

# **AGENDA**

A regular meeting of the Board of Trustees of the Waxahachie Firemen's Relief and Retirement Fund to be held at Waxahachie Fire Station No. 1, 407 Water Street, Waxahachie, Texas on ***Monday, February 19, 2018 at 8:30 a.m.***

BOARD MEMBERS: Gary Myers, Chairman  
Matt Dorsey, Vice Chairman  
Marcus Brown, Secretary  
John Tillery  
Lee Statham  
David Hill, Councilmember  
Charles Harris, Finance Director

1. Call to Order
2. Consent Agenda

All matters listed under Item 2, Consent Agenda, are considered to be routine by the Board Members and will be enacted by one motion. Approval of the Consent Agenda authorizes the Chairman to execute all matters necessary to implement each item. Any item may be removed from the Consent Agenda for separate discussion and consideration by any Board Member.

- a. Minutes of the regular Firemen's Relief & Retirement Fund meeting of November 13, 2017
  - b. Annuity checks for FR&R Retirees and other disbursements for the months of January, February, and March 2018
3. Consider 2017 Financial Report
4. Hear Fourth Quarter Report 2017 from Tim Sharpe, Graystone Consulting, and take any necessary action
5. Discussion of investment managers and take any necessary action
6. Set next meeting date and time of Firemen's Relief and Retirement Fund Board
7. Adjourn

**The Waxahachie Firemen's Relief and Retirement Fund reserves the right to go into Executive Session on any posted item.**

This meeting location is wheelchair-accessible. Parking for mobility impaired persons is available. Any request for sign interpretive services must be made forty-eight hours ahead of the meeting. To make arrangements, call the City Secretary at 469-309-4005 or (TDD) 1-800-RELAY TX

A regular meeting of the Board of Trustees of the Waxahachie Firemen's Relief and Retirement Fund was held at Waxahachie Fire Station No. 1, 407 Water Street, Waxahachie, Texas on Monday, November 13, 2017 at 8:30 a.m.

Members Present: Gary Myers, Chairman  
Matt Dorsey, Vice Chairman  
Marcus Brown, Secretary  
John Tillery  
David Hill, Councilmember  
Charles Harris, Finance Director

Others Present: Lori Saunders, City Secretary

**1. Call to Order**

Chairman Gary Myers called the meeting to order.

**2. Consider appointment of Civilian Member to the FR&R Board**

Chairman Myers reported Mr. Lee Statham was nominated to the FR&R Board as a Civilian Member and explained he is completing the term of Mr. Jeff Frazier who resigned earlier this year.

**Action:**

*Mr. John Tillery moved to appoint Mr. Lee Statham as a Civilian Member as presented. Mr. Marcus Brown seconded, All Ayes.*

**3. Administer Oath of Office to Civilian Board Member**

City Secretary Lori Saunders administered the Oath of Office to Mr. Lee Statham.

**4. Consent Agenda**

- a. Minutes of the regular Firemen's Relief & Retirement Fund meeting of October 9, 2017**
- b. Annuity checks for FR&R Retirees and other disbursements for the month of December 2017**

**Action:**

*Mr. John Tillery moved to approve items a. through b. on the Consent Agenda. Mr. David Hill seconded, All Ayes.*

**5. Hear Third Quarterly Report 2017 from Jim Stoker, Graystone Consulting, and take any necessary action**

*{Mr. Matt Dorsey arrived}*

(2a)

Mr. Jim Stoker, Graystone Consulting, presented a proposed Revision 3.0 of the Statement of Investment Policy, Guidelines, and Investment Objectives. He reported the following was added to Section 5: Investment Guidelines:

***A special note regarding investments which are not separately managed such as mutual funds, etc.***

*Should the Board choose to invest in mutual funds (open-ended, closed ended, index etc.), commingled funds, exchange traded funds (ETFs), registered investment corporations (RICs), limited partnerships (LPs), hedge funds or the like, the constraints, prohibited investments, and other such guidelines in this Policy shall not apply to those specific investments. The constraints, prohibited investments, guidelines, etc. contained in this document are intended for long-only separate account managers (the managers) hired under contract by the Fund. Mutual funds, index funds, ETFs, LPs and similar vehicles are ruled by their controlling documents. For example: their prospectuses, offering memoranda, partnership agreements, etc. and any "side letters" that might be negotiated.*

Mr. Stoker reported Exhibit A: Executive Summary was updated to reflect Current Assets as of 12/31/2016 was \$14,223,504

Mr. Stoker presented the Third Quarterly Report for 2017 noting the economy is growing approximately 2.5%. He stated the fund was up 3.4% in the third quarter, just under 11% for the last 12 months and the fund balance today is close to \$16 million. He recommended shifting 5% from domestic to international accounts.

Mr. Stoker stated there is a lag in active managers noting there has been an active/passive dispute for years debating when is it good and how much to be active. He presented a handout of statistics pertaining to active and passive managers stating a combination of these does well.

{Mr. Matt Dorsey left}

Mr. Stoker recommended on indexing Large Cap Domestic. He referenced Wedgewood Partners noting nothing has really changed and suggested to take 25% from them and put it into Vanguard. Mr. Stoker reviewed Vanguard Value ETF investment approach noting it seeks to track the performance of the CRSP US Large Cap Value Index. He reviewed exchanged traded funds and closed ended funds noting it trades like a stock. Mr. Stoker recommended taking 5% out of US funds and putting it into non US funds.

Mr. Stoker recommended the following actions:

1. Take 10% of the value of large cap growth exposure and index that by taking 1.5% from Delaware taking it down to 12.5%. Take 25% of Wedgewood to be indexed in large cap growth and the remainder will stay in active accounts.
2. Move 5% from US Equity International and put 1.5% to go to WCM International Growth, 1.5% to go to Delaware, and 2% going to Glovista EM.

(2a)

After a lengthy discussion, the Board took action as follows:

**Action:**

*Mr. John Tillery moved to accept Revision 3.0 of the Statement of Investment Policy, Guidelines, and Investment Objectives as presented. Mr. Charles Harris seconded, All Ayes.*

**Action:**

*Mr. Charles Harris moved Passive Investment to include the international movement with percentages recommended and shift as presented by consultant. Mr. Marcus Brown seconded, All Ayes.*

Chairman Myers stated the Board will not rebalance at this time.

*{Mr. Matt Dorsey arrived}*

**6. Consider TEXPERS Membership Renewal**

Chairman Myers reported the TEXPERS membership renewal for 2018 is \$78.66 and requested approval to pay membership fees.

**Action:**

*Mr. John Tillery moved to approve TEXPERS membership renewal for 2018 as presented. Mr. Marcus Brown seconded, All Ayes.*

**7. Set next meeting date and time of Firemen's Relief and Retirement Fund Board**

The Firemen's Relief & Retirement Board set their next meeting for Monday, December 11, 2017 at 8:30 a.m.

**8. Adjourn**

There being no further business, the meeting adjourned at 9:56 a.m.

Respectfully submitted,

Lori Saunders  
City Secretary

(20)

# MEMORANDUM

TO: FR&R Board Members  
FROM: Lori Saunders, City Secretary  
DATE: February 19, 2018  
SUBJECT: ANNUITY CHECKS

---

Please approve the annuity checks for the month of January, February, & March for the following retirees:

Mrs. Wendell Presley	Widow Benefits	\$ 651.67
Mrs. James Gilley	Widow Benefits	\$ 523.36
Alan Morgan	Disability	\$ 997.64
Jimmy Turner	Service Retirement	\$ 1,587.50
John Olin Turner	Service Retirement	\$ 1,875.00
Mike Slay	Service Retirement	\$ 1,522.26
(Sharon Cobb QDRO Payment)		\$ 507.74
John Tillery	Service Retirement	\$ 1,632.50
Loyde Junkin	Service Retirement	\$ 1,668.53
Don Fuller	Service Retirement	\$ 1,748.75
Billy Bratcher	Service Retirement	\$ 2,057.76
Larry Evans	Service Retirement	\$ 2,287.41
Dwayne Williams	Service Retirement	\$ 2,184.84
Don Bennett	Service Retirement	\$ 1,009.61
Terry Kuykendall	Service Retirement	\$ 2,395.06
Steve Hamilton	Service Retirement	\$ 1,048.38
(Denise Hamilton QDRO payment)		\$ 998.38
Sam Lewis	Service Retirement	\$ 2,642.41
John Chenault	Service Retirement	\$ 4,379.55
Rusty Ogletree	Service Retirement	\$ 1,497.50
Jeff Sport	Service Retirement	\$ 3,159.38
Paul Carrington	Service Retirement	\$ 3,074.81
(Carol Nunn QDRO payment)		\$ 168.86
Randy Johnston	Service Retirement	\$ 2,935.57
Terry Skipper	Service Retirement	\$ 4,044.75
Jeff Alexander	Service Retirement	\$ 5,099.96
(Lisa Warren QDRO payment)		\$ 359.29
James Irvin	Service Retirement	\$ 3,311.55
(Lori Irvin QDRO payment)		\$ 1,428.37
David Len Crow	Service Retirement	\$ 4,350.64
Randy Muirhead	Service Retirement	\$ 5,500.94
Jerry Sykes	Service Retirement	\$ 4,494.56
<b>TOTAL</b>		<b>\$71,144.53</b>



## Texas Local Fire Fighters' Retirement Act Annual Report

### Waxahachie Firemen's Relief & Retirement Fund

September 30, 2017

#### REGISTRATION

Department Name	Waxahachie Firemen's Relief & Retirement Fund
Department Address	407 Water St. P.O.Box 1045
City, State, Zip	Waxahachie, TX 75165
Business Phone #	(972) 937-1200
Business Fax #	
Fiscal Year End	September 30, 2017

#### BOARD OF TRUSTEES

#	Statutory Position	Name	Email Address	Phone Number	Board Title	Beginning Term Date	Ending Term Date
1	Mayor or Designee	David Hill		(469) 309-4000	Trustee	N/A	N/A
2	CFO or Designee	Charles Harris		(469) 309-4000	Trustee/City Finance	N/A	N/A
3	Elected Member	Marcus Brown		(469) 309-4200	Director	N/A	N/A
4	Elected Member	Gary Myers	<a href="mailto:gmyers@waxahachiefire.org">gmyers@waxahachiefire.org</a>	(469) 309-4200	Secretary	January-16	January-19
5	Elected Member	Matt Dorsey	<a href="mailto:mdorsey@waxahachiefire.org">mdorsey@waxahachiefire.org</a>	(469) 309-4200	Chairman	January-14	January-17
6	Elected Member	John Tillery		(469) 309-4200	Vice Chairman	January-15	January-18
7	Citizen Member	John Tillery		(469) 309-4000	Trustee	March-15	March-17
7	Citizen Member	Jeff Frazier		(469) 309-4000	Trustee	March-16	March-18

#### Administrator

#	Position	Name	Email Address	Phone Number	Board Title	Beginning Term Date	Ending Term Date
1	Administrator	Gary Myers	<a href="mailto:gmyers@waxahachiefire.org">gmyers@waxahachiefire.org</a>	(972) 937-1200	Chairman	January-14	January-17
2							

(17)



# Texas Local Fire Fighters' Retirement Act Annual Report

## Waxahachie Firemen's Relief & Retirement Fund

September 30, 2017

### REGISTRATION

Department Name: Waxahachie Firemen's Relief & Retirement Fund

Fiscal Year End: September 30, 2017

### CONTRACTORS

#	Service Provided	Firm Name	Contact	Address	City	State	Zip Code	Email	Phone	Fax
1	Accountant	Helen R Duvall CPA	Helen Duvall	117 Misty Morning	League City	TX	77573	<a href="mailto:helen.duvall@cpa.com">helen.duvall@cpa.com</a>	(832) 620-0424	(281) 754-4580
2	Actuary	Retirement Horizons	Mickey G. McDaniel	2201 Timberloch, Suite 150	The Woodlands	TX	77380	<a href="mailto:mmcdaniel@retirement-horizons.com">mmcdaniel@retirement-horizons.com</a>	(281) 296-1100	(281) 296-1118
3	Attorney	Hund, Krier, Wilkerson & Wright, PC	Kimberly E. Wilkerson	4021 84th Street	Lubbock	TX	79423	<a href="mailto:kwilkerson@hkwlaw.com">kwilkerson@hkwlaw.com</a>	(806) 783-8700	(806) 783-8710
4	Auditor	Yeldell, Wilson, Wood & Reeve, PC	Greer Yeldell	611 S Clay Street	Ennis	TX	75119	<a href="mailto:contact@ywocpa.com">contact@ywocpa.com</a>	(972) 878-2611	(972) 878-2220
5	Investment Consultant	Morgan Stanley	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
6	Investment Custodian	Frost Bank	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
7	Investment Manager	Delaware Capital Management	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
8	Investment Manager	Great Lakes Advisors, Inc.	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
9	Investment Manager	Wedgewood Partners, Inc.	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
10	Investment Manager	Federated Investors, Inc.	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
11	Investment Manager	MFS Institutional Advisors	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
12	Investment Manager	Glovista Investments, LLC	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
13	Investment Manager	The Blackstone Group	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
14	Investment Manager	Goldman Sachs Asset Management	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
15	Investment Manager	Blackrock Strategic, Inc.	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
16	Investment Manager	WCM Investment Management	John T. Sharpe	2800 Post Oak Blvd 18th Floor	Houston	TX	77056	<a href="mailto:tim.sharpe@morganstanley.com">tim.sharpe@morganstanley.com</a>	(713) 993-2747	(713) 965-5050
17	Investment Manager									





# Texas Local Fire Fighters' Retirement Act Annual Report

## Waxahachie Firemen's Relief & Retirement Fund

September 30, 2017

Asset Class	September 30, 2016			September 30, 2017	
	Market Value	%		Market Value	%
a Cash and equivalents	505,105.50	3.6%		356,012.41	2.3%
c Fixed income mutual funds	1,937,207.47	13.6%		2,198,152.00	13.9%
d Exchange traded funds	751,655.91	5.3%		711,726.82	4.5%
e Corporate bonds fixed income	554,655.92	3.9%		657,431.85	4.2%
f Government bonds	352,063.34	2.5%		402,201.79	2.5%
g Municipal bonds	40,035.25	0.3%		-	0.0%
j Common stock - domestic	5,572,196.61	39.3%		6,136,570.89	38.8%
k Common stock - international	2,857,212.49	20.1%		3,396,529.12	21.5%
l Alternatives - hedge funds shares	1,626,489.46	11.5%		1,790,176.46	11.3%
m Alternatives - real estate	-	0.0%		112,481.62	0.7%
n Alternatives - mortgage	-			49,649.89	0.3%
	<b>14,196,621.95</b>	<b>100.0%</b>		<b>15,810,932.85</b>	<b>100.0%</b>

### Asset Allocation

Fixed Income	2,883,961.98	20.3%		3,257,785.64	20.6%
Equities	8,429,409.10	59.4%		9,533,100.01	60.3%
Cash Equivalents	505,105.50	3.6%		356,012.41	2.3%
Alternatives	1,626,489.46	11.5%		1,952,307.97	12.3%
Exchange traded funds	751,655.91	5.3%		711,726.82	4.5%
	<b>14,196,621.95</b>	<b>100.0%</b>		<b>15,810,932.85</b>	<b>100.0%</b>

### Other Assets

Other	-		-
Receivables	-		-
Accrued Income	4,536.99		6,154.88
Payables (enter negative amount)	-		-
<b>Total Assets</b>	<b>14,201,158.94</b>		<b>15,817,087.73</b>

(6)





# Texas Local Fire Fighters' Retirement Act Annual Report

## Waxahachie Firemen's Relief & Retirement Fund

September 30, 2017

### Revenues for Reporting Year

A Contributions			Percent of Salary		Amount	\$1,127,080.50
Fire Fighters' Contribution			12.00%		493,454.00	
City Matching Contributions as a Percent of Salary			15.01%	15.53%	633,626.50	
Total Contributions			10/01-12/31/2016	01/01-09/30/2017	1,127,080.50	
B Interest or Dividends on:						
Securities - equity and debt					270,024.16	\$1,710,267.15
Money Markets					491.00	
Alternative Investments					130,966.74	
Realized Gains/Losses					445,279.54	
Unrealized (Appreciation /Depreciation)					863,505.71	
Other income					-	
Total Interest or Dividends					1,710,267.15	
C Miscellaneous Revenues						
(i.e transfers, refunds, etc)						\$0.00
Total Revenue						\$2,837,347.65



**Texas Local Fire Fighters' Retirement Act Annual Report**  
**Waxahachie Firemen's Relief & Retirement Fund**  
**September 30, 2017**

**Disbursements (or Expenses) for Reporting Year**

<b>Benefit Expenditures</b>	<b>Count</b>	<b>Amount</b>	
Monthly Payments for Service & Early Ret. Benefits	24.00	730,045.24	
Paid on Disability (On-Duty)	1.00	11,371.68	
Paid on Spouses Benefits	2.00	54,817.32	
QDRO Payments	5.00	41,551.68	
Paid on Children's Benefits			
Paid on Disability (Off-Duty)			
"DROP" Lump Sum distributions	1.00	76,000.00	
Refund of Contributions	3.00	126,398.27	
Lump Sum Death Benefit			
<b>Total Benefits</b>	<b>36.00</b>	<b>1,040,184.19</b>	<b>\$1,040,184.19</b>
<b>Non-Benefit Expenditures</b>		<b>Amount</b>	
Actuarial Fees		10,964.00	
Audit Fees		7,100.00	
Bank Trust Fees		1,786.16	
Investment Consultant Fees		96,800.64	
Investment Managers' Fees		56,743.09	
Travel Expense			
Education & Training		200.00	
Professional Memberships			
Fiduciary Insurance			
Physicians' Fees			
Legal Fees		1,015.00	
Accounting Fees		3,232.50	
Furniture and Equipment			
Office Overhead			
Miscellaneous (postage, checks, etc.)			
Other (indicate type of expense)	Foreign agent custody fees	3,392.84	
<b>Total Non-Benefit Expenditures</b>		<b>181,234.23</b>	<b>\$181,234.23</b>
<b>Total Disbursements</b>			<b>\$1,221,418.42</b>



**Texas Local Fire Fighters' Retirement Act Annual Report**  
**Waxahachie Firemen's Relief & Retirement Fund**  
**September 30, 2017**

**Net Income**

Total Revenue	\$2,837,347.65
Total Expenses	\$1,221,418.42
<b>Net Income (Total Revenues - Total Expenses)</b>	<b>\$1,615,929.23</b>

**Comparing End of Year Assets**

Generated By FFPC (A)	\$15,817,087.73
End of Year Assets September 30, 2017 (B)	\$15,817,087.73
<b>Difference (A-B)</b>	<b>\$0.00</b>
	<b>Match</b>

**Approximate Rate of Return for the Year**

10.73%

**Number of Active Fire Fighters During the Reporting Year**

55

**Financial Information Attested By:**

**Date**

Signed:

Gary Myers, Chairman

Signed:

Matt Dorsey, Vice-Chairman

Signed:

Marcus Brown, Secretary

**Report Prepared By**

**Date**

Signed:

*Helen R. Duvall*  
Helen R. Duvall CPA

2/2/2018

(4)

# **Waxahachie Firemen's Relief & Retirement Fund**

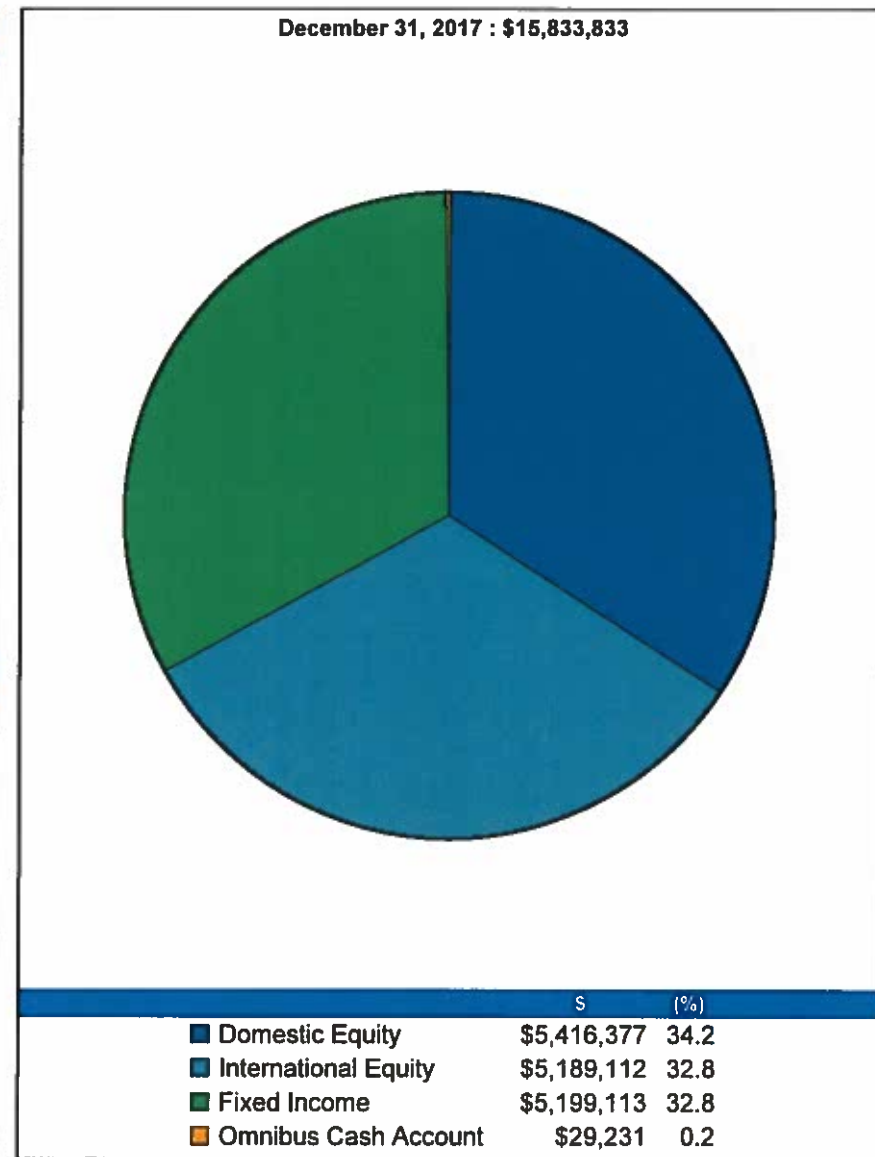
**Quarterly Report  
December 31, 2017**

# Table Of Contents

1	Balances & Asset Allocation	Page 1
2	Total Fund Summary	Page 2
3	Asset Allocation and Performance	Page 3

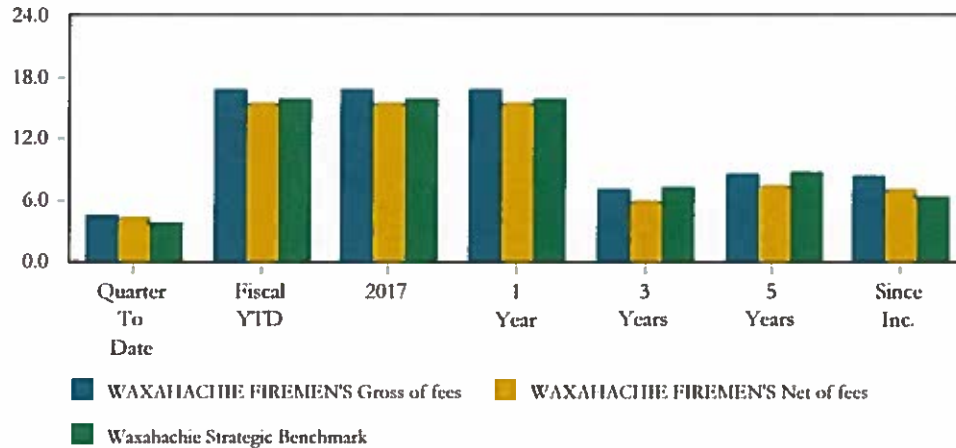
**Waxahachie Firemen's Relief & Retirement Fund**  
**Balances & Asset Allocation**  
**As of December 31, 2017**

	Total Fund	%
<b>Domestic Equity</b>	<b>\$5,416,377</b>	<b>34.2</b>
Delaware Domestic LCV	\$1,848,054	11.7
Vanguard LCV	\$189,584	1.2
Wedgewood Partners - Focus Growth	\$1,618,028	10.2
Vanguard LCG	\$470,158	3.0
Great Lakes - SMID Cap Core	\$1,950,295	12.3
<b>International Equity</b>	<b>\$5,189,112</b>	<b>32.8</b>
WCM Invest Mgmt - Focused Growth Intl	\$1,975,955	12.5
Delaware International LCV	\$1,948,449	12.3
Glovista Investments Emerging Markets	\$1,264,707	8.0
<b>Fixed Income</b>	<b>\$5,199,113</b>	<b>32.8</b>
Federated Investors Fixed Income	\$1,720,762	10.9
Blackstone BREIF II	\$1,810,855	11.4
Blackrock Strategic Income	\$1,667,496	10.5
<b>Omnibus Cash Account</b>	<b>\$29,231</b>	<b>0.2</b>
<b>WAXAHACHIE FIREMEN'S</b>	<b>\$15,833,833</b>	<b>100.0</b>

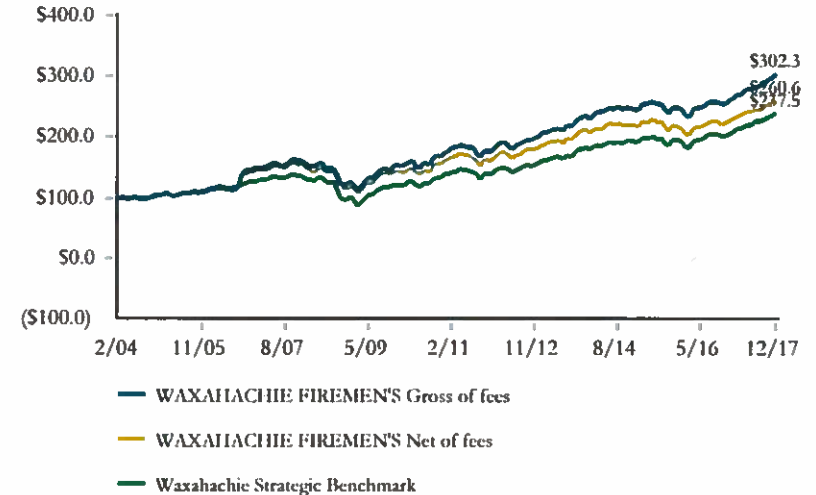


# Waxahachie Firemen's Relief & Retirement Fund As of December 31, 2017

## Total Fund Performance



## Growth of \$100



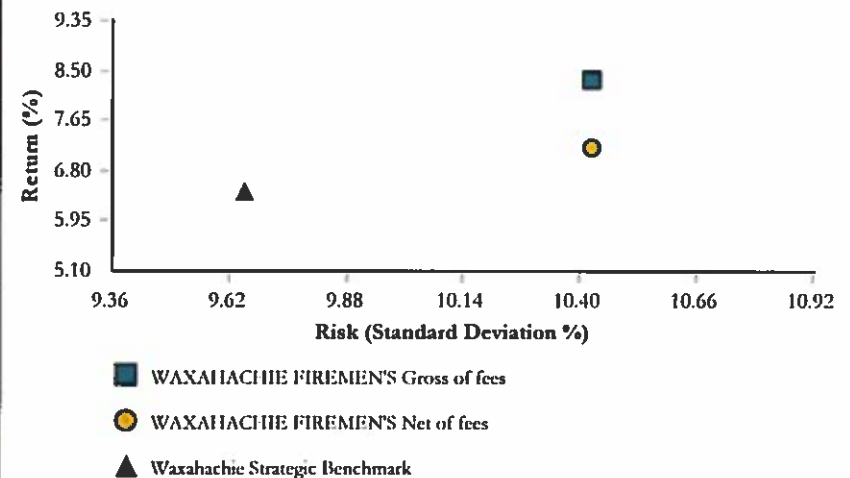
	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Since Inc.	Inception Date
--	-----------------	------------	--------	---------	---------	---------	------------	----------------

WAXAHACHIE FIREMEN'S Gross of fees	4.61	16.85	16.85	7.09	8.57	8.22	8.37	03/31/2004
WAXAHACHIE FIREMEN'S Net of fees	4.34	15.65	15.65	5.99	7.45	7.09	7.21	03/31/2004
Waxahachie Strategic Benchmark	3.83	15.91	15.91	7.33	8.73	8.09	6.49	03/31/2004

## Asset Growth (\$000)

	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Since Inc.
WAXAHACHIE FIREMEN'S Gross of fees							
Beginning Market Value	15,753	14,224	14,224	13,855	10,779	8,695	4,647
Net Contributions	-631	-761	-761	-1,047	-420	274	752
Gain/Loss	712	2,372	2,372	3,025	5,475	6,865	10,435
Ending Market Value	15,834	15,834	15,834	15,834	15,834	15,834	15,834

## Risk/Return Analysis Since Inception





# Waxahachie Firemen's Relief & Retirement Fund (Net of Fees)

As of December 31, 2017

	Allocation		Performance(%)							
	Market Value (\$000)	%	Current Quarter	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>WAXAHACHIE FIREMEN'S</b>	15,833.83	100.00	4.34	15.65	15.65	5.99	7.45	5.41	7.21	03/31/2004
Waxahachie Strategic Benchmark			3.83	15.91	15.91	7.33	8.73	5.81	6.50	
<b>Omnibus Cash Account</b>	<b>29.23</b>	<b>0.18</b>								
90-Day T-Bills			0.28	0.84	0.84	0.38	0.24	0.29	1.23	
<b>Domestic Equity</b>	<b>5,416.38</b>	<b>34.21</b>	<b>5.21</b>	<b>12.87</b>	<b>12.87</b>	<b>8.43</b>	<b>13.96</b>	<b>8.20</b>	<b>8.50</b>	<b>03/31/2004</b>
Russell 3000			6.34	21.13	21.13	11.12	15.58	8.60	8.89	
<b>Delaware Domestic LCV</b>	<b>1,848.05</b>	<b>11.67</b>	<b>5.21</b>	<b>12.87</b>	<b>12.87</b>	<b>8.43</b>	<b>13.96</b>	<b>8.20</b>	<b>8.50</b>	<b>03/31/2004</b>
Russell 1000 VL			5.33	13.66	13.66	8.65	14.04	7.10	8.15	
<b>Vanguard LCV</b>	<b>189.58</b>	<b>1.20</b>							<b>2.27</b>	<b>11/30/2017</b>
Russell 1000 VL									2.09	
<b>Wedgewood Partners - Focus Growth</b>	<b>1,618.03</b>	<b>10.22</b>	<b>8.20</b>	<b>20.31</b>	<b>20.31</b>	<b>5.47</b>	<b>10.54</b>	<b>8.84</b>	<b>8.34</b>	<b>12/27/2005</b>
Russell 1000 Gr			7.86	30.21	30.21	13.79	17.33	10.00	9.89	
<b>Vanguard LCG</b>	<b>470.16</b>	<b>2.97</b>							<b>1.61</b>	<b>11/30/2017</b>
Russell 1000 Gr									1.82	
<b>Great Lakes - SMID Cap Core</b>	<b>1,950.29</b>	<b>12.32</b>	<b>9.26</b>	<b>18.50</b>	<b>18.50</b>				<b>8.89</b>	<b>06/24/2015</b>
Russell 2500			5.24	16.81	16.81				8.67	
<b>International Equity</b>	<b>5,189.11</b>	<b>32.77</b>	<b>4.49</b>	<b>27.74</b>	<b>27.74</b>	<b>6.44</b>	<b>5.99</b>	<b>0.98</b>	<b>5.42</b>	<b>03/31/2004</b>
MSCI EAFE Net			4.23	25.03	25.03	7.80	7.90	1.94	6.06	
<b>WCM Invest Mgmt - Focused Growth Intl</b>	<b>1,975.95</b>	<b>12.48</b>	<b>4.57</b>	<b>32.37</b>	<b>32.37</b>				<b>15.89</b>	<b>09/06/2016</b>
MSCI EAFE Gr Net			5.24	28.86	28.86				16.16	
<b>Delaware International LCV</b>	<b>1,948.45</b>	<b>12.31</b>	<b>3.48</b>	<b>20.54</b>	<b>20.54</b>	<b>6.53</b>	<b>7.72</b>	<b>1.36</b>	<b>5.71</b>	<b>03/31/2004</b>
MSCI EAFE VL Net			3.24	21.44	21.44	6.35	6.95	1.15	5.58	
<b>Glovista Investments Emerging Markets</b>	<b>1,264.71</b>	<b>7.99</b>	<b>6.99</b>	<b>34.02</b>	<b>34.02</b>	<b>4.81</b>	<b>1.49</b>		<b>3.63</b>	<b>10/14/2011</b>
MSCI EM Net			7.44	37.28	37.28	9.11	4.35		6.09	

All returns shown time weighted net of fees

(7)

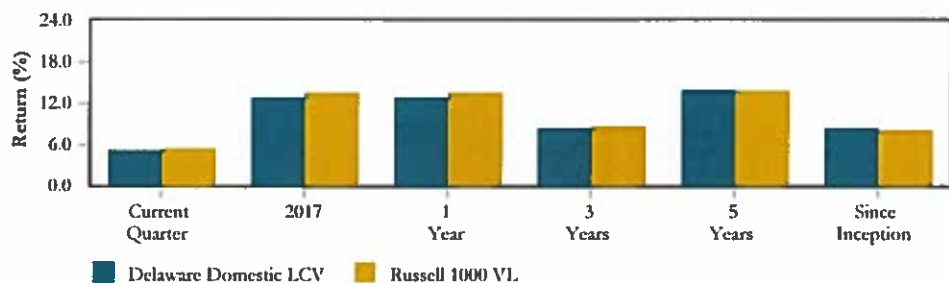
# Waxahachie Firemen's Relief & Retirement Fund

As of December 31, 2017

	Allocation		Performance(%)							
	Market Value (\$000)	%	Current Quarter	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Fixed Income</b>	<b>5,199.11</b>	<b>32.84</b>	<b>0.61</b>	<b>5.41</b>	<b>5.41</b>	<b>2.78</b>	<b>1.90</b>	<b>3.58</b>	<b>3.44</b>	<b>03/31/2004</b>
Barclays Aggregate			0.39	3.54	3.54	2.24	2.10	4.00	4.04	
<b>Federated Investors Fixed Income</b>	<b>1,720.76</b>	<b>10.87</b>	<b>0.38</b>	<b>3.34</b>	<b>3.34</b>	<b>2.13</b>	<b>1.83</b>		<b>2.49</b>	<b>10/20/2010</b>
Barclays Aggregate			0.39	3.54	3.54	2.24	2.10		2.85	
<b>Blackstone BREIF II</b>	<b>1,810.85</b>	<b>11.44</b>	<b>0.79</b>	<b>8.46</b>	<b>8.46</b>	<b>5.06</b>			<b>3.96</b>	<b>07/01/2014</b>
Barclays Aggregate			0.39	3.54	3.54	2.24			2.48	
<b>Blackrock Strategic Income</b>	<b>1,667.50</b>	<b>10.53</b>	<b>0.67</b>	<b>4.15</b>	<b>4.15</b>				<b>4.48</b>	<b>02/17/2016</b>
Barclays Aggregate			0.39	3.54	3.54				2.37	

All returns shown time weighted net of fees

Portfolio Performance (%)



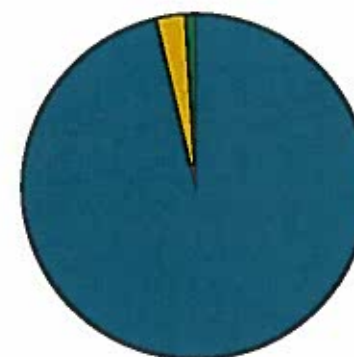
	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Delaware Domestic LCV	5.21	12.87	12.87	8.43	13.96	8.50	03/31/2004
Russell 1000 VL	5.33	13.66	13.66	8.65	14.04	8.15	03/31/2004

Asset Growth (\$000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Delaware Domestic LCV							03/31/2004
Beginning Market Value	2,319	2,176	2,176	2,189	1,676	738	
Net Contributions	-574	-589	-589	-854	-1,118	-854	
Fees/Expenses	-6	-26	-26	-75	-120	-241	
Income	13	55	55	164	262	578	
Gain/Loss	96	232	232	424	1,147	1,628	
Ending Market Value	1,848	1,848	1,848	1,848	1,848	1,848	

Asset Allocation (\$000)

December 31, 2017 : \$1,848

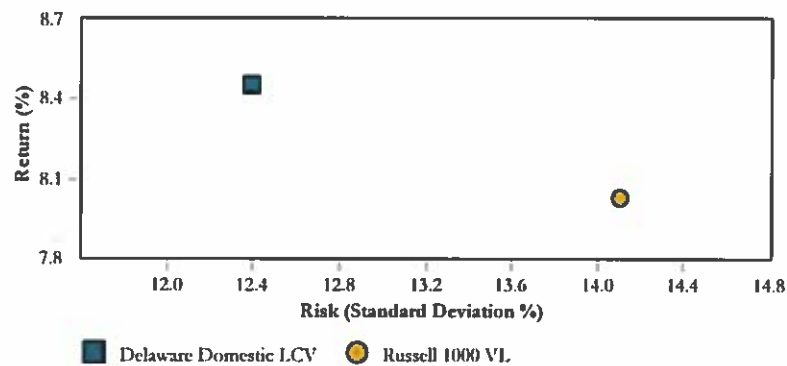


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	1,779.69	96.30
Alternative Investment	49.62	2.68
Cash Equivalent	18.74	1.01

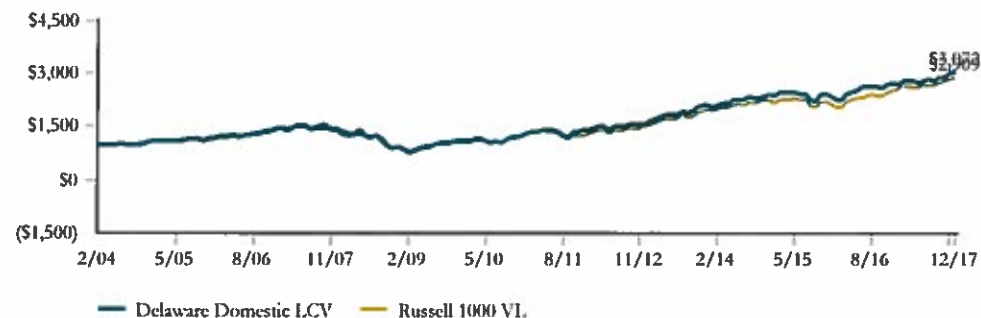
Portfolio Characteristics vs. Russell 1000 VL Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Delaware Domestic LCV	0.83	1.63	0.90	0.62	03/31/2004

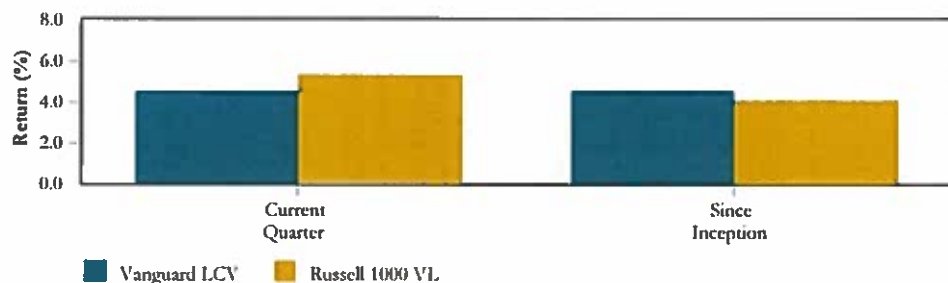
Risk/Return Analysis Since 03/04



Growth of a Dollar (\$000)



### Portfolio Performance (%)

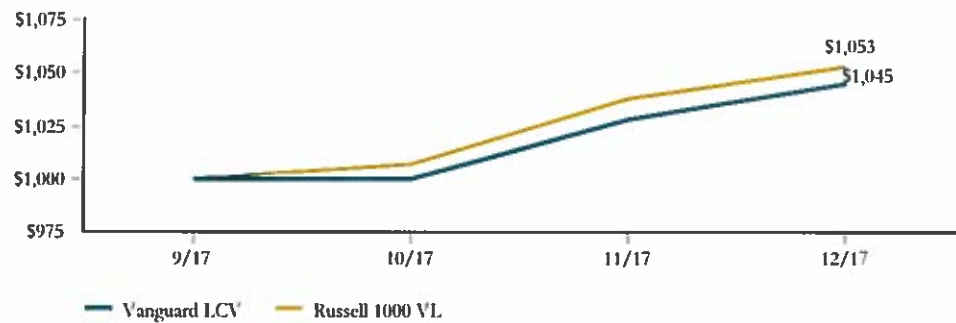


	Current Quarter	Since Inception	Inception Date
Vanguard LCV	4.51	4.51	10/30/2017
Russell 1000 VL	5.33	4.05	10/30/2017

### Asset Growth (\$000)

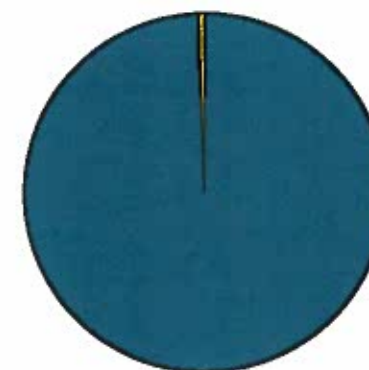
	Current Quarter	Since Inception	Inception Date
Vanguard LCV			10/30/2017
Beginning Market Value	200	200	
Net Contributions	-	-	
Fees/Expenses	-	-	
Income	1	1	
Gain/Loss	8	8	
Ending Market Value	209	209	

### Growth of a Dollar (\$000)



### Asset Allocation (\$000)

December 31, 2017 : \$209

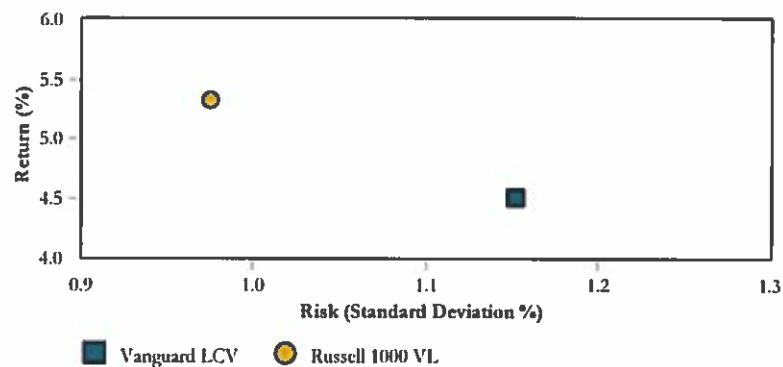


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	207.86	99.39
Cash Equivalent	1.27	0.61

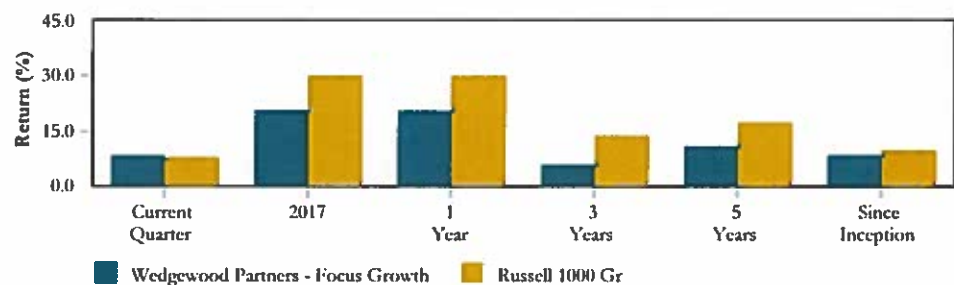
### Portfolio Characteristics vs. Russell 1000 VL Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Vanguard LCV	1.12	-0.48	0.91	1.21	10/30/2017

### Risk/Return Analysis Since 10/17

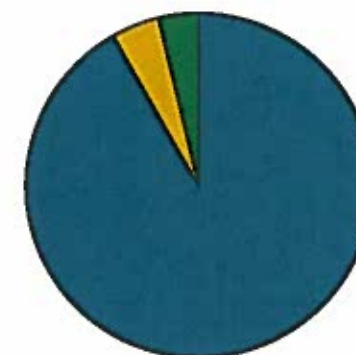


### Portfolio Performance (%)



### Asset Allocation (\$000)

December 31, 2017 : \$1,618



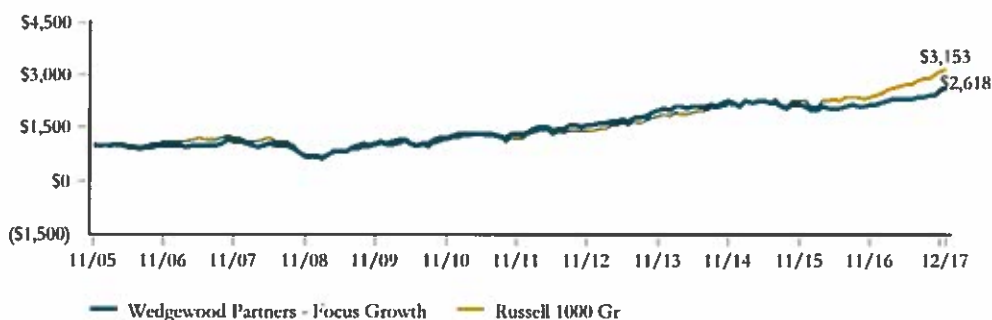
### Asset Growth (\$000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Wedgewood Partners - Focus Growth	2,301	2,069	2,069	2,111	1,698	-	12/27/2005
Beginning Market Value	-850	-850	-850	-835	-1,060	-84	
Net Contributions	-6	-23	-23	-66	-108	-210	
Fees/Expenses	6	24	24	68	102	166	
Income	167	397	397	339	986	1,746	
Gain/Loss	1,618	1,618	1,618	1,618	1,618	1,618	
Ending Market Value							

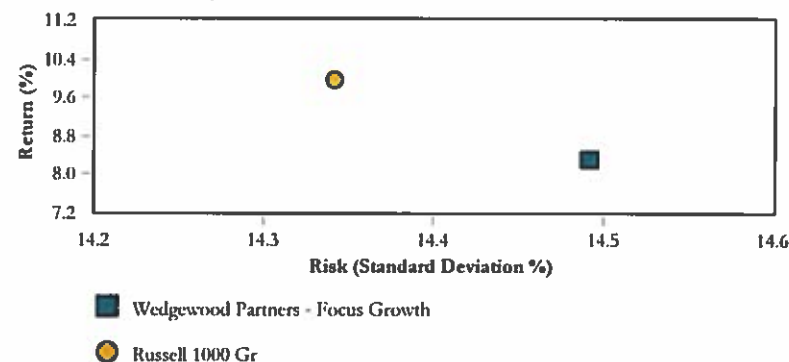
### Portfolio Characteristics vs. Russell 1000 Gr Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Wedgewood Partners - Focus Growth	0.93	-0.78	0.84	0.55	12/27/2005

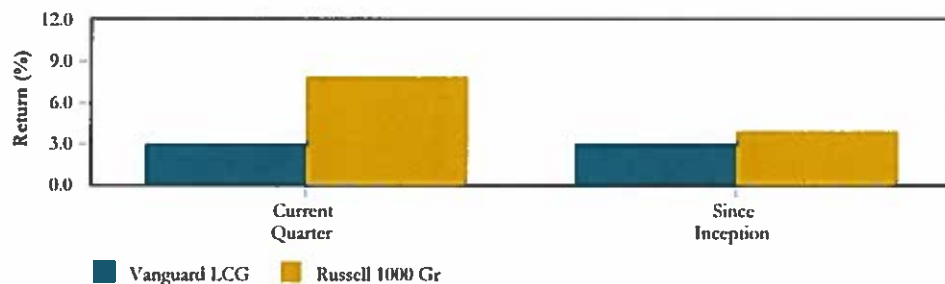
### Growth of a Dollar (\$000)



### Risk/Return Analysis Since 12/05



### Portfolio Performance (%)

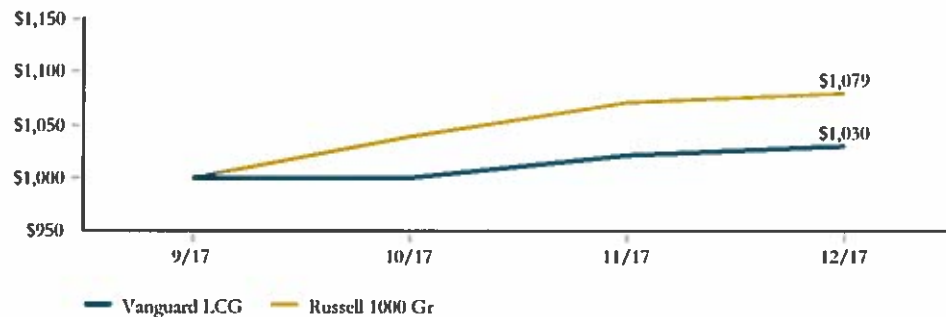


	Current Quarter	Since Inception	Inception Date
Vanguard LCG	3.01	3.01	10/30/2017
Russell 1000 Gr	7.86	3.95	10/30/2017

### Asset Growth (\$000)

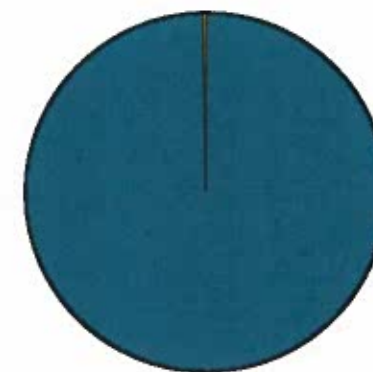
	Current Quarter	Since Inception	Inception Date
Vanguard LCG			10/30/2017
Beginning Market Value	500	500	
Net Contributions	-	-	
Fees/Expenses	-1	-1	
Income	2	2	
Gain/Loss	14	14	
Ending Market Value	515	515	

### Growth of a Dollar (\$000)



### Asset Allocation (\$000)

December 31, 2017 : \$515

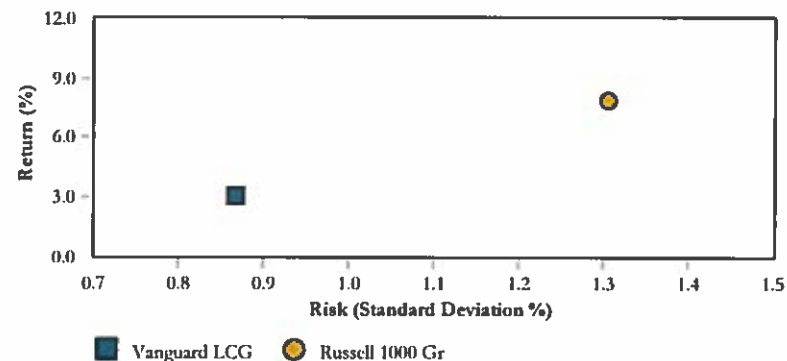


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	513.37	99.66
Cash Equivalent	1.74	0.34

### Portfolio Characteristics vs. Russell 1000 Gr Since Inception

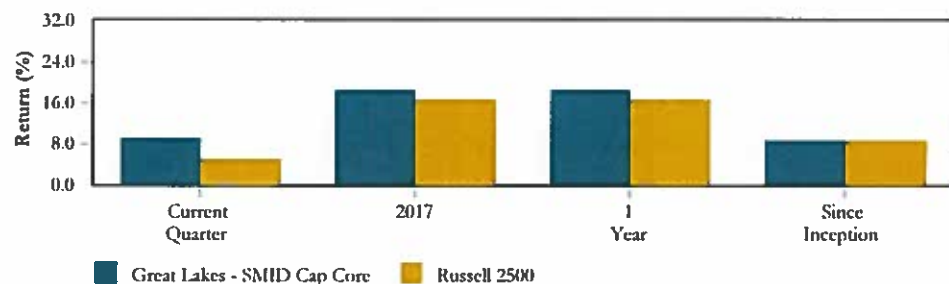
	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Vanguard LCG	-0.11	1.28	0.03	1.04	10/30/2017

### Risk/Return Analysis Since 10/17





## Portfolio Performance (%)



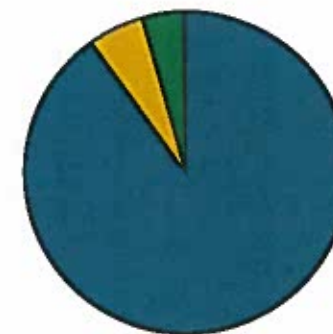
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Great Lakes - SMID Cap Core	9.26	18.50	18.50	8.89	06/24/2015
Russell 2500	5.24	16.81	16.81	9.46	06/01/2015

## Asset Growth (\$000)

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Great Lakes - SMID Cap Core					06/24/2015
Beginning Market Value	1,785	1,766	1,766	1,662	
Net Contributions	-	-125	-125	-105	
Fees/Expenses	-5	-21	-21	-48	
Income	5	25	25	64	
Gain/Loss	165	306	306	377	
Ending Market Value	1,950	1,950	1,950	1,950	

## Asset Allocation (\$000)

December 31, 2017 : \$1,950

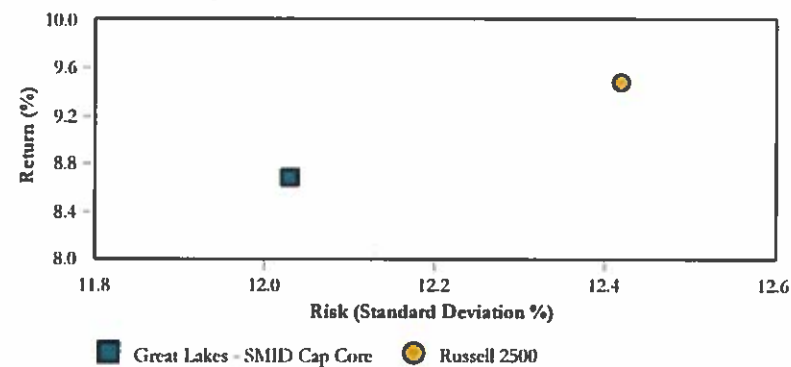


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	1,755.37	90.01
International Equity	107.90	5.53
Alternative Investment	80.72	4.14
Cash Equivalent	6.31	0.32

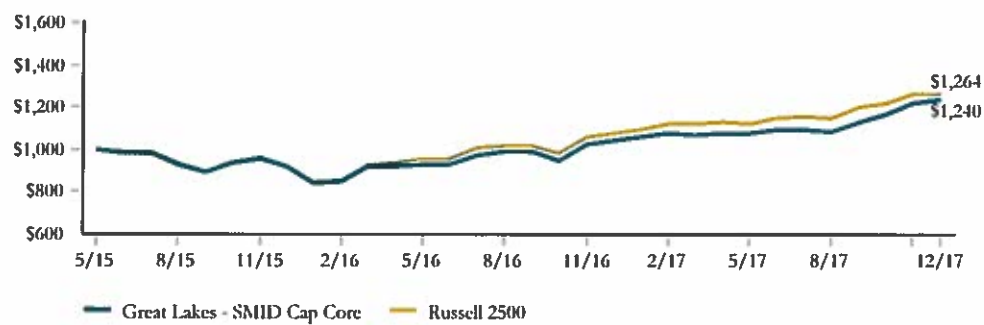
## Portfolio Characteristics vs. Russell 2500 Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Great Lakes - SMID Cap Core	0.94	-0.21	0.94	0.72	06/24/2015

## Risk/Return Analysis Since 06/15



## Growth of a Dollar (\$000)





## Portfolio Performance (%)

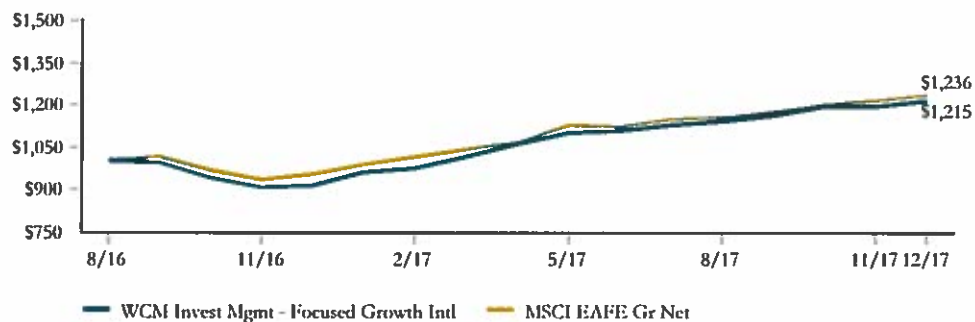


	Current Quarter	YTD	1 Year	Since Inception	Inception Date
WCM Invest Mgmt - Focused Growth Intl	4.57	32.37	32.37	15.89	09/06/2016
MSCI EAFE Gr Net	5.24	28.86	28.86	17.25	09/01/2016

## Asset Growth (\$000)

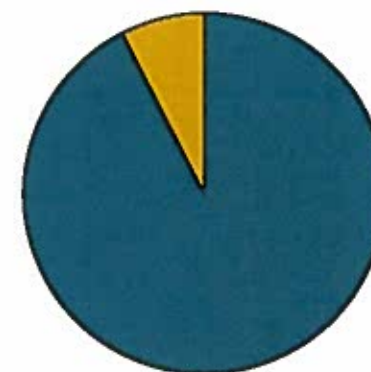
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
WCM Invest Mgmt - Focused Growth Intl					09/06/2016
Beginning Market Value	1,666	1,341	1,341	1,461	
Net Contributions	233	201	201	202	
Fees/Expenses	-6	-22	-22	-28	
Income	5	25	25	29	
Gain/Loss	78	430	430	312	
Ending Market Value	1,976	1,976	1,976	1,976	

## Growth of a Dollar (\$000)



## Asset Allocation (\$000)

December 31, 2017 : \$1,976

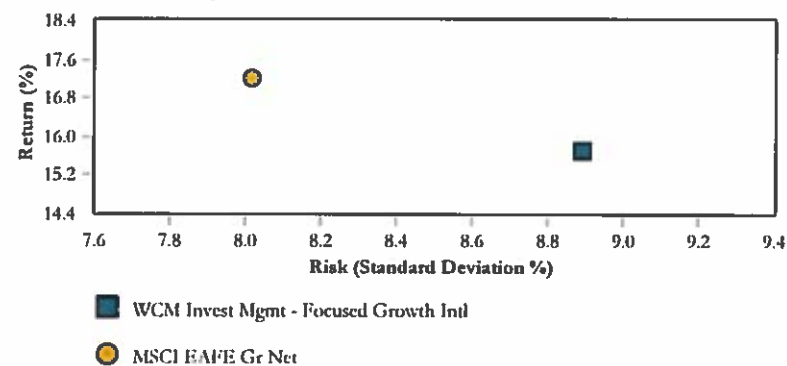


Segments	Market Value (\$000)	Allocation (%)
International Equity	1,826.82	92.45
Cash Equivalent	149.13	7.55

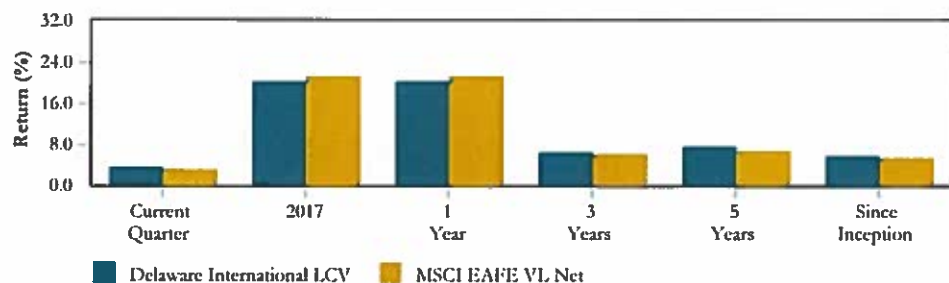
## Portfolio Characteristics vs. MSCI EAFE Gr Net Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
WCM Invest Mgmt - Focused Growth Intl	1.01	-1.41	0.83	1.62	09/06/2016

## Risk/Return Analysis Since 09/16



### Portfolio Performance (%)



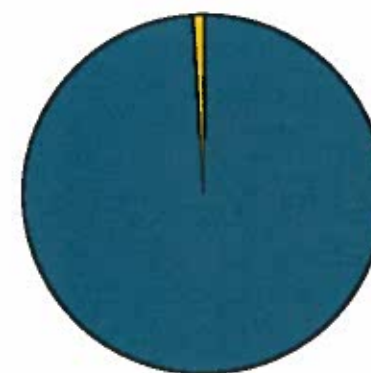
	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Delaware International LCV	3.48	20.54	20.54	6.53	7.72	5.71	03/31/2004
MSCI EAFE VL Net	3.24	21.44	21.44	6.35	6.95	5.58	03/31/2004

### Asset Growth (\$000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Delaware International LCV							03/31/2004
Beginning Market Value	1,655	1,425	1,425	1,407	1,035	532	
Net Contributions	233	228	228	243	389	529	
Fees/Expenses	-5	-17	-17	-49	-79	-204	
Income	12	49	49	126	220	626	
Gain/Loss	53	264	264	222	384	465	
Ending Market Value	1,948	1,948	1,948	1,948	1,948	1,948	

### Asset Allocation (\$000)

December 31, 2017 : \$1,948

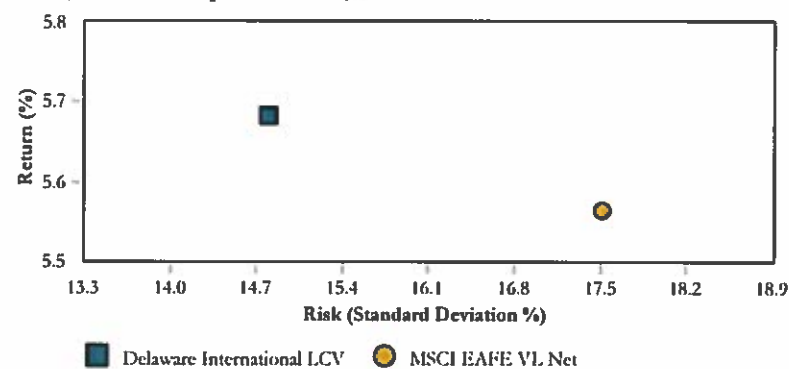


Segments	Market Value (\$000)	Allocation (%)
International Equity	1,929.50	99.03
Cash Equivalent	18.95	0.97

### Portfolio Characteristics vs. MSCI EAFE Net Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Delaware International LCV	0.86	0.43	0.92	0.37	03/31/2004

### Risk/Return Analysis Since 03/04



### Growth of a Dollar (\$000)



### Portfolio Performance (%)



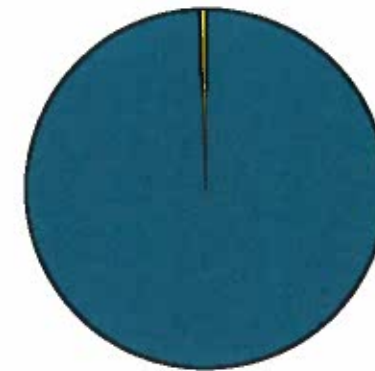
	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Glovista Investments Emerging Markets	6.99	34.02	34.02	4.81	1.49	3.63	10/14/2011
MSCI EM Net	7.44	37.28	37.28	9.11	4.35	7.01	10/01/2011

### Asset Growth (\$000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Glovista Investments Emerging Markets							10/14/2011
Beginning Market Value	888	770	770	656	637	480	
Net Contributions	311	236	236	436	496	566	
Fees/Expenses	-3	-12	-12	-32	-51	-59	
Income	17	23	23	50	74	91	
Gain/Loss	52	249	249	154	109	186	
Ending Market Value	1,265	1,265	1,265	1,265	1,265	1,265	

### Asset Allocation (\$000)

December 31, 2017 : \$1,265

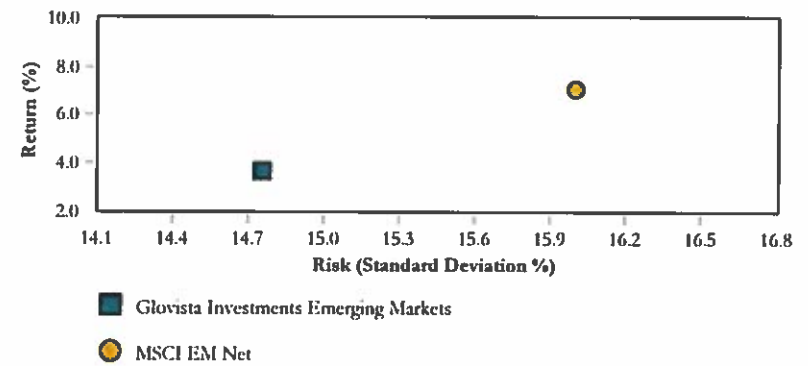


Segments	Market Value (\$000)	Allocation (%)
International Equity	1,257.16	99.40
Cash Equivalent	7.54	0.60

### Portfolio Characteristics vs. MSCI EM Net Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Glovista Investments Emerging Markets	0.86	-2.24	0.86	0.30	10/14/2011

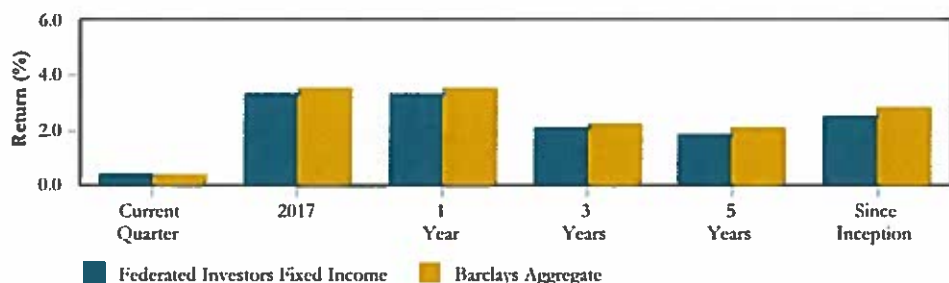
### Risk/Return Analysis Since 10/11



### Growth of a Dollar (\$000)



Portfolio Performance (%)



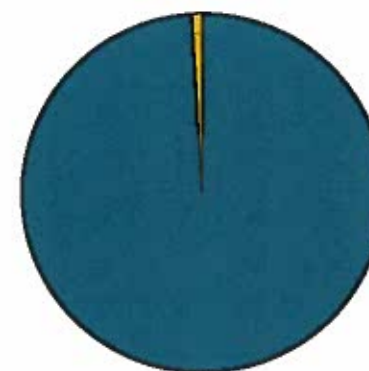
	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Federated Investors Fixed Income	0.38	3.34	3.34	2.13	1.83	2.49	10/20/2010
Barclays Aggregate	0.39	3.54	3.54	2.24	2.10	2.90	10/01/2010

Asset Growth (\$000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Federated Investors Fixed Income							10/20/2010
Beginning Market Value	1,674	1,452	1,452	1,547	3,425	6,218	
Net Contributions	40	215	215	76	-1,887	-4,957	
Fees/Expenses	-4	-15	-15	-43	-101	-162	
Income	7	32	32	98	276	492	
Gain/Loss	3	36	36	42	8	130	
Ending Market Value	1,721	1,721	1,721	1,721	1,721	1,721	

Asset Allocation (\$000)

December 31, 2017 : \$1,721

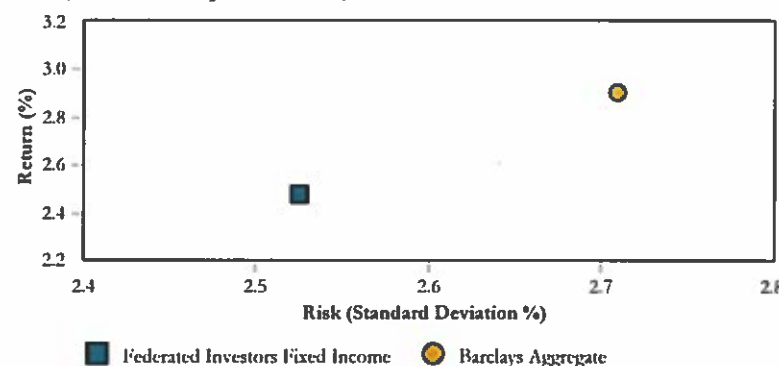


Segments	Market Value (\$000)	Allocation (%)
Domestic Fixed Income	1,704.54	99.06
Cash Equivalent	16.22	0.94

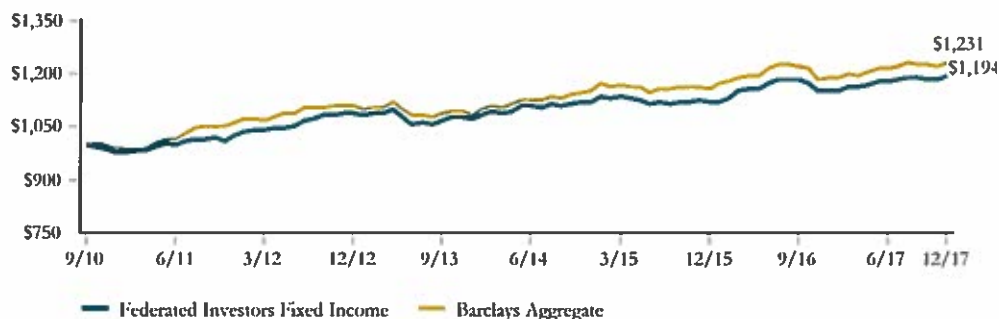
Portfolio Characteristics vs. Barclays Aggregate Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Federated Investors Fixed Income	0.84	0.03	0.82	0.91	10/20/2010

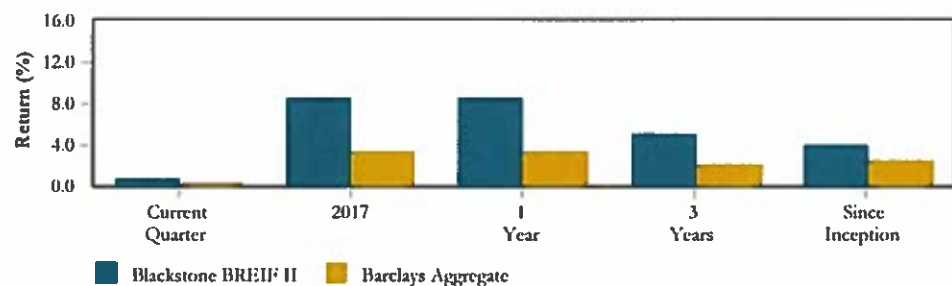
Risk/Return Analysis Since 10/10



Growth of a Dollar (\$000)



## Portfolio Performance (%)

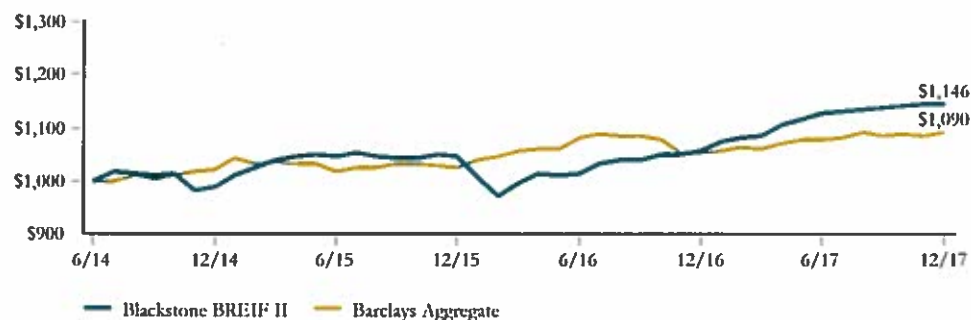


	Current Quarter	YTD	1 Year	3 Years	Since Inception	Inception Date
Blackstone BREIF II	0.79	8.46	8.46	5.06	3.96	07/01/2014
Barclays Aggregate	0.39	3.54	3.54	2.24	2.48	07/01/2014

## Asset Growth (\$000)

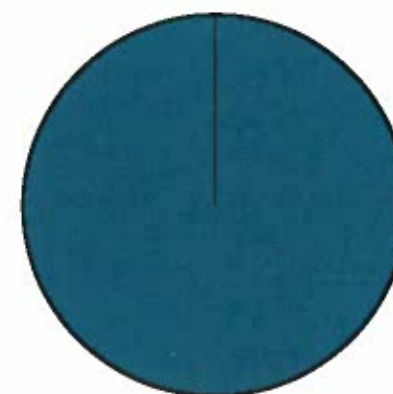
	Current Quarter	YTD	1 Year	3 Years	Since Inception	Inception Date
Blackstone BREIF II						07/01/2014
Beginning Market Value	1,794	1,659	1,659	1,459	1,389	
Net Contributions	3	11	11	105	200	
Fees/Expenses	-3	-11	-11	-35	-38	
Income	-	-	-	-	-	
Gain/Loss	17	152	152	282	260	
Ending Market Value	1,811	1,811	1,811	1,811	1,811	

## Growth of a Dollar (\$000)



## Asset Allocation (\$000)

December 31, 2017 : \$1,811

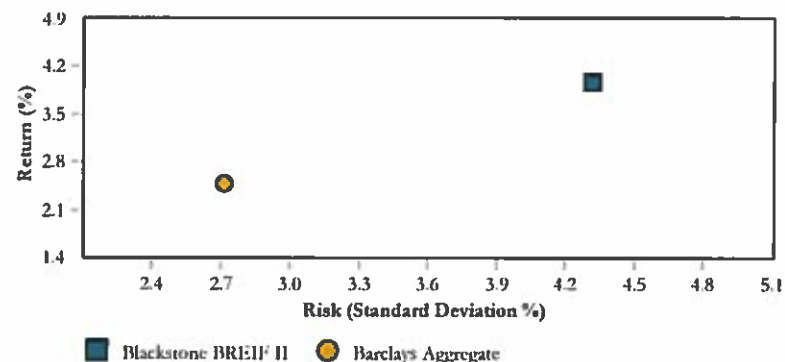


Segments	Market Value (\$000)	Allocation (%)
Alternative Investment	1,810.85	100.00

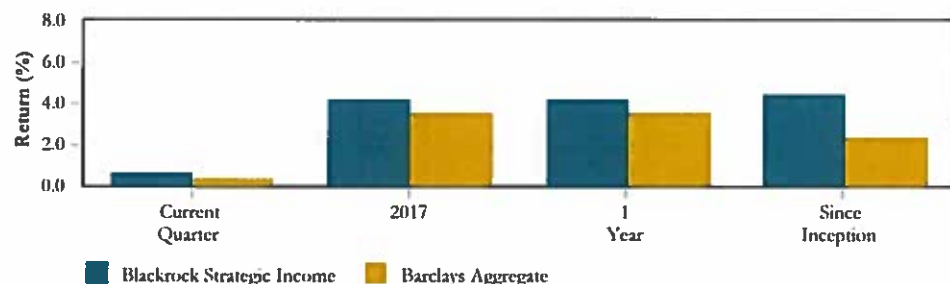
## Portfolio Characteristics vs. Barclays Aggregate Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Blackstone BREIF II	-0.06	4.22	0.00	0.85	07/01/2014

## Risk/Return Analysis Since 07/14

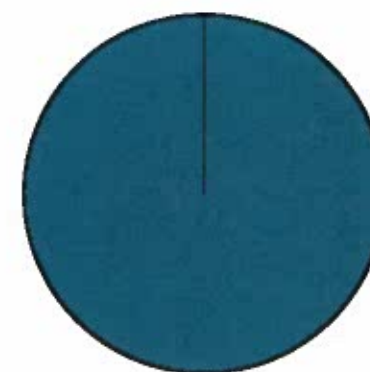


Portfolio Performance (%)



Asset Allocation (\$000)

December 31, 2017 : \$1,667



Asset Growth (\$000)

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Blackrock Strategic Income	0.67	4.15	4.15	4.48	02/17/2016
Barclays Aggregate	0.39	3.54	3.54	2.50	02/01/2016

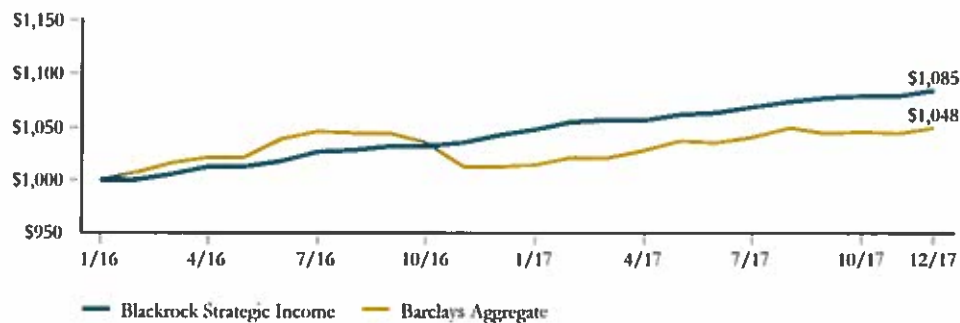
  

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Blackrock Strategic Income					02/17/2016
Beginning Market Value	1,609	1,429	1,429	1,320	
Net Contributions	48	175	175	227	
Fees/Expenses	-3	-10	-10	-18	
Income	15	54	54	89	
Gain/Loss	-1	20	20	49	
Ending Market Value	1,667	1,667	1,667	1,667	

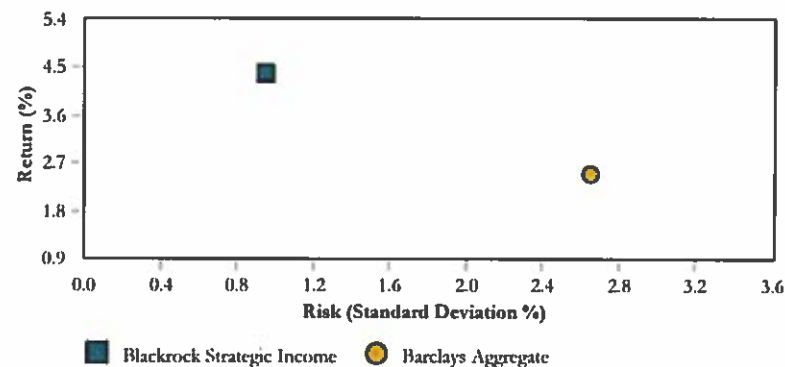
Portfolio Characteristics vs. Barclays Aggregate Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Blackrock Strategic Income	0.13	4.02	0.14	3.83	02/17/2016

Growth of a Dollar (\$000)



Risk/Return Analysis Since 02/16



## Glossary of Terms

**Active Contribution Return:** The gain or loss percentage of an investment relative to the performance of the investment benchmark.

**Active Exposure:** The percentage difference in weight of the portfolio compared to its policy benchmark.

**Active Return:** Arithmetic difference between the manager's return and the benchmark's return over a specified time period.

**Actual Correlation:** A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

**Alpha:** A measure of a portfolio's time weighted return in excess of the market's return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

**Best Quarter:** The highest quarterly return for a certain time period.

**Beta:** A measure of the sensitivity of a portfolio's time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

**Consistency:** The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Core:** Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

**Cumulative Selection Return (Cumulative Return):** Cumulative investment performance over a specified period of time.

**Distribution Rate:** The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital.

**Down Market Capture:** The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

**Downside Risk:** A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

**Downside Semi Deviation:** A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

**Drawdown:** A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

**Excess over Benchmark:** The percentage gain or loss of an investment relative to the investment's benchmark.

**Excess Return:** Arithmetic difference between the manager's return and the risk-free return over a specified time period.

**Growth:** A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

**Growth of Dollar:** The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

**Investment Decision Process (IDP):** A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision's contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

**Information Ratio:** Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

**Jensen's Alpha:** The Jensen's alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as alpha.

**Kurtosis:** A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

**Maximum Drawdown:** The drawdown is defined as the percent retrenchment from a fund's peak to the fund's trough value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley (length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.

**Modern Portfolio Theory (MPT):** An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

**Mutual Fund (MF):** An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

**Peer Group:** A combination of funds that share the same investment style combined as a group for comparison purposes.

**Peer/ Plan Sponsor Universe:** A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.

**Performance Ineligible Assets:** Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or maintained by us. Common examples of

(4)



these include life insurance, some annuities and some assets held externally.

**Performance Statistics:** A generic term for various measures of investment performance measurement terms.

**Portfolio Characteristics:** A generic term for various measures of investment portfolio characteristics.

**Preferred Return:** A term used in the private equity (PE) world, and also referred to as a "Hurdle Rate." It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or "carry."

**Ratio of Cumulative Wealth:** A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

**Regression Based Analysis:** A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables.

**Residual Correlation:** Within returns-based style analysis, residual correlation refers to the portion of a strategy's return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

**Return:** A rate of investment performance for the specified period.

**Rolling Percentile Ranking:** A measure of an investment portfolio's ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

**R-Squared:** The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**SA/CF (Separate Account/Comingled Fund):** Represents an acronym for Separate Account and Comingled Fund investment vehicles.

**Sector Benchmark:** A market index that serves as a proxy for a sector within an asset class.

**Sharpe Ratio:** Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance results in.

**Standard Deviation:** A statistical measure of the range of a portfolio's performance; the variability of a return around its average return over a specified time period.

**Total Fund Benchmark:** The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

**Total Fund Composite:** The aggregate of multiple portfolios within an asset pool or household.

**Tracking Error:** A measure of standard deviation for a portfolio's investment performance, relative to the performance of an appropriate market benchmark.

**Treynor Ratio:** A ratio that divides the excess return (above the risk free rate) by the portfolio's beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

**Up Market Capture:** The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

**Upside Semi Deviation:** A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

**Value:** A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

**Worst Quarter:** The lowest rolling quarterly return for a certain time period.

## Information Disclosures

*The performance data shown reflects past performance, which does not guarantee future results. Investment return and principal will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your Financial Advisor or visit the funds' company website.*

*Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds' company website.*

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. Value investing involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. Small and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. Bond funds and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. International securities' prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. Alternative investments, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate

(4)

sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

**Mortgage backed securities** also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

**Tax managed funds** may not meet their objective of being tax-efficient.

**Real estate** investments are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. High yield fixed income securities, also known as "junk bonds", are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer's creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor's, Moody's and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch's classification (the equivalent of Aaa and C, respectively, by Moody's). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody's) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as "NR".

"Alpha tilt strategies comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance."

**Custom Account Index:** The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

## Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a client's investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the

actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

<https://www.invmetrics.com/style-peer-groups>

## Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

## Alternatives

Graystone Consulting is a business of Morgan Stanley Smith Barney LLC. ("Morgan Stanley")

This material is not to be reproduced or distributed to any other persons (other than professional advisors of the investors) and is intended solely for the use of the persons to whom it has been delivered. This material is not for distribution to the general public.

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be suitable for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance.

This information is being provided as a service of your Graystone Institutional Consultant and does not supersede or replace your Morgan Stanley customer statement. The information is as of the date(s) noted and subject to daily market fluctuation.

Your interests in Alternative Investments, which may have been purchased through us, may not be held here, and are not covered by SIPC. The information provided to you: 1) is included solely as a service to you, and certain transactions may not be reported; 2) is derived from you or another external source for which we are not responsible, and may have been modified to take into consideration capital calls or distributions to the extent applicable; 3) may not reflect actual shares, share prices or values; 4) may include invested or distributed amounts in addition to a fair value estimate; and 5) should not be relied upon for tax reporting purposes.

Alternative Investments are illiquid and may not be valued daily. The estimated valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: • Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; • Lack of liquidity in that there may be no secondary market for a fund; • Volatility of returns; • Restrictions on transferring interests in a fund; • Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; • Absence of information regarding valuations and pricing; • Complex tax structures and delays in tax reporting; • Less regulation and higher fees than mutual funds; and • Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund.

Indices are unmanaged and investors cannot directly invest in them. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment.

Past performance is no guarantee of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market.

Any performance or related information presented has not been adjusted to reflect the impact of the additional fees paid to a placement agent by an investor (for Morgan Stanley placement clients, a one-time upfront Placement Fee of up to 3%, and for Morgan Stanley investment advisory clients, an annual advisory fee of up to 2.5%), which would result in a substantial reduction in the returns if such fees were incorporated.

For most investment advisory clients, the program account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services and reporting. In addition to the Fee, clients will pay the fees and expenses of any funds in which their account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and impact the valuations. Clients must understand that these fees and expenses are an additional cost and will not be included in the Fee amount in the account statements.

As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of \$100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client's portfolio at the end of the three year period would be approximately \$115,762.50 without the fees and \$107,372.63 with the fees.

Please see the applicable Morgan Stanley Smith Barney LLC Form ADV Part 2A for more information including a description of the fee schedule. It is available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV) or from your Financial Advisor/Private Wealth Advisor.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments.

© 2017 Morgan Stanley Smith Barney LLC. Member SIPC.