%		3.62%		-
Large Cap Passive	12.89%	24	-		13.97% (4/09)
S&P 500 Index	12.96%	20	8.54%	24	14.04% (4/09)
Callan Large Cap Core MFs	11.91%		7.60%		-
International Passive	4.88%	68	-		6.23% (4/09)
MSCI ACWI ex US	4.83%	69	1.58%	66	6.18% (4/09)
Callan Non US Equity MFs	5.47%		2.15%		-
SMID Cap Passive	10.44%	39	-		12.53% (4/09)
Russell 2500 Index	10.49%	38	7.29%	29	12.60% (4/09)
Callan SMID Core MFs	9.89%		6.64%		-
Inflation Responsive Fund	2.57%	65	-		2.55% (8/11)
Inflation Responsive Benchmark	1.44%	81	3.11%		1.22% (8/11)
Callan Real Assets MFs	3.30%		-		-
<b>Tier 2: Active (Net of Fee)</b>					
<b>Stable Value Fund</b>	<b>2.10%</b>	<b>7</b>	<b>-</b>		<b>2.42%</b> (7/09)
3 Yr US Treas Rolling	1.16%	90	1.27%	100	1.10% (7/09)
T-Bill + 1.5%	2.14%	2	2.25%	31	2.02% (7/09)
Callan Stable Value CT	1.54%		1.97%		-
<b>Fixed Income Fund</b>	<b>2.27%</b>	<b>42</b>	<b>-</b>		<b>3.61%</b> (4/09)
Blmbg Aggregate	1.54%	99	3.26%	88	2.83% (4/09)
Callan Core Plus MFs	2.24%		3.79%		-
<b>Large Cap Core Equity Fund</b>	<b>-</b>		<b>-</b>		<b>8.96%</b> (10/17)
Russell 1000 Index	12.82%	41	8.51%	46	10.25% (10/17)
Callan Lg Cap Broad MF	12.16%		8.16%		-
<b>International Equity Fund</b>	<b>5.11%</b>	<b>56</b>	<b>-</b>		<b>6.82%</b> (4/09)
MSCI ACWI ex US	4.83%	69	1.58%	66	6.18% (4/09)
Callan Non US Equity MFs	5.47%		2.15%		-
<b>Small/Mid Cap Equity Fund</b>	<b>-</b>		<b>-</b>		<b>6.45%</b> (10/17)
Russell 2500 Index	10.49%	46	7.29%	60	6.15% (10/17)
Callan SMID Broad MFs	10.44%		7.49%		-

## 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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Active (Net of Fee)										
Stable Value Fund	0.42%	19	1.66%	13	2.11%	3	2.18%	2	2.11%	2
3 Yr US Treas Rolling	0.71%	1	1.49%	21	0.93%	97	1.46%	81	1.37%	82
T-Bill + 1.5%	0.48%	12	1.67%	12	2.13%	3	2.61%	1	2.39%	1
Callan Stable Value CT	0.32%		1.23%		1.56%		1.67%		1.62%	
Fixed Income Fund	(5.83%)	46	(11.42%)	54	(0.43%)	34	1.54%	20	2.15%	22
Blmbg Aggregate	(4.69%)	3	(10.29%)	12	(0.93%)	76	0.88%	75	1.42%	88
Callan Core Plus MFs	(5.95%)		(11.37%)		(0.69%)		1.08%		1.76%	
TCW Core Plus	(5.27%)	16	(10.84%)	22	(0.22%)	29	1.48%	22	-	
Blmbg Aggregate	(4.69%)	3	(10.29%)	12	(0.93%)	76	0.88%	75	1.42%	88
Callan Core Plus MFs	(5.95%)		(11.37%)		(0.69%)		1.08%		1.76%	
Prudential Core Plus	(6.38%)	77	(11.95%)	66	(0.57%)	39	1.64%	13	2.56%	10
Blmbg Aggregate	(4.69%)	3	(10.29%)	12	(0.93%)	76	0.88%	75	1.42%	88
Callan Core Plus MFs	(5.95%)		(11.37%)		(0.69%)		1.08%		1.76%	
Large Cap Core Equity Fund	(19.67%)	69	(20.12%)	67	7.57%	67	-		-	
Russell 1000 Index	(16.67%)	56	(13.04%)	52	10.17%	29	11.00%	40	10.78%	33
Callan Lg Cap Broad MF	(16.14%)		(12.66%)		8.69%		10.17%		9.90%	
Hotchkis & Wiley Large Cap Value	(14.62%)	84	(8.69%)	83	8.45%	34	7.75%	61	8.22%	47
Russell 1000 Value Index	(12.21%)	62	(6.82%)	75	6.87%	72	7.17%	68	7.69%	60
Callan Lg Cap Value MF	(11.40%)		(5.22%)		7.65%		8.12%		8.05%	
Macquarie Large Cap Value	(10.04%)	16	(1.14%)	15	7.09%	66	8.11%	50	8.18%	47
Russell 1000 Value Index	(12.21%)	62	(6.82%)	75	6.87%	72	7.17%	68	7.69%	60
Callan Lg Cap Value MF	(11.40%)		(5.22%)		7.65%		8.12%		8.05%	
Sands Capital Large Cap Growth	(34.15%)	100	(49.50%)	99	(0.32%)	99	8.36%	94	8.21%	93
Russell 1000 Growth Index	(20.92%)	37	(18.77%)	20	12.58%	3	14.29%	12	13.45%	5
Callan Large Cap Grwth MF	(22.03%)		(24.87%)		8.84%		12.06%		11.26%	
Loomis SaylesLarge Cap Growth	(22.55%)	58	(25.20%)	53	7.03%	71	10.68%	71	12.32%	20
Russell 1000 Growth Index	(20.92%)	37	(18.77%)	20	12.58%	3	14.29%	12	13.45%	5
Callan Large Cap Grwth MF	(22.03%)		(24.87%)		8.84%		12.06%		11.26%	
BlackRock Russell 1000 Index	(16.75%)	78	(13.09%)	70	10.19%	51	-		-	
Russell 1000 Index	(16.67%)	77	(13.04%)	69	10.17%	51	11.00%	34	10.78%	24
Callan Large Cap Core MFs	(15.81%)		(11.58%)		10.21%		10.23%		9.92%	



## 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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last 10 Years		Last 15 Years		Since Inception
<b>Tier 2: Active (Net of Fee)</b>					
<b>Stable Value Fund</b>	<b>2.10%</b>	<b>7</b>	<b>-</b>		<b>2.42%</b> <sup>(7/09)</sup>
3 Yr US Treas Rolling	1.16%	90	1.27%	100	1.10% <sup>(7/09)</sup>
T-Bill + 1.5%	2.14%	2	2.25%	31	2.02% <sup>(7/09)</sup>
Callan Stable Value CT	1.54%		1.97%		-
<b>Fixed Income Fund</b>	<b>2.27%</b>	<b>42</b>	<b>-</b>		<b>3.61%</b> <sup>(4/09)</sup>
Blmbg Aggregate	1.54%	99	3.26%	88	2.83% <sup>(4/09)</sup>
Callan Core Plus MFs	2.24%		3.79%		-
TCW Core Plus	-		-		1.73% <sup>(1/17)</sup>
Blmbg Aggregate	1.54%	99	3.26%	88	1.19% <sup>(1/17)</sup>
Callan Core Plus MFs	2.24%		3.79%		-
Prudential Core Plus	-		-		2.11% <sup>(1/15)</sup>
Blmbg Aggregate	1.54%	99	3.26%	88	1.04% <sup>(1/15)</sup>
Callan Core Plus MFs	2.24%		3.79%		-
<b>Large Cap Core Equity Fund</b>	<b>-</b>		<b>-</b>		<b>8.96%</b> <sup>(10/17)</sup>
Russell 1000 Index	12.82%	41	8.51%	46	10.25% <sup>(10/17)</sup>
Callan Lg Cap Broad MF	12.16%		8.16%		-
Hotchkis & Wiley Large Cap Value	11.85%	18	-		13.36% <sup>(4/09)</sup>
Russell 1000 Value Index	10.50%	57	6.10%	60	11.99% <sup>(4/09)</sup>
Callan Lg Cap Value MF	10.61%		6.38%		-
Macquarie Large Cap Value	-		-		8.18% <sup>(6/15)</sup>
Russell 1000 Value Index	10.50%	57	6.10%	60	7.69% <sup>(6/15)</sup>
Callan Lg Cap Value MF	10.61%		6.38%		-
Sands Capital Large Cap Growth	11.26%	89	-		14.86% <sup>(4/09)</sup>
Russell 1000 Growth Index	14.80%	8	10.67%	8	15.73% <sup>(4/09)</sup>
Callan Large Cap Grwth MF	13.37%		9.55%		-
Loomis Sayles Large Cap Growth	-		-		12.03% <sup>(8/14)</sup>
Russell 1000 Growth Index	14.80%	8	10.67%	8	12.96% <sup>(8/14)</sup>
Callan Large Cap Grwth MF	13.37%		9.55%		-
BlackRock Russell 1000 Index	-		-		9.69% <sup>(11/17)</sup>
Russell 1000 Index	12.82%	26	8.51%	24	9.72% <sup>(11/17)</sup>
Callan Large Cap Core MFs	11.91%		7.60%		-

## 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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
<b>Tier 2: Active (Net of Fee)</b>										
<b>International Equity Fund</b>	<b>(15.02%)</b>	<b>76</b>	<b>(25.62%)</b>	<b>81</b>	<b>(0.04%)</b>	<b>82</b>	<b>1.99%</b>	<b>54</b>	<b>3.06%</b>	<b>43</b>
MSCI ACWI ex US	(13.73%)	53	(19.42%)	48	1.35%	54	2.50%	45	2.92%	45
Callan Non US Equity MFs	(13.46%)		(19.63%)		1.45%		2.31%		2.71%	
Mondrian ACWI ex-US Value	(9.32%)	4	(13.66%)	10	1.37%	52	2.35%	49	2.67%	51
MSCI ACWI ex US	(13.73%)	53	(19.42%)	48	1.35%	54	2.50%	45	2.92%	45
MSCI ACWI ex US Value	(11.90%)	30	(12.77%)	8	0.56%	65	1.24%	69	1.72%	67
Callan Non US Equity MFs	(13.46%)		(19.63%)		1.45%		2.31%		2.71%	
Baillie Gifford ACWI ex-US Growth	(18.26%)	95	(33.86%)	95	(0.66%)	89	2.32%	50	3.99%	21
MSCI ACWI ex US	(13.73%)	53	(19.42%)	48	1.35%	54	2.50%	45	2.92%	45
MSCI ACWI ex US Growth	(15.71%)	79	(25.80%)	81	1.62%	46	3.43%	26	3.86%	23
Callan Non US Equity MFs	(13.46%)		(19.63%)		1.45%		2.31%		2.71%	
Acadian	(17.13%)	59	-		-		-		-	
MSCI ACWI ex US Small Cap	(17.55%)	66	(22.45%)	37	2.94%	33	2.55%	42	3.71%	46
Callan Intl Small Cap MFs	(16.38%)		(25.46%)		1.75%		2.12%		3.57%	
WCM	(26.23%)	99	-		-		-		-	
MSCI ACWI ex US Small Cap	(17.55%)	66	(22.45%)	37	2.94%	33	2.55%	42	3.71%	46
Callan Intl Small Cap MFs	(16.38%)		(25.46%)		1.75%		2.12%		3.57%	
<b>Small/Mid Cap Equity Fund</b>	<b>(14.21%)</b>	<b>27</b>	<b>(15.87%)</b>	<b>37</b>	<b>6.56%</b>	<b>33</b>	<b>-</b>		<b>-</b>	
Russell 2500 Index	(16.98%)	49	(21.00%)	49	5.91%	45	7.04%	48	7.16%	47
Callan SMID Broad MFs	(17.10%)		(21.97%)		5.77%		6.91%		7.05%	
Earnest Partners Small/Mid Cap	(13.69%)	23	(8.84%)	6	-		-		-	
Russell 2500 Index	(16.98%)	78	(21.00%)	75	5.91%	50	7.04%	29	7.16%	33
Callan SMID Core MFs	(15.20%)		(16.93%)		5.96%		6.41%		6.43%	
Wedge Small/Mid Cap Value	(13.60%)	48	(12.78%)	70	4.90%	98	3.74%	94	5.11%	75
Russell 2500 Value Index	(15.39%)	77	(13.19%)	72	6.19%	61	5.54%	77	6.49%	46
Callan SMID Value MFs	(13.83%)		(12.02%)		7.78%		5.90%		6.42%	
Brown Advisory Small/Mid Cap Growth	(14.43%)	7	(23.80%)	18	4.25%	38	9.31%	35	9.47%	8
Russell 2500 Growth Index	(19.55%)	34	(31.81%)	58	3.68%	40	7.53%	62	7.05%	62
Callan SMID Growth MFs	(21.44%)		(29.21%)		2.99%		8.59%		7.54%	
BlackRock Russell 2500 Index	(17.29%)	83	(21.42%)	83	6.11%	49	-		-	
Russell 2500 Index	(16.98%)	78	(21.00%)	75	5.91%	50	7.04%	29	7.16%	33
Callan SMID Core MFs	(15.20%)		(16.93%)		5.96%		6.41%		6.43%	

## 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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last 10 Years		Last 15 Years		Since Inception
<b>Tier 2: Active (Net of Fee)</b>					
<b>International Equity Fund</b>	<b>5.11%</b>	<b>56</b>	<b>-</b>		<b>6.82%</b> <sup>(4/09)</sup>
MSCI ACWI ex US	4.83%	69	1.58%	66	6.18% <sup>(4/09)</sup>
Callan Non US Equity MFs	5.47%		2.15%		-
Mondrian ACWI ex-US Value	4.68%	72	-		5.90% <sup>(4/09)</sup>
MSCI ACWI ex US	4.83%	69	1.58%	66	6.18% <sup>(4/09)</sup>
MSCI ACWI ex US Value	3.76%	92	0.62%	86	5.14% <sup>(4/09)</sup>
Callan Non US Equity MFs	5.47%		2.15%		-
Baillie Gifford ACWI ex-US Growth	6.14%	24	-		8.23% <sup>(4/09)</sup>
MSCI ACWI ex US	4.83%	69	1.58%	66	6.18% <sup>(4/09)</sup>
MSCI ACWI ex US Growth	5.71%	36	2.40%	46	7.07% <sup>(4/09)</sup>
Callan Non US Equity MFs	5.47%		2.15%		-
Acadian	-		-		(19.28%) <sup>(10/21)</sup>
MSCI ACWI ex US Small Cap	6.22%	60	2.79%	56	(23.64%) <sup>(10/21)</sup>
Callan Intl Small Cap MFs	6.66%		3.10%		-
WCM	-		-		(41.85%) <sup>(10/21)</sup>
MSCI ACWI ex US Small Cap	6.22%	60	2.79%	56	(23.64%) <sup>(10/21)</sup>
Callan Intl Small Cap MFs	6.66%		3.10%		-
<b>Small/Mid Cap Equity Fund</b>	<b>-</b>		<b>-</b>		<b>6.45%</b> <sup>(10/17)</sup>
Russell 2500 Index	10.49%	46	7.29%	60	6.15% <sup>(10/17)</sup>
Callan SMID Broad MFs	10.44%		7.49%		-
Earnest Partners Small/Mid Cap	-		-		(5.50%) <sup>(3/21)</sup>
Russell 2500 Index	10.49%	38	7.29%	29	(13.60%) <sup>(3/21)</sup>
Callan SMID Core MFs	9.89%		6.64%		-
Wedge Small/Mid Cap Value	9.29%	64	-		9.19% <sup>(1/12)</sup>
Russell 2500 Value Index	9.54%	63	6.19%	68	9.38% <sup>(1/12)</sup>
Callan SMID Value MFs	9.88%		6.55%		-
Brown Advisory Small/Mid Cap Growth	12.04%	6	-		14.04% <sup>(4/09)</sup>
Russell 2500 Growth Index	10.88%	54	7.96%	64	13.11% <sup>(4/09)</sup>
Callan SMID Growth MFs	10.90%		8.53%		-
BlackRock Russell 2500 Index	-		-		5.60% <sup>(11/17)</sup>
Russell 2500 Index	10.49%	38	7.29%	29	5.52% <sup>(11/17)</sup>
Callan SMID Core MFs	9.89%		6.64%		-

# North Carolina Supplemental Retirement Plans Quarterly Manager Review Spotlight Report

2nd Quarter 2022

## Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	NOTES
<b>LARGE CAP CORE</b>									
BlackRock	●	●	●	●	●	●	●	Satisfactory	
<b>LARGE CAP VALUE</b>									
Hotchkis & Wiley Large Cap Fundamental Value	●	●	●	●	●	●	●	Satisfactory	
Macquarie Large Cap Value Focus	●	●	●	●	●	●	●	Satisfactory	Team notable due to former PM Ty Nutt retirement in July 2019 and transition of role to Nik Lalvani - Macquarie promoted Associate PM Erin Ksenak to PM in December 2020 (4th voting member on the team) and analyst Vincent Celentano to Associate PM. Continue to monitor the team, process, and performance subsequent to transition. Very strong recent performance helped pull up both short and longer-term performance results.
<b>LARGE CAP GROWTH</b>									
Loomis Sayles Large Cap Growth	●	●	●	●	●	●	●	Satisfactory	Cautionary on short- and long-term performance relative to Russell 1000 Growth Index; portfolio trailing 1/3/5/7/10 year period. However, long term results versus peers is competitive. Notable on growth in portfolio AUM to high water mark over prior five years given concentration of securities in portfolio (35 holdings); mitigated by recent market decline.
Sands Capital Management Select Growth	●	●	●	●	●	●	●	Cautionary	Frank Sands Sr. passed away in March 2021; does not impact the day to day management. In addition, one of the four current PM's will be taking a medical leave of absence starting in late July 2022 but expected to return. Disruption/innovation exposure has increased return volatility in recent time periods. Significant recent underperformance is not unexpected but has drastically impacted three year and longer time periods. Stability of asset base should be monitored.

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

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

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

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

# North Carolina Supplemental Retirement Plans Quarterly Manager Review Spotlight Report

2nd Quarter 2022

## Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	NOTES
<b>SMID CAP CORE</b>									
BlackRock	●	●	●	●	●	●	●	Satisfactory	
EARNEST Partners SMID Core	●	●	●	●	●	●	●	Satisfactory	Strategy market capitalization consistently larger than benchmark and peers.
<b>SMID CAP VALUE</b>									
WEDGE Capital US SMID Cap Value	●	●	●	●	●	●	●	Cautionary (on NC watch list)	Organization is Cautionary due to continued redemptions impacting the equity suite of strategies; fundamental equities strategies now only account for <30% of total assets under management. Process is Cautionary due to changes implemented to the portfolio construction approach that may be beneficial for risk management, but have yet to be realized in portfolio attribution. People is Notable due to portfolio management and analyst changes. 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. Product Dynamics is Notable as the individual sleeves of the strategy, particularly the mid cap sleeve, have been challenged by performance and experienced meaningful outflows. Will continue to monitor the aggregate Small/Mid Cap Value strategy for risks to asset stability. LT Performance is Notable as the strategy continues to underperform the Russell 2500 Value Index over multiple long-term periods due to stock selection issues. ST Performance remains Notable, though strategy has benefited from value tailwinds. Will continue to monitor the impact of recent portfolio changes on attribution.
<b>SMID CAP GROWTH</b>									
Brown Advisory US SMID Cap Growth	●	●	●	●	●	●	●	Satisfactory	Notable strategy AUM growth and total securities held near all-time high (but within expected range).
<b>INTERNATIONAL EQUITY</b>									
Baillie Gifford ACWI Ex-US Alpha	●	●	●	●	●	●	●	Satisfactory	Portfolio manager retirements, Andrew Strathdee and Jonathan Bates in 2019 easily adjusted for given robust bench strength. While underperformance is disappointing, it remains within range based on philosophy, process and historical returns.
BlackRock	●	●	●	●	●	●	●	Satisfactory	

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

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# North Carolina Supplemental Retirement Plans Quarterly Manager Review Spotlight Report

2nd Quarter 2022

## Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	NOTES
Mondrian Investment Partners Focused ACWI Ex-US	●	●	●	●	●	●	●	Satisfactory (on NC watch list)	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 members of the International Equity Strategy Committee at that time. Committee at that time.
Acadian ACW ex U.S. Small Cap	●	●	●	●	●	●	●	Satisfactory	Organization, People and Product Dynamics are notable due to the following. The parent company plans to sell its affiliates which may include Acadian. As a result of Co-CEO John Chisholm's retirement in June 2022, Co-CEO Ross Dowd was appointed. Harry Gakidis and David Purdy during 2022 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	Organization is "notable" to denote the retirement of Co-CEO Kurt Winrich, effective 12/31/2021. Winrich continues to serve as chairman of the Board. Product Dynamics is "notable" as the strategy remains soft-closed.

## CORE & CORE PLUS FIXED INCOME

BlackRock	●	●	●	●	●	●	●	Satisfactory	
PGIM Core Plus Bond	●	●	●	●	●	●	●	Satisfactory	The strategy underperformed in Q1 2022, primarily due to duration positioning and security selection within emerging markets.
TCW Core Plus	●	●	●	●	●	●	●	Satisfactory	"Notable" status under Organization reflects CEO David Lippman's impending retirement at the end of 2022. "Cautionary" under People reflects former CIO Tad Rivelles's year-end 2021 retirement. Callan is monitoring for any potential impacts to the consistency of the investment strategy due to the transition of leadership to other senior members of the investment team.

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

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# North Carolina Supplemental Retirement Plans Quarterly Manager Review

## Stoplight Report

2nd Quarter 2022

### 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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### INFLATION SENSITIVE

BlackRock Strategic Completion Fund	●	●	●	●	●	●	●	Satisfactory	
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### STABLE VALUE

Galliard Stable Value	●	●	●	●	●	●	●	Cautionary (on NC watch list)	"Cautionary" on ownership change - Wells Fargo announced sale of asset management group to private equity firms GTCR and Reverence Capital in 2021. Transaction closed in November 2021. The firm was rebranded to Allspring Global Investments and Joseph Sullivan replaced Nico Marais as CEO. ¶ Asset flows have stabilized since late 2020. The Galliard Stable Return Fund's put queue increased after the Wells recordkeeping sale to Principal in April 2019; it peaked in 2020 and has since decreased to 2017 levels.
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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. As such, the strategy has delivered long-term outperformance relative to the index and peers by consistently compounding excess returns garnered from downside protection.

Performance in down markets has improved more recently. When markets pulled back in the 2nd quarter, Mondrian outperformed by over 4% relative to the broad index—as was expected given their style. The COVID-related selloff in Q1 of 2020, in which Mondrian fared less well, 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. The growth style of investing has been remarkably strong since the global financial crisis in 2008, which tends to be a headwind for all of their strategies on a relative basis. While Mondrian's primary benchmark remains the MSCI ACWI ex-US, the performance relative to the value oriented benchmark remains favorable. Callan remains cautionary in light of the recent performance and modest AUM decline.

In a weak month for equity markets, portfolio returns exceeded the index. The portfolio returned -7.7% vs. -8.6%. The overweight positions in the relatively strong Chinese and Japanese equity markets added to relative returns. Strong stock selection in Japan was only partially offset by stock selection in Hong Kong. The underweight position in the weak materials sector added to relative returns. Strong stock selection within the IT and financials sectors also added to relative returns. The overweight position in the weak Japanese yen more than offset the overweight position in the pegged Hong Kong dollar.



**WEDGE Smid Cap Value**

Callan has been in regular contact with Wedge and is continually monitoring flows and assets under management. Strategy assets in Smid stood at \$955 million at quarter end, while Small Cap strategy assets stood at \$378 and Mid Cap strategy assets under management were \$538 million. Callan maintains the view that Wedge should remain on watch list, and is working with Staff should further action need to be taken in the near future.

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

The Small/Mid Cap Value composite return for the quarter was -13.49% (-13.68% net of fee) versus the Russell 2500 Value Index return of -15.39%. For the year-to-date period, the composite return was -15.78% (-16.14% net of fee) and the index return was -16.66%.

The top contributors in the quarter included favorable stock selection within Basic Materials, Capital Goods, and Consumer Services. Underweight higher P/E companies added value. For the six-month period ended June 30, top contributors included positive stock selection in Insurance, Technology and Consumer Services. Overweight to Insurance and underweight Technology also added value. The underweight to higher P/E names added value.

The main detractors in the quarterly relative performance included stock selection within Healthcare, Banks, and Consumer Staples. Year-to-date, the main detractors in addition to stock selection in Banks, was also poor stock selection in Retail and not owning any of the Fertilizer and Agricultural Chemical companies within the Basic Material benchmark sector.

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

Large Cap Equity									
	3 Years to 06/30/2022		3 Years to 03/31/2022		3 Years to 12/31/2021		3 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	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 06/30/2022		3 Years to 03/31/2022		3 Years to 12/31/2021		3 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
EARNEST Partners SMID Cap Core*									
WEDGE SMID Cap Value									
Brown Advisory									
International Equity									
	3 Years to 06/30/2022		3 Years to 03/31/2022		3 Years to 12/31/2021		3 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
Baillie Gifford ACWI ex US Growth									
Mondrian ACWI ex US Value									
Acadian									
WCM									
Fixed Income									
	3 Years to 06/30/2022		3 Years to 03/31/2022		3 Years to 12/31/2021		3 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
TCW Core Plus*									
Prudential Core Plus									
Stable Value									
	3 Years to 06/30/2022		3 Years to 03/31/2022		3 Years to 12/31/2021		3 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
Stable Value									

\*Composite returns used to populate history

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

Large Cap Equity									
	5 Years to 06/30/2022		5 Years to 03/31/2022		5 Years to 12/31/2021		5 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	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									
	5 Years to 06/30/2022		5 Years to 03/31/2022		5 Years to 12/31/2021		5 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
EARNEST Partners SMID Cap Core*									
WEDGE SMID Cap Value									
Brown Advisory									
International Equity									
	5 Years to 06/30/2022		5 Years to 03/31/2022		5 Years to 12/31/2021		5 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
Baillie Gifford ACWI ex US Growth									
Mondrian ACWI ex US Value									
Acadian									
WCM									
Fixed Income									
	5 Years to 06/30/2022		5 Years to 03/31/2022		5 Years to 12/31/2021		5 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
TCW Core Plus*									
Prudential Core Plus									
Stable Value									
	5 Years to 06/30/2022		5 Years to 03/31/2022		5 Years to 12/31/2021		5 Years to 09/30/2021		5 Year Risk
	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	Above Benchmark	Above Peer Median	
Stable Value									

\*Composite returns used to populate history

A	B	C	D	E	F	G	H	I
					C+D+E	B*F		F-H
Funds and Sub-Advisors	Assets*	Inv. Mgmt. Fee	Custodial Expenses <sup>1</sup>	NC Budget <sup>2</sup>	Total Estimated Expense (%)	Total Estimated Expenses (\$) <sup>3</sup>	Callan Median Expense <sup>4</sup>	Difference
North Carolina Stable Value Fund	\$2,448,465,389	0.2585%	0.0020%	0.0125%	0.27%	\$6,684,311	0.62%	-0.35%
Galliard	\$2,448,465,389	0.2585%	0.0000%			\$6,329,283	0.28%	-0.02%
North Carolina Fixed Income Passive Fund	\$86,023,703	0.0200%	0.0226%	0.0125%	0.06%	\$47,399	0.09%	-0.03%
Blackrock	\$86,023,703	0.0200%	0.0100%			\$17,205	0.04%	-0.02%
North Carolina Fixed Income Fund	\$2,077,195,907	0.1242%	0.0102%	0.0125%	0.15%	\$3,051,401	0.38%	-0.23%
50% TCW	\$1,040,690,218	0.1384%	0.0000%			\$1,440,315	0.21%	-0.07%
50% Prudential	\$1,036,505,695	0.1100%	0.0100%			\$1,140,156	0.21%	-0.10%
North Carolina Inflation Sensitive Fund	\$485,520,681	0.0900%	0.0137%	0.0125%	0.12%	\$564,175	0.86%	-0.74%
Blackrock	\$485,520,668	0.0900%	0.0100%			\$436,969	0.81%	-0.72%
North Carolina Large Cap Passive Fund	\$3,141,157,600	0.0050%	0.0015%	0.0125%	0.02%	\$596,820	0.16%	-0.14%
Blackrock	\$3,141,157,600	0.0050%	0.0100%			\$157,058	0.02%	-0.02%
North Carolina Large Cap Core Fund	\$1,845,398,288	0.2846%	0.0090%	0.0125%	0.31%	\$5,648,764	0.62%	-0.31%
18.75% Hotchkis & Wiley	\$336,990,214	0.4000%	0.0000%			\$1,347,961	0.41%	-0.01%
18.75% Macquarie Large Cap Value	\$357,047,999	0.2770%	0.0000%			\$989,023	0.40%	-0.12%
18.75% Sands Capital Management	\$343,223,469	0.4500%	0.0000%			\$1,544,506	0.44%	0.01%
18.75% Loomis Sayles	\$352,326,533	0.3823%	0.0000%			\$1,346,944	0.44%	-0.06%
25% BlackRock Advisors Inc., Large Cap Index*	\$455,810,076	0.0050%	0.0100%			\$22,791	0.02%	-0.02%
North Carolina SMID Cap Passive Fund	\$334,044,145	0.0050%	0.0156%	0.0125%	0.03%	\$110,569	0.17%	-0.14%
Blackrock	\$334,044,145	0.0050%	0.0100%			\$16,702	0.03%	-0.03%
North Carolina SMID Cap Core Fund	\$912,072,341	0.3886%	0.0161%	0.0125%	0.42%	\$3,805,166	0.82%	-0.40%
30% Earnest Partners	\$273,185,138	0.4700%	0.0000%			\$1,283,970	0.67%	-0.20%
30% Wedge	\$269,784,430	0.4297%	0.0000%			\$1,159,264	0.66%	-0.23%
30% Brown Advisory	\$281,462,772	0.3895%	0.0000%			\$1,096,297	0.72%	-0.33%
10% BlackRock Advisors Inc., SMID Index*	\$87,548,536	0.0050%	0.0100%			\$4,377	0.04%	-0.04%
North Carolina International Passive Fund	\$85,612,726	0.0210%	0.0384%	0.0125%	0.07%	\$61,556	0.06%	0.01%
Blackrock	\$85,612,726	0.0210%	0.0200%			\$17,979	0.06%	-0.04%
North Carolina International Equity	\$1,946,534,324	0.3788%	0.0258%	0.0125%	0.42%	\$8,118,995	0.80%	-0.38%
43% Baillie Gifford Growth	\$836,885,869	0.2767%	0.0000%			\$2,315,663	0.52%	-0.24%
43% Mondrian Investment Partners Value	\$850,530,498	0.3867%	0.0000%			\$3,289,001	0.50%	-0.11%
7% Acadian	\$129,779,744	0.6656%	0.0000%			\$863,814	0.85%	-0.18%
7% WCM	\$129,048,300	0.7000%	0.0000%			\$903,338	0.85%	-0.15%
North Carolina TIPS Fund	\$351,686,814	0.0250%	0.0104%	0.0125%	0.05%	\$168,458	0.35%	-0.30%
Blackrock	\$351,686,814	0.0250%	0.0000%			\$87,922	0.14%	-0.12%
Total	\$13,713,711,918	0.1753%	0.0150%	0.0125%	0.21%	\$28,857,612	0.26%	

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

<sup>1</sup> Based on annualized monthly fee accruals as of 06/30/2022

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

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

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

**The North Carolina Supplemental Retirement Plans**  
**Investment Manager Performance Monitoring Summary Report**  
**June 30, 2022**

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
<b>Tier 2: Passive vs. Net of Fee Groups</b>								
<b>Fixed Income Passive (i)</b>								
Callan Core Bond MFs	-4.7 13	-10.3 27	-1.0 81	0.8 83		-0.1 85	-0.6 99	0.1 100
Blmbg Aggregate	-4.7 13	-10.3 28	-0.9 78	0.9 76		-0.0 76		
<b>Treasury Inflation Protected (i)</b>								
Callan TIPS MFs	-3.7 27	-2.0 22	3.4 26					
Blmbg US TIPS 1-10 Yr	-3.4 26	-2.0 23	3.4 26	3.2 32		0.7 13		
<b>Large Cap Passive (i)</b>								
Callan Large Cap Core MFs	-16.1 54	-10.7 43	10.6 38	11.3 28		0.5 29	0.0 27	0.0 100
S&P 500 Index	-16.1 54	-10.6 43	10.6 38	11.3 28		0.5 29		
<b>International Passive (i)</b>								
Callan Non US Equity MFs	-13.1 46	-19.8 52	1.3 56	2.6 44		0.1 43	0.1 35	0.6 100
MSCI ACWI ex US	-13.7 53	-19.4 48	1.4 54	2.5 45		0.1 44		
<b>SMID Cap Passive (i)</b>								
Callan SMID Core MFs	-17.0 78	-21.0 75	5.8 51	7.0 30		0.2 39	-1.2 96	0.1 99
Russell 2500 Index	-17.0 78	-21.0 75	5.9 50	7.0 29		0.2 38		
<b>Inflation Responsive Fund (i)</b>								
Callan Real Assets MFs	-10.7 73	-2.6 69	4.9 73	5.0 70		0.3 43	0.9 1	0.8 99
Inflation Responsive Benchmark	-10.8 74	-2.6 69	4.8 73	4.2 79		0.3 70		
<b>Tier 2: Active vs. Net of Fee Groups</b>								
<b>Stable Value Fund</b>								
Callan Stable Value CT	0.4 19	1.7 13	2.1 3	2.2 2		6.1 10	-1.1 3	0.4 43
T-Bill + 1.5%	0.5 12	1.7 12	2.1 3	2.6 1		3.1 54		
<b>Fixed Income Fund</b>								
Callan Core Plus MFs	-5.8 46	-11.4 54	-0.4 34	1.5 20		0.1 17	0.3 15	2.3 68
Blmbg Aggregate	-4.7 3	-10.3 12	-0.9 76	0.9 75		-0.0 77		
<b>TCW Core Plus</b>								
Callan Core Plus MFs	-5.3 16	-10.8 22	-0.2 29	1.5 22		0.1 18	0.6 1	0.9 96
Blmbg Aggregate	-4.7 3	-10.3 12	-0.9 76	0.9 75		-0.0 77		

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**  
**June 30, 2022**

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	3 Year Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error
<b>Prudential Core Plus</b> Callan Core Plus MFs Blmbg Aggregate	-6.4 77	-12.0 66	-0.6 39	1.6 13		0.1 16	0.2 35	3.7 25
<b>Large Cap Core Equity Fund</b> Callan Lg Cap Broad MF Russell 1000 Index	-19.7 69	-20.1 67	7.6 67					
	-16.7 56	-13.0 52	10.2 29	11.0 40		0.5 29		
<b>Hotchkis &amp; Wiley Large Cap Value</b> Callan Lg Cap Value MF Russell 1000 Value Index	-14.6 84	-8.7 83	8.5 34	7.7 61		0.2 83	0.1 66	9.4 7
	-12.2 62	-6.8 75	6.9 72	7.2 68		0.3 64		
<b>Macquarie Large Cap Value</b> Callan Lg Cap Value MF Russell 1000 Value Index	-10.0 16	-1.1 15	7.1 66	8.1 50		0.4 39	0.3 47	3.5 60
	-12.2 62	-6.8 75	6.9 72	7.2 68		0.3 64		
<b>Sands Capital Large Cap Growth</b> Callan Large Cap Grwth MF Russell 1000 Growth Index	-34.2 100	-49.5 99	-0.3 99	8.4 94		0.2 98	-0.4 30	15.0 1
	-20.9 37	-18.8 20	12.6 3	14.3 12		0.6 14		
<b>Loomis Sayles Large Cap Growth</b> Callan Large Cap Grwth MF Russell 1000 Growth Index	-22.5 58	-25.2 53	7.0 71	10.7 71		0.5 53	-0.8 70	4.7 47
	-20.9 37	-18.8 20	12.6 3	14.3 12		0.6 14		
<b>BlackRock Russell 1000 Index (i)</b> Callan Large Cap Core MFs Russell 1000 Index	-16.7 78	-13.1 70	10.2 51					
	-16.7 77	-13.0 69	10.2 51	11.0 34		0.5 40		
<b>International Equity Fund</b> Callan Non US Equity MFs MSCI ACWI ex US	-15.0 76	-25.6 81	-0.0 82	2.0 54		0.0 54	-0.2 62	2.5 97
	-13.7 53	-19.4 48	1.4 54	2.5 45		0.1 44		
<b>Mondrian ACWI ex-US Value</b> Callan Non US Equity MFs MSCI ACWI ex US	-9.3 4	-13.7 10	1.4 52	2.4 49		0.1 50	-0.0 50	4.7 59
	-13.7 53	-19.4 48	1.4 54	2.5 45		0.1 44		
<b>Baillie Gifford ACWI ex-US Growth</b> Callan Non US Equity MFs MSCI ACWI ex US	-18.3 95	-33.9 95	-0.7 89	2.3 50		0.1 52	-0.0 49	7.5 20
	-13.7 53	-19.4 48	1.4 54	2.5 45		0.1 44		

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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**The North Carolina Supplemental Retirement Plans**  
**Investment Manager Performance Monitoring Summary Report**  
**June 30, 2022**

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
<b>Acadian</b> Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	-17.1 59	-18.1 22	8.7 2	6.7 5		0.2 4	0.9 1	4.9 65
<b>WCM</b> Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	-26.2 99	-37.2 91	8.7 2	11.2 1		0.3 2	0.6 1	14.5 5
<b>Small/Mid Cap Equity Fund</b> Callan SMID Broad MFs Russell 2500 Index	-14.2 27	-15.9 37	6.6 33					
<b>Earnest Partners Small/Mid Cap</b> Callan SMID Core MFs Russell 2500 Index	-13.7 23	-8.8 6						
<b>Wedge Small/Mid Cap Value</b> Callan SMID Value MFs Russell 2500 Value Index	-13.6 48	-12.8 70	4.9 98	3.7 94		0.1 95	-0.7 93	2.4 91
<b>Brown Advisory Small/Mid Cap Growth</b> Callan SMID Growth MFs Russell 2500 Growth Index	-14.4 7	-23.8 18	4.3 38	9.3 35		0.3 21	0.4 17	4.9 81
<b>BlackRock Russell 2500 Index (i)</b> Callan SMID Core MFs Russell 2500 Index	-17.3 83	-21.4 83	6.1 49					
	-17.0 78	-21.0 75	5.9 50	7.0 29		0.2 38		

Returns:  
■ above median  
■ third quartile  
■ fourth quartile

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

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

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■ third quartile  
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**The North Carolina Supplemental Retirement Plans**  
**Investment Manager Performance Monitoring Summary Report**  
**June 30, 2022**

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
<b>Tier 2: Active vs. Gross of Fee Groups</b>								
<b>Stable Value Fund</b>								
<b>Galliard Stable Value</b>	0.5 39	1.8 37	2.2 35	2.3 30		7.0 47	-0.8 34	0.4 35
Callan Stable Value SA								
T-Bill + 1.5%	0.5 35	1.7 58	2.1 52	2.6 9		3.1 91		
<b>Fixed Income Fund</b>								
<b>TCW Core Plus</b>	-5.2 81	-10.7 79	-0.1 19	1.6 15		0.1 18	0.8 12	0.9 61
Callan Core Bond FI								
Bimbg Aggregate	-4.7 27	-10.3 55	-0.9 94	0.9 95		-0.0 96		
<b>Prudential Core Plus</b>	-6.4 100	-12.0 98	-0.6 69	1.7 11		0.1 19	0.2 81	3.7 1
Callan Core Bond FI								
Bimbg Aggregate	-4.7 27	-10.3 55	-0.9 94	0.9 95		-0.0 96		
<b>Large Cap Core Equity Fund</b>								
<b>Hotchkis &amp; Wiley Large Cap Value</b>	-14.5 90	-8.3 85	8.9 47	8.2 54		0.3 83	0.1 66	9.4 6
Callan Large Cap Value								
Russell 1000 Value Index	-12.2 66	-6.8 79	6.9 91	7.2 77		0.3 70		
<b>Macquarie Large Cap Value</b>	-10.0 19	-0.9 15	7.4 78	8.4 53		0.4 29	0.4 49	3.5 65
Callan Large Cap Value								
Russell 1000 Value Index	-12.2 66	-6.8 79	6.9 91	7.2 77		0.3 70		
<b>Sands Capital Large Cap Growth</b>	-34.1 97	-49.2 97	0.1 97	8.8 94		0.2 96	-0.4 48	15.0 3
Callan Large Cap Growth								
Russell 1000 Growth Index	-20.9 48	-18.8 34	12.6 11	14.3 16		0.6 20		
<b>Loomis Sayles Large Cap Growth</b>	-22.4 64	-24.9 65	7.4 76	11.1 80		0.5 63	-0.7 76	4.7 43
Callan Large Cap Growth								
Russell 1000 Growth Index	-20.9 48	-18.8 34	12.6 11	14.3 16		0.6 20		
<b>BlackRock Russell 1000 Index (i)</b>	-16.7 86	-13.1 78	10.2 56	11.0 50		0.5 53	1.5 1	0.0 99
Callan Large Cap Core								
Russell 1000 Index	-16.7 83	-13.0 77	10.2 56	11.0 50		0.5 54		

Returns:  
■ above median  
■ third quartile  
■ fourth quartile

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

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

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■ fourth quartile

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**The North Carolina Supplemental Retirement Plans**  
**Investment Manager Performance Monitoring Summary Report**  
**June 30, 2022**

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
<b>International Fund</b>								
<b>Mondrian ACWI ex-US Value</b> Callan NonUS Eq	-9.2 2	-13.3 9	1.8 61	2.7 55		0.1 53	0.1 56	4.7 51
MSCI ACWI ex US	-13.7 47	-19.4 51	1.4 69	2.5 65		0.1 61		
<b>Baillie Gifford ACWI ex-US Growth</b> Callan NonUS Eq	-18.2 92	-33.7 95	-0.4 90	2.6 61		0.1 64	0.0 62	7.5 16
MSCI ACWI ex US	-13.7 47	-19.4 51	1.4 69	2.5 65		0.1 61		
<b>Acadian</b> Callan Intl Small Cap	-17.1 62	-18.1 11	8.7 3	6.7 8		0.2 3	0.9 3	4.9 50
MSCI ACWI ex US Small Cap	-17.5 71	-22.4 41	2.9 28	2.6 33		0.1 34		
<b>WCM</b> Callan Intl Small Cap	-26.2 97	-37.2 95	8.7 3	11.2 1		0.3 1	0.6 7	14.5 3
MSCI ACWI ex US Small Cap	-17.5 71	-22.4 41	2.9 28	2.6 33		0.1 34		
<b>Small/Mid Cap Equity Fund</b>								
<b>Earnest Partners Small/Mid Cap</b> Callan Small/MidCap Core	-13.6 31	-8.4 10	11.9 5	12.0 2		0.5 5	0.8 5	6.3 33
Russell 2500 Index	-17.0 82	-21.0 90	5.9 71	7.0 62		0.2 62		
<b>Wedge Small/Mid Cap Value</b> Callan Small/MidCap Value	-13.5 51	-12.4 68	5.4 81	4.3 84		0.1 84	-0.5 91	2.4 95
Russell 2500 Value Index	-15.4 73	-13.2 72	6.2 75	5.5 73		0.2 74		
<b>Brown Advisory Small/Mid Cap Growth</b> Callan Sm/MidCap Growth	-14.3 1	-23.5 18	4.7 39	9.8 50		0.3 48	0.5 40	4.9 84
Russell 2500 Growth Index	-19.6 29	-31.8 69	3.7 63	7.5 68		0.2 67		
<b>BlackRock Russell 2500 Index (i)</b> Callan Small/MidCap Core	-17.3 83	-21.4 92	6.1 69					
Russell 2500 Index	-17.0 82	-21.0 90	5.9 71	7.0 62		0.2 62		

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  
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## Investment Fund Balances

The table below compares the fund's investment fund balances as of June 30, 2022 with that of March 31, 2022.

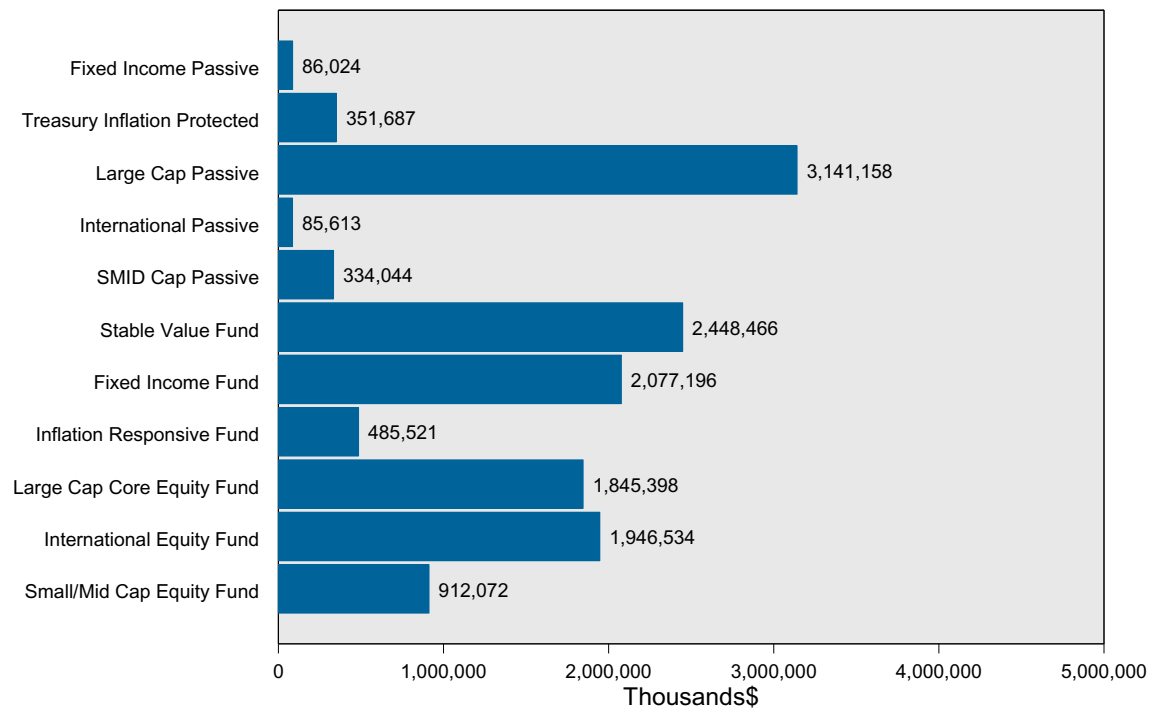
### Asset Distribution Across Investment Funds

	June 30, 2022		March 31, 2022	
	Market Value	Weight	Market Value	Weight
<b>North Carolina SRP 401k &amp; 457</b>				
<b>Tier I: GoalMaker</b>				
Post Retirement Conservative 11+	36,892,118	0.55%	35,614,778	0.47%
Post Retirement Conservative 6-10	122,256,071	1.82%	126,877,207	1.68%
Post Retirement Conservative 0-5	389,531,860	5.79%	414,214,664	5.48%
Pre Retirement Conservative 0-5	318,437,835	4.74%	330,102,422	4.37%
Pre Retirement Conservative 6-10	191,165,115	2.84%	200,040,575	2.65%
Pre Retirement Conservative 11-15	137,511,929	2.05%	146,265,525	1.94%
Pre Retirement Conservative 16-20	96,496,887	1.44%	104,690,634	1.39%
Pre Retirement Conservative 21-25	78,370,046	1.17%	86,942,998	1.15%
Pre Retirement Conservative 26+	90,339,380	1.34%	102,349,064	1.35%
Post Retirement Moderate 11+	38,809,196	0.58%	40,314,965	0.53%
Post Retirement Moderate 6-10	132,152,955	1.97%	139,986,804	1.85%
Post Retirement Moderate 0-5	409,074,427	6.08%	453,092,672	5.99%
Pre Retirement Moderate 0-5	602,181,831	8.96%	679,146,422	8.99%
Pre Retirement Moderate 6-10	566,405,086	8.42%	633,007,467	8.38%
Pre Retirement Moderate 11-15	464,794,920	6.91%	519,873,492	6.88%
Pre Retirement Moderate 16-20	355,227,990	5.28%	405,360,161	5.36%
Pre Retirement Moderate 21-25	257,609,967	3.83%	295,321,855	3.91%
Pre Retirement Moderate 26+	280,867,868	4.18%	327,148,083	4.33%
Post Retirement Aggressive 11+	15,852,853	0.24%	16,879,058	0.22%
Post Retirement Aggressive 6-10	41,776,039	0.62%	45,221,205	0.60%
Post Retirement Aggressive 0-5	160,279,963	2.38%	182,161,978	2.41%
Pre Retirement Aggressive 0-5	300,662,436	4.47%	345,310,050	4.57%
Pre Retirement Aggressive 6-10	392,369,110	5.84%	455,780,794	6.03%
Pre Retirement Aggressive 11-15	421,234,262	6.27%	492,282,247	6.51%
Pre Retirement Aggressive 16-20	355,445,398	5.29%	420,421,160	5.56%
Pre Retirement Aggressive 21-25	251,715,688	3.74%	302,193,950	4.00%
Pre Retirement Aggressive 26+	215,690,880	3.21%	257,559,267	3.41%
<b>Tier I: GoalMaker Total</b>	<b>\$6,723,152,110</b>	<b>100.0%</b>	<b>\$7,558,159,497</b>	<b>100.0%</b>

## Changes in Investment Fund Balances Period Ended June 30, 2022

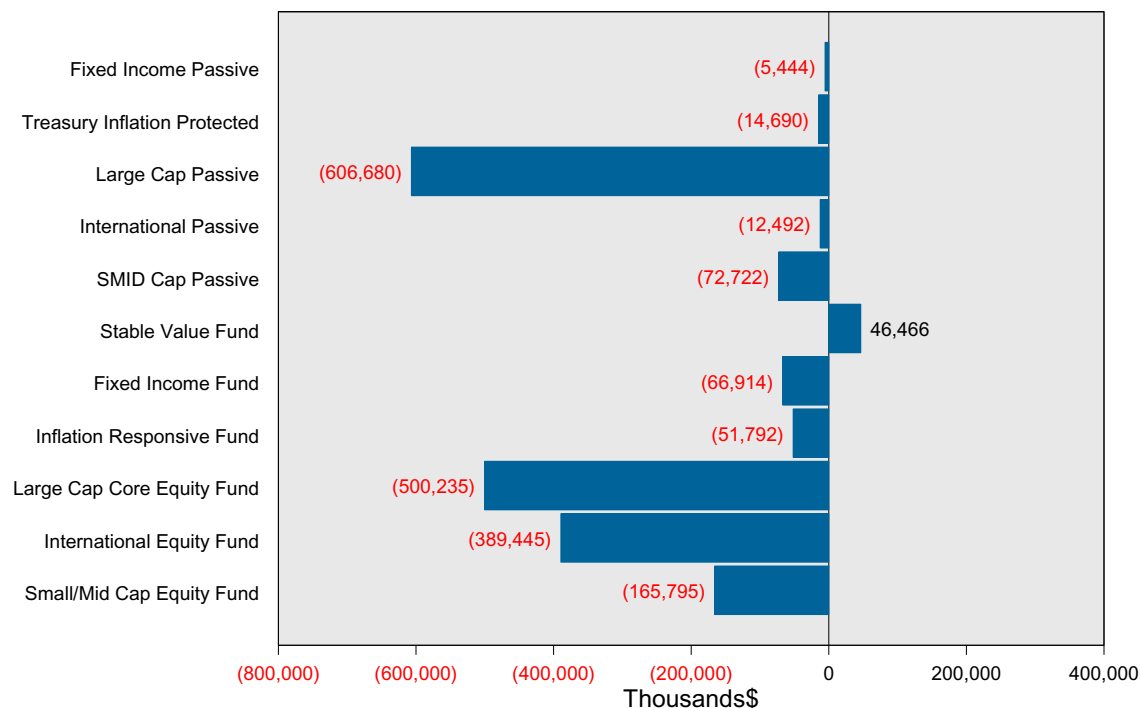
### Allocation Across Investment Options

The chart below illustrates the allocation of the aggregate fund assets across the various investment options for the quarter ended June 30, 2022.



### Changes in Fund Values

The chart below shows the net change in fund values across the various investment options for the quarter ended June 30, 2022. The change in value for each fund is the result of a combination of 3 factors: 1) market movements; 2) contributions or disbursements into or out of the funds by the participants (and any matching done by the company); and 3) transfers between funds by the participants.



## 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 6/2022		3 Years Ended 3/2022		3 Years Ended 12/2021		3 Years Ended 9/2021	
Tier 2: Passive (Net of Fee)								
Fixed Income Passive	(0.96%)	81	1.65%	89	4.73%	95	5.29%	92
Blmbg Aggregate	(0.93%)	78	1.69%	88	4.79%	95	5.36%	91
Callan Core Bond MFs	(0.60%)		2.22%		5.49%		5.98%	
Large Cap Passive	10.59%	38	18.92%	30	26.09%	30	16.01%	28
S&P 500 Index	10.60%	38	18.92%	30	26.07%	30	15.99%	28
Callan Large Cap Core MFs	10.21%		17.52%		24.54%		14.47%	
International Passive	1.29%	56	7.25%	51	13.29%	61	8.18%	52
MSCI ACWI ex US	1.35%	54	7.51%	47	13.18%	63	8.03%	53
Callan Non US Equity MFs	1.45%		7.26%		14.48%		8.46%	
SMID Cap Passive	5.85%	51	13.73%	31	21.82%	25	12.39%	17
Russell 2500 Index	5.91%	50	13.79%	30	21.91%	20	12.47%	17
Callan SMID Core MFs	5.96%		13.30%		20.68%		10.34%	
Inflation Responsive Fund	4.93%	73	9.25%	71	11.22%	63	8.28%	34
Inflation Responsive Benchmark	4.76%	73	9.11%	71	11.03%	65	8.18%	36
Callan Real Assets MFs	6.16%		10.22%		11.71%		7.31%	

## 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 6/2022		3 Years Ended 3/2022		3 Years Ended 12/2021		3 Years Ended 9/2021	
Tier 2: Active (Net of Fee)								
Stable Value Fund	2.11%	3	2.18%	2	2.26%	2	2.32%	1
3 Yr US Treas Rolling	0.93%	97	0.85%	98	0.89%	99	1.05%	98
T-Bill + 1.5%	2.13%	3	2.31%	2	2.49%	1	2.68%	1
Callan Stable Value CT	1.56%		1.63%		1.69%		1.77%	
Fixed Income Fund	(0.43%)	34	2.77%	31	6.22%	33	6.64%	15
Blmbg Aggregate	(0.93%)	76	1.69%	92	4.79%	96	5.36%	89
Callan Core Plus MFs	(0.69%)		2.47%		5.96%		6.13%	
Prudential Core Plus	(0.57%)	39	2.90%	25	6.56%	12	6.87%	10
Blmbg Aggregate	(0.93%)	76	1.69%	92	4.79%	96	5.36%	89
Callan Core Plus MFs	(0.69%)		2.47%		5.96%		6.13%	
Large Cap Core Equity Fund	7.57%	67	17.16%	52	25.30%	51	17.05%	44
Russell 1000 Index	10.17%	29	18.71%	37	26.21%	47	16.43%	47
Callan Lg Cap Broad MF	8.69%		17.33%		25.48%		15.75%	
Hotchkis & Wiley Large Cap Value	8.45%	34	16.01%	24	20.29%	20	10.53%	23
Russell 1000 Value Index	6.87%	72	13.02%	63	17.64%	49	10.07%	33
Callan Lg Cap Value MF	7.65%		13.67%		17.57%		9.27%	
Macquarie Large Cap Value	7.09%	66	11.20%	90	14.77%	89	7.15%	85
Russell 1000 Value Index	6.87%	72	13.02%	63	17.64%	49	10.07%	33
Callan Lg Cap Value MF	7.65%		13.67%		17.57%		9.27%	
Sands Capital Large Cap Growth	(0.32%)	99	16.20%	85	34.40%	6	29.04%	1
Russell 1000 Growth Index	12.58%	3	23.60%	5	34.08%	9	22.00%	29
Callan Large Cap Grwth MF	8.84%		19.72%		30.98%		21.14%	
Loomis SaylesLarge Cap Growth	7.03%	71	18.55%	67	27.98%	81	20.15%	70
Russell 1000 Growth Index	12.58%	3	23.60%	5	34.08%	9	22.00%	29
Callan Large Cap Grwth MF	8.84%		19.72%		30.98%		21.14%	
International Equity Fund	(0.04%)	82	6.85%	57	14.25%	53	9.84%	39
MSCI ACWI ex US	1.35%	54	7.51%	47	13.18%	63	8.03%	53
Callan Non US Equity MFs	1.45%		7.26%		14.48%		8.46%	
Mondrian ACWI ex-US Value	1.37%	52	5.33%	85	9.55%	90	6.21%	70
MSCI ACWI ex US	1.35%	54	7.51%	47	13.18%	63	8.03%	53
MSCI ACWI ex US Value	0.56%	65	5.44%	82	8.24%	95	3.81%	86
Callan Non US Equity MFs	1.45%		7.26%		14.48%		8.46%	
Baillie Gifford ACWI ex-US Growth	(0.66%)	89	8.30%	35	19.04%	23	13.47%	13
MSCI ACWI ex US	1.35%	54	7.51%	47	13.18%	63	8.03%	53
MSCI ACWI ex US Growth	1.62%	46	9.12%	29	17.82%	32	11.94%	26
Callan Non US Equity MFs	1.45%		7.26%		14.48%		8.46%	
Small/Mid Cap Equity Fund	6.56%	33	13.44%	51	21.88%	55	11.72%	55
Russell 2500 Index	5.91%	45	13.79%	49	21.91%	55	12.47%	49
Callan SMID Broad MFs	5.77%		13.64%		22.40%		12.38%	
Wedge Small/Mid Cap Value	4.90%	98	10.96%	98	16.72%	98	7.05%	97
Russell 2500 Value Index	6.19%	61	12.98%	65	18.31%	77	8.87%	66
Callan SMID Value MFs	7.78%		13.70%		20.13%		9.27%	
Brown Advisory Small/Mid Cap Growth	4.25%	38	12.85%	57	24.99%	56	16.30%	50
Russell 2500 Growth Index	3.68%	40	12.99%	57	25.09%	56	16.01%	51
Callan SMID Growth MFs	2.99%		13.93%		25.65%		16.40%	

## 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 June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns and Rankings for Periods Ended June 30, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
Tier 2: Active (Gross of Fee)										
Stable Value Fund										
Galliard Stable Value	0.45%	39	1.80%	37	2.24%	35	2.33%	30	2.44%	(12/10)
3 Yr US Treas Rolling	0.71%	1	1.49%	80	0.93%	96	1.46%	94	1.09%	(12/10)
T-Bill + 1.5%	0.48%	35	1.67%	58	2.13%	52	2.61%	9	2.07%	(12/10)
Callan Stable Value SA	0.44%		1.75%		2.14%		2.24%		-	
Fixed Income Fund										
TCW Core Plus	(5.23%)	81	(10.73%)	79	(0.10%)	19	1.63%	15	1.88%	(1/17)
Blmbg Aggregate	(4.69%)	27	(10.29%)	55	(0.93%)	94	0.88%	95	1.19%	(1/17)
Callan Core Bond FI	(4.87%)		(10.26%)		(0.44%)		1.31%		-	
Prudential Core Plus	(6.38%)	100	(11.95%)	98	(0.57%)	69	1.72%	11	2.24%	(1/15)
Blmbg Aggregate	(4.69%)	27	(10.29%)	55	(0.93%)	94	0.88%	95	1.04%	(1/15)
Callan Core Bond FI	(4.87%)		(10.26%)		(0.44%)		1.31%		-	
Large Cap Core Equity Fund										
Hotchkis & Wiley Large Cap Value	(14.49%)	90	(8.28%)	85	8.89%	47	8.17%	54	13.88%	(4/09)
Russell 1000 Value Index	(12.21%)	66	(6.82%)	79	6.87%	91	7.17%	77	11.99%	(4/09)
Callan Large Cap Value	(11.75%)		(4.90%)		8.32%		8.50%		-	
Macquarie Large Cap Value	(9.97%)	19	(0.86%)	15	7.39%	78	8.40%	53	8.49%	(6/15)
Russell 1000 Value Index	(12.21%)	66	(6.82%)	79	6.87%	91	7.17%	77	7.69%	(6/15)
Callan Large Cap Value	(11.75%)		(4.90%)		8.32%		8.50%		-	
Sands Capital Large Cap Growth	(34.05%)	97	(49.25%)	97	0.13%	97	8.84%	94	15.42%	(4/09)
Russell 1000 Growth Index	(20.92%)	48	(18.77%)	34	12.58%	11	14.29%	16	15.73%	(4/09)
Callan Large Cap Growth	(21.41%)		(22.20%)		9.32%		12.68%		-	
Loomis SaylesLarge Cap Growth	(22.45%)	64	(24.89%)	65	7.44%	76	11.10%	80	12.46%	(8/14)
Russell 1000 Growth Index	(20.92%)	48	(18.77%)	34	12.58%	11	14.29%	16	12.96%	(8/14)
Callan Large Cap Growth	(21.41%)		(22.20%)		9.32%		12.68%		-	
BlackRock Russell 1000 Index	(16.74%)	86	(13.09%)	78	10.20%	56	-		9.70%	(11/17)
Russell 1000 Index	(16.67%)	83	(13.04%)	77	10.17%	56	11.00%	50	9.72%	(11/17)
Callan Large Cap Core	(15.87%)		(11.08%)		10.52%		11.04%		-	
International Equity Fund										
Mondrian ACWI ex-US Value	(9.23%)	2	(13.31%)	9	1.76%	61	2.75%	55	6.37%	(4/09)
MSCI ACWI ex US	(13.73%)	47	(19.42%)	51	1.35%	69	2.50%	65	6.18%	(4/09)
MSCI ACWI ex US Value	(11.90%)	18	(12.77%)	8	0.56%	81	1.24%	87	5.14%	(4/09)
Callan NonUS Eq	(13.91%)		(19.04%)		2.42%		3.16%		-	
Baillie Gifford ACWI ex-US Growth	(18.20%)	92	(33.68%)	95	(0.39%)	90	2.61%	61	8.66%	(4/09)
MSCI ACWI ex US	(13.73%)	47	(19.42%)	51	1.35%	69	2.50%	65	6.18%	(4/09)
MSCI ACWI ex US Growth	(15.71%)	75	(25.80%)	87	1.62%	65	3.43%	39	7.07%	(4/09)
Callan NonUS Eq	(13.91%)		(19.04%)		2.42%		3.16%		-	
Small/Mid Cap Equity Fund										
Earnest Partners Small/Mid Cap	(13.57%)	31	(8.39%)	10	-		-		(5.00%)	(3/21)
Russell 2500 Index	(16.98%)	82	(21.00%)	90	5.91%	71	7.04%	62	(13.60%)	(3/21)
Callan Small/MidCap Core	(14.73%)		(15.10%)		6.99%		7.72%		-	
Wedge Small/Mid Cap Value	(13.50%)	51	(12.41%)	68	5.35%	81	4.26%	84	9.87%	(1/12)
Russell 2500 Value Index	(15.39%)	73	(13.19%)	72	6.19%	75	5.54%	73	9.38%	(1/12)
Callan Small/MidCap Value	(13.49%)		(10.47%)		7.72%		6.56%		-	
Brown Advisory Small/Mid Cap Growth	(14.34%)	1	(23.51%)	18	4.68%	39	9.80%	50	14.63%	(4/09)
Russell 2500 Growth Index	(19.55%)	29	(31.81%)	69	3.68%	63	7.53%	68	13.11%	(4/09)
Callan Sm/MidCap Growth	(20.77%)		(28.89%)		4.10%		9.83%		-	
BlackRock Russell 2500 Index	(17.28%)	83	(21.41%)	92	6.12%	69	-		5.60%	(11/17)
Russell 2500 Index	(16.98%)	82	(21.00%)	90	5.91%	71	7.04%	62	5.52%	(11/17)
Callan Small/MidCap Core	(14.73%)		(15.10%)		6.99%		7.72%		-	

## 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 6/2022		3 Years Ended 3/2022		3 Years Ended 12/2021		3 Years Ended 9/2021	
Tier 2: Active (Gross of Fee)								
Stable Value Fund								
Galliard Stable Value	2.24%	35	2.31%	34	2.39%	33	2.45%	30
3 Yr US Treas Rolling	0.93%	96	0.85%	97	0.89%	97	1.05%	97
T-Bill + 1.5%	2.13%	52	2.31%	35	2.49%	24	2.68%	1
Callan Stable Value SA	2.14%		2.20%		2.27%		2.34%	
Fixed Income Fund								
Prudential Core Plus	(0.57%)	69	2.90%	11	6.56%	3	6.89%	4
Blmbg Aggregate	(0.93%)	94	1.69%	96	4.79%	93	5.36%	93
Callan Core Bond FI	(0.44%)		2.33%		5.57%		6.01%	
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value	8.89%	47	16.46%	24	20.74%	24	10.95%	36
Russell 1000 Value Index	6.87%	91	13.02%	78	17.64%	66	10.07%	55
Callan Large Cap Value	8.32%		14.53%		18.87%		10.21%	
Macquarie Large Cap Value	7.39%	78	11.50%	94	15.08%	95	7.44%	95
Russell 1000 Value Index	6.87%	91	13.02%	78	17.64%	66	10.07%	55
Callan Large Cap Value	8.32%		14.53%		18.87%		10.21%	
Sands Capital Large Cap Growth	0.13%	97	16.71%	91	34.97%	7	29.59%	2
Russell 1000 Growth Index	12.58%	11	23.60%	11	34.08%	19	22.00%	39
Callan Large Cap Growth	9.32%		20.05%		31.56%		21.35%	
Loomis SaylesLarge Cap Growth	7.44%	76	18.98%	69	28.44%	83	20.58%	58
Russell 1000 Growth Index	12.58%	11	23.60%	11	34.08%	19	22.00%	39
Callan Large Cap Growth	9.32%		20.05%		31.56%		21.35%	
International Equity Fund								
Mondrian ACWI ex-US Value	1.76%	61	5.73%	90	9.97%	92	6.62%	77
MSCI ACWI ex US	1.35%	69	7.51%	70	13.18%	67	8.03%	61
MSCI ACWI ex US Value	0.56%	81	5.44%	92	8.24%	97	3.81%	96
Callan NonUS Eq	2.42%		8.91%		15.49%		9.10%	
Baillie Gifford ACWI ex-US Growth	(0.39%)	90	8.59%	54	19.35%	23	13.77%	15
MSCI ACWI ex US	1.35%	69	7.51%	70	13.18%	67	8.03%	61
MSCI ACWI ex US Growth	1.62%	65	9.12%	47	17.82%	33	11.94%	29
Callan NonUS Eq	2.42%		8.91%		15.49%		9.10%	
Small/Mid Cap Equity Fund								
Wedge Small/Mid Cap Value	5.35%	81	11.46%	82	17.25%	76	7.56%	77
Russell 2500 Value Index	6.19%	75	12.98%	70	18.31%	74	8.87%	72
Callan Small/MidCap Value	7.72%		14.58%		20.68%		10.47%	
Brown Advisory Small/Mid Cap Growth	4.68%	39	13.32%	70	25.51%	68	16.80%	62
Russell 2500 Growth Index	3.68%	63	12.99%	74	25.09%	69	16.01%	68
Callan Sm/MidCap Growth	4.10%		14.96%		28.14%		18.44%	



## Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended June 30, 2022					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>					
Post Retirement Conservative 11+	(5.61%)	(6.82%)	2.81%	-	-
Post Ret Conservative 11+ Index	(5.10%)	(6.06%)	2.47%	-	-
Post Retirement Conservative 6-10	(5.97%)	(7.56%)	2.73%	-	-
Post Ret Conservative 6-10 Index	(5.42%)	(6.68%)	2.40%	-	-
Post Retirement Conservative 0-5	(6.57%)	(8.31%)	2.86%	-	-
Post Ret Conservative 0-5 Index	(6.06%)	(7.50%)	2.56%	-	-
Pre Retirement Conservative 0-5	(7.47%)	(9.84%)	2.81%	3.84%	3.85%
Pre Ret Conservative 0-5 Index	(6.89%)	(8.76%)	2.59%	3.55%	3.50%
Pre Retirement Conservative 6-10	(8.55%)	(11.45%)	2.92%	4.18%	4.24%
Pre Ret Conservative 6-10 Index	(7.99%)	(10.18%)	2.81%	3.90%	3.90%
Pre Retirement Conservative 11-15	(9.58%)	(12.49%)	3.25%	4.79%	4.98%
Pre Ret Conservative 11-15 Index	(9.08%)	(11.21%)	3.24%	4.53%	4.67%
Pre Retirement Conservative 16-20	(10.89%)	(14.20%)	3.41%	5.33%	5.63%
Pre Ret Conservative 16-20 Index	(10.37%)	(12.49%)	3.58%	5.13%	5.39%
Pre Retirement Conservative 21-25	(12.05%)	(15.12%)	3.90%	-	-
Pre Ret Conservative 21-25 Index	(11.62%)	(13.39%)	4.18%	-	-
Pre Retirement Conservative 26+	(12.94%)	(15.70%)	4.37%	-	-
Pre Ret Conservative 26+ Index	(12.63%)	(13.94%)	4.71%	-	-

## Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended June 30, 2022			
	Last 10 Years	Last 15 Years	Since Inception
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>			
Post Retirement Conservative 11+	-	-	3.52% <sup>(7/18)</sup>
Post Ret Conservative 11+ Index	-	-	3.13% <sup>(7/18)</sup>
Post Retirement Conservative 6-10	-	-	3.50% <sup>(7/18)</sup>
Post Ret Conservative 6-10 Index	-	-	3.11% <sup>(7/18)</sup>
Post Retirement Conservative 0-5	-	-	3.63% <sup>(7/18)</sup>
Post Ret Conservative 0-5 Index	-	-	3.26% <sup>(7/18)</sup>
Pre Retirement Conservative 0-5	4.28%	-	5.03% <sup>(7/09)</sup>
Pre Ret Conservative 0-5 Index	3.83%	3.66%	4.24% <sup>(7/09)</sup>
Pre Retirement Conservative 6-10	4.94%	-	5.76% <sup>(7/09)</sup>
Pre Ret Conservative 6-10 Index	4.50%	3.95%	4.92% <sup>(7/09)</sup>
Pre Retirement Conservative 11-15	6.14%	-	6.86% <sup>(7/09)</sup>
Pre Ret Conservative 11-15 Index	5.76%	4.63%	6.30% <sup>(7/09)</sup>
Pre Retirement Conservative 16-20	7.34%	-	7.99% <sup>(7/09)</sup>
Pre Ret Conservative 16-20 Index	7.00%	5.03%	7.53% <sup>(7/09)</sup>
Pre Retirement Conservative 21-25	-	-	4.36% <sup>(7/18)</sup>
Pre Ret Conservative 21-25 Index	-	-	4.29% <sup>(7/18)</sup>
Pre Retirement Conservative 26+	-	-	4.57% <sup>(7/18)</sup>
Pre Ret Conservative 26+ Index	-	-	4.54% <sup>(7/18)</sup>

## Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended June 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>					
Post Retirement Moderate 11+	(7.00%)	(8.07%)	3.54%	-	-
Post Ret Moderate 11+ Index	(6.58%)	(7.20%)	3.32%	-	-
Post Retirement Moderate 6-10	(7.75%)	(9.20%)	3.53%	-	-
Post Ret Moderate 6-10 Index	(8.46%)	(9.40%)	3.72%	-	-
Post Retirement Moderate 0-5	(8.68%)	(10.71%)	3.53%	-	-
Post Ret Moderate 0-5 Index	(8.21%)	(9.61%)	3.42%	-	-
Pre Retirement Moderate 0-5	(9.54%)	(12.10%)	3.45%	4.64%	4.67%
Pre Ret Moderate 0-5 Index	(9.02%)	(10.69%)	3.45%	4.42%	4.38%
Pre Retirement Moderate 6-10	(10.74%)	(13.61%)	3.66%	5.01%	5.14%
Pre Ret Moderate 6-10 Index	(10.26%)	(12.02%)	3.79%	4.82%	4.88%
Pre Retirement Moderate 11-15	(11.86%)	(14.74%)	3.99%	5.52%	5.70%
Pre Ret Moderate 11-15 Index	(11.45%)	(13.05%)	4.24%	5.36%	5.47%
Pre Retirement Moderate 16-20	(12.94%)	(15.70%)	4.37%	6.16%	6.40%
Pre Ret Moderate 16-20 Index	(12.63%)	(13.94%)	4.71%	6.04%	6.22%
Pre Retirement Moderate 21-25	(13.66%)	(16.19%)	4.67%	-	-
Pre Ret Moderate 21-25 Index	(13.39%)	(14.28%)	5.08%	-	-
Pre Retirement Moderate 26+	14.32%	11.32%	15.64%	-	-
Pre Ret Moderate 26+ Index	(14.16%)	(14.72%)	5.48%	-	-

## Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended June 30, 2022			
	Last 10 Years	Last 15 Years	Since Inception
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>			
Post Retirement Moderate 11+	-	-	4.03% <sup>(7/18)</sup>
Post Ret Moderate 11+ Index	-	-	3.73% <sup>(7/18)</sup>
Post Retirement Moderate 6-10	-	-	4.08% <sup>(7/18)</sup>
Post Ret Moderate 6-10 Index	-	-	3.76% <sup>(7/18)</sup>
Post Retirement Moderate 0-5	-	-	4.15% <sup>(7/18)</sup>
Post Ret Moderate 0-5 Index	-	-	3.89% <sup>(7/18)</sup>
Pre Retirement Moderate 0-5	5.47%	-	6.18% <sup>(7/09)</sup>
Pre Ret Moderate 0-5 Index	5.08%	4.26%	5.49% <sup>(7/09)</sup>
Pre Retirement Moderate 6-10	6.25%	-	6.88% <sup>(7/09)</sup>
Pre Ret Moderate 6-10 Index	5.90%	4.73%	6.42% <sup>(7/09)</sup>
Pre Retirement Moderate 11-15	7.17%	-	7.82% <sup>(7/09)</sup>
Pre Ret Moderate 11-15 Index	6.84%	5.04%	7.32% <sup>(7/09)</sup>
Pre Retirement Moderate 16-20	8.44%	-	8.95% <sup>(7/09)</sup>
Pre Ret Moderate 16-20 Index	8.15%	5.37%	8.57% <sup>(7/09)</sup>
Pre Retirement Moderate 21-25	-	-	4.69% <sup>(7/18)</sup>
Pre Ret Moderate 21-25 Index	-	-	4.68% <sup>(7/18)</sup>
Pre Retirement Moderate 26+	-	-	12.88% <sup>(7/18)</sup>
Pre Ret Moderate 26+ Index	-	-	4.87% <sup>(7/18)</sup>

## Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended June 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>					
Post Retirement Aggressive 11+	(8.77%)	(9.95%)	5.67%	-	-
Post Ret Aggressive 11+ Index	(8.41%)	(8.88%)	4.17%	-	-
Post Retirement Aggressive 6-10	(9.60%)	(11.02%)	5.76%	-	-
Post Ret Aggressive 6-10 Index	(9.22%)	(9.76%)	4.40%	-	-
Post Retirement Aggressive 0-5	(10.52%)	(12.48%)	5.60%	-	-
Post Ret Aggressive 0-5 Index	(10.14%)	(11.18%)	4.37%	-	-
Pre Retirement Aggressive 0-5	(11.69%)	(13.94%)	5.48%	6.22%	6.05%
Pre Ret Aggressive 0-5 Index	(11.34%)	(12.52%)	4.57%	5.39%	5.34%
Pre Retirement Aggressive 6-10	(12.74%)	(15.47%)	5.10%	6.17%	6.16%
Pre Ret Aggressive 6-10 Index	(12.37%)	(13.60%)	4.70%	5.61%	5.65%
Pre Retirement Aggressive 11-15	(13.66%)	(16.19%)	5.03%	6.42%	6.53%
Pre Ret Aggressive 11-15 Index	(13.39%)	(14.28%)	5.08%	6.10%	6.20%
Pre Retirement Aggressive 16-20	(14.22%)	(16.58%)	5.07%	6.83%	7.07%
Pre Ret Aggressive 16-20 Index	(14.05%)	(14.71%)	5.39%	6.67%	6.87%
Pre Retirement Aggressive 21-25	(14.66%)	(16.79%)	5.08%	-	-
Pre Ret Aggressive 21-25 Index	(14.52%)	(14.85%)	5.61%	-	-
Pre Retirement Aggressive 26+	(14.66%)	(16.79%)	5.08%	-	-
Pre Ret Aggressive 26+ Index	(14.52%)	(14.85%)	5.61%	-	-

## Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended June 30, 2022			
	Last 10 Years	Last 15 Years	Since Inception
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>			
Post Retirement Aggressive 11+	-	-	5.64% <sup>(7/18)</sup>
Post Ret Aggressive 11+ Index	-	-	4.33% <sup>(7/18)</sup>
Post Retirement Aggressive 6-10	-	-	5.71% <sup>(7/18)</sup>
Post Ret Aggressive 6-10 Index	-	-	4.49% <sup>(7/18)</sup>
Post Retirement Aggressive 0-5	-	-	5.67% <sup>(7/18)</sup>
Post Ret Aggressive 0-5 Index	-	-	4.51% <sup>(7/18)</sup>
Pre Retirement Aggressive 0-5	7.02%	-	7.63% <sup>(7/09)</sup>
Pre Ret Aggressive 0-5 Index	6.34%	4.96%	6.80% <sup>(7/09)</sup>
Pre Retirement Aggressive 6-10	7.50%	-	8.14% <sup>(7/09)</sup>
Pre Ret Aggressive 6-10 Index	6.97%	5.12%	7.42% <sup>(7/09)</sup>
Pre Retirement Aggressive 11-15	8.38%	-	8.85% <sup>(7/09)</sup>
Pre Ret Aggressive 11-15 Index	7.97%	5.42%	8.42% <sup>(7/09)</sup>
Pre Retirement Aggressive 16-20	9.51%	-	9.88% <sup>(7/09)</sup>
Pre Ret Aggressive 16-20 Index	9.23%	5.65%	9.59% <sup>(7/09)</sup>
Pre Retirement Aggressive 21-25	-	-	4.83% <sup>(7/18)</sup>
Pre Ret Aggressive 21-25 Index	-	-	4.89% <sup>(7/18)</sup>
Pre Retirement Aggressive 26+	-	-	4.83% <sup>(7/18)</sup>
Pre Ret Aggressive 26+ Index	-	-	4.89% <sup>(7/18)</sup>

## 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 6/2022	3 Years Ended 3/2022	3 Years Ended 12/2021	3 Years Ended 9/2021
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>				
Post Retirement Conservative 11+	2.81%	5.71%	8.44%	7.07%
Post Ret Conservative 11+ Index	2.47%	5.07%	7.57%	6.26%
Post Retirement Conservative 6-10	2.73%	5.79%	8.72%	7.27%
Post Ret Conservative 6-10 Index	2.40%	5.15%	7.82%	6.41%
Post Retirement Conservative 0-5	2.86%	6.18%	9.42%	7.70%
Post Ret Conservative 0-5 Index	2.56%	5.57%	8.52%	6.86%
Pre Retirement Conservative 0-5	2.81%	6.55%	10.26%	8.26%
Pre Ret Conservative 0-5 Index	2.59%	5.99%	9.33%	7.38%
Pre Retirement Conservative 6-10	2.92%	7.14%	11.39%	8.92%
Pre Ret Conservative 6-10 Index	2.81%	6.68%	10.48%	8.05%
Pre Retirement Conservative 11-15	3.25%	7.94%	12.67%	9.60%
Pre Ret Conservative 11-15 Index	3.24%	7.59%	11.83%	8.80%
Pre Retirement Conservative 16-20	3.41%	8.69%	14.01%	10.28%
Pre Ret Conservative 16-20 Index	3.58%	8.51%	13.21%	9.46%
Pre Retirement Conservative 21-25	3.90%	9.73%	15.55%	11.01%
Pre Ret Conservative 21-25 Index	4.18%	9.69%	14.86%	10.27%
Pre Retirement Conservative 26+	4.37%	10.60%	16.78%	11.46%
Pre Ret Conservative 26+ Index	4.71%	10.68%	16.16%	10.75%

## 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 6/2022	3 Years Ended 3/2022	3 Years Ended 12/2021	3 Years Ended 9/2021
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>				
Post Retirement Moderate 11+	3.54%	7.03%	10.35%	8.12%
Post Retirement Moderate 6-10	3.53%	7.36%	11.05%	8.55%
Post Ret Moderate 6-10 Index	3.72%	7.73%	11.40%	8.16%
Post Retirement Moderate 0-5	3.53%	7.80%	12.02%	9.16%
Pre Retirement Moderate 0-5	3.45%	8.11%	12.74%	9.59%
Pre Ret Moderate 0-5 Index	3.45%	7.78%	11.92%	8.78%
Pre Retirement Moderate 6-10	3.66%	8.87%	14.06%	10.26%
Pre Ret Moderate 6-10 Index	3.79%	8.67%	13.29%	9.46%
Pre Retirement Moderate 11-15	3.99%	9.72%	15.42%	10.88%
Pre Ret Moderate 11-15 Index	4.24%	9.66%	14.73%	10.13%
Pre Retirement Moderate 16-20	4.37%	10.60%	16.78%	11.46%
Pre Ret Moderate 16-20 Index	4.71%	10.68%	16.16%	10.75%
Pre Retirement Moderate 21-25	4.67%	11.23%	17.66%	11.77%
Pre Ret Moderate 21-25 Index	5.08%	11.40%	17.09%	11.05%
Pre Retirement Moderate 26+	15.64%	11.92%	18.64%	12.09%
Pre Ret Moderate 26+ Index	5.48%	12.17%	18.13%	11.41%



## 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.

	<b>3 Years Ended 6/2022</b>	<b>3 Years Ended 3/2022</b>	<b>3 Years Ended 12/2021</b>	<b>3 Years Ended 9/2021</b>
<b>Tier 1: GoalMaker Funds (Net of Fee)</b>				
Post Retirement Aggressive 11+	5.67%	10.03%	14.23%	10.86%
Post Ret Aggressive 11+ Index	4.17%	8.23%	11.99%	8.67%
Post Retirement Aggressive 6-10	5.76%	10.51%	15.11%	11.32%
Post Ret Aggressive 6-10 Index	4.40%	8.83%	12.93%	9.18%
Post Retirement Aggressive 0-5	5.60%	10.80%	15.91%	11.80%
Post Ret Aggressive 0-5 Index	4.37%	9.23%	13.78%	9.72%
Pre Retirement Aggressive 0-5	5.48%	11.22%	16.88%	12.19%
Pre Ret Aggressive 0-5 Index	4.57%	9.98%	15.03%	10.35%
Pre Retirement Aggressive 6-10	5.10%	11.29%	17.40%	12.18%
Pre Ret Aggressive 6-10 Index	4.70%	10.56%	15.95%	10.65%
Pre Retirement Aggressive 11-15	5.03%	11.61%	18.06%	12.15%
Pre Ret Aggressive 11-15 Index	5.08%	11.40%	17.09%	11.05%
Pre Retirement Aggressive 16-20	5.07%	11.91%	18.61%	12.16%
Pre Ret Aggressive 16-20 Index	5.39%	12.01%	17.94%	11.33%
Pre Retirement Aggressive 21-25	5.08%	12.11%	18.93%	12.13%
Pre Ret Aggressive 21-25 Index	5.61%	12.45%	18.50%	11.49%
Pre Retirement Aggressive 26+	5.08%	12.11%	18.93%	12.13%
Pre Ret Aggressive 26+ Index	5.61%	12.45%	18.50%	11.49%

## Galliard Stable Value Period Ended June 30, 2022

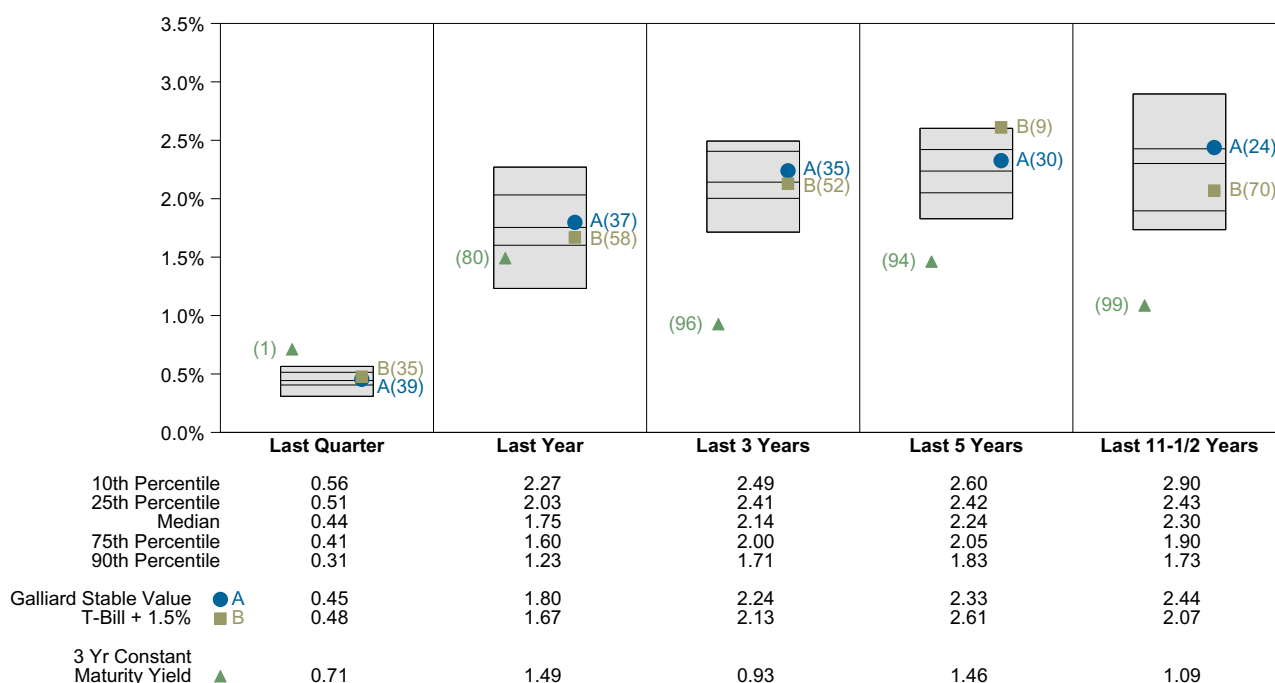
### Investment Philosophy

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

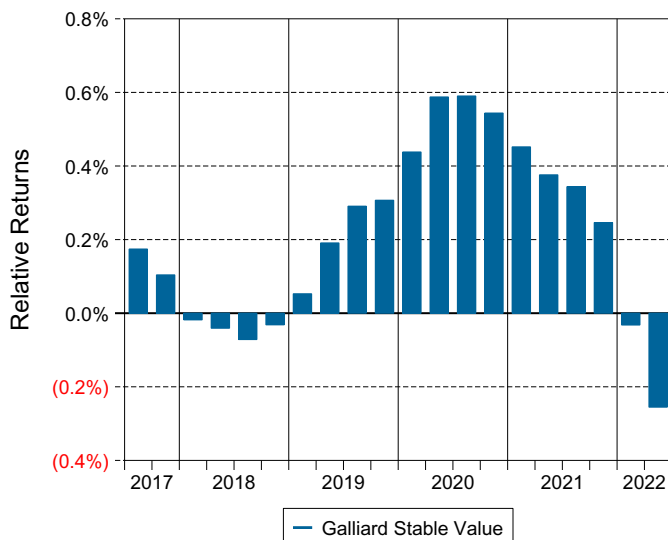
### Quarterly Summary and Highlights

- Galliard Stable Value's portfolio posted a 0.45% return for the quarter placing it in the 39 percentile of the Callan Stable Value SA group for the quarter and in the 37 percentile for the last year.
- Galliard Stable Value's portfolio underperformed the 3 Yr Constant Maturity Yield by 0.26% for the quarter and outperformed the 3 Yr Constant Maturity Yield for the year by 0.31%.

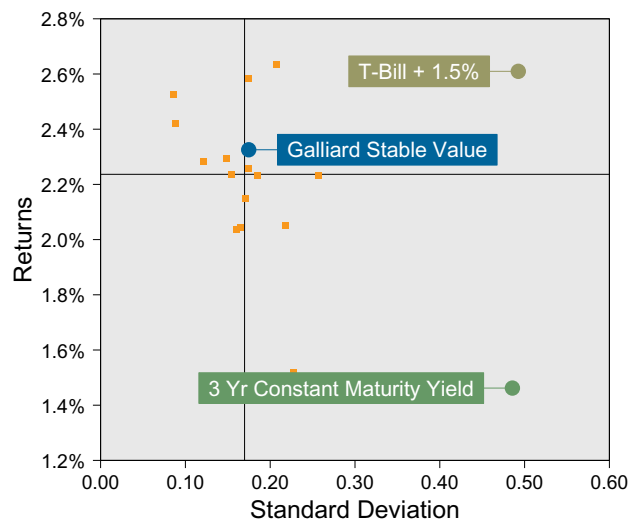
### Performance vs Callan Stable Value SA (Gross)



### Relative Returns vs 3 Yr Constant Maturity Yield



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

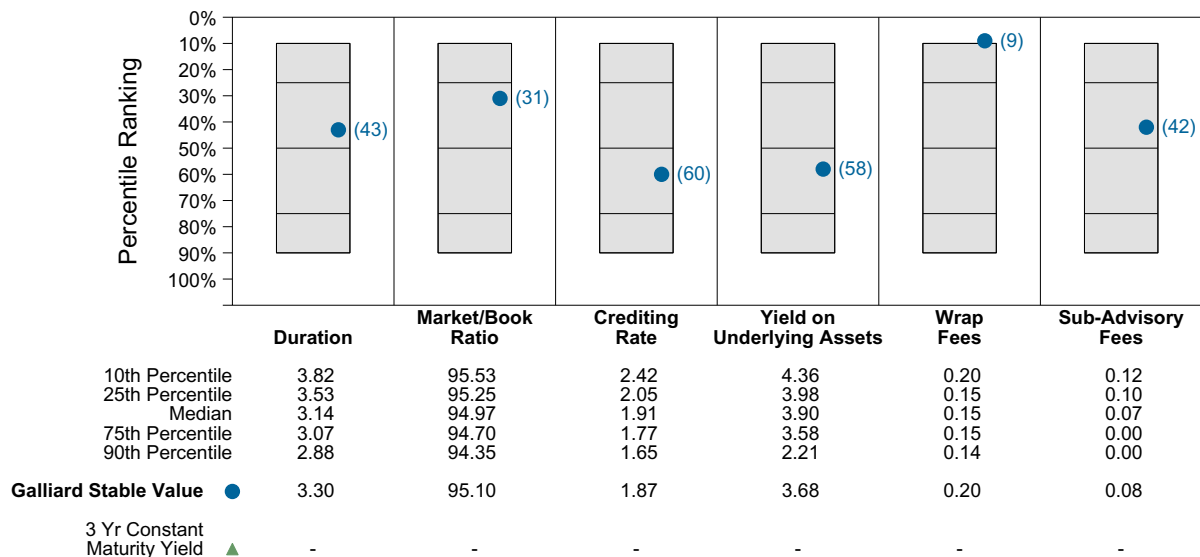


## Galliard Stable Value Stable Value Characteristics Analysis Summary

### 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.

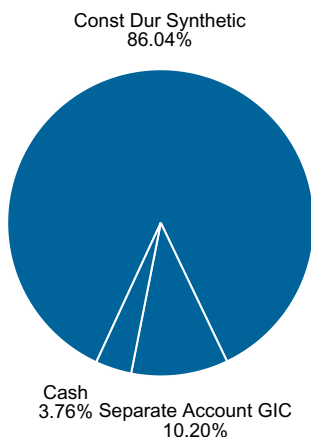
### Portfolio Characteristics Percentile Rankings Rankings Against Callan Stable Value SA as of June 30, 2022



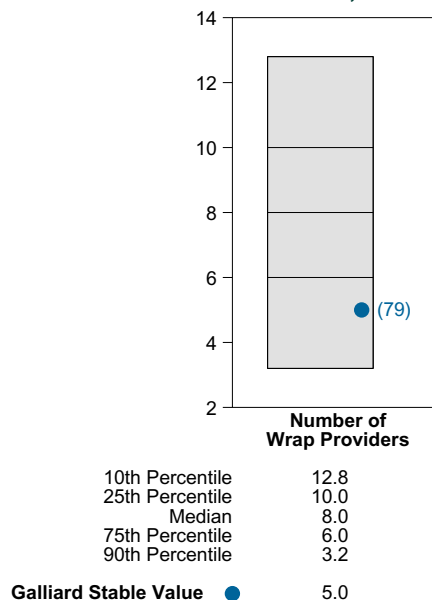
### Wrap Structure and Diversification

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

#### Portfolio Wrap Exposure June 30, 2022



#### Wrap Contract Diversification June 30, 2022

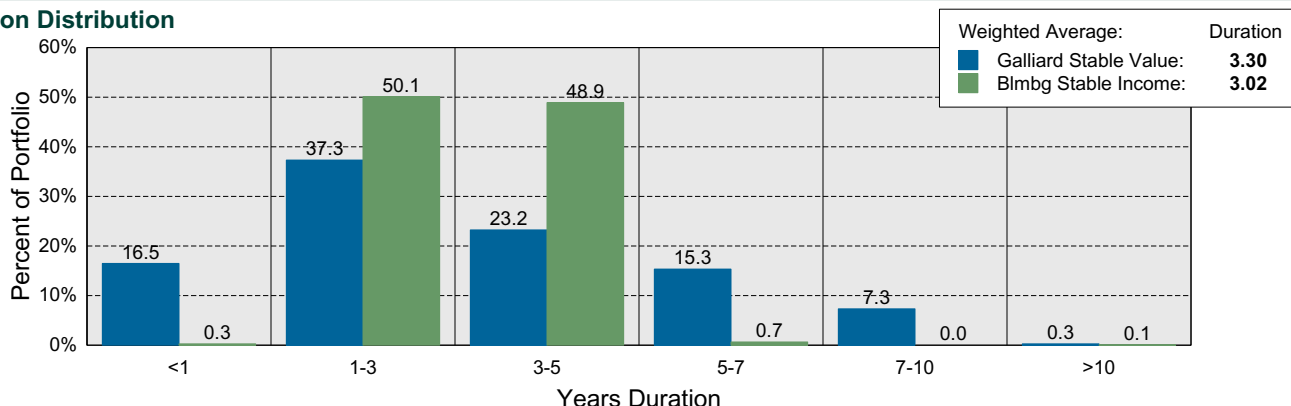


## Galliard Stable Value Stable Value Portfolio Characteristics Summary As of June 30, 2022

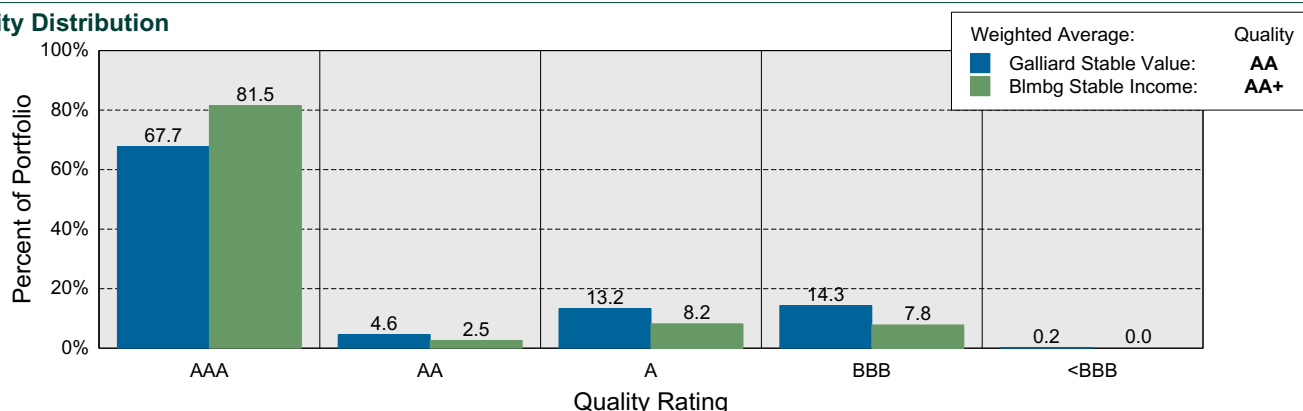
### Portfolio Structure Comparison

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

#### Duration Distribution



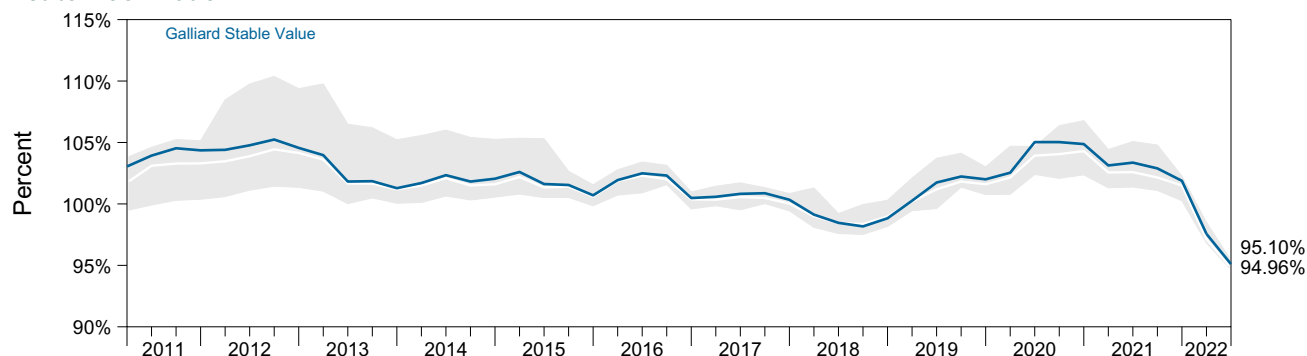
#### Quality Distribution



### 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.

#### Market-to-Book Ratio



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## Second Quarter 2022 DC Trends

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### House Passes SECURE 2.0 – April 1, 2022

The U.S. House of Representatives passed the Securing a Strong Retirement Act of 2022 by an overwhelming margin on March 29. The Act—dubbed SECURE 2.0—builds upon the SECURE Act of 2019 (SECURE 1.0) and is geared toward improving workers' retirement security and flexibility. The Senate is currently working on its own parallel retirement reform legislation.

The SECURE Act, passed near the end of 2019, included several provisions aimed at helping workers improve their retirement security and providing flexibility to participants drawing down their retirement account balances. Key provisions included expanding coverage to “gig workers,” introducing pooled employer plans (PEPs), increasing the cap for automatic escalation, and increasing the age for required minimum distributions (RMDs) from 70½ to 72.

SECURE 2.0 further builds upon SECURE 1.0 and features the following key provisions:

- Requiring new 401(k) and 403(b) plans to automatically enroll participants at 3% and increasing that rate annually, up to 10%
- Increasing the catch-up contribution limit for those aged 62-64 to \$10,000 per year (from \$6,500 annually for participants over age 50) and requiring catch-up contributions be made on a Roth basis
- Allowing employer “matching” contributions to a retirement plan, based on the participant student loan repayments, if any
- Allowing matching contributions to be made as Roth contributions
- Increasing the age for RMDs from 72 to 75 by Dec. 31, 2032, increasing by one-year increments over time
- Increasing the cap on mandatory distributions from \$5,000 to \$7,000
- Permitting 403(b) plans to invest in collective investment trusts and participate in multiple employer plans or PEPs beginning in 2023
- Instructing the Department of Labor (DOL) to produce regulations allowing benchmarking of funds (e.g., for required participant disclosure) that include multiple asset classes (e.g., balanced funds and target date funds) based on a benchmark that is a blend of different broad-based securities market indices
- Instructing the secretaries of labor, treasury, and commerce to, within two years of enactment, establish an online searchable database, managed by the DOL, known as the “Retirement Savings Lost and Found”

The bill also includes a provision that would remove the cap on the amount individuals are able to use to purchase a qualified longevity annuity contract. It would also allow plan sponsors to offer “small immediate financial incentives” to employees upon plan enrollment.

The House's overwhelming support of SECURE 2.0 marked bipartisan agreement on improving workers' retirement security and included several provisions that the defined contribution industry has long advocated. The Senate is considering parallel legislation.

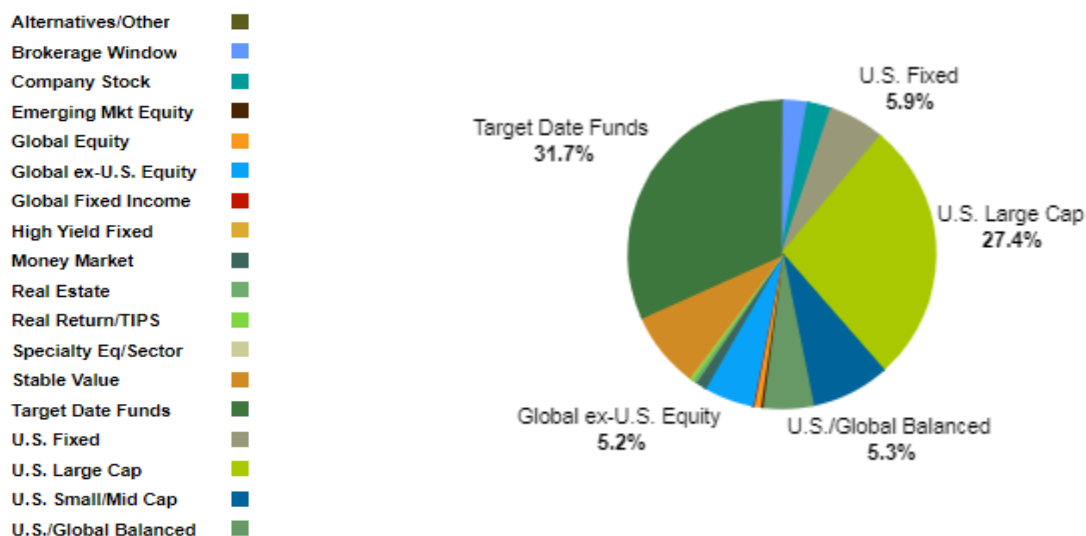
# Structure Utilization

## Asset Allocation

### Relative Underperformance and Net Outflows Drive Lower U.S. Equity Allocations

In a reversal from the previous quarter, U.S. small/mid cap (8.3%) had the largest percentage decrease in allocation while U.S. large cap (27.4%) also saw a decreased allocation. The underperformance of equity relative to fixed income and net outflows drove the smaller overall allocations. Global ex-U.S. equity (5.2%), global equity (0.5%), and emerging market equity (0.2%) also saw small decreases.

Driven by material net outflows and relative underperformance, stable value (8.9% allocation), U.S. fixed income (6.1%), and money market (1.1%) saw the largest decreases in allocation. On the other hand, company stock (2.5%) had the largest percentage increase in allocation. In addition, U.S. fixed income (5.9%) and money market (1.1%) had the next largest increases in allocation, partially driven by relative outperformance.



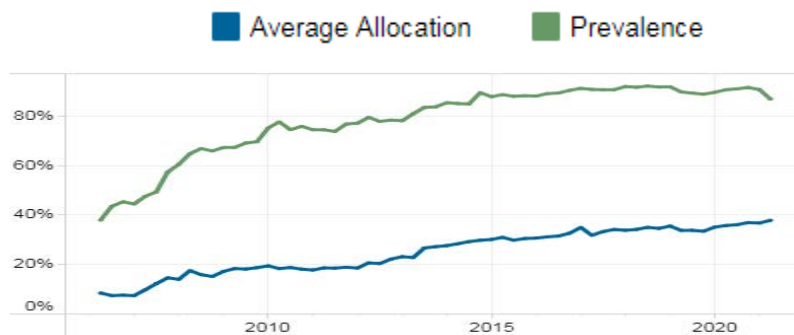
## Prevalence

### U.S. Small/Mid Cap on Verge of Joining '100%' Club

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 only asset classes currently offered by all plans in the Index are U.S. large cap, U.S. fixed income, and global ex-U.S. equity. U.S. small/mid cap nearly joined the "100%" club, as the prevalence of a U.S. small/mid-cap offering (99.2%) increased by more than 2 percentage points from the previous quarter. The prevalence of a high yield fixed income offering (9.2%) increased again to its highest mark since 3Q16 (14.1%). In addition, money market funds (50%) saw an increase in prevalence of more than two percentage points.

Other notable movements included 1.0 percentage point increases in the prevalence of global equity (16.9%) and emerging market equity (17.7%), and a 1.5 percentage point decrease in the offering of a balanced fund (46.2%).



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## Glossary

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**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.





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## 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.

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## 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.

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## 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.

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## 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.

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## 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.

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## 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.