

Callan



November 29, 2018

City of Atlanta General Employees' Pension Fund

Portfolio Review

Brian Smith, CFA
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Introduction



Fund Sponsor Consultant

Brian Smith, CFA

Senior Vice President

- MBA, DePaul University
- BS, Spring Hill College
- Chartered Financial Analyst
- 22 Years of Industry Experience

Additional Background

Brian works with a variety of clients, including endowments and foundations, 529 college savings plans, health care systems, and public pensions.

He is a member of Callan's **Manager Search Committee**.

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Fund Sponsor Consultant

Bill Emmett

Senior Vice President

- BBA, Georgia State University
- 18 Years of Industry Experience

Additional Background

Bill works with a variety of clients, including corporate defined benefit and defined contribution plans, health care systems, and public defined benefit plans.

He is a member of Callan's **Client Policy Review Committee**.

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City of Atlanta GEPF Highlights

- The **City of Atlanta General Employees' Pension Fund** (GEPF) totals \$1.48 billion in assets.
- Liquidity needs include an **estimated quarterly cash raise** of approximately \$20 million (\$6 to \$8 million deficit per month).
- An **actuarial return assumption** of 7.25%.
 - *The Fund needs to pursue return, therefore asset allocation policy emphasizes growth assets (70% equity).*
 - *Georgia law limits the Fund's equity exposure to 75%.*
- A well diversified portfolio across a range of asset categories with 21 **investment strategies**.
- Annual effective **investment management fees** of approximately 41 basis points.
 - *Greater non-US equity exposure and use of active management has led to higher fees relative to Police and Fire.*
- The **watch list** contains 3 investment managers:
 - *Mesirow Financial – core fixed income (personnel turnover); pending replacement search.*
 - *GLOBALT – tactical overlay (underperformance).*
 - *Mackay Shields (Cornerstone) – mid cap equity (underperformance).*

Strategic Policy Target Allocation

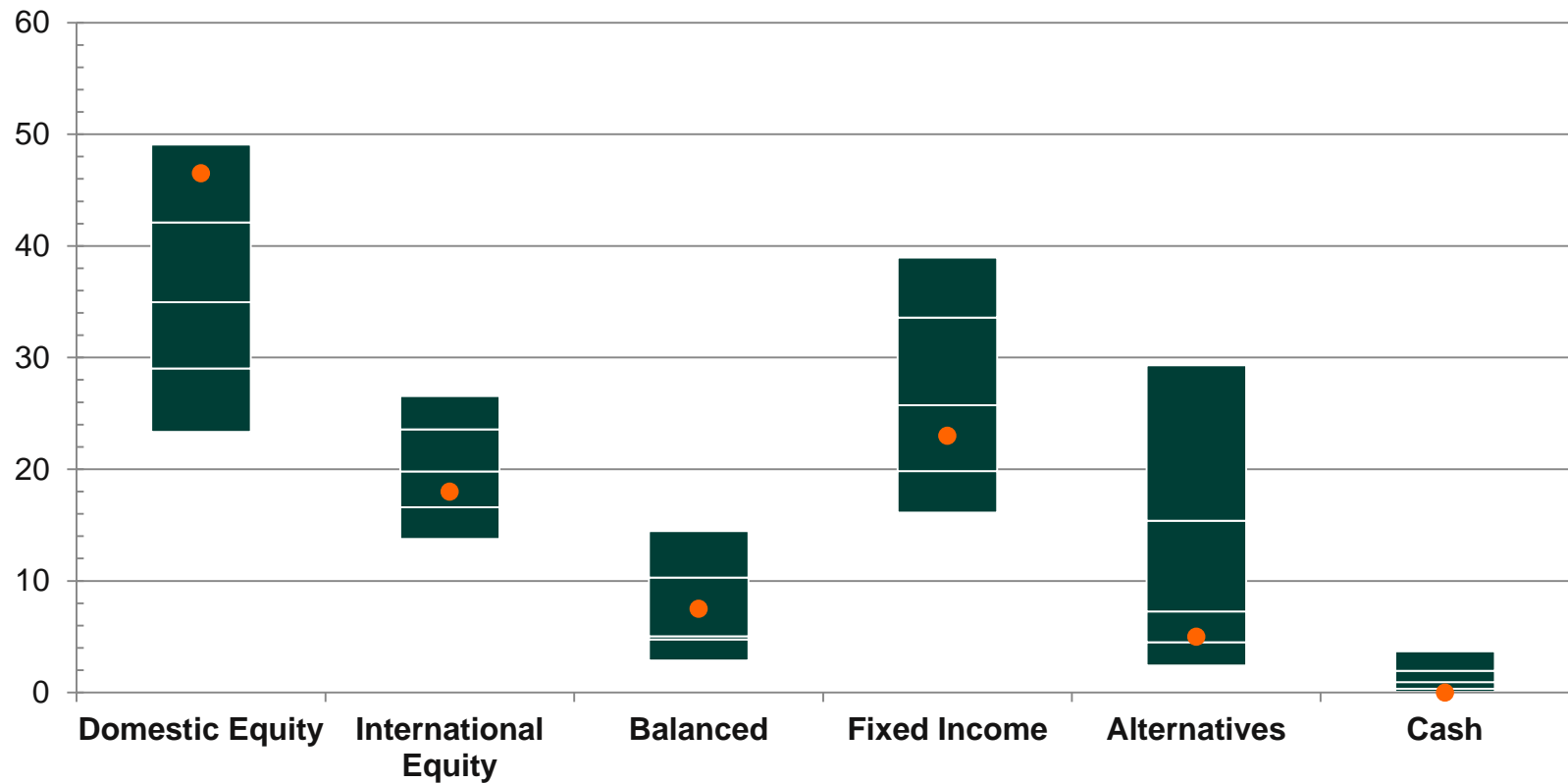
Asset Class	Strategic Policy Target	Actual Policy Target
Large Cap US Equity	32.5%	30.5%
SMID Cap US Equity	17.5%	16.0%
Broad International Equity	20.0%	18.0%
Balanced – Tactical Overlay	0.0%	7.5%
Broad US Fixed Income	25.0%	23.0%
Alternatives	5.0%	5.0%
Cash	0.0%	0.0%
Totals	100%	100%



- The current broad policy is 70% equity (50% in US markets, 20% in non-US markets), 25% fixed income and 5% alternatives. As part of this target, 7.5% is allocated to a balanced strategy (GLOBALT) that is intended as a tactical overlay.
- The **Strategic Policy Target** is set without regard to the balanced mandate and represents the strategic, long-term exposure to asset classes.
- The **Tactical Overlay** target asset allocation is the total fund policy, excluding the GLOBALT allocation.
- The **Actual Policy Target** scales the asset class targets so that when the allocations from the tactical overlay target are added back to the direct asset class allocations, the effective exposure lines up with the Strategic Policy Target.

Asset Allocation Relative to Peers

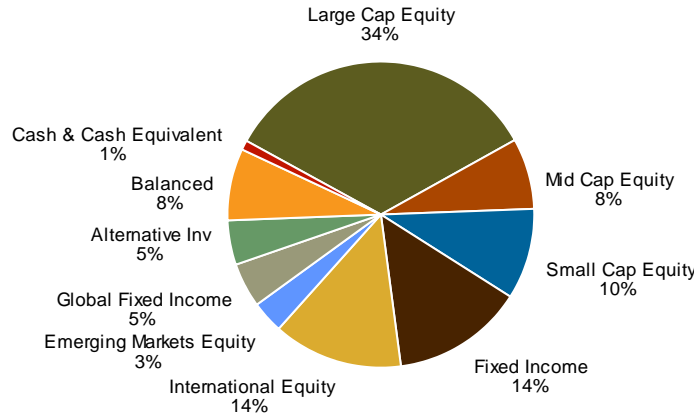
Target vs. Callan Public Fund Sponsor Database
(as of September 30, 2018)



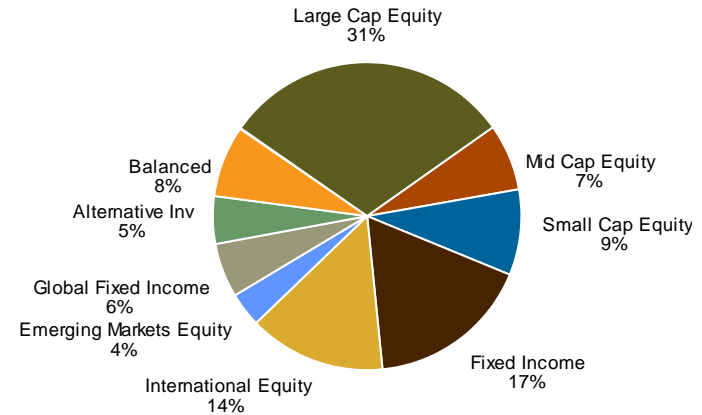
- The Fund has increased the allocation to international equity as a result of previous asset allocation reviews, but still has a substantial underweight relative to peers and the market opportunity set.
- The pursuit of growth and limits on alternatives leads to a higher concentration in domestic equity.

Actual vs. Target Asset Allocation – September 30, 2018

Actual Asset Allocation



Target Asset Allocation

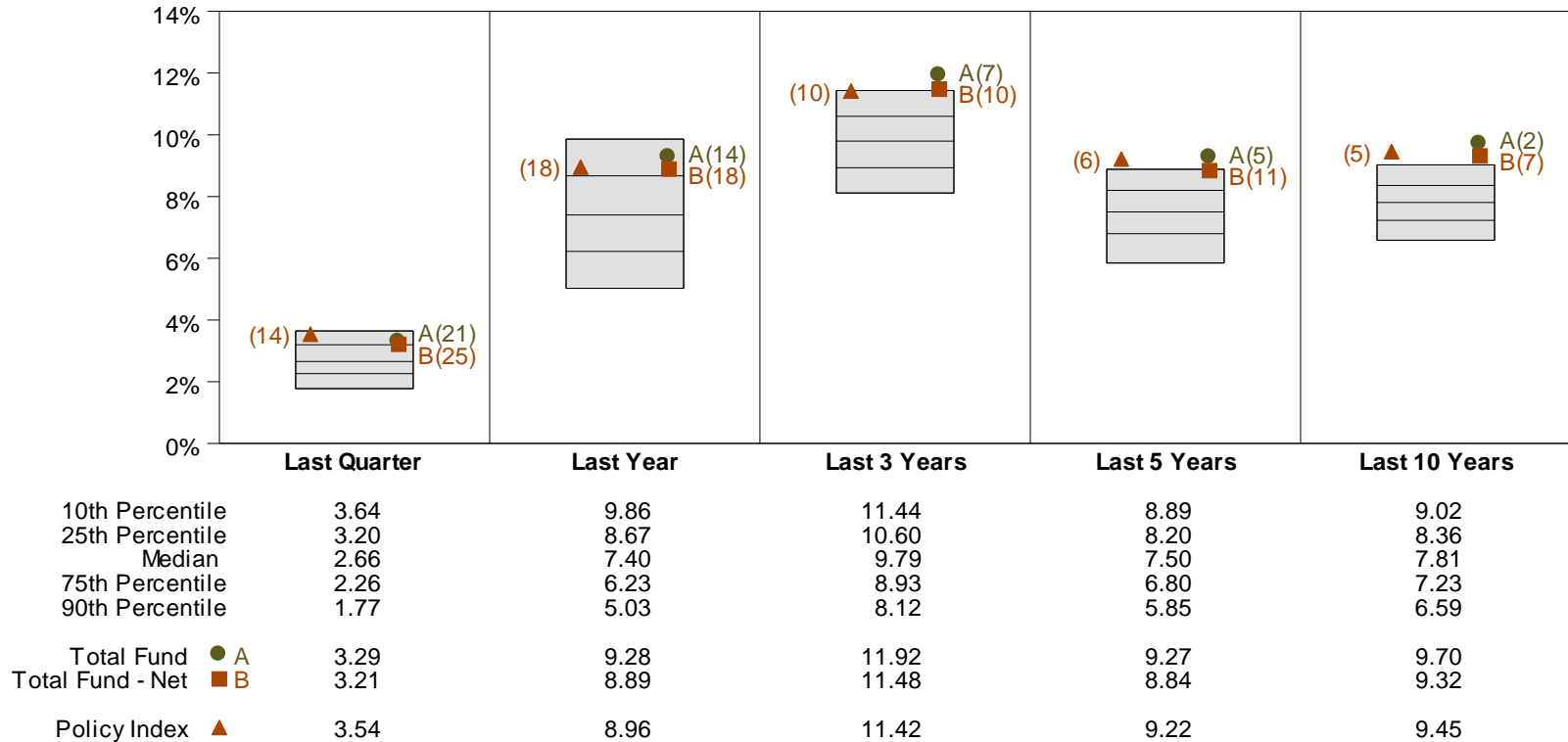


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap Equity	500,300	33.9%	30.5%	3.4%	49,535
Mid Cap Equity	111,066	7.5%	7.0%	0.5%	7,611
Small Cap Equity	141,882	9.6%	9.0%	0.6%	8,869
Fixed Income	205,860	13.9%	17.2%	(3.3%)	(49,081)
International Equity	202,599	13.7%	14.4%	(0.7%)	(10,221)
Emerging Markets Equity	50,515	3.4%	3.6%	(0.2%)	(2,690)
Global Fixed Income	69,089	4.7%	5.8%	(1.1%)	(15,891)
Alternative Inv	69,747	4.7%	5.0%	(0.3%)	(4,149)
Balanced	111,891	7.6%	7.5%	0.1%	1,047
Cash & Cash Equivalent	14,969	1.0%	0.0%	1.0%	14,969
Total	1,477,918	100.0%	100.0%		

- Total Fund assets stood at \$1.48 bn, an increase of approximately \$38.8 million during the quarter.
- Positive investment returns of \$47.0 million outpaced net cash outflows of \$8.2 million.
- An overweight to domestic equity (+4.5%) and cash (+1.0%) was offset by underweights to fixed income (-4.4%) and non-US equity (-0.9%).

Total Fund Performance – Annualized Periods Ending September 30, 2018

Performance vs Callan Public Fund Sponsor Database (Gross)



- For the quarter, the Total Fund added 3.29% gross-of-fees relative to the 3.54% return of the Policy Index and ranked 21st percentile versus its peer universe.
- For the trailing one-year period, the Total Fund outperformed the Policy Index by 0.32% and ranked top-quartile relative to peers.
- The Total Fund has consistently outperformed its Policy Index over the trailing three-, five-, and ten-year periods ranking top-decile versus peers.

Total Fund Performance Attribution

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	32%	30%	18.81%	17.91%	0.26%	0.12%	0.38%
Small Cap Equity	9%	9%	14.60%	15.24%	(0.05%)	(0.00%)	(0.06%)
Mid Cap Equity	7%	7%	15.32%	13.98%	0.09%	0.01%	0.10%
Fixed Income	15%	17%	(0.35%)	(1.22%)	0.14%	0.28%	0.42%
International Equity	14%	14%	1.32%	2.27%	(0.13%)	(0.00%)	(0.14%)
Emerging Markets	4%	4%	(2.14%)	(0.44%)	(0.07%)	(0.02%)	(0.09%)
Global Fixed-Inc	5%	6%	(1.82%)	(1.54%)	(0.02%)	0.08%	0.06%
Alternative Inv	5%	5%	8.30%	12.57%	(0.20%)	(0.01%)	(0.21%)
Balanced	7%	8%	8.33%	8.65%	(0.02%)	0.00%	(0.02%)
Cash & Cash Equivalent	2%	0%	1.70%	1.70%	0.00%	(0.12%)	(0.12%)
Total			9.28%	= 8.96%	+ (0.01%)	+ 0.33%	0.32%

- **Total Fund** finished 0.32% ahead of the Policy Index for the last year.
 - + Large, Mid and Small Cap Equity were the strongest absolute performers.
- **Relative to Target:** Managers in aggregate underperformed by 0.01%.
 - + Large Cap Equity (+0.26%) delivered the largest manager contribution.
 - Alternatives (-0.20%) and International Equity (-0.13%) generated the largest manager detraction.
- **Actual Allocation** vs. policy weights added 0.33%
 - + An underweight to Domestic and Global Fixed Income, and overweight to Large Cap Equity were additive.

Market Values

	September 30, 2018			June 30, 2018		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equity	\$753,247,637	50.97%	\$29,892	\$44,874,580	\$708,343,164	49.22%
Large Cap Equity	\$500,299,834	33.85%	\$19,093	\$35,388,163	\$464,892,578	32.30%
Morgan Stanley Large Cap Core	145,219,460	9.83%	19,093	9,957,384	135,242,983	9.40%
BlackRock Equity S&P 500 Index Fund	355,080,374	24.03%	0	25,430,779	329,649,594	22.91%
Mid Cap Equity	\$111,065,714	7.52%	\$2,665	\$5,213,118	\$105,849,930	7.36%
MacKay Shields (1)	111,065,714	7.52%	2,665	5,213,118	105,849,930	7.36%
Small Cap Equity	\$141,882,089	9.60%	\$8,134	\$4,273,299	\$137,600,656	9.56%
Eamest Partners Small Cap Core	77,368,065	5.23%	1,145	1,045,752	76,321,168	5.30%
Channing Capital Management	30,426,433	2.06%	465	979,373	29,446,595	2.05%
Legato	\$34,087,591	2.31%	\$6,524	\$2,248,174	\$31,832,893	2.21%
Redwood	22	0.00%	(9,394,434)	703,688	8,690,768	0.60%
ESSEX	11,784,356	0.80%	1,601,076	505,066	9,678,214	0.67%
Bridge City	11,079,853	0.75%	3,194,785	418,204	7,466,865	0.52%
Lebenthal Lisanti	11,223,360	0.76%	4,605,097	621,216	5,997,047	0.42%
International Equity	\$202,598,750	13.71%	\$0	\$(2,016,719)	\$204,615,469	14.22%
Hardman Johnston Global Advisors (2)	106,166,745	7.18%	0	(3,267,043)	109,433,788	7.60%
Artisan Partners	96,432,006	6.52%	0	1,250,324	95,181,682	6.61%
Emerging Market Equity	\$50,515,173	3.42%	\$0	\$(74,451)	\$50,589,624	3.52%
Eamest Partners Emerging Markets Fund	50,515,173	3.42%	0	(74,451)	50,589,624	3.52%
Balanced	\$111,890,933	7.57%	\$35,229	\$3,808,486	\$108,047,218	7.51%
Global Tactical ETF	111,890,933	7.57%	35,229	3,808,486	108,047,218	7.51%
Fixed Income	\$205,860,221	13.93%	\$320	\$31,121	\$205,828,780	14.30%
Mesirow Financial	69,472,599	4.70%	320	64,082	69,408,196	4.82%
SSgA U.S. Aggregate Bond Index	65,355,843	4.42%	0	11,015	65,344,827	4.54%
Garcia Hamilton	71,031,780	4.81%	0	(43,977)	71,075,756	4.94%
Global Fixed Income	\$69,088,979	4.67%	\$(86,520)	\$(665,987)	\$69,841,486	4.85%
Colchester	69,088,979	4.67%	(86,520)	(665,987)	69,841,486	4.85%
Real Estate	\$41,566,704	2.81%	\$(306,385)	\$958,380	\$40,914,709	2.84%
Intercontinental	23,740,184	1.61%	(52,041)	584,742	23,207,483	1.61%
JPMUS Real Estate	17,826,520	1.21%	(254,344)	373,638	17,707,226	1.23%
Alternative investment	\$28,180,631	1.91%	\$0	\$0	\$28,180,631	1.96%
GrayCo Alternative Partners II (3)	28,180,631	1.91%	0	0	28,180,631	1.96%
Cash & Cash Equivalent	\$14,969,176	1.01%	\$(7,896,220)	\$123,709	\$22,741,686	1.58%
Enhanced Cash	8,446,893	0.57%	(7,568,013)	67,222	15,947,684	1.11%
Security Lending	336	0.00%	0	2	335	0.00%
Cash	6,521,946	0.44%	(328,207)	56,485	6,793,667	0.47%
Total Fund	\$1,477,918,205	100.0%	\$(8,223,683)	\$47,039,119	\$1,439,102,768	100.0%

U.S. Equity Structure

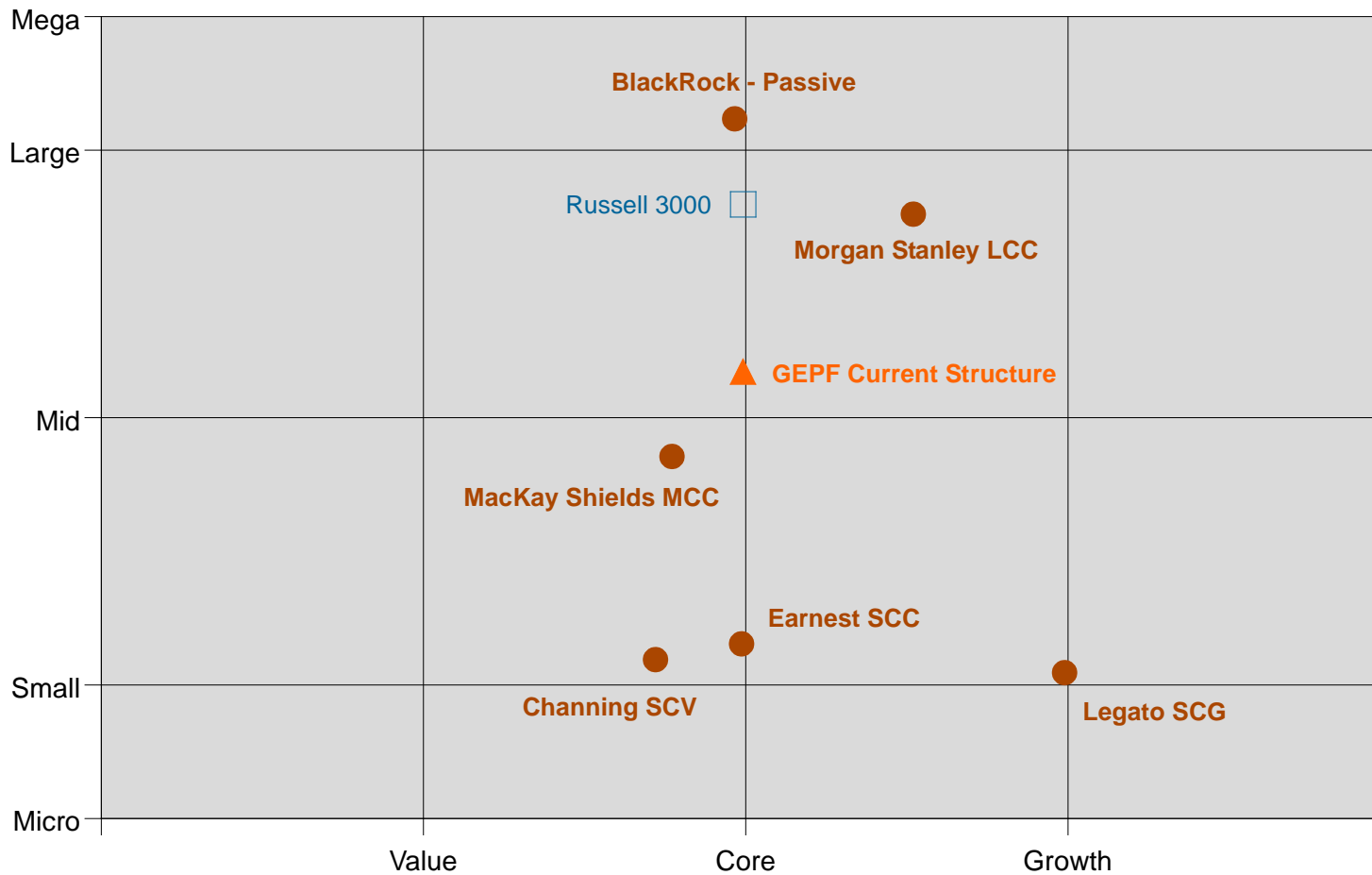
- The target U.S. equity allocation is 50% which is benchmarked to the Russell 3000 Index.
- **Small Cap Overweight**
 - The higher expected return of small cap comes at the cost of greater volatility.
 - Structure split 65% large, 15% mid, 20% small.
 - Russell 3000 Index 67% large, 26% mid, 8% small.
 - Although total small/mid cap exposure is neutral to the benchmark (~35%).
- **Active-Passive Blend**
 - Large Cap: 2/3rds passive and 1/3rd active given efficiency of the market segment.
 - *Retain cheap, diversified exposure as well as potential to outperform or protect on the downside.*
 - Small Cap: 100% active.
 - *Greatest propensity to outperform the benchmark.*

Domestic Equity	\$000s Market Value	Percent of Asset Class
Large Cap Equity	\$500,300	66%
BlackRock S&P 500 Index Fund	355,080	71
Morgan Stanley Large Cap Core	145,220	29
Mid Cap Equity	\$111,066	15%
MacKay Shields	111,066	15
Small Cap Equity	\$141,882	19%
Earnest Partners	77,368	55
Channing Capital	30,426	21
Legato	34,088	24
Totals	\$753,248	100%
Large Cap	500,300	66
Mid Cap	111,066	15
Small Cap	141,882	19
Active	398,168	53
Passive	355,080	47

U.S. Equity Style Map

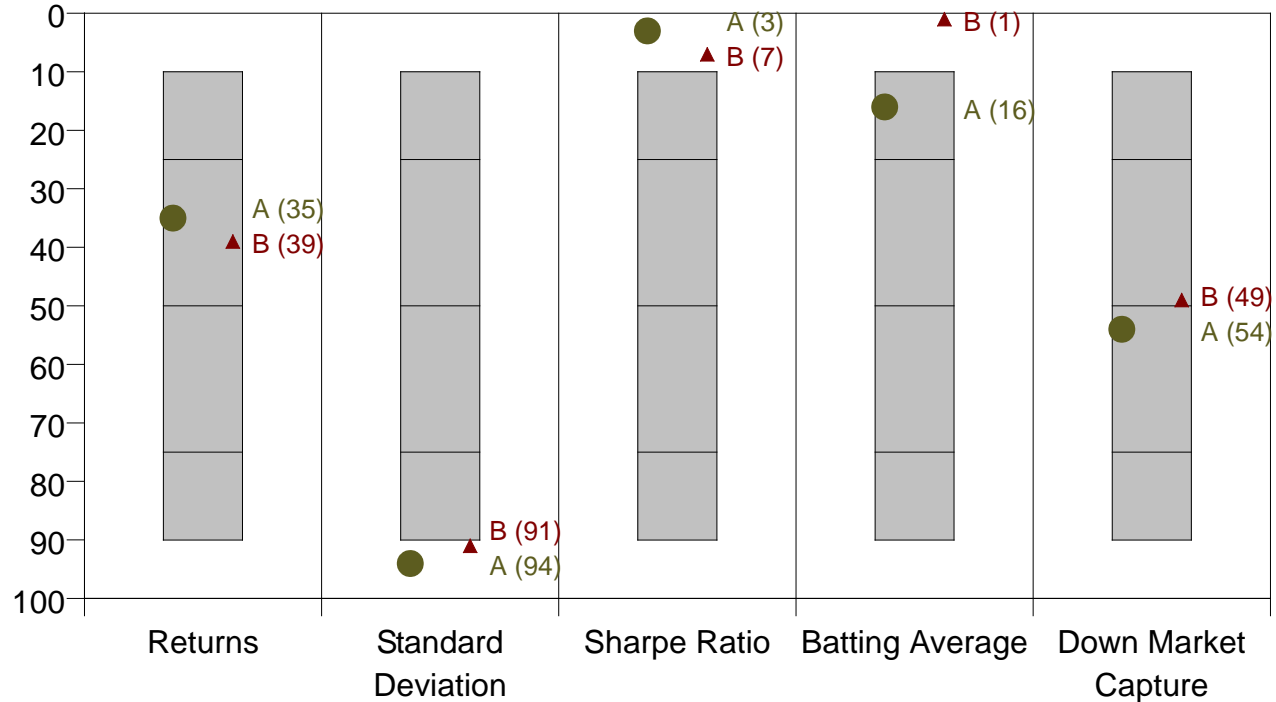
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z score", based on the eight fundamental factors used in the MSCI stock style scoring system. The style map illustrates the average historical market capitalization and style score of the portfolio.

Holdings-Based U.S. Equity Style Map As of September 30, 2018



U.S. Equity Performance Results

Statistics Relative to Russell:3000 Index for 3 Years Ended September 30, 2018
 Group: Total Domestic Equity Database



	Median	Returns	Standard Deviation	Sharpe Ratio	Batting Average	Down Market Capture
Domestic Equity ● A	16.18	17.30	4.29	2.41	50	93.04
Russell 3000 ▲ B	17.07	17.07	4.57	3.55	100	100.00

International Equity Structure

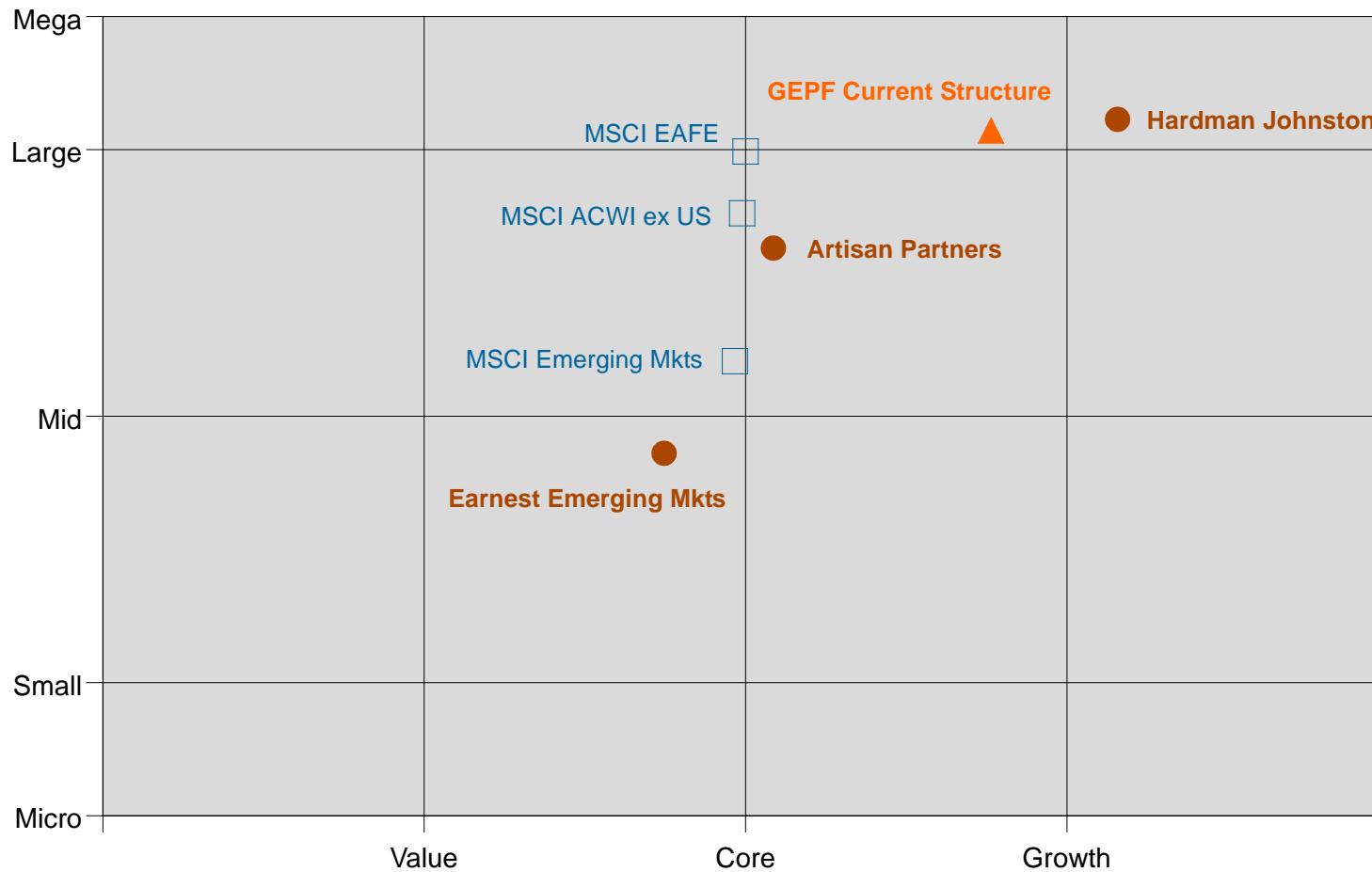
- The target international equity allocation is 20% which is benchmarked to the MSCI EAFE Index.
- **Dedicated Emerging Markets Exposure**
 - Structure split 80% developed and 20% emerging markets.
 - Artisan is developed markets only.
 - Hardman Johnston includes emerging markets.
 - Additional diversification and return enhancement provided by dedicated emerging market exposure via Earnest Partners.
 - No dedicated exposure to style or to small cap.
- **100% Active Management**
 - High propensity to outperform benchmark given market inefficiency.

International Equity	\$000s Market Value	Percent of Asset Class
MSCI EAFE (Developed)	\$96,432	38%
Artisan Partners	96,432	38
MSCI ACWI ex-US (DM+EM)	\$106,167	42%
Hardman Johnston	106,167	42
MSCI Emerging Markets	\$50,515	20%
Earnest Partners	50,515	20
Totals	\$253,114	100%
Developed	202,599	80
Emerging	50,515	20
Active	253,114	100
Passive	0	0

International Equity Style Map

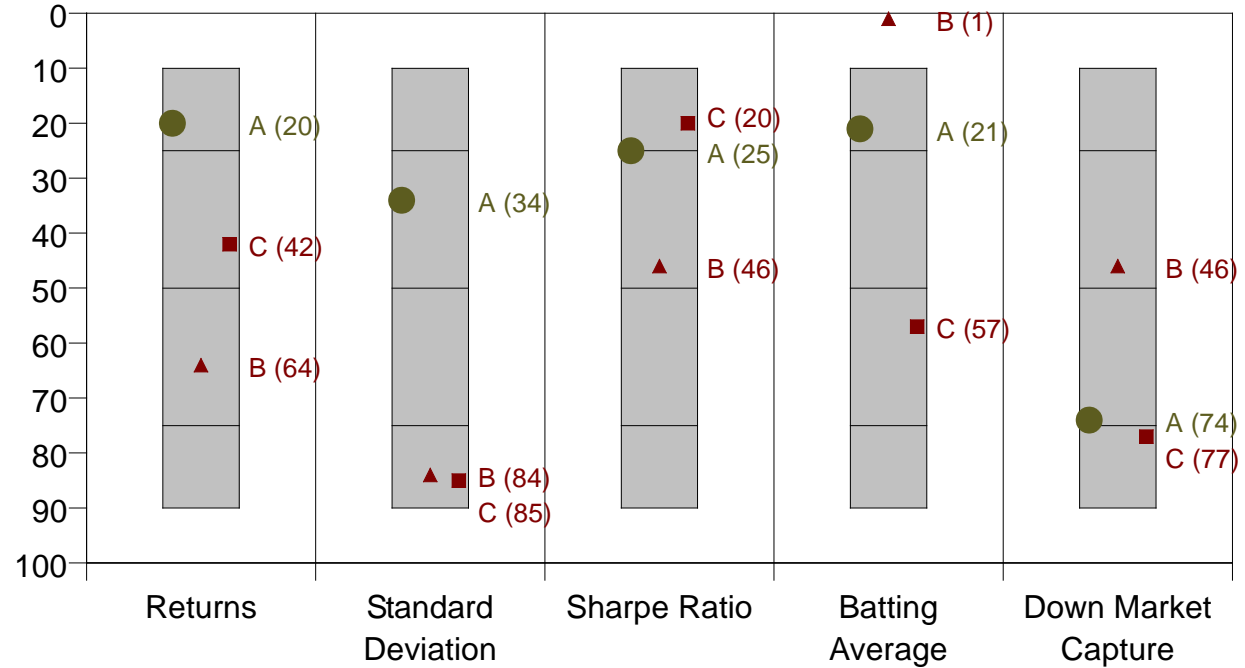
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Holdings-Based International Equity Style Map As of September 30, 2018



International Equity Performance Results

Statistics Relative to MSCI:EAFE for 3 Years Ended September 30, 2018
Group: Callan Non-US Equity



	Median	Returns	Standard Deviation	Sharpe Ratio	Batting Average	Down Market Capture
International Equity ● A		11.92	8.91	1.24	75	72.45
MSCI EAFE ▲ B		9.23	7.50	1.12	100	100.00
MSCI ACWI ex US ■ C		10.49	7.46	1.29	58	67.88

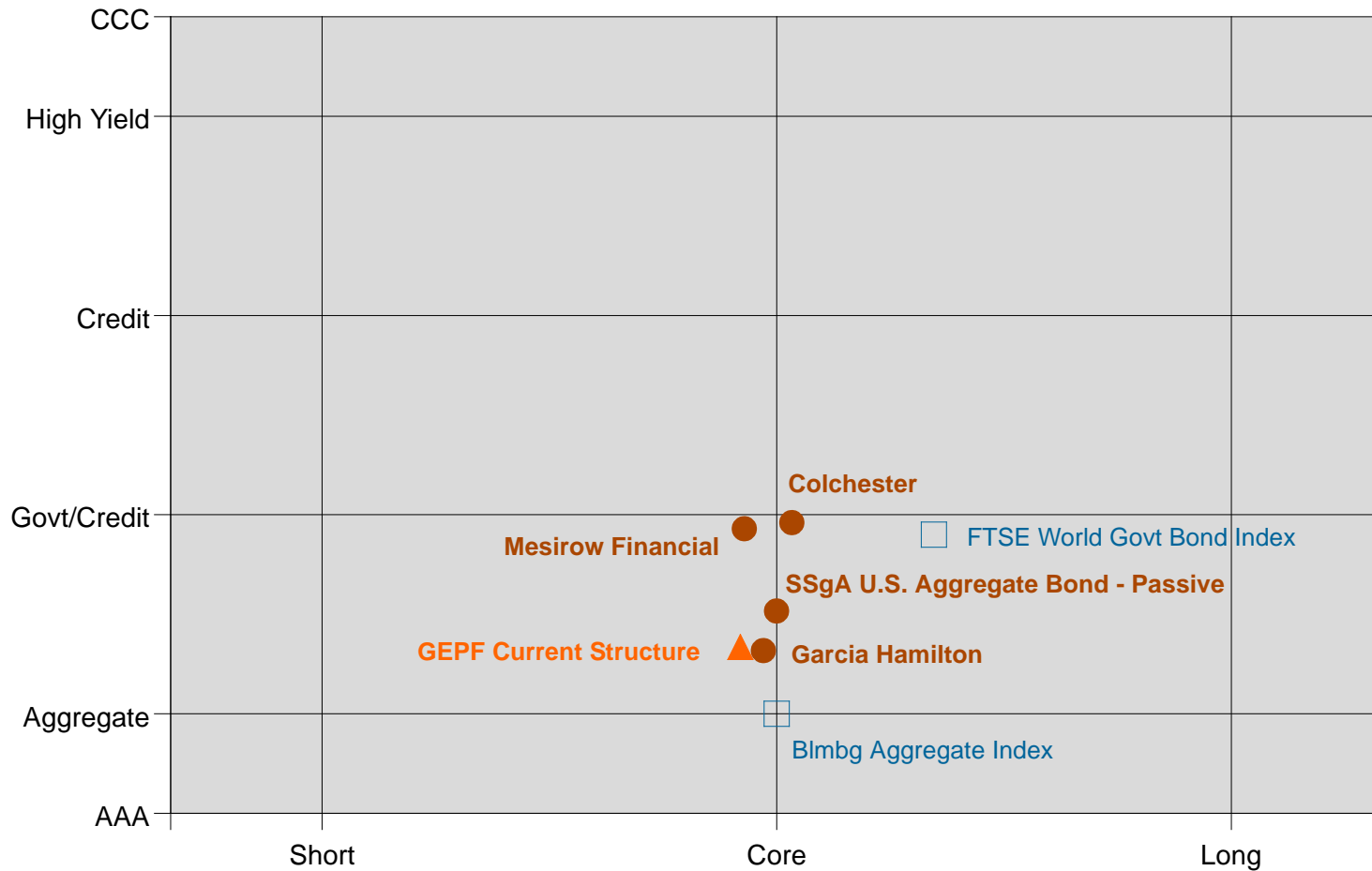
Fixed Income Structure

- The target fixed income allocation is 25% which is benchmarked to the Bloomberg Barclays Aggregate Index.
- **Stand Alone Global Fixed Income Mandate**
 - Structure split equally (25%) across four managers.
 - Georgia law restricts fixed income exposure to investment grade only.
 - Structure features “plus” exposure through global bond mandate.
- **75% – 25% Active-Passive Blend**
 - SSgA is passive core fixed income and provides low cost market exposure while serving as a good liquidity vehicle.
 - >40% exposure to U.S. Treasuries within passive benchmark serves as a low risk, diversifying asset for the equity allocation.

Fixed Income	\$000s Market Value	Percent of Asset Class
U.S. Fixed Income	\$205,860	75%
SSgA U.S. Aggregate Index Fund	65,356	24
Mesirow Financial	69,473	25
Garcia Hamilton	71,032	26
Global Fixed Income	\$69,089	25%
Colchester	69,089	25
Totals	\$274,949	100%
Active	209,593	76
Passive	65,356	24

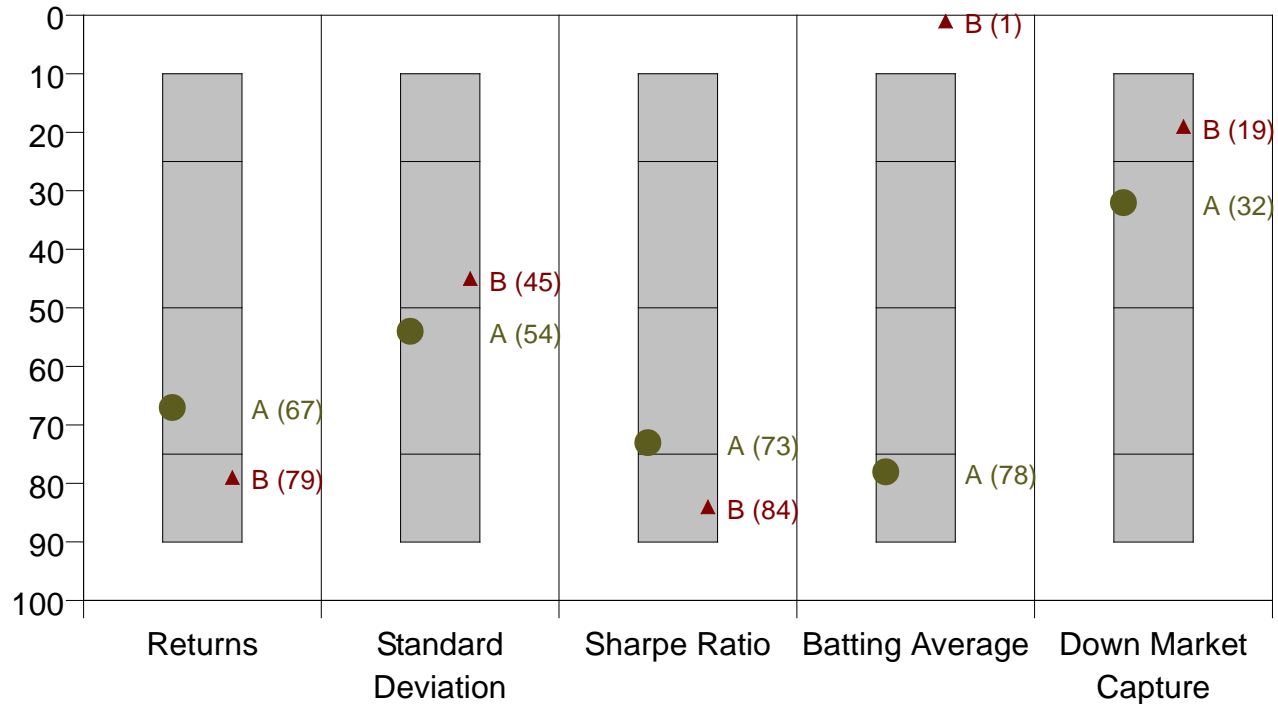
Fixed Income Style Map

Holdings-Based Fixed Income Style Map As of September 30, 2018



Fixed Income Performance Results

Statistics Relative to Blmbg:Aggregate for 3 Years Ended September 30, 2018
 Group: Total Domestic Fixed-Inc Database



Median	2.26	3.10	0.48	67	60.68
Fixed Income ● A	1.63	2.99	0.27	50	83.62
Blmbg Aggregate ▲ B	1.31	3.18	0.15	100	100.00

Alternatives

- The 5% target to alternatives covers real estate, private equity and hedge funds.
- The Fund has committed approximately 2% to the GrayCo Alts II Fund, which invests in all three alternatives.
- GEPF has split the remaining 2.5% to two private core real estate managers (Intercontinental & JP Morgan).

Performance vs Callan Real Estate Core (Net)

