



# OPEN SESSION MEETING MATERIALS

HOWARD COUNTY RETIREMENT  
PLAN

SEPTEMBER 23, 2021

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# OPEN SESSION AGENDA

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# Q2 2021 MARKET ENVIRONMENT



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# RETURNS FOR KEY INDICES RANKED IN ORDER OF PERFORMANCE (AS OF 6/30/2021)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
MSCI EMERGING MARKETS 32.17	MSCI EMERGING MARKETS 39.39	BC AGGREGATE 5.24	MSCI EMERGING MARKETS 78.51	RUSSELL 2000 GROWTH 29.09	BC AGGREGATE 7.84	MSCI EMERGING MARKETS 18.22	RUSSELL 2000 GROWTH 43.30	S&P 500 13.69	RUSSELL 1000 GROWTH 5.67	RUSSELL 2000 VALUE 31.74	MSCI EMERGING MARKETS 37.28	BC AGGREGATE 0.01	RUSSELL 1000 GROWTH 36.39	RUSSELL 1000 GROWTH 38.49
MSCI EAFE 26.34	RUSSELL 1000 GROWTH 11.81	RUSSELL 2000 VALUE -28.92	RUSSELL 1000 GROWTH 37.21	RUSSELL 2000 26.85	RUSSELL 1000 GROWTH 2.64	RUSSELL 2000 VALUE 18.05	RUSSELL 2000 38.82	RUSSELL 1000 VALUE 13.45	S&P 500 1.38	RUSSELL 2000 21.31	RUSSELL 1000 GROWTH 30.21	RUSSELL 1000 GROWTH -1.51	S&P 500 31.49	RUSSELL 2000 GROWTH 34.63
RUSSELL 2000 VALUE 23.48	MSCI EAFE 11.17	RUSSELL 2000 -33.79	RUSSELL 2000 GROWTH 34.47	RUSSELL 2000 VALUE 24.5	S&P 500 2.11	RUSSELL 1000 VALUE 17.51	RUSSELL 2000 VALUE 34.52	RUSSELL 1000 13.24	RUSSELL 1000 0.92	RUSSELL 1000 VALUE 17.34	MSCI EAFE 25.03	S&P 500 -4.38	RUSSELL 1000 31.43	RUSSELL 2000 19.96
RUSSELL 1000 VALUE 22.25	RUSSELL 2000 GROWTH 7.06	RUSSELL 1000 VALUE -36.85	MSCI EAFE 31.78	MSCI EMERGING MARKETS 18.88	RUSSELL 1000 1.50	MSCI EAFE 17.32	RUSSELL 1000 GROWTH 33.48	RUSSELL 1000 GROWTH 13.05	BC AGGREGATE 0.55	RUSSELL 1000 12.05	RUSSELL 2000 GROWTH 22.17	RUSSELL 1000 -4.78	RUSSELL 2000 GROWTH 28.48	RUSSELL 1000 20.96
RUSSELL 2000 18.37	BC AGGREGATE 6.97	S&P 500 -37.0	RUSSELL 1000 28.43	RUSSELL 1000 GROWTH 16.71	RUSSELL 1000 VALUE 0.39	RUSSELL 1000 16.42	RUSSELL 1000 33.11	BC AGGREGATE 5.97	MSCI EAFE -0.81	S&P 500 11.96	S&P 500 21.83	RUSSELL 1000 VALUE -8.27	RUSSELL 1000 VALUE 26.54	S&P 500 18.40
S&P 500 15.8	RUSSELL 1000 5.77	RUSSELL 1000 -37.6	RUSSELL 2000 27.16	RUSSELL 1000 16.10	RUSSELL 2000 GROWTH -2.91	RUSSELL 2000 16.35	RUSSELL 1000 VALUE 32.53	RUSSELL 2000 GROWTH 5.60	RUSSELL 2000 GROWTH -1.38	RUSSELL 2000 GROWTH 11.32	RUSSELL 1000 21.69	RUSSELL 2000 GROWTH -9.31	RUSSELL 2000 25.52	MSCI EMERGING MARKETS 18.31
RUSSELL 1000 15.46	S&P 500 5.49	RUSSELL 1000 GROWTH -38.44	S&P 500 26.46	RUSSELL 1000 VALUE 15.51	RUSSELL 2000 -4.18	S&P 500 16.00	S&P 500 32.39	RUSSELL 2000 4.89	RUSSELL 1000 VALUE -3.83	MSCI EMERGING MARKETS 11.19	RUSSELL 2000 14.65	RUSSELL 2000 -11.01	RUSSELL 2000 VALUE 22.39	MSCI EAFE 7.82
RUSSELL 2000 GROWTH 13.35	RUSSELL 1000 VALUE -0.17	RUSSELL 2000 GROWTH -38.54	RUSSELL 2000 VALUE 20.58	S&P 500 15.06	RUSSELL 2000 VALUE -5.50	RUSSELL 1000 GROWTH 15.26	MSCI EAFE 22.78	RUSSELL 2000 VALUE 4.22	RUSSELL 2000 -4.41	RUSSELL 1000 GROWTH 7.08	RUSSELL 1000 VALUE 13.66	RUSSELL 2000 VALUE -12.86	MSCI EAFE 22.01	BC AGGREGATE 7.51
RUSSELL 1000 GROWTH 9.07	RUSSELL 2000 -1.56	MSCI EAFE -43.38	RUSSELL 1000 VALUE 19.69	MSCI EAFE 7.75	MSCI EAFE -12.14	RUSSELL 2000 GROWTH 14.59	BC AGGREGATE -2.02	MSCI EMERGING MARKETS -2.19	RUSSELL 2000 VALUE -7.46	BC AGGREGATE 2.65	RUSSELL 2000 VALUE 7.84	MSCI EAFE -13.79	MSCI EMERGING MARKETS 18.44	RUSSELL 2000 VALUE 4.63
BC AGGREGATE 4.33	RUSSELL 2000 VALUE -9.78	MSCI EMERGING MARKETS -53.33	BC AGGREGATE 5.93	BC AGGREGATE 6.54	MSCI EMERGING MARKETS -18.42	BC AGGREGATE 4.21	MSCI EMERGING MARKETS -2.60	MSCI EAFE -4.90	MSCI EMERGING MARKETS -14.93	MSCI EAFE 1.00	BC AGGREGATE 3.54	MSCI EMERGING MARKETS -14.58	BC AGGREGATE 8.72	RUSSELL 1000 VALUE 2.79

QTD	1 year	3 year	5 Year	10 Year
RUSSELL 2000 VALUE 21.17	RUSSELL 2000 VALUE 97.05	RUSSELL 1000 GROWTH 25.14	RUSSELL 1000 GROWTH 23.66	RUSSELL 1000 GROWTH 17.87
RUSSELL 1000 GROWTH 11.93	RUSSELL 2000 62.02	RUSSELL 1000 19.16	RUSSELL 2000 GROWTH 18.76	RUSSELL 1000 14.90
S&P 500 8.55	RUSSELL 2000 GROWTH 51.36	S&P 500 18.67	RUSSELL 1000 17.99	S&P 500 14.84
RUSSELL 1000 8.54	RUSSELL 1000 VALUE 43.68	RUSSELL 2000 GROWTH 15.94	S&P 500 17.65	RUSSELL 2000 GROWTH 13.52
RUSSELL 1000 VALUE 5.21	RUSSELL 1000 43.07	RUSSELL 2000 13.52	RUSSELL 2000 16.47	RUSSELL 2000 12.34
MSCI EAFE 5.17	RUSSELL 1000 GROWTH 42.50	RUSSELL 1000 VALUE 12.42	RUSSELL 2000 VALUE 13.56	RUSSELL 1000 VALUE 11.61
MSCI EMERGING MARKETS 5.05	MSCI EMERGING MARKETS 40.90	RUSSELL 2000 VALUE 11.57	MSCI EMERGING MARKETS 13.03	RUSSELL 2000 VALUE 10.06
RUSSELL 2000 4.29	S&P 500 40.79	MSCI EMERGING MARKETS 11.27	RUSSELL 1000 VALUE 11.87	MSCI EAFE 5.89
RUSSELL 2000 GROWTH 3.92	MSCI EAFE 32.35	MSCI EAFE 8.27	MSCI EAFE 10.28	MSCI EMERGING MARKETS 4.29
BC AGGREGATE 1.83	BC AGGREGATE -0.33	BC AGGREGATE 5.34	BC AGGREGATE 3.03	BC AGGREGATE 3.39



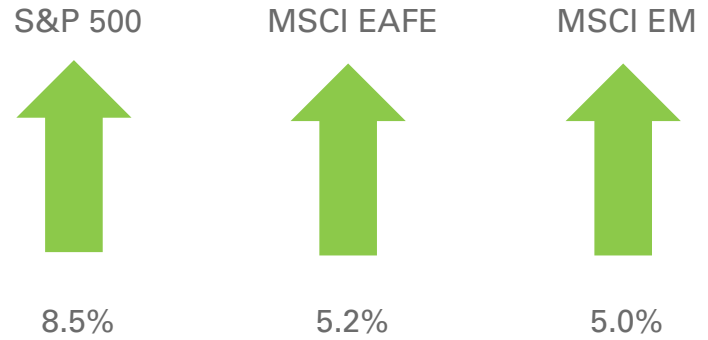


# MARKET OVERVIEW

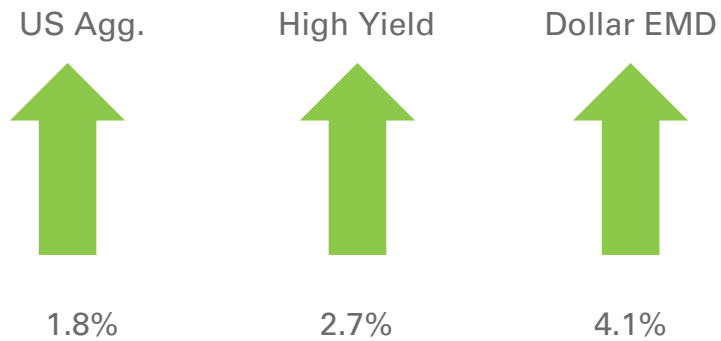
## Macro



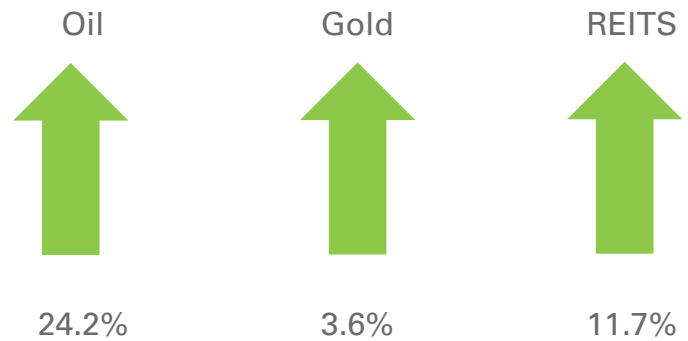
## Equity



## Credit



## Real Assets

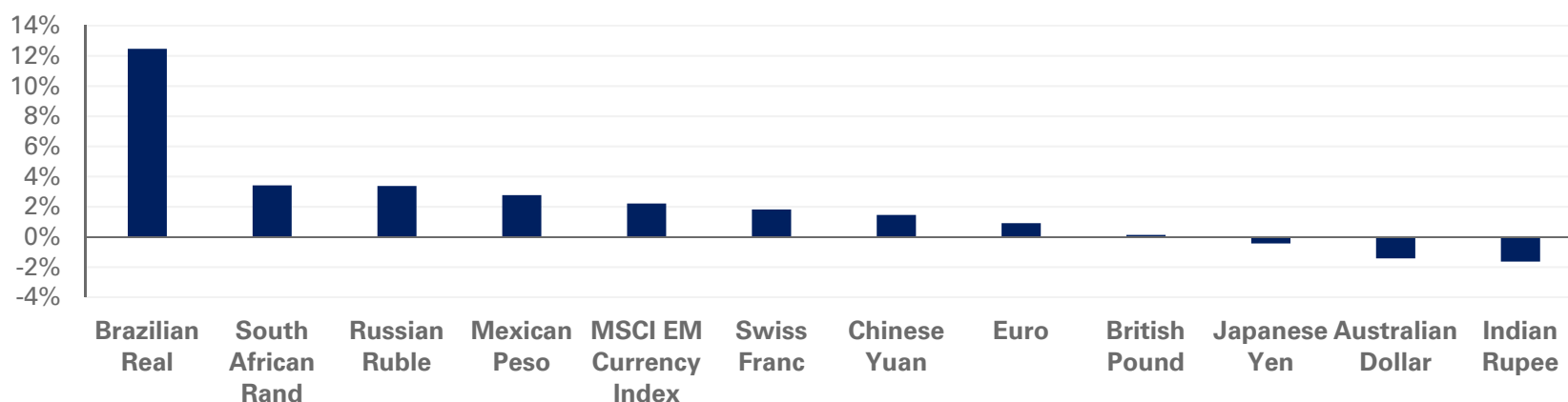


Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM EMBI Global Diversified Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITS (NAREIT Composite Index).  
 Source: CBOE, S&P, MSCI, Bloomberg, JPM, NAREIT, FactSet



# MACRO OVERVIEW

## CURRENCY PERFORMANCE RELATIVE TO U.S. DOLLAR



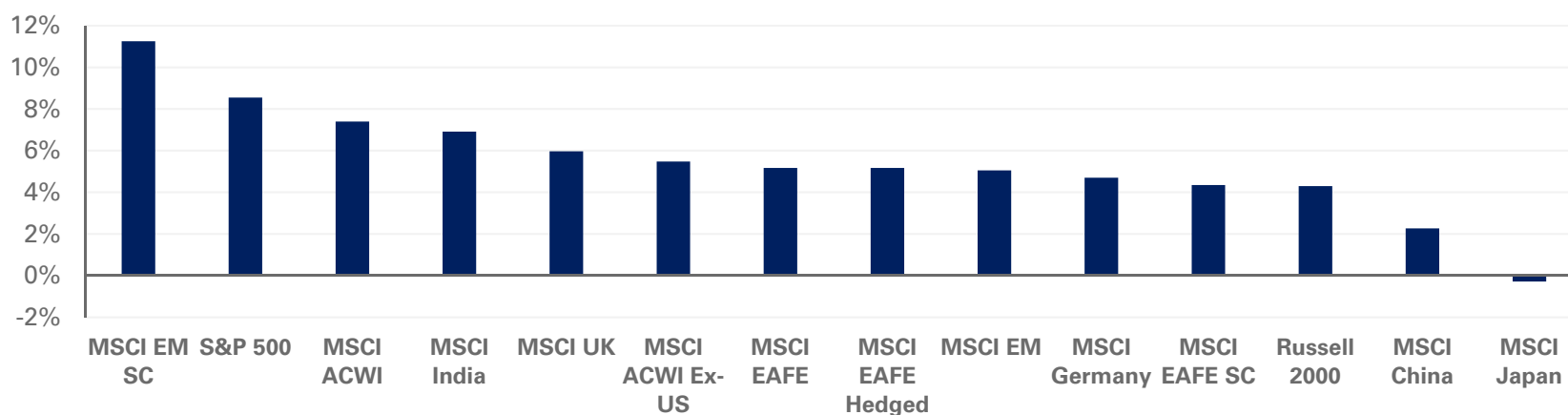
Central Banks	Current Rate	CPI YOY	Notes from the Quarter
<b>Federal Reserve</b>	0.00% - 0.25%	5.3%	The Fed maintained current levels of monthly asset purchases and projected two rate hikes by the end of 2023
<b>European Central Bank</b>	0.00%	1.9%	The ECB left rates unchanged and maintained its €1.85T emergency bond-buying program until at least March 2022
<b>Bank of Japan</b>	-0.10%	-0.1%	The BoJ will continue to maintain pandemic-relief measures QE program with inflation remaining well below target

Source (Top): MSCI, FactSet  
 Source (Bottom): MSCI, FactSet



# EQUITY OVERVIEW

## QUARTERLY RETURN



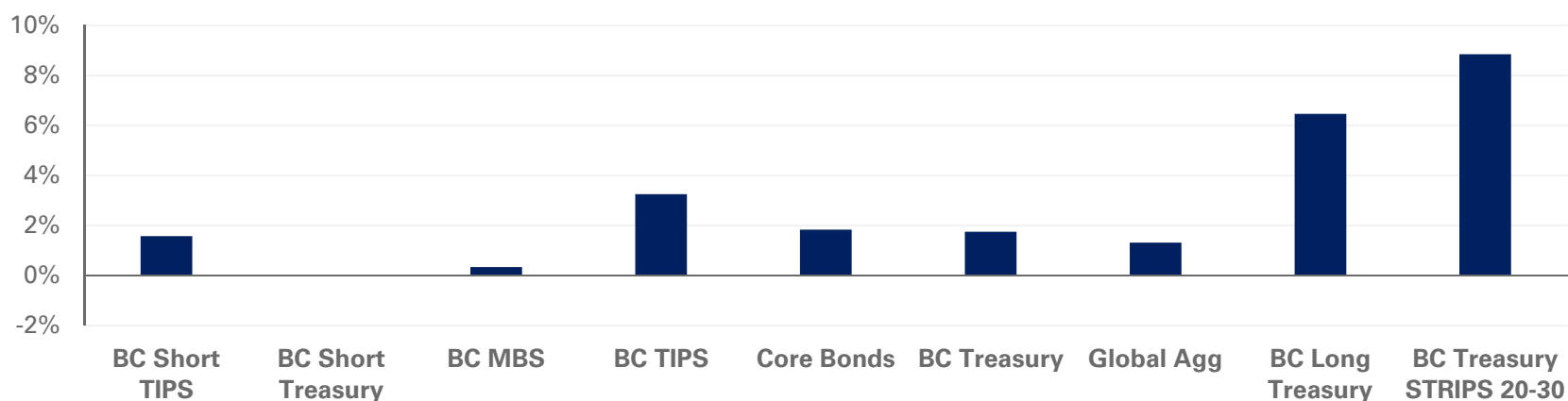
Russell 3000 QTD Sector Returns	QTD	1 year
Technology	13.7%	49.1%
Health Care	8.2%	29.5%
Consumer Discretionary	5.6%	50.5%
Consumer Staples	2.8%	24.3%
Energy	11.6%	58.3%
Materials & Processing	4.7%	53.4%
Producer Durables	6.0%	50.1%
Financial Services	6.9%	59.6%
Utilities	0.4%	17.6%

Source (Top): MSCI, Russell, S&P, FactSet  
 Source (Bottom): Russell, FactSet



# RATES OVERVIEW

## QUARTERLY RETURN



	Previous Quarter	Current Quarter	Δ
US 10-Year	1.74%	1.45%	-0.29%
US 30-Year	2.42%	2.06%	-0.36%
US Real 10-Year	-0.63%	-0.87%	-0.24%
German 10-Year	-0.30%	-0.21%	0.09%
Japan 10-Year	0.09%	0.05%	-0.03%
China 10-Year	3.21%	3.13%	-0.09%
EM Local Debt	4.99%	4.98%	-0.01%

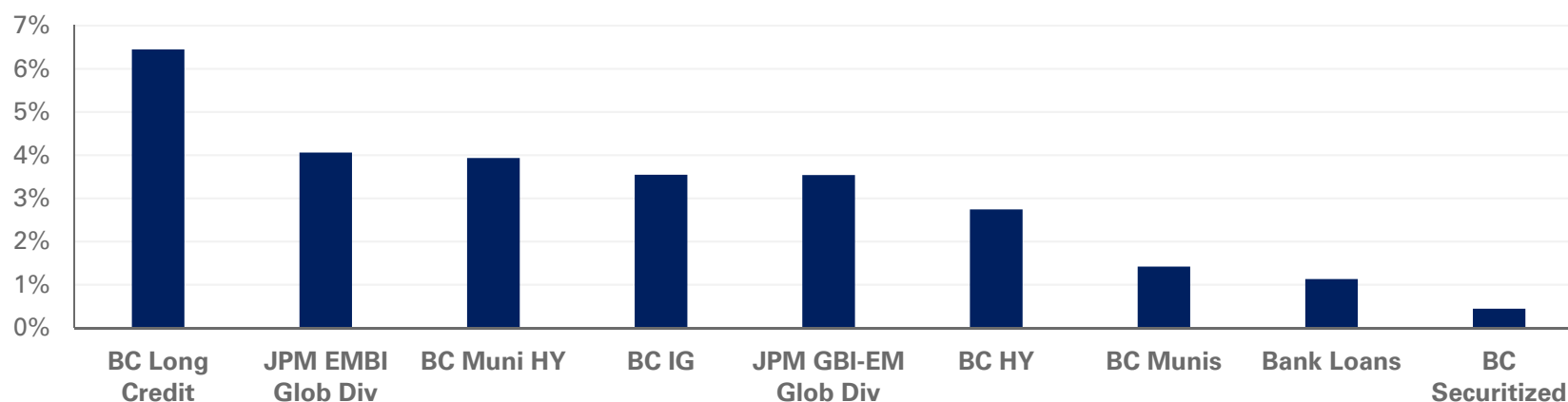


Source (Top): Bloomberg, FactSet  
Source (Bottom): JPM, FactSet



# CREDIT OVERVIEW

## QUARTERLY RETURN



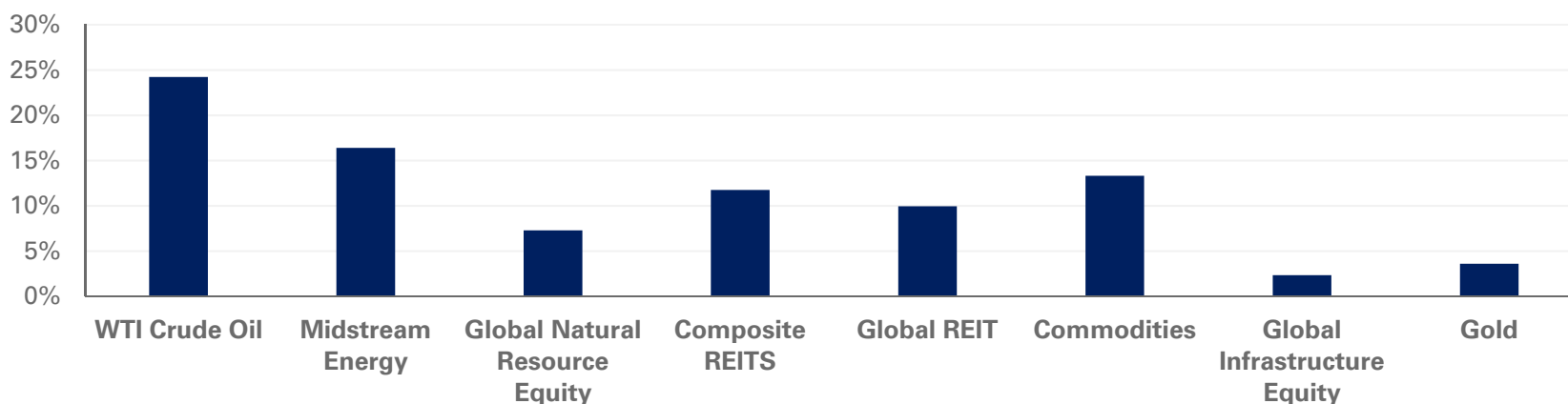
Credit Spread (Basis Points)	3/31/2021	6/30/2021	Δ	Median
BC IG Credit	91	80	-11	136
BC Long Credit	126	118	-8	175
BC Securitized	16	29	13	49
BC High Yield	310	268	-42	477
Muni HY	364	309	-55	631
JPM EMBI Glob Div	354	340	-14	344
Bank Loans - Libor	355	355	0	428

Notes: Medians calculated since 11/30/2000  
 Source (Top): Bloomberg, JPM, FactSet  
 Source (Bottom): Bloomberg, JPM, FactSet



# REAL ASSET OVERVIEW

## QUARTERLY RETURN



Real Asset Yields	Previous Quarter	Current Quarter
Midstream Energy	6.6%	5.9%
Core Real Estate	3.0%	3.0%
US REITs	3.6%	3.1%
Global Infrastructure Equities	3.0%	2.9%
Global Natural Resource Equities	3.0%	3.0%
Commodity Index Roll Yield	3.3%	2.8%
US 10-Year Breakeven Inflation	2.37%	2.32%

Note: Core Real Estate\* yields are subject to a one quarter lag  
 Source (Top): S&P, MSCI, Russell, JPM, FactSet  
 Source (Bottom): Alerian, NAREIT, Barclays, NEPC, FactSet





# Q2 2021 TOTAL FUND PERFORMANCE



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# EXECUTIVE SUMMARY AS OF 6/30/2021

## Asset Allocation

- The assets of the Plan totaled \$1.42 billion as of June 30, 2021 and had an investment gain of \$70.6 million during the quarter.

## Performance

- The Plan gained 5.4% (gross) in Q2 as equities continued to improve with the ongoing vaccine rollout and support from monetary and fiscal interventions. However, uncertainties surrounding the global economy and inflation expectations still remain
  - The quarterly return ranked behind the median in the 44<sup>th</sup> percentile of the Public DB peer group
- For the trailing one year, the fund was up 26.8%, which underperformed the IF Public DB > \$1B Gross Median return of 27.4% and ranking in the 56<sup>th</sup> percentile
- In aggregate, the US Equity Composite was up 7.7% for the quarter, which underperformed the Russell 3000 benchmark return of 8.2% but outperformed the eV All US Equity Gross Median return of 6.8%
  - Large Cap Equity added 8.4% for the quarter, which outperformed the eV US Large Cap Equity Gross Median by 70 basis points
  - The Small/Mid Cap Equity composite gained 3.9% for the quarter, which underperformed the eV US Small-Mid Cap Equity Gross Median return by 140 basis points
- The International Equity Composite was up 6.0%, which outperformed the MSCI ACWI ex USA return of 5.5% and the eV ACWI ex-US All Cap Equity Gross universe median return of 5.8%.
  - International Developed Equity underperformed the median by 40 bps, returning 5.3%
  - International Emerging Equity outperformed the median by 200 bps, returning 7.2%
- The Fixed Income Composite returned 2.4% in the second quarter, which outperformed the eV All US Fixed Income Gross Median return of 1.8%





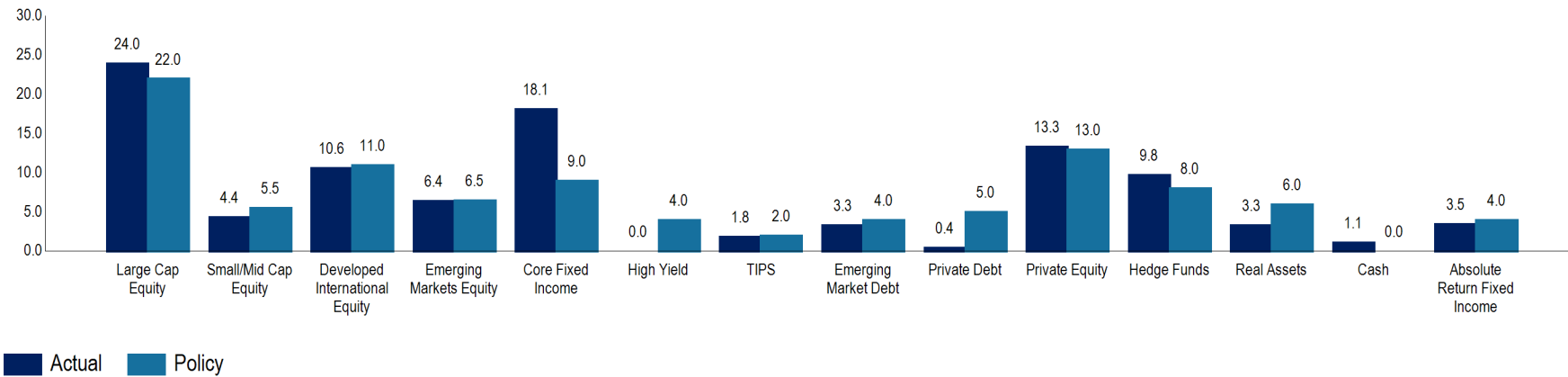
# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE SUMMARY (GROSS)

Ending June 30, 2021

	Market Value	3 Mo Rank	YTD Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank	Inception	Inception Date						
<b>Total Fund Composite</b>	<b>\$1,425,602,469</b>	<b>5.4%</b>	<b>44</b>	<b>9.9%</b>	<b>31</b>	<b>26.8%</b>	<b>56</b>	<b>12.1%</b>	<b>23</b>	<b>11.5%</b>	<b>29</b>	<b>8.8%</b>	<b>47</b>	<b>7.9%</b>	<b>Apr-97</b>
<i>Policy Index</i>		5.2%	59	8.0%	87	23.1%	96	10.8%	60	10.0%	86	8.1%	80	7.7%	Apr-97
<i>Allocation Index</i>		5.2%	58	8.4%	76	25.1%	80	--	--	--	--	--	--	--	Apr-97
<i>InvMetrics Public DB &gt; \$1B Gross Median</i>		5.4%		9.2%		27.4%		11.0%		11.0%		8.7%		7.6%	Apr-97

Actual vs Target Allocation (%)

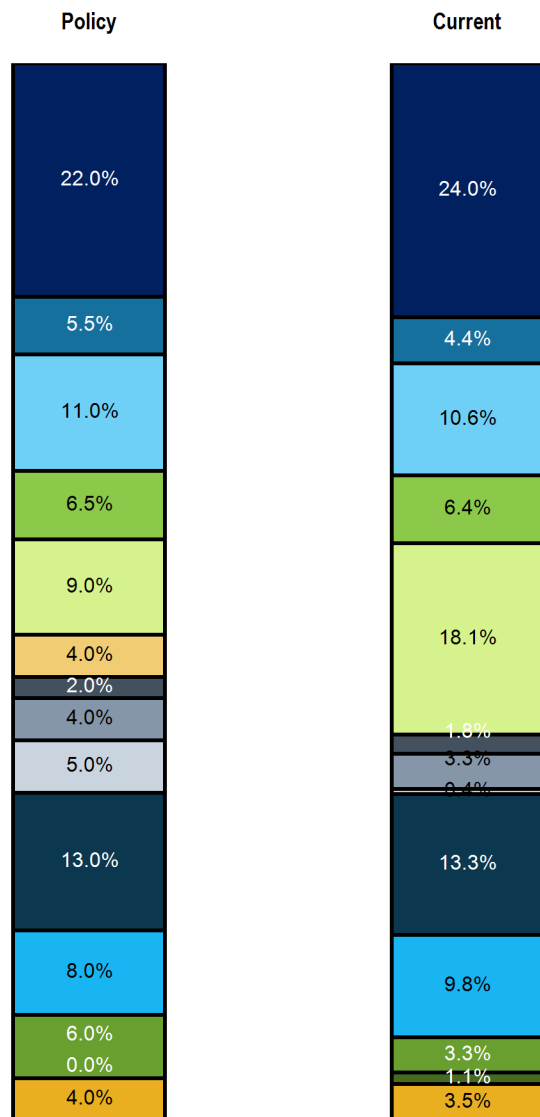


Fiscal year end 6/30.



# Howard County Retirement Plans

## ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target				
	Current	Policy	Current	Difference*
Large Cap Equity	\$341,629,067	22.0%	24.0%	2.0%
Small/Mid Cap Equity	\$62,417,543	5.5%	4.4%	-1.1%
Developed International Equity	\$150,952,806	11.0%	10.6%	-0.4%
Emerging Markets Equity	\$91,653,012	6.5%	6.4%	-0.1%
Core Fixed Income	\$258,078,971	9.0%	18.1%	9.1%
High Yield	--	4.0%	--	-4.0%
TIPS	\$25,957,129	2.0%	1.8%	-0.2%
Emerging Market Debt	\$47,745,133	4.0%	3.3%	-0.7%
Private Debt	\$6,409,775	5.0%	0.4%	-4.6%
Private Equity	\$189,851,548	13.0%	13.3%	0.3%
Hedge Funds	\$139,003,453	8.0%	9.8%	1.8%
Real Assets	\$47,056,812	6.0%	3.3%	-2.7%
Cash	\$15,495,729	0.0%	1.1%	1.1%
Absolute Return Fixed Income	\$49,351,490	4.0%	3.5%	-0.5%
<b>Total</b>	<b>\$1,425,602,469</b>	<b>100.0%</b>	<b>100.0%</b>	

\*Difference between Policy and Current Allocation



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE SUMMARY (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	Ending June 30, 2021							
				3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund Composite</b>	<b>1,425,602,469</b>	<b>100.0</b>	<b>100.0</b>	<b>5.4</b>	<b>9.9</b>	<b>26.8</b>	<b>12.1</b>	<b>11.5</b>	<b>8.8</b>	<b>7.9</b>	<b>Apr-97</b>
<i>Policy Index</i>				5.2	8.0	23.1	10.8	10.0	8.1	7.7	Apr-97
<i>Allocation Index</i>				5.2	8.4	25.1	--	--	--	--	Apr-97
<b>Total US Equity Composite</b>	<b>404,046,611</b>	<b>28.3</b>	<b>27.5</b>	<b>7.7</b>	<b>15.2</b>	<b>44.2</b>	<b>17.3</b>	<b>18.4</b>	<b>14.9</b>	<b>9.7</b>	<b>Jul-97</b>
<i>Russell 3000</i>				8.2	15.1	44.2	18.7	17.9	14.7	9.1	Jul-97
<i>US Equity Allocation Index</i>				8.2	14.6	44.5	18.2	17.8	14.3	--	Jul-97
<b>Total International Equity</b>	<b>242,605,818</b>	<b>17.0</b>	<b>17.5</b>	<b>6.0</b>	<b>9.7</b>	<b>40.2</b>	<b>12.6</b>	<b>13.1</b>	<b>6.4</b>	<b>5.7</b>	<b>Jul-97</b>
<i>MSCI ACWI ex USA</i>				5.5	9.2	35.7	9.4	11.1	5.4	5.3	Jul-97
<b>Total Fixed Income Composite</b>	<b>381,132,723</b>	<b>26.7</b>	<b>23.0</b>	<b>2.4</b>	<b>-0.5</b>	<b>4.4</b>	<b>6.3</b>	<b>4.5</b>	<b>4.5</b>	<b>5.5</b>	<b>Jul-97</b>
<i>Fixed Income Policy Index</i>				1.8	-1.6	-0.3	5.3	3.0	3.4	5.1	Jul-97
<b>Total Real Assets Composite</b>	<b>47,056,812</b>	<b>3.3</b>	<b>6.0</b>	<b>4.1</b>	<b>5.5</b>	<b>11.9</b>	<b>1.2</b>	<b>6.0</b>	<b>6.3</b>	<b>6.5</b>	<b>Jul-03</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>				1.7	2.9	2.6	4.9	5.8	8.8	8.3	Jul-03
<b>Cash Composite</b>	<b>15,495,729</b>	<b>1.1</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.4</b>	<b>1.3</b>	<b>Dec-03</b>
<i>91 Day T-Bills</i>				0.0	0.0	0.1	1.2	1.1	0.6	1.2	Dec-03
<b>Hedge Fund Composite</b>	<b>139,003,453</b>	<b>9.8</b>	<b>8.0</b>	<b>2.7</b>	<b>4.9</b>	<b>13.7</b>	<b>6.2</b>	<b>6.0</b>	<b>5.3</b>	<b>5.3</b>	<b>Jan-11</b>
<i>HFRI FOF: Conservative Index</i>				2.0	5.7	14.8	5.3	5.0	3.5	3.3	Jan-11
<b>Private Equity Composite</b>	<b>192,511,323</b>	<b>13.5</b>	<b>13.0</b>	<b>9.5</b>	<b>30.2</b>	<b>53.7</b>	<b>24.8</b>	<b>21.2</b>	<b>16.8</b>	<b>15.3</b>	<b>Jul-08</b>
<i>CJA US All PE (1 Qtr Lag)</i>				9.4	22.0	47.4	17.6	17.2	14.3	12.0	Jul-08
<b>Private Debt</b>	<b>3,750,000</b>	<b>0.3</b>	<b>5.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.0</b>	<b>Jun-20</b>
<i>S&amp;P/LSTA Leveraged Loan TR</i>				1.5	3.3	11.7	4.4	5.0	4.4	11.7	Jun-20

Fiscal year end 6/30.

All history prior to 3/1/2019 was provided by AndCo.



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Total Fund Composite</b>	<b>1,425,602,469</b>	<b>100.0</b>	<b>100.0</b>	<b>5.4</b>	<b>44</b>	<b>9.9</b>	<b>31</b>	<b>26.8</b>	<b>56</b>	<b>12.1</b>	<b>23</b>	<b>11.5</b>	<b>29</b>	<b>8.8</b>	<b>47</b>	<b>7.9</b>	<b>Apr-97</b>
<i>Policy Index</i>				5.2	59	8.0	87	23.1	96	10.8	60	10.0	86	8.1	80	7.7	Apr-97
<i>Allocation Index</i>				5.2	58	8.4	76	25.1	80	--	--	--	--	--	--	--	Apr-97
<i>InvMetrics Public DB &gt; \$1B Gross Median</i>				5.4		9.2		27.4		11.0		11.0		8.7		7.6	Apr-97
<b>Total Equity Composite</b>	<b>646,652,429</b>	<b>45.4</b>	<b>45.0</b>	<b>7.0</b>	<b>57</b>	<b>13.1</b>	<b>52</b>	<b>42.7</b>	<b>40</b>	<b>15.3</b>	<b>45</b>	<b>16.1</b>	<b>34</b>	<b>11.3</b>	<b>41</b>	<b>8.3</b>	<b>Apr-00</b>
<i>MSCI ACWI IMI</i>				7.2	55	12.7	58	40.9	46	14.2	54	14.5	53	9.9	67	5.8	Apr-00
<i>eV All Global Equity Gross Median</i>				7.4		13.2		40.2		14.9		14.9		10.8		8.1	Apr-00
<b>Total US Equity Composite</b>	<b>404,046,611</b>	<b>28.3</b>	<b>27.5</b>	<b>7.7</b>	<b>39</b>	<b>15.2</b>	<b>59</b>	<b>44.2</b>	<b>57</b>	<b>17.3</b>	<b>46</b>	<b>18.4</b>	<b>36</b>	<b>14.9</b>	<b>34</b>	<b>9.7</b>	<b>Jul-97</b>
<i>Russell 3000</i>				8.2	32	15.1	61	44.2	58	18.7	36	17.9	40	14.7	38	9.1	Jul-97
<i>US Equity Allocation Index</i>				8.2	33	14.6	65	44.5	56	18.2	40	17.8	41	14.3	43	--	Jul-97
<i>eV All US Equity Gross Median</i>				6.8		16.3		46.4		16.4		16.7		13.8		10.6	Jul-97
<b>Large Cap Composite</b>	<b>341,629,067</b>	<b>24.0</b>	<b>22.0</b>	<b>8.4</b>	<b>40</b>	<b>16.5</b>	<b>39</b>	<b>44.5</b>	<b>32</b>	<b>17.9</b>	<b>48</b>	<b>18.2</b>	<b>38</b>	<b>14.9</b>	<b>39</b>	<b>9.9</b>	<b>Apr-01</b>
<i>Russell 1000</i>				8.5	39	15.0	55	43.1	40	19.2	40	18.0	40	14.9	40	9.1	Apr-01
<i>eV US Large Cap Equity Gross Median</i>				7.7		15.3		41.6		17.7		16.8		14.2		9.7	Apr-01
LSV Asset Management SMA	99,946,575	7.0		5.0	73	23.1	9	54.3	15	11.4	77	13.2	53	12.9	32	10.3	May-00
<i>Russell 1000 Value</i>				5.2	63	17.0	60	43.7	53	12.4	61	11.9	79	11.6	71	7.6	May-00
<i>eV US Large Cap Value Equity Gross Median</i>				5.7		18.0		44.3		13.2		13.3		12.3		9.1	May-00
Westfield Capital Management SMA	125,676,171	8.8		10.9	55	13.8	42	42.2	40	24.1	50	23.8	41	16.9	56	18.6	Jul-10
<i>Russell 1000 Growth</i>				11.9	32	13.0	55	42.5	38	25.1	34	23.7	42	17.9	30	19.3	Jul-10
<i>eV US Large Cap Growth Equity Gross Median</i>				11.2		13.3		40.8		24.1		22.7		17.1		18.6	Jul-10
BlackRock Equity Index Non-Lendable Fund	116,006,322	8.1		8.5	38	15.3	52	40.8	56	--	--	--	--	--	--	24.0	Dec-19
<i>S&amp;P 500</i>				8.5	38	15.3	52	40.8	56	18.7	43	17.6	43	14.8	41	24.0	Dec-19
<i>eV US Large Cap Equity Gross Median</i>				7.7		15.3		41.6		17.7		16.8		14.2		22.7	Dec-19





# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Small/Mid Cap Composite</b>	<b>62,417,543</b>	<b>4.4</b>	<b>5.5</b>	<b>3.9</b>	<b>80</b>	<b>9.1</b>	<b>89</b>	<b>42.8</b>	<b>87</b>	<b>15.2</b>	<b>47</b>	<b>19.0</b>	<b>31</b>	<b>15.0</b>	<b>24</b>	<b>12.9</b>	<b>Apr-93</b>
<i>Russell 2500</i>				5.4	47	17.0	53	57.8	45	15.2	47	16.3	51	12.9	54	11.2	Apr-93
<i>eV US Small-Mid Cap Equity Gross Median</i>				5.3		17.3		55.1		14.8		16.4		13.0		12.6	Apr-93
<b>William Blair SMA</b>	<b>22,368,112</b>	<b>1.6</b>		<b>4.2</b>	<b>88</b>	<b>8.8</b>	<b>68</b>	<b>43.4</b>	<b>69</b>	<b>19.3</b>	<b>71</b>	<b>21.3</b>	<b>61</b>	<b>16.5</b>	<b>43</b>	<b>13.8</b>	<b>Jun-06</b>
<i>Russell 2500 Growth</i>				6.0	62	8.7	69	49.6	50	20.1	61	20.7	67	14.8	67	11.9	Jun-06
<i>eV US Small-Mid Cap Growth Equity Gross Median</i>				6.9		10.7		49.5		22.3		22.2		15.9		13.6	Jun-06
<b>William Blair S/C Value I</b>	<b>19,801,665</b>	<b>1.4</b>		<b>3.7</b>	<b>62</b>	<b>25.8</b>	<b>45</b>	<b>67.4</b>	<b>48</b>	<b>10.2</b>	<b>59</b>	<b>15.1</b>	<b>30</b>	<b>12.6</b>	<b>31</b>	<b>12.3</b>	<b>Apr-93</b>
<i>Russell 2000 Value</i>				4.6	43	26.7	37	73.3	33	10.3	58	13.6	53	10.8	78	10.4	Apr-93
<i>eV US Small Cap Value Equity Gross Median</i>				4.2		24.6		66.7		10.8		13.7		11.8		12.9	Apr-93
<b>Brown Capital Small Company Strategy SMA</b>	<b>20,247,766</b>	<b>1.4</b>		<b>3.9</b>	<b>79</b>	<b>-3.0</b>	<b>99</b>	<b>24.4</b>	<b>99</b>	<b>17.3</b>	<b>76</b>	<b>21.9</b>	<b>53</b>	<b>--</b>	<b>--</b>	<b>19.5</b>	<b>Aug-11</b>
<i>Russell 2000 Growth</i>				3.9	79	9.0	71	51.4	67	15.9	86	18.8	82	13.5	86	14.1	Aug-11
<i>eV US Small Cap Growth Equity Gross Median</i>				5.5		11.8		55.3		21.7		22.5		15.8		16.4	Aug-11
<b>Total International Equity</b>	<b>242,605,818</b>	<b>17.0</b>	<b>17.5</b>	<b>6.0</b>	<b>48</b>	<b>9.7</b>	<b>51</b>	<b>40.2</b>	<b>50</b>	<b>12.6</b>	<b>46</b>	<b>13.1</b>	<b>53</b>	<b>6.4</b>	<b>81</b>	<b>5.7</b>	<b>Jul-97</b>
<i>MSCI ACWI ex USA</i>				5.5	63	9.2	56	35.7	75	9.4	77	11.1	81	5.4	92	5.3	Jul-97
<i>eV ACWI ex-US All Cap Equity Gross Median</i>				5.8		9.8		40.1		12.3		13.1		8.1		7.7	Jul-97
<b>International Developed Markets Composite</b>	<b>150,952,806</b>	<b>10.6</b>	<b>11.0</b>	<b>5.3</b>	<b>59</b>	<b>9.6</b>	<b>59</b>	<b>36.8</b>	<b>46</b>	<b>11.3</b>	<b>28</b>	<b>11.7</b>	<b>46</b>	<b>7.2</b>	<b>56</b>	<b>5.0</b>	<b>Mar-08</b>
<i>MSCI EAFE</i>				5.2	66	8.8	69	32.3	76	8.3	62	10.3	72	5.9	87	3.7	Mar-08
<i>eV All EAFE Equity Gross Median</i>				5.7		10.2		36.1		9.0		11.3		7.5		5.6	Mar-08
<b>Mondrian International Equity Fund, L.P.</b>	<b>77,662,949</b>	<b>5.4</b>		<b>5.4</b>	<b>57</b>	<b>13.1</b>	<b>21</b>	<b>35.3</b>	<b>55</b>	<b>6.4</b>	<b>86</b>	<b>8.1</b>	<b>93</b>	<b>5.5</b>	<b>93</b>	<b>2.8</b>	<b>Dec-07</b>
<i>MSCI EAFE</i>				5.2	66	8.8	69	32.3	76	8.3	62	10.3	72	5.9	87	2.8	Dec-07
<i>eV All EAFE Equity Gross Median</i>				5.7		10.2		36.1		9.0		11.3		7.5		4.7	Dec-07
<b>Baillie Gifford EAFE Pure K - BGPX</b>	<b>73,289,857</b>	<b>5.1</b>		<b>5.2</b>	<b>63</b>	<b>6.4</b>	<b>88</b>	<b>37.6</b>	<b>43</b>	<b>15.4</b>	<b>7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>14.9</b>	<b>May-18</b>
<i>MSCI EAFE</i>				5.2	66	8.8	69	32.3	76	8.3	62	10.3	72	5.9	87	6.6	May-18
<i>eV All EAFE Equity Gross Median</i>				5.7		10.2		36.1		9.0		11.3		7.5		7.5	May-18



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>International Emerging Markets Composite</b>	<b>91,653,012</b>	<b>6.4</b>	<b>6.5</b>	<b>7.2</b>	<b>26</b>	<b>10.0</b>	<b>46</b>	<b>45.9</b>	<b>43</b>	<b>14.9</b>	<b>28</b>	<b>15.7</b>	<b>27</b>	<b>4.8</b>	<b>72</b>	<b>7.6</b>	<b>Feb-06</b>
MSCI Emerging Markets				5.0	53	7.4	66	40.9	69	11.3	67	13.0	62	4.3	85	6.2	Feb-06
eV Emg Mkts Equity Gross Median				5.2		9.3		45.1		12.2		13.8		5.8		7.8	Feb-06
GQG Partners Emerging Markets Equity Fund	46,150,051	3.2		5.6	46	4.5	90	42.5	63	--	--	--	--	--	--	23.7	Dec-18
MSCI Emerging Markets				5.0	53	7.4	66	40.9	69	11.3	67	13.0	62	4.3	85	15.9	Dec-18
eV Emg Mkts Equity Gross Median				5.2		9.3		45.1		12.2		13.8		5.8		18.0	Dec-18
Arga Emerging Markets Equity Fund	45,502,961	3.2		8.8	19	15.9	15	--	--	--	--	--	--	--	--	15.9	Jan-21
MSCI Emerging Markets Value NR USD				5.7	44	10.0	45	41.6	67	7.8	91	9.7	88	1.8	99	10.0	Jan-21
eV Emg Mkts Equity Gross Median				5.2		9.3		45.1		12.2		13.8		5.8		9.3	Jan-21
<b>Total Fixed Income Composite</b>	<b>381,132,723</b>	<b>26.7</b>	<b>23.0</b>	<b>2.4</b>	<b>32</b>	<b>-0.5</b>	<b>68</b>	<b>4.4</b>	<b>36</b>	<b>6.3</b>	<b>37</b>	<b>4.5</b>	<b>37</b>	<b>4.5</b>	<b>39</b>	<b>5.5</b>	<b>Jul-97</b>
Bloomberg US Aggregate TR				1.8	49	-1.6	90	-0.3	95	5.3	53	3.0	66	3.4	62	5.0	Jul-97
eV All US Fixed Inc Gross Median				1.8		0.1		2.5		5.5		3.7		3.9		5.2	Jul-97
<b>Core Fixed Income Composite</b>	<b>284,036,100</b>	<b>19.9</b>	<b>11.0</b>	<b>2.2</b>	<b>33</b>	<b>-0.3</b>	<b>10</b>	<b>3.3</b>	<b>8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>7.2</b>	<b>Mar-19</b>
Bloomberg US Aggregate TR				1.8	85	-1.6	83	-0.3	88	5.3	89	3.0	91	3.4	93	5.7	Mar-19
eV US Core Fixed Inc Gross Median				2.1		-1.2		1.0		6.0		3.7		4.0		6.5	Mar-19
Dodge & Cox SMA	126,778,162	8.9		2.0	44	-0.5	68	3.7	40	6.7	30	4.8	33	4.7	35	4.9	May-10
Bloomberg US Aggregate TR				1.8	49	-1.6	90	-0.3	95	5.3	53	3.0	66	3.4	62	3.6	May-10
eV All US Fixed Inc Gross Median				1.8		0.1		2.5		5.5		3.7		3.9		4.1	May-10
PIMCO Total Return	131,300,809	9.2		2.2	37	-0.6	69	2.4	51	6.3	36	4.2	41	4.0	49	4.3	May-10
Bloomberg US Aggregate TR				1.8	49	-1.6	90	-0.3	95	5.3	53	3.0	66	3.4	62	3.6	May-10
eV All US Fixed Inc Gross Median				1.8		0.1		2.5		5.5		3.7		3.9		4.1	May-10
State Street Global Advisors TIPS	25,957,129	1.8		3.2	44	1.7	80	6.4	85	6.5	62	4.1	74	3.4	68	4.0	Nov-09
Bloomberg US TIPS TR				3.2	42	1.7	56	6.5	71	6.5	61	4.2	74	3.4	66	4.0	Nov-09
eV US TIPS / Inflation Fixed Inc Gross Median				3.2		1.9		6.7		6.6		4.3		3.5		4.2	Nov-09



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Emerging Markets Debt Composite</b>	<b>47,745,133</b>	<b>3.3</b>	<b>4.0</b>	<b>4.8</b>	<b>12</b>	<b>-3.3</b>	<b>89</b>	<b>9.8</b>	<b>49</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.4</b>	<b>Mar-19</b>
JP Morgan GBI EM Global Diversified TR USD				3.5	59	-3.4	90	6.6	90	4.1	90	3.2	90	0.5	94	3.3	Mar-19
eV All Emg Mkts Fixed Inc Gross Median				3.7		-0.6		9.8		6.9		5.4		5.2		6.3	Mar-19
Colchester Local Markets Debt Fund	47,745,133	3.3		4.8	12	-3.3	89	9.8	49	5.2	75	4.7	67	--	--	7.1	Oct-15
JP Morgan GBI EM Global Diversified TR USD				3.5	59	-3.4	90	6.6	90	4.1	90	3.2	90	0.5	94	5.2	Oct-15
eV All Emg Mkts Fixed Inc Gross Median				3.7		-0.6		9.8		6.9		5.4		5.2		6.8	Oct-15
<b>Absolute Return Fixed Income</b>	<b>49,351,490</b>	<b>3.5</b>	<b>4.0</b>	<b>1.0</b>	<b>67</b>	<b>1.6</b>	<b>26</b>	<b>5.9</b>	<b>29</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>2.9</b>	<b>Mar-20</b>
3-Month Libor Total Return USD				0.0	97	0.1	49	0.2	88	1.4	99	1.4	98	0.9	98	0.3	Mar-20
eV All US Fixed Inc Gross Median				1.8		0.1		2.5		5.5		3.7		3.9		2.8	Mar-20
Payden Absolute Return Bond Fund PYAIX	49,351,490	3.5		1.0	67	1.6	26	5.9	29	--	--	--	--	--	--	2.9	Mar-20
3-Month Libor Total Return USD				0.0	97	0.1	49	0.2	88	1.4	99	1.4	98	0.9	98	0.3	Mar-20
eV All US Fixed Inc Gross Median				1.8		0.1		2.5		5.5		3.7		3.9		2.8	Mar-20
<b>High Yield</b>			<b>4.0</b>														
<b>Total Real Assets Composite</b>	<b>47,056,812</b>	<b>3.3</b>	<b>6.0</b>	<b>4.1</b>	<b>--</b>	<b>5.5</b>	<b>--</b>	<b>11.9</b>	<b>--</b>	<b>1.2</b>	<b>--</b>	<b>6.0</b>	<b>--</b>	<b>6.3</b>	<b>--</b>	<b>6.5</b>	<b>Jul-03</b>
NCREIF Property Index 1 Qtr. Lag				1.7	--	2.9	--	2.6	--	4.9	--	5.8	--	8.8	--	8.3	Jul-03
<b>Cash Composite</b>	<b>15,495,729</b>	<b>1.1</b>		<b>0.0</b>	<b>--</b>	<b>0.0</b>	<b>--</b>	<b>0.0</b>	<b>--</b>	<b>1.0</b>	<b>--</b>	<b>0.8</b>	<b>--</b>	<b>0.4</b>	<b>--</b>	<b>1.3</b>	<b>Dec-03</b>
91 Day T-Bills				0.0	--	0.0	--	0.1	--	1.2	--	1.1	--	0.6	--	1.2	Dec-03



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Hedge Fund Composite</b>	<b>139,003,453</b>	<b>9.8</b>	<b>8.0</b>	<b>2.7</b>	--	<b>4.9</b>	--	<b>13.7</b>	--	<b>6.2</b>	--	<b>6.0</b>	--	<b>5.3</b>	--	<b>5.3</b>	<b>Jan-11</b>
<i>HFRI FOF: Conservative Index</i>				2.0	--	5.7	--	14.8	--	5.3	--	5.0	--	3.5	--	3.3	Jan-11
Magnitude International Class A Eligible	68,982,536	4.8		2.0	--	3.6	--	12.2	--	5.5	--	5.2	--	5.0	--	5.2	Jan-11
<i>HFRI FOF: Conservative Index</i>				2.0	--	5.7	--	14.8	--	5.3	--	5.0	--	3.5	--	3.3	Jan-11
Blackstone Partners Offshore Fund LTD	70,020,917	4.9		3.4	--	6.2	--	15.3	--	6.8	--	6.8	--	5.6	--	5.4	Mar-11
<i>HFRI FOF: Conservative Index</i>				2.0	--	5.7	--	14.8	--	5.3	--	5.0	--	3.5	--	3.2	Mar-11
<b>Private Equity Composite</b>	<b>192,511,323</b>	<b>13.5</b>	<b>13.0</b>	<b>9.5</b>	--	<b>30.2</b>	--	<b>53.7</b>	--	<b>24.8</b>	--	<b>21.2</b>	--	<b>16.8</b>	--	<b>15.3</b>	<b>Jul-08</b>
<i>C A US All PE (1 Qtr Lag)</i>				9.4	--	22.0	--	47.4	--	17.6	--	17.2	--	14.3	--	12.0	Jul-08
<b>Private Debt</b>	<b>3,750,000</b>	<b>0.3</b>	<b>5.0</b>	<b>0.0</b>	--	<b>0.0</b>	--	<b>0.0</b>	--	--	--	--	--	--	--	<b>0.0</b>	<b>Jun-20</b>
<i>S&amp;P/LSTA Leveraged Loan</i>				1.5	--	3.3	--	11.7	--	4.4	--	5.0	--	4.4	--	11.7	Jun-20

Fiscal year ends 6/30.

Policy index consists of: 22% Russell 1000 / 5.5% Russell 2500 / 11% MSCI EAFE / 6.5% MSCI Emerging Markets / 9% BBgBarc US Aggregate TR / 2% BBgBarc US TIPS TR / 4% 3-Month Libor Total Return USD / 4% JP Morgan GBI EM Global Diversified TR USD / 5% S&P/LSTA Leveraged Loan TR / 4% BBgBarc US High Yield TR / 6% NCREIF Property Index 1 Qtr. Lag / 8% HFRI FOF: Conservative Index / 13% Private Equity Composite.

Allocation index consists of: Weighted index of underlying managers to their respective benchmark.

Fixed Income Policy index consists of: 100% BBgBarc US Aggregate TR.

Real Estate, Real Assets and Private Equity investments are valued as of 3/31/2021 and adjusted for capital calls and distributions through 6/30/2020.

All history prior to 3/1/2019 was provided by AndCo.



# Howard County Retirement Plans

## ASSET ALLOCATION VS. POLICY TARGETS

Allocation vs. Targets and Policy As Of June 30, 2021				
	Current Balance	Current Allocation	Target	Difference
Large Cap Equity	\$341,629,067	24.0%	22.0%	2.0%
Small/Mid Cap Equity	\$62,417,543	4.4%	5.5%	-1.1%
Developed International Equity	\$150,952,806	10.6%	11.0%	-0.4%
Emerging Markets Equity	\$91,653,012	6.4%	6.5%	-0.1%
Core Fixed Income	\$258,078,971	18.1%	9.0%	9.1%
High Yield	--	--	4.0%	-4.0%
TIPS	\$25,957,129	1.8%	2.0%	-0.2%
Emerging Market Debt	\$47,745,133	3.3%	4.0%	-0.7%
Private Debt	\$6,409,775	0.4%	5.0%	-4.6%
Private Equity	\$189,851,548	13.3%	13.0%	0.3%
Hedge Funds	\$139,003,453	9.8%	8.0%	1.8%
Real Assets	\$47,056,812	3.3%	6.0%	-2.7%
Cash	\$15,495,729	1.1%	0.0%	1.1%
Absolute Return Fixed Income	\$49,351,490	3.5%	4.0%	-0.5%
<b>Total</b>	<b>\$1,425,602,469</b>	<b>100.0%</b>	<b>100.0%</b>	

Allocation vs. Targets and Policy As Of March 31, 2021				
	Current Balance	Current Allocation	Target	Difference
Large Cap Equity	\$307,908,695	22.8%	19.0%	3.8%
Small/Mid Cap Equity	\$60,226,943	4.5%	4.0%	0.5%
Developed International Equity	\$143,591,350	10.6%	12.0%	-1.4%
Emerging Markets Equity	\$85,679,918	6.3%	5.0%	1.3%
Core Fixed Income	\$252,849,979	18.7%	20.0%	-1.3%
TIPS	\$25,146,660	1.9%	2.0%	-0.1%
Emerging Market Debt	\$45,659,487	3.4%	4.0%	-0.6%
Private Debt	\$3,397,047	0.3%	5.0%	-4.7%
Private Equity	\$186,037,815	13.8%	10.0%	3.8%
Hedge Funds	\$135,564,098	10.0%	8.0%	2.0%
Real Assets	\$45,214,272	3.3%	7.0%	-3.7%
Cash	\$12,171,090	0.9%	0.0%	0.9%
Absolute Return Fixed Income	\$48,907,213	3.6%	4.0%	-0.4%
<b>Total</b>	<b>\$1,352,354,568</b>	<b>100.0%</b>	<b>100.0%</b>	



# Howard County Retirement Plans

## ANALYTICS DEFINITIONS

Asset Allocation Effect - Measures the ability to effectively allocate their portfolio's assets to various asset classes. The allocation effect determines whether the overweighting or underweighting of asset classes relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is overweighted in an asset class that outperforms the benchmark. Negative allocation occurs when the portfolio is overweighted in an asset class that underperforms the benchmark and underweighted in an asset class that outperforms the benchmark.

Selection Effect - Measures the ability to select managers within a given asset class relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by plan's allocation to the asset class. The weight of the manager in the portfolio determines the size of the effect -- the larger the manager, the larger the effect is, positive or negative.

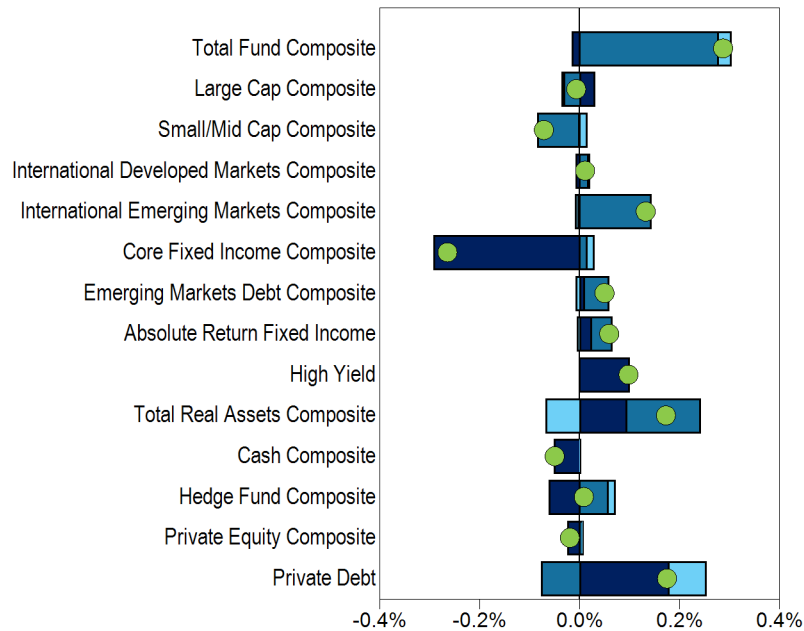
Interaction Effect - The interaction effect measures the combined impact of manager selection and manager allocation decisions within an asset class. For example, if client had superior manager selection and overweighted that particular asset class, the interaction effect is positive. If client had superior manager selection, but underweighted that asset class, the interaction effect is negative. In this case, client did not take advantage of the superior manager selection by allocating more assets to that asset class.



# Howard County Retirement Plans

## TOTAL FUND ATTRIBUTION ANALYSIS (GROSS)

Attribution Effects  
3 Months Ending June 30, 2021



■ Allocation Effect  
■ Selection Effect  
■ Interaction Effects  
● Total Effect

Attribution Summary  
3 Months Ending June 30, 2021

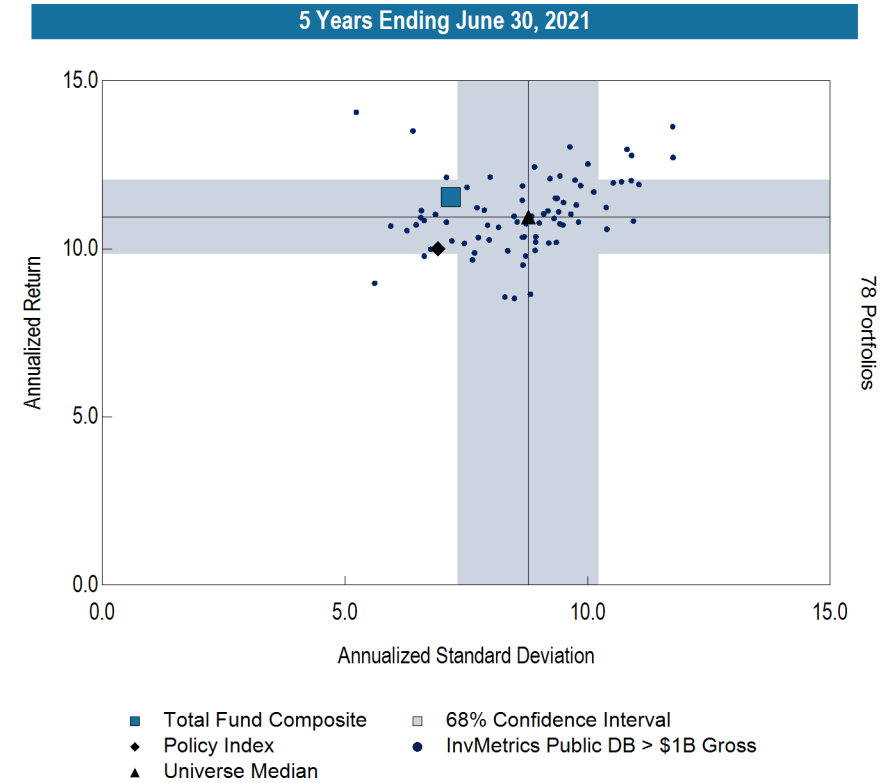
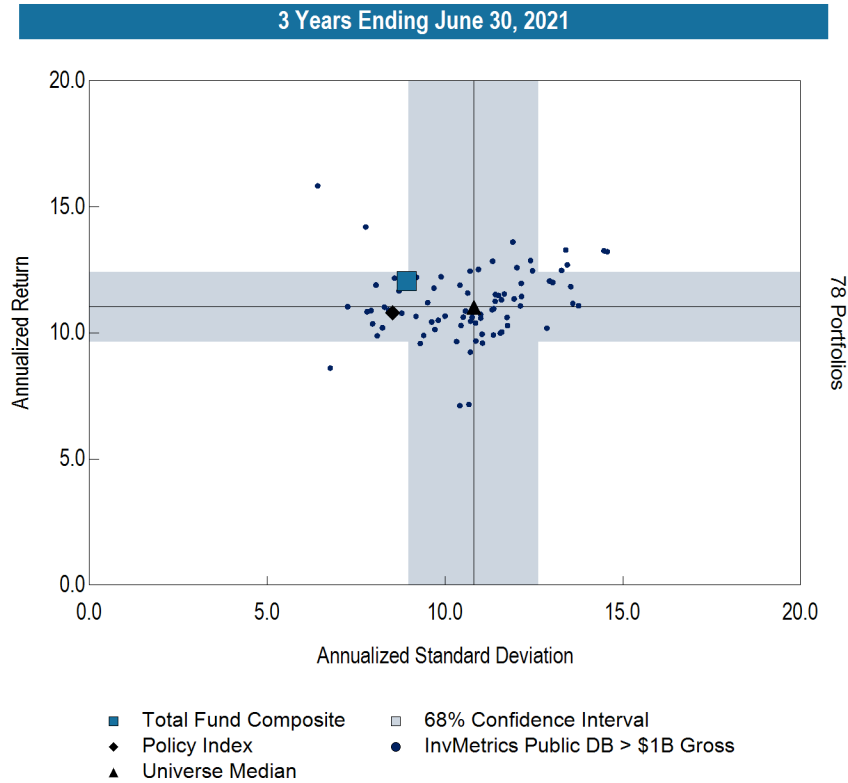
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Composite	22.0%	8.4%	8.5%	-0.1%	0.0%	0.0%	0.0%	0.0%
Small/Mid Cap Composite	5.5%	3.9%	5.4%	-1.5%	-0.1%	0.0%	0.0%	-0.1%
International Developed Markets Composite	11.0%	5.3%	5.2%	0.2%	0.0%	0.0%	0.0%	0.0%
International Emerging Markets Composite	6.5%	7.2%	5.0%	2.1%	0.1%	0.0%	0.0%	0.1%
Core Fixed Income Composite	11.0%	2.2%	2.1%	0.1%	0.0%	-0.3%	0.0%	-0.3%
Emerging Markets Debt Composite	4.0%	4.8%	3.5%	1.2%	0.0%	0.0%	0.0%	0.0%
Absolute Return Fixed Income	4.0%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.1%
High Yield	4.0%	--	--	--	--	0.1%	--	--
Total Real Assets Composite	6.0%	4.1%	1.7%	2.4%	0.1%	0.1%	-0.1%	0.2%
Cash Composite	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hedge Fund Composite	8.0%	2.7%	2.0%	0.7%	0.1%	-0.1%	0.0%	0.0%
Private Equity Composite	13.0%	9.5%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Debt	5.0%	0.0%	1.5%	-1.5%	-0.1%	0.2%	0.1%	0.2%
<b>Total</b>	<b>100.0%</b>	<b>5.4%</b>	<b>5.2%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.3%</b>





# Howard County Retirement Plans

## TOTAL FUND RISK/RETURN (GROSS)



**3 Years Ending June 30, 2021**

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio	Sortino Ratio
Total Fund Composite	12.06%	8.92%	1.22	1.57
Policy Index	10.80%	8.53%	1.13	1.45

**5 Years Ending June 30, 2021**

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio	Sortino Ratio
Total Fund Composite	11.55%	7.17%	1.45	1.68
Policy Index	10.01%	6.91%	1.29	1.56

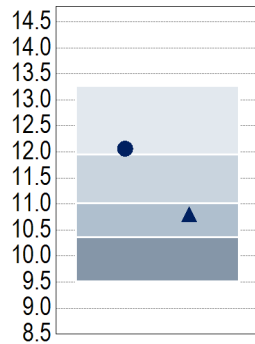


# Howard County Retirement Plans

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund Composite vs. InvMetrics Public DB > \$1B Gross  
3 Years

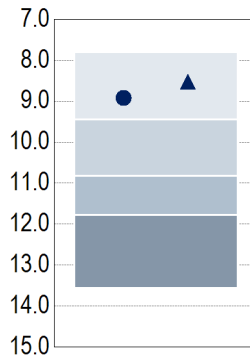
Anlzd Return



● Total Fund Composite	
Value	12.06
Rank	23
▲ Policy Index	
Value	10.80
Rank	60

Universe	
5th %tile	13.26
25th %tile	11.96
Median	11.03
75th %tile	10.37
95th %tile	9.53

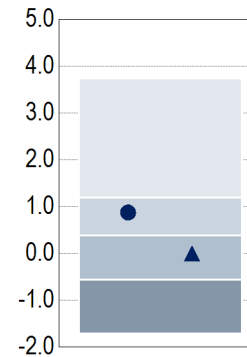
Anlzd Standard Deviation



● Total Fund Composite	
Value	8.92
Rank	20
▲ Policy Index	
Value	8.53
Rank	16

Universe	
5th %tile	7.80
25th %tile	9.43
Median	10.81
75th %tile	11.76
95th %tile	13.55

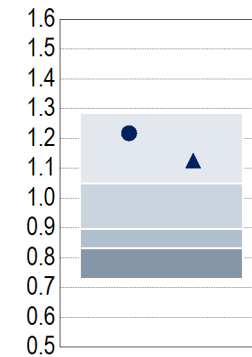
Anlzd Alpha



● Total Fund Composite	
Value	0.87
Rank	34
▲ Policy Index	
Value	0.00
Rank	61

Universe	
5th %tile	3.74
25th %tile	1.20
Median	0.40
75th %tile	-0.55
95th %tile	-1.70

Sharpe Ratio



● Total Fund Composite	
Value	1.22
Rank	10
▲ Policy Index	
Value	1.13
Rank	17

Universe	
5th %tile	1.29
25th %tile	1.05
Median	0.90
75th %tile	0.83
95th %tile	0.73

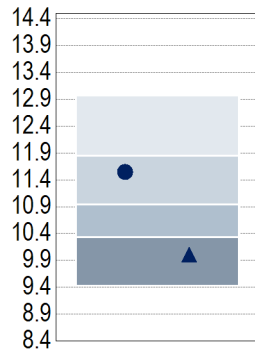


# Howard County Retirement Plans

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund Composite vs. InvMetrics Public DB > \$1B Gross  
5 Years

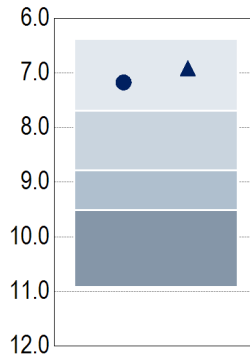
### Anlzd Return



● Total Fund Composite	
Value	11.55
Rank	29
▲ Policy Index	
Value	10.01
Rank	86

Universe	
5th %tile	12.97
25th %tile	11.86
Median	10.95
75th %tile	10.35
95th %tile	9.44

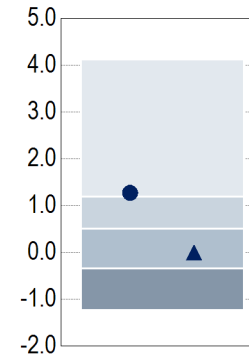
### Anlzd Standard Deviation



● Total Fund Composite	
Value	7.17
Rank	20
▲ Policy Index	
Value	6.91
Rank	15

Universe	
5th %tile	6.38
25th %tile	7.68
Median	8.78
75th %tile	9.50
95th %tile	10.91

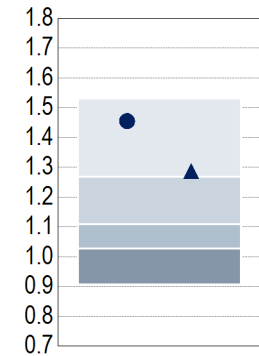
### Anlzd Alpha



● Total Fund Composite	
Value	1.27
Rank	22
▲ Policy Index	
Value	0.00
Rank	66

Universe	
5th %tile	4.12
25th %tile	1.20
Median	0.53
75th %tile	-0.33
95th %tile	-1.22

### Sharpe Ratio



● Total Fund Composite	
Value	1.45
Rank	13
▲ Policy Index	
Value	1.29
Rank	23

Universe	
5th %tile	1.53
25th %tile	1.27
Median	1.11
75th %tile	1.03
95th %tile	0.91

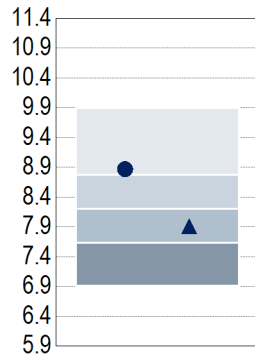


# Howard County Retirement Plans

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund Composite vs. InvMetrics Public DB > \$1B Gross  
7 Years

### Anlzd Return

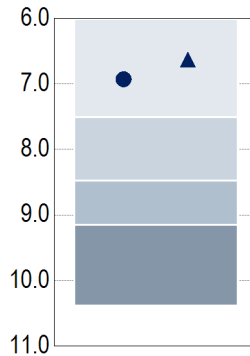


- Total Fund Composite  
Value 8.87  
Rank 20
- ▲ Policy Index  
Value 7.91  
Rank 64

Universe

5th %tile	9.89
25th %tile	8.78
Median	8.22
75th %tile	7.64
95th %tile	6.92

### Anlzd Standard Deviation

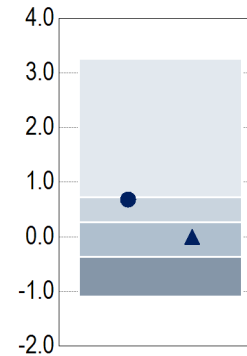


- Total Fund Composite  
Value 6.93  
Rank 18
- ▲ Policy Index  
Value 6.63  
Rank 12

Universe

5th %tile	6.01
25th %tile	7.50
Median	8.47
75th %tile	9.14
95th %tile	10.38

### Anlzd Alpha

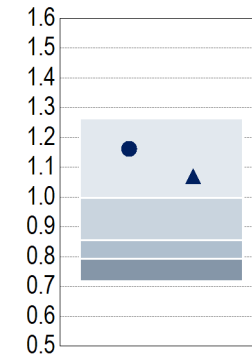


- Total Fund Composite  
Value 0.68  
Rank 27
- ▲ Policy Index  
Value 0.00  
Rank 61

Universe

5th %tile	3.26
25th %tile	0.74
Median	0.28
75th %tile	-0.36
95th %tile	-1.08

### Sharpe Ratio



- Total Fund Composite  
Value 1.16  
Rank 9
- ▲ Policy Index  
Value 1.07  
Rank 21

Universe

5th %tile	1.26
25th %tile	1.00
Median	0.86
75th %tile	0.79
95th %tile	0.72

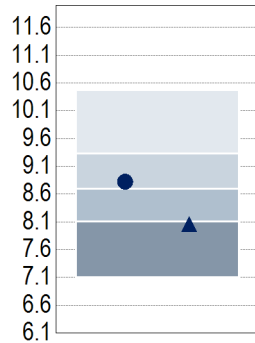


# Howard County Retirement Plans

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund Composite vs. InvMetrics Public DB > \$1B Gross  
10 Years

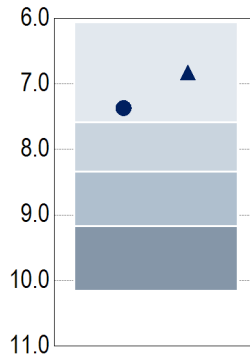
### Anlzd Return



● Total Fund Composite	
Value	8.82
Rank	47
▲ Policy Index	
Value	8.06
Rank	80

Universe	
5th %tile	10.47
25th %tile	9.34
Median	8.71
75th %tile	8.13
95th %tile	7.11

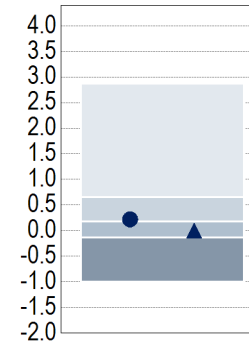
### Anlzd Standard Deviation



● Total Fund Composite	
Value	7.37
Rank	21
▲ Policy Index	
Value	6.83
Rank	11

Universe	
5th %tile	6.06
25th %tile	7.58
Median	8.33
75th %tile	9.16
95th %tile	10.14

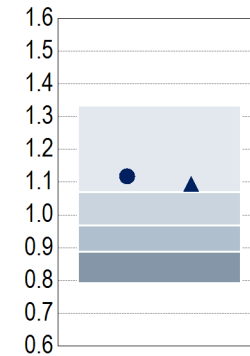
### Anlzd Alpha



● Total Fund Composite	
Value	0.22
Rank	44
▲ Policy Index	
Value	0.00
Rank	61

Universe	
5th %tile	2.87
25th %tile	0.66
Median	0.19
75th %tile	-0.12
95th %tile	-0.98

### Sharpe Ratio



● Total Fund Composite	
Value	1.12
Rank	21
▲ Policy Index	
Value	1.09
Rank	23

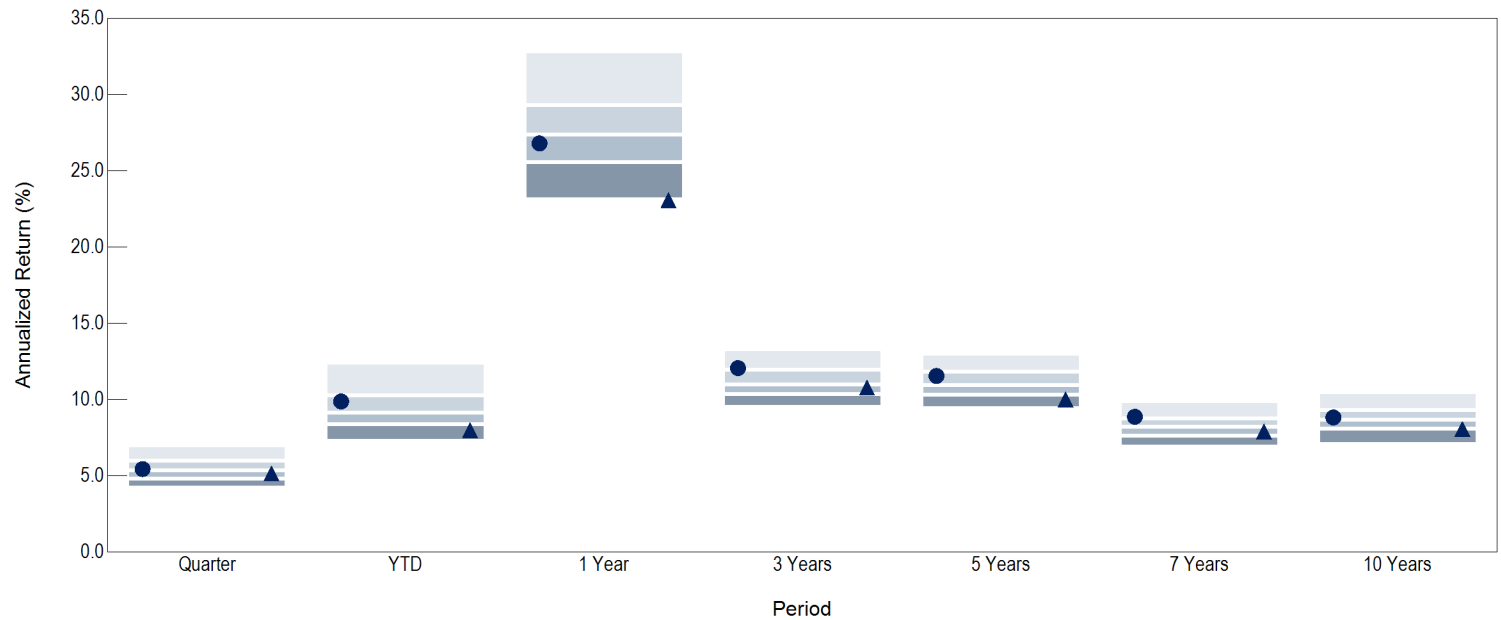
Universe	
5th %tile	1.33
25th %tile	1.07
Median	0.97
75th %tile	0.89
95th %tile	0.79



# Howard County Retirement Plans

## TOTAL RETURN SUMMARY VS. PEER UNIVERSE (GROSS)

Total Fund Composite vs. InvMetrics Public DB > \$1B Gross



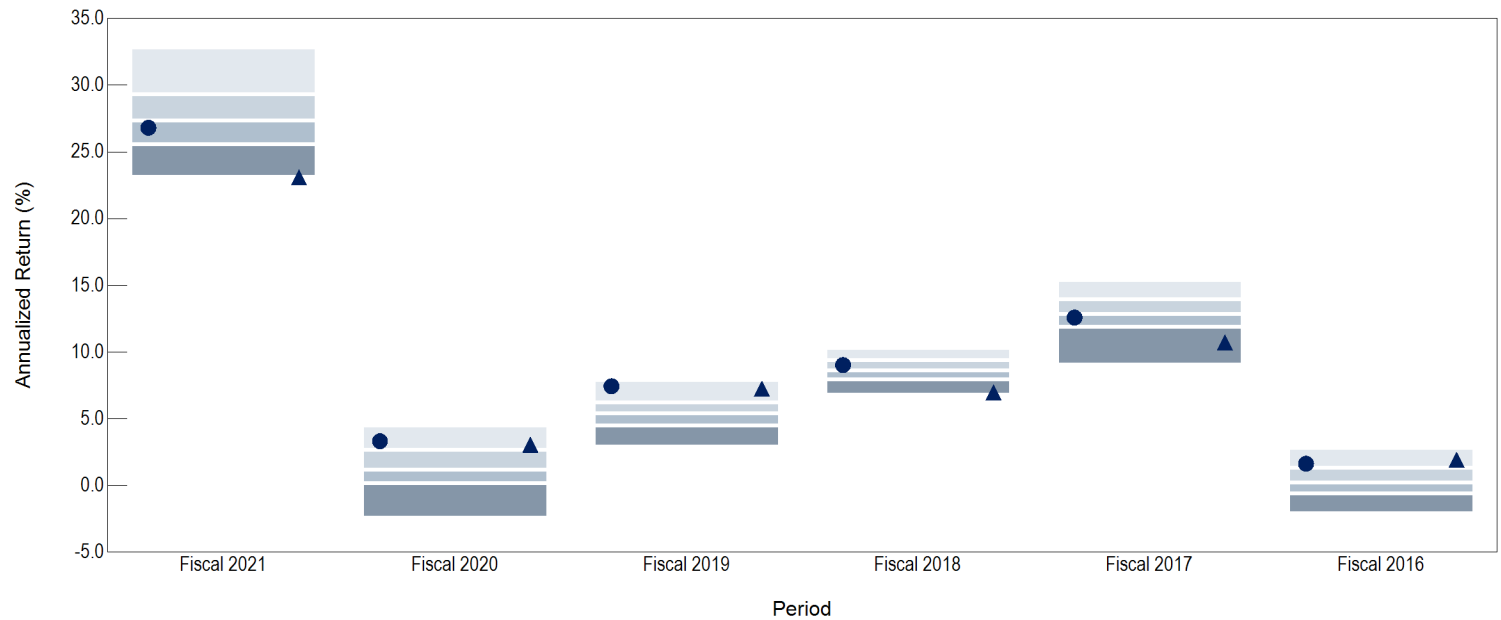
	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)			
5th Percentile	7.0		12.4		32.8		13.3		13.0		9.9	10.5		
25th Percentile	6.0		10.3		29.4		12.0		11.9		8.8	9.3		
Median	5.4		9.2		27.4		11.0		11.0		8.2	8.7		
75th Percentile	4.8		8.4		25.6		10.4		10.4		7.6	8.1		
95th Percentile	4.3		7.3		23.2		9.5		9.4		6.9	7.1		
# of Portfolios	78		78		78		78		78		77	74		
● Total Fund Composite	5.4	(44)	9.9	(31)	26.8	(56)	12.1	(23)	11.5	(29)	8.9	(20)	8.8	(47)
▲ Policy Index	5.2	(59)	8.0	(87)	23.1	(96)	10.8	(60)	10.0	(86)	7.9	(64)	8.1	(80)



# Howard County Retirement Plans

## FISCAL RETURN SUMMARY VS. PEER UNIVERSE (GROSS)

Total Fund Composite vs. InvMetrics Public DB > \$1B Gross



	Fiscal 2021		Fiscal 2020		Fiscal 2019		Fiscal 2018		Fiscal 2017		Fiscal 2016	
	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)
5th Percentile	32.8		4.5		7.9		10.3		15.3		2.8	
25th Percentile	29.4		2.7		6.2		9.4		14.0		1.4	
Median	27.4		1.2		5.4		8.7		12.9		0.3	
75th Percentile	25.6		0.2		4.5		8.0		11.9		-0.6	
95th Percentile	23.2		-2.4		2.9		6.8		9.1		-2.1	
# of Portfolios	78		82		88		62		108		91	
● Total Fund Composite	26.8	(56)	3.3	(16)	7.4	(9)	9.0	(35)	12.6	(61)	1.6	(22)
▲ Policy Index	23.1	(96)	3.0	(17)	7.2	(14)	7.0	(91)	10.7	(91)	1.9	(15)

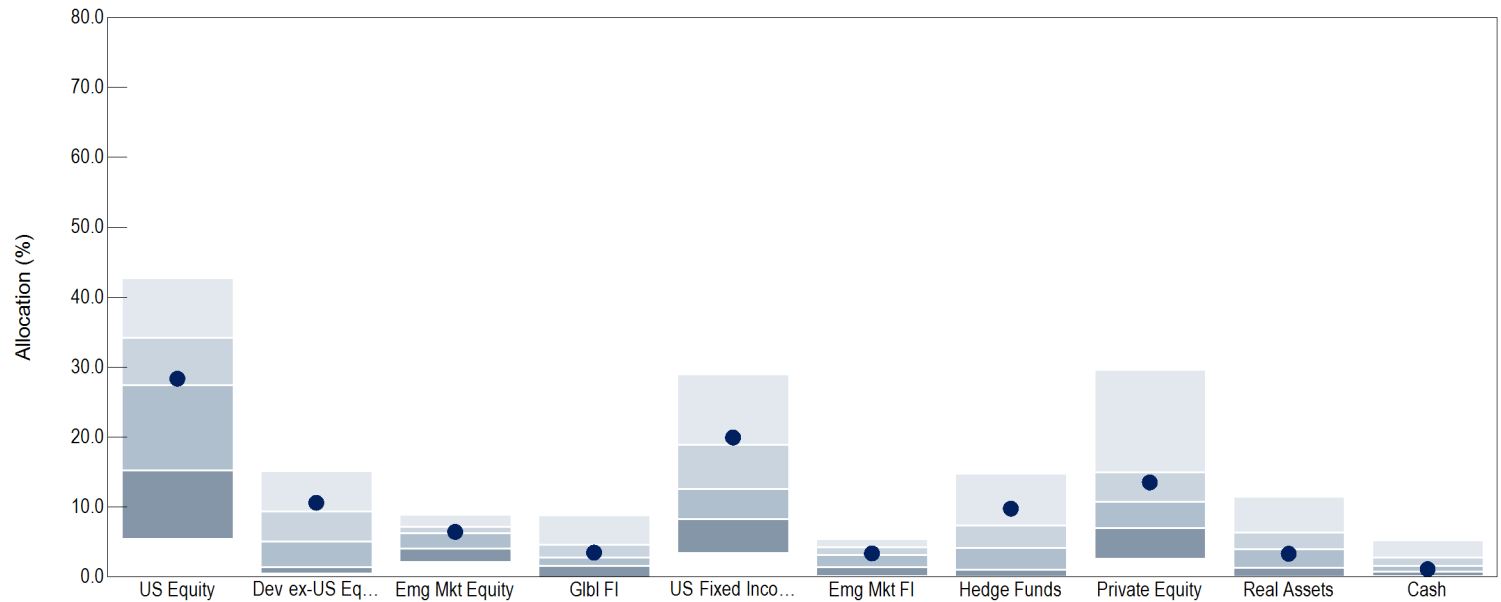
Fiscal year ends 6/30.



# Howard County Retirement Plans

## TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB > \$1B Gross



### Allocation (Rank)

	US Equity	Dev ex-US Eq...	Emg Mkt Equity	Glbl FI	US Fixed Inco...	Emg Mkt FI	Hedge Funds	Private Equity	Real Assets	Cash
5th Percentile	42.7	15.1	8.9	8.8	29.0	5.4	14.7	29.6	11.5	5.2
25th Percentile	34.3	9.5	7.3	4.7	18.9	4.3	7.4	15.1	6.5	2.9
Median	27.5	5.2	6.3	2.9	12.6	3.2	4.2	10.8	4.1	1.7
75th Percentile	15.4	1.5	4.2	1.7	8.4	1.4	1.1	7.1	1.4	0.9
95th Percentile	5.5	0.5	2.2	0.0	3.5	0.2	0.1	2.6	0.1	0.2
# of Portfolios	48	29	39	23	46	27	38	44	31	54
● Total Fund Composite	28.3 (43)	10.6 (23)	6.4 (47)	3.5 (42)	19.9 (18)	3.3 (47)	9.8 (14)	13.5 (37)	3.3 (57)	1.1 (65)

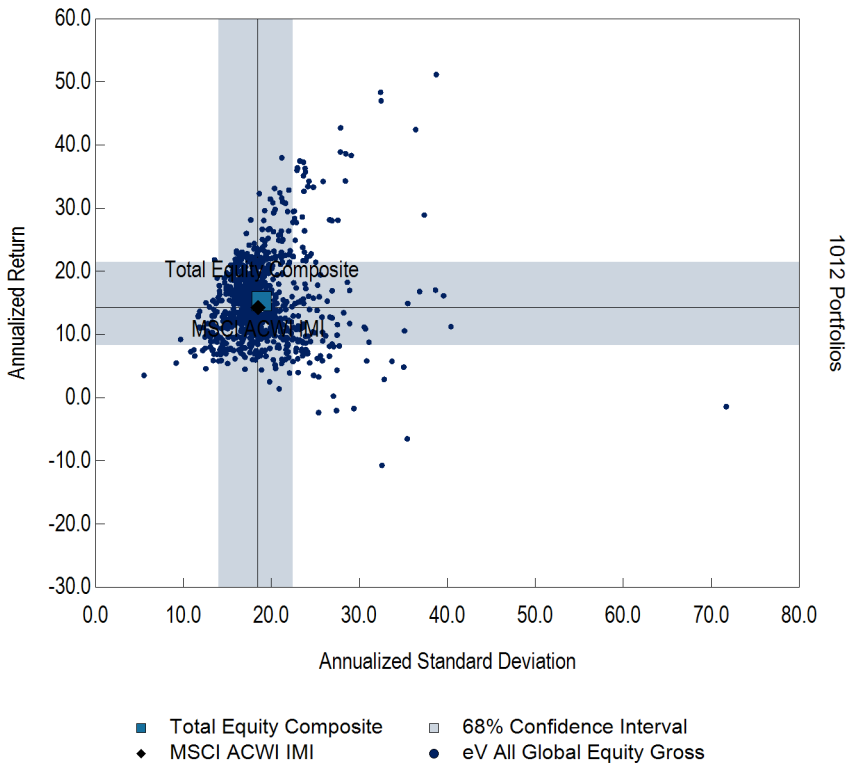




# Howard County Retirement Plans

## TOTAL EQUITY COMPOSITE

3 Year Risk Return



3 Year Style Analysis



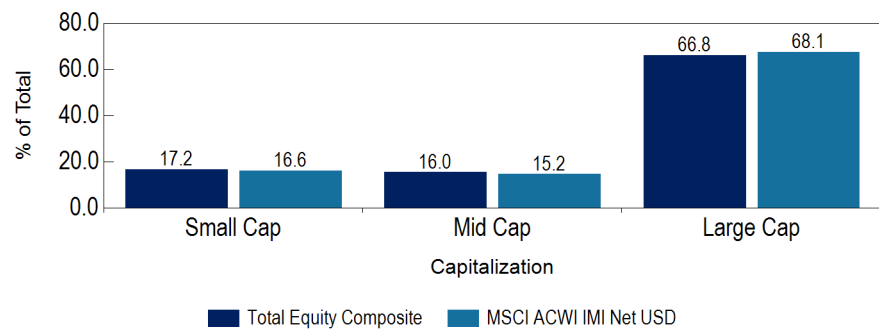
# Howard County Retirement Plans

## TOTAL EQUITY COMPOSITE

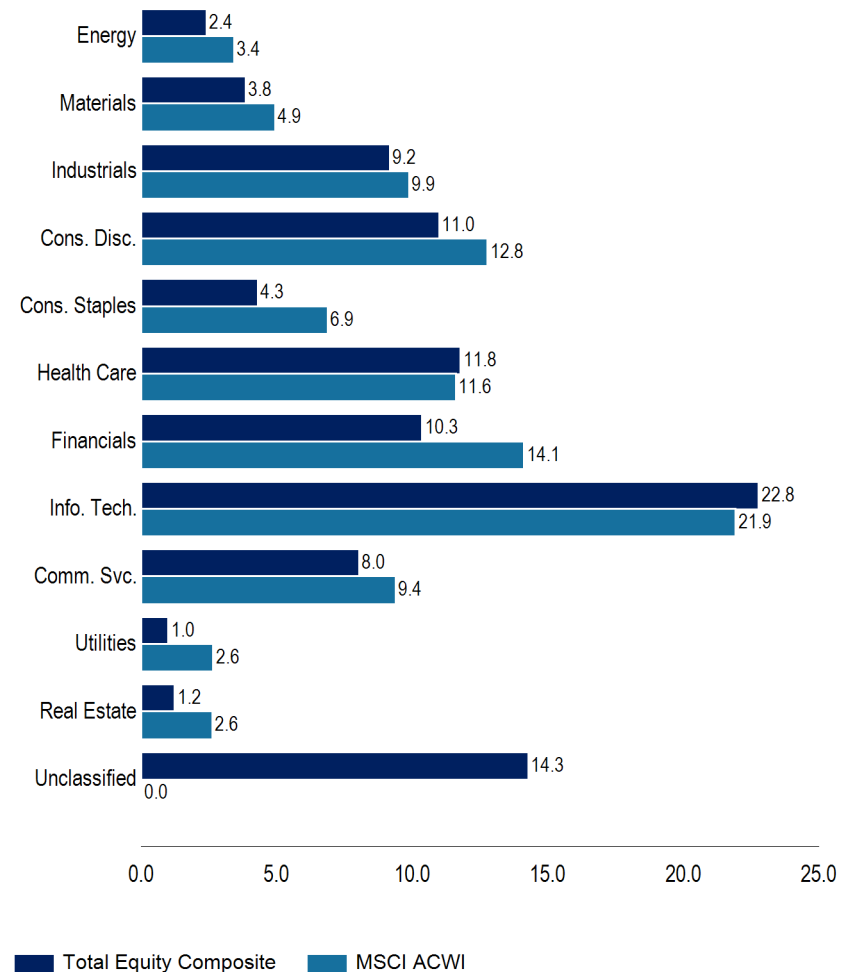
Characteristics		
	Portfolio	MSCI ACWI IMI Net USD
Number of Holdings	928	9,252
Weighted Avg. Market Cap. (\$B)	322.7	298.7
Median Market Cap. (\$B)	20.8	2.4
Price To Earnings	24.7	22.9
Price To Book	4.0	3.6
Price To Sales	2.7	2.2
Return on Equity (%)	19.8	14.9
Yield (%)	1.3	1.7
Beta	1.0	1.0
R-Squared	1.0	1.0

	Portfolio Q2-21	Index Q2-21
<b>Region Weighting</b>		
Americas	80.57	60.19
Europe	10.00	18.70
Asia/Pacific	9.01	19.32
Other	0.42	1.80

### Market Capitalization As of June 30, 2021



### Equity Sector Allocation



# Howard County Retirement Plans

## TOTAL EQUITY COMPOSITE

Top Ten Holdings	
MONDRIAN INTL EQUITY FUND LP	12.9%
APPLE INC	3.0%
MICROSOFT CORP	2.2%
AMAZON.COM INC	2.1%
ALPHABET INC	1.9%
FACEBOOK INC	1.5%
CASH - USD	1.0%
VISA INC	1.0%
NVIDIA CORPORATION	0.9%
ASML HOLDING NV	0.8%

Top Positive Contributors		
	Relative Contribution %	Return %
ALPHABET INC	0.1%	18.4%
NVIDIA CORPORATION	0.1%	49.9%
TARGET CORP	0.1%	22.4%
INTUIT INC.	0.1%	28.1%
NIBE INDUSTRIER AB, MARKARYD	0.1%	36.2%
ZALANDO SE	0.1%	23.1%
FUJIFILM HOLDINGS CORP	0.1%	25.0%
MORGAN STANLEY	0.1%	18.6%
METTLER-TOLEDO INTERNATIONAL INC	0.1%	19.9%
ATLISSIAN CORP PLC	0.1%	21.9%

Top Negative Contributors		
	Relative Contribution %	Return %
ALPHABET INC	-0.1%	21.2%
DISCOVERY INC	-0.1%	-29.4%
TRAINLINE PLC	0.0%	-35.9%
ADOBE INC	0.0%	23.2%
IRHYTHM TECHNOLOGIES INC	0.0%	-52.2%
MICROSOFT CORP	0.0%	15.2%
ELI LILLY AND CO	0.0%	23.4%
NEW ORIENTAL EDUCATION & TECHNOLOGY GROUP INC	0.0%	-41.5%
SLEEP NUMBER CORP	0.0%	-23.4%
EXXON MOBIL CORP	0.0%	14.6%

	Equity Sector Attribution										
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.1%	0.0%	0.2%	-0.3%	8.3%	20.5%	2.8%	0.1%			
Materials	0.0%	0.1%	-0.1%	0.1%	8.3%	3.5%	3.1%	1.8%			
Industrials	-0.6%	-0.1%	-0.4%	-0.1%	4.0%	5.4%	11.6%	5.3%			
Consumer Discretionary	0.1%	-0.2%	0.3%	0.1%	5.9%	7.0%	13.4%	18.8%			
Consumer Staples	-0.3%	-0.1%	-0.1%	-0.1%	3.7%	7.4%	5.5%	2.3%			
Health Care	-0.9%	-0.7%	0.2%	-0.4%	6.9%	14.8%	13.8%	8.4%			
Financials	-0.6%	-0.1%	0.1%	-0.6%	6.7%	12.4%	12.3%	2.1%			
Information Technology	-1.0%	-1.4%	-0.3%	0.6%	10.2%	13.2%	24.7%	44.0%			
Communication Services	-0.9%	-1.1%	-0.2%	0.4%	7.9%	15.2%	9.5%	15.0%			
Utilities	0.0%	--	--	--	1.5%	--	2.1%	0.0%			
Real Estate	-0.1%	-0.1%	0.0%	0.0%	10.0%	14.5%	1.4%	2.3%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-4.4%</b>	<b>=</b>	<b>-3.7%</b>	<b>+</b>	<b>-0.4%</b>	<b>+</b>	<b>-0.3%</b>	<b>7.1%</b>	<b>11.8%</b>	<b>100.0%</b>	<b>100.0%</b>

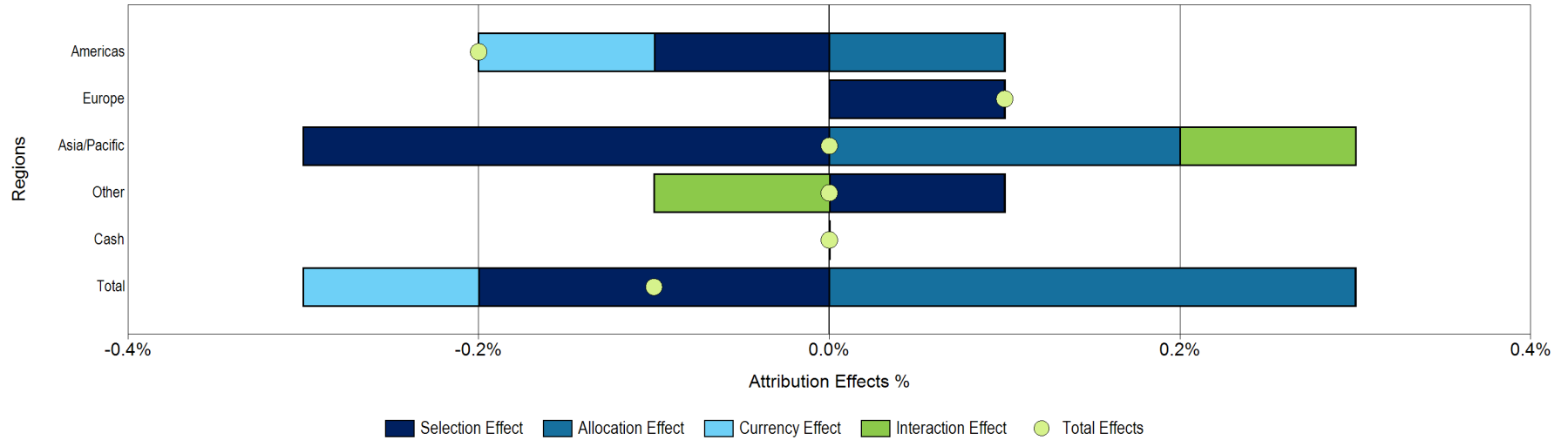
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

## TOTAL EQUITY COMPOSITE

Total Equity Composite Performance Attribution vs. MSCI ACWI IMI Net USD



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	8.2%	8.6%	67.7%	61.1%	-0.1%	0.1%	-0.1%	0.0%	-0.2%
Europe	8.3%	7.8%	16.3%	17.2%	0.1%	0.0%	0.0%	0.0%	0.1%
Asia/Pacific	1.5%	2.9%	15.9%	20.3%	-0.3%	0.2%	0.0%	0.1%	0.0%
Other	10.5%	5.2%	0.1%	1.4%	0.1%	0.0%	0.0%	-0.1%	0.0%
Cash	--	--	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
<b>Total</b>	<b>7.2%</b>	<b>7.3%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-0.2%</b>	<b>0.3%</b>	<b>-0.1%</b>	<b>0.0%</b>	<b>-0.1%</b>
<b>Totals</b>									
Developed	7.4%	7.5%	93.1%	87.2%	0.0%	0.0%	-0.1%	0.0%	0.0%
Emerging*	3.3%	5.7%	6.9%	12.8%	-0.3%	0.1%	-0.1%	0.2%	-0.1%



# Howard County Retirement Plans

## TOTAL EQUITY COMPOSITE

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Brazil*	0.4%	0.6%	29.7%	24.6%
Canada	0.1%	2.9%	10.4%	10.2%
Mexico*	0.3%	0.2%	2.2%	9.3%
United States	66.9%	57.3%	8.1%	8.4%
<b>Total-Americas</b>	<b>67.7%</b>	<b>61.1%</b>	<b>8.2%</b>	<b>8.6%</b>
<b>Europe</b>				
Denmark	0.2%	0.6%	25.8%	13.0%
Finland	0.2%	0.3%	-0.2%	10.7%
France	2.0%	2.7%	12.4%	9.4%
Germany	1.3%	2.4%	11.6%	5.4%
Ireland	1.4%	0.2%	8.7%	2.9%
Italy	0.7%	0.6%	-1.2%	4.7%
Luxembourg	0.3%	0.0%	2.9%	7.3%
Netherlands	1.0%	1.1%	9.0%	7.2%
Portugal	0.2%	0.0%	10.3%	0.9%
Russia*	0.7%	0.3%	13.1%	14.4%
Spain	0.9%	0.6%	11.2%	4.7%
Sweden	1.6%	1.1%	8.4%	7.3%
Switzerland	0.9%	2.3%	11.4%	11.8%
United Kingdom	5.0%	4.0%	4.8%	5.8%
<b>Total-Europe</b>	<b>16.3%</b>	<b>17.2%</b>	<b>8.3%</b>	<b>7.8%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	0.9%	2.0%	17.7%	6.9%
China*	2.3%	4.5%	-4.5%	2.7%
Hong Kong	1.6%	0.9%	3.4%	2.5%
India*	1.5%	1.3%	4.6%	8.3%
Indonesia*	0.1%	0.2%	-1.5%	-4.7%
Japan	6.9%	6.9%	0.4%	-0.3%
Korea*	0.6%	1.8%	-0.3%	5.2%
New Zealand	0.3%	0.1%	-1.1%	-1.2%
Singapore	0.8%	0.3%	1.6%	0.7%
Taiwan*	1.0%	1.9%	3.7%	7.8%
<b>Total-AsiaPacific</b>	<b>15.9%</b>	<b>20.3%</b>	<b>1.5%</b>	<b>2.9%</b>
<b>Other</b>				
Israel	0.1%	0.2%	10.5%	8.2%
<b>Total-Other</b>	<b>0.1%</b>	<b>1.4%</b>	<b>10.5%</b>	<b>5.2%</b>
<b>Totals</b>				
Developed	93.1%	87.2%	7.4%	7.5%
Emerging*	6.9%	12.8%	3.3%	5.7%

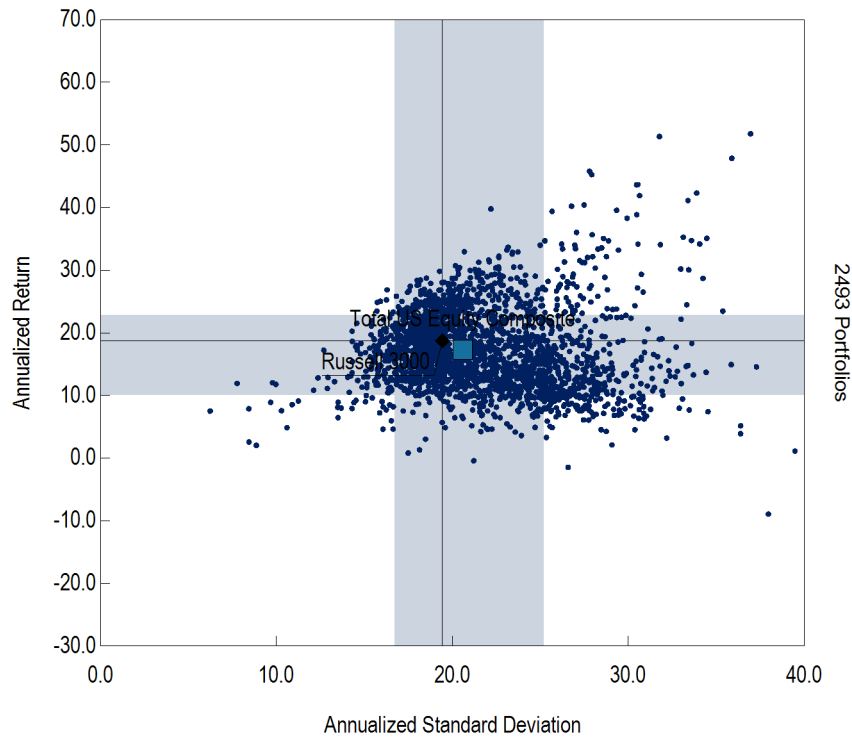
Country\* = Emerging Markets



# Howard County Retirement Plans

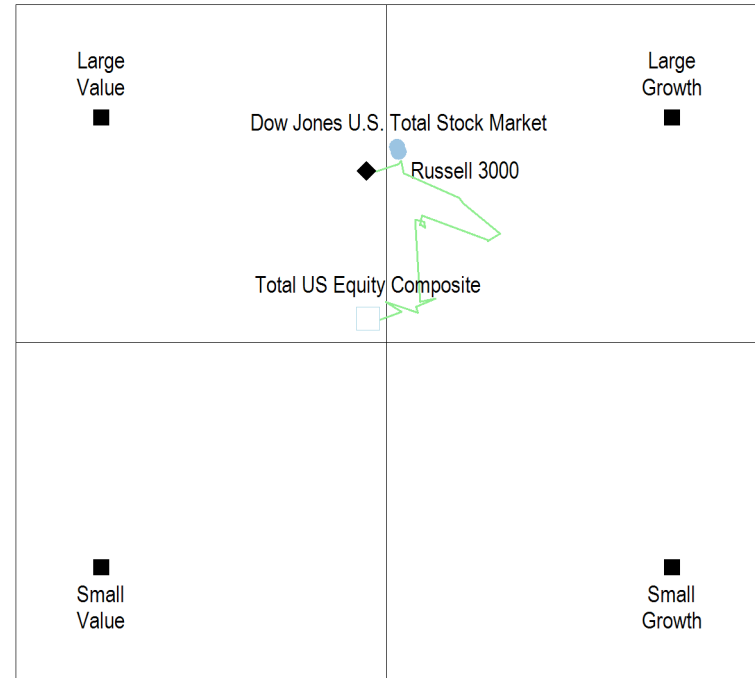
## TOTAL US EQUITY COMPOSITE

3 Year Risk Return



- Total US Equity Composite
- ◆ Russell 3000
- 68% Confidence Interval
- eV All US Equity Gross

3 Year Style Analysis



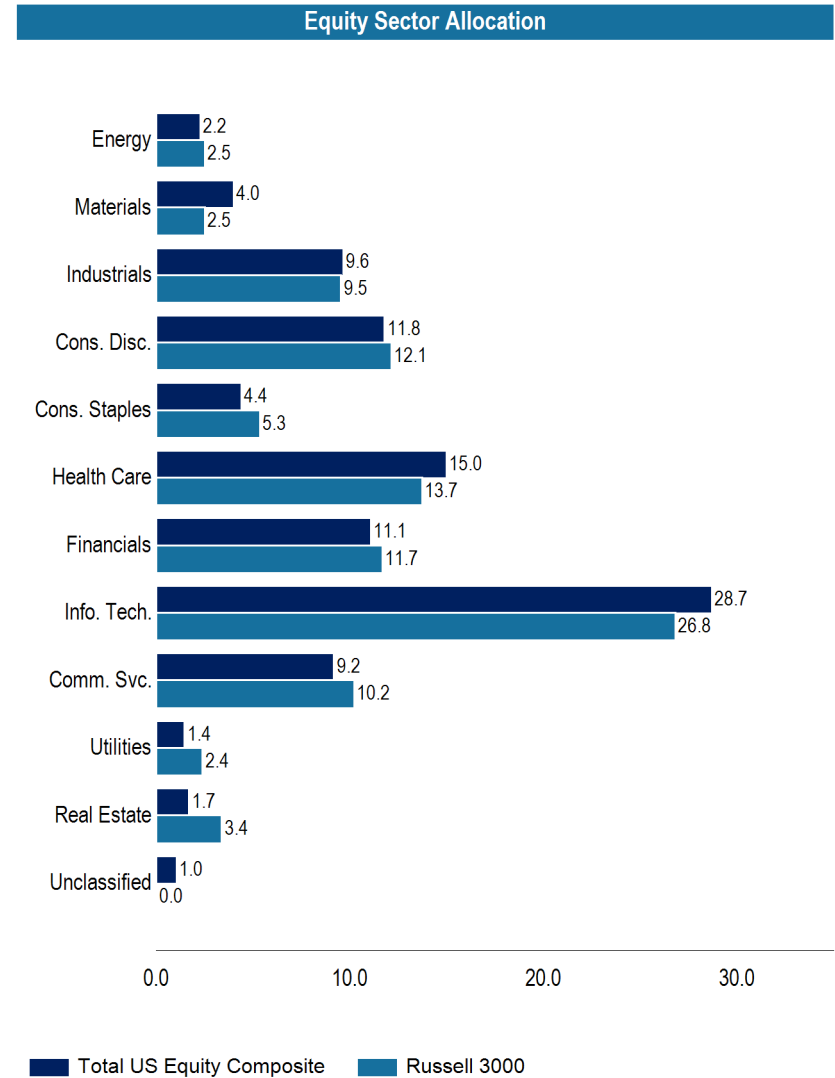
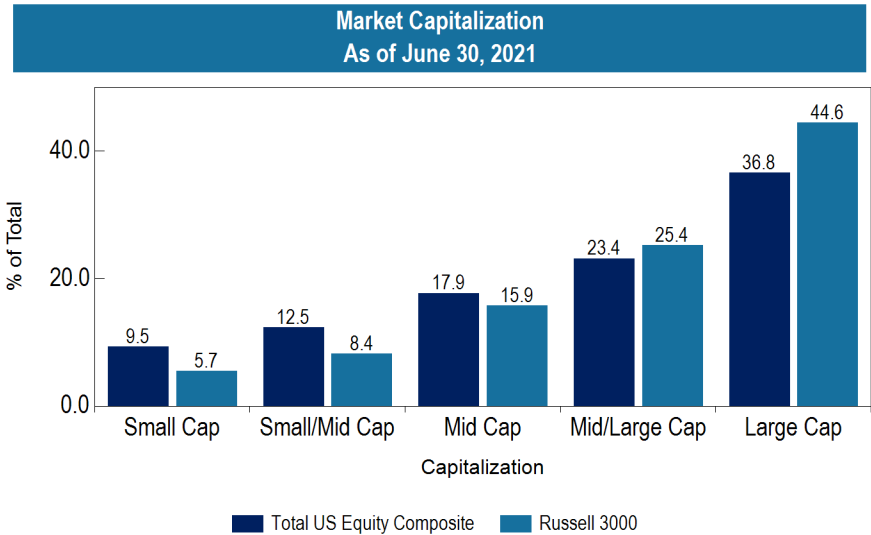
- First Rolling Period
- ◆ Last Rolling Period



# Howard County Retirement Plans

## TOTAL US EQUITY COMPOSITE

Characteristics		
	Portfolio	Russell 3000
Number of Holdings	807	2,916
Weighted Avg. Market Cap. (\$B)	381.9	408.7
Median Market Cap. (\$B)	19.5	2.8
Price To Earnings	24.4	26.5
Price To Book	4.0	4.4
Price To Sales	2.6	3.2
Return on Equity (%)	20.5	18.4
Yield (%)	1.2	1.3
Beta	1.1	1.0
R-Squared	1.0	1.0



# Howard County Retirement Plans

## TOTAL US EQUITY COMPOSITE

Top Ten Holdings	
APPLE INC	4.4%
MICROSOFT CORP	3.3%
AMAZON.COM INC	3.2%
ALPHABET INC	2.8%
FACEBOOK INC	2.2%
VISA INC	1.4%
PAYPAL HOLDINGS INC	1.1%
SALESFORCE.COM INC	1.1%
NVIDIA CORPORATION	1.0%
MORGAN STANLEY	1.0%

Top Positive Contributors		
	Relative Contribution %	Return %
ALPHABET INC	0.2%	18.4%
TARGET CORP	0.1%	22.4%
INTUIT INC.	0.1%	28.1%
MORGAN STANLEY	0.1%	18.6%
ATLASSIAN CORP PLC	0.1%	21.9%
SALESFORCE.COM INC	0.1%	15.3%
FACEBOOK INC	0.1%	18.1%
NIKE INC	0.1%	16.5%
NVIDIA CORPORATION	0.1%	49.9%
TRANE TECHNOLOGIES PLC	0.1%	11.6%

Top Negative Contributors		
	Relative Contribution %	Return %
ALPHABET INC	-0.2%	21.2%
MICROSOFT CORP	-0.1%	15.2%
DISCOVERY INC	-0.1%	-29.4%
ADOBE INC	-0.1%	23.2%
IRHYTHM TECHNOLOGIES INC	-0.1%	-52.2%
BERKSHIRE HATHAWAY INC	-0.1%	8.8%
ELI LILLY AND CO	-0.1%	23.4%
EXXON MOBIL CORP	-0.1%	14.6%
SLEEP NUMBER CORP	0.0%	-23.4%
UNITEDHEALTH GROUP INC	0.0%	8.0%

	Equity Sector Attribution										
	Attribution Effects					Returns		Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.0%	0.0%	0.0%	0.0%		11.8%	12.4%	1.9%	2.3%		
Materials	0.0%	0.0%	0.0%	0.0%		5.8%	4.9%	2.8%	2.9%		
Industrials	0.0%	0.0%	0.0%	0.0%		3.9%	3.9%	10.1%	9.9%		
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%		7.1%	6.7%	12.6%	12.3%		
Consumer Staples	0.1%	0.0%	0.0%	0.0%		3.9%	3.6%	4.6%	5.6%		
Health Care	-0.2%	-0.1%	0.0%	0.0%		7.2%	8.2%	15.4%	13.6%		
Financials	0.1%	0.0%	0.0%	0.0%		7.7%	7.3%	10.6%	11.7%		
Information Technology	-0.2%	-0.2%	0.1%	0.0%		10.5%	11.4%	28.9%	25.7%		
Communication Services	-0.1%	-0.1%	0.0%	0.0%		9.9%	11.0%	9.5%	10.0%		
Utilities	0.1%	0.1%	0.1%	0.0%		1.8%	-0.4%	1.6%	2.6%		
Real Estate	0.0%	0.0%	-0.1%	0.0%		12.0%	11.7%	1.8%	3.3%		
Cash	0.0%	--	--	--		--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>-0.2%</b>	<b>=</b>	<b>-0.3%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>-0.1%</b>	<b>8.0%</b>	<b>8.2%</b>	<b>100.0%</b>	<b>100.0%</b>

Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.

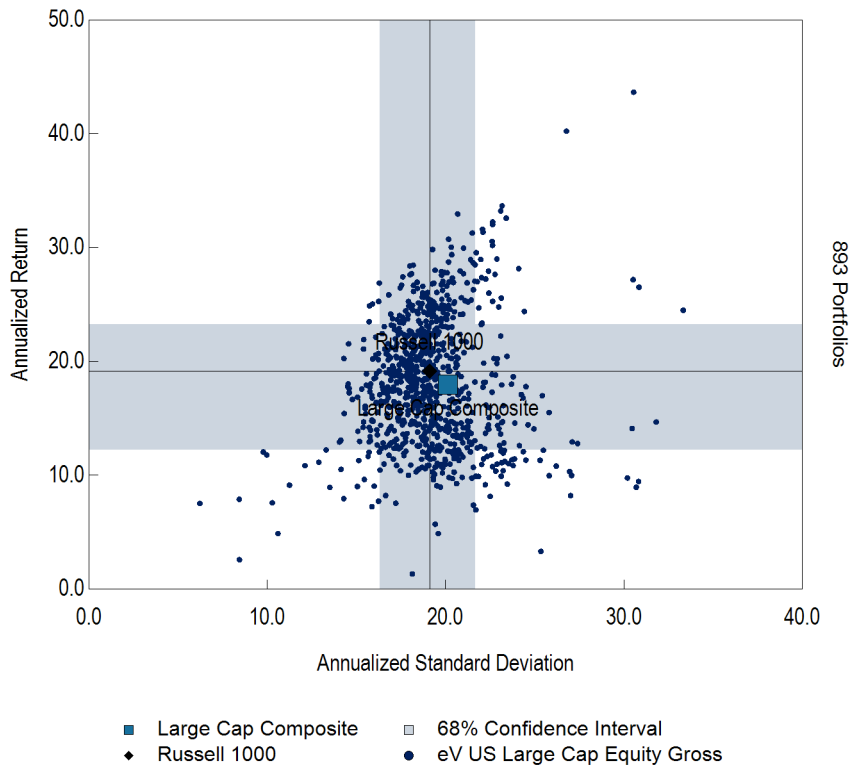




# Howard County Retirement Plans

## LARGE CAP COMPOSITE

3 Year Risk Return



3 Year Style Analysis

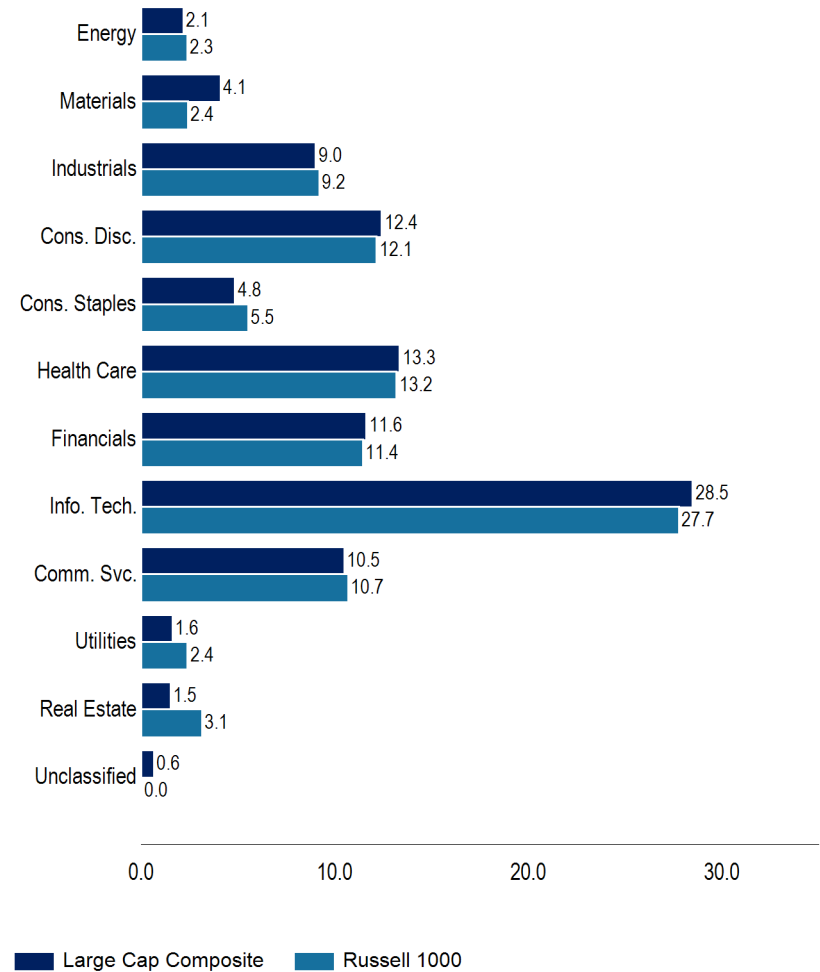


# Howard County Retirement Plans

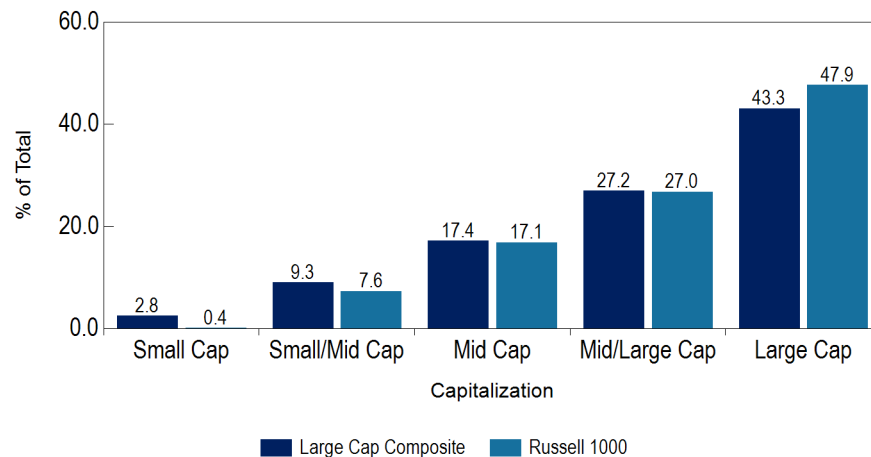
## LARGE CAP COMPOSITE

Characteristics		
	Portfolio	Russell 1000
Number of Holdings	604	1,011
Weighted Avg. Market Cap. (\$B)	448.5	476.7
Median Market Cap. (\$B)	28.7	15.9
Price To Earnings	23.8	27.6
Price To Book	4.1	4.7
Price To Sales	2.6	3.5
Return on Equity (%)	23.5	23.0
Yield (%)	1.3	1.3
Beta	1.0	1.0
R-Squared	1.0	1.0

### Equity Sector Allocation



### Market Capitalization As of June 30, 2021



# Howard County Retirement Plans

## LARGE CAP COMPOSITE

Top Ten Holdings	
APPLE INC	5.2%
MICROSOFT CORP	3.9%
AMAZON.COM INC	3.8%
ALPHABET INC	3.3%
FACEBOOK INC	2.7%
VISA INC	1.7%
PAYPAL HOLDINGS INC	1.3%
SALESFORCE.COM INC	1.3%
NVIDIA CORPORATION	1.2%
MORGAN STANLEY	1.2%

Top Positive Contributors		
	Relative Contribution %	Return %
ALPHABET INC	0.3%	18.4%
TARGET CORP	0.2%	22.4%
INTUIT INC.	0.2%	28.1%
MORGAN STANLEY	0.2%	18.6%
NVIDIA CORPORATION	0.1%	49.9%
FACEBOOK INC	0.1%	18.1%
SALESFORCE.COM INC	0.1%	15.3%
ATLASSIAN CORP PLC	0.1%	21.9%
NIKE INC	0.1%	16.5%
AMAZON.COM INC	0.1%	11.2%

Top Negative Contributors		
	Relative Contribution %	Return %
ALPHABET INC	-0.2%	21.2%
DISCOVERY INC	-0.2%	-29.4%
MICROSOFT CORP	-0.1%	15.2%
ADOBE INC	-0.1%	23.2%
BERKSHIRE HATHAWAY INC	-0.1%	8.8%
ELI LILLY AND CO	-0.1%	23.4%
SLEEP NUMBER CORP	-0.1%	-23.4%
EXXON MOBIL CORP	-0.1%	14.6%
INTEL CORP	0.0%	-11.7%
UNITEDHEALTH GROUP INC	0.0%	8.0%

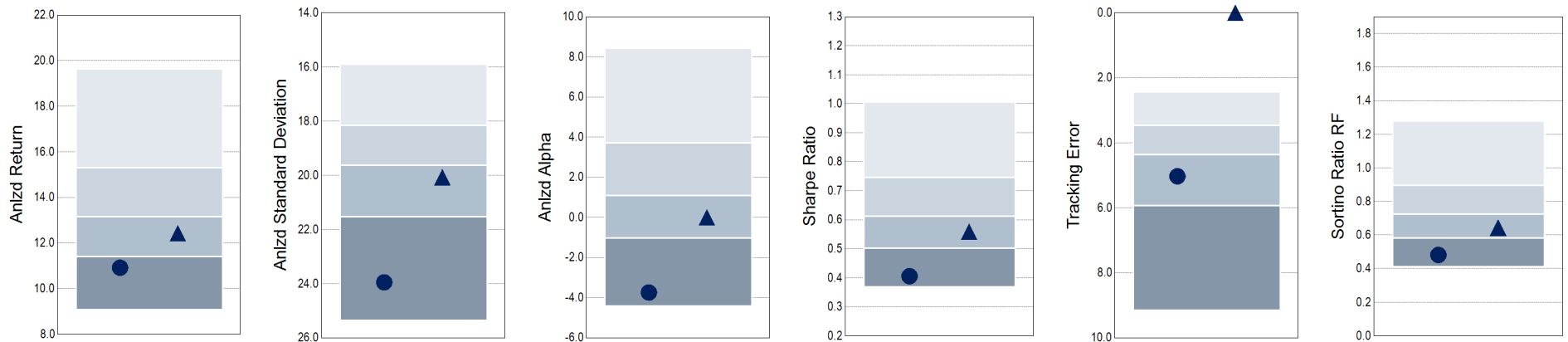
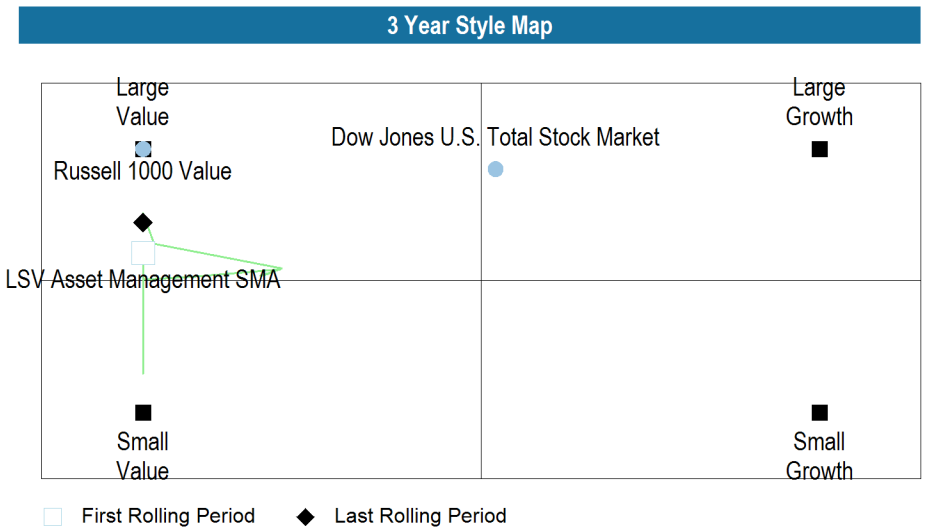
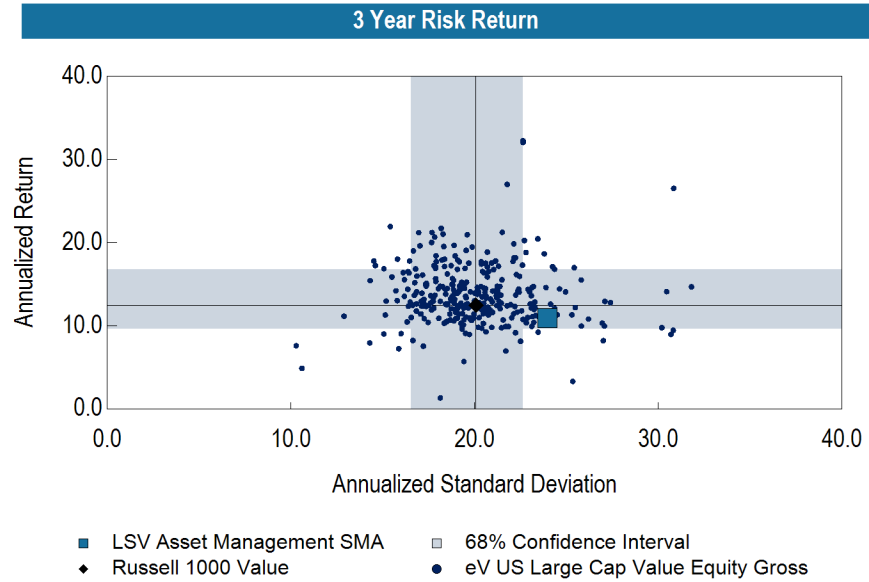
Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects				Returns		Sector Weights		
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	0.0%	11.6%	11.7%	1.8%	2.3%		
Materials	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	4.8%	2.7%	2.8%		
Industrials	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	4.3%	9.6%	9.4%		
Consumer Discretionary	0.1%	0.1%	0.0%	0.0%	0.0%	8.0%	6.8%	13.3%	12.2%		
Consumer Staples	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%	3.6%	5.1%	5.8%		
Health Care	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%	8.8%	13.6%	13.1%		
Financials	0.1%	0.1%	0.0%	0.0%	0.0%	8.8%	8.0%	10.9%	11.4%		
Information Technology	-0.1%	-0.1%	0.1%	0.0%	0.0%	11.2%	11.6%	28.7%	26.7%		
Communication Services	-0.1%	-0.1%	0.0%	0.0%	0.0%	10.1%	10.7%	10.9%	10.6%		
Utilities	0.1%	0.1%	0.1%	0.0%	0.0%	2.2%	-0.4%	1.8%	2.6%		
Real Estate	-0.1%	0.0%	-0.1%	0.0%	0.0%	12.2%	12.4%	1.6%	3.0%		
Cash	0.0%	--	--	--	--	--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>0.2%</b>	<b>=</b>	<b>0.2%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>0.0%</b>	<b>8.7%</b>	<b>8.5%</b>	<b>100.0%</b>	<b>100.0%</b>

Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

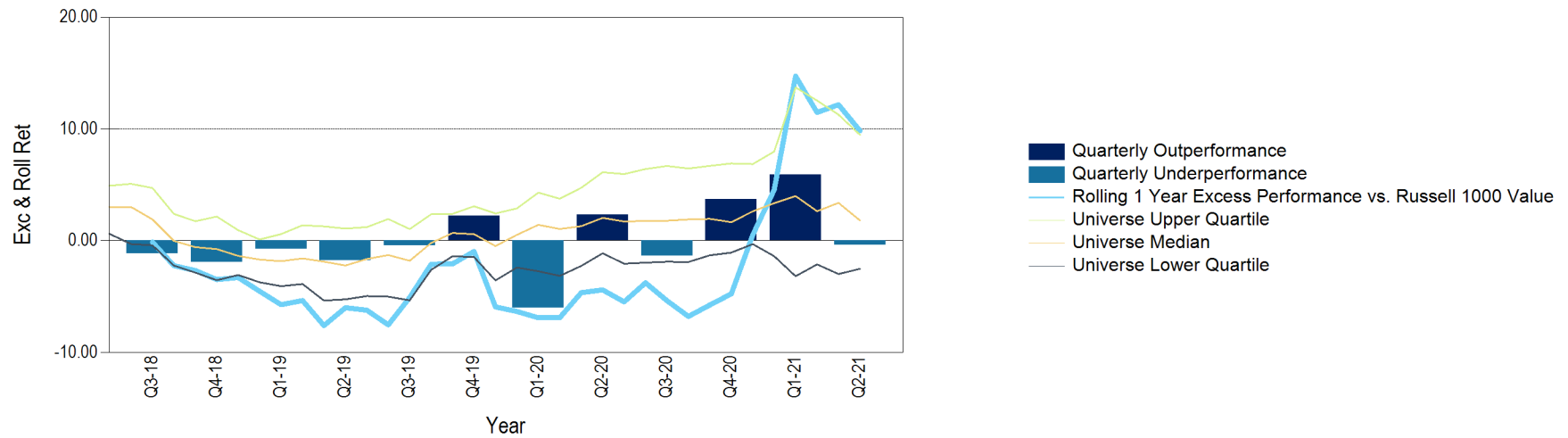
## LSV ASSET MANAGEMENT SMA



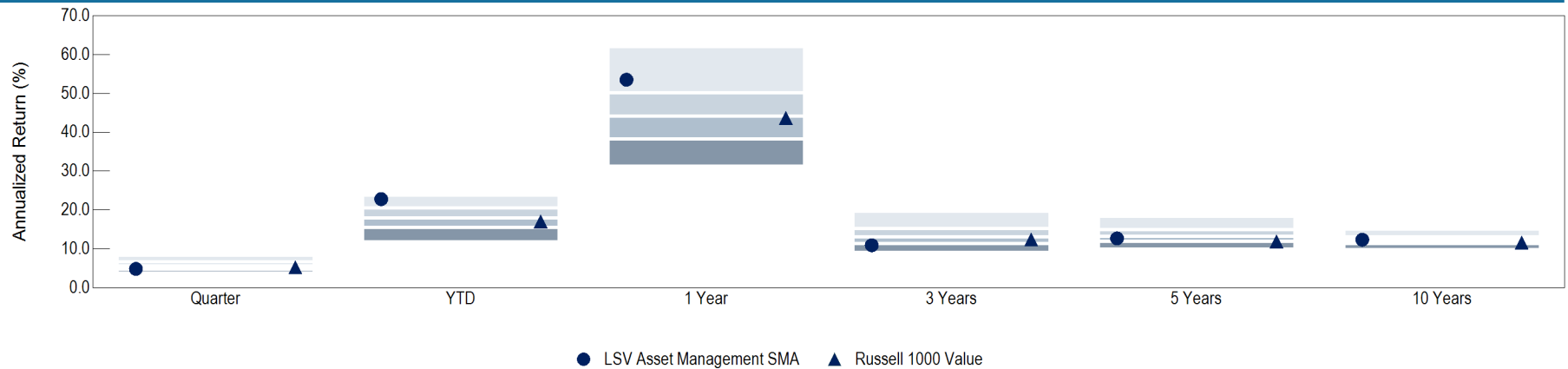
# Howard County Retirement Plans

## LSV ASSET MANAGEMENT SMA

Annualized Excess Performance



eV US Large Cap Value Equity Gross Return Comparison



# Howard County Retirement Plans

## LSV ASSET MANAGEMENT SMA

Top Ten Holdings	
INTEL CORP	2.4%
MERCK & CO INC	2.3%
VERIZON COMMUNICATIONS INC	1.7%
CITIGROUP INC	1.6%
AT&T INC	1.5%
PFIZER INC	1.5%
BRISTOL-MYERS SQUIBB CO	1.4%
CUMMINS INC.	1.3%
KROGER CO. (THE)	1.2%
MORGAN STANLEY	1.1%

Top Positive Contributors		
	Relative Contribution %	Return %
ALEXION PHARMACEUTICALS INC	0.2%	20.1%
DISCOVER FINANCIAL SERVICES	0.2%	25.0%
EBAY INC.	0.2%	15.0%
CAPITAL ONE FINANCIAL CORP.	0.1%	21.9%
AMERICAN FINANCIAL GROUP INC	0.1%	22.6%
KNOLL INC	0.1%	57.8%
VEREIT INC	0.1%	20.1%
SELECT MEDICAL HOLDINGS CORP	0.1%	24.3%
HCA HEALTHCARE INC	0.1%	10.0%
ALLSTATE CORP (THE)	0.1%	14.2%

Top Negative Contributors		
	Relative Contribution %	Return %
SLEEP NUMBER CORP	-0.2%	-23.4%
EXXON MOBIL CORP	-0.2%	14.6%
INTEL CORP	-0.1%	-11.7%
WELLS FARGO & CO	-0.1%	16.2%
CUMMINS INC.	-0.1%	-5.4%
AGCO CORP	-0.1%	-6.7%
MATTHEWS INTERNATIONAL CORP	0.0%	-8.6%
HP INC	0.0%	-4.3%
UNITED AIRLINES HOLDINGS INC	0.0%	-9.1%
HARTFORD FINANCIAL SERVICES GROUP INC. (THE)	0.0%	-6.7%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects				Returns		Sector Weights		
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.1%	0.0%	-0.1%	0.0%	12.0%	11.5%	2.8%	4.5%			
Materials	0.1%	0.1%	0.0%	0.0%	6.5%	5.2%	6.2%	4.8%			
Industrials	0.1%	0.0%	0.1%	0.0%	3.1%	3.0%	11.7%	14.0%			
Consumer Discretionary	-0.2%	-0.2%	0.0%	-0.1%	3.1%	5.1%	11.8%	7.9%			
Consumer Staples	-0.2%	-0.2%	0.0%	0.0%	0.4%	3.4%	7.2%	7.1%			
Health Care	0.3%	0.3%	0.0%	0.0%	9.2%	6.7%	12.4%	12.6%			
Financials	0.2%	0.1%	0.0%	0.0%	8.2%	7.6%	21.8%	20.8%			
Information Technology	0.0%	0.1%	-0.2%	0.0%	2.1%	1.1%	13.4%	9.6%			
Communication Services	-0.2%	-0.3%	0.0%	0.1%	0.0%	3.6%	6.6%	9.3%			
Utilities	0.3%	0.3%	0.1%	-0.1%	5.6%	-0.4%	2.8%	5.1%			
Real Estate	-0.1%	0.0%	-0.1%	0.0%	10.9%	10.8%	1.8%	4.4%			
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%	--	1.6%	0.0%			
<b>Portfolio</b>	<b>-0.1%</b>	<b>=</b>	<b>0.3%</b>	<b>+</b>	<b>-0.3%</b>	<b>+</b>	<b>-0.1%</b>	<b>5.1%</b>	<b>5.1%</b>	<b>100.0%</b>	<b>100.0%</b>

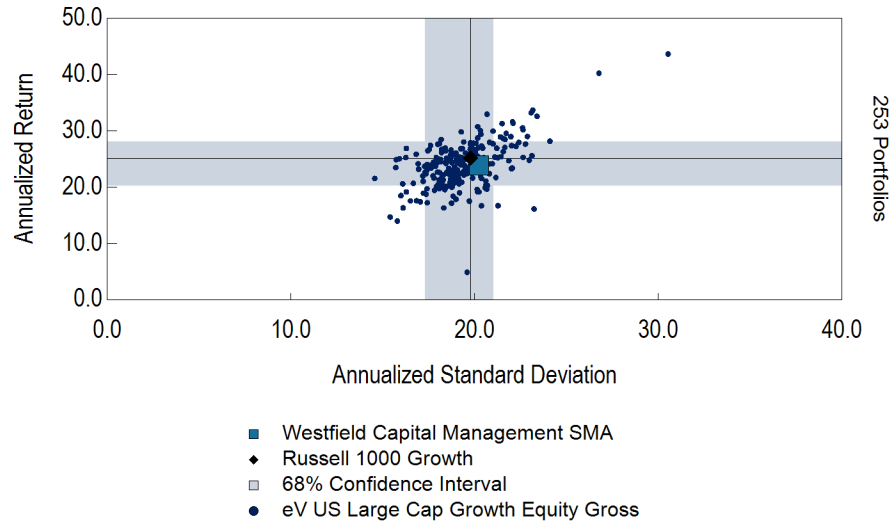
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



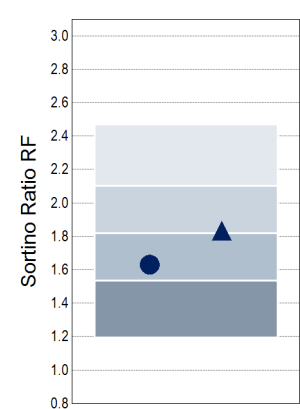
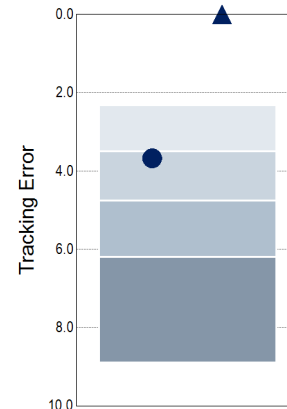
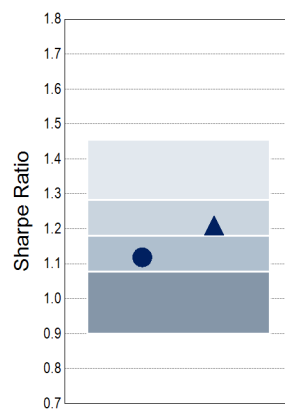
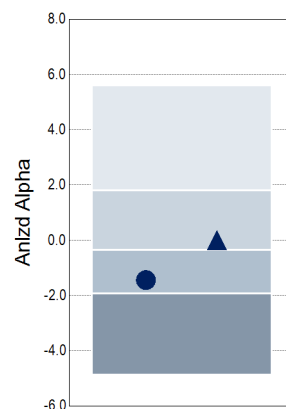
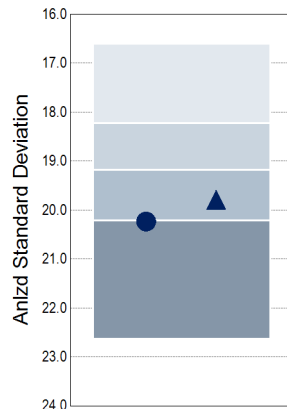
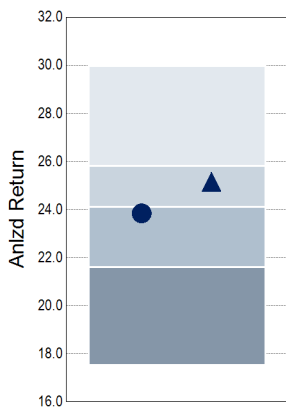
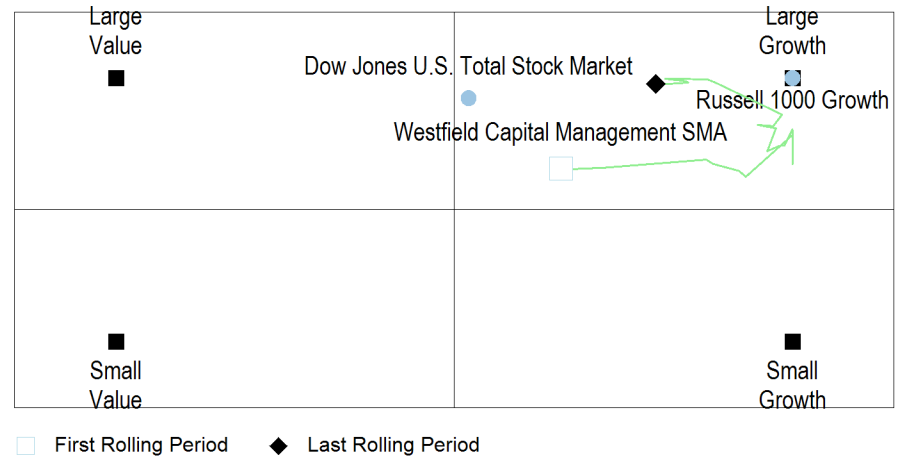
# Howard County Retirement Plans

## WESTFIELD CAPITAL MANAGEMENT SMA

3 Year Risk Return



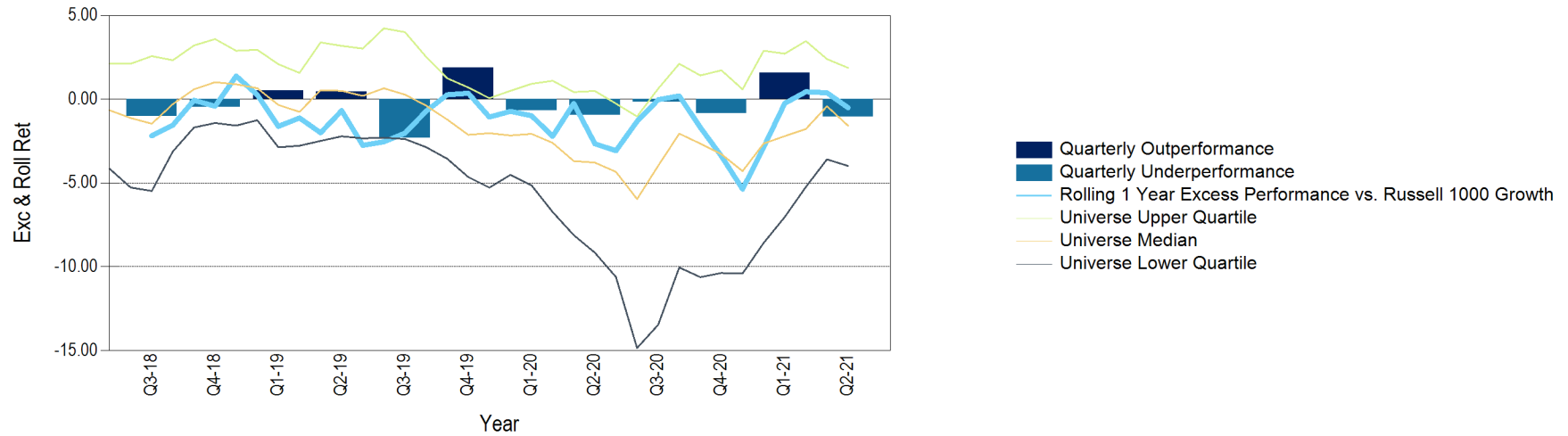
3 Year Style Map



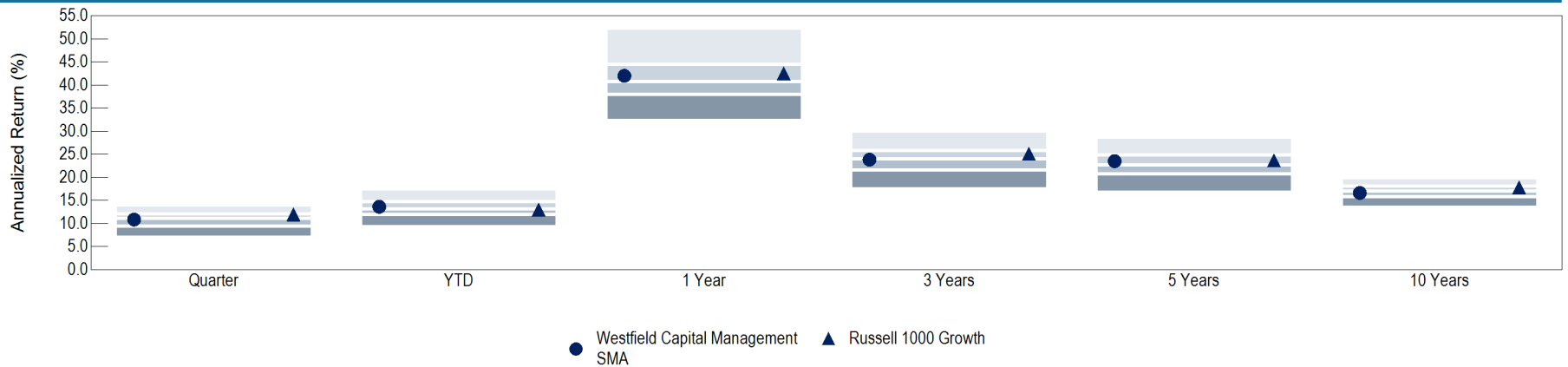
# Howard County Retirement Plans

## WESTFIELD CAPITAL MANAGEMENT SMA

Annualized Excess Performance



eV US Large Cap Growth Equity Gross Return Comparison





# Howard County Retirement Plans

## WESTFIELD CAPITAL MANAGEMENT SMA

Top Ten Holdings	
APPLE INC	8.7%
ALPHABET INC	7.1%
AMAZON.COM INC	6.5%
MICROSOFT CORP	5.6%
FACEBOOK INC	5.1%
VISA INC	3.6%
SALESFORCE.COM INC	2.8%
PAYPAL HOLDINGS INC	2.6%
SERVICENOW INC	2.6%
THERMO FISHER SCIENTIFIC INC	2.5%

Top Positive Contributors		
	Relative Contribution %	Return %
ALPHABET INC	0.7%	18.4%
INTUIT INC.	0.4%	28.1%
TARGET CORP	0.4%	22.4%
MORGAN STANLEY	0.3%	18.6%
ATLASSIAN CORP PLC	0.3%	21.9%
SALESFORCE.COM INC	0.3%	15.3%
TRANE TECHNOLOGIES PLC	0.2%	11.6%
NIKE INC	0.2%	16.5%
TRANSDIGM GROUP INC	0.2%	10.1%
THERMO FISHER SCIENTIFIC INC	0.2%	10.6%

Top Negative Contributors		
	Relative Contribution %	Return %
MICROSOFT CORP	-0.6%	15.2%
DISCOVERY INC	-0.4%	-29.4%
APPLE INC	-0.3%	12.3%
WORKDAY INC	-0.1%	-3.9%
TESLA INC	0.0%	1.8%
BIOGEN INC	0.0%	23.8%
CONOCOPHILLIPS	0.0%	15.9%
FREEPORT-MCMORAN INC	0.0%	12.9%
WESTERN DIGITAL CORP	0.0%	6.6%
NEWMONT CORPORATION	0.0%	6.0%

	Equity Sector Attribution										
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	--	0.0%	--	--	20.2%	0.0%	0.1%			
Materials	0.1%	--	0.1%	--	--	3.0%	0.0%	0.8%			
Industrials	-0.3%	-0.1%	-0.1%	-0.1%	6.6%	8.3%	8.5%	4.7%			
Consumer Discretionary	0.7%	0.7%	0.1%	-0.1%	11.8%	7.6%	15.2%	16.5%			
Consumer Staples	0.4%	0.4%	0.2%	-0.2%	12.5%	4.0%	2.2%	4.5%			
Health Care	-0.4%	-0.4%	0.0%	0.0%	8.2%	10.8%	15.1%	13.7%			
Financials	0.1%	0.1%	0.0%	0.0%	18.6%	12.7%	1.8%	1.9%			
Information Technology	-0.3%	-0.3%	0.0%	0.0%	13.2%	13.9%	42.1%	44.2%			
Communication Services	-0.3%	-0.4%	0.1%	-0.1%	13.2%	16.2%	14.0%	11.9%			
Utilities	0.0%	--	0.0%	--	--	7.8%	0.0%	0.0%			
Real Estate	-0.1%	-0.1%	-0.1%	0.1%	11.1%	16.2%	0.4%	1.7%			
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%	--	0.7%	0.0%			
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>-0.3%</b>	<b>11.6%</b>	<b>11.9%</b>	<b>100.0%</b>	<b>100.0%</b>

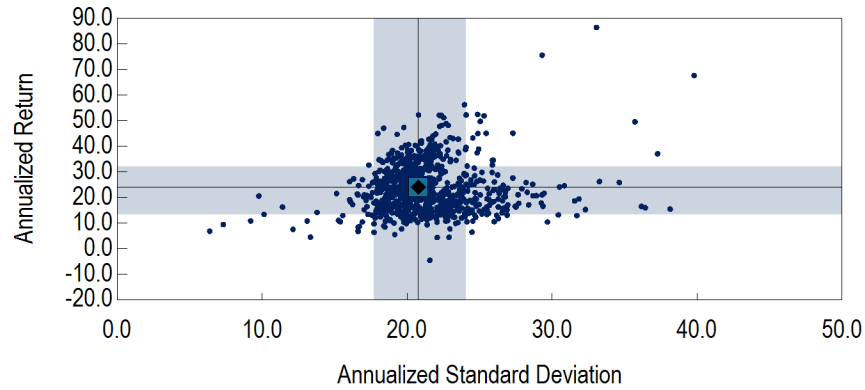
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# Howard County Retirement Plans

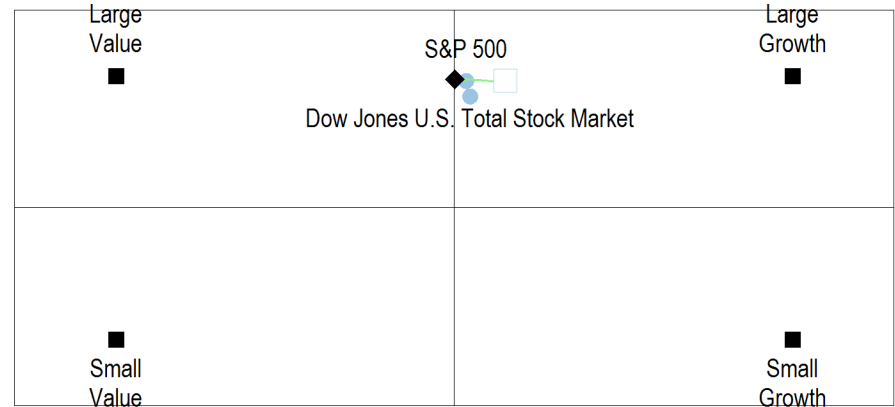
## BLACKROCK EQUITY INDEX NON-LENDABLE FUND

Since Inception Risk Return

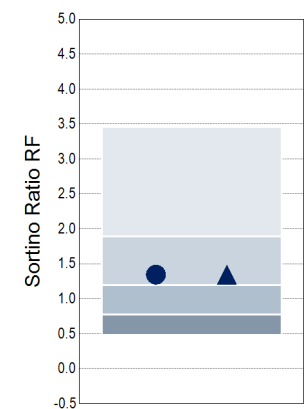
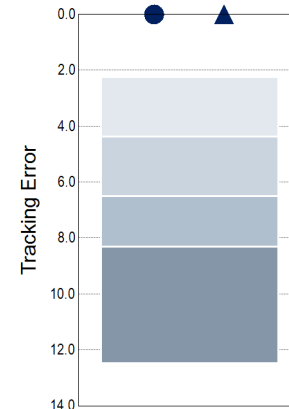
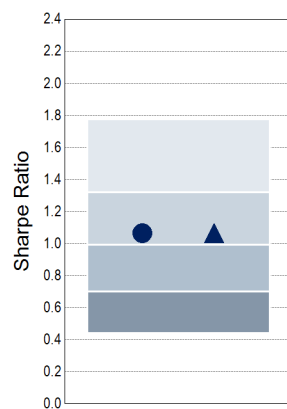
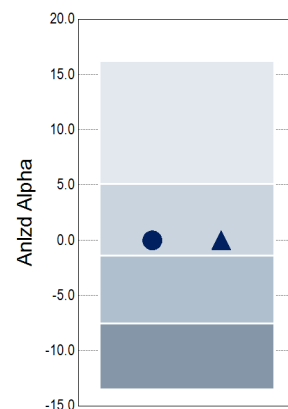
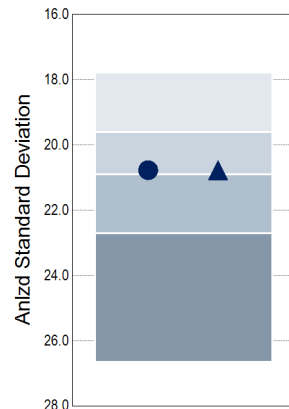
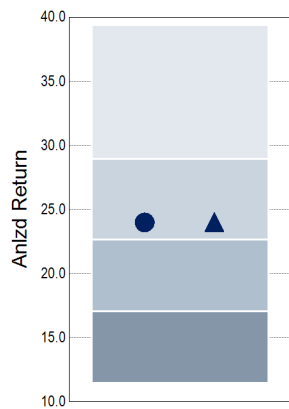


- BlackRock Equity Index Non-Lendable Fund
- ◆ S&P 500
- 68% Confidence Interval
- eV US Large Cap Equity Gross

Since Inception Style Map



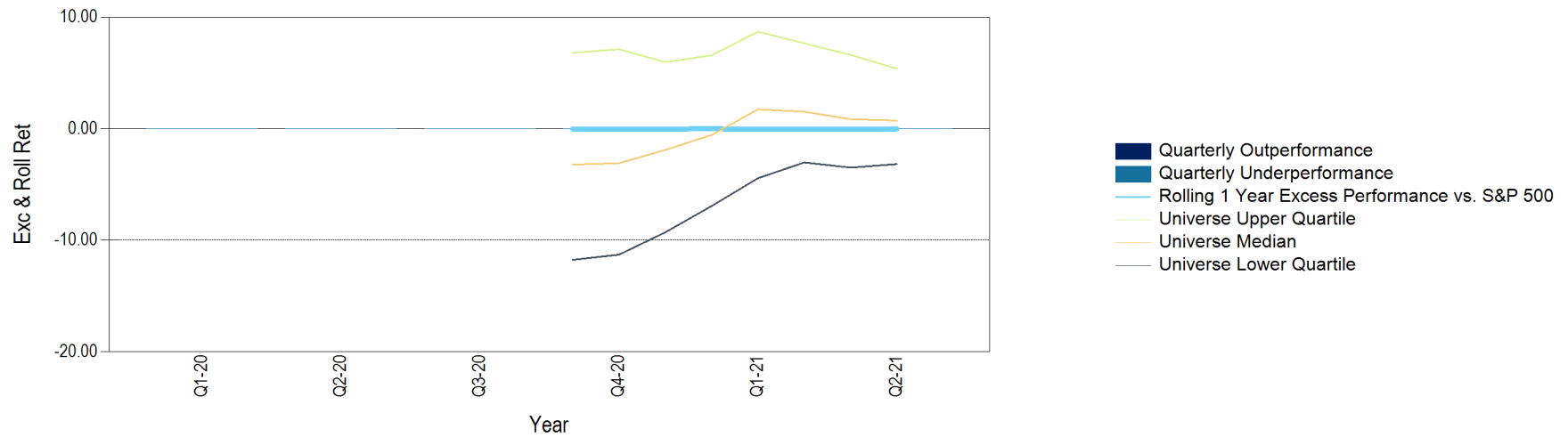
- First Rolling Period
- ◆ Last Rolling Period



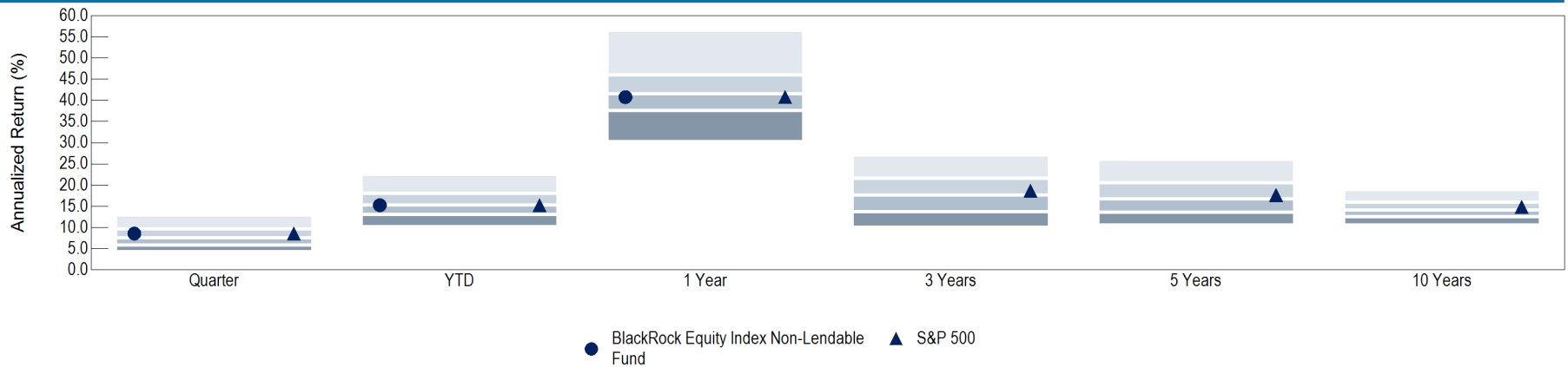
# Howard County Retirement Plans

## BLACKROCK EQUITY INDEX NON-LENDABLE FUND

Annualized Excess Performance



eV US Large Cap Equity Gross Return Comparison



# Howard County Retirement Plans

## BLACKROCK EQUITY INDEX NON-LENDABLE FUND

Top Ten Holdings	
APPLE INC	5.9%
MICROSOFT CORP	5.6%
AMAZON.COM INC	4.0%
FACEBOOK INC	2.3%
ALPHABET INC	2.0%
ALPHABET INC	2.0%
BERKSHIRE HATHAWAY INC	1.4%
TESLA INC	1.4%
NVIDIA CORPORATION	1.4%
JPMORGAN CHASE & CO	1.3%

Top Positive Contributors		
	Relative Contribution %	Return %
MICROSOFT CORP	0.2%	15.2%
APPLE INC	0.1%	12.3%
NVIDIA CORPORATION	0.1%	49.9%
FACEBOOK INC	0.1%	18.1%
ALPHABET INC	0.1%	18.4%
PAYPAL HOLDINGS INC	0.0%	20.0%
ADOBE INC	0.0%	23.2%
ALPHABET INC	0.0%	21.2%
VISA INC	0.0%	10.6%
AMAZON.COM INC	0.0%	11.2%

Top Negative Contributors		
	Relative Contribution %	Return %
T-MOBILE US INC	0.0%	15.6%
INTEL CORP	0.0%	-11.7%
WALMART INC	0.0%	4.2%
ORACLE CORP	0.0%	11.4%
WALT DISNEY CO (THE)	0.0%	-4.7%
CHARTER COMMUNICATIONS INC	0.0%	16.9%
CATERPILLAR INC	0.0%	-5.7%
AT&T INC	0.0%	-3.3%
DEERE & CO	0.0%	-5.5%
VERIZON COMMUNICATIONS INC	0.0%	-2.6%

Equity Sector Attribution											
	Attribution Effects					Returns		Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.0%	0.0%	0.0%	0.0%		11.3%	11.3%	2.8%	2.7%		
Materials	0.0%	0.0%	0.0%	0.0%		5.0%	4.9%	2.7%	2.6%		
Industrials	0.0%	0.0%	0.0%	0.0%		4.5%	4.5%	8.9%	8.7%		
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%		6.9%	6.9%	12.4%	13.1%		
Consumer Staples	0.0%	0.0%	0.0%	0.0%		3.8%	3.8%	6.1%	6.7%		
Health Care	0.0%	0.0%	0.0%	0.0%		8.4%	8.5%	12.9%	12.6%		
Financials	0.0%	0.0%	0.0%	0.0%		8.4%	8.5%	11.5%	11.5%		
Information Technology	0.0%	0.0%	0.0%	0.0%		11.6%	11.5%	26.6%	26.1%		
Communication Services	0.0%	0.0%	0.0%	0.0%		10.7%	11.0%	10.9%	11.0%		
Utilities	0.0%	0.0%	0.0%	0.0%		-0.4%	-0.4%	2.7%	2.5%		
Real Estate	0.0%	0.0%	0.0%	0.0%		13.1%	13.1%	2.5%	2.4%		
Cash	0.0%	--	--	--		--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>0.0%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>8.5%</b>	<b>8.6%</b>	<b>100.0%</b>	<b>100.0%</b>

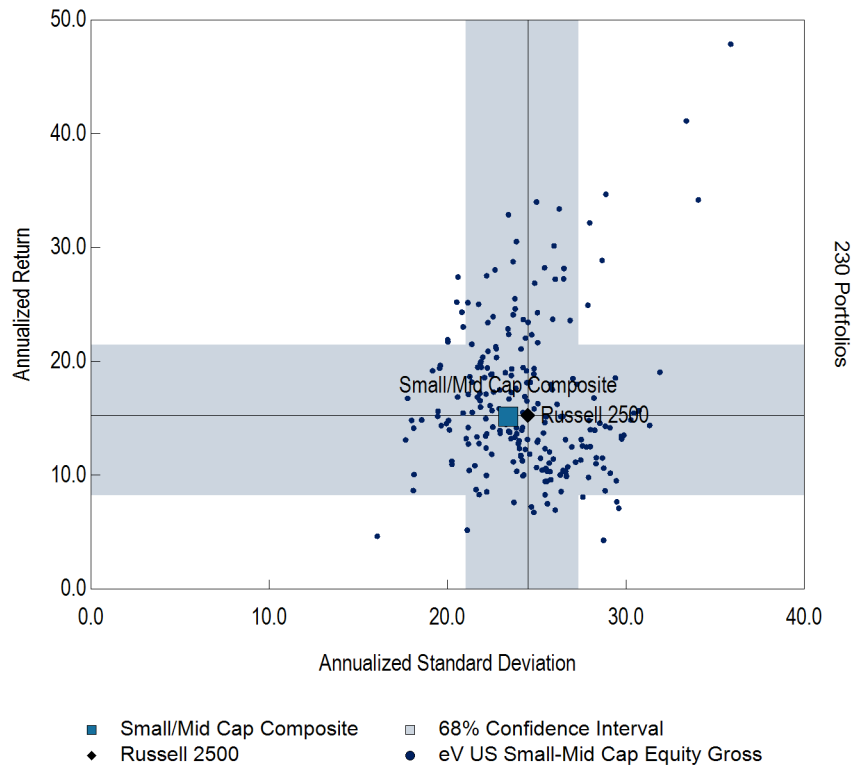
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



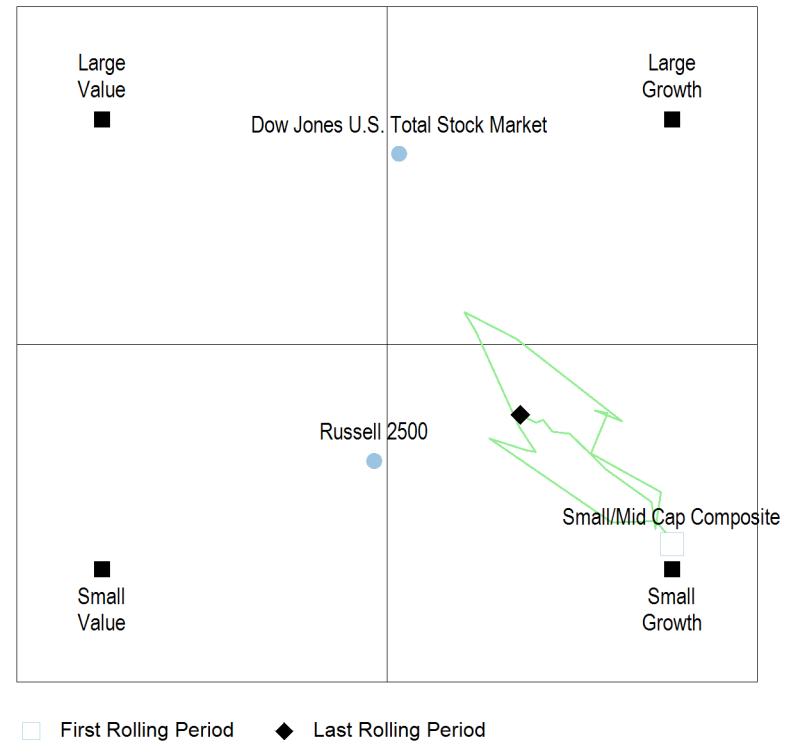
# Howard County Retirement Plans

## SMALL/MID CAP COMPOSITE

3 Year Risk Return



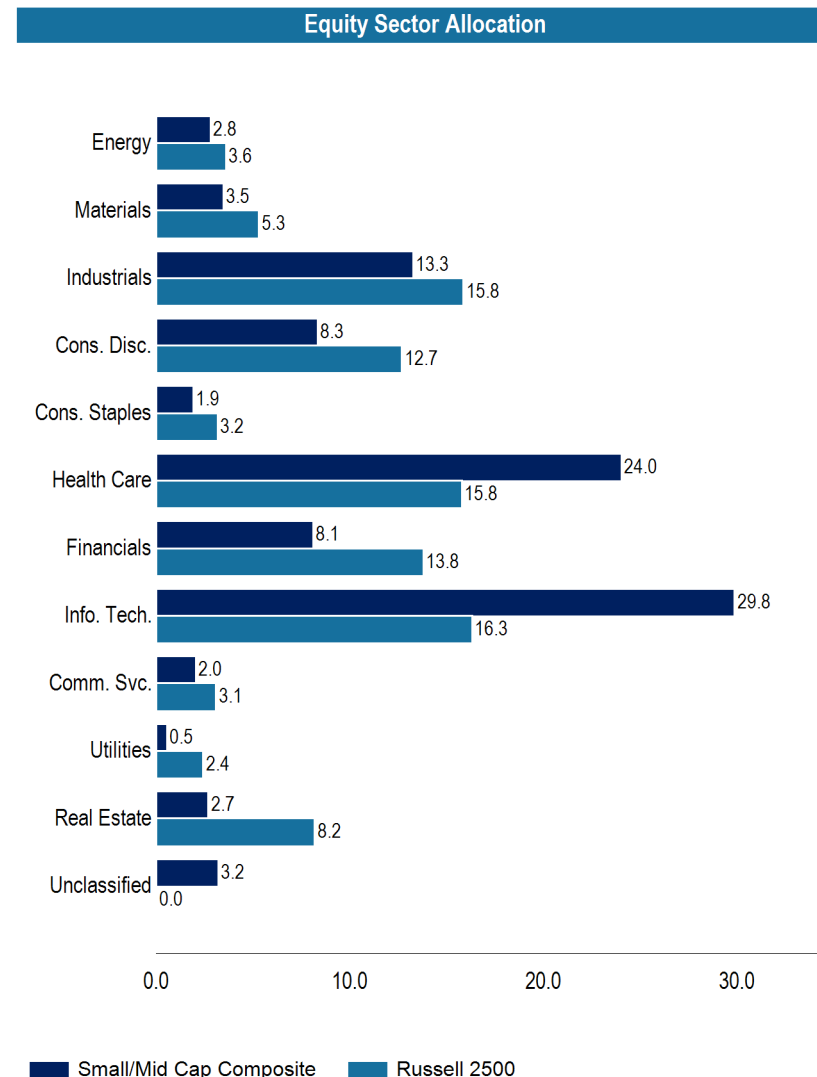
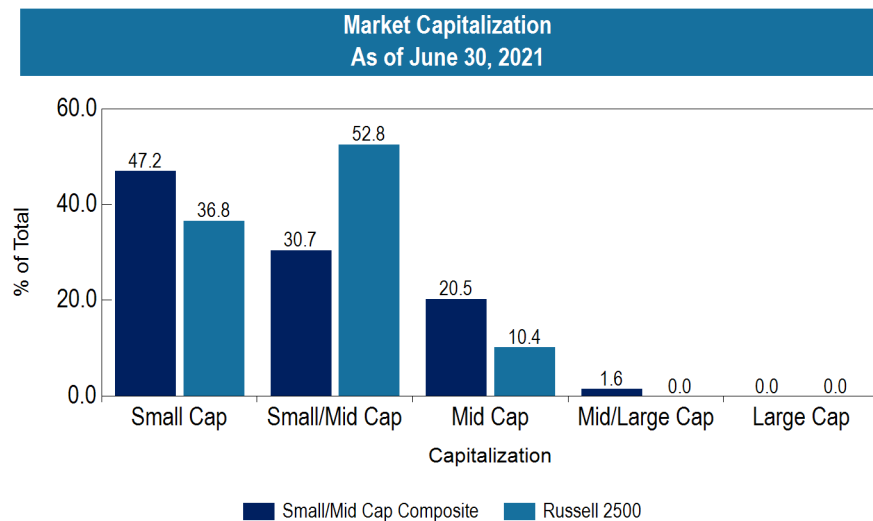
3 Year Style Analysis



# Howard County Retirement Plans

## SMALL/MID CAP COMPOSITE

Characteristics		
	Portfolio	Russell 2500
Number of Holdings	218	2,400
Weighted Avg. Market Cap. (\$B)	8.0	7.2
Median Market Cap. (\$B)	3.5	1.9
Price To Earnings	30.0	21.8
Price To Book	3.8	3.1
Price To Sales	3.0	2.1
Return on Equity (%)	6.2	2.9
Yield (%)	0.5	1.1
Beta	0.9	1.0
R-Squared	0.9	1.0



# Howard County Retirement Plans

## SMALL/MID CAP COMPOSITE

Top Ten Holdings	
CASH - USD	2.3%
ALARM.COM HOLDINGS INC	1.9%
ABIOMED INC	1.8%
BIO-TECHNE CORP	1.8%
VEEVA SYSTEMS INC	1.6%
COGNEX CORP	1.5%
GUIDEWIRE SOFTWARE INC	1.3%
PAYCOM SOFTWARE INC	1.3%
MANHATTAN ASSOCIATES INC	1.3%
TYLER TECHNOLOGIES INC	1.3%

Top Positive Contributors		
	Relative Contribution %	Return %
BIO-TECHNE CORP	0.3%	18.0%
VEEVA SYSTEMS INC	0.3%	19.0%
MANHATTAN ASSOCIATES INC	0.2%	23.4%
DATADOG INC	0.2%	24.9%
MATADOR RESOURCES CO	0.2%	53.7%
KNOLL INC	0.1%	57.8%
INOGEN INC	0.1%	24.1%
LANTHEUS HOLDINGS INC	0.1%	29.3%
SMARTSHEET INC	0.1%	13.1%
AXON ENTERPRISE INC	0.1%	24.1%

Top Negative Contributors		
	Relative Contribution %	Return %
IRHYTHM TECHNOLOGIES INC	-0.4%	-52.2%
PROTO LABS INC	-0.2%	-24.6%
GRAND CANYON EDUCATION INC	-0.1%	-16.0%
VERACYTE INC	-0.1%	-25.6%
BWX TECHNOLOGIES INC	-0.1%	-11.6%
BRIGHT HORIZONS FAMILY SOLUTIONS INC	-0.1%	-14.2%
NEW FORTRESS ENERGY INC	-0.1%	-17.3%
TREEHOUSE FOODS INC	-0.1%	-14.8%
PURE STORAGE INC	0.0%	-9.3%
LIGAND PHARMACEUTICALS INC	0.0%	-13.9%

Equity Sector Attribution											
	Attribution Effects					Returns		Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	-0.3%	-0.2%	-0.1%	0.0%		13.1%	23.0%	2.1%	2.5%		
Materials	0.0%	-0.1%	0.0%	0.0%		5.3%	6.2%	3.4%	5.5%		
Industrials	-0.2%	-0.4%	0.1%	0.1%		0.7%	3.2%	13.1%	16.4%		
Consumer Discretionary	-0.4%	-0.6%	0.0%	0.2%		-0.1%	4.6%	8.6%	13.8%		
Consumer Staples	0.1%	0.1%	0.1%	0.0%		4.4%	0.9%	2.1%	3.2%		
Health Care	-0.4%	-0.2%	-0.1%	-0.1%		3.4%	4.7%	24.9%	14.8%		
Financials	0.0%	-0.4%	0.2%	0.1%		0.2%	2.6%	8.6%	14.7%		
Information Technology	-0.1%	-0.3%	0.3%	-0.2%		6.4%	8.1%	29.2%	15.9%		
Communication Services	-0.2%	-0.2%	-0.1%	0.1%		5.9%	12.9%	1.7%	2.9%		
Utilities	0.1%	-0.1%	0.1%	0.1%		-3.5%	0.0%	0.7%	2.7%		
Real Estate	-0.1%	0.2%	-0.2%	-0.1%		11.3%	9.3%	2.9%	7.6%		
Cash	-0.1%	0.0%	-0.1%	0.0%		0.0%	--	2.6%	0.0%		
<b>Portfolio</b>	<b>-1.8%</b>	<b>=</b>	<b>-2.2%</b>	<b>+</b>	<b>0.2%</b>	<b>+</b>	<b>0.2%</b>	<b>3.8%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>

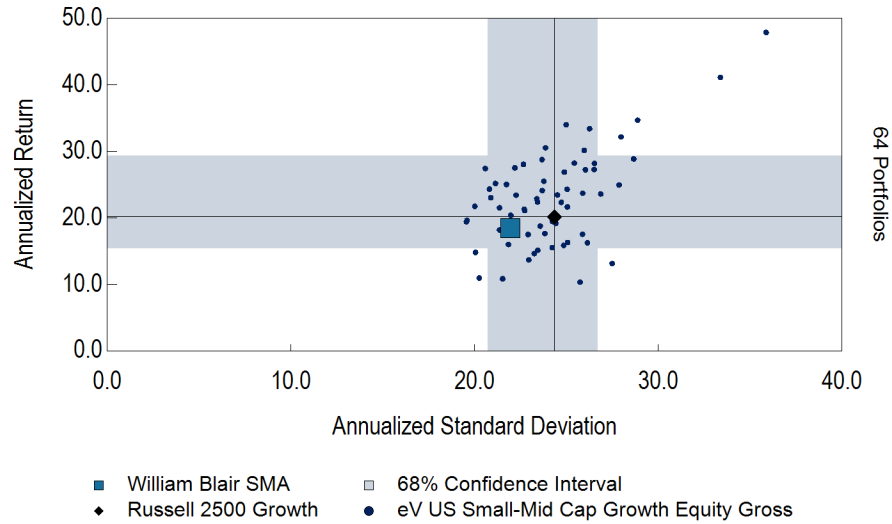
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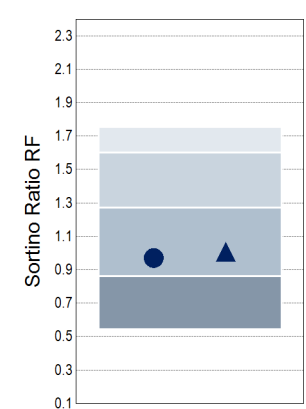
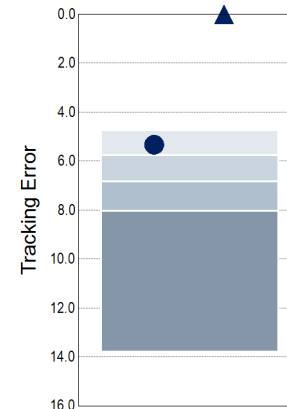
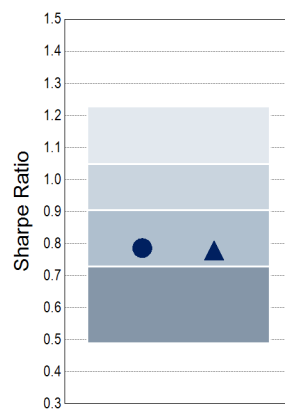
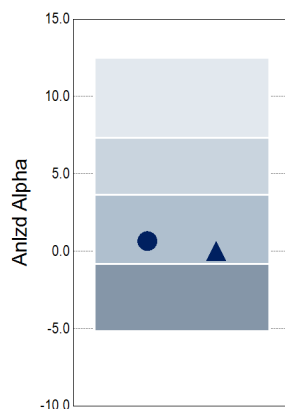
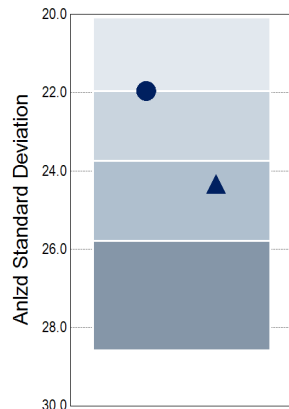
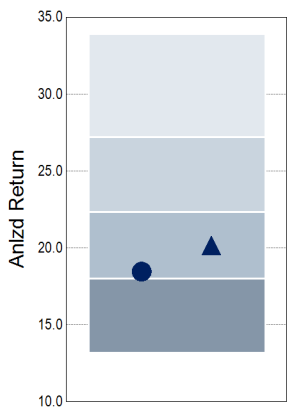
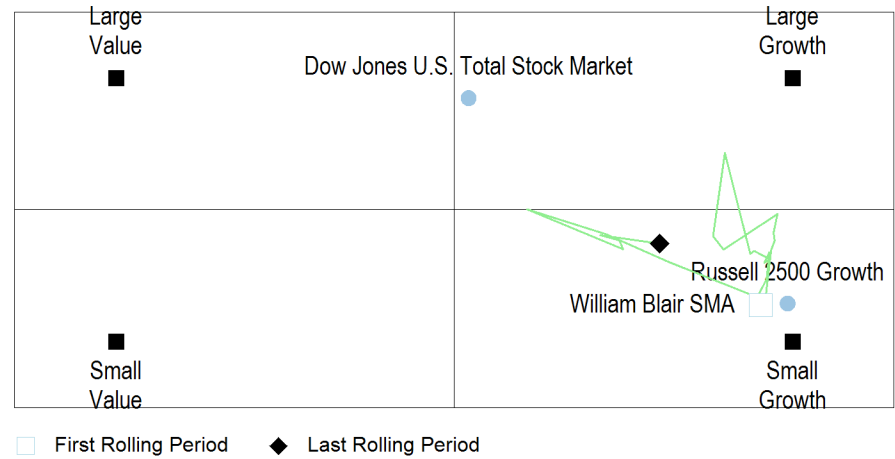
# Howard County Retirement Plans

## WILLIAM BLAIR SMA

3 Year Risk Return



3 Year Style Map

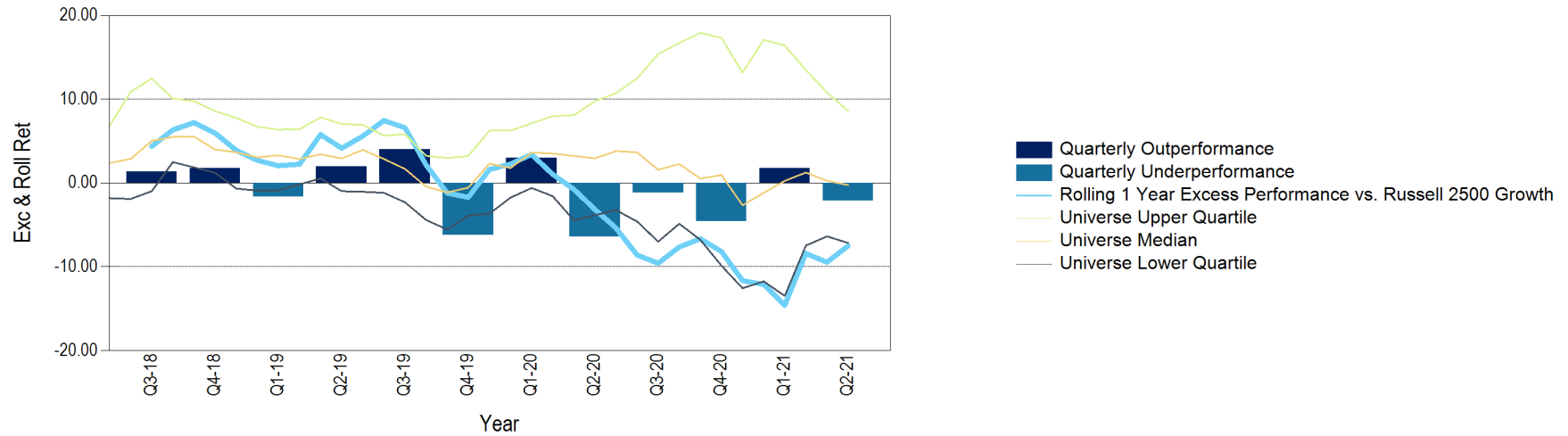




# Howard County Retirement Plans

## WILLIAM BLAIR SMA

Annualized Excess Performance



eV US Small-Mid Cap Growth Equity Gross Return Comparison



# Howard County Retirement Plans

## WILLIAM BLAIR SMA

Top Ten Holdings	
HORIZON THERAPEUTICS PUBLIC LTD CO	2.3%
BWX TECHNOLOGIES INC	2.2%
MARTIN MARIETTA MATERIALS INC.	2.1%
CROWN HOLDINGS INC	2.1%
GENERAC HOLDINGS INC	2.1%
DYNATRACE INC	2.0%
BRINK'S CO (THE)	2.0%
AXON ENTERPRISE INC	2.0%
TREX CO INC	1.9%
BROOKS AUTOMATION INC	1.9%

Top Positive Contributors		
	Relative Contribution %	Return %
AXON ENTERPRISE INC	0.3%	24.1%
CHARLES RIVER LABORATORIES INTERNATIONAL INC	0.3%	27.6%
BIO-TECHNE CORP	0.3%	18.0%
CELSIUS HOLDINGS INC	0.3%	58.4%
GENERAC HOLDINGS INC	0.3%	26.8%
BROOKS AUTOMATION INC	0.2%	16.8%
HEALTH EQUITY INC	0.2%	18.4%
NICE LTD	0.2%	13.5%
CAMECO CORP	0.2%	15.5%
PROOFPOINT INC	0.2%	38.1%

Top Negative Contributors		
	Relative Contribution %	Return %
GRAND CANYON EDUCATION INC	-0.4%	-16.0%
VERACYTE INC	-0.3%	-25.6%
BWX TECHNOLOGIES INC	-0.3%	-11.6%
BRIGHT HORIZONS FAMILY SOLUTIONS INC	-0.2%	-14.2%
PURE STORAGE INC	-0.1%	-9.3%
NEW FORTRESS ENERGY INC	-0.1%	-17.3%
LIGAND PHARMACEUTICALS INC	-0.1%	-13.9%
VIRTU FINANCIAL INC	-0.1%	-10.3%
BUILDERS FIRSTSOURCE INC	-0.1%	-8.0%
CREE INC.	-0.1%	-9.4%

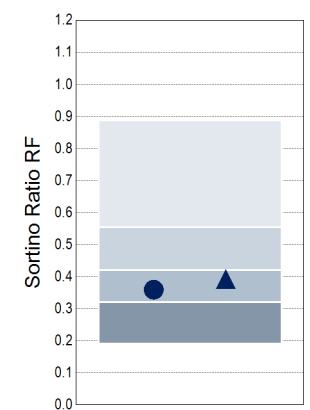
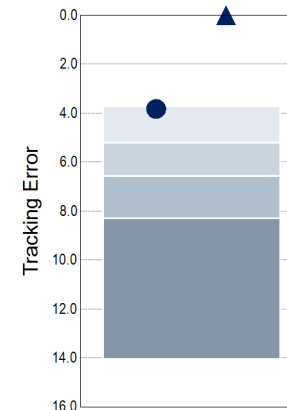
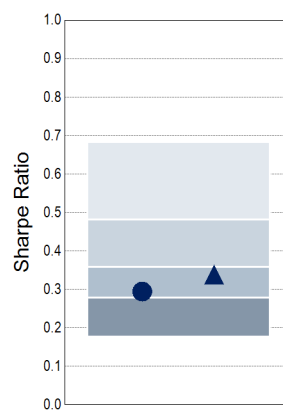
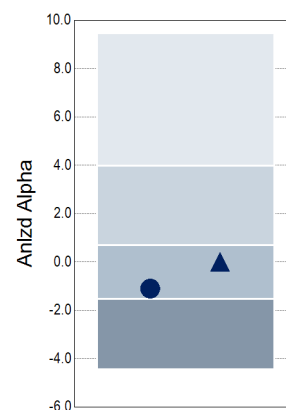
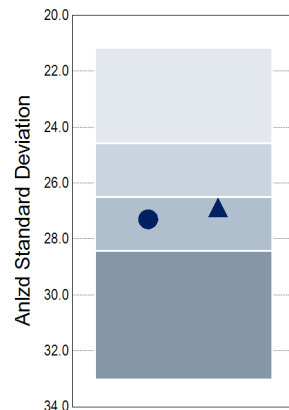
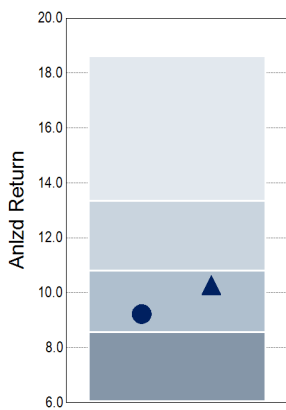
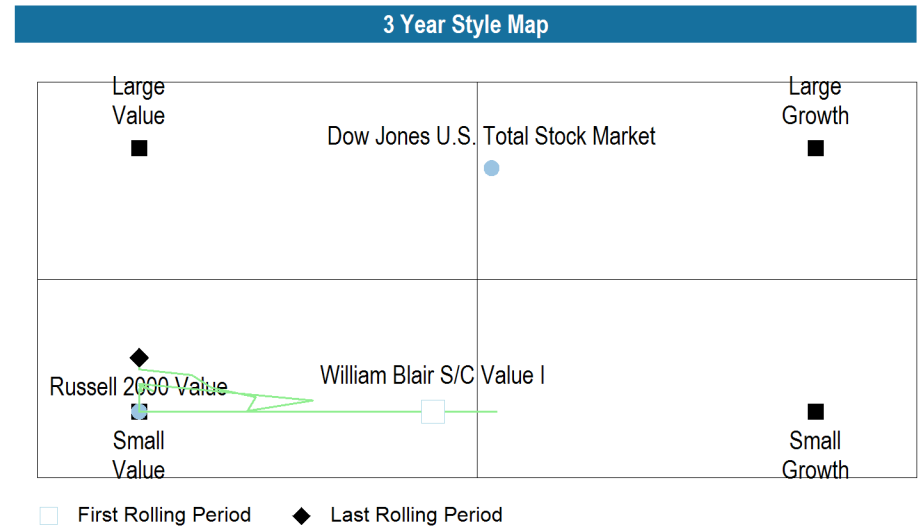
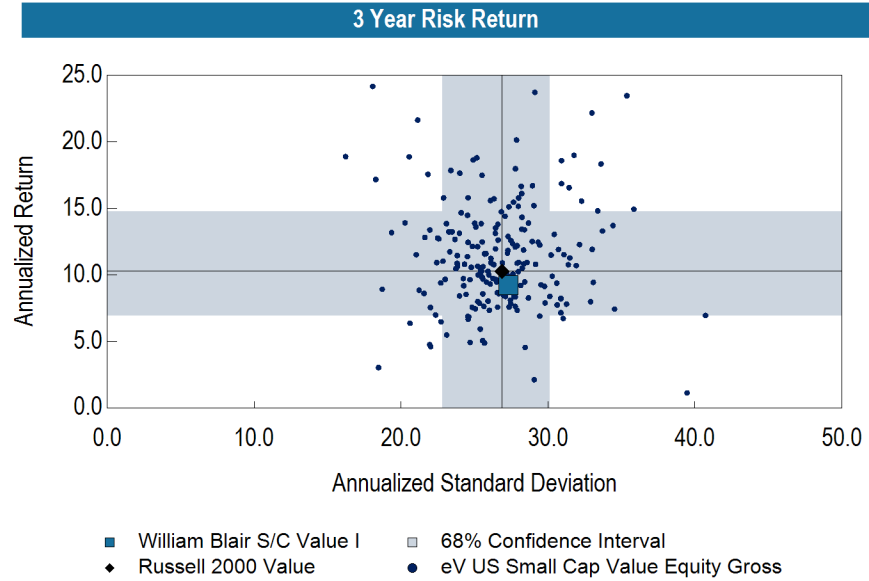
Equity Sector Attribution											
	Attribution Effects					Returns		Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	-0.1%	0.0%	0.3%	-0.4%		2.3%	22.1%	2.1%	0.1%		
Materials	0.2%	0.2%	-0.1%	0.1%		5.2%	0.1%	4.2%	3.1%		
Industrials	0.0%	0.0%	0.0%	0.0%		4.2%	3.9%	15.7%	13.5%		
Consumer Discretionary	-0.6%	-0.7%	0.0%	0.1%		0.1%	5.4%	12.0%	13.2%		
Consumer Staples	0.4%	0.5%	0.0%	-0.1%		18.8%	3.1%	2.1%	3.0%		
Health Care	-0.5%	-0.6%	0.0%	0.0%		2.5%	4.4%	28.0%	28.7%		
Financials	-0.1%	-0.1%	0.0%	0.0%		3.2%	6.4%	4.5%	3.9%		
Information Technology	-0.7%	-0.6%	-0.2%	0.1%		7.8%	9.9%	24.4%	28.5%		
Communication Services	-0.1%	0.0%	0.0%	0.0%		4.1%	5.4%	3.7%	2.4%		
Utilities	0.0%	--	0.0%	--		--	1.4%	0.0%	1.0%		
Real Estate	0.1%	0.2%	0.0%	-0.1%		15.7%	7.9%	1.1%	2.6%		
Cash	-0.1%	0.0%	-0.1%	0.0%		0.0%	--	2.1%	0.0%		
<b>Portfolio</b>	<b>-1.6%</b>	<b>=</b>	<b>-1.2%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>-0.4%</b>	<b>4.4%</b>	<b>6.1%</b>	<b>100.0%</b>	<b>100.0%</b>

Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

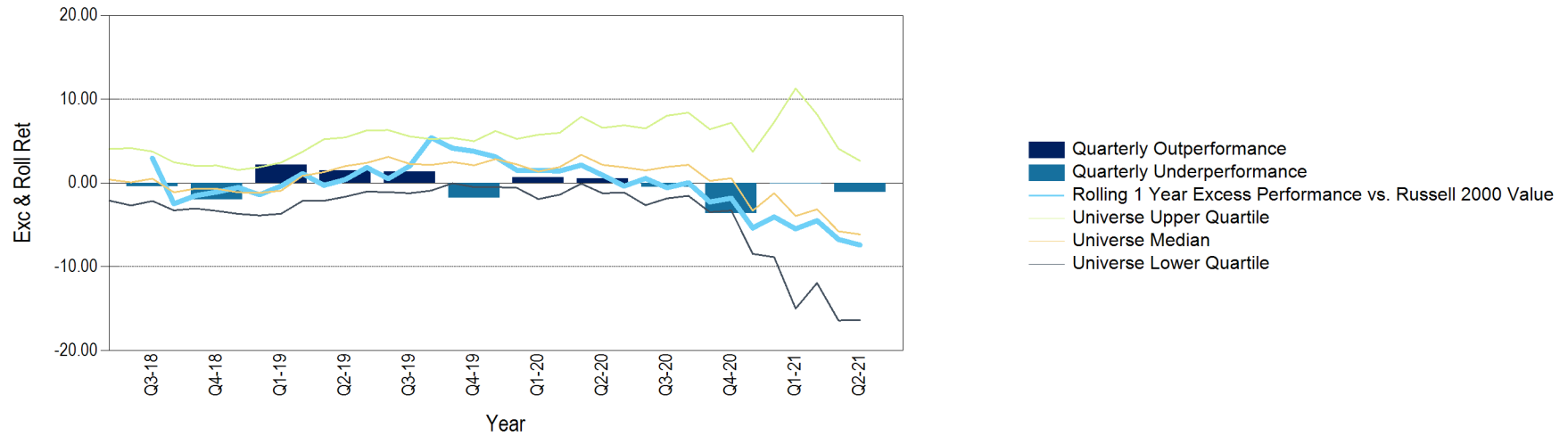
## WILLIAM BLAIR S/C VALUE I



# Howard County Retirement Plans

## WILLIAM BLAIR S/C VALUE I

Annualized Excess Performance



eV US Small Cap Value Equity Gross Return Comparison

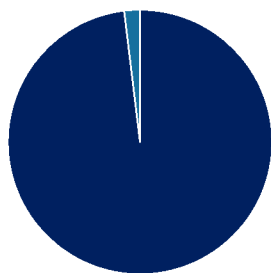


# Howard County Retirement Plans

## WILLIAM BLAIR S/C VALUE I

### Mutual Fund Allocation as of June 30, 2021

Cash



US Stock

### Portfolio Fund Information as of June 30, 2021

Ticker	ICSCX
Morningstar Category	Small Value
Average Market Cap (\$mm)	3,805.0
Net Assets (\$mm)	2,015.7
% Assets in Top 10 Holdings	18.3
Total Number of Holdings	86
Manager Name	William V. Heaphy
Manager Tenure	22
Expense Ratio	0.9%
Closed to New Investors	No

### Fund Characteristics as of June 30, 2021

Sharpe Ratio (3 Year)	0.3
Average Market Cap (\$mm)	3,805.0
Price/Earnings	17.5
Price/Book	1.9
Price/Sales	2.1
Price/Cash Flow	12.2
Dividend Yield	1.6
Number of Equity Holdings	85
R-Squared (3 Year)	1.0
Alpha (3 Year)	-0.1%

### Top Holdings as of June 30, 2021

WESTERN ALLIANCE BANCORP	2.1%
BRADY CORP CLASS A	2.0%
DECKERS OUTDOOR CORP	2.0%
HANCOCK WHITNEY CORP	1.9%
CONMED CORP	1.8%
WATTS WATER TECHNOLOGIES INC A	1.8%
SELECTIVE INSURANCE GROUP INC	1.8%
DARLING INGREDIENTS INC	1.6%
HOME BANCSHARES INC	1.6%
INTEGER HOLDINGS CORP	1.6%

### Sector Allocation as of June 30, 2021

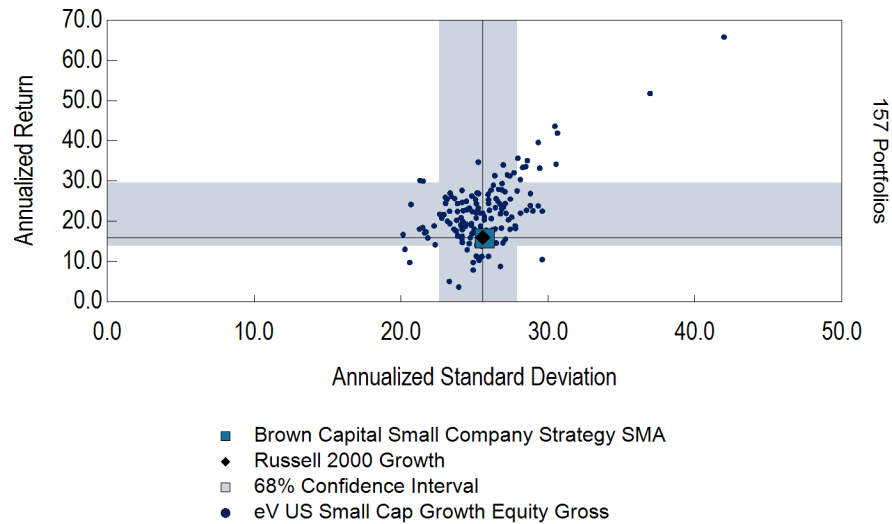
BASIC MATERIALS	3.8%
COMMUNICATION SERVICES	2.2%
CONSUMER CYCLICAL	9.6%
CONSUMER DEFENSIVE	6.1%
ENERGY	5.7%
FINANCIAL SERVICES	28.4%
HEALTHCARE	6.4%
INDUSTRIALS	20.7%
REAL ESTATE	8.4%
TECHNOLOGY	4.5%
UTILITIES	4.2%



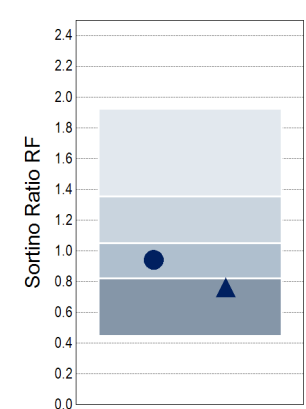
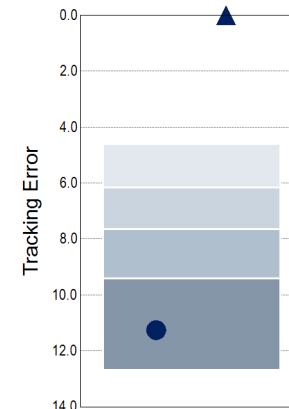
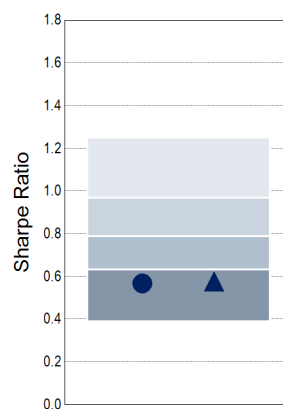
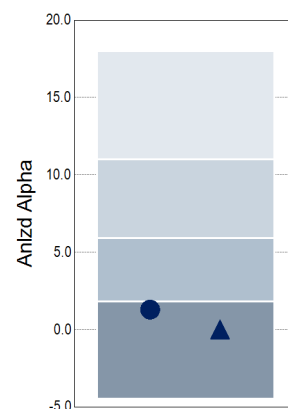
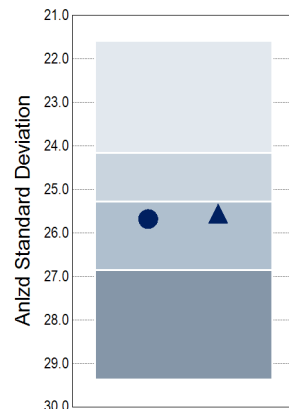
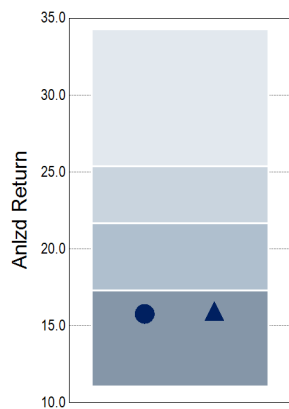
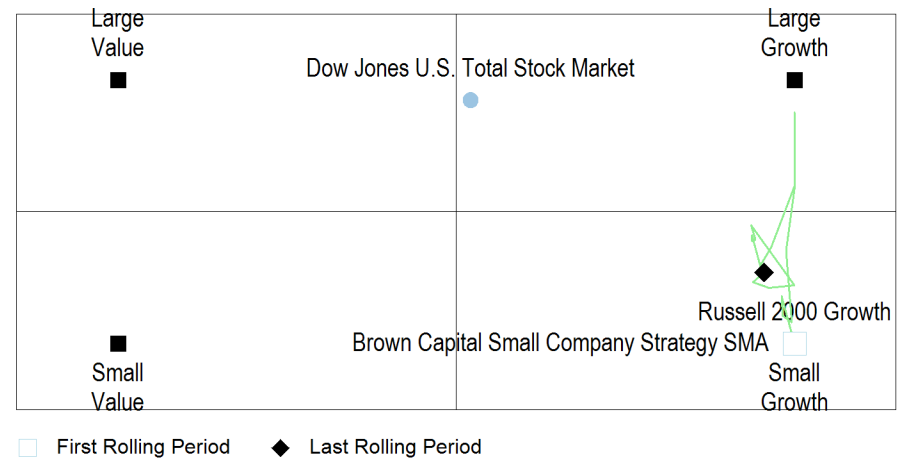
# Howard County Retirement Plans

## BROWN CAPITAL SMALL COMPANY STRATEGY SMA

3 Year Risk Return



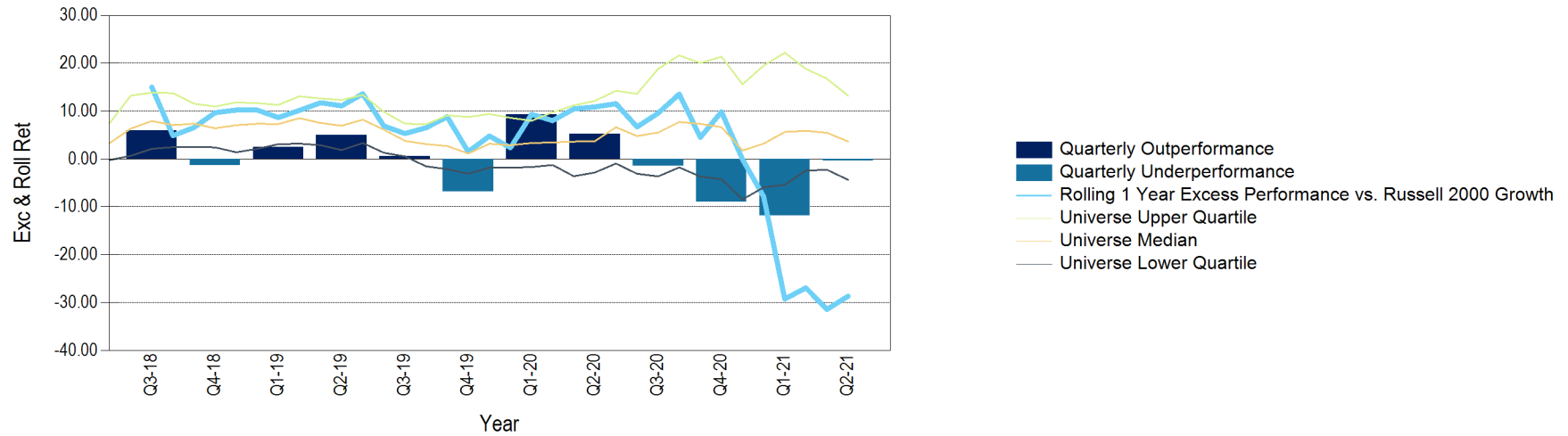
3 Year Style Map



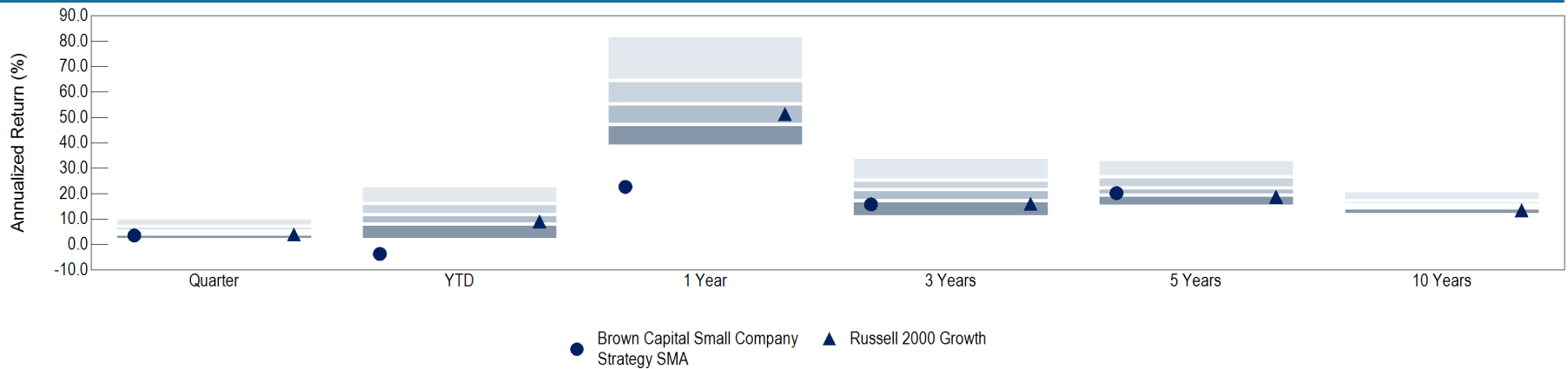
# Howard County Retirement Plans

## BROWN CAPITAL SMALL COMPANY STRATEGY SMA

Annualized Excess Performance



eV US Small Cap Growth Equity Gross Return Comparison



# Howard County Retirement Plans

## BROWN CAPITAL SMALL COMPANY STRATEGY SMA

Top Ten Holdings	
VEEVA SYSTEMS INC	4.9%
COGNEX CORP	4.8%
ALARM.COM HOLDINGS INC	4.6%
PAYCOM SOFTWARE INC	4.1%
MANHATTAN ASSOCIATES INC	4.1%
TYLER TECHNOLOGIES INC	4.0%
CASH - USD	4.0%
ABIOMED INC	3.8%
GLAUKOS CORP	3.8%
NEOGEN CORP	3.8%

Top Positive Contributors		
	Relative Contribution %	Return %
VEEVA SYSTEMS INC	0.8%	19.0%
MANHATTAN ASSOCIATES INC	0.8%	23.4%
DATADOG INC	0.6%	24.9%
BIO-TECHNE CORP	0.5%	18.0%
INOGEN INC	0.4%	24.1%
SMARTSHEET INC	0.4%	13.1%
GUIDEWIRE SOFTWARE INC	0.3%	10.9%
TYLER TECHNOLOGIES INC	0.3%	6.6%
ORTHOPEDIATRICS CORP	0.2%	29.6%
IRONWOOD PHARMACEUTICALS INC	0.2%	15.1%

Top Negative Contributors		
	Relative Contribution %	Return %
IRHYTHM TECHNOLOGIES INC	-1.2%	-52.2%
PROTO LABS INC	-0.7%	-24.6%
NEXTGEN HEALTHCARE INC	-0.1%	-8.3%
VERICEL CORP	-0.1%	-5.5%
ABIOMED INC	-0.1%	-2.1%
ALARM.COM HOLDINGS INC	-0.1%	-1.9%
PAYCOM SOFTWARE INC	-0.1%	-1.8%
ANAPLAN INC	0.0%	-1.0%
APPFOLIO INC	0.0%	-0.1%
ACI WORLDWIDE INC	0.0%	-2.4%

Equity Sector Attribution											
	Attribution Effects					Returns		Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.0%	0.0%	0.2%	-0.2%		3.6%	23.8%	1.4%	0.2%		
Materials	0.0%	0.0%	0.0%	0.0%		4.7%	2.8%	1.1%	2.6%		
Industrials	-0.2%	-3.6%	0.5%	2.8%		-24.6%	-0.8%	3.2%	14.9%		
Consumer Discretionary	-0.2%	--	-0.2%	--		--	5.3%	0.0%	14.9%		
Consumer Staples	-0.1%	--	-0.1%	--		--	6.9%	0.0%	3.1%		
Health Care	0.2%	0.2%	-0.1%	0.0%		3.3%	2.7%	41.0%	33.2%		
Financials	-0.1%	--	-0.1%	--		--	6.7%	0.0%	3.9%		
Information Technology	0.4%	-0.1%	0.7%	-0.2%		5.6%	6.2%	49.9%	19.9%		
Communication Services	-0.1%	--	-0.1%	--		--	6.9%	0.0%	2.2%		
Utilities	0.1%	--	0.1%	--		--	0.4%	0.0%	1.5%		
Real Estate	-0.1%	--	-0.1%	--		--	5.5%	0.0%	3.5%		
Cash	-0.1%	0.0%	-0.1%	0.0%		0.0%	--	3.3%	0.0%		
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>-3.5%</b>	<b>+</b>	<b>0.8%</b>	<b>+</b>	<b>2.4%</b>	<b>3.5%</b>	<b>3.8%</b>	<b>100.0%</b>	<b>100.0%</b>

Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.

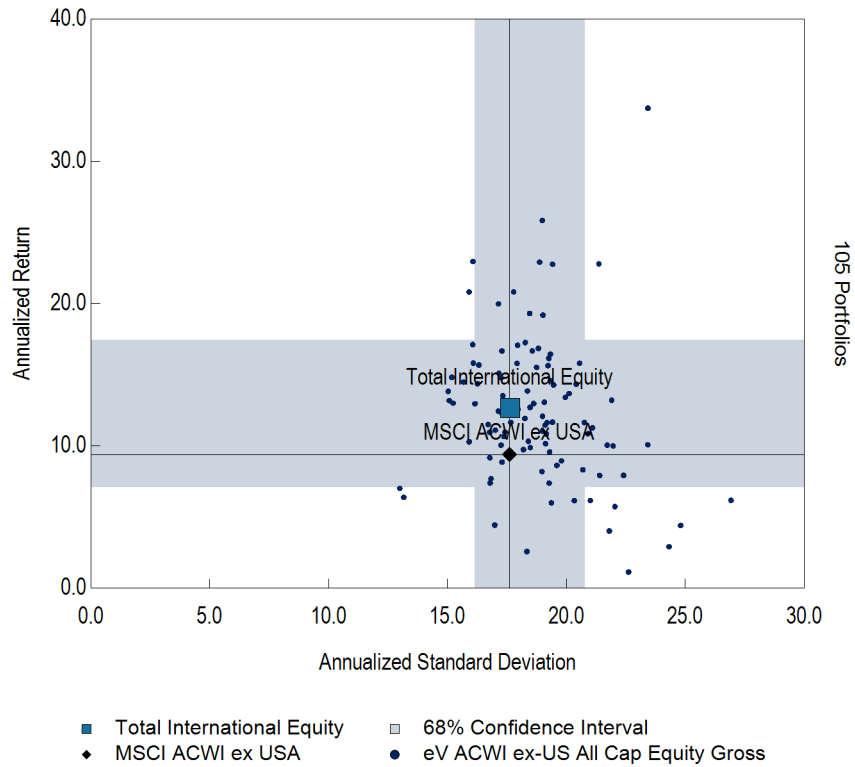




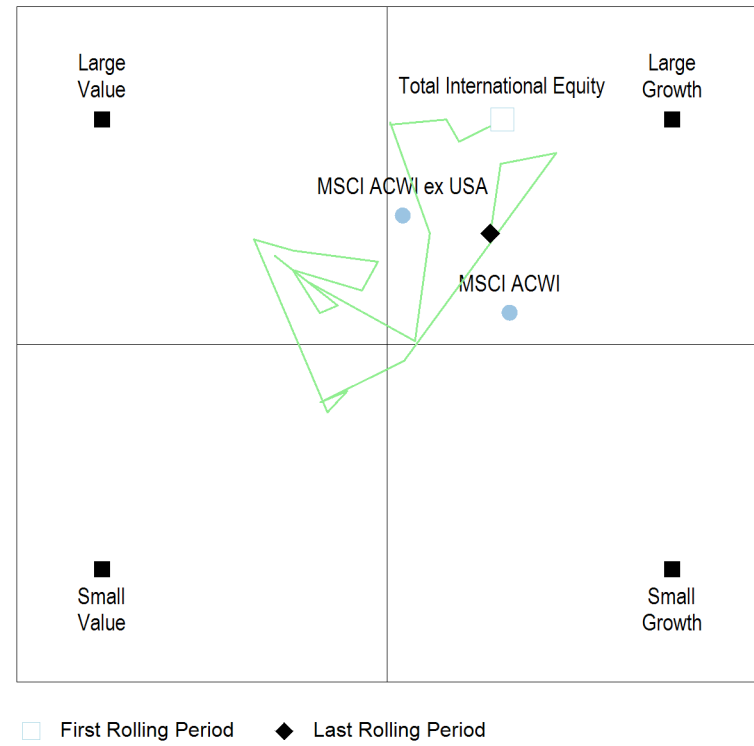
# Howard County Retirement Plans

## TOTAL INTERNATIONAL EQUITY

3 Year Risk Return



3 Year Style Analysis

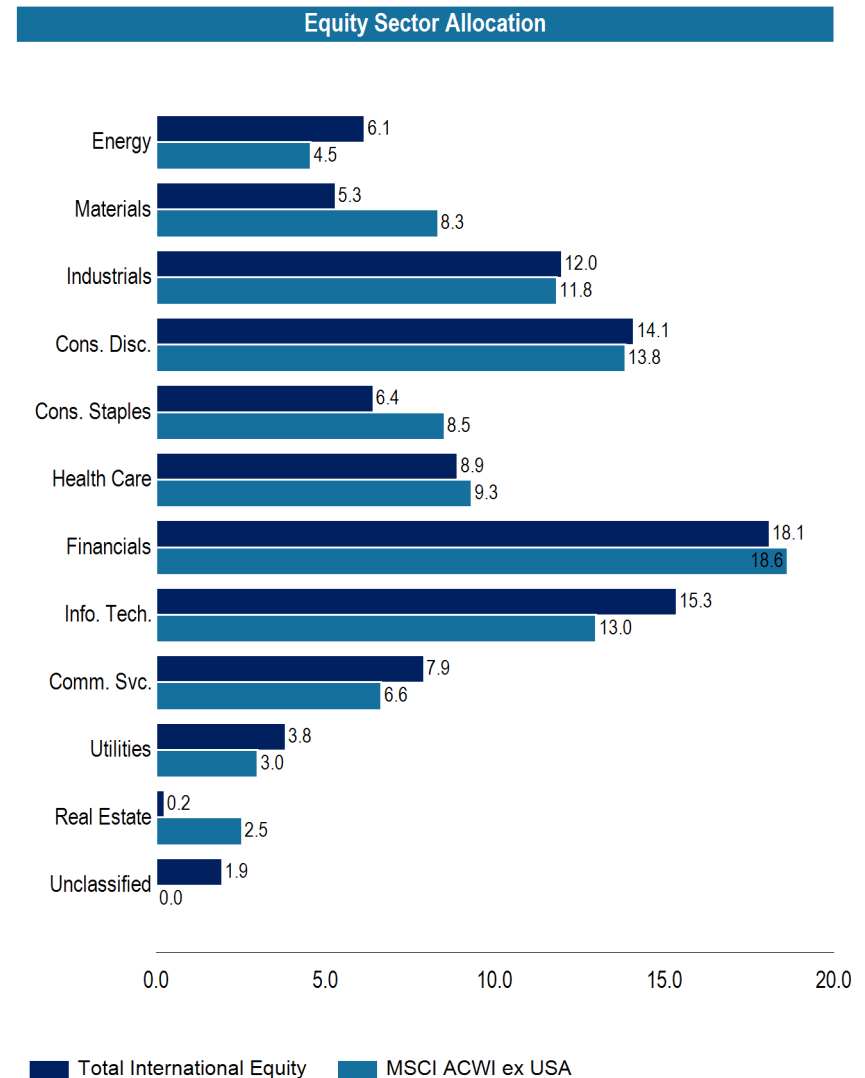
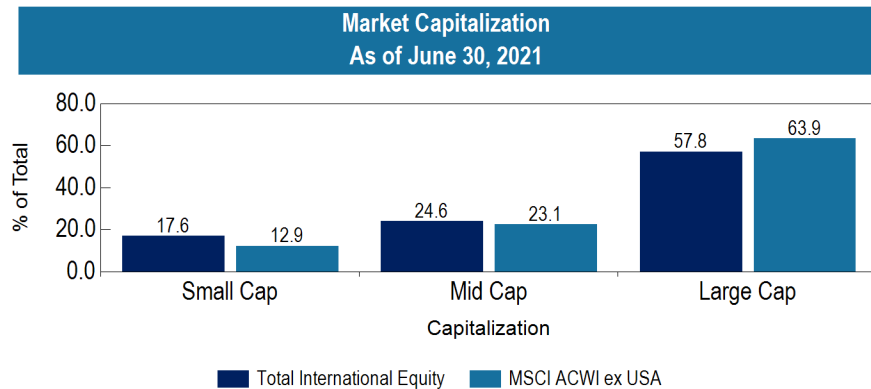


# Howard County Retirement Plans

## TOTAL INTERNATIONAL EQUITY

Characteristics		
	Portfolio	MSCI ACWI ex USA
Number of Holdings	224	2,344
Weighted Avg. Market Cap. (\$B)	81.9	105.9
Median Market Cap. (\$B)	26.2	10.4
Price To Earnings	16.6	19.1
Price To Book	2.7	2.7
Price To Sales	1.3	1.6
Return on Equity (%)	11.8	11.7
Yield (%)	2.8	2.4
Beta	1.0	1.0
R-Squared	1.0	1.0

	Portfolio Q2-21	Index Q2-21
Region Weighting		
Americas	8.78	9.72
Europe	41.63	41.00
Asia/Pacific	47.66	45.78
Other	1.93	3.50



# Howard County Retirement Plans

## TOTAL INTERNATIONAL EQUITY

Top Ten Holdings	
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	2.1%
ASML HOLDING NV	2.0%
SAMSUNG ELECTRONICS CO LTD	1.6%
UNITED OVERSEAS BANK LTD	1.5%
PETROLEO BRASILEIRO S.A.- PETROBRAS	1.2%
CASH - USD	1.2%
METTLER-TOLEDO INTERNATIONAL INC	1.2%
ZALANDO SE	1.1%
SANOFI	1.1%
WH GROUP LTD	1.1%

Top Positive Contributors		
	Relative Contribution %	Return %
PETROLEO BRASILEIRO S.A.- PETROBRAS	0.3%	49.3%
NIBE INDUSTRIER AB, MARKARYD	0.2%	36.2%
ZALANDO SE	0.2%	23.1%
FUJIFILM HOLDINGS CORP	0.2%	25.0%
METTLER-TOLEDO INTERNATIONAL INC	0.2%	19.9%
TATA STEEL LTD	0.2%	44.6%
BANCO DO BRASIL ON	0.1%	21.0%
ASML HOLDING NV	0.1%	13.5%
ALROSA PJSC	0.1%	31.3%
COMPAGNIE DE SAINT GOBAIN SA	0.1%	14.1%

Top Negative Contributors		
	Relative Contribution %	Return %
TRAINLINE PLC	-0.1%	-35.9%
NEW ORIENTAL EDUCATION & TECHNOLOGY GROUP INC	-0.1%	-41.5%
HOMESERVE PLC	-0.1%	-20.2%
SEKISUI CHEMICAL CO LTD	-0.1%	-10.9%
KAKAO CORP	-0.1%	63.2%
PING AN INSURANCE GROUP	-0.1%	-16.1%
CATCHER CO LTD	-0.1%	-12.2%
ASOS PLC	-0.1%	-10.1%
COGNIZANT TECHNOLOGY SOLUTIONS CORP	-0.1%	-11.0%
SHANGHAI MECHANICAL & ELECTRICAL		

Equity Sector Attribution											
	Attribution Effects					Returns		Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.3%	0.2%	0.0%	0.0%		13.1%	9.0%	5.6%	4.5%		
Materials	0.4%	0.7%	0.0%	-0.3%		16.6%	6.5%	4.6%	8.2%		
Industrials	-0.1%	-0.1%	0.0%	0.0%		3.4%	4.5%	12.6%	11.9%		
Consumer Discretionary	-0.3%	-0.3%	0.0%	0.0%		2.9%	4.8%	13.7%	13.7%		
Consumer Staples	-0.3%	-0.3%	0.0%	0.1%		4.5%	8.0%	7.1%	8.4%		
Health Care	-0.3%	-0.2%	0.0%	0.0%		6.7%	10.1%	8.5%	8.9%		
Financials	0.4%	0.3%	0.0%	0.1%		6.8%	4.5%	18.9%	18.9%		
Information Technology	0.0%	0.0%	0.0%	0.0%		6.2%	6.8%	16.1%	12.6%		
Communication Services	0.2%	0.2%	-0.1%	0.0%		3.8%	1.4%	8.5%	7.0%		
Utilities	0.2%	0.2%	0.0%	0.0%		5.4%	0.3%	3.7%	3.2%		
Real Estate	0.0%	-0.2%	0.1%	0.2%		-6.0%	2.5%	0.4%	2.6%		
Cash	0.0%	0.0%	0.0%	0.0%		0.0%	--	0.3%	0.0%		
<b>Portfolio</b>	<b>0.4%</b>	<b>=</b>	<b>0.4%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.1%</b>	<b>6.0%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>

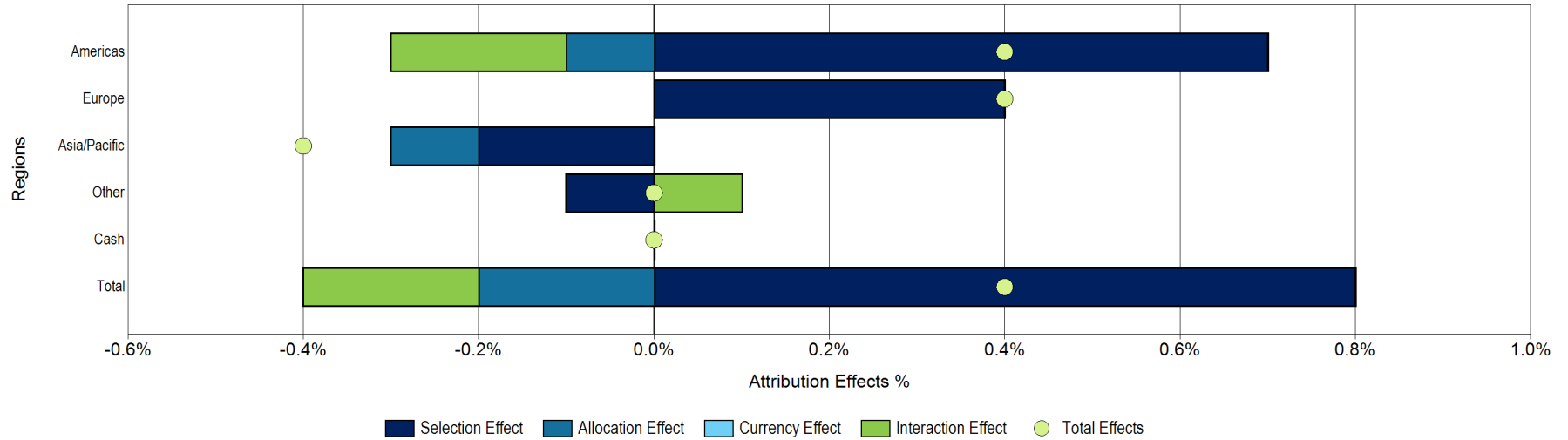
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

## TOTAL INTERNATIONAL EQUITY

Total International Equity Performance Attribution vs. MSCI ACWI ex USA



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	21.9%	11.5%	6.0%	9.0%	0.7%	-0.1%	0.0%	-0.2%	0.4%
Europe	9.0%	8.0%	40.0%	40.4%	0.4%	0.0%	0.0%	0.0%	0.4%
Asia/Pacific	2.0%	2.5%	52.7%	47.5%	-0.2%	-0.1%	0.0%	0.0%	-0.4%
Other	2.4%	4.1%	1.1%	3.1%	-0.1%	0.0%	0.0%	0.1%	0.0%
Cash	0.0%	--	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>6.0%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.8%</b>	<b>-0.2%</b>	<b>0.0%</b>	<b>-0.2%</b>	<b>0.4%</b>
<b>Totals</b>									
Developed	5.7%	5.9%	66.7%	69.2%	0.0%	0.0%	-0.2%	0.0%	-0.2%
Emerging*	6.7%	5.0%	33.0%	30.8%	0.4%	0.0%	0.2%	0.0%	0.6%
Cash	0.0%	--	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



# Howard County Retirement Plans

## TOTAL INTERNATIONAL EQUITY

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Brazil*	3.4%	1.4%	28.9%	24.1%
Mexico*	0.2%	0.5%	15.2%	9.0%
United States	2.4%	0.0%	12.8%	8.8%
<b>Total-Americas</b>	<b>6.0%</b>	<b>9.0%</b>	<b>21.9%</b>	<b>11.5%</b>
<b>Europe</b>				
Czech Republic*	0.1%	0.0%	14.0%	14.1%
Denmark	0.4%	1.5%	25.8%	13.2%
Finland	0.5%	0.6%	-0.2%	11.4%
France	5.1%	7.0%	12.4%	9.6%
Germany	3.4%	5.9%	11.6%	5.3%
Italy	1.7%	1.6%	-1.2%	4.1%
Luxembourg	0.7%	0.0%	2.9%	5.6%
Netherlands	2.6%	2.6%	9.7%	7.4%
Poland*	1.2%	0.2%	14.2%	18.9%
Portugal	0.5%	0.1%	10.3%	-1.4%
Russia*	2.8%	0.9%	17.4%	14.8%
Spain	2.4%	1.5%	11.2%	5.2%
Sweden	4.2%	2.3%	8.4%	6.1%
Switzerland	2.1%	5.7%	12.4%	12.1%
United Kingdom	12.3%	8.9%	4.8%	6.1%
<b>Total-Europe</b>	<b>40.0%</b>	<b>40.4%</b>	<b>9.0%</b>	<b>8.0%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	1.4%	4.4%	15.2%	6.8%
China*	9.4%	11.7%	-1.0%	2.5%
Hong Kong	6.2%	2.1%	3.7%	2.1%
India*	5.1%	3.0%	9.0%	7.4%
Indonesia*	0.4%	0.4%	-2.7%	-5.3%
Japan	17.8%	15.5%	0.4%	-0.3%
Korea*	5.4%	4.1%	3.2%	4.2%
New Zealand	0.8%	0.2%	-1.1%	-4.9%
Singapore	2.2%	0.7%	3.0%	0.4%
Taiwan*	3.4%	4.3%	1.3%	6.0%
Thailand*	0.6%	0.6%	-12.0%	-5.1%
<b>Total-AsiaPacific</b>	<b>52.7%</b>	<b>47.5%</b>	<b>2.0%</b>	<b>2.5%</b>
<b>Other</b>				
South Africa*	1.0%	1.2%	0.5%	-1.3%
Turkey*	0.1%	0.1%	20.4%	-0.2%
<b>Total-Other</b>	<b>1.1%</b>	<b>3.1%</b>	<b>2.4%</b>	<b>4.1%</b>
<b>Totals</b>				
Developed	66.7%	69.2%	5.7%	5.9%
Emerging*	33.0%	30.8%	6.7%	5.0%
Cash	0.3%		0.0%	

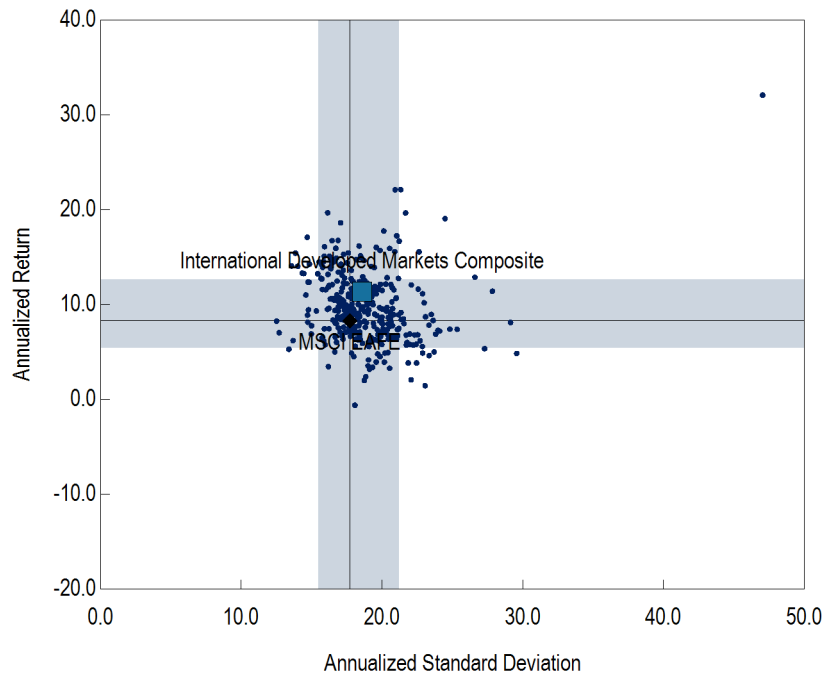
Country\* = Emerging Markets



# Howard County Retirement Plans

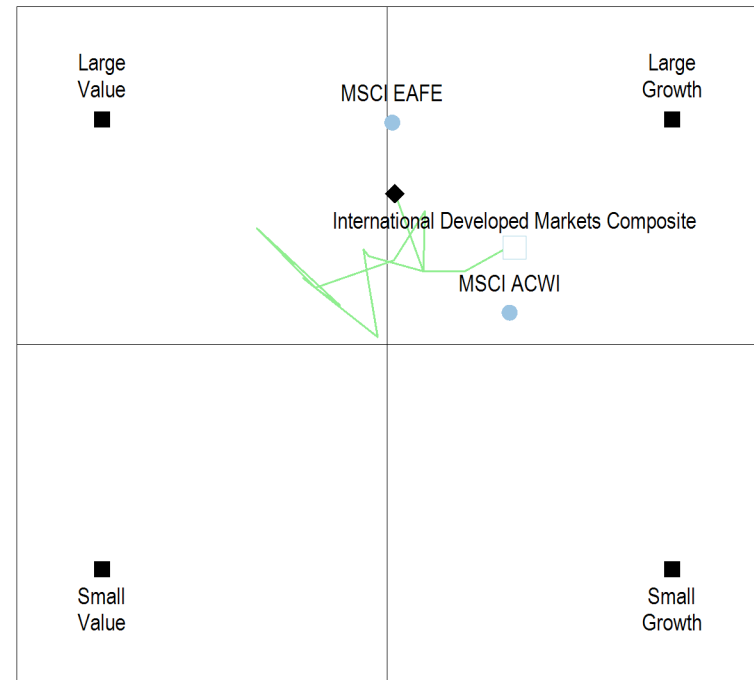
## INTERNATIONAL DEVELOPED MARKETS COMPOSITE

3 Year Risk Return



- International Developed Markets Composite
- ◆ MSCI EAFE
- 68% Confidence Interval
- eV All EAFE Equity Gross

3 Year Style Analysis



- First Rolling Period
- ◆ Last Rolling Period



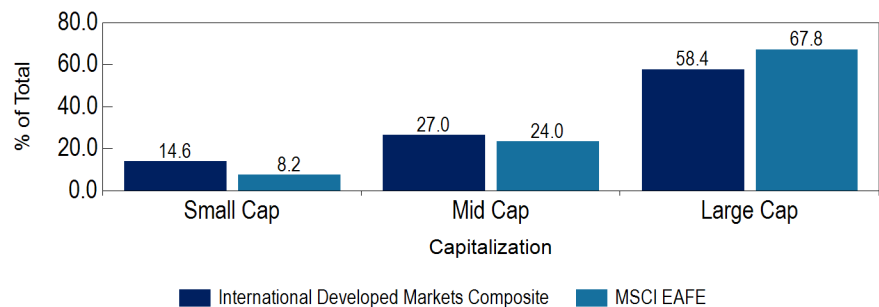
# Howard County Retirement Plans

## INTERNATIONAL DEVELOPED MARKETS COMPOSITE

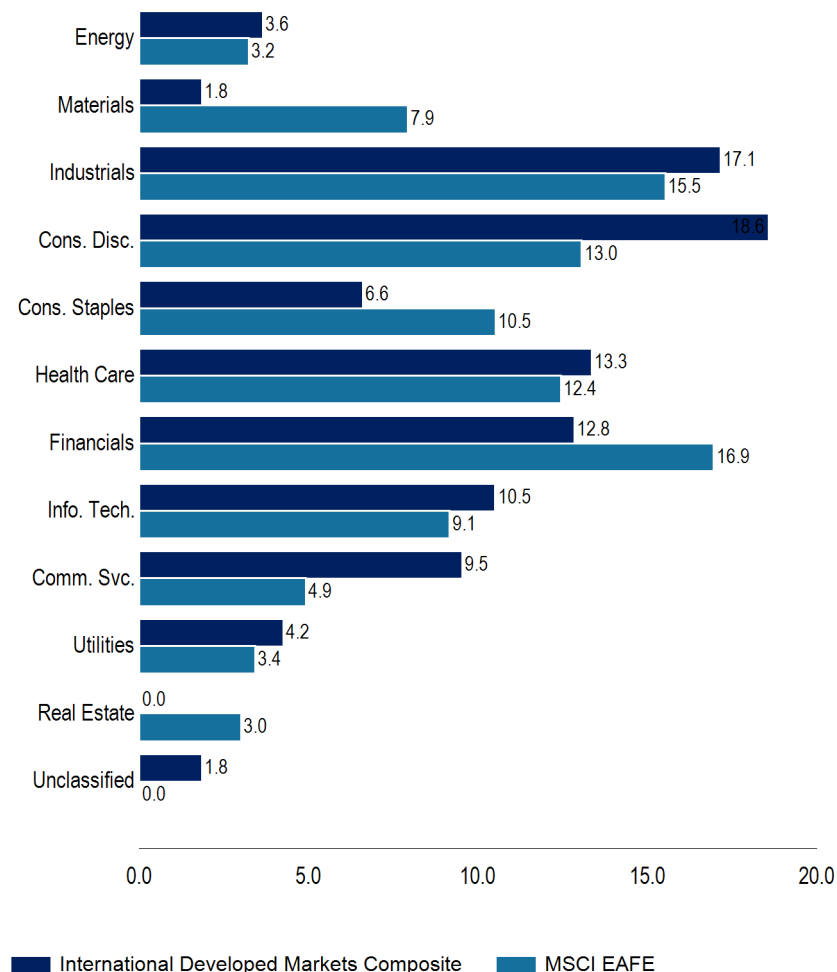
Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	118	843
Weighted Avg. Market Cap. (\$B)	61.0	80.2
Median Market Cap. (\$B)	26.2	14.3
Price To Earnings	22.2	21.1
Price To Book	2.8	2.7
Price To Sales	1.6	1.5
Return on Equity (%)	10.9	11.0
Yield (%)	2.4	2.5
Beta	1.0	1.0
R-Squared	1.0	1.0

	Portfolio Q2-21	Index Q2-21
Region Weighting		
Americas	3.45	0.26
Europe	57.56	64.14
Asia/Pacific	38.26	34.74
Other	0.73	0.86

**Market Capitalization**  
As of June 30, 2021



**Equity Sector Allocation**



# Howard County Retirement Plans

## INTERNATIONAL DEVELOPED MARKETS COMPOSITE

Top Ten Holdings	
UNITED OVERSEAS BANK LTD	2.3%
ASML HOLDING NV	2.0%
METTLER-TOLEDO INTERNATIONAL INC	1.8%
ZALANDO SE	1.8%
SANOFI	1.8%
GLAXOSMITHKLINE PLC	1.8%
FUJIFILM HOLDINGS CORP	1.7%
CK HUTCHISON HOLDINGS LTD	1.7%
BANCO SANTANDER SA	1.6%
LLOYDS BANKING GROUP PLC	1.6%

Top Positive Contributors		
	Relative Contribution %	Return %
NIBE INDUSTRIER AB, MARKARYD	0.4%	36.2%
ZALANDO SE	0.3%	23.1%
FUJIFILM HOLDINGS CORP	0.3%	25.0%
METTLER-TOLEDO INTERNATIONAL INC	0.3%	19.9%
COMPAGNIE DE SAINT GOBAIN SA	0.2%	14.1%
KINGFISHER PLC	0.2%	17.5%
FUJITSU LTD	0.2%	29.6%
CIE FINANCIERE RICHEMONT AG, ZUG	0.2%	25.8%
BANCO SANTANDER SA	0.2%	13.2%
ISS A/S	0.2%	25.8%

Top Negative Contributors		
	Relative Contribution %	Return %
TRAINLINE PLC	-0.2%	-35.9%
HOMESERVE PLC	-0.1%	-20.2%
SEKISUI CHEMICAL CO LTD	-0.1%	-10.9%
ASOS PLC	-0.1%	-10.1%
TAKEDA PHARMACEUTICAL CO LTD	-0.1%	-7.0%
PIGEON CORP	-0.1%	-24.9%
HITACHI LTD	-0.1%	26.7%
COCA-COLA BOTTLERS JAPAN HOLDINGS INC	-0.1%	-9.0%
RYMAN HEALTHCARE LTD	-0.1%	-13.4%
LVMH MOET HENNESSY LOUIS VUITTON SE	-0.1%	18.4%

Equity Sector Attribution											
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	4.2%	3.2%	4.0%	3.3%			
Materials	-0.1%	-0.4%	0.0%	0.3%	0.3%	5.4%	2.1%	8.0%			
Industrials	0.1%	0.1%	0.0%	0.1%	4.5%	4.0%	18.3%	15.8%			
Consumer Discretionary	0.1%	0.0%	0.0%	0.0%	5.8%	5.5%	17.5%	12.6%			
Consumer Staples	-0.5%	-0.5%	-0.1%	0.1%	3.1%	8.8%	6.8%	10.3%			
Health Care	-0.3%	-0.3%	0.0%	-0.1%	6.6%	9.5%	12.5%	12.0%			
Financials	0.4%	0.4%	0.1%	-0.1%	6.0%	3.5%	13.0%	17.5%			
Information Technology	0.2%	0.1%	0.1%	0.0%	9.9%	8.4%	11.1%	8.7%			
Communication Services	0.1%	0.2%	-0.2%	0.2%	3.9%	0.3%	10.3%	5.2%			
Utilities	0.1%	0.1%	0.0%	0.0%	1.2%	-0.9%	4.1%	3.7%			
Real Estate	0.0%	--	0.0%	--	--	5.4%	0.0%	3.1%			
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.4%	0.0%			
<b>Portfolio</b>	<b>0.0%</b>	<b>=</b>	<b>-0.3%</b>	<b>+</b>	<b>-0.3%</b>	<b>+</b>	<b>0.6%</b>	<b>5.4%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>

Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.

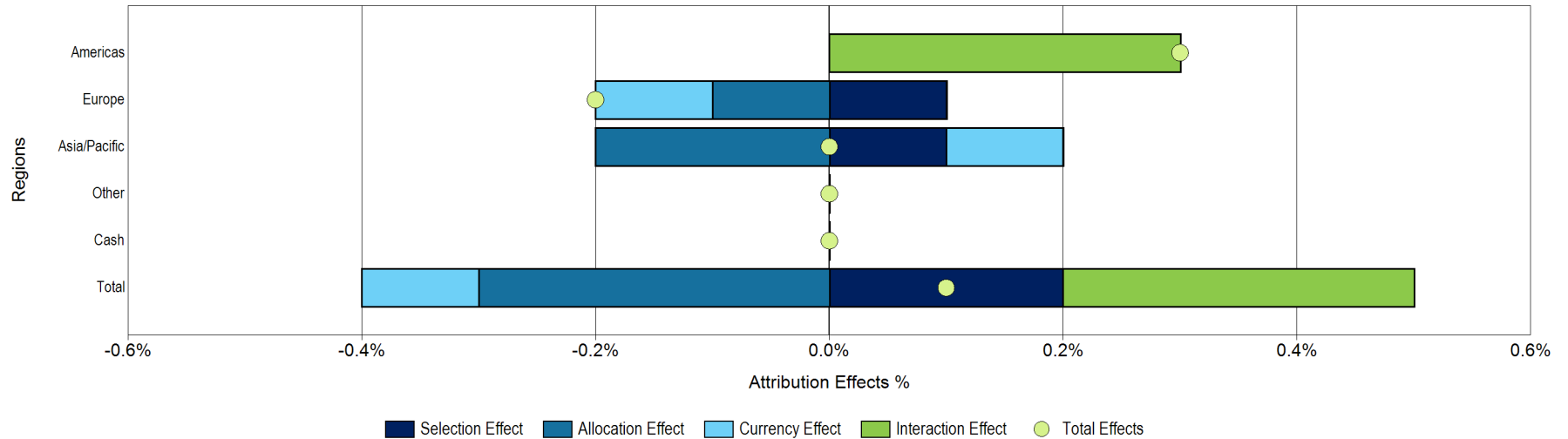




# Howard County Retirement Plans

## INTERNATIONAL DEVELOPED MARKETS COMPOSITE

International Developed Markets Composite Performance Attribution vs. MSCI EAFE



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	19.9%	--	1.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%
Europe	7.9%	7.8%	55.5%	62.8%	0.1%	-0.1%	-0.1%	0.0%	-0.2%
Asia/Pacific	1.8%	1.2%	42.4%	36.6%	0.1%	-0.2%	0.1%	0.0%	0.0%
Other	--	5.2%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Cash	0.0%	--	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>5.5%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.2%</b>	<b>-0.3%</b>	<b>-0.1%</b>	<b>0.3%</b>	<b>0.1%</b>
<b>Totals</b>									
Developed	5.5%	5.4%	98.1%	100.0%	0.2%	0.0%	-0.1%	0.0%	0.1%
Emerging*	3.9%	--	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.0%	--	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



# Howard County Retirement Plans

## INTERNATIONAL DEVELOPED MARKETS COMPOSITE

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
United States	1.7%	0.0%	19.9%	8.8%
<b>Total-Americas</b>	<b>1.7%</b>	<b>0.0%</b>	<b>19.9%</b>	<b>--</b>
<b>Europe</b>				
Denmark	0.6%	2.4%	25.8%	13.2%
Finland	0.9%	1.0%	-0.2%	11.4%
France	8.1%	11.2%	12.4%	9.6%
Germany	5.5%	9.5%	11.6%	5.3%
Italy	2.7%	2.5%	-1.2%	3.3%
Luxembourg	1.1%	0.0%	2.9%	5.4%
Netherlands	2.9%	4.2%	8.2%	7.4%
Portugal	0.7%	0.2%	10.3%	-1.4%
Spain	3.4%	2.4%	9.8%	5.2%
Sweden	6.7%	3.6%	8.4%	6.1%
Switzerland	3.4%	9.2%	12.4%	12.1%
United Kingdom	19.4%	14.2%	4.7%	6.1%
<b>Total-Europe</b>	<b>55.5%</b>	<b>62.8%</b>	<b>7.9%</b>	<b>7.8%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	2.2%	7.0%	15.2%	6.8%
Hong Kong	5.8%	3.3%	4.4%	2.1%
Japan	28.4%	24.9%	0.4%	-0.3%
New Zealand	1.3%	0.3%	-1.1%	-4.9%
Singapore	3.1%	1.1%	0.2%	0.4%
Taiwan*	1.5%	0.0%	3.9%	6.0%
<b>Total-AsiaPacific</b>	<b>42.4%</b>	<b>36.6%</b>	<b>1.8%</b>	<b>1.2%</b>
<b>Totals</b>				
Developed	98.1%	100.0%	5.5%	5.4%
Emerging*	1.5%	0.0%	3.9%	--
Cash	0.4%		0.0%	

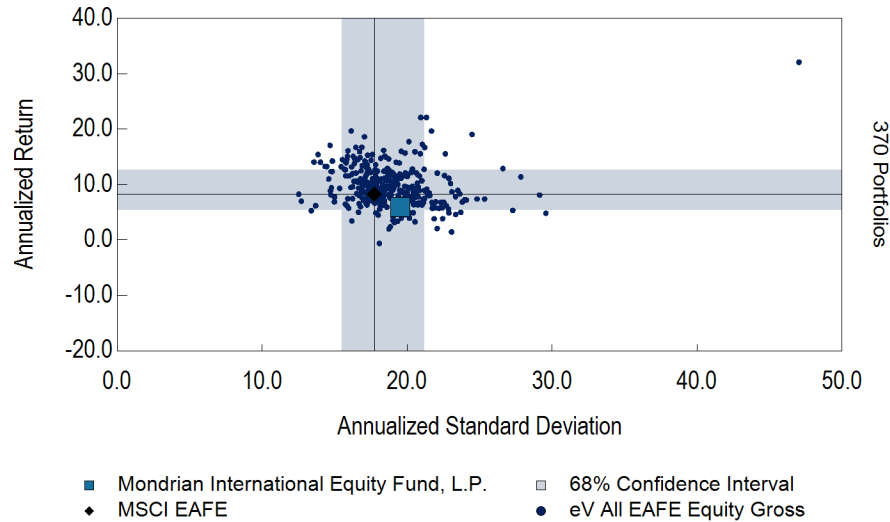
Country\* = Emerging Markets



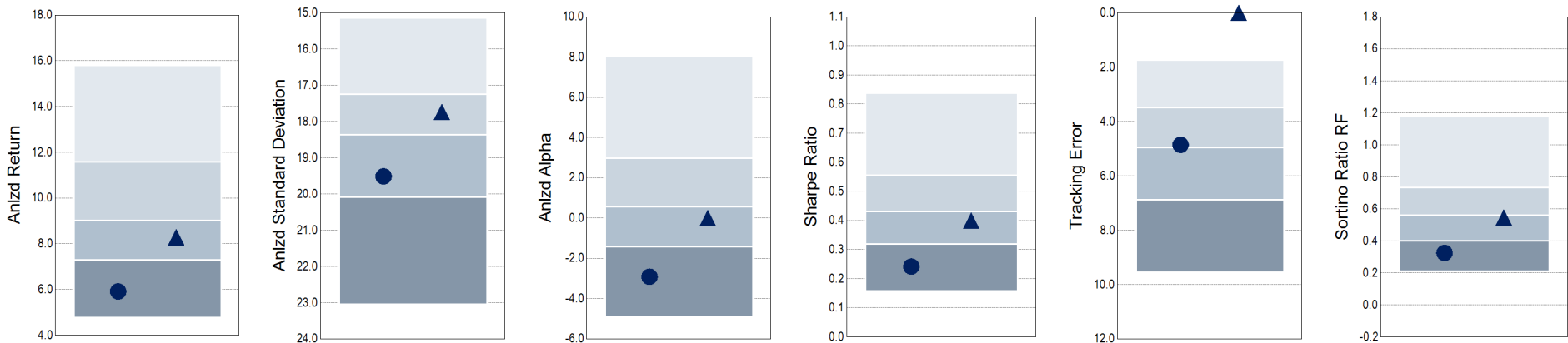
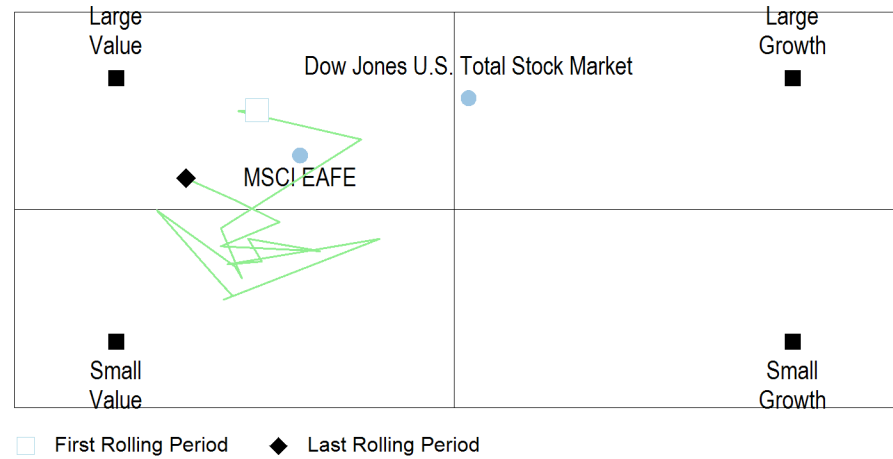
# Howard County Retirement Plans

## MONDRIAN INTERNATIONAL EQUITY FUND, L.P.

3 Year Risk Return



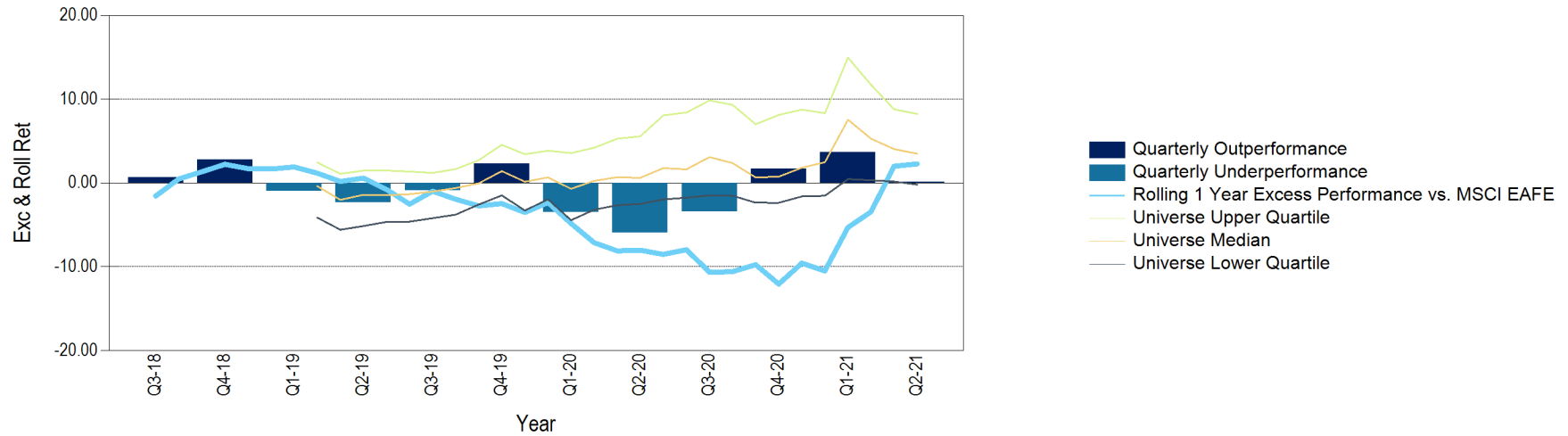
3 Year Style Map



# Howard County Retirement Plans

## MONDRIAN INTERNATIONAL EQUITY FUND, L.P.

Annualized Excess Performance



eV All EAFE Equity Gross Return Comparison



# Howard County Retirement Plans

## MONDRIAN INTERNATIONAL EQUITY FUND, L.P.

Top Ten Holdings	
SANOFI	3.5%
GLAXOSMITHKLINE PLC	3.4%
FUJIFILM HOLDINGS CORP	3.3%
CK HUTCHISON HOLDINGS LTD	3.3%
BANCO SANTANDER SA	3.2%
LLOYDS BANKING GROUP PLC	3.2%
HONDA MOTOR CO LTD	3.1%
UNITED OVERSEAS BANK LTD	3.1%
SCOTTISH AND SOUTHERN ENERGY PLC	3.0%
ROYAL DUTCH SHELL PLC	2.9%

Top Positive Contributors		
	Relative Contribution %	Return %
FUJIFILM HOLDINGS CORP	0.7%	25.0%
COMPAGNIE DE SAINT GOBAIN SA	0.4%	14.1%
KINGFISHER PLC	0.4%	17.5%
FUJITSU LTD	0.4%	29.6%
BANCO SANTANDER SA	0.3%	13.2%
LLOYDS BANKING GROUP PLC	0.3%	11.5%
ISS A/S	0.3%	25.8%
WH GROUP LTD	0.3%	12.9%
GLAXOSMITHKLINE PLC	0.3%	12.0%
SANOFI	0.3%	10.0%

Top Negative Contributors		
	Relative Contribution %	Return %
SEKISUI CHEMICAL CO LTD	-0.2%	-10.9%
TAKEDA PHARMACEUTICAL CO LTD	-0.2%	-7.0%
COCA-COLA BOTTLERS JAPAN HOLDINGS INC	-0.1%	-9.0%
ENEL ENTE NAZIONALE PER L'ENERGIA ELETTRICA SPA, ROMA	-0.1%	-6.8%
SONY GROUP CORPORATION	-0.1%	-7.0%
MITSUBISHI ELECTRIC CORP	-0.1%	-4.7%
HITACHI LTD	-0.1%	26.7%
KYOCERA CORP	-0.1%	-2.6%
TOYOTA INDUSTRIES CORP	-0.1%	-2.9%

	Equity Sector Attribution										
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.1%	0.1%	-0.1%	0.1%	5.4%	3.2%	7.3%	3.3%			
Materials	-0.2%	-0.6%	0.0%	0.4%	-1.5%	5.4%	2.7%	8.0%			
Industrials	0.3%	0.3%	0.0%	0.0%	5.8%	4.0%	15.7%	15.8%			
Consumer Discretionary	-0.4%	-0.3%	0.0%	-0.1%	2.1%	5.5%	12.3%	12.6%			
Consumer Staples	-0.5%	-0.5%	-0.1%	0.1%	3.2%	8.8%	6.0%	10.3%			
Health Care	-0.6%	-0.5%	0.1%	-0.1%	4.7%	9.5%	13.9%	12.0%			
Financials	0.6%	0.7%	0.1%	-0.1%	7.6%	3.5%	14.5%	17.5%			
Information Technology	0.4%	0.3%	0.1%	0.1%	11.9%	8.4%	10.4%	8.7%			
Communication Services	0.1%	0.2%	-0.1%	0.1%	3.6%	0.3%	8.4%	5.2%			
Utilities	-0.1%	0.1%	-0.3%	0.1%	1.2%	-0.9%	7.9%	3.7%			
Real Estate	0.0%	--	0.0%	--	--	5.4%	0.0%	3.1%			
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	--	0.8%	0.0%			
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>-0.4%</b>	<b>+</b>	<b>-0.5%</b>	<b>+</b>	<b>0.7%</b>	<b>5.1%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>

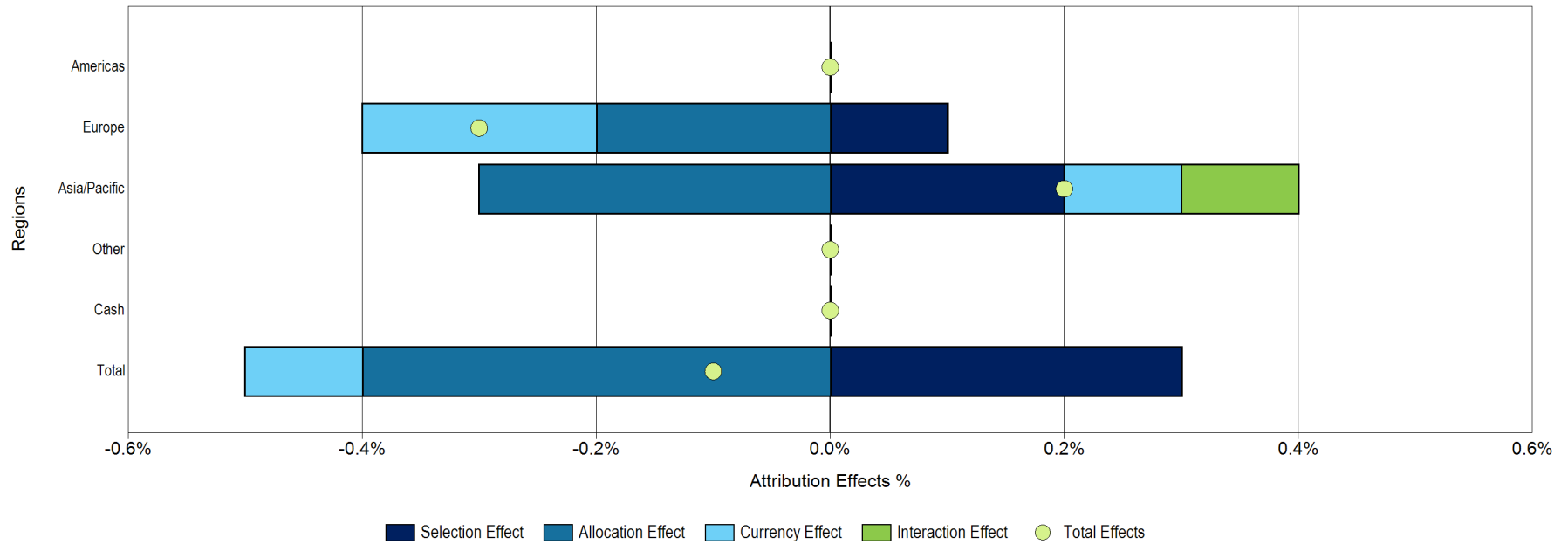
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

## MONDRIAN INTERNATIONAL EQUITY FUND, L.P.

Mondrian International Equity Fund, L.P. Performance Attribution vs. MSCI EAFE



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	--	--	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Europe	7.7%	7.8%	54.5%	62.8%	0.1%	-0.2%	-0.2%	0.0%	-0.3%
Asia/Pacific	2.3%	1.2%	44.7%	36.6%	0.2%	-0.3%	0.1%	0.1%	0.2%
Other	--	5.2%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Cash	0.0%	--	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>5.2%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.3%</b>	<b>-0.4%</b>	<b>-0.1%</b>	<b>0.0%</b>	<b>-0.1%</b>
<b>Totals</b>									
Developed	5.3%	5.4%	96.2%	100.0%	0.1%	0.0%	-0.1%	0.0%	-0.1%
Emerging*	3.9%	--	2.9%	0.0%	0.0%	0.0%	0.1%	-0.1%	0.0%
Cash	0.0%	--	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



# Howard County Retirement Plans

## MONDRIAN INTERNATIONAL EQUITY FUND, L.P.

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Europe</b>				
Denmark	1.2%	2.4%	25.8%	13.2%
France	9.7%	11.2%	12.0%	9.6%
Germany	2.7%	9.5%	-1.5%	5.3%
Italy	5.3%	2.5%	-1.2%	3.3%
Spain	4.7%	2.4%	10.5%	5.2%
Sweden	2.4%	3.6%	5.2%	6.1%
Switzerland	4.7%	9.2%	6.8%	12.1%
United Kingdom	23.7%	14.2%	8.0%	6.1%
<b>Total-Europe</b>	<b>54.5%</b>	<b>62.8%</b>	<b>7.7%</b>	<b>7.8%</b>

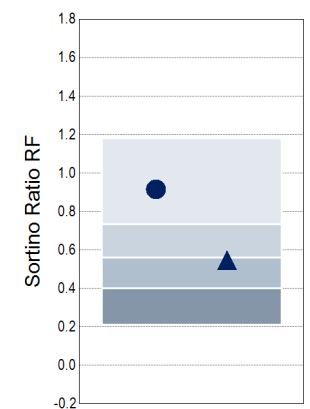
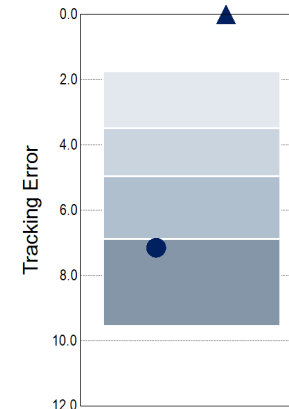
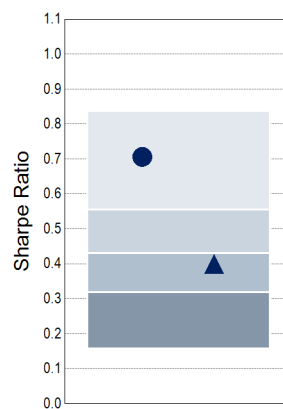
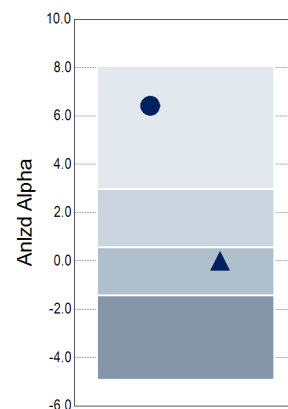
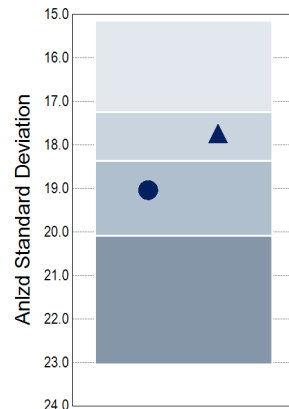
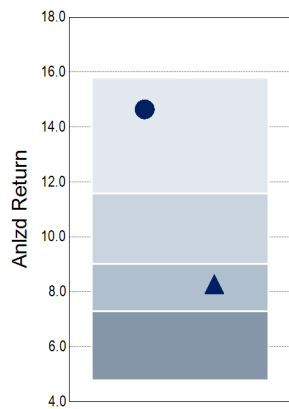
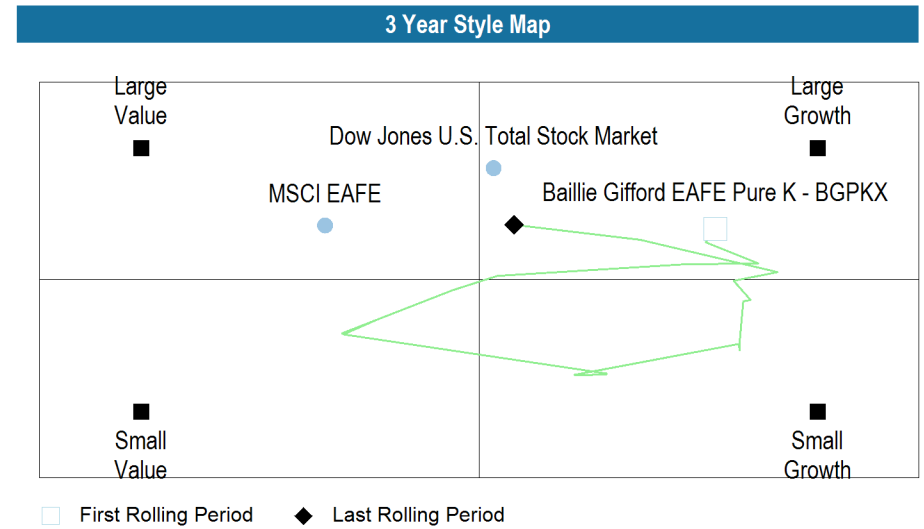
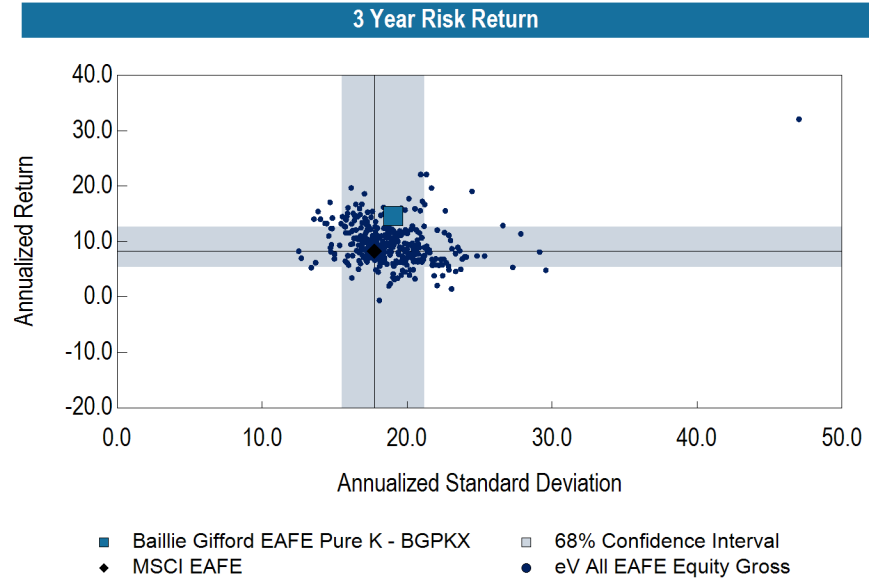
Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	0.9%	7.0%	10.5%	6.8%
Hong Kong	6.2%	3.3%	5.4%	2.1%
Japan	30.2%	24.9%	1.6%	-0.3%
Singapore	4.4%	1.1%	-0.2%	0.4%
Taiwan*	2.9%	0.0%	3.9%	6.0%
<b>Total-AsiaPacific</b>	<b>44.7%</b>	<b>36.6%</b>	<b>2.3%</b>	<b>1.2%</b>
<b>Totals</b>				
Developed	96.2%	100.0%	5.3%	5.4%
Emerging*	2.9%	0.0%	3.9%	--
Cash	0.8%		0.0%	

Country\* = Emerging Markets



# Howard County Retirement Plans

## BAILLIE GIFFORD EAFE PURE K - BGPKX

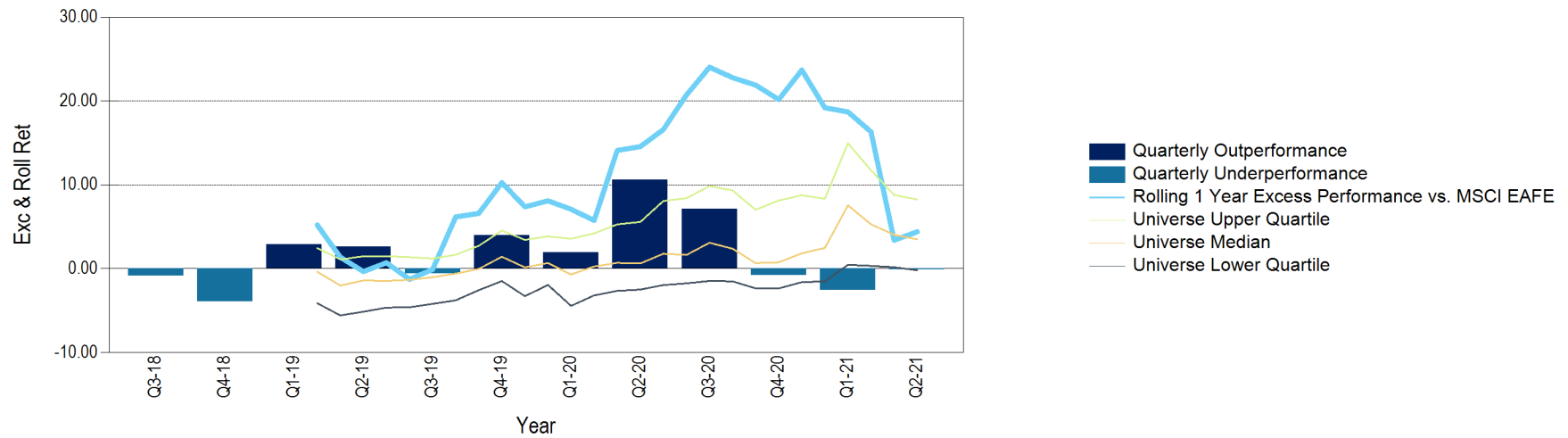




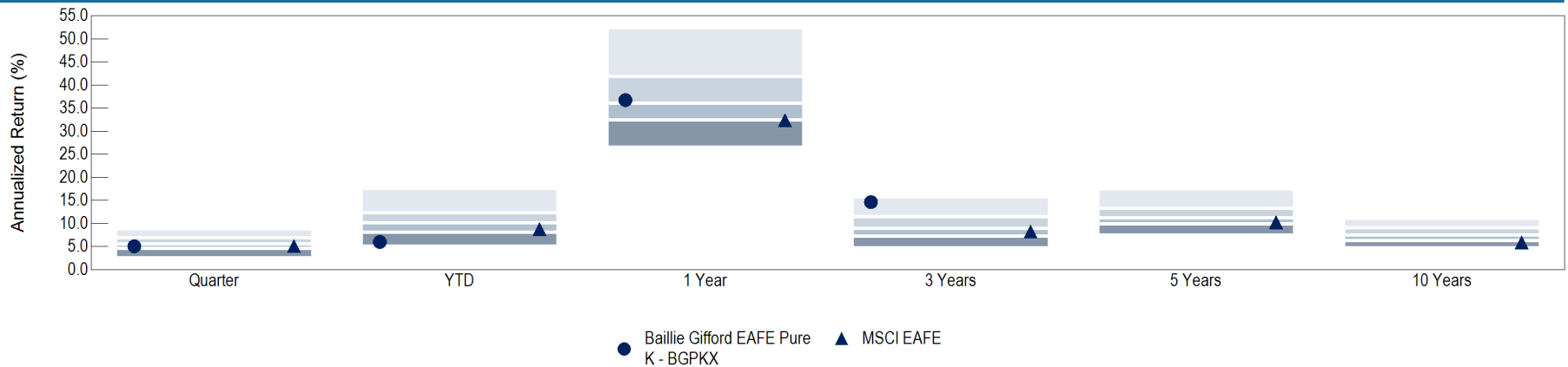
# Howard County Retirement Plans

## BAILLIE GIFFORD EAFE PURE K - BGPKX

Annualized Excess Performance



eV All EAFE Equity Gross Return Comparison



# Howard County Retirement Plans

## BAILLIE GIFFORD EAFE PURE K - BGPKX

Top Ten Holdings	
ASML HOLDING NV	4.1%
METTLER-TOLEDO INTERNATIONAL INC	3.8%
ZALANDO SE	3.7%
ATLAS COPCO AB	2.9%
AIA GROUP LTD	2.8%
AVANZA BANK HOLDING AB	2.8%
NIBE INDUSTRIER AB, MARKARYD	2.7%
SHIMANO INC	2.4%
SARTORIUS SHS.PREF.	2.4%
CIE FINANCIERE RICHEMONT AG, ZUG	2.3%

Top Positive Contributors		
	Relative Contribution %	Return %
NIBE INDUSTRIER AB, MARKARYD	0.8%	36.2%
ZALANDO SE	0.7%	23.1%
METTLER-TOLEDO INTERNATIONAL INC	0.7%	19.9%
CIE FINANCIERE RICHEMONT AG, ZUG	0.4%	25.8%
ASML HOLDING NV	0.4%	13.5%
COCHLEAR LTD	0.3%	17.5%
KERING	0.3%	27.5%
AUTO TRADER GROUP PLC	0.3%	14.5%
RIGHTMOVE PLC	0.2%	12.6%
SEEK LTD	0.2%	15.3%

Top Negative Contributors		
	Relative Contribution %	Return %
TRAINLINE PLC	-0.4%	-35.9%
HOMESERVE PLC	-0.2%	-20.2%
SOFTBANK GROUP CORP	-0.2%	-16.9%
ASOS PLC	-0.2%	-10.1%
PIGEON CORP	-0.2%	-24.9%
RYMAN HEALTHCARE LTD	-0.1%	-13.4%
PROSUS ORD	-0.1%	-12.1%
UBI SOFT ENTERTAINMENT SA	-0.1%	-8.1%
OLYMPUS CORP	-0.1%	-3.9%
NIDEC CORP	-0.1%	-4.5%

	Equity Sector Attribution										
	Total Effects	Selection Effect	Attribution Effects				Returns		Sector Weights		
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	-0.7%	0.1%	0.6%	-18.6%	3.2%	0.4%	3.3%			
Materials	-0.1%	-0.1%	0.0%	0.1%	3.9%	5.4%	1.5%	8.0%			
Industrials	-0.1%	-0.1%	-0.1%	0.0%	3.5%	4.0%	21.1%	15.8%			
Consumer Discretionary	0.6%	0.3%	0.0%	0.3%	7.9%	5.5%	22.9%	12.6%			
Consumer Staples	-0.5%	-0.5%	-0.1%	0.1%	3.1%	8.8%	7.6%	10.3%			
Health Care	-0.1%	0.1%	0.0%	-0.2%	9.1%	9.5%	10.9%	12.0%			
Financials	0.1%	0.0%	0.1%	0.0%	3.9%	3.5%	11.4%	17.5%			
Information Technology	0.1%	0.0%	0.1%	0.0%	8.0%	8.4%	11.8%	8.7%			
Communication Services	0.1%	0.2%	-0.3%	0.3%	4.0%	0.3%	12.3%	5.2%			
Utilities	0.2%	--	0.2%	--	--	-0.9%	0.0%	3.7%			
Real Estate	0.0%	--	0.0%	--	--	5.4%	0.0%	3.1%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>0.3%</b>	<b>=</b>	<b>-0.9%</b>	<b>+</b>	<b>-0.1%</b>	<b>+</b>	<b>1.3%</b>	<b>5.6%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>

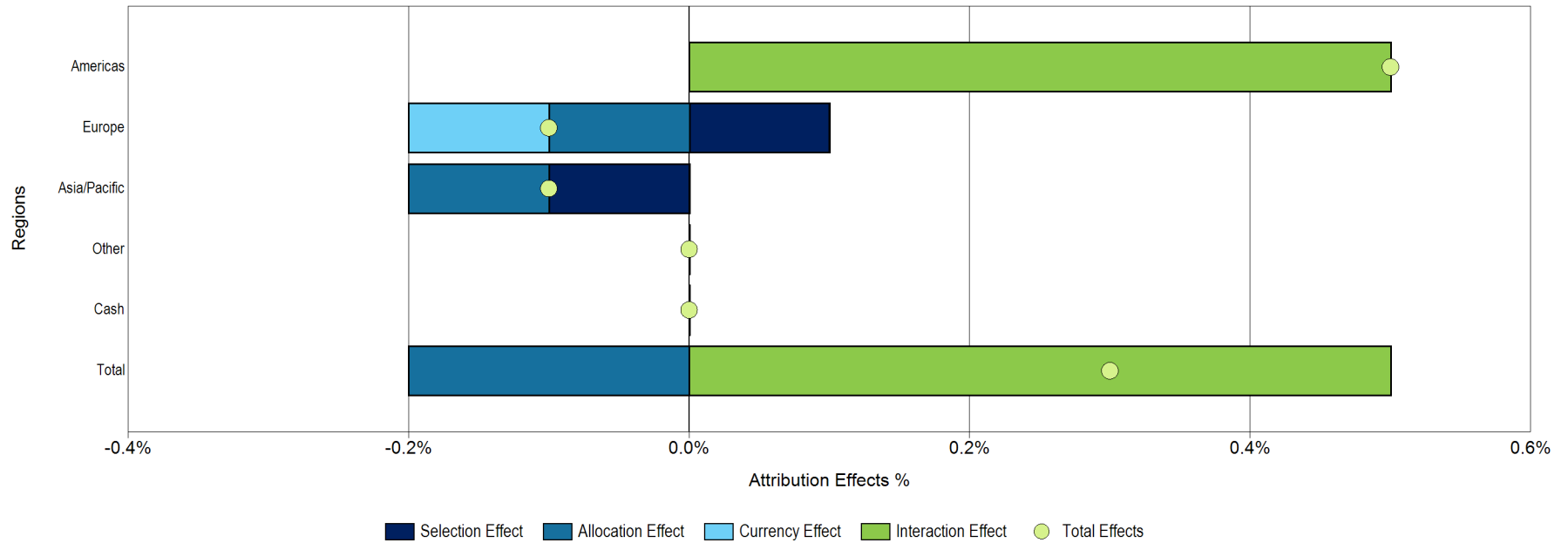
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

## BAILLIE GIFFORD EAFE PURE K - BGPKX

Baillie Gifford EAFE Pure K - BGPKX Performance Attribution vs. MSCI EAFE



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	19.9%	--	3.6%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%
Europe	8.0%	7.8%	56.5%	62.8%	0.1%	-0.1%	-0.1%	0.0%	-0.1%
Asia/Pacific	1.2%	1.2%	39.9%	36.6%	-0.1%	-0.1%	0.0%	0.0%	-0.1%
Other	--	5.2%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Cash	--	--	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
<b>Total</b>	<b>5.7%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>-0.2%</b>	<b>0.0%</b>	<b>0.5%</b>	<b>0.3%</b>
<b>Totals</b>									
Developed	5.7%	5.4%	100.0%	100.0%	0.3%	0.0%	0.0%	0.0%	0.3%



# Howard County Retirement Plans

## BAILLIE GIFFORD EAFE PURE K - BGPKX

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
United States	3.6%	0.0%	19.9%	8.8%
<b>Total-Americas</b>	<b>3.6%</b>	<b>0.0%</b>	<b>19.9%</b>	<b>--</b>
<b>Europe</b>				
Finland	1.8%	1.0%	-0.2%	11.4%
France	6.5%	11.2%	13.0%	9.6%
Germany	8.4%	9.5%	16.1%	5.3%
Luxembourg	2.2%	0.0%	2.9%	5.4%
Netherlands	5.9%	4.2%	8.2%	7.4%
Portugal	1.5%	0.2%	10.3%	-1.4%
Spain	2.0%	2.4%	8.1%	5.2%
Sweden	11.3%	3.6%	9.1%	6.1%
Switzerland	2.1%	9.2%	25.8%	12.1%
United Kingdom	15.0%	14.2%	-0.7%	6.1%
<b>Total-Europe</b>	<b>56.5%</b>	<b>62.8%</b>	<b>8.0%</b>	<b>7.8%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	3.6%	7.0%	16.6%	6.8%
Hong Kong	5.4%	3.3%	3.1%	2.1%
Japan	26.5%	24.9%	-1.1%	-0.3%
New Zealand	2.6%	0.3%	-1.1%	-4.9%
Singapore	1.8%	1.1%	1.5%	0.4%
<b>Total-AsiaPacific</b>	<b>39.9%</b>	<b>36.6%</b>	<b>1.2%</b>	<b>1.2%</b>
<b>Totals</b>				
Developed	100.0%	100.0%	5.7%	5.4%

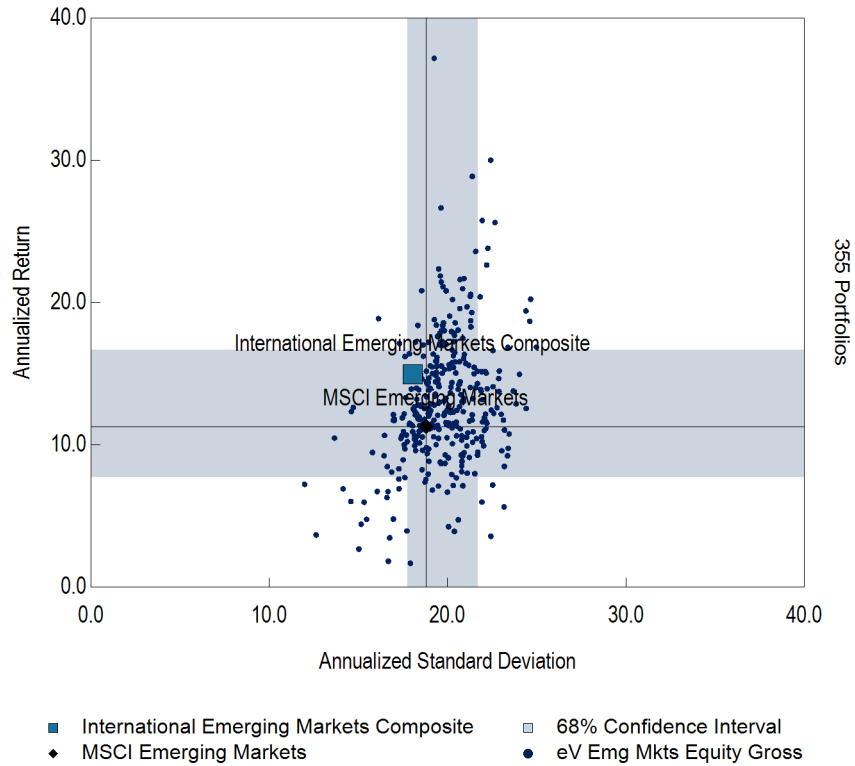
Country\* = Emerging Markets



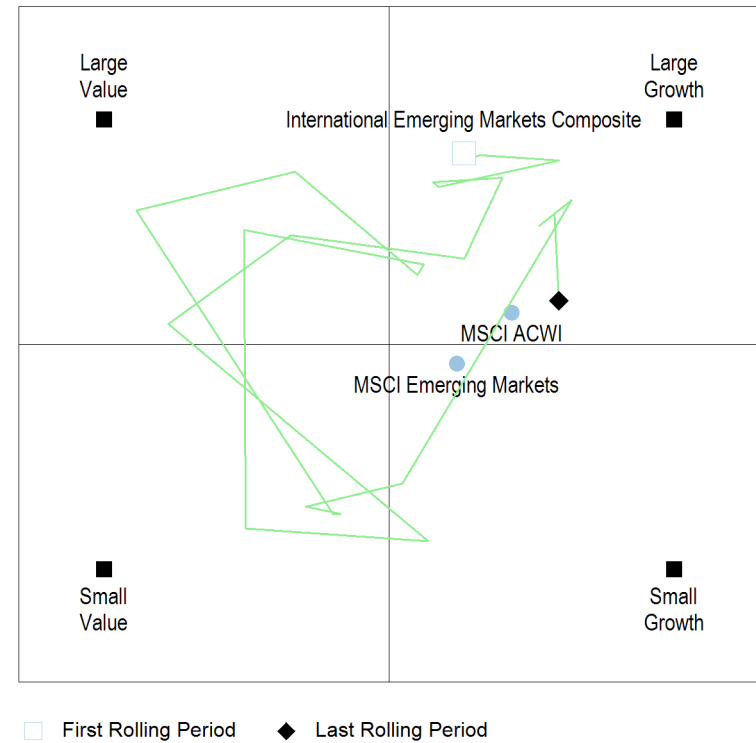
# Howard County Retirement Plans

## INTERNATIONAL EMERGING MARKETS COMPOSITE

3 Year Risk Return



3 Year Style Analysis



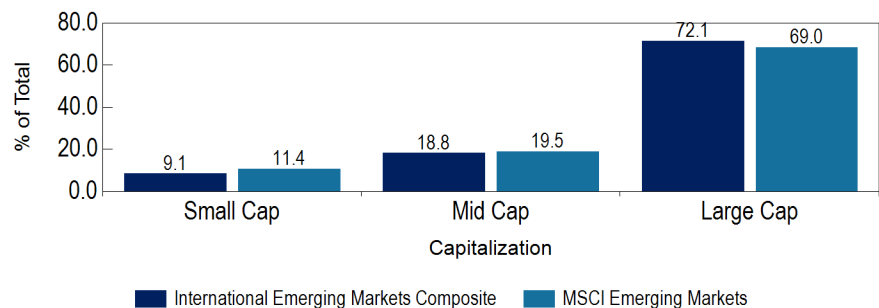
# Howard County Retirement Plans

## INTERNATIONAL EMERGING MARKETS COMPOSITE

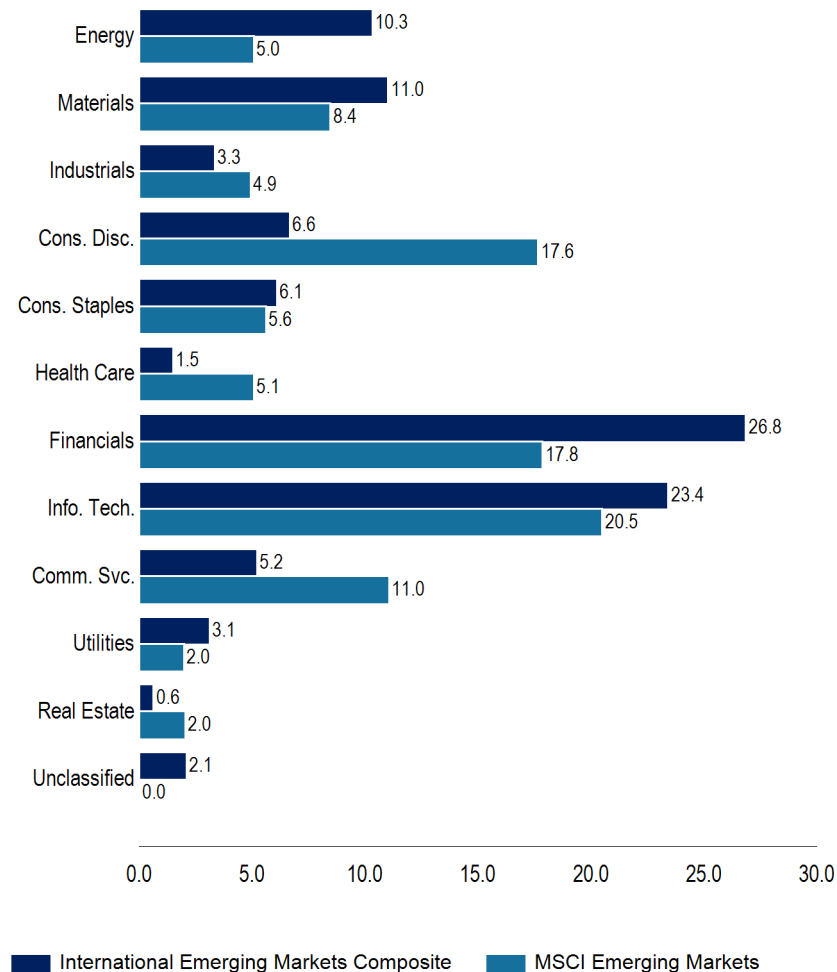
Characteristics		
	Portfolio	MSCI Emerging Markets
Number of Holdings	111	1,411
Weighted Avg. Market Cap. (\$B)	117.8	169.1
Median Market Cap. (\$B)	26.4	7.3
Price To Earnings	12.4	16.4
Price To Book	2.5	3.1
Price To Sales	1.0	1.5
Return on Equity (%)	13.3	12.5
Yield (%)	3.4	2.1
Beta	0.9	1.0
R-Squared	0.9	1.0

	Portfolio Q2-21	Index Q2-21
Region Weighting		
Americas	17.64	8.16
Europe	15.14	4.67
Asia/Pacific	63.29	77.68
Other	3.92	9.49

**Market Capitalization**  
As of June 30, 2021



**Equity Sector Allocation**



# Howard County Retirement Plans

## INTERNATIONAL EMERGING MARKETS COMPOSITE

Characteristics	MSCI Emerging Markets	
	Portfolio	MSCI Emerging Markets
Number of Holdings	111	1,411
Weighted Avg. Market Cap. (\$B)	117.8	169.1
Median Market Cap. (\$B)	26.4	7.3
Price To Earnings	12.4	16.4
Price To Book	2.5	3.1
Price To Sales	1.0	1.5
Return on Equity (%)	13.3	12.5
Yield (%)	3.4	2.1
Beta	0.9	1.0
R-Squared	0.9	1.0

Top Positive Contributors	Relative	
	Contribution %	Return %
PETROLEO BRASILEIRO S.A.-PETROBRAS	0.9%	49.3%
TATA STEEL LTD	0.4%	44.6%
BANCO DO BRASIL ON	0.4%	21.0%
ALROSA PJSC	0.4%	31.3%
INFOSYS LTD	0.3%	14.4%
KUNLUN ENERGY CO LTD	0.3%	29.7%
NVIDIA CORPORATION	0.3%	49.9%
VALE SA	0.3%	32.8%
ASML HOLDING NV	0.3%	13.5%
POWSZECHNY ZAKLAD UBEZPIECZEN SA	0.2%	11.6%

Top Negative Contributors	Relative	
	Contribution %	Return %
KAKAO CORP	-0.2%	63.2%
NEW ORIENTAL EDUCATION & TECHNOLOGY GROUP INC	-0.2%	-41.5%
CATCHER CO LTD	-0.2%	-12.2%
LI NING CO LTD	-0.2%	88.6%
COGNIZANT TECHNOLOGY SOLUTIONS CORP	-0.1%	-11.0%
SHANGHAI MECHANICAL & ELECTRICAL INDUSTRY CO LTD	-0.1%	-14.6%
PING AN INSURANCE GROUP	-0.1%	-16.1%
LENOVO GROUP LTD	-0.1%	-19.2%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	-0.1%	3.9%

	Equity Sector Attribution							Returns		Sector Weights	
	Total Effects	Selection Effect	Attribution Effects			Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark	
			Allocation Effect								
Energy	0.9%	0.4%	0.3%		0.3%	20.3%	13.4%	8.3%	4.9%		
Materials	1.3%	1.2%	0.0%		0.2%	23.0%	8.2%	8.9%	8.1%		
Industrials	-0.7%	-0.8%	-0.1%		0.2%	-7.8%	11.1%	3.0%	4.3%		
Consumer Discretionary	-0.9%	-2.1%	0.1%		1.2%	-8.4%	3.6%	7.5%	17.7%		
Consumer Staples	0.1%	0.0%	0.0%		0.1%	6.5%	5.0%	7.6%	5.6%		
Health Care	-0.4%	-0.3%	-0.3%		0.2%	8.3%	14.5%	1.9%	4.5%		
Financials	0.9%	0.5%	-0.1%		0.6%	7.4%	4.1%	28.7%	18.3%		
Information Technology	-0.1%	0.1%	0.0%		-0.1%	3.4%	3.5%	24.5%	21.0%		
Communication Services	0.3%	0.2%	0.2%		-0.2%	3.4%	1.5%	5.4%	11.5%		
Utilities	0.3%	0.2%	0.0%		0.1%	14.7%	4.1%	3.1%	2.0%		
Real Estate	0.1%	0.0%	0.1%		0.0%	-6.0%	-6.5%	1.0%	2.2%		
Cash	0.0%	--	--		--	--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>2.1%</b>	<b>=</b>	<b>-0.7%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>2.6%</b>	<b>7.0%</b>	<b>5.0%</b>	<b>100.0%</b>	<b>100.0%</b>

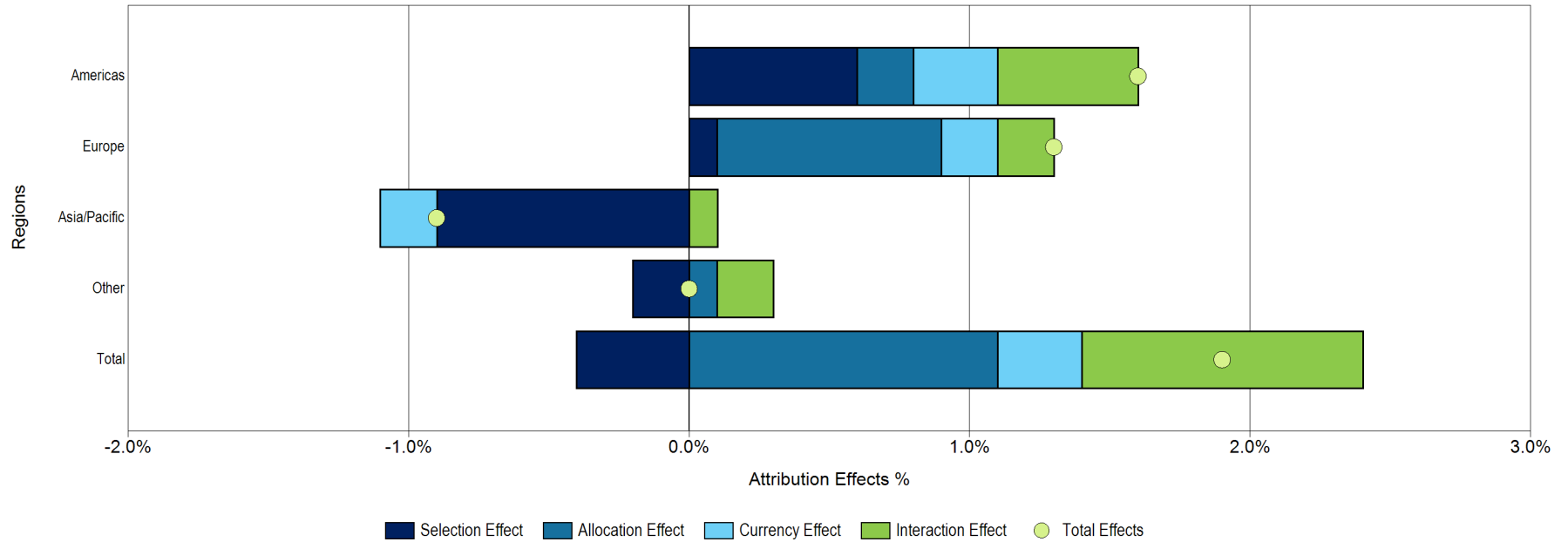
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

## INTERNATIONAL EMERGING MARKETS COMPOSITE

International Emerging Markets Composite Performance Attribution vs. MSCI Emerging Markets



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	22.4%	15.6%	13.0%	7.3%	0.6%	0.2%	0.3%	0.5%	1.6%
Europe	16.2%	15.2%	14.2%	3.9%	0.1%	0.8%	0.2%	0.2%	1.3%
Asia/Pacific	2.3%	3.6%	69.9%	80.1%	-0.9%	0.0%	-0.2%	0.1%	-0.9%
Other	2.4%	3.9%	2.8%	8.7%	-0.2%	0.1%	0.0%	0.2%	0.0%
<b>Total</b>	<b>6.9%</b>	<b>5.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-0.4%</b>	<b>1.1%</b>	<b>0.3%</b>	<b>1.0%</b>	<b>1.9%</b>
<b>Totals</b>									
Developed	7.5%	--	14.1%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%
Emerging*	6.8%	5.0%	85.9%	100.0%	1.4%	0.0%	0.2%	-0.2%	1.4%





# Howard County Retirement Plans

## INTERNATIONAL EMERGING MARKETS COMPOSITE

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Brazil*	9.0%	4.5%	28.9%	24.1%
Mexico*	0.6%	1.7%	15.2%	9.0%
United States	3.5%	0.0%	6.8%	8.8%
<b>Total-Americas</b>	<b>13.0%</b>	<b>7.3%</b>	<b>22.4%</b>	<b>15.6%</b>
<b>Europe</b>				
Czech Republic*	0.4%	0.1%	14.0%	14.1%
Netherlands	2.0%	0.0%	13.5%	7.3%
Poland*	3.2%	0.6%	14.2%	18.9%
Russia*	7.6%	2.8%	17.4%	14.8%
Spain	0.8%	0.0%	20.9%	5.2%
United Kingdom	0.2%	0.0%	14.2%	6.1%
<b>Total-Europe</b>	<b>14.2%</b>	<b>3.9%</b>	<b>16.2%</b>	<b>15.2%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
China*	25.2%	38.0%	-1.0%	2.5%
Hong Kong	6.9%	0.0%	2.8%	2.5%
India*	13.7%	9.7%	9.0%	7.4%
Indonesia*	1.0%	1.2%	-2.7%	-5.3%
Korea*	14.4%	13.4%	3.2%	4.2%
Singapore	0.7%	0.0%	24.9%	0.4%
Taiwan*	6.5%	13.9%	0.3%	6.0%
Thailand*	1.6%	1.9%	-12.0%	-5.1%
<b>Total-AsiaPacific</b>	<b>69.9%</b>	<b>80.1%</b>	<b>2.3%</b>	<b>3.6%</b>
<b>Other</b>				
South Africa*	2.6%	3.8%	0.5%	-1.3%
Turkey*	0.3%	0.3%	20.4%	-0.2%
<b>Total-Other</b>	<b>2.8%</b>	<b>8.7%</b>	<b>2.4%</b>	<b>3.9%</b>
<b>Totals</b>				
Developed	14.1%	0.0%	7.5%	--
Emerging*	85.9%	100.0%	6.8%	5.0%

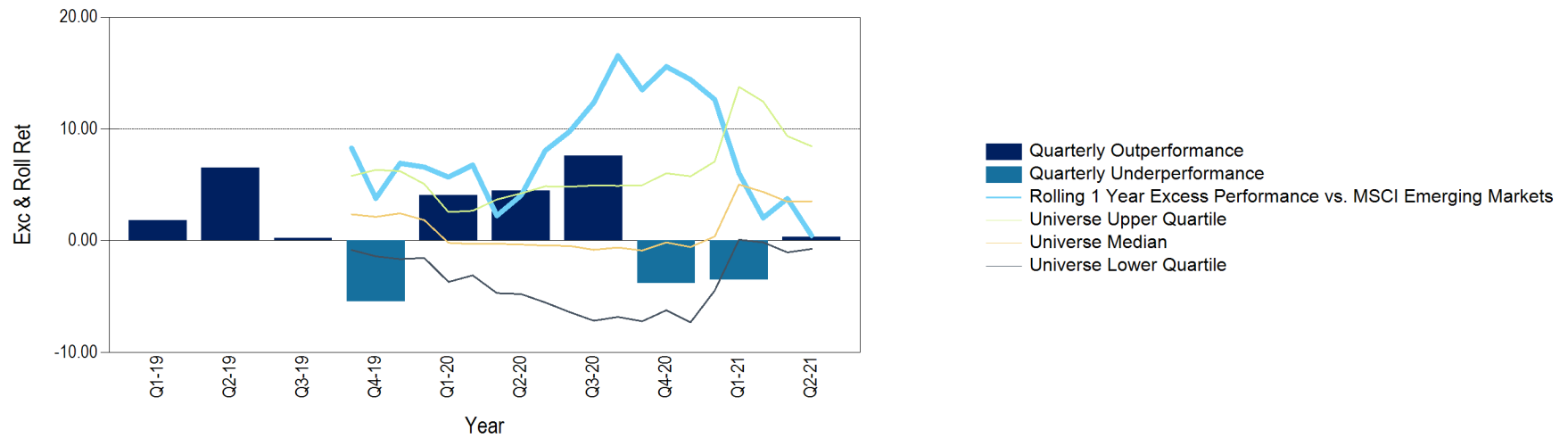
Country\* = Emerging Markets



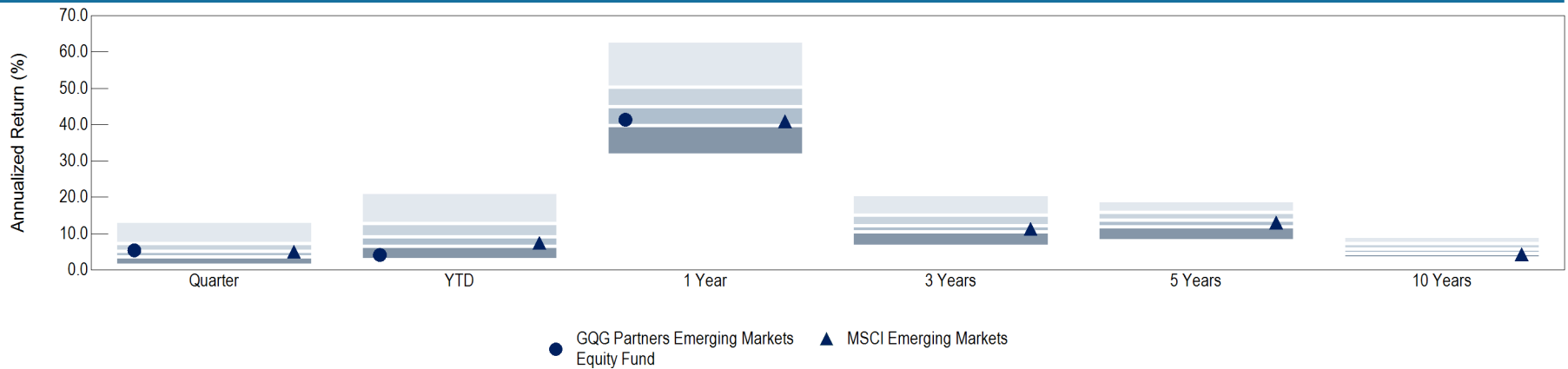
# Howard County Retirement Plans

## GQG PARTNERS EMERGING MARKETS EQUITY FUND

Annualized Excess Performance



eV Emg Mkts Equity Gross Return Comparison



# Howard County Retirement Plans

## GQG PARTNERS EMERGING MARKETS EQUITY FUND

Top Ten Holdings	
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.6%
SAMSUNG ELECTRONICS CO LTD	5.4%
HOUSING DEVELOPMENT FINANCE CORP LTD	4.2%
INFOSYS LTD	4.1%
ASML HOLDING NV	3.9%
VALE SA	3.9%
WULIANGYE ORD A	3.6%
SBERBANK OF RUSSIA	3.5%
TENCENT HOLDINGS LTD	3.5%
RELIANCE INDUSTRIES LTD	3.1%

Top Positive Contributors		
	Relative Contribution %	Return %
VALE SA	0.8%	32.8%
INFOSYS LTD	0.6%	14.4%
NVIDIA CORPORATION	0.5%	49.9%
ASML HOLDING NV	0.5%	13.5%
SBERBANK OF RUSSIA	0.5%	15.5%
WULIANGYE ORD A	0.4%	12.8%
VALE SA	0.4%	33.8%
BANCO BILBAO VIZCAYA ARGENTARIA SA (BBVA)	0.3%	20.9%
MINING AND METALLURGIAL CO NORILSK NICKEL PJSC	0.3%	13.5%
TCS GROUP HOLDING PLC	0.2%	49.9%

Top Negative Contributors		
	Relative Contribution %	Return %
NEW ORIENTAL EDUCATION & TECHNOLOGY GROUP INC	-0.5%	-41.5%
PING AN INSURANCE GROUP	-0.4%	-16.1%
INDUSTRIAL & COMMERCIAL BANK OF CHINA LTD	-0.2%	-12.6%
KAKAO CORP	-0.2%	63.2%
S.F. HOLDING CO LTD	-0.2%	-14.8%
TAL EDUCATION GROUP	-0.2%	-53.1%
JD.COM INC	-0.2%	-5.4%
LI NING CO LTD	-0.2%	88.6%
ITC LTD	-0.1%	-6.2%
HENGRUI MEDI ORD A	-0.1%	-9.9%

Equity Sector Attribution											
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.2%	-0.2%	0.2%	-0.1%	7.3%	13.4%	7.0%	4.9%			
Materials	1.3%	0.9%	0.0%	0.4%	22.8%	8.2%	8.6%	8.1%			
Industrials	-0.6%	-0.8%	-0.1%	0.4%	-8.0%	11.1%	2.1%	4.3%			
Consumer Discretionary	-1.3%	-3.8%	0.1%	2.4%	-18.4%	3.6%	6.1%	17.7%			
Consumer Staples	0.0%	0.0%	0.0%	0.0%	4.5%	5.0%	9.7%	5.6%			
Health Care	-0.7%	-1.0%	-0.2%	0.5%	-6.1%	14.5%	2.2%	4.5%			
Financials	-0.1%	-0.1%	-0.1%	0.0%	3.6%	4.1%	25.4%	18.3%			
Information Technology	1.3%	1.0%	-0.1%	0.4%	8.0%	3.5%	30.5%	21.0%			
Communication Services	0.1%	0.0%	0.1%	0.0%	1.6%	1.5%	6.4%	11.5%			
Utilities	0.0%	--	0.0%	--	--	4.1%	0.0%	2.0%			
Real Estate	0.0%	0.0%	0.0%	0.0%	-6.0%	-6.5%	2.1%	2.2%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.2%</b>	<b>=</b>	<b>-3.9%</b>	<b>+</b>	<b>-0.2%</b>	<b>+</b>	<b>3.8%</b>	<b>4.8%</b>	<b>5.0%</b>	<b>100.0%</b>	<b>100.0%</b>

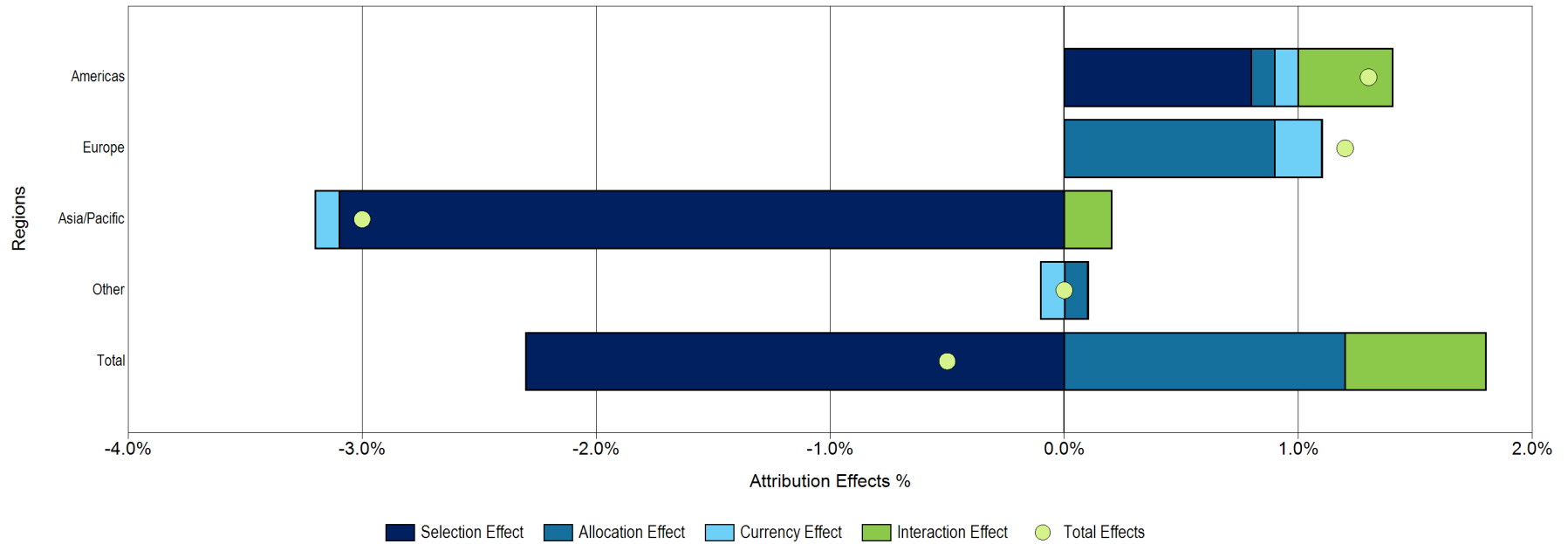
Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# Howard County Retirement Plans

## GQG PARTNERS EMERGING MARKETS EQUITY FUND

GQG Partners Emerging Markets Equity Fund Performance Attribution vs. MSCI Emerging Markets



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	24.6%	15.6%	10.6%	7.3%	0.8%	0.1%	0.1%	0.4%	1.3%
Europe	14.1%	15.2%	15.6%	3.9%	0.0%	0.9%	0.2%	0.0%	1.2%
Asia/Pacific	-0.4%	3.6%	73.7%	80.1%	-3.1%	0.0%	-0.1%	0.2%	-3.0%
Other	--	3.9%	0.0%	8.7%	--	0.1%	-0.1%	--	0.0%
<b>Total</b>	<b>4.5%</b>	<b>5.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-2.3%</b>	<b>1.2%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>-0.5%</b>
<b>Totals</b>									
Developed	12.9%	--	12.5%	0.0%	0.0%	0.0%	0.1%	1.0%	1.1%
Emerging*	3.3%	5.0%	87.5%	100.0%	-1.8%	0.0%	0.0%	0.2%	-1.6%



# Howard County Retirement Plans

## GQG PARTNERS EMERGING MARKETS EQUITY FUND

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Brazil*	6.1%	4.5%	29.7%	24.1%
Mexico*	0.2%	1.7%	3.6%	9.0%
United States	4.2%	0.0%	18.4%	8.8%
<b>Total-Americas</b>	<b>10.6%</b>	<b>7.3%</b>	<b>24.6%</b>	<b>15.6%</b>
<b>Europe</b>				
Netherlands	4.0%	0.0%	13.5%	7.3%
Russia*	9.5%	2.8%	13.1%	14.8%
Spain	1.6%	0.0%	20.9%	5.2%
United Kingdom	0.4%	0.0%	14.2%	6.1%
<b>Total-Europe</b>	<b>15.6%</b>	<b>3.9%</b>	<b>14.1%</b>	<b>15.2%</b>

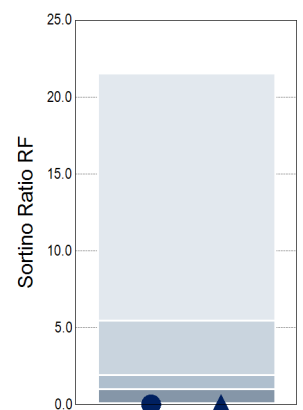
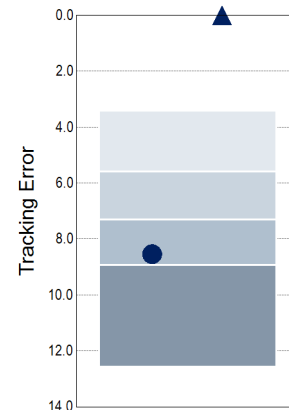
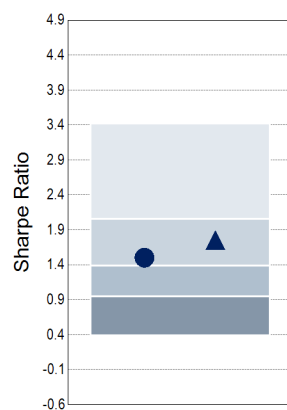
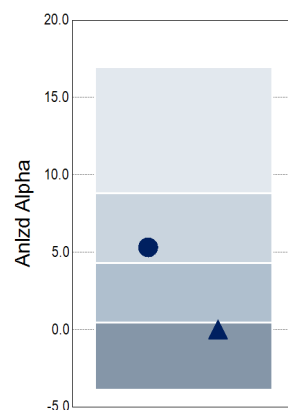
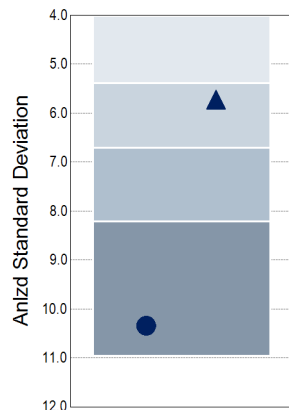
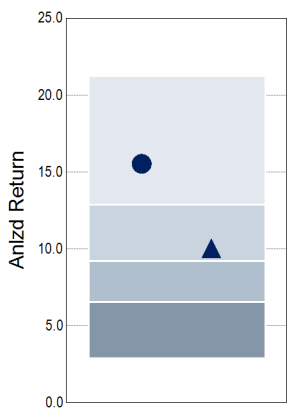
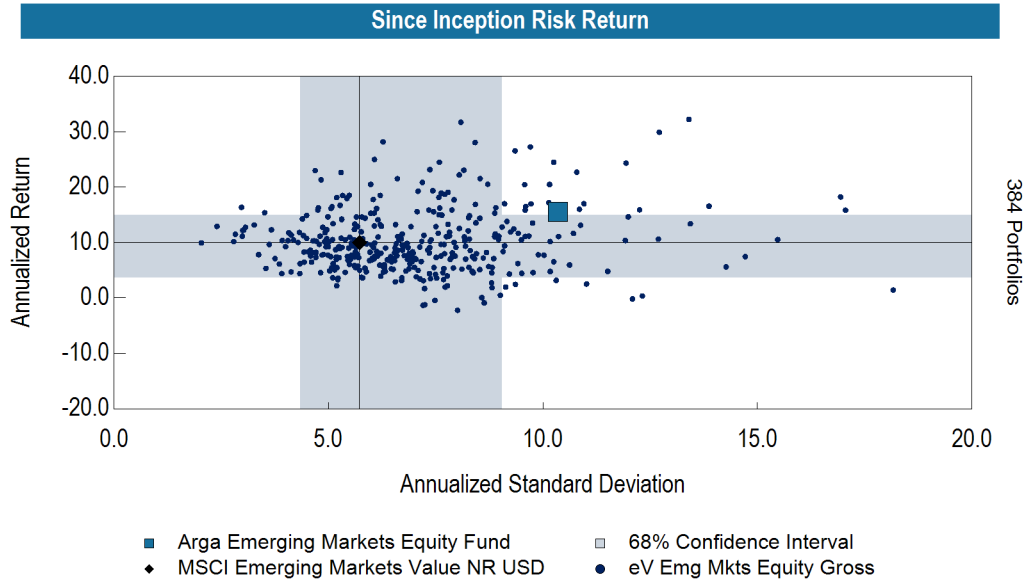
Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
China*	32.4%	38.0%	-4.5%	2.5%
Hong Kong	2.1%	0.0%	-6.0%	2.5%
India*	21.4%	9.7%	4.6%	7.4%
Indonesia*	1.0%	1.2%	-1.5%	-5.3%
Korea*	8.4%	13.4%	-0.3%	4.2%
Taiwan*	8.5%	13.9%	3.6%	6.0%
<b>Total-AsiaPacific</b>	<b>73.7%</b>	<b>80.1%</b>	<b>-0.4%</b>	<b>3.6%</b>
<b>Totals</b>				
Developed	12.5%	0.0%	12.9%	--
Emerging*	87.5%	100.0%	3.3%	5.0%

Country\* = Emerging Markets



# Howard County Retirement Plans

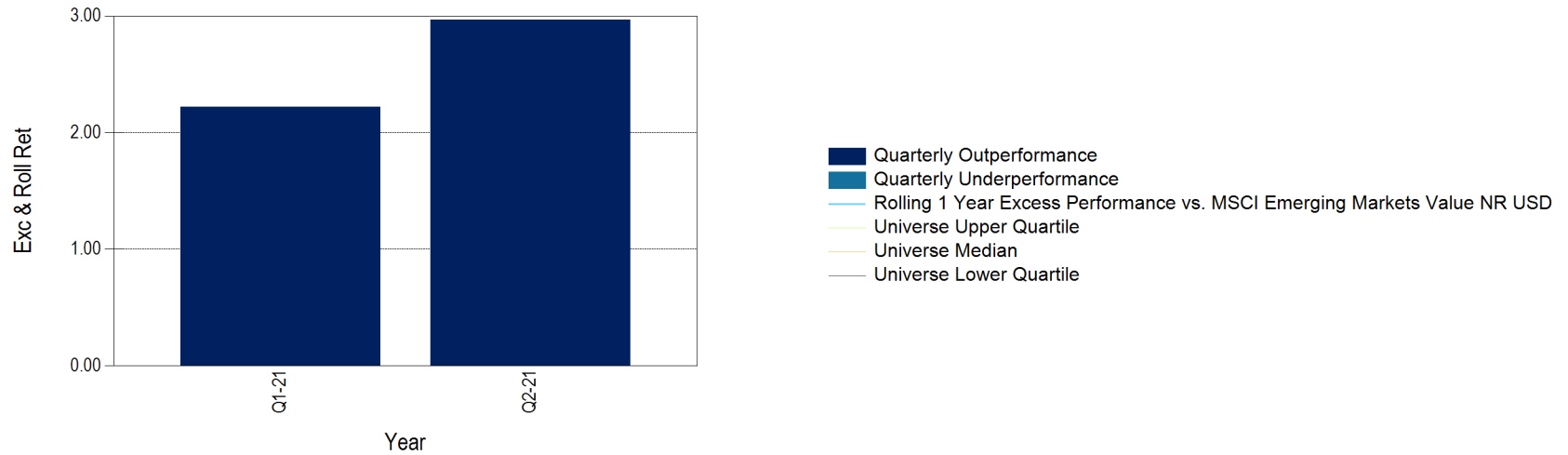
## ARGA EMERGING MARKETS EQUITY FUND



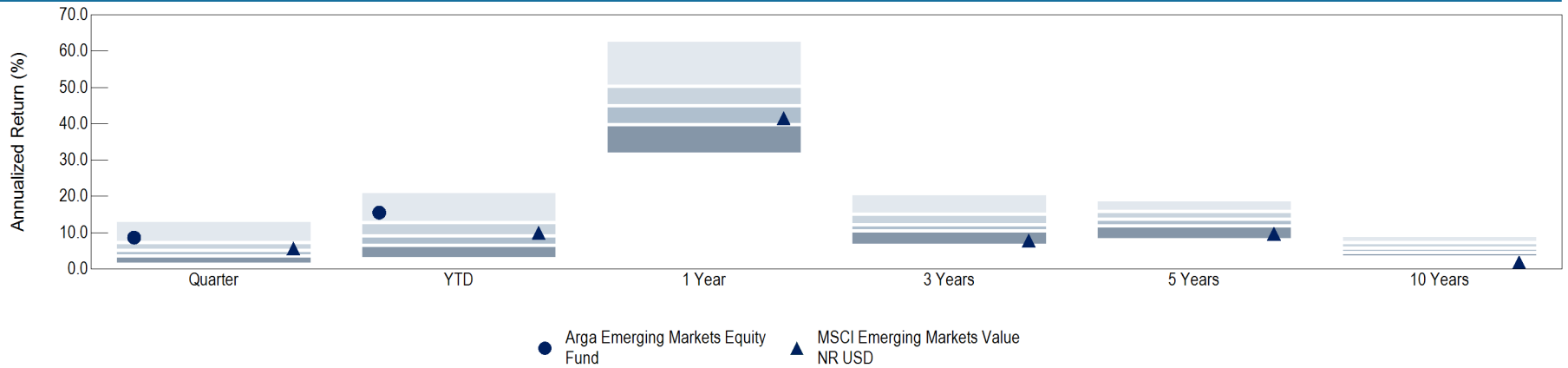
# Howard County Retirement Plans

## ARGA EMERGING MARKETS EQUITY FUND

Annualized Excess Performance



eV Emg Mkts Equity Gross Return Comparison



# Howard County Retirement Plans

## ARGA EMERGING MARKETS EQUITY FUND

Top Ten Holdings	
POSCO	4.4%
POWSZECHNY ZAKLAD UBEZPIECZEN SA	4.2%
BANCO DO BRASIL ON	4.0%
PETROLEO BRASILEIRO S.A.- PETROBRAS	3.5%
SK HYNIX INC	3.3%
SAMSUNG ELECTRONICS CO LTD	3.3%
JBS SA	3.2%
PICC PROPERTY & CASUALTY CO LTD	3.2%
CHINA RESOURCES POWER HOLDINGS CO LTD	2.9%
COGNIZANT TECHNOLOGY SOLUTIONS CORP	2.7%

Top Positive Contributors		
	Relative Contribution %	Return %
PETROLEO BRASILEIRO S.A.- PETROBRAS	1.7%	49.3%
TATA STEEL LTD	0.8%	44.6%
BANCO DO BRASIL ON	0.8%	21.0%
ALROSA PJSC	0.8%	31.3%
KUNLUN ENERGY CO LTD	0.6%	29.7%
POWSZECHNY ZAKLAD UBEZPIECZEN SA	0.5%	11.6%
SINOPHARM GROUP 'H'	0.4%	27.2%
JBS SA	0.4%	11.9%
POWSZECHNA KASA OSZCZEDNOSCI BANK POLSKI S.A.	0.3%	19.8%

Top Negative Contributors		
	Relative Contribution %	Return %
CATCHER CO LTD	-0.3%	-12.2%
COGNIZANT TECHNOLOGY SOLUTIONS CORP	-0.3%	-11.0%
SHANGHAI MECHANICAL & ELECTRICAL INDUSTRY CO LTD	-0.3%	-14.6%
LENOVO GROUP LTD	-0.3%	-19.2%
MELCO RESORTS & ENTERTAINMENT LTD	-0.2%	-16.8%
KRUNG THAI BANK PUBLIC CO LTD	-0.2%	-11.9%
NASPERS LTD	-0.1%	-12.2%
SK HYNIX INC	-0.1%	-4.0%
BANGKOK BANK PUBLIC CO LTD	-0.1%	-10.9%

	Equity Sector Attribution										
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	1.8%	0.8%	0.4%	0.6%	29.6%	17.1%	9.7%	5.5%			
Materials	1.3%	1.5%	0.0%	-0.2%	23.2%	8.5%	9.1%	9.1%			
Industrials	-0.6%	-0.8%	0.0%	0.2%	-7.7%	6.2%	4.0%	5.4%			
Consumer Discretionary	-0.9%	-1.1%	-0.1%	0.3%	-1.5%	7.4%	8.9%	11.5%			
Consumer Staples	0.2%	-0.1%	0.0%	0.3%	9.9%	6.7%	5.5%	5.8%			
Health Care	-0.1%	0.2%	-0.2%	-0.1%	27.2%	19.5%	1.6%	3.1%			
Financials	2.4%	1.9%	-0.1%	0.6%	10.4%	2.9%	32.1%	29.3%			
Information Technology	-1.4%	-1.3%	0.0%	-0.1%	-4.2%	3.5%	18.5%	16.7%			
Communication Services	0.2%	0.3%	0.1%	-0.2%	6.1%	2.6%	4.4%	7.2%			
Utilities	0.6%	0.3%	0.0%	0.3%	14.7%	5.4%	6.2%	2.9%			
Real Estate	0.4%	--	0.4%	--	--	-7.0%	0.0%	3.6%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>3.8%</b>	<b>=</b>	<b>1.7%</b>	<b>+</b>	<b>0.5%</b>	<b>+</b>	<b>1.7%</b>	<b>9.2%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>

Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.

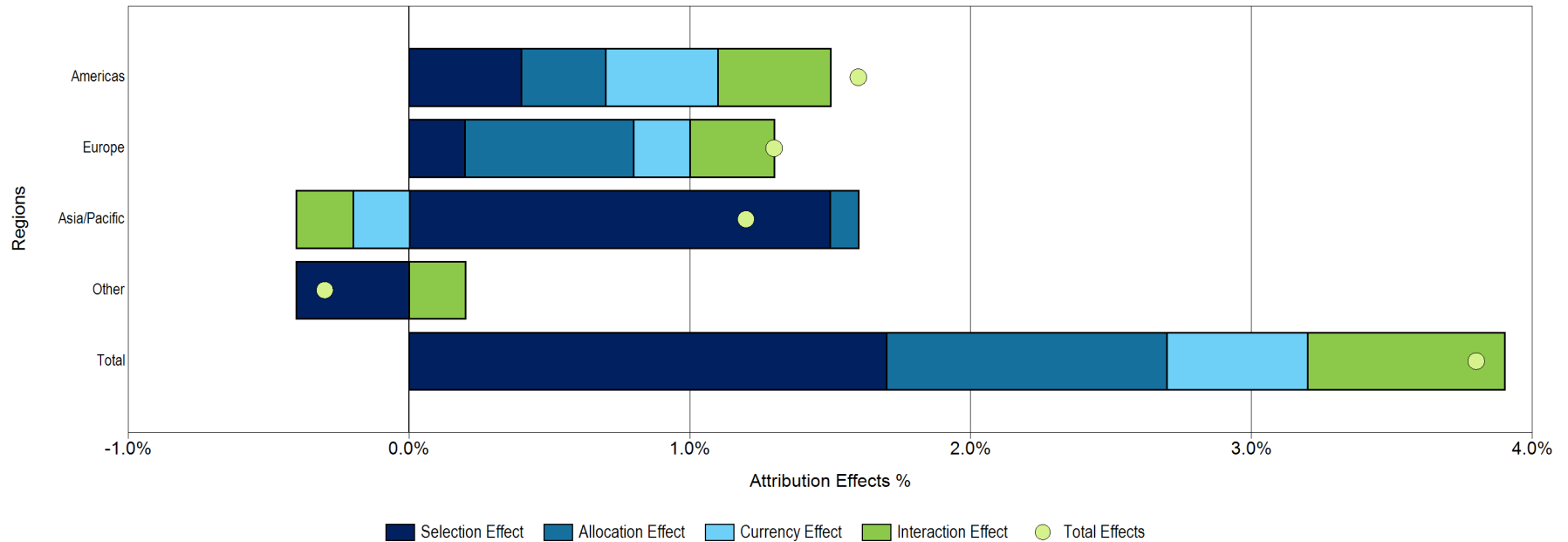




# Howard County Retirement Plans

## ARGA EMERGING MARKETS EQUITY FUND

Arga Emerging Markets Equity Fund Performance Attribution vs. MSCI Emerging Markets Value NR USD



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	20.9%	17.2%	15.4%	7.8%	0.4%	0.3%	0.4%	0.4%	1.6%
Europe	18.7%	15.5%	12.8%	4.5%	0.2%	0.6%	0.2%	0.3%	1.3%
Asia/Pacific	5.3%	3.6%	66.2%	78.7%	1.5%	0.1%	-0.2%	-0.2%	1.2%
Other	2.4%	6.2%	5.6%	9.0%	-0.4%	0.0%	0.0%	0.2%	-0.3%
<b>Total</b>	<b>9.2%</b>	<b>5.4%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>1.7%</b>	<b>1.0%</b>	<b>0.5%</b>	<b>0.7%</b>	<b>3.8%</b>
<b>Totals</b>									
Developed	3.4%	--	15.6%	0.0%	0.0%	0.0%	0.0%	-0.2%	-0.1%
Emerging*	10.3%	5.4%	84.4%	100.0%	4.2%	0.0%	0.4%	-0.7%	4.0%



# Howard County Retirement Plans

## ARGA EMERGING MARKETS EQUITY FUND

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Brazil*	11.7%	4.8%	28.5%	26.5%
Mexico*	1.0%	1.9%	17.8%	9.3%
United States	2.7%	0.0%	-11.0%	8.8%
<b>Total-Americas</b>	<b>15.4%</b>	<b>7.8%</b>	<b>20.9%</b>	<b>17.2%</b>
<b>Europe</b>				
Czech Republic*	0.7%	0.1%	14.0%	14.1%
Poland*	6.3%	0.8%	14.2%	20.3%
Russia*	5.8%	3.4%	24.2%	15.7%
<b>Total-Europe</b>	<b>12.8%</b>	<b>4.5%</b>	<b>18.7%</b>	<b>15.5%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
China*	18.2%	37.4%	5.2%	2.8%
Hong Kong	11.6%	0.0%	4.3%	2.5%
India*	6.3%	10.6%	23.5%	8.1%
Indonesia*	0.9%	1.2%	-3.9%	-7.5%
Korea*	20.3%	13.4%	4.7%	4.6%
Singapore	1.3%	0.0%	24.9%	0.4%
Taiwan*	4.6%	12.0%	-5.8%	3.8%
Thailand*	3.1%	1.9%	-12.0%	-5.4%
<b>Total-AsiaPacific</b>	<b>66.2%</b>	<b>78.7%</b>	<b>5.3%</b>	<b>3.6%</b>
<b>Other</b>				
South Africa*	5.1%	4.1%	0.5%	4.1%
Turkey*	0.5%	0.3%	20.4%	6.1%
<b>Total-Other</b>	<b>5.6%</b>	<b>9.0%</b>	<b>2.4%</b>	<b>6.2%</b>
<b>Totals</b>				
Developed	15.6%	0.0%	3.4%	--
Emerging*	84.4%	100.0%	10.3%	5.4%

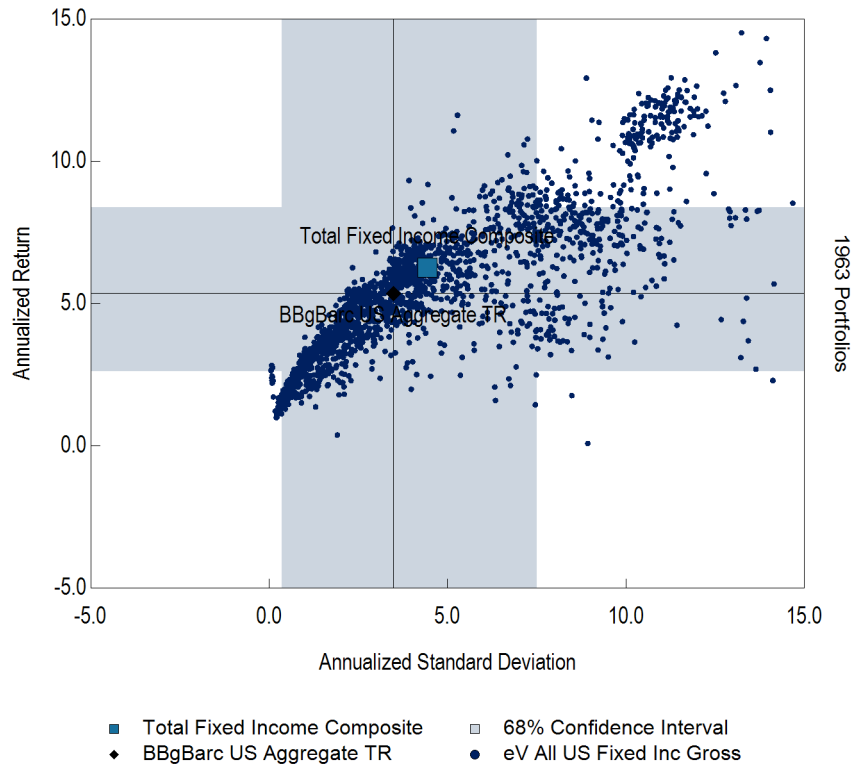
Country\* = Emerging Markets



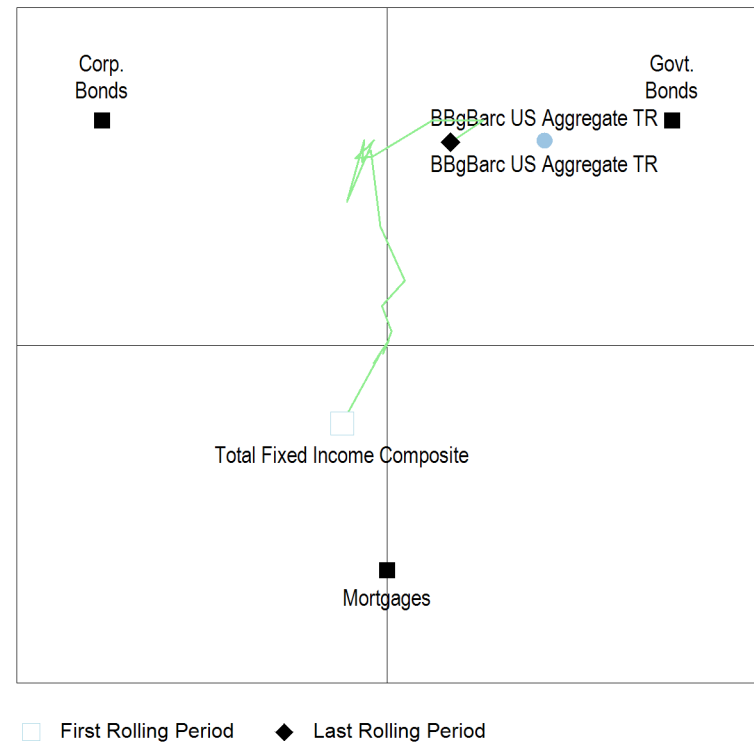
# Howard County Retirement Plans

## TOTAL FIXED INCOME COMPOSITE

3 Year Risk Return

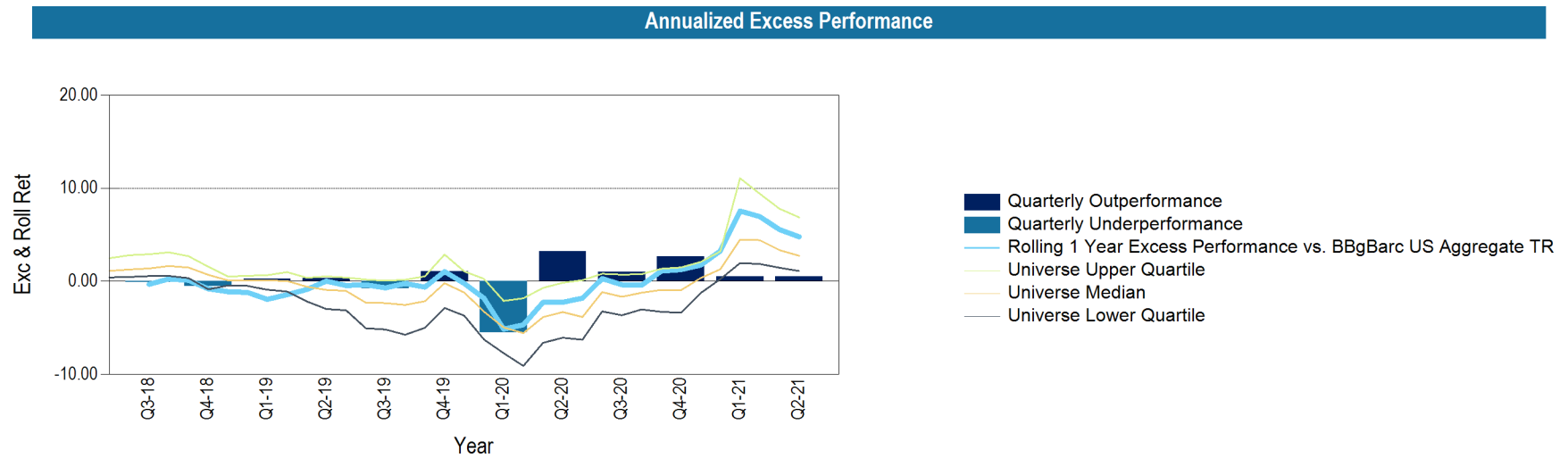


3 Year Style Analysis



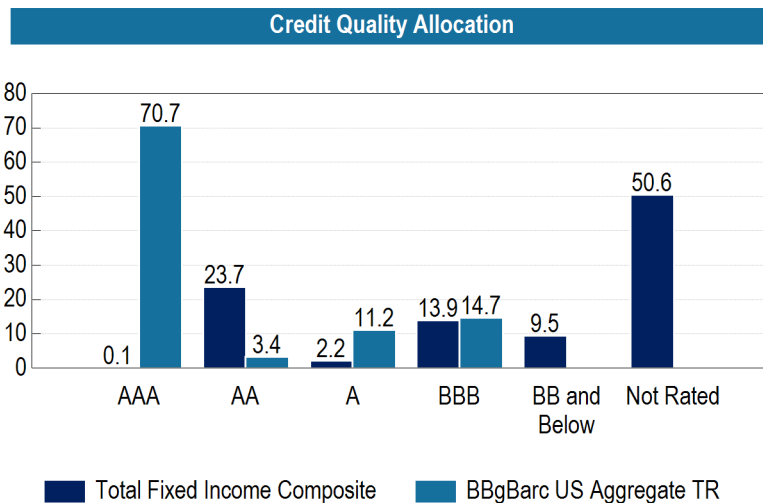
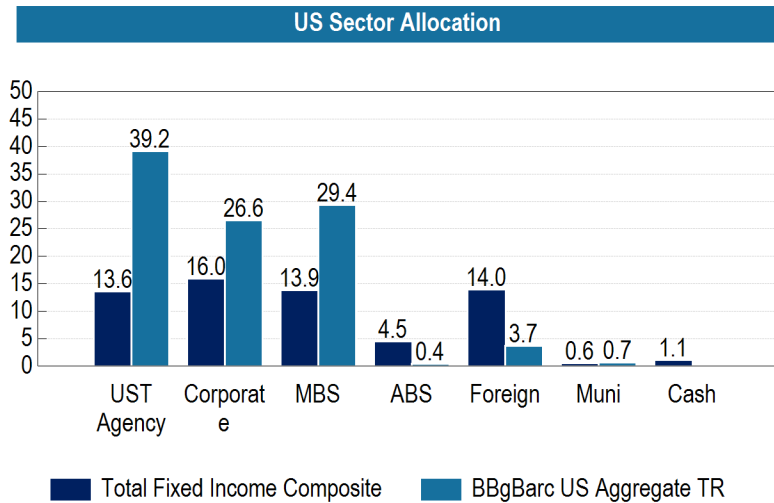
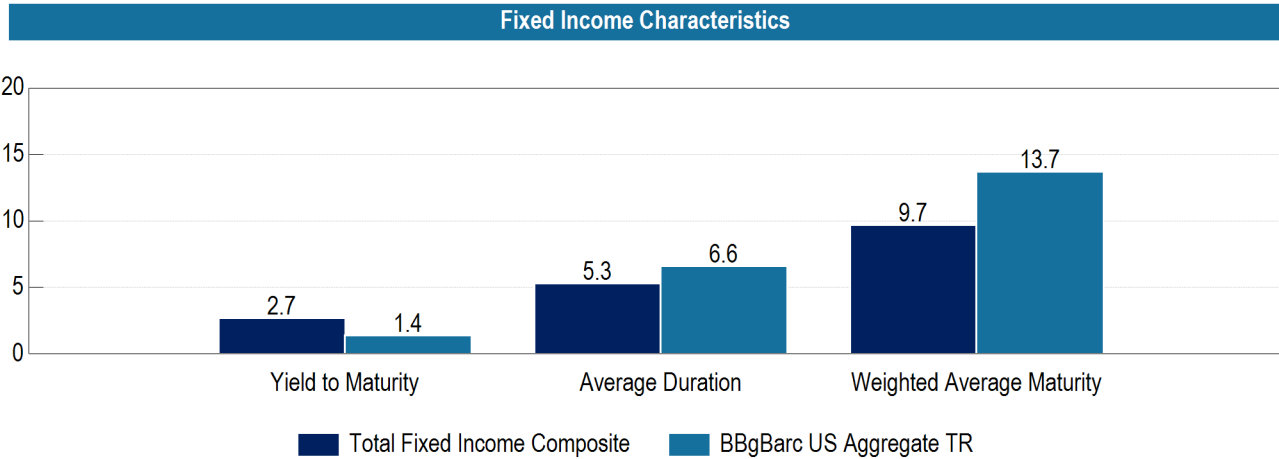
# Howard County Retirement Plans

## TOTAL FIXED INCOME COMPOSITE



# Howard County Retirement Plans

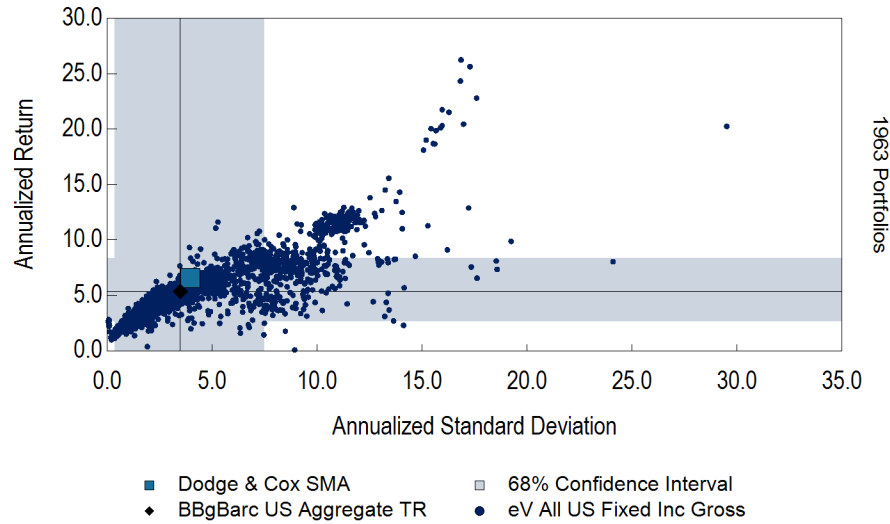
## TOTAL FIXED INCOME COMPOSITE



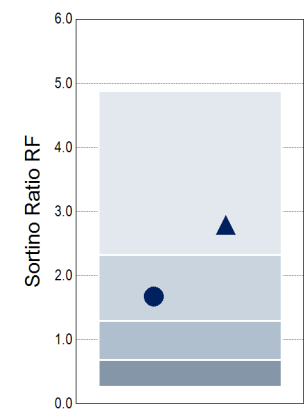
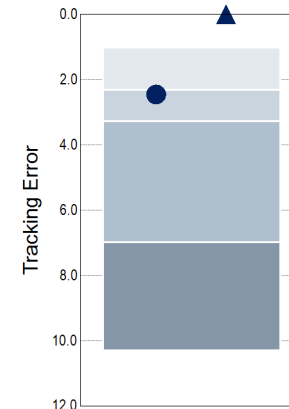
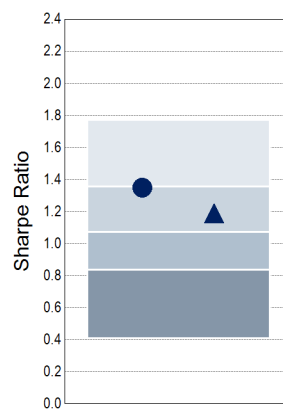
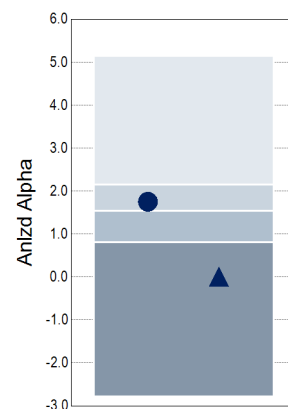
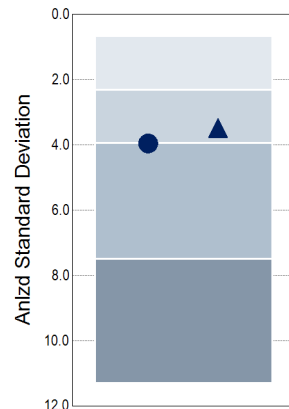
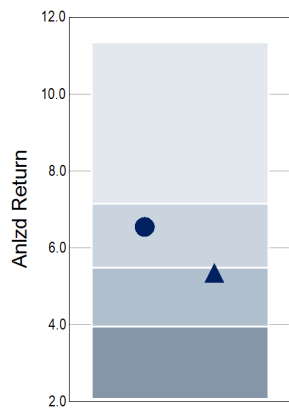
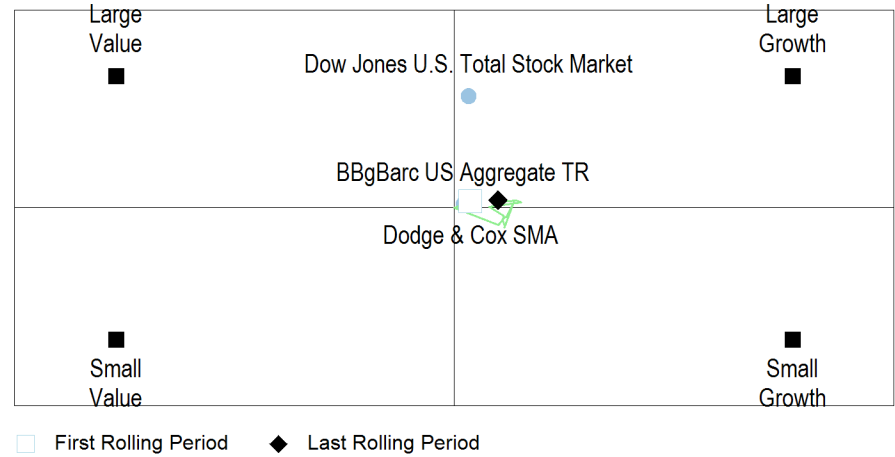
# Howard County Retirement Plans

## DODGE & COX SMA

3 Year Risk Return



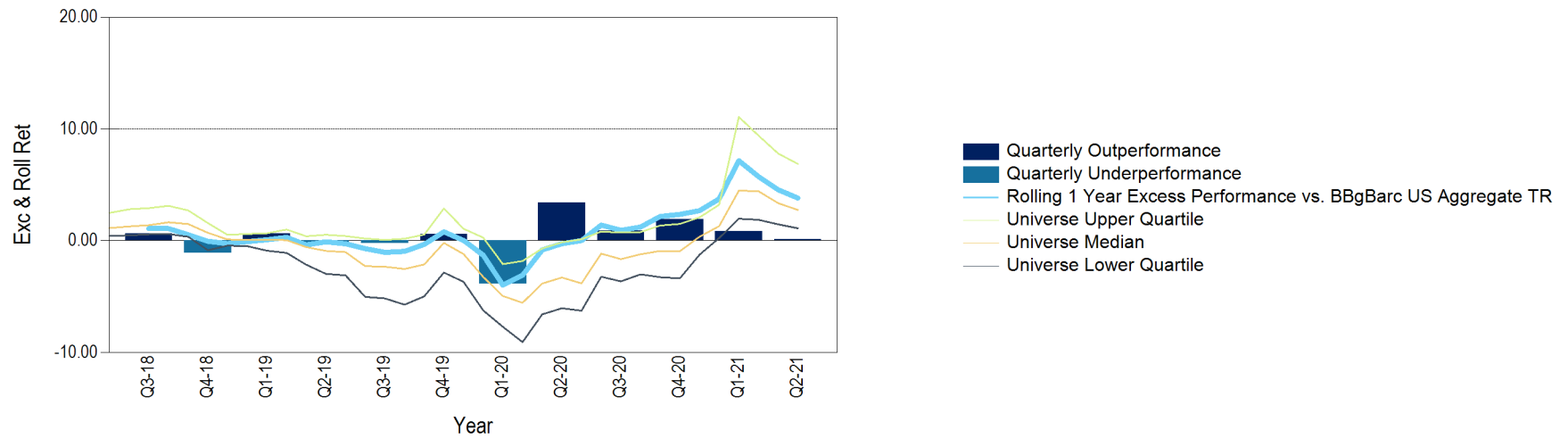
3 Year Style Map



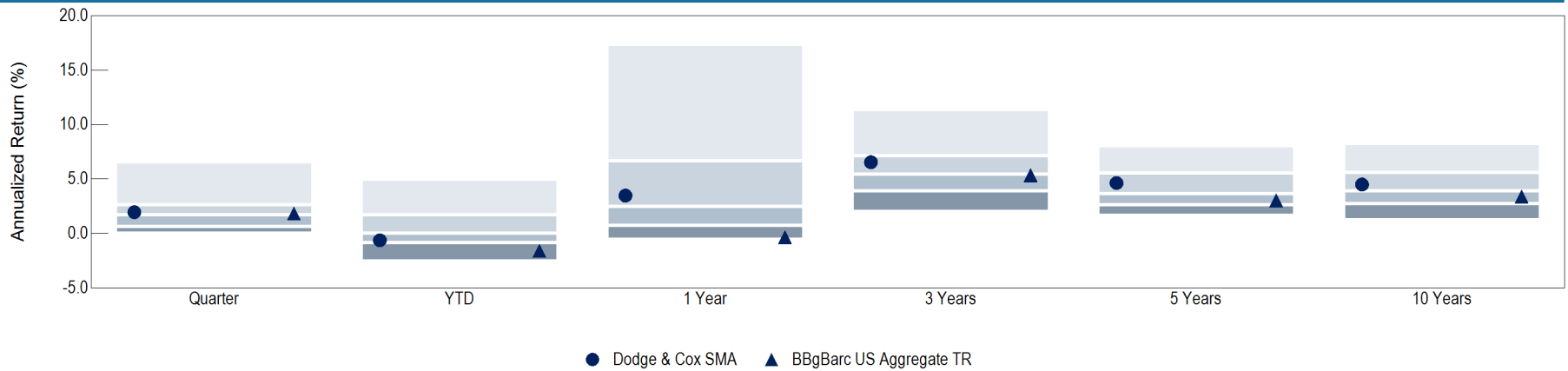
# Howard County Retirement Plans

## DODGE & COX SMA

Annualized Excess Performance

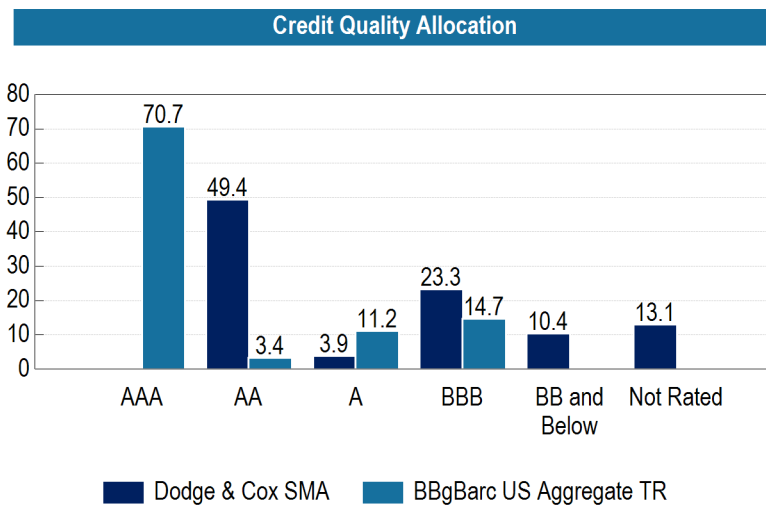
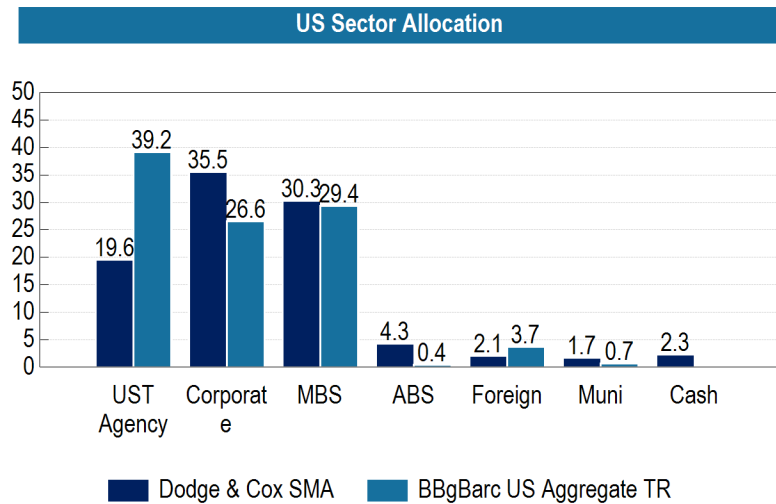
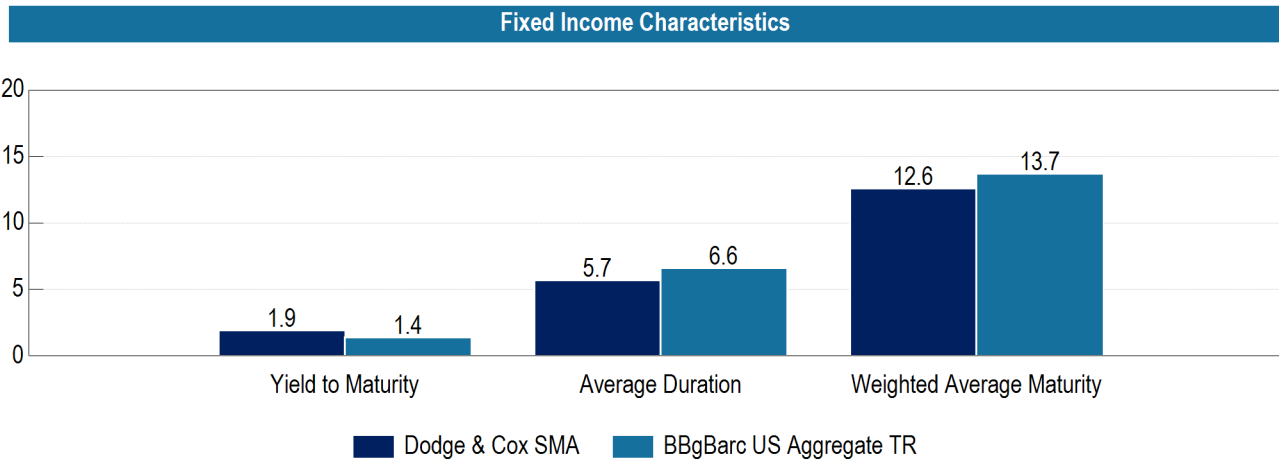


eV All US Fixed Inc Gross Return Comparison



# Howard County Retirement Plans

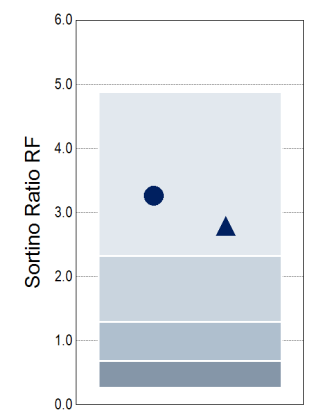
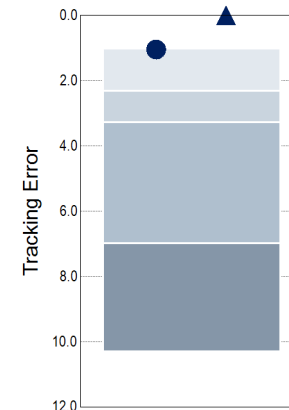
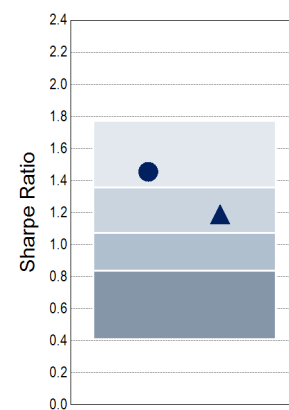
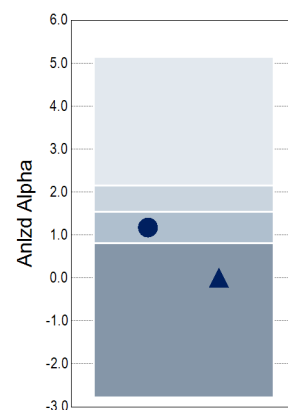
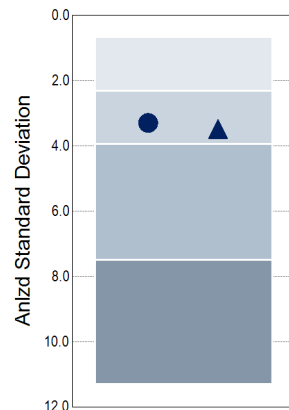
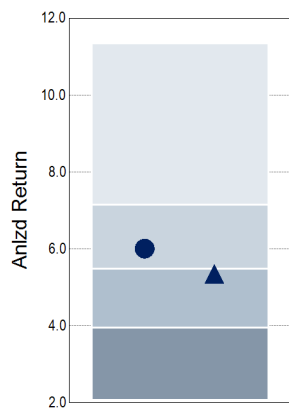
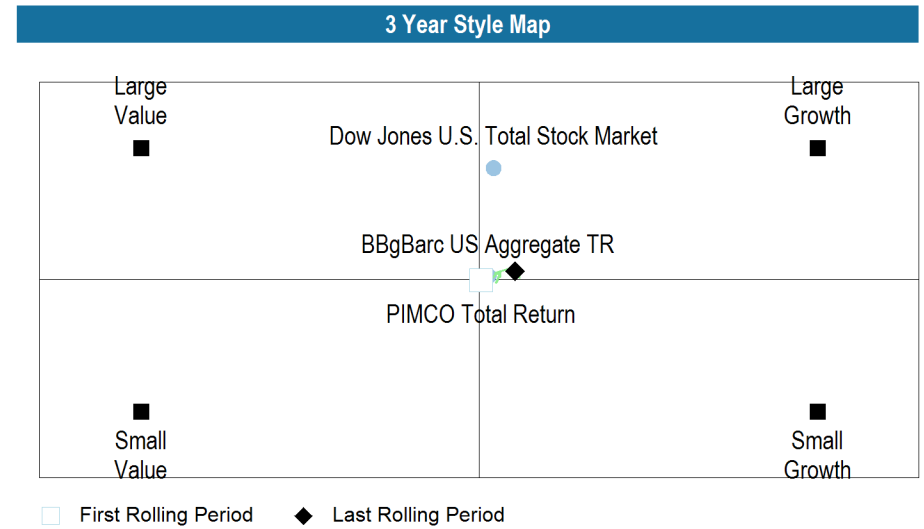
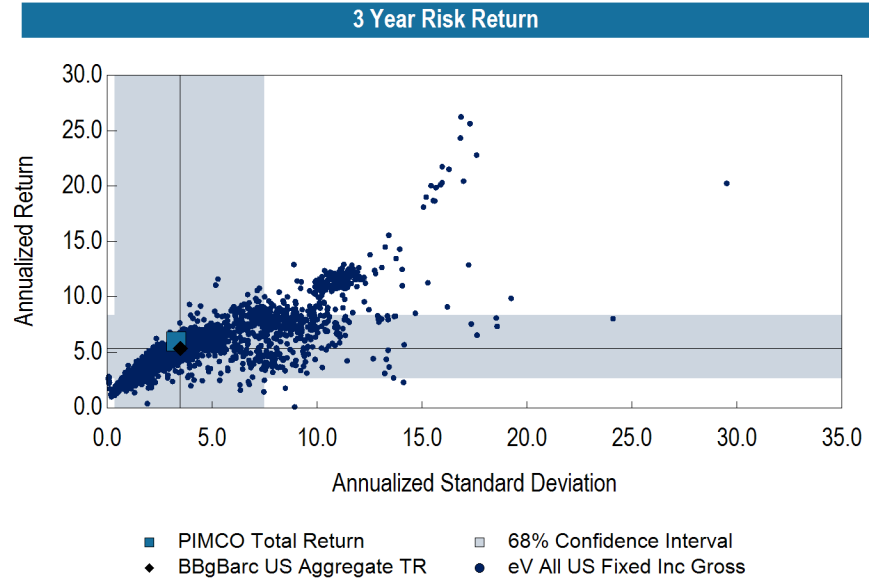
## DODGE & COX SMA





# Howard County Retirement Plans

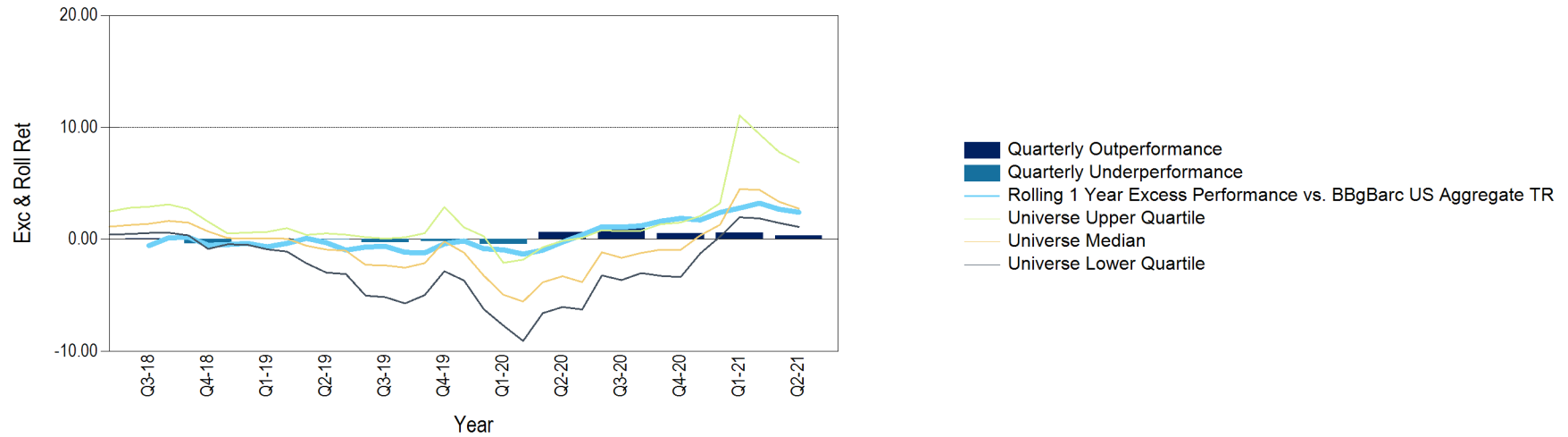
## PIMCO TOTAL RETURN



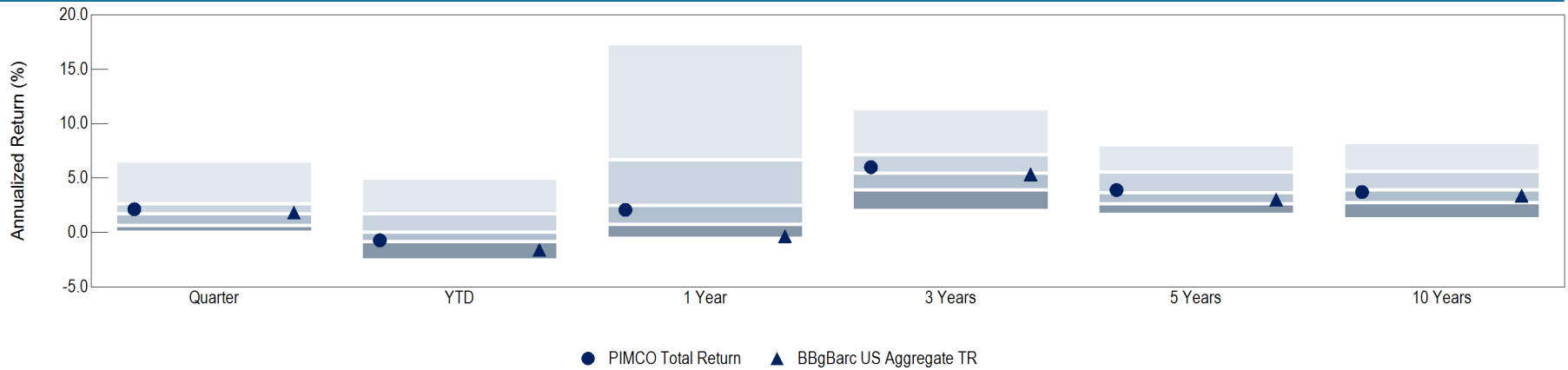
# Howard County Retirement Plans

## PIMCO TOTAL RETURN

Annualized Excess Performance



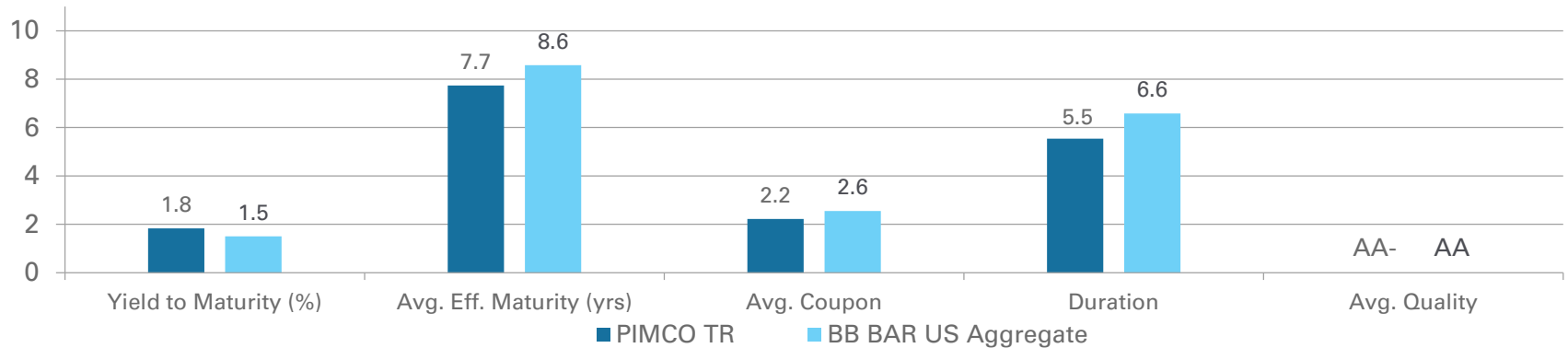
eV All US Fixed Inc Gross Return Comparison



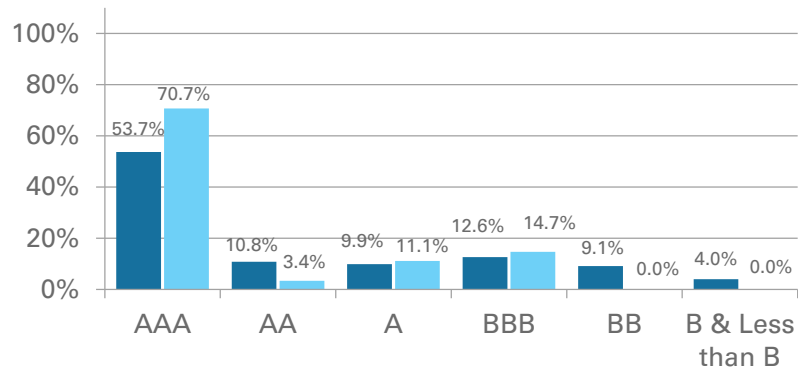
# Howard County Retirement Plans

## PIMCO TOTAL RETURN

### Characteristics

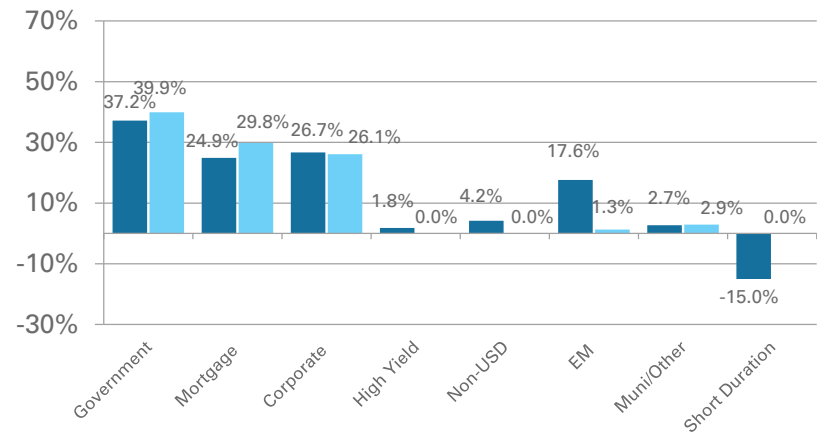


### Quality Rating\*



\*As of 3/31/2021

### Sectors

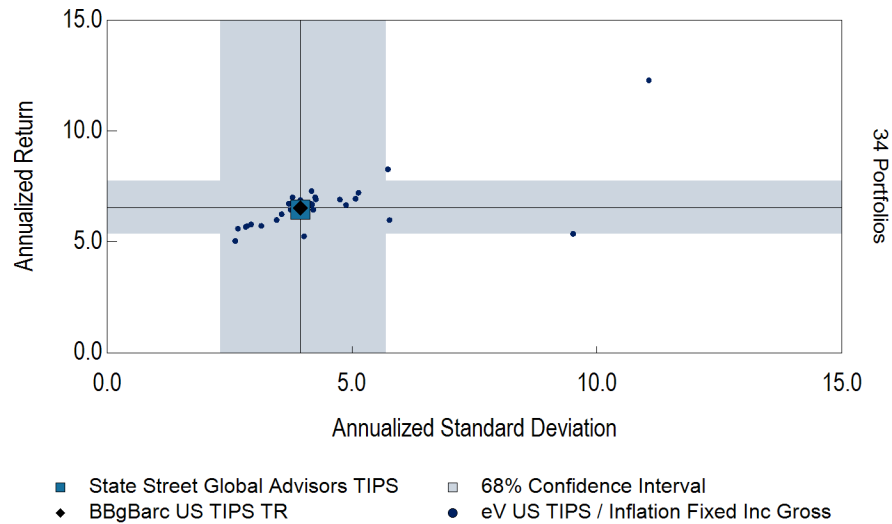


Source: PIMCO

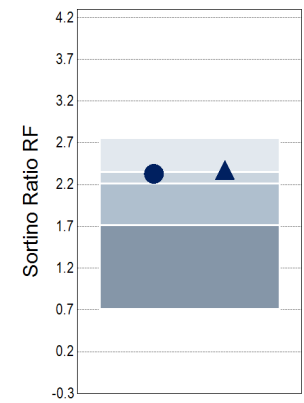
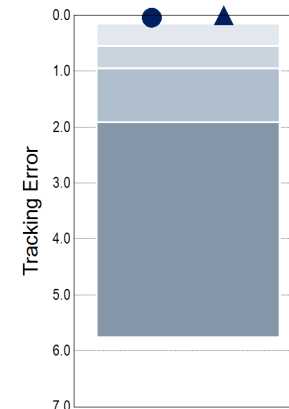
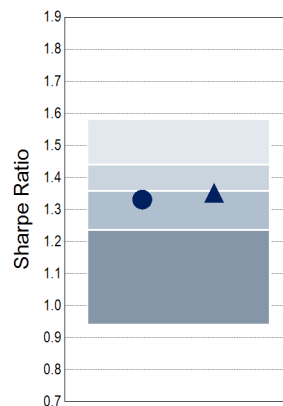
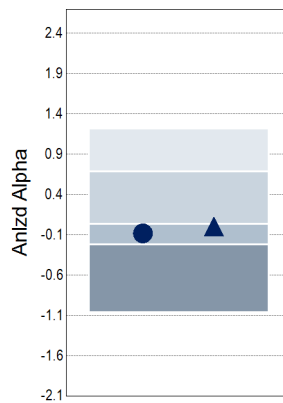
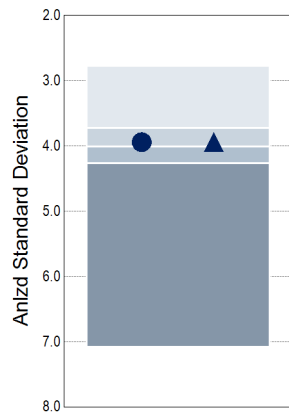
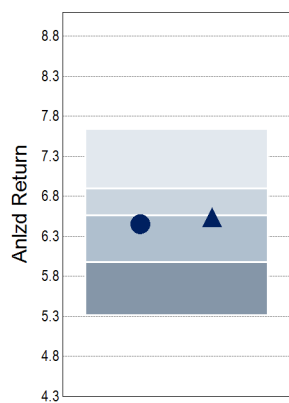
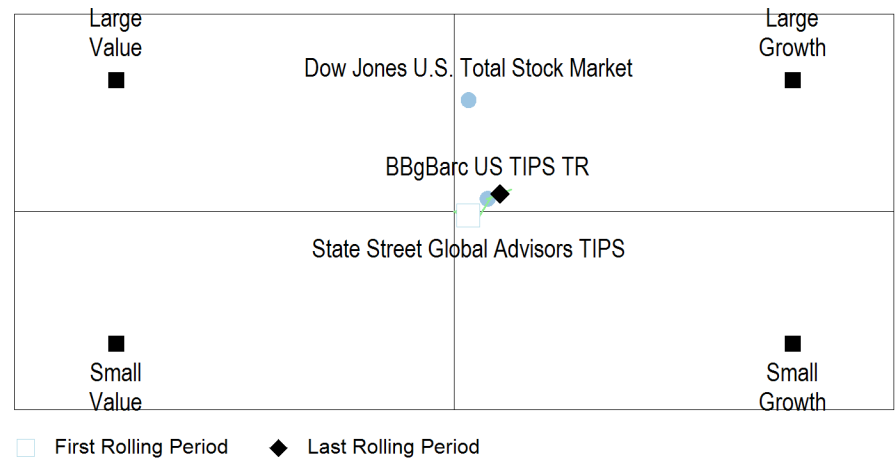
# Howard County Retirement Plans

## STATE STREET GLOBAL ADVISORS TIPS

3 Year Risk Return



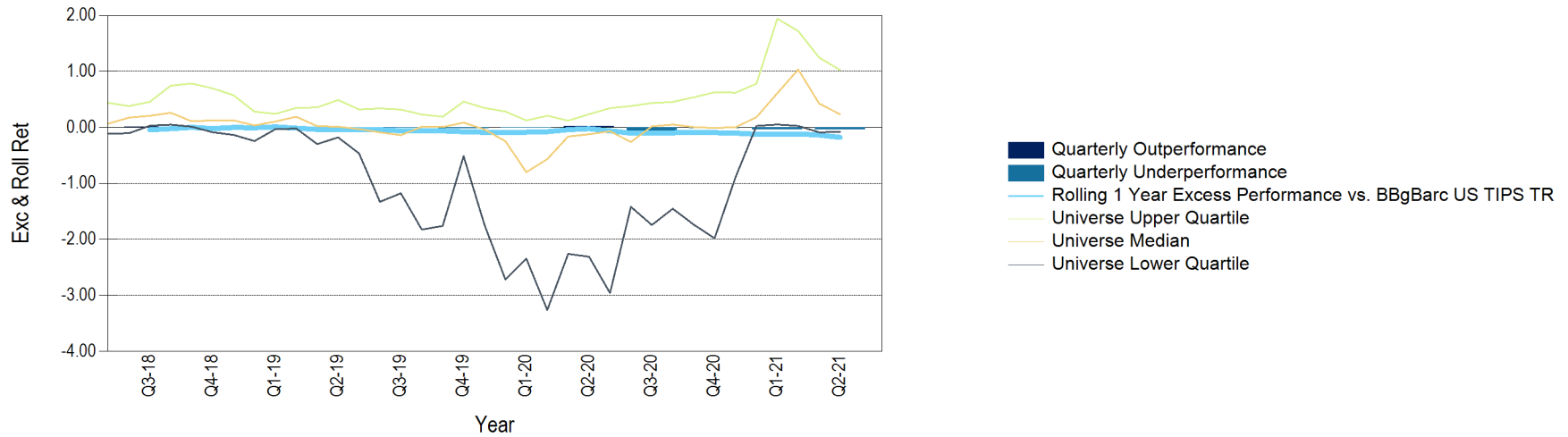
3 Year Style Map



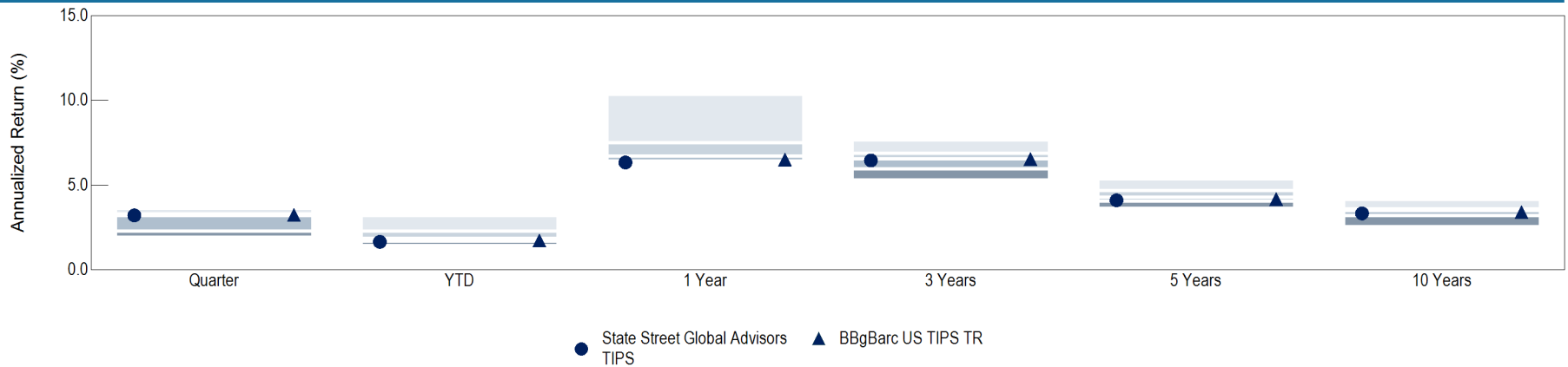
# Howard County Retirement Plans

## STATE STREET GLOBAL ADVISORS TIPS

Annualized Excess Performance

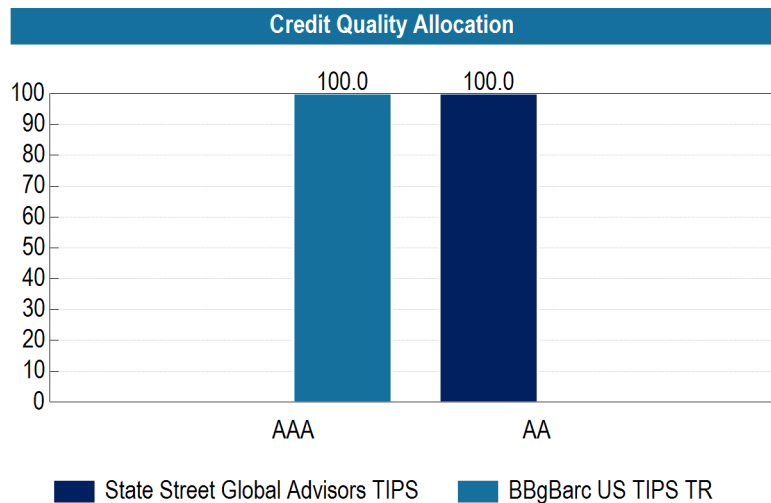
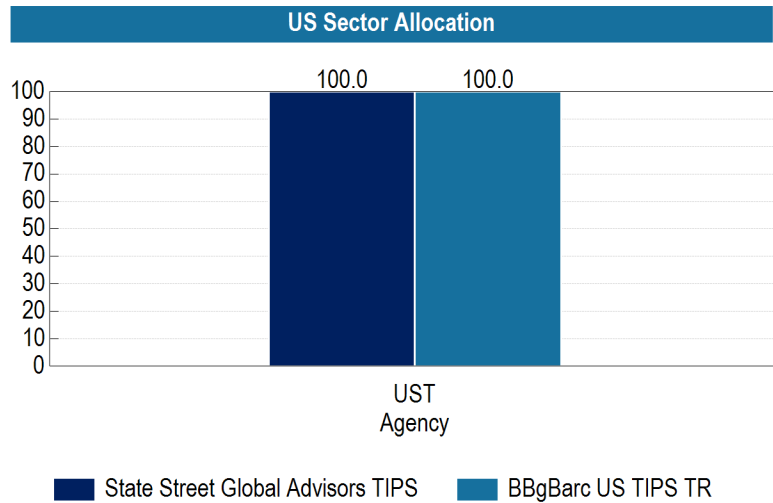
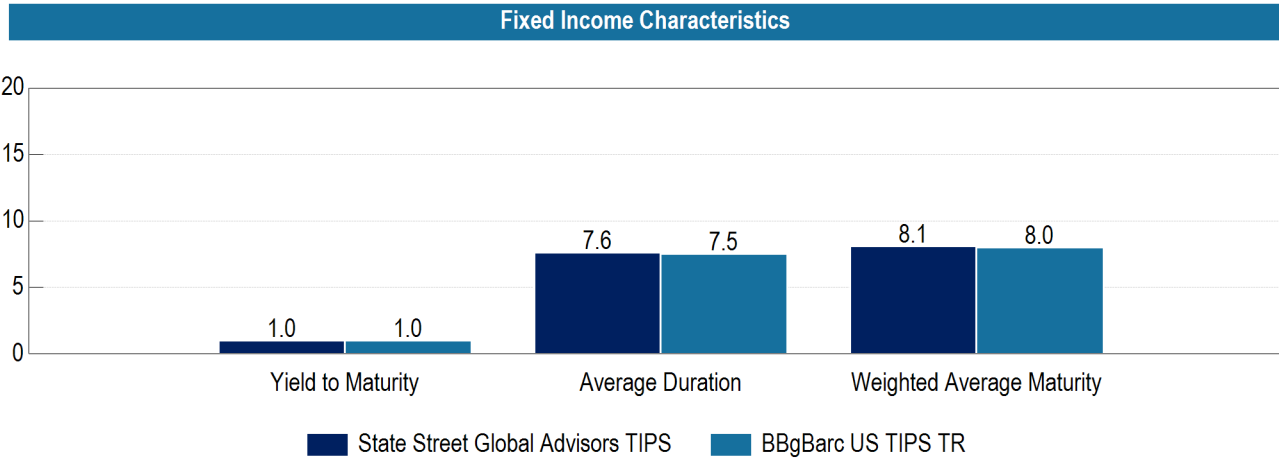


eV US TIPS / Inflation Fixed Inc Gross Return Comparison



# Howard County Retirement Plans

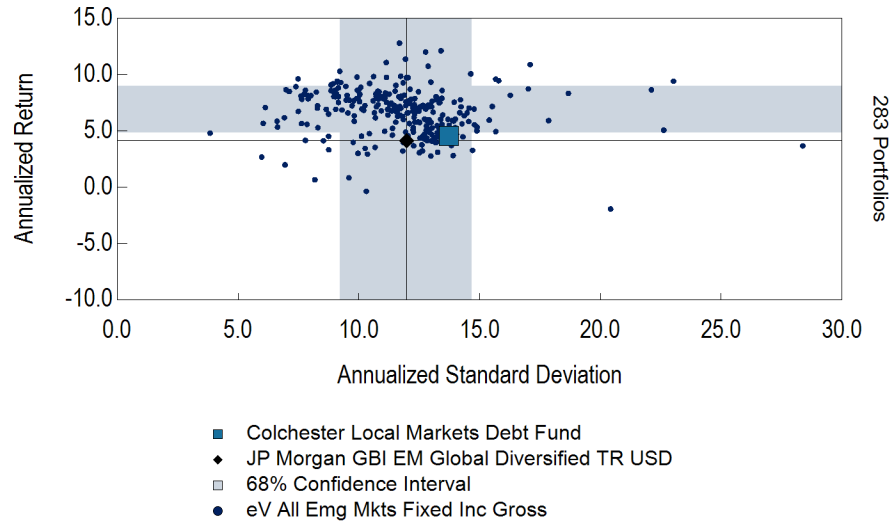
## STATE STREET GLOBAL ADVISORS TIPS



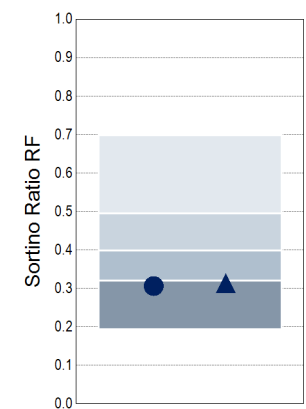
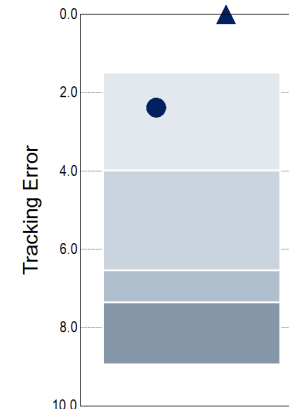
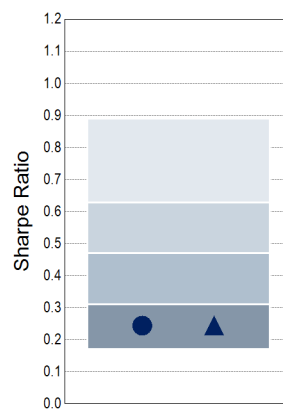
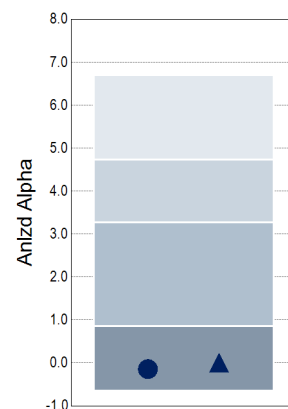
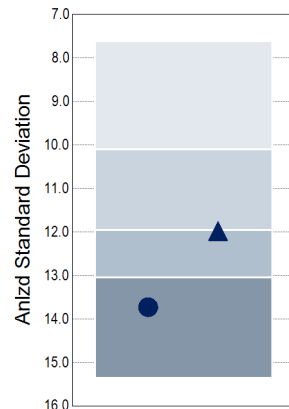
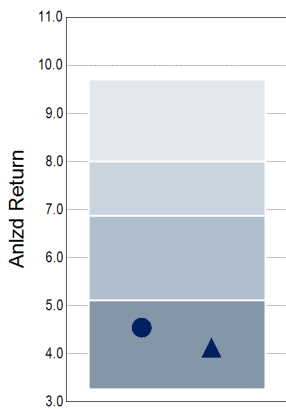
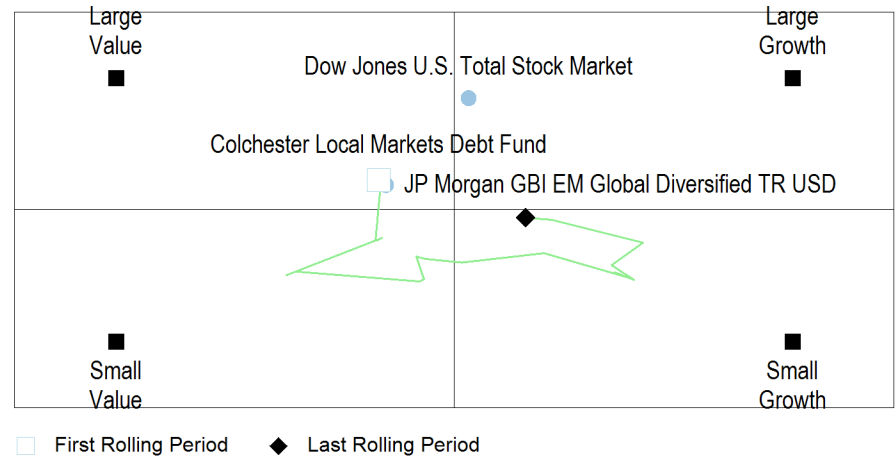
# Howard County Retirement Plans

## COLCHESTER LOCAL MARKETS DEBT FUND

3 Year Risk Return



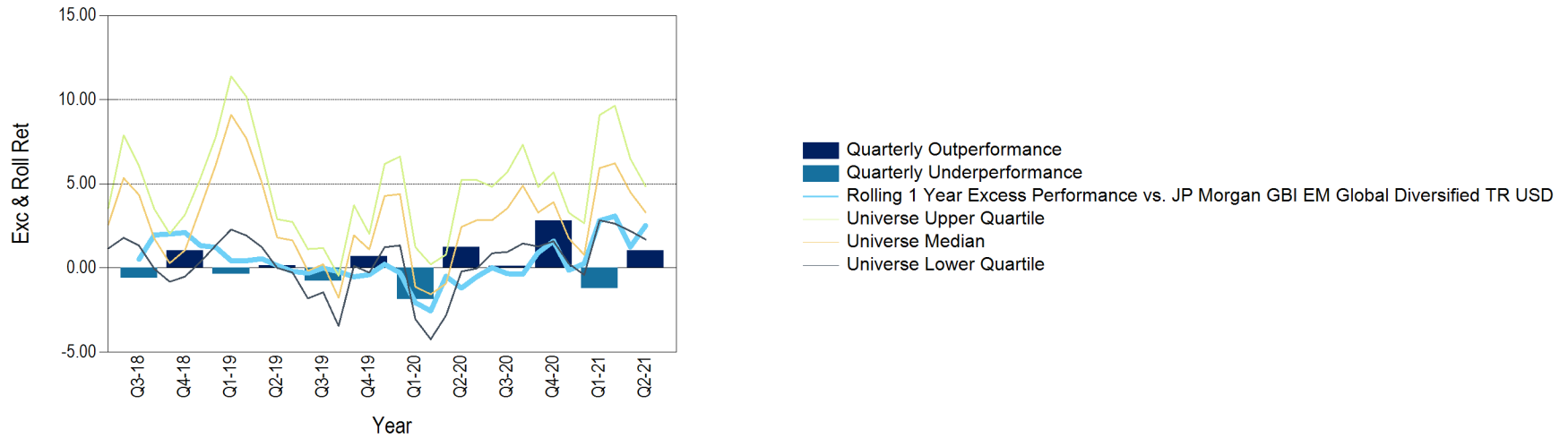
3 Year Style Map



# Howard County Retirement Plans

## COLCHESTER LOCAL MARKETS DEBT FUND

Annualized Excess Performance



eV All Emg Mkts Fixed Inc Gross Return Comparison

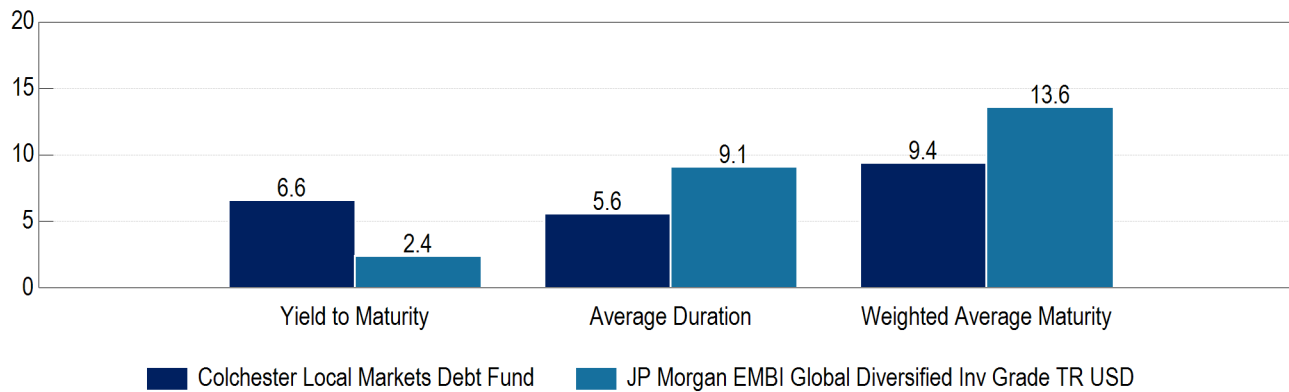




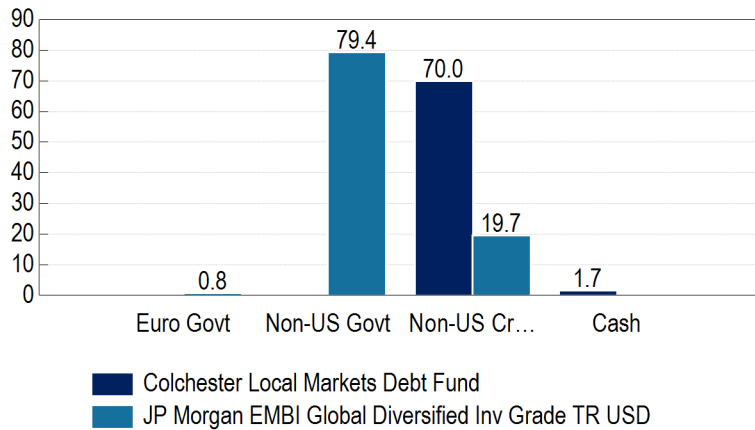
# Howard County Retirement Plans

## COLCHESTER LOCAL MARKETS DEBT FUND

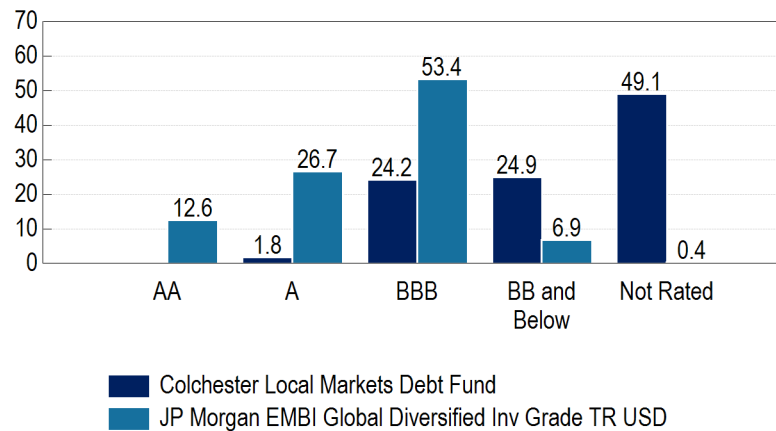
### Fixed Income Characteristics



### Global Sector Allocation



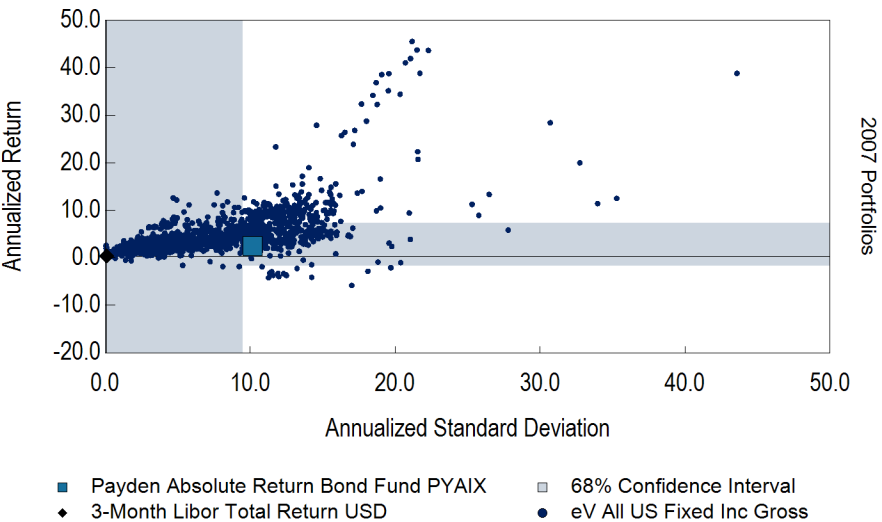
### Credit Quality Allocation



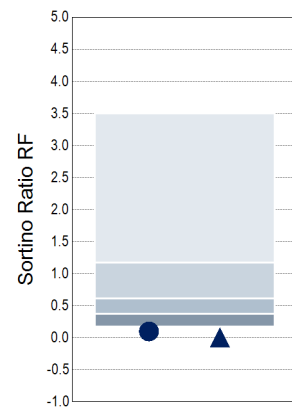
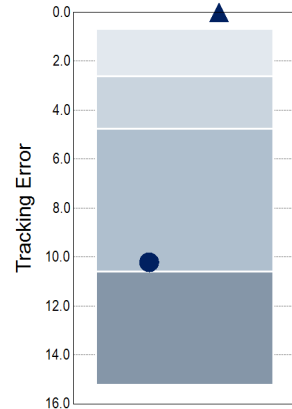
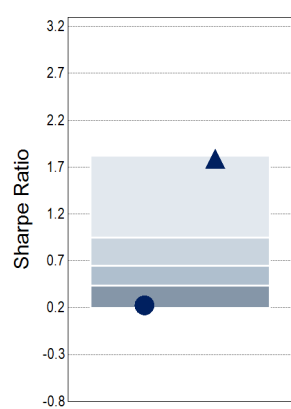
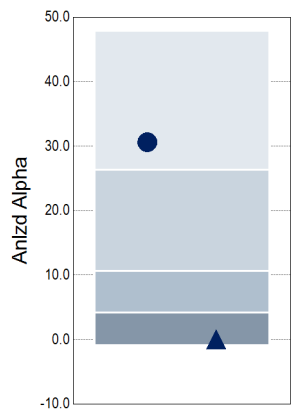
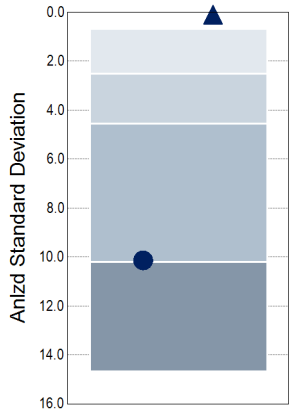
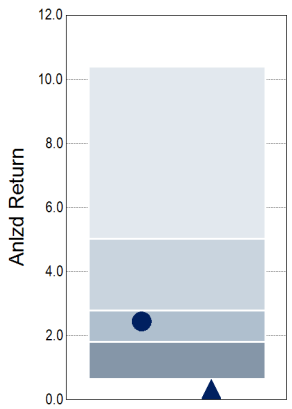
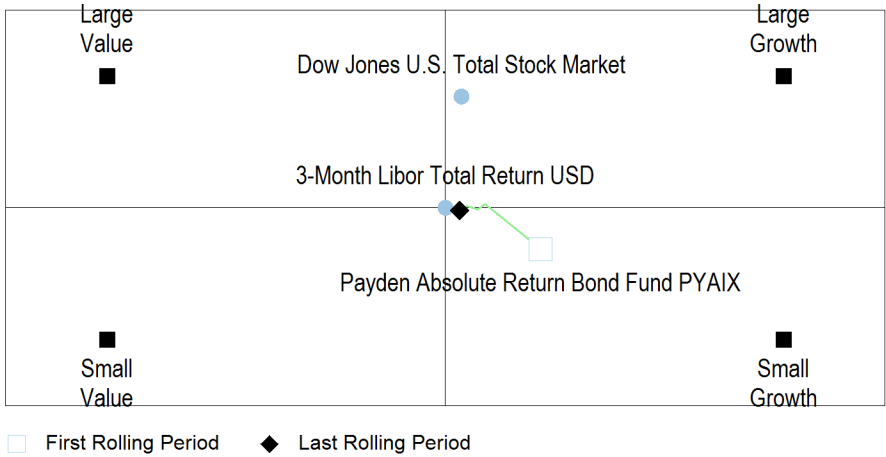
# Howard County Retirement Plans

## PAYDEN ABSOLUTE RETURN BOND FUND

Since Inception Risk Return



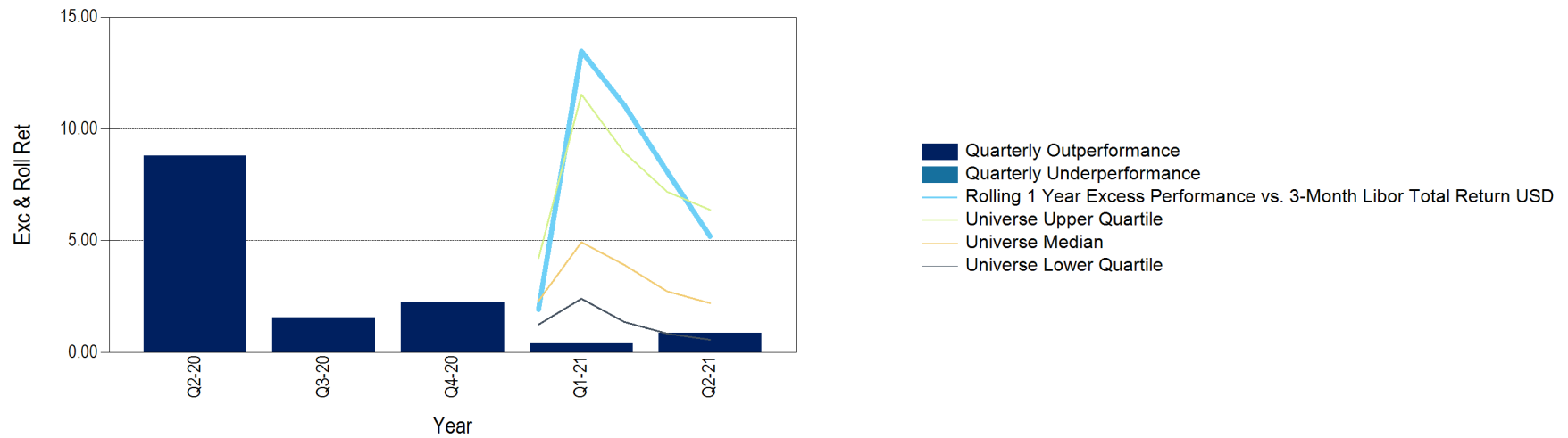
Since Inception Style Map



# Howard County Retirement Plans

## PAYDEN ABSOLUTE RETURN BOND FUND

Annualized Excess Performance



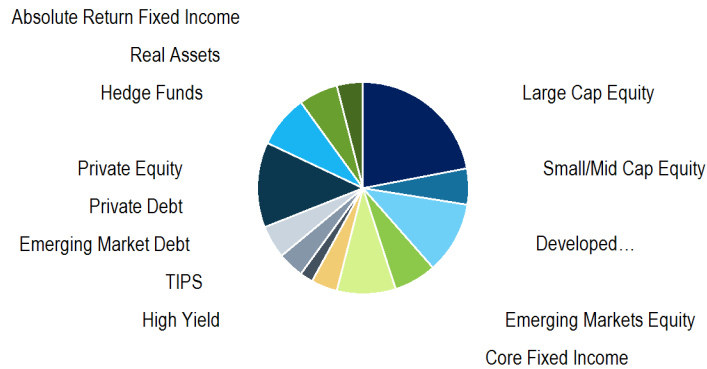
eV All US Fixed Inc Gross Return Comparison



# Howard County Retirement Plans

## PAYDEN ABSOLUTE RETURN BOND FUND

### Target Allocation



### Fund Information as of May 31, 2021

Fund Name	PAYDEN ABSOLUTE RETURN BOND SI
Ticker	PYAIX
Morningstar Category	Nontraditional Bond
Benchmark	3-Month Libor Total Return USD
Expense Ratio	0.5%
Fund Assets (\$mm)	819.3
Share Class Inception Date	11/6/2014
Manager Tenure	7

### Top Holdings as of May 31, 2021

5 YEAR TREASURY NOTE FUTURE SEPT 21	6.3%
EURO BOBL FUTURE JUNE 21	5.9%
10 YEAR TREASURY NOTE FUTURE SEPT 21	3.3%
EURO SCHATZ FUTURE JUNE 21	1.9%
ULTRA 10 YEAR US TREASURY NOTE FUTURE SEPT 21	1.9%
BOND-UNSETTLED PURCHASES	1.8%
EURO BUND FUTURE JUNE 21	1.4%
PAYDEN CASH RESERVES MONEY MARKET	1.0%
FEDERAL HOME LOAN MORTGAGE CORPORATION 1.94%	0.7%
FEDERAL HOME LOAN MORTGAGE CORPORATION 1.94%	0.6%

### Credit Quality as of June 30, 2021

AAA	9.0%
AA	4.0%
A	7.0%
BBB	28.0%
BB	19.0%
B	10.0%
Below B	0.0%
Not Rated	23.0%

### Maturities as of May 31, 2021

1 to 3 Years	10.2%
3 to 5 Years	20.5%
5 to 7 Years	13.4%
7 to 10 Years	14.3%
10 to 15 Years	12.4%
15 to 20 Years	12.3%
20 to 30 Years	16.1%
Greater than 30 Years	0.7%



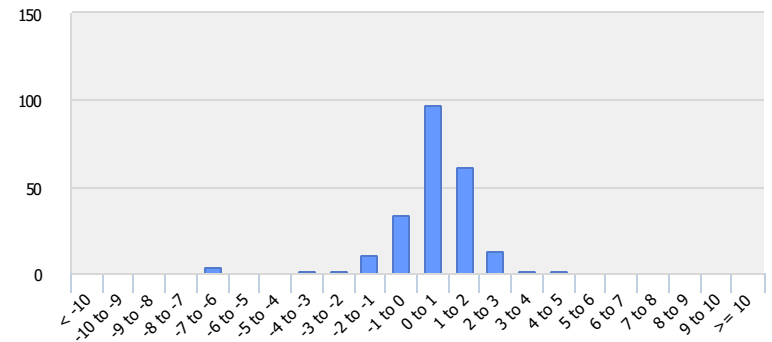
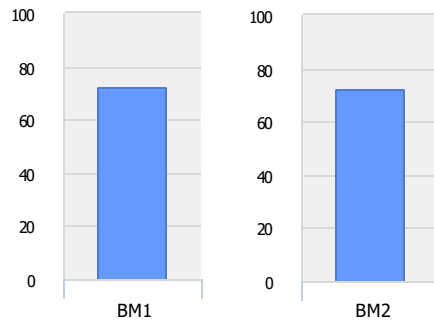
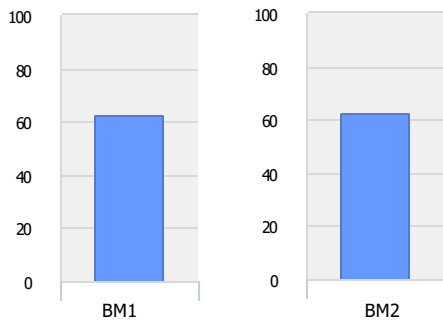
Monthly Performance													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2021	-1.1	2.4	0.3	---	---	---	---	---	---	---	---	---	1.5
2020	0.2	-0.4	-3.6	2.3	1.2	1.3	1.8	1.2	0.5	0.9	0.8	2.5	9.1
2019	1.0	0.5	1.3	0.8	1.0	0.6	0.3	0.2	-0.8	0.2	0.6	0.4	6.3
2018	1.4	-0.1	1.2	-0.3	1.1	-0.3	-0.6	1.5	0.0	-1.6	-1.6	0.9	1.7
2017	1.0	0.3	1.3	0.3	0.5	-0.4	0.7	0.9	0.6	1.4	0.5	-0.1	7.4
2016	-1.6	-0.6	0.2	0.4	-0.1	-1.6	0.7	0.6	0.3	0.6	-0.9	-0.7	-2.8
2015	0.8	1.0	0.7	0.2	0.9	-0.4	1.0	-0.1	0.0	0.8	1.0	-0.1	6.0
2014	0.9	0.9	0.0	-0.6	1.2	0.3	0.7	0.6	0.7	0.1	1.5	1.6	8.2
2013	1.4	0.7	0.0	0.2	0.9	-0.7	-0.3	-0.3	0.7	1.3	0.6	0.2	4.7
2012	1.4	1.1	0.4	0.2	-0.2	0.1	0.5	1.2	1.0	0.5	0.7	0.8	7.8
2011	1.3	1.0	0.7	1.3	0.5	0.2	0.5	-0.9	-0.6	0.6	-0.2	0.2	4.6
2010	0.3	0.3	1.0	1.2	-1.2	-0.4	0.5	0.9	1.2	1.1	0.1	1.6	6.9
2009	1.6	0.9	0.6	2.4	4.2	1.9	3.0	2.3	2.6	1.8	0.3	1.7	25.7

Performance Analysis		
	Magnitude International	HFRI FOF: Conservative Index
Since Inception Return	6.3	3.4
1 Yr Return	15.1	19.0
3 Yr Return	5.3	5.0
5 Yr Return	5.0	4.7
7 Yr Return	5.0	3.4
10 Yr Return	5.1	3.2
Best Month	4.2	2.7
Worst Month	-6.8	-6.8
Percent Profitable Periods	77.9	72.5
Product Inception Date	10/01/2002	01/01/1990

**Outperform BM in Up Markets**

**Outperform BM in Down Markets**

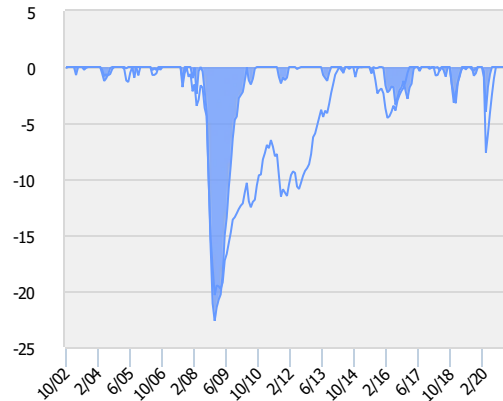
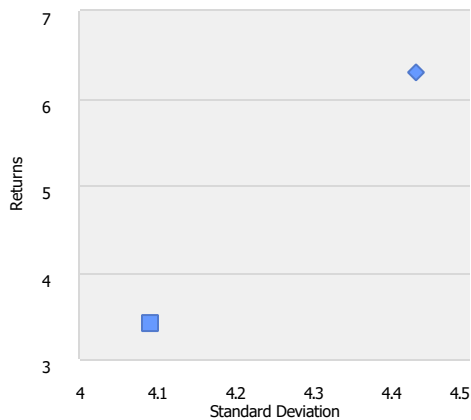
**Distribution of Returns**



**Risk/Return Profile**

**Underwater Drawdown**

**Risk Analysis**



Since Inception Standard Deviation	4.4	4.1
3 Yr Standard Deviation	4.2	5.5
5 Yr Standard Deviation	3.6	4.3
7 Yr Standard Deviation	3.3	3.9
10 Yr Standard Deviation	3.0	3.7
Sharpe Ratio	1.1	0.5
Sortino Ratio	1.6	0.7
Loss Deviation	3.2	3.2
Max Drawdown	22.7	20.4
Max Drawdown Length	7	14
Max Drawdown Recovery Length	21	62

**Comparison to Benchmarks**

Annualized Alpha	3.1
Beta	0.9
Correlation Coefficient	0.8
R-Squared	0.7

◆ Magnitude International  
 ■ HFRI FOF: Conservative Index

■ Magnitude International  
 — HFRI FOF: Conservative Index



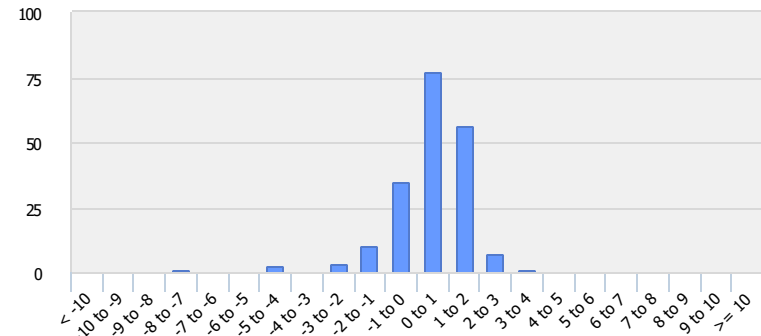
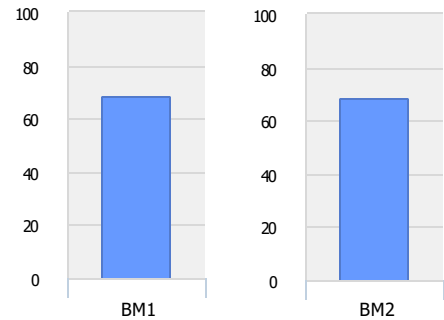
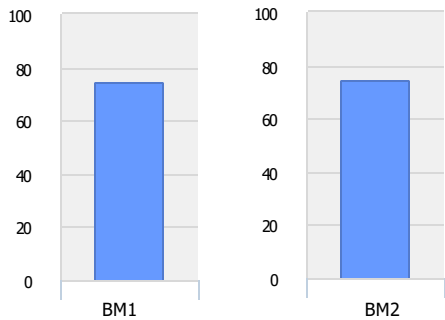
Monthly Performance													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2021	-0.3	2.4	0.3	1.6	0.4	1.1	---	---	---	---	---	---	5.6
2020	0.3	-0.6	-7.4	2.2	1.7	1.9	1.2	1.5	-0.2	0.1	2.2	2.7	5.4
2019	2.1	0.5	0.5	0.7	-0.2	1.5	0.5	-0.2	-0.1	0.2	0.7	0.9	7.2
2018	1.5	-0.2	0.0	0.4	0.7	-0.2	0.5	0.2	0.7	-0.6	-0.5	-0.8	1.6
2017	1.0	0.8	0.5	0.5	0.7	-0.3	0.6	0.9	0.6	1.2	-0.1	0.3	7.0
2016	-1.1	-1.2	0.2	0.8	1.1	-1.0	0.8	1.0	0.4	0.1	0.9	0.8	2.8
2015	-0.3	1.6	0.9	-0.1	1.3	-0.7	1.1	-0.8	-0.8	0.6	0.4	0.0	3.4
2014	0.5	1.4	-0.2	0.1	1.2	0.8	0.3	0.6	0.5	-0.8	1.1	0.5	5.9
2013	2.0	0.6	1.2	0.7	1.2	-0.8	1.0	0.0	0.9	1.1	1.0	0.8	10.1
2012	1.7	1.2	0.3	0.2	-0.8	-0.1	1.1	1.1	1.1	0.2	0.9	0.9	7.9
2011	0.6	1.0	0.2	1.2	-0.5	-1.0	0.2	-1.6	-2.2	1.5	-0.4	-0.2	-1.2
2010	0.7	0.5	1.5	0.7	-1.6	-0.3	0.8	0.5	1.3	1.2	0.2	1.7	7.4
2009	1.3	0.2	-0.1	1.8	3.3	0.6	1.7	1.5	2.0	0.6	1.2	0.6	15.6

Performance Analysis		
	Blackstone Partners Offshore Fund (Partners OS)	HFRI FOF: Conservative Index
Since Inception Return	5.6	3.0
1 Yr Return	13.9	14.8
3 Yr Return	5.9	5.3
5 Yr Return	6.2	5.0
7 Yr Return	5.0	3.5
10 Yr Return	5.4	3.5
Best Month	3.3	2.7
Worst Month	-7.4	-6.8
Percent Profitable Periods	73.4	71.9
Product Inception Date	07/01/2016	01/01/1990

**Outperform BM in Up Markets**

**Outperform BM in Down Markets**

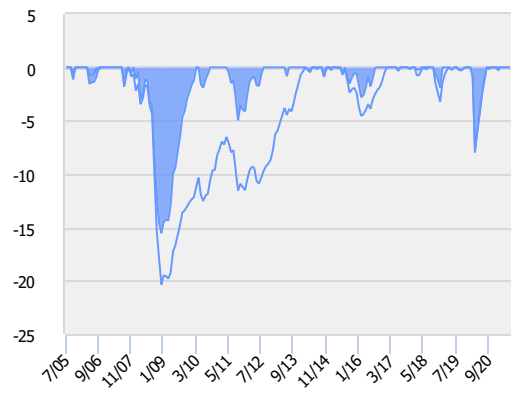
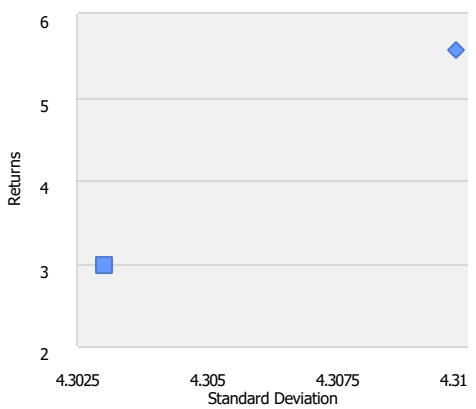
**Distribution of Returns**



**Risk/Return Profile**

**Underwater Drawdown**

**Risk Analysis**



Since Inception Standard Deviation	4.3	4.3
3 Yr Standard Deviation	5.7	5.5
5 Yr Standard Deviation	4.5	4.3
7 Yr Standard Deviation	4.1	3.9
10 Yr Standard Deviation	3.8	3.6
Sharpe Ratio	1.0	0.4
Sortino Ratio	1.4	0.5
Loss Deviation	3.1	3.5
Max Drawdown	15.5	20.4
Max Drawdown Length	12	14
Max Drawdown Recovery Length	15	62

**Comparison to Benchmarks**

Annualized Alpha	2.7
Beta	1.0
Correlation Coefficient	1.0
R-Squared	0.9

◆ Blackstone Partners Offshore Fund (Partners OS)  
 ■ HFRI FOF: Conservative Index

■ Blackstone Partners Offshore Fund (Partners OS)  
 — HFRI FOF: Conservative Index

\*\*Past Performance is not indicative of future results. Risk-free rate is Citigroup 3-month T-Bill. Statistics are calculated since inception of the fund unless specified\*\*

# NEPC'S DUE DILIGENCE MONITOR

Investment Options	Manager Changes/ Announcement	NEPC Due Diligence Committee Recommendations
Greenspring Associates	Change of Firm Ownership: StepStone Group Acquisition of Greenspring Associates 07/07/21	FYI
GQG Partners LLC	Change of Firm Ownership	FYI



# NEPC'S DUE DILIGENCE MONITOR DETAIL

Investment Options	Commentary	NEPC Rating
Greenspring Associates	<p>On July 7, 2021, StepStone Group (NASDAQ: STEP) announced that it had reached an agreement to acquire 100% ownership of Greenspring Associates. StepStone is an asset management and investment advisory firm that focuses on private markets. Under the terms of the agreement, Greenspring Associates will continue to manage all its existing private equity funds, with senior StepStone professionals joining Greenspring's funds' investment committees. Once the transaction has closed (expected in 3-4 months), Greenspring funds will be rebranded as StepStone funds. StepStone is purchasing Greenspring for \$800 million (including a \$75 million potential earn-out) in a combination of cash and StepStone stock, which vests over the three years following the closing of the transaction. Greenspring will retain 100% of its GP carried interest for all active private equity funds, 75% for any new funds raised through the end of 2024 and 50% for any new funds raised in 2025 or later. GP carried interest is subject to a 5-year vesting schedule specific to each investment product.</p> <p>(continued on next page)</p>	





# NEPC'S DUE DILIGENCE MONITOR DETAIL

Investment Options	Commentary	NEPC Rating
Greenspring Associates (continued)	<p>Greenspring does not expect this transaction to cause any significant changes to its employee base and expects to add employees through the integration of StepStone's existing venture capital and growth equity investment professionals. Ashton Newhall and Jim Lim will continue to head Greenspring as the leaders of StepStone's Venture Capital and Growth Equity division. Both will be involved in additional leadership roles within StepStone. Greenspring indicated that they believe that this transaction will give them access to a broader global team of business development, investor relations and investment professionals, provide an important capital source to expand its growth equity and international investment programs and provide new relationships and company information to "amplify the combined platforms' flywheel effect" particularly regarding direct and secondary investment opportunities. Because this transaction involves a change in ownership/control of Greenspring Associates, Greenspring needs to seek investor consents for each of its products.</p> <p>NEPC does not believe that StepStone's acquisition of Greenspring Associates should have a significant negative impact on the investment of any of Greenspring's existing investment products. As such, NEPC is supportive of Greenspring's request for investors to provide an affirmative consent to this transaction. However, NEPC will continue to monitor the Firm over the next 4-5 years to see how the Greenspring investment team has been impacted by this change in Firm ownership and being part of a publicly-traded asset advisory and asset management platform.</p>	



# NEPC'S DUE DILIGENCE MONITOR DETAIL

Investment Options	Commentary	NEPC Rating
GQG Partners LLC	<p>NEPC Research was made aware of a recent news article that references GQG Partners. The article alludes to GQG Partners and a potential public listing of 20% of the company on the Australian Stock Exchange (ASX). GQG would use an ASX-listing to try to build its brand with Australian financial advisers and retail investors. GQG's client base includes Australia's AustralianSuper, Rest Super and Cbus.</p> <p>GQG Partners' other Australian connection, in addition to AustralianSuper and co, is the group's CEO Tim Carver. Carver formerly ran ASX-listed boutique funds investor Pacific Current Group. (Pacific Current is also one of GQG Partners' few external shareholders, owning a 5 percent stake). UBS and Goldman Sachs are joint lead managers to the IPO. GQG Partners would need to sell shares worth at least 20 percent of the company to be included in the benchmark S&amp;P/ASX 200 index, which would imply a \$1 billion-plus raising.</p> <p>NEPC Research will continue to monitor the situation as more information becomes available. Given the publicly available information so far NEPC does not believe a public listing would have a material impact on GQGs business and investment functions.</p>	1





# Q1 2021 PRIVATE MARKETS PERFORMANCE

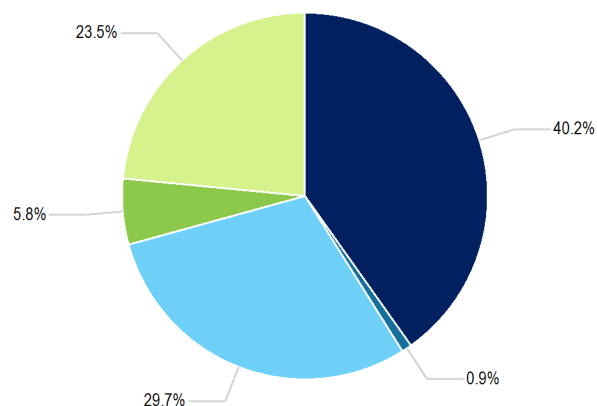


PROPRIETARY & CONFIDENTIAL

# Howard County Retirement Plans

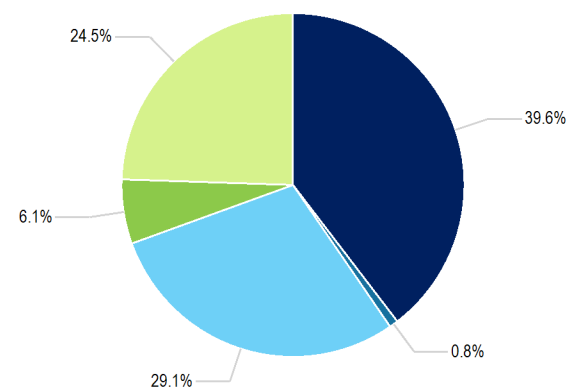
## ANALYSIS BY STRATEGY - PRIVATE EQUITY

Private Markets Valuation by Strategy



Buyout Distressed Fund of Funds Secondaries Venture Capital

Private Markets Fund Exposure by Strategy



Buyout Distressed Fund of Funds Secondaries Venture Capital

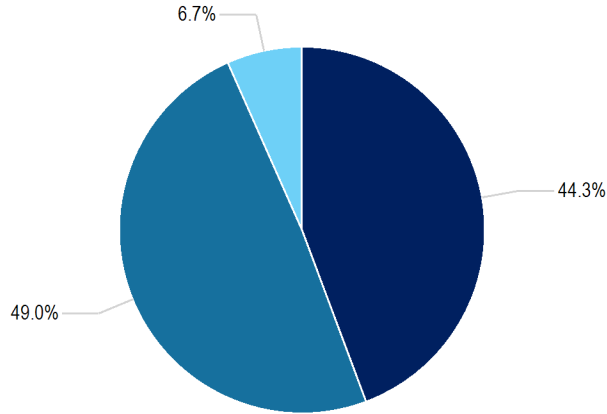
Investments	Commitments			Contributions & Distributions			Valuations				Performance		
	Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI
Total Buyout	\$91,049,174	\$19,951,422	0.78	\$71,097,751	\$119,091	\$49,293,030	\$81,976,716	\$131,269,747	\$60,052,905	\$101,928,139	0.69	1.84	18.95%
Total Distressed	\$10,000,000	\$300,000	0.97	\$9,700,000	\$0	\$14,197,419	\$1,828,991	\$16,026,410	\$6,326,410	\$2,128,991	1.46	1.65	10.59%
Total Fund of Funds	\$53,250,000	\$14,256,168	0.73	\$38,993,832	-\$15,283	\$11,626,905	\$60,538,045	\$72,164,950	\$33,186,401	\$74,794,213	0.30	1.85	16.44%
Total Secondaries	\$15,500,000	\$3,748,000	0.76	\$11,752,000	-\$903	\$16,286,353	\$11,830,803	\$28,117,156	\$16,366,059	\$15,578,803	1.39	2.39	22.06%
Total Venture Capital	\$40,500,000	\$15,110,000	0.63	\$25,390,000	\$21,253	\$24,812,032	\$47,905,371	\$72,717,403	\$47,306,150	\$63,015,371	0.98	2.86	24.32%
<b>Total</b>	<b>\$210,299,174</b>	<b>\$53,365,590</b>	<b>0.75</b>	<b>\$156,933,583</b>	<b>\$124,158</b>	<b>\$116,215,739</b>	<b>\$204,079,926</b>	<b>\$320,295,665</b>	<b>\$163,237,924</b>	<b>\$257,445,517</b>	<b>0.74</b>	<b>2.04</b>	<b>18.65%</b>



# Howard County Retirement Plans

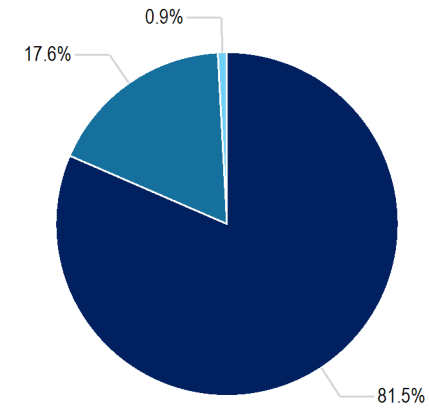
## ANALYSIS BY LIFECYCLE - PRIVATE EQUITY

Commitment by Lifecycle



Investing Harvesting Liquidating

Unfunded Commitment by Lifecycle



Investing Harvesting Liquidating

Investments	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing	\$93,170,326	\$43,494,352	0.53	\$49,675,974	-\$11,986	\$5,528,221	\$80,200,639	\$85,728,860	\$36,064,872	0.11	1.73	22.43%
Total Harvesting	\$103,128,848	\$9,411,238	0.91	\$93,717,610	\$99,889	\$88,590,068	\$118,584,313	\$207,174,381	\$113,356,882	0.94	2.21	19.92%
Total Liquidating	\$14,000,000	\$460,000	0.97	\$13,540,000	\$36,255	\$22,097,451	\$5,294,974	\$27,392,425	\$13,816,170	1.63	2.02	13.05%
<b>Total</b>	<b>\$210,299,174</b>	<b>\$53,365,590</b>	<b>0.75</b>	<b>\$156,933,583</b>	<b>\$124,158</b>	<b>\$116,215,739</b>	<b>\$204,079,926</b>	<b>\$320,295,665</b>	<b>\$163,237,924</b>	<b>0.74</b>	<b>2.04</b>	<b>18.65%</b>



# Howard County Retirement Plans

## ANALYSIS BY LIFECYCLE - PRIVATE EQUITY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Investing</b>												
57 Stars Global Opportunity Fund 4 (US), L.P.	2015	\$7,000,000	\$1,630,168	\$5,369,832	-\$15,283	\$0	\$8,812,002	\$8,812,002	\$3,457,453	0.00	1.65	14.58%
Aberdeen U.S. Private Equity VII, L.P.	2017	\$5,000,000	\$1,600,000	\$3,400,000	\$3,297	\$1,078,589	\$5,484,857	\$6,563,446	\$3,160,149	0.32	1.93	38.37%
Greenspring Diversity I, L.P.	2020	\$2,500,000	\$2,375,000	\$125,000	\$0	\$0	\$202,857	\$202,857	\$77,857	0.00	1.62	
Greenspring Global Partners IX-B, L.P.	2019	\$7,250,000	\$3,190,000	\$4,060,000	\$0	\$152,308	\$6,379,717	\$6,532,025	\$2,472,025	0.04	1.61	42.29%
Greenspring Global Partners VIII-B, L.P.	2017	\$5,000,000	\$750,000	\$4,250,000	\$0	\$0	\$6,901,124	\$6,901,124	\$2,651,124	0.00	1.62	26.46%
Greenspring Global Partners X, L.P.	2020	\$7,500,000	\$6,525,000	\$975,000	\$0	\$0	\$1,053,596	\$1,053,596	\$78,596	0.00	1.08	12.74%
Greenspring Opportunities VI, L.P.	2020	\$7,000,000	\$3,920,000	\$3,080,000	\$0	\$0	\$4,036,503	\$4,036,503	\$956,503	0.00	1.31	42.58%
HarbourVest Partners Co-Investment Fund IV AIV, L.P.	2018	\$574,142	\$312,689	\$261,453	\$0	\$67,347	\$873,356	\$940,703	\$679,250	0.26	3.60	55.93%
HarbourVest Partners Co-Investment Fund IV, L.P.	2017	\$9,425,858	\$1,964,610	\$7,461,248	\$0	\$2,178,001	\$12,730,401	\$14,908,402	\$7,447,154	0.29	2.00	22.37%
NB Crossroads Fund XXI, L.P.	2015	\$15,000,000	\$5,250,000	\$9,750,000	\$0	\$1,168,597	\$18,125,128	\$19,293,725	\$9,543,725	0.12	1.98	20.99%
NB Crossroads Fund XXII, L.P.	2019	\$5,000,000	\$2,300,000	\$2,700,000	\$0	\$0	\$3,811,812	\$3,811,812	\$1,111,812	0.00	1.41	23.03%
Schroder Adveq Europe Direct II S.C.S.	2018	\$1,022,921	\$423,108	\$599,813	\$0	\$0	\$1,171,080	\$1,171,080	\$571,267	0.00	1.95	44.79%
Schroder Adveq Europe VI, L.P.	2015	\$6,858,360	\$1,621,914	\$5,236,446	\$0	\$883,378	\$7,536,434	\$8,419,812	\$3,183,366	0.17	1.61	17.42%
Schroder Adveq Europe VII S.C.S.	2018	\$4,039,045	\$2,714,943	\$1,324,102	\$0	\$0	\$2,236,395	\$2,236,395	\$912,293	0.00	1.69	36.01%
Vista Foundation Fund IV, L.P.	2020	\$10,000,000	\$8,916,920	\$1,083,080	\$0	\$0	\$845,378	\$845,378	-\$237,702	0.00	0.78	-58.55%
<b>Total Investing</b>		<b>\$93,170,326</b>	<b>\$43,494,352</b>	<b>\$49,675,974</b>	<b>-\$11,986</b>	<b>\$5,528,221</b>	<b>\$80,200,639</b>	<b>\$85,728,860</b>	<b>\$36,064,872</b>	<b>0.11</b>	<b>1.73</b>	<b>22.43%</b>
<b>Harvesting</b>												
Aberdeen U.S. Private Equity V, L.P.	2013	\$15,000,000	\$0	\$15,000,000	\$7,648	\$11,712,498	\$16,496,833	\$28,209,331	\$13,201,683	0.78	1.88	18.30%
Aberdeen U.S. Private Equity VI, L.P.	2014	\$15,000,000	\$975,000	\$14,025,000	\$0	\$7,245,378	\$17,938,156	\$25,183,534	\$11,158,534	0.52	1.80	21.38%
Crown Asia-Pacific Private Equity II PLC	2011	\$14,000,000	\$1,106,000	\$12,894,000	\$0	\$9,296,000	\$15,055,591	\$24,351,591	\$11,457,591	0.72	1.89	12.46%
Crown Asia-Pacific Private Equity III PLC	2014	\$5,000,000	\$780,000	\$4,220,000	\$0	\$1,010,000	\$8,353,795	\$9,363,795	\$5,143,795	0.24	2.22	25.10%
Crown Global Secondaries III PLC, L.P.	2012	\$10,000,000	\$2,640,000	\$7,360,000	\$0	\$7,380,000	\$4,936,595	\$12,316,595	\$4,956,595	1.00	1.67	15.34%
Greenspring Global Partners V-B, L.P.	2011	\$7,000,000	\$630,000	\$6,370,000	-\$16,154	\$12,712,000	\$11,080,312	\$23,792,312	\$17,438,466	2.00	3.74	25.57%
Greenspring Global Partners VI, L.P.	2014	\$7,500,000	\$750,000	\$6,750,000	\$1,152	\$4,200,000	\$21,164,996	\$25,364,996	\$18,613,844	0.62	3.76	30.41%
Greenspring Secondaries Fund I, L.P.	2014	\$2,500,000	\$100,000	\$2,400,000	-\$903	\$6,112,913	\$6,512,077	\$12,624,990	\$10,225,893	2.55	5.26	39.42%
HarbourVest 2013 Direct Fund, L.P.	2013	\$15,000,000	\$484,349	\$14,515,651	\$108,146	\$20,392,936	\$9,622,955	\$30,015,891	\$15,392,094	1.39	2.05	19.70%
Pantheon Global Secondary Fund IV, L.P.	2010	\$3,000,000	\$1,008,000	\$1,992,000	\$0	\$2,793,440	\$382,131	\$3,175,571	\$1,183,571	1.40	1.59	13.13%
Schroder Adveq Europe V, L.P.	2012	\$9,128,848	\$937,889	\$8,190,959	\$0	\$5,734,903	\$7,040,872	\$12,775,775	\$4,584,816	0.70	1.56	10.93%
<b>Total Harvesting</b>		<b>\$103,128,848</b>	<b>\$9,411,238</b>	<b>\$93,717,610</b>	<b>\$99,889</b>	<b>\$88,590,068</b>	<b>\$118,584,313</b>	<b>\$207,174,381</b>	<b>\$113,356,882</b>	<b>0.94</b>	<b>2.21</b>	<b>19.92%</b>



# Howard County Retirement Plans

## ANALYSIS BY LIFECYCLE - PRIVATE EQUITY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Liquidating</b>												
Greenspring Global Partners IV, L.P.	2008	\$4,000,000	\$160,000	\$3,840,000	\$36,255	\$7,900,032	\$3,465,983	\$11,366,015	\$7,489,760	2.04	2.93	18.03%
Siguler Guff Distressed Opportunities Fund III, L.P.	2007	\$10,000,000	\$300,000	\$9,700,000	\$0	\$14,197,419	\$1,828,991	\$16,026,410	\$6,326,410	1.46	1.65	10.59%
<b>Total Liquidating</b>		<b>\$14,000,000</b>	<b>\$460,000</b>	<b>\$13,540,000</b>	<b>\$36,255</b>	<b>\$22,097,451</b>	<b>\$5,294,974</b>	<b>\$27,392,425</b>	<b>\$13,816,170</b>	<b>1.63</b>	<b>2.02</b>	<b>13.05%</b>
<b>Total</b>		<b>\$210,299,174</b>	<b>\$53,365,590</b>	<b>\$156,933,583</b>	<b>\$124,158</b>	<b>\$116,215,739</b>	<b>\$204,079,926</b>	<b>\$320,295,665</b>	<b>\$163,237,924</b>	<b>0.74</b>	<b>2.04</b>	<b>18.65%</b>



# Howard County Retirement Plans

## ANALYSIS BY VINTAGE YEAR - PRIVATE EQUITY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2007</b>												
Siguler Guff Distressed Opportunities Fund III, L.P.	2007	\$10,000,000	\$300,000	\$9,700,000	\$0	\$14,197,419	\$1,828,991	\$16,026,410	\$6,326,410	1.46	1.65	10.59%
<b>Total 2007</b>		<b>\$10,000,000</b>	<b>\$300,000</b>	<b>\$9,700,000</b>	<b>\$0</b>	<b>\$14,197,419</b>	<b>\$1,828,991</b>	<b>\$16,026,410</b>	<b>\$6,326,410</b>	<b>1.46</b>	<b>1.65</b>	<b>10.59%</b>
<b>2008</b>												
Greenspring Global Partners IV, L.P.	2008	\$4,000,000	\$160,000	\$3,840,000	\$36,255	\$7,900,032	\$3,465,983	\$11,366,015	\$7,489,760	2.04	2.93	18.03%
<b>Total 2008</b>		<b>\$4,000,000</b>	<b>\$160,000</b>	<b>\$3,840,000</b>	<b>\$36,255</b>	<b>\$7,900,032</b>	<b>\$3,465,983</b>	<b>\$11,366,015</b>	<b>\$7,489,760</b>	<b>2.04</b>	<b>2.93</b>	<b>18.03%</b>
<b>2010</b>												
Pantheon Global Secondary Fund IV, L.P.	2010	\$3,000,000	\$1,008,000	\$1,992,000	\$0	\$2,793,440	\$382,131	\$3,175,571	\$1,183,571	1.40	1.59	13.13%
<b>Total 2010</b>		<b>\$3,000,000</b>	<b>\$1,008,000</b>	<b>\$1,992,000</b>	<b>\$0</b>	<b>\$2,793,440</b>	<b>\$382,131</b>	<b>\$3,175,571</b>	<b>\$1,183,571</b>	<b>1.40</b>	<b>1.59</b>	<b>13.13%</b>
<b>2011</b>												
Crown Asia-Pacific Private Equity II PLC	2011	\$14,000,000	\$1,106,000	\$12,894,000	\$0	\$9,296,000	\$15,055,591	\$24,351,591	\$11,457,591	0.72	1.89	12.46%
Greenspring Global Partners V-B, L.P.	2011	\$7,000,000	\$630,000	\$6,370,000	-\$16,154	\$12,712,000	\$11,080,312	\$23,792,312	\$17,438,466	2.00	3.74	25.57%
<b>Total 2011</b>		<b>\$21,000,000</b>	<b>\$1,736,000</b>	<b>\$19,264,000</b>	<b>-\$16,154</b>	<b>\$22,008,000</b>	<b>\$26,135,903</b>	<b>\$48,143,903</b>	<b>\$28,896,057</b>	<b>1.14</b>	<b>2.50</b>	<b>18.01%</b>
<b>2012</b>												
Crown Global Secondaries III PLC, L.P.	2012	\$10,000,000	\$2,640,000	\$7,360,000	\$0	\$7,380,000	\$4,936,595	\$12,316,595	\$4,956,595	1.00	1.67	15.34%
Schroder Adveq Europe V, L.P.	2012	\$9,128,848	\$937,889	\$8,190,959	\$0	\$5,734,903	\$7,040,872	\$12,775,775	\$4,584,816	0.70	1.56	10.93%
<b>Total 2012</b>		<b>\$19,128,848</b>	<b>\$3,577,889</b>	<b>\$15,550,959</b>	<b>\$0</b>	<b>\$13,114,903</b>	<b>\$11,977,467</b>	<b>\$25,092,370</b>	<b>\$9,541,411</b>	<b>0.84</b>	<b>1.61</b>	<b>12.86%</b>
<b>2013</b>												
Aberdeen U.S. Private Equity V, L.P.	2013	\$15,000,000	\$0	\$15,000,000	\$7,648	\$11,712,498	\$16,496,833	\$28,209,331	\$13,201,683	0.78	1.88	18.30%
HarbourVest 2013 Direct Fund, L.P.	2013	\$15,000,000	\$484,349	\$14,515,651	\$108,146	\$20,392,936	\$9,622,955	\$30,015,891	\$15,392,094	1.39	2.05	19.70%
<b>Total 2013</b>		<b>\$30,000,000</b>	<b>\$484,349</b>	<b>\$29,515,651</b>	<b>\$115,794</b>	<b>\$32,105,434</b>	<b>\$26,119,788</b>	<b>\$58,225,222</b>	<b>\$28,593,777</b>	<b>1.08</b>	<b>1.96</b>	<b>19.05%</b>
<b>2014</b>												
Aberdeen U.S. Private Equity VI, L.P.	2014	\$15,000,000	\$975,000	\$14,025,000	\$0	\$7,245,378	\$17,938,156	\$25,183,534	\$11,158,534	0.52	1.80	21.38%
Crown Asia-Pacific Private Equity III PLC	2014	\$5,000,000	\$780,000	\$4,220,000	\$0	\$1,010,000	\$8,353,795	\$9,363,795	\$5,143,795	0.24	2.22	25.10%
Greenspring Global Partners VI, L.P.	2014	\$7,500,000	\$750,000	\$6,750,000	\$1,152	\$4,200,000	\$21,164,996	\$25,364,996	\$18,613,844	0.62	3.76	30.41%
Greenspring Secondaries Fund I, L.P.	2014	\$2,500,000	\$100,000	\$2,400,000	-\$903	\$6,112,913	\$6,512,077	\$12,624,990	\$10,225,893	2.55	5.26	39.42%
<b>Total 2014</b>		<b>\$30,000,000</b>	<b>\$2,605,000</b>	<b>\$27,395,000</b>	<b>\$249</b>	<b>\$18,568,291</b>	<b>\$53,969,024</b>	<b>\$72,537,315</b>	<b>\$45,142,066</b>	<b>0.68</b>	<b>2.65</b>	<b>28.55%</b>
<b>2015</b>												
57 Stars Global Opportunity Fund 4 (US), L.P.	2015	\$7,000,000	\$1,630,168	\$5,369,832	-\$15,283	\$0	\$8,812,002	\$8,812,002	\$3,457,453	0.00	1.65	14.58%
NB Crossroads Fund XXI, L.P.	2015	\$15,000,000	\$5,250,000	\$9,750,000	\$0	\$1,168,597	\$18,125,128	\$19,293,725	\$9,543,725	0.12	1.98	20.99%
Schroder Adveq Europe VI, L.P.	2015	\$6,858,360	\$1,621,914	\$5,236,446	\$0	\$883,378	\$7,536,434	\$8,419,812	\$3,183,366	0.17	1.61	17.42%
<b>Total 2015</b>		<b>\$28,858,360</b>	<b>\$8,502,082</b>	<b>\$20,356,278</b>	<b>-\$15,283</b>	<b>\$2,051,975</b>	<b>\$34,473,564</b>	<b>\$36,525,539</b>	<b>\$16,184,544</b>	<b>0.10</b>	<b>1.80</b>	<b>18.49%</b>





# Howard County Retirement Plans

## ANALYSIS BY VINTAGE YEAR - PRIVATE EQUITY

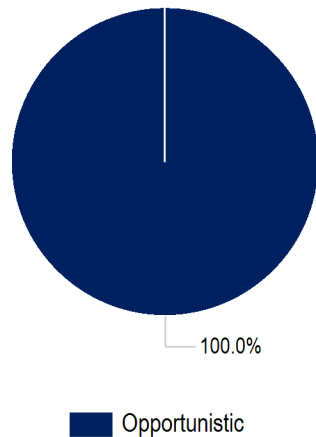
Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2017</b>												
Aberdeen U.S. Private Equity VII, L.P.	2017	\$5,000,000	\$1,600,000	\$3,400,000	\$3,297	\$1,078,589	\$5,484,857	\$6,563,446	\$3,160,149	0.32	1.93	38.37%
Greenspring Global Partners VIII-B, L.P.	2017	\$5,000,000	\$750,000	\$4,250,000	\$0	\$0	\$6,901,124	\$6,901,124	\$2,651,124	0.00	1.62	26.46%
HarbourVest Partners Co-Investment Fund IV, L.P.	2017	\$9,425,858	\$1,964,610	\$7,461,248	\$0	\$2,178,001	\$12,730,401	\$14,908,402	\$7,447,154	0.29	2.00	22.37%
<b>Total 2017</b>		<b>\$19,425,858</b>	<b>\$4,314,610</b>	<b>\$15,111,248</b>	<b>\$3,297</b>	<b>\$3,256,590</b>	<b>\$25,116,382</b>	<b>\$28,372,972</b>	<b>\$13,258,427</b>	<b>0.22</b>	<b>1.88</b>	<b>25.42%</b>
<b>2018</b>												
HarbourVest Partners Co-Investment Fund IV AIV, L.P.	2018	\$574,142	\$312,689	\$261,453	\$0	\$67,347	\$873,356	\$940,703	\$679,250	0.26	3.60	55.93%
Schroder Adveq Europe Direct II S.C.S.	2018	\$1,022,921	\$423,108	\$599,813	\$0	\$0	\$1,171,080	\$1,171,080	\$571,267	0.00	1.95	44.79%
Schroder Adveq Europe VII S.C.S.	2018	\$4,039,045	\$2,714,943	\$1,324,102	\$0	\$0	\$2,236,395	\$2,236,395	\$912,293	0.00	1.69	36.01%
<b>Total 2018</b>		<b>\$5,636,108</b>	<b>\$3,450,740</b>	<b>\$2,185,368</b>	<b>\$0</b>	<b>\$67,347</b>	<b>\$4,280,830</b>	<b>\$4,348,177</b>	<b>\$2,162,810</b>	<b>0.03</b>	<b>1.99</b>	<b>43.39%</b>
<b>2019</b>												
Greenspring Global Partners IX-B, L.P.	2019	\$7,250,000	\$3,190,000	\$4,060,000	\$0	\$152,308	\$6,379,717	\$6,532,025	\$2,472,025	0.04	1.61	42.29%
NB Crossroads Fund XXII, L.P.	2019	\$5,000,000	\$2,300,000	\$2,700,000	\$0	\$0	\$3,811,812	\$3,811,812	\$1,111,812	0.00	1.41	23.03%
<b>Total 2019</b>		<b>\$12,250,000</b>	<b>\$5,490,000</b>	<b>\$6,760,000</b>	<b>\$0</b>	<b>\$152,308</b>	<b>\$10,191,529</b>	<b>\$10,343,837</b>	<b>\$3,583,837</b>	<b>0.02</b>	<b>1.53</b>	<b>33.51%</b>
<b>2020</b>												
Greenspring Diversity I, L.P.	2020	\$2,500,000	\$2,375,000	\$125,000	\$0	\$0	\$202,857	\$202,857	\$77,857	0.00	1.62	
Greenspring Global Partners X, L.P.	2020	\$7,500,000	\$6,525,000	\$975,000	\$0	\$0	\$1,053,596	\$1,053,596	\$78,596	0.00	1.08	12.74%
Greenspring Opportunities VI, L.P.	2020	\$7,000,000	\$3,920,000	\$3,080,000	\$0	\$0	\$4,036,503	\$4,036,503	\$956,503	0.00	1.31	42.58%
Vista Foundation Fund IV, L.P.	2020	\$10,000,000	\$8,916,920	\$1,083,080	\$0	\$0	\$845,378	\$845,378	-\$237,702	0.00	0.78	-58.55%
<b>Total 2020</b>		<b>\$27,000,000</b>	<b>\$21,736,920</b>	<b>\$5,263,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,138,334</b>	<b>\$6,138,334</b>	<b>\$875,254</b>	<b>0.00</b>	<b>1.17</b>	<b>31.76%</b>
<b>Total</b>		<b>\$210,299,174</b>	<b>\$53,365,590</b>	<b>\$156,933,583</b>	<b>\$124,158</b>	<b>\$116,215,739</b>	<b>\$204,079,926</b>	<b>\$320,295,665</b>	<b>\$163,237,924</b>	<b>0.74</b>	<b>2.04</b>	<b>18.65%</b>



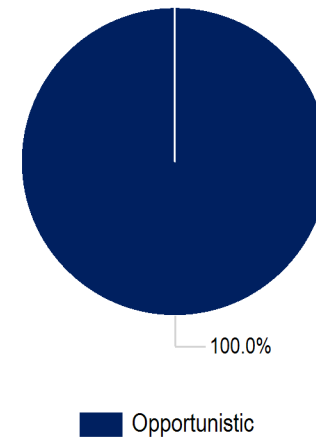
# Howard County Retirement Plans

## ANALYSIS BY STRATEGY - REAL ESTATE

Private Markets Valuation by Strategy



Private Markets Fund Exposure by Strategy



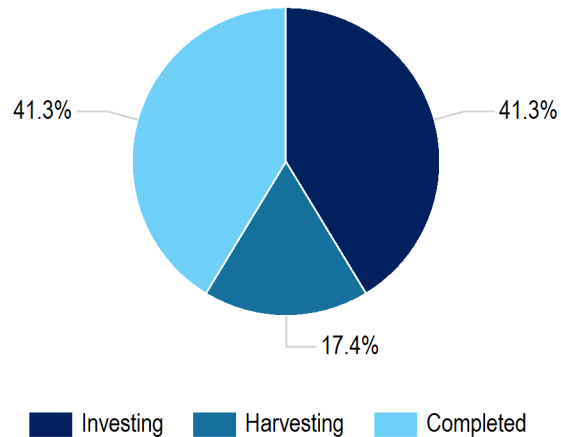
Investments	Commitments			Contributions & Distributions			Valuations				Performance		
Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI	IRR
Total Non Core	\$15,000,000	\$0	1.00	\$15,000,000	\$0	\$15,046,743	\$0	\$15,046,743	\$46,743	\$0	1.00	1.00	0.04%
Total Opportunistic	\$49,743,987	\$12,218,289	0.75	\$37,525,698	\$151,453	\$18,808,364	\$29,641,032	\$48,449,396	\$10,772,245	\$41,859,321	0.50	1.29	6.56%
Total Value Add	\$20,000,000	\$0	1.00	\$20,000,000	\$0	\$31,187,641	\$0	\$31,187,641	\$11,187,641	\$0	1.56	1.56	9.22%
<b>Total</b>	<b>\$84,743,987</b>	<b>\$12,218,289</b>	<b>0.86</b>	<b>\$72,525,698</b>	<b>\$151,453</b>	<b>\$65,042,748</b>	<b>\$29,641,032</b>	<b>\$94,683,780</b>	<b>\$22,006,630</b>	<b>\$41,859,321</b>	<b>0.89</b>	<b>1.30</b>	<b>5.35%</b>



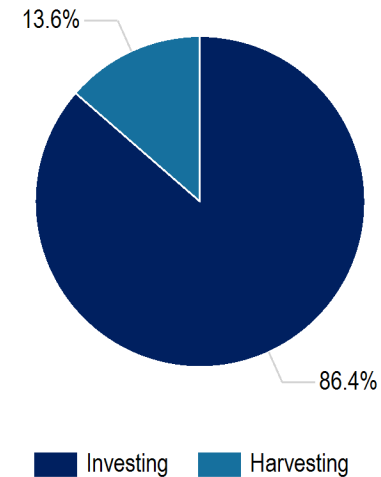
# Howard County Retirement Plans

## ANALYSIS BY LIFECYCLE - REAL ESTATE

Commitment by Lifecycle



Unfunded Commitment by Lifecycle



Investments	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing	\$35,000,000	\$10,555,589	0.70	\$24,444,411	\$85,580	\$5,929,738	\$26,714,816	\$32,644,554	\$8,114,563	0.24	1.33	8.61%
Total Harvesting	\$14,743,987	\$1,662,700	0.89	\$13,081,287	\$65,873	\$12,878,626	\$2,926,216	\$15,804,842	\$2,657,682	0.98	1.20	4.07%
Total Completed	\$35,000,000	\$0	1.00	\$35,000,000	\$0	\$46,234,384	\$0	\$46,234,384	\$11,234,384	1.32	1.32	4.75%
<b>Total</b>	<b>\$84,743,987</b>	<b>\$12,218,289</b>	<b>0.86</b>	<b>\$72,525,698</b>	<b>\$151,453</b>	<b>\$65,042,748</b>	<b>\$29,641,032</b>	<b>\$94,683,780</b>	<b>\$22,006,630</b>	<b>0.89</b>	<b>1.30</b>	<b>5.35%</b>



# Howard County Retirement Plans

## ANALYSIS BY LIFECYCLE - REAL ESTATE

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Investing</b>												
Partners Group Global Real Estate 2014 (USD) A, L.P. Inc.	2014	\$25,000,000	\$5,715,342	\$19,284,658	\$35,548	\$5,927,238	\$20,582,267	\$26,509,505	\$7,189,299	0.31	1.37	8.51%
Partners Group Real Estate Secondary 2017 (USD) A, L.P.	2018	\$10,000,000	\$4,840,247	\$5,159,753	\$50,032	\$2,500	\$6,132,549	\$6,135,049	\$925,264	0.00	1.18	9.56%
<b>Total Investing</b>		<b>\$35,000,000</b>	<b>\$10,555,589</b>	<b>\$24,444,411</b>	<b>\$85,580</b>	<b>\$5,929,738</b>	<b>\$26,714,816</b>	<b>\$32,644,554</b>	<b>\$8,114,563</b>	<b>0.24</b>	<b>1.33</b>	<b>8.61%</b>
<b>Harvesting</b>												
Partners Group Global Real Estate 2011, L.P.	2011	\$14,743,987	\$1,662,700	\$13,081,287	\$65,873	\$12,878,626	\$2,926,216	\$15,804,842	\$2,657,682	0.98	1.20	4.07%
<b>Total Harvesting</b>		<b>\$14,743,987</b>	<b>\$1,662,700</b>	<b>\$13,081,287</b>	<b>\$65,873</b>	<b>\$12,878,626</b>	<b>\$2,926,216</b>	<b>\$15,804,842</b>	<b>\$2,657,682</b>	<b>0.98</b>	<b>1.20</b>	<b>4.07%</b>
<b>Completed</b>												
TA Associates Realty Fund IX, L.P.	2008	\$10,000,000	\$0	\$10,000,000	\$0	\$16,015,604	\$0	\$16,015,604	\$6,015,604	1.60	1.60	10.42%
TA Associates Realty Fund VI, L.P.	2002	\$10,000,000	\$0	\$10,000,000	\$0	\$15,172,037	\$0	\$15,172,037	\$5,172,037	1.52	1.52	8.55%
TA Associates Realty Fund VII, L.P.	2005	\$5,000,000	\$0	\$5,000,000	\$0	\$5,119,609	\$0	\$5,119,609	\$119,609	1.02	1.02	0.34%
TA Associates Realty Fund VIII, L.P.	2006	\$10,000,000	\$0	\$10,000,000	\$0	\$9,927,134	\$0	\$9,927,134	-\$72,866	0.99	0.99	-0.08%
<b>Total Completed</b>		<b>\$35,000,000</b>	<b>\$0</b>	<b>\$35,000,000</b>	<b>\$0</b>	<b>\$46,234,384</b>	<b>\$0</b>	<b>\$46,234,384</b>	<b>\$11,234,384</b>	<b>1.32</b>	<b>1.32</b>	<b>4.75%</b>
<b>Total</b>		<b>\$84,743,987</b>	<b>\$12,218,289</b>	<b>\$72,525,698</b>	<b>\$151,453</b>	<b>\$65,042,748</b>	<b>\$29,641,032</b>	<b>\$94,683,780</b>	<b>\$22,006,630</b>	<b>0.89</b>	<b>1.30</b>	<b>5.35%</b>



# Howard County Retirement Plans

## ANALYSIS BY VINTAGE YEAR - REAL ESTATE

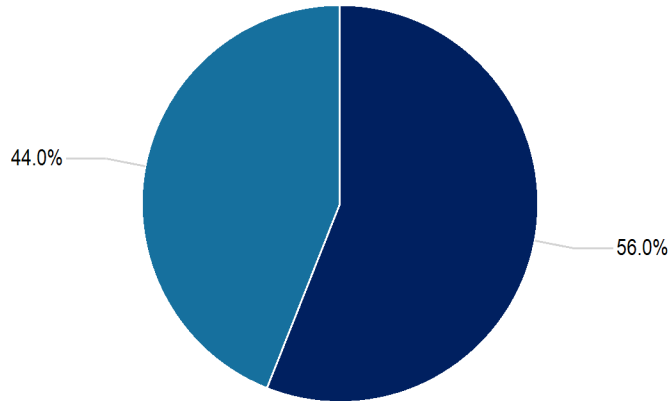
Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2002</b>												
TA Associates Realty Fund VI, L.P.	2002	\$10,000,000	\$0	\$10,000,000	\$0	\$15,172,037	\$0	\$15,172,037	\$5,172,037	1.52	1.52	8.55%
<b>Total 2002</b>		<b>\$10,000,000</b>	<b>\$0</b>	<b>\$10,000,000</b>	<b>\$0</b>	<b>\$15,172,037</b>	<b>\$0</b>	<b>\$15,172,037</b>	<b>\$5,172,037</b>	<b>1.52</b>	<b>1.52</b>	<b>8.55%</b>
<b>2005</b>												
TA Associates Realty Fund VII, L.P.	2005	\$5,000,000	\$0	\$5,000,000	\$0	\$5,119,609	\$0	\$5,119,609	\$119,609	1.02	1.02	0.34%
<b>Total 2005</b>		<b>\$5,000,000</b>	<b>\$0</b>	<b>\$5,000,000</b>	<b>\$0</b>	<b>\$5,119,609</b>	<b>\$0</b>	<b>\$5,119,609</b>	<b>\$119,609</b>	<b>1.02</b>	<b>1.02</b>	<b>0.34%</b>
<b>2006</b>												
TA Associates Realty Fund VIII, L.P.	2006	\$10,000,000	\$0	\$10,000,000	\$0	\$9,927,134	\$0	\$9,927,134	-\$72,866	0.99	0.99	-0.08%
<b>Total 2006</b>		<b>\$10,000,000</b>	<b>\$0</b>	<b>\$10,000,000</b>	<b>\$0</b>	<b>\$9,927,134</b>	<b>\$0</b>	<b>\$9,927,134</b>	<b>-\$72,866</b>	<b>0.99</b>	<b>0.99</b>	<b>-0.08%</b>
<b>2008</b>												
TA Associates Realty Fund IX, L.P.	2008	\$10,000,000	\$0	\$10,000,000	\$0	\$16,015,604	\$0	\$16,015,604	\$6,015,604	1.60	1.60	10.42%
<b>Total 2008</b>		<b>\$10,000,000</b>	<b>\$0</b>	<b>\$10,000,000</b>	<b>\$0</b>	<b>\$16,015,604</b>	<b>\$0</b>	<b>\$16,015,604</b>	<b>\$6,015,604</b>	<b>1.60</b>	<b>1.60</b>	<b>10.42%</b>
<b>2011</b>												
Partners Group Global Real Estate 2011, L.P.	2011	\$14,743,987	\$1,662,700	\$13,081,287	\$65,873	\$12,878,626	\$2,926,216	\$15,804,842	\$2,657,682	0.98	1.20	4.07%
<b>Total 2011</b>		<b>\$14,743,987</b>	<b>\$1,662,700</b>	<b>\$13,081,287</b>	<b>\$65,873</b>	<b>\$12,878,626</b>	<b>\$2,926,216</b>	<b>\$15,804,842</b>	<b>\$2,657,682</b>	<b>0.98</b>	<b>1.20</b>	<b>4.07%</b>
<b>2014</b>												
Partners Group Global Real Estate 2014 (USD) A, L.P. Inc.	2014	\$25,000,000	\$5,715,342	\$19,284,658	\$35,548	\$5,927,238	\$20,582,267	\$26,509,505	\$7,189,299	0.31	1.37	8.51%
<b>Total 2014</b>		<b>\$25,000,000</b>	<b>\$5,715,342</b>	<b>\$19,284,658</b>	<b>\$35,548</b>	<b>\$5,927,238</b>	<b>\$20,582,267</b>	<b>\$26,509,505</b>	<b>\$7,189,299</b>	<b>0.31</b>	<b>1.37</b>	<b>8.51%</b>
<b>2018</b>												
Partners Group Real Estate Secondary 2017 (USD) A, L.P.	2018	\$10,000,000	\$4,840,247	\$5,159,753	\$50,032	\$2,500	\$6,132,549	\$6,135,049	\$925,264	0.00	1.18	9.56%
<b>Total 2018</b>		<b>\$10,000,000</b>	<b>\$4,840,247</b>	<b>\$5,159,753</b>	<b>\$50,032</b>	<b>\$2,500</b>	<b>\$6,132,549</b>	<b>\$6,135,049</b>	<b>\$925,264</b>	<b>0.00</b>	<b>1.18</b>	<b>9.56%</b>
<b>Total</b>		<b>\$84,743,987</b>	<b>\$12,218,289</b>	<b>\$72,525,698</b>	<b>\$151,453</b>	<b>\$65,042,748</b>	<b>\$29,641,032</b>	<b>\$94,683,780</b>	<b>\$22,006,630</b>	<b>0.89</b>	<b>1.30</b>	<b>5.35%</b>



# Howard County Retirement Plans

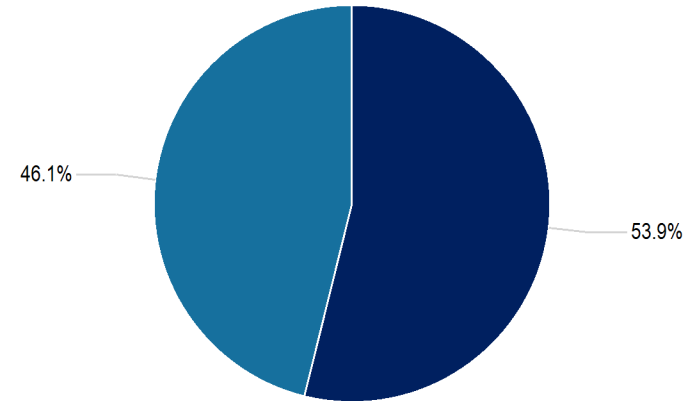
## ANALYSIS BY STRATEGY - REAL ASSETS

Private Markets Valuation by Strategy



■ Fund of Funds ■ Natural Resources

Private Markets Fund Exposure by Strategy



■ Fund of Funds ■ Natural Resources

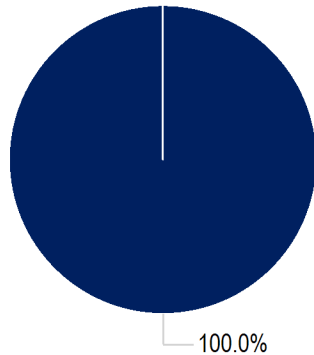
Investments	Commitments			Contributions & Distributions			Valuations				Performance		
	Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI
Total Fund of Funds	\$15,000,000	\$6,710,173	0.55	\$8,289,827	-\$17,052	\$0	\$9,757,571	\$9,757,571	\$1,484,796	\$16,467,744	0.00	1.18	6.82%
Total Natural Resources	\$15,000,000	\$6,438,750	0.57	\$8,561,250	\$0	\$1,980,867	\$7,662,967	\$9,643,834	\$1,082,584	\$14,101,717	0.23	1.13	6.87%
<b>Total</b>	<b>\$30,000,000</b>	<b>\$13,148,923</b>	<b>0.56</b>	<b>\$16,851,077</b>	<b>-\$17,052</b>	<b>\$1,980,867</b>	<b>\$17,420,538</b>	<b>\$19,401,405</b>	<b>\$2,567,380</b>	<b>\$30,569,461</b>	<b>0.12</b>	<b>1.15</b>	<b>6.84%</b>



# Howard County Retirement Plans

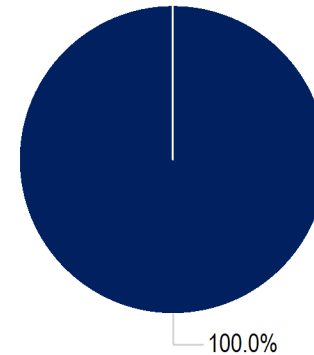
## ANALYSIS BY LIFECYCLE - REAL ASSETS

Commitment by Lifecycle



Investing

Unfunded Commitment by Lifecycle



Investing

Investments	Commitments			Contributions & Distributions			Valuations			Performance		
Lifecycle	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Total Investing</b>	\$30,000,000	\$13,148,923	0.56	\$16,851,077	-\$17,052	\$1,980,867	\$17,420,538	\$19,401,405	\$2,567,380	0.12	1.15	6.84%
<b>Total</b>	\$30,000,000	\$13,148,923	0.56	\$16,851,077	-\$17,052	\$1,980,867	\$17,420,538	\$19,401,405	\$2,567,380	0.12	1.15	6.84%



# Howard County Retirement Plans

## ANALYSIS BY LIFECYCLE - REAL ASSETS

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Investing</b>												
Aether Real Assets IV, L.P.	2015	\$7,500,000	\$1,473,499	\$6,026,501	-\$906	\$0	\$6,748,209	\$6,748,209	\$722,614	0.00	1.12	4.09%
Aether Real Assets V, L.P.	2018	\$7,500,000	\$5,236,674	\$2,263,326	-\$16,146	\$0	\$3,009,362	\$3,009,362	\$762,182	0.00	1.34	20.24%
Commonfund Capital Natural Resources Partners XI, L.P.	2018	\$7,500,000	\$4,837,500	\$2,662,500	\$0	\$0	\$2,473,357	\$2,473,357	-\$189,143	0.00	0.93	-6.66%
Commonfund Capital Natural Resources Partners X, L.P.	2015	\$7,500,000	\$1,601,250	\$5,898,750	\$0	\$1,980,867	\$5,189,610	\$7,170,477	\$1,271,727	0.34	1.22	9.58%
<b>Total Investing</b>		<b>\$30,000,000</b>	<b>\$13,148,923</b>	<b>\$16,851,077</b>	<b>-\$17,052</b>	<b>\$1,980,867</b>	<b>\$17,420,538</b>	<b>\$19,401,405</b>	<b>\$2,567,380</b>	<b>0.12</b>	<b>1.15</b>	<b>6.84%</b>
<b>Total</b>		<b>\$30,000,000</b>	<b>\$13,148,923</b>	<b>\$16,851,077</b>	<b>-\$17,052</b>	<b>\$1,980,867</b>	<b>\$17,420,538</b>	<b>\$19,401,405</b>	<b>\$2,567,380</b>	<b>0.12</b>	<b>1.15</b>	<b>6.84%</b>





# Howard County Retirement Plans

## ANALYSIS BY VINTAGE YEAR - REAL ASSETS

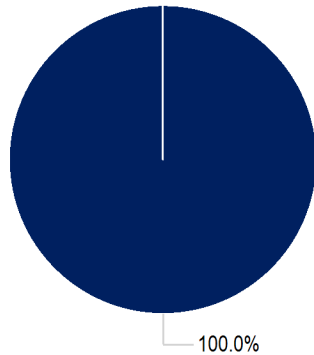
Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2015</b>												
Aether Real Assets IV, L.P.	2015	\$7,500,000	\$1,473,499	\$6,026,501	-\$906	\$0	\$6,748,209	\$6,748,209	\$722,614	0.00	1.12	4.09%
Commonfund Capital Natural Resources Partners X, L.P.	2015	\$7,500,000	\$1,601,250	\$5,898,750	\$0	\$1,980,867	\$5,189,610	\$7,170,477	\$1,271,727	0.34	1.22	9.58%
<b>Total 2015</b>		<b>\$15,000,000</b>	<b>\$3,074,749</b>	<b>\$11,925,251</b>	<b>-\$906</b>	<b>\$1,980,867</b>	<b>\$11,937,819</b>	<b>\$13,918,686</b>	<b>\$1,994,341</b>	<b>0.17</b>	<b>1.17</b>	<b>6.45%</b>
<b>2018</b>												
Aether Real Assets V, L.P.	2018	\$7,500,000	\$5,236,674	\$2,263,326	-\$16,146	\$0	\$3,009,362	\$3,009,362	\$762,182	0.00	1.34	20.24%
Commonfund Capital Natural Resources Partners XI, L.P.	2018	\$7,500,000	\$4,837,500	\$2,662,500	\$0	\$0	\$2,473,357	\$2,473,357	-\$189,143	0.00	0.93	-6.66%
<b>Total 2018</b>		<b>\$15,000,000</b>	<b>\$10,074,174</b>	<b>\$4,925,826</b>	<b>-\$16,146</b>	<b>\$0</b>	<b>\$5,482,719</b>	<b>\$5,482,719</b>	<b>\$573,039</b>	<b>0.00</b>	<b>1.12</b>	<b>8.84%</b>
<b>Total</b>		<b>\$30,000,000</b>	<b>\$13,148,923</b>	<b>\$16,851,077</b>	<b>-\$17,052</b>	<b>\$1,980,867</b>	<b>\$17,420,538</b>	<b>\$19,401,405</b>	<b>\$2,567,380</b>	<b>0.12</b>	<b>1.15</b>	<b>6.84%</b>



# Howard County Retirement Plans

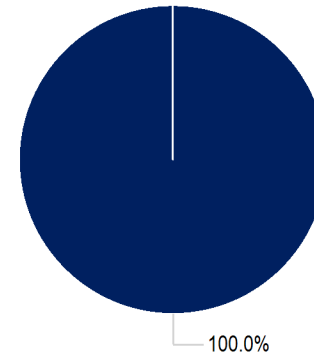
## ANALYSIS BY STRATEGY - PRIVATE DEBT

Private Markets Valuation by Strategy



■ Distressed

Private Markets Fund Exposure by Strategy



■ Distressed

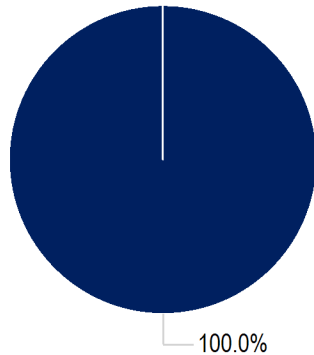
Investments	Commitments			Contributions & Distributions			Valuations				Performance		
Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI	IRR
<b>Total Distressed</b>	\$25,000,000	\$22,500,000	0.10	\$2,500,000	\$4,167	\$0	\$2,500,000	\$2,500,000	-\$4,167	\$25,000,000	0.00	1.00	-0.22%
<b>Total</b>	\$25,000,000	\$22,500,000	0.10	\$2,500,000	\$4,167	\$0	\$2,500,000	\$2,500,000	-\$4,167	\$25,000,000	0.00	1.00	-0.22%



# Howard County Retirement Plans

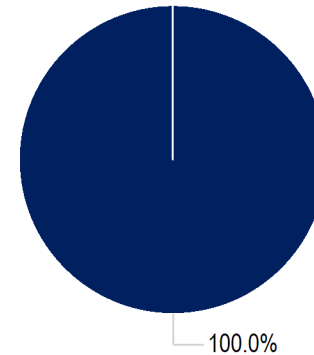
## ANALYSIS BY LIFECYCLE - PRIVATE DEBT

Commitment by Lifecycle



Investing

Unfunded Commitment by Lifecycle



Investing

Investments	Commitments			Contributions & Distributions			Valuations			Performance		
Lifecycle	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing	\$25,000,000	\$22,500,000	0.10	\$2,500,000	\$4,167	\$0	\$2,500,000	\$2,500,000	-\$4,167	0.00	1.00	-0.22%
Total	\$25,000,000	\$22,500,000	0.10	\$2,500,000	\$4,167	\$0	\$2,500,000	\$2,500,000	-\$4,167	0.00	1.00	-0.22%



# Howard County Retirement Plans

## ANALYSIS BY LIFECYCLE - PRIVATE DEBT

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Investing</b>												
CVI Credit Value Fund A V, L.P.	2020	\$25,000,000	\$22,500,000	\$2,500,000	\$4,167	\$0	\$2,500,000	\$2,500,000	-\$4,167	0.00	1.00	-0.22%
<b>Total Investing</b>		<b>\$25,000,000</b>	<b>\$22,500,000</b>	<b>\$2,500,000</b>	<b>\$4,167</b>	<b>\$0</b>	<b>\$2,500,000</b>	<b>\$2,500,000</b>	<b>-\$4,167</b>	<b>0.00</b>	<b>1.00</b>	<b>-0.22%</b>
<b>Total</b>		<b>\$25,000,000</b>	<b>\$22,500,000</b>	<b>\$2,500,000</b>	<b>\$4,167</b>	<b>\$0</b>	<b>\$2,500,000</b>	<b>\$2,500,000</b>	<b>-\$4,167</b>	<b>0.00</b>	<b>1.00</b>	<b>-0.22%</b>



# Howard County Retirement Plans

## ANALYSIS BY VINTAGE YEAR - PRIVATE DEBT

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2020</b>												
CVI Credit Value Fund A V, L.P.	2020	\$25,000,000	\$22,500,000	\$2,500,000	\$4,167	\$0	\$2,500,000	\$2,500,000	-\$4,167	0.00	1.00	-0.22%
<b>Total 2020</b>		<b>\$25,000,000</b>	<b>\$22,500,000</b>	<b>\$2,500,000</b>	<b>\$4,167</b>	<b>\$0</b>	<b>\$2,500,000</b>	<b>\$2,500,000</b>	<b>-\$4,167</b>	<b>0.00</b>	<b>1.00</b>	<b>-0.22%</b>
<b>Total</b>		<b>\$25,000,000</b>	<b>\$22,500,000</b>	<b>\$2,500,000</b>	<b>\$4,167</b>	<b>\$0</b>	<b>\$2,500,000</b>	<b>\$2,500,000</b>	<b>-\$4,167</b>	<b>0.00</b>	<b>1.00</b>	<b>-0.22%</b>



# AUGUST PRELIMINARY PERFORMANCE REPORT



PROPRIETARY & CONFIDENTIAL

# TRAILING ANNUAL INDEX PERFORMANCE

Equity						
	Aug-21	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI	2.5%	15.9%	28.6%	14.3%	14.3%	11.3%
S&P 500	3.0%	21.6%	31.2%	18.1%	18.0%	16.3%
Russell 1000	2.9%	20.7%	32.3%	18.4%	18.2%	16.4%
Russell 2000	2.2%	15.8%	47.1%	10.7%	14.4%	13.6%
Russell 2500	2.3%	17.5%	45.9%	13.1%	15.1%	14.3%
MSCI EAFE	1.8%	11.6%	26.1%	9.0%	9.7%	7.3%
MSCI EM	2.6%	2.8%	21.1%	9.9%	10.4%	4.9%

Credit						
	Aug-21	YTD	1 YR	3 YR	5 YR	10 YR
BBG Global Agg	-0.4%	-2.3%	0.5%	4.6%	2.5%	1.8%
BBG US Agg	-0.2%	-0.7%	-0.1%	5.4%	3.1%	3.2%
BBG Credit	-0.2%	-0.2%	2.3%	7.4%	4.5%	4.7%
BBG US HY	0.5%	4.5%	10.1%	7.1%	6.7%	7.1%
BBG Muni	-0.4%	1.5%	3.4%	5.1%	3.3%	4.1%
BBG Muni HY	-0.2%	7.2%	12.2%	7.5%	6.2%	6.9%
BBG TIPS	-0.2%	4.3%	5.6%	7.3%	4.6%	3.2%
BBG 20+ STRIPS	-0.2%	-6.6%	-9.7%	11.9%	4.3%	8.5%
BBG Long Treasuries	-0.2%	-4.8%	-7.3%	9.2%	3.6%	5.7%
BBG Long Credit	-0.4%	-0.7%	3.7%	10.7%	6.3%	7.1%
BBG Govt/Credit 1-3 Yr	0.0%	0.2%	0.4%	2.9%	1.9%	1.5%
JPM EMBI Glob Div	1.0%	0.7%	4.6%	6.9%	4.4%	5.6%
JPM GBI-EM Glob Div	0.8%	-3.0%	4.1%	5.8%	3.2%	0.4%

Real Assets						
	Aug-21	YTD	1 YR	3 YR	5 YR	10 YR
BBG Commodity	-0.3%	23.0%	31.0%	5.8%	4.2%	-4.7%
Alerian Midstream Index	-1.6%	33.4%	43.4%	1.9%	2.6%	-
FTSE NAREIT Equity REITs	1.8%	30.2%	40.5%	11.1%	7.6%	10.6%



Source: S&P, MSCI, Russell, Bloomberg, JPM, Alerian, FTSE, FactSet

# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE SUMMARY (GROSS)

	Ending August 31, 2021											
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund Composite</b>	<b>1,452,733,855</b>	<b>100.0</b>	<b>100.0</b>	<b>1.4</b>	<b>1.7</b>	<b>11.8</b>	<b>22.0</b>	<b>11.8</b>	<b>11.4</b>	<b>9.6</b>	<b>7.9</b>	<b>Apr-97</b>
<i>Policy Index</i>				1.2	1.4	9.5	18.8	10.6	9.7	8.7	7.7	Apr-97
<i>Allocation Index</i>				1.2	1.6	10.1	20.7	--	--	--	--	Apr-97
<b>Total US Equity Composite</b>	<b>429,632,916</b>	<b>29.6</b>	<b>27.5</b>	<b>2.9</b>	<b>3.9</b>	<b>19.7</b>	<b>33.0</b>	<b>16.0</b>	<b>18.3</b>	<b>16.6</b>	<b>9.8</b>	<b>Jul-97</b>
<i>Russell 3000</i>				2.9	4.6	20.4	33.0	17.9	18.0	16.2	9.2	Jul-97
<i>US Equity Allocation Index</i>				2.9	4.4	19.6	33.0	17.2	17.7	16.0	--	Jul-97
<b>Total International Equity</b>	<b>248,834,354</b>	<b>17.1</b>	<b>17.5</b>	<b>2.7</b>	<b>1.4</b>	<b>11.3</b>	<b>27.7</b>	<b>12.6</b>	<b>12.3</b>	<b>7.7</b>	<b>5.7</b>	<b>Jul-97</b>
<i>MSCI ACWI ex USA</i>				1.9	0.2	9.4	24.9	9.4	9.9	6.6	5.3	Jul-97
<b>Total Fixed Income Composite</b>	<b>388,187,651</b>	<b>26.7</b>	<b>23.0</b>	<b>0.3</b>	<b>1.1</b>	<b>0.6</b>	<b>3.6</b>	<b>6.7</b>	<b>4.5</b>	<b>4.4</b>	<b>5.5</b>	<b>Jul-97</b>
<i>Fixed Income Policy Index</i>				-0.2	0.9	-0.7	-0.1	5.4	3.1	3.2	5.1	Jul-97
<b>Total Real Assets Composite</b>	<b>46,289,571</b>	<b>3.2</b>	<b>6.0</b>	<b>0.0</b>	<b>0.0</b>	<b>5.5</b>	<b>11.9</b>	<b>0.8</b>	<b>5.5</b>	<b>6.2</b>	<b>6.5</b>	<b>Jul-03</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>				0.0	0.0	2.9	2.6	4.9	5.8	8.8	8.2	Jul-03
<b>Cash Composite</b>	<b>12,958,287</b>	<b>0.9</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.4</b>	<b>1.2</b>	<b>Dec-03</b>
<i>91 Day T-Bills</i>				0.0	0.0	0.0	0.0	1.1	1.1	0.6	1.2	Dec-03
<b>Hedge Fund Composite</b>	<b>130,563,326</b>	<b>9.0</b>	<b>8.0</b>	<b>0.3</b>	<b>0.6</b>	<b>5.6</b>	<b>11.0</b>	<b>6.5</b>	<b>6.1</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-11</b>
<i>HFRI FOF: Conservative Index</i>				0.5	0.3	6.1	12.3	5.3	4.8	3.7	3.3	Jan-11
<b>Private Equity Composite</b>	<b>192,517,749</b>	<b>13.3</b>	<b>13.0</b>	<b>0.0</b>	<b>0.0</b>	<b>30.2</b>	<b>53.7</b>	<b>23.5</b>	<b>21.1</b>	<b>16.4</b>	<b>15.1</b>	<b>Jul-08</b>
<i>CJA US All PE (1 Qtr Lag)</i>				0.0	0.0	22.0	47.4	17.6	17.2	14.3	11.8	Jul-08
<b>Private Debt</b>	<b>3,750,000</b>	<b>0.3</b>	<b>5.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.0</b>	<b>Jun-20</b>
<i>S&amp;P/LSTA Leveraged Loan TR</i>				0.0	0.0	3.8	8.4	4.2	4.6	4.9	10.3	Jun-20

Fiscal year end 6/30.

All history prior to 3/1/2019 was provided by AndCo.





# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Ending August 31, 2021											
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund Composite</b>	<b>1,452,733,855</b>	<b>100.0</b>	<b>100.0</b>	<b>1.4</b>	<b>1.8</b>	<b>11.8</b>	<b>22.0</b>	<b>11.8</b>	<b>11.4</b>	<b>9.6</b>	<b>7.9</b>	<b>Apr-97</b>
Policy Index				1.2	1.4	9.5	18.8	10.6	9.7	8.7	7.7	Apr-97
Allocation Index				1.2	1.6	10.1	20.7	--	--	--	--	Apr-97
<b>Total Equity Composite</b>	<b>678,467,270</b>	<b>46.7</b>	<b>45.0</b>	<b>2.8</b>	<b>3.0</b>	<b>16.4</b>	<b>31.0</b>	<b>14.6</b>	<b>15.7</b>	<b>12.8</b>	<b>8.4</b>	<b>Apr-00</b>
MSCI ACWI IMI				2.5	3.0	16.1	30.1	14.0	14.1	11.3	5.9	Apr-00
<b>Total US Equity Composite</b>	<b>429,632,916</b>	<b>29.6</b>	<b>27.5</b>	<b>2.8</b>	<b>3.9</b>	<b>19.7</b>	<b>33.1</b>	<b>16.0</b>	<b>18.3</b>	<b>16.6</b>	<b>9.8</b>	<b>Jul-97</b>
Russell 3000				2.9	4.6	20.4	33.0	17.9	18.0	16.2	9.2	Jul-97
US Equity Allocation Index				2.9	4.4	19.6	33.0	17.2	17.7	16.0	--	Jul-97
<b>Large Cap Composite</b>	<b>357,296,728</b>	<b>24.6</b>	<b>22.0</b>	<b>3.0</b>	<b>4.6</b>	<b>21.8</b>	<b>33.3</b>	<b>17.1</b>	<b>18.3</b>	<b>16.7</b>	<b>10.0</b>	<b>Apr-01</b>
Russell 1000				2.9	5.0	20.7	32.3	18.4	18.2	16.4	9.3	Apr-01
LSV Asset Management SMA	101,237,812	7.0		2.2	1.3	24.6	45.9	9.9	12.5	14.3	10.2	May-00
Russell 1000 Value				2.0	2.8	20.3	36.4	11.5	11.7	13.0	7.7	May-00
Westfield Capital Management SMA	133,687,496	9.2		3.7	6.4	21.1	28.9	23.5	24.2	19.1	19.0	Jul-10
Russell 1000 Growth				3.7	7.2	21.1	28.5	24.6	24.4	19.4	19.8	Jul-10
BlackRock Equity Index Non-Lendable Fund	122,371,420	8.4		3.0	5.5	21.6	31.2	--	--	--	25.3	Dec-19
S&P 500				3.0	5.5	21.6	31.2	18.1	18.0	16.3	25.2	Dec-19
<b>Small/Mid Cap Composite</b>	<b>72,336,187</b>	<b>5.0</b>	<b>5.5</b>	<b>1.7</b>	<b>0.4</b>	<b>9.5</b>	<b>31.9</b>	<b>12.0</b>	<b>17.8</b>	<b>16.4</b>	<b>12.8</b>	<b>Apr-93</b>
Russell 2500				2.3	0.5	17.5	45.9	13.1	15.1	14.3	11.1	Apr-93
William Blair SMA	26,867,673	1.8		1.7	-0.9	7.7	29.0	15.4	20.3	17.8	13.6	Jun-06
Russell 2500 Growth				2.5	0.3	9.0	36.1	16.9	19.2	16.3	11.8	Jun-06
William Blair S/C Value I	24,613,673	1.7		1.8	-0.8	24.8	54.5	8.3	13.5	14.0	12.2	Apr-93
Russell 2000 Value				2.7	-1.0	25.4	59.5	8.4	11.7	12.1	10.3	Apr-93
Brown Capital Small Company Strategy SMA	20,854,841	1.4		1.6	3.2	0.0	18.7	13.1	21.2	19.9	19.5	Aug-11
Russell 2000 Growth				1.8	-1.9	6.9	35.6	12.3	16.6	14.8	13.6	Aug-11

ICM Small Company - ICSCX was renamed to William Blair S/C Value I in 7/2021.



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

													Ending August 31, 2021
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total International Equity</b>	<b>248,834,354</b>	<b>17.1</b>	<b>17.5</b>	<b>2.7</b>	<b>1.4</b>	<b>11.3</b>	<b>27.7</b>	<b>12.6</b>	<b>12.3</b>	<b>7.7</b>	<b>5.7</b>	<b>Jul-97</b>	
<i>MSCI ACWI ex USA</i>				1.9	0.2	9.4	24.9	9.4	9.9	6.6	5.3	Jul-97	
<b>International Developed Markets Composite</b>	<b>157,655,087</b>	<b>10.9</b>	<b>11.0</b>	<b>2.1</b>	<b>2.5</b>	<b>12.4</b>	<b>28.6</b>	<b>11.7</b>	<b>11.5</b>	<b>8.6</b>	<b>5.2</b>	<b>Mar-08</b>	
<i>MSCI EAFE</i>				1.8	2.5	11.6	26.1	9.0	9.7	7.3	3.9	Mar-08	
Mondrian International Equity Fund, L.P.	77,926,000	5.4		1.4	0.4	13.6	28.3	6.2	7.3	6.5	2.8	Dec-07	
<i>MSCI EAFE</i>				1.8	2.5	11.6	26.1	9.0	9.7	7.3	3.0	Dec-07	
Baillie Gifford EAFE Pure K - BGPKX	79,729,087	5.5		2.8	4.7	11.3	28.8	16.5	--	--	15.7	May-18	
<i>MSCI EAFE</i>				1.8	2.5	11.6	26.1	9.0	9.7	7.3	7.1	May-18	
<b>International Emerging Markets Composite</b>	<b>91,179,267</b>	<b>6.3</b>	<b>6.5</b>	<b>3.8</b>	<b>-0.4</b>	<b>9.5</b>	<b>26.1</b>	<b>14.0</b>	<b>13.8</b>	<b>5.9</b>	<b>7.5</b>	<b>Feb-06</b>	
<i>MSCI Emerging Markets</i>				2.6	-4.3	2.8	21.1	9.9	10.4	4.9	5.8	Feb-06	
GQG Partners Emerging Markets Equity Fund	45,380,882	3.1		3.5	-1.5	2.9	17.2	--	--	--	21.5	Dec-18	
<i>MSCI Emerging Markets</i>				2.6	-4.3	2.8	21.1	9.9	10.4	4.9	13.1	Dec-18	
Arga Emerging Markets Equity Fund	45,798,385	3.2		4.1	0.8	16.8	--	--	--	--	16.8	Jan-21	
<i>MSCI Emerging Markets Value NR USD</i>				2.8	-2.1	7.7	29.3	6.4	7.7	2.6	7.7	Jan-21	
<b>Total Fixed Income Composite</b>	<b>388,187,651</b>	<b>26.7</b>	<b>23.0</b>	<b>0.2</b>	<b>1.1</b>	<b>0.5</b>	<b>3.6</b>	<b>6.7</b>	<b>4.5</b>	<b>4.4</b>	<b>5.5</b>	<b>Jul-97</b>	
<i>Bloomberg US Aggregate TR</i>				-0.2	0.9	-0.7	-0.1	5.4	3.1	3.2	5.0	Jul-97	
<b>Core Fixed Income Composite</b>	<b>282,666,926</b>	<b>19.5</b>	<b>11.0</b>	<b>0.1</b>	<b>1.3</b>	<b>1.0</b>	<b>2.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>7.3</b>	<b>Mar-19</b>	
<i>Bloomberg US Aggregate TR</i>				-0.2	0.9	-0.7	-0.1	5.4	3.1	3.2	5.7	Mar-19	
Dodge & Cox SMA	97,885,874	6.7		-0.2	0.9	0.3	2.7	6.8	4.7	4.7	4.9	May-10	
<i>Bloomberg US Aggregate TR</i>				-0.2	0.9	-0.7	-0.1	5.4	3.1	3.2	3.6	May-10	
PIMCO Total Return	103,177,824	7.1		0.5	1.5	0.9	2.4	6.6	4.3	4.0	4.4	May-10	
<i>Bloomberg US Aggregate TR</i>				-0.2	0.9	-0.7	-0.1	5.4	3.1	3.2	3.6	May-10	
Artisan High Income Trust	55,000,000	3.8		--	--	--	--	--	--	--	--	Sep-21	
<i>ICE BofA US HY Master II Constnd TR</i>				0.6	0.9	4.6	10.3	6.8	6.5	6.9	--	Sep-21	
State Street Global Advisors TIPS	26,603,227	1.8		-0.2	2.5	4.2	5.5	7.3	4.6	3.2	4.1	Nov-09	
<i>Bloomberg US TIPS TR</i>				-0.2	2.5	4.3	5.6	7.3	4.6	3.2	4.2	Nov-09	
<b>Emerging Markets Debt Composite</b>	<b>56,025,361</b>	<b>3.9</b>	<b>4.0</b>	<b>1.0</b>	<b>0.4</b>	<b>-2.9</b>	<b>7.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.3</b>	<b>Mar-19</b>	
<i>JP Morgan GBI EM Global Diversified TR USD</i>				0.8	0.3	-3.0	4.1	5.8	3.2	0.4	3.2	Mar-19	
Colchester Local Markets Debt Fund	56,025,361	3.9		1.0	0.4	-2.9	7.2	7.1	4.8	--	7.0	Oct-15	
<i>JP Morgan GBI EM Global Diversified TR USD</i>				0.8	0.3	-3.0	4.1	5.8	3.2	0.4	5.1	Oct-15	

Artisan High Income Trust funded in 08/2021, 1-month return will be shown after first full month of performance.



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Ending August 31, 2021											
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Absolute Return Fixed Income</b>	<b>49,495,365</b>	<b>3.4</b>	<b>4.0</b>	<b>0.2</b>	<b>0.4</b>	<b>2.0</b>	<b>4.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>2.8</b>	<b>Mar-20</b>
3-Month Libor Total Return USD				0.0	0.0	0.1	0.2	1.3	1.4	0.9	0.3	Mar-20
Payden Absolute Return Bond Fund PYAIX	49,495,365	3.4		0.2	0.4	2.0	4.7	--	--	--	2.8	Mar-20
3-Month Libor Total Return USD				0.0	0.0	0.1	0.2	1.3	1.4	0.9	0.3	Mar-20
<b>High Yield</b>			<b>4.0</b>									
<b>Total Real Assets Composite</b>	<b>46,289,571</b>	<b>3.2</b>	<b>6.0</b>	<b>0.0</b>	<b>0.0</b>	<b>5.5</b>	<b>11.9</b>	<b>0.8</b>	<b>5.5</b>	<b>6.2</b>	<b>6.5</b>	<b>Jul-03</b>
NCREIF Property Index 1 Qtr. Lag				0.0	0.0	2.9	2.6	4.9	5.8	8.8	8.2	Jul-03
<b>Cash Composite</b>	<b>12,958,287</b>	<b>0.9</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.4</b>	<b>1.2</b>	<b>Dec-03</b>
91 Day T-Bills				0.0	0.0	0.0	0.0	1.1	1.1	0.6	1.2	Dec-03
<b>Hedge Fund Composite</b>	<b>130,563,326</b>	<b>9.0</b>	<b>8.0</b>	<b>0.9</b>	<b>1.2</b>	<b>6.2</b>	<b>11.7</b>	<b>6.7</b>	<b>6.2</b>	<b>5.5</b>	<b>5.3</b>	<b>Jan-11</b>
HFRI FOF: Conservative Index				0.5	0.3	6.1	12.3	5.3	4.8	3.7	3.3	Jan-11
Magnitude International Class A Eligible	70,221,697	4.8		1.1	1.8	5.5	10.7	6.4	5.8	5.1	5.3	Jan-11
HFRI FOF: Conservative Index				0.5	0.3	6.1	12.3	5.3	4.8	3.7	3.3	Jan-11
Blackstone Partners Offshore Fund LTD	60,341,629	4.2		0.7	0.5	6.8	12.6	6.8	6.5	5.8	5.4	Mar-11
HFRI FOF: Conservative Index				0.5	0.3	6.1	12.3	5.3	4.8	3.7	3.2	Mar-11
<b>Private Equity Composite</b>	<b>192,517,749</b>	<b>13.3</b>	<b>13.0</b>	<b>0.0</b>	<b>0.0</b>	<b>30.2</b>	<b>53.7</b>	<b>23.5</b>	<b>21.1</b>	<b>16.4</b>	<b>15.1</b>	<b>Jul-08</b>
C A US All PE (1 Qtr Lag)				0.0	0.0	22.0	47.4	17.6	17.2	14.3	11.8	Jul-08
<b>Private Debt</b>	<b>3,750,000</b>	<b>0.3</b>	<b>5.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.0</b>	<b>Jun-20</b>
S&P/LSTA Leveraged Loan				0.0	0.0	3.8	8.4	4.2	4.6	4.9	10.3	Jun-20



# Howard County Retirement Plans

## TOTAL FUND PERFORMANCE DETAIL FOOTNOTES

Performance is preliminary for 8/31/2021.

Fiscal year ends 6/30.

Policy index consists of: 22% Russell 1000 / 5.5% Russell 2500 / 11% MSCI EAFE / 6.5% MSCI Emerging Markets / 9% Bloomberg US Aggregate TR / 2% Bloomberg US TIPS TR / 4% 3-Month Libor Total Return USD / 4% Bloomberg US High Yield TR / 4% JP Morgan GBI EM Global Diversified TR USD / 5% S&P/LSTA Leveraged Loan TR / 6.0% NCREIF Property Index 1 Qtr. Lag / 8% HFRI FOF: Conservative Index / 13% Private Equity Composite.

Allocation index consists of: Weighted index of underlying managers to their respective benchmark.

Fixed Income Policy index consists of: 100% Bloomberg US Aggregate TR.

Real Estate, Real Assets, Private Debt and Private Equity investments are valued as of 3/31/2021 and adjusted for capital calls and distributions through 8/31/2021.

All history prior to 3/1/2019 was provided by AndCo.





# APPENDIX



PROPRIETARY & CONFIDENTIAL

# 2021 SECOND QUARTER INSIGHTS FROM NEPC

## Private Wealth

- [Taking Stock: Business Owners, Here's How to Make Your Portfolio Work for You](#)

## Healthcare

- [NEPC's 2021 Healthcare Operating Funds Survey Results](#)

## Taft-Hartley

- [Taking Stock: Taft-Hartley/ Multi-Employer Pension Plans Await ARPA 2.0](#)

## Defined Benefit

- [Taking Stock: NEPC Q1 2021 Pension Monitor](#)
- [Taking Stock: NEPC April 2021 Pension Monitor](#)
- [Taking Stock: NEPC May 2021 Pension Monitor](#)

## General Research

- [Quarterly Asset Class Review: Q1 2021](#)
- [Taking Stock: A Sneak Peek Into the 2021 NEPC \(Virtual\) Client Conference](#)
- [NEPC Market Outlook: Should Investors Be Bracing for a Tidal Wave of Inflation?](#)
- [Meeting You Where You Are: Client Input About the Future of Meetings](#)
- [11th Annual Investment Manager Webinar Replay](#)

## Diversity, Equity, & Inclusion

- [Using Investing to Bring DEI Goals Within Reach](#)
- [NEPC's 2020 DEI Progress Report](#)



# DIVERSITY, EQUITY AND INCLUSION AT NEPC

- This quarter, NEPC published our first annual [Diversity, Equity and Inclusion \(DEI\) Progress Report](#). We are happy to see that the Progress Report has sparked conversation, which you can read more about on [Institutional Investor](#) and [Banking Exchange](#).





# INVESTMENT MANAGER - DUE DILIGENCE KEY

NEPC Due Diligence Status Key	
No Action	Informational items have surfaced; no action is recommended.
Watch	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
Hold	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.

NEPC Due Diligence Rating Key	
1	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
2	NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating.
3	A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager's viability.
4	The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths.
5	A strategy that lacks an investment thesis or NEPC has no confidence in the manager's ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products.
NR	Due diligence has not been sufficiently completed on the product or manager.





# GLOSSARY OF INVESTMENT TERMINOLOGY

**# Of Portfolios/Observations<sup>1</sup>** - The total number of data points that make up a specified universe

**Allocation Index<sup>3</sup>** - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

**Asset Allocation Effect<sup>2</sup>** - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

**Agency Bonds (Agencies)<sup>3</sup>** - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

**Asset Backed Securities (ABS)<sup>3</sup>** - Bonds which are similar to mortgage-backed securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

**Attribution<sup>3</sup>** - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions.

**Average Effective Maturity<sup>4</sup>** - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

**Batting Average<sup>1</sup>** - A measurement representing an investment manager's ability to meet or beat an index.

*Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.*

**Brinson Fachler (BF) Attribution<sup>1</sup>** - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

**Brinson Hood Beebower (BHB) Attribution<sup>1</sup>** - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

**Corporate Bond (Corp)<sup>4</sup>** - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

**Correlation<sup>1</sup>** - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net



# GLOSSARY OF INVESTMENT TERMINOLOGY

**Coupon<sup>4</sup>** – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the “coupon rate” or “coupon percent rate.”

**Currency Effect<sup>1</sup>** – Is the effect that changes in currency exchange rates over time affect excess performance.

**Derivative Instrument<sup>2</sup>** – A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

**Downside Deviation<sup>1</sup>** – Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

*Formula:*

*Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.*

**Duration<sup>3</sup>** – Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond’s duration is inversely related to interest rates and directly related to time to maturity.

**Equity/Debt/Cash Ratio<sup>1</sup>** – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

**Foreign Bond<sup>3</sup>** – A bond that is issued in a domestic market by a foreign entity, in the domestic market’s currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm’s debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

**Hard Hurdle<sup>5</sup>** – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

**High-Water Mark<sup>4</sup>** – The highest peak in value that an investment fund/account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

**Hurdle Rate<sup>4</sup>** – The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

**Interaction Effects<sup>2</sup>** – The interaction effect measures the combined impact of an investment manager’s selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

**Median<sup>3</sup>** – The value (rate of return, market sensitivity, etc.) that exceeds one-half of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

**Modified Duration<sup>3</sup>** – The percentage change in the price of a fixed income security that results from a change in yield.

**Mortgage Backed Securities (MBS)<sup>3</sup>** – Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

**Municipal Bond (Muni)<sup>4</sup>** – A debt security issued by a state, municipality or county to finance its capital expenditures.

**Net Investment Change<sup>1</sup>** – Is the change in an investment after accounting for all Net Cash Flows.

**Performance Fee<sup>4</sup>** – A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

*Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net*



# GLOSSARY OF INVESTMENT TERMINOLOGY

**Policy Index<sup>3</sup>** - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

**Price to Book (P/B)<sup>4</sup>** - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

**Price to Earnings (P/E)<sup>3</sup>** - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

**Price to Sales (P/S)<sup>4</sup>** - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

**Return on Equity (ROE)<sup>4</sup>** - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

**Selection (or Manager) Effect<sup>2</sup>** - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

**Soft Hurdle rate<sup>5</sup>** - is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

**Tiered Fee<sup>1</sup>** - A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

**Total Effects<sup>2</sup>** - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.

**Total Return<sup>1</sup>** - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

**Universe<sup>3</sup>** - The list of all assets eligible for inclusion in a portfolio.

**Upside Deviation<sup>1</sup>** - Standard Deviation of Positive Returns

**Weighted Avg. Market Cap.<sup>4</sup>** - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

**Yield (%)<sup>3</sup>** - The current yield of a security is the current indicated annual dividend rate divided by current price.

**Yield to Maturity<sup>3</sup>** - The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net





# GLOSSARY OF INVESTMENT TERMINOLOGY

**Alpha** - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

**Alpha Jensen** - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

**Annualized Excess Return over Benchmark** - Annualized fund return minus the annualized benchmark return for the calculated return.

**Annualized Return** - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

**Beta** - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

**Information Ratio** - A measure of the risk adjusted return of a financial security, asset, or portfolio.

*Formula:*  
 $(\text{Annualized Return of Portfolio} - \text{Annualized Return of Benchmark}) / \text{Annualized Standard Deviation}(\text{Period Portfolio Return} - \text{Period Benchmark Return})$ . To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

**R-Squared** - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

**Sharpe Ratio** - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

**Sortino Ratio** - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

*Formula:*  
 $\text{Calculation Average } (X-Y) / \text{Downside Deviation } (X-Y) * 2$   
Where X=Return Series Y = Return Series Y which is the risk free return (91 day T-bills)

**Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

*Formula:*  
 $(\text{Annualized Return of Portfolio} - \text{Annualized Return of Risk Free}) / \text{Annualized Standard Deviation (Portfolio Returns)}$

**Tracking Error** - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

*Formula:*  
 $\text{Tracking Error} = \text{Standard Deviation } (X-Y) * \sqrt{\text{\# of periods per year}}$   
Where X = periods portfolio return and Y = the period's benchmark return  
For monthly returns, the periods per year = 12  
For quarterly returns, the periods per year = 4

**Treynor Ratio** - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

*Formula:*  
 $(\text{Portfolio Average Return} - \text{Average Return of Risk-Free Rate}) / \text{Portfolio Beta}$

**Up/Down Capture Ratio** - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

$\text{Upside Capture} = \text{Total Return}(\text{Fund Returns}) / \text{Total Returns}(\text{BM Return})$  when Period Benchmark Return is  $> = 0$

$\text{Downside Capture} = \text{Total Return}(\text{Fund Returns}) / \text{Total Returns}(\text{BM Return})$  when Benchmark  $< 0$

Data Source: InvestorForce



# DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv



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Past performance is no guarantee of future results.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

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