



STATE RETIREMENT AGENCY  
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MARYLAND  
STATE RETIREMENT  
and PENSION SYSTEM

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September 12, 2019

Honorable Nancy J. King  
Chair, Budget & Taxation Committee  
Miller Senate Office Building, 3 West  
11 Bladen Street  
Annapolis, MD 21401

Honorable Maggie McIntosh  
Chair, Appropriations Committee  
House Office Building, Room 121  
6 Bladen Street  
Annapolis, MD 21401

Honorable Melony Griffith  
Senate Chair, Joint Committee on Pensions  
Miller Senate Office Building, Room 220  
11 Bladen Street  
Annapolis, MD 21401

Honorable Benjamin S. Barnes  
House Chair, Joint Committee on Pensions  
House Office Building, Room 151  
6 Bladen Street  
Annapolis, MD 21401

Dear Committee and Subcommittee Chairs:

In accordance with Chapter 728, Acts of 2018 (SB 899) and Chapter 727, Acts of 2018 (HB 1012) codified at SPP § 21-122(f)(4) of the Annotated Code of Maryland, I am submitting the required report on system investment returns for the preceding fiscal quarter, including:

- (i) Investment performance by asset class, including performance relative to asset class benchmarks; and
- (ii) Investment performance of assets under the direction of each Investment Division employee

The report designation is MSAR 11742. The following exhibits are attached in response to this requirement:

- Exhibit A – Summary of Plan Performance by Asset Class
- Exhibit B – Expanded Performance Report by Manager and Asset Class
- Exhibit C – Investment Division Organizational Chart by Asset Class

Should you require additional information, please call me at (410) 625-5600.

Sincerely,

R. Dean Kenderdine  
Secretary to the Board

RDK/rmb

cc: The Honorable Thomas V. Mike Miller, Jr.  
The Honorable Adrienne A. Jones  
Victoria Gruber  
Board of Trustees



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL PLAN</b>	<b>54,204,605,144</b>	<b>100.0</b>	<b>3.03</b>	<b>2.96</b>	<b>9.33</b>	<b>6.46</b>	<b>6.46</b>	<b>8.17</b>	<b>5.62</b>	<b>8.61</b>	<b>8.02</b>	<b>07/01/86</b>
TOTAL PLAN POLICY INDEX <sup>[1]</sup>			3.35	3.29	10.21	7.09	7.09	8.18	5.36	8.04		07/01/86
<i>Excess</i>			<i>-0.32</i>	<i>-0.33</i>	<i>-0.88</i>	<i>-0.63</i>	<i>-0.63</i>	<i>-0.01</i>	<i>0.26</i>	<i>0.57</i>		
<b>TOTAL GROWTH EQUITY</b>	<b>27,317,272,605</b>	<b>50.4</b>	<b>4.66</b>	<b>3.12</b>	<b>12.24</b>	<b>6.40</b>	<b>6.40</b>	<b>12.45</b>	<b>7.98</b>	<b>11.50</b>	<b>6.09</b>	<b>01/01/98</b>
GROWTH EQUITY CUSTOM BENCHMARK <sup>[2]</sup>			5.04	3.48	12.21	6.55	6.55	12.33				01/01/98
<i>Excess</i>			<i>-0.38</i>	<i>-0.36</i>	<i>0.03</i>	<i>-0.15</i>	<i>-0.15</i>	<i>0.13</i>				
<b>TOTAL RATE SENSITIVE</b>	<b>9,814,912,610</b>	<b>18.1</b>	<b>1.38</b>	<b>4.47</b>	<b>8.81</b>	<b>9.42</b>	<b>9.42</b>	<b>2.51</b>	<b>3.73</b>	<b>5.11</b>	<b>6.98</b>	<b>07/01/86</b>
CUSTOM RATE SENSITIVE BENCHMARK <sup>[3]</sup>			1.29	4.67	8.99	9.81	9.81	2.18	3.77	4.23		07/01/86
<i>Excess</i>			<i>0.09</i>	<i>-0.20</i>	<i>-0.18</i>	<i>-0.39</i>	<i>-0.39</i>	<i>0.33</i>	<i>-0.04</i>	<i>0.88</i>		
<b>TOTAL CREDIT/DEBT STRATEGIES</b>	<b>4,840,834,868</b>	<b>8.9</b>	<b>1.98</b>	<b>2.42</b>	<b>6.79</b>	<b>6.50</b>	<b>6.50</b>	<b>6.22</b>	<b>3.98</b>	<b>7.92</b>	<b>8.97</b>	<b>03/01/09</b>
MSRA CUSTOM CREDIT BENCHMARK <sup>[4]</sup>			2.28	2.62	8.76	7.34	7.34	6.49	3.75	6.85	7.90	03/01/09
<i>Excess</i>			<i>-0.30</i>	<i>-0.20</i>	<i>-1.97</i>	<i>-0.84</i>	<i>-0.84</i>	<i>-0.27</i>	<i>0.22</i>	<i>1.08</i>	<i>1.07</i>	
<b>TOTAL REAL ASSETS</b>	<b>7,221,953,688</b>	<b>13.3</b>	<b>1.24</b>	<b>1.52</b>	<b>5.56</b>	<b>5.27</b>	<b>5.27</b>	<b>6.02</b>	<b>2.13</b>	<b>4.50</b>	<b>4.28</b>	<b>02/01/06</b>
CUSTOM REAL ASSETS BENCHMARK <sup>[5]</sup>			2.24	1.61	8.10	6.23	6.23	6.90	2.85	3.72	3.61	02/01/06
<i>Excess</i>			<i>-1.00</i>	<i>-0.09</i>	<i>-2.53</i>	<i>-0.96</i>	<i>-0.96</i>	<i>-0.88</i>	<i>-0.72</i>	<i>0.79</i>	<i>0.67</i>	
<b>TOTAL ABSOLUTE RETURN</b>	<b>4,021,770,032</b>	<b>7.4</b>	<b>0.89</b>	<b>1.61</b>	<b>2.49</b>	<b>2.97</b>	<b>2.97</b>	<b>3.18</b>	<b>1.43</b>	<b>3.74</b>	<b>3.20</b>	<b>04/01/08</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[6]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86	3.55	1.79	04/01/08
<i>Excess</i>			<i>0.07</i>	<i>-0.12</i>	<i>-2.70</i>	<i>-0.12</i>	<i>-0.12</i>	<i>-1.65</i>	<i>-1.43</i>	<i>0.19</i>	<i>1.41</i>	
<b>TOTAL MULTI ASSET</b>	<b>725,130,066</b>	<b>1.3</b>	<b>4.16</b>	<b>3.29</b>	<b>10.65</b>	<b>4.39</b>	<b>4.39</b>				<b>4.39</b>	<b>07/01/18</b>
TOTAL PLAN POLICY INDEX <sup>[1]</sup>			3.35	3.29	10.21	7.09	7.09				7.09	07/01/18
<i>Excess</i>			<i>0.81</i>	<i>-0.00</i>	<i>0.44</i>	<i>-2.70</i>	<i>-2.70</i>				<i>-2.70</i>	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL CASH</b>	<b>263,206,376</b>	<b>0.5</b>	<b>1.19</b>	<b>3.69</b>	<b>6.39</b>	<b>10.11</b>	<b>10.11</b>	<b>7.99</b>	<b>5.65</b>	<b>4.16</b>	<b>4.09</b>	<b>07/01/08</b>
FTSE 3 MONTH T-BILL			0.20	0.61	1.21	2.30	2.30	1.36	0.84	0.46	0.49	07/01/08
<i>Excess</i>			<i>0.99</i>	<i>3.07</i>	<i>5.17</i>	<i>7.82</i>	<i>7.82</i>	<i>6.63</i>	<i>4.81</i>	<i>3.70</i>	<i>3.60</i>	

## ENDNOTES

- [1] Since 07/01/2008: Calculated monthly using transitional weights and asset class benchmarks. Prior to 07/01/2008: MSRA TOTAL PLAN STATIC POLICY.
- [2] Benchmark is a dynamic blend of the Public Equity Benchmark and the State Street Private Equity Index based off of sub-asset class weights used in the policy benchmark.
- [3] Since 10/01/2017: 53% Barclays Long-Term Government, 13% Barclays Securitized, 13% Barclays Corporate, 21% Barclays U.S. TIPS  
From 07/01/2016 to 09/30/2017: 48% Barclays Long-Term Government, 14% Barclays Securitized, 14% Barclays Corporate, 24% Barclays U.S. TIPS  
From 11/01/2015 to 06/30/2016: 50% Barclays Long-Term Government, 15% Barclays Securitized, 15% Barclays Corporate, 20% Barclays U.S. TIPS  
From 07/01/2013 to 10/31/2015: 80% BC Aggregate Intermediate, 20% BC Global Aggregate 1-10 Year Hedged  
From 07/01/2010 to 06/30/2013: 80% BC Aggregate, 20% BC Global Bond Aggregate Hedged  
From 01/01/2010 to 06/30/2010: 80% BC Aggregate, 20% BC Global Bond Aggregate Unhedged  
From 07/01/2009 to 12/31/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks  
Prior to 07/01/2009: Benchmark is BC US Universal.  
Formerly named "Custom Fixed Income Benchmark" prior to 11/01/2015.
- [4] Since 10/01/2017: 78% US Credit Benchmark, 22% non-U.S Credit Benchmark.  
From 01/01/2016 to 09/30/2017: 67% US Credit Benchmark, 33% non-U.S Credit Benchmark.  
From 11/01/2015 to 12/31/2015: 75% US Credit Benchmark, 25% non-U.S Credit Benchmark.  
From 07/01/2013 to 10/31/2015: 50% BC High Yield / 20% BC Credit / 20% JP Morgan GBI EM Global Diversified/ 10% S&P/LSTA Leveraged Loan Index  
From 01/01/2010 to 06/30/2013: 50% BC Credit / 50% BC High Yield  
Prior to 01/01/2010: 75% BC Credit / 25% BC High Yield
- [5] Since 10/01/2017: Benchmark is dynamically calculated using the beginning market values of the Real Estate and Natural Resource/Infrastructure sub-asset classes and their corresponding benchmarks.  
From 11/01/2015 to 09/30/2017: Benchmark is dynamically calculated using the beginning market values of the Real Estate, Commodities and Natural Resource/Infrastructure sub-asset classes and their corresponding benchmarks.  
From 12/01/2012 to 10/31/2015: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 50% BC US TIPS Index/50% BC World Inflat-Linked Bond Index  
From 07/01/2011 to 11/30/2012: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index  
From 07/01/2009 to 06/30/2011: 20% - DJ UBS Commodities Index (Total Return), 20% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index  
07/01/2008 to 06/30/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks Prior to 07/01/2008: 100% Barclays US TIPS Index  
Prior to 07/01/2008: 100% Barclays US TIPS Index  
Formerly named "Custom Real Return Benchmark" prior to 11/01/2015.
- [6] Since 11/01/2015: HFRI Fund of Funds Conservative + 100 bps.  
From 07/01/2014 to 10/31/2015: HFRI FOF: Conservative Index.  
From 07/01/2008 to 06/30/2014 benchmark was HFRI Fund of Funds index.  
Prior to 07/01/2008 benchmark was the Citigroup 3-Month T-bill + 500 bps.

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SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>GROWTH EQUITY</b>												
<b>U.S. EQUITY</b>												
RHUMBLINE RUSSELL 1000	2,847,931,863	5.3	7.00	4.23	18.78	9.98	9.98	14.12	10.44		13.96	11/01/12
Russell 1000			7.02	4.25	18.84	10.02	10.02	14.15	10.45		13.97	11/01/12
<i>Excess</i>			-0.02	-0.01	-0.07	-0.04	-0.04	-0.02	-0.01		-0.02	
RHUMBLINE S&P 600 INDEX	467,247,816	0.9	7.44	1.88	13.69	-4.85	-4.85				6.75	03/01/17
S&P SMALLCAP 600			7.45	1.87	13.69	-4.88	-4.88				6.74	03/01/17
<i>Excess</i>			-0.00	0.01	-0.00	0.04	0.04				0.02	
<b>TOTAL US EQUITY PASSIVE</b>	<b>3,315,179,682</b>	<b>6.1</b>	<b>7.06</b>	<b>3.89</b>	<b>18.01</b>	<b>7.74</b>	<b>7.74</b>	<b>13.50</b>			<b>11.71</b>	<b>11/01/15</b>
D.E. SHAW ALL CAP CORE ENHANCED	987,030,647	1.8	7.02	4.25	18.85	9.63	9.63	14.70	10.71		13.02	04/01/13
D.E. Shaw All Cap Custom Benchmark <sup>[1]</sup>			7.02	4.25	18.84	10.02	10.02	14.39	10.41		12.69	04/01/13
<i>Excess</i>			0.00	-0.00	0.01	-0.39	-0.39	0.30	0.31		0.33	
T. ROWE PRICE ENHANCED	930,815,102	1.7	6.87	4.65	19.85	10.91	10.91	15.35	11.42	14.96	9.26	05/01/06
S&P 500			7.05	4.30	18.54	10.42	10.42	14.19	10.71	14.70	8.60	05/01/06
<i>Excess</i>			-0.18	0.35	1.31	0.50	0.50	1.16	0.71	0.26	0.66	
RHUMBLINE US SCIENTIFIC BETA	874,095,762	1.6	6.34	4.37	18.53	8.35	8.35				11.83	01/01/17
SciBeta USA Multi-Beta MStrat 4F-EW TR			6.37	4.41	18.63	8.45	8.45				11.97	01/01/17
<i>Excess</i>			-0.03	-0.04	-0.10	-0.09	-0.09				-0.14	
<b>TOTAL U.S. EQUITY ACTIVE</b>	<b>2,791,941,511</b>	<b>5.2</b>	<b>6.76</b>	<b>4.42</b>	<b>19.08</b>	<b>9.65</b>	<b>9.65</b>	<b>14.45</b>	<b>10.00</b>	<b>13.94</b>		<b>06/01/94</b>
ACTIVE US EQ BM <sup>[2]</sup>			6.82	4.32	18.68	9.65	9.65	13.74	10.31	14.61		06/01/94
<i>Excess</i>			-0.07	0.10	0.41	-0.00	-0.00	0.71	-0.31	-0.67		

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>CAPITAL PROSPECTS US SMALL CAP (TM)</b>	<b>387,703,246</b>	<b>0.7</b>	<b>8.01</b>	<b>2.88</b>	<b>18.24</b>	<b>-2.88</b>	<b>-2.88</b>				<b>7.97</b>	<b>04/01/17</b>
S&P 600 Small Cap USD NET			7.39	1.75	13.43	-5.31	-5.31				6.60	04/01/17
<i>Excess</i>			<i>0.62</i>	<i>1.13</i>	<i>4.81</i>	<i>2.43</i>	<i>2.43</i>				<i>1.37</i>	
<b>ACUITAS US MICRO CAP (TM)</b>	<b>95,104,598</b>	<b>0.2</b>	<b>5.54</b>	<b>-3.16</b>	<b>6.78</b>	<b>-13.29</b>	<b>-13.29</b>				<b>-1.72</b>	<b>02/01/17</b>
RUSSELL MICROCAP INDEX (DAILY)			6.24	0.92	14.15	-10.39	-10.39				5.58	02/01/17
<i>Excess</i>			<i>-0.70</i>	<i>-4.08</i>	<i>-7.37</i>	<i>-2.90</i>	<i>-2.90</i>				<i>-7.30</i>	
<b>US EQUITY TERRA MARIA</b>	<b>482,809,878</b>	<b>0.9</b>	<b>7.52</b>	<b>1.64</b>	<b>15.80</b>	<b>-5.11</b>	<b>-5.11</b>	<b>9.11</b>	<b>5.37</b>	<b>12.46</b>	<b>7.61</b>	<b>04/01/07</b>
TERRA MARIA US EQUITY BENCHMARK <sup>[3]</sup>			6.95	1.90	15.78	-5.20	-5.20	10.36	7.64	13.86	7.83	04/01/07
<i>Excess</i>			<i>0.57</i>	<i>-0.26</i>	<i>0.02</i>	<i>0.08</i>	<i>0.08</i>	<i>-1.26</i>	<i>-2.26</i>	<i>-1.40</i>	<i>-0.23</i>	
<b>TOTAL US EQUITY TM + U.S. EQUITY ACTIVE</b>	<b>3,274,751,389</b>	<b>6.0</b>	<b>6.87</b>	<b>4.00</b>	<b>18.59</b>	<b>7.19</b>	<b>7.19</b>	<b>13.59</b>	<b>8.85</b>	<b>13.71</b>	<b>9.48</b>	<b>07/01/08</b>
TM US EQ + ACTIVE US EQ BM <sup>[2]</sup>			6.84	3.95	18.24	7.18	7.18	13.42	9.80	14.64	10.16	07/01/08
<i>Excess</i>			<i>0.02</i>	<i>0.05</i>	<i>0.35</i>	<i>0.01</i>	<i>0.01</i>	<i>0.17</i>	<i>-0.95</i>	<i>-0.94</i>	<i>-0.68</i>	
<b>U.S. EQUITY EX OVERLAY</b>	<b>6,589,931,072</b>	<b>12.2</b>	<b>6.97</b>	<b>3.95</b>	<b>18.29</b>	<b>7.48</b>	<b>7.48</b>	<b>13.58</b>	<b>9.40</b>	<b>14.06</b>	<b>8.97</b>	<b>04/01/94</b>
MSRA CUSTOM US EQUITY INDEX <sup>[4]</sup>			7.02	4.10	18.71	8.98	8.98	14.02	10.19	14.67		04/01/94
<i>Excess</i>			<i>-0.06</i>	<i>-0.15</i>	<i>-0.42</i>	<i>-1.50</i>	<i>-1.50</i>	<i>-0.44</i>	<i>-0.79</i>	<i>-0.60</i>		
US Equity Tactical	14,660,517	0.0										10/01/18
US Equity Structural	7,856,555	0.0										02/01/17
<b>U.S. EQUITY OVERLAY</b>	<b>22,517,072</b>	<b>0.0</b>										<b>02/01/17</b>



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>U.S. EQUITY</b>	<b>6,612,448,144</b>	<b>12.2</b>	<b>7.09</b>	<b>4.09</b>	<b>19.07</b>	<b>8.16</b>	<b>8.16</b>	<b>13.83</b>	<b>9.54</b>	<b>14.14</b>	<b>8.99</b>	<b>04/01/94</b>
MSRA CUSTOM US EQUITY INDEX <sup>[4]</sup>			7.02	4.10	18.71	8.98	8.98	14.02	10.19	14.67		04/01/94
<i>Excess</i>			<i>0.06</i>	<i>-0.01</i>	<i>0.35</i>	<i>-0.82</i>	<i>-0.82</i>	<i>-0.20</i>	<i>-0.65</i>	<i>-0.53</i>		
<b>INTERNATIONAL DEVELOPED MARKETS</b>												
SSGA INTERNATIONAL FUND	1,614,210	0.0										05/01/03
<b>INTERNATIONAL DEVELOPED EQUITY PASSIVE</b>	<b>1,614,210</b>	<b>0.0</b>										<b>11/01/15</b>
ARTISAN PARTNERS, L.P.	611,400,521	1.1	7.12	9.51	21.24	10.65	10.65	11.08	3.94	9.70	8.71	11/01/03
ARTISAN CUSTOM BENCHMARK <sup>[5]</sup>			5.94	3.79	14.64	1.29	1.29	9.01	2.04	7.17	6.89	11/01/03
<i>Excess</i>			<i>1.18</i>	<i>5.72</i>	<i>6.60</i>	<i>9.37</i>	<i>9.37</i>	<i>2.07</i>	<i>1.89</i>	<i>2.53</i>	<i>1.81</i>	
AQR ENHANCED ACWI EX-US	517,341,113	1.0	5.88	2.28	13.44	-2.60	-2.60	7.22	1.26		2.40	12/01/13
AQR Enhanced Custom Benchmark <sup>[6]</sup>			5.94	3.79	14.64	1.29	1.29	9.01	1.87		2.83	12/01/13
<i>Excess</i>			<i>-0.06</i>	<i>-1.51</i>	<i>-1.20</i>	<i>-3.89</i>	<i>-3.89</i>	<i>-1.79</i>	<i>-0.62</i>		<i>-0.43</i>	
BROWN CAPITAL MANAGEMENT INT'L	568,263,654	1.0	5.14	4.79	16.52	2.86	2.86	8.44	3.95	9.13	11.57	12/01/08
Brown Capital Management International Custom Benchmark <sup>[7]</sup>			5.74	3.50	14.39	0.16	0.16	8.92	1.79	6.54	8.20	12/01/08
<i>Excess</i>			<i>-0.61</i>	<i>1.29</i>	<i>2.14</i>	<i>2.70</i>	<i>2.70</i>	<i>-0.48</i>	<i>2.16</i>	<i>2.59</i>	<i>3.37</i>	
DFA INTERNATIONAL CORE EQUITY	406,879,407	0.8	5.85	2.64	12.75	-3.88	-3.88	9.00	2.48		5.16	05/01/13
MSCI WORLD EX US (NET)			5.94	3.79	14.64	1.29	1.29	9.01	2.04		4.20	05/01/13
<i>Excess</i>			<i>-0.10</i>	<i>-1.15</i>	<i>-1.89</i>	<i>-5.17</i>	<i>-5.17</i>	<i>-0.01</i>	<i>0.44</i>		<i>0.96</i>	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>RHUMBLINE SCI BETA INTL EX-US</b>	644,769,227	1.2	5.54	1.16	10.55	-3.12	-3.12				5.49	03/01/17
SciBeta Developed ex USA Value Div MS			5.68	1.34	10.84	-2.27	-2.27				6.06	03/01/17
<i>Excess</i>			-0.14	-0.18	-0.29	-0.85	-0.85				-0.58	
<b>INTERNATIONAL DEVELOPED EQUITY ACTIVE <sup>[8]</sup></b>	2,748,794,822	5.1	5.91	4.11	14.90	0.87	0.87	8.50	2.04	6.83		01/01/95
CUSTOM INTL DEV EQ ACTIVE BENCHMARK <sup>[9]</sup>			5.84	3.14	13.66	0.19	0.19	8.82	1.88	6.53		01/01/95
<i>Excess</i>			0.08	0.97	1.24	0.68	0.68	-0.32	0.16	0.30		
<b>ATTUCKS INTL DEVELOPED (TM)</b>	428,263,948	0.8	5.52	3.44	13.20	-2.99	-2.99	8.52	4.84	10.30	11.45	12/01/08
MSCI WORLD EX US NET (DAILY)			5.94	3.79	14.64	1.29	1.29	9.01	2.04	6.75	7.79	12/01/08
<i>Excess</i>			-0.42	-0.35	-1.44	-4.28	-4.28	-0.49	2.80	3.55	3.66	
<b>FIS INTL SMALL CAP (TM)</b>	298,929,333	0.6	4.21	2.41	13.78	-5.45	-5.45				5.49	04/01/17
MSCI WORLD EX US SMALL CAP (NET)			4.54	1.76	12.88	-6.17	-6.17				5.42	04/01/17
<i>Excess</i>			-0.34	0.65	0.90	0.72	0.72				0.06	
<b>LEADING EDGE INTL DEVELOPED (TM)</b>	421,575,454	0.8	5.50	4.79	16.89	-0.66	-0.66	8.73	3.58	9.02	10.50	12/01/08
MSCI WORLD EX US NET (DAILY)			5.94	3.79	14.64	1.29	1.29	9.01	2.04	6.75	7.79	12/01/08
<i>Excess</i>			-0.44	1.00	2.25	-1.95	-1.95	-0.28	1.54	2.27	2.71	
<b>INTL DEVELOPED EQUITY TERRA MARIA <sup>[8]</sup></b>	1,148,882,232	2.1	5.18	3.65	14.67	-2.79	-2.79	8.62	2.52	7.40	2.77	11/01/07
TERRA MARIA INTL DEVELOPED EQ BM <sup>[10]</sup>			5.52	3.18	13.84	-1.02	-1.02	8.94	1.95	6.63	1.46	11/01/07
<i>Excess</i>			-0.34	0.48	0.83	-1.77	-1.77	-0.32	0.57	0.78	1.31	
<b>INTL DEVELOPED EQUITY ACTIVE AND TM <sup>[8]</sup></b>	3,897,677,054	7.2	5.70	3.98	14.84	-0.23	-0.23	8.53	2.17	6.94	2.76	07/01/08
TM INTL DEV EQ + ACTIVE INTL DEV EQ BM <sup>[9]</sup>			5.75	3.16	13.72	-0.15	-0.15	8.88	1.91	6.56	2.50	07/01/08
<i>Excess</i>			-0.05	0.82	1.11	-0.09	-0.09	-0.35	0.26	0.38	0.26	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
INTL EQUITY TRANSITION ACCOUNT	192,779	0.0										11/01/04
<b>TOTAL INTL DEV EQUITY EX RECORD CURRENCY <sup>[8]</sup></b>	<b>3,899,484,042</b>	<b>7.2</b>	<b>5.70</b>	<b>3.98</b>	<b>14.86</b>	<b>-0.19</b>	<b>-0.19</b>	<b>8.61</b>	<b>1.87</b>	<b>6.54</b>		<b>01/01/95</b>
MSRA CUSTOM INTERNATIONAL INDEX <sup>[11]</sup>			5.94	3.79	14.64	1.29	1.29	9.01	1.66	6.38		01/01/95
<i>Excess</i>			-0.24	0.19	0.23	-1.48	-1.48	-0.41	0.20	0.16		
RECORD CURRENCY MANAGEMENT	319,426	0.0										05/01/09
<b>TOTAL INTL DEVELOPED EQUITY EX OVERLAY <sup>[8]</sup></b>	<b>3,899,803,468</b>	<b>7.2</b>	<b>5.35</b>	<b>3.75</b>	<b>14.89</b>	<b>0.30</b>	<b>0.30</b>	<b>8.53</b>	<b>2.53</b>	<b>6.90</b>	<b>6.18</b>	<b>01/01/95</b>
MSRA CUSTOM INTERNATIONAL INDEX <sup>[11]</sup>			5.94	3.79	14.64	1.29	1.29	9.01	1.66	6.38	5.25	01/01/95
<i>Excess</i>			-0.60	-0.04	0.25	-0.99	-0.99	-0.48	0.87	0.52	0.93	
International Equity Tactical	16,757,798	0.0										01/01/17
International Equity Structural	0	0.0										02/01/17
<b>TOTAL INTL DEVELOPED EQUITY OVERLAY</b>	<b>16,757,798</b>	<b>0.0</b>										<b>12/01/16</b>
<b>TOTAL INTL DEVELOPED EQUITY</b>	<b>3,916,561,266</b>	<b>7.2</b>	<b>5.50</b>	<b>3.83</b>	<b>14.97</b>	<b>0.37</b>	<b>0.37</b>	<b>8.55</b>	<b>2.54</b>	<b>6.90</b>	<b>6.18</b>	<b>01/01/95</b>
MSRA CUSTOM INTERNATIONAL INDEX <sup>[11]</sup>			5.94	3.79	14.64	1.29	1.29	9.01	1.66	6.38	5.25	01/01/95
<i>Excess</i>			-0.44	0.04	0.34	-0.91	-0.91	-0.46	0.88	0.52	0.93	
<b>EMERGING MARKETS</b>												
SSGA EMERGING MARKETS INDEX FUND	129,694,622	0.2	6.19	0.61	10.49	1.15	1.15	10.19	2.04		3.99	06/01/12
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66	2.49		4.66	06/01/12
<i>Excess</i>			-0.05	0.01	-0.09	-0.06	-0.06	-0.48	-0.45		-0.68	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>EMERGING MARKETS EQUITY PASSIVE</b>	<b>129,735,636</b>	<b>0.2</b>	<b>6.19</b>	<b>0.65</b>	<b>10.55</b>	<b>13.87</b>	<b>13.87</b>	<b>11.17</b>			<b>9.01</b>	<b>11/01/15</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			8.65	11/01/15
<i>Excess</i>			<i>-0.05</i>	<i>0.04</i>	<i>-0.03</i>	<i>12.66</i>	<i>12.66</i>	<i>0.51</i>			<i>0.36</i>	
<b>BAILLIE GIFFORD EMERGING MARKETS</b>	<b>775,612,999</b>	<b>1.4</b>	<b>6.97</b>	<b>2.35</b>	<b>17.44</b>	<b>8.57</b>	<b>8.57</b>	<b>17.54</b>			<b>12.47</b>	<b>11/01/15</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			8.65	11/01/15
<i>Excess</i>			<i>0.73</i>	<i>1.75</i>	<i>6.86</i>	<i>7.37</i>	<i>7.37</i>	<i>6.88</i>			<i>3.82</i>	
<b>DFA EMERGING MARKETS</b>	<b>977,312,221</b>	<b>1.8</b>	<b>5.61</b>	<b>0.86</b>	<b>9.54</b>	<b>1.30</b>	<b>1.30</b>	<b>9.11</b>			<b>12.48</b>	<b>02/01/16</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			13.54	02/01/16
<i>Excess</i>			<i>-0.63</i>	<i>0.25</i>	<i>-1.04</i>	<i>0.09</i>	<i>0.09</i>	<i>-1.55</i>			<i>-1.06</i>	
<b>ACADIAN EMRG MKTS MANAGED VOLATILITY EQ</b>	<b>263,260,400</b>	<b>0.5</b>	<b>4.17</b>	<b>2.09</b>	<b>7.91</b>	<b>6.08</b>	<b>6.08</b>	<b>9.02</b>			<b>8.33</b>	<b>04/01/16</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			10.03	04/01/16
<i>Excess</i>			<i>-2.07</i>	<i>1.49</i>	<i>-2.68</i>	<i>4.88</i>	<i>4.88</i>	<i>-1.65</i>			<i>-1.70</i>	
<b>POLUNIN CAPITAL PARTNERS</b>	<b>412,457,951</b>	<b>0.8</b>	<b>6.24</b>	<b>1.87</b>	<b>9.62</b>	<b>0.46</b>	<b>0.46</b>	<b>10.73</b>			<b>10.59</b>	<b>04/01/16</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			10.03	04/01/16
<i>Excess</i>			<i>0.00</i>	<i>1.27</i>	<i>-0.96</i>	<i>-0.75</i>	<i>-0.75</i>	<i>0.07</i>			<i>0.56</i>	
<b>AXIOM INTERNATIONAL INVESTORS</b>	<b>804,528,845</b>	<b>1.5</b>	<b>7.25</b>	<b>2.63</b>	<b>13.88</b>	<b>1.46</b>	<b>1.46</b>	<b>11.17</b>			<b>11.31</b>	<b>05/01/16</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			10.11	05/01/16
<i>Excess</i>			<i>1.01</i>	<i>2.02</i>	<i>3.30</i>	<i>0.25</i>	<i>0.25</i>	<i>0.51</i>			<i>1.20</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>FISHER INVESTMENTS</b>	493,358,257	0.9	6.84	-1.07	10.41	-3.43	-3.43	8.50			8.33	05/01/16
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			10.11	05/01/16
<i>Excess</i>			0.60	-1.67	-0.17	-4.64	-4.64	-2.16			-1.78	
<b>WESTWOOD GLOBAL INVESTMENTS</b>	570,346,277	1.1	5.11	0.32	2.67	-3.79	-3.79	8.87	2.37	7.57	11.50	12/01/08
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66	2.49	5.81	9.37	12/01/08
<i>Excess</i>			-1.13	-0.29	-7.91	-5.00	-5.00	-1.80	-0.12	1.76	2.13	
<b>MARSHALL WACE TOPS CHINA A</b>	255,485,736	0.5	6.43	-1.73	31.88						27.74	11/01/18
MSCI China A Share Net			5.67	-3.56	28.28						26.13	11/01/18
<i>Excess</i>			0.76	1.83	3.59						1.61	
<b>TRANSITION ACCOUNT EMERGING MARKETS</b>	0	0.0	0.00	0.00	0.00	0.00	0.00					05/01/16
<b>TOTAL EMERGING MARKET ACTIVE</b>	<b>4,552,362,687</b>	<b>8.4</b>	<b>6.21</b>	<b>1.15</b>	<b>11.70</b>	<b>2.19</b>	<b>2.19</b>	<b>10.97</b>	<b>3.19</b>		<b>3.79</b>	<b>07/01/10</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66	2.49		4.04	07/01/10
<i>Excess</i>			-0.03	0.54	1.12	0.99	0.99	0.31	0.71		-0.25	
<b>EMERGING MARKETS EQUITY TERRA MARIA</b>	<b>366,183,060</b>	<b>0.7</b>	<b>6.96</b>	<b>3.01</b>	<b>13.05</b>	<b>1.73</b>	<b>1.73</b>					<b>11/01/15</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21					11/01/15
<i>Excess</i>			0.72	2.40	2.47	0.52	0.52					
<b>EMERGING MARKETS ACTIVE AND TM</b>	<b>4,918,545,747</b>	<b>9.1</b>	<b>6.27</b>	<b>1.29</b>	<b>11.80</b>	<b>2.18</b>	<b>2.18</b>	<b>10.82</b>			<b>9.46</b>	<b>11/01/15</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			8.65	11/01/15
<i>Excess</i>			0.03	0.68	1.22	0.97	0.97	0.16			0.82	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL EMERGING MARKETS EQUITY EX OVERLAY</b>	<b>5,048,281,383</b>	<b>9.3</b>	<b>6.27</b>	<b>1.27</b>	<b>11.77</b>	<b>2.66</b>	<b>2.66</b>	<b>10.96</b>			<b>9.03</b>	<b>11/01/15</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			8.65	11/01/15
<i>Excess</i>			<i>0.03</i>	<i>0.66</i>	<i>1.19</i>	<i>1.45</i>	<i>1.45</i>	<i>0.30</i>			<i>0.39</i>	
Emrg Mkts Structural Overlay	46,037,239	0.1										02/01/17
Emrg Mkts Tactical Overlay	25,861,909	0.0										10/01/17
<b>TOTAL EMERGING MARKETS OVERLAY</b>	<b>71,899,148</b>	<b>0.1</b>										<b>02/01/17</b>
<b>TOTAL EMERGING MARKETS EQUITY</b>	<b>5,120,180,531</b>	<b>9.4</b>	<b>6.80</b>	<b>1.27</b>	<b>12.63</b>	<b>3.25</b>	<b>3.25</b>	<b>11.19</b>			<b>9.22</b>	<b>11/01/15</b>
MSCI EMERGING MARKETS			6.24	0.61	10.58	1.21	1.21	10.66			8.65	11/01/15
<i>Excess</i>			<i>0.56</i>	<i>0.66</i>	<i>2.05</i>	<i>2.05</i>	<i>2.05</i>	<i>0.53</i>			<i>0.58</i>	
<b>GLOBAL EQUITY</b>												
BAILLIE GIFFORD	662,052,247	1.2	9.99	1.97	19.61	0.27	0.27	23.23	15.13	16.31	10.68	02/01/08
MSCI AC WORLD INDEX NET			6.55	3.61	16.23	5.74	5.74	11.62	6.16	10.15	5.32	02/01/08
<i>Excess</i>			<i>3.44</i>	<i>-1.65</i>	<i>3.39</i>	<i>-5.48</i>	<i>-5.48</i>	<i>11.60</i>	<i>8.97</i>	<i>6.16</i>	<i>5.35</i>	
LONGVIEW PRNRS GLOBAL EQUITY	704,960,633	1.3	7.02	1.69	11.64	7.72	7.72	12.21	9.25		12.55	10/01/09
MSCI AC WORLD INDEX NET			6.55	3.61	16.23	5.74	5.74	11.62	6.16		8.58	10/01/09
<i>Excess</i>			<i>0.48</i>	<i>-1.93</i>	<i>-4.58</i>	<i>1.98</i>	<i>1.98</i>	<i>0.59</i>	<i>3.09</i>		<i>3.97</i>	
AQR CAPITAL - GLOBAL EQUITY	963,467,604	1.8	6.36	1.39	13.18	-1.13	-1.13	9.67	4.96		9.15	08/01/10
MSCI AC WORLD INDEX NET			6.55	3.61	16.23	5.74	5.74	11.62	6.16		9.11	08/01/10
<i>Excess</i>			<i>-0.18</i>	<i>-2.22</i>	<i>-3.05</i>	<i>-6.87</i>	<i>-6.87</i>	<i>-1.95</i>	<i>-1.20</i>		<i>0.04</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
D.E. SHAW INV - GLOBAL EQUITY	904,114,940	1.7	6.10	2.47	15.01	2.98	2.98	11.43	6.79		10.67	08/01/10
MSCI WORLD INDEX			6.59	4.00	16.98	6.33	6.33	11.77	6.60		9.92	08/01/10
<i>Excess</i>			<i>-0.49</i>	<i>-1.53</i>	<i>-1.97</i>	<i>-3.35</i>	<i>-3.35</i>	<i>-0.33</i>	<i>0.19</i>		<i>0.75</i>	
<b>TOTAL GLOBAL EQUITY ACTIVE</b>	<b>3,235,089,207</b>	<b>6.0</b>	<b>7.16</b>	<b>1.87</b>	<b>14.61</b>	<b>2.13</b>	<b>2.13</b>	<b>12.52</b>	<b>7.14</b>	<b>11.60</b>	<b>7.31</b>	<b>10/01/05</b>
MSCI AC WORLD INDEX NET			6.55	3.61	16.23	5.74	5.74	11.62	6.16	10.15	6.30	10/01/05
<i>Excess</i>			<i>0.61</i>	<i>-1.74</i>	<i>-1.62</i>	<i>-3.61</i>	<i>-3.61</i>	<i>0.90</i>	<i>0.98</i>	<i>1.46</i>	<i>1.02</i>	
MARSHALL WACE EUREKA FUND	572,805,009	1.1	1.19	2.91	7.64	2.17	2.17	8.46	8.78		10.32	10/01/12
HFRI Equity Hedge (Total) Index			3.08	1.60	9.30	0.32	0.32	6.78	3.44		5.37	10/01/12
<i>Excess</i>			<i>-1.90</i>	<i>1.31</i>	<i>-1.65</i>	<i>1.84</i>	<i>1.84</i>	<i>1.68</i>	<i>5.34</i>		<i>4.95</i>	
HOPLITE ONSHORE	113,439,178	0.2	0.48	1.35	7.44	4.79	4.79	4.53	2.82		4.12	02/01/13
HFRI Equity Hedge (Total) Index			3.08	1.60	9.30	0.32	0.32	6.78	3.44		4.82	02/01/13
<i>Excess</i>			<i>-2.61</i>	<i>-0.25</i>	<i>-1.86</i>	<i>4.46</i>	<i>4.46</i>	<i>-2.25</i>	<i>-0.62</i>		<i>-0.69</i>	
INDUS PACIFIC OPPORTUNITIES FUND	138,160,300	0.3	-0.00	-4.10	7.06	-14.71	-14.71	3.22	5.14		5.46	06/01/13
HFRI Equity Hedge (Total) Index			3.08	1.60	9.30	0.32	0.32	6.78	3.44		4.55	06/01/13
<i>Excess</i>			<i>-3.09</i>	<i>-5.70</i>	<i>-2.24</i>	<i>-15.04</i>	<i>-15.04</i>	<i>-3.57</i>	<i>1.70</i>		<i>0.91</i>	
<b>TOTAL EQUITY HEDGE FUND</b>	<b>824,404,487</b>	<b>1.5</b>	<b>0.89</b>	<b>1.59</b>	<b>7.58</b>	<b>-0.27</b>	<b>-0.27</b>	<b>4.30</b>	<b>2.39</b>		<b>4.23</b>	<b>07/01/12</b>
HFRI Equity Hedge (Total) Index			3.08	1.60	9.30	0.32	0.32	6.78	3.44		5.68	07/01/12
<i>Excess</i>			<i>-2.20</i>	<i>-0.01</i>	<i>-1.72</i>	<i>-0.60</i>	<i>-0.60</i>	<i>-2.48</i>	<i>-1.05</i>		<i>-1.45</i>	
<b>TOTAL GLB EQ TM + GLB EQ ACTIVE + HF</b>	<b>4,059,493,693</b>	<b>7.5</b>	<b>5.82</b>	<b>1.81</b>	<b>13.08</b>	<b>1.57</b>	<b>1.57</b>	<b>10.06</b>	<b>5.77</b>	<b>10.39</b>	<b>5.86</b>	<b>07/01/08</b>
TM GLOBAL + ACTIVE GLOBAL BM + EQ HF <sup>[2]</sup>			5.82	3.26	14.88	4.62	4.62	10.34	5.48	9.63	5.34	07/01/08
<i>Excess</i>			<i>0.00</i>	<i>-1.45</i>	<i>-1.80</i>	<i>-3.06</i>	<i>-3.06</i>	<i>-0.28</i>	<i>0.29</i>	<i>0.76</i>	<i>0.52</i>	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
GLOBAL EQUITY TRANSITION ACCOUNT	4,824,116	0.0										06/01/11
<b>TOTAL GLOBAL EQUITY EX RECORD CURRENCY</b>	<b>4,064,317,809</b>	<b>7.5</b>	<b>5.82</b>	<b>1.82</b>	<b>13.09</b>	<b>1.58</b>	<b>1.58</b>	<b>10.13</b>	<b>5.81</b>	<b>10.50</b>	<b>6.55</b>	<b>10/01/05</b>
MSRA CUSTOM GLOBAL INDEX <sup>[12]</sup>			6.55	3.61	16.23	5.74	5.74	11.62	6.16	10.28	6.39	10/01/05
<i>Excess</i>			-0.73	-1.80	-3.14	-4.17	-4.17	-1.49	-0.35	0.23	0.17	
RECORD CURRENCY - GLOBAL	-435,422	-0.0										05/01/09
<b>TOTAL GLOBAL EQUITY EX OVERLAY</b>	<b>4,063,882,387</b>	<b>7.5</b>	<b>5.67</b>	<b>1.75</b>	<b>13.08</b>	<b>1.78</b>	<b>1.78</b>	<b>10.12</b>	<b>6.09</b>	<b>10.66</b>	<b>6.64</b>	<b>10/01/05</b>
MSRA CUSTOM GLOBAL INDEX <sup>[12]</sup>			6.55	3.61	16.23	5.74	5.74	11.62	6.16	10.28	6.39	10/01/05
<i>Excess</i>			-0.88	-1.86	-3.15	-3.97	-3.97	-1.50	-0.07	0.38	0.25	
<b>PUBLIC EQUITY</b>												
<b>TOTAL PUBLIC EQUITY EX OVERLAY</b>	<b>19,601,898,310</b>	<b>36.2</b>	<b>6.19</b>	<b>2.75</b>	<b>14.82</b>	<b>3.49</b>	<b>3.49</b>	<b>10.86</b>	<b>6.21</b>	<b>10.55</b>		<b>04/01/94</b>
PUBLIC EQ BM 2 <sup>[13]</sup>			6.50	2.97	15.17	4.65	4.65	11.62	6.11	10.42		04/01/94
<i>Excess</i>			-0.31	-0.22	-0.35	-1.16	-1.16	-0.76	0.10	0.13		
<b>TOTAL PUBLIC EQUITY OVERLAY</b>	<b>111,174,018</b>	<b>0.2</b>										<b>12/01/16</b>
<b>TOTAL PUBLIC EQUITY</b>	<b>19,713,072,328</b>	<b>36.4</b>	<b>6.40</b>	<b>2.81</b>	<b>15.31</b>	<b>3.89</b>	<b>3.89</b>	<b>11.02</b>	<b>6.30</b>	<b>10.60</b>		<b>04/01/94</b>
PUBLIC EQ BM 2 <sup>[13]</sup>			6.50	2.97	15.17	4.65	4.65	11.62	6.11	10.42		04/01/94
<i>Excess</i>			-0.10	-0.17	0.15	-0.76	-0.76	-0.60	0.19	0.18		
<b>PRIVATE EQUITY</b>												
<b>TOTAL PRIVATE EQUITY</b>	<b>7,604,200,277</b>	<b>14.0</b>	<b>0.39</b>	<b>3.97</b>	<b>4.57</b>	<b>13.65</b>	<b>13.65</b>	<b>16.55</b>	<b>14.52</b>	<b>14.92</b>	<b>8.21</b>	<b>03/01/94</b>
Custom MD/SS PEI Index <sup>[14]</sup>			0.88	4.48	3.48	10.87	10.87	13.46	10.45	12.87		03/01/94
<i>Excess</i>			-0.50	-0.51	1.10	2.79	2.79	3.10	4.07	2.05		



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL GROWTH EQUITY</b>	<b>27,317,272,605</b>	<b>50.4</b>	<b>4.66</b>	<b>3.12</b>	<b>12.24</b>	<b>6.40</b>	<b>6.40</b>	<b>12.45</b>	<b>7.98</b>	<b>11.50</b>	<b>6.09</b>	<b>01/01/98</b>
GROWTH EQUITY CUSTOM BENCHMARK <sup>[15]</sup>			5.04	3.48	12.21	6.55	6.55	12.33				01/01/98
<i>Excess</i>			<i>-0.38</i>	<i>-0.36</i>	<i>0.03</i>	<i>-0.15</i>	<i>-0.15</i>	<i>0.13</i>				
<b>RATE SENSITIVE</b>												
<b>NOMINAL FIXED INCOME</b>												
SSGA US GOVT LONG BOND INDEX	1,294,466,414	2.4	1.29	6.00	10.92	12.33	12.33				3.19	11/01/16
BBG BARC US Gov Lg Idx			1.33	6.00	10.92	12.28	12.28				3.29	11/01/16
<i>Excess</i>			<i>-0.04</i>	<i>0.00</i>	<i>-0.00</i>	<i>0.05</i>	<i>0.05</i>				<i>-0.10</i>	
SSGA US SECURITIZED INDEX	352,550,891	0.7	0.82	2.00	4.30	6.32	6.32				2.02	11/01/16
BBG BARC Sec Idx			0.73	2.04	4.31	6.37	6.37				2.26	11/01/16
<i>Excess</i>			<i>0.08</i>	<i>-0.04</i>	<i>-0.01</i>	<i>-0.05</i>	<i>-0.05</i>				<i>-0.23</i>	
SSGA US LONG INVEST GRADE CORP INDEX	87,526,347	0.2	4.13	7.22	16.05	15.66	15.66				5.81	11/01/16
BBG BARC Lg Corp			4.12	7.23	15.77	15.19	15.19				5.95	11/01/16
<i>Excess</i>			<i>0.01</i>	<i>-0.01</i>	<i>0.28</i>	<i>0.47</i>	<i>0.47</i>				<i>-0.14</i>	
SSGA US INTERM INVEST GRADE INDEX	163,198,122	0.3	1.64	3.22	7.15	8.83	8.83				3.46	11/01/16
BBG BARC US Corp Int Inv Grd Idx			1.61	3.13	7.08	8.57	8.57				3.39	11/01/16
<i>Excess</i>			<i>0.02</i>	<i>0.08</i>	<i>0.07</i>	<i>0.26</i>	<i>0.26</i>				<i>0.07</i>	
<b>SSGA PASSIVE FIXED INCOME</b>	<b>1,897,741,774</b>	<b>3.5</b>	<b>1.36</b>	<b>5.05</b>	<b>9.52</b>	<b>10.97</b>	<b>10.97</b>	<b>2.15</b>	<b>3.85</b>	<b>4.26</b>	<b>4.32</b>	<b>05/01/03</b>
SSgA Aggregate Bond Custom Benchmark <sup>[16]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.92	4.30		05/01/03
<i>Excess</i>			<i>-0.06</i>	<i>-0.06</i>	<i>-0.15</i>	<i>-0.13</i>	<i>-0.13</i>	<i>0.01</i>	<i>-0.07</i>	<i>-0.03</i>		





**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>US NOMINAL FIXED INCOME PASSIVE</b>	<b>1,897,741,774</b>	<b>3.5</b>	<b>1.36</b>	<b>5.05</b>	<b>9.52</b>	<b>10.97</b>	<b>10.97</b>	<b>2.15</b>			<b>4.49</b>	<b>11/01/15</b>
US NOMINAL FI PASSIVE BENCHMARK <sup>[17]</sup>			1.42	5.11	9.66	11.10	11.10	2.14			4.56	11/01/15
<i>Excess</i>			<i>-0.06</i>	<i>-0.06</i>	<i>-0.15</i>	<i>-0.13</i>	<i>-0.13</i>	<i>0.01</i>			<i>-0.07</i>	
<b>PIMCO</b>	<b>1,466,771,170</b>	<b>2.7</b>	<b>1.42</b>	<b>5.18</b>	<b>9.89</b>	<b>11.18</b>	<b>11.18</b>	<b>2.91</b>	<b>3.98</b>	<b>4.97</b>		<b>06/01/84</b>
PIMCO Custom Blended Index <sup>[18]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.92	4.30		06/01/84
<i>Excess</i>			<i>0.00</i>	<i>0.07</i>	<i>0.22</i>	<i>0.08</i>	<i>0.08</i>	<i>0.77</i>	<i>0.06</i>	<i>0.68</i>		
<b>WESTERN ASSET MANAGEMENT</b>	<b>2,557,609,297</b>	<b>4.7</b>	<b>1.79</b>	<b>5.58</b>	<b>10.94</b>	<b>12.66</b>	<b>12.66</b>	<b>3.16</b>	<b>4.50</b>	<b>6.79</b>	<b>6.03</b>	<b>09/01/03</b>
WESTERN ASSET MANAGEMENT CUSTOM BM <sup>[19]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.88	4.28	4.49	09/01/03
<i>Excess</i>			<i>0.37</i>	<i>0.47</i>	<i>1.28</i>	<i>1.56</i>	<i>1.56</i>	<i>1.02</i>	<i>0.62</i>	<i>2.52</i>	<i>1.53</i>	
<b>DOUBLELINE US SECURITIZED</b>	<b>425,967,001</b>	<b>0.8</b>	<b>0.88</b>	<b>2.37</b>	<b>4.60</b>	<b>6.69</b>	<b>6.69</b>				<b>3.42</b>	<b>10/01/17</b>
BBG BARC Sec Dly			0.73	2.04	4.31	6.37	6.37				3.12	10/01/17
<i>Excess</i>			<i>0.15</i>	<i>0.32</i>	<i>0.28</i>	<i>0.32</i>	<i>0.32</i>				<i>0.31</i>	
<b>GARDA FIRVO</b>	<b>316,200,000</b>	<b>0.6</b>	<b>0.96</b>	<b>2.53</b>	<b>5.72</b>	<b>5.68</b>	<b>5.68</b>	<b>6.17</b>			<b>5.79</b>	<b>04/01/16</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83			4.70	04/01/16
<i>Excess</i>			<i>0.13</i>	<i>0.80</i>	<i>0.54</i>	<i>2.59</i>	<i>2.59</i>	<i>1.34</i>			<i>1.09</i>	
<b>DODGE &amp; COX - FI CORE</b>	<b>332,892,163</b>	<b>0.6</b>	<b>2.62</b>	<b>4.69</b>	<b>10.56</b>	<b>11.22</b>	<b>11.22</b>	<b>3.35</b>	<b>4.59</b>	<b>5.50</b>	<b>5.77</b>	<b>03/01/09</b>
CORE BOND CUSTOM BENCHMARK <sup>[21]</sup>			2.45	4.48	9.85	10.72	10.72	1.61	3.67	4.17	4.35	03/01/09
<i>Excess</i>			<i>0.17</i>	<i>0.21</i>	<i>0.71</i>	<i>0.50</i>	<i>0.50</i>	<i>1.74</i>	<i>0.92</i>	<i>1.33</i>	<i>1.42</i>	
<b>WESTERN ASSET - ISRAEL BD</b>	<b>22,760,951</b>	<b>0.0</b>	<b>0.87</b>	<b>1.57</b>	<b>4.07</b>	<b>5.76</b>	<b>5.76</b>	<b>1.51</b>	<b>1.34</b>	<b>2.03</b>	<b>2.67</b>	<b>06/01/05</b>
WESTERN ASSET ISRAEL BOND INDEX			1.35	3.26	5.99	8.29	8.29	3.00	3.12	2.72	1.41	06/01/05
<i>Excess</i>			<i>-0.48</i>	<i>-1.69</i>	<i>-1.93</i>	<i>-2.53</i>	<i>-2.53</i>	<i>-1.50</i>	<i>-1.79</i>	<i>-0.69</i>	<i>1.27</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>US NOMINAL FIXED INCOME ACTIVE</b>	<b>5,122,200,590</b>	<b>9.4</b>	<b>1.61</b>	<b>4.92</b>	<b>9.70</b>	<b>11.21</b>	<b>11.21</b>	<b>2.80</b>	<b>4.24</b>	<b>5.52</b>	<b>5.10</b>	<b>07/01/08</b>
CUSTOM NOMINAL FIXED INCOME BENCHMARK <sup>[22]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.93	4.32	4.37	07/01/08
<i>Excess</i>			0.19	-0.19	0.03	0.10	0.10	0.66	0.30	1.21	0.73	
<b>US NOMINAL FIXED INCOME TERRA MARIA</b>	<b>583,444,805</b>	<b>1.1</b>	<b>1.09</b>	<b>2.78</b>	<b>5.71</b>	<b>7.19</b>	<b>7.19</b>	<b>2.63</b>	<b>2.76</b>	<b>4.50</b>	<b>5.34</b>	<b>11/01/08</b>
TERRA MARIA FI BENCHMARK <sup>[23]</sup>			1.12	2.74	5.44	7.31	7.31	2.19	2.57	4.37	6.04	11/01/08
<i>Excess</i>			-0.03	0.04	0.27	-0.12	-0.12	0.44	0.18	0.13	-0.70	
<b>TOTAL RATE SENSITIVE (CP)</b>	<b>583,444,805</b>	<b>1.1</b>	<b>1.09</b>	<b>2.78</b>	<b>5.71</b>	<b>7.19</b>	<b>7.19</b>	<b>2.68</b>	<b>2.86</b>	<b>4.47</b>	<b>5.20</b>	<b>11/01/08</b>
RATE SENSITIVE (CP) BENCHMARK <sup>[23]</sup>			1.12	2.74	5.44	7.31	7.31	2.26	2.66	3.74	4.44	11/01/08
<i>Excess</i>			-0.03	0.04	0.27	-0.12	-0.12	0.42	0.19	0.73	0.76	
<b>TOTAL US NOMINAL FI ACTIVE + TM</b>	<b>5,682,884,444</b>	<b>10.5</b>	<b>1.56</b>	<b>4.71</b>	<b>9.30</b>	<b>10.80</b>	<b>10.80</b>	<b>2.75</b>	<b>4.09</b>	<b>5.43</b>	<b>5.02</b>	<b>07/01/08</b>
CUSTOM NOMINAL FIXED INCOME BENCHMARK <sup>[22]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.93	4.32	4.37	07/01/08
<i>Excess</i>			0.14	-0.40	-0.37	-0.30	-0.30	0.61	0.16	1.12	0.65	
<b>US NOMINAL FIXED INCOME</b>	<b>7,603,387,169</b>	<b>14.0</b>	<b>1.51</b>	<b>4.79</b>	<b>9.34</b>	<b>10.81</b>	<b>10.81</b>	<b>2.66</b>	<b>4.05</b>	<b>5.21</b>	<b>5.09</b>	<b>07/01/08</b>
US NOMINAL FIXED INCOME BENCHMARK <sup>[24]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.92	4.30	4.45	07/01/08
<i>Excess</i>			0.09	-0.32	-0.33	-0.29	-0.29	0.53	0.13	0.91	0.64	
<b>NOMINAL FIXED INCOME EX OVERLAY</b>	<b>7,603,387,275</b>	<b>14.0</b>	<b>1.51</b>	<b>4.79</b>	<b>9.34</b>	<b>10.81</b>	<b>10.81</b>	<b>2.67</b>	<b>4.08</b>	<b>5.29</b>	<b>7.04</b>	<b>07/01/86</b>
CUSTOM NOMINAL FIXED INCOME BENCHMARK <sup>[22]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.93	4.32		07/01/86
<i>Excess</i>			0.09	-0.32	-0.33	-0.29	-0.29	0.53	0.15	0.98		
Nominal FI Tactical	20,794,940	0.0										01/01/17

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
Nominal FI Structural	18,075,267	0.0										01/01/17
<b>NOMINAL FIXED INCOME OVERLAY</b>	<b>38,870,206</b>	<b>0.1</b>										<b>01/01/17</b>
<b>NOMINAL FIXED INCOME</b>	<b>7,642,257,481</b>	<b>14.1</b>	<b>1.55</b>	<b>4.94</b>	<b>9.58</b>	<b>10.84</b>	<b>10.84</b>	<b>2.71</b>	<b>4.11</b>	<b>5.31</b>	<b>7.04</b>	<b>07/01/86</b>
CUSTOM NOMINAL FIXED INCOME BENCHMARK <sup>[22]</sup>			1.42	5.11	9.66	11.10	11.10	2.14	3.93	4.32		07/01/86
<i>Excess</i>			0.13	-0.17	-0.09	-0.26	-0.26	0.57	0.18	0.99		
<b>INFLATION SENSITIVE</b>												
SSGA PASSIVE US TIPS	1,675,241,828	3.1	0.81	2.95	6.42	4.88	4.88	2.08	1.82		0.70	12/01/12
BBG BARC US TIPS Idx			0.81	2.95	6.38	4.88	4.88	2.13	1.84		0.74	12/01/12
<i>Excess</i>			0.01	0.00	0.04	0.00	0.00	-0.05	-0.02		-0.04	
MD TIPS	497,609,512	0.9										06/01/19
<b>TOTAL U.S. TIPS</b>	<b>2,172,851,340</b>	<b>4.0</b>	<b>0.80</b>	<b>2.94</b>	<b>6.41</b>	<b>4.87</b>	<b>4.87</b>	<b>2.08</b>	<b>1.82</b>	<b>3.77</b>	<b>4.07</b>	<b>02/01/06</b>
CUSTOM US TIPS MD BM <sup>[25]</sup>			0.81	2.95	6.38	4.88	4.88	2.13	1.84	3.65	3.87	02/01/06
<i>Excess</i>			-0.01	-0.01	0.02	-0.01	-0.01	-0.05	-0.02	0.12	0.20	
<b>INFLATION SENSITIVE FI EX OVERLAY</b>	<b>2,172,655,129</b>	<b>4.0</b>	<b>0.80</b>	<b>2.94</b>	<b>6.38</b>	<b>4.84</b>	<b>4.84</b>	<b>2.08</b>	<b>2.39</b>	<b>4.08</b>	<b>3.79</b>	<b>07/01/08</b>
CUSTOM INFLATION SENSITIVE BENCHMARK <sup>[26]</sup>			0.81	2.95	6.38	4.88	4.88	2.13	2.48	4.00	3.58	07/01/08
<i>Excess</i>			-0.01	-0.01	-0.01	-0.05	-0.05	-0.05	-0.09	0.08	0.21	
Inflation Sensitive FI Tactical	-475,101	-0.0										07/01/17
<b>INFLATION SENSITIVE FIXED INCOME OVERLAY</b>	<b>-475,101</b>	<b>-0.0</b>										<b>07/01/17</b>

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>INFLATION SENSITIVE FIXED INCOME</b>	<b>2,172,655,129</b>	<b>4.0</b>	<b>0.80</b>	<b>2.94</b>	<b>6.38</b>	<b>4.84</b>	<b>4.84</b>	<b>2.03</b>	<b>2.36</b>	<b>4.07</b>	<b>3.77</b>	<b>07/01/08</b>
CUSTOM INFLATION SENSITIVE BENCHMARK <sup>[26]</sup>			0.81	2.95	6.38	4.88	4.88	2.13	2.48	4.00	3.58	07/01/08
<i>Excess</i>			<i>-0.01</i>	<i>-0.01</i>	<i>-0.01</i>	<i>-0.05</i>	<i>-0.05</i>	<i>-0.10</i>	<i>-0.12</i>	<i>0.07</i>	<i>0.20</i>	
<b>TOTAL RATE SENSITIVE EX OVERLAY</b>	<b>9,776,042,404</b>	<b>18.0</b>	<b>1.34</b>	<b>4.35</b>	<b>8.63</b>	<b>9.40</b>	<b>9.40</b>	<b>2.49</b>	<b>3.72</b>	<b>5.11</b>	<b>6.98</b>	<b>07/01/86</b>
CUSTOM RATE SENSITIVE BENCHMARK <sup>[27]</sup>			1.29	4.67	8.99	9.81	9.81	2.18	3.77	4.23		07/01/86
<i>Excess</i>			<i>0.05</i>	<i>-0.32</i>	<i>-0.37</i>	<i>-0.41</i>	<i>-0.41</i>	<i>0.31</i>	<i>-0.05</i>	<i>0.87</i>		
<b>TOTAL RATE SENSITIVE OVERLAY</b>	<b>38,395,105</b>	<b>0.1</b>										<b>01/01/17</b>
<b>TOTAL RATE SENSITIVE</b>	<b>9,814,912,610</b>	<b>18.1</b>	<b>1.38</b>	<b>4.47</b>	<b>8.81</b>	<b>9.42</b>	<b>9.42</b>	<b>2.51</b>	<b>3.73</b>	<b>5.11</b>	<b>6.98</b>	<b>07/01/86</b>
CUSTOM RATE SENSITIVE BENCHMARK <sup>[27]</sup>			1.29	4.67	8.99	9.81	9.81	2.18	3.77	4.23		07/01/86
<i>Excess</i>			<i>0.09</i>	<i>-0.20</i>	<i>-0.18</i>	<i>-0.39</i>	<i>-0.39</i>	<i>0.33</i>	<i>-0.04</i>	<i>0.88</i>		
<b>CREDIT/DEBT</b>												
<b>US CREDIT</b>												
PIMCO HIGH QUALITY HY	1,472,838,185	2.7	2.55	2.95	10.57	8.81	8.81				8.81	07/01/18
BBG BARC Ba to B US HY Idx			2.49	2.89	10.30	8.79	8.79				8.79	07/01/18
<i>Excess</i>			<i>0.06</i>	<i>0.06</i>	<i>0.26</i>	<i>0.02</i>	<i>0.02</i>				<i>0.02</i>	
CREDIT SUISSE US BANK LOANS	486,186,931	0.9	0.28	1.47	5.57	6.52	6.52				6.52	07/01/18
S&P/LSTA Leverage Loan Index			0.24	1.68	5.74	3.97	3.97				3.97	07/01/18
<i>Excess</i>			<i>0.04</i>	<i>-0.21</i>	<i>-0.17</i>	<i>2.55</i>	<i>2.55</i>				<i>2.55</i>	
PINE BRIDGE HIGH QUALITY HY	648,108,198	1.2	2.72	3.05	11.65	8.02	8.02				8.02	07/01/18
BBG BARC Ba to B US HY Idx			2.49	2.89	10.30	8.79	8.79				8.79	07/01/18
<i>Excess</i>			<i>0.23</i>	<i>0.16</i>	<i>1.34</i>	<i>-0.77</i>	<i>-0.77</i>				<i>-0.77</i>	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
KKR BANK LOANS	16,655,283	0.0										09/01/10
CREDIT/DEBT TRANSITION ACCOUNT	0	0.0										02/01/09
<b>CREDIT/DEBT TERRA MARIA <sup>[28]</sup></b>	<b>51,389,798</b>	<b>0.1</b>	<b>1.65</b>	<b>1.77</b>								<b>01/01/10</b>
<b>HIGH YIELD/BANK LOAN EX OVERLAY</b>	<b>2,675,564,553</b>	<b>4.9</b>	<b>2.11</b>	<b>2.63</b>	<b>9.67</b>	<b>7.47</b>	<b>7.47</b>	<b>6.06</b>			<b>5.50</b>	<b>11/01/15</b>
HIGH YIELD CUSTOM BENCHMARK <sup>[29]</sup>			1.87	2.34	9.10	6.78	6.78	7.07			6.80	11/01/15
<i>Excess</i>			<i>0.23</i>	<i>0.29</i>	<i>0.58</i>	<i>0.69</i>	<i>0.69</i>	<i>-1.01</i>			<i>-1.30</i>	
TOTAL DISTRESSED DEBT	669,199,315	1.2	0.32	0.99	0.36	2.26	2.26	10.04	7.26		8.91	01/01/10
TOTAL MEZZANINE DEBT	362,972,788	0.7	0.40	1.25	-0.46	2.66	2.66	8.83	7.31		7.89	01/01/10
PERELLA WEINBERG	51,586,126	0.1	-4.23	-4.23	-4.23	2.04	2.04	-4.69	-1.83		4.26	07/01/10
HFRI ED: Distressed/Restructuring Index			0.53	1.35	4.61	-0.05	-0.05	6.73	1.58		4.71	07/01/10
<i>Excess</i>			<i>-4.76</i>	<i>-5.58</i>	<i>-8.83</i>	<i>2.09</i>	<i>2.09</i>	<i>-11.43</i>	<i>-3.41</i>		<i>-0.45</i>	
<b>TOTAL CREDIT HEDGE FUND</b>	<b>51,586,126</b>	<b>0.1</b>	<b>-4.23</b>	<b>-4.23</b>	<b>-4.07</b>	<b>1.71</b>	<b>1.71</b>	<b>2.11</b>	<b>1.55</b>		<b>5.77</b>	<b>07/01/10</b>
HFRI ED: Distressed/Restructuring Index			0.53	1.35	4.61	-0.05	-0.05	6.73	1.58		4.71	07/01/10
<i>Excess</i>			<i>-4.76</i>	<i>-5.58</i>	<i>-8.68</i>	<i>1.76</i>	<i>1.76</i>	<i>-4.63</i>	<i>-0.03</i>		<i>1.06</i>	
<b>US CREDIT EX OVERLAY</b>	<b>3,759,322,782</b>	<b>6.9</b>	<b>1.50</b>	<b>2.07</b>	<b>6.36</b>	<b>5.98</b>	<b>5.98</b>	<b>7.36</b>	<b>5.03</b>	<b>8.05</b>	<b>9.10</b>	<b>03/01/09</b>
U.S. CREDIT CUSTOM BENCHMARK <sup>[30]</sup>			1.87	2.34	9.10	6.78	6.78	7.07	4.70	7.45	8.49	03/01/09
<i>Excess</i>			<i>-0.38</i>	<i>-0.27</i>	<i>-2.74</i>	<i>-0.79</i>	<i>-0.79</i>	<i>0.29</i>	<i>0.32</i>	<i>0.60</i>	<i>0.61</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>NON US CREDIT</b>												
LOGAN CIRCLE HARD CURRENCY EM	538,697,952	1.0	3.44	4.19	11.59	12.11	12.11				12.11	07/01/18
Custom EM HC Benchmark <sup>[31]</sup>			3.11	3.83	9.35	10.46	10.46				10.46	07/01/18
<i>Excess</i>			0.33	0.35	2.24	1.65	1.65				1.65	
SSGA LOCAL CURRENCY EM	542,816,868	1.0	4.27	3.41	5.65						9.64	11/01/18
Custom EM Debt Benchmark <sup>[32]</sup>			4.37	3.34	5.69						9.56	11/01/18
<i>Excess</i>			-0.10	0.07	-0.04						0.07	
<b>NON US CREDIT EX OVERLAY</b>												
	1,081,512,087	2.0	3.88	3.79	8.44	8.70	8.70	4.58	-1.04		0.32	10/01/10
NON-U.S. CREDIT CUSTOM BENCHMARK <sup>[33]</sup>			3.74	3.59	7.52	9.19	9.19	4.96	-0.16		1.03	10/01/10
<i>Excess</i>			0.13	0.20	0.92	-0.49	-0.49	-0.38	-0.87		-0.70	
<b>TOTAL CREDIT/DEBT STRATEGIES EX OVERLAY</b>												
	4,840,834,868	8.9	1.98	2.42	6.79	6.50	6.50	6.22	3.98	7.92	8.97	03/01/09
MSRA CUSTOM CREDIT BENCHMARK <sup>[34]</sup>			2.28	2.62	8.76	7.34	7.34	6.49	3.75	6.85	7.90	03/01/09
<i>Excess</i>			-0.30	-0.20	-1.97	-0.84	-0.84	-0.27	0.22	1.08	1.07	
<b>REAL ASSETS</b>												
<b>REAL ESTATE</b>												
SSGA GLOBAL REAL ESTATE	246,466,418	0.5	1.63	0.12	14.91	8.77	8.77	5.35	5.70		6.43	05/01/14
FTSE EPRA Nareit Developed Net Index			1.56	-0.07	14.51	7.68	7.68	4.46	4.85		5.58	05/01/14
<i>Excess</i>			0.06	0.19	0.39	1.10	1.10	0.89	0.85		0.85	
MORGAN STANLEY GLOBAL REIT	284,614,702	0.5	0.76	-1.69	12.76	4.07	4.07	4.16	4.33		5.16	05/01/14
FTSE EPRA Nareit Developed Net Index			1.56	-0.07	14.51	7.68	7.68	4.46	4.85		5.58	05/01/14
<i>Excess</i>			-0.80	-1.62	-1.75	-3.60	-3.60	-0.30	-0.52		-0.42	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL REITS EX RECORD CURRENCY</b>	<b>531,094,383</b>	<b>1.0</b>	<b>1.08</b>	<b>-1.07</b>	<b>13.49</b>	<b>5.77</b>	<b>5.77</b>	<b>4.67</b>	<b>4.85</b>	<b>10.70</b>		<b>04/01/94</b>
CUSTOM MD REIT BM <sup>[35]</sup>			1.56	-0.07	14.51	7.68	7.68	4.46	4.85	11.04		04/01/94
<i>Excess</i>			<i>-0.48</i>	<i>-1.00</i>	<i>-1.02</i>	<i>-1.90</i>	<i>-1.90</i>	<i>0.21</i>	<i>0.00</i>	<i>-0.34</i>		
<b>RECORD CURRENCY MANAGEMENT-REITS</b>	<b>-670,296</b>	<b>-0.0</b>										<b>07/01/11</b>
<b>TOTAL REITS EX OVERLAY</b>	<b>530,424,087</b>	<b>1.0</b>	<b>0.91</b>	<b>-1.24</b>	<b>13.35</b>	<b>5.99</b>	<b>5.99</b>	<b>4.59</b>	<b>5.13</b>	<b>10.94</b>		<b>04/01/94</b>
CUSTOM MD REIT BM <sup>[35]</sup>			1.56	-0.07	14.51	7.68	7.68	4.46	4.85	11.04		04/01/94
<i>Excess</i>			<i>-0.65</i>	<i>-1.17</i>	<i>-1.16</i>	<i>-1.68</i>	<i>-1.68</i>	<i>0.12</i>	<i>0.28</i>	<i>-0.10</i>		
<b>TOTAL PRIVATE REAL ESTATE</b>	<b>4,541,164,331</b>	<b>8.4</b>	<b>0.43</b>	<b>1.80</b>	<b>3.34</b>	<b>6.03</b>	<b>6.03</b>	<b>7.98</b>	<b>9.96</b>	<b>9.27</b>	<b>9.15</b>	<b>03/01/94</b>
CUSTOM MD PRIVATE REAL ESTATE BM <sup>[36]</sup>			0.05	1.42	3.20	7.52	7.52	7.97	10.18	9.28	9.58	03/01/94
<i>Excess</i>			<i>0.37</i>	<i>0.38</i>	<i>0.13</i>	<i>-1.50</i>	<i>-1.50</i>	<i>0.00</i>	<i>-0.21</i>	<i>-0.00</i>	<i>-0.43</i>	
MSIM Cus FTSE EPRA NAREIT Dev ex US(Net) <sup>[37]</sup>			1.56	-0.07	14.51	7.68	7.68	4.47	4.86	8.87		11/01/06
WILSHIRE RESI			1.43	1.62	17.90	10.47	10.47	4.30	8.16	15.84		01/01/78
<b>TOTAL REAL ESTATE</b>	<b>5,071,588,418</b>	<b>9.4</b>	<b>0.57</b>	<b>1.43</b>	<b>4.72</b>	<b>5.98</b>	<b>5.98</b>	<b>7.39</b>	<b>9.07</b>	<b>10.66</b>	<b>6.86</b>	<b>07/01/87</b>
REAL ESTATE CUSTOM INDEX <sup>[38]</sup>			0.28	1.20	4.89	7.68	7.68	7.53	9.22	10.81	8.21	07/01/87
<i>Excess</i>			<i>0.30</i>	<i>0.23</i>	<i>-0.17</i>	<i>-1.70</i>	<i>-1.70</i>	<i>-0.14</i>	<i>-0.15</i>	<i>-0.15</i>	<i>-1.36</i>	
<b>NATURAL RESOURCE AND INFRASTRUCTURE</b>												
TORTOISE CAPITAL DOMESTIC EQ	104,377,141	0.2	3.58	-0.77	17.34	1.20	1.20	1.12	-5.45		10.16	08/01/09
S&P MLP Total Return Index			2.88	-0.59	18.05	3.23	3.23	1.54	-6.65		7.69	08/01/09
<i>Excess</i>			<i>0.70</i>	<i>-0.18</i>	<i>-0.71</i>	<i>-2.03</i>	<i>-2.03</i>	<i>-0.42</i>	<i>1.20</i>		<i>2.47</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
HARVEST FUND ADVISORS	274,198,585	0.5	3.58	-0.50	18.88	-0.25	-0.25	1.41	-4.62		11.34	11/01/09
S&P MLP Total Return Index			2.88	-0.59	18.05	3.23	3.23	1.54	-6.65		7.46	11/01/09
<i>Excess</i>			<i>0.70</i>	<i>0.09</i>	<i>0.83</i>	<i>-3.49</i>	<i>-3.49</i>	<i>-0.13</i>	<i>2.03</i>		<i>3.88</i>	
RHUMBLINE DJ BROOKFIELD GLOBAL INFRA	559,494,368	1.0	3.80	3.95	20.71	12.20	12.20				8.30	11/01/17
DJ Brookfield Global Infra Comp			3.78	3.73	20.21	11.41	11.41				6.58	11/01/17
<i>Excess</i>			<i>0.02</i>	<i>0.22</i>	<i>0.49</i>	<i>0.79</i>	<i>0.79</i>				<i>1.72</i>	
RHUMBLINE GLOBAL NATURAL RESOURCES	313,916,623	0.6	9.66	1.24	13.70	-4.02	-4.02				3.73	11/01/17
S&P Global Natural Resources (Net)			9.66	1.09	13.44	-4.63	-4.63				2.79	11/01/17
<i>Excess</i>			<i>0.01</i>	<i>0.16</i>	<i>0.26</i>	<i>0.61</i>	<i>0.61</i>				<i>0.94</i>	
TOTAL ENERGY FUNDS	598,253,646	1.1	0.15	0.89	-3.84	2.99	2.99	13.01	1.50		7.17	01/01/10
TOTAL INFRASTRUCTURE	93,563,251	0.2	0.00	3.49	-1.13	1.29	1.29	-3.74	2.81		2.99	10/01/09
TIMBER LP FUNDS	206,561,656	0.4	-0.00	1.80	-1.12	0.14	0.14	2.12	2.21		6.18	05/01/10
<b>NATURAL RESOURCE AND INFRASTRUCTURE</b>	<b>2,150,365,270</b>	<b>4.0</b>	<b>2.99</b>	<b>1.75</b>	<b>7.86</b>	<b>3.52</b>	<b>3.52</b>	<b>7.24</b>	<b>0.82</b>		<b>9.47</b>	<b>08/01/09</b>
NATURAL RESOURCE AND INFRASTRUCTURE BM <sup>[39]</sup>			7.36	2.37	16.48	2.10	2.10	10.40	8.45		7.75	08/01/09
<i>Excess</i>			<i>-4.37</i>	<i>-0.62</i>	<i>-8.62</i>	<i>1.42</i>	<i>1.42</i>	<i>-3.16</i>	<i>-7.63</i>		<i>1.72</i>	
<b>TOTAL REAL ASSETS EX OVERLAY</b>	<b>7,221,953,688</b>	<b>13.3</b>	<b>1.24</b>	<b>1.52</b>	<b>5.56</b>	<b>5.27</b>	<b>5.27</b>	<b>6.02</b>	<b>2.13</b>	<b>4.50</b>	<b>4.28</b>	<b>02/01/06</b>
CUSTOM REAL ASSETS BENCHMARK <sup>[40]</sup>			2.24	1.61	8.10	6.23	6.23	6.90	2.85	3.72	3.61	02/01/06
<i>Excess</i>			<i>-1.00</i>	<i>-0.09</i>	<i>-2.53</i>	<i>-0.96</i>	<i>-0.96</i>	<i>-0.88</i>	<i>-0.72</i>	<i>0.79</i>	<i>0.67</i>	
<b>TOTAL REAL ASSETS OVERLAY</b>	<b>0</b>	<b>0.0</b>										<b>01/01/17</b>



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL REAL ASSETS</b>	<b>7,221,953,688</b>	<b>13.3</b>	<b>1.24</b>	<b>1.52</b>	<b>5.56</b>	<b>5.27</b>	<b>5.27</b>	<b>6.02</b>	<b>2.13</b>	<b>4.50</b>	<b>4.28</b>	<b>02/01/06</b>
CUSTOM REAL ASSETS BENCHMARK <sup>[40]</sup>			2.24	1.61	8.10	6.23	6.23	6.90	2.85	3.72	3.61	02/01/06
<i>Excess</i>			<i>-1.00</i>	<i>-0.09</i>	<i>-2.53</i>	<i>-0.96</i>	<i>-0.96</i>	<i>-0.88</i>	<i>-0.72</i>	<i>0.79</i>	<i>0.67</i>	
<b>ABSOLUTE RETURN</b>												
1977 MERGER ARBITRAGE FUND	175,199,593	0.3	0.31	1.07	3.30	10.27	10.27				10.94	01/01/18
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				3.52	01/01/18
<i>Excess</i>			<i>-0.51</i>	<i>-0.66</i>	<i>-1.88</i>	<i>7.18</i>	<i>7.18</i>				<i>7.42</i>	
SHOALS FINANCIALS OPPORTUNITY FUND, LP	105,939,900	0.2	-2.45	0.30	2.62	4.53	4.53				4.42	03/01/18
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				3.43	03/01/18
<i>Excess</i>			<i>-3.27</i>	<i>-1.43</i>	<i>-2.56</i>	<i>1.44</i>	<i>1.44</i>				<i>0.99</i>	
KING STREET CAPITAL	202,677,028	0.4	0.80	0.89	2.77	1.48	1.48	3.85	2.20		4.98	12/01/11
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86		3.89	12/01/11
<i>Excess</i>			<i>-0.02</i>	<i>-0.84</i>	<i>-2.41</i>	<i>-1.61</i>	<i>-1.61</i>	<i>-0.98</i>	<i>-0.66</i>		<i>1.09</i>	
EMPYREAN CAPITAL FUND	303,453,600	0.6	0.76	2.40	4.04	0.14	0.14				1.06	06/01/18
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				2.98	06/01/18
<i>Excess</i>			<i>-0.06</i>	<i>0.67</i>	<i>-1.14</i>	<i>-2.95</i>	<i>-2.95</i>				<i>-1.91</i>	
STANDARD GENERAL FUND II	211,804,000	0.4	-2.98	1.44							7.98	02/01/19
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73							3.20	02/01/19
<i>Excess</i>			<i>-3.80</i>	<i>-0.29</i>							<i>4.78</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>EVENT DRIVEN STRATEGIES</b>	<b>999,074,121</b>	<b>1.8</b>	<b>-0.47</b>	<b>1.54</b>	<b>4.22</b>	<b>4.17</b>	<b>4.17</b>					<b>07/01/17</b>
HFRI FoF CONSERVATIVE + 100 bps			0.82	1.73	5.18	3.09	3.09					07/01/17
<i>Excess</i>			<i>-1.29</i>	<i>-0.19</i>	<i>-0.96</i>	<i>1.08</i>	<i>1.08</i>					
<b>BRIDGEWATER PURE ALPHA</b>	<b>818,322,496</b>	<b>1.5</b>	<b>0.91</b>	<b>-0.02</b>	<b>-5.13</b>	<b>1.40</b>	<b>1.40</b>	<b>5.66</b>	<b>2.19</b>	<b>5.46</b>	<b>4.82</b>	<b>05/01/08</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86	3.55	1.76	05/01/08
<i>Excess</i>			<i>0.09</i>	<i>-1.75</i>	<i>-10.31</i>	<i>-1.69</i>	<i>-1.69</i>	<i>0.83</i>	<i>-0.67</i>	<i>1.91</i>	<i>3.06</i>	
<b>GRAHAM TACTICAL TREND</b>	<b>282,455,266</b>	<b>0.5</b>	<b>4.62</b>	<b>6.63</b>	<b>11.42</b>	<b>3.88</b>	<b>3.88</b>	<b>-4.11</b>			<b>-3.31</b>	<b>07/01/15</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83			2.90	07/01/15
<i>Excess</i>			<i>3.79</i>	<i>4.90</i>	<i>6.24</i>	<i>0.79</i>	<i>0.79</i>	<i>-8.94</i>			<i>-6.21</i>	
<b>TENACIS SYSTEMATIC GLOBAL MACRO FUND</b>	<b>2,349,875</b>	<b>0.0</b>										<b>01/01/18</b>
<b>FORT GLOBAL CONTRARIAN</b>	<b>226,569,400</b>	<b>0.4</b>	<b>3.55</b>	<b>4.33</b>	<b>13.72</b>	<b>8.90</b>	<b>8.90</b>				<b>8.88</b>	<b>03/01/18</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				3.43	03/01/18
<i>Excess</i>			<i>2.72</i>	<i>2.60</i>	<i>8.53</i>	<i>5.81</i>	<i>5.81</i>				<i>5.44</i>	
<b>GLOBAL MACRO/GTAA STRATEGIES</b>	<b>1,329,697,037</b>	<b>2.5</b>	<b>2.12</b>	<b>2.14</b>	<b>1.22</b>	<b>2.59</b>	<b>2.59</b>	<b>1.24</b>	<b>-0.01</b>	<b>2.42</b>	<b>2.09</b>	<b>04/01/08</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86	3.55	1.79	04/01/08
<i>Excess</i>			<i>1.30</i>	<i>0.41</i>	<i>-3.96</i>	<i>-0.50</i>	<i>-0.50</i>	<i>-3.59</i>	<i>-2.87</i>	<i>-1.13</i>	<i>0.30</i>	
<b>NEPHILA PALMETTO FUND</b>	<b>235,062,878</b>	<b>0.4</b>	<b>0.54</b>	<b>1.44</b>	<b>2.23</b>	<b>-3.22</b>	<b>-3.22</b>	<b>-2.11</b>	<b>0.98</b>		<b>1.14</b>	<b>01/01/14</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86		2.99	01/01/14
<i>Excess</i>			<i>-0.29</i>	<i>-0.29</i>	<i>-2.95</i>	<i>-6.31</i>	<i>-6.31</i>	<i>-6.94</i>	<i>-1.88</i>		<i>-1.85</i>	

**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
NIMBUS WEATHER FUND LTD	94,769,800	0.2	0.26	0.46	-4.61	-0.22	-0.22				-3.88	06/01/17
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				3.95	06/01/17
<i>Excess</i>			<i>-0.57</i>	<i>-1.27</i>	<i>-9.79</i>	<i>-3.31</i>	<i>-3.31</i>				<i>-7.82</i>	
PRIVATE MARKET FUNDS	71,065,435	0.1	0.47	-2.42	-0.31	4.59	4.59				19.40	06/01/18
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				2.98	06/01/18
<i>Excess</i>			<i>-0.36</i>	<i>-4.15</i>	<i>-5.49</i>	<i>1.50</i>	<i>1.50</i>				<i>16.43</i>	
<b>OPPORTUNISTIC</b>	<b>400,898,113</b>	<b>0.7</b>	<b>0.46</b>	<b>0.49</b>	<b>0.06</b>	<b>-0.90</b>	<b>-0.90</b>	<b>-1.43</b>	<b>1.39</b>		<b>1.52</b>	<b>01/01/14</b>
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86		2.99	01/01/14
<i>Excess</i>			<i>-0.36</i>	<i>-1.24</i>	<i>-5.12</i>	<i>-3.99</i>	<i>-3.99</i>	<i>-6.26</i>	<i>-1.47</i>		<i>-1.47</i>	
CARLSON DOUBLE BLACK DIAMOND	38,466,682	0.1	-0.50	0.73	2.06	-0.32	-0.32	2.90	1.99		2.68	01/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86		2.99	01/01/14
<i>Excess</i>			<i>-1.32</i>	<i>-1.00</i>	<i>-3.12</i>	<i>-3.41</i>	<i>-3.41</i>	<i>-1.93</i>	<i>-0.87</i>		<i>-0.31</i>	
HUDSON BAY FUND	456,617,625	0.8	0.00	0.48	4.33	6.40	6.40	8.14			4.41	10/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83			2.96	10/01/14
<i>Excess</i>			<i>-0.82</i>	<i>-1.25</i>	<i>-0.85</i>	<i>3.31</i>	<i>3.31</i>	<i>3.31</i>			<i>1.45</i>	
ARISTEIA CAPITAL	361,266,300	0.7	1.00	2.33	3.45	6.61	6.61	7.79			4.43	12/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83			3.11	12/01/14
<i>Excess</i>			<i>0.18</i>	<i>0.60</i>	<i>-1.73</i>	<i>3.52</i>	<i>3.52</i>	<i>2.97</i>			<i>1.32</i>	
ARISTEIA CO-INVEST	40,830,125	0.1	13.55	6.63	4.96	8.04	8.04	7.74			8.06	03/01/16
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83			4.65	03/01/16
<i>Excess</i>			<i>12.73</i>	<i>4.90</i>	<i>-0.22</i>	<i>4.95</i>	<i>4.95</i>	<i>2.91</i>			<i>3.41</i>	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>EXODUS POINT</b>	310,006,800	0.6	0.24	1.34	3.18						3.34	08/01/18
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18						2.88	08/01/18
<i>Excess</i>			<i>-0.58</i>	<i>-0.39</i>	<i>-2.00</i>						<i>0.46</i>	
<b>RELATIVE VALUE STRATEGIES</b>	1,207,187,532	2.2	0.75	1.46	3.59	4.43	4.43	4.92	2.69		3.05	01/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86		2.99	01/01/14
<i>Excess</i>			<i>-0.07</i>	<i>-0.27</i>	<i>-1.59</i>	<i>1.34</i>	<i>1.34</i>	<i>0.09</i>	<i>-0.18</i>		<i>0.06</i>	
<b>BLACKROCK ABSOLUTE RETURN STRUCTURAL</b>	84,498,627	0.2	2.20	1.83	6.18	3.43	3.43				3.00	06/01/18
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09				2.98	06/01/18
<i>Excess</i>			<i>1.37</i>	<i>0.10</i>	<i>1.00</i>	<i>0.34</i>	<i>0.34</i>				<i>0.02</i>	
<b>TOTAL ABSOLUTE RETURN</b>	4,021,770,032	7.4	0.89	1.61	2.49	2.97	2.97	3.18	1.43	3.74	3.20	04/01/08
CUSTOM ABSOLUTE RETURN BENCHMARK <sup>[20]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86	3.55	1.79	04/01/08
<i>Excess</i>			<i>0.07</i>	<i>-0.12</i>	<i>-2.70</i>	<i>-0.12</i>	<i>-0.12</i>	<i>-1.65</i>	<i>-1.43</i>	<i>0.19</i>	<i>1.41</i>	
<b>MULTI ASSET</b>												
<b>BRIDGEWATER ALL WEATHER</b>	448,705,013	0.8	4.12	3.73	11.98	6.62	6.62	6.44	3.69	8.16	8.16	07/01/09
CUSTOM BRIDGEWATER BENCHMARK <sup>[41]</sup>			0.82	1.73	5.18	3.09	3.09	4.83	2.86	5.58	5.58	07/01/09
<i>Excess</i>			<i>3.30</i>	<i>2.00</i>	<i>6.79</i>	<i>3.53</i>	<i>3.53</i>	<i>1.61</i>	<i>0.83</i>	<i>2.58</i>	<i>2.58</i>	
<b>BLACKROCK CASH EQUITIZATION</b>	276,425,053	0.5	4.21	2.57	15.15	7.09	7.09				10.32	12/01/16
FTSE 3 MONTH T-BILL			0.20	0.61	1.21	2.30	2.30				1.53	12/01/16
<i>Excess</i>			<i>4.01</i>	<i>1.96</i>	<i>13.94</i>	<i>4.79</i>	<i>4.79</i>				<i>8.79</i>	



**SUMMARY OF PERFORMANCE**

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
<b>TOTAL MULTI ASSET</b>	<b>725,130,066</b>	<b>1.3</b>	<b>4.16</b>	<b>3.29</b>	<b>10.65</b>	<b>4.39</b>	<b>4.39</b>				<b>4.39</b>	<b>07/01/18</b>
TOTAL PLAN POLICY INDEX <sup>[42]</sup>			3.35	3.29	10.21	7.09	7.09				7.09	07/01/18
<i>Excess</i>			<i>0.81</i>	<i>-0.00</i>	<i>0.44</i>	<i>-2.70</i>	<i>-2.70</i>				<i>-2.70</i>	
<b>CASH</b>												
MARYLAND MONEY MARKET ACCOUNT	275,226,178	0.5	0.20	0.61	1.23	2.34	2.34	1.60	1.04		0.64	01/01/11
FTSE 3 MONTH T-BILL			0.20	0.61	1.21	2.30	2.30	1.36	0.84		0.52	01/01/11
<i>Excess</i>			<i>-0.00</i>	<i>0.00</i>	<i>0.02</i>	<i>0.05</i>	<i>0.05</i>	<i>0.24</i>	<i>0.19</i>		<i>0.11</i>	
SELF LIQUIDATING ACCOUNT	4,705,974	0.0	0.68	4.34	8.07							06/01/84
<b>TOTAL CASH</b>	<b>263,206,376</b>	<b>0.5</b>	<b>1.19</b>	<b>3.69</b>	<b>6.39</b>	<b>10.11</b>	<b>10.11</b>	<b>7.99</b>	<b>5.65</b>	<b>4.16</b>	<b>4.09</b>	<b>07/01/08</b>
FTSE 3 MONTH T-BILL			0.20	0.61	1.21	2.30	2.30	1.36	0.84	0.46	0.49	07/01/08
<i>Excess</i>			<i>0.99</i>	<i>3.07</i>	<i>5.17</i>	<i>7.82</i>	<i>7.82</i>	<i>6.63</i>	<i>4.81</i>	<i>3.70</i>	<i>3.60</i>	
<b>TOTAL PLAN</b>	<b>54,204,605,144</b>	<b>100.0</b>	<b>3.03</b>	<b>2.96</b>	<b>9.33</b>	<b>6.46</b>	<b>6.46</b>	<b>8.17</b>	<b>5.62</b>	<b>8.61</b>	<b>8.02</b>	<b>07/01/86</b>
TOTAL PLAN POLICY INDEX <sup>[42]</sup>			3.35	3.29	10.21	7.09	7.09	8.18	5.36	8.04		07/01/86
<i>Excess</i>			<i>-0.32</i>	<i>-0.33</i>	<i>-0.88</i>	<i>-0.63</i>	<i>-0.63</i>	<i>-0.01</i>	<i>0.26</i>	<i>0.57</i>		
TOTAL PLAN CUSTOM STATIC INDEX <sup>[43]</sup>			3.35	3.29	10.23	7.10	7.10	8.32	5.56	8.08		07/01/08

## ENDNOTES

- [1] Since 12/01/2016: 100% Russell 1000  
From 04/01/2013 to 11/30/2016: 100% Russell 3000
- [2] Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks
- [3] Since 11/01/2008: Benchmark is dynamically calculated using Average Balance (BMV+ Weighted Net Cash Flows) weights of the underlying portfolios and their corresponding indices. From 09/01/2008 - 10/31/2008: Benchmark was dynamically calculated based on the beginning weights of the underlying portfolios and their corresponding indices. From 05/01/2008 - 08/31/2008: 11.1% S&P 500; 13.3% Russell 1000 Value; 33.3% Russell 1000 Growth; 16.7% Russell Mid Cap Growth; 25.6% Russell 2000 Value 11/01/2007 - 04/30/2008: 10.9% S&P 500; 13.1% Russell 1000 Value; 33.3% Russell 1000 Growth; 17.2% Russell Mid Cap Growth; 25.6 Russell 2000 Value Prior to 11/01/2007: 11% S&P 500; 13.1% Russell 1000 Value; 32% Russell 1000 Growth; 16.5% Russell Mid Cap Growth; 27.4% Russell 2000 Value
- [4] Since 07/01/2008: 100% Russell 3000  
From 01/01/2005 to 6/30/2008: 100% Dow Jones Willshire 5000  
Prior to 01/01/2005: 100% Russell 3000
- [5] From 11/01/2003: 100% of MSCI AC WORLD ex US (NET)  
From 07/01/2012: 100% of MSCI WORLD EX US (NET)
- [6] Since 04/01/2016: 100% MSCI WORLD EX US (NET).  
From 01/01/2013 to 03/31/2016: 100% MSCI AC World ex US Net.
- [7] Since 06/01/2016: 100% MSCI World Ex US IMI Net  
From 12/01/2008 to 05/31/2016: 100% MSCI All Country World ex US IMI Net
- [8] Returns for periods prior to 11/01/2015 also included Emerging Market Equity portfolios.
- [9] Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks. Returns for periods prior to 11/01/2015 also included Emerging Market Equity portfolios.
- [10] Since 11/01/2008: Benchmark is dynamically calculated using Average Balance (BMV+ Weighted Net Cash Flows) weights. Prior to 11/01/2008: 100% MSCI EAFE (net).  
Returns for periods prior to 11/01/2015 also included Emerging Market Equity portfolios.
- [11] Since 11/01/2015: 100% MSCI WORLD EX US (NET)  
From 07/01/2010 to 10/31/2015: 100% MSCI All Country World ex. U.S.  
From 07/01/2009 to 06/30/2010: 100% MSCI All Country World ex. U.S. IMI Net  
From 01/01/2003 to 06/30/2009: 100% MSCI All Country World ex. U.S.  
Prior to 01/01/2003: 100% MSCI EAFE
- [12] Since 07/01/2010: 100% MSCI AC WORLD NET  
From 07/01/2009 to 06/30/2010: 100% MSCI ACWI IMI NET  
Prior to 07/01/2009: 100% MSCI AC WORLD NET
- [13] Since 10/01/2017: Weighted off Transitional Targets; 43.243% Russell 3000, 27.027% MSCI World ex. U.S. (Net), 29.730% MSCI EM  
From 07/01/2016 to 09/30/2017: Weighted off Transitional Targets; 44.445% Russell 3000, 33.333% MSCI World ex. U.S. (Net), 22.222% MSCI EM  
From 01/01/2016 to 06/30/2016: Weighted off Transitional Targets; 45.946% Russell 3000, 37.838% MSCI World ex. U.S. (Net), 16.216% MSCI EM  
From 11/01/2015 to 12/31/2015: Weighted off Transitional Targets; 47.369% Russell 3000, 42.105% MSCI World ex. U.S. (Net), 10.526% MSCI EM  
Prior to 11/01/2015: Benchmark is dynamically calculated using the weights of the US Equity, International Equity, and Global Equity aggregates and the corresponding asset class benchmarks
- [14] The Private Equity benchmark is the State Street Private Equity Index (1 quarter lag). However, in non-quarter end months, the actual Private Equity return will be applied. In the third month of the quarter, the return will be calculated so that when geometrically linked with months 1 and 2, the three month return equals the published SS PEI (1 quarter lag).

## ENDNOTES

- [15] Benchmark is a dynamic blend of the Public Equity Benchmark and the State Street Private Equity Index based off of sub-asset class weights used in the policy benchmark.
- [16] Since 10/01/2017: 66.67% Barclays US Government Long Bond Index, 16.67% Barclays US Investment Grade Corporate Index, 16.66% Barclays US Securitized Index  
From 11/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index  
From 07/01/2013 to 10/31/2015: 100% Barclays US Intermediate Aggregate Index  
Prior 07/01/2013: 100% Barclays Aggregate Bond
- [17] Since 10/01/2017: 66.67% Barclays US Government Long Bond Index, 16.67% Barclays US Investment Grade Corporate Index, 16.66% Barclays US Securitized Index  
From 11/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
- [18] Since 10/01/2017: 66.67% Barclays US Government Long Bond Index, 16.67% Barclays US Investment Grade Corporate Index, 16.66% Barclays US Securitized Index  
From 11/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index  
From 07/01/2013 to 10/31/2015: 100% Barclays US Intermediate Aggregate Index  
07/01/2009 to 06/30/2013: 100% Barclays Aggregate Bond  
11/01/2003 to 06/30/2009: 100% Barclays US Universal Index  
Prior to 11/01/2003: 100% Citigroup BIG
- [19] Since 10/01/2017: 66.67% Barclays US Government Long Bond Index, 16.67% Barclays US Investment Grade Corporate Index, 16.66% Barclays US Securitized Index  
10/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index  
07/01/2013 to 09/30/2015: 100% Barclays US Intermediate Aggregate Index  
07/01/2009 to 06/30/2013: 100% Barclays Aggregate Bond Index  
Prior to 07/01/2009: 100% Barclays US Universal Index
- [20] Since 11/01/2015: HFRI Fund of Funds Conservative + 100 bps.  
From 07/01/2014 to 10/31/2015: HFRI FOF: Conservative Index.  
From 07/01/2008 to 06/30/2014 benchmark was HFRI Fund of Funds index.  
Prior to 07/01/2008 benchmark was the Citigroup 3-Month T-bill + 500 bps.
- [21] Since 10/01/2017: 100% Barclays US Investment Grade Corporate Index  
From 12/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index  
From 07/01/2013 to 11/31/2015: 100% Barclays US Intermediate Aggregate Index  
Prior 07/01/2013: 100% Barclays Aggregate Bond
- [22] Since 10/01/2017: 66.67% Barclays US Government Long Bond Index, 16.67% Barclays US Investment Grade Corporate Index, 16.66% Barclays US Securitized Index  
From 11/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index  
From 07/01/2013 to 10/31/2015: 80% BC Aggregate Intermediate, 20% BC Global Aggregate 1-10 Year Hedged  
From 07/01/2010 to 06/30/2013: 80% BC Aggregate, 20% BC Global Bond Aggregate Hedged  
From 01/01/2010 to 06/30/2010: 80% BC Aggregate, 20% BC Global Bond Aggregate Unhedged  
From 07/01/2009 to 12/31/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks  
Prior to 07/01/2009: Benchmark is BC US Universal
- [23] Benchmark is dynamically calculated based on the Average Balance (BMV + Weighted Net Cash Flows) weights of the underlying portfolios and their corresponding indices
- [24] Since 11/01/2015: 66.67% Barclays US Government Long Bond Index, 16.67% Barclays US Investment Grade Corporate Index, 16.66% Barclays US Securitized Index  
From 11/01/2015 to 09/30/2017: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index  
From 07/01/2013 to 10/31/2015: 100% Barclays US Intermediate Aggregate Index  
Prior 07/01/2013: 100% Barclays Aggregate Bond
- [25] As of 12/01/2012: 100% of Barclays US TIPS Index, B Series  
From 02/01/2006 to 11/30/2012: 100% of Barclays Global Inflation Linked:US TIPS, L Series

## ENDNOTES

- [26] Since 11/01/2015: 100% Barclays US TIPS Index  
From 12/01/2012 to 10/31/2015: 50% Barclays Global Inflation Linked:US TIPS; 50% Barclays World Inflat-Linked Bond Index  
Prior to 11/30/2012: 65% Barclays Global Inflation Linked:US TIPS; 35% Barclays World Inflat-Linked Bond Index
- [27] Since 10/01/2017: 53% Barclays Long-Term Government, 13% Barclays Securitized, 13% Barclays Corporate, 21% Barclays U.S. TIPS  
From 07/01/2016 to 09/30/2017: 48% Barclays Long-Term Government, 14% Barclays Securitized, 14% Barclays Corporate, 24% Barclays U.S. TIPS  
From 11/01/2015 to 06/30/2016: 50% Barclays Long-Term Government, 15% Barclays Securitized, 15% Barclays Corporate, 20% Barclays U.S. TIPS  
From 07/01/2013 to 10/31/2015: 80% BC Aggregate Intermediate, 20% BC Global Aggregate 1-10 Year Hedged  
From 07/01/2010 to 06/30/2013: 80% BC Aggregate, 20% BC Global Bond Aggregate Hedged  
From 01/01/2010 to 06/30/2010: 80% BC Aggregate, 20% BC Global Bond Aggregate Unhedged  
From 07/01/2009 to 12/31/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks  
Prior to 07/01/2009: Benchmark is BC US Universal.  
Formerly named "Custom Fixed Income Benchmark" prior to 11/01/2015.
- [28] As of 01/01/2010 all high yield and convertible managers were moved out of the Fixed Income asset class and into the Credit/Debt asset class. Historical returns for high yield and convertible managers remain in Fixed Income composite.
- [29] 80% Barclays US High Yield, 20% S&P/LSTA Leveraged Loan
- [30] Since 11/01/2015: 80% Barclays US High Yield, 20% S&P/LSTA Leveraged Loan.  
From 07/01/2013 to 10/31/2015: 62.5% Barclays US High Yield, 25% Barclays Credit, 12.5% S&P/LSTA Leveraged Loan.  
From 01/01/2010 to 06/30/2013: 50% Barclays Credit, 50% Barclays Corp High Yield.  
From 03/01/2009 to 12/31/2009: 75% Barclays Credit, 25% Barclays Corp High Yield.
- [31] 50% BBG Barc EM Hard Cur Agg: Sovereign/50% BBG Barc EM USD Aggregate Corporate TR
- [32] Since 10/01/2017: 100% Bloomberg EM Local Govt -30 BPS  
Prior to 10/01/2017: 100% JP Morgan GBI EM Global Diversified (G)
- [33] Since 10/01/2017: 50% BBG Barc EM Local Govt -30bps, 25% BBG Barc EM Hard Cur Agg: Sovereign, 25% BBG Barc EM USD Aggregate Corporate TR.  
From 11/01/2015 to 09/30/2017: 50% JP Morgan GBI EM Global Diversified, 25% JP Morgan EMBI Global Diversified, 25% JPMorgan CEMBI Broad.  
Prior to 11/01/2015: 100% JP Morgan GBI EM Global Diversified.
- [34] Since 10/01/2017: 78% US Credit Benchmark, 22% non-U.S Credit Benchmark.  
From 01/01/2016 to 09/30/2017: 67% US Credit Benchmark, 33% non-U.S Credit Benchmark.  
From 11/01/2015 to 12/31/2015: 75% US Credit Benchmark, 25% non-U.S Credit Benchmark.  
From 07/01/2013 to 10/31/2015: 50% BC High Yield / 20% BC Credit / 20% JP Morgan GBI EM Global Diversified/ 10% S&P/LSTA Leveraged Loan Index  
From 01/01/2010 to 06/30/2013: 50% BC Credit / 50% BC High Yield  
Prior to 01/01/2010: 75% BC Credit / 25% BC High Yield
- [35] From 11/01/2006: Benchmark is dynamically calculated using BMV weights of the underlying portfolios and their benchmarks.  
From 04/01/1994: 100% of LaSalle REIT Benchmark
- [36] The Private Real Estate benchmark is the NCREIF ODCE (1 quarter lag) since 07/01/2013. However, in non-quarter end months, the actual Maryland Private Real Estate return will be applied. In the third month of the quarter, the return will be calculated so that when geometrically linked with months 1 and 2, the three month return equals the published NCREIF ODCE (1 quarter lag).  
Prior 07/01/2013, the Private Real Estate benchmark is the NCREIF PROPERTY INDEX QTR LAG.
- [37] Since 11/2007 benchmark is 100% FTSE EPRA NAREIT Developed Ex US (Net) index. Prior to 11/2007, the net version of the index was calculated by and provided to State Street by MSIM



## ENDNOTES

- [38] Since 07/01/2016, a static blend of 85% NCREIF ODCE (one qtr lag) and 15% FTSE EPRA/NAREIT Developed Net Index.  
Prior to 07/01/2016, a dynamic blend of the NCREIF ODCE (one qtr lag), and the FTSE EPRA/NAREIT Developed Net Index.  
Prior to 05/01/2014, a dynamic blend of the Wilshire RESI, NCREIF ODCE (one qtr lag), and the MSIM Custom EPRA/NAREIT Global ex US  
Prior to 07/01/2013, a dynamic blend of the Wilshire RESI, NCREIF Property (one qtr lag), and the MSIM Custom EPRA/NAREIT Global ex US  
Prior to 07/01/2008: 50% Wilshire RESI & 50% NCREIF Property (one qtr lag)
- [39] Since 10/01/2017: 60% S&P Global Natural Resources Index; 40% DJ Brookfield Global Infra Comp.  
From 07/01/2016 to 09/30/2017: 75% S&P Global Natural Resources Index; 25% DJ Brookfield Global Infra Comp.  
From 11/01/2015 to 06/30/2016: 100% of CPI + 5%; 10% Max.  
From 08/01/2009 to 10/31/2015: 100% of CPI + 5%; 8% Max.
- [40] Since 10/01/2017: Benchmark is dynamically calculated using the beginning market values of the Real Estate and Natural Resource/Infrastructure sub-asset classes and their corresponding benchmarks.  
From 11/01/2015 to 09/30/2017: Benchmark is dynamically calculated using the beginning market values of the Real Estate, Commodities and Natural Resource/Infrastructure sub-asset classes and their corresponding benchmarks.  
From 12/01/2012 to 10/31/2015: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 50% BC US TIPS Index/50% BC World Inflat-Linked Bond Index  
From 07/01/2011 to 11/30/2012: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index  
From 07/01/2009 to 06/30/2011: 20% - DJ UBS Commodities Index (Total Return), 20% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index  
07/01/2008 to 06/30/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks Prior to 07/01/2008: 100% Barclays US TIPS Index  
Prior to 07/01/2008: 100% Barclays US TIPS Index  
Formerly named "Custom Real Return Benchmark" prior to 11/01/2015.
- [41] Since 07/01/2014 Benchmark is 100% of Custom Absolute Return Benchmark.  
From 07/01/2011 to 06/30/2014 Benchmark is composed of 100% 3 month T-Bill + 6.5%  
From 07/01/2009 to 06/30/2011 Benchmark is composed of 75% Barclays Capital US TIPS , 10% DJ-AIG Commodities Total Return Index and 15% MSCI ACWI.
- [42] Since 07/01/2008: Calculated monthly using transitional weights and asset class benchmarks. Prior to 07/01/2008: MSRA TOTAL PLAN STATIC POLICY.
- [43] Calculated monthly using the strategic target weights and asset class benchmarks.

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Andrew Palmer  
Chief Investment Officer

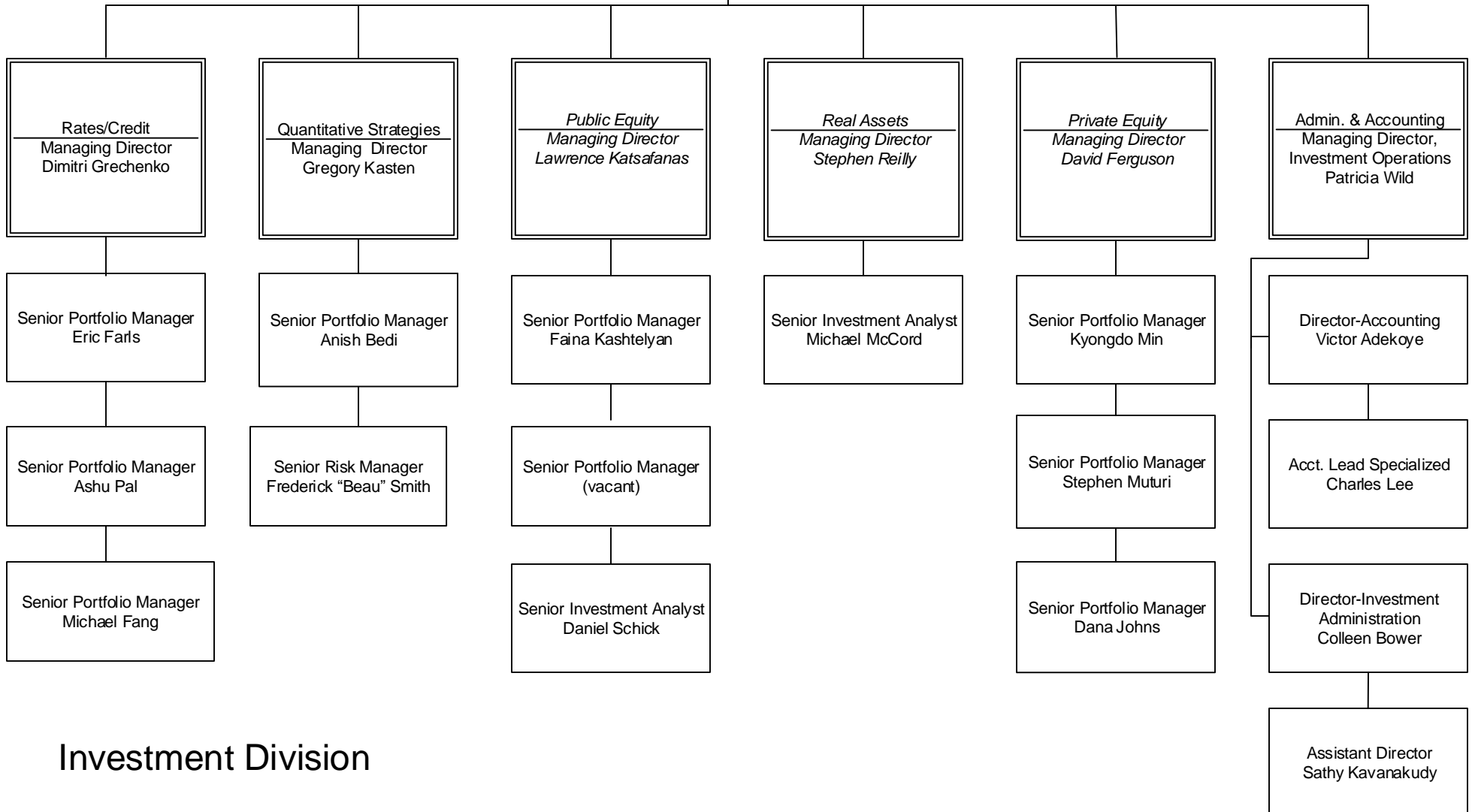
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Updated July 2019