

# Park Ridge Police Pension Fund

200 South Vine Avenue Park Ridge, Illinois 60068 (847) 318-5252

Quarterly Meeting  
July 26th, 2016  
10am

Second Floor Conference Room

Approval of Past Minutes  
Sikich Accounting  
Expenditures/Warrant Disbursements  
Financial Reports-Graystone Consulting  
Criteria for Mutual Fund Watch  
Attorney Atwell  
DOI Security Administrator  
Police Officer Status  
Myles Klein/Daniel Alonso  
Retiree Doug Dostert  
Szpiganowicz/Duggan Medicals  
Lauterbach and Amen Proposal  
Trustee Training  
Fiduciary Insurance  
Board Elections  
Roll Call Voting

Citizens to be heard 3 minutes each

Adjournment

**PARK RIDGE POLICE PENSION FUND  
BOARD OF TRUSTEES  
April 26<sup>th</sup>, 2016 REGULAR QUARTERLY MEETING  
MINUTES**

Pursuant to public notice, a regular quarterly meeting of the Board of Trustees of the Park Ridge Police Pension Fund was held on Tuesday, April 26<sup>th</sup>, 2016 at 10:00 at City Hall, 505 Butler Place, Park Ridge, Illinois.

Call to Order: President Laura Kappler called the meeting to order at 10:05 a.m. Trustee Kappler took a roll call vote of trustees. Present were trustees Laura Kappler, James Stonebridge, Carl Brauweiler and Duane Mellema. Robert Kristie was absent. Also in attendance was Brian LeFevre from Sikich LLP, Charles Atwell the board attorney, and Mary Tomanek from Graystone Consulting, Alderman John Moran, City Secretary Julie Zarlenga and the City of Park Ridge Finance Director Joe Gilmore.

Approval of Minutes: The Trustee reviewed the minutes from the January 26<sup>th</sup>, 2016. Upon a motion by Carl Brauweiler, seconded by James Stonebridge the minutes were unanimously approved by the board.

Investment Report: Mary Tomanek from Graystone Consulting a business of Morgan Stanley presented the quarterly investment report. She reviewed the performance of the portfolio and made recommendations. She recommended moving from Cambiar to JP Morgan. She stated there was approximately \$3.1 in assets. A motion was made by Jim Stonebridge to move one third of the assets or 1,000,050 not to exceed \$1.1 million from Cambiar to JP Morgan income select and the same for share class Investico. It was seconded by Carl Brauweiler. A roll call vote was taken: "Yeas - Mellema, Kappler, Stonebridge, and Brauweiler. "Nays – none.

In other business a draft asset allocation was done by Mary and presented to the board. The board wanted it to be part of the minutes going forward along with adding language that will require a re-balance to target when there are changes. Jim Stonebridge moved to adopt the target min/max as targets going forward and Carl Brauweiler seconded it. A roll call vote was taken "Yeas – Brauweiler, Stonebridge, Mellema, and Kappler. "Nays – none.

A motion was made by Jim Stonebridge to re-balance half or \$250,000 from Ziegler and Red Granite to JP Morgan and Investco and seconded by Mellema. A roll call vote was taken: "Yeas – Mellema, Brauweiler, Stonebridge and Kappler. "Nays –none.

Lastly, discussion about mutual fund watch criteria was presented and placed on the July agenda for discussion.

A motion was made by Jim Stonebridge and seconded by Carl Brauweiler to approve the investment financial report as submitted dated March 31<sup>st</sup>, 2016. A roll call vote was taken: "Yeas – Mellema, Kappler, Stonebridge and Brauweiler. "Nays" – none.

Election Results:

Ballots Results for Active and retired trustees on the board as presented by Duane Mellema.

Active Officers

55 sent out 25 returned

Officer Orta 21

Officer Moehrlin 19

Cmdr Shaughnessy 8

Sgt Luehr (write In) 1

Officer Orta and Moehrlin voted onto the board.

Retiree

38 Sent out 30 returned

Ret Officer Kappler 30

Retired Officer Laura Kappler voted onto the board.

A motion was made by Duane Mellema to accept the election results and seconded by Jim Stonebridge.

All were in favor of the motion.

A review of the investment request for proposal results from the April 5<sup>th</sup> meeting was discussed.

Although both Marquette Associates and Sawyer Falduto were both professional and in line with the fees the board voted in favor of staying with Mary Tomanek from Graystone Consulting.

A motion was made by Carl Brauweiler to stay with Graystone Consulting and Duane Mellema seconded the motion. A roll call vote was taken: "Yeas – Mellema, Brauweiler, Kappler and Stonebridge. "Nays – none.

Jim Stonebridge will send out letters to Sawyer and Falduto and Marquette Associates in the coming days.

Trustee Duane Mellema left the meeting after the vote. (11:55am)

Accounting Firm: Brian LeFevre from Sikich presented the financial statement for the 11 months ending March 31<sup>st</sup>, 2016. He reviewed the report and the various schedules included. He also reviewed the finances, the investments that are coming due and the tax levy payments schedule. In June and November there will be two maturities totaling approximately 4.1 million dollars.

A motion was made by Jim Stonebridge to approve the accounting financial report dated March 31<sup>st</sup>, 2016 and it was seconded by Carl Brauweiler. A roll call vote was taken: "Yeas" – Brauweiler, Kappler and Stonebridge. "Nays" – none.

The warrant disbursement sheet for the past three months totaling \$838,295.03 was presented to the board by Sikich. A motion was made by Carl Brauweiler and seconded by Jim Stonebridge to accept the expenditure report ending March 31<sup>st</sup>, 2016. A roll call vote was taken: "Yeas" – Brauweiler, Kappler, and Stonebridge. "Nays" – none.

Brian asked Joe Gilmore to provide them with the officer's pensionable salaries as of April 30, 2016 for the annual report. He also asked for up to date info on Officer Abbinante's pension contributions.

Over the past two years the city has been using Lauterbach and Amen to do an independent actuary report on behalf of the police pension fund. At this time since Tim Sharpe does not provide the needed information on GASB standards as part of the report. The city does need the info for their reports.

Discussion was had about getting a proposal from Todd Schroeder of Lauterbach and Amen to complete the upcoming actuary report. Charlie Atwell stated the board should get a proposal and then have a special meeting to have the board vote on using them. President Kappler asked Joe Gilmore if the city would split the cost and he said they would. President Kappler said she would get a proposal and a special meeting will be scheduled to vote on the proposal. President Kappler asked if everyone was in agreement that they would switch over to Lauterbach and Amen. Trustee Stonebridge and Mr. Hejza noted their agreement by saying yes. Trustee Stonebridge went out and solicited three other proposals that will be discussed at the special meeting.

Attorney Atwell Report:

Attorney Charles Atwell said there's still a lot pending in Springfield regarding the consolidation issues. He said there was a bill that was attached to the PSEBA benefits that will affect people on disability. He went over the open meetings act and told them they need to include any issue or topic that might impact a person's benefits when voted on their agenda's. He cautioned that if they did not include items being voted on their agenda's that they would be in violation of the Open Meetings Act. He said that notification needs to be done to the individual of the meeting they will be voting on and the vote needs to be recorded in the minutes. If it is not recorded in the minutes there could be an issue taken with the action and could be a potential concern.

Retiree and Officer Status Update:

Officer Daniel Alonso has resigned his employment with the city and gone to the City of Des Plaines Police Department effective February 16, 2016. He will be contacted in reference to portability of his pension contributions.

Retired Officer Douglas Dostert passed away on April 3<sup>rd</sup>, 2016 he was 71 years old. Duane Mellema issued his wife Linda a widow's application and was told to get a death certificate for the fund. He retired on October 8<sup>th</sup>, 1999. His current yearly benefit is \$63,071.28.

Signor on Account:

With the election that created two new active officers and one new mayoral appointee to the board. Replaced were Duane Mellema, Robert Kristie, and Carl Brauweiler. The board would like to thank all of these trustees for their dedicated time and service to the pension fund.

With the new members there needs to be new signor's on the bank account. I propose Jim Stonebridge and Jon Moehrlin be on the account to sign checks. Two signatures are needed for the checks. Carl made a motion to put Stonebridge and Moehrlin on the account at Graystone for next fiscal year and it was seconded by Jim Stonebridge. All were in favor of this change.

Adjournment: On a motion made by Jim Stonebridge and seconded Laura Kappler the meeting was adjourned at 1:15 p.m. Approved unanimously carried in a roll call vote.

Respectfully submitted,

\_\_\_\_\_  
Laura Kappler, President

\_\_\_\_\_  
Robert Kristie, Secretary

Approved by the Board of Trustees on July, 26<sup>th</sup>, 2016  
These minutes were prepared by Laura Kappler

**CITY OF PARK RIDGE, ILLINOIS  
POLICE PENSION FUND**

**ACCOUNTANT'S COMPILATION REPORT**

For the Year Ended  
April 30, 2016



**CITY OF PARK RIDGE, ILLINOIS**  
**POLICE PENSION FUND**  
**TABLE OF CONTENTS**

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	<u>Page(s)</u>
ACCOUNTANT'S COMPILATION REPORT.....	1
GENERAL PURPOSE FINANCIAL STATEMENTS	
Statement of Fiduciary Net Position .....	2
Statement of Changes in Fiduciary Net Position .....	3
SUPPLEMENTARY INFORMATION	
Balance Sheet .....	4-5
Cash and Investments Chart.....	6
Revenue Report.....	7-8
Revenues Chart .....	9
Expense Report .....	10
Expenses Chart.....	11
Member Contributions Report .....	12-13
Property Tax Revenue Collections Analysis.....	14



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**Certified Public Accountants & Advisors**  
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## ACCOUNTANT'S COMPILATION REPORT

The Honorable President  
Members of the Board of Trustees  
City of Park Ridge Police Pension Fund  
Park Ridge, Illinois 60068

Management is responsible for the accompanying statement of fiduciary net position of the City of Park Ridge Police Pension Fund, a pension trust fund of the City of Park Ridge, Illinois, as of April 30, 2016 and the related statement of changes in fiduciary net position for the year ended April 30, 2016. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

The supplementary information is presented for purposes of additional analysis and is not a required part of the general purpose financial statements. The supplementary information has been compiled from information that is the representation of management. We have not audited or reviewed the supplementary information and, accordingly, do not express an opinion or provide any assurance on such supplementary information.

Management has elected to omit substantially all of the disclosures required by accounting principles generally accepted in the United States of America. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Police Pension Fund's assets, liabilities, net position, additions and deductions. Accordingly, these financial statements are not designed for those who are not informed about such matters.

*Sikich LLP*

Naperville, Illinois  
June 3, 2016

**GENERAL PURPOSE FINANCIAL STATEMENTS**

**Park Ridge Police Pension Fund**  
Statement of Fiduciary Net Position  
April 30, 2016

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**ASSETS**

Cash and Investments	
Demand Deposits	\$ 2,341,452.51
US Treasury Bonds	3,025,000.00
Federal Farm Credit Bank	3,000,000.00
Federal Home Loan Bank	8,445,549.41
Unrealized Gains (Losses)	1,532,778.34
Stock Equities	12,157,793.26
Mutual Funds	12,184,958.82
Receivables	
Prepays	15,153.69
Accrued Interest Receivable	<u>286,279.44</u>
 Total Assets	 42,988,965.47

**LIABILITIES**

Accounts Payable	<u>3,898.43</u>
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**NET POSITION HELD FOR PENSION BENEFITS** \$ 42,985,067.04

(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
Statement of Changes in Fiduciary Net Position  
For the Year Ended April 30, 2016

**ADDITIONS**

Contributions

Employer Contributions	\$ 2,027,060.19
Employee Contributions	<u>482,743.53</u>

Total Contributions	<u>2,509,803.72</u>
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Investment Income

Net Appreciation (Depreciation)  
in Fair Value of Investments

Fixed Income Securities	(372,219.50)
Mutual Funds	(552,688.11)
Stock Equities	17,697.64

Interest

Demand Deposits	665.64
Fixed Income Securities	826,669.71
Stock Equities	188,294.20
Mutual Funds	<u>263,870.72</u>

Total Investment Income	372,290.30
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Less Investment Expense	<u>(140,591.69)</u>
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Net Investment Income	<u>231,698.61</u>
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Total Additions	<u>2,741,502.33</u>
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**DEDUCTIONS**

Pension Benefits and Refunds

Pension Benefits	3,086,776.77
Refund of Contributions	68.64

Administrative Expenses

Professional Services	23,545.00
Other Expenses	<u>12,443.51</u>

Total Deductions	<u>3,122,833.92</u>
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Net Increase (Decrease)	(381,331.59)
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Net Position Held in Trust for Pension Benefits

May 1	<u>43,366,398.63</u>
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<b>End of Period</b>	<u><u>\$ 42,985,067.04</u></u>
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(See accountant's compilation report.)

**SUPPLEMENTARY INFORMATION**

**Park Ridge Police Pension Fund**

Balance Sheet

April 30, 2016

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**Demand Deposits**

0-0-1102.002	CK - MSSB CHECKING #225-918793	\$ 1,215.44
0-0-1104.003	MM - MSSB #225-918766	1,123,892.16
0-0-1105.001	MM - MSSB #225-918721	333,825.50
0-0-1105.003	MM - MSSB #225-918730	323,279.28
0-0-1105.004	MM - MSSB #225-918745	62,240.62
0-0-1105.005	MM - MSSB #225-918747	51,985.39
0-0-1105.006	MM - MSSB #225-918746	434,862.57
0-0-1105.007	MM - MSSB #225-918770	10,151.55

Total Demand Deposits 2,341,452.51

**US Treasury Bonds**

0-0-1255.001	US TREAS BOND #DX3 DUE 11/15/16	<u>3,025,000.00</u>
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Total US Treasury Bonds 3,025,000.00

**Federal Farm Credit Bank**

0-0-1284.002	FFCB #XT1 DUE 6/5/19	1,000,000.00
0-0-1284.003	FFCB #4P2 DUE 11/6/17	1,000,000.00
0-0-1284.004	FFCB #VR8 DUE 2/27/18	<u>1,000,000.00</u>

Total Federal Farm Credit Bank 3,000,000.00

**Federal Home Loan Bank**

0-0-1286.005	FHLB BONDS #PR1 DUE 6/10/16	1,109,782.23
0-0-1286.006	FHLB BONDS #VS7 DUE 12/11/20	1,000,000.00
0-0-1286.007	FHLB BONDS #KF2 DUE 6/11/21	1,117,632.55
0-0-1286.008	FHLB BONDS #6E9 DUE 6/12/26	1,117,659.16
0-0-1286.009	FHLB BONDS #FY2 DUE 9/30/22	1,100,475.47
0-0-1286.010	FHLB BONDS #4B2 DUE 12/9/22	1,000,000.00
0-0-1286.011	FHLB BONDS #EW8 DUE 8/15/24	<u>2,000,000.00</u>

Total Federal Home Loan Bank 8,445,549.41

**Unrealized Gains (Losses)**

0-0-1300.001	UNREALIZED GAINS (LOSSES)	<u>1,532,778.34</u>
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Total Unrealized Gains (Losses) 1,532,778.34

(This statement is continued on the following page.)

**Park Ridge Police Pension Fund**

Balance Sheet (Continued)

April 30, 2016

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**Stock Equities**

0-0-1450.001	MSSB #225-918721	\$ 3,627,769.38
0-0-1450.003	MSSB #225-918730	2,640,724.79
0-0-1450.004	MSSB #225-918745	1,646,506.12
0-0-1450.005	MSSB #225-918747	1,512,105.72
0-0-1450.006	MSSB #225-918746	<u>2,730,687.25</u>

Total Stock Equities 12,157,793.26

**Mutual Funds**

0-0-1550.004	EUROPACIFIC GROWTH FUND	1,088,936.31
0-0-1550.005	MAINSTAY ICAP INTL FD	890,838.88
0-0-1550.006	VANGUARD TOTAL STK MKT	8,372,230.22
0-0-1550.007	INVESCO EUROPEAN GROWTH	823,592.67
0-0-1550.008	VANGUARD SM CAP IDX INV	<u>1,009,360.74</u>

Total Mutual Funds 12,184,958.82

**Receivables**

0-0-1800.000	PREPAIDS	15,153.69
0-0-1900.000	ACCRUED INTEREST RECEIVABLE	<u>286,279.44</u>

Total Receivables 301,433.13

**TOTAL ASSETS**

\$ 42,988,965.47

**LIABILITIES**

0-0-2000.00	ACCOUNTS PAYABLE	<u>\$ 3,898.43</u>
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Total Liabilities 3,898.43

**Fund Balance**

0-0-3000.001	FUND BALANCE	<u>42,985,067.04</u>
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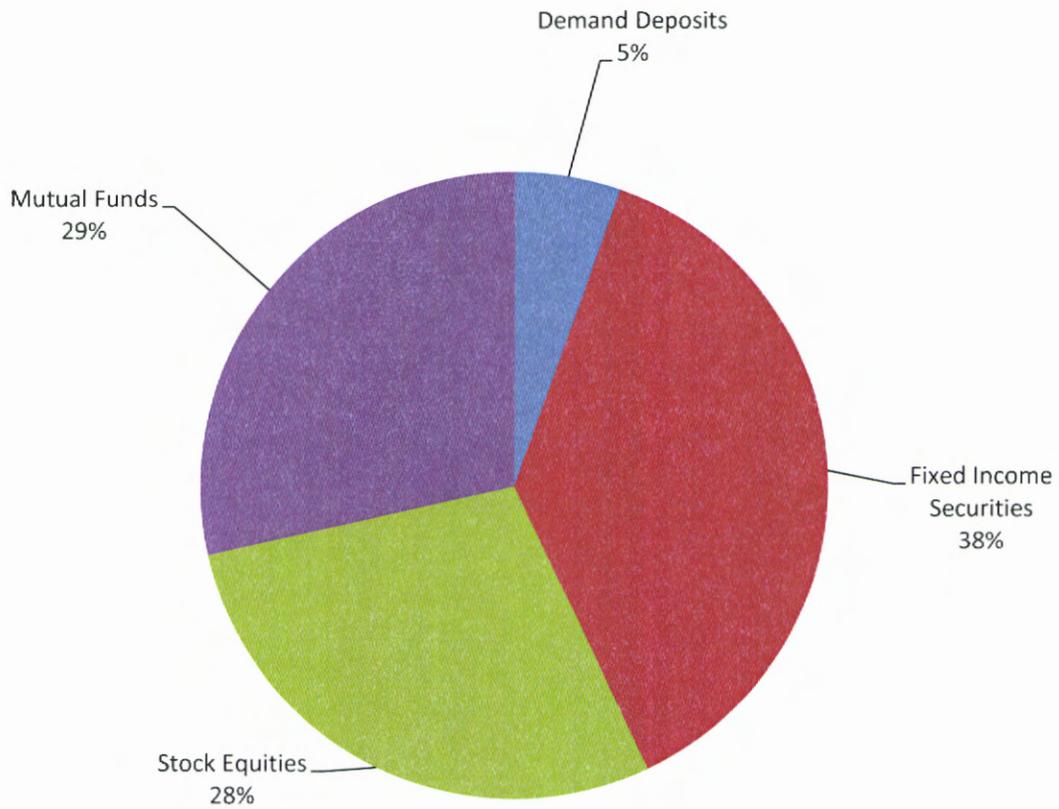
Total Fund Balance 42,985,067.04

**TOTAL LIABILITIES AND FUND BALANCE**

\$ 42,988,965.47

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Cash and Investments  
April 30, 2016**



(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
 Revenue Report  
 For the Year Ended April 30, 2016

		<u>Current Month</u>	<u>Year to Date</u>
<b>Revenues</b>			
<b>Municipal and Member Contributions</b>			
<b>Employer Contributions</b>			
0-0-4000.000	CURRENT TAX	\$ 4,400.98	\$ 2,005,180.19
0-0-4020.000	PERSONAL PROP REPLACEMENT TAX	21,880.00	21,880.00
	Total Employer Contributions	<u>26,280.98</u>	<u>2,027,060.19</u>
<b>Employee Contributions</b>			
0-0-4050.000	CONTRIBUTIONS - CURRENT YEAR	51,867.05	482,743.53
	Total Employee Contributions	<u>51,867.05</u>	<u>482,743.53</u>
	Total Employer and Employee Contributions	<u>78,148.03</u>	<u>2,509,803.72</u>
<b>Income Cash and Investments</b>			
<b>Interest Demand Deposits</b>			
0-0-4102.002	CK - MSSB CHECKING #225-918793	7.79	44.48
0-0-4104.003	MM - MSSB #225-918766	133.20	473.89
0-0-4105.001	MM - MSSB #225-918721	4.93	31.95
0-0-4105.002	MM - MSSB #225-918711	0.00	7.37
0-0-4105.003	MM - MSSB #225-918730	2.26	21.81
0-0-4105.004	MM - MSSB #225-918745	0.83	15.79
0-0-4105.005	MM - MSSB #225-918747	0.60	6.27
0-0-4105.006	MM - MSSB #225-918746	6.14	25.16
0-0-4105.007	MM - MSSB #225-918770	0.17	38.92
	Total Interest Demand Deposits	<u>155.92</u>	<u>665.64</u>
<b>Income Fixed Income Securities</b>			
<b>Income US Treasury Bonds</b>			
0-0-4255.001	US TREAS BOND #DX3 DUE 11/15/16	-	226,875.00
	Total Income US Treasury Notes	<u>-</u>	<u>226,875.00</u>
<b>Income Federal Farm Credit Bank</b>			
0-0-4284.002	FFCB #XT1 DUE 6/5/19	-	42,800.00
0-0-4284.003	FFCB #4P2 DUE 11/6/17	-	50,500.00
0-0-4284.004	FFCB #VR8 DUE 2/27/18	-	46,700.00
	Total Income Federal Farm Credit Bank	<u>-</u>	<u>140,000.00</u>
<b>Income Federal Home Loan Mortg Corp</b>			
0-0-4285.002	FHLMC NOTE#VG6 DUE 11/17/15	-	47,500.00
	Total Income Federal Home Loan Mortg Corp	<u>-</u>	<u>47,500.00</u>
<b>Income Federal Home Loan Bank</b>			
0-0-4286.005	FHLB BONDS #PR1 DUE 6/10/16	-	53,750.00
0-0-4286.006	FHLB BONDS #VS7 DUE 12/11/20	-	52,500.00
0-0-4286.007	FHLB BONDS #KF2 DUE 6/11/21	-	56,250.00
0-0-4286.008	FHLB BONDS #6E9 DUE 6/12/26	-	57,500.00
0-0-4286.009	FHLB BONDS #FY2 DUE 9/30/22	-	53,750.00
0-0-4286.010	FHLB BONDS #4B2 DUE 12/9/22	-	52,500.00
0-0-4286.011	FHLB BONDS #EW8 DUE 8/15/24	-	107,500.00
	Total Income Federal Home Loan Bank	<u>-</u>	<u>433,750.00</u>
<b>Change in Accrued Interest Receivable</b>			
0-0-4295.001	CHANGE IN ACCR INTEREST REC	65,066.51	(21,455.29)
	Total Change in Accrued Interest Receivable	<u>65,066.51</u>	<u>(21,455.29)</u>

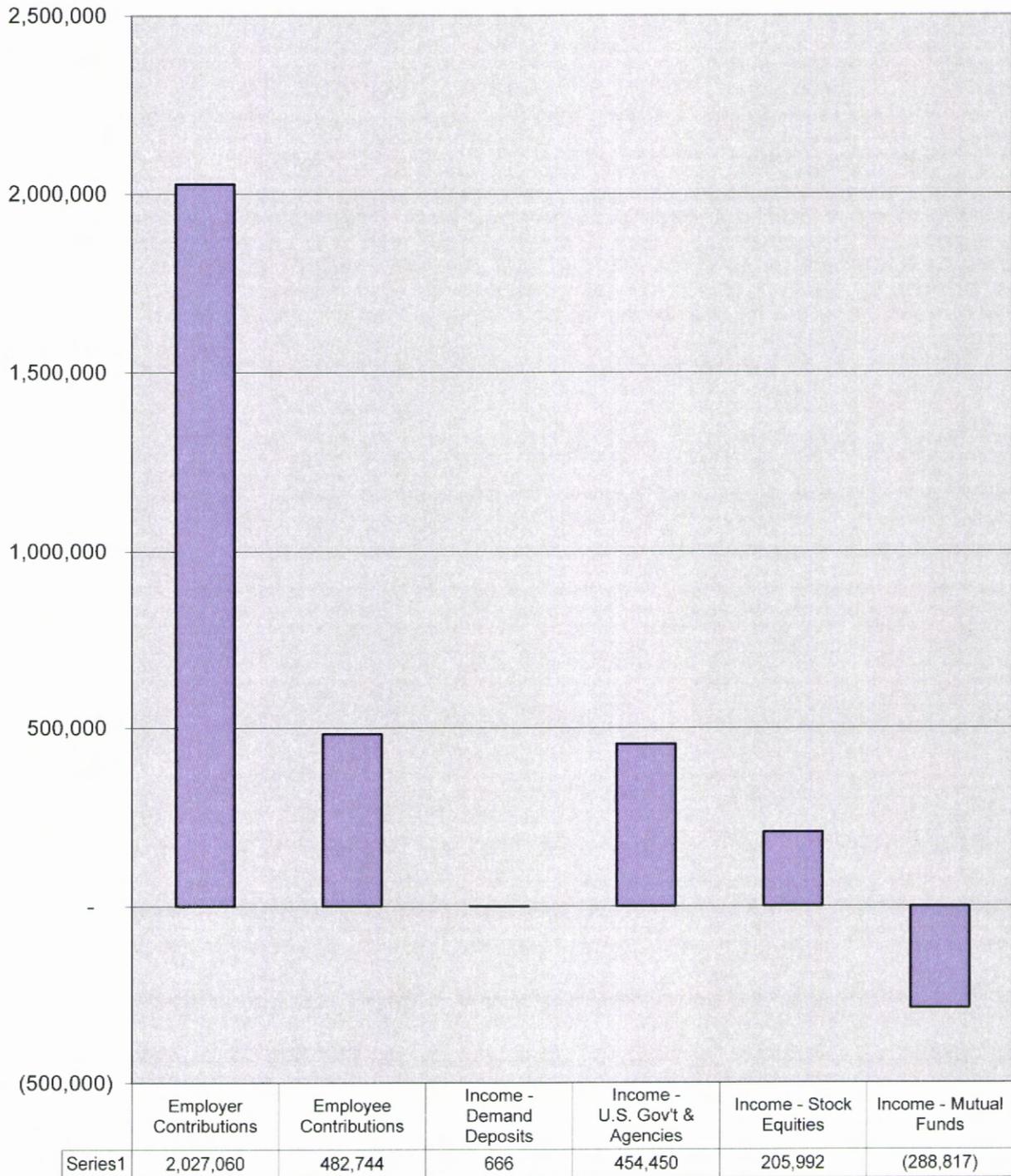
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**Park Ridge Police Pension Fund**  
 Revenue Report (Continued)  
 For the Year Ended April 30, 2016

	<u>Current Month</u>	<u>Year to Date</u>
<b>Income Fixed Income Securities (Continued)</b>		
<b>Gains (Losses) on Securities</b>		
0-0-4300.001	UNREALIZED GAINS (LOSSES)	\$ (274,464.18) \$ (372,219.50)
	Total Gains (Losses) on Securities	<u>(274,464.18) (372,219.50)</u>
	Total Income Fixed Income Securities	<u>(209,397.67) 454,450.21</u>
<b>Income Equity Securities</b>		
<b>Income Stock Equities</b>		
<b>Income/Dividend Stock Equities</b>		
0-0-4450.001	DVD - MSSB #225-918721	3,704.95 35,874.16
0-0-4450.002	DVD - MSSB #225-918711	- 35,107.41
0-0-4450.003	DVD - MSSB #225-918730	587.43 32,722.25
0-0-4450.004	DVD - MSSB #225-918745	3,122.36 28,816.69
0-0-4450.005	DVD - MSSB #225-918747	303.67 7,225.36
0-0-4450.006	DVD - MSSB #225-918746	4,381.21 48,548.33
	Total Income/Dividend Stock Equities	<u>12,099.62 188,294.20</u>
<b>Income/Gain (Loss) Stock Equities</b>		
0-0-4460.001	GL - MSSB #225-918721	(3,910.98) 173,145.16
0-0-4460.002	GL - MSSB #225-918711	- (1,651,897.59)
0-0-4460.003	GL - MSSB #225-918730	(28,727.72) (3,114.96)
0-0-4460.004	GL - MSSB #225-918745	4,352.46 (30,343.93)
0-0-4460.005	GL - MSSB #225-918747	(4,983.27) (16,109.23)
0-0-4460.006	GL - MSSB #225-918746	49,868.87 1,546,018.19
	Total Income/Gain (Loss) Stock Equities	<u>16,599.36 17,697.64</u>
	Total Income Stock Equities	<u>28,698.98 205,991.84</u>
<b>Income Mutual Funds</b>		
<b>Income/Dividend Mutual Funds</b>		
0-0-4550.004	DVD - EUROPACIFIC GROWTH FUND	- 36,538.71
0-0-4550.005	DVD - MAINSTAY ICAP INTL FD	- 14,026.97
0-0-4550.006	DVD - VANGUARD TOTAL STK MKT	- 152,553.56
0-0-4550.007	DVD - INVESCO EUROPEAN GROWTH	- 39,253.58
0-0-4550.008	DVD - VANGUARD SM CAP VAL IDX INV	- 21,497.90
	Total Income/Dividend Mutual Funds	<u>- 263,870.72</u>
<b>Income/Gain (Loss) Mutual Funds</b>		
0-0-4560.004	GL - EUROPACIFIC GROWTH FUND	14,321.73 (146,649.82)
0-0-4560.005	GL - MAINSTAY ICAP INTL FD	27,856.85 (140,630.11)
0-0-4560.006	GL - VANGUARD TOTAL STK MKT	52,163.43 (167,415.85)
0-0-4560.007	GL - INVESCO EUROPEAN GROWTH	8,539.56 (61,855.35)
0-0-4560.008	GL - VANGUARD SM CAP VAL IDX INV	20,553.10 (36,136.98)
	Total Income/Gain (Loss) Mutual Funds	<u>123,434.67 (552,688.11)</u>
	Total Income Mutual Funds	<u>123,434.67 (288,817.39)</u>
	Total Income Equity Securities	<u>152,133.65 (82,825.55)</u>
	Total Income Cash and Investments	<u>(57,108.10) 372,290.30</u>
<b>TOTAL REVENUES</b>	<b>\$</b>	<b><u>21,039.93 \$ 2,882,094.02</u></b>

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Revenues  
For Year Ended April 30, 2016**



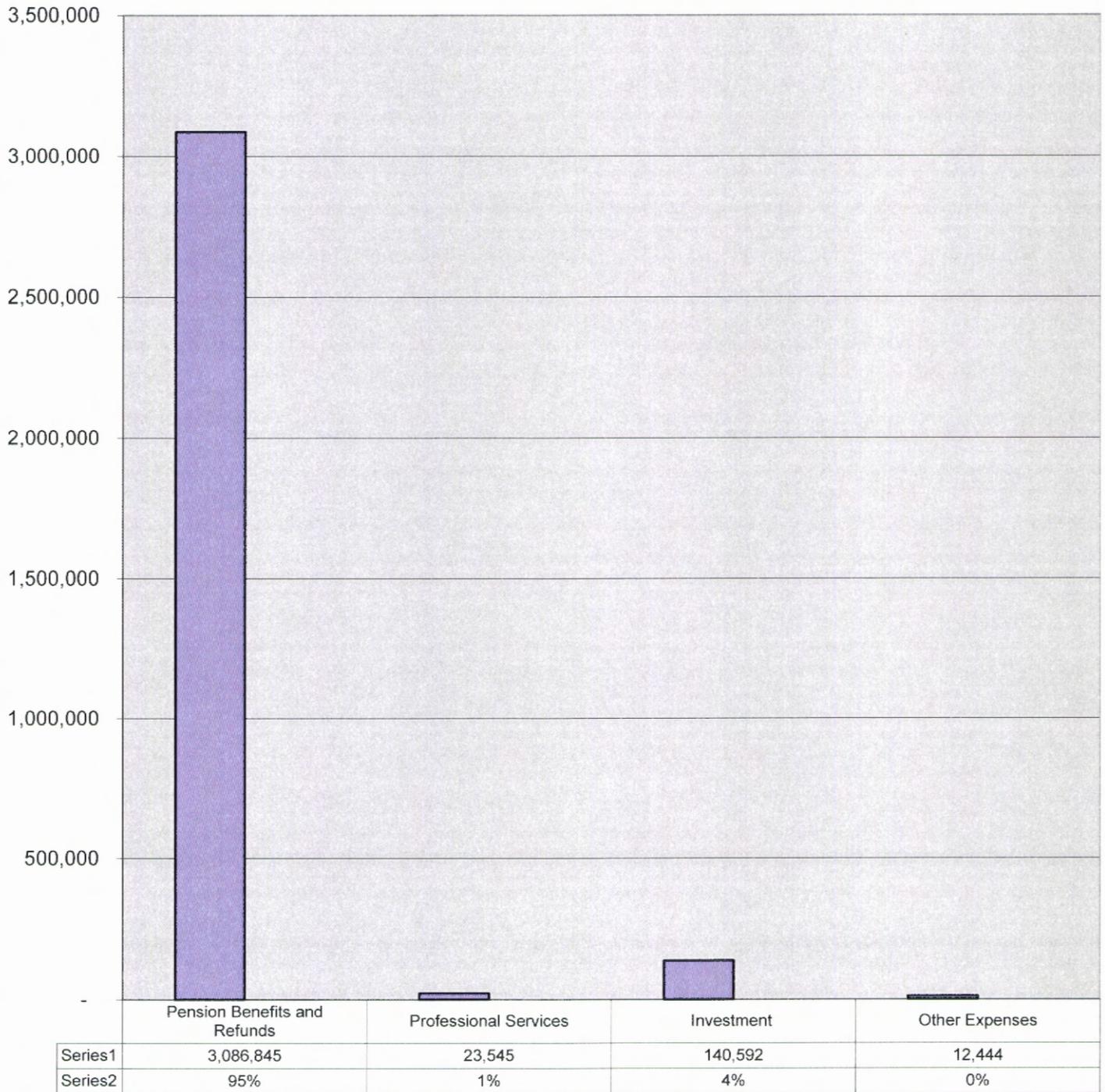
(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
Expense Report  
For the Year Ended April 30, 2016

		<u>Current Month</u>	<u>Year to Date</u>
<b>Expenses</b>			
<b>Pension Benefits and Refunds</b>			
0-0-5020.000	SERVICE PENSIONS	\$ 197,475.46	\$ 2,336,805.11
0-0-5030.000	NON-DUTY DISABILITY PENSIONS	6,589.67	79,076.04
0-0-5040.000	DUTY DISABILITY PENSIONS	12,113.30	132,713.36
0-0-5060.000	SURVIVING SPOUSE PENSIONS	49,396.15	525,676.94
0-0-5070.000	CHILDREN'S PENSIONS	1,042.11	12,505.32
0-0-5100.000	REFUND OF CONTRIBUTIONS	-	68.64
	<b>Total Pension Benefits and Refunds</b>	<u>266,616.69</u>	<u>3,086,845.41</u>
<b>Administrative</b>			
<b>Professional Services</b>			
0-0-5170.001	ACTUARIAL SERVICES	-	3,500.00
0-0-5170.003	ACCOUNTING & BOOKKEEPING SERV	2,265.00	13,395.00
0-0-5170.005	LEGAL SERVICES	1,550.00	6,650.00
	<b>Total Professional Services</b>	<u>3,815.00</u>	<u>23,545.00</u>
<b>Investment</b>			
0-0-5190.001	INVESTMENT MGR/ADVISOR FEES	7,311.84	140,591.69
	<b>Total Investment</b>	<u>7,311.84</u>	<u>140,591.69</u>
<b>Other Expenses</b>			
0-0-5290.025	CONFERENCE/SEMINAR FEES	-	1,700.00
0-0-5290.026	ASSOCIATION DUES	(530.00)	781.67
0-0-5290.027	TRAVEL EXPENSE	111.86	828.90
0-0-5290.028	POSTAGE EXPENSE	49.00	73.86
0-0-5290.030	SUPPLIES EXPENSE	22.01	64.90
0-0-5290.034	IDOI FILING FEE EXPENSE	-	8,000.00
0-0-5290.035	OTHER EXPENSE	105.64	994.18
	<b>Total Other Expenses</b>	<u>(241.49)</u>	<u>12,443.51</u>
	<b>Total Administrative</b>	<u>10,885.35</u>	<u>176,580.20</u>
<b>TOTAL EXPENSES</b>		<u>\$ 277,502.04</u>	<u>\$ 3,263,425.61</u>

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Expenses  
For the Year Ended April 30, 2016**



(See accountant's compilation report.)

Park Ridge Police Pension Fund  
Member Contribution Report  
For the Fiscal Year Ended April 30, 2016

Name	Actual Entry Date	Updated Entry Date for Purchase of Service Credit	Term/Retire Date	Thru Prior Fiscal Year	Current Fiscal Year	Purchase of Military Service	Refunds	Total Contributions	(1) After-Tax Portion	(2) Pre-Tax Portion
Abbinante (Madigan), Kristen L	10/13/89			\$ 146,711.98	\$ 8,820.87	\$ -	\$ -	\$ 155,532.85	\$ 3,726.73	\$ 151,806.12
Alonso, Daniel C.	07/09/12		02/16/16 **	18,272.08	7,151.43	-	-	25,423.51	-	25,423.51
Anderson, John C	07/09/01			95,022.63	9,387.13	-	-	104,409.76	-	104,409.76
Ashleman, Kirk A	05/14/90			151,464.09	10,064.77	-	-	161,528.86	-	161,528.86
Broderick, Jodi L	01/11/99			109,863.37	9,511.41	-	-	119,374.78	-	119,374.78
Cacioppo, David M	07/09/01			95,746.85	9,525.63	-	-	105,272.48	-	105,272.48
Cavender, Rodney	10/04/93			132,999.83	9,176.70	-	-	142,176.53	-	142,176.53
Cruz, Hector	07/08/02			89,104.12	9,093.76	-	-	98,197.88	-	98,197.88
Delfosse, Jean P	09/13/99			109,742.24	10,034.15	-	-	119,776.39	-	119,776.39
Dorner, John A	01/11/99			108,490.21	9,155.71	-	-	117,645.92	-	117,645.92
Dorsey, Sean	02/11/11	11/11/09	* &	41,472.98	9,269.92	-	-	50,742.90	400.71	50,342.19
Doucet, Jason J	07/08/02			89,111.06	9,376.51	-	-	98,487.57	-	98,487.57
Evans, Robert T	10/04/93	09/27/90	&	207,823.48	9,165.28	-	-	216,988.76	-	216,988.76
Faso, Mario A	04/07/03			84,512.55	9,100.76	-	-	93,613.31	-	93,613.31
Garcia, Leonardo	01/03/00			103,719.16	9,168.85	-	-	112,888.01	-	112,888.01
Genauldi, Julie A	09/08/98			107,702.59	9,146.79	-	-	116,849.38	-	116,849.38
Hahn, Ruth	01/09/06	01/09/04	&	110,078.91	9,449.63	-	-	119,528.54	5,004.07	114,524.47
Hanson, Robert	01/04/88		01/17/16	177,741.68	8,085.85	-	-	185,827.53	-	185,827.53
Hernandez, Anthony E	07/09/12		11/28/14	-	68.64	-	(68.64)	-	-	-
Hildebrant, Eric S	10/06/97			121,889.74	10,033.93	-	-	131,923.67	-	131,923.67
Jogmen, Louis E	02/21/94			165,243.50	11,672.97	-	-	176,916.47	-	176,916.47
Juarez, Ana	01/03/14		**	7,947.00	7,538.12	-	-	15,485.12	-	15,485.12
Kampwirth, Robert	05/01/94			138,816.71	10,064.92	-	-	148,881.63	-	148,881.63
Kappler, Laura	04/04/84		06/27/14	159,444.33	192.21	-	-	159,636.54	1,414.98	158,221.56
Kearns, Daniel	06/02/08			49,419.90	8,854.67	-	-	58,274.57	-	58,274.57
Keller, David M	07/07/86		07/06/15	186,510.24	2,384.02	-	-	188,894.26	-	188,894.26
King, Kenneth J	04/07/03			84,511.69	9,109.39	-	-	93,621.08	-	93,621.08
Klein, Myles	09/22/14		09/08/15 **	3,373.40	2,691.50	-	-	6,064.90	-	6,064.90
Koller, Jeffrey W	01/05/04			80,432.85	9,515.72	-	-	89,948.57	-	89,948.57
LaFrancis, David P	01/10/05			73,120.35	9,099.88	-	-	82,220.23	-	82,220.23
Lauria, Frank T	01/10/05			73,119.46	9,108.48	-	-	82,227.94	-	82,227.94
Leavitt, Jason A	02/21/94			154,022.17	10,969.74	-	-	164,991.91	-	164,991.91
Luehr, Michael D	09/13/99			105,985.12	9,382.11	-	-	115,367.23	-	115,367.23
McEwen, Timothy J	05/10/04			77,581.53	9,110.67	-	-	86,692.20	-	86,692.20
McGannon, Matthew J	05/06/02			90,159.92	9,109.81	-	-	99,269.73	-	99,269.73
Mellema, Duane	01/28/91			162,218.01	11,114.49	-	-	173,332.50	-	173,332.50
Moehrlin, Jon	09/05/00			99,656.55	9,128.81	-	-	108,785.36	-	108,785.36
Moravet, Andrei	01/05/15		**	1,667.99	6,841.20	-	-	8,509.19	-	8,509.19
Niemiec, Robert	12/30/15		**	-	1,999.93	-	-	1,999.93	-	1,999.93
Novy, James	12/30/15		**	-	1,999.93	-	-	1,999.93	-	1,999.93
Orta, Gregory	10/06/97			116,327.65	9,563.08	-	-	125,890.73	-	125,890.73

(This statement is continued on the following page.)

Park Ridge Police Pension Fund  
 Member Contribution Report  
 For the Fiscal Year Ended April 30, 2016

Name	Actual Entry Date	Updated Entry Date for Purchase of Service Credit	Term/Retire Date	Thru Prior Fiscal Year	Current Fiscal Year	Purchase of Military Service	Refunds	Total Contributions	(1) After-Tax Portion	(2) Pre-Tax Portion
Panizo, Juan	08/28/06			\$ 62,062.72	\$ 9,001.39	\$ -	\$ -	\$ 71,064.11	\$ -	\$ 71,064.11
Peterson, Benjamin J	06/15/02			90,586.03	9,099.48	-	-	99,685.51	-	99,685.51
Raitano, Anthony R	09/30/96			119,768.32	9,113.56	-	-	128,881.88	-	128,881.88
Rechlicz, Thomas B	05/04/99	01/18/95	&	135,152.56	9,146.54	-	-	144,299.10	-	144,299.10
Richards, Quentin	12/30/15		**	-	1,999.93	-	-	1,999.93	-	1,999.93
Robert, Remoh R.	04/09/07			58,019.40	8,992.45	-	-	67,011.85	-	67,011.85
Ryan, Kevin P	09/08/98			111,274.40	9,139.32	-	-	120,413.72	-	120,413.72
Ryan, Richard	05/01/95			131,978.69	10,063.94	-	-	142,042.63	-	142,042.63
Sanetra, Arnold J	04/10/92			140,153.02	9,592.92	-	-	149,745.94	-	149,745.94
Shaughnessy, Kathy	07/20/90			163,025.51	10,535.48	-	-	173,560.99	-	173,560.99
Stephens, Mitchell	12/30/15		**	-	1,999.93	-	-	1,999.93	-	1,999.93
Stopka, Steven G	05/10/04			77,582.64	9,110.79	-	-	86,693.43	-	86,693.43
Suarez, Karyn J	10/06/97			114,501.27	9,139.95	-	-	123,641.22	-	123,641.22
Taylor, Gregory	04/11/88	10/14/86	&	158,159.01	9,122.64	-	-	167,281.65	-	167,281.65
Tracy, Steven	01/08/88			153,713.59	9,186.33	-	-	162,899.92	-	162,899.92
Vallejo, Mark A.	07/10/06		09/30/15	62,877.69	4,080.36	-	-	66,958.05	-	66,958.05
Waddell, Jeffrey W	05/04/99	10/22/95	&	130,253.94	9,146.79	-	-	139,400.73	13,783.88	125,616.85
Ware, Eugene A	03/20/00			105,803.87	10,032.36	-	-	115,836.23	-	115,836.23
TOTALS				\$ 5,745,940.58	\$ 482,743.53	\$ -	\$ (68.64)	\$ 6,228,615.47	\$ 24,330.37	\$ 6,204,285.10

(1) Nontaxable Portion of Contribution Refund (Prior to 7/1/84)

(2) Taxable Portion of Contribution Refund

\* This member was hired on or after 1/1/11 but this member is a Tier 1 member because this member was a member under the Statute prior to 1/1/11.

\*\* This member was hired on or after 1/1/11 for the first time under the Statute; therefore, this member is a Tier 2 member.

& Contributions and Entry Date reflect transfer of service from IMRF, other Article 3 Funds, repayment of refund or purchase of military service time  
*Members are removed from report at fiscal-year end if they are receiving a pension benefit payment or have terminated and received a refund of contributions.*

\$ This member has a break in service of 210 disability days

\$\$ This member has a break in service of 244 disability days

(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
**Summary of Property Tax Receipts through April 30, 2016**

Fiscal Year Ended April 30, 2016

	2015 Taxes	2014 Taxes	2013 Taxes	2012 Taxes
5/28/2015		8,498.77	879.02	(10.34)
6/23/2015			2,275.65	(73.79)
6/29/2015		2.31		
7/10/2015		65,626.31		
7/14/2015		30,539.43		
7/17/2015		60,453.30	(13.97)	(29.58)
7/21/2015		21,822.25		
7/22/2015				
7/23/2015		117,458.99		(40.62)
7/24/2015		76,103.23		
7/28/2015		20,227.35		
8/4/2015		378,309.17		
8/11/2015		57,651.50		
8/13/2015		34,547.34		(680.49)
8/20/2015		74,671.15		
8/25/2015		8.55		
9/2/2015		31,910.83	(114.63)	(550.57)
9/15/2015		(94.10)	3,782.94	(114.48)
9/17/2015			4,578.31	
9/21/2015		3.64		
10/20/2015		5,489.08		
10/27/2015		2.23		
11/19/2015		(1,290.30)	3,829.86	(316.73)
11/30/2015		13,567.48	(604.94)	(146.15)
12/22/2015		11,813.08	(630.51)	(480.95)
1/20/2016		5,173.36	(56.89)	(264.44)
1/28/2016		1.10		
2/18/2016		4,188.47	(1,297.69)	(78.19)
2/19/2016	235,293.70			
2/24/2016	64,447.46		(3.98)	
2/26/2016	0.70			
3/1/2016	343,582.88			
3/4/2016	142,527.73			
3/11/2016	176,363.18			
3/15/2016			114.30	32.16
3/17/2016	16,097.73			
3/22/2016		5,829.73		(135.83)
3/24/2016	4,410.99		(263.58)	
3/29/2016	4.73			
4/11/2016				
4/12/2016		(485.23)		(103.74)
4/14/2016		(26.33)	(172.77)	(58.74)
4/19/2016	4,611.31	(191.56)	(245.37)	
4/21/2016	3.20			
4/27/2016		1,720.46	(170.85)	(2.83)
4/28/2016	-			
	<u>\$ 987,343.61</u>	<u>\$ 1,023,531.59</u>	<u>\$ 11,884.90</u>	<u>\$ (3,055.31)</u>

Fiscal Year Ended April 30, 2015

2014 Taxes	2013 Taxes	2012 Taxes
<u>\$ 865,470.04</u>	<u>\$ 831,169.73</u>	<u>\$ 7,104.05</u>

Fiscal Year Ended April 30, 2014

2013 Taxes	2012 Taxes
<u>\$ 849,277.61</u>	<u>\$ 776,797.10</u>

Fiscal Year Ended April 30, 2013

2012 Taxes
<u>\$ 868,687.34</u>

**SUMMARY**

	2015 Taxes	2014 Taxes	2013 Taxes	2012 Taxes
<b>TOTAL COLLECTED</b>	<u>\$ 987,343.61</u>	<u>\$ 1,889,001.63</u>	<u>\$ 1,692,332.24</u>	<u>\$ 1,649,533.18</u>
<b>TAX LEVIED</b>	<u>*</u>	<u>\$ 1,909,023.00</u>	<u>\$ 1,667,295.00</u>	<u>\$ 1,616,067.00</u>
<b>TAX EXTENDED</b>	<u>*</u>	<u>\$ 1,909,023.00</u>	<u>\$ 1,696,129.00</u>	<u>\$ 1,644,015.00</u>
<b>% COLLECTED</b>	<u>*</u>	<u>98.95%</u>	<u>99.78%</u>	<u>100.34%</u>
<b>EXTENDED LESS COLLECTED</b>	<u>*</u>	<u>\$ 20,021.37</u>	<u>\$ 3,796.76</u>	<u>\$ (5,518.18)</u>
<b>AMOUNT REQUESTED BY FUND</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

\* Information is not available at this time.

(See accountant's compilation report.)

**CITY OF PARK RIDGE, ILLINOIS  
POLICE PENSION FUND**

**ACCOUNTANT'S COMPILATION REPORT**

For the Two Months Ended  
June 30, 2016



**CITY OF PARK RIDGE, ILLINOIS**  
**POLICE PENSION FUND**  
**TABLE OF CONTENTS**

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	<u>Page(s)</u>
ACCOUNTANT'S COMPILATION REPORT.....	1
GENERAL PURPOSE FINANCIAL STATEMENTS	
Statement of Fiduciary Net Position .....	2
Statement of Changes in Fiduciary Net Position .....	3
SUPPLEMENTARY INFORMATION	
Balance Sheet.....	4-5
Cash and Investments Chart.....	6
Revenue Report.....	7-8
Revenues Chart .....	9
Expense Report .....	10
Expenses Chart.....	11
Member Contributions Report .....	12-13
Property Tax Revenue Collections Analysis.....	14



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Naperville, Illinois 60563

**Certified Public Accountants & Advisors**  
*Members of American Institute of Certified Public Accountants*

## ACCOUNTANT'S COMPILATION REPORT

The Honorable President  
Members of the Board of Trustees  
City of Park Ridge Police Pension Fund  
Park Ridge, Illinois 60068

Management is responsible for the accompanying statement of fiduciary net position of the City of Park Ridge Police Pension Fund, a pension trust fund of the City of Park Ridge, Illinois, as of June 30, 2016 and the related statement of changes in fiduciary net position for the two months ended June 30, 2016. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

The supplementary information is presented for purposes of additional analysis and is not a required part of the general purpose financial statements. The supplementary information has been compiled from information that is the representation of management. We have not audited or reviewed the supplementary information and, accordingly, do not express an opinion or provide any assurance on such supplementary information.

Management has elected to omit substantially all of the disclosures required by accounting principles generally accepted in the United States of America. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Police Pension Fund's assets, liabilities, net position, additions and deductions. Accordingly, these financial statements are not designed for those who are not informed about such matters.

A handwritten signature in cursive script that reads 'Sikich LLP'.

Naperville, Illinois  
July 15, 2016

**GENERAL PURPOSE FINANCIAL STATEMENTS**

**Park Ridge Police Pension Fund**  
Statement of Fiduciary Net Position  
June 30, 2016

---

**ASSETS**

Cash and Investments	
Demand Deposits	\$ 2,803,406.27
US Treasury Bonds	3,025,000.00
Federal Farm Credit Bank	3,000,000.00
Federal Home Loan Bank	7,335,767.18
Unrealized Gains (Losses)	1,717,475.07
Stock Equities	10,097,328.37
Mutual Funds	14,929,729.28
Receivables	
Accrued Interest Receivable	<u>120,289.49</u>
 Total Assets	 43,028,995.66

**LIABILITIES**

Accounts Payable	<u>2,265.00</u>
------------------	-----------------

**NET POSITION HELD FOR PENSION BENEFITS** \$ 43,026,730.66

(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
Statement of Changes in Fiduciary Net Position  
For the Two Months Ended June 30, 2016

**ADDITIONS**

Contributions	
Employer Contributions	\$ 12,441.56
Employee Contributions	<u>74,144.97</u>
Total Contributions	<u>86,586.53</u>

Investment Income

Net Appreciation (Depreciation) in Fair Value of Investments	
Fixed Income Securities	74,914.50
Mutual Funds	92,582.32
Stock Equities	144,850.93
Interest	
Demand Deposits	327.56
Fixed Income Securities	130,347.55
Stock Equities	26,785.50
Mutual Funds	<u>52,188.14</u>
Total Investment Income	521,996.50

Less Investment Expense	<u>(25,056.03)</u>
-------------------------	--------------------

Net Investment Income	<u>496,940.47</u>
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Total Additions	<u>583,527.00</u>
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**DEDUCTIONS**

Pension Benefits and Refunds	
Pension Benefits	533,233.38
Administrative Expenses	
Professional Services	-
Other Expenses	<u>8,630.00</u>
Total Deductions	<u>541,863.38</u>

Net Increase (Decrease)	41,663.62
-------------------------	-----------

Net Position Held in Trust for Pension Benefits May 1	<u>42,985,067.04</u>
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<b>End of Period</b>	<u><u>\$ 43,026,730.66</u></u>
----------------------	--------------------------------

(See accountant's compilation report.)

**SUPPLEMENTARY INFORMATION**

**Park Ridge Police Pension Fund**

Balance Sheet

June 30, 2016

---

**Demand Deposits**

0-0-1102.002	CK - MSSB CHECKING #225-918793	\$ 1,227.93
0-0-1104.003	MM - MSSB #225-918766	1,963,205.82
0-0-1105.001	MM - MSSB #225-918721	427,285.75
0-0-1105.003	MM - MSSB #225-918730	220,467.77
0-0-1105.004	MM - MSSB #225-918745	70,044.64
0-0-1105.005	MM - MSSB #225-918747	41,404.06
0-0-1105.006	MM - MSSB #225-918746	69,601.09
0-0-1105.007	MM - MSSB #225-918770	10,169.21
	Total Demand Deposits	<u>2,803,406.27</u>

**US Treasury Bonds**

0-0-1255.001	US TREAS BOND #DX3 DUE 11/15/16	<u>3,025,000.00</u>
	Total US Treasury Bonds	<u>3,025,000.00</u>

**Federal Farm Credit Bank**

0-0-1284.002	FFCB #XT1 DUE 6/5/19	1,000,000.00
0-0-1284.003	FFCB #4P2 DUE 11/6/17	1,000,000.00
0-0-1284.004	FFCB #VR8 DUE 2/27/18	<u>1,000,000.00</u>
	Total Federal Farm Credit Bank	<u>3,000,000.00</u>

**Federal Home Loan Bank**

0-0-1286.006	FHLB BONDS #VS7 DUE 12/11/20	1,000,000.00
0-0-1286.007	FHLB BONDS #KF2 DUE 6/11/21	1,117,632.55
0-0-1286.008	FHLB BONDS #6E9 DUE 6/12/26	1,117,659.16
0-0-1286.009	FHLB BONDS #FY2 DUE 9/30/22	1,100,475.47
0-0-1286.010	FHLB BONDS #4B2 DUE 12/9/22	1,000,000.00
0-0-1286.011	FHLB BONDS #EW8 DUE 8/15/24	<u>2,000,000.00</u>
	Total Federal Home Loan Bank	<u>7,335,767.18</u>

**Unrealized Gains (Losses)**

0-0-1300.001	UNREALIZED GAINS (LOSSES)	<u>1,717,475.07</u>
	Total Unrealized Gains (Losses)	<u>1,717,475.07</u>

(This statement is continued on the following page.)

**Park Ridge Police Pension Fund**

Balance Sheet (Continued)

June 30, 2016

---

**Stock Equities**

0-0-1450.001	MSSB #225-918721	\$ 3,627,952.56
0-0-1450.003	MSSB #225-918730	2,239,746.21
0-0-1450.004	MSSB #225-918745	1,657,341.43
0-0-1450.005	MSSB #225-918747	1,576,112.50
0-0-1450.006	MSSB #225-918746	<u>996,175.67</u>

Total Stock Equities 10,097,328.37

**Mutual Funds**

0-0-1550.004	EUROPACIFIC GROWTH FUND	1,071,216.21
0-0-1550.005	MAINSTAY ICAP INTL FD	836,866.23
0-0-1550.006	VANGUARD TOTAL STK MKT	8,542,116.82
0-0-1550.007	INVESCO EUROPEAN GROWTH	782,555.36
0-0-1550.008	VANGUARD SM CAP IDX INV	1,024,920.61
0-0-1550.009	INVESCO DIVERSIFIED DIVIDEND Y	1,334,921.53
0-0-1550.010	JP MORGAN EQUITY INC SEL	<u>1,337,132.52</u>

Total Mutual Funds 14,929,729.28

**Receivables**

0-0-1900.000	ACCRUED INTEREST RECEIVABLE	<u>120,289.49</u>
--------------	-----------------------------	-------------------

Total Receivables 120,289.49

**TOTAL ASSETS**

\$ 43,028,995.66

**LIABILITIES**

0-0-2000.000	ACCOUNTS PAYABLE	<u>\$ 2,265.00</u>
--------------	------------------	--------------------

Total Liabilities 2,265.00

**Fund Balance**

0-0-3000.001	FUND BALANCE	<u>43,026,730.66</u>
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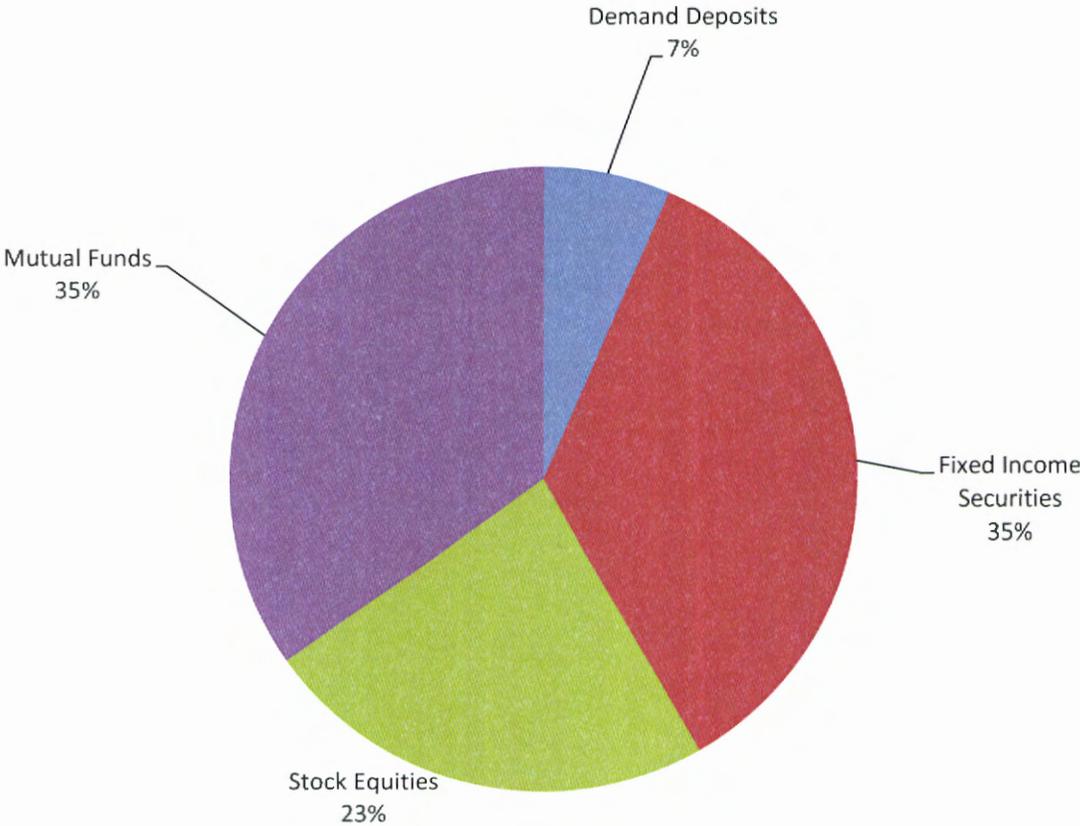
Total Fund Balance 43,026,730.66

**TOTAL LIABILITIES AND FUND BALANCE**

\$ 43,028,995.66

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Cash and Investments  
June 30, 2016**



(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
 Revenue Report  
 For the Two Months Ended June 30, 2016

	<u>Current Month</u>	<u>Year to Date</u>
<b>Revenues</b>		
<b>Municipal and Member Contributions</b>		
<b>Employer Contributions</b>		
0-0-4000.000	CURRENT TAX	\$ 3,680.56 \$ 12,441.56
	Total Employer Contributions	<u>3,680.56 12,441.56</u>
<b>Employee Contributions</b>		
0-0-4050.000	CONTRIBUTIONS - CURRENT YEAR	<u>38,320.91 74,144.97</u>
	Total Employee Contributions	<u>38,320.91 74,144.97</u>
	Total Employer and Employee Contributions	<u>42,001.47 86,586.53</u>
<b>Income Cash and Investments</b>		
<b>Interest Demand Deposits</b>		
0-0-4102.002	CK - MSSB CHECKING #225-918793	9.48 12.49
0-0-4104.003	MM - MSSB #225-918766	170.85 274.55
0-0-4105.001	MM - MSSB #225-918721	5.31 10.94
0-0-4105.003	MM - MSSB #225-918730	1.63 3.78
0-0-4105.004	MM - MSSB #225-918745	1.43 2.69
0-0-4105.005	MM - MSSB #225-918747	0.73 1.57
0-0-4105.006	MM - MSSB #225-918746	1.27 3.88
0-0-4105.007	MM - MSSB #225-918770	<u>0.17 17.66</u>
	Total Interest Demand Deposits	<u>190.87 327.56</u>
<b>Income Fixed Income Securities</b>		
<b>Income US Treasury Bonds</b>		
0-0-4255.001	US TREAS BOND #DX3 DUE 11/15/16	<u>- 113,437.50</u>
	Total Income US Treasury Notes	<u>- 113,437.50</u>
<b>Income Federal Farm Credit Bank</b>		
0-0-4284.002	FFCB #XT1 DUE 6/5/19	21,400.00 21,400.00
0-0-4284.003	FFCB #4P2 DUE 11/6/17	<u>- 25,250.00</u>
	Total Income Federal Farm Credit Bank	<u>21,400.00 46,650.00</u>
<b>Income Federal Home Loan Bank</b>		
0-0-4286.005	FHLB BONDS #PR1 DUE 6/10/16	26,875.00 26,875.00
0-0-4286.006	FHLB BONDS #VS7 DUE 12/11/20	26,250.00 26,250.00
0-0-4286.007	FHLB BONDS #KF2 DUE 6/11/21	28,125.00 28,125.00
0-0-4286.008	FHLB BONDS #6E9 DUE 6/12/26	28,750.00 28,750.00
0-0-4286.010	FHLB BONDS #4B2 DUE 12/9/22	<u>26,250.00 26,250.00</u>
	Total Income Federal Home Loan Bank	<u>136,250.00 136,250.00</u>
<b>Change in Accrued Interest Receivable</b>		
0-0-4295.001	CHANGE IN ACCR INTEREST REC	<u>(165,989.95) (165,989.95)</u>
	Total Change in Accrued Interest Receivable	<u>(165,989.95) (165,989.95)</u>

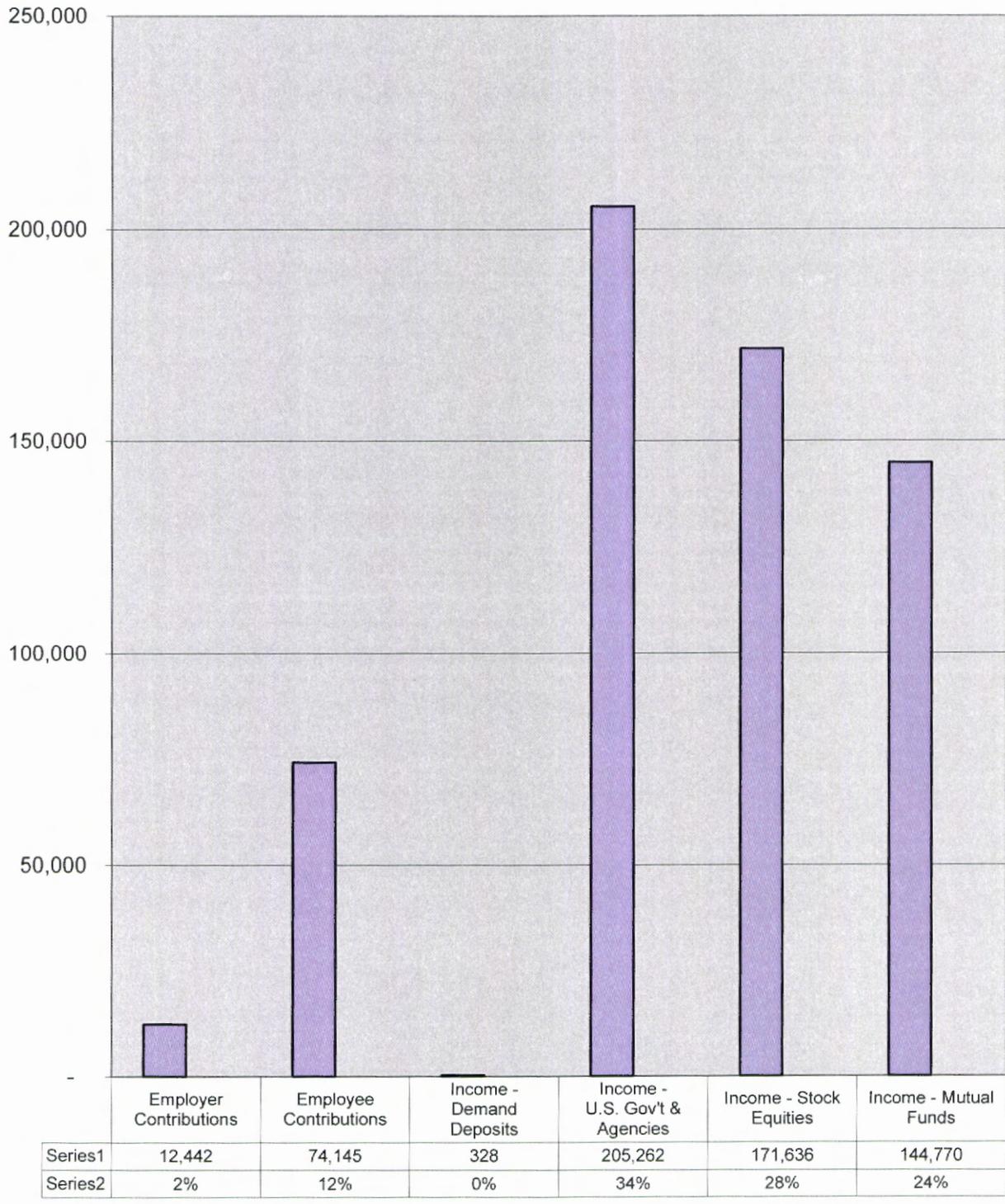
(This statement is continued on the following page.)

**Park Ridge Police Pension Fund**  
 Revenue Report (Continued)  
 For the Two Months Ended June 30, 2016

	<u>Current Month</u>	<u>Year to Date</u>
<b>Income Fixed Income Securities (Continued)</b>		
<b>Gains (Losses) on Securities</b>		
0-0-4300.001	UNREALIZED GAINS (LOSSES)	\$ 184,696.73 \$ 184,696.73
0-0-4400.001	GAIN (LOSS) - SALE OF SECURITY	(109,782.23) (109,782.23)
	Total Gains (Losses) on Securities	74,914.50 74,914.50
	Total Income Fixed Income Securities	66,574.55 205,262.05
<b>Income Equity Securities</b>		
<b>Income Stock Equities</b>		
<b>Income/Dividend Stock Equities</b>		
0-0-4450.001	DVD - MSSB #225-918721	4,454.03 5,918.73
0-0-4450.003	DVD - MSSB #225-918730	4,610.50 8,847.92
0-0-4450.004	DVD - MSSB #225-918745	2,673.51 4,796.11
0-0-4450.005	DVD - MSSB #225-918747	729.79 1,138.27
0-0-4450.006	DVD - MSSB #225-918746	2,691.53 6,084.47
	Total Income/Dividend Stock Equities	15,159.36 26,785.50
<b>Income/Gain (Loss) Stock Equities</b>		
0-0-4460.001	GL - MSSB #225-918721	87,713.76 87,713.76
0-0-4460.003	GL - MSSB #225-918730	(12,976.62) (12,976.62)
0-0-4460.004	GL - MSSB #225-918745	17,620.31 17,620.31
0-0-4460.005	GL - MSSB #225-918747	55,745.42 55,745.42
0-0-4460.006	GL - MSSB #225-918746	(3,251.94) (3,251.94)
	Total Income/Gain (Loss) Stock Equities	144,850.93 144,850.93
	Total Income Stock Equities	160,010.29 171,636.43
<b>Income Mutual Funds</b>		
<b>Income/Dividend Mutual Funds</b>		
0-0-4550.006	DVD - VANGUARD TOTAL STK MKT	37,492.46 37,492.46
0-0-4550.008	DVD - VANGUARD SM CAP VAL IDX INV	3,116.84 3,116.84
0-0-4550.009	DVD - INVESCO DIVERSIFIED DIVIDEND Y	5,454.55 5,454.55
0-0-4550.010	DVD - JP MORGAN EQUITY INC SEL	3,105.93 6,124.29
	Total Income/Dividend Mutual Funds	49,169.78 52,188.14
<b>Income/Gain (Loss) Mutual Funds</b>		
0-0-4560.004	GL - EUROPACIFIC GROWTH FUND	(17,720.10) (17,720.10)
0-0-4560.005	GL - MAINSTAY ICAP INTL FD	(53,972.65) (53,972.65)
0-0-4560.006	GL - VANGUARD TOTAL STK MKT	132,394.14 132,394.14
0-0-4560.007	GL - INVESCO EUROPEAN GROWTH	(41,037.31) (41,037.31)
0-0-4560.008	GL - VANGUARD SM CAP VAL IDX INV	12,443.03 12,443.03
0-0-4560.009	GL - INVESCO DIVERSIFIED DIVEDEND Y	29,466.98 29,466.98
0-0-4560.010	GL - JP MORGAN EQUITY INC SEL	31,008.23 31,008.23
	Total Income/Gain (Loss) Mutual Funds	92,582.32 92,582.32
	Total Income Mutual Funds	141,752.10 144,770.46
	Total Income Equity Securities	301,762.39 316,406.89
	Total Income Cash and Investments	368,527.81 521,996.50
<b>TOTAL REVENUES</b>	<b>\$ 410,529.28</b>	<b>\$ 608,583.03</b>

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Revenues  
For Two Months Ended June 30, 2016**



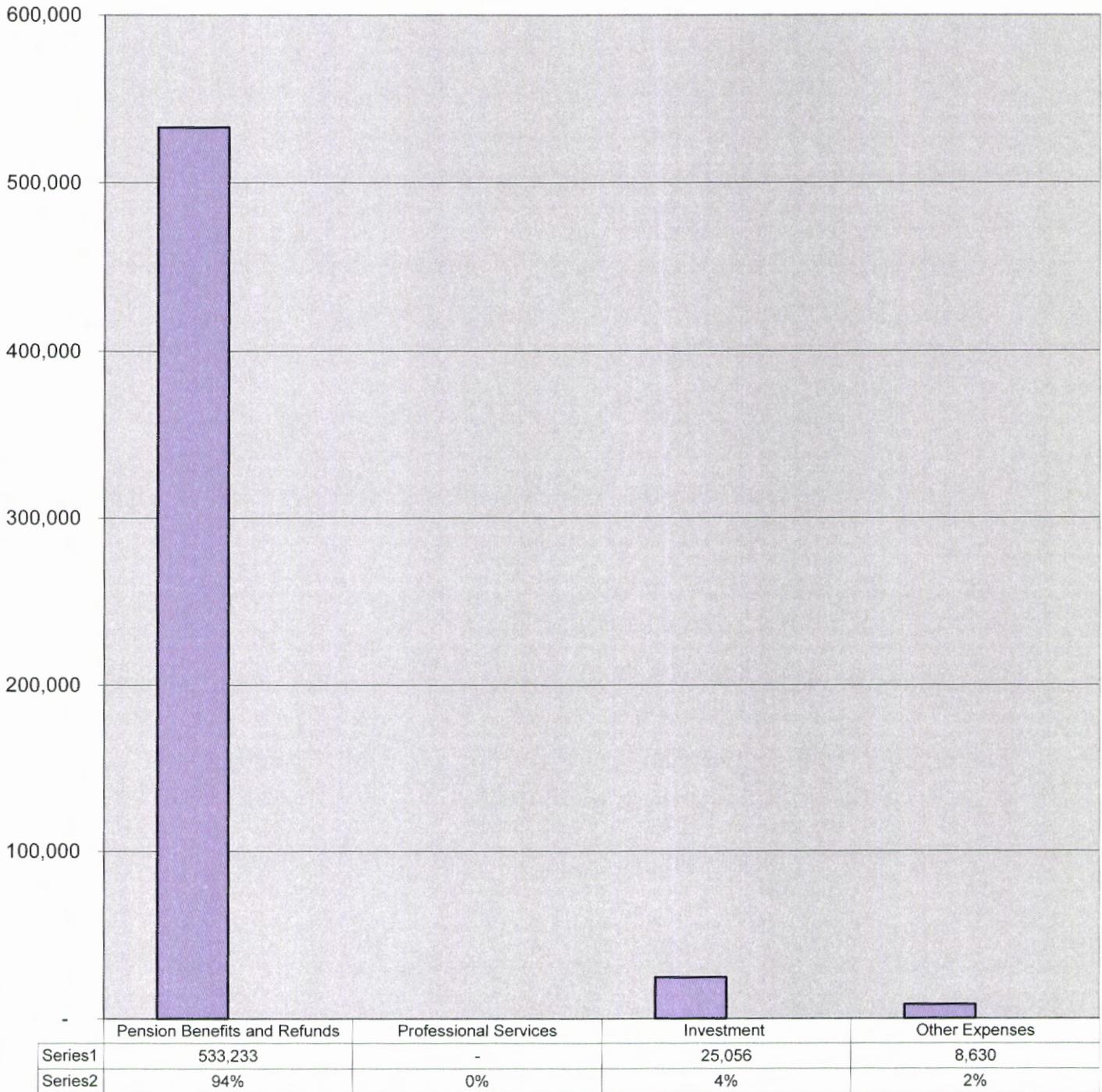
(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
Expense Report  
For the Two Months Ended June 30, 2016

	<u>Current Month</u>	<u>Year to Date</u>
<b>Expenses</b>		
<b>Pension Benefits and Refunds</b>		
0-0-5020.000	\$ 196,912.33	\$ 393,824.66
0-0-5030.000	6,589.67	13,179.34
0-0-5040.000	12,113.30	24,226.60
0-0-5060.000	49,959.28	99,918.56
0-0-5070.000	1,042.11	2,084.22
	<hr/>	<hr/>
Total Pension Benefits and Refunds	266,616.69	533,233.38
<b>Administrative</b>		
<b>Professional Services</b>		
0-0-5170.003	2,265.00	-
	<hr/>	<hr/>
Total Professional Services	2,265.00	-
<b>Investment</b>		
0-0-5190.001	-	25,056.03
	<hr/>	<hr/>
Total Investment	-	25,056.03
<b>Other Expenses</b>		
0-0-5290.026	-	530.00
0-0-5290.034	-	8,000.00
0-0-5290.035	50.00	100.00
	<hr/>	<hr/>
Total Other Expenses	50.00	8,630.00
Total Administrative	2,315.00	33,686.03
<b>TOTAL EXPENSES</b>	<u>\$ 268,931.69</u>	<u>\$ 566,919.41</u>

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Expenses  
For the Two Months Ended June 30, 2016**



(See accountant's compilation report.)

Park Ridge Police Pension Fund  
 Member Contribution Report  
 For the Fiscal Year Ended April 30, 2017

Name	Actual Entry Date	Updated Entry Date for Purchase of Service Credit	Term/Retire Date	Thru Prior Fiscal Year	Current Fiscal Year	Purchase of Military Service	Refunds	Total Contributions	(1) After-Tax Portion	(2) Pre-Tax Portion
Abbinante (Madigan), Kristen L.	10/13/89			\$ 155,532.85	\$ 2,098.82	\$ -	\$ -	\$ 157,631.67	\$ 3,726.73	\$ 153,904.94
Alonso, Daniel C.	07/09/12		02/16/16	** 25,423.51	-	-	-	25,423.51	-	25,423.51
Anderson, John C	07/09/01			104,409.76	1,359.27	-	-	105,769.03	-	105,769.03
Ashleman, Kirk A	05/14/90			161,528.86	1,930.20	-	-	163,459.06	-	163,459.06
Broderick, Jodi L	01/11/99			119,374.78	1,355.32	-	-	120,730.10	-	120,730.10
Cacioppo, David M	07/09/01			105,272.48	1,358.39	-	-	106,630.87	-	106,630.87
Cavender, Rodney	10/04/93			142,176.53	1,360.80	-	-	143,537.33	-	143,537.33
Cruz, Hector	07/08/02			98,197.88	1,349.36	-	-	99,547.24	-	99,547.24
Delfosse, Jean P	09/13/99			119,776.39	1,726.19	-	-	121,502.58	-	121,502.58
Dorner, John A	01/11/99			117,645.92	1,356.20	-	-	119,002.12	-	119,002.12
Dorsey, Sean	02/11/11	11/11/09	* &	50,742.90	1,329.52	-	-	52,072.42	400.71	51,671.71
Doucet, Jason J	07/08/02			98,487.57	1,348.48	-	-	99,836.05	-	99,836.05
Evans, Robert T	10/04/93	09/27/90	&	216,988.76	1,370.69	-	-	218,359.45	-	218,359.45
Faso, Mario A	04/07/03			93,613.31	1,358.39	-	-	94,971.70	-	94,971.70
Garcia, Leonardo	01/03/00			112,888.01	1,356.20	-	-	114,244.21	-	114,244.21
Genualdi, Julie A	09/08/98			\$\$ 116,849.38	1,263.52	-	-	118,112.90	-	118,112.90
Hahn, Ruth	01/09/06	01/09/04	&	119,528.54	1,359.27	-	-	120,887.81	5,004.07	115,883.74
Hildebrant, Eric S	10/06/97			131,923.67	1,924.39	-	-	133,848.06	-	133,848.06
Jogmen, Louis E	02/21/94			176,916.47	1,954.47	-	-	178,870.94	-	178,870.94
Juarez, Ana	01/03/14			** 15,485.12	1,200.42	-	-	16,685.54	-	16,685.54
Kampwirth, Robert	05/01/94			148,881.63	1,665.83	-	-	150,547.46	-	150,547.46
Kearns, Daniel	06/02/08			58,274.57	1,278.92	-	-	59,553.49	-	59,553.49
King, Kenneth J	04/07/03			93,621.08	1,359.27	-	-	94,980.35	-	94,980.35
Klein, Myles	09/22/14	09/08/15	**	6,064.90	-	-	-	6,064.90	-	6,064.90
Koller, Jeffrey W	01/05/04			89,948.57	1,297.88	-	-	91,246.45	-	91,246.45
LaFrancis, David P	01/10/05			82,220.23	1,349.36	-	-	83,569.59	-	83,569.59
Lauria, Frank T	01/10/05			82,227.94	1,349.36	-	-	83,577.30	-	83,577.30
Leavitt, Jason A	02/21/94			164,991.91	1,938.36	-	-	166,930.27	-	166,930.27
Luehr, Michael D	09/13/99			115,367.23	1,529.84	-	-	116,897.07	-	116,897.07
McEwen, Timothy J	05/10/04			86,692.20	1,359.27	-	-	88,051.47	-	88,051.47
McGannon, Matthew J	05/06/02			99,269.73	1,359.27	-	-	100,629.00	-	100,629.00
Mellema, Duane	01/28/91			173,332.50	2,043.31	-	-	175,375.81	-	175,375.81
Moehrlin, Jon	09/05/00			108,785.36	1,356.20	-	-	110,141.56	-	110,141.56
Moravet, Andrei	01/05/15		**	8,509.19	1,074.76	-	-	9,583.95	-	9,583.95
Niemiec, Robert	12/30/15		**	1,999.93	944.16	-	-	2,944.09	-	2,944.09
Novy, James	12/30/15		**	1,999.93	944.16	-	-	2,944.09	-	2,944.09
Orta, Gregory	10/06/97			125,890.73	1,356.20	-	-	127,246.93	-	127,246.93
Panizo, Juan	08/28/06			71,064.11	1,339.43	-	-	72,403.54	-	72,403.54
Peterson, Benjamin J	06/15/02			99,685.51	1,349.36	-	-	101,034.87	-	101,034.87
Raitano, Anthony R	09/30/96			128,881.88	1,356.20	-	-	130,238.08	-	130,238.08

**Park Ridge Police Pension Fund  
Member Contribution Report  
For the Fiscal Year Ended April 30, 2017**

Name	Actual Entry Date	Updated Entry Date for Purchase of Service Credit	Term/ Retire Date	Thru Prior Fiscal Year	Current Fiscal Year	Purchase of Military Service	Refunds	Total Contributions	(1) After-Tax Portion	(2) Pre-Tax Portion
Rechlicz, Thomas B	05/04/99	01/18/95	&	\$ 144,299.10	\$ 1,366.11	\$ -	\$ -	\$ 145,665.21	\$ -	\$ 145,665.21
Richards, Quentin	12/30/15		**	1,999.93	944.16	-	-	2,944.09	-	2,944.09
Robert, Remoh R.	04/09/07			67,011.85	1,328.72	-	-	68,340.57	-	68,340.57
Ryan, Kevin P	09/08/98			120,413.72	1,355.32	-	-	121,769.04	-	121,769.04
Ryan, Richard	05/01/95			142,042.63	1,928.95	-	-	143,971.58	-	143,971.58
Sanetra, Arnold J	04/10/92			149,745.94	1,359.91	-	-	151,105.85	-	151,105.85
Shaughnessy, Kathy	07/20/90			173,560.99	1,885.10	-	-	175,446.09	-	175,446.09
Stephens, Mitchell	12/30/15		**	1,999.93	944.16	-	-	2,944.09	-	2,944.09
Stopka, Steven G	05/10/04			86,693.43	1,317.10	-	-	88,010.53	-	88,010.53
Suarez, Karyn J	10/06/97			123,641.22	1,356.20	-	-	124,997.42	-	124,997.42
Taylor, Gregory	04/11/88	10/14/86	&	167,281.65	1,360.80	-	-	168,642.45	-	168,642.45
Tracy, Steven	01/08/88			162,899.92	1,369.82	-	-	164,269.74	-	164,269.74
Vallejo, Mark A.	07/10/06		09/30/15	66,958.05	-	-	-	66,958.05	-	66,958.05
Waddell, Jeffrey W	05/04/99	10/22/95	&	139,400.73	1,356.20	-	-	140,756.93	13,783.88	126,973.05
Ware, Eugene A	03/20/00			115,836.23	1,661.38	-	-	117,497.61	-	117,497.61
TOTALS				\$ 5,694,257.14	\$ 74,144.97	\$ -	\$ -	\$ 5,768,402.11	\$ 22,915.39	\$ 5,745,486.72

(1) Nontaxable Portion of Contribution Refund (Prior to 7/1/84)

(2) Taxable Portion of Contribution Refund

\* This member was hired on or after 1/1/11 but this member is a Tier 1 member because this member was a member under the Statute prior to 1/1/11.

\*\* This member was hired on or after 1/1/11 for the first time under the Statute; therefore, this member is a Tier 2 member.

& Contributions and Entry Date reflect transfer of service from IMRF, other Article 3 Funds, repayment of refund or purchase of military service time

*Members are removed from report at fiscal-year end if they are receiving a pension benefit payment or have terminated and received a refund of contributions.*

\$ This member has a break in service of 210 disability days

\$\$ This member has a break in service of 244 disability days

(See accountant's compilation report.)

**Park Ridge Police Pension Fund**  
**Summary of Property Tax Receipts through June 30, 2016**

	2015 Taxes	2014 Taxes	2013 Taxes	2012 Taxes
5/24/2016	\$ 8,574.01	\$ (255.27)	\$ (206.03)	\$ (279.43)
5/31/2016		2,442.51	(419.11)	(90.82)
6/3/2016		346.14		
6/28/2016		3,832.82	(310.15)	(46.69)
6/29/2016	1.64			
Fiscal Year Ended April 30, 2017	<u>\$ 8,575.65</u>	<u>\$ 6,366.20</u>	<u>\$ (935.29)</u>	<u>\$ (416.94)</u>
	2015 Taxes	2014 Taxes	2013 Taxes	2012 Taxes
Fiscal Year Ended April 30, 2016	<u>\$ 987,343.61</u>	<u>\$ 1,023,531.59</u>	<u>\$ 11,884.90</u>	<u>\$ (3,055.31)</u>
		2014 Taxes	2013 Taxes	2012 Taxes
Fiscal Year Ended April 30, 2015		<u>\$ 865,470.04</u>	<u>\$ 831,169.73</u>	<u>\$ 7,104.05</u>
			2013 Taxes	2012 Taxes
Fiscal Year Ended April 30, 2014			<u>\$ 849,277.61</u>	<u>\$ 776,797.10</u>
				2012 Taxes
Fiscal Year Ended April 30, 2013				<u>\$ 868,687.34</u>
<b>SUMMARY</b>	2015 Taxes	2014 Taxes	2013 Taxes	2012 Taxes
<b>TOTAL COLLECTED</b>	<u>\$ 995,919.26</u>	<u>\$ 1,895,367.83</u>	<u>\$ 1,691,396.95</u>	<u>\$ 1,649,116.24</u>
<b>TAX LEVIED</b>	<u>\$ 2,001,179.00</u>	<u>\$ 1,909,023.00</u>	<u>\$ 1,667,295.00</u>	<u>\$ 1,616,067.00</u>
<b>TAX EXTENDED</b>	<u>\$ 2,001,179.00</u>	<u>\$ 1,909,023.00</u>	<u>\$ 1,696,129.00</u>	<u>\$ 1,644,015.00</u>
<b>% COLLECTED</b>	<u>49.77%</u>	<u>99.28%</u>	<u>99.72%</u>	<u>100.31%</u>
<b>EXTENDED LESS COLLECTED</b>	<u>\$ 1,005,259.74</u>	<u>\$ 13,655.17</u>	<u>\$ 4,732.05</u>	<u>\$ (5,101.24)</u>
<b>AMOUNT REQUESTED BY FUND</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

(See accountant's compilation report.)

**Park Ridge Police Pension Fund  
Disbursement Warrant  
Presented at the July 26, 2016 Board Meeting**

NOTE: Check #1520 was voided due to a printing error

Check #	Date	Account ID	Line Description	Debit Amount	Credit Amount	Name	Check Description	Check Released
AutoDisb	4/14/2016	5190.001 1104.003	INVESTMENT MGR/ADVISOR FEES MSSB #225-918766	6,903.28		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					6,903.28			
1514	4/29/2016	5290.035 1105.002	OTHER EXPENSE CK - MSSB CHECKING #225-918793	50.00		RICHARD PAUL	OTHER EXPENSE	YES
					50.00			
1515	4/29/2016	5290.027 5290.028 5290.030 5290.035 1105.002	TRAVEL EXPENSE POSTAGE EXPENSE SUPPLIES EXPENSE OTHER EXPENSE CK - MSSB CHECKING #225-918793	64.53 49.00 22.01 19.54		LAURA KAPPLER	REIMB TO LAURA KAPPLER	YES
					155.08			
AutoDisb	4/30/2016	5190.001 1105.001	INVESTMENT MGR/ADVISOR FEES MSSB #225-918721	8,687.34		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					8,687.34			
AutoDisb	4/30/2016	5190.001 1105.003	INVESTMENT MGR/ADVISOR FEES MSSB #225-918730	6,344.91		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					6,344.91			
AutoDisb	5/6/2016	5190.001 1105.003	INVESTMENT MGR/ADVISOR FEES REFUND MSSB #225-918730	-334.83		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES REFUND	YES
					-334.83			
AutoDisb	5/9/2016	5190.001 1104.003	INVESTMENT MGR/ADVISOR FEES MSSB #225-918766	918.11		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					918.11			
AutoDisb	5/13/2016	5190.001 1105.005	INVESTMENT MGR/ADVISOR FEES MSSB #225-918747	3,459.81		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					3,459.81			
1516	5/31/2016	5290.035 1105.002	OTHER EXPENSE CK - MSSB CHECKING #225-918793	50.00		RICHARD PAUL	OTHER EXPENSE	YES
					50.00			
1517	5/31/2016	5170.005 1105.002	LEGAL SERVICES CK - MSSB CHECKING #225-918793	1,550.00		ATWELL & ATWELL	APRIL 2016 SERVICES	YES
					1,550.00			
1518	5/31/2016	5290.035 5290.027 1105.002	OTHER EXPENSE TRAVEL EXPENSE CK - MSSB CHECKING #225-918793	36.10 47.33		LAURA KAPPLER	REIMB TO LAURA KAPPLER	YES
					83.43			
1519	5/31/2016	5290.034 1102.002	IDOI FILING FEE EXPENSE CK - MSSB CHECKING #225-918793	8,000.00		ILLINOIS STATE TREASURER	IDOI FILING FEE EXPENSE	YES
					8,000.00			
AutoDisb	5/31/2016	5190.001 1105.004	INVESTMENT MGR/ADVISOR FEES MSSB #225-918745	3,779.78		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					3,779.78			
AutoDisb	5/31/2016	5190.001 1105.006	INVESTMENT MGR/ADVISOR FEES MSSB #225-918746	2,609.47		MORGAN STANLEY SMITH BARNEY	INVESTMENT MGR/ADVISOR FEES	YES
					2,609.47			
1521	6/30/2016	5290.035 1105.002	OTHER EXPENSE CK - MSSB CHECKING #225-918793	50.00		RICHARD PAUL	OTHER EXPENSE	YES
					50.00			
Direct Deposit	4/29/2016	Multiple Expense Accounts 1102.002	April 2016 benefit payments CK - MSSB Checking #225-918793	266,616.69				YES
					266,616.69			

## **Park Ridge Police Pension Fund 2nd Quarter 2016 Summary**

### **7/26/16**

#### **Quarter in Review**

During the second quarter of 2016, global stocks and bonds generated modestly positive returns despite increased market turbulence. The historic decision by British voters to exit the European Union shocked global capital markets in June.

The top-performing sector in the S&P 500 was Energy, which was up 11.6%. Telecom rose 7.1% and was also among the top-performing sectors. The biggest laggards were Technology, which decreased 2.8%, and Consumer Discretionary, which fell 0.9%. Large and mid cap growth outperformed value, while Emerging markets rose slightly and the MSCI EAFE declined 1.2%. The bond market registered positive returns as interest rates declined during the second quarter. The yield on the 10-year U.S. Treasury note fell to a quarter-end 1.47% from 1.77% at the end of 1Q 2016. Riskier parts of the bond market such as U.S. high yield debt increased in the second quarter.

#### **Looking Ahead**

We are generally optimistic about the markets and remain overweight global equities. Global central bank Quantitative Easing has been a powerful tailwind. More than 30% of global sovereign debt now sport negative yields. We believe the markets will continue to benefit from a “rebalancing” stage; growth expectations have improved due to a simultaneous weak US Dollar and Chinese renminbi. The markets will likely be impacted by continued high volatility due to “scar tissue” of the Great Recession.

**Graystone  
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## **DRAFT - Mutual Fund Review**

**Prepared for:**

**CITY OF PARK RIDGE  
POLICE PENSION FUND**

**May 31, 2016**

## American Funds Europacific Growth R6

Benchmark: MSCI ACWI ex USA (Net)

Quantitative Review	7 Year			5 Year			3 Year		
<b>Benchmark Correlation</b> <i>R2 should be greater than or equal to 0.80</i>	Pass 0.96			Pass 0.94			Pass 0.91		
<b>Annualized Performance</b> <i>Annualized performance should surpass benchmark</i>	7.08%	vs.	5.41%	2.61%	vs.	0.12%	3.39%	vs.	0.19%
<b>Risk Adjusted Performance</b> <i>Sharpe Ratio should surpass benchmark</i>	0.46	vs.	0.33	0.18	vs.	0.00	0.28	vs.	0.01
<b>Peer Comparison</b> <i>Fund should rank in the top half in a universe of funds with a similar investment style</i>	Pass 21%			Pass 20%			Pass 17%		
<b>Down Market Performance</b> <i>Down Capture Ratio should be less than or equal to 1.0</i>	Pass 0.88			Pass 0.84			Pass 0.77		
Qualitative Review	Status			Comments					
Investment Firm / Fund	Pass								
Management Team	Pass								

## Invesco European Growth Y

Benchmark: MSCI EUROPE (Net)

Quantitative Review	7 Year			5 Year			3 Year		
<b>Benchmark Correlation</b>	Pass			Pass			Pass		
<i>R2 should be greater than or equal to 0.80</i>	0.95			0.94			0.92		
<b>Annualized Performance</b>	Pass			Pass			Pass		
<i>Annualized performance should surpass benchmark</i>	10.05%	vs.	6.48%	4.84%	vs.	1.55%	4.41%	vs.	1.82%
<b>Risk Adjusted Performance</b>	Pass			Pass			Pass		
<i>Sharpe Ratio should surpass benchmark</i>	0.68	vs.	0.35	0.36	vs.	0.09	0.37	vs.	0.12
<b>Peer Comparison</b>	Pass			Pass			Pass		
<i>Fund should rank in the top half in a universe of funds with a similar investment style</i>	11%			10%			17%		
<b>Down Market Performance</b>	Pass			Pass			Pass		
<i>Down Capture Ratio should be less than or equal to 1.0</i>	0.69			0.70			0.70		

Qualitative Review	Status	Comments
Investment Firm / Fund	Pass	
Management Team	Pass	

## MainStay ICAP International I

Benchmark: MSCI EAFE (Net)

Quantitative Review	7 Year	5 Year	3 Year
<b>Benchmark Correlation</b> <i>R2 should be greater than or equal to 0.80</i>	Pass 0.94	Pass 0.94	Pass 0.93
<b>Annualized Performance</b> <i>Annualized performance should surpass benchmark</i>	Fail 5.44% vs. 6.40%	Fail 1.02% vs. 2.12%	Fail 0.44% vs. 2.00%
<b>Risk Adjusted Performance</b> <i>Sharpe Ratio should surpass benchmark</i>	Fail 0.33 vs. 0.39	Fail 0.06 vs. 0.13	Fail 0.03 vs. 0.15
<b>Peer Comparison</b> <i>Fund should rank in the top half in a universe of funds with a similar investment style</i>	Fail 68%	Fail 63%	Fail 76%
<b>Down Market Performance</b> <i>Down Capture Ratio should be less than or equal to 1.0</i>	Fail 1.02	Fail 1.00	Fail 1.03

Qualitative Review	Status	Comments
Investment Firm / Fund	Pass	
Management Team	Pass	PM Retiring 09/30/2016

# Important Notes About This Report

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**PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. ACTUAL INDIVIDUAL ACCOUNT RESULTS WILL DIFFER FROM THE PERFORMANCE SHOWN IN THIS REPORT.**

**INVESTMENT DECISIONS:** Do not use this report as the sole basis for investment decisions. Do not select an allocation, investment disciplines or investment managers/funds based on performance alone. Consider, in addition to performance results, other relevant information about each investment manager or fund, as well as matters such as your investment objectives, risk tolerance and investment time horizon.

**SOURCE OF PERFORMANCE INFORMATION FOR INVESTMENT MANAGERS AVAILABLE IN CONSULTING AND EVALUATION SERVICES, FIDUCIARY SERVICES OR SELECT UMA:** Each investment manager included in this report that participates in one or more of the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs ("Programs") has a track record of investing assets in the relevant investment discipline. The investment manager's gross performance track record shown in this report consists of its gross performance in either the Morgan Stanley or the Smith Barney form of the Fiduciary Services program (if that investment manager is in the Fiduciary Services program) for periods for which sufficient data is available. If the strategy or similar strategies are available in both the Morgan Stanley and Smith Barney forms of the program, this profile presents the composite for the strategy that is closest to the strategy currently offered in the Fiduciary Services program. If both strategies are equally close, the profile shows the longer of the two composites. For other periods, the gross performance track record is provided by the investment manager and consists of accounts managed by the investment manager in the same or a similar investment discipline, whether at Morgan Stanley or elsewhere (and may include institutional accounts, retail accounts and/or pooled investment vehicles such as mutual funds).

## Important Notes About This Report (Cont'd)

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**SOURCE OF PERFORMANCE INFORMATION FOR FUNDS:** For any fund shown in this report, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below.

**BENCHMARK INDICES:** Depending on the composition of your account and your investment objectives, the indices shown in this report may not be appropriate measures for comparison purposes and are therefore presented for illustration only. The indices used in this report may not be the same indices used for comparative purposes in the profile for each investment manager, mutual fund and/or ETF that accompanies this report. Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Performance of selected indices may be more or less volatile than that of any investment manager/fund shown in this report. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

**MANAGERS AND FUNDS APPROVED IN MORGAN STANLEY WEALTH MANAGEMENT PROGRAMS:** Morgan Stanley Wealth Management approves certain managers and funds offered in its investment advisory programs:

- Morgan Stanley Wealth Management's Global Investment Manager Analysis ("GIMA") team approves managers and funds offered in Consulting and Evaluation Services, Fiduciary Services, and Select UMA.
- Managers and funds offered in Institutional Consulting Group and Graystone Consulting programs may be approved by GIMA, approved by Morgan Stanley Wealth Management using another process, or not approved by Morgan Stanley Wealth Management.
- Morgan Stanley Wealth Management does not approve managers in the Investment Management Services consulting program.
- Managers in the Global Investment Solutions (GIS) program are not evaluated by GIMA.

## Important Notes About This Report (Cont'd)

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**KEY ASSET CLASS RISK CONSIDERATIONS:** Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

**Commodities – Diversified:** The commodities markets may fluctuate widely based on a variety of factors including changes in supply and demand relationships; governmental programs and policies; national and international political and economic events; war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence; weather; technological change; and the price volatility of a commodity. In addition to commodity risk, commodity-linked notes may be subject to special risks, such as risk of loss of interest and principal, lack of a secondary market and risk of greater volatility that do not affect traditional equity and debt securities.

**Commodities - Precious Metals:** The prices of Commodities - Precious Metals tend to fluctuate widely and in an unpredictable manner, and have historically experienced extended periods of flat or declining prices. The prices of Commodities - Precious Metals are affected by several factors, including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.

**Fixed Income:** Fixed income securities are subject to certain inherent risks such as credit risk, reinvestment risk, call risk, and interest rate risk. Fixed income securities are sensitive to changes in prevailing interest rates. When interest rates rise, the value of fixed income securities generally declines. Accordingly, managers or funds that invest in fixed income securities are subject to interest rate risk and portfolio values can decline in value as interest rates rise and an investor can lose principal.

**High Yield Fixed Income:** As well as being subject to risks relating to fixed income generally (see "Fixed Income"), high yield or "junk" bonds are considered speculative, have significantly higher credit and default risks (including loss of principal), and may be less liquid and more volatile than investment grade bonds. Clients should only invest in high yield strategies if this is consistent with their risk tolerance, and high yield investments should comprise only a limited part of a balanced portfolio.

## Important Notes About This Report (Cont'd)

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**Managed Futures:** Involve a high degree of risk, often involve leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

**Master Limited Partnerships (MLPs)** are limited partnerships or limited liability companies whose interests (limited partnership or limited liability company units) are generally traded on securities exchanges like shares of common stock. Investment in MLPs entails different risks, including tax risks, than is the case for other types of investments. Currently, most MLPs operate in the energy, natural resources or real estate sectors and are subject to the risks generally applicable to companies in those sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Depending on the ownership vehicle, MLP interests are subject to varying tax treatment.

# Glossary (Cont'd)

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**CORRELATION:** Statistical method to measure how closely related the variances of two series are. Assets that are highly correlated would be expected to react in similar ways to changing market conditions.

**CUMULATIVE RETURN:** The total return on an investment over a specified time period.

**CUMULATIVE EXCESS RETURN:** Excess return represents the difference between the manager's return and the return of a benchmark for that manager. Cumulative excess return is calculated by taking the cumulative return of the original series and forming the difference between the two. A positive cumulative excess return implies that the manager outperformed the benchmark over the time period shown.

**DOWNSIDE CAPTURE RATIO:** For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had negative returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. For investors, the lower the downside capture ratio, the better. For example, a downside capture ratio of 90% means that the portfolio's losses were only 90% of the market's losses (as represented by the benchmark index).

**DOWNSIDE DEVIATION:** Similar to Standard Deviation, but Downside Deviation captures the range of expected returns only on the down side [when the returns fall below the minimum acceptable return (MAR)].

**DRAWDOWN (MAXIMUM DRAWDOWN):** The Maximum loss (compounded, not annualized) that the manager incurred during any sub-period of the time period shown.

**DRAWDOWN BEGIN DATE:** the first date of the sub-period used to calculate the maximum drawdown

**DRAWDOWN END DATE:** The last date of the sub period used to calculate the maximum drawdown

**DRAWDOWN LENGTH:** The number of periods (months or quarters depending on the periodicity of the data) the sub-period used to calculate the maximum drawdown

**DRAWDOWN RECOVERY DATE:** Date at which the compounded returns regain the peak level that was reached before the drawdown began

**DRAWDOWN RECOVERY LENGTH:** Number of periods it takes to reach the recovery level from maximum drawdown end date

## Glossary (Cont'd)

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**MANAGER STYLE (RETURNS BASED STYLE ANALYSIS):** A measure for analyzing the style of a portfolio's returns when compared with the quarterly returns on a number of selected style indices (the "Style Basis"). These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes. Style analysis uses a calculation procedure that finds the combination of selected indices that best tracks (i.e. that has the highest correlation to) a given manager's return series. This allows the advisor to capture an accurate picture of the investment style of the manager without viewing the underlying holdings.

**OMEGA:** A measure of volatility designed to capture the entire return distribution (useful for investments that do not have normal return distributions), the Omega is tied to a MAR (see above) and shows the ratio of the entire upside performance to the entire downside, with the MAR representing the dividing line between upside and downside. (e.g. If MAR = 0.00%, any positive return is captured in the upside and any negative return is captured in the downside).

**PAIN INDEX:** Represents the frequency, the depth, and the width of the manager/fund's drawdowns. The Pain Index captures the information for every period in which the manager/fund is negative. A higher Pain Index indicates that the manager/fund had a more negative result when considering not just the depth (lowest return) but also the frequency of negative returns (frequency) and the amount of time that the return remained negative (width).

**PAIN RATIO:** A risk/return ratio which uses the Pain Index as the measure of risk. The higher the Pain Ratio, the better the risk-adjusted return of the portfolio.

**ROLLING WINDOW:** Indicates that the chart or statistic was evaluated using periodic smaller windows of data on a rolling basis. As an example, a 20 Quarter Rolling Window (Annual Roll) over a 10 year period indicates that 5 year (20 quarter) periods of time were evaluated from the start date, moving forward one year at a time, for the duration of the 10 year period, resulting in 5 "windows". Evaluating data this way allows us to remove end point bias and determine a measure of consistency in performance.

**R-SQUARED:** Used to show how much of a portfolio's variability can be accounted for by the market. For example, if a portfolio's R-Squared is 0.79, then 79% of the portfolio's variability is due to market conditions. As R-Squared approaches 100%, the portfolio is more closely correlated with the market.

## Glossary (Cont'd)

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**STYLE BASIS:** A set of indices that represent the broad asset category being utilized. The Style Basis is used in the equation that calculates the Manager Style (see definition). The "Manager Style" chart shows the specific benchmarks utilized in the Style Basis. The following Style Bases would be appropriate for the asset classes shown below:

- Domestic Equity: Russell Generic Corners; Russell 6 Way Style basis; S&P Pure Style Basis
- International Equity: MSCI Regional Style Basis; MSCI World Ex USA Style Basis; MSCI International Equity Style Basis; S&P Regional International Indexes, S&P International 4 Way Style Basis
- Global Equity: MSCI World Style Basis; MSCI World Regional Indexes; MSCI Global Equity Style Basis
- Fixed income: Citigroup Corporate Bond Indexes; BofA Merrill Lynch Fixed Income Indexes; Citigroup Govt Fixed Income Indexes; Global Bond Indexes

**STYLE BENCHMARK:** A unique benchmark calculated for each manager/fund based on the Returns Based Style Analysis described above. The "Asset Allocation" chart in Zephyr shows the specific weightings used for the Style Benchmark for each manager or fund.

**TRACKING ERROR:** A measurement that indicates the standard deviation of the difference between a selected market index and a portfolio's returns. The portfolio's returns are then compared to the index's returns to determine the amount of excess return, which produces a tracking error. A low tracking error indicates that the portfolio is tracking the selected index closely or has roughly the same returns as the index.

**UPSIDE CAPTURE RATIO:** For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had positive returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. A percentage less than 100% indicates that the portfolio "captured" less performance than the benchmark index, while a percentage greater than 100% indicates the portfolio captured more performance than the benchmark index. For investors, the higher the upside capture ratio, the better. For example, if the annualized performance of an benchmark index during "up" markets (when its returns were zero or positive) is 20.8% and the portfolio's annualized performance during the same period is 16.8%, then the portfolio's upside capture ratio is  $16.8\%/20.8\% = 80.7\%$ , meaning the portfolio "captured" 80.7% of the upside performance of the index. Stated another way, the portfolio in this example performed almost 20% worse than the market during up periods.

**VARIANCE:** A measure of how spread out a distribution is. It is computed as the average squared deviation of each number from its mean.

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## **International Core Fund Analysis**

**Prepared for:**

**CITY OF PARK RIDGE  
POLICE PENSION FUND**

**July 26, 2016**

# Important Notes About Performance (Cont'd)

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## **GENERAL DISCLOSURE**

**The investment return and principal value of an investment will fluctuate so that an investor's shares in a fund, when redeemed, may be worth more or less than their original cost, and investments in separately managed accounts may be worth more or less than the original amount. Current performance may be lower or higher than the performance quoted. For performance data for a fund current to the most recent month end, please either contact the fund (at the toll-free number or website address specified in that fund's profile given to you with this report) or call your Financial Advisor or Private Wealth Advisor at the toll-free number on the cover page of this report.**

You would not necessarily have obtained the performance results shown in this report if you had invested with these managers or funds for the periods indicated. Actual performance results of accounts vary due to factors such as the timing of contributions and withdrawals, client restrictions, rebalancing schedules, and fees and costs. **THE SELECTION OF MANAGERS/FUNDS IN THIS REPORT MAY REFLECT THE BENEFIT OF HINDSIGHT BASED ON HISTORICAL RATES OF RETURN.**

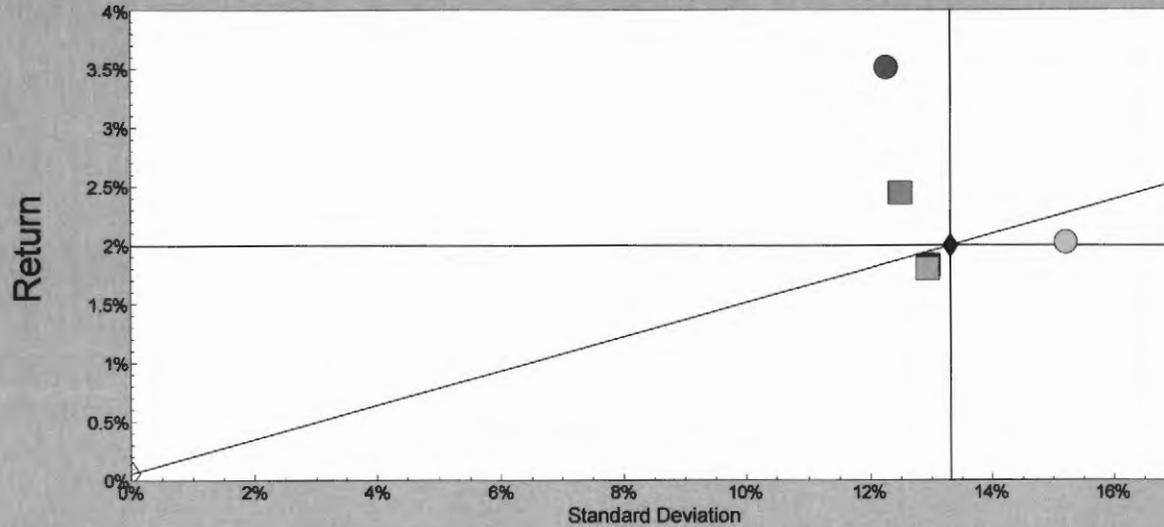
In this report, all performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

See the applicable Morgan Stanley ADV brochure for an explanation of the fees and charges that would apply if you invest with an investment manager or in a fund through a Morgan Stanley investment advisory program. See "Important Notes About This Report" for information on the sources of performance information in this report.

### 3 Year - Manager Risk/Return

Single Computation

June 2013 - May 2016



- Federated International Leaders Instl\*
- Lazard International Strategic Eq Instl (LISIX)
- BlackRock International Index Instl (MAIIX)
- Dreyfus Intl Stock Index (DIISX)
- ▣ Pax MSCI International ESG Idx Instl (PXNIX)
- ◆ Market Benchmark:  
MSCI EAFE (Net)
- ◇ Cash Equivalent:  
Citigroup 3-month T-bill
- Capital Market Line

### Risk-Return Table

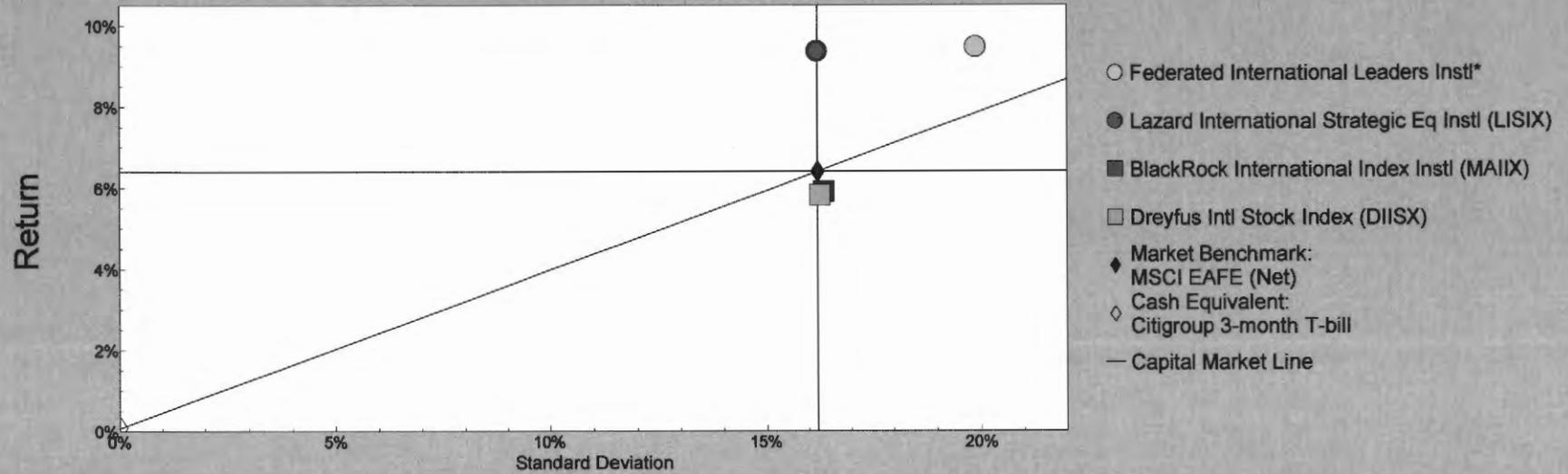
June 2013 - May 2016: Annualized Summary Statistics

	Return (%)	Std Dev (%)	Downside Risk (%)	Cash-Adj. Beta vs. Market	Cash-Adj. Beta vs. Style	Cash-Adj. Alpha vs. Market (%)	Cash-Adj. Alpha vs. Style (%)	Cash-Adj. R-Squared vs. Market (%)	Cash-Adj. R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observ.
Federated International Leaders Instl*	2.03	15.21	9.96	1.0930	1.1035	0.03	-1.14	91.48	91.77	0.1292	4.6081	4.5722	36
Lazard International Strategic Eq Instl (LISIX)	3.51	12.27	8.32	0.8755	1.0000	1.71	-0.06	90.23	91.31	0.2813	4.1765	3.6171	36
BlackRock International Index Instl (MAIIX)	1.83	12.95	8.64	0.9623	1.0000	-0.11	-0.84	97.76	97.97	0.1365	2.0010	1.8462	36
Dreyfus Intl Stock Index (DIISX)	1.80	12.94	8.60	0.9611	1.0000	-0.13	-0.98	97.74	98.06	0.1344	2.0114	1.8021	36
Pax MSCI International ESG Idx Instl (PXNIX)	2.44	12.50	8.56	0.9217	1.0000	0.56	-1.01	96.35	97.15	0.1907	2.6059	2.1109	36
MSCI EAFE (Net)	2.00	13.31	8.94	1.0000	1.0000	0.00	-0.47	100.00	99.99	0.1454	0.0000	0.1383	36

### 7 Year - Manager Risk/Return

Single Computation

June 2009 - May 2016



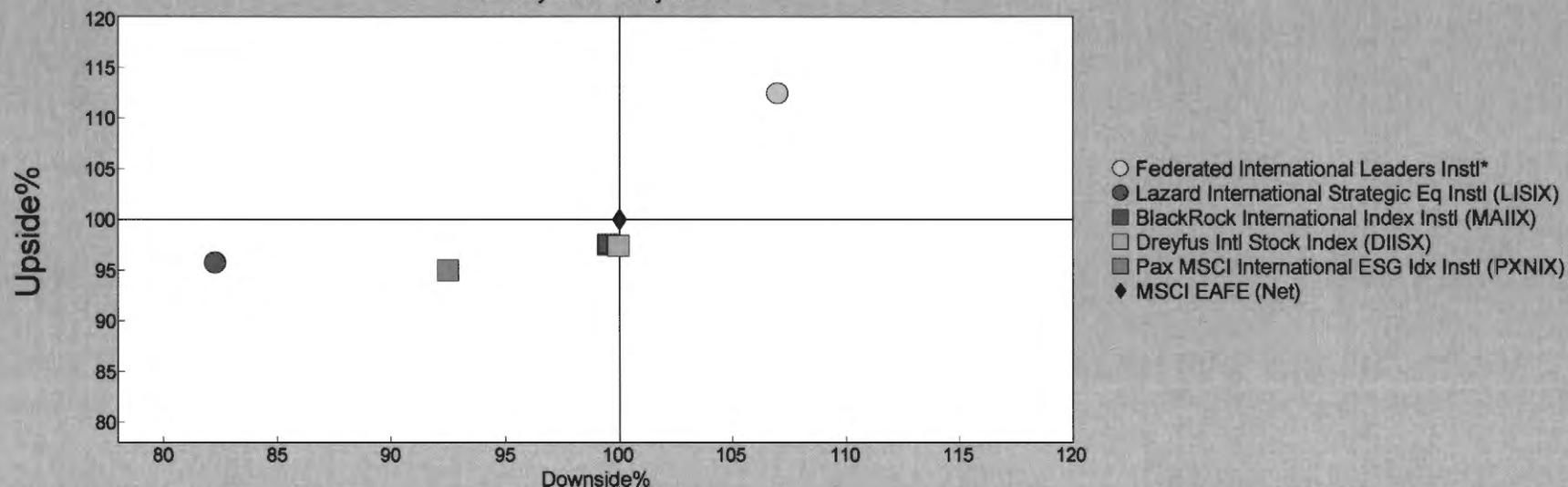
### Risk-Return Table

June 2009 - May 2016: Annualized Summary Statistics

	Return (%)	Std Dev (%)	Downside Risk (%)	Cash-Adj. Beta vs. Market	Cash-Adj. Beta vs. Style	Cash-Adj. Alpha vs. Market (%)	Cash-Adj. Alpha vs. Style (%)	Cash-Adj. R-Squared vs. Market (%)	Cash-Adj. R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observ.
Federated International Leaders Instl*	9.48	19.87	13.65	1.1738	1.1908	2.23	0.60	91.67	92.48	0.4729	6.3887	6.2477	84
Lazard International Strategic Eq Instl (LISIX)	9.37	16.19	11.44	0.9678	0.9985	3.04	1.54	93.89	95.22	0.5736	4.0343	3.5386	84
BlackRock International Index Instl (MAIIX)	5.91	16.35	11.64	1.0002	1.0048	-0.45	-1.24	98.26	98.44	0.3563	2.1586	2.0423	84
Dreyfus Intl Stock Index (DIISX)	5.82	16.26	11.55	0.9972	1.0041	-0.52	-1.15	98.81	99.03	0.3531	1.7747	1.6059	84
MSCI EAFE (Net)	6.40	16.21	11.60	1.0000	1.0012	0.00	-0.45	100.00	99.99	0.3899	0.0000	0.1313	84

### Upside Downside

February 2011 - May 2016



Single Computation

### Up/Down Table

February 2011 - May 2016. Single Computation

	# of Months		Average Return (%)		Average Return (%) vs. Market		Month (%)		1-Year (%)		Market Benchmark (%)		
	Up	Down	Up	Down	Up Market	Down Market	Best	Worst	Best	Worst	Up Capture	Down Capture	R-Squared
Federated International Leaders Instl*	35	29	4.01	-3.96	4.17	-3.37	14.05	-13.77	36.74	-21.50	112.4	107.0	90.90
Lazard International Strategic Eq Instl (LISIX)	36	28	3.38	-3.01	3.64	-2.47	9.48	-11.17	35.74	-15.28	95.7	82.3	93.56
BlackRock International Index Instl (MAIIX)	34	30	3.49	-3.34	3.69	-3.11	9.28	-11.24	30.05	-20.71	97.5	99.5	97.90
Dreyfus Intl Stock Index (DIISX)	34	30	3.48	-3.35	3.69	-3.13	10.23	-11.48	29.99	-21.01	97.4	100.0	98.52
Pax MSCI International ESG Idx Instl (PXNIX)	36	28	3.25	-3.30	3.61	-2.85	9.05	-11.00	32.81	-18.24	95.0	92.5	97.77
MSCI EAFE (Net)	32	32	3.77	-3.13	3.77	-3.13	9.64	-11.48	31.62	-20.48	100.0	100.0	100.00

Created with Zephyr StyleADVISOR. Manager returns supplied by: Morningstar, Inc.

# Federated International Leaders Instl (USD)

**Overall Morningstar Rtg™**  
**★★★**  
 712 US OE Foreign Large Blend

**Standard Index**  
 MSCI ACWI Ex USA NR USD

**Category Index**  
 MSCI ACWI Ex USA NR USD

**Morningstar Cat**  
 US OE Foreign Large Blend

**Performance 05-31-2016**

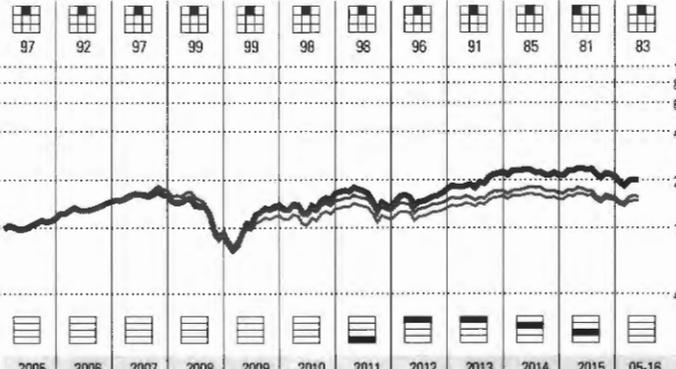
Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2014	2.31	0.58	-6.38	-0.55	-4.20
2015	6.49	1.00	-10.77	2.18	-1.94
2016	-5.86	—	—	—	-5.11

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-15.43	2.03	2.65	—	7.14
Std 03-31-2016	-13.31	—	3.15	—	7.21
Total Return	-15.43	2.03	2.65	4.48	7.14

+/- Std Index	+/- Cat Index	% Rank Cat	No. in Cat
-4.03	-4.03	95	806
1.83	1.83	42	712
2.54	2.54	18	622
2.47	2.47	5	373



**Investment Style**  
 Equity  
 Stock %

**Growth of \$10,000**

— Federated International Leaders Instl 19,899  
 — Category Average 14,720  
 — Standard Index 15,636

**Performance Quartile (within category)**

**History**

NAV/Price  
 Total Return %  
 +/- Standard Index  
 +/- Category Index  
 % Rank Cat  
 No. of Funds in Cat

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

**Performance Disclosure**

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-341-7400 or visit [www.federatedinvestors.com](http://www.federatedinvestors.com).

**Fees and Expenses**

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	
Management Fees %	0.90
12b1 Expense %	NA
Gross Expense Ratio %	1.17

**Risk and Return Profile**

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	4☆
Morningstar Risk	High	High	High
Morningstar Return	Avg	+Avg	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	15.21	18.49	21.52
Mean	2.03	2.65	4.48
Sharpe Ratio	0.20	0.23	0.27

MPT Statistics	Standard Index	Best Fit Index MSCI Europe NR USD
Alpha	2.00	0.27
Beta	1.05	1.02
R-Squared	85.90	91.98

Potential Cap Gains Exp	
	-7.52%

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	05-16
2563	—	—	—	—	—	25.63	20.78	26.83	33.79	32.03	30.90	29.32
14.42	14.42	27.68	8.64	-41.68	49.58	18.77	-18.31	30.41	27.44	-4.20	-1.94	-5.11
-2.20	-2.20	1.03	-8.01	3.84	8.13	7.62	-4.61	13.58	12.15	-0.34	3.73	-5.63
-2.20	-2.20	1.03	-8.01	3.84	8.13	7.62	-4.61	13.58	12.15	-0.34	3.73	-5.63
—	—	—	—	—	—	—	90	1	5	34	62	—
—	—	—	—	—	—	—	817	786	791	750	788	890

**Portfolio Analysis 03-31-2016**

Asset Allocation %	Net %	Long %	Short %
Cash	17.00	17.00	0.00
US Stocks	7.16	7.16	0.00
Non-US Stocks	75.84	75.84	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style	Portfolio Statistics	Port Avg	Rel Index	Rel Cat
Value Blend Growth	P/E Ratio TTM	16.1	1.07	0.97
	P/C Ratio TTM	10.8	1.39	1.19
	P/B Ratio TTM	1.3	0.85	0.78
	Geo Avg Mkt Cap \$mil	22062	0.80	0.64

Fixed-Income Style	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
Low Med Ext	—	—	—	—
High Med Low	—	—	—	—

Credit Quality Breakdown	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stock %	Rel Std Index
Americas	10.5	1.06
Greater Europe	79.2	1.58
Greater Asia	10.3	0.26

Share Chg since 12-2015	Share Amount	Holdings:	% Net Assets
		52 Total Stocks, 47 Total Fixed-Income, 2% Turnover Ratio	
		Topix Indx Futr Jun16	12.02
	2 mil	BNP Paribas	3.31
	1 mil	Imperial Brands PLC	2.63
	2 mil	Diageo PLC	2.36
	2 mil	CRH PLC	2.28
	2 mil	Royal Philips NV	2.27
	674,829	HeidelbergCement AG	2.16
	323,856	Kering	2.16
	712,036	Daimler AG	2.05
	1 mil	Julius Baer Gruppe AG	2.01
	4 mil	Television Francaise 1 SA	1.99
	19 mil	Intesa Sanpaolo	1.96
	4 mil	Credit Suisse Group AG	1.94
	2 mil	Honda Motor Co Ltd	1.85
	534,596	Bayerische Motoren Werke AG	1.84

S&P Sector Weightings	Stocks %	Rel Std Index
Energy	1.3	0.20
Utilities	0.0	0.00
Materials	7.5	1.08
Industrials	19.1	1.66
Cons Disc	25.3	2.16
Cons Stpls	14.2	1.26
Health Care	4.6	0.50
Financials	24.7	0.96
Info Tech	3.4	0.40
Telecom	0.0	0.00

**Operations**

Family:	Federated
Manager:	Multiple
Tenure:	17.8 Years
Objective:	World Stock

Base Currency:	USD
Ticker:	FGLX
Minimum Initial Purchase:	\$1 mil
Min Auto Investment Plan:	\$1 mil

Purchase Constraints:	A
Incept:	06-21-2010
Type:	MF
Total Assets:	\$2,151.55 mil

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## Federated International Leaders Instl

Benchmark: MSCI EAFE (Net)

Quantitative Review	7 Year	5 Year	3 Year
<b>Benchmark Correlation</b> <i>R2 should be greater than or equal to 0.80</i>	Pass 0.92	Pass 0.91	Pass 0.91
<b>Annualized Performance</b> <i>Annualized performance should surpass benchmark</i>	Pass 9.48% vs. 6.40%	Pass 2.65% vs. 2.12%	Pass 2.03% vs. 2.00%
<b>Risk Adjusted Performance</b> <i>Sharpe Ratio should surpass benchmark</i>	Pass 0.47 vs. 0.39	Pass 0.14 vs. 0.13	Fail 0.13 vs. 0.15
<b>Peer Comparison</b> <i>Fund should rank in the top half in a universe of funds with a similar investment style</i>	Pass 4%	Pass 19%	Pass 44%
<b>Down Market Performance</b> <i>Down Capture Ratio should be less than or equal to 1.0</i>	Fail 1.07	Fail 1.08	Fail 1.05

Qualitative Review	Status	Comments
Investment Firm / Fund	Pass	
Management Team	Pass	

# Lazard International Strategic Eq Instl (USD)

**Morningstar Analyst Rtg™**  
**Bronze**  
 06-16-2016

**Overall Morningstar Rtg™**  
 ★★★★★  
 712 US OE Foreign Large Blend

**Standard Index**  
 MSCI ACWI Ex USA NR USD

**Category Index**  
 MSCI ACWI Ex USA NR USD

**Morningstar Cat**  
 US OE Foreign Large Blend

**Performance 05-31-2016**

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2014	1.31	4.85	-5.72	-1.63	-1.48
2015	4.88	1.25	-10.71	3.66	-1.70
2016	-0.30	—	—	—	0.53

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-8.27	3.51	4.99	4.28	6.00
Std 03-31-2016	-6.56	—	5.95	4.22	6.02
Total Return	-8.27	3.51	4.99	4.28	6.00
+/- Std Index	3.12	3.32	4.87	2.27	—
+/- Cat Index	3.12	3.32	4.87	2.27	—
% Rank Cat	25	15	4	7	—
No. in Cat	806	712	622	373	—

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

**Performance Disclosure**

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-986-3455 or visit www.lazardnet.com.

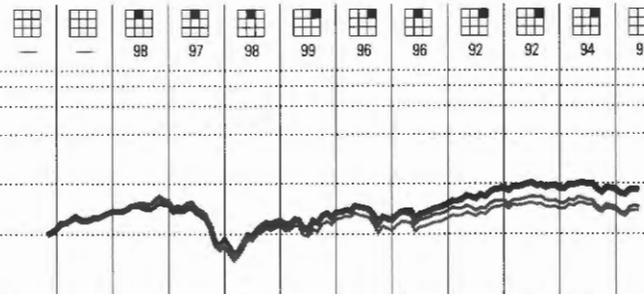
**Fees and Expenses**

Sales Charges	
Front-End Load %	NA
Deferred Load %	NA
Fund Expenses	
Management Fees %	0.75
12b1 Expense %	NA
Gross Expense Ratio %	0.82

**Risk and Return Profile**

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	4★	5★	5★
Morningstar Risk	Avg	Avg	-Avg
Morningstar Return	+Avg	High	High
Standard Deviation	12.27	14.50	18.33
Mean	3.51	4.99	4.28
Sharpe Ratio	0.34	0.40	0.27

MPT Statistics	Standard Index	Best Fit Index
	USD	MSCI ACWI NR
Alpha	3.26	-1.51
Beta	0.86	0.99
R-Squared	88.22	92.59
Potential Cap Gains Exp	—	0.53%



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	05-16
NAV/Price	10.79	12.66	12.92	7.51	9.41	10.63	9.46	11.71	14.46	13.72	13.33	13.40
Total Return %	—	26.21	12.88	-39.99	27.76	14.43	-9.70	25.00	25.02	-1.48	-1.70	0.53
+/- Standard Index	—	-0.44	-3.78	5.54	-13.69	3.28	4.01	8.17	9.74	2.38	3.96	0.01
+/- Category Index	—	-0.44	-3.78	5.54	-13.69	3.28	4.01	8.17	9.74	2.38	3.96	0.01
% Rank Cat	—	32	42	8	67	13	11	5	11	13	59	—
No. of Funds in Cat	—	657	743	778	823	829	617	786	791	750	788	890

**Portfolio Analysis 03-31-2016**

Asset Allocation %	Net %	Long %	Short %	Share Chg since 12-2015
Cash	4.01	4.01	0.00	—
US Stocks	4.17	4.17	0.00	—
Non-US Stocks	87.14	87.14	0.00	⊕
Bonds	0.00	0.00	0.00	⊕
Other/Not Clsfd	4.68	4.68	0.00	⊕
Total	100.00	100.00	0.00	⊕

Equity Style	Value	Blend	Growth	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	20.8	1.39	1.26	—	—	—
P/C Ratio TTM	12.3	1.57	1.36	—	—	—
P/B Ratio TTM	2.7	1.82	1.67	—	—	—
Geo Avg Mkt Cap \$mil	21480	0.78	0.63	—	—	—

Fixed-Income Style	Ltd	Mod	Ext	High	Med	Low
Avg Eff Maturity	—	—	—	—	—	—
Avg Eff Duration	—	—	—	—	—	—
Avg Wtd Coupon	—	—	—	—	—	—
Avg Wtd Price	—	—	—	—	—	—

Credit Quality Breakdown	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stock %	Rel Std Index
Americas	5.0	0.50
Greater Europe	63.9	1.28
Greater Asia	31.2	0.78

Share Amount	Holdings:	% Net Assets
58 Total Stocks, 0 Total Fixed-Income, 37% Turnover Ratio		
5 mil	Sampo Oyj A	3.48
4 mil	British American Tobacco PLC	3.30
6 mil	Don Quijote Holdings Co Ltd	2.78
2 mil	Aon PLC	2.77
7 mil	Daiwa House Industry Co Ltd	2.74
2 mil	Carlsberg A/S B	2.41
18 mil	Informa PLC	2.39
8 mil	AEON Financial Service Co Ltd	2.39
2 mil	Bayer AG	2.37
3 mil	Shire PLC	2.33
16 mil	Arcor Ltd	2.29
2 mil	Kerry Group PLC Class A	2.27
2 mil	Novartis AG	2.19
1 mil	Actelion Ltd	2.16
164 mil	Lloyds Banking Group PLC	2.14

S&P Sector Weightings	Stocks %	Rel Std Index
Energy	3.0	0.47
Utilities	0.0	0.00
Materials	5.3	0.76
Industrials	5.9	0.52
Cons Disc	18.1	1.55
Cons Stpls	16.3	1.45
Health Care	13.3	1.47
Financials	22.2	0.86
Info Tech	7.5	0.89
Telecom	8.3	1.57

**Operations**

Family:	Lazard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	LISIX	Incept:	10-31-2005
Tenure:	10.7 Years	Minimum Initial Purchase:	\$100,000	Type:	MF
Objective:	Growth	Minimum IRA Purchase:	\$100,000	Total Assets:	\$7,867.27 mil

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GLOBAL INVESTMENT MANAGER ANALYSIS

# Federated International Leaders Fund (FGFAX)

Benchmark: MSCI EAFE

Status: Focus List

www.federatedinvestors.com

March 31, 2016 (Q1)

Analyst: Michael Suchanick Phone: 302-888-4143 Email: Michael.Suchanick@ms.com

**Trailing Returns**

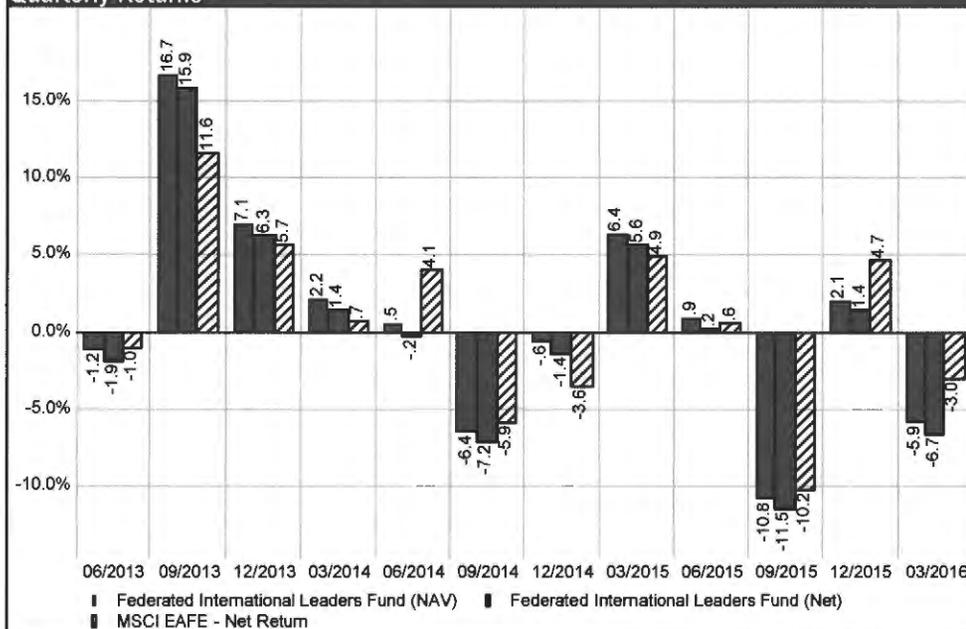
	QTD	YTD	1 Yr	3 Yr	5 Yr	7 Yr	10 Yr	2015	2014	2013	2012	2011	2010
Federated International Leaders Fund (NAV)	-5.90%	-5.90%	-13.54%	2.77%	2.90%	13.84%	4.32%	-2.20%	-4.45%	27.15%	30.09%	-18.53%	18.59%
Federated International Leaders Fund (Net)	-6.66%	-6.66%	-16.09%	-0.26%	-0.10%	10.55%	1.26%	-5.03%	-7.34%	23.55%	26.30%	-20.85%	15.14%
MSCI EAFE - Net Return	-3.01%	-3.01%	-8.27%	2.23%	2.29%	9.69%	1.80%	-0.81%	-4.90%	22.78%	17.32%	-12.14%	7.75%
<b>Excess Return (NAV)</b>	<b>-2.89%</b>	<b>-2.89%</b>	<b>-5.27%</b>	<b>0.53%</b>	<b>0.60%</b>	<b>4.16%</b>	<b>2.52%</b>	<b>-1.39%</b>	<b>0.45%</b>	<b>4.37%</b>	<b>12.77%</b>	<b>-6.39%</b>	<b>10.84%</b>

**Past performance is no guarantee of future results.** This report is not complete without pages 4, 5 and 6, which contain important notes, including disclosures about the Focus List and the Approved List, index descriptions and a glossary of terms. Information shown is as of the date of most recent quarter end unless otherwise noted. All data are subject to change.

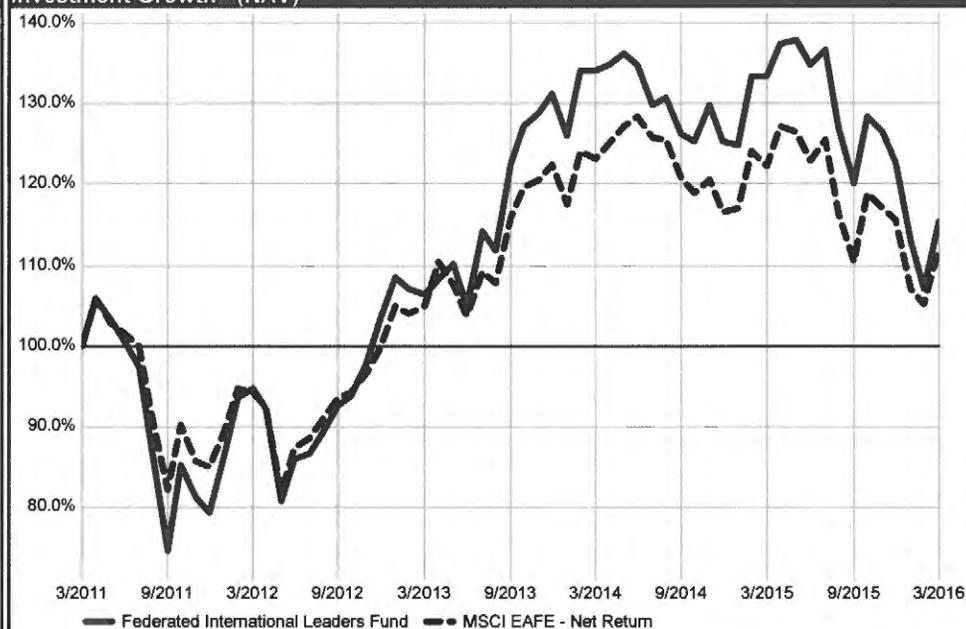
**Fund Strategy Description**

The Federated International Leaders strategy uses a bottom up, contrarian, low turnover, and concentrated approach to investing. The fund primarily invests in developed markets with a focus on large size capitalization firms.

**Quarterly Returns**



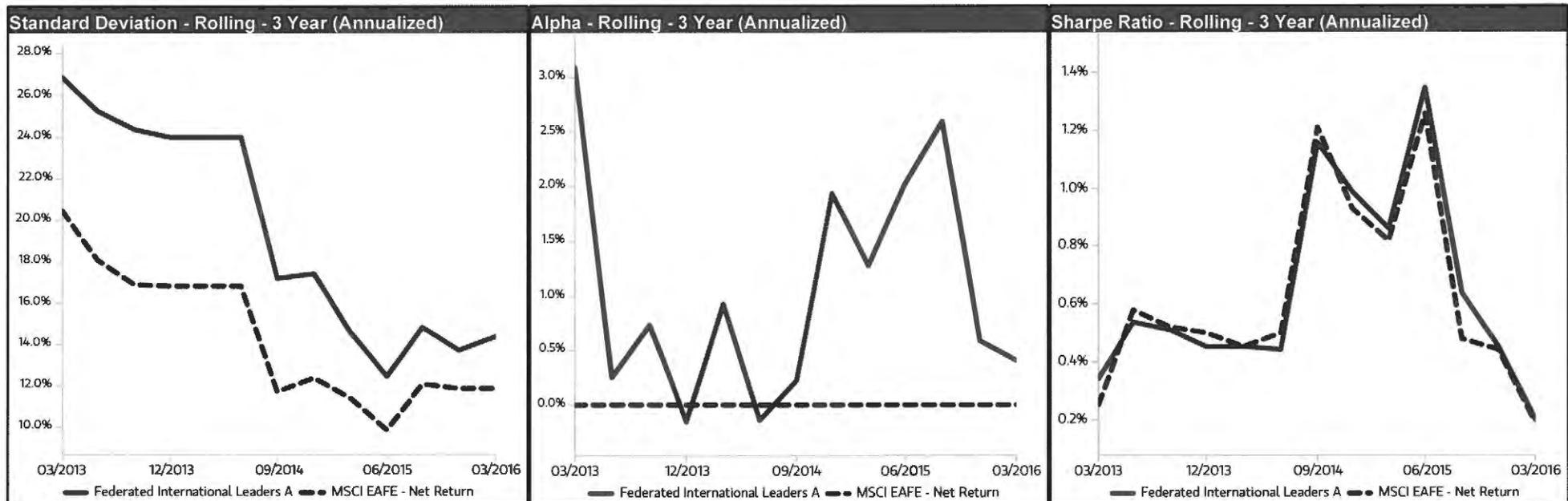
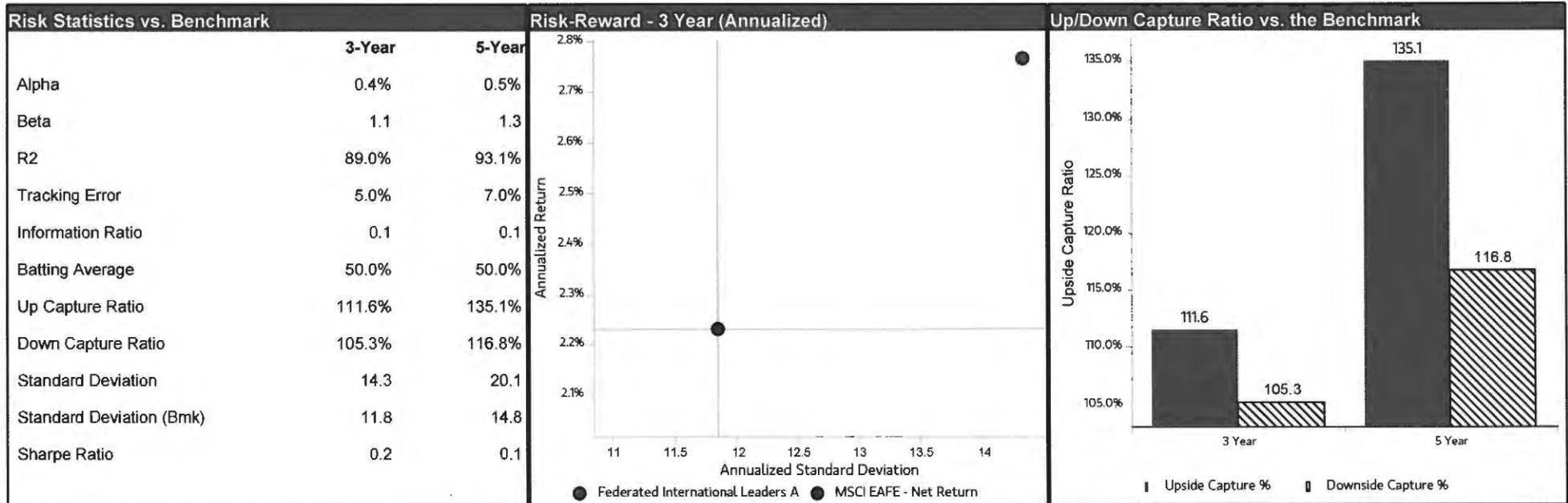
**Investment Growth - (NAV)**



**INVESTMENT PRODUCTS: NOT FDIC INSURED \* NO BANK GUARANTEE \* MAY LOSE VALUE**

Investors should consider the Fund's investment objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund. To obtain a prospectus, contact your Financial Advisor. Please read the prospectus carefully before investing. This report is only to be used in connection with investment advisory programs and not brokerage accounts.

Portfolio Performance and Risk Statistics (NAV)



## Lazard International Strategic Eq Instl

Benchmark: MSCI EAFE (Net)

Quantitative Review	7 Year	5 Year	3 Year
<b>Benchmark Correlation</b> <i>R2 should be greater than or equal to 0.80</i>	Pass 0.94	Pass 0.94	Pass 0.90
<b>Annualized Performance</b> <i>Annualized performance should surpass benchmark</i>	Pass 9.37% vs. 6.40%	Pass 4.99% vs. 2.12%	Pass 3.51% vs. 2.00%
<b>Risk Adjusted Performance</b> <i>Sharpe Ratio should surpass benchmark</i>	Pass 0.57 vs. 0.39	Pass 0.34 vs. 0.13	Pass 0.28 vs. 0.15
<b>Peer Comparison</b> <i>Fund should rank in the top half in a universe of funds with a similar investment style</i>	Pass 5%	Pass 4%	Pass 16%
<b>Down Market Performance</b> <i>Down Capture Ratio should be less than or equal to 1.0</i>	Pass 0.88	Pass 0.84	Pass 0.80

Qualitative Review	Status	Comments
--------------------	--------	----------

Investment Firm / Fund	Pass	
Management Team	Pass	

# BlackRock International Index Instl (USD)

**Overall Morningstar Rtg™**  
 ★★★  
 712 US OE Foreign Large Blend

**Standard Index**  
 MSCI ACWI Ex USA NR USD

**Category Index**  
 MSCI ACWI Ex USA NR USD

**Morningstar Cat**  
 US OE Foreign Large Blend

**Performance 05-31-2016**

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2014	0.61	4.02	-6.13	-4.44	-6.12
2015	5.28	0.93	-10.08	3.70	-0.91
2016	-2.79	—	—	—	-0.85

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-10.11	1.83	1.72	1.54	4.45
Std 03-31-2016	-8.51	—	1.98	1.44	4.39
Total Return	-10.11	1.83	1.72	1.54	4.45

	1.28	1.64	1.60	-0.48	—
+/- Std Index	1.28	1.64	1.60	-0.48	—
+/- Cat Index	1.28	1.64	1.60	-0.48	—

% Rank Cat	49	47	40	52	—
No. in Cat	806	712	622	373	—

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

**Performance Disclosure**  
 The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-441-7762 or visit [www.blackrock.com](http://www.blackrock.com).

**Fees and Expenses**

**Sales Charges**

<b>Front-End Load %</b>	NA
<b>Deferred Load %</b>	NA

**Fund Expenses**

Management Fees %	0.01
12b1 Expense %	NA
<b>Gross Expense Ratio %</b>	<b>0.11</b>

**Risk and Return Profile**

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

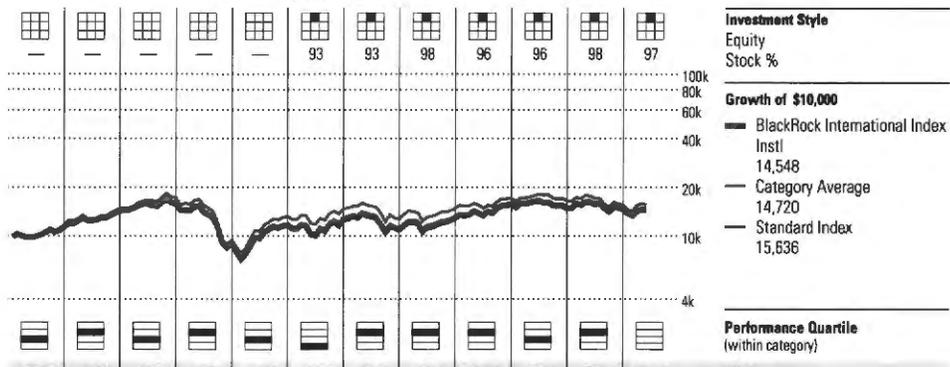
  

	3 Yr	5 Yr	10 Yr
Standard Deviation	12.95	15.10	18.84
Mean	1.83	1.72	1.54
Sharpe Ratio	0.20	0.18	0.12

**MPT Statistics**

	Standard Index	Best Fit Index
	MSCI EAFE NR USD	MSCI EAFE NR USD
Alpha	1.62	-0.11
Beta	0.93	0.96
R-Squared	94.13	97.77

Potential Cap Gains Exp -46.01%



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	05-16
NAV/Price	12.47	15.14	15.73	8.75	10.97	11.42	9.63	11.06	13.11	12.21	11.81	11.71
Total Return %	13.19	26.09	10.28	-42.24	28.38	7.26	-12.55	18.58	21.52	-6.12	-0.91	-0.85
+/- Standard Index	-3.43	-0.56	-6.38	3.28	-13.07	-3.90	1.16	1.74	6.23	-2.26	4.75	-1.37
+/- Category Index	-3.43	-0.56	-6.38	3.28	-13.07	-3.90	1.16	1.74	6.23	-2.26	4.75	-1.37
% Rank Cat	65	34	68	30	82	78	31	42	30	64	46	—
No. of Funds in Cat	608	657	743	778	823	829	817	786	791	750	788	890

**Portfolio Analysis 03-31-2016**

**Asset Allocation %**

	Net %	Long %	Short %
Cash	2.40	2.54	0.14
US Stocks	0.45	0.45	0.00
Non-US Stocks	96.59	96.59	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.56	0.56	0.00
<b>Total</b>	<b>100.00</b>	<b>100.14</b>	<b>0.14</b>

Share Chg since 12-2015: 0  
 Share Amount: 913 Total Stocks, 7 Total Fixed-Income, 9% Turnover Ratio  
 Holdings: BlackRock Master International Ind 100.00

**Equity Style**

Value	Blend	Growth
High	Low	Low
Mid	Mid	Mid
Low	High	High

**Portfolio Statistics**

	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	15.3	1.02	0.93
P/C Ratio TTM	7.9	1.01	0.87
P/B Ratio TTM	1.5	0.99	0.91
Geo Avg Mkt Cap \$mil	30739	1.11	0.90

**Fixed-Income Style**

Ltd	Med	Ext
High	Low	Low
Mid	Mid	Mid
Low	High	High

**Fixed-Income Metrics**

	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
	—	—	—	—

**Credit Quality Breakdown**

	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

**Regional Exposure**

	Stock %	Rel Std Index
Americas	0.5	0.05
Greater Europe	65.2	1.30
Greater Asia	34.3	0.86

**Operations**

Family:	BlackRock	Base Currency:	USD	Incept:	04-09-1997
Manager:	Multiple	Ticker:	MAIIX	Type:	MF
Tenure:	4.2 Years	Minimum Initial Purchase:	\$2 mil	Total Assets:	\$3,330.01 mil
Objective:	Foreign Stock	Purchase Constraints:	A		



GLOBAL INVESTMENT MANAGER ANALYSIS

# Lazard International Strategic Equity Fund (LISIX)

Benchmark: MSCI EAFE

Status: Focus List

www.lazardnet.com

March 31, 2016 (Q1)

Analyst: Brian Glanz Phone: 302-888-4146 Email: Brian.Glanz@ms.com

**Trailing Returns**

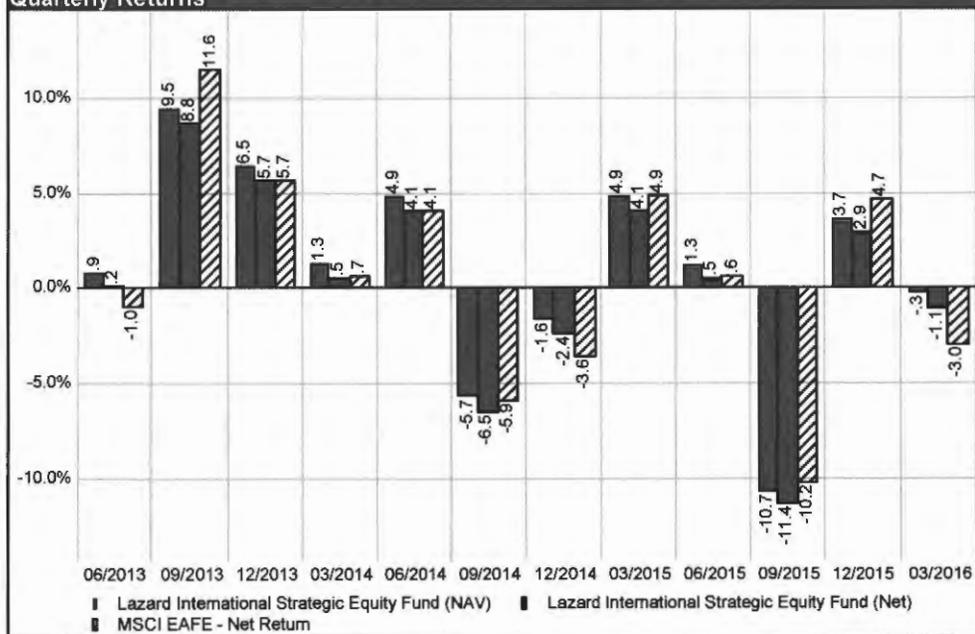
	QTD	YTD	1 Yr	3 Yr	5 Yr	7 Yr	10 Yr	2015	2014	2013	2012	2011	2010
Lazard International Strategic Equity Fund (NAV)	-0.30%	-0.30%	-6.56%	4.35%	5.95%	12.85%	4.22%	-1.70%	-1.48%	25.02%	25.00%	-9.70%	14.43%
Lazard International Strategic Equity Fund (Net)	-1.09%	-1.09%	-9.31%	1.29%	2.86%	9.57%	1.15%	-4.56%	-4.44%	21.48%	21.37%	-12.29%	11.12%
MSCI EAFE - Net Return	-3.01%	-3.01%	-8.27%	2.23%	2.29%	9.69%	1.80%	-0.81%	-4.90%	22.78%	17.32%	-12.14%	7.75%
<b>Excess Return (NAV)</b>	<b>2.71%</b>	<b>2.71%</b>	<b>1.71%</b>	<b>2.12%</b>	<b>3.65%</b>	<b>3.16%</b>	<b>2.42%</b>	<b>-0.89%</b>	<b>3.42%</b>	<b>2.25%</b>	<b>7.69%</b>	<b>2.44%</b>	<b>6.68%</b>

**Past performance is no guarantee of future results.** This report is not complete without pages 4, 5 and 6, which contain important notes, including disclosures about the Focus List and the Approved List, index descriptions and a glossary of terms. Information shown is as of the date of most recent quarter end unless otherwise noted. All data are subject to change.

**Fund Strategy Description**

The Lazard International Strategic Equity fund's investment philosophy is based on value creation through the process of bottom-up stock selection. The fund seeks to deliver consistent investment returns by investing in companies with high and sustainable, or improving and sustainable, financial productivity that appear attractively valued.

**Quarterly Returns**



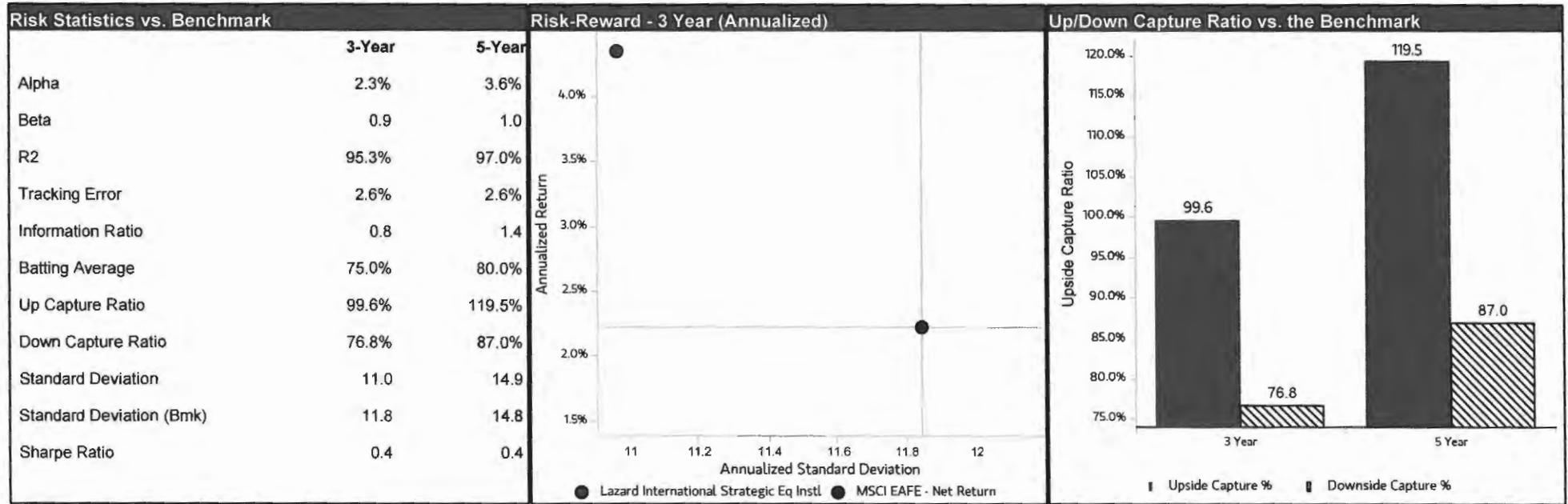
**Investment Growth - (NAV)**



**INVESTMENT PRODUCTS: NOT FDIC INSURED \* NO BANK GUARANTEE \* MAY LOSE VALUE**

Investors should consider the Fund's investment objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund. To obtain a prospectus, contact your Financial Advisor. Please read the prospectus carefully before investing. This report is only to be used in connection with investment advisory programs and not brokerage accounts.

Portfolio Performance and Risk Statistics (NAV)



# Dreyfus Intl Stock Index (USD)

**Overall Morningstar Rtg™**  
**★★★**  
 712 US OE Foreign Large Blend

**Standard Index**  
 MSCI ACWI Ex USA NR USD

**Category Index**  
 MSCI ACWI Ex USA NR USD

**Morningstar Cat**  
 US OE Foreign Large Blend

**Performance 05-31-2016**

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2014	0.65	4.05	-6.03	-4.39	-5.91
2015	5.29	0.80	-9.97	3.41	-1.19
2016	-2.67	—	—	—	-0.67

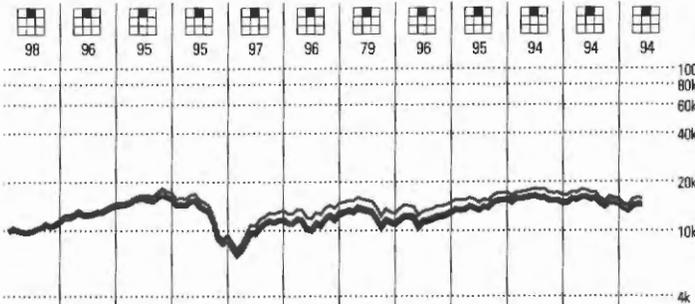
Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-10.14	1.80	1.61	1.48	3.03
Std 03-31-2016	-8.66	—	1.80	1.34	2.94
Total Return	-10.14	1.80	1.61	1.48	3.03

+/- Std Index	1.25	1.61	1.49	-0.53	—
+/- Cat Index	1.25	1.61	1.49	-0.53	—

% Rank Cat	50	48	44	55	—
No. in Cat	806	712	622	373	—



**Investment Style**  
 Equity Stock %

**Growth of \$10,000**  
 Dreyfus Intl Stock Index 14,364  
 Category Average 14,720  
 Standard Index 15,636

7-day Yield —  
 30-day SEC Yield —

**Performance Disclosure**  
 The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.  
 The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.  
 Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-373-9387 or visit www.dreyfus.com.

**Fees and Expenses**

Sales Charges	NA
Front-End Load %	NA
Deferred Load %	NA

Fund Expenses	NA
Management Fees %	0.35
12b1 Expense %	NA
Gross Expense Ratio %	0.61

**Risk and Return Profile**

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	3★	3★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	12.94	15.29	18.65
Mean	1.80	1.61	1.48
Sharpe Ratio	0.19	0.18	0.12

**MPT Statistics**

	Standard Index	Best Fit Index
Alpha	1.59	-0.13
Beta	0.93	0.96
R-Squared	94.14	97.74

Potential Cap Gains Exp -2.62%

**Performance Quartile (within category)**

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	05-16
NAV/Price	15.22	18.75	20.26	11.24	14.21	14.92	12.61	14.45	16.93	15.50	14.90	14.90
Total Return %	12.83	25.71	10.67	-43.13	30.15	7.31	-12.51	17.74	21.12	-5.91	-1.19	-0.67
+/- Standard Index	-3.79	-0.94	-5.98	2.39	-11.30	-3.85	1.19	0.91	5.83	-2.05	4.47	-1.19
+/- Category Index	-3.79	-0.94	-5.98	2.39	-11.30	-3.85	1.19	0.91	5.83	-2.05	4.47	-1.19
% Rank Cat	71	39	65	42	51	77	30	58	35	60	51	—
No. of Funds in Cat	608	657	743	778	823	829	817	786	791	750	788	890

**Portfolio Analysis 04-30-2016**

**Asset Allocation %**

	Net %	Long %	Short %
Cash	1.44	6.08	4.64
US Stocks	0.58	0.58	0.00
Non-US Stocks	97.87	97.87	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsd	0.11	0.11	0.00
Total	100.00	104.64	4.64

**Share Chg since 03-2016**

Share Amount	Holdings	% Net Assets
142,712	Nestle SA	1.92
31,458	Roche Holding AG Dividend Right Ce	1.44
101,894	Novartis AG	1.40
121,357	Toyota Motor Corp	1.10
877,618	HSBC Holdings PLC	1.05
83,549	British American Tobacco PLC	0.92
98,200	Total SA	0.90
87,814	Novo Nordisk A/S B	0.89
177,678	Royal Dutch Shell PLC B	0.84
218,167	GlaxoSmithKline PLC	0.84
176,736	Royal Dutch Shell PLC Class A	0.83
821,355	BP PLC	0.82
36,046	Anheuser-Busch Inbev SA	0.81
52,666	Sanofi SA	0.78
76,560	Commonwealth Bank of Australia	0.77

**Equity Style**

Value	Blend	Growth
High	Low	High
Low	High	Low
High	High	High
Low	Low	Low

**Portfolio Statistics**

	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	15.8	1.06	0.96
P/C Ratio TTM	8.0	1.02	0.88
P/B Ratio TTM	1.5	1.00	0.91
Geo Avg Mkt Cap \$mil	31324	1.14	0.91

**Fixed-Income Style**

Ltd	Mod	Ext
High	Low	High
Low	High	Low
High	High	High
Low	Low	Low

**Credit Quality Breakdown**

	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

**S&P Sector Weightings**

	Stocks %	Rel Std Index
Energy	5.0	0.77
Utilities	3.9	1.10
Materials	7.1	1.02
Industrials	13.2	1.15
Cons Disc	12.5	1.07
Cons Stpls	12.5	1.11
Health Care	11.7	1.28
Financials	23.9	0.93
Info Tech	5.2	0.61
Telecom	5.1	0.95

**Regional Exposure**

	Stock %	Rel Std Index
Americas	0.6	0.06
Greater Europe	65.1	1.30
Greater Asia	34.3	0.86

**Operations**

Family:	Dreyfus	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	DIISX	Incept:	06-30-1997
Tenure:	9.2 Years	Minimum Initial Purchase:	\$2,500	Type:	MF
Objective:	Foreign Stock	Minimum IRA Purchase:	\$750	Total Assets:	\$495.26 mil

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## Glossary of Terms

**Active Share** - is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index. Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

**Adjusted P/E - Trailing 12 Mo.** - is a P/E calculation that excludes outliers (both high and low) from an aggregate P/E calculation. If a company's P/E falls outside the range, that P/E is considered NA. The weighted average is then calculated including only the P/E's of the companies within the range. P/E ratios that are exceedingly high or low (even negative) may potentially distort an unadjusted P/E ratio.

**ADRs** - American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market.

**Allocation Effect** - is the portion of portfolio excess return attributed to taking different group bets from the benchmark. (If either the portfolio or the benchmark has no position in a given group, allocation effect is the lone effect.) A group's allocation effect equals the weight of the portfolio's group minus the weight of the benchmark's group times the total return of the benchmark group minus the total return of the benchmark in aggregate.

**Alpha** - measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

**Batting Average** - measures how frequently a portfolio outperforms its benchmark on a quarterly basis. The statistic is obtained by dividing the number of quarters in which the portfolio outperformed the total return of the benchmark by the total number of quarters. For example, a portfolio with a batting average of 60% has outperformed the index more than it has underperformed.

**Beta** - measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

**Dividend Yield** - annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Down Capture Ratio** - the ratio of the portfolio's overall performance to the benchmark's overall performance, considering only periods that are negative in the benchmark. A Down Capture Ratio of less than 1.0 indicates a portfolio that outperforms the relative benchmark in the benchmark's negative quarters and preserves more of the portfolio's value during down markets.

**Excess Return** - represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

**Information Ratio** - represents the Excess Return divided by the Tracking Error. It provides a measure of the historical consistency of the portfolio's overperformance or underperformance relative to its benchmark. A higher, positive Information Ratio suggests that the portfolio's excess returns may have been the result of making measured or moderate bets against the relevant benchmark's risk exposures.

**Market Cap (\$M)** - the average portfolio market capitalization (market price multiplied by shares outstanding), weighted by the proportion of the portfolio's assets invested in each stock.

**P/E - Trailing 12-Mo.** - the current price of a stock divided by the most recent 12 months trailing earnings per share. P/E for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Price-to-Book** - price per share divided by book value per share. Price-to-Book for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Quality Rank** Based upon per-share earnings and dividend records of the most recent 10 years, this ranking system attempts to capture the growth and stability of earnings and dividends for individual stocks. For a portfolio, the quality ranking is a weighted average. The quality rankings classification is as follows: A+ (highest), A (high), A- (above avg.), B+ (average), B (below avg.), B- (lower), C (lowest), D (in reorganization), and LIQ (liquidation).

**R-Squared (R<sup>2</sup>)** - represents the percentage of the volatility of returns that is attributable to movements of the benchmark. It is a measure of "co-movement" between portfolio returns and benchmark returns. The closer the portfolio's R<sup>2</sup> is to 100%, the more closely the portfolio correlates to, or follows, the benchmark. Generally, highly diversified portfolios have higher R<sup>2</sup> percentages.

**Return on Equity (ROE)** - is another profitability ratio which gauges return on investment by measuring how effectively stockholder money is being employed by the company. ROE is calculated by dividing a company's net income by average total equity. Unlike Return on Assets (ROA), ROE considers the degree to which a company uses leveraging, as interest expense paid to creditors is generally deducted from earnings to arrive at net income. ROE for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Rolling Annualized Performance** - measures the consistency of a portfolio's performance. For example, with three-year annualized returns rolled annually, the return shown for a given period is actually an annualized return for a particular year and the previous two years. Since performance is assessed over longer periods, the returns rolled annually give a better indication of trends.

**Stock Selection Effect** - is the portion of portfolio excess return attributable to choosing different securities within groups from the benchmark. A group's selection effect equals the weight of the benchmark's group multiplied by the total return of the portfolio's group minus the total return of the benchmark's group.

**Sharpe Ratio** - measures a portfolio's rate of return based on the risk it assumed and is often referred to as its risk-adjusted performance. Using Standard Deviation and returns in excess of the returns of T-bills, it determines reward per unit of risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing risk.

**Standard Deviation** - quantifies the volatility associated with a portfolio's returns. The statistic measures the variation in returns around the mean return. Unlike Beta, which measures volatility relative to the aggregate market, Standard Deviation measures the absolute volatility of a portfolio's return.

**Total Effect** - is the sum of all effects.

**Tracking Error** - represents the Standard Deviation of the Excess Return. This provides a historical measure of the variability of the portfolio's returns relative to its benchmark. A portfolio with a low Tracking Error would have quarterly Excess Returns that have exhibited very low volatility.

**Up Capture Ratio** - measures the portfolio's overall performance to the benchmark's overall performance, considering only periods that are positive in the benchmark. An Up Capture Ratio of more than 1.0 indicates a portfolio that outperforms the relative benchmark in the benchmark's positive quarters.

## Index Descriptions and Disclosures

Depending on the composition of your account and your investment objectives any indices shown in this report may not be an appropriate measure for comparison purposes and are presented for illustration only. The strategy shown in this report does not necessarily seek to track the index, is not restricted to securities in the index and may be more volatile than the index.

Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

The Morgan Stanley Capital International Europe, Australasia, and Far East (MSCI EAFE) Index is composed of all the publicly traded stocks in developed non-U.S. Markets.

## Important Disclosures

**Asset Class and Other Risks**

Investing in *stocks*, *mutual funds* and *exchange-traded funds ("ETFs")* entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods.

**Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

**Value and growth investing** also carry risks. Value investing involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. 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.

**International securities** 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**.

**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.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

**Ultra-short bond** funds generally invest in fixed income securities with very short maturities, typically less than one year. They are not money market funds. While money market funds attempt to maintain a stable net asset value, an ultra-short bond fund's net asset value will fluctuate, which may result in the loss of the principal amount invested. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

**High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. **Real estate investments:** property values can fall due to environmental, economic or other reasons, and changes in interest rates can negatively impact the performance of real estate companies.

**Derivatives**, in general, involve special risks and costs that may result in losses. The successful use of derivatives requires sophisticated management, in order to manage and analyze derivatives transactions. The prices of derivatives may move in unexpected ways, especially in abnormal market conditions. In addition, correlation between the particular derivative and an asset or liability of the manager may not be what the investment manager expected. Some derivatives are "leveraged" and therefore may magnify or otherwise increase investment losses. Other risks include the potential inability to terminate or sell derivative positions, as a result of counterparty failure to settle or other reasons.

**Mortgage-backed securities ("MBS"),** which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements.

**Commodities:** The commodities markets may fluctuate widely based on a variety of factors including, but not limited to, changes in supply and demand relationships; governmental programs and policies; national and international political and economic events, war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence, technological change and weather; and the price volatility of a commodity.

**Alternative/hedged strategies** may use various investment strategies and techniques for both hedging and more speculative purposes such as short selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative/hedged strategies are not appropriate for all investors. A short sales strategy includes the risk of loss due to an increase in the market value of borrowed securities. Such a strategy may be combined with purchasing long positions in an attempt to improve portfolio performance. A short sales strategy may result in greater losses or lower positive returns than if the portfolio held only long positions, and the portfolio's loss on a short sale is potentially unlimited. The use of leverage can magnify the impact of adverse issuer, political, regulatory, market, or economic developments on a company. A decrease in the credit quality of a highly leveraged company can lead to a significant decrease in the value of the company's securities. In a liquidation or bankruptcy, a company's creditors take precedence over the company's stockholders.

**MLPs** involve risks that differ from an investment in common stock. MLPs are controlled by their general partners, which generally have conflicts of interest and limited fiduciary duties to the MLP, which may permit the general partner to favor its own interests over the MLPs. The potential return of MLPs depends largely on the MLPs being treated as partnerships for federal income tax purposes. As a partnership, an MLP has no federal income tax liability at the entity level. Therefore, treatment of one or more MLPs as a corporation for federal income tax purposes could affect the portfolio's ability to meet its investment objective and would reduce the amount of cash available to pay or distribute to you. Legislative, judicial, or administrative changes and differing interpretations, possibly on a retroactive basis, could negatively impact the value of an investment in MLPs and therefore the value of your investment.

The current yield of **preferred securities** is calculated by multiplying the coupon by par value divided by the market price. The majority of \$25 and \$1000 par preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. The initial rate on a floating rate or index-linked preferred security may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating/linked index. However, there can be no assurance that these increases will occur.

**Convertible securities** are convertible to equity at the option of the holder. The market value of the securities, and the underlying common stock into which they are convertible, will fluctuate. In particular, securities whose value depends on the performance of an underlying security entail potentially higher volatility and risk of loss compared to traditional bond investments. You should be aware that the market value of convertible bonds may not correspond directly to increases or decreases in the underlying stock.

**No Tax Advice**

Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors do not provide legal or tax advice. Each client should always consult his/her personal tax and/or legal advisor for information concerning his/her individual situation and to learn about any potential tax or other implications that may result from acting on a particular recommendation.

If any investments in this report are described as "tax free", the income from these investments may be subject to state and local taxes and (if applicable) the federal Alternative Minimum Tax. Realized capital gains on these investments may be subject to federal, state and local capital gains tax.

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# Important Notes About This Report (Cont'd)

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There may be differences between the performance in the different forms of the Fiduciary Services program, in different Programs, and between the performance in Programs and performance outside the Programs, due to, among other things, investment and operational differences. For example:

- Institutional accounts included in related performance may hold more securities than the Program accounts, participate in initial public offerings (IPOs) and invest directly in foreign securities (rather than in ADRs).
- Mutual funds included in related performance may hold more securities than the Program accounts, may participate in IPOs, may engage in options and futures transactions, and are subject to certain regulatory limitations.
- Performance results in Select UMA accounts could differ from that in Fiduciary Services accounts because Select UMA accounts may hold fewer securities, and have automatic rebalancing, wash sale loss and tax harvesting features.

You should read the investment manager profile accompanying this report for each investment manager. The investment manager profile gives further details on the sources of performance information for a particular investment manager, as well as other calculations of the manager's performance returns (such as performance net of fees and expenses).

**SOURCE OF PERFORMANCE INFORMATION FOR GLOBAL INVESTMENT SOLUTION STRATEGIES:** In the Global Investment Solutions program, dedicated portfolio managers employed by Morgan Stanley or third party subadvisors make day-to-day investment decisions for clients' accounts invested in various investment strategies. The track record shown in this report for Global Investment Solutions strategies consists of the portfolio management team's gross performance in that strategy in the Global Investment Solutions program (or a predecessor program).

**SOURCE OF PERFORMANCE INFORMATION FOR OTHER INVESTMENT MANAGERS:** For any investment managers shown in this report that are not available in the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below. The gross performance shown in this report for these managers could differ materially from their gross performance in investment advisory programs offered by firms other than Morgan Stanley. If you have invested with any such manager through another firm, we recommend that you seek information from that firm on the manager's gross and net performance in its programs.

## Important Notes About This Report (Cont'd)

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If you invest in a manager or fund that is not approved by Morgan Stanley Wealth Management, you are responsible for selecting and/or retaining that manager or fund, and Morgan Stanley Wealth Management does not recommend or monitor that manager or fund. For more information on the approval process in any program, see the applicable ADV brochure, available at [www.MorganStanley.com/ADV](http://www.MorganStanley.com/ADV) or from your Financial Advisor or Private Wealth Advisor. If you have any questions about whether or how Morgan Stanley Wealth Management has approved a manager or fund shown in this report, please ask our Financial Advisor or Private Wealth Advisor.

**SHARE CLASSES OF FUNDS SHOWN IN THIS REPORT:** The share class of a fund shown in this report may differ from the share class available in any Morgan Stanley Wealth Management investment advisory program in which you invest. The performance of the share class in which you invest may differ from that of the share class shown in this report.

**REINVESTMENT:** The performance results shown in this report assume that all dividends, accrued income and capital gains were reinvested.

**SOURCES OF INFORMATION:** Although the statements of fact in this report have been obtained from, and are based on, sources that Morgan Stanley believes to be reliable, Morgan Stanley makes no representation as to the accuracy or completeness of the information from sources outside Morgan Stanley. Any such information may be incomplete and you should not use it as the sole basis for investment decisions.

***It is important to consider a fund's investment objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund. A copy of the prospectus may be obtained from your Financial Advisor or Private Wealth Advisor. Please read the prospectus carefully before investing in the fund.***

## Important Notes About This Report (Cont'd)

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**International/Emerging Market:** International investing (including investing in particular countries or groups of countries) should be considered only one component of a complete and diversified investment program. Investing in foreign markets may entail greater risks than those normally associated with domestic markets, such as foreign political, currency, economic and market risks. In addition, the securities markets of many emerging markets are substantially smaller, less developed, less liquid and more volatile than the securities markets of the U.S. and other more developed countries. Further, a portfolio that focuses on a single country may be subject to higher volatility than one that is more diversified.

**Preferred Securities:** Preferred securities are generally subject to the same risks as apply to fixed income securities. (See "Fixed Income.") However, preferred securities (especially equity preferred securities) may rank below traditional forms of debt for the purposes of repayment in the event of bankruptcy. Many preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. If a preferred security is called, the investor bears the risk of reinvesting proceeds at a potentially lower return. Investors may not receive regular distributions on preferred securities. For example, dividends on equity preferred securities may only be declarable in the discretion of the issuer's board and may not be cumulative. Similarly, interest payments on certain debt preferred securities may be deferred by the issuer for periods of up to 10 years or more, in which case the investor would still have income tax liability even though payments would not have been received.

**Real Estate:** Real estate investments are subject to special risks, including interest rate and property value fluctuations as well as risks related to general and local conditions.

**Small and Mid Cap:** Investments in small-to medium-sized corporations are generally more vulnerable to financial risks and other risks than larger corporations and may involve a higher degree of price volatility than investments in the broad equity market.

**Hedged and Alternatives Strategies:** In most Consulting Group investment advisory program, alternative investments are limited to US registered open-end mutual funds, separate account strategies, and ETFs that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short selling, leverage, derivatives, and options, which can increase volatility and the risk of investment loss. Alternative Investments are not suitable for all investors.

# Glossary

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**ALPHA:** Synonym of 'value added', linearly similar to the way beta is computed, alpha is the incremental return on a portfolio when the market is stationary. In other words, it is the extra expected return due to non-market factors. This risk-adjusted measurement takes into account both the performance of the market as a whole and the volatility of the portfolio. A positive alpha indicates that a portfolio has produced returns above the expected level at that level of risk, and vice versa for a negative alpha.

**ANNUALIZED RETURN:** The constant rate of return that, compounded annually, would yield the same overall return for a period of more than one year as the actual return observed for that period.

**ANNUALIZED EXCESS RETURN:** Excess return represents the difference between the manager's return and the return of a benchmark for that manager. Annualized excess return is calculated by taking the annualized return of the original series and forming the difference between the two. A positive annualized excess return implies that the manager outperformed the benchmark over the time period shown.

**BEST AND WORST PERIOD RETURNS:** The best period return for a time window is simply the maximum of the returns for that period inside this window. Similarly, the worst period return for a time window is the minimum of the returns for that period inside this window. To calculate the best one-year return for a return series, the program moves a one-year time window along the series and calculates the compound return for each of these windows. The best one-year return is the maximum of the returns thus found. Similarly, the worst one-year return is the minimum of the returns thus found. Therefore, best and worst one-year returns do not refer to calendar years.

**BETA:** The measure of a portfolio's risk in relation to the market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a portfolio with a beta of 1.5 will have moved, on average, 1.5 times the market return. According to asset pricing theory, beta represents the type of risk, systematic risk, which cannot be diversified away. When using beta, there are a number of issues that you need to be aware of: (1) betas may change through time; (2) betas may be different depending on the direction of the market (i.e. betas may be greater for down moves in the market rather than up moves); (3) the estimated beta will be biased if the portfolio does not frequently trade; and (4) the beta is not necessarily a complete measure of risk (you may need multiple betas). Also, note that the beta is a measure of co movement, not volatility. It is possible for a security to have a zero beta and higher volatility than the market.

## Glossary (Cont'd)

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**EXCESS RETURN:** The difference between the returns of two portfolios. Usually excess return is the difference between a portfolio's return and the return of a benchmark for that portfolio.

**GAIN TO LOSS RATIO:** Divides the average gain in an up period by the average loss in a down period. A higher Gain to Loss Ratio is more favorable.

**HIGH WATER MARK:** The High Water Mark represents the peak level of the manager's return, as represented by the peak of the cumulative return series.

**HIGH WATER MARK DATE:** The date which the High Water Mark was reached.

**UNDER WATER LOSS:** Loss incurred between the high water mark date and the end of the period analyzed

**UNDER WATER LENGTH:** Length of the time interval that begins with the high water mark and ends with the analysis period

**TO HIGH WATER MARK:** The percentage of gain that the manager/fund needs to regain the peak level of the cumulative return series

**INFORMATION RATIO:** Measures the active return of the manager divided by the manager's active risk. Active return is the annualized differences of the manager and the benchmark index, while active risk is measured by tracking error. The higher the information ratio, the better. An information ratio of 0 implies that a manager/fund (or benchmark index, if applicable) has provided a return that is equivalent to the risk of the benchmark return.

**MAR:** Stands for "Minimum Acceptable Return." This represents the lowest return possible that could be considered a successful result of the investment. In most cases, the MAR will either be defined as 0 (meaning no negative return) or as the return of a cash benchmark (meaning the investment had a higher return than simply keeping the investment amount in the relatively safe investment of money market funds). Please refer to the specific chart/statistic to see the specific MAR used in the illustration.

## Glossary (Cont'd)

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**SHARPE RATIO:** Developed by William F. Sharpe, this calculation measures a ratio of return to volatility. It is useful in comparing two portfolios or stocks in terms of risk-adjusted return. The higher the Sharpe Ratio, the better the risk-adjusted return of the portfolio. It is calculated by first subtracting the risk free rate (Citigroup 3-month T-bill) from the return of the portfolio, then dividing by the standard deviation of the portfolio. Using Sharpe ratios to compare and select among investment alternatives can be difficult because the measure of risk (standard deviation) penalizes portfolios for positive upside returns as much as the undesirable downside returns.

**SINGLE COMPUTATION:** For a single computation chart, StyleADVISOR calculates the information over the entire time period shown as a single data point. AS an example, in a chart showing 10 years of performance, a "Single Computation" would represent the statistic shown over the entire 10 year window.

**STANDARD DEVIATION:** A statistical measure of the degree to which the performance of a portfolio varies from its average performance during a specified period. The higher the standard deviation, the greater the volatility of the portfolio's performance returns relative to its average return. A portfolio's returns can be expected to fall within plus or minus one standard deviation, relative to its average return, two-thirds of the time, and fall within plus or minus two standard deviations relative to its average return, 95% of the time. For example, if a portfolio had a return of 5% and a standard deviation of 13% then, if future volatility of returns is similar to historical volatility (which may not be the case):

- About two-thirds of the time, the future returns could be expected to fall between -8% and 18% (being 5% +/- 13%)
- About 95% of the time, the future returns could be expected to fall between -21% and 31% (being 5% +/- 26%).

In performance measurement, it is generally assumed that a larger standard deviation means that great risk was taken to achieve the return.

## Important Information about Advisory Fees in the Morgan Stanley Investment Advisory Programs

**Mutual funds and exchange-traded funds may be purchased through either a brokerage account or an advisory account. This Important Information page is only applicable if you will be purchasing a fund through any of the Morgan Stanley Advisory Programs.**

**The particular fund shown in the Detail Report may not be available in all or any of the Advisory Programs. Please ask your Financial Advisor or Investment Representative for details.**

### Internal Fees and Expenses

The performance information presented in this Detail Report reflects the internal fees and expenses of the share class(es) shown. These may include the investment management fee, any Rule 12b-1 fees, and other costs and expenses (as applicable). These fees and expenses are charged directly to the mutual fund's or ETF's pool of assets and are reflected in the share price. Each mutual fund's or ETF's expense ratio (reflecting the total amount of internal fees and expenses) is set forth in its prospectus, which you should read carefully before investing, and on the front of this Detail Report.

### You Pay Advisory Fees Instead of a Sales Charge

In addition to internal fees and expenses, the performance shown may also reflect a sales charge or load. If you buy shares of a mutual fund in the Advisory Programs, you will not pay a sales charge or load. However, such investments are subject to the Advisory Fee (as defined on the previous page). Please see the previous page for returns calculated showing sales charges and returns calculated using the maximum Advisory Fees in each of the Advisory Programs.

Depending on the applicability of sales loads, buying funds outside an investment advisory program may be a more cost-effective way of investing. Please discuss your options with your Financial Advisor before investing.

### ETF Sales Commissions

Investors buying or redeeming shares of ETFs from a broker-dealer in the secondary market will generally pay a commission. However, if you buy ETFs in the Advisory Programs, you will not pay a commission. Instead, such investments are subject to the Advisory Fee.

### Other Morgan Stanley Compensation

In addition to the Advisory Fee, we may receive other compensation from open-end mutual funds, in the form of 12b-1 fees, revenue sharing fees and recordkeeping and other administrative fees. This compensation may create a conflict of interest for us when recommending that you buy mutual funds instead of other investment options that are offered in certain investment advisory programs. Please see the ADV Part II for more information.

### Style Classifications

The Morgan Stanley Advisory Programs have style classifications that do not mirror the Morningstar categories in all respects. Please refer to the other materials you receive in connection with the program, or ask your Financial Advisor, to determine the fund's classification for the purposes of the program (which may differ from the "Morningstar Cat" on page 1).

### General

Please refer to the applicable Morgan Stanley Smith Barney LLC Disclosure Document/ADV Brochure (available from your Financial Advisor or Investment

Representative) for more information about our investment advisory programs (including the Advisory Fee).

The information in the attached fact sheet has been obtained from sources that we believe to be reliable. However, we make no representation as to the accuracy or completeness of this information. All information is as of the date indicated and is subject to change without notice.

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## Mutual Fund Detail Report Disclosure Statement

The Mutual Fund Detail Report is to be used as supplemental sales literature, and therefore must be preceded or accompanied by the fund's current prospectus and a disclosure statement. Please read the prospectus carefully. In all cases, this disclosure statement should accompany the Mutual Fund Detail Report. Morningstar is not itself a FINRA-member firm. Portfolio information is based on the most recent information available to Morningstar.

### Pre-inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the fund's actual inception. These calculated returns reflect the historical performance of the oldest share class of the fund, adjusted to reflect the fees and expenses of this share class. These fees and expenses are referenced in the report's Performance section.

**When pre-inception data are presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.**

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

### Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when redeemed, may be worth more or less than the original investment. Fund portfolio statistics change over time. The fund is not FDIC-insured, may lose value and is not guaranteed by a bank or other financial institution.

Total Return and Quarterly Return reflects performance without adjusting for sales charges or the effects of taxation, but is adjusted to reflect all actual ongoing fund expenses and assumes reinvestment of dividends and capital gains. If adjusted for sales charges and the effects of taxation, the performance quoted would be reduced.

Standardized Return is reflected as of the quarter-end. It depicts performance without adjusting for the effects of taxation, but is adjusted for sales charges and all ongoing fund expenses, and assumes reinvestment of dividends and capital gains. If adjusted for the effects of taxation, the performance quoted would be reduced. The sales charge used in the calculation was obtained from

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Morgan Stanley

In the table, allocation to the classes is shown for long positions, short positions, and net (long positions net of short) positions. These statistics summarize what the managers are buying and how they are positioning the portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the funds' exposure and risk.

Most managed product portfolios hold fairly conventional securities, such as long positions in stocks and bonds. Other portfolios use other investment strategies or securities, such as short positions or derivatives, to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while others have unique return and risk characteristics.

Most portfolios take long positions in securities. Long positions involve buying the security outright and then selling it later, with the hope that the security price rises over time. In contrast, short positions are taken to benefit from anticipated price declines. In this type of transaction, the investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can now buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience losses by buying it at a higher price than the sale price.

The strategy of selling securities short is prevalent in specialized portfolios, such as long-short, market-neutral, bear-market, and hedge funds. Most conventional portfolios do not typically short securities, although they may reserve the right to do so under special circumstances. Funds may also short derivatives, and this is sometimes more efficient than shorting individual securities. Short positions produce negative exposure to the security that is being shorted. This means that when the security rises in value, the short position will fall in value and vice versa. Morningstar's portfolio statistics will capture this negative exposure. For example, if a fund has many short stock positions, the percent of assets in stocks in the asset allocation breakdown may be negative. Funds must provide their broker with cash collateral for the short position, so funds that short often have a large cash position, sometimes even exceeding 100% cash.

Note that all other portfolio statistics presented in this report are based on the long holdings of the fund only.

### Style Analysis

The Morningstar Style Box reveals a fund's investment style as of the date noted on this report.

For equity funds the vertical axis shows the market capitalization of the stocks owned and the horizontal axis shows investment style (value, blend, or growth).

For fixed-income funds, the vertical axis shows the credit quality of the bonds owned and the horizontal axis shows interest rate sensitivity as measured by a bond's effective duration.

Morningstar seeks credit rating information from fund companies on a periodic basis (e.g., quarterly). In compiling credit rating information Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations (NRSROs). For a list of all NRSROs, please visit <http://www.sec.gov/divisions/marketreg/ratingagency.htm>. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the

median rating, and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings. PLEASE NOTE: Morningstar, Inc. is not itself an NRSRO nor does it issue a credit rating on the fund. An NRSRO or rating agency ratings can change from time-to-time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low", "medium", or "high" based on their average credit quality. Funds with a low credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; medium are those less than "AA-", but greater or equal to "BBB-"; and high are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index (MCBI), which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases static breakpoints are utilized. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-US taxable and non-US domiciled fixed income funds static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: greater than 3.5 and less than equal to 6 years; (iii) Extensive: greater than 6 years.

### Equity Portfolio Statistics

The referenced data elements below are a weighted average of the long equity holdings in the portfolio.

The Price/Earnings ratio is a weighted average of the price/earnings ratios of the stocks in the underlying fund's portfolio. The P/E ratio of a stock is calculated by dividing the current price of the stock by its trailing 12-months' earnings per share. In computing the average, Morningstar weights each portfolio holding by the percentage of equity assets it represents.

The Price/Cash Flow ratio is a weighted average of the price/cash-flow ratios of the stocks in a fund's portfolio. Price/cash-flow shows the ability of a business to generate cash and acts as a gauge of liquidity and solvency.

The Price/Book ratio is a weighted average of the price/book ratios of all the stocks in the underlying fund's portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation.

The geometric average market capitalization of a fund's equity portfolio offers a measure of the size of the companies in which the mutual fund invests.

**Leveraged ETFs:** Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their fund objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

**Short Positions:** When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

**Long-Short:** Due to the strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

**Liquidity Risk:** Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

**Market Price Risk:** The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

**Market Risk:** The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

**Target-Date Funds:** Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

**High double- and triple-digit returns:** High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

## Benchmark Disclosure

### Barclays US Agg Bond TR USD

This index is composed of the BarCap Government/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which includes the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond.

### MSCI ACWI Ex USA NR USD

The MSCI AC World ex USA is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed

and emerging markets. The index consists of 48 developed and emerging market country indices. The returns we publish for the index are total returns, which include reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares MSCI ACWI.

### MSCI EAFE Growth NR USD

The MSCI EAFE Growth Index is a market capitalization-weighted index that measures the performance of the leading growth stocks in 21 developed countries outside of North America. (The 21 countries include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, Australia, New Zealand, Hong Kong, Japan and Singapore.) The constituents displayed for this index are from the following proxy: iShares MSCI EAFE Growth.

### MSCI EAFE NR USD

This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

### S&P 500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core S&P 500.

### USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

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**Mary L. Tomanek CFP®, CIMA®**  
Institutional Consulting Director  
Institutional Consultant

## **Large Cap Core Mutual Fund Analysis**

**Prepared for:**

**CITY OF PARK RIDGE  
POLICE PENSION FUND**

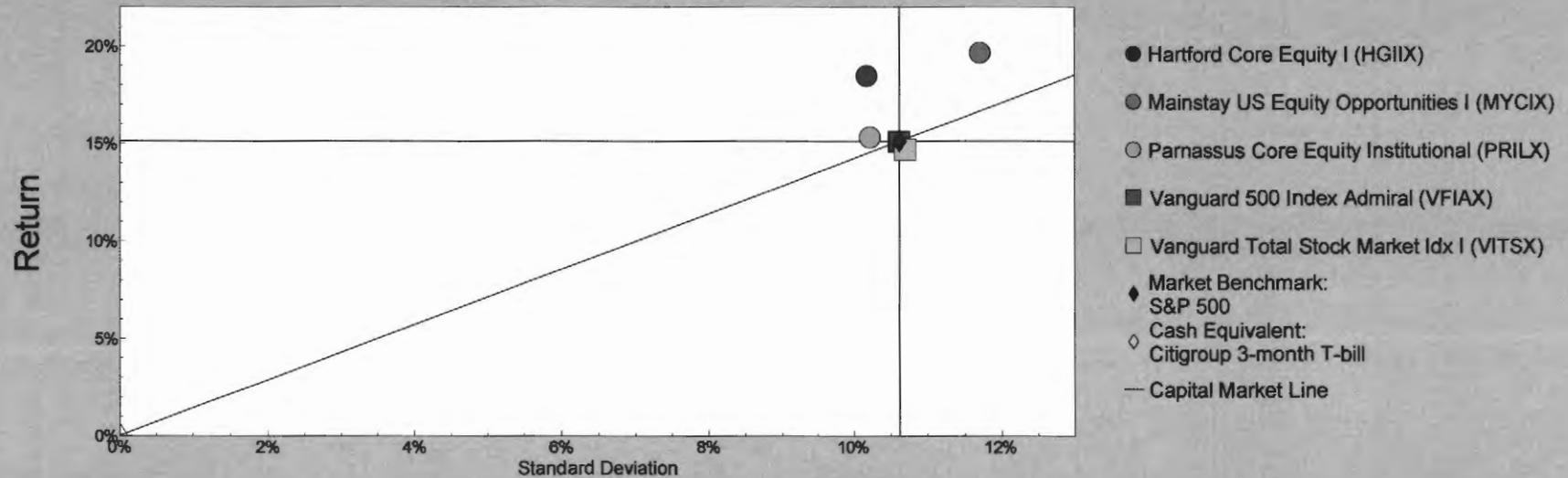
**January 21, 2016**

PARK RIDGE POLICE PENSION FUND - LARGE CAP FUND ANALYSIS

3 Year - Manager Risk/Return

Single Computation

January 2013 - December 2015



Risk-Return Table

January 2013 - December 2015: Annualized Summary Statistics

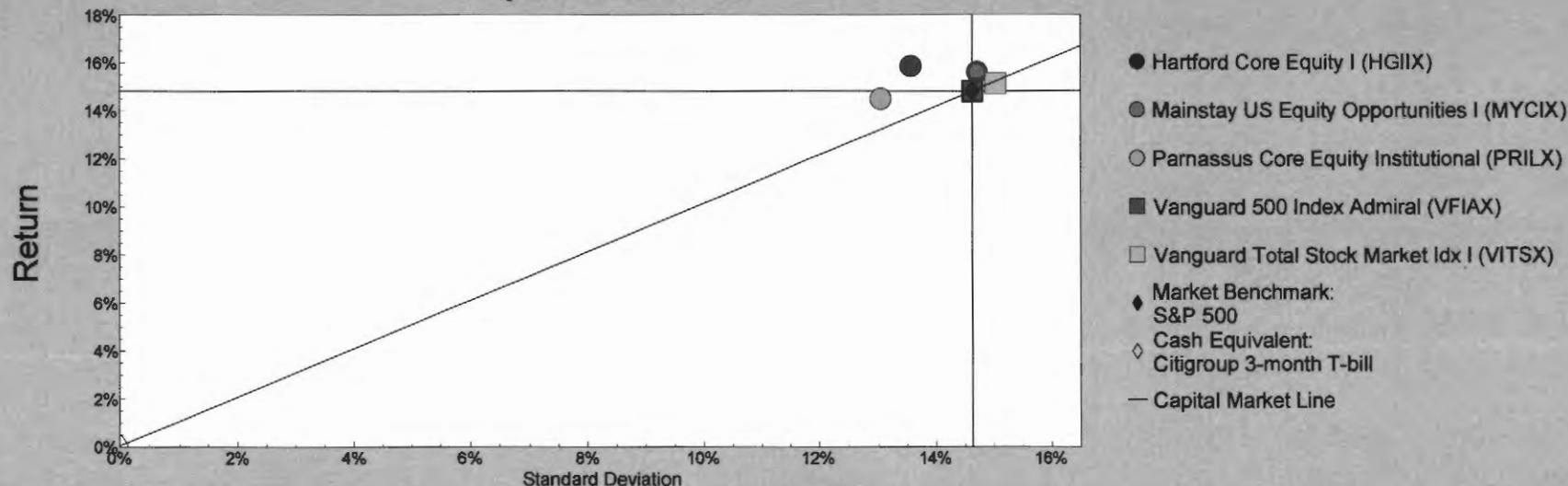
	Return (%)	Std Dev (%)	Downside Risk (%)	Alpha vs. Market (%)	R-Squared vs. Market (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observs.
Hartford Core Equity I (HGIIIX)	18.46	10.17	7.23	3.94	94.33	1.8109	2.5329	1.4676	36
Mainstay US Equity Opportunities I (MYCIX)	19.66	11.71	8.32	3.26	91.67	1.6760	3.4294	2.9020	36
Parnassus Core Equity Institutional (PRILX)	15.32	10.22	7.29	1.31	91.49	1.4954	3.1000	2.1769	36
Vanguard 500 Index Admiral (VFIAX)	15.09	10.62	7.59	-0.03	100.00	1.4174	0.0138	0.1882	36
Vanguard Total Stock Market Idx I (VITSX)	14.70	10.70	7.61	-0.37	98.62	1.3703	1.2561	0.0941	36
S&P 500	15.13	10.62	7.59	0.00	100.00	1.4206	0.0000	0.1904	36

PARK RIDGE POLICE PENSION FUND - LARGE CAP FUND ANALYSIS

7 Year - Manager Risk/Return

Single Computation

January 2009 - December 2015



Risk-Return Table

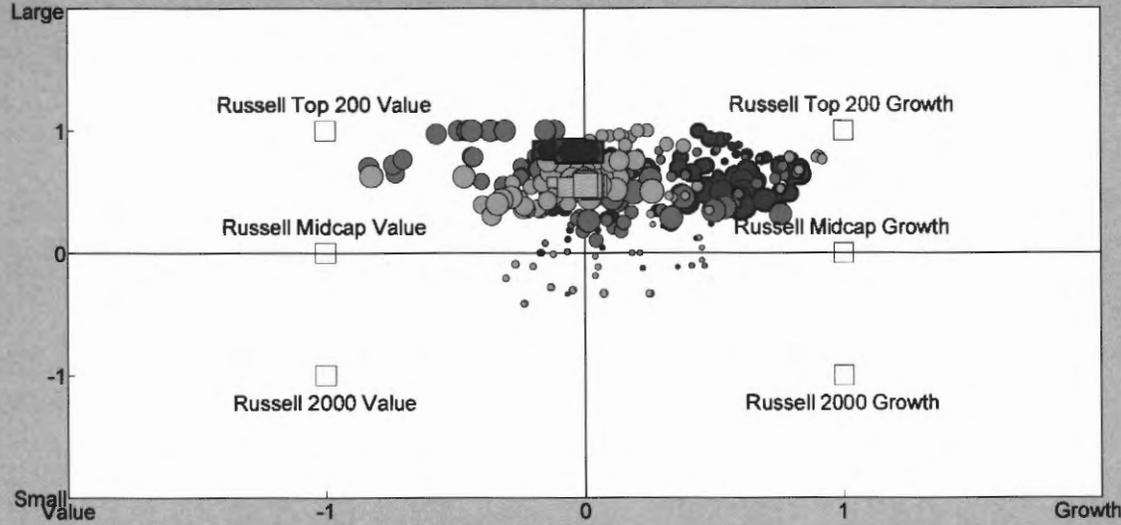
January 2009 - December 2015: Annualized Summary Statistics

	Return (%)	Std Dev (%)	Downside Risk (%)	Alpha vs. Market (%)	R-Squared vs. Market (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observs.
Hartford Core Equity I (HGIIIX)	15.86	13.57	10.05	2.12	96.46	1.1631	2.8671	1.7812	84
Mainstay US Equity Opportunities I (MYCIX)	15.61	14.71	10.88	1.02	94.94	1.0558	3.3221	2.7395	84
Parnassus Core Equity Institutional (PRILX)	14.49	13.05	9.70	1.66	92.29	1.1050	4.1844	3.0178	84
Vanguard 500 Index Admiral (VFIAX)	14.81	14.63	10.78	-0.01	100.00	1.0066	0.0284	0.1923	84
Vanguard Total Stock Market Idx I (VITSX)	15.13	15.03	11.03	-0.02	99.33	1.0014	1.2824	0.1327	84
S&P 500	14.81	14.63	10.78	0.00	100.00	1.0073	0.0000	0.1918	84

PARK RIDGE POLICE PENSION FUND - LARGE CAP FUND ANALYSIS

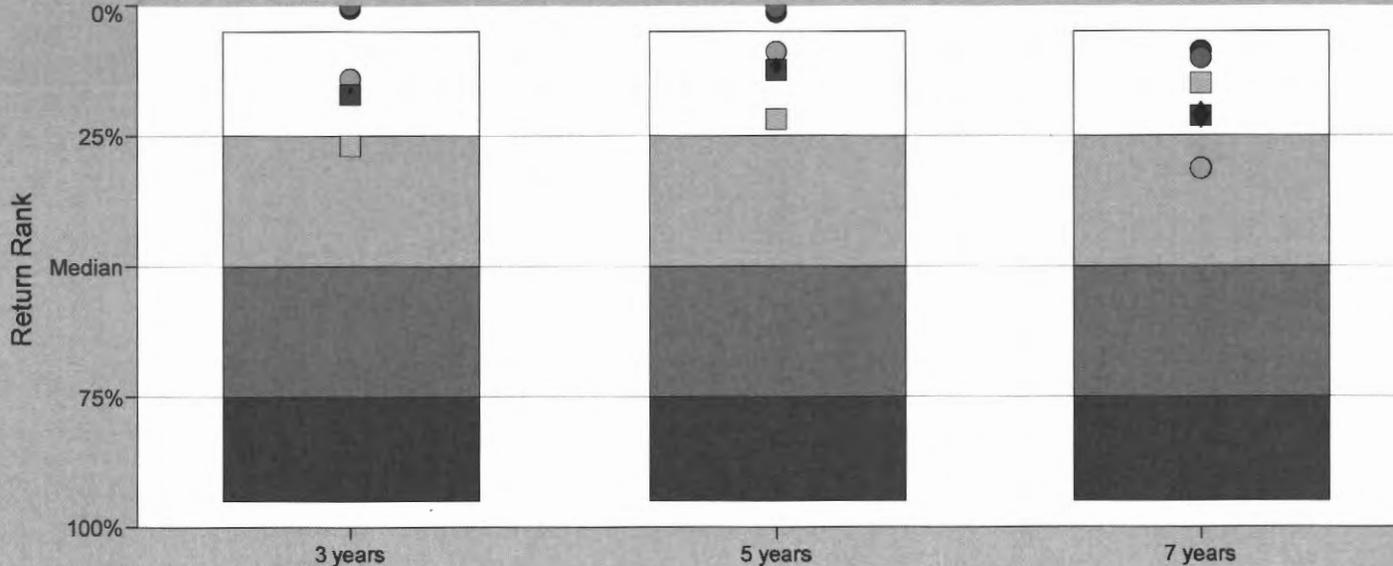
Manager Style

12-Month Moving Windows, Computed Monthly  
July 2007 - December 2015



- Hartford Core Equity I (HGIIX)
- Mainstay US Equity Opportunities I (MYCIX)
- Parnassus Core Equity Institutional (PRILX)
- Vanguard 500 Index Admiral (VFIAX)
- Vanguard Total Stock Market Idx I (VITSX)
- ◆ S&P 500
- Russell 6-way Style Basis

Manager vs Morningstar Large Blend: Return Rank  
July 2007 - December 2015 (not annualized if less than 1 year)



- Hartford Core Equity I (HGIIX)
- Mainstay US Equity Opportunities I (MYCIX)
- Parnassus Core Equity Institutional (PRILX)
- Vanguard 500 Index Admiral (VFIAX)
- Vanguard Total Stock Market Idx I (VITSX)
- ◆ S&P 500
- 5th to 25th Percentile
- 25th Percentile to Median
- Median to 75th Percentile
- 75th to 95th Percentile

**PARK RIDGE POLICE PENSION FUND - LARGE CAP FUND ANALYSIS**

**Manager vs Benchmark: Return**

36-Month Moving Windows, Computed Monthly

	Dec 2010	Dec 2011	Dec 2012	Dec 2013	Dec 2014	Dec 2015
Hartford Core Equity I (HGIIIX)	-3.82%	13.00%	10.37%	16.75%	22.06%	18.46%
Mainstay US Equity Opportunities I (MYCIX)	-4.67%	11.75%	10.48%	18.59%	23.34%	19.66%
Parnassus Core Equity Institutional (PRILX)	2.82%	13.30%	9.26%	17.05%	21.18%	15.32%
Vanguard 500 Index Admiral (VFIAX)	-2.80%	14.14%	10.85%	16.14%	20.37%	15.09%
Vanguard Total Stock Market Idx I (VIT SX)	-1.61%	15.15%	11.32%	16.25%	20.49%	14.70%
S&P 500	-2.86%	14.11%	10.87%	16.18%	20.41%	15.13%

**Calendar Year Return**

As of December 2015

	2015	2014	2013	2012	2011	2010	2009	2008
Hartford Core Equity I (HGIIIX)	6.77%	15.39%	34.93%	16.81%	0.97%	13.98%	25.38%	-37.74%
Mainstay US Equity Opportunities I (MYCIX)	5.41%	15.63%	40.57%	15.45%	2.76%	13.67%	19.48%	-36.21%
Parnassus Core Equity Institutional (PRILX)	-0.33%	14.70%	34.15%	15.64%	3.38%	9.10%	28.96%	-22.74%
Vanguard 500 Index Admiral (VFIAX)	1.36%	13.64%	32.33%	15.96%	2.08%	15.05%	26.62%	-36.97%
Vanguard Total Stock Market Idx I (VIT SX)	0.42%	12.56%	33.49%	16.42%	1.09%	17.23%	28.83%	-36.94%
S&P 500	1.38%	13.69%	32.39%	16.00%	2.11%	15.06%	26.46%	-37.00%

**Search Criteria** (as of 12/31/15)

- Morningstar Category equals Large Blend
- Morningstar Rating greater than or equal to 4 stars
- Total assets \$MM greater than or equal to \$500 MM
- Five years of verifiable performance
- Manager Tenure greater than or equal to 5 years
- Total Annualized 5 year returns greater than or equal to S&P 500
- Open to new investors
- 5 Year Sharpe ratio greater than or equal to S&P 500
- 5 Year R-Squared 80% of S&P 500

**Manager Fees %:**

Hartford:	0.45
Mainstay:	1.00
Parnassus:	0.60
Vanguard 500:	0.04
Vanguard TSM:	0.02

# Hartford Core Equity I (USD)

**Overall Morningstar Rtg™**  
 ☆☆☆☆  
 1,407 US OE Large Blend

**Standard Index**  
 S&P 500 TR USD

**Category Index**  
 Russell 1000 TR  
 USD

**Morningstar Cat**  
 US OE Large Blend

## Performance 12-31-2015

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2013	10.33	3.39	7.03	10.51	34.93
2014	1.97	4.56	1.00	7.16	15.39
2015	3.37	1.07	-3.95	6.39	6.77

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	—	—	—	—	3.28
Std 12-31-2015	—	—	—	—	3.28
Total Return	6.77	18.46	14.41	7.72	3.28
+/- Std Index	5.38	3.33	1.84	0.42	—
+/- Cat Index	5.85	3.45	1.97	0.32	—
% Rank Cat	1	1	2	11	—
No. in Cat	1606	1407	1238	889	—

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

### Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-843-7824 or visit [www.hartfordfunds.com](http://www.hartfordfunds.com).

### Fees and Expenses

#### Sales Charges

Front-End Load %	NA
Deferred Load %	NA

#### Fund Expenses

Management Fees %	0.45
12b1 Expense %	NA
Gross Expense Ratio %	0.76

### Risk and Return Profile

	3 Yr	5 Yr	10 Yr
Morningstar Rating™	5★	5★	5★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	High	High	+Avg
Standard Deviation	10.17	11.35	14.70
Mean	18.46	14.41	7.72
Sharpe Ratio	1.72	1.24	0.50

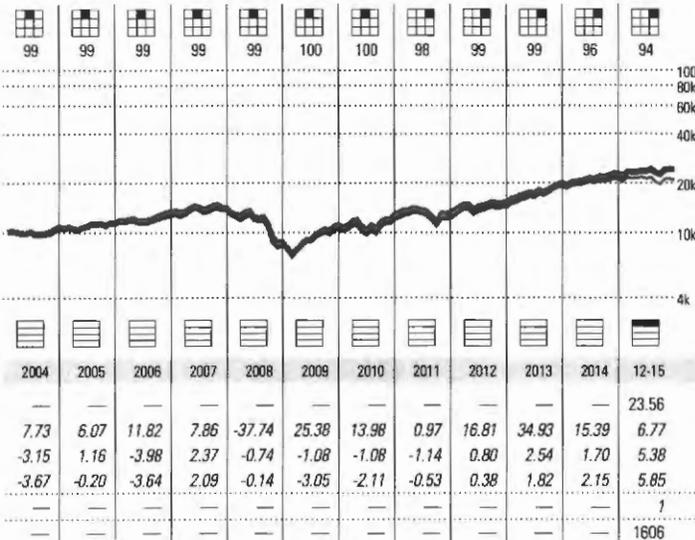
#### MPT Statistics

	Standard Index	Best Fit Index
Alpha	3.87	—
Beta	0.93	—
R-Squared	94.34	—

Potential Cap Gains Exp	17.85%
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### Operations

Family:	Hartford Mutual Funds
Manager:	Mammen Chally
Tenure:	17.8 Years
Objective:	Growth
Base Currency:	USD



### Portfolio Analysis 11-30-2015

Asset Allocation %	Net %	Long %	Short %	Share Chg since 10-2015	Share Amount	Holdings: 68 Total Stocks, 0 Total Fixed-Income, 33% Turnover Ratio	% Net Assets
Cash	6.19	6.19	0.00	—	—	—	—
US Stocks	85.76	85.76	0.00	⊕	13,950	S+p500 Emini Fut Dec15 Xcme 201512	4.37
Non-US Stocks	8.06	8.06	0.00	⊕	307,704	Microsoft Corp	2.52
Bonds	0.00	0.00	0.00	⊕	126,412	Apple Inc	2.25
Other/Not Clsd	0.00	0.00	0.00	⊕	223,895	JPMorgan Chase & Co	2.25
Total	100.00	100.00	0.00	⊕	156,713	CVS Health Corp	2.22

#### Equity Style

Value	Blend	Growth	Port Avg	Rel Index	Rel Cat
Value	—	—	20.5	1.08	1.11
P/E Ratio TTM	—	—	14.3	1.25	1.29
P/C Ratio TTM	—	—	3.0	1.12	1.24
P/B Ratio TTM	—	—	52766	0.72	0.54
Geo Avg Mkt Cap \$mil	—	—	—	—	—

#### Fixed-Income Style

Utd	Mod	Ext	Avg Eff Maturity	Avg Eff Duration	Avg Wtd Coupon	Avg Wtd Price
Utd	—	—	—	—	—	—
Mod	—	—	—	—	—	—
Ext	—	—	—	—	—	—

#### Credit Quality Breakdown

	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

#### Regional Exposure

	Stock %	Rel Std Index
Americas	95.9	0.97
Greater Europe	3.1	6.73
Greater Asia	1.0	3.63

#### S&P Sector Weightings

	Stocks %	Rel Std Index
Energy	2.6	0.39
Utilities	4.3	1.45
Materials	3.6	1.32
Industrials	9.1	0.91
Cons Disc	13.5	1.04
Cons Stpls	15.3	1.52
Health Care	14.8	0.98
Financials	14.7	0.89
Info Tech	22.1	1.07
Telecom	0.0	0.00

# Parnassus Core Equity Institutional

**Ticker** PRILX **Yield** 2.2% **Total Assets** \$11,920 mil **Master Category** Large Blend

**Benchmark 1:** Russell 1000 TR USD  
**Benchmark 2:** S&P 500 TR USD

**Morningstar Analyst Rating** 11-19-15

**Silver**

**Morningstar Pillars**

- Process + Positive
- Performance + Positive
- People + Positive
- Parent + Positive
- Price + Positive

**Morningstar Analyst Rating**

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

**Analyst Rating Spectrum**

Gold Silver Bronze Neutral Negative

**Pillar Spectrum**

Positive Negative Neutral

**Performance 12-31-15**

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
2011	5.27	-0.65	-10.98	11.04	3.38
2012	7.67	-0.91	7.06	1.24	15.64
2013	12.72	1.41	6.81	9.88	34.15
2014	0.85	7.48	-0.49	6.34	14.70
2015	-0.73	-0.36	-3.90	4.84	-0.33

**Trailing**

	Total Return%	+/- Bmark	+/- Bmark	%Rank	Growth of \$10,000
3 Mo	4.84	-1.66	-2.20	75	10,484
6 Mo	0.75	1.53	0.60	9	10,075
1 Yr	-0.33	-1.25	-1.72	47	9,967
3 Yr Avg	15.32	0.31	0.19	14	15,335
5 Yr Avg	12.89	0.45	0.32	9	18,333
10 Yr Avg	—	—	—	—	—
15 Yr Avg	—	—	—	—	—

**Tax Analysis**

	Tax Adj Rtn%	%Rank	Tax-Cost Rat	%Rank
3 Yr (estimated)	13.58	22	1.51	50
5 Yr (estimated)	11.61	10	1.13	52
10 Yr (estimated)	—	—	—	—

Potential Capital Gain Exposure: 14% of assets

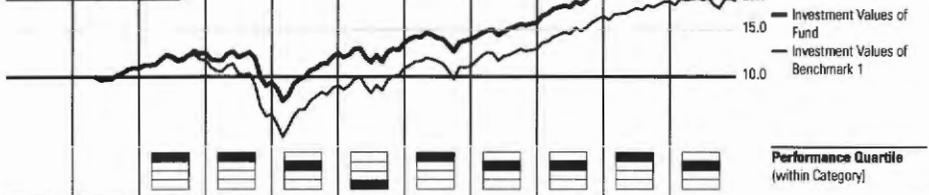
**Morningstar's Take by David Kathman, CFA 11-19-15**

With more than \$10 billion in assets under management, Parnassus Core Equity is the largest U.S. mutual fund in the socially conscious or ESG --environmental, social, governance--investing space, and one of the most attractive overall. Managers Todd Ahlsten and Ben Allen avoid stocks that get more than 10% of their revenue from alcohol, tobacco, gambling, weapons, or nuclear power, or which have financial ties to Sudan. They also prefer firms that score well on various governance, workplace, and environmental criteria, and which have good relations with their community and customers. Unlike some peers, this fund doesn't avoid all fossil-fuel stocks, but the managers will only own those they consider especially strong on ESG criteria, such as National Oilwell Varco NOV.

From the firms that meet the criteria, Ahlsten and Allen look for those with strong competitive advantages, increasingly relevant products or services, quality management, and temporarily depressed valuations. They maintain a fairly concentrated portfolio of about 40 stocks, so that a few holdings can have a significant effect on returns, but various factors help mitigate the risks. For

**Historical Profile**

**Return** High  
**Risk** Low  
**Rating** ★★★★★ Highest



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	12-15	History		
—	—	24.86	25.35	19.34	24.51	26.36	26.41	29.26	36.73	40.75	37.03	NAV		
—	—	—	—	-22.74	28.96	9.10	3.38	15.64	34.15	14.70	-0.33	Total Return %		
—	—	—	—	8.59	14.85	0.52	-7.00	1.88	-0.78	1.04	-1.25	+/- Bmark 1		
—	—	—	—	8.87	14.25	2.49	-5.97	1.26	-0.36	1.76	-1.72	+/- Bmark 2		
—	—	—	—	5.25	1.12	1.90	1.43	3.08	1.91	1.85	2.29	Income Return %		
—	—	—	—	9.12	-23.87	27.06	7.66	1.94	12.56	32.25	-2.62	Capital Return %		
—	—	—	—	6	2	38	92	12	43	26	10	Total Rtn % Rank Cat		
—	—	—	—	1.31	1.22	0.28	0.36	0.35	0.38	0.80	0.67	Income \$		
—	—	—	—	1.34	1.82	0.00	0.00	0.45	0.44	1.87	0.67	Capital Gains \$		
—	—	—	—	0.85	0.82	0.79	0.77	0.75	0.70	0.68	0.67	Expense Ratio %		
—	—	—	—	1.10	0.95	1.44	1.81	1.54	1.43	1.59	1.44	Income Ratio %		
—	—	—	—	117	91	70	60	54	63	24	17	Turnover Rate %		
—	—	—	—	46	45	137	192	407	627	1,006	1,804	3,027	3,554	Net Assets \$mil

**Rating and Risk**

Time Period	Load-Adj Return %	Morningstar Rtn vs Cat	Morningstar Risk vs Cat	Morningstar Risk-Adj Rating
1 Yr	-0.33	—	—	—
3 Yr	15.32	+ Avg	- Avg	★★★★★
5 Yr	12.89	High	Low	★★★★★
10 Yr	—	—	—	—
Incept	9.70	—	—	—

**Other Measures**

	Standard Index	Best Fit Index
Alpha	1.3	1.4
Beta	0.92	0.92
R-Squared	91	92
Standard Deviation	10.22	—
Mean	15.32	—
Sharpe Ratio	1.45	—

**Portfolio Analysis 12-31-15**

**Total Stocks: 40**  
Share change since 11-30-15

Company	Sector	YTD Ret %	% Assets
Danaher Corp	Industrial	9.00	4.76
Motorola Solutions Inc	Technology	4.17	4.29
Mondelez International In	Cnsmr Def	25.20	4.03
Procter & Gamble Co	Cnsmr Def	-9.93	3.63
Intel Corp	Technology	-2.42	3.61
United Parcel Service Inc	Industrial	-10.81	3.08
Alphabet Inc Class C Capi	Technology	—	3.06
Xylem Inc	Industrial	-2.64	3.05
VF Corp	Cnsmr Cyc	-15.11	3.00
Gilead Sciences Inc	Hlth Care	8.72	2.97
Praxair Inc	Basic Mat	-18.76	2.97
CVS Health Corp	Hlth Care	2.97	2.91
Apple Inc	Technology	-2.80	2.86
Charles Schwab Corp	Finan Svcs	9.87	2.76
PepsiCo Inc	Cnsmr Def	8.59	2.74
Sysco Corp	Cnsmr Def	5.57	2.71
Pentair PLC	Industrial	-23.50	2.70
Applied Materials Inc	Technology	-23.48	2.54
Verisk Analytics Inc	Industrial	20.03	2.50
National Oilwell Varco In	Energy	-46.09	2.49

**Current Investment Style**

Value Blend Growth	Market Cap %	Sector Weightings	% of Stocks	Rel Bmark 1
Giant	33.4	Cyclical	22.50	0.68
Large	36.1	BasicMat	7.37	2.58
Mid	22.8	CnsmrCyc	7.62	0.63
Small	7.7	FinanSvcs	7.51	0.50
Micro	0.0	Real Est	0.00	0.00
Avg \$mil:	33,328	Sensitive	44.65	1.13
Value Measures	Rel Category	CommSvcs	1.77	0.44
Price/Earnings	18.61	Energy	2.54	0.41
Price/Book	2.77	Industl	22.12	1.94
Price/Sales	1.78	Technlgy	18.22	1.02
Price/Cash Flow	9.70	Defensive	32.85	1.21
Dividend Yield %	2.25	CnsmrDef	15.22	1.66
Growth Measures	% Rel Category	Hlthcare	14.15	0.94
Long-Term Erngs	9.17	Utilities	3.48	1.16
Book Value	5.75			
Sales	6.04			
Cash Flow	15.75			
Historical Erngs	10.12			

**Composition - Net**

Cash	2.1
Stocks	97.9
Bonds	0.0
Other	0.0
Foreign	5.7

**Address:** Parnassus Income Funds  
San Francisco, CA 94105  
800-999-3505

**Web Address:** www.parnassus.com  
04-28-06

**Inception:** 04-28-06

**Advisor:** Parnassus Investments

**Subadvisor:** None

**Minimum Purchase:** \$100,000 Add: \$50 IRA: —

**Min Auto Inv Plan:** \$100,000 Add: \$50

**Sales Fees:** No-load

**Management Fee:** 0.75% mx./0.55% mn.

**Actual Fees:** Mgt: 0.60% Dist: —

**Expense Projections:** 3Yr: \$214 5Yr: \$373 10Yr: \$835

**Income Distribution:** Quarterly

**Profitability**

Return on Equity	22.95
Return on Assets	8.74
Net Margin	14.62

# Vanguard Total Stock Market Ix

Ticker: VITSX Yield: 2.0% Total Assets: \$343,217 mil Meter Category: Large Blend

Benchmark 1: Russell 1000 TR USD  
Benchmark 2: S&P 500 TR USD

Morningstar Analyst Rating 11-13-15



### Morningstar Pillars

Process	Positive
Performance	Positive
People	Positive
Parent	Positive
Price	Positive

### Morningstar Analyst Rating

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

### Analyst Rating Spectrum

Gold Silver Bronze Neutral Negative

### Pillar Spectrum

Positive Negative Neutral

### Performance 12-31-15

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
2011	6.37	0.01	-15.23	12.10	1.09
2012	12.95	-3.18	6.24	0.21	16.42
2013	11.02	2.77	6.29	10.08	33.49
2014	2.03	4.86	-0.01	5.22	12.56
2015	1.81	0.09	-7.26	6.26	0.42

### Trailing

	Total Return %	+/- Bmark 1	+/- Bmark 2	%Rank	Growth of \$10,000
3 Mo	6.26	-0.24	-0.78	41	10,626
6 Mo	-1.46	-0.68	-1.61	45	9,854
1 Yr	0.42	-0.51	-0.97	37	10,042
3 Yr Avg	14.70	-0.31	-0.43	27	15,089
5 Yr Avg	12.17	-0.27	-0.40	21	17,758
10 Yr Avg	7.52	0.12	0.22	13	20,653
15 Yr Avg	5.68	0.43	2.52	18	22,901

### Tax Analysis

	Tax Adj Rtn%	%Rank	Tax-Cost Rat	%Rank
3 Yr (estimated)	13.85	17	0.74	23
5 Yr (estimated)	11.54	11	0.56	21
10 Yr (estimated)	7.06	6	0.43	12

Potential Capital Gain Exposure: 54% of assets

### Morningstar's Take by Michael Rawson 11-13-15

Vanguard Total Stock Market Index earns a Morningstar Analyst Rating of Gold for its low cost, experienced management, and complete coverage of the U.S. equity market.

This fund is the quintessential passive U.S. stock fund. It holds almost every listed common equity traded on the New York Stock Exchange or Nasdaq in proportion to its market capitalization. That's more than 3,800 holdings and far more wide-ranging than any other fund in the large-blend Morningstar Category. While it dips further down the market cap spectrum to include micro-caps, mega-caps hold the largest sway because the fund is market-cap-weighted. This is a classic buy-and-hold, low-turnover approach that reduces trading costs and improves tax efficiency.

Low costs give the fund an edge. The 0.05% expense ratio provides a nearly 1-percentage-point cost advantage over the average fund. Those fees have stayed competitive as passive fund prices have fallen in recent years because Vanguard's mutual ownership structure compels it to pass economies of scale to fund owners.

### Historical Profile

Return: Above Avg  
Risk: Average  
Rating: ★★★★★ Above Avg



Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	12-15	History
NAV	30.00	34.10	35.36	21.81	27.46	31.57	31.30	35.66	46.69	51.80	50.80	NAV
Total Return %	6.12	15.69	5.56	-36.94	28.83	17.23	1.09	16.42	33.49	12.56	0.42	Total Return %
+/- Bmark 1	-0.15	0.23	-0.21	0.66	0.39	1.13	-0.41	0.00	0.38	-0.67	-0.50	+/- Bmark 1
+/- Bmark 2	1.21	-0.10	0.07	0.06	2.36	2.17	-1.02	0.42	1.10	-1.12	-0.97	+/- Bmark 2
Income Return %	1.79	1.89	1.88	1.76	2.50	2.07	1.92	2.45	2.31	1.97	1.97	Income Return %
Capital Return %	4.33	13.80	3.68	-38.70	26.32	15.16	-0.83	13.96	31.19	10.59	-1.55	Capital Return %
Total Rtn % Rank Cat	44	23	48	36	39	12	31	27	31	36	37	Total Rtn % Rank Cat
Income \$	0.51	0.56	0.64	0.62	0.54	0.57	0.60	0.76	0.82	0.91	1.01	Income \$
Capital Gains \$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Capital Gains \$
Expense Ratio %	0.06	0.06	0.05	0.05	0.06	0.05	0.04	0.04	0.04	0.04	0.04	Expense Ratio %
Income Ratio %	1.75	1.79	1.81	2.15	2.34	1.97	1.92	2.24	1.97	1.90	1.94	Income Ratio %
Turnover Rate %	12	4	4	5	5	5	5	3	4	3	—	Turnover Rate %
Net Assets \$mil	9,676	12,262	13,396	10,782	16,047	23,785	29,467	39,367	65,738	96,674	57,438	Net Assets \$mil

### Rating and Risk

Time Period	Load-Adj Return %	Morningstar Rtn vs Cat	Morningstar Risk vs Cat	Morningstar Risk-Adj Rating
1 Yr	0.42			
3 Yr	14.70	+Avg	Avg	★★★★
5 Yr	12.17	+Avg	Avg	★★★★
10 Yr	7.52	+Avg	Avg	★★★★
Incept	6.85			

### Other Measures

	Standard Index	Best Fit Index
Alpha	-0.4	0.0
Beta	1.00	1.00
R-Squared	99	100
Standard Deviation	10.70	
Mean	14.70	
Sharpe Ratio	1.34	

### Portfolio Analysis 11-30-15

Total Stocks: 3786

Share change since 10-31-15

Company	Sector	YTD Ret %	% Assets
Apple Inc	Technology	-2.80	3.01
Microsoft Corp	Technology	22.22	1.75
Exxon Mobil Corporation	Energy	-12.57	1.52
General Electric Co	Industri	26.91	1.26
Johnson & Johnson	Hlth Care	1.05	1.25
Wells Fargo & Co	Finan Svcs	1.85	1.14
Amazon.com Inc	Cnsmr Cyc	117.78	1.11
Berkshire Hathaway Inc Cl	Finan Svcs	-12.06	1.10
JPMorgan Chase & Co	Finan Svcs	8.20	1.10
Facebook Inc Class A	Technology	34.15	1.00
Alphabet Inc Class A	Technology	46.60	0.98
Alphabet Inc Class C Capi	Technology	—	0.97
AT&T Inc	Comm Svcs	8.04	0.92
Procter & Gamble Co	Cnsmr Def	-9.93	0.91
Pfizer Inc	Hlth Care	7.22	0.90
Verizon Communications In	Comm Svcs	3.54	0.83
Bank of America Corporati	Finan Svcs	-4.81	0.81
Chevron Corp	Energy	-15.99	0.77
Home Depot Inc	Cnsmr Cyc	28.24	0.77
Walt Disney Co	Cnsmr Cyc	13.02	0.77

### Current Investment Style

Value Blend Growth	Market Cap %	Sector Weightings	% of Stocks	Rel Bmark 1	
Large	41.0	Cyclical	34.12	1.02	
Mid	30.4	BasicMat	3.07	1.07	
Small	19.3	CnsmrCyc	12.06	0.99	
Micro	6.6	FinanSvcs	15.21	1.02	
Avg \$mil:	2.7	Real Est	3.78	1.13	
41,585		Sensitive	39.91	1.01	
		CommSvcs	3.77	0.94	
Value Measures	Rel Category	Energy	6.55	1.05	
Price/Earnings	18.84	1.09	Industri	11.49	1.01
Price/Book	2.40	1.02	Technology	18.10	1.01
Price/Sales	1.59	1.03	Defensive	25.98	0.96
Price/Cash Flow	10.03	1.03	CnsmrDef	8.45	0.92
Dividend Yield %	2.14	0.94	Hlthcare	14.59	0.97
Growth Measures	% Rel Category	Utilities	2.94	0.98	
Long-Term Emgs	10.06	0.98			
Book Value	6.04	1.00			
Sales	1.35	0.33			
Cash Flow	5.67	0.91			
Historical Emgs	5.25	0.86			

### Composition - Net

Cash	0.2
Stocks	99.8
Bonds	0.0
Other	0.0
Foreign	0.7
(% of Stock)	

Address: Vanguard Index Funds  
Valley Forge, PA 19482  
800-662-7447  
www.vanguard.com

Web Address: www.vanguard.com  
Inception: 07-07-97  
Advisor: Vanguard Group Inc  
Subadvisor: None

Minimum Purchase: \$500,000 Add: \$1 IRA: —  
Min Auto Inv Plan: — Add: —  
Sales Fees: No-load  
Management Fee: 0.02%  
Actual Fees: Mgt:0.02% Dist:—  
Expense Projections: 3Yr:\$13 5Yr:\$23 10Yr:\$51  
Income Distribution: Quarterly

Profitability %  
Return on Equity 18.48  
Return on Assets 6.46  
Net Margin 12.24

## Important Morgan Stanley Disclosures

**Alpha:** Alpha is a risk (beta adjusted) measurement. Officially, alpha measures the difference between a portfolio's actual returns and what it might be expected to deliver based on its level of risk. Higher risk generally means higher reward. A positive alpha means the fund has beaten expectations. A negative alpha means that the manager failed to match performance with risk. If two managers had the same return but one had a lower beta, that manager would have a higher alpha. StyleADVISOR uses the standard intercept calculation.

**Beta:** Beta represents the systematic risk of a portfolio and measures its sensitivity to a benchmark. A portfolio with a beta of one is considered as risky as the benchmark and would therefore provide expected returns equal to those of the market during both up and down periods. A portfolio with a beta of two would move approximately twice as much as the benchmark.

**Excess Return -** The difference between the returns of two portfolios. Usually excess return is the difference between a manager's return and the return of a benchmark for that manager. In the context of a beta benchmark, excess return refers to the difference between a manager or market benchmark and T-bills.

**Down Capture Ratio:** the ratio of the manager's overall performance to the benchmark's overall performance, considering only periods that are negative in the benchmark.

**Excess Returns:** represent the average quarterly total returns of the manager relative to its benchmark. A manager with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the manager's return.

**Manager Style Graph:** an attempt to depict how the manager's historical returns (not actual portfolio holdings) "track" a group of benchmarks. For example, Domestic Equity products will be presented versus Large and Small, Growth and Value benchmarks. If the R2 of the Style Benchmark is lower than 80%, then the attempt to measure the manager's style was problematic (this will often happen with non-diversified portfolios, or eclectic investment disciplines.)

**Moving Window:** multiple data calculations can be done within a single span of time. For example, in a 5 year period you can display five 1-year values with non-overlapping data, or you can display nine 3-year values by moving each 3-year "moving window" one quarter at a time. Each discrete time period, either overlapping or not, is referred to as a "moving window."

**Return:** A compounded and annualized rate of return.

**R-Squared:** (Correlation Squared) - A measure of how well two portfolios track each other. R-squared ranges between zero and 100%. An R-squared of 100% indicates perfect tracking, while an R-squared of zero indicates no tracking at all. R-squared is used in style analysis to determine how much information about a return series the style benchmark has been able to capture. The higher the R-squared, the better the benchmark.

**Sharpe Ratio:** The Sharpe Ratio, developed by Professor William F. Sharpe, is a measure of reward per unit of risk -- the higher the Sharpe Ratio, the better. It is a portfolio's excess return over the risk-free rate divided by the portfolio's standard deviation. The portfolio's excess return is its geometric mean return minus the geometric mean return of the risk-free instrument (by default, t-bills).

**Standard Deviation:** quantifies the volatility associated with a given product. The statistic measures the quarterly variation in returns around the mean return.

**Style Benchmark:** the blended benchmark that best matches the manager's returns (lowest tracking error.)

**Tracking Error:** represents the Standard Deviation of the Excess Return and provides a historical measure of the variability of the manager's returns relative to its benchmark. **Up Capture Ratio:** measures the manager's overall performance to the benchmark's overall performance, considering only periods that are positive in the benchmark. **Universe:** a peer group of managed investment products with reasonably similar characteristics.

# Parnassus Core Equity Fund<sup>SM</sup>

## Fourth Quarter 2015

All information, unless otherwise indicated, is as of 12/31/2015

### Portfolio Managers

#### Todd C. Ahlsten

- Chief Investment Officer, Portfolio Manager
- With firm since 1994
- Investment industry since 1994
- Portfolio Manager since 2001
- B.S., Business Administration, University of California, Berkeley 1994

#### Benjamin E. Allen

- Portfolio Manager
- With firm since 2005
- Investment industry since 1999
- Portfolio Manager since 2012
- M.B.A., University of California, Berkeley 2005
- B.A., Government, Georgetown University 1999

### Firm Overview

Parnassus Investments<sup>®</sup> is an independent and employee-owned investment management company based in San Francisco, CA. Founded in 1984, the firm seeks to invest in businesses that have increasingly relevant products or services, sustainable competitive advantages, quality management teams and ethical business practices. We believe the most attractive opportunities for investments are when companies with good business fundamentals become temporarily undervalued due to market sentiment.

Total Assets Under Management: \$15.6 billion

### Fund Characteristics

	Fund	S&P 500 Index
Ave Weighted Mkt Cap (\$Bn)	\$94.9	\$139.5
P/E Ratio	19.8x	19.5x
P/B Ratio	3.0x	2.5x
Number of Holdings	40	504
Portfolio Turnover (2015 Annual)	26.9%	-
SEC 30-Day Yield (Investor) <sup>1</sup>	1.26%	-

<sup>1</sup>The 30-Day SEC Yield is computed under an SEC standardized formula based on net income earned over the past 30 days.

### Fund Statistics (5 year)

	Investor Shares	S&P 500 Index
Alpha	1.92%	-
Beta	0.85	1.00
R-Squared	0.91	1.00
Sharpe Ratio	1.23	1.08
Standard Deviation	10.38%	11.70%
Downside Risk	5.73%	6.53%
Tracking Error	3.66%	-
Active Share	86.01%	-

variability (risk) of a portfolio's performance. **Sharpe Ratio** is a ratio used to measure risk-adjusted performance. It is calculated by subtracting the risk-free rate from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns. **Downside Risk** is a statistical measurement of a portfolio's dispersion below the mean return of a benchmark. **Tracking Error** is the standard deviation of the difference between the portfolio return and the desired investment benchmark return. **Active Share** measures the percentage amount your portfolio differs from a passive benchmark. The **S&P 500 Index** is a product of S&P Dow Jones Indices LLC and/or its affiliates and has been licensed for use by Parnassus Investments. Copyright © 2014 by S&P Dow Jones Indices LLC, a subsidiary of McGraw-Hill Financial, Inc., and/or its affiliates. All rights reserved. Redistribution, reproduction and/or photocopying in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. For more information on any of S&P Dow Jones Indices LLC's indices please visit [www.spdji.com](http://www.spdji.com). S&P<sup>®</sup> is a registered trademark of Standard & Poor's Financial Services LLC and Dow Jones<sup>®</sup> is a registered

### Fund Facts

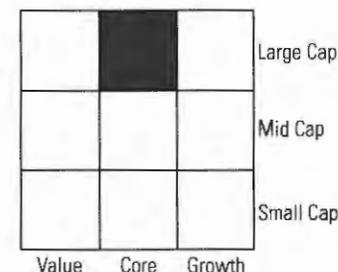
	Investor Shares	Institutional Shares
Ticker	PRBLX	PRILX
CUSIP	701769101	701769408
Minimum Investment	\$2,000	\$100,000
Gross Expense Ratio	0.87%	0.67%
Net Expense Ratio	0.87%	0.67%
Inception Date	8/31/1992	4/28/2006
Distribution Frequency	Quarterly	
Total Net Assets	\$11,922.4MM	

Expenses based on total net assets, net of reimbursement.

### Style

Parnassus Funds' equity style box is based on the portfolio's overall targeted capitalization range and relative valuation.

Lipper Category:  
Equity Income



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**Risks:** The Fund's share price may change daily based on the value of its security holdings. Stock markets can be volatile, and stock values fluctuate in response to the asset levels of individual companies and in response to general U.S. and international market and economic conditions. In addition to large-cap companies, the Fund may invest in small- and/or mid-cap companies, which can be more volatile than large-cap firms. Security holdings in the fund can vary significantly from broad market indexes.

## PARNASSUS INVESTMENTS<sup>®</sup>

1 Market Street, Suite 1600  
San Francisco, CA 94105  
[www.parnassus.com](http://www.parnassus.com)  
(800) 999-3505



# Park Ridge Police Pension Fund

## Historical Index Illustration

Atlanta  
Austin  
Baltimore  
Boston  
Chicago  
Cincinnati  
Cleveland  
Columbus  
Des Moines  
Detroit  
Honolulu  
Houston  
Indianapolis  
Los Angeles  
Milwaukee  
New York  
Raleigh  
Richmond  
Sacramento  
San Antonio  
San Francisco  
Tampa  
Washington D.C.  
Wichita  
Wilmington

**Graystone  
Consulting**<sup>SM</sup>  
A business of Morgan Stanley



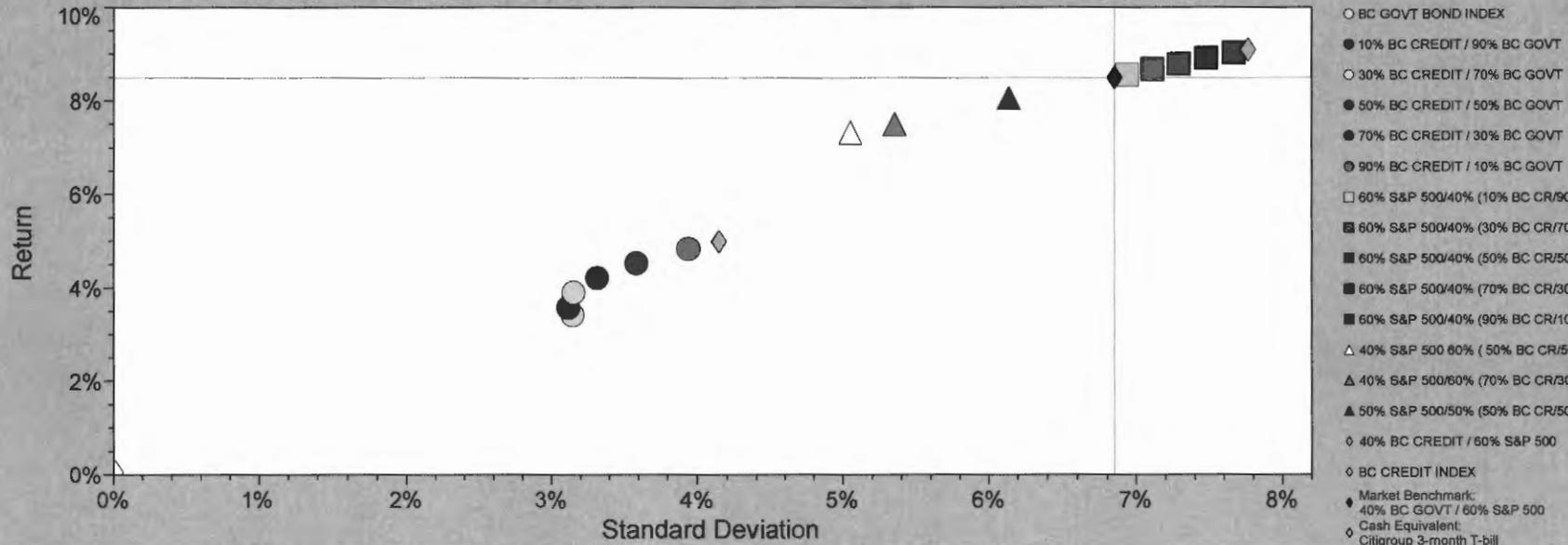
Mary L. Tomanek, CIMA®, CFP®  
Institutional Consulting Director  
Institutional Consultant

111 S. Pfingsten Road | Suite 200  
Deerfield, Illinois 60015

847-480-3605  
[mary.l.tomanek@msgraystone.com](mailto:mary.l.tomanek@msgraystone.com)

# HISTORICAL NDEX ILLUSTRATION

5 Year Risk / Return  
April 2011 - March 2016 (Single Computation)



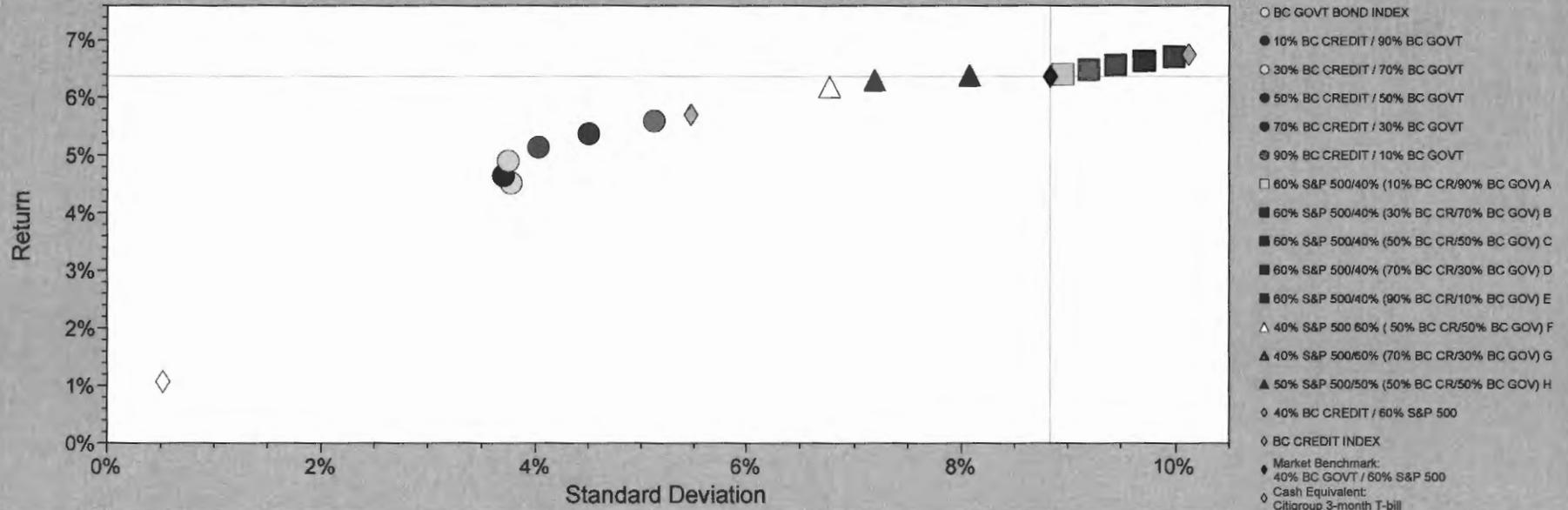
## Risk / Return Table

Annualized Summary Statistics: April 2011 - March 2016

	Return (%)	Std Dev (%)	Downside Risk (%)	Beta vs. Market	Alpha vs. Market (%)	R-Squared vs. Market (%)	R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Observs.
BC GOVT BOND INDEX	3.42	3.14	2.09	-0.1403	4.69	9.34	1.73	1.0695	8.3645	60
10% BC CREDIT / 90% BC GOVT	3.58	3.11	2.11	-0.1090	4.58	5.75	2.36	1.1315	8.1758	60
30% BC CREDIT / 70% BC GOVT	3.90	3.15	2.21	-0.0464	4.35	1.02	1.39	1.2193	7.8237	60
50% BC CREDIT / 50% BC GOVT	4.21	3.31	2.39	0.0161	4.13	0.11	2.16	1.2549	7.5094	60
70% BC CREDIT / 30% BC GOVT	4.53	3.58	2.62	0.0786	3.91	2.26	3.91	1.2475	7.2380	60
90% BC CREDIT / 10% BC GOVT	4.84	3.94	2.88	0.1412	3.68	6.02	6.61	1.2132	7.0144	60
60% S&P 500/40% (10% BC CR/90% BC GOV) A	8.55	6.94	4.86	1.0125	-0.04	99.98	97.38	1.2249	0.1277	60
60% S&P 500/40% (30% BC CR/70% BC GOV) B	8.67	7.11	4.99	1.0375	-0.13	99.84	97.21	1.2115	0.3831	60
60% S&P 500/40% (50% BC CR/50% BC GOV) C	8.79	7.29	5.11	1.0625	-0.22	99.58	96.94	1.1979	0.6384	60
60% S&P 500/40% (70% BC CR/30% BC GOV) D	8.91	7.48	5.24	1.0876	-0.30	99.21	96.57	1.1842	0.8938	60
60% S&P 500/40% (90% BC CR/10% BC GOV) E	9.03	7.67	5.38	1.1126	-0.39	98.77	96.12	1.1705	1.1492	60
40% S&P 500 60% ( 50% BC CR/50% BC GOV) F	7.32	5.05	3.54	0.7137	1.21	93.65	86.33	1.4374	2.3381	60
40% S&P 500/60% (70% BC CR/30% BC GOV) G	7.50	5.35	3.75	0.7513	1.08	92.48	85.44	1.3911	2.2489	60
50% S&P 500/50% (50% BC CR/50% BC GOV) H	8.06	6.14	4.29	0.8881	0.50	98.27	93.48	1.3046	1.1122	60
40% BC CREDIT / 60% S&P 500	9.09	7.76	5.44	1.1251	-0.43	98.51	95.87	1.1636	1.2769	60
BC CREDIT INDEX	4.99	4.14	3.02	0.1725	3.57	8.12	8.06	1.1907	6.9219	60
40% BC GOVT / 60% S&P 500	8.49	6.85	4.80	1.0000	0.00	100.00	97.41	1.2315	0.0000	60

# HISTORICAL NDEX ILLUSTRATION

10 Year Risk / Return  
April 2006 - March 2016 (Single Computation)



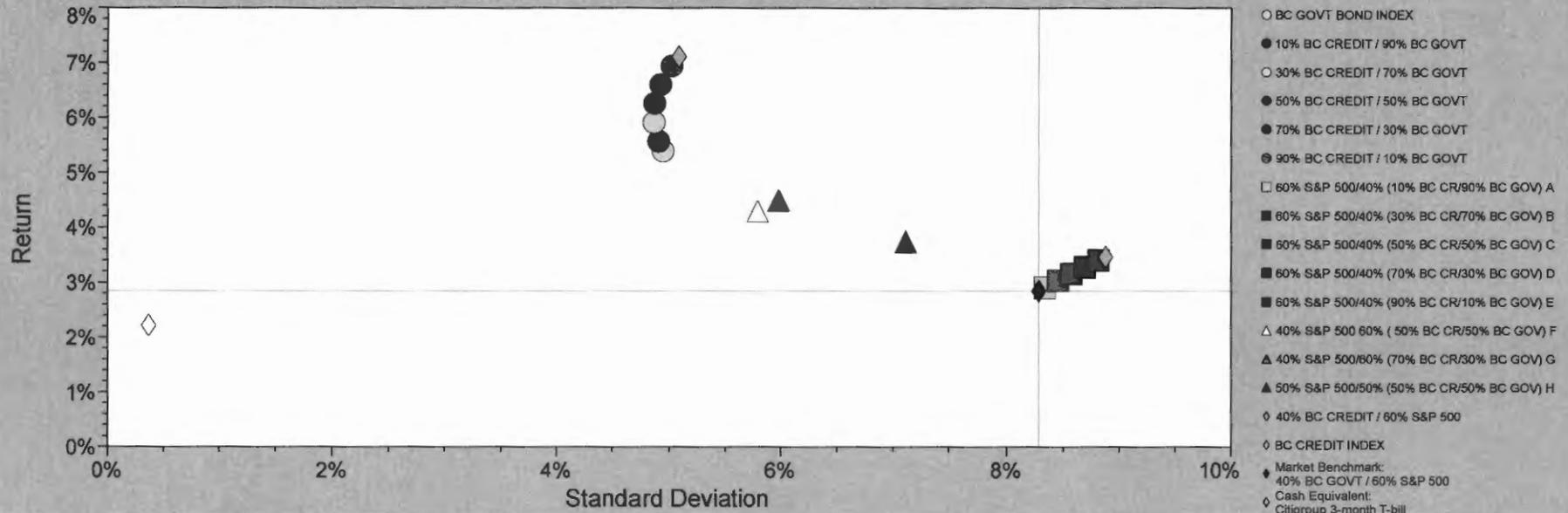
## Risk / Return Table

Annualized Summary Statistics: April 2006 - March 2016

	Return (%)	Std Dev (%)	Downside Risk (%)	Beta vs. Market	Alpha vs. Market (%)	R-Squared vs. Market (%)	R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Observs.
BC GOVT BOND INDEX	4.52	3.77	2.51	-0.0597	5.00	1.96	1.71	0.9141	10.0801	120
10% BC CREDIT / 90% BC GOVT	4.65	3.70	2.45	-0.0267	4.90	0.41	1.35	0.9666	9.7937	120
30% BC CREDIT / 70% BC GOVT	4.90	3.74	2.53	0.0393	4.70	0.86	0.86	1.0220	9.2703	120
50% BC CREDIT / 50% BC GOVT	5.14	4.03	2.82	0.1054	4.50	5.34	2.85	1.0101	8.8220	120
70% BC CREDIT / 30% BC GOVT	5.37	4.50	3.26	0.1714	4.30	11.31	7.32	0.9547	8.4608	120
90% BC CREDIT / 10% BC GOVT	5.59	5.12	3.78	0.2375	4.10	16.78	12.36	0.8832	8.1984	120
60% S&P 500/40% (10% BC CR/90% BC GOV) A	6.41	8.95	6.88	1.0132	-0.04	99.97	97.38	0.5963	0.1933	120
60% S&P 500/40% (30% BC CR/70% BC GOV) B	6.49	9.20	7.07	1.0396	-0.12	99.75	97.38	0.5891	0.5800	120
60% S&P 500/40% (50% BC CR/50% BC GOV) C	6.56	9.45	7.27	1.0660	-0.19	99.33	97.20	0.5814	0.9667	120
60% S&P 500/40% (70% BC CR/30% BC GOV) D	6.64	9.71	7.48	1.0925	-0.27	98.77	96.87	0.5735	1.3534	120
60% S&P 500/40% (90% BC CR/10% BC GOV) E	6.71	9.98	7.70	1.1189	-0.35	98.07	96.41	0.5654	1.7400	120
40% S&P 500/60% (50% BC CR/50% BC GOV) F	6.19	6.77	5.25	0.7458	1.35	94.71	88.07	0.7559	2.7328	120
40% S&P 500/60% (70% BC CR/30% BC GOV) G	6.31	7.19	5.58	0.7854	1.23	93.18	87.28	0.7290	2.6678	120
50% S&P 500/50% (50% BC CR/50% BC GOV) H	6.39	8.07	6.23	0.9059	0.58	98.28	94.13	0.6588	1.3469	120
40% BC CREDIT / 60% S&P 500	6.75	10.12	7.81	1.1321	-0.39	97.68	96.15	0.5612	1.9334	120
BC CREDIT INDEX	5.70	5.47	4.06	0.2705	4.00	19.10	14.79	0.8469	8.1073	120
40% BC GOVT / 60% S&P 500	6.37	8.84	6.78	1.0000	0.00	100.00	97.30	0.5998	0.0000	120

# HISTORICAL NDEX ILLUSTRATION

Year Risk / Return  
January 2001 - December 2005 (Single Computation)



## Risk / Return Table

Annualized Summary Statistics: January 2001 - December 2005

	Return (%)	Std Dev (%)	Downside Risk (%)	Beta vs. Market	Alpha vs. Market (%)	R-Squared vs. Market (%)	R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Observs.
BC GOVT BOND INDEX	5.39	4.94	3.79	-0.1444	5.99	5.84	0.48	0.6423	10.6195	60
10% BC CREDIT / 90% BC GOVT	5.56	4.91	3.78	-0.1272	6.11	4.61	0.50	0.6826	10.4905	60
30% BC CREDIT / 70% BC GOVT	5.91	4.87	3.76	-0.0929	6.34	2.50	0.54	0.7596	10.2443	60
50% BC CREDIT / 50% BC GOVT	6.26	4.87	3.76	-0.0586	6.57	0.99	0.58	0.8296	10.0149	60
70% BC CREDIT / 30% BC GOVT	6.60	4.92	3.78	-0.0243	6.81	0.17	0.63	0.8907	9.8034	60
90% BC CREDIT / 10% BC GOVT	6.94	5.02	3.83	0.0100	7.04	0.03	0.78	0.9417	9.6110	60
60% S&P 500/40% (10% BC CR/90% BC GOV) A	2.91	8.34	6.12	1.0069	0.04	99.99	95.20	0.0829	0.0955	60
60% S&P 500/40% (30% BC CR/70% BC GOV) B	3.03	8.45	6.21	1.0206	0.13	99.93	95.18	0.0965	0.2866	60
60% S&P 500/40% (50% BC CR/50% BC GOV) C	3.15	8.57	6.31	1.0343	0.22	99.80	95.10	0.1096	0.4777	60
60% S&P 500/40% (70% BC CR/30% BC GOV) D	3.28	8.69	6.40	1.0480	0.31	99.62	94.97	0.1224	0.6688	60
60% S&P 500/40% (90% BC CR/10% BC GOV) E	3.40	8.82	6.50	1.0617	0.40	99.38	94.79	0.1347	0.8599	60
40% S&P 500 60% ( 50% BC CR/50% BC GOV) F	4.30	5.79	4.21	0.6700	2.30	91.66	76.85	0.3598	3.2037	60
40% S&P 500/60% (70% BC CR/30% BC GOV) G	4.49	5.98	4.35	0.6906	2.43	91.38	77.02	0.3808	3.1055	60
50% S&P 500/50% (50% BC CR/50% BC GOV) H	3.74	7.11	5.21	0.8521	1.25	98.36	89.21	0.2145	1.5267	60
40% BC CREDIT / 60% S&P 500	3.46	8.88	6.55	1.0686	0.44	99.25	94.68	0.1407	0.9555	60
BC CREDIT INDEX	7.11	5.08	3.86	0.0271	7.16	0.20	0.85	0.9633	9.5223	60
40% BC GOVT / 60% S&P 500	2.84	8.28	6.08	1.0000	0.00	100.00	95.19	0.0759	0.0000	60

# HISTORICAL NDEX ILLUSTRATION

## Benchmark Return through March 2016

(not annualized if less than 1 year)

	YTD	1 year	3 years	5 years	7 years	10 years	15 years	20 years	25 years
BC GOVT BOND INDEX	3.12%	2.36%	2.11%	3.42%	3.03%	4.52%	4.57%	5.30%	5.91%
10% BC CREDIT / 90% BC GOVT	3.21%	2.22%	2.18%	3.58%	3.46%	4.65%	4.70%	5.39%	6.01%
20% BC CREDIT / 80% BC GOVT	3.29%	2.08%	2.26%	3.74%	3.90%	4.77%	4.83%	5.48%	6.11%
30% BC CREDIT / 70% BC GOVT	3.37%	1.94%	2.33%	3.90%	4.34%	4.90%	4.95%	5.57%	6.20%
40% BC CREDIT / 60% BC GOVT	3.45%	1.79%	2.41%	4.06%	4.78%	5.02%	5.08%	5.66%	6.30%
50% BC CREDIT / 50% BC GOVT	3.53%	1.65%	2.48%	4.21%	5.22%	5.14%	5.20%	5.74%	6.39%
60% BC CREDIT / 40% BC GOVT	3.61%	1.51%	2.56%	4.37%	5.66%	5.26%	5.32%	5.83%	6.48%
70% BC CREDIT / 30% BC GOVT	3.69%	1.36%	2.63%	4.53%	6.09%	5.37%	5.44%	5.91%	6.57%
80% BC CREDIT / 20% BC GOVT	3.77%	1.21%	2.70%	4.68%	6.53%	5.48%	5.56%	6.00%	6.66%
90% BC CREDIT / 10% BC GOVT	3.84%	1.07%	2.77%	4.84%	6.97%	5.59%	5.68%	6.08%	6.75%
60% S&P 500/40% (10% BC CR/90% BC GOV) A	2.19%	2.22%	8.06%	8.55%	11.68%	6.41%	5.82%	7.30%	8.27%
60% S&P 500/40% (30% BC CR/70% BC GOV) B	2.25%	2.09%	8.11%	8.67%	12.04%	6.49%	5.90%	7.35%	8.34%
60% S&P 500/40% (50% BC CR/50% BC GOV) C	2.30%	1.96%	8.17%	8.79%	12.39%	6.56%	5.99%	7.41%	8.40%
60% S&P 500/40% (70% BC CR/30% BC GOV) D	2.35%	1.83%	8.22%	8.91%	12.75%	6.64%	6.07%	7.46%	8.47%
60% S&P 500/40% (90% BC CR/10% BC GOV) E	2.40%	1.69%	8.28%	9.03%	13.11%	6.71%	6.15%	7.52%	8.53%
40% S&P 500/60% (50% BC CR/50% BC GOV) F	2.74%	1.93%	6.30%	7.32%	10.04%	6.19%	5.83%	6.96%	7.82%
40% S&P 500/60% (70% BC CR/30% BC GOV) G	2.82%	1.74%	6.38%	7.50%	10.57%	6.31%	5.96%	7.05%	7.92%
50% S&P 500/50% (50% BC CR/50% BC GOV) H	2.52%	1.96%	7.24%	8.06%	11.22%	6.39%	5.92%	7.20%	8.12%
40% BC CREDIT / 60% S&P 500	2.43%	1.63%	8.30%	9.09%	13.29%	6.75%	6.19%	7.55%	8.56%
BC CREDIT INDEX	3.92%	0.92%	2.84%	4.99%	7.41%	5.70%	5.79%	6.16%	6.84%
40% BC GOVT / 60% S&P 500	2.17%	2.29%	8.03%	8.49%	11.50%	6.37%	5.78%	7.27%	8.24%

# Important Notes About This Report

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**PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. ACTUAL INDIVIDUAL ACCOUNT RESULTS WILL DIFFER FROM THE PERFORMANCE SHOWN IN THIS REPORT.**

**INVESTMENT DECISIONS:** Do not use this report as the sole basis for investment decisions. Do not select an allocation, investment disciplines or investment managers/funds based on performance alone. Consider, in addition to performance results, other relevant information about each investment manager or fund, as well as matters such as your investment objectives, risk tolerance and investment time horizon.

**SOURCE OF PERFORMANCE INFORMATION FOR INVESTMENT MANAGERS AVAILABLE IN CONSULTING AND EVALUATION SERVICES, FIDUCIARY SERVICES OR SELECT UMA:** Each investment manager included in this report that participates in one or more of the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs ("Programs") has a track record of investing assets in the relevant investment discipline. The investment manager's gross performance track record shown in this report consists of its gross performance in either the Morgan Stanley or the Smith Barney form of the Fiduciary Services program (if that investment manager is in the Fiduciary Services program) for periods for which sufficient data is available. If the strategy or similar strategies are available in both the Morgan Stanley and Smith Barney forms of the program, this profile presents the composite for the strategy that is closest to the strategy currently offered in the Fiduciary Services program. If both strategies are equally close, the profile shows the longer of the two composites. For other periods, the gross performance track record is provided by the investment manager and consists of accounts managed by the investment manager in the same or a similar investment discipline, whether at Morgan Stanley or elsewhere (and may include institutional accounts, retail accounts and/or pooled investment vehicles such as mutual funds).

## Important Notes About This Report (Cont'd)

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**SOURCE OF PERFORMANCE INFORMATION FOR FUNDS:** For any fund shown in this report, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below.

**BENCHMARK INDICES:** Depending on the composition of your account and your investment objectives, the indices shown in this report may not be appropriate measures for comparison purposes and are therefore presented for illustration only. The indices used in this report may not be the same indices used for comparative purposes in the profile for each investment manager, mutual fund and/or ETF that accompanies this report. Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Performance of selected indices may be more or less volatile than that of any investment manager/fund shown in this report. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

**MANAGERS AND FUNDS APPROVED IN MORGAN STANLEY WEALTH MANAGEMENT PROGRAMS:** Morgan Stanley Wealth Management approves certain managers and funds offered in its investment advisory programs:

- Morgan Stanley Wealth Management's Global Investment Manager Analysis ("GIMA") team approves managers and funds offered in Consulting and Evaluation Services, Fiduciary Services, and Select UMA.
- Managers and funds offered in Institutional Consulting Group and Graystone Consulting programs may be approved by GIMA, approved by Morgan Stanley Wealth Management using another process, or not approved by Morgan Stanley Wealth Management.
- Morgan Stanley Wealth Management does not approve managers in the Investment Management Services consulting program.
- Managers in the Global Investment Solutions (GIS) program are not evaluated by GIMA.

## Important Notes About This Report (Cont'd)

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**KEY ASSET CLASS RISK CONSIDERATIONS:** Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

**Commodities – Diversified:** The commodities markets may fluctuate widely based on a variety of factors including changes in supply and demand relationships; governmental programs and policies; national and international political and economic events; war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence; weather; technological change; and the price volatility of a commodity. In addition to commodity risk, commodity-linked notes may be subject to special risks, such as risk of loss of interest and principal, lack of a secondary market and risk of greater volatility that do not affect traditional equity and debt securities.

**Commodities - Precious Metals:** The prices of Commodities - Precious Metals tend to fluctuate widely and in an unpredictable manner, and have historically experienced extended periods of flat or declining prices. The prices of Commodities - Precious Metals are affected by several factors, including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.

**Fixed Income:** Fixed income securities are subject to certain inherent risks such as credit risk, reinvestment risk, call risk, and interest rate risk. Fixed income securities are sensitive to changes in prevailing interest rates. When interest rates rise, the value of fixed income securities generally declines. Accordingly, managers or funds that invest in fixed income securities are subject to interest rate risk and portfolio values can decline in value as interest rates rise and an investor can lose principal.

**High Yield Fixed Income:** As well as being subject to risks relating to fixed income generally (see "Fixed Income"), high yield or "junk" bonds are considered speculative, have significantly higher credit and default risks (including loss of principal), and may be less liquid and more volatile than investment grade bonds. Clients should only invest in high yield strategies if this is consistent with their risk tolerance, and high yield investments should comprise only a limited part of a balanced portfolio.

## Important Notes About This Report (Cont'd)

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Managed Futures: Involve a high degree of risk, often involve leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies whose interests (limited partnership or limited liability company units) are generally traded on securities exchanges like shares of common stock. Investment in MLPs entails different risks, including tax risks, than is the case for other types of investments. Currently, most MLPs operate in the energy, natural resources or real estate sectors and are subject to the risks generally applicable to companies in those sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Depending on the ownership vehicle, MLP interests are subject to varying tax treatment.

## Glossary (Cont'd)

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**CORRELATION:** Statistical method to measure how closely related the variances of two series are. Assets that are highly correlated would be expected to react in similar ways to changing market conditions.

**CUMULATIVE RETURN:** The total return on an investment over a specified time period.

**CUMULATIVE EXCESS RETURN:** Excess return represents the difference between the manager's return and the return of a benchmark for that manager. Cumulative excess return is calculated by taking the cumulative return of the original series and forming the difference between the two. A positive cumulative excess return implies that the manager outperformed the benchmark over the time period shown.

**DOWNSIDE CAPTURE RATIO:** For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had negative returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. For investors, the lower the downside capture ratio, the better. For example, a downside capture ratio of 90% means that the portfolio's losses were only 90% of the market's losses (as represented by the benchmark index).

**DOWNSIDE DEVIATION:** Similar to Standard Deviation, but Downside Deviation captures the range of expected returns only on the down side [when the returns fall below the minimum acceptable return (MAR)].

**DRAWDOWN (MAXIMUM DRAWDOWN):** The Maximum loss (compounded, not annualized) that the manager incurred during any sub-period of the time period shown.

**DRAWDOWN BEGIN DATE:** the first date of the sub-period used to calculate the maximum drawdown

**DRAWDOWN END DATE:** The last date of the sub period used to calculate the maximum drawdown

**DRAWDOWN LENGTH:** The number of periods (months or quarters depending on the periodicity of the data) the sub-period used to calculate the maximum drawdown

**DRAWDOWN RECOVERY DATE:** Date at which the compounded returns regain the peak level that was reached before the drawdown began

**DRAWDOWN RECOVERY LENGTH:** Number of periods it takes to reach the recovery level from maximum drawdown end date

## Glossary (Cont'd)

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**STYLE BASIS:** A set of indices that represent the broad asset category being utilized. The Style Basis is used in the equation that calculates the Manager Style (see definition). The "Manager Style" chart shows the specific benchmarks utilized in the Style Basis. The following Style Bases would be appropriate for the asset classes shown below:

- Domestic Equity: Russell Generic Corners; Russell 6 Way Style basis; S&P Pure Style Basis
- International Equity: MSCI Regional Style Basis; MSCI World Ex USA Style Basis; MSCI International Equity Style Basis; S&P Regional International Indexes, S&P International 4 Way Style Basis
- Global Equity: MSCI World Style Basis; MSCI World Regional Indexes; MSCI Global Equity Style Basis
- Fixed income: Citigroup Corporate Bond Indexes; BofA Merrill Lynch Fixed Income Indexes; Citigroup Govt Fixed Income Indexes; Global Bond Indexes

**STYLE BENCHMARK:** A unique benchmark calculated for each manager/fund based on the Returns Based Style Analysis described above. The "Asset Allocation" chart in Zephyr shows the specific weightings used for the Style Benchmark for each manager or fund.

**TRACKING ERROR:** A measurement that indicates the standard deviation of the difference between a selected market index and a portfolio's returns. The portfolio's returns are then compared to the index's returns to determine the amount of excess return, which produces a tracking error. A low tracking error indicates that the portfolio is tracking the selected index closely or has roughly the same returns as the index.

**UPSIDE CAPTURE RATIO:** For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had positive returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. A percentage less than 100% indicates that the portfolio "captured" less performance than the benchmark index, while a percentage greater than 100% indicates the portfolio captured more performance than the benchmark index. For investors, the higher the upside capture ratio, the better. For example, if the annualized performance of an benchmark index during "up" markets (when its returns were zero or positive) is 20.8% and the portfolio's annualized performance during the same period is 16.8%, then the portfolio's upside capture ratio is  $16.8\%/20.8\% = 80.7\%$ , meaning the portfolio "captured" 80.7% of the upside performance of the index. Stated another way, the portfolio in this example performed almost 20% worse than the market during up periods.

**VARIANCE:** A measure of how spread out a distribution is. It is computed as the average squared deviation of each number from its mean.

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## **Corporate Fixed Income**

### **Manager Analysis**

**Prepared for:**

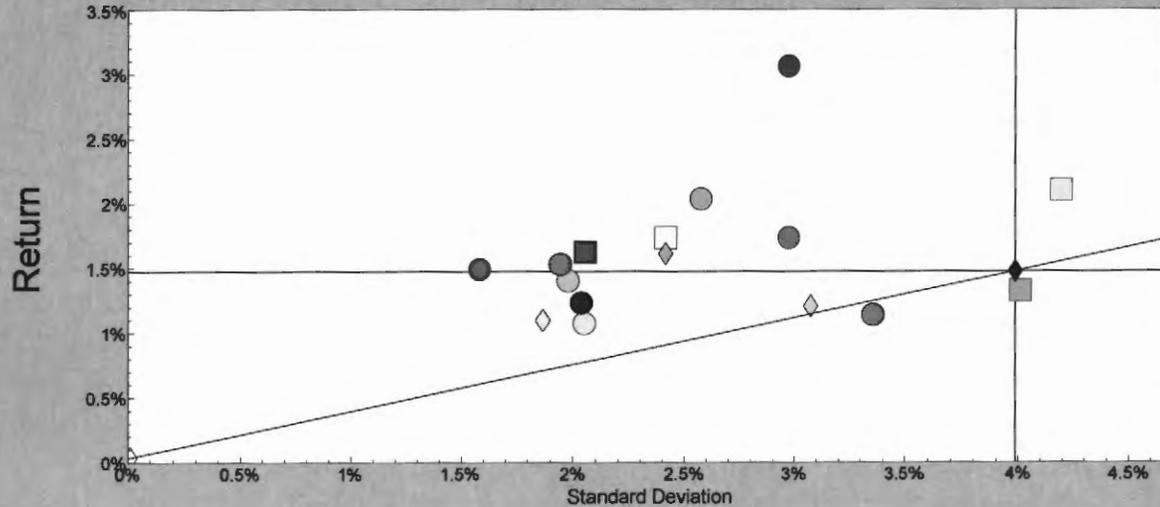
**CITY OF PARK RIDGE  
POLICE PENSION FUND**

**March 4, 2016**

### 3 Year Manager Risk/Return

Single Computation

January 2013 - December 2015



- Cincinnati Asset: Investment Grade
- Chartwell Invst: Intermediate FI (Gross)
- CS McKee: Govt/Credit FI (Gross)
- CS McKee: Intern. G/C FI (Gross)
- Great Lakes, LLC: Intermediate Fix (Gross)\*
- Madison Invst Adv: Intern Corp Bond (Gross)
- McDonnell Invst.: Govt/Credit (Gross)
- McDonnell Invst.: Intern Govt/Cred (Gross)
- National Invest: Core FI (Gross)\*
- NORTHERN TRUST 1-10 YR INTM CREDIT IDX - LENDING\*
- Pacific Income: Corporate
- Segall Bryant: Intern Fixed Inc (Gross)
- Segall Bryant: Core Fixed Inc. (Gross)
- Barclays U.S. Government/Credit
- Barclays Intermediate U.S. Government/Credit
- Barclays U.S. Intermediate Credit
- ▲ Market Benchmark: BC CREDIT INDEX
- ▲ Cash Equivalent: Citigroup 3-month T-bill
- Capital Market Line

### Risk-Return Table

January 2013 - December 2015: Annualized Summary Statistics

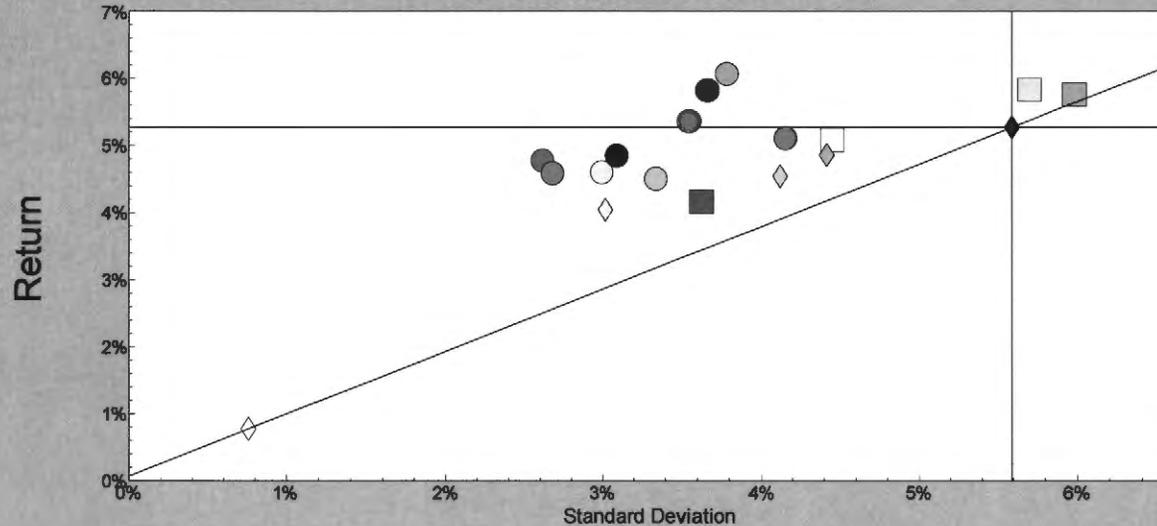
	Return (%)	Std Dev (%)	Downside Risk (%)	Beta vs. Market	Beta vs. Style	Alpha vs. Market (%)	Alpha vs. Style (%)	R-Squared vs. Market (%)	R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observs.
Cincinnati Asset: Investment Grade	2.10	4.20	3.12	1.0393	1.0025	0.57	0.17	97.59	98.38	0.4928	0.6699	0.5345	12
Chartwell Invst: Intermediate FI (Gross)	1.40	1.98	1.52	0.4660	0.9924	0.70	0.19	88.24	99.09	0.6904	2.2349	0.1891	12
CS McKee: Govt/Credit FI (Gross)	2.04	2.57	1.84	0.6099	1.0344	1.12	0.81	89.21	96.97	0.7765	1.7708	0.4558	12
CS McKee: Intern. G/C FI (Gross)	1.49	1.58	1.17	0.3640	0.9852	0.94	0.37	84.11	97.46	0.9197	2.6135	0.2533	12
Great Lakes, LLC: Intermediate Fix (Gross)*	1.53	1.94	1.48	0.4564	0.9864	0.84	0.37	87.68	99.71	0.7688	2.2725	0.1089	12
Madison Invst Adv: Intern Corp Bond (Gross)	1.62	2.05	1.54	0.4949	1.0291	0.87	0.34	92.33	98.00	0.7722	2.0929	0.2963	12
McDonnell Invst.: Govt/Credit (Gross)	1.14	3.36	2.53	0.8170	0.9956	-0.07	-0.58	94.21	98.73	0.3288	1.0885	0.3786	12
McDonnell Invst.: Intern Govt/Cred (Gross)	1.08	2.05	1.56	0.4707	0.9912	0.36	-0.11	83.79	99.02	0.5063	2.2662	0.2040	12
National Invest: Core FI (Gross)*	3.06	2.97	2.23	0.7093	0.9800	1.99	1.62	90.52	98.01	1.0170	1.4770	0.4234	12
NORTHERN TRUST 1-10 YR INTM CREDIT IDX - LENDING*	1.74	2.41	1.84	0.5755	1.0032	0.87	0.10	90.33	99.66	0.7037	1.8517	0.1416	12
Pacific Income: Corporate	1.33	4.01	2.93	0.9875	1.0207	-0.13	-0.49	96.39	98.30	0.3214	0.7637	0.5293	12
Segall Bryant: Intern Fixed Inc (Gross)	1.23	2.04	1.55	0.4745	0.9905	0.52	0.07	86.24	99.44	0.5875	2.2275	0.1544	12
Segall Bryant: Core Fixed Inc. (Gross)	1.74	2.97	2.20	0.7180	0.9842	0.66	0.57	92.72	99.58	0.5712	1.3814	0.1982	12
Barclays U.S. Government/Credit	1.21	3.08	2.25	0.7451	1.0186	0.10	0.17	93.34	99.81	0.3808	1.2897	0.1452	12
Barclays Intermediate U.S. Government/Credit	1.10	1.87	1.40	0.4239	1.0143	0.46	0.08	81.79	99.90	0.5678	2.4320	0.0645	12
Barclays U.S. Intermediate Credit	1.61	2.41	1.84	0.5790	1.0055	0.74	0.03	91.48	99.81	0.6530	1.8207	0.1062	12
BC CREDIT INDEX	1.48	3.99	2.98	1.0000	1.0066	0.00	-0.09	100.00	99.82	0.3612	0.0000	0.1714	12

\*Graystone Manager Research Pending  
 Square: Represents Corporate Only  
 Circle: Represents Government/Credit and or Mortgages

## Manager Risk/Return

Single Computation

January 2007 - December 2015



- Cincinnati Asset: Investment Grade
- Chartwell Invst: Intermediate FII (Gross)
- CS McKee: Govt/Credit FI (Gross)
- CS McKee: Intern. G/C FI (Gross)
- Great Lakes, LLC: Intermediate Fix (Gross)\*
- Madison Invst Adv: Intern Corp Bond (Gross)
- McDonnell Inv.: Govt/Credit (Gross)
- McDonnell Inv.: Intern Govt/Cred (Gross)
- National Invest: Core FI (Gross)\*
- NORTHERN TRUST 1-10 YR INTM CREDIT IDX - LENDING\*
- Pacific Income: Corporate
- Segall Bryant: Intern Fixed Inc (Gross)
- Segall Bryant: Core Fixed Inc. (Gross)
- Barclays U.S. Government/Credit
- Barclays Intermediate U.S. Government/Credit
- Barclays U.S. Intermediate Credit
- Market Benchmark: BC CREDIT INDEX
- Cash Equivalent
- Citigroup 3-month T-Bill
- Capital Market Line

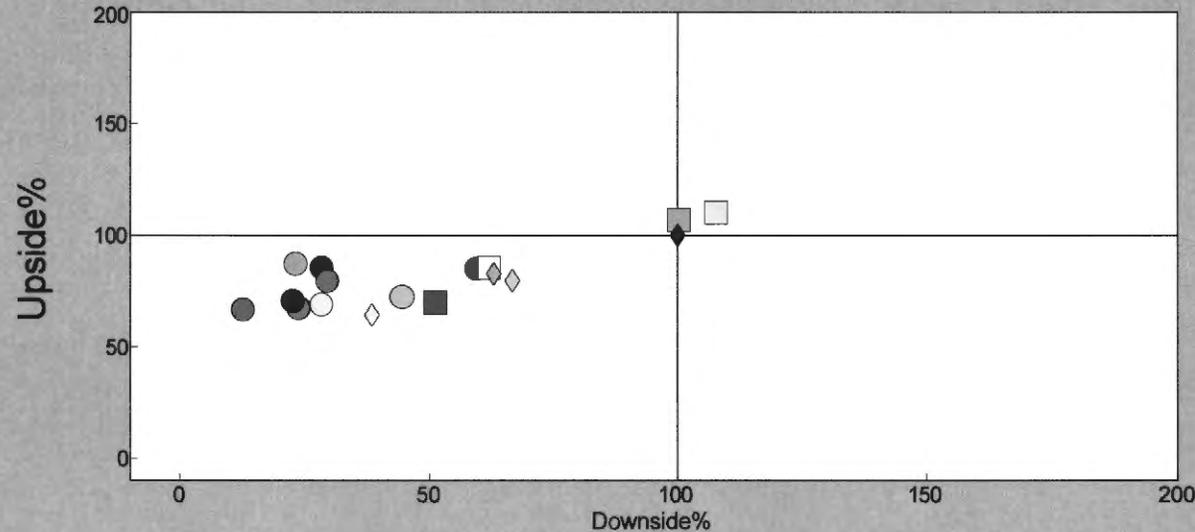
## Risk-Return Table

January 2007 - December 2015: Annualized Summary Statistics

	Return (%)	Std Dev (%)	Downside Risk (%)	Cash-Adj. Beta vs. Market	Cash-Adj. Beta vs. Style	Cash-Adj. Alpha vs. Market (%)	Cash-Adj. Alpha vs. Style (%)	Cash-Adj. R-Squared vs. Market (%)	Cash-Adj. R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observ.
Cincinnati Asset: Investment Grade	5.83	5.70	4.30	0.9894	1.0307	0.59	0.15	94.92	96.41	0.8870	1.3117	1.1152	36
Chartwell Invst: Intermediate FII (Gross)	4.51	3.34	2.29	0.5424	0.9505	1.25	0.36	84.47	94.87	1.1172	2.9394	0.7846	36
CS McKee: Govt/Credit FI (Gross)	6.07	3.78	2.55	0.4931	1.0085	3.02	1.68	56.30	91.57	1.3983	3.8230	1.0931	36
CS McKee: Intern. G/C FI (Gross)	4.78	2.61	1.76	0.3565	1.0061	2.35	1.10	63.71	94.05	1.5312	3.9943	0.6238	36
Great Lakes, LLC: Intermediate Fix (Gross)*	4.59	2.68	1.92	0.4105	1.0188	1.91	0.76	75.85	97.24	1.4228	3.6269	0.4508	36
Madison Invst Adv: Intern Corp Bond (Gross)	4.16	3.63	2.47	0.5932	0.9457	0.69	0.27	85.81	90.47	0.9341	2.7083	1.1499	36
McDonnell Inv.: Govt/Credit (Gross)	5.11	4.15	2.88	0.5953	1.0209	1.62	0.18	66.31	98.24	1.0432	3.3580	0.5622	36
McDonnell Inv.: Intern Govt/Cred (Gross)	4.60	2.99	2.07	0.4117	1.0247	1.93	0.43	62.89	96.22	1.2780	3.8251	0.5820	36
National Invest: Core FI (Gross)*	5.82	3.66	2.41	0.5768	1.0572	2.39	1.50	73.86	84.03	1.3779	3.1200	1.5477	36
NORTHERN TRUST 1-10 YR INTM CREDIT IDX - LENDING*	5.08	4.45	3.16	0.7673	0.9925	0.82	0.17	92.74	97.86	0.9670	1.8133	0.6677	36
Pacific Income: Corporate	5.76	5.98	4.17	1.0516	0.9892	0.26	0.38	96.99	95.81	0.8332	1.1005	1.2530	36
Segall Bryant: Intern Fixed Inc (Gross)	4.85	3.09	2.09	0.3788	1.0240	2.33	0.69	51.45	94.95	1.3182	4.1346	0.6829	36
Segall Bryant: Core Fixed Inc. (Gross)	5.36	3.55	2.47	0.4505	1.0370	2.52	0.96	53.13	93.55	1.2914	3.9716	0.9071	36
Barclays U.S. Government/Credit	4.55	4.12	2.79	0.5610	0.9806	1.23	0.01	60.87	99.56	0.9148	3.5995	0.2848	36
Barclays Intermediate U.S. Government/Credit	4.04	3.02	2.03	0.3985	0.9708	1.44	0.00	59.22	99.16	1.0820	3.9308	0.2861	36
Barclays U.S. Intermediate Credit	4.86	4.42	3.07	0.7684	0.9897	0.60	0.01	93.87	98.99	0.9248	1.7388	0.4592	36
BC CREDIT INDEX	5.27	5.59	3.93	1.0000	0.9970	0.00	-0.03	100.00	99.50	0.8045	0.0000	0.4071	36

### Upside Downside

January 2007 - December 2015



- Cincinnati Asset: Investment Grade
- Chartwell Invst: Intermediate FII (Gross)
- CS McKee: Govt/Credit FI (Gross)
- CS McKee: Intern. G/C FI (Gross)
- Great Lakes, LLC: Intermediate Fix (Gross)\*
- Madison Invst Adv: Intern Corp Bond (Gross)
- McDonnell Invnt.: Govt/Credit (Gross)
- McDonnell Invnt.: Intern Govt/Cred (Gross)
- National Invest: Core FI (Gross)\*
- NORTHERN TRUST 1-10 YR INTM CREDIT IDX - LENDING\*
- Pacific Income: Corporate
- Segall Bryant: Intern Fixed Inc (Gross)
- Segall Bryant: Core Fixed Inc. (Gross)
- ◇ Barclays U.S. Government/Credit
- ◇ Barclays Intermediate U.S. Government/Credit
- ◇ Barclays U.S. Intermediate Credit
- ◆ BC CREDIT INDEX

Single Computation

### Up/Down Table

January 2007 - December 2015. Single Computation

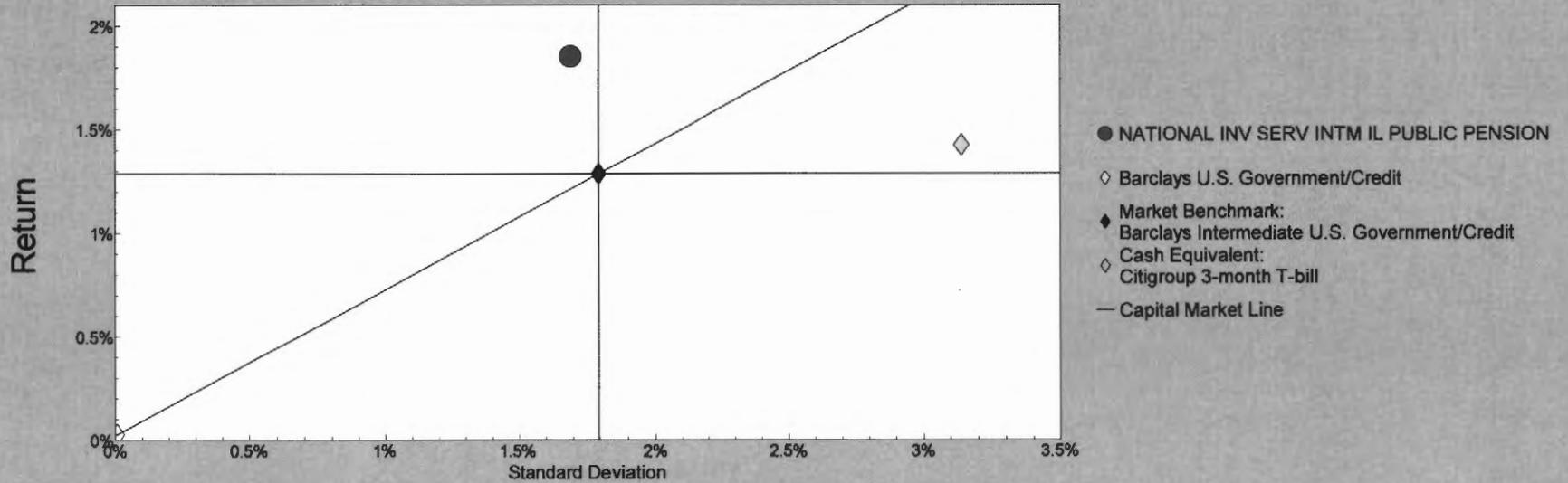
	# of Quarters		Average Return (%)		Average Return (%) vs. Market		Quarter (%)		1-Year (%)		Market Benchmark (%)		
	Up	Down	Up	Down	Up Market	Down Market	Best	Worst	Best	Worst	Up Capture	Down Capture	R-Squared
Cincinnati Asset: Investment Grade	27	9	2.70	-2.25	2.81	-2.02	7.23	-7.14	17.99	-5.45	110.2	107.8	94.71
Chartwell Invst: Intermediate FII (Gross)	27	9	1.82	-0.96	1.87	-0.83	5.31	-2.75	13.65	-0.47	72.5	44.6	81.78
CS McKee: Govt/Credit FI (Gross)	28	8	2.19	-0.90	2.24	-0.43	5.81	-1.81	15.53	-1.14	87.2	23.3	53.53
CS McKee: Intern. G/C FI (Gross)	28	8	1.66	-0.48	1.73	-0.23	3.79	-1.43	11.55	-0.44	66.8	12.6	57.33
Great Lakes, LLC: Intermediate Fix (Gross)*	30	6	1.56	-0.98	1.74	-0.44	3.76	-1.84	11.35	-0.41	67.5	23.9	71.22
Madison Invst Adv: Intern Corp Bond (Gross)	27	9	1.75	-1.09	1.81	-0.95	5.80	-3.98	14.55	-0.55	69.8	51.2	83.57
McDonnell Invnt.: Govt/Credit (Gross)	29	7	1.97	-1.62	2.19	-1.10	5.73	-3.21	14.15	-2.84	85.1	59.2	64.25
McDonnell Invnt.: Intern Govt/Cred (Gross)	28	8	1.71	-0.84	1.78	-0.52	4.28	-2.07	12.59	-1.27	69.0	28.5	58.41
National Invest: Core FI (Gross)*	28	8	2.11	-0.89	2.20	-0.52	6.73	-2.30	16.47	-2.05	85.5	28.5	72.76
NORTHERN TRUST 1-10 YR INTM CREDIT IDX - LENDING*	28	8	2.07	-1.52	2.20	-1.14	7.42	-5.83	18.41	-3.41	85.5	61.8	92.15
Pacific Income: Corporate	28	8	2.55	-2.37	2.73	-1.87	9.73	-7.17	22.43	-4.30	106.8	100.3	96.87
Segall Bryant: Intern Fixed Inc (Gross)	30	6	1.65	-1.02	1.82	-0.42	4.99	-2.02	12.91	-1.07	70.6	22.7	47.07
Segall Bryant: Core Fixed Inc. (Gross)	29	7	1.92	-1.12	2.05	-0.54	5.57	-2.47	14.63	-1.97	79.6	29.7	50.04
Barclays U.S. Government/Credit	25	11	2.15	-1.17	2.05	-1.24	6.42	-2.51	11.46	-2.35	79.6	66.6	58.62
Barclays Intermediate U.S. Government/Credit	26	10	1.68	-0.74	1.67	-0.71	4.84	-1.70	10.01	-0.86	64.4	38.6	54.50
Barclays U.S. Intermediate Credit	27	9	2.07	-1.34	2.13	-1.16	7.59	-5.60	18.72	-4.05	82.8	62.8	93.44
BC CREDIT INDEX	26	10	2.56	-1.87	2.56	-1.87	8.81	-6.39	20.85	-5.22	100.0	100.0	100.00

Created with Zephyr StyleADVISOR. Manager returns supplied by: Morningstar, Inc., Informa Investment Solutions, Inc.(PSN)

### Manager Risk/Return

Single Computation

July 2014 - December 2015



### Risk-Return Table

July 2014 - December 2015: Annualized Summary Statistics

	Return (%)	Std Dev (%)	Downside Risk (%)	Beta vs. Market	Beta vs. Style	Alpha vs. Market (%)	Alpha vs. Style (%)	R-Squared vs. Market (%)	R-Squared vs. Style (%)	Sharpe Ratio	Tracking Error vs. Market (%)	Tracking Error vs. Style (%)	Observs.
NATIONAL INV SERV INTM IL PUBLIC PENSION	1.85	1.69	1.07	0.9378	1.0000	0.64	0.61	99.18	99.88	1.0804	0.1898	0.0595	6
Barclays U.S. Government/Credit	1.42	3.14	2.21	1.6207	1.0000	-0.64	-0.67	85.92	99.97	0.4453	1.6210	0.0528	6
Barclays Intermediate U.S. Government/Credit	1.29	1.79	1.17	1.0000	1.0000	0.00	-0.07	100.00	99.99	0.7018	0.0000	0.0160	6

# Cincinnati Asset Management Investment Grade Fixed Income

APPROVED LIST REPORT

## OLGA PUJARA

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### STRATEGY DETAILS

<b>INVESTMENT STYLE:</b>	<i>US Taxable Core</i>
<b>SUB STYLE:</b>	<i>Taxable Corporate</i>
<b>BENCHMARK:</b>	<i>Barclays US Credit Index</i>
<b>GIMA STATUS:</b>	<i>Approved List</i>
<b>PRODUCT TYPE:</b>	<i>Separately Managed Account</i>

[www.cambonds.com](http://www.cambonds.com)

### STRATEGY DESCRIPTION

The Cincinnati Investment Grade Fixed Income strategy employs a conservative, value-based investment approach that emphasizes downside risk reduction. The strategy focuses on out of favor companies that may be poised to improve. Management does not employ interest rate forecasts.

### Summary of Opinion:

- Global Investment Manager Analysis ("GIMA") believes the Cincinnati Investment Grade Fixed Income strategy may be appropriate for investors seeking a U.S. dollar-denominated, investment grade (pure-play) corporate bond mandate.
- Management targets a portfolio minimum average credit rating of A3/A-, with a maximum 30% of portfolio assets in BBB/Baa credits. Portfolios are generally comprised of 20 - 30 equally weighted holdings.
- Management employs a value-based investment process that focuses on the estimated value of individual securities, and emphasizes credit selection based on fundamentals, strong cash flows, and the potential to exceed earnings expectations. The investment process does not include interest rate anticipation or market timing.
- The strategy seeks to preserve capital through outperformance in market downturns, with near-benchmark performance in stronger markets.

This report is only to be used in connection with investment advisory programs and not brokerage accounts.

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States. This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Past performance is not necessarily a guide to future performance.

**This is not a "research report" as defined by NASD Rule 2711 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or its affiliates.**

**INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\*MAY LOSE VALUE**

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## Investment Capabilities Overview

### Portfolio Management Team

- The portfolio management team is comprised of lead manager Randall Hale, and portfolio manager Richard Gardner. Management has research responsibility and credit coverage. The managers are supported by credit analyst Joshua Adams.
- Randall Hale joined the firm in 1993. Mr. Hale started his career with Cincinnati Financial Corporation in 1984 managing the firm's taxable fixed income portfolio, which included sizable exposure to high yield securities.
- Richard Gardner joined the firm in 2003, having previously served as a senior portfolio manager for the Ohio Police and Fire Pension Fund. Prior to that, he managed corporate and government bond portfolios at Banc One, Federal Home Loan Bank, and Huntington National Bank.
- Joshua Adams joined the firm in 2011 from Cincinnati Financial Corporation ("CFC"). At CFC, Mr. Adams was responsible for managing a portion of the corporate bond portfolio. He was also performed research, trading and strategy by committee. He started his career at CFC in 2004.

### Investment Philosophy & Process

- The Cincinnati Investment Grade Fixed Income strategy seeks to outperform over a market cycle through preservation of capital. Management utilizes a value-oriented approach that focuses on preservation of capital and secondarily on total return.
- Management employs a value-based investment process that focuses on the estimated value of individual securities, and emphasizes credit selection based on fundamentals, strong cash flows, and the potential to exceed earnings expectations. The investment process does not include interest rate anticipation or market timing.
- Investable Universe - The total number of potential candidates is approximately 2,600. The universe is limited to bonds rated investment grade by at least one rating agency i.e., Moody's, S&P or Fitch. Management invests solely in US dollar-denominated North American issuers, with a total issue size of at least \$100 million, with no more than 5% of the outstanding float for a given bond. Management does not invest in start-ups, newer technology businesses, non-established telecommunications, and industries/issuers that are difficult to understand.
- Security Selection - stresses the relationship between asset quality and yield. The investment team focuses on bonds that trade at wider spreads/yields than comparable issues of equal credit quality. These securities generally exhibit stronger fundamental credit metrics and characteristics than their peers. Key metrics include interest coverage, a history of free cash flow generation, and demonstrated history of debt repayment.
- Duration Management - The firm does not make broad market calls (interest rate anticipation or market timing) and believes the market's direction is not indicative of the financial and operating performance of a credit and its industry group.
- Yield Curve Positioning - is secondary to value-based security selection and structural (rather than tactical) in nature.
- Risk Management - All transactions are reported to each managing director on a daily basis and formal approval of two managing directors is required for all transactions.

## Other Key Items

### Decision Making

- The Investment Committee ("IC"), comprised of Managing Directors, is responsible for investment decisions.
- The IC requires unanimous consensus. A single vote or question can veto an idea or send it on for further research of specific concerns.
- Each credit must be brought to the Credit Committee for the formal approval.

### Sell Process

- Sells may occur due to deteriorating credit fundamentals and/or better perceived value.
- A security decline of 5-10% in value triggers an immediate review for sale; and, the security will be sold provided relative valuations indicate downside risk outweighs upside potential.
- Management uses two exceptions, specifically if the decline is viewed as a trading anomaly, or the market as a whole is experiencing a decline.
- Management may elect to hold downgrades if they anticipate future credit and/or price improvement.

### Track Record Reliability

- GIMA views the track record reliability as "High", given the tenure of the senior investment professionals and consistent implementation of process.

## DEFINITIONS

**Barclays U.S. Credit Index** - A subindex of the Barclays U.S. Government/Credit Index. The index includes both corporate and non-corporate sectors. The corporate sectors are Industrial, Utility, and Finance, which include both U.S. and non-U.S. corporations. The non-corporate sectors are Sovereign, Supranational, Foreign Agency, and Foreign Local Government. The index is calculated monthly on price-only and total-return basis. All returns are market value-weighted inclusive of accrued interest.

**Sub-Styles:** Subjective classifications designed to assist with manager selection and performance evaluation based on GIMA's understanding of a manager's long-term investment philosophy and portfolio structuring biases and techniques. At points in time managers may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

**Taxable Corporate** - portfolio comprised of corporate debt obligations (80% or greater) to fund capital improvements, expansions, debt refinancing, or acquisitions. Interest is subject to federal, state, and local taxes. Corporate issuances are generally rated by one or more of the three primary ratings agencies: Standard & Poor's, Moody's, and Fitch. Maturities for individual securities typically range from 0 - 30 years. Portfolio duration generally ranges between 3 - 6 years. Plus sector exposure is generally less than 5%.

## GLOSSARY OF TERMS

**Active Share** is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

**ADRs** - American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market. ADRs are typically listed on U.S. exchanges such as NYSE, AMEX and NASDAQ.

**Alpha** - measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

**Asset-backed securities (ABS)** - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Average Capitalization** - the total capitalization of the portfolio divided by the number of securities in a portfolio.

**Batting Average** - measures how frequently a portfolio outperforms its benchmark on a quarterly basis. The statistic is obtained by dividing the number of quarters in which the portfolio outperformed the total return of the benchmark by the total number of quarters. For example, a portfolio with a batting average of 60% has outperformed the index more than it has underperformed.

**Beta** - measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

**Commercial Mortgage-Backed Security (CMBS)** - mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** - mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Convexity** - measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Credit Quality Rating** - weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based of their opinions of the issuer's ability to pay interest and principal as scheduled.

**Dividend Yield** - annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Effective Duration** - a duration calculation for bonds with embedded options. Effective duration takes into account that expected cash flows will fluctuate as interest rates change.

**EPS Growth - Forecast** - a measure of one year earnings (cash flow or dividends) per share growth from the prior fiscal year (FY0) to the current fiscal year (FY1) using analyst consensus forecasts. Growth is expressed as a percent. The FY1 EPS (earnings per share) growth rate for the portfolio is a weighted average of the forecasts for the individual stocks in the portfolio.

**EPS Growth - 5 Year Historical** - The weighted average annualized earnings per share growth for a portfolio over the past five years.

**Excess Return** - represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

**Historical EPS Growth** - calculated by regressing over time the quarterly earnings per share for the past 20 quarters to determine the share's historical growth rate in earnings. The quarterly historical growth rate for each share is then annualized and the Historical EPS Growth shown in this report is the weighted average of these results.

**Information Ratio** - represents the Excess Return divided by the Tracking Error. It provides a measure of the historical consistency of the portfolio's overperformance or underperformance relative to its benchmark. A higher, positive Information Ratio suggests that the portfolio's excess returns may have been the result of making measured or moderate bets against the relevant benchmark's risk exposures.

**Long Term EPS Growth Rate** - analyst consensus of expected annual increase in operating earnings per share over the company's next full business cycle - usually three to five years. The Long Term EPS Growth Rate for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Market Cap (\$M)** - the average portfolio market capitalization (market price multiplied by shares outstanding), weighted by the proportion of the portfolio's assets invested in each stock.

**Maturity** - the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**No Obligation to Update**

Morgan Stanley Wealth Management has no obligation to update you when any information or opinion in this report changes.

**Strategy May Be Available as a Separately Managed Account or Mutual Fund**

Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program.

**Consider Your Own Investment Needs**

This report is not intended to be a client-specific suitability analysis or recommendation, an offer to participate in any investment, or a recommendation to buy, hold or sell securities (includes securities of Morgan Stanley, and/or their affiliates if shown in this report). Do not use this report as the sole basis for investment decisions. Do not select an asset class or investment product based on performance alone. Consider all relevant information, including your existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon.

**Performance and Other Portfolio Information****General**

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

**Benchmark index**

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only.

Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

**Other data**

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

Other data in this report is accurate as of the date this report was prepared unless stated otherwise. Data in this report may be calculated by the investment manager, Morgan Stanley Wealth Management or a third party service provider, and may be based on a representative account or a composite of accounts.

**Securities holdings**

Holdings are subject to change daily, so any securities discussed in this report may or may not be included in your portfolio if you invest in this investment product. Your portfolio may also include other securities in addition to or instead of any securities discussed in this report. Do not assume that any holdings mentioned were, or will be, profitable.

**Sources of Data**

Material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

**Asset Class and Other Risks**

Investing in *stocks*, *mutual funds* and *exchange-traded funds ("ETFs")* entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

**High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

**No Tax Advice**

Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors do not provide legal or tax advice. Each client should always consult his/her personal tax and/or legal advisor for information concerning his/her individual situation and to learn about any potential tax or other implications that may result from acting on a particular recommendation.

If any investments in this report are described as "tax free", the income from these investments may be subject to state and local taxes and (if applicable) the federal Alternative Minimum Tax. Realized capital gains on these investments may be subject to federal, state and local capital gains tax.

**Conflicts of Interest**

GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial

# CS McKee Aggregate Fixed Income

APPROVED LIST REPORT

## SUSAN K. MCDOWELL

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### STRATEGY DETAILS

**INVESTMENT STYLE:** *US Taxable Core*  
**SUB-STYLE:** *Taxable Core*  
**BENCHMARK:** *Barclays Aggregate Index*  
**GIMA STATUS:** *Approved List*  
**PRODUCT TYPE:** *Separately Managed Account*  
**SUB-ADVISOR** *NA*

[www.csmckee.com](http://www.csmckee.com)

### STRATEGY DESCRIPTION

The CS McKee Aggregate Fixed Income strategy seeks to add value through sector allocation, security selection, and relative value trading, with duration and yield curve positioning lesser sources of alpha.

### Summary of Opinion:

- Global Investment Manager Analysis ("GIMA") believes the C.S. McKee ("CSMK") Aggregate Fixed Income strategy may be appropriate for investors seeking a core fixed income separate account mandate with a bias towards higher quality and duration beneath that of the benchmark.
- The strategy invests predominantly in those sectors included in the Barclays Aggregate Index. These include Treasuries, agencies, agency pass-throughs, asset-backed securities, senior tranche commercial mortgage-backed securities, corporates and various non-corporate securities.
- Management seeks to add value through sector allocation, security selection, and relative value trading, with duration and yield curve positioning lesser sources of alpha potential. Management focuses on individual sectors and typically performs research and trading internally, with limited fundamental credit research.

This report is only to be used in connection with investment advisory programs and not brokerage accounts.

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**INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\*MAY LOSE VALUE**

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## Investment Capabilities Overview

### Portfolio Management Team

- The management team includes CIO Gregory Melvin, and portfolio managers Brian Allen, Bryan Johanson, and Jack White. The managers' responsibilities are divided by sector, with each responsible for sector, risk analysis, and strategy implementation. In addition, analyst Andrew Faderewski helps in all aspects of managing the strategy.
- CIO Gregory Melvin leads the fixed income investment team. Mr. Melvin contributes to the strategy on a macro level, and in overall strategic decisions including duration positioning and decisions made from economic analysis, which lead to yield curve strategies and broad sector decisions. His broad knowledge of individual corporate names contributes to security decisions within the corporate sector. Prior to joining CSMK in 2000, he served as president and CIO of Dartmouth Capital Advisors, Inc., an institutional investment management firm he founded in 1995. Prior to that, he spent 15 years at Federated as a senior portfolio manager.
- Senior Vice President Brian Allen is responsible for investment decisions related to the mortgage backed and asset backed sectors. He serves as a portfolio strategist and provides input to the sector allocation and duration decisions. Prior to joining CSMK in 1999, he managed fixed income funds for institutional clients at Patterson Capital Corporation.
- Senior Vice President Bryan Johanson is responsible for investment decisions related to the credit sector. He joined the firm in 1994 and serves as a portfolio strategist and provides input to the sector allocation and duration decisions.
- Vice President Jack White is responsible for investment decisions related to the government sector and structured securities. He assists Mr. Johanson in credit research and provides input to sector allocation and duration decisions. Prior to joining the firm in 1997, he was a consultant providing primary and secondary market research and analysis to business clients.

### Investment Philosophy & Process

- The strategy's investable universe includes virtually all investment grade fixed income securities eligible for inclusion in the Barclays Aggregate Index. These include Treasuries, agencies, agency pass-through securities, asset-backed securities, senior tranche commercial mortgage-backed securities, corporates and various non-corporate securities. Investment outside the benchmark is generally limited to TIPS.
- CSMK's investment process combines top-down and bottom-up analysis. The top-down assessment incorporates multiple economic and interest rate scenarios using raw economic data from various sources. The assessment is used to establish an overall forecast and assist with creating parameters for the portfolio.
- Individual securities are analyzed on a relative and historical basis versus the treasury and swap curves. According to the firm, sector weightings are a function of active positioning as well as security selection decisions. For the credit portion of the portfolio the firm seeks to focus on higher quality securities.
- CSMK operates within a duration range of 80-120% of the benchmark, but is generally at 100% or less of the benchmark's duration. Management believes that operating within this band allows them to convert yield advantage gained through the security selection process into excess return.

## Other Key Items

### Decision Making

- CIO Gregory Melvin and the portfolio managers use a team approach to determine and implement portfolio strategy.
- Mr. Melvin is involved in the decision-making for all products of the firm, but defers many of the individual security decisions to the portfolio managers.

### Sell Process

- Sells could be triggered by a change in the firm's broad market outlook, relative value price targets are attained, or an issue is downgraded by one of the major rating companies.
- According to CSMK, a downgrade to below investment grade will trigger an automatic sell. Typically, the security will be sold within one to three months of the downgrade.

### Track Record Reliability

- GIMA views track record reliability as "High", given team stability and consistent implementation of process.

## DEFINITIONS

**Barclays Capital Aggregate Index** - The U.S. Aggregate Index covers the dollar-denominated investment-grade fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS pass-through securities, asset-backed securities, and commercial mortgage-backed securities. These major sectors are subdivided into more specific sub-indices that are calculated and published on an ongoing basis. Total return comprises price appreciation/depreciation and income as a percentage of the original investment. This index is rebalanced monthly by market capitalization.

**Sub-Styles:** Subjective classifications designed to assist with manager selection and performance evaluation based on GIMA's understanding of a manager's long-term investment philosophy and portfolio structuring biases and techniques. At points in time managers may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

**Taxable Core** - portfolios comprised of investment grade fixed income securities including U.S. Treasuries, U.S. Government agencies, investment grade corporate debt, commercial mortgage-backed securities, asset-backed securities, mortgage-backed securities and other pass-through securities. Maturities for individual securities typically range from 0 - 30 years. Portfolio duration generally ranges between 3 - 6 years. Plus sector exposure is generally less than 5%.

## GLOSSARY OF TERMS

**Active Share** is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

**ADRs** - American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market. ADRs are typically listed on U.S. exchanges such as NYSE, AMEX and NASDAQ.

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**Asset-backed securities (ABS)** - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Average Capitalization** - the total capitalization of the portfolio divided by the number of securities in a portfolio.

**Batting Average** - measures how frequently a portfolio outperforms its benchmark on a quarterly basis. The statistic is obtained by dividing the number of quarters in which the portfolio outperformed the total return of the benchmark by the total number of quarters. For example, a portfolio with a batting average of 60% has outperformed the index more than it has underperformed.

**Beta** - measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

**Commercial Mortgage-Backed Security (CMBS)** - mortgage-backed security that is secured by the loan on a commercial property.

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**Convexity** - measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Credit Quality Rating** - weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based on their opinions of the issuer's ability to pay interest and principal as scheduled.

**Dividend Yield** - annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Effective Duration** - a duration calculation for bonds with embedded options. Effective duration takes into account that expected cash flows will fluctuate as interest rates change.

**EPS Growth - Forecast** - a measure of one year earnings (cash flow or dividends) per share growth from the prior fiscal year (FY0) to the current fiscal year (FY1) using analyst consensus forecasts. Growth is expressed as a percent. The FY1 EPS (earnings per share) growth rate for the portfolio is a weighted average of the forecasts for the individual stocks in the portfolio.

**EPS Growth - 5 Year Historical** - The weighted average annualized earnings per share growth for a portfolio over the past five years.

**Excess Return** - represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

**Historical EPS Growth** - calculated by regressing over time the quarterly earnings per share for the past 20 quarters to determine the share's historical growth rate in earnings. The quarterly historical growth rate for each share is then annualized and the Historical EPS Growth shown in this report is the weighted average of these results.

**Information Ratio** - represents the Excess Return divided by the Tracking Error. It provides a measure of the historical consistency of the portfolio's overperformance or underperformance relative to its benchmark. A higher, positive Information Ratio suggests that the portfolio's excess returns may have been the result of making measured or moderate bets against the relevant benchmark's risk exposures.

**Long Term EPS Growth Rate** - analyst consensus of expected annual increase in operating earnings per share over the company's next full business cycle - usually three to five years. The Long Term EPS Growth Rate for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Market Cap (\$M)** - the average portfolio market capitalization (market price multiplied by shares outstanding), weighted by the proportion of the portfolio's assets invested in each stock.

**Maturity** - the weighted average portfolio length of time until the principal amount of a bond must be repaid.

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**Consider Your Own Investment Needs**

This report is not intended to be a client-specific suitability analysis or recommendation, an offer to participate in any investment, or a recommendation to buy, hold or sell securities (includes securities of Morgan Stanley, and/or their affiliates if shown in this report). Do not use this report as the sole basis for investment decisions. Do not select an asset class or investment product based on performance alone. Consider all relevant information, including your existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon.

**Performance and Other Portfolio Information****General**

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

**Benchmark index**

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Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

**Other data**

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**Sources of Data**

Material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

**Asset Class and Other Risks**

Investing in *stocks*, *mutual funds* and *exchange-traded funds* ("ETFs") entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods. Besides the general risk of holding securities that may decline in value, *closed-end funds* may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance, and potential leverage. Some funds also invest in foreign securities, which may involve currency risk.

***Nondiversification:*** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

***Bonds*** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

***Asset-backed securities*** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

***Ultra-short bond funds*** generally invest in fixed income securities with very short maturities, typically less than one year. They are not money market funds. While money market funds attempt to maintain a stable net asset value, an ultra-short bond fund's net asset value will fluctuate, which may result in the loss of the principal amount invested. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

# Madison Investment Advisors Intermediate Corporate Only

APPROVED LIST RESEARCH REPORT

**RAFAEL KILAYKO JR.**

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+1 212 296-1174

## STRATEGY DETAILS

**INVESTMENT STYLE:** *Intermediate Term  
Corporate Fixed Income*

**BENCHMARK:** *Barclays Capital  
Intermediate Credit Index*

**CG IAR RESEARCH STATUS:** *Approved List*

**PRODUCT TYPE:** *Separately Managed  
Account*

<http://www.madisonadv.com>

## STRATEGY DESCRIPTION

Madison Investment Advisors seeks to generate excess return through defensive issue selection, sector rotation, yield curve positioning, and active duration positioning. Duration positioning contributes ~70% of excess return during a given interest rate cycle.

## Summary of Opinion:

- Consulting Group Investment Advisor Research ("CG IAR") believes that Madison Investment Advisors' LLC ("Madison") Intermediate Corporate Only strategy may be appropriate for clients seeking a high quality corporate fixed investment vehicle.
- The strategy's investment process seeks to generate excess return primarily through active duration management. Management also seeks to add value through defensive issue selection, sector rotation, and yield curve positioning.
- The portfolio's duration positioning may have a significant impact on returns. Management generally maintains duration within +/-25% relative to the benchmark, however, the process allows for positioning outside of the range in various economic environments.
- CG IAR recognizes that while Madison's focus on higher quality issues may reduce default risk during difficult credit environments, performance may lag the benchmark when lower quality (BBB) investment grade issues outperform.

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**INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\*MAY LOSE VALUE**

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## Investment Capabilities Overview

### Portfolio Management Team

- The portfolio management team is comprised of Head of Fixed Income and lead portfolio manager Paul Lefurgey, portfolio managers Randy Johnson and Christopher Nisbet, seven portfolio managers/analysts. The portfolio managers are supported by one analyst.
- Paul Lefurgey Chairs the Fixed Income Strategy Committee, responsible for setting individual product risk targets for duration, sector, and yield curve. Prior to joining Madison in 2005, Mr. Lefurgey served as Head of Fixed Income at Members Capital Advisors. In addition, he previously served as Head of Fixed Income and portfolio manager at Duff & Phelps Investment Management Company.
- Randy Johnson is responsible for fixed income asset allocation and is a member of the Fixed Income Strategy and Asset Allocation Committees. Prior to joining the firm in 2011, Mr. Johnson managed fixed income portfolios at Concord Asset Management, a Madison affiliate.
- Chris Nisbet serves as a portfolio manager responsible for government and corporate bond portfolios, as well as interest rate strategy. Prior to joining the firm in 1992, he was with Firststar Trust Company.

### Investment Philosophy & Process

- Madison's fixed income investment process seeks to generate excess return with less volatility over a market cycle through active duration management, yield curve positioning, sector rotation and issue selection.
- **Investable Universe:** The strategy's investable universe includes all investment grade corporate bonds issued by United States corporations that have an average maturity of 10 years or less. All fixed income securities must be issued in U.S. dollars.
- **Security Selection:** At the security level, focus is placed on quality structure, liquidity and relative value. The managers utilize internal credit research, supplemented by third party external research. Quality assessments focus on balance sheet leverage, free cash flow predictability, debt coverage ratios, and financial flexibility and capital market access.
- **Duration Management:** Active duration management represents Madison's core strategy that contributes to ~70% of its excess return during a given interest rate cycle. A multi-factor macroeconomic model drives duration positioning. At its core, the model seeks to identify key inflection points that signal forthcoming changes in interest rate direction. Model outputs are interpreted with a measure of subjectivity. The portfolio duration typically ranges between 75-125% of the stated benchmark, but has the ability to range from 50-150%.

### Other Key Items

#### Decision Making

- Mr. Lefurgey is the final decision maker on the strategy's duration management, yield curve positioning, and sector allocation. As part of the decision-making process, he works with the Fixed Income Strategy Committee.
- Mr. Lefurgey works the investment team to implement the Committee's top-down strategies, and to develop sub-sector allocations and issue selection.

#### Sell Process

- According to Madison, situations triggering a sale would include change in underlying credit fundamentals, duration adjustments due to changes in top

down view, swapping among sectors, or better relative value perceived elsewhere.

### Track Record Reliability

- CG IAR views track record reliability as high.
- The tenured investment team has managed the accounts comprising the composite for several years, with consistent implementation of process.

## DEFINITION

**Barclays Capital Intermediate Credit Index** - Composed of all publicly issued, fixed-rate, non-convertible, investment-grade, domestic corporate debt (collateralized mortgage obligations are not included). Total return comprises price appreciation/depreciation and income as a percentage of the original investment. This index is rebalanced monthly by market capitalization. Securities are in the intermediate range of the Barclays Capital Credit Index with maturities less than 10 years.

## GLOSSARY OF TERMS

**Active Share** is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

**ADRs** - American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market. ADRs are typically listed on U.S. exchanges such as NYSE, AMEX and NASDAQ.

**Alpha** - measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

**Asset-backed securities (ABS)** - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Average Capitalization** - the total capitalization of the portfolio divided by the number of securities in a portfolio.

**Batting Average** - measures how frequently a portfolio outperforms its benchmark on a quarterly basis. The statistic is obtained by dividing the number of quarters in which the portfolio outperformed the total return of the benchmark by the total number of quarters. For example, a portfolio with a batting average of 60% has outperformed the index more than it has underperformed.

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**Commercial Mortgage-Backed Security (CMBS)** - mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** - mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Convexity** - measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Credit Quality Rating** - weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based on their opinions of the issuer's ability to pay interest and principal as scheduled.

**Dividend Yield** - annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Effective Duration** - a duration calculation for bonds with embedded options. Effective duration takes into account that expected cash flows will fluctuate as interest rates change.

**EPS Growth - Forecast** - a measure of one year earnings (cash flow or dividends) per share growth from the prior fiscal year (FY0) to the current fiscal year (FY1) using analyst consensus forecasts. Growth is expressed as a percent. The FY1 EPS (earnings per share) growth rate for the portfolio is a weighted average of the forecasts for the individual stocks in the portfolio.

**EPS Growth - 5 Year Historical** - The weighted average annualized earnings per share growth for a portfolio over the past five years.

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**Historical EPS Growth** - calculated by regressing over time the quarterly earnings per share for the past 20 quarters to determine the share's historical growth rate in earnings. The quarterly historical growth rate for each share is then annualized and the Historical EPS Growth shown in this report is the weighted average of these results.

**Information Ratio** - represents the Excess Return divided by the Tracking Error. It provides a measure of the historical consistency of the portfolio's overperformance or underperformance relative to its benchmark. A higher, positive Information Ratio suggests that the portfolio's excess returns may have been the result of making measured or moderate bets against the relevant benchmark's risk exposures.

**Long Term EPS Growth Rate** - analyst consensus of expected annual increase in operating earnings per share over the company's next full business cycle - usually three to five years. The Long Term EPS Growth Rate for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Market Cap (\$M)** - the average portfolio market capitalization (market price multiplied by shares outstanding), weighted by the proportion of the portfolio's assets invested in each stock.

**Maturity** - the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**Median Cap by Portfolio Weight** - the midpoint of market capitalization (market price multiplied by shares outstanding) of a portfolio's stock holdings, weighted by the proportion of the portfolio's assets invested in each stock. Stocks representing half of the portfolio's holdings are above the median, while the rest are below it.

**Modified Adjusted Duration** - measures the sensitivity of the percentage change in the price of a bond portfolio for a given change in yield, shown as a number of years to maturity. This figure is calculated as the weighted average of the durations of the securities in the portfolio.

**Mortgage-backed securities (MBS)** - securities backed by a mortgage loan or a pool of mortgage loans secured by real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**Consider Your Own Investment Needs**

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**Performance and Other Portfolio Information****General**

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

**Benchmark index**

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only.

Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

**Other data**

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

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**Securities holdings**

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**Asset Class and Other Risks**

Investing in **stocks**, **mutual funds** and **exchange-traded funds ("ETFs")** entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods.

**Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer. Similar to bonds, **loans** are subject to interest rate risk and credit risk. Liquidity risk may be greater for a loan since there is no organized exchange on which loans are traded and reliable market quotations may not be readily available.

**Ultra-short bond** funds generally invest in fixed income securities with very short maturities, typically less than one year. They are not money market funds. While money market funds attempt to maintain a stable net asset value, an ultra-short bond fund's net asset value will fluctuate, which may result in the loss of the principal amount invested. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

**High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

**Derivatives**, in general, involve special risks and costs that may result in losses. The successful use of derivatives requires sophisticated management, in order to manage and analyze derivatives transactions. The prices of derivatives may move in unexpected ways, especially in abnormal market conditions. In addition, correlation between the particular derivative and an asset or liability of the manager may not be what the investment manager expected. Some derivatives are "leveraged" and therefore may magnify or otherwise increase investment losses. Other risks include the potential inability to terminate or sell derivative positions, as a result of counterparty failure to settle or other reasons.

**Mortgage-backed securities ("MBS")**, which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue.

# McDonnell Investment Management Government/Credit Taxable

APPROVED LIST REPORT

**RAFAEL KILAYKO JR.**  
Rafael.Kilayko@ms.com  
+1 212 296-1174

## STRATEGY DETAILS

**INVESTMENT STYLE:** *Core Fixed Income*  
**BENCHMARK:** *Barclays Capital US Gov't /  
Credit Index*  
**GIMA STATUS:** *Approved List*  
**PRODUCT TYPE:** *Separately Managed Account*

<http://www.mcdonnellinvestments.com>

## STRATEGY DESCRIPTION

The McDonnell Investment Management Government/Credit Taxable Strategy seeks consistent relative outperformance with capital preservation. The strategy's objective is to provide higher after-tax total returns than that of comparable buy and hold strategies, with volatility in-line with that of the benchmark.

## Summary of Opinion:

- Global Investment Manager Analysis ("GIMA") believes the McDonnell Investment Management Government/Credit Taxable Strategy may be appropriate for investors seeking a high quality core fixed income product that invests in U.S. Treasuries, Agencies, and investment grade corporate bonds.
- The strategy seeks to add value through sector rotation, maturity structure, and security selection.
- The strategy tends to keep its characteristics relatively close to that of the benchmark, especially with regard to sectors, duration, and average maturity, but less so with regard to credit quality distribution.

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## Investment Capabilities Overview

### Portfolio Management Team

- The management team is comprised of lead portfolio manager Mark Giura, and senior portfolio managers Tom O'Connell and Dick Davis.
- Mark Giura has lead managed the strategy since 1995. He joined the firm from Van Kampen, where he served as one of the senior members of the original Van Kampen team.
- Tom O'Connell and Dirck Davis are senior portfolio managers on the taxable fixed income team. Mr. O'Connell specializes in the corporate sector, while Mr. Davis specializes in structured securities.
- James Butler and Brad Mincke serve as Co-Heads of Research. Mr. Butler and Mr. Mincke previously served as senior members of the research team, having joined the firm in 2002 and 2008, respectively.
- President and CEO Edward Treichel, as a member of the Investment Policy Committee, establishes and oversees the firm's strategic framework (formally on a monthly basis), including investment philosophy and macroeconomic themes. Prior to joining the firm, Mr. Treichel was a founding partner of Van Kampen.

### Investment Philosophy & Process

- McDonnell adheres to the same investment philosophy across all of its mandates. The investment team seeks to reduce clients' exposure to interest rate risk by limiting dependence on market timing.
- The taxable fixed income team's objective is to provide higher after-tax total returns than that of comparable buy and hold strategies, with volatility in-line with the benchmark.
- The firm utilizes a team approach in formulating investment strategy and generating trading ideas. The team seeks to identify relative value opportunities among sectors and securities, and to exploit shifting patterns of the yield curve. The components of their investment process and strategies for adding value include:
  - Sector Emphasis - allocations among various market sectors based on client tax rate, market research, and quantitative value analysis.
  - Security Selection - seeks to identify under and over-valued securities based on credit research and quantitative value analysis.
  - Maturity Structure - construct the portfolio to generate attractive returns based on current and projected changes in the shape of the yield curve.
  - Duration - targets the appropriate interest rate sensitivity for the portfolio based on analyses of individual risk/return tolerances. Management avoids duration bets, viewed as a proxy for market timing.
- As part sector rotation, the firm evaluates the shape of the yield curve of each fixed income sector, and implements its duration strategy accordingly. This allows management to place sector bets without actual underweight/overweight allocations.
- For instance, when the corporate yield curve is steep, management may increase the duration contribution from that sector by going out further on the curve, lengthening its overall duration.

### Other Key Items

#### Decision Making

- The Investment Policy Committee facilitates team-based decision-making.
- Investment Committee members include Edward Treichel, Mark Giura, Steve Wlodarski, James Butler, and Brad Mincke.

#### Sell Process

- Positions are sold for a variety of reasons, including duration adjustment, yield curve positioning, sector rotation, credit opinion change, loss harvesting, and tax implications.

#### Track Record Reliability

- GIMA views track record reliability as "High". Mr. Giura has lead managed the strategy since 1995 with consistent implementation of philosophy and process.

## DEFINITIONS

**Barclays Capital Govt/Credit Index** - This index is the U.S. Gov/Credit component of the U.S. Aggregate index. The Government/Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries (i.e., public obligations of the U.S. Treasury that have remaining maturities of more than one year) and agencies (i.e., publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

## GLOSSARY OF TERMS

**Active Share** is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

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**Convexity** - measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

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**Long Term EPS Growth Rate** - analyst consensus of expected annual increase in operating earnings per share over the company's next full business cycle - usually three to five years. The Long Term EPS Growth Rate for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Market Cap (\$M)** - the average portfolio market capitalization (market price multiplied by shares outstanding), weighted by the proportion of the portfolio's assets invested in each stock.

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**Median Cap by Portfolio Weight** - the midpoint of market capitalization (market price multiplied by shares outstanding) of a portfolio's stock holdings, weighted by the proportion of the portfolio's assets invested in each stock. Stocks representing half of the portfolio's holdings are above the median, while the rest are below it.

**Modified Adjusted Duration** - measures the sensitivity of the percentage change in the price of a bond portfolio for a given change in yield, shown as a number of years to maturity. This figure is calculated as the weighted average of the durations of the securities in the portfolio.

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Investing in **stocks**, **mutual funds** and **exchange-traded funds** ("ETFs") entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

**Mortgage-backed securities** ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements.

**No Tax Advice**

Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors do not provide legal or tax advice. Each client should always consult his/her personal tax and/or legal advisor for information concerning his/her individual situation and to learn about any potential tax or other implications that may result from acting on a particular recommendation.

If any investments in this report are described as "tax free", the income from these investments may be subject to state and local taxes and (if applicable) the federal Alternative Minimum Tax. Realized capital gains on these investments may be subject to federal, state and local capital gains tax.

**Conflicts of Interest**

GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or

# Pacific Income Advisers Limited Duration

APPROVED LIST REPORT

## STEVE LEE, CFA

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### STRATEGY DETAILS

<b>INVESTMENT STYLE:</b>	<i>US Taxable Core</i>
<b>SUB-STYLE:</b>	<i>Intermediate Taxable Core</i>
<b>BENCHMARK:</b>	<i>Barclays Intermediate Gov't/Credit Index</i>
<b>GIMA STATUS:</b>	<i>Approved List</i>
<b>PRODUCT TYPE:</b>	<i>Separately Managed Account</i>

[www.pacificincome.com](http://www.pacificincome.com)

### STRATEGY DESCRIPTION

PIA Limited Duration strategy seeks to add alpha through duration/yield curve and sector allocation decisions. The firm thinks that the various yield curve sectors are periodically unbalanced, which leads to mispricing. The strategy seeks to capitalize on these opportunities to earn above-average risk-adjusted yields, while creating the potential for capital gains if these sectors return to PIA's estimate of their fair value.

### Summary of Opinion:

- Global Investment Manager Analysis (GIMA) thinks the Pacific Income Advisers (PIA) Limited Duration strategy may be appropriate for investors seeking a conservative, high-quality portfolio focused on intermediate investment-grade fixed income securities.
- The strategy invests in Treasury, agency, and corporate securities, and also invests in two no-fee, proprietary funds to diversify among BBB-rated corporate issues (BBB Fund) and MBS securities (MBS Fund). Generally, this strategy will have less than 20% of assets in these commingled funds.

This report is only to be used in connection with investment advisory programs and not brokerage accounts.

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States. This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Past performance is not necessarily a guide to future performance.

**This is not a "research report" as defined by NASD Rule 2711 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or its affiliates.**

**INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\*MAY LOSE VALUE**

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## Investment Capabilities Overview

### Portfolio Management Team

- The portfolio management team is comprised of CIO Lloyd McAdams, co-heads Evangelos Karagiannis and Daniel Meyer, and Timothy Tarpenting. They are supported by a team of six portfolio analysts and fixed income credit generalists, responsible for identifying attractive credits within the perceived undervalued sectors. The entire team consists of 10 investment professionals dedicated to domestic investment grade fixed income investments.
- Lloyd McAdams has been the Chairman of the Board and CIO of PIA since its formation. As Chairman of the Bond Strategy Group, Mr. McAdams is responsible for investment strategy formulation oversight and execution.
- Evangelos Karagiannis is responsible for much of PIA's quantitative processes and Co-Head of Investment Grade Bond.
- Daniel Meyer is a SMA portfolio manager and Co-Head of Investment Grade Bond responsible for retail SMA accounts. He previously served as a credit analyst/underwriter at CSFB, finance manager at Equity Marketing, Inc., and senior associate of Arthur Anderson LLP.
- Timothy Tarpenting serves as the Senior Portfolio Strategist. He previously served as a sales representative for Drexel Burnham Lambert and investment officer with PaineWebber.
- The firm's Macro Strategy Group consists of Evangelos Karagiannis, Dan Meyer, and Tim Tarpenting. This group develops strategic investment decisions for all fixed income strategies, and reports directly to Lloyd McAdams.

### Investment Philosophy & Process

- The firm holds that the natural shape (equilibrium) of a yield curve gradually slopes upward. PIA believes that when the yield curve, or segments of the curve, deviates from equilibrium, it tends to revert to its normal equilibrium shape over time, presenting excess return opportunities.
- PIA believes the shape of the yield curve is frequently distorted due to Monetary Policy (the Fed)—impacting the front end of the curve, and Global inflationary expectations for the U.S. economy—impacting the long end of the curve.
- PIA seeks to exploit perceived inefficiencies through proprietary quantitative models and fundamental research. In order of importance, PIA expects to add value through the following areas of fixed income portfolio management:
- **Yield Curve Analysis** - PIA claims to conduct quantitative analysis using their proprietary bond market database with a focus on identifying relative value among 75 curves representing the domestic fixed income universe.
- **Sector Selection** - The Bond Strategy Group risk-adjusts sector valuation data, identifying sectors providing optimal risk-adjusted yields. Treasuries, agencies, mortgages, corporates and asset-backed securities are analyzed, and subdivided by maturity and credit rating into a total of 75+ sub-sectors. Sectors are scored and ranked on a risk-adjusted basis.
- **Duration Decision** - The firm claims that duration positioning is generally a result of sector selection and is managed within a +/-20% range relative to the benchmark. The portfolio's duration may be short or long versus the benchmark throughout a typical credit cycle. Additionally, the firm claims that yield curve positioning, such as a barbell or bullet strategy, is generally a result of sector selection.
- **Security Selection** - The Bond Strategy Group identifies securities within favorably valued sectors. The process is relatively defensive and not expected to add significant value. The group consists of the CIO, portfolio managers, analysts, and trader. This bottom-up component selects securities within the 75+ ranked sub-sectors.

### Other Key Items

#### Decision Making

- The portfolio managers, together with Lloyd McAdams, are the ultimate decision-makers for the strategy.
- Strategic decisions are generally a by-product of the collective inputs of the Bond Strategy Group.

#### Sell Process

- Situations triggering a sale would include the following:
  - PIA will sell an issue or pare back a maturity or duration bucket if a perceived inefficiency has already been exploited and the firm wants to lock in incremental return.
  - The firm's outlook has changed with respect to the outcome or duration of an identified yield curve position.
  - Unexpected deterioration of issuer credit quality in one of the firm's defensively oriented corporate holdings.
  - PIA sells a security to improve the overall composition of the portfolio, when the return potential no longer justifies the risk, or possibly following a downgrade below investment guideline limits. Each downgrade is treated on a case-by-case basis based on the client guidelines and the firm's investment outlook.

#### Track Record Reliability

- GIMA views the track record reliability as high for this strategy.
- Please note that PIA reports two separate composites (to performance databases), recognizing differences between its institutional and retail SMA portfolios (i.e., composite differences between PIA's larger and smaller SMAs).
- While composite differences are acknowledged, the duration and curve positioning across these accounts is expected to be the same.
- Additionally, while commingled funds are viewed as an improvement to the investment process, they leave the historical composite somewhat less representative.

## DEFINITIONS

**Barclays Intermediate Govt/Credit Index** - This index is the U.S. Govt/Credit component of the U.S. Aggregate index. The Government/Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies (i.e., publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Securities are in the intermediate range of the Barclays Govt/Credit Index with maturities less than 10 years.

**Barclays Mortgage Backed Securities Index** - All fixed securities issued and backed by mortgage pools of Ginnie Mae (GNMA), Fannie Mae (FNMA), Freddie Mac (FHLMC), and half coupon securities. The index excludes buydowns, graduated equity mortgages (GEM), project loans, Non-agency (whole loans), jumbos, collateralized mortgage obligations (CMOs), graduated payment mortgages (GPMs), adjustable rate mortgages (ARMs), manufactured home mortgages, prepayment penalty collateral. Formed by grouping the universes of over 1 million individual fixed-rate MBS pools in to approximately 5,500 generic aggregates. Pool aggregates must be U.S. dollar denominated, have at least \$250 million current outstanding and average weighted life of at least 1 year.

**Barclays Credit Index** - Composed of all publicly issued, fixed-rate, non-convertible, investment-grade, domestic corporate debt (collateralized mortgage obligations are not included). Total return comprises price appreciation/depreciation and income as a percentage of the original investment. This index is rebalanced monthly by market capitalization.

**Sub-Styles:** Subjective classifications designed to assist with investment product selection and performance evaluation based on GIMA's understanding of the long term investment philosophy and portfolio structuring biases and techniques. At points in time investment products may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

**Intermediate Taxable Core** - portfolios comprised of intermediate term investment grade taxable core fixed income securities including U.S. Treasuries, U.S. Government agencies, investment grade corporate debt, commercial mortgage-backed securities, asset-backed securities, mortgage-backed securities and other pass-through securities. Managers may invest in individual securities with a broad range of maturities (0-10 years). Portfolio duration generally ranges between 3 - 4.5 years. Plus sector exposure is generally less than 5%.

## GLOSSARY OF TERMS

**Active Share** is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

**ADRs** - American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market. ADRs are typically listed on U.S. exchanges such as NYSE, AMEX and NASDAQ.

**Alpha** - measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

**Asset-backed securities (ABS)** - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Average Capitalization** - the total capitalization of the portfolio divided by the number of securities in a portfolio.

**Batting Average** - measures how frequently a portfolio outperforms its benchmark on a quarterly basis. The statistic is obtained by dividing the number of quarters in which the portfolio outperformed the total return of the benchmark by the total number of quarters. For example, a portfolio with a batting average of 60% has outperformed the index more than it has underperformed.

**Beta** - measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

**Commercial Mortgage-Backed Security (CMBS)** - mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** - mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Convexity** - measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Credit Quality Rating** - weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based of their opinions of the issuer's ability to pay interest and principal as scheduled.

**Dividend Yield** - annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Effective Duration** - a duration calculation for bonds with embedded options. Effective duration takes into account that expected cash flows will fluctuate as interest rates change.

**EPS Growth - Forecast** - a measure of one year earnings (cash flow or dividends) per share growth from the prior fiscal year (FY0) to the current fiscal year (FY1) using analyst consensus forecasts. Growth is expressed as a percent. The FY1 EPS (earnings per share) growth rate for the portfolio is a weighted average of the forecasts for the individual stocks in the portfolio.

**EPS Growth - 5 Year Historical** - The weighted average annualized earnings per share growth for a portfolio over the past five years.

**Excess Return** - represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" next to the "Status" on the cover page.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "Manager Selection Process."

#### **No Obligation to Update**

Morgan Stanley Wealth Management has no obligation to update you when any information or opinion in this report changes.

#### **Strategy May Be Available as a Separately Managed Account or Mutual Fund**

Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program.

#### **Consider Your Own Investment Needs**

This report is not intended to be a client-specific suitability analysis or recommendation, an offer to participate in any investment, or a recommendation to buy, hold or sell securities (includes securities of Morgan Stanley, and/or their affiliates if shown in this report). Do not use this report as the sole basis for investment decisions. Do not select an asset class or investment product based on performance alone. Consider all relevant information, including your existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon.

#### **Performance and Other Portfolio Information**

##### **General**

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

##### **Benchmark index**

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only.

Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

##### **Other data**

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

Other data in this report is accurate as of the date this report was prepared unless stated otherwise. Data in this report may be calculated by the investment manager, Morgan Stanley Wealth Management or a third party service provider, and may be based on a representative account or a composite of accounts.

##### **Securities holdings**

Holdings are subject to change daily, so any securities discussed in this report may or may not be included in your portfolio if you invest in this investment product. Your portfolio may also include other securities in addition to or instead of any securities discussed in this report. Do not assume that any holdings mentioned were, or will be, profitable.

##### **Sources of Data**

Material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

##### **Asset Class and Other Risks**

Investing in *stocks*, *mutual funds* and *exchange-traded funds* ("ETFs") entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods.

*Bonds* are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date.

# Segall Bryant & Hamill – Core Fixed

## MANAGER ASSESSMENT REPORT

Michael Hill

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304-353-9021

May 2015

### STRATEGY DETAILS

<b>INVESTMENT STYLE:</b>	<i>Core Fixed Income</i>
<b>BENCHMARK:</b>	<i>Barclay's Aggregate Bond Index</i>
<b>PRODUCT TYPE:</b>	<i>Separately Managed Account</i>
<b>MIN. INITIAL INVESTMENT:</b>	<i>\$1,000,000</i>
<b>STRATEGY AUM:</b>	<i>\$1,645,000,000</i>
<b>FIRM AUM:</b>	<i>\$9,729,000,000</i>

### STRATEGY DESCRIPTION

SBH focuses exclusively on managing investment grade fixed income portfolios under the premise that good risk-adjusted returns can be achieved by employing a disciplined investment process that incorporates both top-down and bottom-up analysis and focuses on long-term relative value.

### Summary of Opinion:

- We believe the Segall Bryant & Hamill Core Fixed Income product may be an appropriate choice for investors seeking a high quality, core fixed income portfolio.
- The portfolio is comprised of individual security issues only (no exposure to commingled funds or derivatives).
- The strategy invests in benchmark-related sectors, and duration is typically within +/- 10% of the index; therefore, it serves well as a complement to fixed income portfolios which are benchmark agnostic and exhibit more opportunistic approaches.
- The investment process employs both macroeconomic and bottom-up fundamental analysis. SBH's analysts perform security-specific due diligence combining fundamental analysis with relative value analysis.

This report is only to be used in connection with investment advisory programs and not brokerage accounts.

**INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\*MAY LOSE VALUE**

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## DEFINITIONS

**Barclays Capital US Aggregate Bond Index** - This index covers the U.S. investment grade fixed rate bond market (measuring bonds with maturities of at least one year), with index components for government and corporate securities, mortgage pass-through securities, and asset backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. Total return comprises price appreciation/depreciation and income as a percentage of the original investment. This index is rebalanced monthly by market capitalization.

## GLOSSARY OF TERMS

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**ADRs** – American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market. ADRs are typically listed on U.S. exchanges such as NYSE, AMEX and NASDAQ.

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**Convexity** – measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Credit Quality Rating** – weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based on their opinions of the issuer's ability to pay interest and principal as scheduled.

**Dividend Yield** – annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Effective Duration** – a duration calculation for bonds with embedded options. Effective duration takes into account that expected cash flows will fluctuate as interest rates change.

**EPS Growth – Forecast** – a measure of one year earnings (cash flow or dividends) per share growth from the prior fiscal year (FY0) to the current fiscal year (FY1) using analyst consensus forecasts. Growth is expressed as a percent. The FY1 EPS (earnings per share) growth rate for the portfolio is a weighted average of the forecasts for the individual stocks in the portfolio.

**EPS Growth – 5 Year Historical** – The weighted average annualized earnings per share growth for a portfolio over the past five years.

**Excess Return** – represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its

benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

**Historical EPS Growth** - calculated by regressing over time the quarterly earnings per share for the past 20 quarters to determine the share's historical growth rate in earnings. The quarterly historical growth rate for each share is then annualized and the Historical EPS Growth shown in this report is the weighted average of these results.

**Information Ratio** – represents the Excess Return divided by the Tracking Error. It provides a measure of the historical consistency of the portfolio's overperformance or underperformance relative to its benchmark. A higher, positive Information Ratio suggests that the portfolio's excess returns may have been the result of making measured or moderate bets against the relevant benchmark's risk exposures.

**Long Term EPS Growth Rate** – analyst consensus of expected annual increase in operating earnings per share over the company's next full business cycle - usually three to five years. The Long Term EPS Growth Rate for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Market Cap (\$M)** – the average portfolio market capitalization (market price multiplied by shares outstanding), weighted by the proportion of the portfolio's assets invested in each stock.

**Maturity** – the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**Median Cap by Portfolio Weight** – the midpoint of market capitalization (market price multiplied by shares outstanding) of a portfolio's stock holdings, weighted by the proportion of the portfolio's assets invested in each stock. Stocks representing half of the portfolio's holdings are above the median, while the rest are below it.

**Modified Adjusted Duration** – measures the sensitivity of the percentage change in the price of a bond portfolio for a given change in yield, shown as a number of years to maturity. This figure is calculated as the weighted average of the durations of the securities in the portfolio.

**Mortgage-backed securities (MBS)** – securities backed by a mortgage loan or a pool of mortgage loans secured by real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**Pass-Through Security** – security backed by a package of assets. A servicing intermediary collects the monthly payments from issuers and, after deducting a fee, remits or passes them through to the holders of the pass-through security.

**P/E - Forecast 12-Mo.** – The price/earnings ratio for the stock based on the most recent closing price divided by the annual mean expected earnings for the current fiscal year (FY1 EPS forecast). P/E for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**P/E - Trailing 12-Mo.** – the current price of a stock divided by the most recent 12 months trailing earnings per share. P/E for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Price-to-Book** – price per share divided by book value per share. Price-to-Book for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

**Quality** – Based upon per-share earnings and dividend records of the most recent 10 years, this ranking system attempts to capture the growth and stability of earnings and dividends for individual stocks. For a portfolio, the quality ranking is a weighted average. The quality rankings classification is as follows: A+ (highest), A

can be more risky than an investment in a company with more modest growth expectations.

**International securities** 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**.

**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.

**Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

**Ultra-short bond** funds generally invest in fixed income securities with very short maturities, typically less than one year. They are not money market funds. While money market funds attempt to maintain a stable net asset value, an ultra-short bond fund's net asset value will fluctuate, which may result in the loss of the principal amount invested. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

**High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

**Tax-Free Investments** If any investments in this report are described as "tax free", the income from these investments may be subject to state and local taxes and (if applicable) the federal Alternative Minimum Tax. Realized capital gains on these investments may be subject to federal, state and local capital gains tax.

**Real estate investments:** property values can fall due to environmental, economic or other reasons, and changes in interest rates can negatively impact the performance of real estate companies.

**Derivatives**, in general, involve special risks and costs that may result in losses. The successful use of derivatives requires sophisticated management, in order to manage and analyze derivatives transactions. The prices of derivatives may move in unexpected ways, especially in abnormal market conditions. In addition, correlation between the particular derivative and an asset or liability of the investment manager may not be what the investment manager expected. Some derivatives are "leveraged" and therefore may magnify or otherwise increase investment losses. Other risks include the potential inability to terminate or sell derivative positions, as a result of counterparty failure to settle or other reasons.

**Mortgage-backed securities ("MBS")**, which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements.

**Commodities:** The commodities markets may fluctuate widely based on a variety of factors including, but not limited to, changes in supply and demand relationships; governmental programs and policies; national and international political and economic events, war and terrorist

events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence, technological change and weather; and the price volatility of a commodity.

**Alternative/hedged strategies:** Funds may use various investment strategies and techniques for both hedging and more speculative purposes such as short selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative/hedged strategies are not appropriate for all investors. A short sales strategy includes the risk of loss due to an increase in the market value of borrowed securities. Such a strategy may be combined with purchasing long positions in an attempt to improve portfolio performance. A short sales strategy may result in greater losses or lower positive returns than if the portfolio held only long positions, and the portfolio's loss on a short sale is potentially unlimited. The use of leverage can magnify the impact of adverse issuer, political, regulatory, market, or economic developments on a company. A decrease in the credit quality of a highly leveraged company can lead to a significant decrease in the value of the company's securities. In a liquidation or bankruptcy, a company's creditors take precedence over the company's stockholders.

Investments in securities of **MLPs** involve risks that differ from an investment in common stock. MLPs are controlled by their general partners, which generally have conflicts of interest and limited fiduciary duties to the MLP, which may permit the general partner to favor its own interests over the MLPs. The potential return of MLPs depends largely on the MLPs being treated as partnerships for federal income tax purposes. As a partnership, an MLP has no federal income tax liability at the entity level. Therefore, treatment of one or more MLPs as a corporation for federal income tax purposes could affect the portfolio's ability to meet its investment objective and would reduce the amount of cash available to pay or distribute to you. Legislative, judicial, or administrative changes and differing interpretations, possibly on a retroactive basis, could negatively impact the value of an investment in MLPs and therefore the value of your investment.

The current yield of **preferred securities** is calculated by multiplying the coupon by par value divided by the market price. The majority of \$25 and \$1000 par preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. The initial rate on a floating rate or index-linked preferred security may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating/linked index. However, there can be no assurance that these increases will occur.

**Convertible securities** are convertible to equity at the option of the holder. The market value of the securities, and the underlying common stock into which they are convertible, will fluctuate. In particular, securities whose value depends on the performance of an underlying security entail potentially higher volatility and risk of loss compared to traditional bond investments. You should be aware that the market value of convertible bonds may not correspond directly to increases or decreases in the underlying stock.

# Investment Manager Analysis

Prepared for Park Ridge Police Pension Fund

March 4, 2016

This document is to be used only in one-on-one presentations with a MORGAN STANLEY Financial Advisor. It must be accompanied by the applicable disclosure document (e.g. - prospectus) for each investment product that it references. Such disclosure document contains important information about investment objectives and strategies and fees and expenses. This document has been prepared at your request and is intended for informational purposes only.

It is not sufficient basis on which to make an investment decision. This document is not complete unless it includes all of the pages indicated. Please refer to the "Important Disclosures" and "Performance Information" sections at the end of this document for further information, including information about the impact of fees on performance.

**IMPORTANT NOTE:** All performance and statistics in this analysis are calculated based on gross performance and do not reflect the deduction of investment management fees and expenses. See the "Important Disclosure" and "Performance Information" sections at the end of this document for further information. Past performance does not guarantee future results. Actual individual account results will differ.

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## Important Morgan Stanley Disclosures

### **ZEPHYR STYLE ADVISOR DISCLAIMER**

The following analysis is directed only to the client for whom the evaluation was prepared and is based on published investment manager rate of return data, capital market indices, custom (benchmarks, indices and universes), as well as software developed by Zephyr Associates. Investment manager rate of return data includes: Informa Plan Sponsor Network, Morgan Stanley (MSSB) Fiduciary Services, Morgan Stanley Global Investment Solutions, Collective Trust Funds and Consulting Group Capital Market Funds Databases. Capital markets index data includes: Capital market indices (supplied by Zephyr), Canadian indices (supplied by Zephyr), Salomon Brothers Fixed Income indices, Morgan Stanley Capital International indices, and Dow Jones Global indices.

Zephyr StyleADVISOR uses principles of William Sharpe's theory of returns-based style analysis. Returns-based style analysis assists in identifying investment style without examining the individual security holdings of a portfolio. StyleADVISOR regresses the historical returns of the individual manager(s) against different style indices to identify the pattern of returns that the fund is most closely correlated to. MSSB does not recommend the use of returns-based style analysis without the supporting fundamental research of the fund (research attribution reports).

The underlying data is believed to be reliable but accuracy and completeness cannot be assured. While the historical rates of return described in this report are believed to accurately reflect the overall nature of the portfolio, the constituent securities have not been reviewed. This evaluation is for informational purposes only and is not intended to be an offer, solicitation or recommendation with respect to the purchase or sale of any security or a recommendation of the services provided by any money management organization. Past results are not necessarily indicative of future performance.

### **Gross Rates of Return**

The investment results depicted herein represent historical Gross performance before the deduction of investment management fees and are based on settlement date accounting methods. Annual, cumulative and annualized total returns are calculated assuming reinvestment of dividends and income plus capital appreciation. The client is referred applicable Morgan Stanley ADV brochures, available at [www.smithbarney.com/adv](http://www.smithbarney.com/adv) or from your Financial Advisor. Actual returns will be reduced by expenses that may include management fees and cost of transactions. 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, on an account with a 2% fee, if the gross performance is 10%, the compounding effect of the fees will result in a net performance of approximately 7.81%. This Report is for one-on-one client presentations only.

### **International and Small Capitalization Securities**

To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing involving foreign, economic, political, and/or legal factors. International investing may not be for everyone. In addition, small capitalization securities may be more volatile than those of larger companies, but these companies may present greater growth potential.

## Important Morgan Stanley Disclosures

**Alpha:** Alpha is a risk (beta adjusted) measurement. Officially, alpha measures the difference between a portfolio's actual returns and what it might be expected to deliver based on its level of risk. Higher risk generally means higher reward. A positive alpha means the fund has beaten expectations. A negative alpha means that the manager failed to match performance with risk. If two managers had the same return but one had a lower beta, that manager would have a higher alpha. StyleADVISOR uses the standard intercept calculation.

**Beta:** Beta represents the systematic risk of a portfolio and measures its sensitivity to a benchmark. A portfolio with a beta of one is considered as risky as the benchmark and would therefore provide expected returns equal to those of the market during both up and down periods. A portfolio with a beta of two would move approximately twice as much as the benchmark.

**Excess Return -** The difference between the returns of two portfolios. Usually excess return is the difference between a manager's return and the return of a benchmark for that manager. In the context of a beta benchmark, excess return refers to the difference between a manager or market benchmark and Tbills.

**Down Capture Ratio:** the ratio of the manager's overall performance to the benchmark's overall performance, considering only periods that are negative in the benchmark.

**Excess Returns:** represent the average quarterly total returns of the manager relative to its benchmark. A manager with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the manager's return.

**Manager Style Graph:** an attempt to depict how the manager's historical returns (not actual portfolio holdings) "track" a group of benchmarks. For example, Domestic Equity products will be presented versus Large and Small, Growth and Value benchmarks. If the R2 of the Style Benchmark is lower than 80%, then the attempt to measure the manager's style was problematic (this will often happen with non- diversified portfolios, or eclectic investment disciplines.)

**Moving Window:** multiple data calculations can be done within a single span of time. For example, in a 5 year period you can display five 1-year values with non-overlapping data, or you can display nine 3-year values by moving each 3-year "moving window" one quarter at a time. Each discrete time period, either overlapping or not, is referred to as a "moving window."

**Return:** A compounded and annualized rate of return.

**R-Squared:** (Correlation Squared) - A measure of how well two portfolios track each other. R-squared ranges between zero and 100%. An R-squared of 100% indicates perfect tracking, while an R-squared of zero indicates no tracking at all. R-squared is used in style analysis to determine how much information about a return series the style benchmark has been able to capture. The higher the R-squared, the better the benchmark.

**Sharpe Ratio:** The Sharpe Ratio, developed by Professor William F. Sharpe, is a measure of reward per unit of risk -- the higher the Sharpe Ratio, the better. It is a portfolio's excess return over the risk-free rate divided by the portfolio's standard deviation. The portfolio's excess return is its geometric mean return minus the geometric mean return of the risk-free instrument (by default, t-bills).

**Standard Deviation:** quantifies the volatility associated with a given product. The statistic measures the quarterly variation in returns around the mean return.

**Style Benchmark:** the blended benchmark that best matches the manager's returns (lowest tracking error.)

**Tracking Error:** represents the Standard Deviation of the Excess Return and provides a historical measure of the variability of the manager's returns relative to its benchmark. **Up Capture Ratio:** measures the manager's overall performance to the benchmark's overall performance, considering only periods that are positive in the benchmark. **Universe:** a peer group of managed investment products with reasonably similar characteristics.

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## Actuarial Assumption Summary

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## PARK RIDGE POLICE PENSION FUND

Utilizing Data as of April 30, 2016  
Actuarial Valuation Date May 1, 2016  
For the Contribution Year May 1, 2016 to April 30, 2017

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***LAUTERBACH & AMEN, LLP***

# TABLE OF CONTENTS

Expected Rate of Return on Assets .....	1
Expected Pay Increases .....	1
Expected Pay Increases - Continued .....	2
Expected Increase in Total Payroll.....	3
Consumer Price Index-U.....	3
Percent Married .....	3
Mortality Rates.....	4
Mortality Rates - Continued.....	5
Disability Rates .....	6
Retirement Rates .....	7
Termination Rates .....	8



# ASSUMPTION SUMMARY

## ***Expected Rate of Return on Assets***

---

Explanation: The long-term rate of return on pension fund assets that is anticipated to be available to pay benefits (net of expenses).

Prior: 6.50%

Proposed: 6.75%

Reasoning: The assumption is based on guidance from the Fund's investment advisor regarding the long-term expectation of returns for each broad asset class in the Fund, and the long-term anticipated asset allocation. See long term return rates below:

<u>Asset Class</u>	<u>Long-Term Expected Rate of Return</u>	<u>Long-Term Inflation Expectations</u>	<u>Long-Term Expected Real Rate of Return</u>
Corporate Bonds	4.20%	2.50%	1.70%
US Government Fixed Income	3.20%	2.50%	0.70%
US Large Cap Equities	8.30%	2.50%	5.80%
US Mid Cap Equities	9.30%	2.50%	6.80%
US Small Cap Equities	9.30%	2.50%	6.80%
Non-US Developed Large Cap Equity Unhedged	8.40%	2.50%	5.90%
Emerging Markets Equity Unhedged	10.50%	2.50%	8.00%
Global Real Estate - REITS	8.30%	2.50%	5.80%
Commodities - Long Only	4.90%	2.50%	2.40%

## ***Expected Pay Increases***

---

Explanation: The expected increase in individual salaries into the future. Should capture all anticipated increases that impact pensionable pay. Projected future salaries are used to determine projected future benefits that will be paid by the pension fund.

Prior: 4.50%

Proposed: 4.00% - 15.00% Service-based rates. Long-term increases at 4.00% with additional step increases in the first 6 years – see the following page for current rates.



# ASSUMPTION SUMMARY

## *Expected Pay Increases - Continued*

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<u>Service</u>	<u>Rate</u>	<u>Service</u>	<u>Rate</u>
0	11.50%	8	4.00%
1	8.00%	9	4.00%
2	15.00%	10	4.00%
3	8.00%	15	4.00%
4	8.00%	20	4.00%
5	4.50%	25	4.00%
6	4.00%	30	4.00%
7	4.00%	35	4.00%

Reasoning: Service-based pay rates capture additional pay increases anticipated for employees early in their working careers, and cost of living adjustments for all employees. Long-Term pay increases are intended to capture average increases for inflation and for merit/promotions (more volatile). These service-based rates are based on review of the negotiated agreement between City of Park Ridge and Teamsters Local No. 700 for the period May 1, 2014 through April 30, 2018.



# ASSUMPTION SUMMARY

## ***Expected Increase in Total Payroll***

---

**Explanation:** The long-term expected increase in the total payroll for active employees. This assumption is used to budget contributions over employee working lifetimes. In addition, it may be used to determine the amortization payment for unfunded liability as the increasing factor.

Total payroll increases are impacted by raises, much like the individual pay increases. However, other factors such as growth or decline in the active group of employees, or lower paid employees replacing higher paid employees, can impact total payroll growth as well.

**Prior:** 4.50%

**Proposed:** 3.75%

**Reasoning:** Public funds generally range 3.00% to 5.00%. The Illinois Department of Insurance recently determined that Illinois Police funds average around 4.30%.

## ***Consumer Price Index-U***

---

**Explanation:** The CPI-U is the rate that will be used to predict future COLA adjustments provided to Tier II employees.

**Prior:** 3.00%

**Proposed:** 2.50%

**Reasoning:** A review of the historical CPI-U rates shows an average increase over a 20-30 year period of 2.5% - 3.0%. The most recent average of September rates for 30 years, ending 2015, is 2.65%.

## ***Percent Married***

---

**Explanation:** The expected percentage of fund members that will have a spouse at the time of their death that will begin a payment at that point.

**Prior:** 80%

**Proposed:** 80%

**Reasoning:** The assumption is based on a comprehensive study for Police Officers in Illinois that was completed in January of 2016.

**Additional:** Approximately 80% of benefits are passed to a surviving spouse upon death of the employee. Female spouses are assumed to be 3 years younger.



# ASSUMPTION SUMMARY

## *Mortality Rates*

---

Explanation: The probability that fund participants pass away at any given age. The assumption is used with active fund members to predict deaths that trigger a benefit for beneficiaries. In addition, the assumption is used to estimate the amount of payments an individual is expected to receive when payments begin.

Prior: IDOI 2012 Mortality Rates

Proposed: The Lauterbach & Amen, LLP Study for Police Officers in Illinois 2016 for Males

Age	Rate	Age	Rate	Age	Rate
41	0.00076	61	0.00914	81	0.05387
42	0.00081	62	0.00986	82	0.05971
43	0.00089	63	0.01067	83	0.06622
44	0.00098	64	0.01157	84	0.07349
45	0.00108	65	0.01258	85	0.08159
46	0.00120	66	0.01368	86	0.09066
47	0.00134	67	0.01487	87	0.10079
48	0.00150	68	0.01617	88	0.11208
49	0.00167	69	0.01757	89	0.12471
50	0.00187	70	0.01911	90	0.13885
51	0.00208	71	0.02080	91	0.15393
52	0.00230	72	0.02268	92	0.16962
53	0.00258	73	0.02477	93	0.18583
54	0.00535	74	0.02711	94	0.20242
55	0.00583	75	0.02975	95	0.21950
56	0.00633	76	0.03270	96	0.23711
57	0.00684	77	0.03604	97	0.25519
58	0.00736	78	0.03977	98	0.27376
59	0.00790	79	0.04395	99	0.29287
60	0.00849	80	0.04864	100	0.31310

See the following page for Sample Female Mortality Rates.



# ASSUMPTION SUMMARY

## *Mortality Rates - Continued*

Sample Female Mortality Rates are as follows:

Age	Rate	Age	Rate	Age	Rate
41	0.00043	61	0.00614	81	0.03998
42	0.00047	62	0.00661	82	0.04441
43	0.00052	63	0.00714	83	0.04935
44	0.00058	64	0.00773	84	0.05488
45	0.00065	65	0.00839	85	0.06106
46	0.00072	66	0.00913	86	0.06799
47	0.00080	67	0.00997	87	0.07574
48	0.00090	68	0.01090	88	0.08444
49	0.00100	69	0.01196	89	0.09427
50	0.00111	70	0.01314	90	0.10522
51	0.00123	71	0.01448	91	0.11716
52	0.00135	72	0.01597	92	0.12989
53	0.00148	73	0.01765	93	0.14347
54	0.00381	74	0.01953	94	0.15779
55	0.00409	75	0.02161	95	0.17289
56	0.00438	76	0.02391	96	0.18930
57	0.00467	77	0.02648	97	0.20656
58	0.00499	78	0.02933	98	0.22543
59	0.00534	79	0.03250	99	0.24564
60	0.00572	80	0.03603	100	0.26672

Reasoning: The assumption is based on a comprehensive study for Police Officers in Illinois that was completed in January of 2016. The study includes a review of national studies on mortality, including the most recently released RP-2014 table. The above table includes improvement to the actuarial valuation date using MP 2014. The current Mortality Rate used in the valuation includes improvement beyond 5 years of the actuarial valuation date using MP 2014. Active mortality (pre-retirement) follows RP 2014 Blue Collar.



# ASSUMPTION SUMMARY

## *Disability Rates*

---

Explanation: The probability that fund participants become disabled at any given age. The assumption is used with active fund members to predict disabilities that trigger a benefit payment.

Prior: IDOI 2012 Disability Rates

Proposed: 100% of the Lauterbach & Amen, LLP Study for Police Officers in Illinois 2016

Age	Rate	Age	Rate	Age	Rate
24	0.0000	33	0.0015	42	0.0034
25	0.0005	34	0.0016	43	0.0037
26	0.0006	35	0.0018	44	0.0040
27	0.0007	36	0.0020	45	0.0043
28	0.0008	37	0.0022	46	0.0044
29	0.0009	38	0.0024	47	0.0047
30	0.0010	39	0.0026	48	0.0048
31	0.0012	40	0.0028	49	0.0050
32	0.0013	41	0.0031	50	0.0064

Reasoning: The assumption is based on a comprehensive study for Police Officers in Illinois that was completed in January of 2016.



# ASSUMPTION SUMMARY

## *Retirement Rates*

---

Explanation: The probability that fund participants retire at any given age. The assumption is used with active fund members to predict retirement dates that trigger a benefit payment.

Prior: IDOI 2012 Retirement Rates

Proposed: 100% of the Lauterbach & Amen, LLP Study for Police Officers in Illinois 2016, capped at Age 65

Age	Rate	Age	Rate	Age	Rate
50	0.117	57	0.175	64	1.000
51	0.124	58	0.225	65	1.000
52	0.131	59	0.225	66	1.000
53	0.139	60	0.225	67	1.000
54	0.147	61	0.225	68	1.000
55	0.156	62	0.300	69	1.000
56	0.165	63	0.300	70	1.000

Reasoning: The assumption is based on a comprehensive study for Police Officers in Illinois that was completed in January of 2016.



# ASSUMPTION SUMMARY

## *Termination Rates*

---

**Explanation:** The probability that fund participants will terminate employment at any given age prior to retirement eligibility. The assumption is used with active fund members to predict termination that could trigger deferred retirement benefits or contribution refunds.

**Prior:** IDOI 2012 Termination Rates

**Proposed:** 100% of the Lauterbach & Amen, LLP Study for Police Officers in Illinois 2016

Age	Rate	Age	Rate	Age	Rate
24	0.041	33	0.037	42	0.021
25	0.041	34	0.037	43	0.019
26	0.040	35	0.036	44	0.016
27	0.040	36	0.035	45	0.014
28	0.040	37	0.034	46	0.011
29	0.039	38	0.032	47	0.009
30	0.039	39	0.029	48	0.007
31	0.038	40	0.027	49	0.005
32	0.038	41	0.024	50	0.003

**Reasoning:** The assumption is based on a comprehensive study for Police Officers in Illinois that was completed in January of 2016.

