Callan

December 31, 2022

The North Carolina Supplemental Retirement Plans Executive Summary

Investment Measurement Service Quarterly Review

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U.S. EQUITY

Markets fall in final month of quarter after gains

- The S&P 500 Index posted positive returns in both October and November but fell in December. The index was up 7.6% during 4Q22 but ended 2022 down 18.1%.
- Energy was the best-performing sector during the quarter and 2022, returning 23% and 66% respectively. Consumer Discretionary and Communication Services were the only two sectors that posted negative returns in 4Q.
- Value stocks outperformed growth across the market capitalization spectrum, and for both 4Q and the full year.
- Large cap stocks (Russell 1000) outperformed small caps (Russell 2000) last quarter and for the year.
- Continued macroeconomic concerns (e.g., inflation, potential recession, geopolitical issues) led to higher volatility and a down-year for U.S. equities.

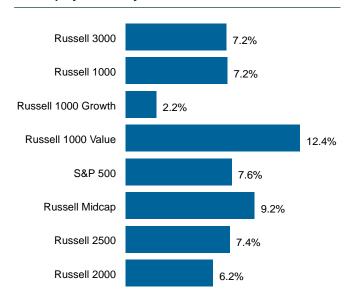
Market valuations have reset with the broad-based sell-off

- The drop for equities in 2022 was broad-based, and almost every sector experienced negative returns. Higher interest rates impacted the growth-oriented sectors the most (e.g., Technology, Communication Services).
- Mega-cap technology stocks have underperformed, ending an extended period of market leadership.
- Large cap stocks are now trading around their average P/E ratio, but they are not yet "cheap."
- Despite the recent outperformance of value stocks, value still looks attractive relative to growth heading into 2023.

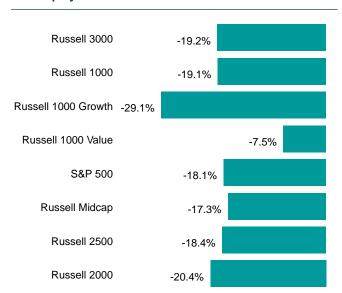
Small cap valuations are attractive relative to large cap

- During 4Q22, the Russell 2000 was trading at a 30% discount to its historical P/E average.
- Relative to large caps, the Russell 2000's forward 12 months P/E is trading at the lowest level versus large-cap stocks since the Dot-Com Bubble.
- Relative to large and mid caps, small caps have looked significantly cheaper on various valuation metrics recently.

U.S. Equity: Quarterly Returns

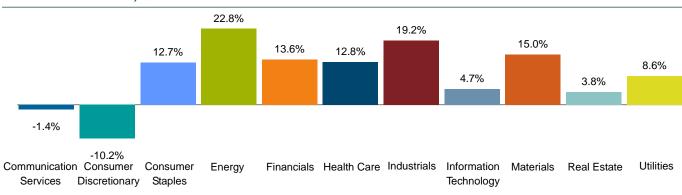


U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices

S&P Sector Returns, Quarter Ended 12/31/22



Source: S&P Dow Jones Indices



GLOBAL EQUITY

Ending on a high note

4Q22 was a bright spot during a tough calendar year in global and global ex-U.S. equity markets.

Encouraging signs

- Lower-than-expected U.S. inflation data buoyed market optimism at the end of the year.
- The Fed slowed its pace of tightening, with further slowing expected in 2023.
- China reversed its zero-COVID policies, prompting exuberance from investors.

Value outpaces growth

- Value outpaced growth in developed and emerging markets.
- Economically sensitive sectors (e.g., Financials and Industrials) benefited from the anticipation of improved growth; Energy was the largest outperformer.

U.S. dollar vs. other currencies

- After reaching a multi-decade high, the dollar fell against all major currencies with signs of inflation easing.
- Despite the 7.7% decline in 4Q22, the dollar still gained nearly 8% over the full year.
- Global central banks' rate hikes and the U.S. Federal Reserve's slowing pace of tightening could prolong U.S. dollar decline.
- Continued weakening of the U.S. dollar would be a tailwind for non-U.S. equities.

What about style?

 A sustained shift to value after the recent prolonged growth cycle would likely favor non-U.S. equities over U.S. equities given higher representation of traditional value sectors in non-U.S. equity universes.

China's reopening spurs hopes for emerging markets

 In addition to pivoting from its zero-COVID policy, Chinese regulators shifted to supportive policies to stabilize the property sector and tech/platform industry.

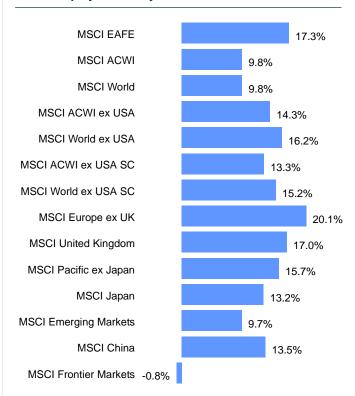
Reopening is expected to jump-start Chinese economy

- China's real GDP growth is estimated to reach 5.5% in 2023 and nearly 7% on a 4Q/4Q basis.
- Real consumption is projected to grow by 8.5% in 2023 as Chinese households have amassed \$2.6 trillion in savings.

Recovery in China will spill over to other EM regions

 Growth in Chinese consumption is expected to have positive impact on tourism in Southeast Asia; goods exports in Europe, the Middle East, and Africa; and commodities in Latin America.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



Source: MSCI



U.S. FIXED INCOME

Bonds were up in 4Q but 2022 results remain negative

 Gain for the Bloomberg US Aggregate Bond Index driven by coupon income and spread tightening; interest rates rose modestly

Rates were volatile intra-quarter

- U.S. Treasury 10-year yield: high 4.22% on 11/7; low 3.42% on 12/7
- Curve remained inverted at quarter-end: 10-year yield 3.88% and 2-year yield 4.41%; most since 1981

Fed raised rates bringing target to 4.25%-4.50%

- Median expectation from Fed is 5.1% for year-end 2023
- Inflation showed signs of moderating but job market remained tight with solid wage growth

Corporates and mortgages outperformed Treasuries in 4Q

- 4Q: Corporates +289 bps excess return; residential mortgage-backed securities (RMBS) +110 bps
- 2022: Corporates -125 bps excess return; RMBS -223 bps
- RMBS had worst month ever (September: -191 bps) and best month ever (November: +135 bps) in excess returns

Valuations fair

- While absolute yields are higher, spreads have not widened materially, and most are close to historical averages.
- An economic slowdown could impact credit spreads.
- Higher yields have boosted forward-looking returns across sectors.

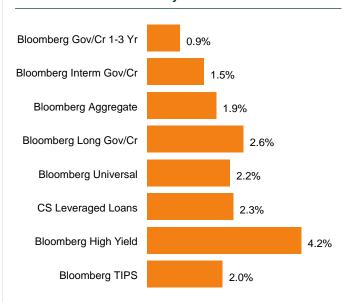
Economic slowdown clouds the corporate credit picture

- Despite prospects for an economic slowdown in 2023, fundamental credit metrics for many issuers are strong.
- Default rates are expected to tick up, albeit not to the same extent as in previous recessions.
- Investors may be biased toward higher-quality investment grade issuers as they weigh the threat of a looming recession and potential implications for increased volatility in lower-quality corporate credit markets.

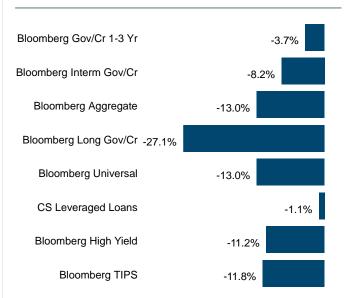
TIPS: Beware of duration

- Despite a rise in inflation, TIPS saw marked declines in 2022 amid rising interest rates.
- TIPS, like nominal Treasuries, are sensitive to changes in interest rates, and as a result, shorter-duration TIPS fared better than full spectrum TIPS in 2022.
- Shorter-term TIPS exhibit a higher correlation to realized inflation but also provide a similar risk-adjusted return as that of full spectrum TIPS.

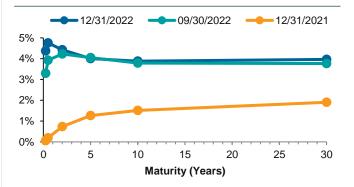
U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns



U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse



MUNICIPAL BONDS

Gains in 4Q but most 2022 results remain negative

- Municipal Bond Index calendar year return worst since 1981
- Higher quality outperformed in 4Q (AAA: +4.3%; AA: +4.1%;
 A: +4.0%; BBB: +3.9%; High Yield: +3.5%) and in 2022
- Munis outperformed most other fixed income sectors in 4Q and in 2022

Valuations relative to U.S. Treasuries on the rich side

- 10-year AAA Muni/10-year U.S. Treasury yield ratio 68%; below 10-year average of 88%
- After-tax yield of Muni Bond Index = 6.0% (Source: Eaton Vance)

Supply/demand

- Mutual fund outflows hit a record \$122 billion in 2022, with tax loss harvesting being a key driver
- ETFs saw inflows as some investors reinvested in them.
- Supply also down; \$71 billion in 4Q and the lowest in 13 years; 2022 issuance off roughly 20% from 2021

Credit quality remained stable

 State and local tax collections robust and reserves elevated; state revenues up 16% on average vs. 2021

GLOBAL FIXED INCOME

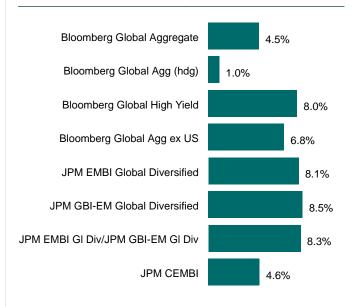
4Q returns driven largely by U.S. dollar weakness

- U.S. dollar down 9% vs. euro, 10% vs. yen, 8% vs. pound
- For the year, dollar up 6% vs. euro, 13% vs. yen, and 11% vs. pound
- Rates up across most of Europe and in Japan
- Rates fell in the U.K.

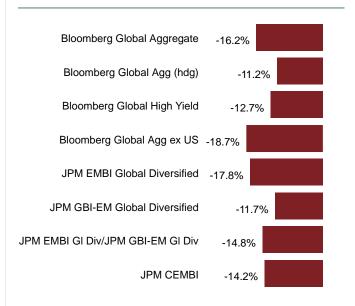
Emerging market debt also did well

- Returns varied across countries but most were positive

Global Fixed Income: Quarterly Returns



Global Fixed Income: One-Year Returns



Change in 10-Year Global Government Bond Yields



Sources: Bloomberg, JP Morgan



Investment Fund Balances

The table below compares the fund's investment fund balances as of December 31, 2022 with that of September 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 Funds

	Decembe	r 31, 2022			Septembe	er 30, 2022
	Market		Net New	Invest.	Market	
	Value	Weight	Invest.	Return	Value	Weight
North Carolina SRP 401k & 457						
Tier II Passive	\$4,535,954,434	32.73%	\$20,645,995	\$286,879,297	\$4,228,429,142	32.44%
Fixed Income Passive	81,177,026	0.59%	(265,232)	1,324,622	80,117,637	0.61%
Treasury Inflation Protected	351,636,217	2.54%	12,049,874	5,248,712	334,337,630	2.57%
Large Cap Passive	3,173,307,562	22.90%	(13,786,029)	225,019,426	2,962,074,164	22.73%
International Passive	90,266,222	0.65%	(179,602)	11,951,780	78,494,043	0.60%
SMID Cap Passive	347,560,461	2.51%	469,659	23,930,109	323,160,693	2.48%
Inflation Responsive Fund	492,006,946	3.55%	22,357,325	19,404,648	450,244,974	3.45%
Tier II Active	\$9,324,182,491	67.27%	\$(25,529,348)	\$544,022,077	\$8,805,689,761	67.56%
Stable Value Fund	2,468,249,471	17.81%	(4,033,850)	13,356,780	2,458,926,540	18.87%
Fixed Income Fund	2,056,519,661	14.84%	74,983,805	37,083,511	1,944,452,345	14.92%
Large Cap Core Equity Fund	1,841,074,410	13.28%	(34,852,449)	154,451,356	1,721,475,503	13.21%
International Equity Fund	2,024,042,921	14.60%	(45, 165, 359)	265,997,462	1,803,210,819	13.83%
Small/Mid Cap Equity Fund	934,296,028	6.74%	(16,461,494)	73,132,968	877,624,554	6.73%
Total Fund	\$13,860,136,925	100.0%	\$(4,883,352)	\$830,901,374	\$13,034,118,903	100.0%



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

Returns and Rankings for Periods Ended December 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Passive (Net of Fee)										
Fixed Income Passive Blmbg Aggregate Callan Core Bond MFs	1.69% 1.87% 1.77%	61 34	(13.09%) (13.01%) (13.47%)	30 28	(2.79%) (2.71%) (2.41%)	80 78	(0.05%) 0.02% 0.23%	74 68	0.83% 0.89% 1.09%	91 86
Treasury Inflation Protected Securities Blmbg US TIPS 1-10 Yr Callan TIPS MFs	1.65% 1.64% 1.98%	84 84	(7.36%) (7.34%) (11.88%)	7 7	1.97% 2.01% 1.13%	8 7	2.50% 1.99%	8	- 2.63% 2.51%	35
Large Cap Passive S&P 500 Index Callan Large Cap Core MFs	7.55% 7.56% 8.04%	57 57	(18.15%) (18.11%) (17.10%)	56 56	7.65% 7.66% 7.69%	54 53	9.43% 9.42% 8.82%	34 34	11.47% 11.48% 10.70%	21 21
International Passive International Benchmark (1) Callan Non US Equity MFs	15.13% 14.15% 17.05%	67 74	(16.14%) (16.58%) (15.77%)	55 56	0.04% (0.22%) 0.84%	68 70	0.97% 0.71% 1.33%	64 67	5.03% 4.67% 4.36%	35 45
SMID Cap Passive Russell 2500 Index Callan SMID Core MFs	7.41% 7.43% 9.26%	86 86	(18.48%) (18.37%) (17.22%)	62 61	4.91% 5.00% 5.25%	61 58	5.81% 5.89% 5.24%	39 38	8.93% 9.00% 8.39%	34 33
Inflation Responsive Fund Inflation Responsive Benchmark Callan Real Assets MFs	4.41% 4.27% 5.60%	70 72	(12.05%) (12.18%) (6.31%)	83 83	2.28% 2.12% 5.24%	88 88	2.93% 2.65% 4.01%	83 84	4.78% 3.57% 5.17%	63 89
Tier 2: Active (Net of Fee)										
Stable Value Fund 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value CT	0.54% 1.04% 1.21% 0.47%	19 1 1	1.85% 3.12% 2.96% 1.49%	17 1 1	2.01% 1.30% 2.22% 1.51%	6 84 2	2.18% 1.68% 2.76% 1.69%	2 51 1	2.12% 1.57% 2.57% 1.68%	4 66 1
Fixed Income Fund Blmbg Aggregate Callan Core Plus MFs	1.96% 1.87% 1.97%	50 53	(14.40%) (13.01%) (13.91%)	71 30	(2.40%) (2.71%) (2.42%)	48 82	0.51% 0.02% 0.31%	29 76	1.63% 0.89% 1.49%	41 96
Large Cap Core Equity Fund Russell 1000 Index Callan Lg Cap Broad MF	8.97% 7.24% 7.90%	43 53	(21.50%) (19.13%) (18.55%)	61 54	5.99% 7.35% 6.51%	58 37	8.35% 9.13% 8.15%	48 32	- 11.26% 10.31%	25
International Equity Fund International Benchmark (1) Callan Non US Equity MFs	14.54% 14.15% 17.05%	72 74	(21.19%) (16.58%) (15.77%)	73 56	(2.36%) (0.22%) 0.84%	92 70	0.06% 0.71% 1.33%	76 67	4.53% 4.67% 4.36%	46 45
Small/Mid Cap Equity Fund Russell 2500 Index Callan SMID Broad MFs	8.18% 7.43% 7.35%	37 48	(15.69%) (18.37%) (21.59%)	36 45	6.38% 5.00% 4.75%	31 47	6.24% 5.89% 6.04%	45 54	- 9.00% 8.89%	48

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



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

Returns and Rankings for Periods Ended December 31, 2022

	Last 10 Years		Last 15 Years		Since Inception	
Tion 2: Descrive (Not of Each)					•	
Tier 2: Passive (Net of Fee)						
Fixed Income Passive	0.98%	84	-		1.63% (1	0/10)
Blmbg Aggregate	1.06%	69	2.66%	80	1.72% (1	0/10)
Callan Core Bond MFs	1.20%		2.99%		-	
Treasury Inflation Protected Securities	<u>-</u>		-		2.70% (7	7/18)
Blmbg US TIPS 1-10 Yr	1.29%	14	2.72%	61	2.73% (7	,
Callan TIPS MFs	0.96%		2.88%		- `	
Large Cap Passive	12.49%	18	_		14.28% (4	1/09)
S&P 500 Index	12.56%	17	8.81%	19		1/09)
Callan Large Cap Core MFs	11.75%	• •	8.17%		-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
International Passive	3.81%	72	-	_		1/09)
International Benchmark (1)	3.71%	77	1.46%	76	7.06% (4	1/09)
Callan Non US Equity MFs	4.55%		2.37%		-	
SMID Cap Passive	9.96%	37	-		13.49% (4	1/09)
Russell 2500 Index	10.03%	37	8.10%	32	13.56% (4	1/09)
Callan SMID Core MFs	9.36%		7.60%		-	
Inflation Responsive Fund	1.75%	72	-		2.09% (9	9/11)
Inflation Responsive Benchmark	0.72%	92	2.22%			9/11)
Callan Real Assets MFs	2.71%		-		-	
Tier 2: Active (Net of Fee)						
Ctable Value Found	2.06%	8			2.420/	
Stable Value Fund 3 Yr US Treas Rolling	2.06% 1.34%	8 76	- 1.28%	99	,	7/09) 7/09)
T-Bill + 1.5%	2.26%	1	2.18%	30		7/09)
Callan Stable Value CT	1.57%	•	1.96%	30	2.1070 (7	109)
Canan Classo Falas C.	1101 70					
Fixed Income Fund	1.61%	49	_		3.27% (4	1/09)
Blmbg Aggregate	1.06%	49 89	2.66%	94	,	1/09)
Callan Core Plus MFs	1.56%	00	3.19%	01	-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Large Cap Core Equity Fund	-		-		9.11% (1	0/17)
Russell 1000 Index	12.37%	33	8.77%	35	10.01% (1	0/17)
Callan Lg Cap Broad MF	11.71%		8.19%		-	
		_				
International Equity Fund	3.99%	71	-	70		1/09)
International Benchmark (1)	3.71%	77	1.46%	76	7.06% (4	1/09)
Callan Non US Equity MFs	4.55%		2.37%		-	
Caroll/Mid Con Family Found					C 0.40′	
Small/Mid Cap Equity Fund Russell 2500 Index	- 10.03%	47	- 8.10%	44	6.84% (1 6.63% (1	0/17)
Callan SMID Broad MFs	9.84%	41	7.92%	+4	0.03% (1 -	U(11)
Gallari Givild bload ivil 3	3.04 /0		1.52/0		-	

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Returns and Rankings for Periods Ended December 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Last 7 Years	
Tier 2: Active (Net of Fee)										
Stable Value Fund	0.54%	19	1.85%	17	2.01%	6	2.18%	2	2.12%	4
3 Yr US Treas Rolling	1.04%	1	3.12%	1	1.30%	84	1.68%	51	1.57%	66
T-Bill + 1.5%	1.21%	1	2.96%	1	2.22%	2	2.76%	1	2.57%	1
Callan Stable Value CT	0.47%		1.49%		1.51%		1.69%		1.68%	
Fixed Income Fund	1.96%	50	(14.40%)	71	(2.40%)	48	0.51%	29	1.63%	41
Blmbg Aggregate	1.87%	53	(13.01%)	30	(2.71%)	82	0.02%	76	0.89%	96
Callan Core Plus MFs	1.97%		(13.91%)		(2.42%)		0.31%		1.49%	
TCW Core Plus	1.90%	52	(14.25%)	65	(2.29%)	40	0.47%	30	_	
Blmbg Aggregate	1.87%	53	(13.01%)	30	1	82	0.02%	76	0.89%	96
Callan Core Plus MFs	1.97%		(13.91%)		(2.42%)		0.31%		1.49%	
Prudential Core Plus	1.93%	51	(14.61%)	78	(2.48%)	61	0.60%	25	2.14%	17
Blmbg Aggregate	1.87%	53	(13.01%)	30	,	82	0.02%	76	0.89%	96
Callan Core Plus MFs	1.97%		(13.91%)		(2.42%)		0.31%		1.49%	
Large Cap Core Equity Fund	8.97%	43	(21.50%)	61	5.99%	58	8.35%	48	_	
Russell 1000 Index	7.24%	53	(19.13%)	54	7.35%	37	9.13%	32	11.26%	25
Callan Lg Cap Broad MF	7.90%		(18.55%)		6.51%		8.15%		10.31%	
Hotchkis & Wiley Large Cap Value	16.74%	2	(4.81%)	44	8.38%	26	7.35%	44	10.87%	21
Russell 1000 Value Index	12.42%	51	(7.54%)	71	5.96%	73	6.67%	72	9.12%	70
Callan Lg Cap Value MF	12.46%		(5.35%)		6.94%		7.18%		9.76%	
Macquarie Large Cap Value	13.82%	28	(3.03%)	32	6.73%	60	7.47%	42	9.40%	64
Russell 1000 Value Index	12.42%	51	(7.54%)	71	5.96%	73	6.67%	72	9.12%	70
Callan Lg Cap Value MF	12.46%		(5.35%)		6.94%		7.18%		9.76%	
Sands Capital Large Cap Growth	1.75%	59	(48.65%)	99	(2.28%)	98	5.89%	90	7.61%	95
Russell 1000 Growth Index	2.20%	57	(29.14%)	29	7.79%	12	10.96%	14	12.95%	9
Callan Large Cap Grwth MF	2.70%		(31.70%)		4.94%		8.85%		10.62%	
Loomis SaylesLarge Cap Growth	6.13%	19	(27.31%)	19		52	8.35%	60	11.36%	23
Russell 1000 Growth Index	2.20%	57	(29.14%)	29		12	10.96%	14	12.95%	9
Callan Large Cap Grwth MF	2.70%		(31.70%)		4.94%		8.85%		10.62%	
BlackRock Russell 1000 Index	7.25%	60	(19.23%)	79		64	9.11%	39	-	
Russell 1000 Index	7.24%	60	(19.13%)	77		65	9.13%	39	11.26%	29
Callan Large Cap Core MFs	8.04%		(17.10%)		7.69%		8.82%		10.70%	



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

Returns and Rankings for Periods Ended December 31, 2022

	Last 10 Years		Last 15 Years		Since Inception	
Tier 2: Active (Net of Fee)						
Stable Value Fund	2.06%	8	-		2.42% (7/09)	
3 Yr US Treas Rolling	1.34%	76	1.28%	99	1.20% (7/09)	
T-Bill + 1.5%	2.26%	1	2.18%	30	2.10% (7/09)	
Callan Stable Value CT	1.57%		1.96%		-	
Fixed Income Fund	1.61%	49	-		3.27% (4/09)	
Blmbg Aggregate	1.06%	89	2.66%	94	2.52% (4/09)	
Callan Core Plus MFs	1.56%		3.19%		-	
TCW Core Plus	_		-		0.95% (1/17)	
Blmbg Aggregate	1.06%	89	2.66%	94	0.60% (1/17)	
Callan Core Plus MFs	1.56%		3.19%		-	
Prudential Core Plus	_		_		1.90% (1/15)	
Blmbg Aggregate	1.06%	89	2.66%	94	0.85% (1/15)	
Callan Core Plus MFs	1.56%		3.19%		-	
Large Cap Core Equity Fund	_		_		9.11% (10/17)	
Russell 1000 Index	12.37%	33	8.77%	35	10.01% (10/17)	
Callan Lg Cap Broad MF	11.71%		8.19%		-	
Hotchkis & Wiley Large Cap Value	11.80%	17	-		14.65% (4/09)	
Russell 1000 Value Index	10.29%	68	6.96%	56	12.77% (4/09)	
Callan Lg Cap Value MF	10.59%		7.10%		-	
Macquarie Large Cap Value	_		_		8.01% (6/15)	
Russell 1000 Value Index	10.29%	68	6.96%	56	7.63% (6/15)	
Callan Lg Cap Value MF	10.59%		7.10%		-	
Sands Capital Large Cap Growth	10.33%	94	-		15.26% (4/09)	
Russell 1000 Growth Index	14.10%	8	10.32%	10	15.66% (4/09)	
Callan Large Cap Grwth MF	12.54%		8.87%		-	
Loomis SaylesLarge Cap Growth	-		-		11.89% (8/14)	
Russell 1000 Growth Index	14.10%	8	10.32%	10	12.41% (8/14)	
Callan Large Cap Grwth MF	12.54%		8.87%		-	
BlackRock Russell 1000 Index	-		-		9.67% (11/17)	
Russell 1000 Index	12.37%	20	8.77%	21	9.70% (11/17)	
Callan Large Cap Core MFs	11.75%		8.17%		-	



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

Returns and Rankings for Periods Ended December 31, 2022

Retuins and	Rankings	101 1	CHOUS LIN	ica D	Last	, 202	Last		Last	
	Last		Last		3		5		7	
	Quarter		Year		Years		Years		Years	
Tier 2: Active (Net of Fee)										
International Equity Fund	14.54%	72	(21.19%)	73	(2.36%)	92	0.06%	76	4.53%	46
International Benchmark (1)	14.15%	74	(16.58%)	56	(0.22%)	70	0.71%	67	4.67%	45
Callan Non US Equity MFs	17.05%		(15.77%)		0.84%		1.33%		4.36%	
Mondrian ACWI ex-US Value	15.52%	66	(11.52%)	22	(0.95%)	85	0.45%	70	4.00%	59
MSCI ACWI ex US	14.28%	73	(16.00%)	55	0.07%	67	0.88%	66	4.80%	44
MSCI ACWI ex US Value	15.70%	65	(8.59%)	11	0.06%	68	(0.05%)	77	4.19%	54
Callan Non US Equity MFs	17.05%		(15.77%)		0.84%		1.33%		4.36%	
Baillie Gifford ACWI ex-US Growth	14.67%	71	(28.01%)	89	(2.99%)	95	0.34%	74	5.59%	19
MSCI ACWI ex US	14.28%	73	(16.00%)	55	0.07%	67	0.88%	66	4.80%	44
MSCI ACWI ex US Growth	12.89%	85	(23.05%)	79	(0.40%)	74	1.49%	43	5.17%	31
Callan Non US Equity MFs	17.05%		(15.77%)		0.84%		1.33%		4.36%	
Acadian	14.53%	62	(14.05%)	21	-		-		-	
MSCI ACWI ex US Small Cap	13.31%	77	(19.97%)	39	1.07%	44	0.67%	45	5.08%	45
Callan Intl Small Cap MFs	15.74%		(23.63%)		0.47%		0.51%		4.84%	
WCM	9.58%	95	(40.15%)	97	-		-		-	
MSCI ACWI ex US Small Cap	13.31%	77	(19.97%)	39	1.07%	44	0.67%	45	5.08%	45
Callan Intl Small Cap MFs	15.74%		(23.63%)		0.47%		0.51%		4.84%	
Small/Mid Cap Equity Fund	8.18%	37	(15.69%)	36	6.38%	31	6.24%	45	_	
Russell 2500 Index	7.43%	3 <i>1</i> 48	(18.37%)	36 45	5.00%	31 47	5.89%	43 54	9.00%	48
Callan SMID Broad MFs	7.45 %	40	(21.59%)	45	4.75%	47	6.04%	54	8.89%	40
Callait Sivil Bload Wil S	7.55/6		(21.3970)		4.75/0		0.04 /0		0.09 /0	
Earnest Partners Small/Mid Cap	7.94%	80	(13.68%)	27	-		-		-	
Russell 2500 Index	7.43%	86	(18.37%)	61	5.00%	58	5.89%	38	9.00%	33
Callan SMID Core MFs	9.26%		(17.22%)		5.25%		5.24%		8.39%	
Wedge Small/Mid Cap Value	11.35%	55	(12.46%)	59	4.35%	81	3.31%	91	6.92%	87
Russell 2500 Value Index	9.21%	69	(13.08%)	61	5.22%	72	4.75%	74	8.26%	54
Callan SMID Value MFs	11.75%		(10.46%)		6.84%		5.78%		8.45%	
Brown Advisory Small/Mid Cap Growth		44	(19.99%)	8	4.88%	32	8.56%	21	10.25%	31
Russell 2500 Growth Index	4.72%	50	(26.21%)	39	2.88%	49	5.97%	64	8.98%	64
Callan SMID Growth MFs	4.66%		(28.43%)		2.78%		7.28%		9.51%	
BlackRock Russell 2500 Index	7.56%	84	(18.81%)	63	5.20%	53	5.97%	37	-	
Russell 2500 Index	7.43%	86	(18.37%)	61	5.00%	58	5.89%	38	9.00%	33
Callan SMID Core MFs	9.26%		(17.22%)		5.25%		5.24%		8.39%	

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



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

Returns and Rankings for Periods Ended December 31, 2022

	Last 10 Years		Last 15 Years		Since Inception
Tier 2: Active (Net of Fee)					
International Equity Fund	3.99%	71	-		7.38% (4/09)
International Benchmark Callan Non US Equity MFs	3.71% 4.55%	77	1.46% 2.37%	76	7.06% (4/09) -
Mondrian ACWI ex-US Value	3.63%	78	-		6.32% (4/09)
MSCI ACWI ex US	3.80%	72	1.52%	73	7.13% (4/09)
MSCI ACWI ex US Value	2.72%	95	0.80%	87	6.42% (4/09)
Callan Non US Equity MFs	4.55%		2.37%		-
Baillie Gifford ACWI ex-US Growth	4.99%	31	-		9.02% (4/09)
MSCI ACWI ex US	3.80%	72	1.52%	73	7.13% (4/09)
MSCI ACWI ex US Growth	4.68%	42	2.10%	60	7.69% (4/09)
Callan Non US Equity MFs	4.55%		2.37%		-
Acadian	-		-		(10.82%)(10/21)
MSCI ACWI ex US Small Cap	5.24%	62	3.33%	65	(15.91%) _(10/21)
Callan Intl Small Cap MFs	5.55%		3.70%		-
WCM	-		-		(34.53%)(10/21)
MSCI ACWI ex US Small Cap	5.24%	62	3.33%	65	(15.91%)(10/21)
Callan Intl Small Cap MFs	5.55%		3.70%		· -
Small/Mid Cap Equity Fund	_		_		6.84% (10/17)
Russell 2500 Index	10.03%	47	8.10%	44	6.63% (10/17)
Callan SMID Broad MFs	9.84%	77	7.92%		-
Earnest Partners Small/Mid Cap	-		-		(1.85%)(4/21)
Russell 2500 Index	10.03%	37	8.10%	32	(7.67%)(4/21)
Callan SMID Core MFs	9.36%		7.60%		-
Wedge Small/Mid Cap Value	8.75%	72	-		9.73% (1/12)
Russell 2500 Value Index	8.93%	70	7.45%	67	9.83% (1/12)
Callan SMID Value MFs	9.39%		7.69%		-
Brown Advisory Small/Mid Cap Growth	11.72%	11	-		14.67% (4/09)
Russell 2500 Growth Index	10.62%	45	8.39%	55	14.04% (4/09)
Callan SMID Growth MFs	10.57%		8.57%		-
BlackRock Russell 2500 Index	-		-		6.50% (11/17)
Russell 2500 Index	10.03%	37	8.10%	32	6.42% (11/17)
Callan SMID Core MFs	9.36%		7.60%		-



4th Quarter 2022

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	<u>NOTES</u>
LARGE CAP CORE	ı	T	T	ı	Τ	Т			
BlackRock	•	•	•	•	•	•		Satisfactory	
LARGE CAP VALUE									
Hotchkis & Wiley Large Cap Fundamental Value	•	•	•	•	•	•		Satisfactory	
Macquarie Large Cap Value Focus	•	•	•	•	•	•	•	Cautionary	Firm announced the July 2023 upcoming retirement of senior PM Bob Vogel. He will remain an active team member until his retirement. Former PM Ty Nutt retired in July 2019 and transitioned his lead role to Nik Lalvani. Macquarie promoted Associate PM Erin Ksenak to PM in December 2020 (4th voting member on the team) and analyst Vincent Celentano to Associate PM. Continue to monitor the team, process, and performance subsequent to transitions. Protected well on a relative basis in 2022 as expected, helping improve short-term results.
LARGE CAP GROWTH									
Loomis Sayles Large Cap Growth	•	•	•	•	•	•	•	Satisfactory	In 4022, Loomis announced a voluntary separation program which included several members of the central research analyst team. No portfolio managers were affected. Strategy has had nearly \$5B in outflows in 2022, though it remains capacity constrained. AUM is now below high water mark. Portfolio trailing 1/3/5/7/10 year periods, impacting both short- and long-term performance. Continued lack of exposure to major benchmark holdings, such as Apple, have been a large driver of negative attribution.



4th Quarter 2022

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	<u>NOTES</u>
Sands Capital Management Select Growth	•			•	•			Cautionary	Frank Sands Sr. passed away in March 2021; does not impact the day-to-day management. However, one of the four PMs on the strategy, Mike Sramek, elected to not to not return from a medical leave that was initiated in July 2022 and officially retired from the firm in December 2022. His tenure at the firm and overlap of the Focus strategies (of which he was the lead PM) necessitates continued due diligence around impact of his absence on portfolio management and the portfolio management structure going forward. Exposure to innovation/disruptive growth companies has increased return volatility in recent time periods; continuing to monitor team's buy and sell discipline, as well as approach to risk management, around these companies. Recent underperformance is not unexpected given market headwinds but has significantly impacted three year and longer time periods. Stability of asset base should be monitored, although asset flows in 2022 were net positive.
SMID CAP CORE	I -	I _					_		_
BlackRock			•	•		•		Satisfactory	
EARNEST Partners SMID Core	•	•						Satisfactory	Strategy market capitalization consistently larger than benchmark and peers.
SMID CAP VALUE									
WEDGE Capital US SMID Cap Value					•			Cautionary (on NC watch list)	Redemptions have significantly impacted the equity suite of strategies; fundamental equites strategies now only account for <30% of total assets under management. Changes have implemented to the portfolio construction approach that may be beneficial for risk management but have yet to be realized in portfolio attribution. In 1Q 2021, Andrew Rosenberg joined the Mid Cap Value strategy as a co-portfolio manager, replacing Brian Pratt. In 1Q 2022, Darrin Witt, Financials analyst, joined the Small Cap Value strategy as a co-portfolio manager. In 1Q 2022, Stephen Ho, Energy analyst, departed the firm; role will not be replaced. Individual sleeves of the strategy, particularly the mid cap sleeve, have been challenged by performance and meaningful outflows. Will continue to monitor the aggregate Small/Mid Cap Value strategy for risks to asset stability.



4th Quarter 2022

Manager Assessment

				_					
	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	<u>NOTES</u>
WEDGE Capital US SMID Cap Value (Continued)									Strategy continues to underperform the Russell 2500 Value Index over multiple long-term periods due to stock selection issues. Strategy did outperform the index in calendar year 2022. Will continue to monitor the impact of recent portfolio changes on attribution.
SMID CAP GROWTH Brown Advisory US SMID Cap Growth	•	•	•	•	•		•	Satisfactory	Notable strategy AUM growth (mitigated by market decline); total securities near all-time high (but within expected range).
INTERNATIONAL EQUIT	Y								
Baillie Gifford ACWI Ex-US Alpha	•	•	•	•	•	•	•	Satisfactory	The retirement of Portfolio Manager Angus Franklin in 6/2022, and the portfolio manager rotation of Toby Ross with Steve Vaughan in 9/2022 are expected to be seamless given the team-driven process and depth and breadth of the team. While underperformance is disappointing, it remains within range based on philosophy, process and historical returns.
BlackRock	•	•	•	•	•	•		Satisfactory	
Mondrian Investment Partners Focused ACWI Ex-US	•	•	•	•	•	•	•	Satisfactory (on NC watch list)	There have been a number of investment professional shifts on the team, but all were well telegraphed and resources remain robust. Hamish Parker, who served as chair on the ESG Steering Committee, retired in the first quarter of 2021; Alex Simcox, senior portfolio manager on the international strategy, assumed Parker's role as chair and as of January 2022 the Head of ESG Investment as well. Also in January 2022, Steven Dutaut took on the role of Head of Research - Europe & Asia. Finally, in July 2022 Andrew Porter, Senior Portfolio Manager, retired from the investment management industry and Chris Davis and Zsolt Mester, Portfolio Managers, became members of the International Equity Strategy Committee at that time.
Acadian ACW ex U.S. Small Cap	•	•	•	•	•	•	•	Satisfactory	The parent company plans to sell affiliates which may include Acadian. As a result of Co-CEO John Chisholm's retirement in June 2022, Co-CEO Ross Dowd was appointed as sole CEO. Departures of PMs Gakidis and 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.



4th Quarter 2022

Manager Assessment

	Organization	People	Process and Philosophy	Short Term Performance	Long Term Performance	Product Dynamics	Overall	OVERALL STATUS	<u>NOTES</u>
WCM International Small Cap Growth Fund	•	•	•	•	•		•	Satisfactory	Co-CEO Kurt Winrich retired, effective 12/31/2021. Winrich continues to serve as chairman of the Board. The strategy has limited capacity.
CORE & CORE PLUS FIX	XED IN	СОМЕ							
BlackRock								Satisfactory	
PGIM Core Plus Bond	•	•	•	•	•	•	•	Satisfactory	In January 2023 it was announced that Head of Fixed Income Michael Lillard will be retiring effective April 2024. Announced in January 2023, Multi-sector PM Michael Collins will be retiring from the firm, effective April 2024. However, the remaining PM team is strong and should provide continuity for the investment process.
TCW Core Plus	•	•	•	•	•	•		Satisfactory	Monitoring the CEO leadership transition which is expected to occur by year-end. Monitoring potential impacts to investment strategy consistency due to CIO Tad Rivelle's 2021 year-end retirement and leadership transitioning to other senior members of the investment team.
INFLATION SENSITIVE									
BlackRock Strategic Completion Fund	•	•	•	•	•	•		Satisfactory	
STABLE VALUE									
Galliard Stable Value	•	•	•	•	•	•	•	Satisfactory	Continuing to monitor parent company's (Allspring) ownership change that occurred in November 2021. Wells was rebranded to Allspring Global Investments and Joseph Sullivan replaced Nico Marais as CEO. Assets have stabilized since late 2020. The Galliard Stable Return Fund's put queue increased after the Wells recordkeeping sale to Principal in April 2019; it peaked in 2020 and has since decreased to 2017 levels.



4th Quarter 2022

Mondrian International

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

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

Performance in down markets has been mixed over the last three years. Mondrian performance was challenged during the COVID-related selloff in Q1 of 2020, which was unlike past market downturns. In that period the more speculative and expensive stocks held their value, while lower priced stocks with better fundamentals sold off more in the downturn. While Mondrian's underperformance for 2020 was disappointing, it was expected given their value oriented and defensive style. 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 the fourth quarter, the portfolio generated strong absolute returns, outperforming the MSCI ACW ex-US Index. Country allocation was broadly neutral for relative returns. The positive impact of the portfolio's overweight position in the strong Italian equity market was broadly offset by the overweight position in the relatively weak Japanese equity market.

Stock selection in the UK and Singapore added to relative returns. Strong stock selection in Singapore was driven by United Overseas Bank, which performed well as the Singaporean central bank tightened monetary policy amid higher inflation.

The underweight position in the strong materials sector slightly held back relative returns. The positive impact of the underweight position in the relatively weak consumer staples sector was more than offset by the underweight position in the strong materials sector and the overweight position in the relatively weak communication services sector. Strong stock selection within the financials, health care and utilities sectors added to relative returns.

Currency movements supported absolute returns, with allocation adding to relative returns. The positive impact of the underweight position in the relatively weak Canadian dollar and the overweight position in the strong Japanese yen more than offset the overweight position in the pegged Hong Kong dollar.

4th Quarter 2022

WEDGE Smid Cap Value

Callan has been in regular contact with Wedge and is continually monitoring flows and assets under management. Strategy assets in Small/Mid stood at \$886 million at quarter end, while Small Cap strategy assets stood at \$355 and Mid Cap strategy assets under management were \$466 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 Small/Mid Value strategy is a 50/50 blend of WEDGE Small Cap Value and Mid Cap Value portfolios. The investment approach is a fundamentally based, value-oriented discipline, employing up front quantitative screens and qualitative analysis. Quantitative screens search for attractive value and quality characteristics to define a pool of candidates; fundamental research is then applied to identify attractive unrecognized value opportunities. WEDGE believes they can produce superior long term returns by employing rigorous quantitative research and independent qualitative analysis.

The WEDGE Small/Mid Cap Value composite return for the quarter was 11.39% (11.23% net of fee) versus the Russell 2500 Value Index return of 9.21%. For the year-to-date period, the composite return was -11.90% (-12.39% net of fee) and the index return was -13.08%.

The top contributors in the quarter included favorable stock selection within Health, Utilities and Technology. Underweight higher P/E companies also added value. Year-to-date, the top contributors included positive stock selection in Health, REITs and Technology. Underweight REITs, Technology and higher P/E companies also added value.

The main detractors in the quarterly relative performance included stock selection within Banks, Retail, and Basic Materials. Year-to-date, the main detractors included weaker stock selection in the Banks, Retail and Basic Materials sectors. The underweight Basic Materials was also a headwind.

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

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

^{*}Composite returns used to populate history

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

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

^{*}Composite returns used to populate history

					C+D+E	B*F		F-H
Funds and Sub-Advisors	Assets*	Inv. Mgmt. Fee	Custodial Expenses ¹	NC Budget ²	Total Estimated Expense (%)	Total Estimated Expenses (\$) ³	Callan Median Expense ⁴	Difference
North Carolina Stable Value Fund	\$2,468,249,471	0.2605%	0.0064%	0.0125%	0.28%	\$6,896,289	0.61%	-0.33%
Galliard	\$2,468,249,471	0.2605%	0.0000%	0.0.12070	3.23,0	\$6,429,790	0.27%	-0.01%
North Carolina Fixed Income Passive Fund	\$81,177,026	0.0200%	0.0140%	0.0125%	0.05%	\$37,747	0.09%	-0.04%
Blackrock	\$81,177,026	0.0200%	0.0100%	0.012070	5.55%	\$16,235	0.04%	-0.02%
North Carolina Fixed Income Fund	\$2,056,519,661	0.1244%	0.0074%	0.0125%	0.14%	\$2,968,175	0.38%	-0.24%
50% TCW	\$1,029,888,267	0.1388%	0.0000%			\$1,429,485	0.21%	-0.07%
50% Prudential	\$1,026,631,431	0.1100%	0.0100%			\$1,129,295	0.21%	-0.10%
North Carolina Inflation Sensitive Fund	\$492,006,946	0.0900%	0.0111%	0.0125%	0.11%	\$558,920	0.85%	-0.74%
Blackrock	\$492,006,946	0.0900%	0.0100%			\$442,806	1.09%	-1.00%
North Carolina Large Cap Passive Fund	\$3,173,307,562	0.0050%	0.0019%	0.0125%	0.02%	\$615,622	0.16%	-0.14%
Blackrock	\$3,173,307,562	0.0050%	0.0100%			\$158,665	0.02%	-0.02%
North Carolina Large Cap Core Fund	\$1,841,074,410	0.2853%	0.0068%	0.0125%	0.30%	\$5,607,913	0.62%	-0.32%
18.75% Hotchkis & Wiley	\$349,458,385	0.4000%	0.0000%			\$1,397,834	0.40%	0.00%
18.75% Macquarie Large Cap Value	\$356,695,595	0.2771%	0.0000%			\$988,403	0.40%	-0.12%
18.75% Sands Capital Management	\$340,590,601	0.4500%	0.0000%			\$1,532,658	0.44%	0.01%
18.75% Loomis Sayles	\$340,060,419	0.3853%	0.0000%			\$1,310,253	0.44%	-0.05%
25% BlackRock Advisors Inc., Large Cap Index*	\$454,269,399	0.0050%	0.0100%			\$22,713	0.02%	-0.02%
North Carolina SMID Cap Passive Fund	\$347,560,461	0.0050%	0.0113%	0.0125%	0.03%	\$100,097	0.17%	-0.14%
Blackrock	\$347,560,461	0.0050%	0.0100%			\$17,378	0.03%	-0.03%
North Carolina SMID Cap Core Fund	\$934,296,028	0.3841%	0.0051%	0.0125%	0.40%	\$3,753,067	0.84%	-0.44%
30% Earnest Partners	\$261,348,089	0.4700%	0.0000%			\$1,228,336	0.68%	-0.68%
30% Wedge	\$280,310,836	0.4249%	0.0000%			\$1,191,041	0.66%	-0.24%
30% Brown Advisory	\$270,250,999	0.3872%	0.0000%			\$1,046,412	0.71%	-0.32%
10% BlackRock Advisors Inc., SMID Index*	\$95,069,593	0.0050%	0.0100%			\$4,753	0.04%	-0.04%
North Carolina International Passive Fund	\$90,266,222	0.0210%	0.0235%	0.0125%	0.06%	\$51,452	0.06%	0.00%
Blackrock	\$90,266,222	0.0210%	0.0200%			\$18,956	0.06%	-0.04%
North Carolina International Equity	\$2,024,042,921	0.3803%	0.0234%	0.0125%	0.42%	\$8,424,067	0.80%	-0.38%
43% Baillie Gifford Growth	\$857,816,289	0.2764%	0.0000%			\$2,371,004	0.51%	-0.23%
43% Mondrian Investment Partners Value	\$884,095,574	0.3866%	0.0000%			\$3,417,913	0.51%	-0.12%
7% Acadian	\$126,661,489	0.6542%	0.0000%			\$828,619	0.84%	-0.19%
7% WCM	\$143,925,381	0.7000%	0.0000%			\$1,007,478	0.84%	-0.14%
North Carolina TIPS Fund	\$351,636,217	0.0250%	0.0035%	0.0125%	0.04%	\$144,171	0.39%	-0.35%
Blackrock	\$351,636,217	0.0250%	0.0000%			\$87,909	0.11%	-0.09%
Total	\$13,860,136,925	0.1749%	0.0104%	0.0125%	0.21%	\$29,157,519	0.26%	

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

¹ Based on annualized monthly fee accruals as of12/31/2022

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

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

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

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return (3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
Tier 2: Passive vs. Net of Fee Groups									
Fixed Income Passive (i) Callan Core Bond MFs	1.7 61	-13.1 30	-2.8 80	-0.1 74		-0.2 82	-0.7 100	0.1 100	
Blmbg Aggregate Treasury Inflation Protected (i)	1.9 34 1.6 84	-13.0 28 - 7.4 7	-2.7 78 2.0 8	0.0 68 2.1 45		-0.2 73 0.1 43	-0.2 47	1.9 68	
Callan TIPS MFs Blmbg US TIPS 1-10 Yr	1.6 84	-7.3 7	2.0 7	2.5 8		0.3 2			
Large Cap Passive (i) Callan Large Cap Core MFs	7.6 57	-18.1 56	7.6 54	9.4 34		0.4 30	0.0 32	0.0 100	
S&P 500 Index	7.6 57	-18.1 56	7.7 53	9.4 34		0.4 30			
International Passive (i) Callan Non US Equity MFs	15.1 67	-16.1 55	0.0 68	1.0 64		-0.0 66	0.3 28	0.9 100	
International Benchmark	14.1 74	-16.6 56	-0.2 70	0.7 67		-0.0 67			
SMID Cap Passive (i) Callan SMID Core MFs Russell 2500 Index	7.4 86 7.4 86	-18.5 62 -18.4 61	4.9 61 5.0 58	5.8 39 5.9 38		0.2 42 0.2 41	-1.2 96	0.1 100	
Inflation Responsive Fund (i) Callan Real Assets MFs	4.4 70	-12.1 83	2.3 88	2.9 83		0.1 76	0.7 1	0.4 100	
Inflation Responsive Benchmark	4.3 72	-12.2 83	2.1 88	2.7 84		0.1 82			
Tier 2: Active vs. Net of Fee Groups									
Stable Value Fund Callan Stable Value CT	0.5 19	1.8 17	2.0 6	2.2 2		5.2 10	-1.2 4	0.5 33	
T-Bill + 1.5%	1.2 1	3.0 1	2.2 2	2.8 1		2.7 47			
Fixed Income Fund Callan Core Plus MFs	2.0 50	-14.4 71	-2.4 48	0.5 29		-0.1 31	0.2 27	2.3 68	
Blmbg Aggregate	1.9 53	-13.0 30	-2.7 82	0.0 76		-0.2 91			
TCW Core Plus Callan Core Plus MFs	1.9 52	-14.2 65	-2.3 40	0.5 30		-0.1 36	0.4 4	1.0 93	
Blmbg Aggregate	1.9 53	-13.0 30	-2.7 82	0.0 76		-0.2 91			
Returns: Return Consistency: above median above median third quartile fourth quartile fourth quartile		Sharpe Rat above methird qua fourth qua	edian rtile		Excess Re above r third qu fourth q	median artile):	Tracking below secon	median d quartile

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



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return (3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
Prudential Core Plus	1.9 51	-14.6 78	-2.5 61	0.6 25		-0.1 20	0.2 34	3.7 26	
Callan Core Plus MFs Blmbg Aggregate	1.9 53	-13.0 30	-2.7 82	0.0 76		-0.2 91			
Large Cap Core Equity Fund	9.0 43	-21.5 61	6.0 58	8.3 48		0.3 48	-0.2 64	3.7 82	
Callan Lg Cap Broad MF Russell 1000 Index	7.2 53	-19.1 54	7.3 37	9.1 32		0.4 26			
Hotchkis & Wiley Large Cap Value	16.7 2	-19.1 54 - 4.8 44	8.4 26	7.4 44		0.4 26	0.1 61	9.6 7	
Callan Lg Cap Value MF	10.7 2	-4.0 44	0.4 26	7.4 44		0.2 76	U.1 61	9.0 /	
Russell 1000 Value Index	12.4 51	-7.5 71	6.0 73	6.7 72		0.3 63			
Macquarie Large Cap Value Callan Lg Cap Value MF	13.8 28	-3.0 32	6.7 60	7.5 42		0.3 37	0.2 41	3.5 67	
Russell 1000 Value Index	12.4 51	-7.5 71	6.0 73	6.7 72		0.3 63			
Sands Capital Large Cap Growth	1.8 59	-48.6 99	-2.3 98	5.9 90		0.1 96	-0.3 27	14.9 1	
Callan Large Cap Grwth MF Russell 1000 Growth Index	2.2 57	-29.1 29	7.8 12	11.0 14		0.4 18			
Loomis SaylesLarge Cap Growth	6.1 19	-27.3 19	4.8 52	8.4 60		0.3 39	-0.5 54	5.1 38	
Callan Large Cap Grwth MF Russell 1000 Growth Index	2.2 57	-29 .1 29	7.8 12	11.0 14		0.4 18			
BlackRock Russell 1000 Index (i)	7.2 60	-19.2 79	7.0 12 7.4 64	9.1 39		0.4 44	-0.1 55	0.1 99	
Callan Large Cap Core MFs								311 00	
Russell 1000 Index	7.2 60	-19.1 77	7.3 65	9.1 39		0.4 43			
International Equity Fund Callan Non US Equity MFs	14.5 72	-21.2 73	-2.4 92	0.1 76		-0.1 77	-0.3 89	2.5 98	
International Benchmark	14.1 74	-16.6 56	-0.2 70	0.7 67		-0.0 67			
Mondrian ACWI ex-US Value	15.5 66	-11.5 22	-0.9 85	0.4 70		-0.0 73	-0.1 71	5.0 58	
Callan Non US Equity MFs MSCI ACWI ex US	14.3 73	-16.0 55	0.1 67	0.9 66		-0.0 66			
Baillie Gifford ACWI ex-US Growth	14.7 71	-28.0 89	-3.0 95	0.3 74		-0.0 72	-0.1 70	7.5 27	
Callan Non US Equity MFs MSCI ACWI ex US	14.3 73	-16.0 55	0.1 67	0.9 66		-0.0 66			
IVISCI ACVVI EX US	14.5 73	-10.0 55	0.1 6/	0.9 66		-0.0 66			
Returns: Return Consistency:	Sharpe Ratio:					eturn Ratio	:		ng Error:
above medianthird quartilethird quartile		above m third qua			above r				w median ond quartile
fourth quartile fourth quartile		fourth qua			fourth o				quartile

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



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return C	3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error
Acadian	14.5 62	-14.1 21	7.8 2	4.6 5		0.1 4	0.8 1	4.6 81
Callan Intl Small Cap MFs MSCI ACWI ex US Small Cap	13.3 77	-20.0 39	1.1 44	0.7 45		-0.0 45		
WCM	9.6 95	-40.2 97	3.3 15	7.6 1		0.2 3	0.5 4	14.8 5
Callan Inti Small Cap MFs	3.0 95	-40.2 97	3.3 15	7.0		0.2 3	0.5 4	14.0 5
MSCI ACWI ex US Small Cap	13.3 77	-20 .0 39	1.1 44	0.7 45		-0.0 45		
Small/Mid Cap Equity Fund	8.2 37	-15.7 36	6.4 31	6.2 45		0.2 43	0.2 30	2.2 100
Callan SMID Broad MFs	- .	40.4	5.0	5.0		0.0		
Russell 2500 Index	7.4 48	-18.4 45	5.0 47	5.9 54		0.2 51		
Earnest Partners Small/Mid Cap	7.9 80	-13.7 27	8.6 2	8.7 9		0.3 10	0.4 8	6.3 25
Callan SMID Core MFs Russell 2500 Index	7.4 86	-18.4 61	5.0 58	5.9 38		0.2 41		
	11.3 55	-10.4 61					0.5.00	2.7 98
Wedge Small/Mid Cap Value Callan SMID Value MFs	11.3 55	-12.5 59	4.4 81	3.3 91		0.1 91	-0.5 93	2.7 98
Russell 2500 Value Index	9.2 69	-13.1 61	5.2 72	4.8 74		0.1 68		
Brown Advisory Small/Mid Cap Growth	5.7 44	-20.0 8	4.9 32	8.6 21		0.3 21	0.6 8	4.4 97
Callan SMID Growth MFs								
Russell 2500 Growth Index	4.7 50	-26 .2 39	2.9 49	6.0 64		0.2 61		
BlackRock Russell 2500 Index (i)	7.6 84	-18.8 63	5.2 53	6.0 37		0.2 41	0.2 22	0.5 100
Callan SMID Core MFs Russell 2500 Index	7.4 86	-18.4 61	5.0 58	5.9 38		0.2 41		
Returns: above median third quartile fourth quartile Return Consistency: above median third quartile fourth quartile		Sharpe Rati above mo third qua fourth qu	o: edian rtile		Excess Real above real third questions	eturn Ratio nedian artile		Tracking Error: below median second quartile first quartile

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



Investment Manager		Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
Tier 2: Active vs. Gross of Fee Gro Stable Value Fund	oups									
Galliard Stable Value		0.6 46	2.0 45	2.1 32	2.3 32		6.0 44	-1.0 32	0.5 29	
Callan Stable Value SA T-Bill + 1.5%		1.2 2	3.0 4	2.2 29	2.8 1		2.7 89			
Fixed Income Fund										
TCW Core Plus		1.9 40	-14.1 96	-2.2 50	0.6 26		-0.1 21	0.6 21	1.0 56	
Callan Core Bond FI Blmbg Aggregate		1.9 47	-13.0 59	-2.7 96	0.0 98		-0.2 97			
Prudential Core Plus		1.9 40	-14.6 98	-2.5 79	0.0 30 0.7 19		-0.1 13	0.2 82	3.7 1	
Callan Core Bond FI										
Blmbg Aggregate		1.9 47	-13.0 59	-2.7 96	0.0 98		-0.2 97			
Large Cap Core Equity Fund		16.8 3	-4.4 49	8.8 33	7.8 45		0.2 80	0.1 59	9.6 5	
Hotchkis & Wiley Large Cap Value Callan Large Cap Value	'	10.0 3	-4.4 49	0.0 33	7.0 45		U.2 80	U.1 59	9.0 5	
Russell 1000 Value Index		12.4 67	-7.5 80	6.0 93	6.7 71		0.3 66			
Macquarie Large Cap Value		13.9 38	-2.8 33	7.0 64	7.8 45		0.3 30	0.3 41	3.5 66	
Callan Large Cap Value Russell 1000 Value Index		12.4 67	-7.5 80	6.0 93	6.7 71		0.3 66			
Sands Capital Large Cap Growth		1.9 68	-48.4 98	-1.8 97	6.4 93		0.2 95	-0.3 56	14.9 3	
Callan Large Cap Growth Russell 1000 Growth Index		2.2 67	20.4.40	7.0 00	11.0 05		0.4 26			
Loomis SaylesLarge Cap Growth		6.2 25	-29.1 42 -27.0 30	7.8 29 5.2 60	11.0 25 8.8 73		0.4 26	-0.4 71	5.1 41	
Callan Large Cap Growth		0.2 25	-27.0 30	3.2 00	0.0 73		0.4 55	-0.4 /1	3.1 41	
Russell 1000 Growth Index		2.2 67	-29.1 42	7.8 29	11.0 25		0.4 26			
BlackRock Russell 1000 Index (i) Callan Large Cap Core		7.2 63	-19.2 85	7.4 67	9.1 52		0.4 58	-0.1 58	0.1 99	
Russell 1000 Index		7.2 63	-19.1 84	7.3 67	9.1 52		0.4 57			
above medianthird quartile	Return Consistency: above median third quartile fourth quartile		Sharpe Rati above mo third qual fourth qu	edian rtile		Excess Roll above roll third questions fourth co	artile	:	belo seco	ng Error: w median ond quartile quartile

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



Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	3 Year Return Consistency	5 Year Sharpe Ratio	5 Year Excess Rtn Ratio	5 Year Tracking Error	
International Fund									
Mondrian ACWI ex-US Value Callan NonUS Eq	15.6 56	-11.2 20	-0.6 84	0.8 77		-0.0 77	-0.0 77	5.0 50	
MSCI ACWI ex US	14.3 77	-16 .0 53	0.1 73	0.9 77		-0.0 77			
Baillie Gifford ACWI ex-US Growth Callan NonUS Eq	14.7 69	-27.8 92	-2.7 97	0.6 80		-0.0 79	-0.0 79	7.5 17	
MSCI ACWI ex US	14.3 77	-16 .0 53	0.1 73	0.9 77		-0.0 77			
Acadian Callan Intl Small Cap	14.5 68	-14.1 14	7.8 3	4.6 6		0.1 3	0.8 3	4.6 74	
MSCI ACWI ex US Small Cap	13.3 83	-20.0 43	1.1 34	0.7 40		-0.0 43			
WCM Callan Intl Small Cap	9.6 99	-40.2 99	3.3 14	7.6 1		0.2 1	0.5 11	14.8 3	
MSCI ACWI ex US Small Cap	13.3 83	-20.0 43	1.1 34	0.7 40		-0.0 43			
Small/Mid Cap Equity Fund									
Earnest Partners Small/Mid Cap Callan Small/MidCap Core	8.1 73	-13.3 40	9.7 11	9.8 11		0.4 8	0.6 8	6.3 36	
Russell 2500 Index	7.4 86	-18.4 74	5.0 67	5.9 67		0.2 64			
Wedge Small/Mid Cap Value Callan Small/MidCap Value	11.5 53	-12.1 65	4.8 75	3.8 84		0.1 84	-0.3 92	2.7 95	
Russell 2500 Value Index	9.2 91	-13.1 73	5.2 74	4.8 77		0.1 76			
Brown Advisory Small/Mid Cap Growth Callan Sm/MidCap Growth Russell 2500 Growth Index	5.8 36	-19.7 1	5.3 32	9.0 32 6.0 70		0.3 380.2 72	0.7 28	4.4 93	
	4.7 63	-26.2 33	2.9 65					0.5.400	
BlackRock Russell 2500 Index (i) Callan Small/MidCap Core	7.6 85	-18.8 75	5.2 66	6.0 65		0.2 64	0.2 50	0.5 100	
Russell 2500 Index	7.4 86	-18.4 74	5.0 67	5.9 67		0.2 64			
Returns: above median third quartile fourth quartile Return Consistency: above median third quartile fourth quartile fourth quartile		Sharpe Rat above m third qua fourth qu	edian rtile		Excess Real above real third questions	nedian artile):	belo seco	ng Error: w median ond quartile quartile

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



Investment Fund Balances

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

Asset Distribution Across Investment Funds

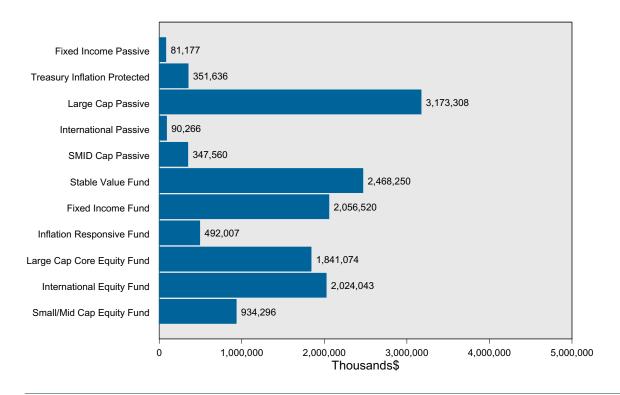
	December 31, 2022		September 30, 2022				
	Market		Market				
	Value	Weight	Value	Weight			
North Carolina SRP 401k & 457							
Γier I: GoalMaker							
Post Retirement Conservative 11+	38,734,643	0.57%	36,402,481	0.57%			
Post Retirement Conservative 6-10	129,691,916	1.90%	123,232,639	1.94%			
Post Retirement Conservative 0-5	388,919,207	5.69%	375,142,874	5.92%			
Pre Retirement Conservative 0-5	316,413,796	4.63%	306,088,036	4.83%			
Pre Retirement Conservative 6-10	190,223,812	2.78%	182,269,139	2.88%			
Pre Retirement Conservative 11-15	141,618,088	2.07%	131,581,090	2.08%			
Pre Retirement Conservative 16-20	101,509,874	1.48%	92,262,854	1.46%			
Pre Retirement Conservative 21-25	83,300,012	1.22%	76,585,450	1.21%			
Pre Retirement Conservative 26+	91,198,899	1.33%	83,253,483	1.31%			
Post Retirement Moderate 11+	45,898,600	0.67%	40,893,969	0.65%			
Post Retirement Moderate 6-10	138,154,480	2.02%	129,411,910	2.04%			
Post Retirement Moderate 0-5	419,106,069	6.13%	393,933,494	6.21%			
Pre Retirement Moderate 0-5	606,328,463	8.87%	565,593,960	8.92%			
Pre Retirement Moderate 6-10	570,946,573	8.35%	533,595,145	8.42%			
Pre Retirement Moderate 11-15	472,914,924	6.92%	437,061,062	6.90%			
Pre Retirement Moderate 16-20	362,143,183	5.30%	329,122,639	5.19%			
Pre Retirement Moderate 21-25	265,686,446	3.89%	241,347,106	3.81%			
Pre Retirement Moderate 26+	293,562,046	4.29%	262,500,099	4.14%			
Post Retirement Aggressive 11+	17,956,226	0.26%	17,334,485	0.27%			
Post Retirement Aggressive 6-10	43,742,590	0.64%	39,903,731	0.63%			
Post Retirement Aggressive 0-5	163,415,394	2.39%	152,914,973	2.41%			
Pre Retirement Aggressive 0-5	323,284,842	4.73%	288,873,607	4.56%			
Pre Retirement Aggressive 6-10	382,701,266	5.60%	358,060,940	5.65%			
Pre Retirement Aggressive 11-15	430,068,373	6.29%	392,621,456	6.19%			
Pre Retirement Aggressive 16-20	355,600,351	5.20%	322,701,274	5.09%			
Pre Retirement Aggressive 21-25	249,632,962	3.65%	229,952,723	3.63%			
Pre Retirement Aggressive 26+	213,881,887	3.13%	196,039,502	3.09%			
Fier I: GoalMaker Total	\$6,836,634,922	100.0%	\$6,338,680,121	100.0%			



Changes in Investment Fund Balances Period Ended December 31, 2022

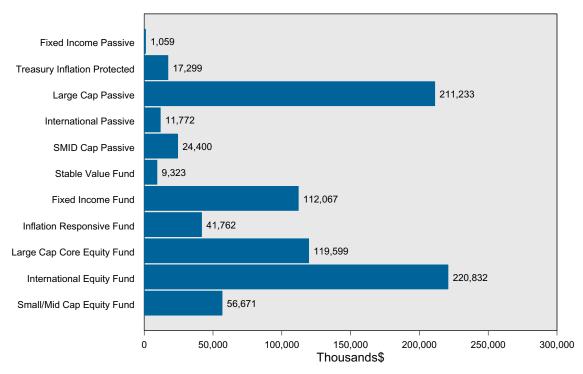
Allocation Across Investment Options

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



Changes in Fund Values

The chart below shows the net change in fund values across the various investment options for the quarter ended December 31, 2022. The change in value for each fund is the result of a combination of 3 factors: 1) market movements; 2) contributions or disbursements into or out of the funds by the participants (and any matching done by the company); and 3) transfers between funds by the participants.





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

	3 Years Ended 12/2022		3 Years Ended 9/2022		3 Years Ended 6/2022		3 Years Ended 3/2022	
ier 2: Passive (Net of Fee)								
Fixed Income Passive	(2.79%)	80	(3.28%)	82	(0.96%)	81	1.65%	89
Blmbg Aggregate	(2.71%)	78	(3.26%)	81	(0.93%)	78	1.69%	88
Callan Core Bond MFs	(2.41%)		(2.95%)		(0.60%)		2.22%	
Large Cap Passive	7.65%	54	8.15%	50	10.59%	38	18.92%	30
S&P 500 Index	7.66%	53	8.16%	50	10.60%	38	18.92%	30
Callan Large Cap Core MFs	7.69%		8.12%		10.21%		17.52%	
International Passive	0.04%	68	(1.78%)	56	1.29%	56	7.25%	51
International Benchmark (1)	(0.22%)	70	(1.76%)	56	1.02%	59	7.39%	47
Callan Non US Equity MFs	0.84%		(1.43%)		1.45%		7.26%	
SMID Cap Passive	4.91%	61	5.26%	40	5.85%	51	13.73%	31
Russell 2500 Index	5.00%	58	5.36%	38	5.91%	50	13.79%	30
Callan SMID Core MFs	5.25%		4.24%		5.96%		13.30%	
Inflation Responsive Fund	2.28%	88	1.50%	83	4.93%	73	9.25%	71
Inflation Responsive Benchmark	2.12%	88	1.37%	84	4.76%	73	9.11%	71
Callan Real Assets MFs	5.24%		4.21%		6.16%		10.22%	

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



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 12/2022		3 Years Ended 9/2022		3 Years Ended 6/2022		3 Years Ended 3/2022	
Tier 2: Active (Net of Fee)								
Stable Value Fund 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value CT	2.01% 1.30% 2.22% 1.51%	6 84 2	2.05% 1.08% 2.09% 1.55%	5 93 4	2.11% 0.93% 2.13% 1.57%	4 98 3	2.18% 0.85% 2.31% 1.64%	3 99 2
Fixed Income Fund Blmbg Aggregate Callan Core Plus MFs	(2.40%) (2.71%) (2.42%)	48 82	(2.93%) (3.26%) (2.84%)	52 80	(0.43%) (0.93%) (0.69%)	34 76	2.77% 1.69% 2.47%	31 92
TCW Core Plus Blmbg Aggregate Callan Core Bond MFs	(2.29%) (2.71%) (2.41%)	41 78	(2.79%) (3.26%) (2.95%)	43 81	(0.22%) (0.93%) (0.60%)	22 78	2.71% 1.69% 2.22%	17 88
Prudential Core Plus Blmbg Aggregate Callan Core Plus MFs	(2.48%) (2.71%) (2.42%)	61 82	(2.98%) (3.26%) (2.84%)	62 80	(0.57%) (0.93%) (0.69%)	39 76	2.90% 1.69% 2.47%	25 92
Large Cap Core Equity Fund Russell 1000 Index Callan Lg Cap Broad MF	5.99% 7.35% 6.51%	58 37	5.96% 7.95% 6.34%	59 36	7.57% 10.17% 8.69%	67 29	17.16% 18.71% 17.33%	52 37
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	8.38% 5.96% 6.94%	26 73	5.84% 4.36% 5.22%	39 72	8.45% 6.87% 7.65%	34 72	16.01% 13.02% 13.67%	24 63
Macquarie Large Cap Value Russell 1000 Value Index Callan Lg Cap Value MF	6.73% 5.96% 6.94%	60 73	4.28% 4.36% 5.22%	77 72	7.09% 6.87% 7.65%	66 72	11.20% 13.02% 13.67%	90 63
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	(2.28%) 7.79% 4.94%	98 12	0.45% 10.67% 7.18%	98 6	(0.32%) 12.58% 8.84%	99 3	16.20% 23.60% 19.72%	85 5
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Grwth MF	4.80% 7.79% 4.94%	52 12	6.01% 10.67% 7.18%	66 6	7.03% 12.58% 8.84%	71 3	18.55% 23.60% 19.72%	67 5
International Equity Fund International Benchmark (1) Callan Non US Equity MFs	(2.36%) (0.22%) 0.84%	92 70	(3.39%) (1.76%) (1.43%)	80 56	(0.04%) 1.02% 1.45%	82 59	6.85% 7.39% 7.26%	57 47
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan Non US Equity MFs	(0.95%) 0.07% 0.06% 0.84%	85 67 68	(2.67%) (1.52%) (2.15%) (1.43%)	66 52 62	1.37% 1.35% 0.56% 1.45%	52 54 65	5.33% 7.51% 5.44% 7.26%	85 47 82
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan Non US Equity MFs	(2.99%) 0.07% (0.40%) 0.84%	95 67 74	(3.66%) (1.52%) (1.38%) (1.43%)	85 52 49	(0.66%) 1.35% 1.62% 1.45%	89 54 46	8.30% 7.51% 9.12% 7.26%	35 47 29
Small/Mid Cap Equity Fund Russell 2500 Index Callan SMID Broad MFs	6.38% 5.00% 4.75%	31 47	6.19% 5.36% 5.05%	34 42	6.56% 5.91% 5.77%	33 45	13.44% 13.79% 13.64%	51 49
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan SMID Value MFs	4.35% 5.22% 6.84%	81 72	2.57% 4.52% 5.71%	85 67	4.90% 6.19% 7.78%	98 61	10.96% 12.98% 13.70%	98 65
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan SMID Growth MFs	4.88% 2.88% 2.78%	32 49	5.61% 4.76% 4.84%	37 50	4.25% 3.68% 2.99%	38 40	12.85% 12.99% 13.93%	57 57

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



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

Returns and Rankings for Periods Ended December 31, 2022

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
Tier 2: Active (Gross of Fee) Stable Value Fund										
Galliard Stable Value 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value SA	0.57% 1.04% 1.21% 0.57%	46 2 2	1.98% 3.12% 2.96% 1.94%	45 3 4	2.14% 1.30% 2.22% 2.05%	32 93 29	2.32% 1.68% 2.76% 2.24%	32 91 1	1.20% (1/	/11) /11) /11)
Fixed Income Fund										
TCW Core Plus Blmbg Aggregate Callan Core Bond FI	1.94% 1.87% 1.87%	40 47	(14.12%) (13.01%) (12.90%)	96 59	(2.16%) (2.71%) (2.16%)	50 96	0.61% 0.02% 0.48%	26 98	1.09% (1/ 0.60% (1/ -	/17) /17)
Prudential Core Plus Blmbg Aggregate Callan Core Bond FI	1.93% 1.87% 1.87%	40 47	(14.61%) (13.01%) (12.90%)	98 59	(2.48%) (2.71%) (2.16%)	79 96	0.65% 0.02% 0.48%	19 98		/15) /15)
Large Cap Core Equity Fund										
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Large Cap Value	16.83% 12.42% 13.33%	3 67	(4.39%) (7.54%) (4.92%)	49 80	8.82% 5.96% 7.79%	33 93	7.78% 6.67% 7.55%	45 71		/09) /09)
Macquarie Large Cap Value Russell 1000 Value Index Callan Large Cap Value	13.89% 12.42% 13.33%	38 67	(2.75%) (7.54%) (4.92%)	33 80	7.02% 5.96% 7.79%	64 93	7.77% 6.67% 7.55%	45 71		/15) /15)
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	1.86% 2.20% 3.59%	68 67	(48.40%) (29.14%) (29.99%)	98 42	(1. <mark>85%)</mark> 7.79% 6.21%	97 29	6.36% 10.96% 9.95%	93 25		/09) /09)
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	6.23% 2.20% 3.59%	25 67	(27.00%) (29.14%) (29.99%)	30 42	5.20% 7.79% 6.21%	60 29	8.76% 10.96% 9.95%	73 25		/14) /14)
BlackRock Russell 1000 Index Russell 1000 Index Callan Large Cap Core	7.25% 7.24% 7.71%	63 63	(19.23%) (19.13%) (17.42%)	85 84	7.42% 7.35% 7.96%	67 67	9.12% 9.13% 9.24%	52 52		1/17) 1/17)
International Equity Fund										
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan NonUS Eq	15.62% 14.28% 15.70% 16.03%	56 77 55	(11.16%) (16.00%) (8.59%) (15.29%)	20 53 12	(0.56%) 0.07% 0.06% 1.39%	84 73 73	0.83% 0.88% (0.05%) 1.99%	77 77 90	7.13% (4)	/09) /09) /09)
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan NonUS Eq	14.73% 14.28% 12.89% 16.03%	69 77 89	(27.82%) (16.00%) (23.05%) (15.29%)	92 53 83	(2.73%) 0.07% (0.40%) 1.39%	97 73 83	0.61% 0.88% 1.49% 1.99%	80 77 64	7.13% (4)	/09) /09) /09)
Small/Mid Cap Equity Fund										
Earnest Partners Small/Mid Cap Russell 2500 Index Callan Small/MidCap Core	8.05% 7.43% 10.01%	73 86	(13.25%) (18.37%) (15.00%)	40 74	5.00% 6.20%	67	- 5.89% 6.85%	67	(1.35%) (4/ (7.67%) (4/	
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	11.46% 9.21% 11.59%	53 91	(12.06%) (13.08%) (9.80%)	65 73	4.81% 5.22% 6.71%	75 74	3.81% 4.75% 5.89%	84 77		/12) /12)
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan Sm/MidCap Growth	5.79% 4.72% 5.17%	36 63	(19.67%) (26.21%) (28.40%)	1 33	5.30% 2.88% 3.39%	32 65	9.03% 5.97% 8.02%	32 70		/09) /09)
BlackRock Russell 2500 Index Russell 2500 Index Callan Small/MidCap Core	7.56% 7.43% 10.01%	85 86	(18.80%) (18.37%) (15.00%)	75 74	5.20% 5.00% 6.20%	66 67	5.98% 5.89% 6.85%	65 67		1/17) 1/17)



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

	3 Years Ended 12/2022		3 Years Ended 9/2022		3 Years Ended 6/2022		3 Years Ended 3/2022	
Tier 2: Active (Gross of Fee) Stable Value Fund								
Galliard Stable Value 3 Yr US Treas Rolling T-Bill + 1.5% Callan Stable Value SA	2.14% 1.30% 2.22% 2.05%	32 93 29	2.18% 1.08% 2.09% 2.07%	31 95 48	2.24% 0.93% 2.13% 2.14%	35 96 52	2.31% 0.85% 2.31% 2.20%	34 97 35
Fixed Income Fund	2.00 //		2.01 /0		2.1170		2.2070	
TCW Core Plus Blmbg Aggregate Callan Core Bond Fl	(2.16%) (2.71%) (2.16%)	50 96	(2.67%) (3.26%) (2.70%)	45 95	(0.10%) (0.93%) (0.44%)	20 93	2.83% 1.69% 2.33%	13 96
Prudential Core Plus Blmbg Aggregate Callan Core Bond Fl	(2.48%) (2.71%) (2.16%)	79 96	(2.98%) (3.26%) (2.70%)	81 95	(0.57%) (0.93%) (0.44%)	67 93	2.90% 1.69% 2.33%	10 96
Large Cap Core Equity Fund								
Hotchkis & Wiley Large Cap Value Russell 1000 Value Index Callan Large Cap Value	8.82% 5.96% 7.79%	33 93	6.27% 4.36% 6.07%	48 89	8.89% 6.87% 8.64%	47 93	16.46% 13.02% 14.47%	25 79
Macquarie Large Cap Value Russell 1000 Value Index Callan Large Cap Value	7.02% 5.96% 7.79%	64 93	4.57% 4.36% 6.07%	85 89	7.39% 6.87% 8.64%	79 93	11.50% 13.02% 14.47%	95 79
Sands Capital Large Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	(1.85%) 7.79% 6.21%	97 29	0.90% 10.67% 7.85%	96 13	0.13% 12.58% 9.45%	97 11	16.71% 23.60% 20.12%	91 11
Loomis SaylesLarge Cap Growth Russell 1000 Growth Index Callan Large Cap Growth	5.20% 7.79% 6.21%	60 29	6.42% 10.67% 7.85%	67 13	7.44% 12.58% 9.45%	77 11	18.98% 23.60% 20.12%	69 11
International Equity Fund								
Mondrian ACWI ex-US Value MSCI ACWI ex US MSCI ACWI ex US Value Callan NonUS Eq	(0.56%) 0.07% 0.06% 1.39%	84 73 73	(2.29%) (1.52%) (2.15%) (0.57%)	78 67 74	1.76% 1.35% 0.56% 2.37%	60 68 82	5.73% 7.51% 5.44% 8.92%	90 70 92
Baillie Gifford ACWI ex-US Growth MSCI ACWI ex US MSCI ACWI ex US Growth Callan NonUS Eq	(2.73%) 0.07% (0.40%) 1.39%	97 73 83	(3.41%) (1.52%) (1.38%) (0.57%)	93 67 65	(0.39%) 1.35% 1.62% 2.37%	90 68 64	8.59% 7.51% 9.12% 8.92%	55 70 47
Small/Mid Cap Equity Fund								
Wedge Small/Mid Cap Value Russell 2500 Value Index Callan Small/MidCap Value	4.81% 5.22% 6.71%	75 74	3.01% 4.52% 6.18%	80 68	5.35% 6.19% 7.72%	81 75	11.46% 12.98% 14.58%	82 70
Brown Advisory Small/Mid Cap Growth Russell 2500 Growth Index Callan Sm/MidCap Growth	5.30% 2.88% 3.39%	32 65	6.03% 4.76% 5.18%	37 55	4.68% 3.68% 4.10%	39 63	13.32% 12.99% 14.96%	70 74



Investment Fund Returns

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

Returns for Periods Ended December 31, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Conservative 11+	3.20%	(9.36%)	1.38%	-	-
Post Ret Conservative 11+ Index	3.27%	(8.25%)	1.30%	-	-
Post Retirement Conservative 6-10	3.41%	(9.97%)	1.24%	-	-
Post Ret Conservative 6-10 Index	3.47%	(8.76%)	1.19%	-	-
Post Retirement Conservative 0-5	3.67%	(10.76%)	1.31%	_	-
Post Ret Conservative 0-5 Index	3.69%	(9.60%)	1.26%	-	-
Pre Retirement Conservative 0-5	4.25%	(12.16%)	1.10%	2.98%	3.82%
Pre Ret Conservative 0-5 Index	4.23%	(10.84%)	1.16%	2.77%	3.55%
Pre Retirement Conservative 6-10	5.04%	(13.52%)	1.10%	3.15%	4.32%
Pre Ret Conservative 6-10 Index	4.97%	(12.09%)	1.27%	2.96%	4.07%
Pre Retirement Conservative 11-15	5.67%	(14.59%)	1.33%	3.46%	5.23%
Pre Ret Conservative 11-15 Index	5.56%	(13.17%)	1.58%	3.29%	5.01%
Pre Retirement Conservative 16-20	6.81%	(15.97%)	1.34%	3.70%	6.10%
Pre Ret Conservative 16-20 Index	6.67%	(14.30%)	1.81%	3.59%	5.95%
Pre Retirement Conservative 21-25	7.62%	(16.96%)	1.74%	_	-
Pre Ret Conservative 21-25 Index	7.44%	(15.32%)	2.30%	-	-
Pre Retirement Conservative 26+	8.44%	(17.36%)	2.19%	-	-
Pre Ret Conservative 26+ Index	8.24%	(15.71%)	2.84%	-	-



Investment Fund Returns

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

Returns for Periods Ended December 31, 2022

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Conservative 11+	-	-	2.98% (7/18)
Post Ret Conservative 11+ Index	-	-	2.75% (7/18)
Post Retirement Conservative 6-10	-	-	2.99% (7/18)
Post Ret Conservative 6-10 Index	-	-	2.76% (7/18)
Post Retirement Conservative 0-5	-	-	3.13% (7/18)
Post Ret Conservative 0-5 Index	-	-	2.91% (7/18)
Pre Retirement Conservative 0-5	3.82%	-	4.98% (7/09)
Pre Ret Conservative 0-5 Index	3.49%	3.44%	4.23% (7/09)
Pre Retirement Conservative 6-10	4.42%	-	5.75% (7/09)
Pre Ret Conservative 6-10 Index	4.09%	3.77%	4.95% (7/09)
Pre Retirement Conservative 11-15	5.49%	-	6.89% (7/09)
Pre Ret Conservative 11-15 Index	5.22%	4.52%	6.40% (7/09)
Pre Retirement Conservative 16-20	6.57%	-	8.08% (7/09)
Pre Ret Conservative 16-20 Index	6.34%	5.01%	7.72% (7/09)
Pre Retirement Conservative 21-25	-	-	4.22% (7/18)
Pre Ret Conservative 21-25 Index	-	-	4.29% (7/18)
Pre Retirement Conservative 26+	-	-	4.56% (7/18)
Pre Ret Conservative 26+ Index	-	-	4.67% (7/18)



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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee))				
Post Retirement Moderate 11+	4.19%	(10.56%)	1.99%	-	-
Post Ret Moderate 11+ Index	4.22%	(9.42%)	2.04%	-	-
Post Retirement Moderate 6-10	4.64%	(11.63%)	1.86%	-	-
Post Ret Moderate 6-10 Index	6.26%	(10.72%)	2.41%	-	-
Post Retirement Moderate 0-5	5.10%	(13.07%)	1.73%	-	-
Post Ret Moderate 0-5 Index	5.05%	(11.78%)	1.89%	-	-
Pre Retirement Moderate 0-5	5.75%	(14.26%)	1.52%	3.56%	4.85%
Pre Ret Moderate 0-5 Index	5.67%	(12.78%)	1.81%	3.43%	4.65%
Pre Retirement Moderate 6-10	6.71%	(15.50%)	1.63%	3.77%	5.45%
Pre Ret Moderate 6-10 Index	6.58%	(13.91%)	2.07%	3.68%	5.29%
Pre Retirement Moderate 11-15	7.58%	(16.50%)	1.89%	4.07%	6.19%
Pre Ret Moderate 11-15 Index	7.41%	(14.86%)	2.43%	4.00%	6.06%
Pre Retirement Moderate 16-20	8.44%	(17.36%)	2.19%	4.40%	7.16%
Pre Ret Moderate 16-20 Index	8.24%	(15.71%)	2.84%	4.36%	7.09%
Pre Retirement Moderate 21-25	9.14%	(17.74%)	2.45%	-	-
Pre Ret Moderate 21-25 Index	8.93%	(16.01%)	3.19%	-	-
Pre Retirement Moderate 26+	9.68%	(18.05%)	2.83%	-	-
Pre Ret Moderate 26+ Index	9.46%	(16.36%)	3.59%	-	-



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

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Moderate 11+	-	-	3.59% (7/18)
Post Ret Moderate 11+ Index	-	-	3.45% (7/18)
Post Retirement Moderate 6-10	-	-	3.67% (7/18)
Post Ret Moderate 6-10 Index	-	-	3.77% (7/18)
Post Retirement Moderate 0-5	-	-	3.78% (7/18)
Post Ret Moderate 0-5 Index	-	-	3.66% (7/18)
Pre Retirement Moderate 0-5	4.94%	-	6.19% (7/09)
Pre Ret Moderate 0-5 Index	4.65%	4.13%	5.56% (7/09)
Pre Retirement Moderate 6-10	5.65%	-	6.92% (7/09)
Pre Ret Moderate 6-10 Index	5.41%	4.65%	6.54% (7/09)
Pre Retirement Moderate 11-15	6.49%	-	7.93% (7/09)
Pre Ret Moderate 11-15 Index	6.27%	5.02%	7.53% (7/09)
Pre Retirement Moderate 16-20	7.62%	-	9.12% (7/09)
Pre Ret Moderate 16-20 Index	7.43%	5.46%	8.87% (7/09)
Pre Retirement Moderate 21-25	-	-	4.78% (7/18)
Pre Ret Moderate 21-25 Index	-	-	4.94% (7/18)
Pre Retirement Moderate 26+	-	-	5.07% (7/18)
Pre Ret Moderate 26+ Index	-	-	5.24% (7/18)



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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Aggressive 11+	5.43%	(12.31%)	3.93%	-	-
Post Ret Aggressive 11+ Index	5.40%	(11.08%)	2.73%	-	-
Post Retirement Aggressive 6-10	6.02%	(13.30%)	3.91%	-	-
Post Ret Aggressive 6-10 Index	5.98%	(11.96%)	2.86%		-
Post Retirement Aggressive 0-5	6.46%	(14.76%)	3.61%	-	-
Post Ret Aggressive 0-5 Index	6.36%	(13.40%)	2.67%		-
Pre Retirement Aggressive 0-5	7.21%	(16.16%)	3.36%	4.97%	6.43%
Pre Ret Aggressive 0-5 Index	7.05%	(14.74%)	2.73%	4.24%	5.81%
Pre Retirement Aggressive 6-10	8.33%	(17.17%)	2.90%	4.78%	6.71%
Pre Ret Aggressive 6-10 Index	8.15%	(15.45%)	2.84%	4.32%	6.29%
Pre Retirement Aggressive 11-15	9.14%	(17.74%)	2.80%	4.82%	7.29%
Pre Ret Aggressive 11-15 Index	8.93%	(16.01%)	3.19%	4.61%	7.08%
Pre Retirement Aggressive 16-20	9.62%	(18.01%)	2.86%	4.92%	8.11%
Pre Ret Aggressive 16-20 Index	9.40%	(16.31%)	3.50%	4.86%	8.04%
Pre Retirement Aggressive 21-25	10.01%	(18.22%)	2.85%	-	-
Pre Ret Aggressive 21-25 Index	9.79%	(16.49%)	3.71%	-	-
Pre Retirement Aggressive 26+	10.01%	(18.22%)	2.85%	-	<u>-</u>
Pre Ret Aggressive 26+ Index	9.79%	(16.49%)	3.71%	-	-



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

	Last 10 Years	Last 15 Years	Since Inception
Tier 1: GoalMaker Funds (Net of Fee)			
Post Retirement Aggressive 11+	-	-	5.20% (7/18)
Post Ret Aggressive 11+ Index	-	-	4.19% (7/18)
Post Retirement Aggressive 6-10	_	-	5.34% (7/18)
Post Ret Aggressive 6-10 Index	-	-	4.41% (7/18)
Post Retirement Aggressive 0-5	-	-	5.32% (7/18)
Post Ret Aggressive 0-5 Index	-	-	4.44% (7/18)
Pre Retirement Aggressive 0-5	6.43%	-	7.71% (7/09)
Pre Ret Aggressive 0-5 Index	5.86%	4.91%	6.96% (7/09)
Pre Retirement Aggressive 6-10	6.85%	-	8.28% (7/09)
Pre Ret Aggressive 6-10 Index	6.43%	5.13%	7.65% (7/09)
Pre Retirement Aggressive 11-15	7.64%	-	9.03% (7/09)
Pre Ret Aggressive 11-15 Index	7.34%	5.52%	8.72% (7/09)
Pre Retirement Aggressive 16-20	8.63%	-	10.13% (7/09)
Pre Ret Aggressive 16-20 Index	8.45%	5.85%	10.00% (7/09)
Pre Retirement Aggressive 21-25	-	-	5.09% (7/18)
Pre Ret Aggressive 21-25 Index	-	-	5.31% (7/18)
Pre Retirement Aggressive 26+	-	-	5.09% (7/18)
Pre Ret Aggressive 26+ Index	-	-	5.31% (7/18)



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

	3 Years Ended 12/2022	3 Years Ended 9/2022	3 Years Ended 6/2022	3 Years Ended 3/2022	
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Conservative 11+	1.38%	1.12%	2.81%	5.71%	
Post Ret Conservative 11+ Index	1.30%	0.93%	2.47%	5.07%	
Post Retirement Conservative 6-10	1.24%	0.96%	2.73%	5.79%	
Post Ret Conservative 6-10 Index	1.19%	0.80%	2.40%	5.15%	
Post Retirement Conservative 0-5	1.31%	1.01%	2.86%	6.18%	
Post Ret Conservative 0-5 Index	1.26%	0.87%	2.56%	5.57%	
Pre Retirement Conservative 0-5	1.10%	0.77%	2.81%	6.55%	
Pre Ret Conservative 0-5 Index	1.16%	0.72%	2.59%	5.99%	
Pre Retirement Conservative 6-10	1.10%	0.71%	2.92%	7.14%	
Pre Ret Conservative 6-10 Index	1.27%	0.78%	2.81%	6.68%	
Pre Retirement Conservative 11-15	1.33%	0.93%	3.25%	7.94%	
Pre Ret Conservative 11-15 Index	1.58%	1.09%	3.24%	7.59%	
Pre Retirement Conservative 16-20	1.34%	0.91%	3.41%	8.69%	
Pre Ret Conservative 16-20 Index	1.81%	1.26%	3.58%	8.51%	
Pre Retirement Conservative 21-25	1.74%	1.30%	3.90%	9.73%	
Pre Ret Conservative 21-25 Index	2.30%	1.76%	4.18%	9.69%	
Pre Retirement Conservative 26+	2.19%	1.77%	4.37%	10.60%	
Pre Ret Conservative 26+ Index	2.84%	2.29%	4.71%	10.68%	



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 12/2022	3 Years Ended 9/2022	3 Years Ended 6/2022	3 Years Ended 3/2022	
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Moderate 11+	1.99%	1.73%	3.54%	7.03%	
Post Retirement Moderate 6-10	1.86%	1.57%	3.53%	7.36%	
Post Ret Moderate 6-10 Index	2.41%	1.86%	3.72%	7.73%	
Post Retirement Moderate 0-5	1.73%	1.41%	3.53%	7.80%	
Pre Retirement Moderate 0-5	1.52%	1.15%	3.45%	8.11%	
Pre Ret Moderate 0-5 Index	1.81%	1.33%	3.45%	7.78%	
Pre Retirement Moderate 6-10	1.63%	1.23%	3.66%	8.87%	
Pre Ret Moderate 6-10 Index	2.07%	1.55%	3.79%	8.67%	
Pre Retirement Moderate 11-15	1.89%	1.47%	3.99%	9.72%	
Pre Ret Moderate 11-15 Index	2.43%	1.90%	4.24%	9.66%	
Pre Retirement Moderate 16-20	2.19%	1.77%	4.37%	10.60%	
Pre Ret Moderate 16-20 Index	2.84%	2.29%	4.71%	10.68%	
Pre Retirement Moderate 21-25	2.45%	2.03%	4.67%	11.23%	
Pre Ret Moderate 21-25 Index	3.19%	2.63%	5.08%	11.40%	
Pre Retirement Moderate 26+	2.83%	2.43%	5.04%	11.92%	
Pre Ret Moderate 26+ Index	3.59%	3.05%	5.48%	12.17%	



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 12/2022	3 Years Ended 9/2022	3 Years Ended 6/2022	3 Years Ended 3/2022	
Tier 1: GoalMaker Funds (Net of Fee)					
Post Retirement Aggressive 11+	3.93%	3.67%	5.67%	10.03%	
Post Ret Aggressive 11+ Index	2.73%	2.36%	4.17%	8.23%	
Post Retirement Aggressive 6-10	3.91%	3.63%	5.76%	10.51%	
Post Ret Aggressive 6-10 Index	2.86%	2.47%	4.40%	8.83%	
Post Retirement Aggressive 0-5	3.61%	3.29%	5.60%	10.80%	
Post Ret Aggressive 0-5 Index	2.67%	2.25%	4.37%	9.23%	
Pre Retirement Aggressive 0-5	3.36%	3.00%	5.48%	11.22%	
Pre Ret Aggressive 0-5 Index	2.73%	2.28%	4.57%	9.98%	
Pre Retirement Aggressive 6-10	2.90%	2.49%	5.10%	11.29%	
Pre Ret Aggressive 6-10 Index	2.84%	2.29%	4.70%	10.56%	
Pre Retirement Aggressive 11-15	2.80%	2.38%	5.03%	11.61%	
Pre Ret Aggressive 11-15 Index	3.19%	2.63%	5.08%	11.40%	
Pre Retirement Aggressive 16-20	2.86%	2.46%	5.07%	11.91%	
Pre Ret Aggressive 16-20 Index	3.50%	2.96%	5.39%	12.01%	
Pre Retirement Aggressive 21-25	2.85%	2.45%	5.08%	12.11%	
Pre Ret Aggressive 21-25 Index	3.71%	3.16%	5.61%	12.45%	
Pre Retirement Aggressive 26+	2.85%	2.45%	5.08%	12.11%	
Pre Ret Aggressive 26+ Index	3.71%	3.16%	5.61%	12.45%	



Galliard Stable Value Period Ended December 31, 2022

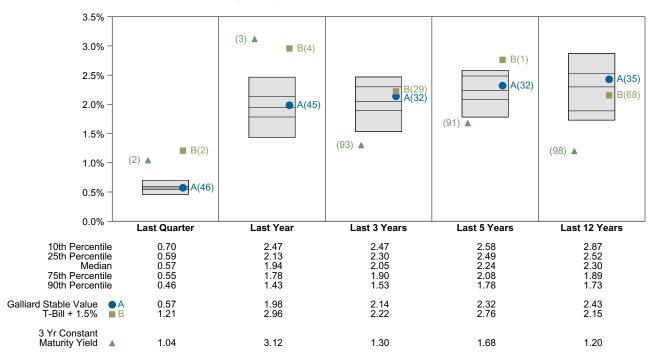
Investment Philosophy

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

Quarterly Summary and Highlights

- Galliard Stable Value's portfolio posted a 0.57% return for the quarter placing it in the 46 percentile of the Callan Stable Value SA group for the quarter and in the 45 percentile for the last year.
- Galliard Stable Value's portfolio underperformed the 3 Yr Constant Maturity Yield by 0.47% for the quarter and underperformed the 3 Yr Constant Maturity Yield for the year by 1.13%.

Performance vs Callan Stable Value SA (Gross)

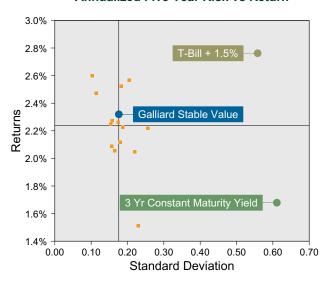


Relative Returns vs 3 Yr Constant Maturity Yield

0.8%
0.6%
0.4%
0.2%
0.0%
(0.2%)
(0.4%)
(0.6%)
2018
2019
2020
2021
2022

Galliard Stable Value

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



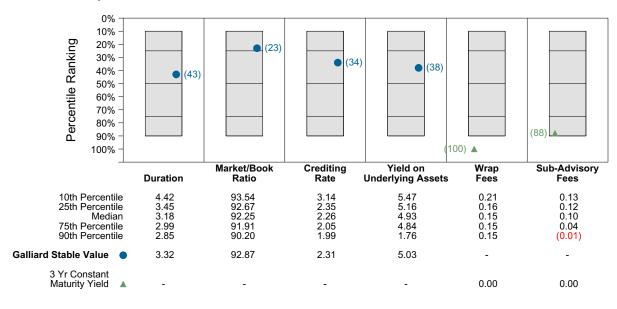


Galliard Stable Value Stable Value Characteristics Analysis Summary

Portfolio Characteristics

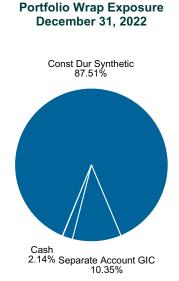
This graph compares the stable value fund's portfolio characteristics with the range of characteristics for the portfolios which make up the fund's style group. This analysis illustrates whether the fund's current structure is consistent with other funds employing the same style.

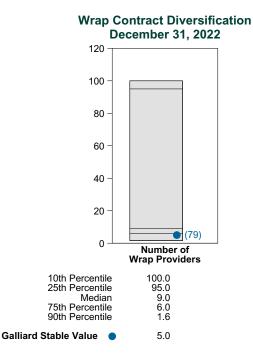
Portfolio Characteristics Percentile Rankings Rankings Against Callan Stable Value SA as of December 31, 2022



Wrap Structure and Diversification

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

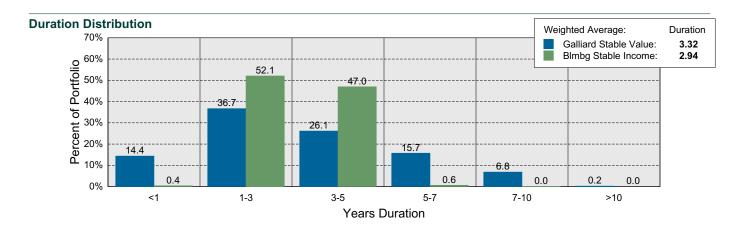




Galliard Stable Value Stable Value Portfolio Characteristics Summary As of December 31, 2022

Portfolio Structure Comparison

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

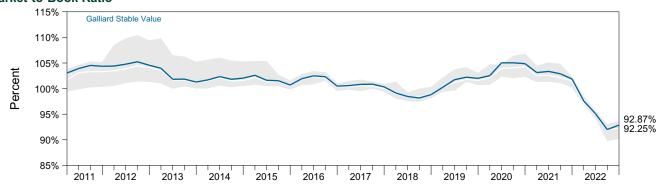




Market-to-Book Ratio Over Time

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

Market-to-Book Ratio





IRS Announces Updated Retirement Plan Limits for 2023

The IRS announced the updated retirement plan limits for 2023. Below, we highlight the notable defined contribution plan limits:

- The annual contribution limit will increase 10% from \$20,500 to \$22,500.
- After no change last year, the age 50 annual catch-up contribution limit will increase from \$6,500 to \$7,500.
- The annual compensation limit will increase from \$305,000 to \$330,000.
- With a larger increase than in prior years, the Section 415(c) limit will increase from \$61,000 to \$66,000.
- The highly compensated employee threshold will increase from \$135,000 to \$150,000.

New Final DOL ESG and Proxy Voting Rule

The U.S. Department of Labor (DOL) released a final rule (Final Rule) on November 22, 2022 that clarifies fiduciary responsibilities under the Employee Retirement Income Securities Act (ERISA) for selecting investments and exercising shareholder rights such as proxy voting. The rule, titled "Final Rule on Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights," is summarized below. It is commonly known as the ESG rule.

In late 2020, under the prior Administration, the DOL published two rules that adopted amendments to ERISA's "Investment Duties" regulation. The first rule stated that plan fiduciaries must only consider "pecuniary factors" (loosely defined as financial factors) when selecting investments. The second rule addressed fiduciary obligations primarily around proxy voting. These rules caused confusion across a variety of stakeholders, especially around whether environmental, social, and governance (ESG) factors could be considered by plan fiduciaries in their investment decisions and actions. The rules were widely opposed by the investment industry for their "chilling effect" on considering ESG factors in investment decision-making and on the exercise of shareholder rights, including proxy voting.

In January 2021, the Biden Administration issued an executive order to review these (and other) regulations and in March 2021 the DOL announced its review as well as the fact that the 2020 rules would not be enforced. In May 2021, the White House issued a multipart executive order on climate-related financial risk that stated the DOL would consider publishing a proposed rule later in the year to "suspend, revise, or rescind" the then-current ESG and proxy voting rules. A proposed rule was released in October 2021 and comments were accepted for 60 days, during which time the DOL received more than 900 written responses. The effective date for the New Rule is 60 days from publication in the Federal Register save for a couple of specific features that have a one-year implementation timeline.

This New Rule is the most recent in a series of varying DOL positions that have tended to vacillate between Democratic and Republican presidential administrations, dating back decades. This differing guidance has been commonly referred to as regulatory whiplash or ping pong. The DOL has attempted to take a relatively neutral "principles-based" approach to ESG factors, with the goal of having the New Rule endure through future changes in administrations. Time will tell.

The Final Rule:

- Importantly, the New Rule retains the core principle that the "duties of prudence and loyalty require ERISA plan fiduciaries to focus on relevant risk-return factors and not subordinate the interests of participants and beneficiaries (such as by sacrificing investment returns or taking on additional investment risk) to objectives unrelated to the provision of benefits under the plan."
- That said, the New Rule clarifies that the "economic effects of climate change and other ESG considerations" are potentially relevant risk-return factors. The Rule does not require that ESG factors be considered, but it removes the barriers created by the 2020 rule for fiduciaries to do so. The Final Rule differs from the proposed rule in that it deletes the language that the consideration of ESG factors "may often be required" and instead provides that risk and return factors "may include the economic effects of climate change and other environmental, social, or governance factors on the particular investment or investment course of action," and that "[w]hether any particular consideration is a risk-return factor depends on the individual facts and circumstances." The Final Rule does not include examples of E, S, and G factors that were enumerated in the proposed rule. Ultimately, it is up to the plan fiduciary to determine the weight given to any factor (not just ESG) in assessing its impact on the risk and return of a potential investment or investment course of action.
- The New Rule also clarifies standards for qualified default investment alternatives (QDIAs) and states in the preamble that they are no different from those applied to other investments in that relevant risk-return factors must be the basis for determination. This has important implications in that it opens the door for defined contribution plans to select ESG options for QDIAs as long as it is financially prudent.
- A "tiebreaker test" was also revised to allow fiduciaries to consider "collateral benefits" (those other than riskreturn factors) when making a decision between competing investments that "equally serve the financial interests of the plan over the appropriate time horizon," though not if they reduce returns or increase risk. This is consistent with the proposed rule in that it removes the reference from the 2020 rule to tiebreakers only being used when investments are indistinguishable, which was widely viewed as a very high bar. The New Rule also eliminates the current rule's detailed documentation requirements when making tiebreaking decisions.
- The Final Rule permits fiduciaries to consider participant preferences, declaring that such consideration is not in violation of the fiduciary duty of loyalty. The DOL reasoned that a fiduciary may consider participant preferences (including ESG and other preferences) if it could lead to greater participation and higher deferral rates. That said, the inclusion of any such option must be prudent and may not be included simply due to participant preference. While this permits fiduciaries of participant-directed account plans such as 401(k)s to potentially consider participant preferences in determining their lineups, it raises other questions, including how to ascertain participant preferences.
- With regard to proxy voting and the exercise of shareholder rights, the Final Rule states that fiduciaries must exercise their shareholder rights prudently and for the benefit of participants and beneficiaries and not "subordinate" those interests to other objectives.

- The approach in the Final Rule regarding proxy voting is that proxies should be voted as part of the process of managing the plan's investment in company stock unless a responsible plan fiduciary determines voting proxies may not be in the plan's best interest (e.g., in cases when voting proxies may involve out of the ordinary costs or unusual requirements.) The DOL's position is that this approach recognizes the importance that prudent management of shareholder rights can have in enhancing the value of plan assets or protecting plan assets from risk.
- The Final Rule differentiates between when plans vote their own proxies from when that duty is delegated to investment managers. The rule states that investment managers should vote proxies in proportion to each plan's economic interest in a pooled vehicle, if it cannot reconcile different plans' proxy voting policies - this may be operationally burdensome. As an alternative, the investment manager may develop an investment policy statement and require participating plans to accept it upon subscribing to the pooled vehicle, thus putting the onus on ERISA fiduciaries to assess the proxy voting policy for ERISA compliance prior to investing.
- The Final Rule provides that a fiduciary may not adopt a practice of following the recommendations of a proxy advisory firm or other service provider without first determining that such firm or service provider's proxy voting guidelines are consistent with the fiduciary's obligations.
- The Final Rule requires plans to periodically review their proxy voting policies.

This Final Rule is considered a "win" for investors that embrace the notion that ESG factors may warrant consideration by fiduciaries in assessing the material risk and return implications for proposed investments or investment policies. That said, because the rule does not prescribe that ESG factors must be considered, the DOL may also be perceived as having taken a moderate approach.

The merits and importance of ESG investing remain hotly debated politically both at the federal level, in Congress, and at the state level. While the Final Rule provides increased regulatory clarity regarding ESG for ERISA fiduciaries, the topic remains politically controversial at the federal and state levels.

Callan will continue to follow emerging guidance on this Final Rule in the coming weeks and months and recommends that each plan sponsor consult with their own legal counsel.

SECURE 2.0 Signed into Law

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

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

- Student Debt "Match" Expanding on the tenets laid out in the Abbott private letter ruling, employers will have the ability to make matching contributions in a DC plan with respect to participant student loan repayments, meaning student loan repayments will be treated as elective deferrals for the purposes of nondiscrimination testing and safe harbor rules. This will take effect in 2024 and applies to 401(k) plans, 403(b) plans, and 457(b) plans. This is an optional provision.
- Roth Catch-Up Requirements Age 50+ catch-up contributions for employees whose compensation exceeds \$145,000 in the prior year must be made on a Roth basis. DC plans that do not offer Roth will need to add this additional catch-up source in the plan document and program the source with their recordkeeper. It is unclear if Roth would need to be offered for regular deferrals in a 401(k) plan, although it appears that Roth must be added as a regular deferral type in a 403(b) plan due to the universal availability requirement. The compensation limit will be subject to an annual cost-of-living adjustment in \$5,000 increments. This required modification will take effect in 2024 and applies to 401(k) plans, 403(b) plans, and 457(b) plans.
- Increased Catch-Up Limits The limit on catch-up contributions for participants aged 60-63 will be increased to the greater of \$10,000 (indexed) or 150% of the regular catch-up contribution. This will take effect in 2025 and applies to 401(k) plans, 403(b) plans, and 457(b) plans but does not apply to 457(b) special catch-up provisions. Plans are not required to implement this provision.
- Automatic Features for New Plans New DC plans established after the date of SECURE 2.0 enactment (Dec. 29, 2022) will be required to include automatic enrollment and automatic escalation features beginning with the 2025 plan year. These new plans will be required to automatically enroll participants at a rate between 3% and 10% of compensation and increase the deferral rate by at least 1% per year, up to at least 10% but not more than 15% of compensation.
- Emergency Savings Accounts If offered by an employer, non-highly compensated employees will be able to contribute up to \$2,500 to an in-plan emergency savings account and take monthly withdrawals, as needed. Only employee contributions will be permitted to these accounts, which will be treated as Roth deferrals and receive related matching contributions. Participant assets in these accounts will be required to be invested in a liquid principal preservation option. This optional provision will take effect in 2024.
- Increased Age for Required Minimum Distributions (RMD) The RMD age will increase from 72 to 73 on January 1, 2023, and to 75 on January 1, 2033. This will apply to 401(a) plans, 401(k) plans, 403(b) plans, and 457(b) plans. Beginning in 2024, RMDs will no longer be required from Roth accounts in DC plans, furthering the benefit of those accounts. Finally, in response to a common plan operational failure, the penalty for missing a RMD payment was also reduced from 50% to 25%.

- Qualified Longevity Annuity Contract (QLAC) Purchase Limit The previous limit on the purchase of a QLAC was the lesser of \$155,000 and 25% of an individual's account balance. SECURE 2.0 removes the 25% limit and raises the dollar limit from \$155,000 to \$200,000 in 2023.
- Cash Out Limit Previously, plan sponsors could "cash out" terminated participant balances under \$5,000 to an IRA. SECURE 2.0 increases the cash out limit to \$7,000. This provision will be effective for distributions after 2023.
- Collective Investment Trusts and 403(b) Plans SECURE 2.0 includes language amending ERISA that paves the way for 403(b) plans to be able to invest in collective investment trusts and unregistered insurance company separate accounts. However, certain securities laws exemptions were not included in SECURE 2.0, meaning further legislation will be necessary before such investments are permitted in 403(b) plans.
- Other topics Beyond the summary above, SECURE 2.0 also made changes to the "long-term part-time employee" eligibility requirements put in place by SECURE 2019, adds automatic portability options, enhances emergency withdrawal availability, establishes a "Retirement Lost and Found" searchable database, directs the DOL to provide guidance on asset allocation fund benchmarks, and much more, and much more. Callan will provide further updates in the upcoming weeks.

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

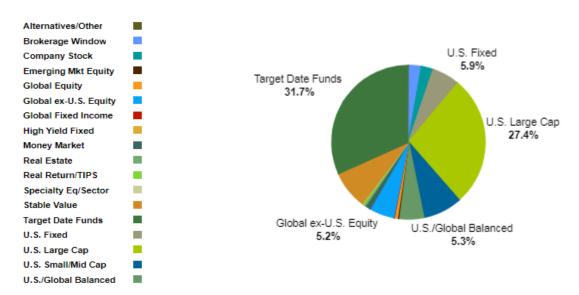
Structure Utilization

Asset Allocation

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.



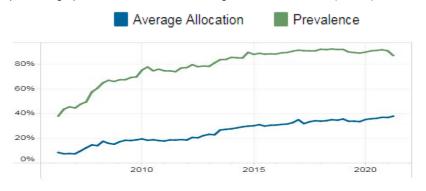
Prevalence

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%).



Glossary

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

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

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

Equity Market Indicators

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

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

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

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

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

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

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

Fixed Income Market Indicators

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

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



International Equity Market Indicators

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



Callan Databases

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

Equity Funds

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

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

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

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

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

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

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



Callan Databases

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

Fixed Income Funds

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

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

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



Risk/Reward Statistics

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

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

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

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

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

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

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

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

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



Risk/Reward Statistics

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

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

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

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

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

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

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

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

