



# LB of Tower Hamlets

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Investment Risk & Analytical Services

December 31, 2018

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SECTION 1

# LB of Tower Hamlets

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Investment Risk & Analytical Services

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## Investment Hierarchy

Account/Group	Ending Market Value GBP	Ending Weight	Policy Weight	% Rate of Return							
				One Month	Three Months	Year to Date	One Year	Three Years	Five Years	Inception to Date	Inception Date
<b>LB of Tower Hamlets</b>	<b>1,485,337,003</b>	<b>100.00</b>	<b>100.00</b>	<b>-2.55</b>	<b>-4.91</b>	<b>-0.73</b>	<b>-0.73</b>	<b>9.13</b>	<b>7.50</b>	<b>7.64</b>	<b>31/03/1987</b>
Total Plan Benchmark				-3.40	-5.38	-0.66	-0.66	8.25	7.21	-	31/03/1987
Excess Return				0.85	0.47	-0.07	-0.07	0.87	0.29	-	31/03/1987
<b>Global Equities</b>	<b>648,256,256</b>	<b>43.64</b>	<b>51.00</b>	<b>-5.23</b>	<b>-8.95</b>	-	-	-	-	<b>-0.18</b>	<b>31/03/2018</b>
Global Equities BM				-7.18	-11.49	-	-	-	-	-2.13	31/03/2018
Excess Return				1.95	2.54	-	-	-	-	1.94	31/03/2018
<b>L&amp;G FT All World Index GBP hdg</b>	<b>20,416,155</b>	<b>1.37</b>		<b>-7.36</b>	<b>-12.53</b>	<b>-8.13</b>	<b>-8.13</b>	-	-	<b>-6.69</b>	<b>30/11/2017</b>
FTSE All World GBP Hgd BM				-7.37	-12.76	-8.73	-8.73	-	-	-7.25	30/11/2017
Excess Return				0.01	0.24	0.60	0.60	-	-	0.56	30/11/2017
<b>L&amp;G MSCI World Low Carbon</b>	<b>217,964,522</b>	<b>14.67</b>		<b>-7.89</b>	<b>-13.35</b>	<b>-8.14</b>	<b>-8.14</b>	-	-	<b>-6.94</b>	<b>30/11/2017</b>
MSCI World Low Carbon GBP Hedg				-7.92	-13.36	-8.41	-8.41	-	-	-7.19	30/11/2017
Excess Return				0.02	0.01	0.27	0.27	-	-	0.25	30/11/2017
<b>LCIV BG Global Alpha</b>	<b>307,769,453</b>	<b>20.72</b>		<b>-6.97</b>	<b>-12.47</b>	<b>-4.13</b>	<b>-4.13</b>	<b>13.72</b>	<b>12.06</b>	<b>9.70</b>	<b>30/06/2007</b>
MSCI AC World ND				-6.88	-10.67	-3.72	-3.72	11.94	9.90	7.46	30/06/2007
Excess Return				-0.10	-1.80	-0.42	-0.42	1.78	2.16	2.24	30/06/2007
<b>LGIM FTSE All World target</b>	<b>76,497,636</b>	<b>5.15</b>		<b>-6.79</b>	<b>-10.51</b>	<b>-3.33</b>	<b>-3.33</b>	-	-	<b>-2.34</b>	<b>30/11/2017</b>
FTSE All World Index				-6.80	-10.52	-3.42	-3.42	-	-	-2.42	30/11/2017
Excess Return				0.01	0.01	0.08	0.08	-	-	0.08	30/11/2017
<b>Schroders Eq Prot Strtgy (Eq)</b>	<b>25,608,490</b>	<b>1.72</b>		<b>105.41</b>	-	-	-	-	-	-	<b>07/09/2018</b>
MSCI AC World ND				-6.88	-10.67	-	-	-	-	-9.21	07/09/2018
Excess Return				112.29	-	-	-	-	-	-	07/09/2018
<b>Pooled Bonds</b>	<b>98,268,698</b>	<b>6.62</b>	<b>6.00</b>	<b>-0.08</b>	<b>-1.07</b>	<b>-3.80</b>	<b>-3.80</b>	<b>-0.22</b>	<b>0.07</b>	<b>-0.12</b>	<b>31/03/2010</b>
Pooled Bonds BM				0.42	1.23	4.85	4.85	4.30	3.60	-	31/03/2010
Excess Return				-0.50	-2.30	-8.65	-8.65	-4.52	-3.53	-	31/03/2010
<b>GSAM Star II</b>	<b>51,182,972</b>	<b>3.45</b>		<b>-0.54</b>	<b>-0.70</b>	<b>-2.55</b>	<b>-2.55</b>	-	-	<b>0.35</b>	<b>31/03/2016</b>
LIBOR 3 Month +4%				0.42	1.23	4.85	4.85	-	-	4.58	31/03/2016
Excess Return				-0.96	-1.94	-7.40	-7.40	-	-	-4.22	31/03/2016
<b>Insight BNY Mellon Abslut Ret</b>	<b>47,085,726</b>	<b>3.17</b>		<b>0.44</b>	<b>-1.46</b>	<b>-5.13</b>	<b>-5.13</b>	-	-	<b>-1.15</b>	<b>30/06/2016</b>
LIBOR 3 Month +4%				0.42	1.23	4.85	4.85	-	-	4.57	30/06/2016
Excess Return				0.02	-2.70	-9.98	-9.98	-	-	-5.73	30/06/2016
<b>Index Linked</b>	<b>73,652,093</b>	<b>4.96</b>	<b>5.00</b>	<b>2.72</b>	<b>1.94</b>	<b>0.76</b>	<b>0.76</b>	<b>9.59</b>	<b>9.58</b>	<b>7.19</b>	<b>31/03/1987</b>
Index Linked BM				2.71	2.03	-0.40	-0.40	9.17	9.30	-	31/03/1987
Excess Return				0.01	-0.09	1.16	1.16	0.43	0.28	-	31/03/1987

Account/Group	Ending Market Value GBP	Ending Weight	Policy Weight	% Rate of Return								
				One Month	Three Months	Year to Date	One Year	Three Years	Five Years	Inception to Date	Inception Date	
<b>L&amp;G Over 5yr Index Linked Gilt</b>	<b>0</b>	<b>0.00</b>		-	-	-	-	-	-	-	-	<b>31/07/2010</b>
<i>FTSE Govt Index-Link Over 5yr</i>				-	-	-	-	-	-	-	-	31/07/2010
<i>Excess Return</i>				-	-	-	-	-	-	-	-	31/07/2010
<b>Schroders Eq Prot Strtgy (IL)</b>	<b>73,652,093</b>	<b>4.96</b>		<b>2.72</b>	<b>1.94</b>	-	-	-	-	-	<b>3.73</b>	<b>07/09/2018</b>
<i>FTSE Gov Index-Link Over 5 yr</i>				2.71	2.03	-	-	-	-	-	1.78	07/09/2018
<i>Excess Return</i>				0.01	-0.09	-	-	-	-	-	1.95	07/09/2018
<b>Property</b>	<b>160,743,321</b>	<b>10.82</b>	<b>12.00</b>	<b>0.37</b>	<b>0.89</b>	<b>8.25</b>	<b>8.25</b>	<b>7.67</b>	<b>10.30</b>	<b>7.05</b>	<b>31/03/1989</b>	
<i>Property BM</i>				0.12	0.90	6.56	6.56	6.45	9.72	-	31/03/1989	
<i>Excess Return</i>				0.25	-0.01	1.69	1.69	1.22	0.58	-	31/03/1989	
<b>Schroders Real Estate</b>	<b>160,743,321</b>	<b>10.82</b>		<b>0.37</b>	<b>0.89</b>	<b>8.12</b>	<b>8.12</b>	<b>7.46</b>	<b>9.98</b>	<b>5.84</b>	<b>30/09/2004</b>	
<i>HSBC/IPD All Bal Funds Avg</i>				0.12	0.90	6.56	6.56	6.45	9.72	5.44	30/09/2004	
<i>Excess Return</i>				0.25	-0.01	1.56	1.56	1.00	0.26	0.40	30/09/2004	
<b>Diversified Growth</b>	<b>255,501,389</b>	<b>17.20</b>	<b>20.00</b>	<b>-1.74</b>	<b>-4.99</b>	-	-	-	-	-	<b>-4.57</b>	<b>31/03/2018</b>
<i>Diversified Growth BM</i>				0.34	0.99	-	-	-	-	-	2.99	31/03/2018
<i>Excess Return</i>				-2.08	-5.98	-	-	-	-	-	-7.56	31/03/2018
<b>LCIV BG Diversified Growth Fd</b>	<b>128,910,479</b>	<b>8.68</b>		<b>-2.06</b>	<b>-4.53</b>	<b>-5.02</b>	<b>-5.02</b>	<b>2.73</b>	<b>3.12</b>	<b>3.88</b>	<b>31/01/2011</b>	
<i>3 Month LIBOR +3%</i>				0.34	0.99	3.85	3.85	3.57	3.57	3.63	31/01/2011	
<i>Excess Return</i>				-2.40	-5.53	-8.87	-8.87	-0.85	-0.45	0.25	31/01/2011	
<b>LCIV Ruffer Absolute Return Fd</b>	<b>126,590,911</b>	<b>8.52</b>		<b>-1.42</b>	<b>-5.44</b>	<b>-6.04</b>	<b>-6.04</b>	<b>2.84</b>	<b>2.89</b>	<b>3.50</b>	<b>28/02/2011</b>	
<i>3 Month LIBOR +3%</i>				0.34	0.99	3.85	3.85	3.57	3.57	3.63	28/02/2011	
<i>Excess Return</i>				-1.76	-6.44	-9.89	-9.89	-0.74	-0.68	-0.13	28/02/2011	
<b>Residual</b>	<b>80,135</b>	<b>0.01</b>		-	-	-	-	-	-	-	-	<b>31/03/2018</b>
<b>Legacy Mandates</b>	<b>80,135</b>	<b>0.01</b>		-	-	-	-	-	-	-	-	<b>31/03/2018</b>
<b>Private Debt</b>	<b>89,433,000</b>	<b>6.02</b>	<b>6.00</b>	<b>-1.22</b>	<b>-2.00</b>	-	-	-	-	-	<b>-0.63</b>	<b>31/05/2018</b>
<i>Private Debt Benchmark</i>				0.42	1.24	-	-	-	-	-	2.85	31/05/2018
<i>Excess Return</i>				-1.64	-3.24	-	-	-	-	-	-3.48	31/05/2018
<b>LCIV (CQS) MAC</b>	<b>89,433,000</b>	<b>6.02</b>		<b>-1.22</b>	<b>-2.00</b>	-	-	-	-	-	<b>-0.63</b>	<b>31/05/2018</b>
<i>3 month LIBOR + 4%</i>				0.42	1.24	-	-	-	-	-	2.85	31/05/2018
<i>Excess Return</i>				-1.64	-3.24	-	-	-	-	-	-3.48	31/05/2018
<b>Cash</b>	<b>159,402,112</b>	<b>10.73</b>		<b>0.07</b>	<b>0.35</b>	<b>-0.42</b>	<b>-0.42</b>	<b>0.50</b>	<b>0.61</b>	<b>4.03</b>	<b>31/03/1997</b>	
<i>Cash Benchmark</i>				0.05	0.15	0.45	0.45	0.38	0.36	5.79	31/03/1997	
<i>Excess Return</i>				0.02	0.20	-0.87	-0.87	0.12	0.24	-1.75	31/03/1997	
<b>Cash &amp; Other Assets</b>	<b>143,330,551</b>	<b>9.65</b>		<b>0.08</b>	<b>0.38</b>	-	-	-	-	-	<b>-0.28</b>	<b>07/09/2018</b>
<b>Internal Cash Management</b>	<b>16,071,561</b>	<b>1.08</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.64</b>	<b>0.69</b>	<b>4.06</b>	<b>31/03/1997</b>	
<i>7 Days LIBID GBP</i>				0.05	0.15	0.45	0.45	0.38	0.36	5.79	31/03/1997	
<i>Excess Return</i>				-0.05	-0.15	-0.45	-0.45	0.26	0.33	-1.73	31/03/1997	

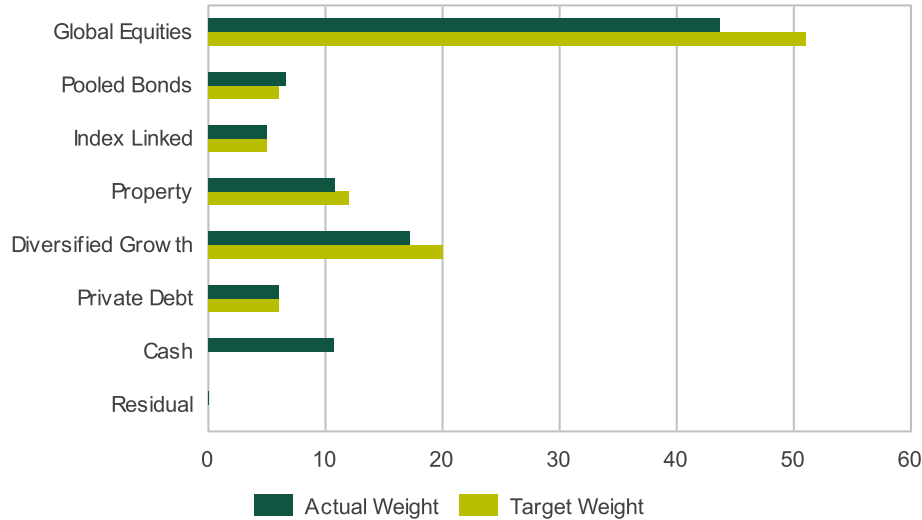
## Market Value Summary - One Month

Account/Group	30/11/2018 Market Value	Net Contribution*	Income	Fees	Appreciation	31/12/2018 Market Value
<b>LB of Tower Hamlets</b>	<b>1,524,370,021</b>	<b>-174,675</b>	<b>911,770</b>	<b>0</b>	<b>-39,770,113</b>	<b>1,485,337,003</b>
<b>Global Equities</b>	<b>684,056,258</b>	<b>0</b>	<b>681,393</b>	<b>0</b>	<b>-36,481,395</b>	<b>648,256,256</b>
L&G FT All World Index GBP hdg	22,038,059	0	0	0	-1,621,904	20,416,155
L&G MSCI World Low Carbon	236,642,473	0	0	0	-18,677,951	217,964,522
LCIV BG Global Alpha	330,835,108	0	681,393	0	-23,747,048	307,769,453
LGIM FTSE All World target	82,073,778	0	0	0	-5,576,142	76,497,636
Schroders Eq Prot Strtgy (Eq)	12,466,839	0	0	0	13,141,651	25,608,490
<b>Pooled Bonds</b>	<b>98,344,729</b>	<b>0</b>	<b>19,471</b>	<b>0</b>	<b>-95,502</b>	<b>98,268,698</b>
GSAM Star II	51,463,425	0	19,471	0	-299,924	51,182,972
Insight BNY Mellon Abslut Ret	46,881,305	0	0	0	204,421	47,085,726
<b>Index Linked</b>	<b>71,700,921</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,951,172</b>	<b>73,652,093</b>
L&G Over 5yr Index Linked Gilt	0	0	0	0	0	0
Schroders Eq Prot Strtgy (IL)	71,700,921	0	0	0	1,951,172	73,652,093
<b>Property</b>	<b>160,153,334</b>	<b>0</b>	<b>210,918</b>	<b>0</b>	<b>379,069</b>	<b>160,743,321</b>
Schroders Real Estate	160,153,334	0	210,918	0	379,069	160,743,321
<b>Diversified Growth</b>	<b>260,031,424</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-4,530,035</b>	<b>255,501,389</b>
LCIV BG Diversified Growth Fd	131,618,187	0	0	0	-2,707,709	128,910,479
LCIV Ruffer Absolute Return Fd	128,413,237	0	0	0	-1,822,326	126,590,911
<b>Residual</b>	<b>79,847</b>	<b>0</b>	<b>-12</b>	<b>0</b>	<b>300</b>	<b>80,135</b>
Legacy Mandates	79,847	0	-12	0	300	80,135
<b>Private Debt</b>	<b>90,540,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-1,107,000</b>	<b>89,433,000</b>
LCIV (CQS) MAC	90,540,000	0	0	0	-1,107,000	89,433,000
<b>Cash</b>	<b>159,463,509</b>	<b>-174,675</b>	<b>0</b>	<b>0</b>	<b>113,278</b>	<b>159,402,112</b>
Cash & Other Assets	143,217,273	0	0	0	113,278	143,330,551
Internal Cash Management	16,246,236	-174,675	0	0	0	16,071,561

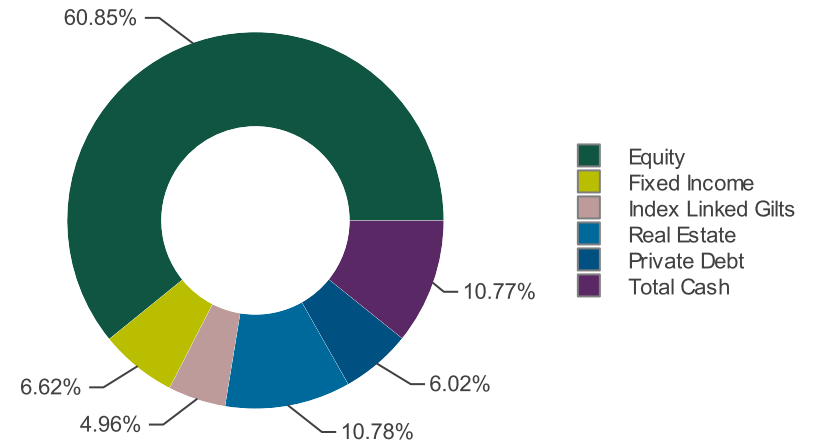
\*Net Contributions include Cash Contributions/Distributions, Security Deliveries/Receipts, Fees/Fee Rebates, Inter Account transfers for Consolidations & Benefits Payments. Copied History or Backloaded Data may not display the correct Contributions/Withdrawals creating misrepresentation.

# Asset Allocation Overview

PROGRAM ACTUAL WEIGHTS vs. TARGET WEIGHTS



LB OF TOWER HAMLETS ASSET CLASS WEIGHTS



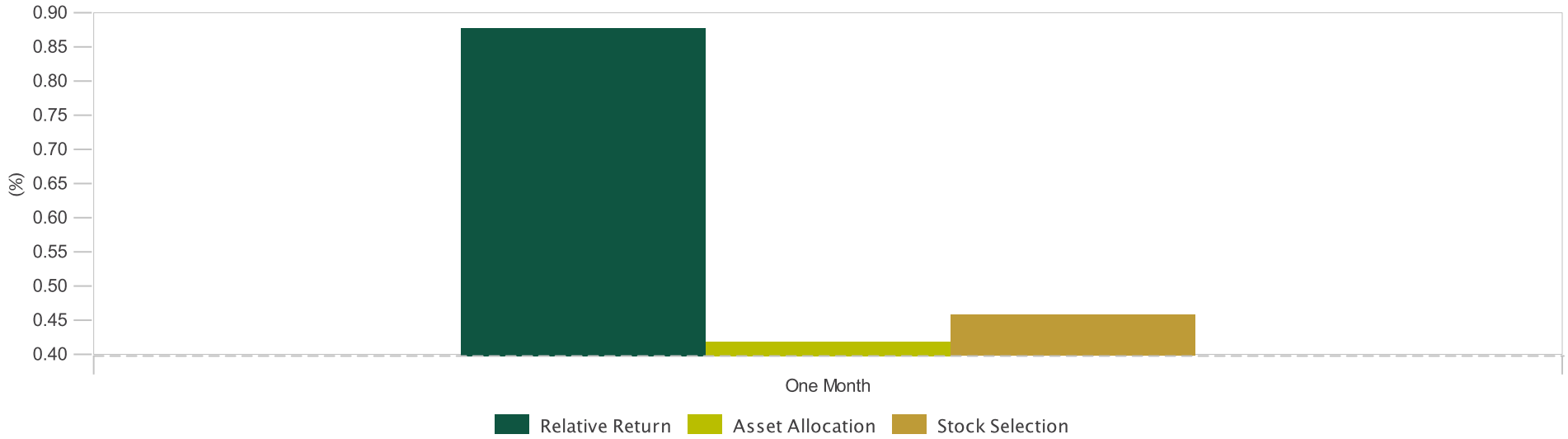
Program/Consolidation	Ending Market Value GOF GBP	Actual Weight	Target Weight	Equity	Fixed Income	Index Linked Gilts	Real Estate	Private Debt	Balanced Funds	Total Cash
<b>Global Equities</b>	648,256	43.64	51.00	648,256						0
<b>Pooled Bonds</b>	98,269	6.62	6.00		98,269					0
<b>Index Linked</b>	73,652	4.96	5.00			73,652				0
<b>Property</b>	160,743	10.82	12.00				160,187			556
<b>Diversified Growth</b>	255,501	17.20	20.00	255,501						
<b>Private Debt</b>	89,433	6.02	6.00					89,433		
<b>Cash</b>	159,402	10.73								159,402
<b>Residual</b>	80	0.01		4						76
<b>LB of Tower Hamlets</b>	<b>1,485,337</b>	<b>100.00</b>	<b>100.00</b>	<b>903,762</b>	<b>98,269</b>	<b>73,652</b>	<b>160,187</b>	<b>89,433</b>		<b>160,034</b>
<b>LB of Tower Hamlets Percent</b>				60.85	6.62	4.96	10.78	6.02		10.77

\*Market Values are represented in thousands.

\*Underlying assets of the fund have been included in the market value and allocation.



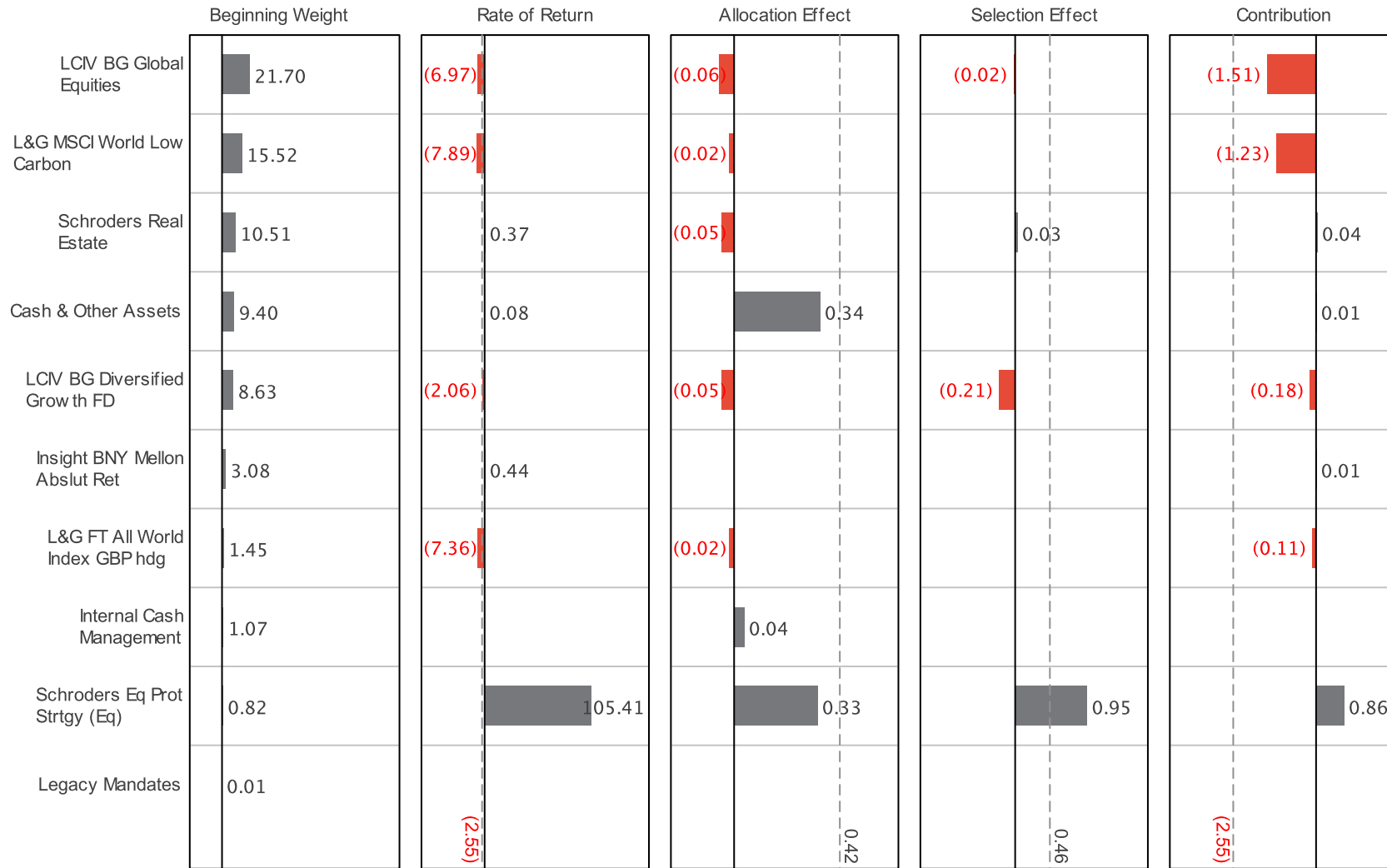
## Policy Level Attribution Overview



Time Period	Rate of Return			Relative Asset Allocation	Relative Stock Selection	Residual
	Group	Index	Relative			
One Month	-2.55	-3.40	0.88	0.42	0.46	-0.00

The above Attribution Model is based on the Geometric methodology.

### Policy Level Attribution Detail - One Month



The above Attribution model is based on Geometric methodology. The chart depicts the Top & Bottom accounts/groups based on Beginning Weight. The vertical dotted line represents the total consolidated result for a given metric.

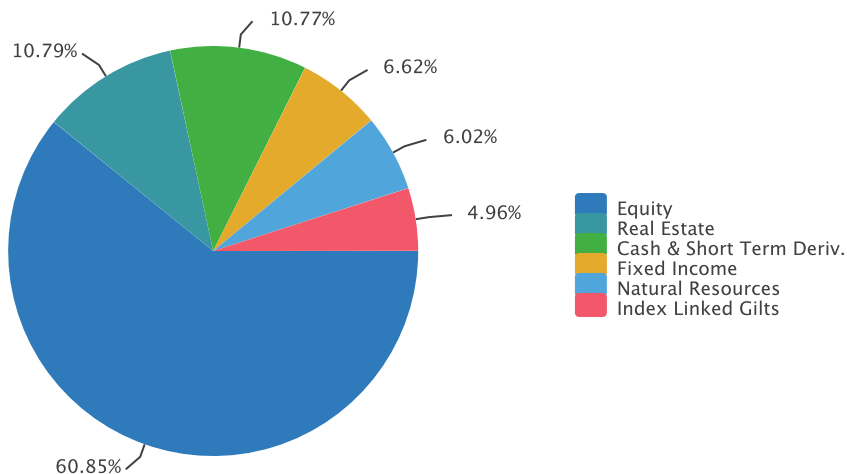
## Policy Level Attribution - One Month

	Weights		Rate of Returns		Attribution Effects	
	Beginning Weights		Return	Contribution	Relative Asset Allocation	Relative Stock Selection
<b>LB of Tower Hamlets</b>	<b>100.00</b>		<b>-2.55</b>	<b>-2.55</b>	<b>0.42</b>	<b>0.46</b>
<i>Total Plan Benchmark</i>	<i>100.00</i>		<i>-3.40</i>	<i>-3.40</i>		
LCIV BG Global Equities	21.70		-6.97	-1.51	-0.06	-0.02
<i>LBTH01 - MSCI AC World ND</i>	<i>20.00</i>		<i>-6.88</i>	<i>-1.38</i>		
L&G FT All World Index GBP hdg	1.45		-7.36	-0.11	-0.02	0.00
<i>FTSE All World GBP Hgd BM</i>	<i>1.00</i>		<i>-7.37</i>	<i>-0.07</i>		
LGIM FTSE All World target	5.38		-6.79	-0.37	-0.01	0.00
<i>LBTH06 - FTSE All World Index</i>	<i>5.00</i>		<i>-6.80</i>	<i>-0.34</i>		
L&G MSCI World Low Carbon	15.52		-7.89	-1.23	-0.02	0.00
<i>LBTH05 - MSCI World Low Carbon</i>	<i>15.00</i>		<i>-7.92</i>	<i>-1.19</i>		
Schroders Eq Prot Strtgy (Eq)	0.82	105.41	0.44	0.86	0.33	0.95
<i>MSCI AC World ND</i>	<i>10.01</i>		<i>-6.88</i>	<i>-0.69</i>		
Insight BNY Mellon Abslut Ret	3.08	0.44	0.44	0.01	0.00	0.00
<i>LBTH09 - LIBOR 3 Month +4%</i>	<i>3.00</i>		<i>0.42</i>	<i>0.01</i>		
GSAM Star II	3.38	-0.54	-0.54	-0.02	0.01	-0.03
<i>LBTH08 - LIBOR 3 Month +4%</i>	<i>3.00</i>		<i>0.42</i>	<i>0.01</i>		
<b>Index Linked</b>	<b>4.70</b>	<b>2.72</b>	<b>2.72</b>	<b>0.13</b>	<b>-0.02</b>	<b>0.00</b>
<i>Index Linked BM</i>	<i>4.99</i>		<i>2.71</i>	<i>0.14</i>		
Schroders Real Estate	10.51	0.37	0.37	0.04	-0.05	0.03
<i>HSBC/IPD All Bal Funds Avg</i>	<i>12.00</i>		<i>0.12</i>	<i>0.01</i>		
LCIV BG Diversified Growth FD	8.63	-2.06	-2.06	-0.18	-0.05	-0.21
<i>LBTH02 - 3 Month LIBOR +3%</i>	<i>10.00</i>		<i>0.34</i>	<i>0.03</i>		
LCIV Ruffer Absolute Return FD	8.42	-1.42	-1.42	-0.12	-0.06	-0.15
<i>LBTH03 - 3 Month LIBOR +3%</i>	<i>10.00</i>		<i>0.34</i>	<i>0.03</i>		
Legacy Mandates	0.01	-	-	0.00	-	-
LCIV (CQS) MAC	5.94	-1.22	-1.22	-0.07	-0.00	-0.10
<i>LBTH12 - 3 month LIBOR + 4%</i>	<i>6.00</i>		<i>0.42</i>	<i>0.03</i>		
Internal Cash Management	1.07	0.00	0.00	0.00	0.04	0.00
Cash & Other Assets	9.40	0.08	0.08	0.01	0.34	0.00

The above Attribution Model is based on the Geometric methodology.

# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

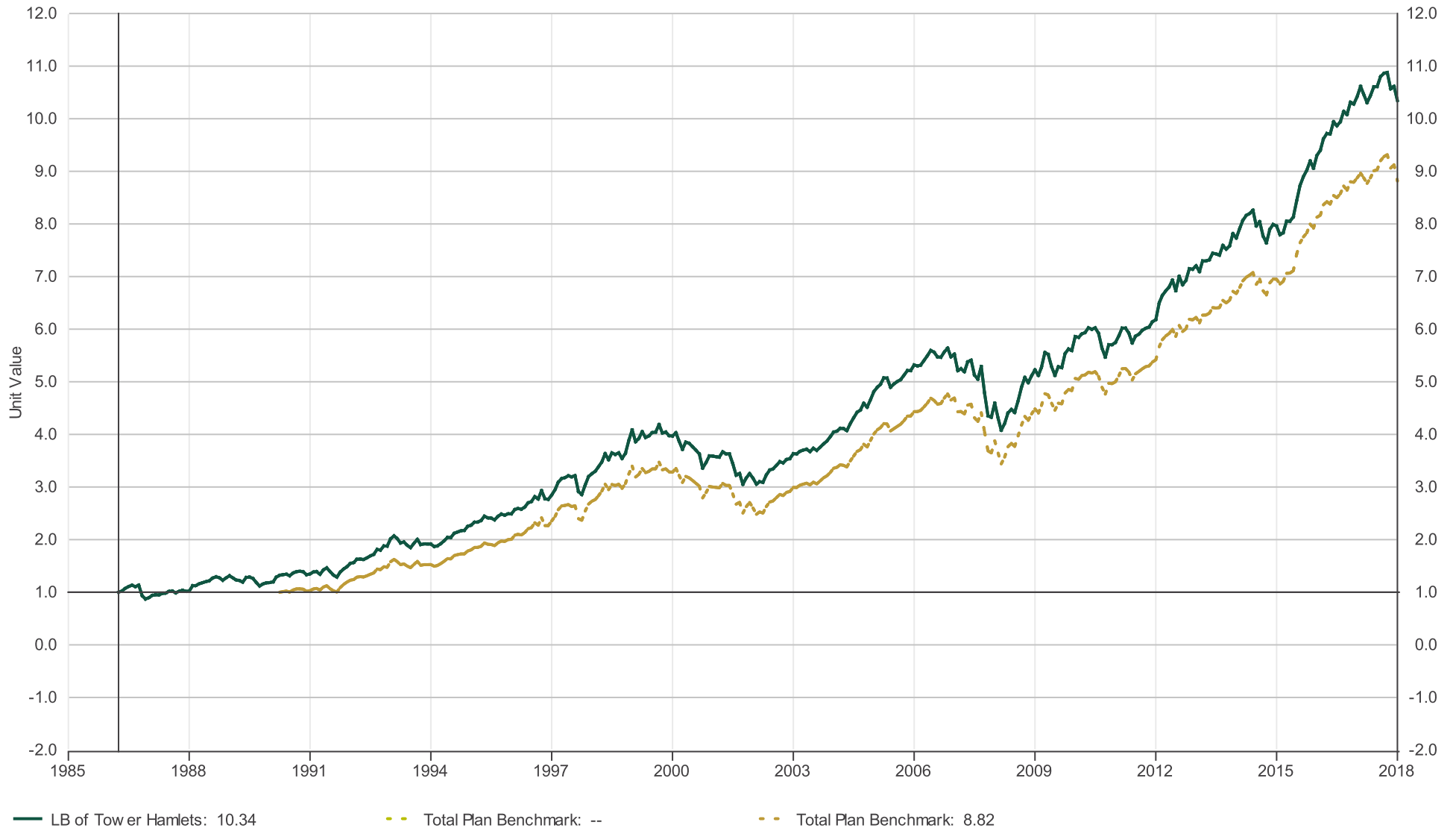
	1 Mo
Beginning Market Value	1,524,370
Net Contribution	-175
Income	912
Fees	0
Appreciation	-39,770
Ending Market Value	1,485,337

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>903,762,121</b>	<b>60.85</b>	<b>-4.27</b>	<b>-7.86</b>					
Common Stock	903,762,121	60.85	-4.27	-7.86					
<b>Fixed Income</b>	<b>98,268,698</b>	<b>6.62</b>	<b>-0.08</b>	<b>-1.07</b>					
Marketable Bonds	98,268,698	6.62	-0.08	-1.07					
<b>Index Linked Gilts</b>	<b>73,652,093</b>	<b>4.96</b>	<b>2.72</b>	<b>1.94</b>					
<b>Real Estate</b>	<b>160,186,948</b>	<b>10.78</b>	<b>0.37</b>	<b>0.89</b>					
<b>Cash &amp; Short Term Deriv.</b>	<b>160,034,144</b>	<b>10.77</b>	<b>0.07</b>	<b>0.35</b>					
<b>Pending Cash</b>	<b>0</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Private Debt</b>	<b>89,433,000</b>	<b>6.02</b>	<b>-1.22</b>	<b>-2.00</b>					
<b>Total Fund Net of Fees</b>	<b>1,485,337,003</b>	<b>100.00</b>	<b>-2.55</b>	<b>-4.91</b>	<b>-0.73</b>	<b>-0.73</b>	<b>9.13</b>	<b>7.50</b>	<b>7.64</b>
Total Plan Benchmark			-3.40	-5.38	-0.66	-0.66	8.25	7.21	
<b>Excess Return</b>			<b>0.85</b>	<b>0.47</b>	<b>-0.07</b>	<b>-0.07</b>	<b>0.87</b>	<b>0.29</b>	

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date



SECTION 2

# L&G FT All World Index GBP hdg

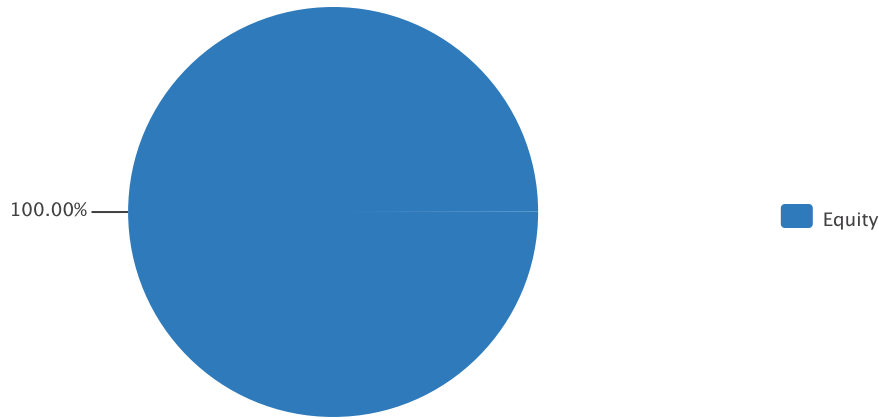
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Investment Risk & Analytical Services

December 31, 2018

# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

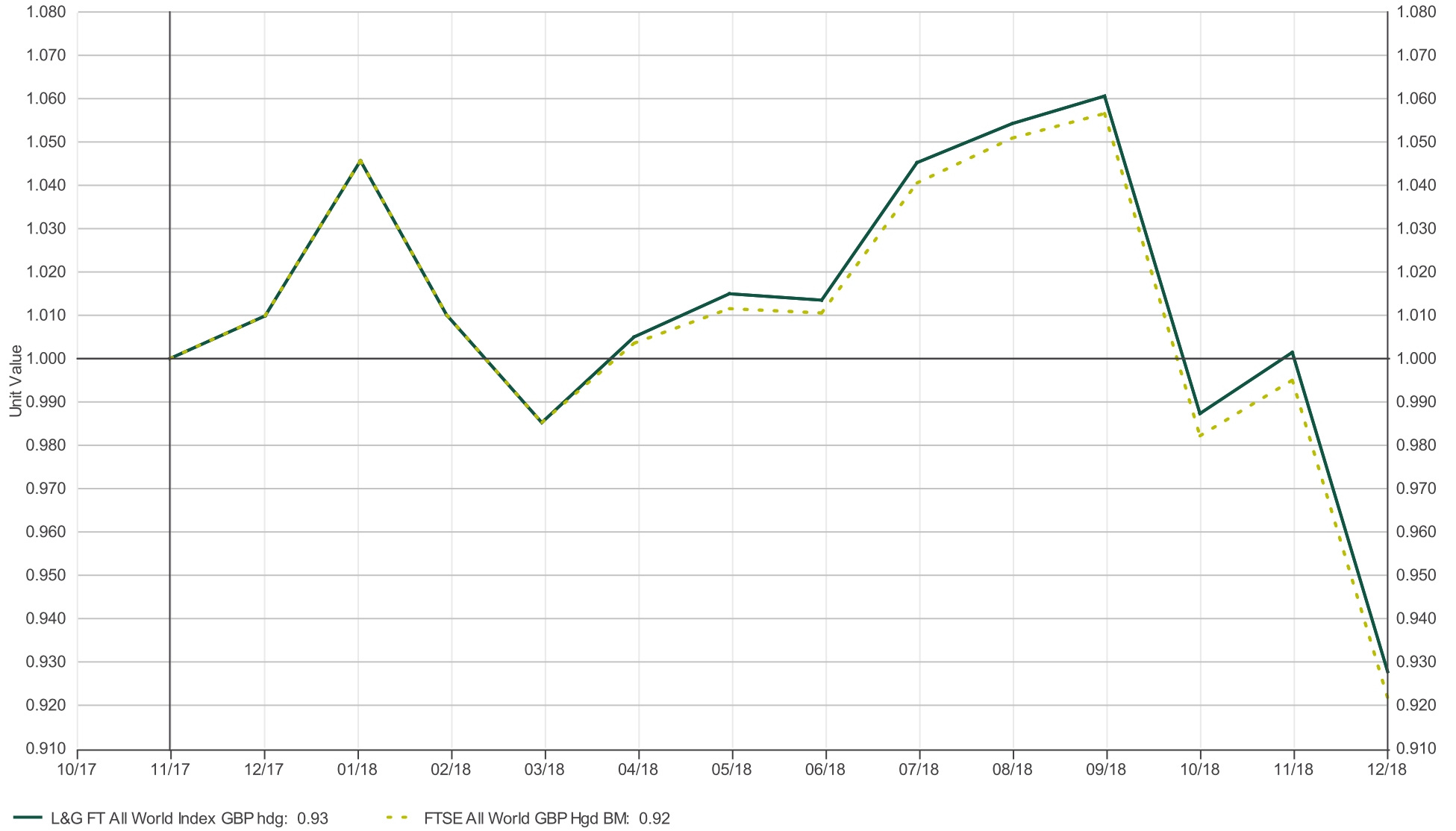
	1 Mo
Beginning Market Value	22,038
Net Contribution	0
Income	0
Fees	0
Appreciation	-1,622
Ending Market Value	20,416

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>20,416,155</b>	<b>100.00</b>	<b>-7.36</b>	<b>-12.53</b>					
Common Stock	20,416,155	100.00	-7.36	-12.53					
<b>Total Fund Net of Fees</b>	<b>20,416,155</b>	<b>100.00</b>	<b>-7.36</b>	<b>-12.53</b>	<b>-8.13</b>	<b>-8.13</b>			<b>-6.69</b>
FTSE All World GBP Hgd BM			-7.37	-12.76	-8.73	-8.73			-7.25
Excess Return			0.01	0.24	0.60	0.60			0.56

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date





SECTION 3

# L&G MSCI World Low Carbon

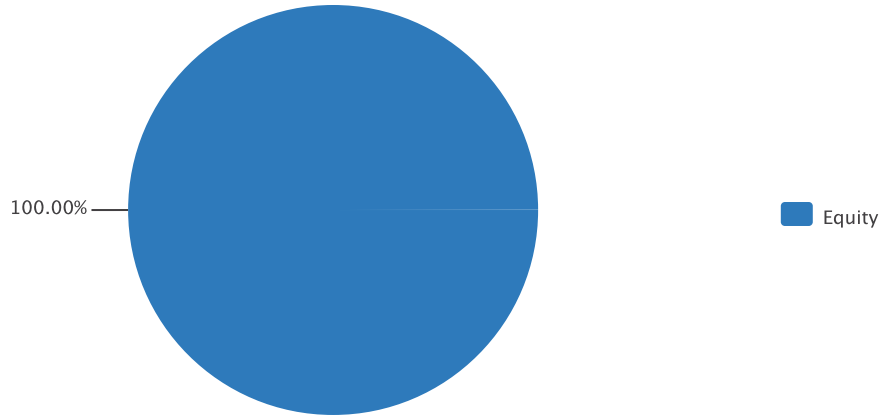
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Investment Risk & Analytical Services

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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

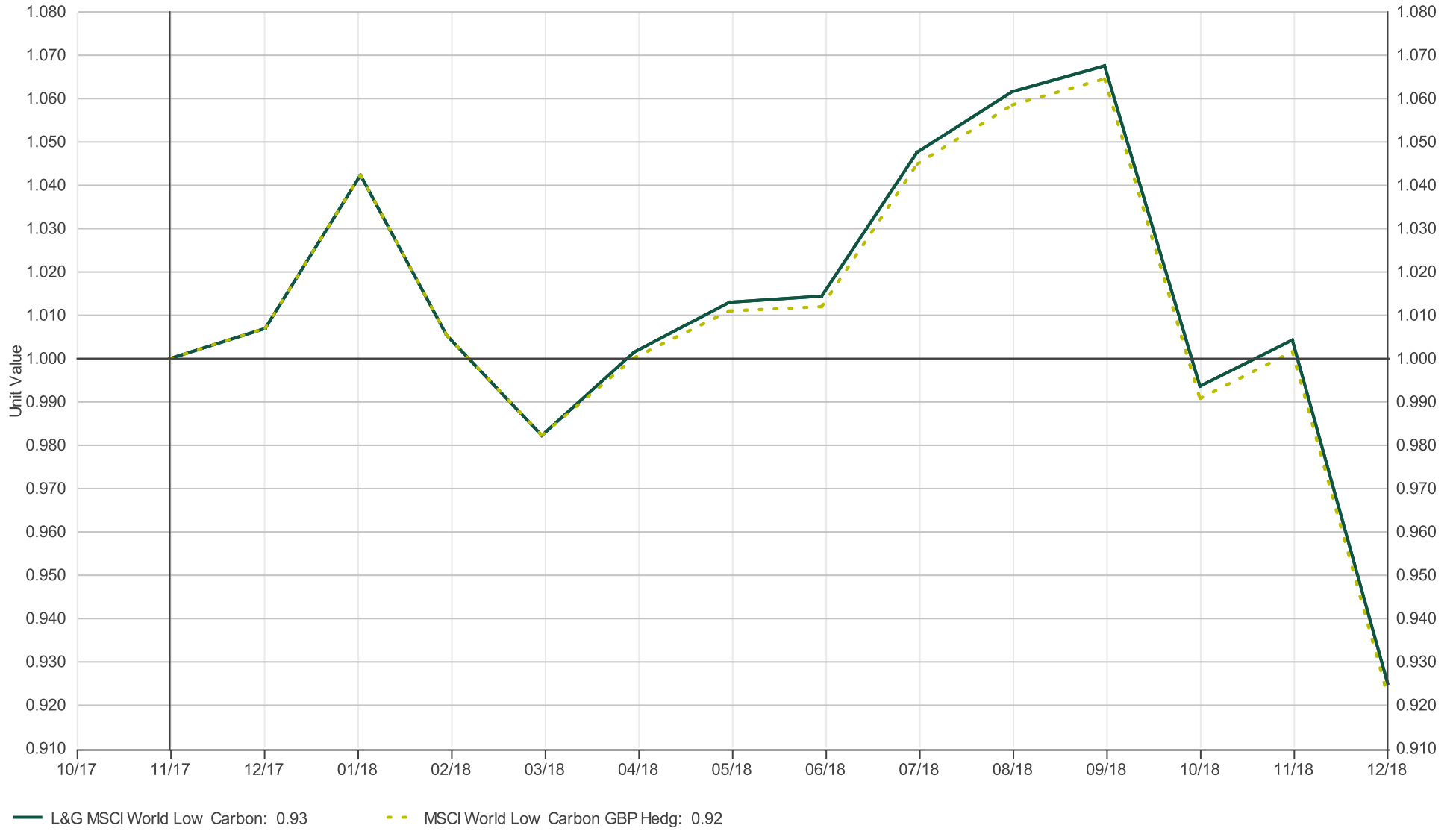
	1 Mo
Beginning Market Value	236,642
Net Contribution	0
Income	0
Fees	0
Appreciation	-18,678
Ending Market Value	217,965

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>217,964,522</b>	<b>100.00</b>	<b>-7.89</b>	<b>-13.35</b>					
Common Stock	217,964,522	100.00	-7.89	-13.35					
<b>Total Fund Net of Fees</b>	<b>217,964,522</b>	<b>100.00</b>	<b>-7.89</b>	<b>-13.35</b>	<b>-8.14</b>	<b>-8.14</b>			<b>-6.94</b>
MSCI World Low Carbon GBP Hedg			-7.92	-13.36	-8.41	-8.41			-7.19
Excess Return			0.02	0.01	0.27	0.27			0.25

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date



SECTION 4

# LCIV BG Global Alpha

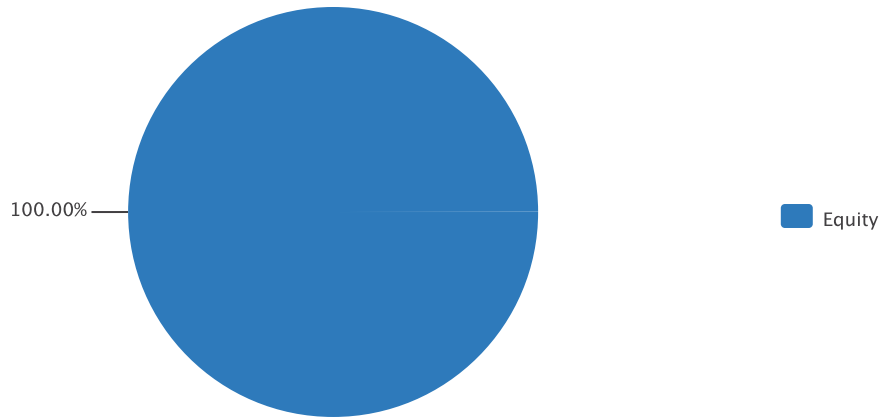
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

	1 Mo
Beginning Market Value	330,835
Net Contribution	0
Income	681
Fees	0
Appreciation	-23,747
Ending Market Value	307,769

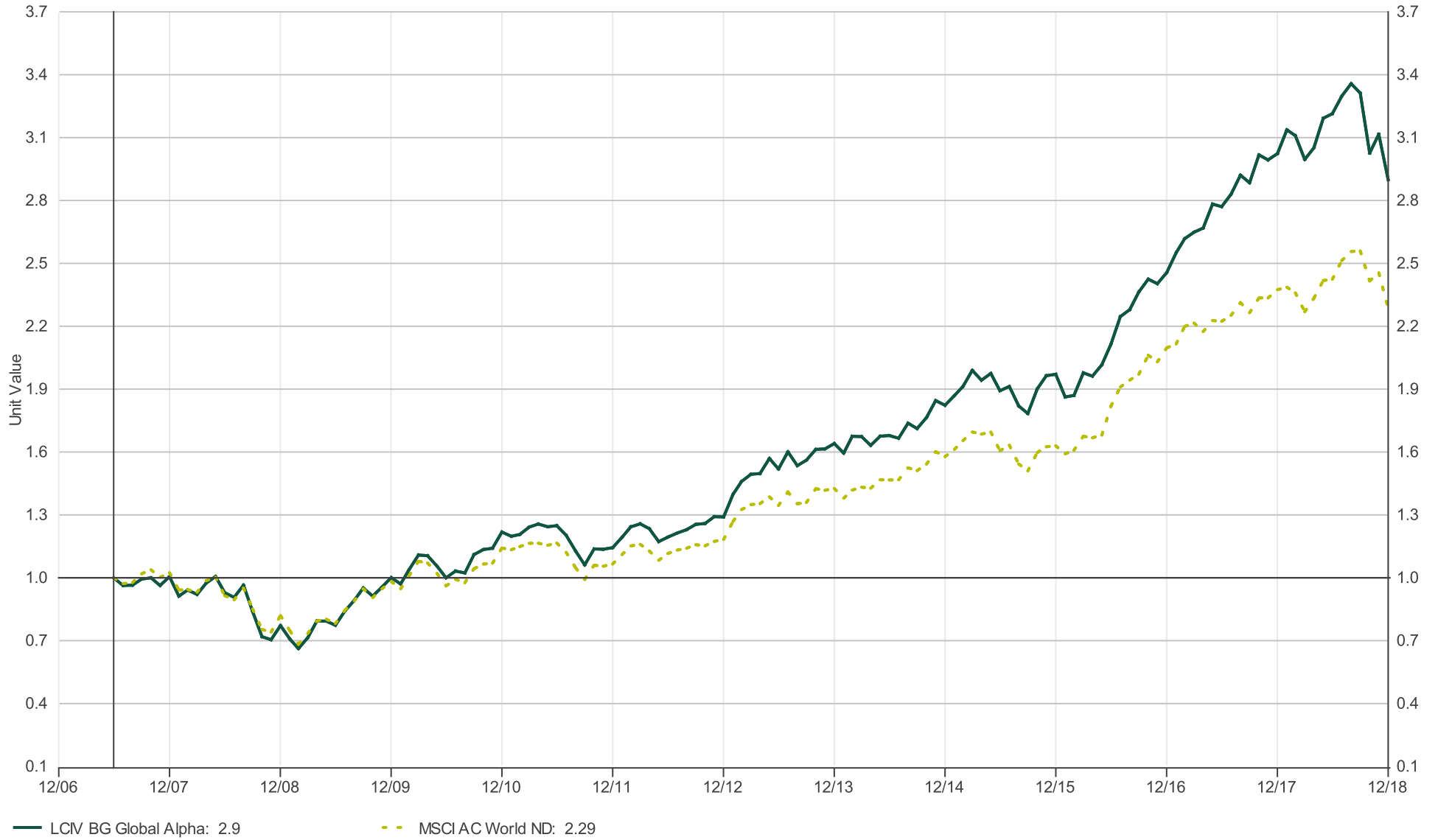
\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>307,769,453</b>	<b>100.00</b>	<b>-6.97</b>	<b>-12.47</b>					
Common Stock	307,769,453	100.00	-6.97	-12.47					
<b>Cash &amp; Short Term Deriv.</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>						
Pending Cash	0	0.00	-	-	-	-	-	-	-
<b>Total Fund Net of Fees</b>	<b>307,769,453</b>	<b>100.00</b>	<b>-6.97</b>	<b>-12.47</b>	<b>-4.13</b>	<b>-4.13</b>	<b>13.72</b>	<b>12.06</b>	<b>9.70</b>
MSCI AC World ND			-6.88	-10.67	-3.72	-3.72	11.94	9.90	7.46
Excess Return			-0.10	-1.80	-0.42	-0.42	1.78	2.16	2.24

Excess is calculated using arithmetic methodology

\*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date



SECTION 5

# LGIM FTSE All World target

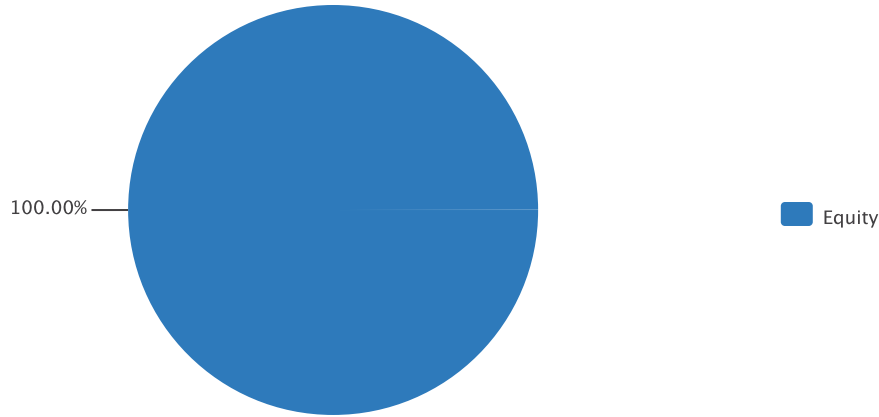
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

	1 Mo
Beginning Market Value	82,074
Net Contribution	0
Income	0
Fees	0
Appreciation	-5,576
Ending Market Value	76,498

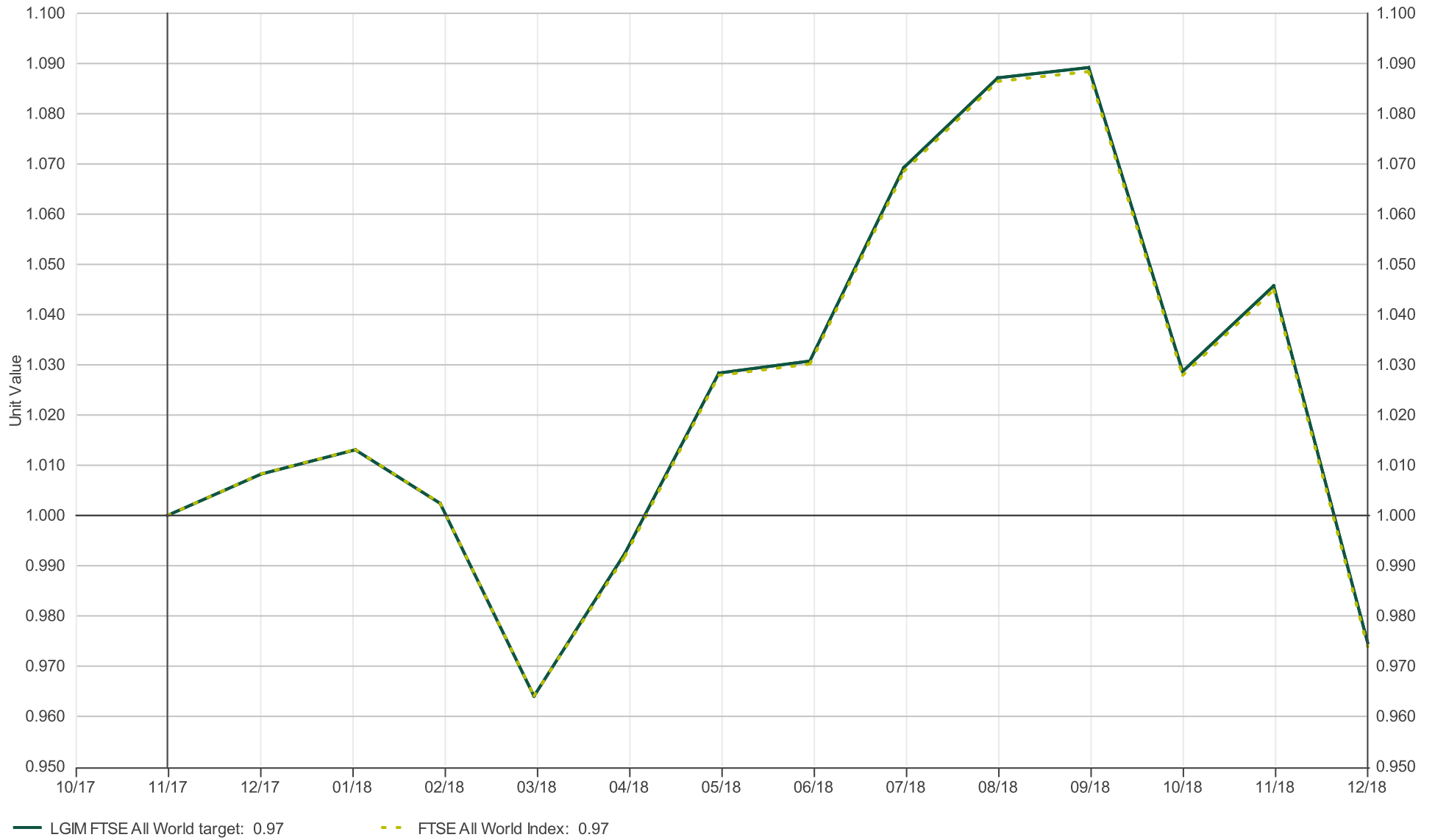
\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>76,497,636</b>	<b>100.00</b>	<b>-6.79</b>	<b>-10.51</b>					
Common Stock	76,497,636	100.00	-6.79	-10.51					
<b>Total Fund Net of Fees</b>	<b>76,497,636</b>	<b>100.00</b>	<b>-6.79</b>	<b>-10.51</b>	<b>-3.33</b>	<b>-3.33</b>			<b>-2.34</b>
FTSE All World Index			-6.80	-10.52	-3.42	-3.42			-2.42
Excess Return			0.01	0.01	0.08	0.08			0.08

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class



### Growth Over Time - Inception to Date



SECTION 6

# Schroders Eq Prot Strtgy (Eq)

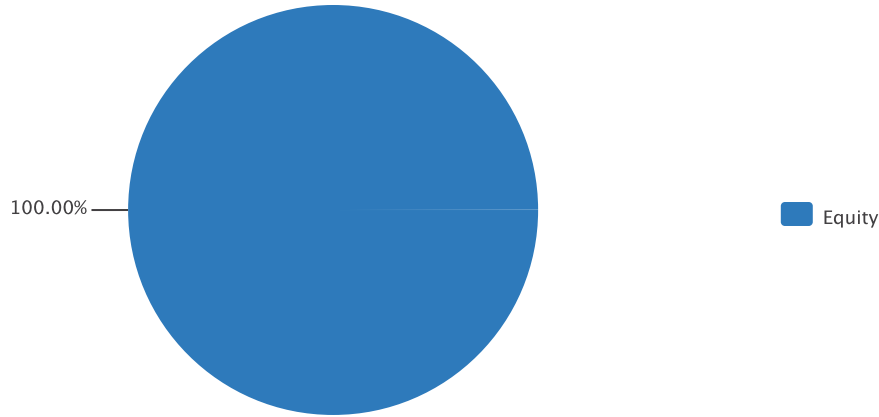
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

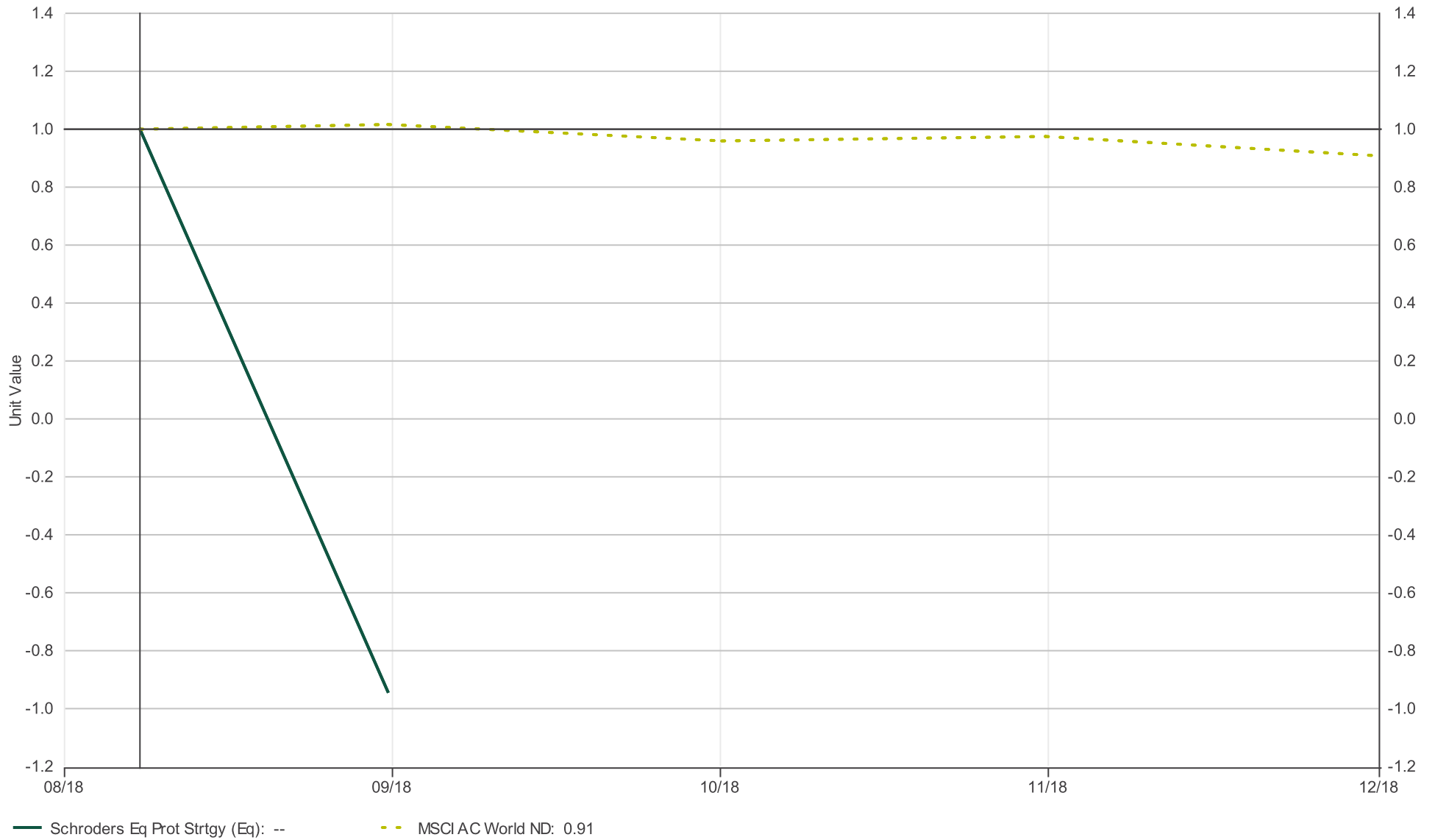
	1 Mo
Beginning Market Value	12,467
Net Contribution	0
Income	0
Fees	0
Appreciation	13,142
Ending Market Value	25,608

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>25,608,490</b>	<b>100.00</b>	<b>105.41</b>						
Common Stock	25,608,490	100.00	105.41						
<b>Total Fund Net of Fees</b>	<b>25,608,490</b>	<b>100.00</b>	<b>105.41</b>						
MSCI AC World ND			-6.88	-10.67					-9.21
Excess Return			112.29						

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date



SECTION 7

# GSAM Star II

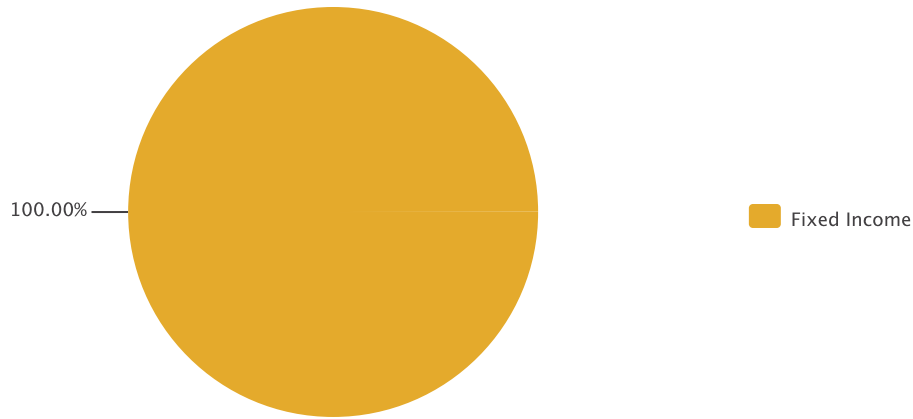
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

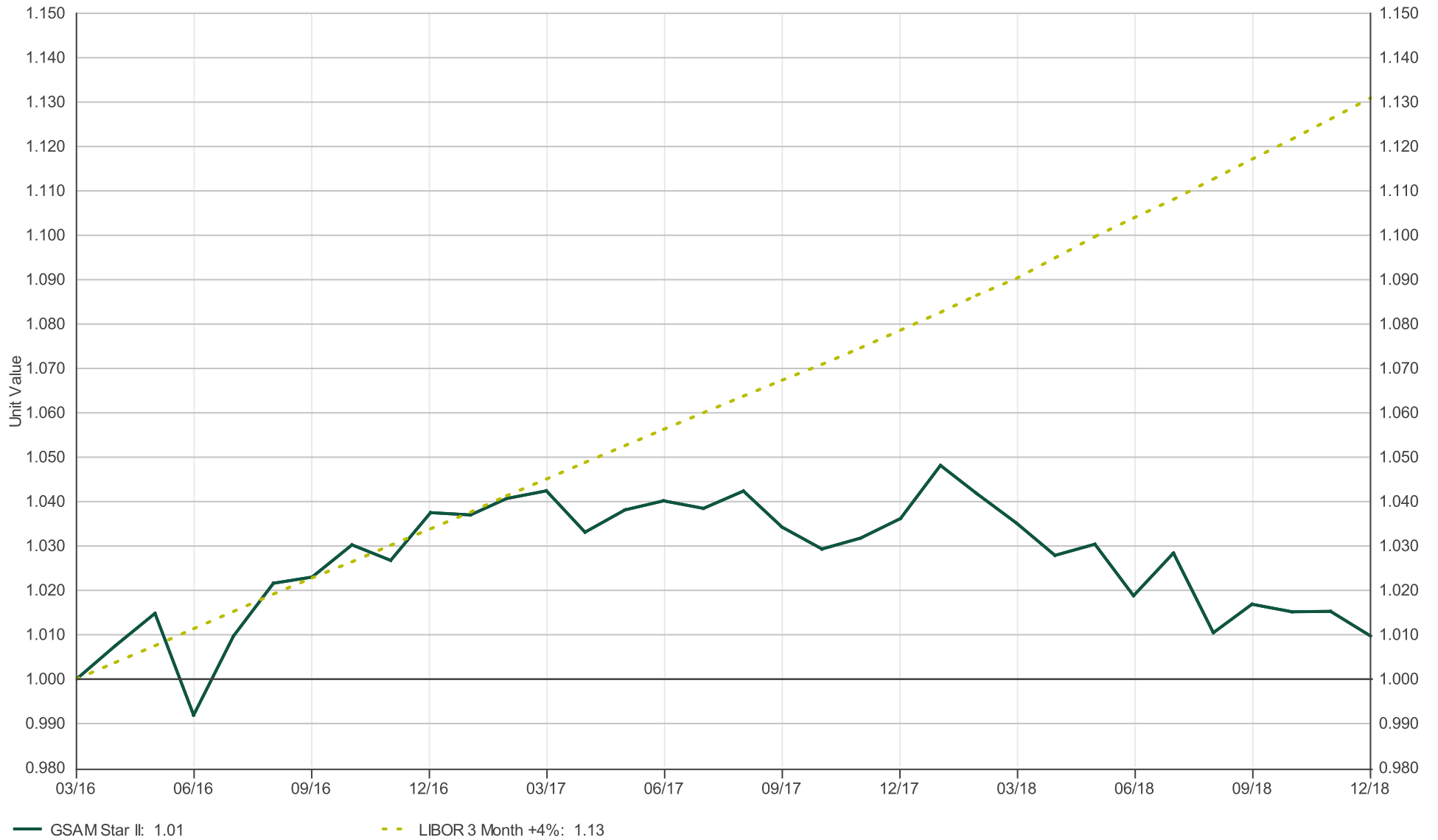
	1 Mo
Beginning Market Value	51,463
Net Contribution	0
Income	19
Fees	0
Appreciation	-300
Ending Market Value	51,183

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Fixed Income</b>	<b>51,182,972</b>	<b>100.00</b>	<b>-0.54</b>	<b>-0.70</b>					
Marketable Bonds	51,182,972	100.00	-0.54	-0.70					
<b>Cash &amp; Short Term Deriv.</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>					
Pending Cash	0	0.00	-	-	-	-	-	-	-
<b>Total Fund Net of Fees</b>	<b>51,182,972</b>	<b>100.00</b>	<b>-0.54</b>	<b>-0.70</b>	<b>-2.55</b>	<b>-2.55</b>			<b>0.35</b>
LIBOR 3 Month +4%			0.42	1.23	4.85	4.85			4.58
<b>Excess Return</b>			<b>-0.96</b>	<b>-1.94</b>	<b>-7.40</b>	<b>-7.40</b>			<b>-4.22</b>

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date



SECTION 8

# Insight BNY Mellon Abslut Ret

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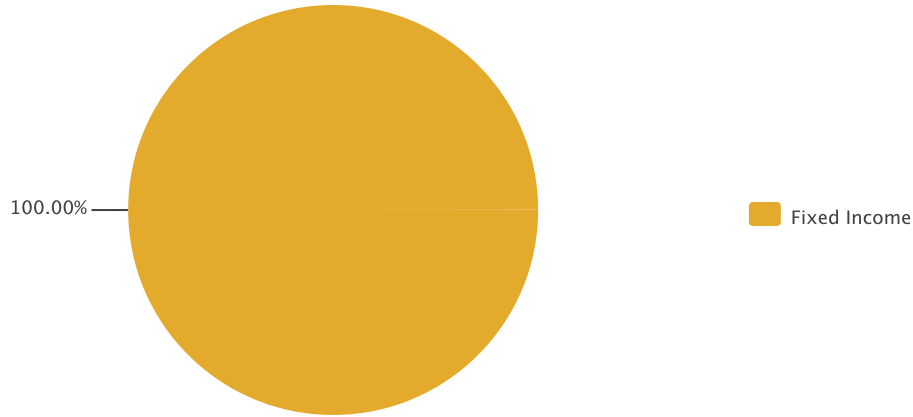
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

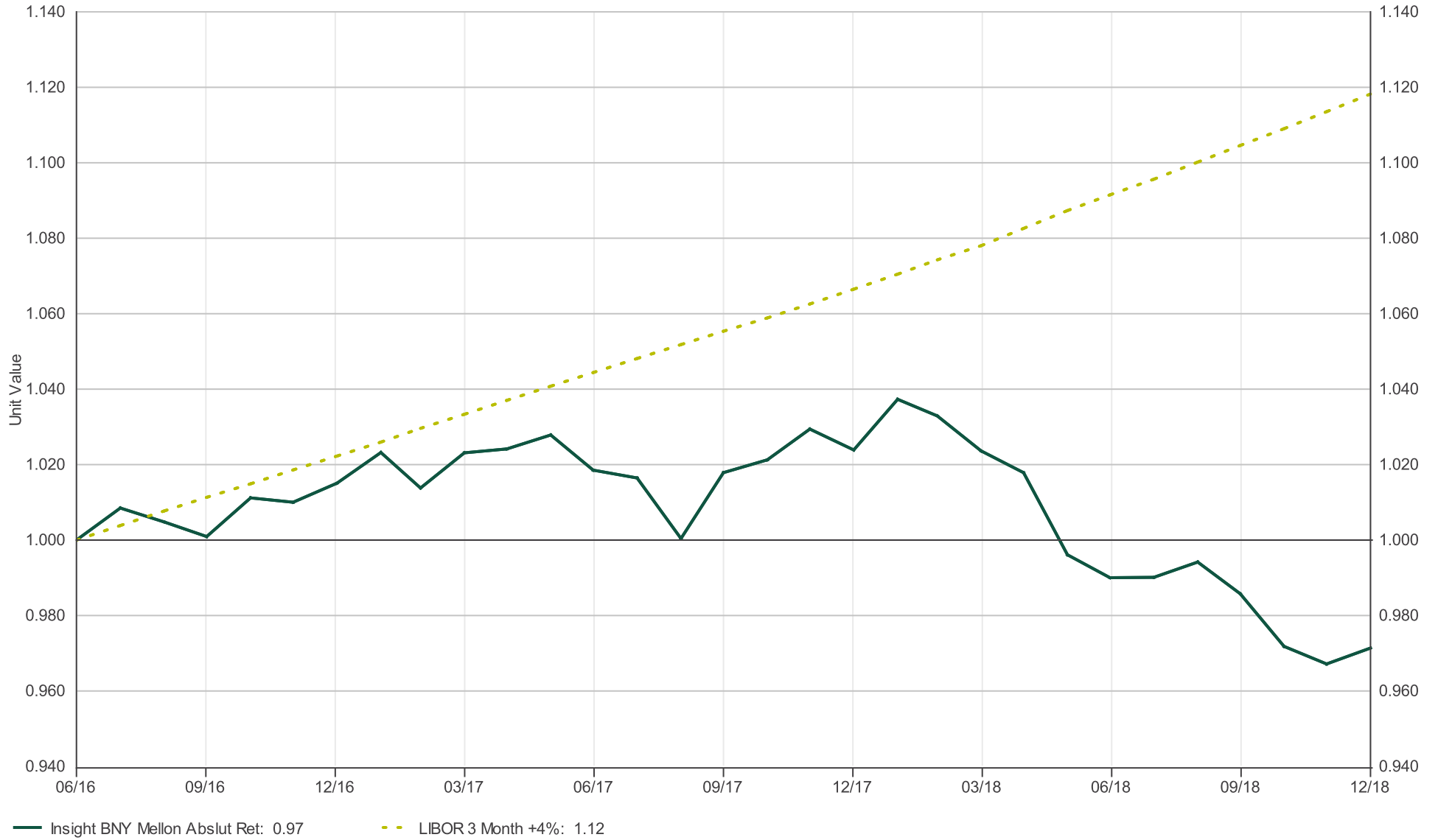
	1 Mo
Beginning Market Value	46,881
Net Contribution	0
Income	0
Fees	0
Appreciation	204
Ending Market Value	47,086

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Fixed Income</b>	<b>47,085,726</b>	<b>100.00</b>	<b>0.44</b>	<b>-1.46</b>					
Marketable Bonds	47,085,726	100.00	0.44	-1.46					
<b>Total Fund Net of Fees</b>	<b>47,085,726</b>	<b>100.00</b>	<b>0.44</b>	<b>-1.46</b>	<b>-5.13</b>	<b>-5.13</b>			<b>-1.15</b>
LIBOR 3 Month +4%			0.42	1.23	4.85	4.85			4.57
<i>Excess Return</i>			<i>0.02</i>	<i>-2.70</i>	<i>-9.98</i>	<i>-9.98</i>			<i>-5.73</i>

*Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class*

### Growth Over Time - Inception to Date



SECTION 9

# Schroders Eq Prot Strtgy (IL)

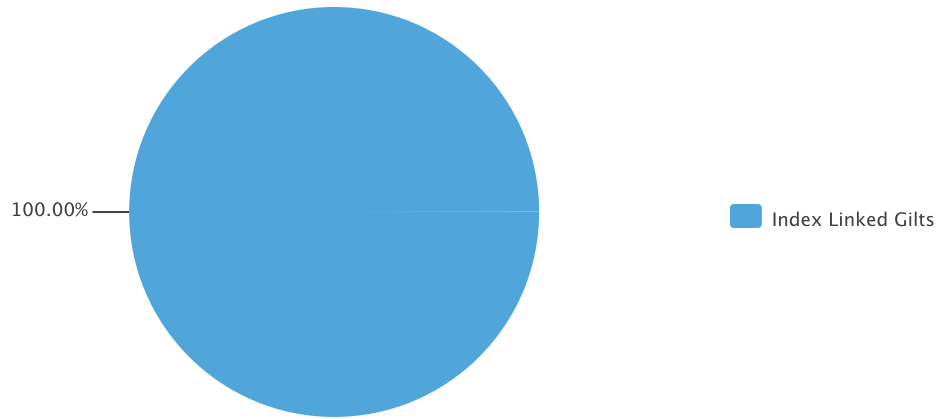
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

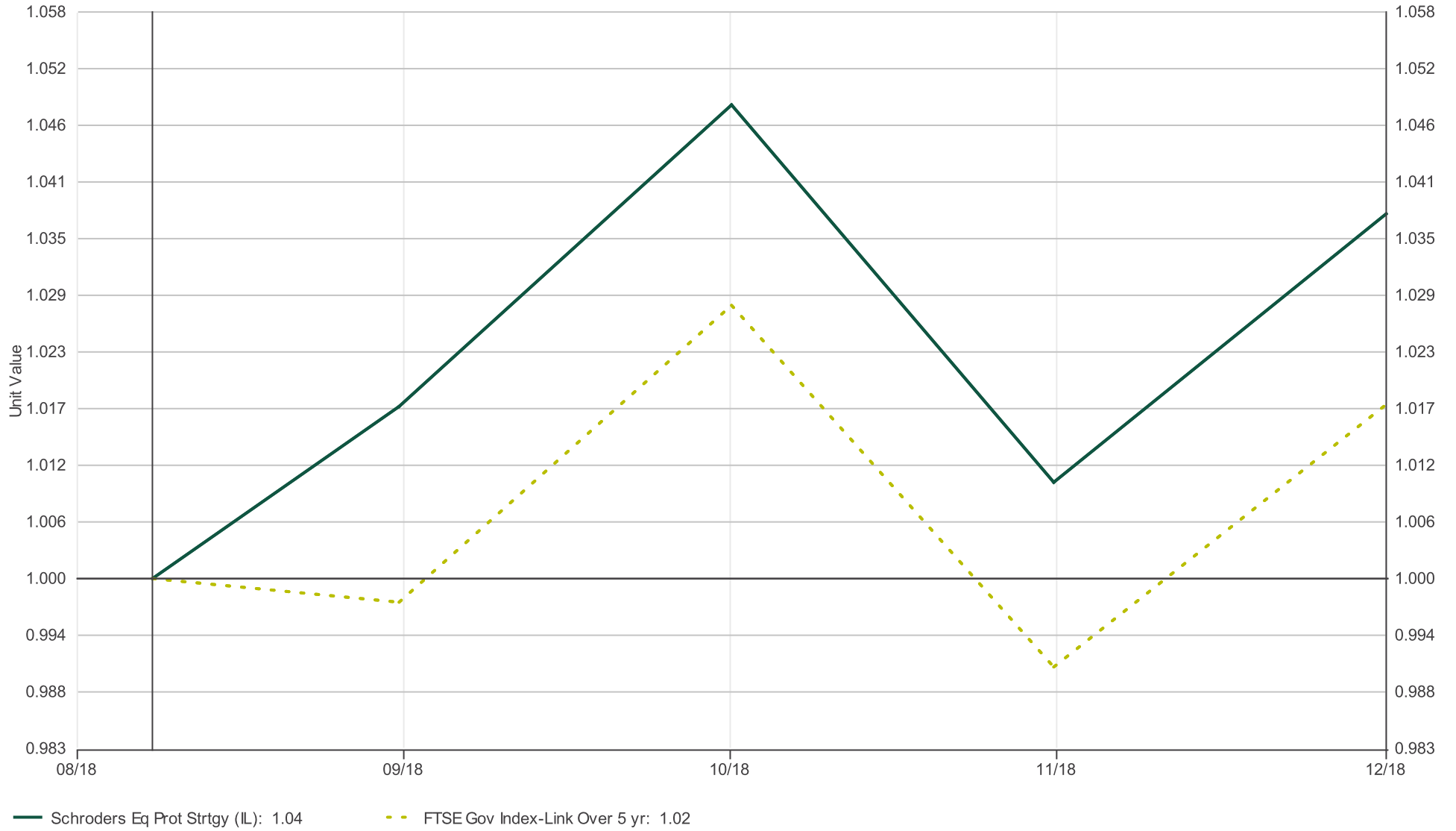
	1 Mo
Beginning Market Value	71,701
Net Contribution	0
Income	0
Fees	0
Appreciation	1,951
Ending Market Value	73,652

*\*Market Values are in 000s.*

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Index Linked Gilts</b>	<b>73,652,093</b>	<b>100.00</b>	<b>2.72</b>	<b>1.94</b>					<b>3.73</b>
<b>Total Fund Net of Fees</b>	<b>73,652,093</b>	<b>100.00</b>	<b>2.72</b>	<b>1.94</b>					<b>3.73</b>
FTSE Gov Index-Link Over 5 yr			2.71	2.03					1.78
Excess Return			0.01	-0.09					1.95

*Excess is calculated using arithmetic methodology  
\*Fees are not represented as an Asset Class*

### Growth Over Time - Inception to Date



SECTION 10

# Schroders Real Estate

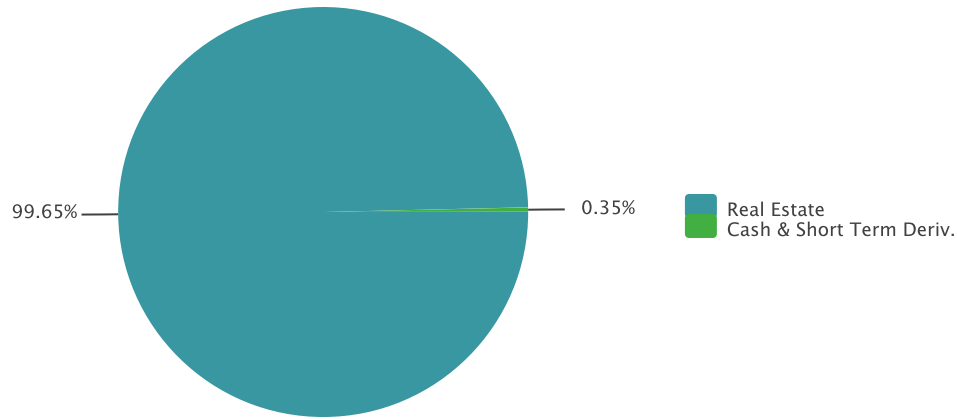
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

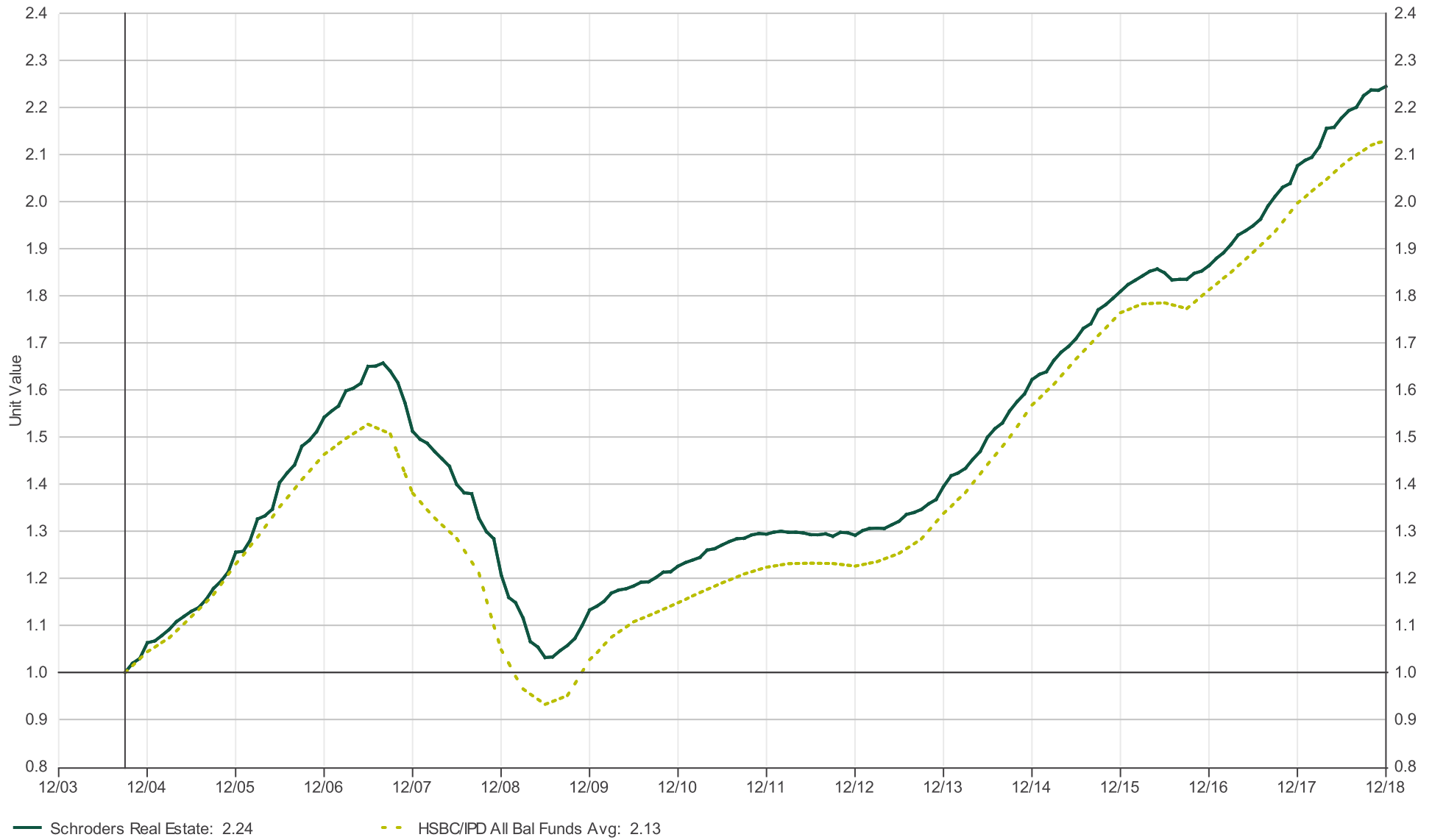
	1 Mo
Beginning Market Value	160,153
Net Contribution	0
Income	211
Fees	0
Appreciation	379
Ending Market Value	160,743

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
Real Estate	160,186,948	99.65	0.37	0.89					
Cash & Short Term Deriv.	556,374	0.35	0.00	0.50					
<b>Total Fund Net of Fees</b>	<b>160,743,321</b>	<b>100.00</b>	<b>0.37</b>	<b>0.89</b>	<b>8.12</b>	<b>8.12</b>	<b>7.46</b>	<b>9.98</b>	<b>5.84</b>
HSBC/IPD All Bal Funds Avg			0.12	0.90	6.56	6.56	6.45	9.72	5.44
Excess Return			0.25	-0.01	1.56	1.56	1.00	0.26	0.40

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date





SECTION 11

# LCIV BG Diversified Growth Fd

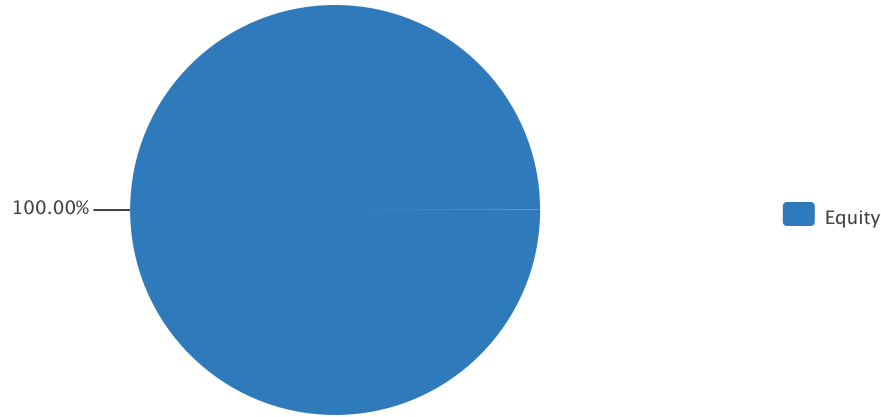
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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

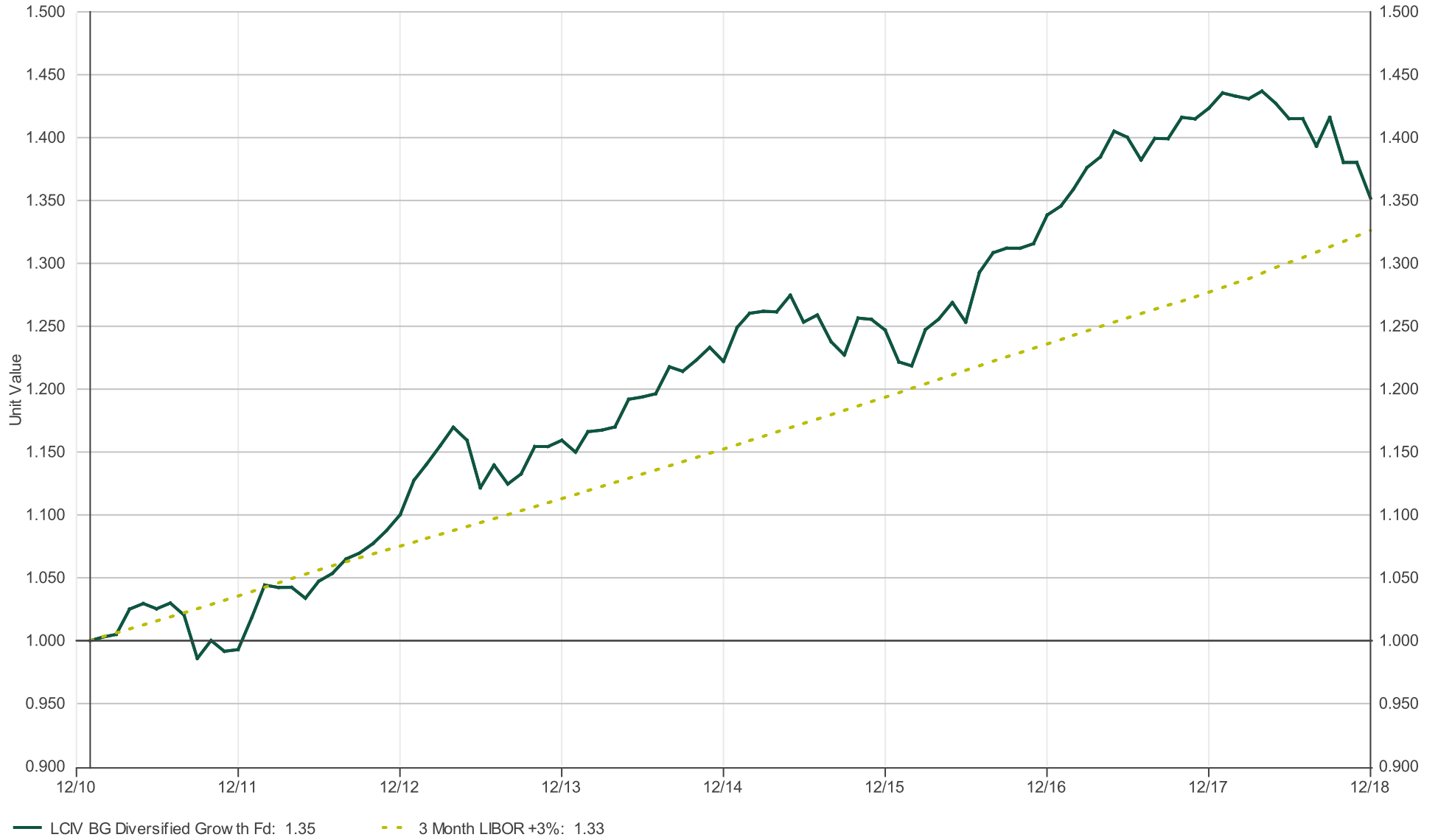
	1 Mo
Beginning Market Value	131,618
Net Contribution	0
Income	0
Fees	0
Appreciation	-2,708
Ending Market Value	128,910

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>128,910,479</b>	<b>100.00</b>	<b>-2.06</b>	<b>-4.53</b>					
Common Stock	128,910,479	100.00	-2.06	-4.53					
<b>Total Fund Net of Fees</b>	<b>128,910,479</b>	<b>100.00</b>	<b>-2.06</b>	<b>-4.53</b>	<b>-5.02</b>	<b>-5.02</b>	<b>2.73</b>	<b>3.12</b>	<b>3.88</b>
3 Month LIBOR +3%			0.34	0.99	3.85	3.85	3.57	3.57	3.63
<i>Excess Return</i>			<i>-2.40</i>	<i>-5.53</i>	<i>-8.87</i>	<i>-8.87</i>	<i>-0.85</i>	<i>-0.45</i>	<i>0.25</i>

*Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class*

### Growth Over Time - Inception to Date



SECTION 12

# LCIV Ruffer Absolute Return Fd

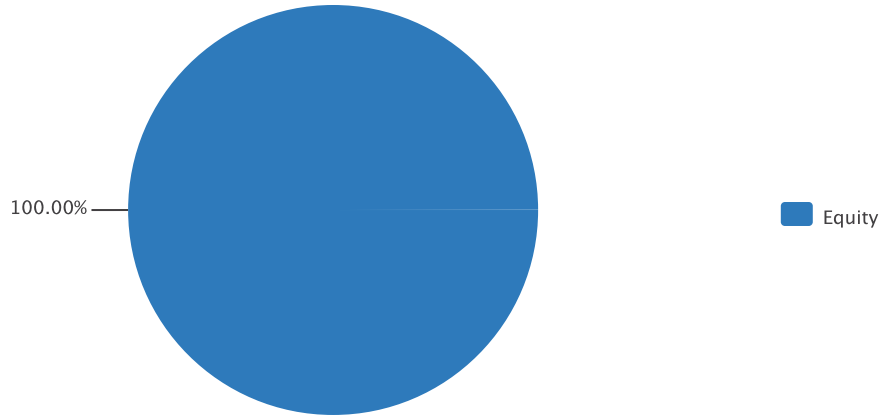
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Investment Risk & Analytical Services

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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

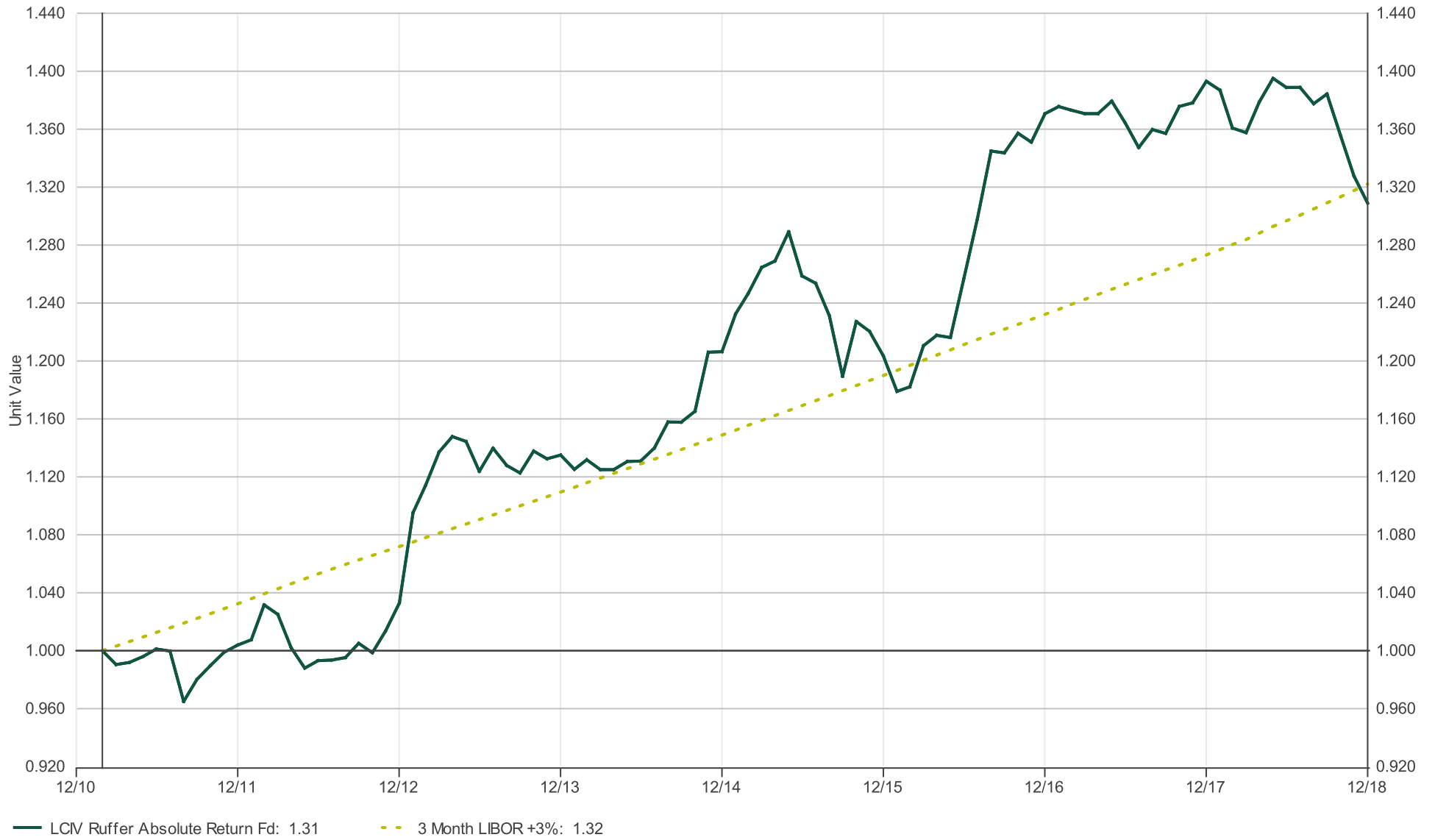
	1 Mo
Beginning Market Value	128,413
Net Contribution	0
Income	0
Fees	0
Appreciation	-1,822
Ending Market Value	126,591

*\*Market Values are in 000s.*

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
<b>Equity</b>	<b>126,590,911</b>	<b>100.00</b>	<b>-1.42</b>	<b>-5.44</b>					
Common Stock	126,590,911	100.00	-1.42	-5.44					
<b>Total Fund Net of Fees</b>	<b>126,590,911</b>	<b>100.00</b>	<b>-1.42</b>	<b>-5.44</b>	<b>-6.04</b>	<b>-6.04</b>	<b>2.84</b>	<b>2.89</b>	<b>3.50</b>
3 Month LIBOR +3%			0.34	0.99	3.85	3.85	3.57	3.57	3.63
<b>Excess Return</b>			<b>-1.76</b>	<b>-6.44</b>	<b>-9.89</b>	<b>-9.89</b>	<b>-0.74</b>	<b>-0.68</b>	<b>-0.13</b>

*Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class*

### Growth Over Time - Inception to Date



SECTION 13

# LCIV (CQS) MAC

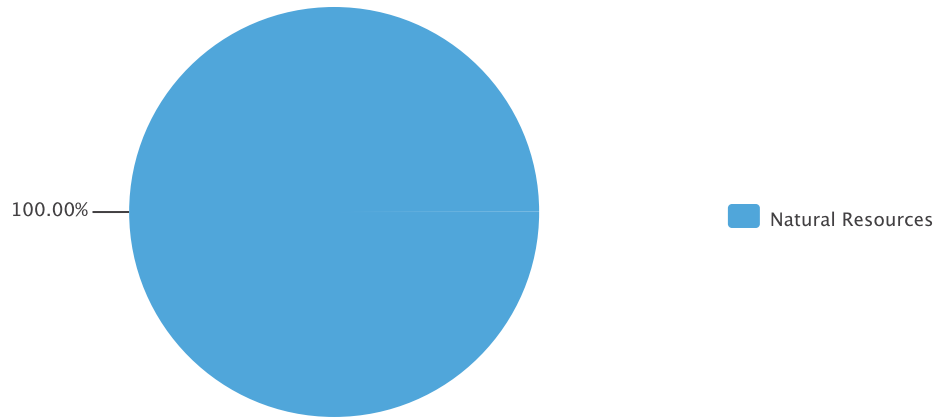
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Investment Risk & Analytical Services

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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

	1 Mo
Beginning Market Value	90,540
Net Contribution	0
Income	0
Fees	0
Appreciation	-1,107
Ending Market Value	89,433

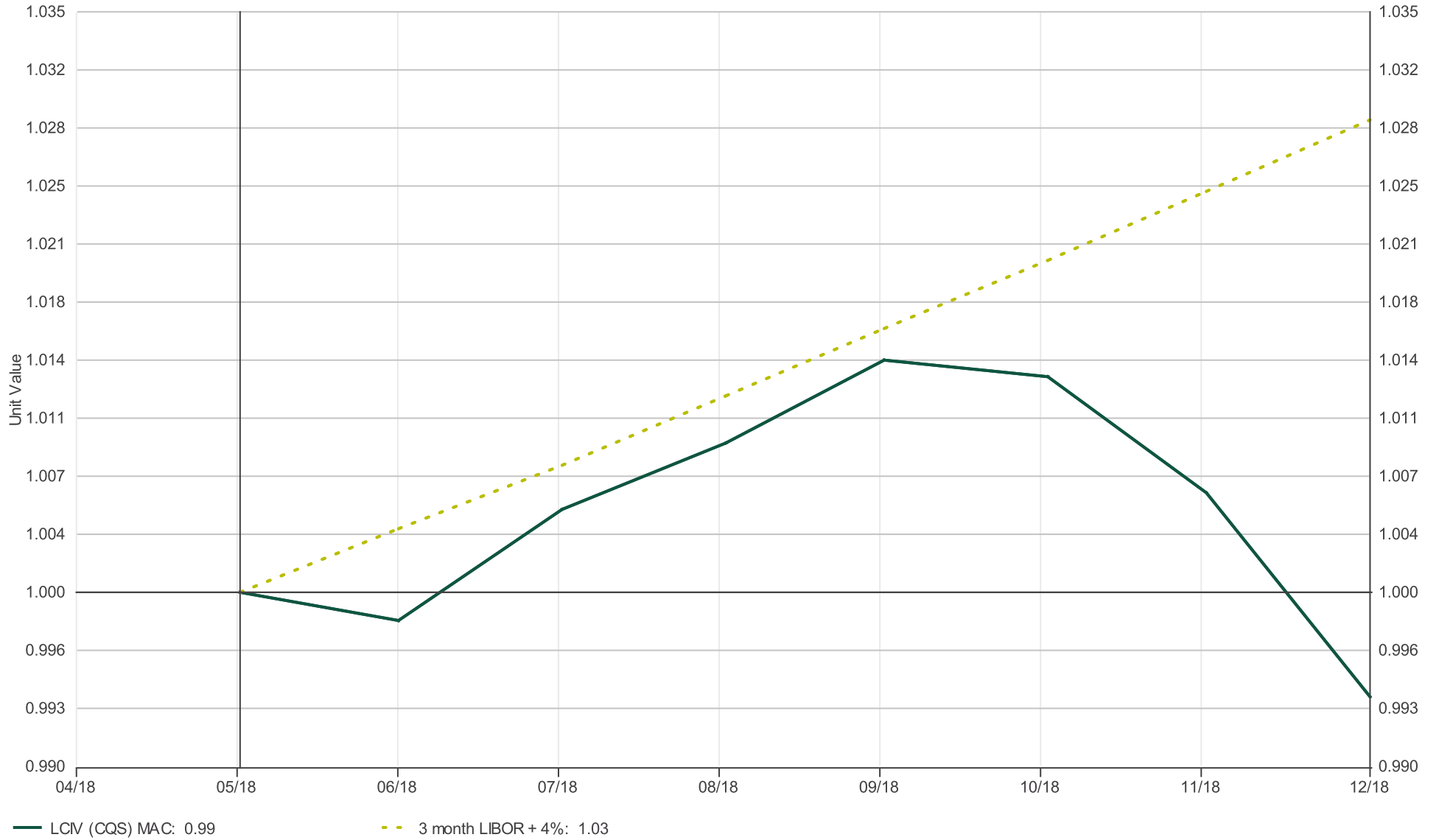
\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
Private Debt	89,433,000	100.00	-1.22	-2.00					-0.63
<b>Total Fund Net of Fees</b>	<b>89,433,000</b>	<b>100.00</b>	<b>-1.22</b>	<b>-2.00</b>					<b>-0.63</b>
3 month LIBOR + 4%			0.42	1.24					2.85
<i>Excess Return</i>			-1.64	-3.24					-3.48

*Excess is calculated using arithmetic methodology  
\*Fees are not represented as an Asset Class*



### Growth Over Time - Inception to Date



SECTION 14

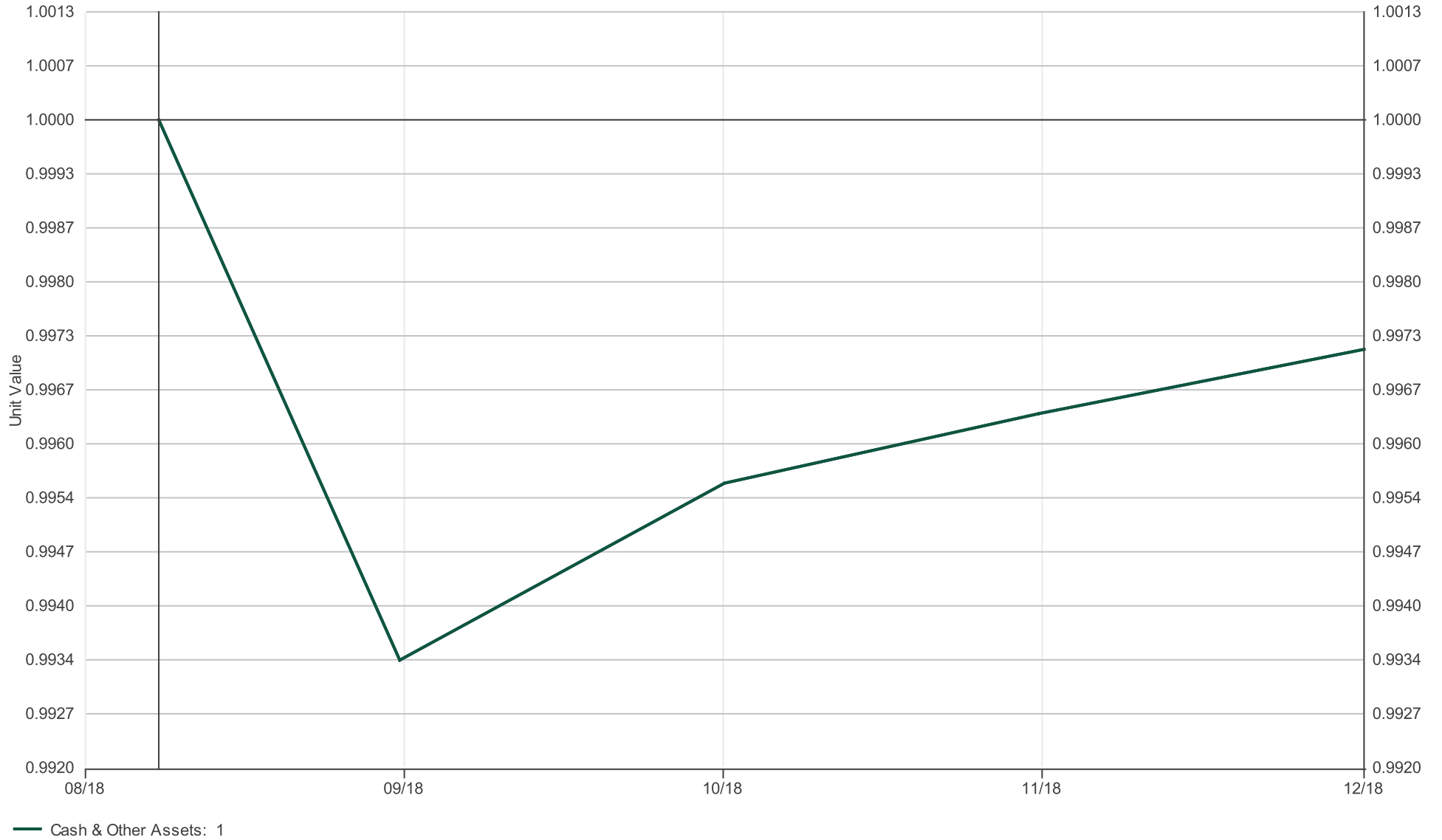
# Cash & Other Assets

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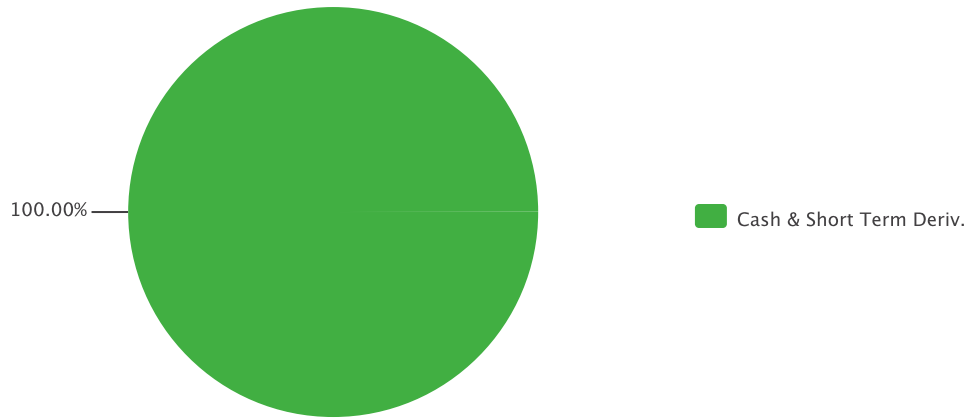
December 31, 2018

### Growth Over Time - Inception to Date



# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

	1 Mo
Beginning Market Value	143,217
Net Contribution	0
Income	0
Fees	0
Appreciation	113
Ending Market Value	143,331

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
Cash & Short Term Deriv.	143,330,551	100.00	0.08	0.38					-0.28
<b>Total Fund Net of Fees</b>	<b>143,330,551</b>	<b>100.00</b>	<b>0.08</b>	<b>0.38</b>					<b>-0.28</b>

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

SECTION 15

# Internal Cash Management

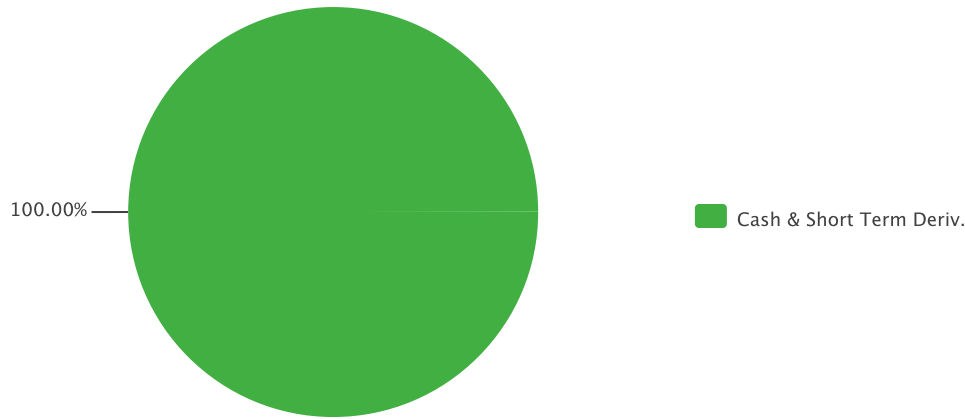
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Investment Risk & Analytical Services

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# Asset Class Performance

## ASSET CLASS ENDING WEIGHTS



## MARKET VALUE SUMMARY OVER TIME

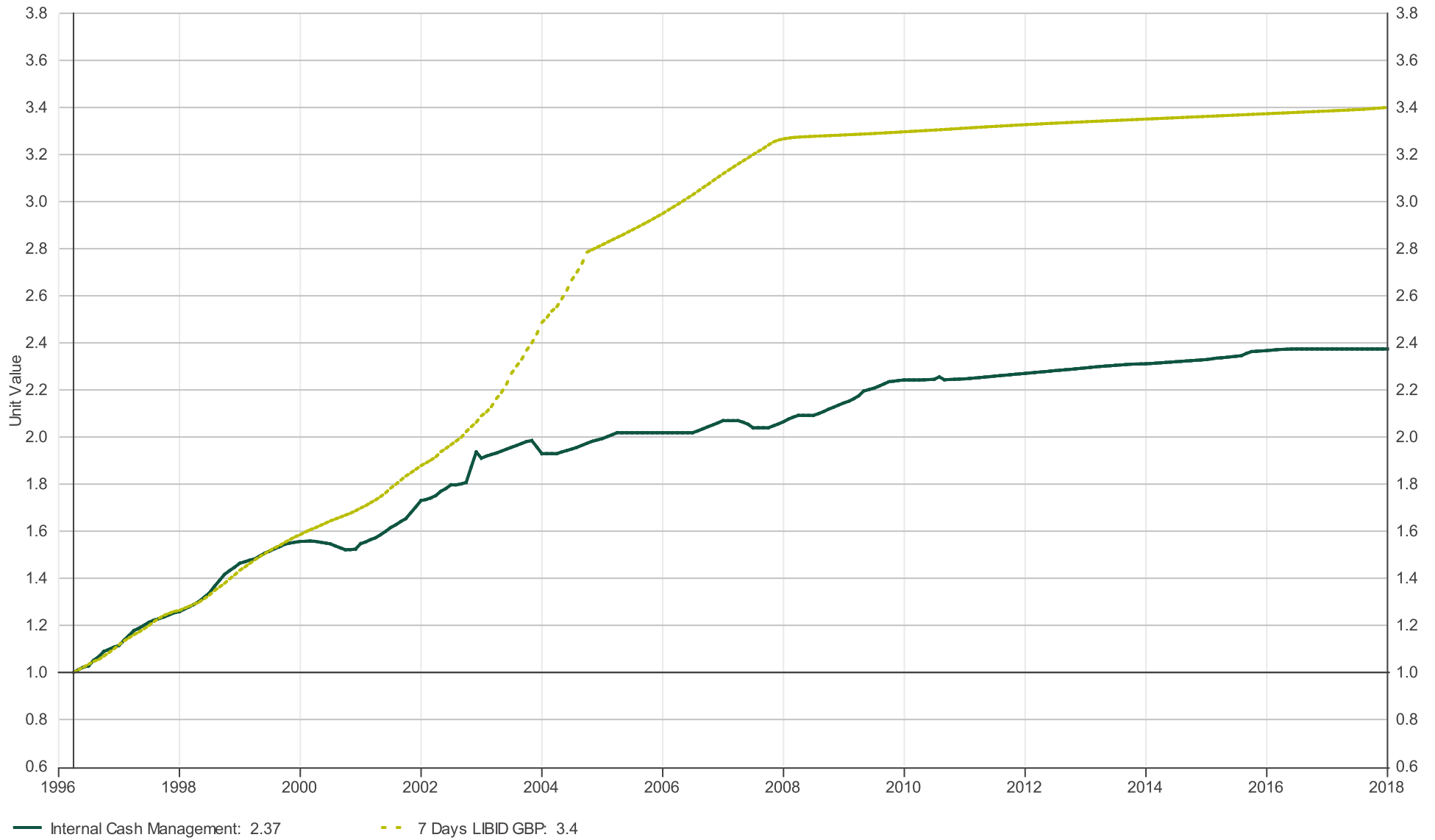
	1 Mo
Beginning Market Value	16,246
Net Contribution	-175
Income	0
Fees	0
Appreciation	0
Ending Market Value	16,072

\*Market Values are in 000s.

Asset Class	End MV	End Wt	1 Mo	3 Mos	YTD	1 Yr	3 Yrs	5 Yrs	ITD
Cash & Short Term Deriv.	16,071,561	100.00	0.00	0.00					
<b>Total Fund Net of Fees</b>	<b>16,071,561</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.64</b>	<b>0.69</b>	<b>4.06</b>
7 Days LIBID GBP			0.05	0.15	0.45	0.45	0.38	0.36	5.79
Excess Return			-0.05	-0.15	-0.45	-0.45	0.26	0.33	-1.73

Excess is calculated using arithmetic methodology  
 \*Fees are not represented as an Asset Class

### Growth Over Time - Inception to Date



SECTION 16

# Appendix

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Investment Risk & Analytical Services

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