

# Southfield Fire&Police Retirement System

## Investment Performance Analysis

December 31, 2015



**Asset  
Strategies**  
Portfolio Services, Inc.

*Independent, Professional Investment Consultants Since 1992.*

2635 Lapeer Rd.  
Auburn Hills, MI 48326

Phone: (248) 373-9900  
Email: [gvitta@assetstrategie.com](mailto:gvitta@assetstrategie.com)

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# GLOBAL CAPITAL MARKETS REVIEW

Periods Ending - 12/31/2015

## Quarterly Market Review

Real GDP in the U.S. grew at an annualized rate of 0.7% in 4Q15. Business investment and net exports were weak during the quarter. The U.S. labor market improved throughout the year as the unemployment rate ended the year at 5.0%, down from 5.6% at the end of 2014. Strength in the U.S. labor market led the Federal Reserve to raise the federal-funds rate by 0.25% (to 0.50%) in December. Inflation, as measured by the Broad Consumer Price Index (CPI), fell 0.60% in the quarter, largely due to lower energy prices.

U.S. equities (S&P 500, +7.04%) rebounded from poor performance in the third quarter as leading economic indicators in the U.S. rose in October and November. Large cap equities (Russell 1000, +6.50%) outperformed small cap (Russell 2000, +3.59%) and micro cap (Russell Micro Cap, +3.74%) equities during the quarter. The Materials (+9.39%), Technology (+7.02%) and Health Care (+8.59%) sectors were the best performers for the quarter.

The Federal Reserve's decision to raise the federal-funds rate by 0.25% had little impact on Treasury markets. The pressure of rising yields on bond prices was partially offset by the Treasuries status as a global safe-haven asset. Short-term U.S. Treasury issues (Barclays U.S. Treasury 1-3 Years, -0.43%) outperformed long-term Treasuries (Barclays U.S. Treasury Long, -1.38%) during the quarter. High yield bond spreads continued to widen over investment grade issues, resulting in outperformance of investment grade bonds (Barclays U.S. Aggregate, -0.57%) compared to high yield bonds (Barclays U.S. High Yield, -2.07%).

Foreign equity markets improved during the quarter (MSCI ACWI x-U.S. +3.30%). Developed market equities (MSCI EAFE, +4.75%) continued to outperform emerging market equities (MSCI Emerging Markets, +0.73%). The threat of economic slowdown in China and falling commodity prices weighed heavily on emerging market equities. Asia-pacific equities (MSCI Pacific, +8.99%) outperformed European equities (MSCI Europe, +2.49%) during the quarter.

## U.S. Equity Market Indices

	Quarter	1 Year	3 Year	5 Year	10 Year
Standard & Poor's 500	7.04	1.38	15.13	12.57	7.31
Russell 1000	6.50	0.92	15.01	12.45	7.40
Russell Mid Cap	3.62	-2.44	14.18	11.43	8.00
Russell 2000	3.59	-4.41	11.65	9.19	6.80
Russell Micro Cap	3.74	-5.16	12.71	9.24	5.13

## International Equity Market Indices

	Quarter	1 Year	3 Year	5 Year	10 Year
MSCI EAFE	4.75	-0.39	5.46	4.07	3.50
MSCI ACWI x-US	3.30	-5.25	1.94	1.51	3.38
MSCI Emerging Markets	0.73	-14.60	-6.42	-4.47	3.95

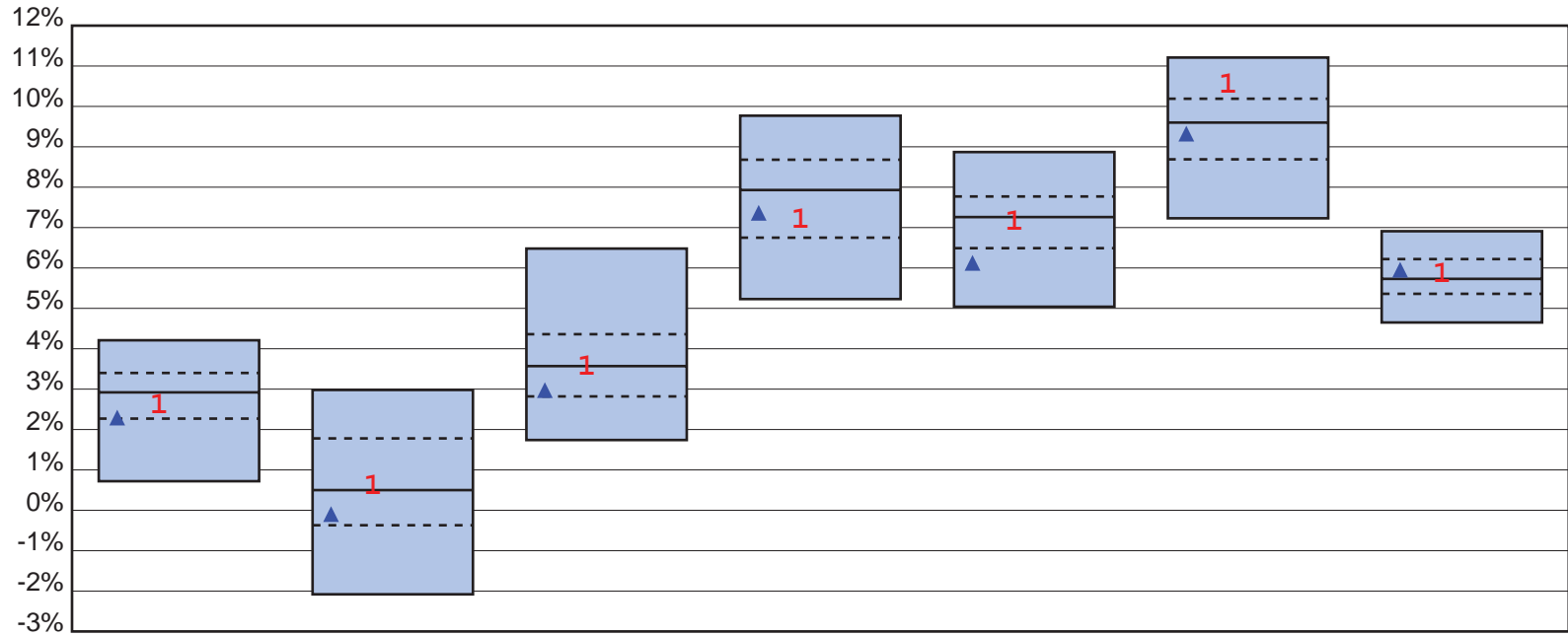
## Global Fixed Income Indices

	Quarter	1 Year	3 Year	5 Year	10 Year
Barclays U.S. Aggregate	-0.57	0.55	1.44	3.25	4.52
Barclays Corporate H-Y	-2.07	-4.47	1.69	5.04	6.96
Barclays Global Agg x-US	-1.26	-6.02	-4.07	-0.84	3.09

## Other Indices

	Quarter	1 Year	3 Year	5 Year	10 Year
NAREIT - Composite	7.13	2.29	10.31	11.59	6.89
NCREIF Property Index	2.91	13.32	12.03	12.17	7.75
ML Convertible Bond	0.59	-3.24	9.78	7.59	6.65
Broad CPI	-0.60	0.73	1.00	1.53	1.86
U.S. 91 Day Treasury Bill	0.03	0.05	0.05	0.08	1.24
HFRI FoF Composite	0.81	-1.02	3.62	2.31	4.07

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Total Fund Public Sponsors Periods Ending 12/15



Policy Index  
(effective 4Q15)

U.S. Equity	34%
Non-U.S. Equity	16%
U.S. Fixed Income	20%
Alternative Investments	16%
Real Estate	14%
Cash Equivalents	0%

5th Percentile	4.21	2.98	6.48	9.77	8.87	11.21	6.91
25th Percentile	3.40	1.78	4.36	8.68	7.77	10.19	6.22
Median	2.92	0.50	3.57	7.93	7.26	9.60	5.73
75th Percentile	2.27	-0.37	2.82	6.75	6.49	8.69	5.36
95th Percentile	0.72	-2.08	1.74	5.23	5.04	7.23	4.65

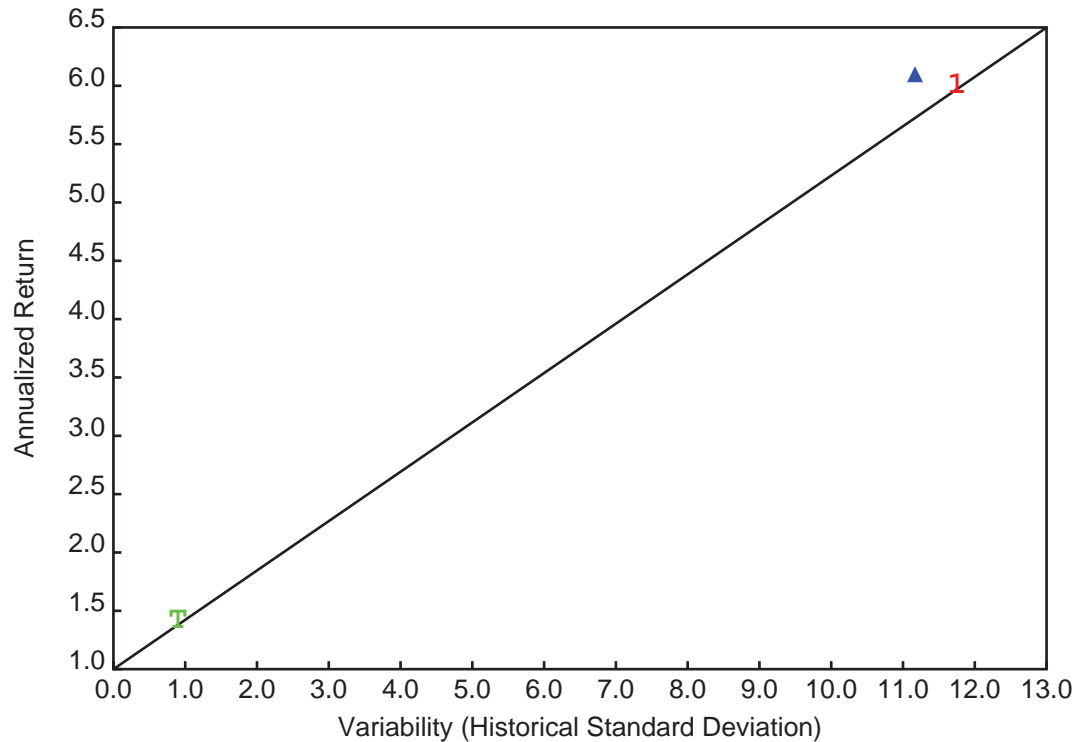
▲ Total Fund Composite  
1 Policy Index

	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
Total Fund Composite	2.27 (75)	-0.12 (71)	2.95 (72)	7.34 (65)	6.10 (83)	9.30 (58)	5.93 (42)
Policy Index	2.58 (62)	0.58 (49)	3.52 (51)	7.16 (67)	7.11 (57)	10.51 (16)	5.83 (43)

**Quarterly Variance Analysis:**  
Total Fund results slightly trailed the Policy Index primarily due to slight underperformance from the three hedge fund managers: Nantucket, Fintan, and KStone.  
  
(Note: numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 12/04 to 12/15

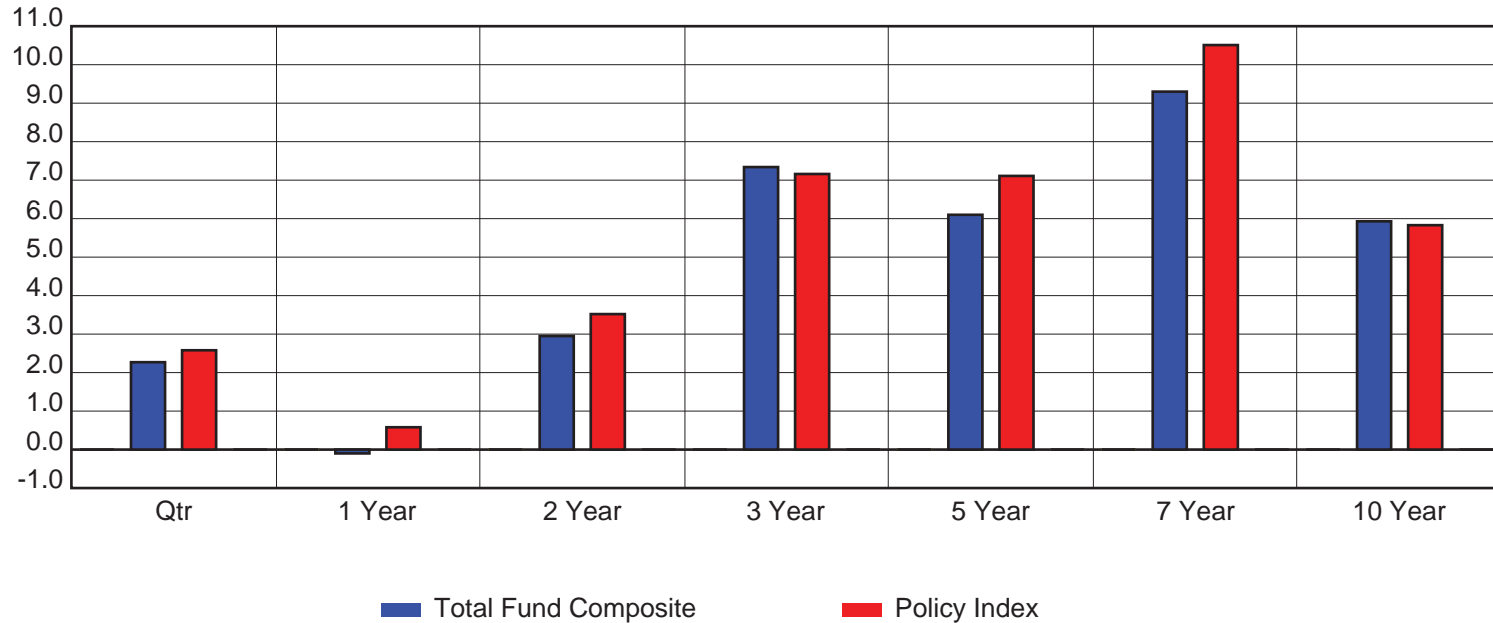


	Annualized Return	Variability	Reward	Sharpe Ratio
▲ Total Fund Composite	6.09	11.26	4.68	0.42
1 Policy Index	6.00	11.82	4.59	0.39
T 91-Day Treasury Bill	1.41	0.97	0.00	0.00

Longer-term Fund Performance vs. Objectives:  
Total Fund results exceed expectations over the past 11 years.

Sharpe Ratio = Reward / Variability

## Southfield Fire&Police Retirement System Performance Bar Chart Total Fund Composite Periods Ending 12/31/15



	Qtr	1 Year	2 Year	3 Year	5 Year	7 Year	10 Year
Total Return	2.27	-0.12	2.95	7.34	6.10	9.30	5.93
Policy Index	2.58	0.58	3.52	7.16	7.11	10.51	5.83
Asset Growth (\$000)							
Beginning Market Value	185,513	197,405	196,215	176,823	190,854	165,629	208,390
Net Contributions & Withdrawals	-2,526	-10,008	-20,506	-29,525	-55,406	-85,224	-121,556
Gain/Loss + Income	3,997	-413	11,275	39,686	51,535	106,580	100,150
Ending Market Value	186,984	186,984	186,984	186,984	186,984	186,984	186,984

Southfield Fire&Police Retirement System  
 Asset Allocation vs Target & Policy  
 Total Fund Composite  
 As of 12/31/15

Manager	Market Value	Actual %	Target %	Policy %	Policy Range %
Loomis Sayles LC Value	15,825,583.36	8.46	9.00		
NTGI S&P Midcap 400 - Lending	16,269,413.37	8.70	9.00		
LSIA Dividend Aristocrats	18,967,814.46	10.14	11.00		
Morgan Dempsey	8,955,810.03	4.79	5.00		
<b>Total Domestic Equity</b>	<b>60,018,621.22</b>	<b>32.10</b>	<b>34.00</b>	<b>34.00</b>	<b>30.00 - 70.00</b>
1607 Capital Partners	18,592,454.34	9.94	10.00		
Brandes Emerging Mkts	4,345,851.90	2.32	4.00		
Invesco International REIT	3,784,976.06	2.02	2.00		
<b>Total International Equity</b>	<b>26,723,282.30</b>	<b>14.28</b>	<b>16.00</b>	<b>16.00</b>	<b>10.00 - 20.00</b>
Avignon - Mortgage Loan	3,420,000.00	1.83	0.00		
Loomis Sayles Full Discretion	15,512,599.59	8.30	10.00		
Bradford & Marzec	16,227,140.83	8.68	10.00		
<b>Total Domestic Fixed Income</b>	<b>35,159,740.42</b>	<b>18.81</b>	<b>20.00</b>	<b>20.00</b>	<b>20.00 - 50.00</b>
Cash Reserve Acct	11,672,797.88	6.24	0.00		
<b>Total Short Term</b>	<b>11,672,797.88</b>	<b>6.24</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00 - 1.00</b>
PRISA I	6,624,689.69	3.54	2.67		
PRISA II	4,608,136.21	2.46	2.67		
PRISA III	4,082,464.37	2.18	2.67		
JCR Capital Fund 2	2,418,178.02	1.29	3.00		
JCR Capital Fund 3	3,338,296.08	1.79	3.00		
<b>Total Real Estate</b>	<b>21,071,764.37</b>	<b>11.27</b>	<b>14.00</b>	<b>14.00</b>	<b>0.00 - 20.00</b>
Nantucket Institutional	12,539,275.26	6.71	6.00		
Fintan Partners	9,941,777.01	5.32	5.00		

NOTE: \$MVs shown for JCR Capital Fund 2 and JCR Capital Fund 3 are preliminary the Cash Reserve Account (#2679236) includes \$8.5 million from Nantucket received on 1/14/2016 and \$154,801.77 received from PRISA (I, II, III) on 1/01/2016

Southfield Fire&Police Retirement System  
 Asset Allocation vs Target & Policy  
 Total Fund Composite  
 As of 12/31/15

Manager	Market Value	Actual %	Target %	Policy %	Policy Range %
KStone Partners	9,856,734.95	5.27	5.00		
<b>Total Hedge Fund</b>	<b>32,337,787.22</b>	<b>17.29</b>	<b>16.00</b>	<b>16.00</b>	<b>0.00 - 20.00</b>
<b>Total Fund Composite</b>	<b>186,983,993.41</b>	<b>100.00</b>	<b>100.00</b>		



# CONCLUSIONS

## Investment Performance Evaluation, Fourth Quarter 2015

1. Total Fund return of +2.27% slightly trailed the Policy Index primarily due to underperformance from the three hedge fund managers.
2. In their third quarter of probation (4/01 - 12/31/2015), Morgan Dempsey exceeded their benchmark by 2.92%.  
We recommend extending probation to 3/31/2016.
3. In their third quarter of probation (4/01 - 12/31/2015), Brandes exceeded their benchmark by 2.53%.  
We recommend extending probation to 3/31/2016.
4. Avignon Holdings LLC - carried at \$3.42 million book value. No investment activity this period.
5. We did not detect any violations of investment policies or guidelines.
6. As of 2/04/2015, asset allocations are within policy ranges.

## FUNdamental Facts

1. As a post-industrial economy, services account for 86% of the U.S. workforce. A solidly performing service sector will keep the U.S. out of recession. – Elliot F. Eisenberg, Ph.D.
2. Aggregate earnings for companies in the S&P 500 decreased 1% y/o/y during 3Q15. If the energy sector is not included, aggregate earnings increased 6% y/o/y during 3Q15. – Morgan Stanley Research
3. Volatility in the S&P 500 index increased in 2015 compared to 2014. The average value of the CBOE Volatility Index (VIX) increased from an average value of 14.17 in 2014 to 16.67 in 2015. – Yahoo! Finance
4. Consumer finances, by one measure, are in the best shape in 25 years. As of 4Q15, the household debt service ratio (debt payments as a % of disposable personal income) is at 10.0%. This compares to 13.2% in 4Q07 at the onset of the Financial Crises. – JP Morgan Asset Management
5. Private-sector debt in emerging markets increased from 73% of GDP in December 2007 to 107% of GDP by December 2014. – JP Morgan & The Economist

### Commission Recapture Program

<u>Broker</u>	<u>2002 thru 2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<b>Current Quarter: <u>4Q2015</u></b>
Bank of New York *	\$92,922	\$9,338	\$6,458	\$5,200	\$2,796	\$2,501	\$1,325	\$197
<b>Income to Fund</b>	\$92,922	\$9,338	\$6,458	\$5,200	\$2,796	\$2,501	\$1,325	\$197

\* (formerly L, J&R)

\* Participants may include: Loomis Sayles, Fiduciary, WHV, and 1607 Capital

### Securities Lending Program (Northern Trust)

	<u>2002 thru 2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<b>Current Quarter: <u>4Q2015</u></b>
<b>Gross Income</b>	\$460,820	\$62,080	\$97,838	\$98,488	\$110,349	\$131,990	\$123,118	\$27,918
<b>Less: Program Fees</b>	\$184,900	\$24,795	\$39,093	\$39,342	\$44,072	\$52,698	\$49,144	\$11,143
<b>Income To Fund</b>	\$275,920	\$37,285	\$58,745	\$59,146	\$66,277	\$79,292	\$73,974	\$16,775

## Southfield Fire&Police Retirement System Performance Summary Table Periods Ending 12/31/15

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>LSIA Dividend Aristocrats</b>									
Total Return	6.85	1.11	8.20	15.71				6/30/12	15.64
S&P 500 Dividends Aristocrats	6.88	0.93	8.09	15.61				6/30/12	15.76
Variance	-0.03	0.19	0.11	0.10				6/30/12	-0.12
Rank	38	50	12	23					
<b>Loomis Sayles LC Value</b>									
Total Return	5.38	-3.10	4.21	14.14	11.59	13.01	7.79	6/30/95	9.29
Russell 1000 Value	5.64	-3.83	4.46	13.09	11.27	13.04	6.15	6/30/95	9.48
Variance	-0.25	0.73	-0.25	1.06	0.32	-0.03	1.64	6/30/95	-0.19
Rank	64	63	70	45	48	76	31		
<b>NTGI S&amp;P Midcap 400 - Lending</b>									
Total Return	2.63	-2.10	3.55	12.80	10.40			6/30/09	16.14
S&P MidCap 400	2.60	-2.18	3.62	12.76	10.68			6/30/09	16.27
Variance	0.03	0.08	-0.08	0.05	-0.28			6/30/09	-0.13
Rank	46	26	30	31	56				
<b>Morgan Dempsey</b>									
Total Return	6.31	-5.60						3/31/14	-6.76
40/60 R-2000-V / Russ-Micro	3.40	-6.06						3/31/14	-2.77
Variance	2.92	0.46						3/31/14	-4.00
Rank	3	70							

## Southfield Fire&Police Retirement System Performance Summary Table Periods Ending 12/31/15

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>1607 Capital Partners</b>									
Total Return	3.32	-5.34	-3.10	3.26	3.12	11.46		6/30/06	5.11
MSCI ACWI x-US	3.31	-5.24	-4.34	1.91	1.50	7.95		6/30/06	2.52
Variance	0.01	-0.09	1.24	1.35	1.63	3.51		6/30/06	2.59
Rank	61	73	64	70	69	35			
<b>Brandes Emerging Mkts</b>									
Total Return	3.27	-19.12						6/30/14	-21.79
MSCI Emerging Markets	0.73	-14.60						6/30/14	-14.63
Variance	2.53	-4.52						6/30/14	-7.15
Rank	17	93							
<b>Invesco International REIT</b>									
Total Return	0.00	-3.18	-0.23	1.63	4.49	10.31		12/31/08	10.31
FTSE EPRA/NAREIT Global x-US	1.10	-3.23	-0.06	1.96	4.46	11.07		12/31/08	11.07
Variance	-1.10	0.05	-0.17	-0.33	0.03	-0.76		12/31/08	-0.76
Rank	85	92	90	92	88	26			26
<b>Bradford &amp; Marzec</b>									
Total Return	-0.22	1.70	3.48					9/30/13	3.36
Barclays Intm Aggregate	-0.51	1.21	2.66					9/30/13	2.29
Variance	0.29	0.48	0.83					9/30/13	1.07
Rank	24	12	14						

## Southfield Fire&Police Retirement System Performance Summary Table Periods Ending 12/31/15

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>Loomis Sayles Full Discretion</b>									
Total Return	-0.58	-1.80	2.10					9/30/13	2.80
Barclays U.S. Aggregate	-0.57	0.55	3.22					9/30/13	2.80
Variance	-0.01	-2.35	-1.13					9/30/13	0.01
Rank	75	95	96						
<b>Nantucket Institutional</b>									
Total Return	0.20	2.43	6.12	8.60	7.18	9.03		6/30/08	4.91
HFRI Diversified FoF Index	0.54	-0.06	1.67	4.07	2.32	4.03		6/30/08	0.88
Variance	-0.33	2.49	4.45	4.53	4.86	4.99		6/30/08	4.03
Rank	63	19	25	9	5	6			
<b>Fintan Partners</b>									
Total Return	0.12							9/30/15	0.12
91-Day T-Bill +5%/yr	1.28							9/30/15	1.28
Variance	-1.16							9/30/15	-1.16
Rank	66								66
<b>KStone Partners</b>									
Total Return	-0.31							9/30/15	-0.31
91-Day T-Bill +3.5%/yr	0.91							9/30/15	0.91
Variance	-1.22							9/30/15	-1.22
Rank	91								91

## Southfield Fire&Police Retirement System Performance Summary Table Periods Ending 12/31/15

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>PRISA Real Estate Composite</b>									
Total Return	3.89	17.77	15.97	15.62	15.27	6.27	6.29	6/30/93	8.06
NFI-ODCE	3.34	15.01	13.74	13.81	13.66	6.46	6.47	6/30/93	8.25
Variance	0.55	2.76	2.22	1.81	1.61	-0.19	-0.18	6/30/93	-0.19
Rank	35	16	26	21	24	45	41		
<b>PRISA I</b>									
Total Return	3.18	15.36	14.35	14.46	14.39	6.21	6.33	12/31/05	6.33
NFI-ODCE	3.34	15.01	13.74	13.81	13.66	6.46	6.47	12/31/05	6.47
Variance	-0.16	0.35	0.60	0.65	0.73	-0.25	-0.14	12/31/05	-0.14
Rank	50	29	42	29	29	45	41		41
<b>PRISA II</b>									
Total Return	4.44	17.54	15.87	15.64	16.38	5.65	5.60	12/31/05	5.60
NFI-ODCE	3.34	15.01	13.74	13.81	13.66	6.46	6.47	12/31/05	6.47
Variance	1.10	2.53	2.12	1.83	2.72	-0.82	-0.88	12/31/05	-0.88
Rank	30	16	26	21	17	54	54		54
<b>PRISA III</b>									
Total Return	4.80	24.90	21.86					3/31/13	20.15
NFI-ODCE	3.34	15.01	13.74					3/31/13	14.05
Variance	1.46	9.89	8.11					3/31/13	6.09
Rank	27	8	8						

## Southfield Fire&Police Retirement System Performance Summary Table Periods Ending 12/31/15

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>Total Fund Composite</b>									
Total Return	2.27	-0.12	2.95	7.34	6.10	9.30	5.93	12/31/88	7.47
Policy Index	2.58	0.58	3.52	7.16	7.11	10.51	5.83	12/31/88	8.43
Variance	-0.31	-0.71	-0.58	0.18	-1.01	-1.21	0.10	12/31/88	-0.96
Rank	75	71	72	65	83	58	42		
Total Return (Net of Fees)	1.94	-1.05	2.09						

Southfield Fire&Police Retirement System  
 Risk Statistic Summary  
 Quarterly 3 Year Ending 12/31/15

Manager	Return	Standard Deviation	Tracking Error	R-Squared	Historical Beta	Historical Alpha	Information Ratio	Sharpe Ratio
<b>LSIA Dividend Aristocrats</b>	15.71	9.94	0.15	1.00	1.00	0.04	0.56	1.58
S&P 500 Dividends Aristocrats	15.61	9.99						
<b>Loomis Sayles LC Value</b>	14.14	11.09	1.62	0.98	1.03	0.16	0.62	1.27
Russell 1000 Value	13.09	10.68						
<b>NTGI S&amp;P Midcap 400 - Lending</b>	12.80	11.75	0.18	1.00	1.00	0.00	0.25	1.09
S&P MidCap 400	12.76	11.72						
<b>Morgan Dempsey</b>	NA	NA	NA	NA	NA	NA	NA	NA
40/60 R-2000-V / Russ-Micro	NA	NA						
<b>1607 Capital Partners</b>	3.26	12.13	1.79	0.98	1.02	0.33	0.76	0.26
MSCI ACWI x-US	1.91	11.76						
<b>Brandes Emerging Mkts</b>	NA	NA	NA	NA	NA	NA	NA	NA
MSCI Emerging Markets	NA	NA						
<b>Invesco International REIT</b>	1.63	9.55	1.16	0.99	0.96	-0.07	-0.31	0.17
FTSE EPRA/NAREIT Global x-US	1.96	9.87						
<b>Bradford &amp; Marzec</b>	NA	NA	NA	NA	NA	NA	NA	NA
Barclays Intm Aggregate	NA	NA						
<b>Loomis Sayles Full Discretion</b>	NA	NA	NA	NA	NA	NA	NA	NA
Barclays U.S. Aggregate	NA	NA						



## Southfield Fire&Police Retirement System Risk Statistic Summary Quarterly 3 Year Ending 12/31/15

Manager	Return	Standard Deviation	Tracking Error	R-Squared	Historical Beta	Historical Alpha	Information Ratio	Sharpe Ratio
<b>Nantucket Institutional</b>	8.60	5.00	2.43	0.80	1.27	0.83	1.82	1.71
HFRI Diversified FoF Index	4.07	3.59						
<b>Fintan Partners</b>	NA	NA	NA	NA	NA	NA	NA	NA
91-Day T-Bill +5%/yr	NA	NA						
<b>KStone Partners</b>	NA	NA	NA	NA	NA	NA	NA	NA
91-Day T-Bill +3.5%/yr	NA	NA						
<b>PRISA Real Estate Composite</b>	15.62	1.30	1.07	0.82	1.09	0.12	1.53	11.95
NFI-ODCE	13.81	0.84						
<b>PRISA I</b>	14.46	1.15	1.03	0.81	0.99	0.18	0.57	12.56
NFI-ODCE	13.81	0.84						
<b>PRISA II</b>	15.64	1.54	1.36	0.74	1.09	0.13	1.22	10.11
NFI-ODCE	13.81	0.84						
<b>PRISA III</b>	NA	NA	NA	NA	NA	NA	NA	NA
NFI-ODCE	NA	NA						
<b>Total Fund Composite</b>	7.34	6.02	1.08	0.97	1.08	-0.09	0.18	1.21
Policy Index	7.16	5.50						

# Southfield Fire&Police Retirement System

## Large Neutral Cumulative Performance Comparisons

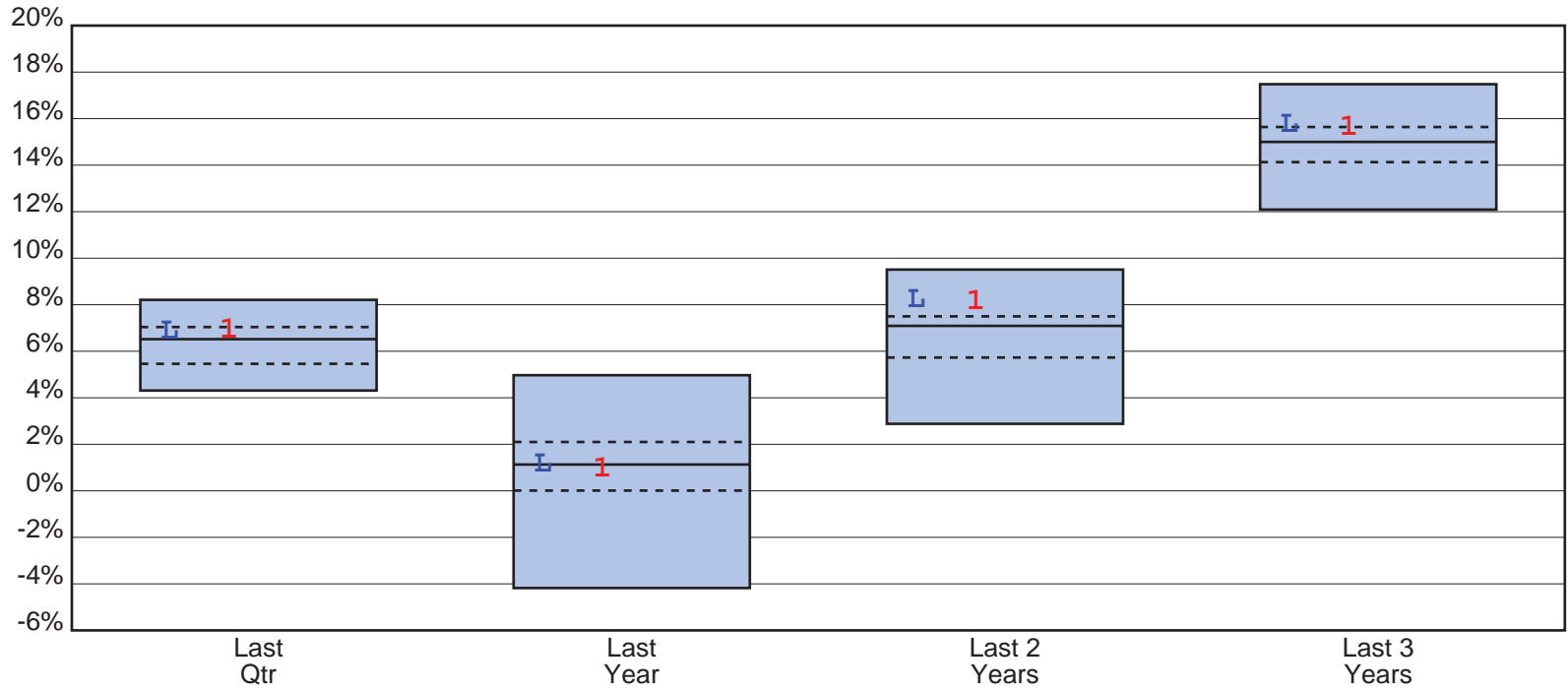
### Total Returns of Equity Portfolios

#### Periods Ending 12/15

Manager Biography:  
Hired in April 2012 with  
funding of \$14 million.

Fee schedule:  
First \$10mm 10 bps  
Next \$40mm 8 bps  
Next \$50mm 6 bps

Current Fee: 9 bps



	Last Qtr	Last Year	Last 2 Years	Last 3 Years
5th Percentile	8.21	4.97	9.51	17.48
25th Percentile	7.04	2.10	7.50	15.64
Median	6.52	1.13	7.09	15.00
75th Percentile	5.46	0.01	5.73	14.13
95th Percentile	4.31	-4.18	2.88	12.09

<b>L</b> LSIA Dividend Aristocrats	6.85 (38)	1.11 (50)	8.20 (12)	15.71 (23)
<b>1</b> S&P 500 Dividends Aristocrats	6.88 (38)	0.93 (58)	8.09 (15)	15.61 (26)

#### Quarterly Variance Analysis:

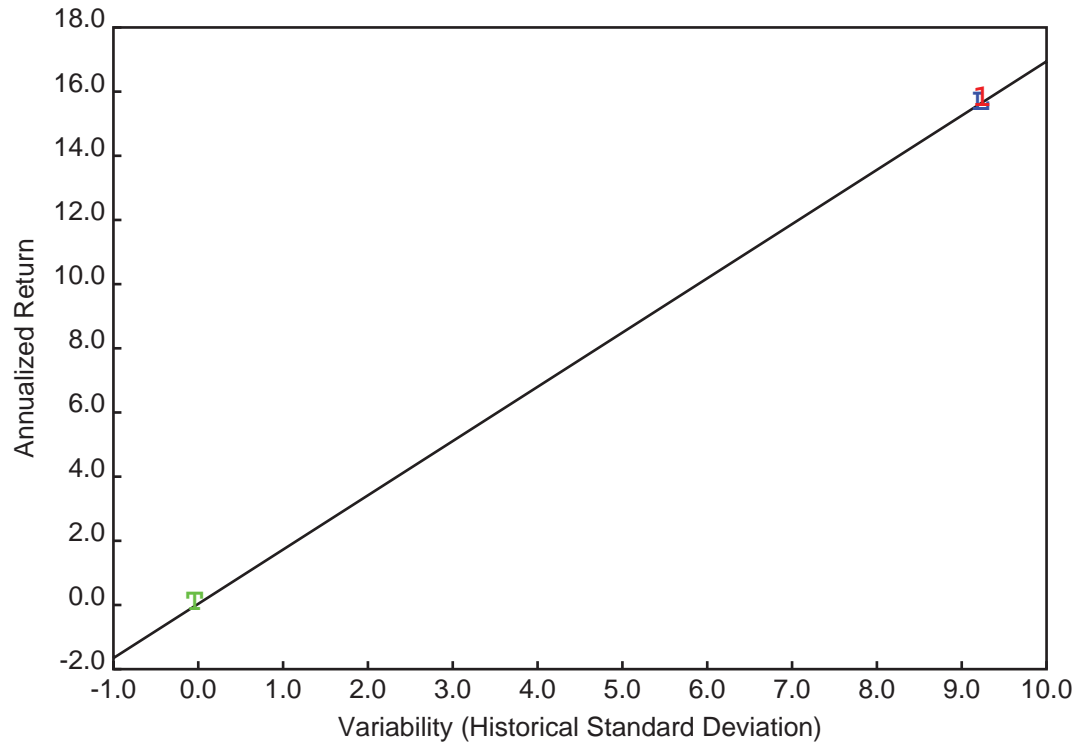
Performance was in-line with the index and slightly underperformed the broad (S&P 500) market (+7.04%). This index normally contains about 50 stocks.

(Note: numbers in parentheses reflect actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 6/12 to 12/15

Manager Annual Return: +15.64  
 Less: Annual Fee -0.09  
 -----  
 +15.55  
  
 Less: Benchmark Return -15.76  
 -----  
 Net Value-added Result -0.21



	Annualized Return	Variability	Reward	Sharpe Ratio
LSIA Dividend Aristocrats	15.64	9.29	15.58	1.68
S&P 500 Dividends Aristocrats	15.76	9.30	15.69	1.69
91-Day Treasury Bill	0.07	0.02	0.00	0.00

Manager Performance vs. Objectives:  
 Index strategy meets expectations after 3.5 years.

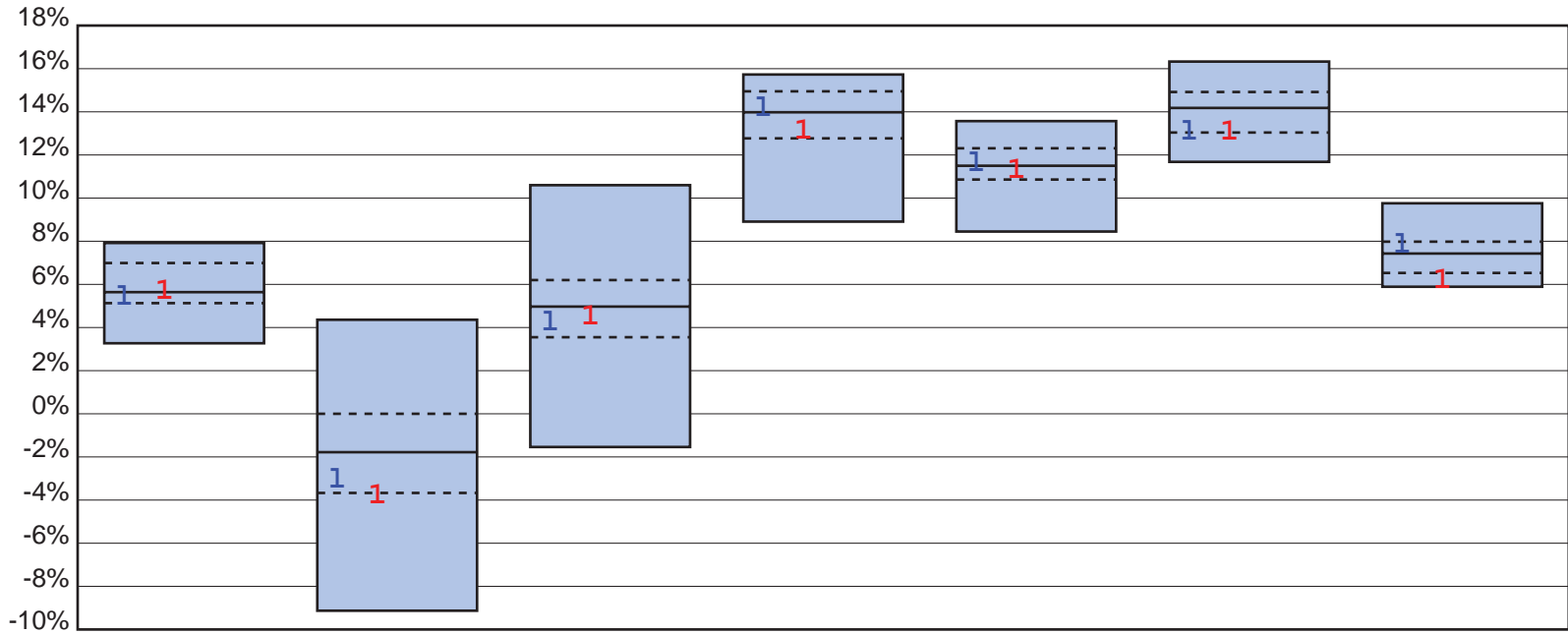
Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System

## Large Value Cumulative Performance Comparisons

### Total Returns of Equity Portfolios

#### Periods Ending 12/15



**Manager Biography:**  
 Loomis, Sayles hired in April 1995, with funding of \$12 mm. Added \$2.5mm in June 1998, and \$6.6mm in Dec. 1998. In Nov. 2000, \$18.3mm was transferred to NTGI Barra/S&P Value. In May 2002, \$15 mm was returned.

**Fee schedule:**  
 First \$2 million 60bps  
 Next \$20 million 50bps  
 Next \$28 million 45bps  
 Over \$50 million 40bps  
 Minimum fee is \$10,000

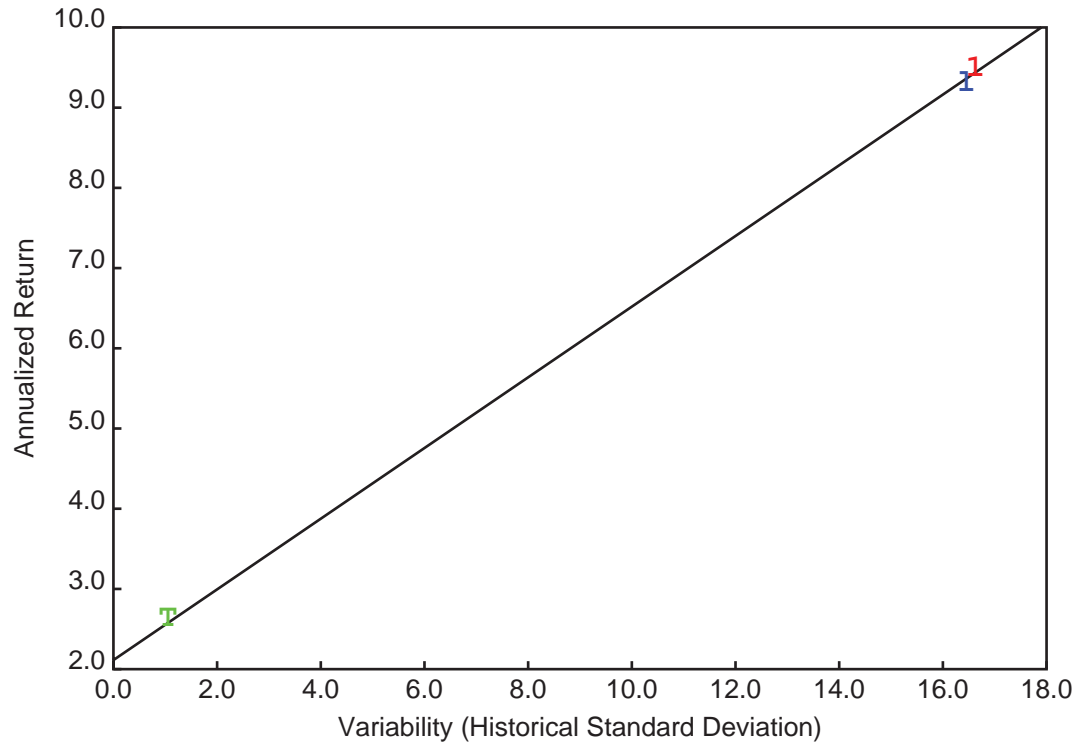
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
5th Percentile	7.92	4.36	10.60	15.73	13.57	16.33	9.76
25th Percentile	6.99	0.00	6.20	14.95	12.31	14.92	7.98
Median	5.64	-1.78	4.97	13.98	11.50	14.18	7.43
75th Percentile	5.13	-3.67	3.55	12.77	10.86	13.04	6.53
95th Percentile	3.27	-9.13	-1.54	8.91	8.45	11.68	5.89
<b>1</b> Loomis Sayles LC Value	5.38 (64)	-3.10 (63)	4.21 (70)	14.14 (45)	11.59 (48)	13.01 (76)	7.79 (31)
<b>1</b> Russell 1000 Value	5.64 (51)	-3.83 (77)	4.46 (65)	13.09 (67)	11.27 (61)	13.04 (75)	6.15 (91)

**Quarterly Variance Analysis:**  
 Slight underperformance is primarily attributed to poor stock selection in the Information Technology sector.

(Note: numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 6/95 to 12/15

Manager Annual Return: +9.29  
 Less: Annual Fee -0.50  
 -----  
 +8.79  
  
 Less: Benchmark Return -9.48  
 -----  
 Net Value-added Result -0.69



	Annualized Return	Variability	Reward	Sharpe Ratio
1 Loomis Sayles LC Value	9.29	16.55	6.67	0.40
1 Russell 1000 Value	9.48	16.72	6.86	0.41
T 91-Day Treasury Bill	2.62	1.15	0.00	0.00

**Manager Performance vs. Objectives:**  
 While portfolio manager trails expectations after 20.5 years, results for the past 10 years exceed expectations.

Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System

## Midcap Neutral Cumulative Performance Comparisons

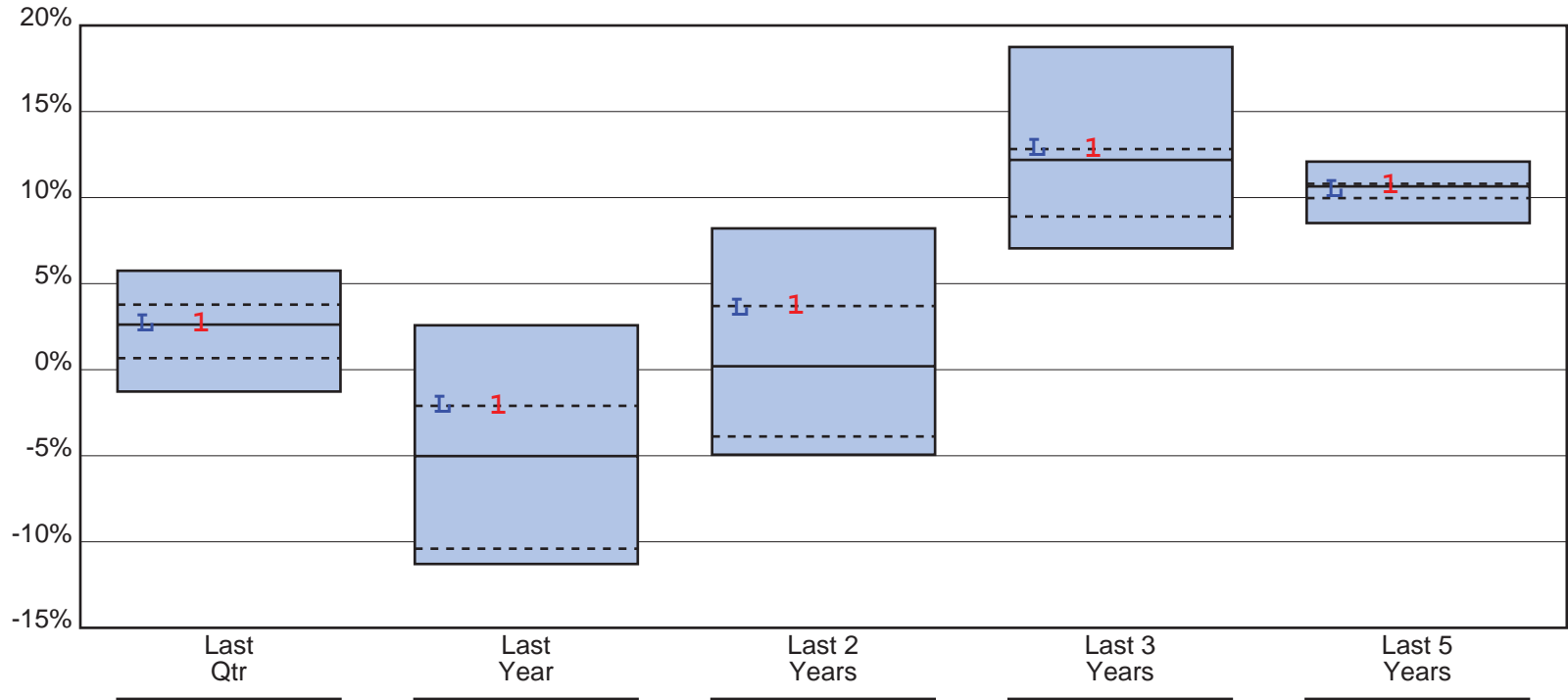
### Total Returns of Equity Portfolios

#### Periods Ending 12/15

Manager Biography:  
 Replaced the NTGI S&P  
 Midcap 400 Enhanced Index  
 on 4/09/2009.

The Enhanced Index fund  
 was funded in October 2003  
 with approximately \$19mm.

Fee schedule:  
 First \$100 million 4bps  
 Balance at 3bps



5th Percentile  
 25th Percentile  
 Median  
 75th Percentile  
 95th Percentile

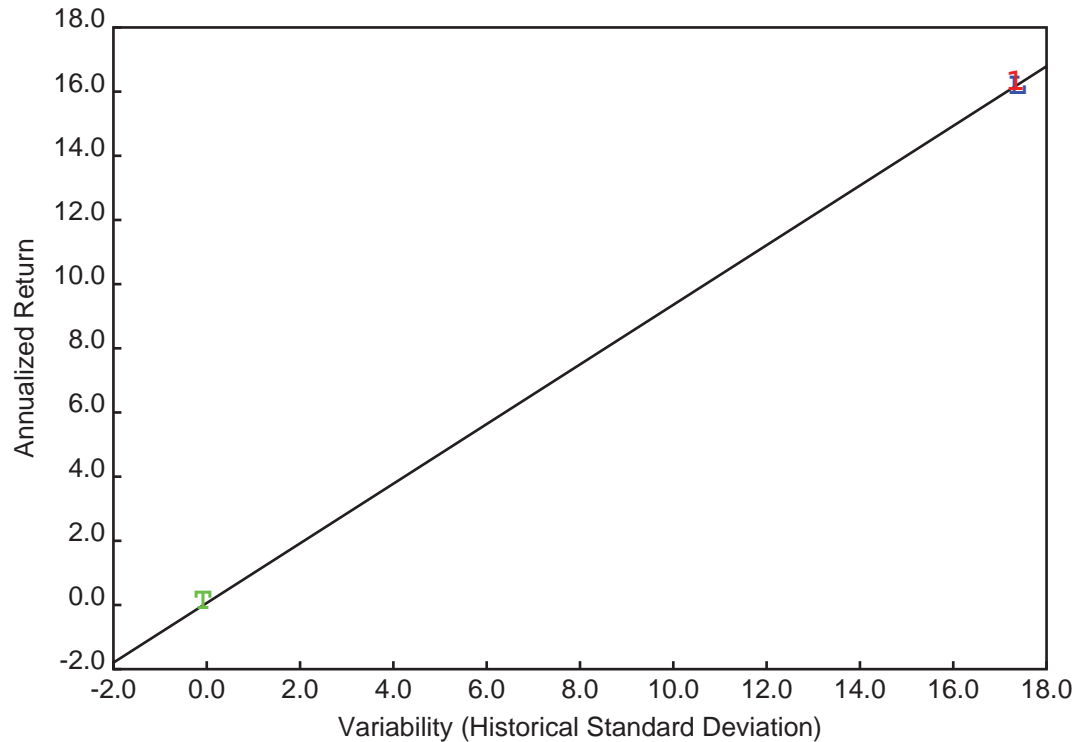
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
5th Percentile	5.75	2.58	8.21	18.75	12.09
25th Percentile	3.78	-2.10	3.70	12.82	10.80
Median	2.62	-5.02	0.20	12.19	10.65
75th Percentile	0.67	-10.40	-3.88	8.90	9.97
95th Percentile	-1.27	-11.29	-4.94	7.05	8.52
<b>L</b> NTGI S&P Midcap 400 - Lending	2.63 (46)	-2.10 (26)	3.55 (30)	12.80 (31)	10.40 (56)
<b>1</b> S&P MidCap 400	2.60 (54)	-2.18 (33)	3.62 (28)	12.76 (31)	10.68 (43)

This is a non-proprietary fund designed to approximate the risk and return of the S&P 400 Index. Any performance difference is generally the result of trading costs, and should be minimal. The fund and benchmark are rebalanced every December. The universe is comprised of equity managers classified as medium capitalization with yield and earnings characteristics tending to market-like levels. (Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 6/09 to 12/15

Manager Annual Return: +16.14  
 Less: Annual Fee -0.04  
 -----  
 +16.10  
  
 Less: Benchmark Return -16.27  
 -----  
 Net Value-added Result -0.17



	Annualized Return	Variability	Reward	Sharpe Ratio
L NTGI S&P Midcap 400 - Lending	16.14	17.49	16.04	0.92
1 S&P MidCap 400	16.27	17.44	16.18	0.93
T 91-Day Treasury Bill	0.09	0.03	0.00	0.00

**Manager Performance vs. Objectives:**

This index fund strategy meets expectations after 6.5 years, excluding the 4Q12 variance due to rebalancing the total fund.

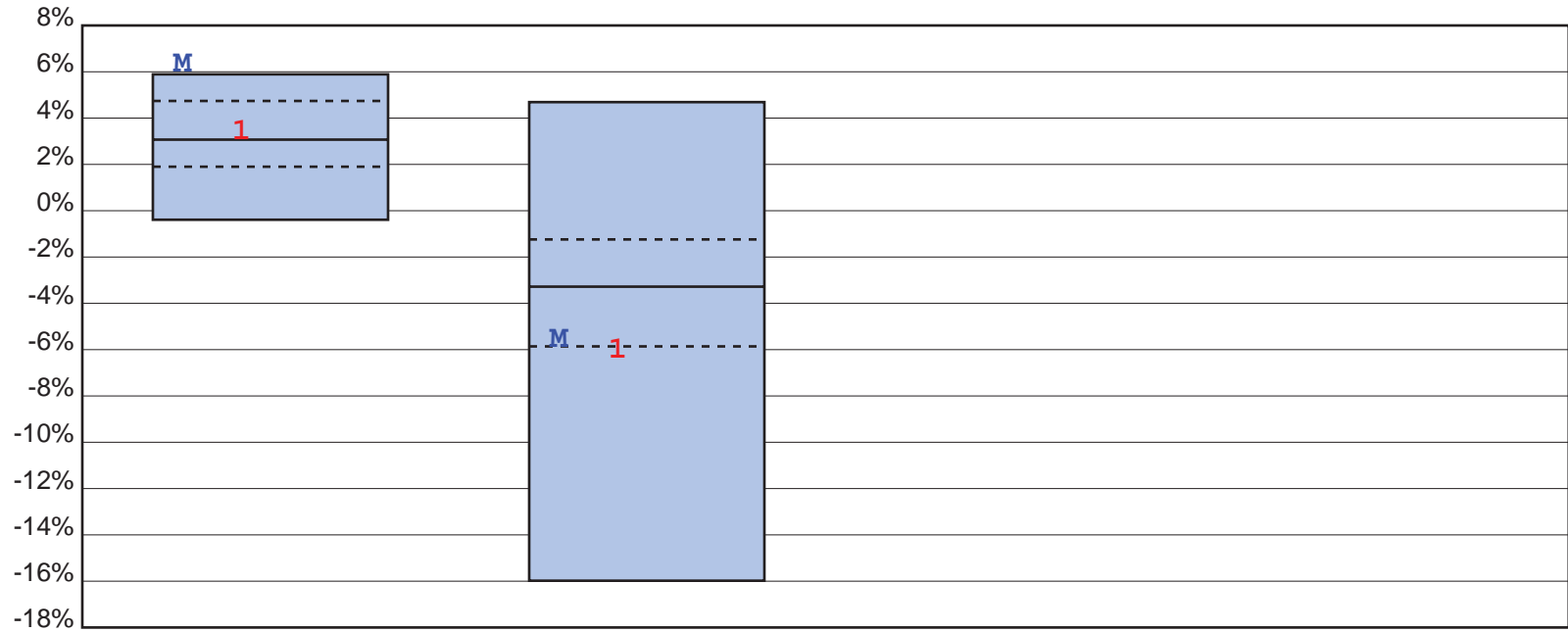
Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System Small Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/15

Manager Biography:  
Replaced Fiduciary Mgmt  
in March 2014 with funding  
of about \$10.8mm.

Fee schedule:  
First \$25 million 110 bps  
Next \$25 million 100 bps  
Next \$30 million 95 bps

Current Fee is 110 bps



	Last Qtr	Last Year
5th Percentile	5.89	4.69
25th Percentile	4.74	-1.24
Median	3.07	-3.28
75th Percentile	1.90	-5.86
95th Percentile	-0.39	-15.98

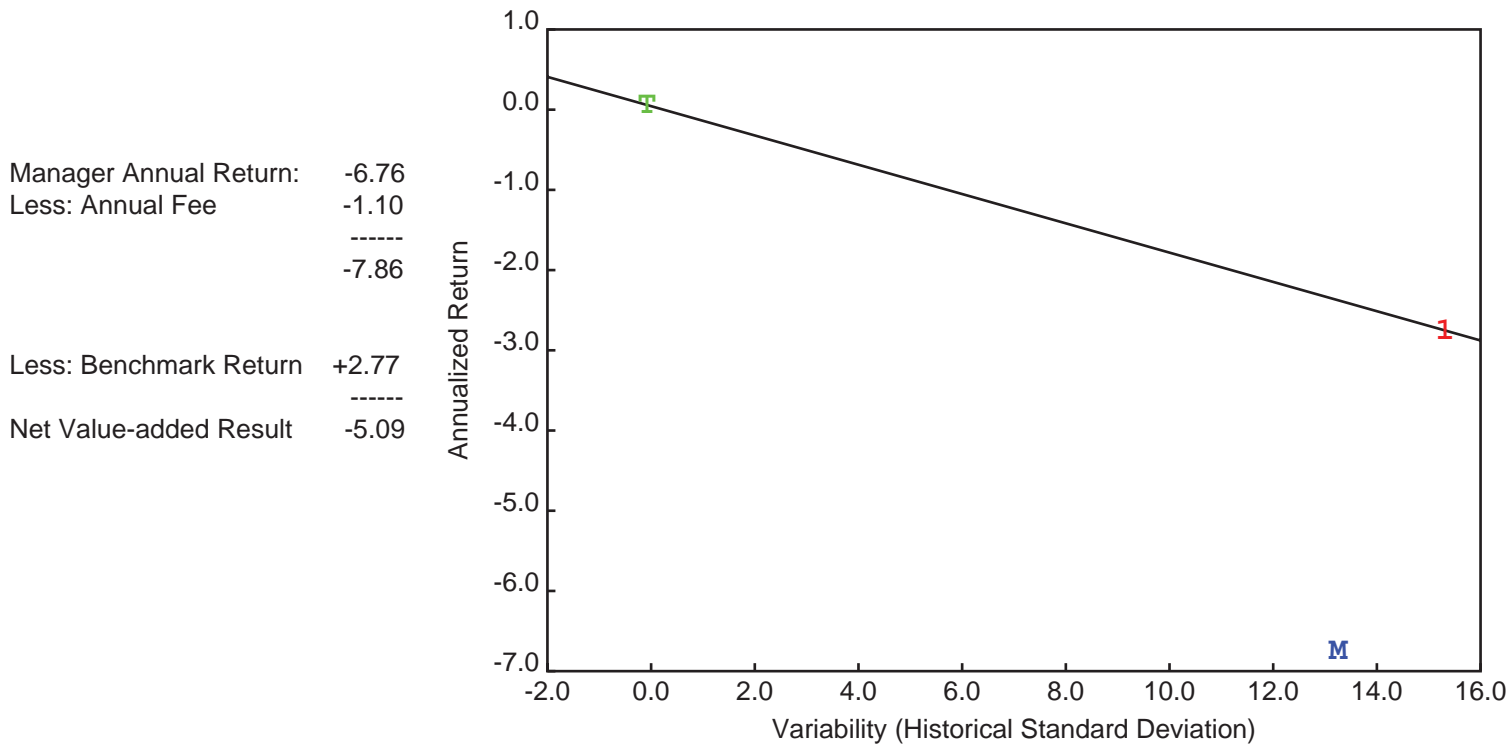
<b>M</b> Morgan Dempsey	6.31 (3)	-5.60 (70)
<b>1</b> 40/60 R-2000-V / Russ-Micro	3.40 (42)	-6.06 (77)

Quarterly Variance Analysis:  
Significant outperformance is attributed to good stock selection across multiple sectors, particularly within the Industrials sector.

(Note: the numbers in parentheses reflect actual peer group rankings. 1=high; 99 low; however, there is no micro-cap stock manager universe)



## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 3/14 to 12/15

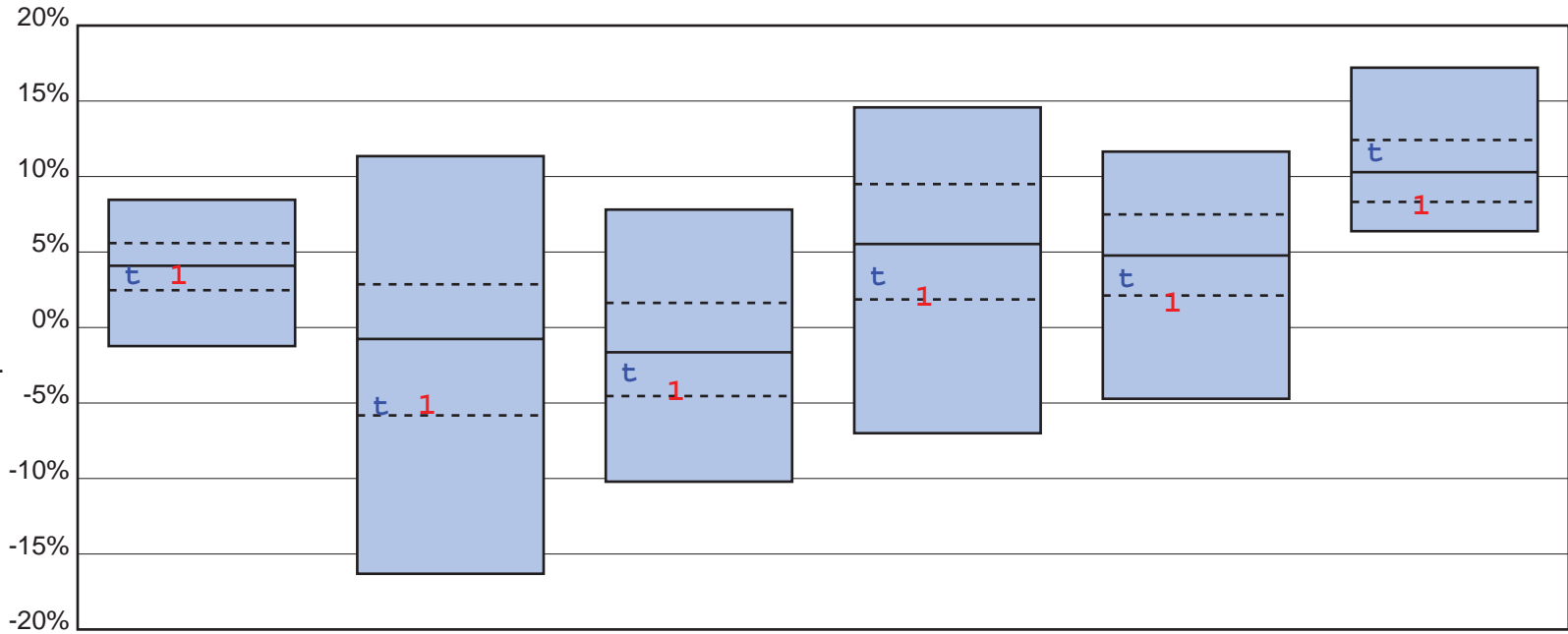


	Annualized Return	Variability	Reward	Sharpe Ratio
<b>M</b> Morgan Dempsey	-6.76	13.35	-6.81	-0.51
<b>1</b> 40/60 R-2000-V / Russ-Micro	-2.77	15.41	-2.81	-0.18
<b>T</b> 91-Day Treasury Bill	0.04	0.02	0.00	0.00

Longer-term Performance vs. Objectives:  
This micro and small cap manager trails expectations after 1.75 years and is on probation.

Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/15



Manager Biography:  
Tattersall Advisory was hired to replace the Morgan Stanley Integrated Intn'l Equity Fund on July 14, 2006 with approximately \$10.6 million.

1607 replaced Tattersall in April 2008 because the portfolio management team went to 1607.

An additional \$5 million was transferred in at the end of 1Q07

Fee schedule: 75 bps.  
(and internal expenses)

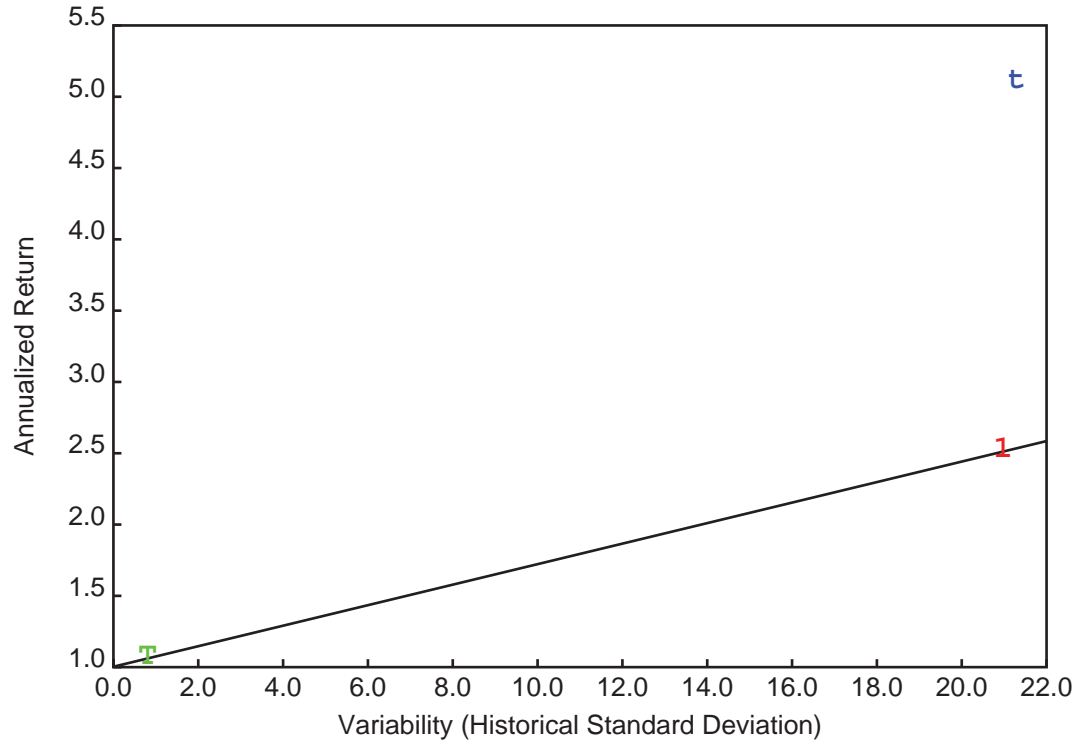
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years
5th Percentile	8.46	11.35	7.81	14.58	11.65	17.21
25th Percentile	5.59	2.86	1.63	9.50	7.49	12.42
Median	4.09	-0.76	-1.64	5.53	4.77	10.29
75th Percentile	2.47	-5.82	-4.54	1.86	2.12	8.32
95th Percentile	-1.23	-16.31	-10.21	-7.00	-4.72	6.38
<b>t</b> 1607 Capital Partners	3.32 (61)	-5.34 (73)	-3.10 (64)	3.26 (70)	3.12 (69)	11.46 (35)
<b>1</b> MSCI ACWI x-US	3.31 (61)	-5.24 (72)	-4.34 (74)	1.91 (74)	1.50 (77)	7.95 (79)

**Quarterly Variance Analysis:**  
 Performance was in-line with the benchmark.  
 The manager acknowledges differences in total portfolio valuation with the custodian on a quarter-to-quarter basis.  
 Exposure to emerging markets was approximately 25.2% of the portfolio.  
 At the end of the quarter, 1607 held 111 closed-end funds. The universe consists of about 315 funds.  
 (Note: numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 6/06 to 12/15

Manager Annual Return: +5.11  
 Less: Annual Fee -0.75  
 Less: Global C/T Fees -0.10  
 (Custody/Transaction) -----  
 +4.26  
  
 Less: Benchmark Return -2.52  
 -----  
 Net Value-added Result +1.74



	Annualized Return	Variability	Reward	Sharpe Ratio
t 1607 Capital Partners	5.11	21.39	4.04	0.19
1 MSCI ACWI x-US	2.52	21.09	1.45	0.07
T 91-Day Treasury Bill	1.07	0.93	0.00	0.00

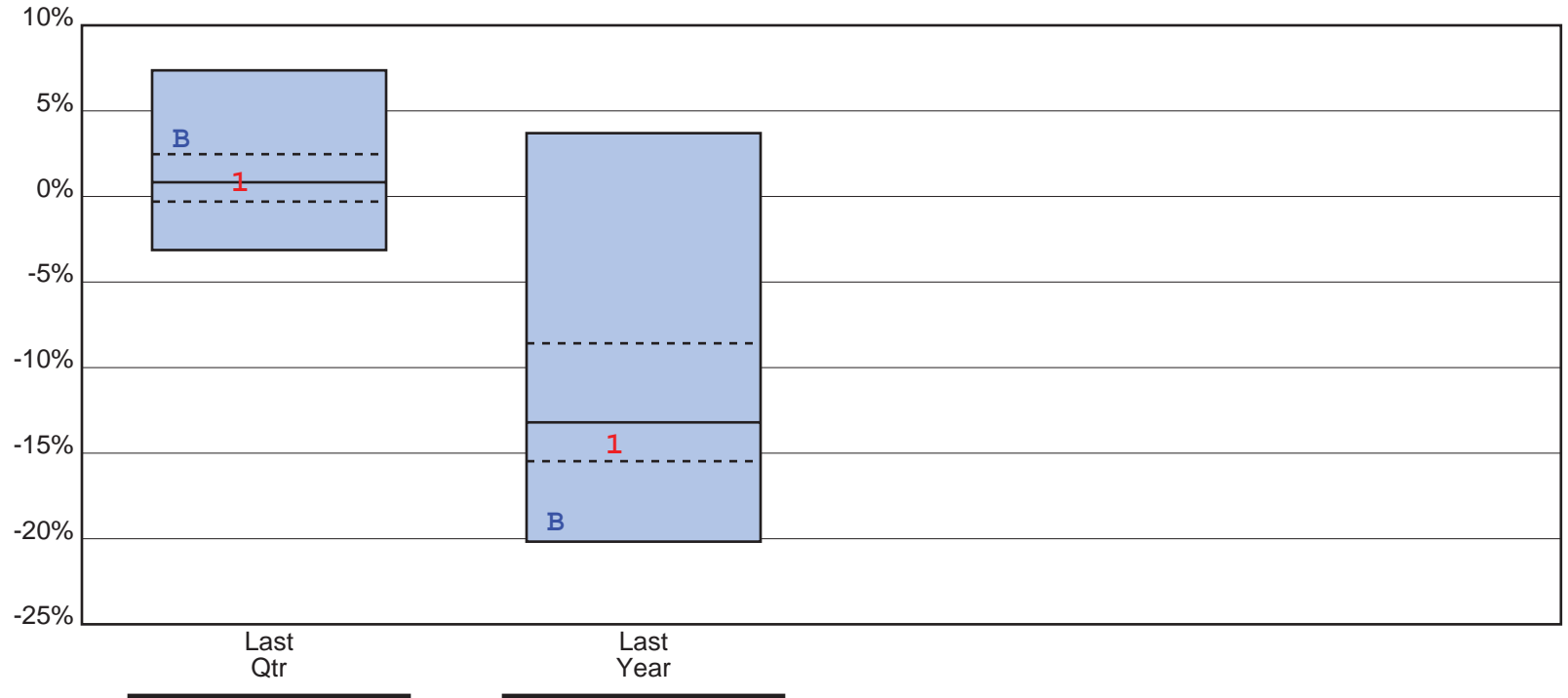
Manager Performance vs. Objectives:  
 Portfolio manager exceeds expectations after 9.5 years.

Sharpe Ratio = Reward / Variability

## Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Emerging Markets Portfolios Periods Ending 12/15

Manager Biography:  
Hired in May 2014 with  
funding of \$6 million.

Current Fee is 95 bps



	Last Qtr	Last Year
5th Percentile	7.37	3.70
25th Percentile	2.47	-8.58
Median	0.83	-13.20
75th Percentile	-0.30	-15.47
95th Percentile	-3.13	-20.17

<b>B</b> Brandes Emerging Mkts	3.27 (17)	-19.12 (93)
<b>1</b> MSCI Emerging Markets	0.73 (52)	-14.60 (60)

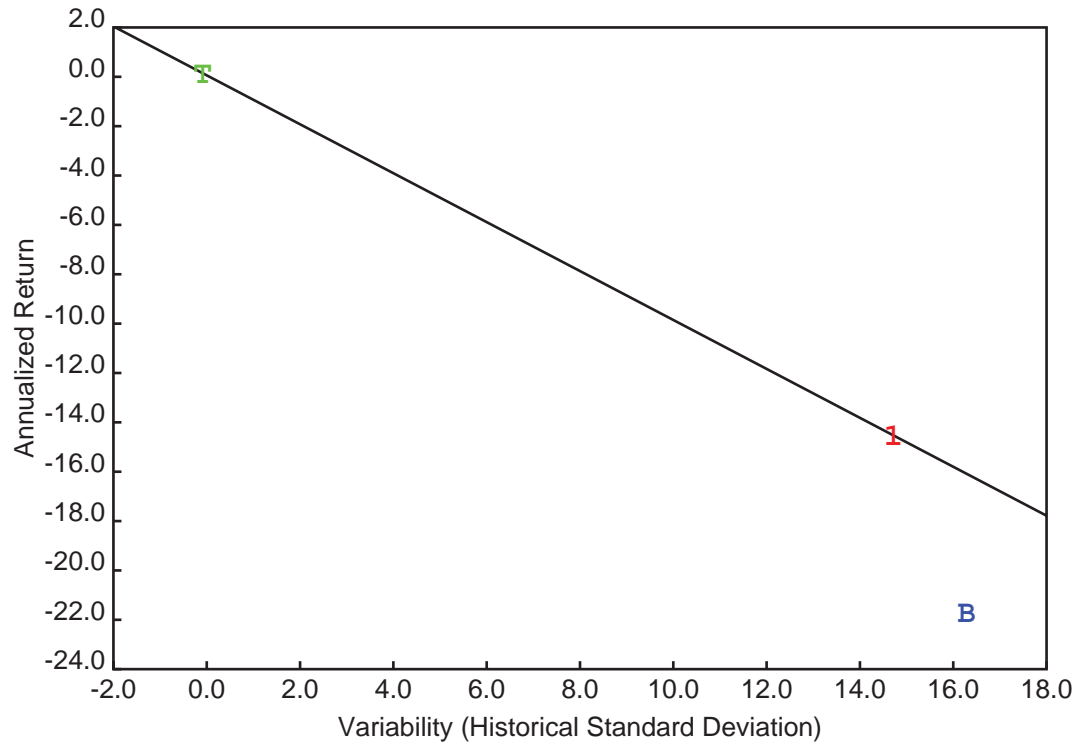
### Quarterly Variance Analysis:

Outperformance is primarily due to exposure to India (3.5% of the portfolio at quarter-end).  
Stock selection in Diversified Telecom Services and Electric Utilities further contributed to relative results.

(Note: the numbers in parentheses reflect actual peer group rankings. 1=high; 99 low)

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 6/14 to 12/15

Manager Annual Return: -21.79  
 Less: Annual Fee -0.95  
 -----  
 -22.74  
  
 Less: Benchmark Return +14.63  
 -----  
 Net Value-added Result -8.11



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>B</b> Brandes Emerging Mkts	-21.79	16.40	-21.83	-1.33
<b>1</b> MSCI Emerging Markets	-14.63	14.82	-14.68	-0.99
<b>T</b> 91-Day Treasury Bill	0.04	0.02	0.00	0.00

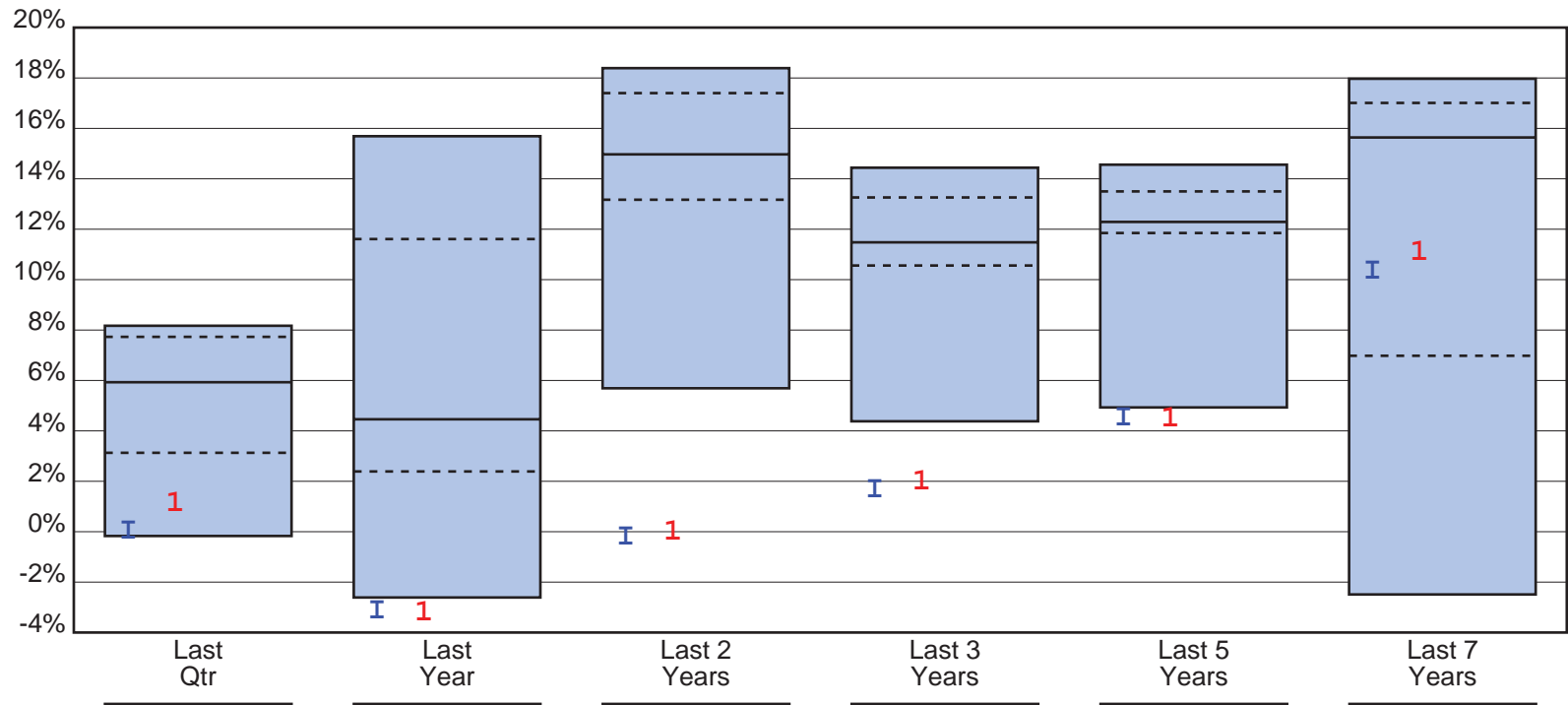
**Manager Performance vs. Objectives:**  
 Portfolio manager trails expectations after 1.5 years and is on probation.

Sharpe Ratio = Reward / Variability

## Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Public REIT Portfolios Periods Ending 12/15

Manager Biography:  
INVESCO International REIT  
funded with \$1mm on 10/1,  
11/1, and 12/1/2008.

Fee Schedule:  
80 bps on first \$100mm



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years
5th Percentile	8.17	15.69	18.39	14.44	14.56	17.97
25th Percentile	7.73	11.61	17.40	13.26	13.50	17.01
Median	5.93	4.46	14.97	11.48	12.29	15.64
75th Percentile	3.13	2.39	13.17	10.56	11.85	6.98
95th Percentile	-0.17	-2.61	5.69	4.38	4.93	-2.49

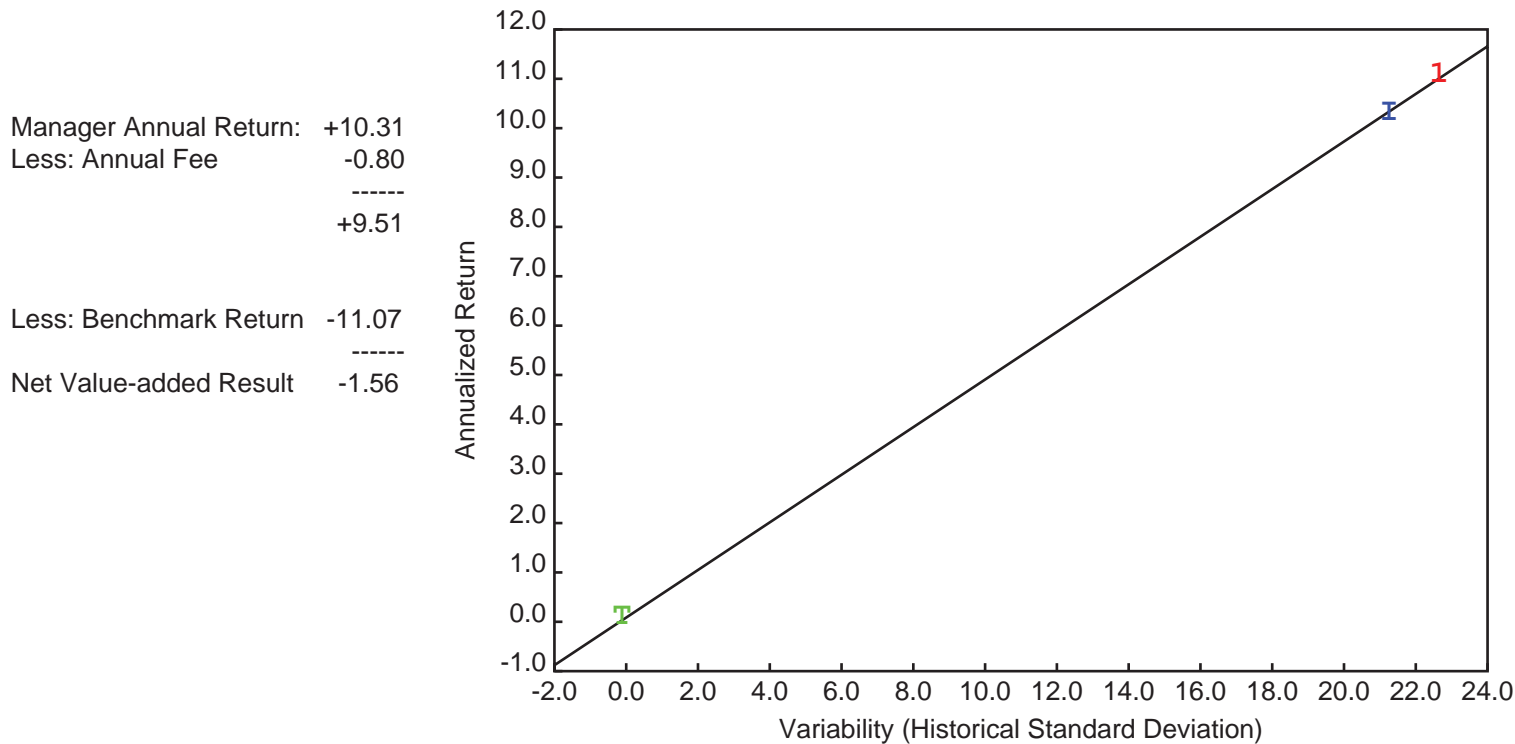
<b>I</b> Invesco International REIT	0.00 (92)	-3.18 (95)	-0.23 (100)	1.63 (99)	4.49 (95)	10.31 (64)
<b>1</b> FTSE EPRA/NAREIT Global x-US	1.10 (85)	-3.23 (95)	-0.06 (100)	1.96 (99)	4.46 (95)	11.07 (62)

### Quarterly Variance Analysis:

Underperformance is primarily attributed to poor stock selection in Europe (UK, Netherlands, and France) as well as an underweight exposure to the strong-performing Swiss and Belgian real estate markets.

(Note: numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 12/08 to 12/15



Manager Annual Return: +10.31  
 Less: Annual Fee -0.80  
 -----  
 +9.51  
  
 Less: Benchmark Return -11.07  
 -----  
 Net Value-added Result -1.56

	Annualized Return	Variability	Reward	Sharpe Ratio
I Invesco International REIT	10.31	21.40	10.21	0.48
1 FTSE EPRA/NAREIT Global	11.07	22.78	10.97	0.48
T 91-Day Treasury Bill	0.10	0.03	0.00	0.00

Manager Performance vs. Objectives:  
 Portfolio manager is close to expectations after 7 years.

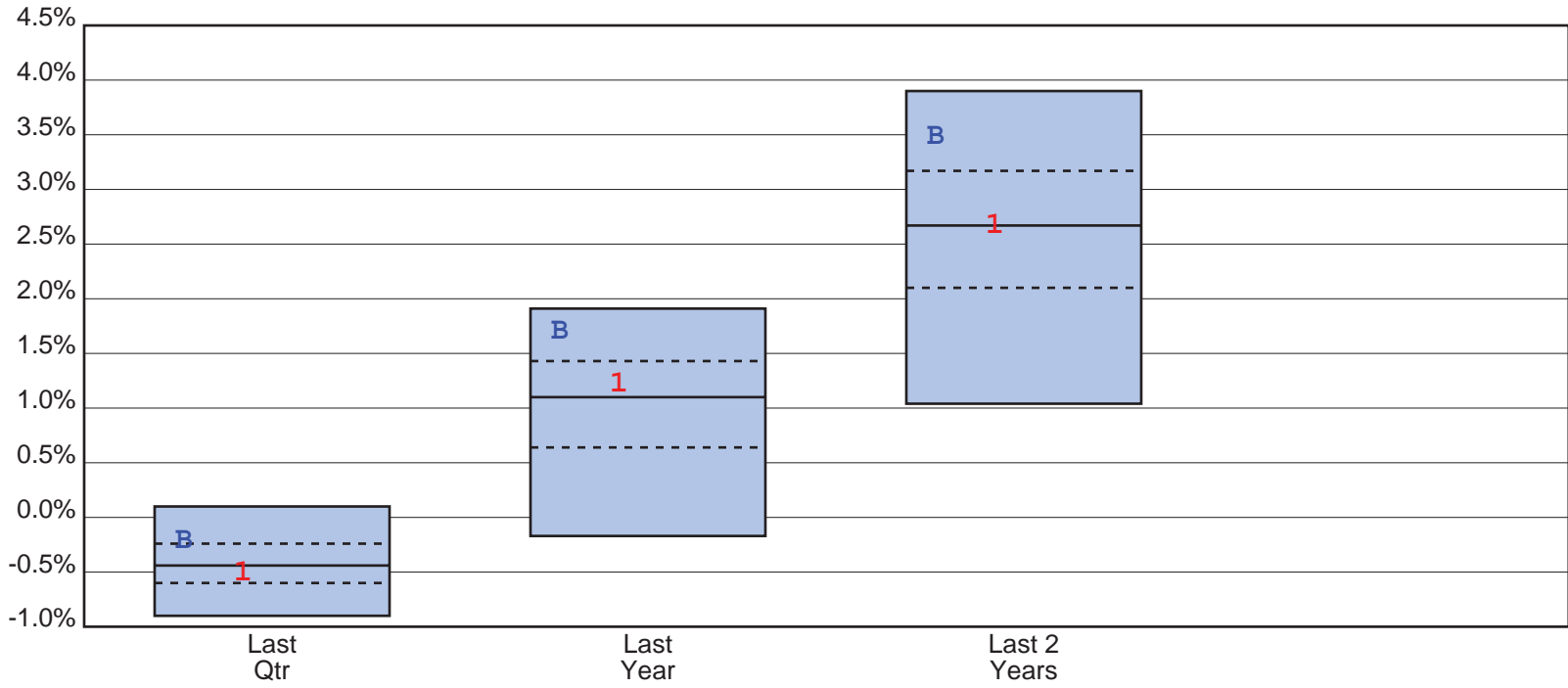
Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System

## Intermediate Term Cumulative Performance Comparisons

### Total Returns of Fixed Income Portfolios

#### Periods Ending 12/15



Manager Biography:  
Hired in August 2013 with  
funding of about \$25 million.

Current fee is 32 bps  
(for first \$50mm)

5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

Last  
Qtr

Last  
Year

Last 2  
Years

0.10  
-0.24  
-0.44  
-0.60  
-0.90

1.91  
1.43  
1.10  
0.64  
-0.17

3.90  
3.17  
2.67  
2.10  
1.04

**B** Bradford & Marzec

-0.22 (24)

1.70 (12)

3.48 (14)

**1** Barclays Intm Aggregate

-0.51 (61)

1.21 (40)

2.66 (50)

#### Quarterly Variance Analysis:

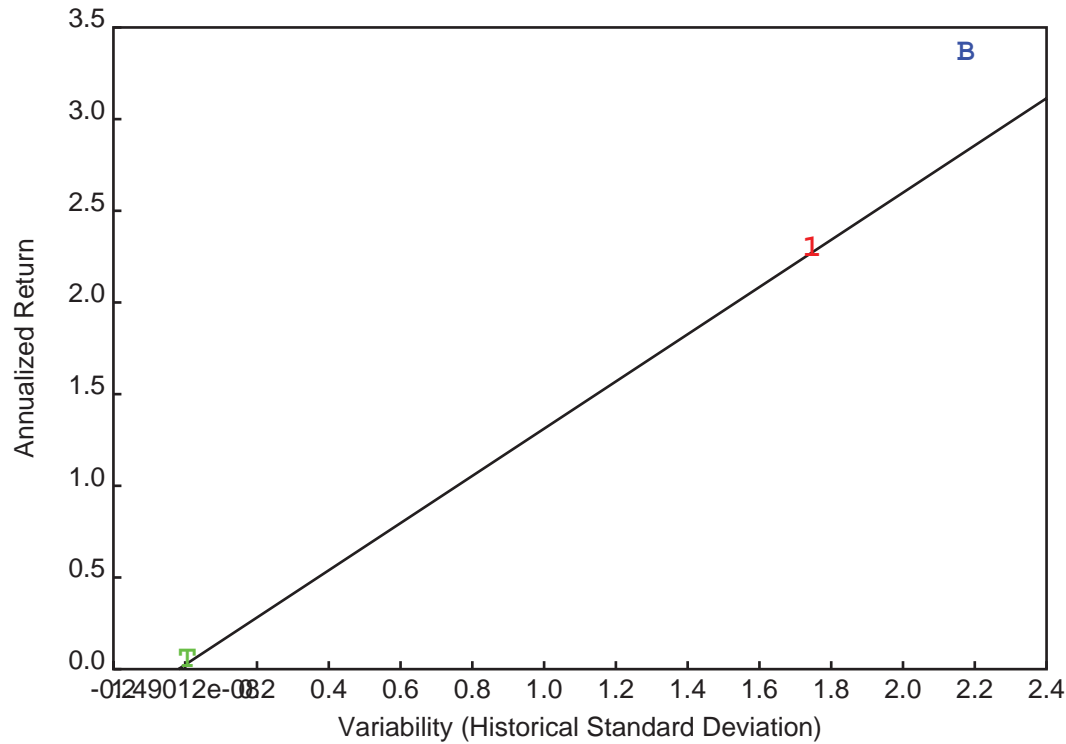
Outperformance is primarily attributed to the combination of good security selection and overweight position in investment-grade corporate bonds.

(Note: numbers in parentheses reflect actual peer rankings. 1 = high; 99 = low)



## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 9/13 to 12/15

Manager Annual Return: +3.36  
 Less: Annual Fee -0.32  
 -----  
 +3.04  
  
 Less: Benchmark Return -2.29  
 -----  
 Net Value-added Result +0.75



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>B</b> Bradford & Marzec	3.36	2.19	3.32	1.52
<b>1</b> Barclays Intm Aggregate	2.29	1.76	2.25	1.28
<b>T</b> 91-Day Treasury Bill	0.05	0.02	0.00	0.00

Manager Performance vs. Objectives:  
 Portfolio manager exceeds expectations after 2.25 years.

Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System

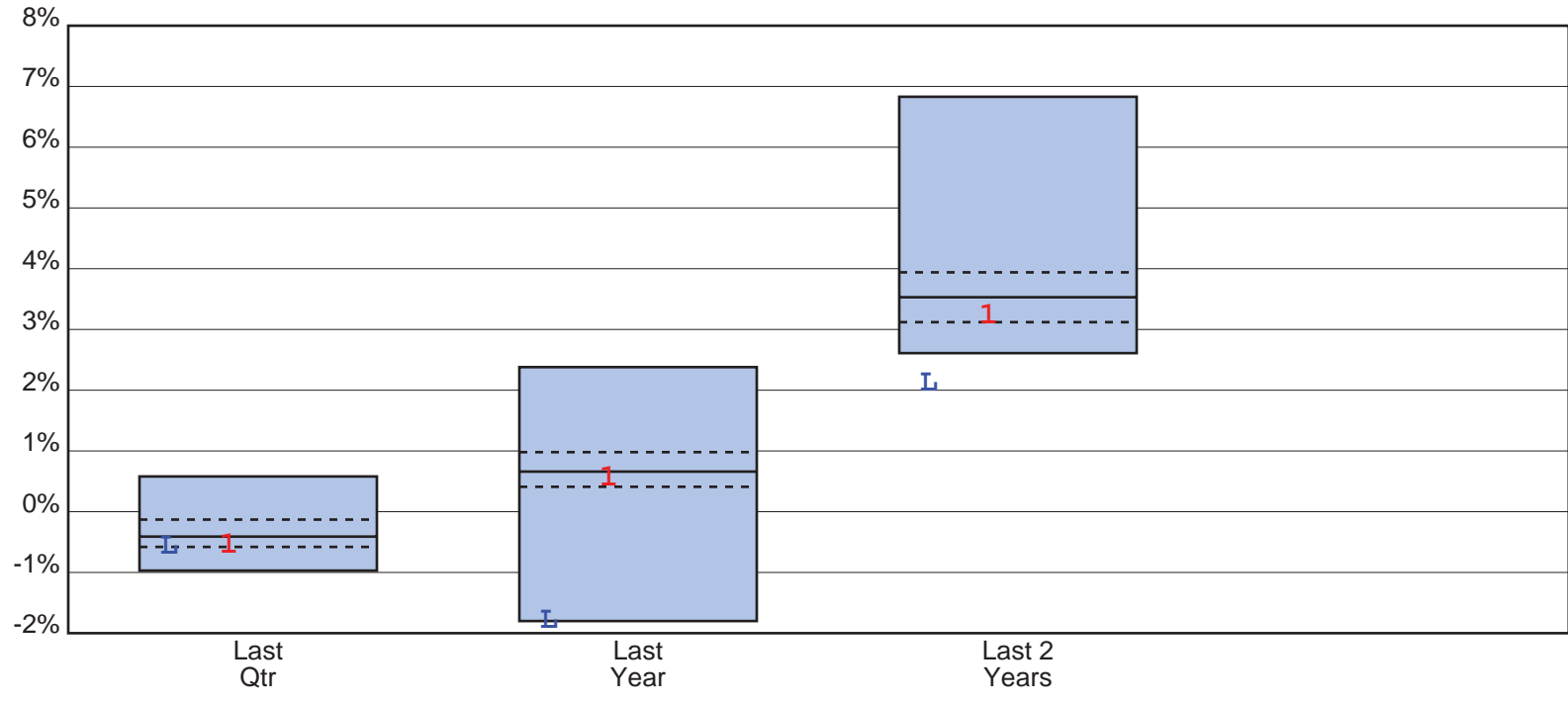
## Fixed Income Core Cumulative Performance Comparisons

### Total Returns of Fixed Income Portfolios

#### Periods Ending 12/15

Manager Biography:  
Hired in August 2013 with  
funding of about \$15mm.

Internal expense ratio  
is 42 bps.



5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

Last  
Qtr

Last  
Year

Last 2  
Years

0.58  
-0.13  
-0.41  
-0.58  
-0.97

2.38  
0.98  
0.66  
0.41  
-1.80

6.83  
3.94  
3.53  
3.12  
2.61

┆ Loomis Sayles Full Discretion  
┆ Barclays U.S. Aggregate

-0.58 (75)  
-0.57 (70)

-1.80 (95)  
0.55 (63)

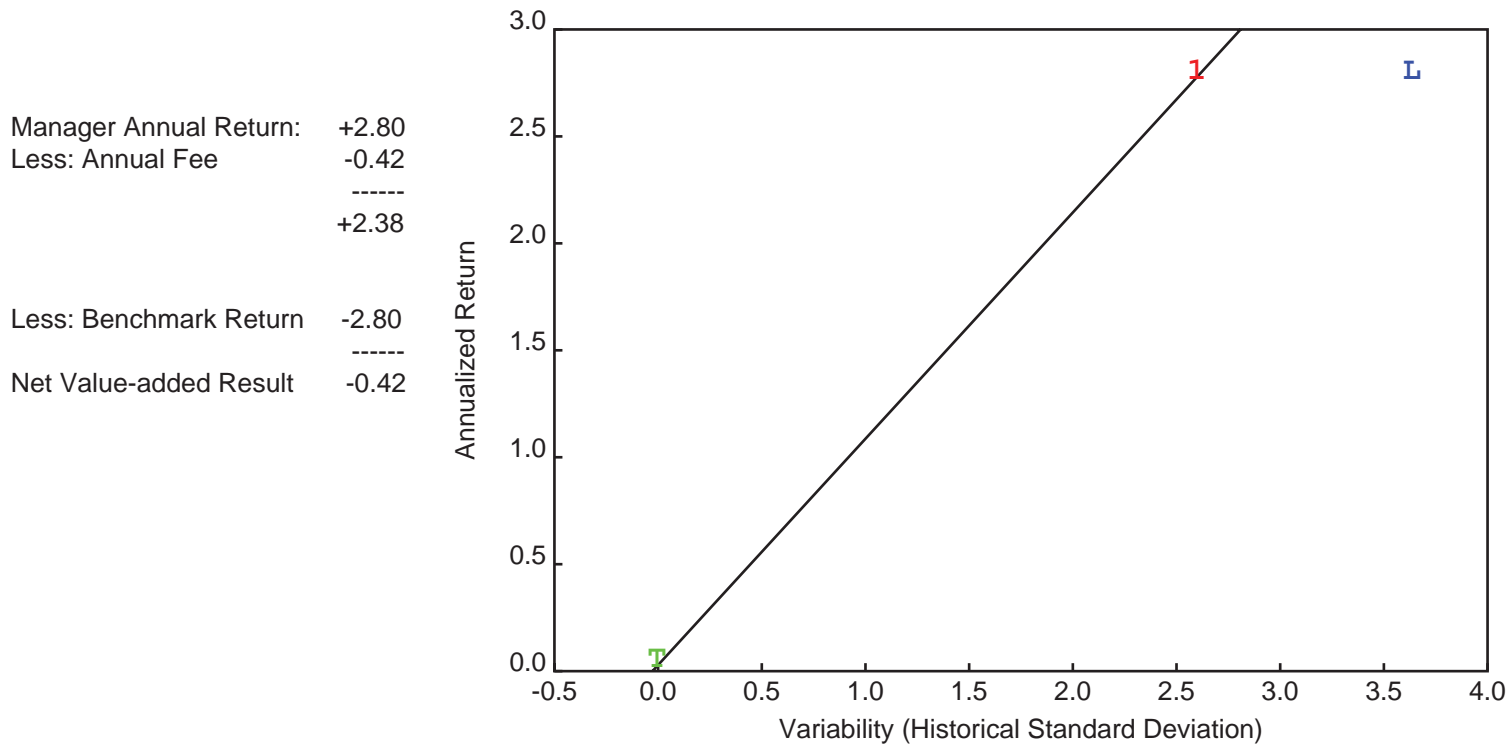
2.10 (96)  
3.22 (66)

Quarterly Variance Analysis:  
Performance was in-line with the benchmark.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 9/13 to 12/15



Manager Annual Return: +2.80  
 Less: Annual Fee -0.42  
 -----  
 +2.38  
  
 Less: Benchmark Return -2.80  
 -----  
 Net Value-added Result -0.42

	Annualized Return	Variability	Reward	Sharpe Ratio
L Loomis Sayles Full Discretion	2.80	3.66	2.76	0.75
1 Barclays U.S. Aggregate	2.80	2.62	2.75	1.05
T 91-Day Treasury Bill	0.05	0.02	0.00	0.00

**Manager Performance vs. Objectives:**  
 Portfolio manager is close to expectations after 2.25 years, despite a weak 3Q15.

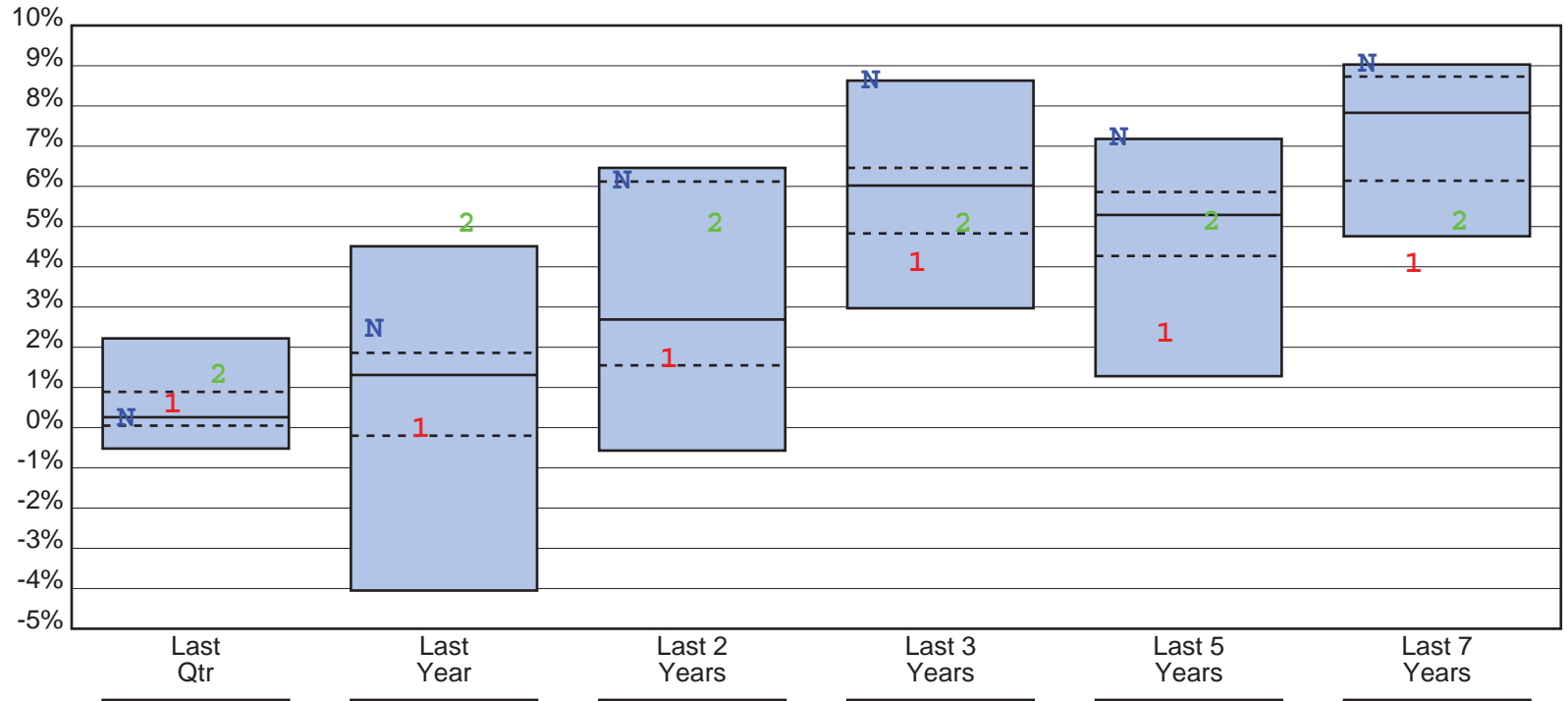
Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Fund of Funds Hedge Funds Periods Ending 12/15

Manager Biography:  
Funded with \$2 million  
in June 2008.

An additional \$670,000 was  
invested on 4/01/2010.

Fee Schedule: 100 bps  
10% incentive fee;  
subject to high water mark,  
and investors receiving  
10% return first



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years
5th Percentile	2.22	4.51	6.46	8.63	7.18	9.03
25th Percentile	0.89	1.86	6.12	6.46	5.86	8.73
Median	0.26	1.31	2.69	6.02	5.29	7.83
75th Percentile	0.05	-0.20	1.55	4.83	4.27	6.14
95th Percentile	-0.52	-4.05	-0.57	2.97	1.28	4.76
<b>N</b> Nantucket Institutional	0.20 (63)	2.43 (19)	6.12 (25)	8.60 (9)	7.18 (5)	9.03 (6)
<b>1</b> HFRI Diversified FoF Index	0.54 (37)	-0.06 (61)	1.67 (68)	4.07 (91)	2.32 (94)	4.03 (99)
<b>2</b> 91-Day Treasury Bill +5%/yr	1.28 (15)	5.05 (1)	5.04 (25)	5.05 (71)	5.08 (54)	5.10 (94)

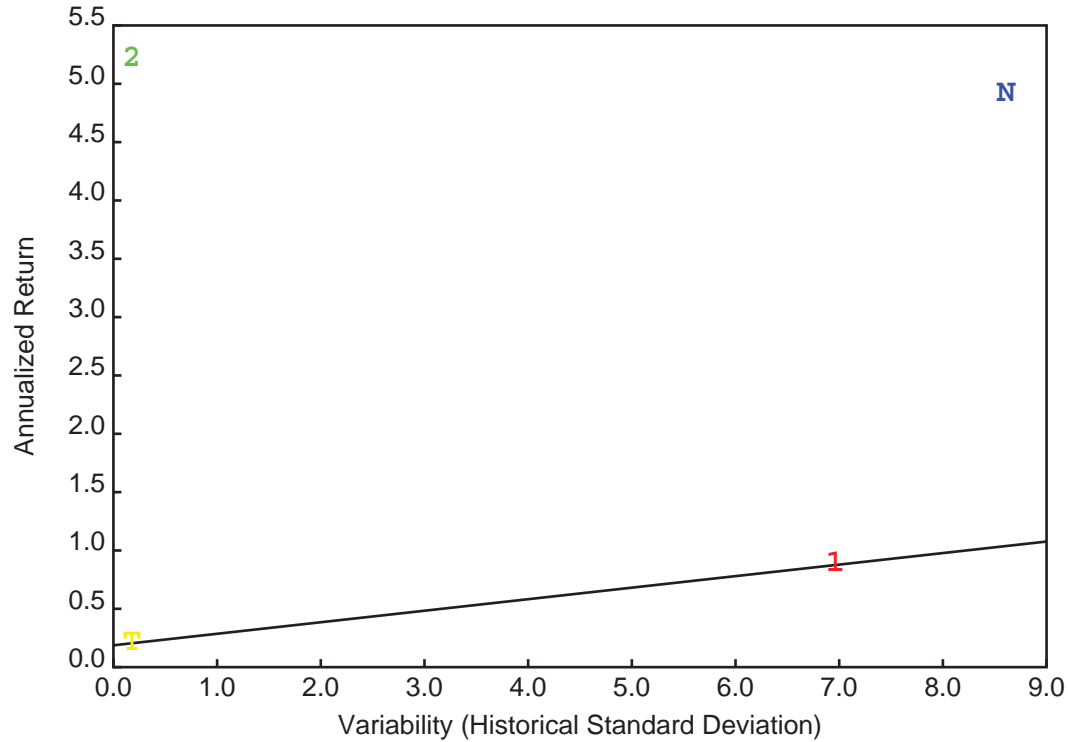
**Quarterly Variance Analysis:**  
Performance attribution was not yet available at the time of this report.

The peer group rankings should not be emphasized as the peer group is new and still evolving.  
(Note: numbers in parentheses reflect actual peer rankings. 1 = high: 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 6/08 to 12/15

Manager Annual Return: +4.91  
 Less: Annual Fee -1.00  
 -----  
 +3.91  
  
 Less: Benchmark Return -0.88  
 -----  
 Net Value-added Result +3.03



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>N</b> Nantucket Institutional	4.91	8.66	4.71	0.54
<b>1</b> HFRI Diversified FoF Index	0.88	7.01	0.68	0.10
<b>2</b> 91-Day Treasury Bill +5%/yr	5.21	0.23	5.00	21.61
<b>T</b> 91-Day Treasury Bill	0.21	0.23	0.00	0.00

Manager Performance vs. Objectives:  
 Portfolio manager exceeds expectations after 7.5 years.

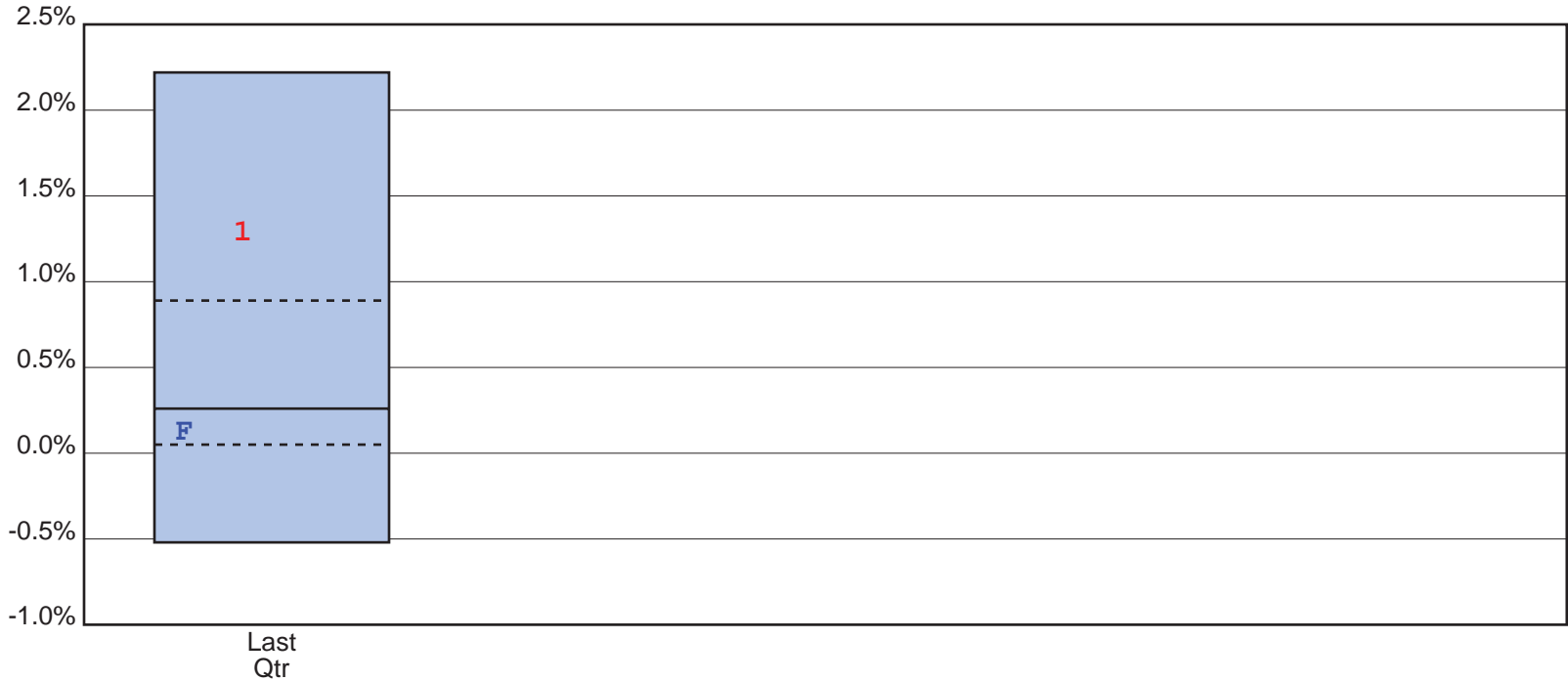
Sharpe Ratio = Reward / Variability



# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Fund of Funds Hedge Funds Periods Ending 12/15

Manager Biography:  
Funded with \$10 million  
during 3Q15.

Fee Schedule: 75 bps



5th Percentile	2.22
25th Percentile	0.89
Median	0.26
75th Percentile	0.05
95th Percentile	-0.52

<b>F</b> Fintan Partners	0.12 (66)
<b>1</b> 91-Day T-Bill +5%/yr	1.28 (15)

**Quarterly Variance Analysis:**  
 Results reflect an estimated return of -0.07% for December 2015.  
 Further performance analysis was not yet available at the time of this report.  
 The peer group rankings should not be emphasized as the peer group is new and still evolving.  
 (Note: numbers in parentheses reflect actual peer rankings. 1 = high: 99 = low)

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Fund of Funds Hedge Funds Periods Ending 12/15



Percentile	Value
5th Percentile	2.22
25th Percentile	0.89
Median	0.26
75th Percentile	0.05
95th Percentile	-0.52

<b>K</b> KStone Partners	-0.31 (91)
<b>1</b> 91-Day T-Bill +3.5%/yr	0.91 (22)

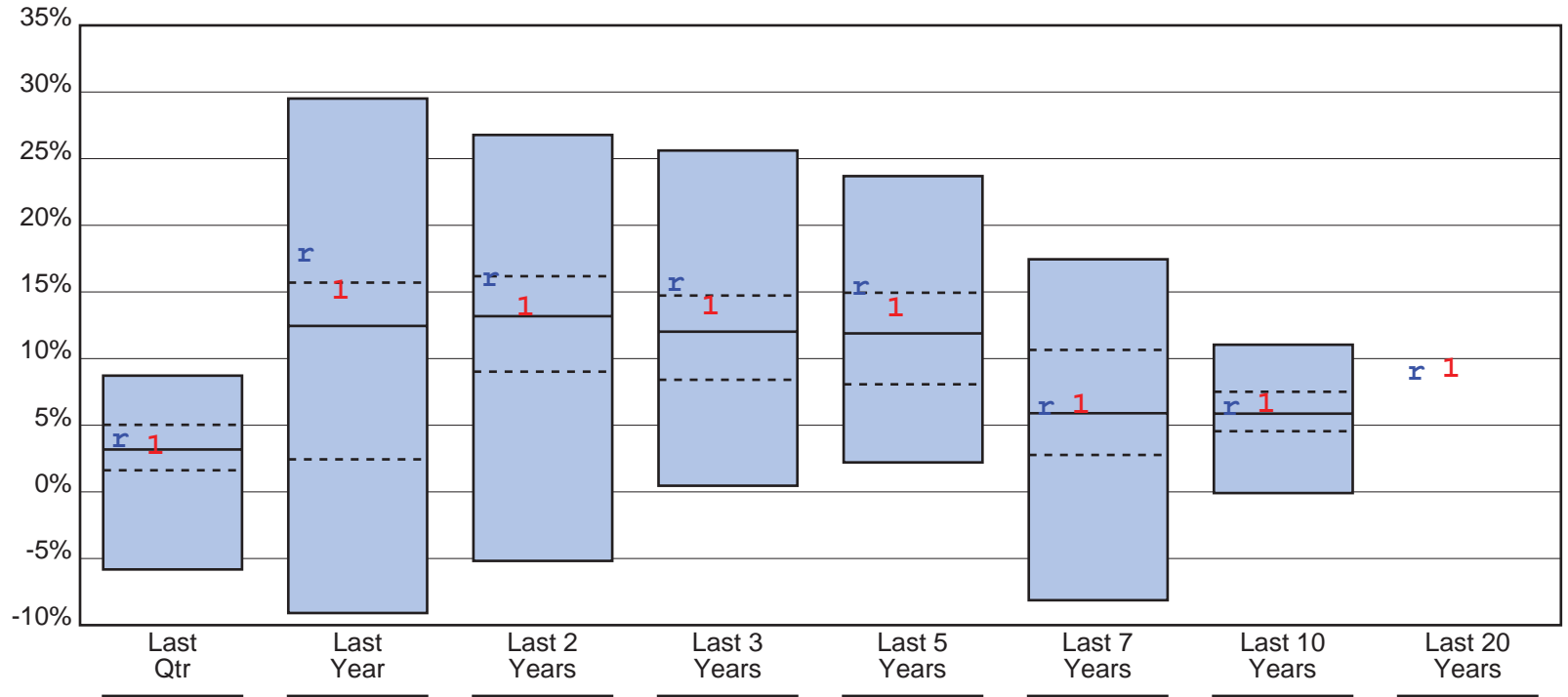
**Quarterly Variance Analysis:**  
 Results reflect an estimated return of +0.02% for December 2015.  
 Further performance analysis was not yet available at the time of this report.  
 The peer group rankings should not be emphasized as the peer group is new and still evolving.  
 (Note: numbers in parentheses reflect actual peer rankings. 1 = high: 99 = low)

Returns for periods greater than one year are annualized.

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/15

Manager Biography:  
Equity Line (12/87)  
\$0.1 mm  
PRISA I (12/90 & 12/98)  
\$7.5 mm  
PRISA II (02/05)  
\$2.2mm from PRISA I

Benchmark transitioned to  
the NFI-ODCE in 3Q07



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
5th Percentile	8.72	29.51	26.78	25.61	23.69	17.45	11.04	
25th Percentile	5.03	15.70	16.18	14.73	14.94	10.65	7.51	
Median	3.18	12.45	13.18	12.02	11.89	5.90	5.87	
75th Percentile	1.62	2.44	9.02	8.41	8.07	2.77	4.55	
95th Percentile	-5.82	-9.09	-5.18	0.46	2.21	-8.13	-0.09	

<b>r</b> PRISA Real Estate Composite	3.89 (35)	17.77 (16)	15.97 (26)	15.62 (21)	15.27 (24)	6.27 (45)	6.29 (41)	8.89
<b>1</b> NFI-ODCE	3.34 (46)	15.01 (32)	13.74 (44)	13.81 (34)	13.66 (34)	6.46 (43)	6.47 (38)	9.13

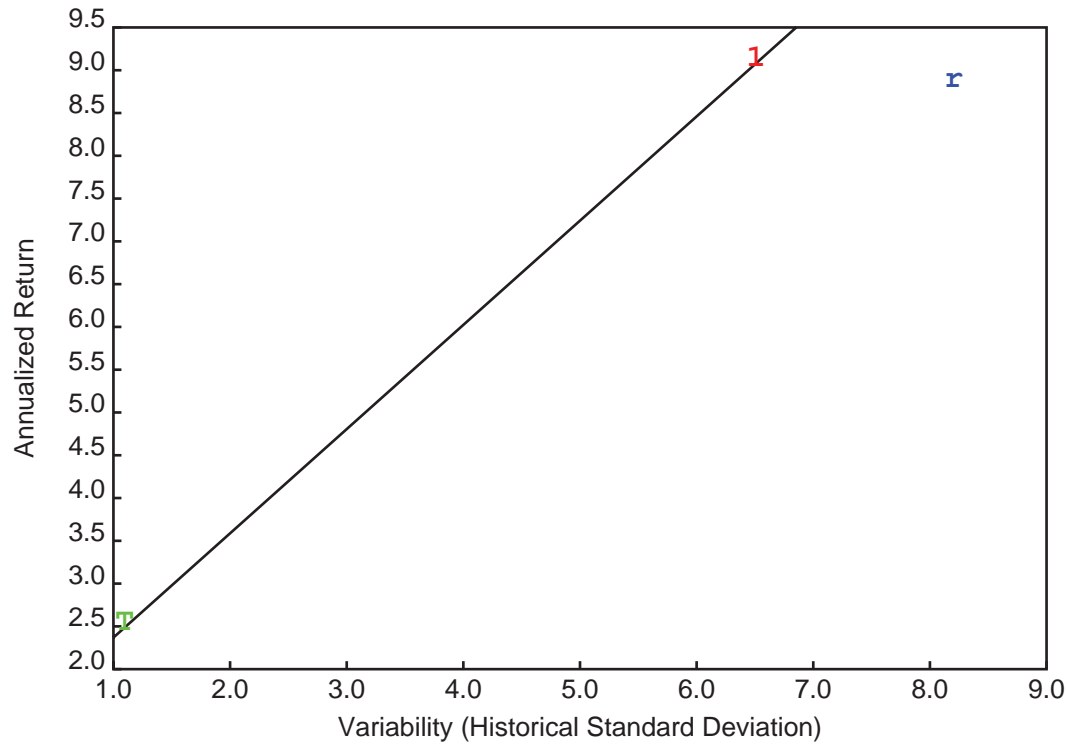
Returns for periods greater than one year are annualized.



## Southfield Fire&Police Retirement System Quarterly Total Return Market Line Analysis Periods from 12/95 to 12/15

Managers Annual Return: +8.89  
 Less: (approx) Annual Fee -0.82  
 -----  
 +8.07

Less: Benchmark Return -9.13  
 -----  
 Net Value-added Result -1.06

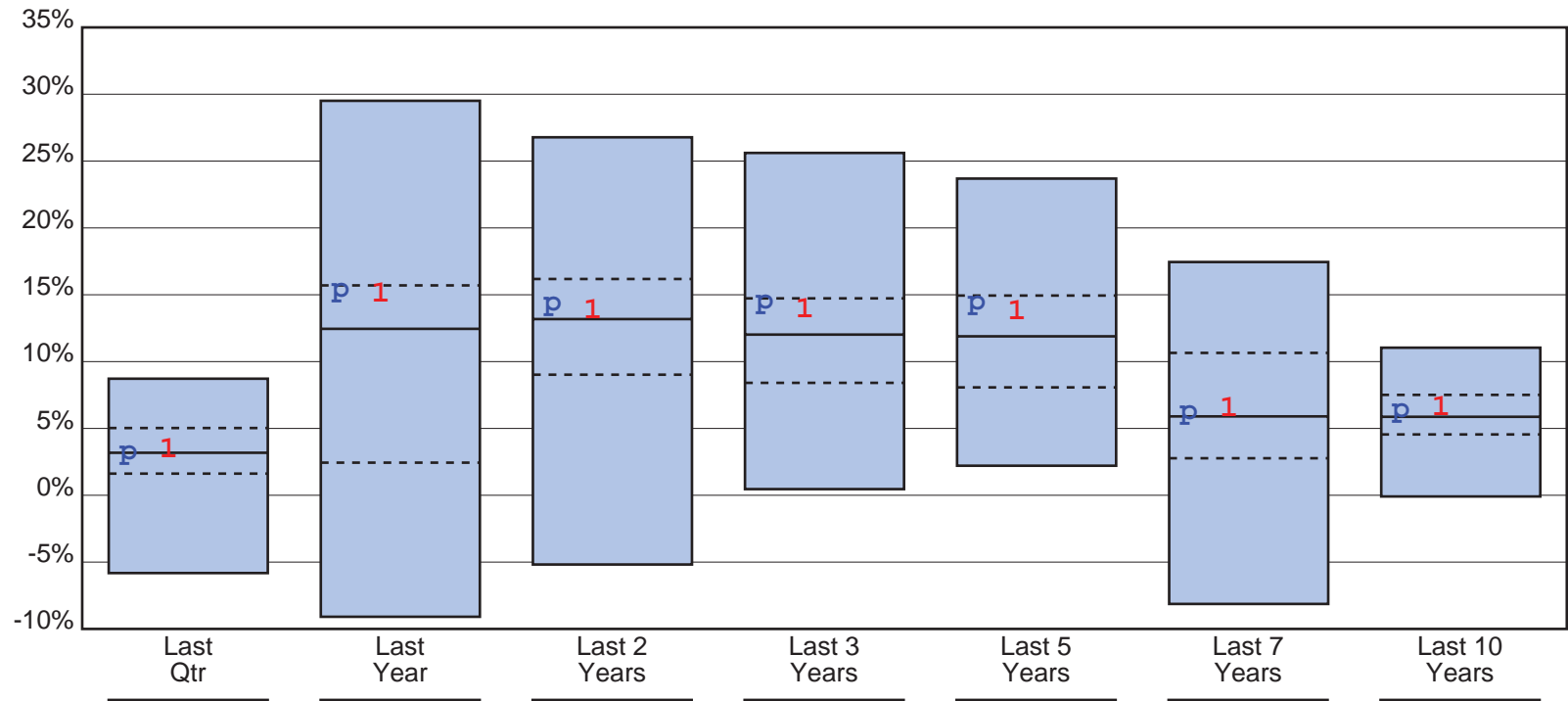


	Annualized Return	Variability	Reward	Sharpe Ratio
<span style="color: blue;">r</span> PRISA Real Estate Composite	8.89	8.25	6.35	0.77
<span style="color: red;">1</span> NFI-ODCE	9.13	6.55	6.59	1.01
<span style="color: green;">T</span> 91-Day Treasury Bill	2.54	1.14	0.00	0.00

Sharpe Ratio = Reward / Variability

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/15

Fee Schedule:  
75 bps first \$10mm  
65 bps next \$15mm  
6% incentive fee of distributed cash flow;  
Max Fee of 120 bps  
  
Current Fee is 75 bps



5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
5th Percentile	8.72	29.51	26.78	25.61	23.69	17.45	11.04
25th Percentile	5.03	15.70	16.18	14.73	14.94	10.65	7.51
Median	3.18	12.45	13.18	12.02	11.89	5.90	5.87
75th Percentile	1.62	2.44	9.02	8.41	8.07	2.77	4.55
95th Percentile	-5.82	-9.09	-5.18	0.46	2.21	-8.13	-0.09
<b>p</b> PRISA I	3.18 (50)	15.36 (29)	14.35 (42)	14.46 (29)	14.39 (29)	6.21 (45)	6.33 (41)
<b>1</b> NFI-ODCE	3.34 (46)	15.01 (32)	13.74 (44)	13.81 (34)	13.66 (34)	6.46 (43)	6.47 (38)

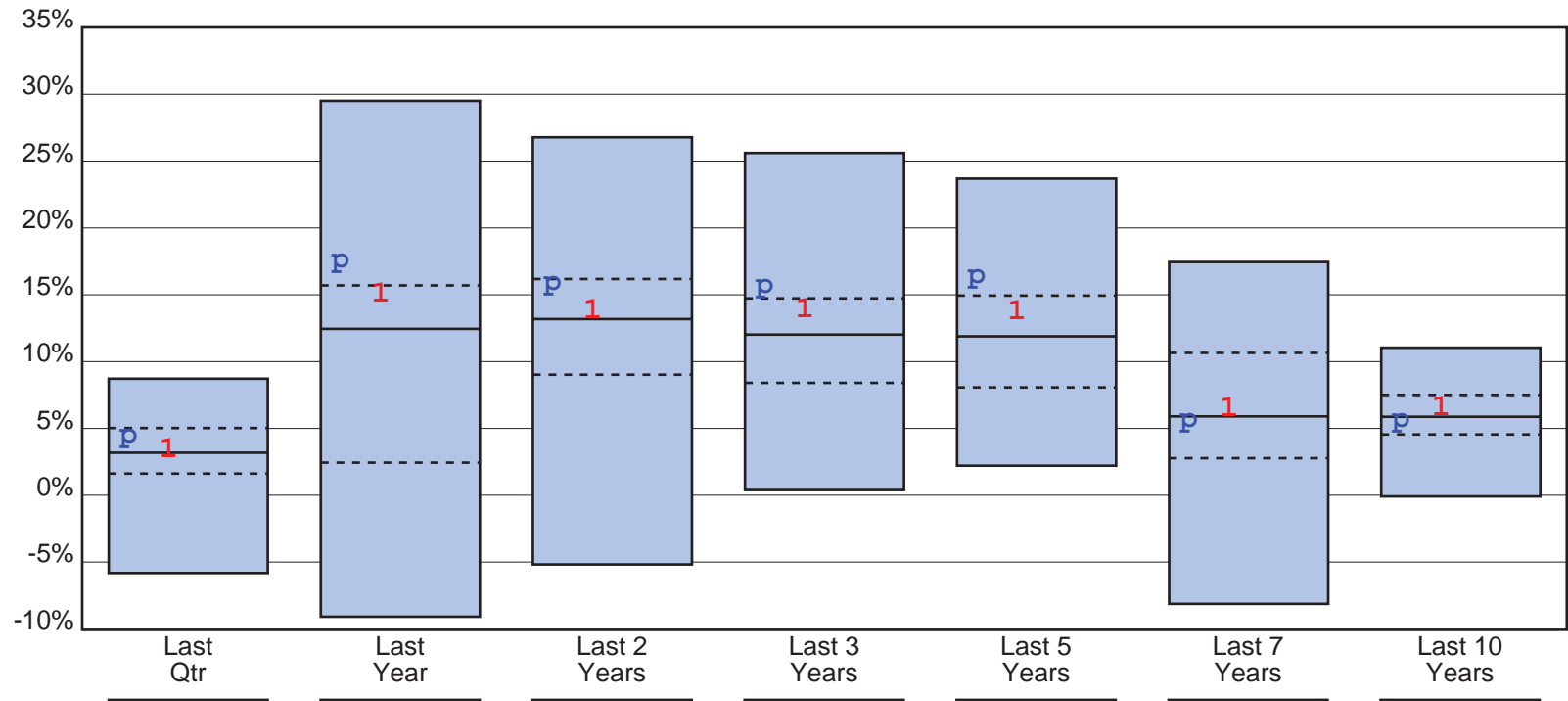
Quarterly Variance Analysis:  
PRISA I provided a 1.21% income return and 1.97% appreciation return.  
Appreciation was driven by properties in Southern California, Boston, and San Francisco.  
  
(Note: numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/15

Fee Schedule: 85 bps  
6% incentive fee of distributed cash flow;  
Max Fee of 130 bps

Current Fee is 85 bps



5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
5th Percentile	8.72	29.51	26.78	25.61	23.69	17.45	11.04
25th Percentile	5.03	15.70	16.18	14.73	14.94	10.65	7.51
Median	3.18	12.45	13.18	12.02	11.89	5.90	5.87
75th Percentile	1.62	2.44	9.02	8.41	8.07	2.77	4.55
95th Percentile	-5.82	-9.09	-5.18	0.46	2.21	-8.13	-0.09
<b>P</b> PRISA II	4.44 (30)	17.54 (16)	15.87 (26)	15.64 (21)	16.38 (17)	5.65 (54)	5.60 (54)
<b>1</b> NFI-ODCE	3.34 (46)	15.01 (32)	13.74 (44)	13.81 (34)	13.66 (34)	6.46 (43)	6.47 (38)

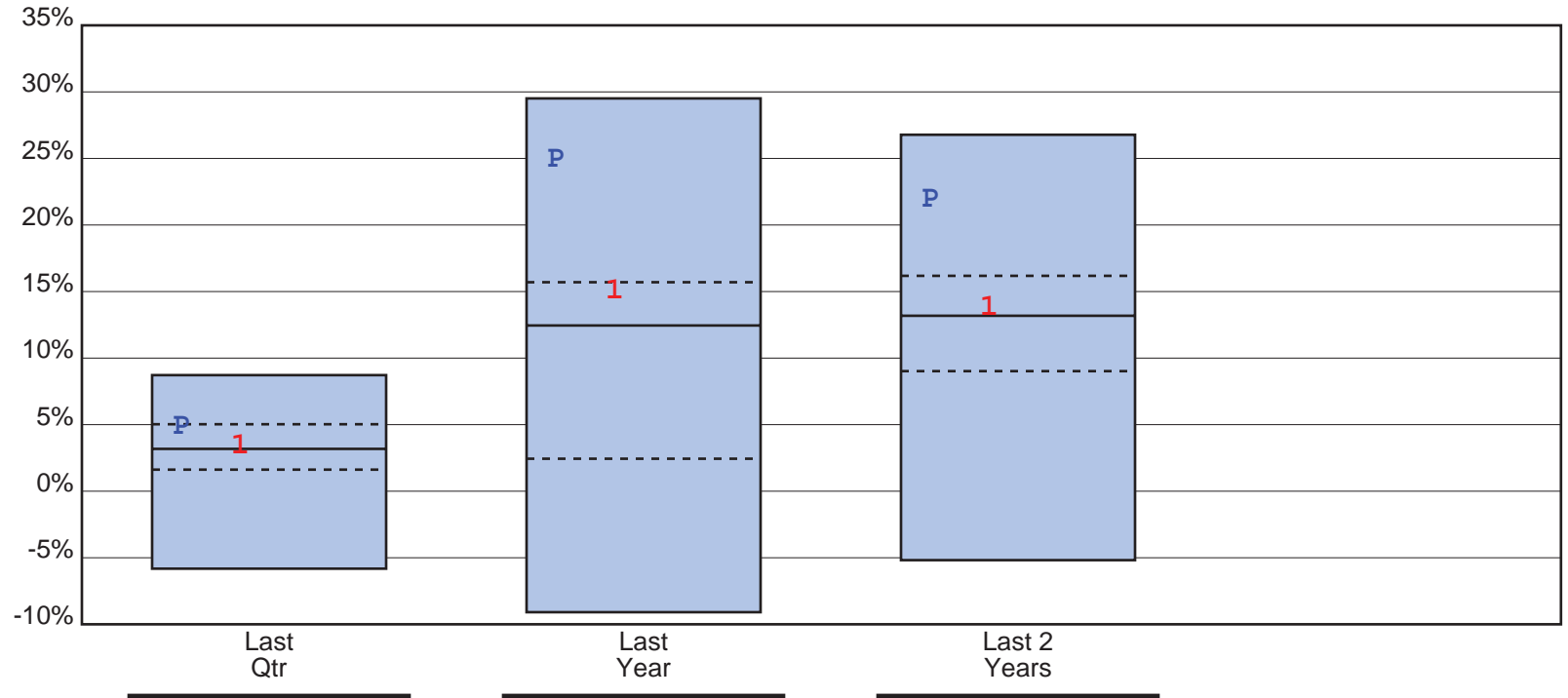
Quarterly Variance Analysis:  
PRISA II provided a 1.28% income return and 3.16% appreciation return.  
Office and Apartment properties were the primary contributors to appreciation gain.  
(Note: numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Southfield Fire&Police Retirement System Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/15

Fee Schedule: 110 bps  
7.5% incentive fee of distributed cash flow;  
Max Fee of 180 bps

Current Fee is 110 bps



5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

	Last Qtr	Last Year	Last 2 Years
<b>P</b> PRISA III	4.80 (27)	24.90 (8)	21.86 (8)
<b>1</b> NFI-ODCE	3.34 (46)	15.01 (32)	13.74 (44)

**Quarterly Variance Analysis:**  
Return contribution consisted of +0.82% from Income and +3.98% from Appreciation.  
Apartment properties were the primary contributor to appreciation gain.  
  
(Note: numbers in parentheses reflect actual peer group rankings. 1 = high; 99 = low)

**Southfield Fire & Police Retirement System**  
**Summary of Alternative Investments**  
**Period Ending: September 30, 2015**  
**(One Quarter in Arrears)**

Manager	Vintage Year	Committed Capital	Called Capital	% Called	Distributions			Fair Mkt Value <sup>1</sup>	Dist. Multiple <sup>2</sup>	MoCC <sup>3</sup>	Indic. IRR <sup>4</sup>
					Return of Capital	Income	Total				
JCR Capital - JCR Fund II	2012	\$5,000,000	\$4,752,071	95%	\$2,364,850	\$731,211	\$3,096,060	\$2,823,057	0.65	1.25	16.0%
JCR Capital - JCR Fund III	2014	\$10,000,000	\$3,439,386	34%	\$0	\$34,124	\$34,124	\$3,783,886	0.01	1.11	N/A
<b>Total</b>		\$15,000,000	\$8,191,458	55%	\$2,364,850	\$765,335	\$3,130,185	\$6,606,943	0.38	1.19	

Quarterly Analysis:

Target IRR (net) for the life of JCR Capital Fund II is 15%. The expected life for JCR Finance Fund II is through February 2017. The Fund made its final investment in September 2014. It is focused on harvesting existing investments. There were two distributions during 3Q15 totaling \$541,841.84. There was also a distribution subsequent to the end of 3Q15 totaling \$479,204.53. The Fund realized one transaction during 3Q15. All other investments are performing as planned.

Target IRR (net) for the life of JCR Capital Fund III is 15%. The expected life for JCR Fund III is 5 years from the Final Close, which occurred on January 14, 2016. There was a capital call during the quarter totaling \$664,518.06. The Fund made two new investments during the quarter. All underlying investments are performing as planned.

**Fees**

JCR CRE Finance Fund II

Management Fee: 1.5% per annum on Committed Capital during the investment period. 1.5% per annum on unreturned, Called Capital thereafter.  
 Incentive Fee: 20% after a 9% annual non-compounding Preferred Return and return of all Called Capital.

JCR CRE Finance Fund III

Management Fee: 1.5% per annum on Committed Capital during the investment period. 1.5% per annum on unreturned, Called Capital thereafter.  
 Incentive Fee: 20% after a 9% annual non-compounding Preferred Return and return of all Called Capital.

**Footnotes**

<sup>1</sup>Fair Market Value represents all Called Capital plus Net Income or Loss less Capital Distributions and is net of management fees, partnership expenses and carried interest.

<sup>2</sup>Distribution Multiple - measure of Total Distributions paid to the investor relative to the total Called Capital (Realized Return)

<sup>3</sup>Multiple of Called Capital - measure of the Total Distributions paid to investors plus the Fair Market Value of the unrealized investments relative to total Called Capital (Total Return)

<sup>4</sup>Indicated IRR is based on the cash flows that have occurred since inception with the quarter's FMV representing the final cash flow. Final IRR for the Fund(s) will be determined after all investments have been realized and the Fund's life concludes.

*Note: Distribution Multiple, Multiple of Called Capital and IRR are net of all fees and expenses*

# Southfield Fire & Police Retirement System

## About This Report

The Board of Trustees of the Southfield Fire and Police Retirement System retained Asset Strategies Portfolio Services, Inc. to evaluate the performance of the external investment managers. LS Investment Advisors, Northern Trust Global Advisors, Loomis Sayles & Company, Morgan Dempsey, 1607 Capital, Brandes, INVESCO, Bradford & Marzec, Nantucket, Fintan, KStone, Prudential Real Estate Investors, and JCR Capital are the investment managers.

Northern Trust invests the Plan's cash and holds various commingled investment funds.

This report was prepared using data compiled from the monthly custodial statements provided by the Northern Trust Company. Asset Strategies does not warrant the accuracy of data provided to us by others, but does attempt to obtain and utilize reliable information.

This report contains analysis of both the total fund and the individual managers' performance over various time periods. The returns calculated by investment managers will occasionally differ (albeit slightly) from the returns calculated by Asset Strategies. This difference is generally explained by any one or a combination of the following: a) managers account for securities purchases, sales, and cash flows on a mid-month basis, while Asset Strategies accounts for transactions on the date of occurrence, b) the pricing sources used by the managers are different from the sources used by the custodian, c) managers report purchases and sales on a trade date basis, while custodial banks generally report on a settlement date basis, d) managers and custodians differ in their method and timing in accounting for accrued income.

Performance for periods greater than one year is annualized and gross-of-fees, unless stated otherwise. Prior investment results are not a guarantee of future performance.

# Southfield Fire & Police Retirement System

## Investment Policy Summary

(amended October 2015)

### Investment Objectives:

- \*To earn an average annual return of 7.75% over rolling five-year periods.
- \*To earn an average annual, real return of 3.75% after inflation over rolling five-year periods.
- \*To meet the assumed actuarial rate of return with a high-degree of probability.
- \*To rank in the 50th percentile over twelve month rolling periods and in the 40th percentile over rolling five-year periods, among public employee retirement funds.

### Managers' Objectives:

- \*To exceed their performance return standard with equal or less risk over all three-year periods.

### Asset Allocation Policy:

<u>Asset Class</u>	<u>Target</u>	<u>Ranges</u>
U.S. Equities	34%	30-70%
Non-U.S. Equities	16%	10-20%
Global Fixed Income	20%	20-50%
Real Estate	14%	0-20%
Alternative Investments	16%	0-20%
Cash Equivalents	0%	0-1%

### Equity Portfolios:

- \*No more than 5% of the portfolio may be invested in the stock of any one company.
- \*No more than 10% of the portfolio may be invested in ADRs.

### Fixed Income Portfolios:

- \*No more than 5% of the portfolio may be invested with one issuer, except for U.S. Treasury and Agency securities.
- \*No more than 15% of the portfolio in below investment grade.
- \*No more than 30% of total assets in non-U.S. dollar denominated securities. At least 75% of any non-U.S. currency exposure must be hedged. May invest beyond the 30% limit in Yankee and Euro issues.

### Other Portfolio Guidelines:

- \*Managers are expected to be fully invested at all times. However, they may raise cash if this is deemed appropriate under the circumstances.
- \*Leveraging the portfolio is prohibited.
- \*Derivative contracts only as permitted
- \*Additional investment policies and guidelines are contained in the formal Statement Investment Policies, Procedures, and Objectives.
- \*All investment managers should follow State of Michigan laws governing the investment of public retirement plan assets.

# GLOSSARY

<b>Policy Index:</b>	the expected performance result each period, calculated using the asset mix targets x the market index returns
<b>Manager Peer Group:</b>	a relative performance benchmark consisting of a group of managers with similar investment styles, philosophies, and processes
<b>Risk:</b>	the variation of a portfolio's returns around its average return over the specified period (standard deviation)
<b>Blue-Chip Stocks:</b>	generally large stable companies that have consistent earnings and usually have long-term growth potential the Dow Jones Industrial Average of 30 stocks is considered a blue chip index
<b>Cyclical Stocks:</b>	generally stocks whose prices and earnings fluctuate with the business cycle examples include automotive manufacturers, steel producers, and textile operations
<b>"Large Cap" Stocks: (Large-Capitalization)</b>	stocks of companies with a market capitalization (the total value of a company's outstanding stock) of more than \$12 billion generally stocks that make up the Dow Jones Industrial Average, the S&P 500, and the Russell 1000
<b>"Mid Cap" Stocks: (Medium-Capitalization)</b>	stocks of companies with a market capitalization (the total value of a company's outstanding stock) of between \$2 and 12 billion generally stocks that make up the S&P 400 and the Russell 2500
<b>"Small Cap" Stocks: (Small-Capitalization)</b>	stocks of companies with a market capitalization (the total value of a company's outstanding stock) of less than \$2 billion generally stocks that make up the S&P 600 and the Russell 2000
<b>Growth Stocks:</b>	stocks of companies that have experienced above-average earnings growth and are expected to continue such growth these stocks often sell at high P/E ratios ... examples include high-tech, healthcare, and financial services companies
<b>Value Stocks:</b>	stocks that are undervalued on a historical basis ... typically characterized by low P/E ratios and higher than average (dividend) yields
<u>Equity Sector Composition:</u>	
<b>Energy:</b>	energy equipment and services and oil/gas explorations, manufacture, and distribution industries
<b>Materials:</b>	chemicals, construction materials, containers & packaging, metals & mining, and paper & forest products industries
<b>Consumer Discretionary:</b>	automobiles and components, consumer durables and apparel, hotels/restaurants and leisure, media, and retail industries
<b>Consumer Staples:</b>	food and drug retailing, food/beverage and tobacco, and household/personal products industries
<b>Healthcare:</b>	healthcare equipment and services, pharmaceuticals, and biotech industries
<b>Financials:</b>	banks, diversified financials, insurance, and real estate industries
<b>Information Technology:</b>	software and services, computer hardware, and networking equipment industries
<b>Telecommunications:</b>	diversified hard-wire and wireless telecommunications and services industries
<b>Utilities:</b>	electric, gas, water, nuclear, and multi-utilities industries
<u>Fixed Income Sector Composition:</u>	
<b>Corporate:</b>	debt obligations of corporations secured by collateral and/or the creditworthiness of the issuing corporation sub-sectors include Finance, Industrial, Transportation, Utilities, CBO's, and Asset-backed
<b>Mortgage-backed:</b>	securities backed by public and private mortgage pools ... investors receive the monthly mortgage payments less any administrative fees, including interest, principal, and prepayments on the mortgage pool ... these instruments are typically issued by a federal or governmental agency
<b>Treasuries:</b>	debt obligations of the U.S. government secured by its full faith and credit issued at various schedules and maturities
<b>Maturity:</b>	date when the principal or stated value of a fixed income security becomes due and payable in full to the bondholder(s)
<b>Yield:</b>	the return to a bondholder who holds a bond security under it matures
<b>Yield-to-Maturity:</b>	the internal rate of return on a bond bought at the current price and held to maturity ... this assumes that coupon income is reinvested at the Y-t-M



## GLOSSARY (continued)

### Risk Measure and Risk Statistics Summary Exhibits:

<b>Historical Beta:</b>	a measure of the volatility of the portfolio in comparison to its benchmark ... also considered to be a measure of the systematic risk of a portfolio
<b>Historical Alpha:</b>	the excess return of the portfolio relative to the return of its benchmark (due to the manager's security and/or sector selections)
<b>R-Squared:</b>	a measure that represents the percentage of a portfolio's movement that can be explained by movement in its benchmark index
<b>Standard Deviation:</b>	a statistical measure of portfolio risk ... it reflects the average deviation of the observations from their historical mean
<b>Tracking Error:</b>	the divergence between the price behavior of the portfolio and the price behavior of its benchmark
<b>Sharpe Ratio:</b>	a risk-adjusted measure of performance ... the higher, the better the portfolio's return gained per unit of risk taken
<b>Treynor Ratio:</b>	measures the excess return per unit of systematic "market" risk taken in a portfolio
<b>Information Ratio:</b>	measures the excess return per unit of residual "non-market" (specific to the manager) risk in a portfolio
<b>Residual Risk:</b>	the unsystematic, firm-specific, or diversifiable risk of a security or portfolio
<b>Downside Risk:</b>	differentiates between "good" risk (upside volatility) and "bad" risk (downside volatility)
<b>Up Market Capture Ratio:</b>	the percentage of the total market movement achieved by the manager during a period in which the benchmark performance increases
<b>Down Market Capture Ratio:</b>	the percentage of the total market movement achieved by the manager during a period in which the benchmark performance decreases
<b>Batting Average:</b>	a measure that represents an investment manager's ability to meet or beat an index