

## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

THROUGH: Delores Turner, Manager of Human Resources

FROM: Lisa Sorani, Manager of HR Employee Services *LS.*

SUBJECT: Retirement Board Regular Meeting – November 19, 2013

A regular meeting of the Retirement Board will convene at 8:30 a.m. on Tuesday, November 19, 2013 in the Training Resource Center (TRC1) of the Administration Building.

Enclosed are the agenda for the regular November meeting and the minutes for the September 19, 2013 regular meeting. The package also includes the following: **(1) ACTION** items: Adopt amendment to ERS Investment Policy statement to reflect Retirement Board changes to strategic asset allocation, Interview and Select investment managers for Covered Call asset allocation, Correction to the Resolution for the Rate of Interest Credited to Members; **(2) INFORMATION** items: Quarter Performance Review as of September 30, 2013, Employees Retirement System Audited Financial Report, Update Moody's Investor Service on Pension Adjustment, Employee's Retirement System Net Flows, Retirement Board Schedule for 2014; **(3) REPORTS FROM THE RETIREMENT BOARD.**

LS:eg

Enclosures

**SPECIAL MEETING AGENDA**  
**EBMUD EMPLOYEES' RETIREMENT SYSTEM**  
**November 19, 2013**  
**Training Resource Center (TRC1) 8:30 a.m.**

**ROLL CALL:**

**PUBLIC COMMENT:** The Retirement Board is limited by State Law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

**CONSENT CALENDAR:**

1. Approval of Minutes – Regular Meeting of September 19, 2013
2. Treasurer's Statement of Receipts and Disbursements for August 2013 and September 2013
3. Ratifying and Approving Investment Transactions by Counselors for August 2013 and September 2013 (R.B. Resolution No. 6787)
4. Ratifying and Approving Investment Transactions by Treasurer for August 2013 and September 2013 (R.B. Resolution No. 6788)

**ACTION:**

5. Adopt amendment to ERS Investment Policy statement to reflect Retirement Board changes to strategic asset allocation (R.B. Resolution No. 6789) – E. Sandler
6. Interview and select investment managers for Covered Call asset allocation –E. Sandler
7. Correction to the Resolution for the Rate of Interest Credited to Members (R.B. Resolution No. 6790) – E. Grassetti

**INFORMATION:**

8. Quarterly Performance Review as of September 30, 2013 – E. Sandler
9. Employees' Retirement System Audited Financial Report – E. Sandler
10. Update Moody's Investor Service on Pension Adjustment – E. Sandler
11. Employee's Retirement System Net Flows—E. Sandler
12. Retirement Board Schedule for 2014 – E. Grassetti

### **REPORTS FROM THE RETIREMENT BOARD:**

13. Brief report on any course, workshop, or conference attended since the last Retirement Board meeting.

### **ITEMS TO BE CALENDARRED:**

### **MEETING ADJOURNMENT:**

*The next regular meeting of the Retirement Board will be held at 8:30 a.m. on Thursday, January 16, 2014.*

### **2014 Retirement Board Meetings**

January 16, 2014	July 17, 2014
March 20, 2014	September 18, 2014
May 15, 2014	November 20, 2014

## RETIREMENT SYSTEM CALENDAR

### Every Meeting:

- Ratifying and approving investment transaction by counselors for the previous two months.
- Ratifying and approving investment transaction by Treasurer for previous two months.
- Treasurer's statement of receipts and disbursements for previous two months.

### January:

- Health Insurance Benefit Survey Results
- Declaring the interest rate credited to Members contributions for period ending December 30.
- Annual Investment Fee Summary

### March:

- 4<sup>th</sup> Quarter Performance Review as of December 31<sup>st</sup>.
- Determination of annual retiree Cost of Living Adjustment (COLA) to be effective July 1.

### May:

- Retirement Board employee & retiree representative election calendar
- COLA Bank Review
- 1<sup>st</sup> Quarter Performance Review as of March 31<sup>st</sup>.

### June:

- Election of one employee representative to the Retirement Board each year to serve a two-year term.

### July:

- Authorizing low income adjustments for retired Members and surviving spouses.
- Declaring the interest rate on Member contributions for the period ending June 30<sup>th</sup>.
- Declaring the results of the election of the employee Member of the Retirement Board.

### September:

- 2<sup>nd</sup> Quarter performance review as of June 30<sup>th</sup>.
- Election of a Retired Member to serve a two-year term on the Retirement Board. Election is held in even years.
- Disability retiree medical evaluation report.

### November:

- 3<sup>rd</sup> Quarter performance review as of September 30<sup>th</sup>.
- Annual Retirement System Audited Financial Report
- District Health Plan Update
- Annual Actuarial Valuation as of June 30<sup>th</sup> of each year. (Moved to January in years when Quadrennial Experience Study performed)
- Quadrennial Experience Study results every 3-4 years as needed. The last study was done as of June 30, 2012.



## **MINUTES OF THE RETIREMENT BOARD**

### **September 19, 2013**

A regular meeting of the Retirement Board convened on Thursday, September 19, at 8:33 a.m. in the Large Training Resource Center (TRC) Room. The meeting was called to order by President Doug Higashi.

**Roll Call** – The following Retirement Board Members were present: Timothy McGowan, Doug Higashi, Frank Mellon, Lloyd Sawchuk, and Alexander Coate.

The following staff members were present: Lourdes Matthew, Eric Sandler, Delores Turner, Rodney Deiter, and Elizabeth Grassetti.

Others present were Eric White from PCA, and Demetri Mindlin from CDI Advisors.

### **PUBLIC COMMENT**

There was no public comment.

- 1 - 4. **Consent Calendar** – A motion to approve the consent calendar was made by Frank Mellon, seconded by Alex Coate and unanimously approved.

### **ACTION**

5. **Adopt Asset-Liability Study Recommendations** – Eric White of PCA and Demetri Mindlin of CDI Advisors presented the results of the asset-liability study and their recommendations. The overall plan goal is to create an investment portfolio to provide assets that meet benefits agreed upon both now and in the future. It was emphasized that strategic asset allocation determines 90% of the investment returns. Asset allocation also provides a long-term strategic policy which serves to balance near term needs with long-term goals.

The Asset Liability study took the actuarial data provided by Segal and the capital market assumptions developed by PCA and ran 10,000 simulations of return paths to come up with five recommended portfolios, details of which were included in PCA's Asset Liability Study materials. The portfolios included three new asset classes, opportunistic fixed income, real returns, and covered calls. The portfolios were constrained to provide cash for payments and to limit exposure to riskier investment classes. The five portfolio options were in addition to the current portfolio. The Board then modeled a number of other possible portfolio options using Mr. Mindlin's program, and by removing the constraint on covered calls, found a portfolio that provided increased returns without increased risk.

Frank Mellon made a motion to 1) amend the current asset allocation policy to the proposed portfolio allocations:

Asset Class	Allocation
Core Fixed Income	10%
Non-Core Fixed Income	10%
Domestic Equity	40%
Covered Calls	20%
International Equity	15%
Real Estate	5%
Allocation to Cash	0%

2) Implement the above portfolio allocations, and in-order to implement the policy;

3) Authorize the Investment Committee to recommend a short list of firms for the Board to consider in the Covered Calls and Opportunistic Fixed Income asset classes. Covered Calls asset class is to be considered first and will be presented at the November 19, 2013 Board meeting.

The motion was seconded by Timothy McGowan and passed unanimously.

## **INFORMATION**

6. **2<sup>nd</sup> Quarter Performance Review** - Eric White of PCA presented the quarterly performance report, noting that the portfolio's value as of June 30, 2013 was \$1.1 billion. During the quarter, the portfolio increased by \$10.3 million dollars, and over the past year the portfolio increased by \$137.8 million; an increase of 14.9%. The portfolio out performed over the 3-year period with an increase of 13.6% and was PCA's top ranked fund for the one and three years periods, outperforming peers including CalSTRS and CalPERS.

Relative outperformance over the quarter can be attributed to security selection in the Domestic and International Equity asset classes, while one-year results benefited from an underweight and security selection in the Fixed Income asset classes.

## **REPORTS FROM THE BOARD**

7. Tim McGowan attended the CALAPRS trustee roundtable where they discussed Human Impact (HIP) investing (investing in the local community), and that Retirement Boards with women board members performed better than Boards without women members.

**ITEMS TO BE CALENDERED**

- Action item to amend the Asset Allocation Policy
- Interview and Select Covered Call Investment Manager finalists
- Provide cash flow/payroll projections showing when withdrawals are to exceed inflows
- Quarterly Performance Report

**ADJOURNMENT** – Frank Mellon moved to adjourn the meeting at 1:55 p.m.; Doug Higashi seconded the motion and the motion was unanimously approved.



\_\_\_\_\_  
President

ATTEST: \_\_\_\_\_  
Secretary

11/19/2013

**EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: September 27, 2013  
MEMO TO: Members of the Retirement Board  
THROUGH: Eric L. Sandler, Director of Finance   
FROM: D. Scott Klein, Controller   
SUBJECT: Statement of Receipts and Disbursements for August 2013

The attached Statement of Receipts and Disbursements Report for the month of August 2013 is hereby submitted for Retirement Board approval.

ES/sk

**STATEMENT OF RECEIPTS AND DISBURSEMENTS  
EMPLOYEES' RETIREMENT FUND  
MONTH OF AUGUST 2013**

CASH BALANCE July 31, 2013 \$ 2,649,000.94

**RECEIPTS**

Employees' Contributions	\$ 1,202,758.72	
District Contributions	7,671,819.86	
LAIF Redemptions	3,800,000.00	
Commission Recapture	<u>200.29</u>	
<b>TOTAL Receipts</b>		<b>12,674,778.87</b>

**DISBURSEMENTS**

<b>Checks/Wires Issued:</b>		
Service Retirement Allowances	\$ 5,449,187.51	
Disability Retirement Allowances	143,589.49	
Health Insurance Benefit	732,563.86	
Payments to Retiree's Resigned/Deceased	545.67	
LAIF Deposits	5,800,000.00	
Administrative Cost	<u>73,308.48</u>	
<b>TOTAL Disbursements</b>		<b>(12,199,195.01)</b>

CASH BALANCE August 31, 2013 \$ 3,124,584.80

LAIF 9,527,010.54

LAIF and Cash Balance August 31, 2013 \$ 12,651,595.34

**Domestic Equity**

Barrow Hanley	\$ 163,130,975.76
Russell 1000 Index Fund	280,131,265.40
Russell 2000 Growth Index Fund	20,367,815.00
Opus	26,139,629.04
Intech	73,731,171.00
T. Rowe Price	<u>72,921,207.83</u>
<b>Subtotal Domestic Equity</b>	<b>\$ 636,422,064.03</b>

**International Equity**

Franklin/Templeton Foreign Fund	\$ 106,606,717.08
Fisher Investments	<u>104,697,507.29</u>
<b>Subtotal International Equity</b>	<b>\$ 211,304,224.37</b>

**Real Estate**

Real Estate RREEF	\$ 22,714,404.00
Urdang	<u>29,651,132.62</u>
<b>Subtotal Real Estate</b>	<b>52,365,536.62</b>

**Fixed Income Managers**

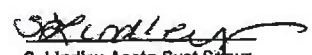
CS Mckee	\$ 153,025,478.44
Western Asset Management Company	<u>80,330,105.04</u>
<b>Subtotal Fixed Income Managers</b>	<b>\$ 233,355,583.48</b>

Total for Domestic & International Equities 1,133,447,408.50

MARKET VALUE OF ASSETS at AUGUST 31, 2013 \$ 1,146,099,003.84

Respectfully submitted,

  
D. Scott Klein  
Controller


  
S. Lindley-Acctg. Syst. Supvr.  
prepared by vwong


**EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: October 28, 2013

MEMO TO: Members of the Retirement Board

THROUGH: Eric L. Sandler, Director of Finance 

FROM: D. Scott Klein, Controller 

SUBJECT: Statement of Receipts and Disbursements for September 2013

The attached Statement of Receipts and Disbursements report for the month of September 2013 is hereby submitted for Retirement Board approval.

ES/sk

**STATEMENT OF RECEIPTS AND DISBURSEMENTS  
EMPLOYEES' RETIREMENT FUND  
MONTH OF SEPTEMBER 2013**

**CASH BALANCE August 31, 2013** **\$ 3,124,584.80**

**RECEIPTS**

Employees' Contributions	\$	806,695.28	
District Contributions		5,130,670.35	
LAIF Redemptions		4,000,000.00	
Commission Recapture		<u>1,359.99</u>	
<b>TOTAL Receipts</b>			<b>9,938,725.62</b>

**DISBURSEMENTS**

<b>Checks/Wires Issued:</b>			
Service Retirement Allowances	\$	5,468,086.84	
Disability Retirement Allowances		143,589.49	
Health Insurance Benefit		775,002.97	
LAIF Deposits		5,800,000.00	
Administrative Cost		<u>142,037.37</u>	
<b>TOTAL Disbursements</b>			<b>(12,328,716.67)</b>

**CASH BALANCE September 30, 2013** **\$ 734,593.75**

**LAIF** **13,327,010.54**

**LAIF and Cash Balance September 30, 2013** **\$ 14,061,604.29**

**Domestic Equity**

Barrow Hanley	\$	167,256,711.16	
Russell 1000 Index Fund		289,875,081.85	
Russell 2000 Growth Index Fund		21,782,940.18	
Opus		27,267,833.50	
Intech		77,211,466.86	
T. Rowe Price		<u>77,747,678.16</u>	
<b>Subtotal Domestic Equity</b>	\$	<b>661,141,711.71</b>	

**International Equity**

Franklin/Templeton Foreign Fund	\$	113,080,909.55	
Fisher Investments		<u>112,005,052.44</u>	
<b>Subtotal International Equity</b>	\$	<b>225,085,961.99</b>	

**Real Estate**

Real Estate RREEF	\$	22,714,404.00	
Urdang		<u>30,660,553.63</u>	
<b>Subtotal Real Estate</b>		<b>53,374,957.63</b>	

**Fixed Income Managers**

CS Mckee	\$	154,174,367.43	
Western Asset Management Company		<u>81,223,624.81</u>	
<b>Subtotal Fixed Income Managers</b>	\$	<b>235,397,992.24</b>	


**Total for Domestic & International Equities** **1,175,000,623.57**

**MARKET VALUE OF ASSETS at SEPTEMBER 30, 2013** **\$ 1,189,062,227.86**

Respectfully submitted,



**D. Scott Klein  
Controller**

  
S. Lindley-Acctg. Syst. Supvr.  
prepared by vwong

**EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

FROM: Eric Sandler, Director of Finance



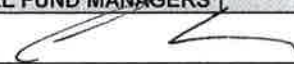
SUBJECT: Investment Transactions by the Counselor for August and September 2013

The attached Investment Transactions by Counselors is for the months of August 2013 and September 2013 is submitted for Retirement Board approval.

Attachment

ES:PL



TRANSACTIONS OF RETIREMENT FUND MANAGERS			
FIXED INCOME MANAGER FUNDS			
<b>August 2013</b>	<b>PURCHASES</b>	<b>SALES</b>	<b>PORTFOLIO VALUE</b>
Western Asset Management Co.	\$14,572,613	\$14,049,756	\$80,330,104
C.S. McKee	\$13,170,204	\$8,364,491	\$153,025,478
<b>TOTAL</b>	<b>\$27,742,817</b>	<b>\$22,414,247</b>	<b>\$233,355,582</b>
<b>September 2013</b>			
Western Asset Management Co.	\$17,852,517	\$17,286,197	\$81,223,623
C.S. McKee	\$12,314,485	\$10,010,668	\$154,174,367
<b>TOTAL</b>	<b>\$30,167,002</b>	<b>\$27,296,865</b>	<b>\$235,397,990</b>
EQUITY MANAGER FUNDS			
<b>August 2013</b>			
<b>DOMESTIC EQUITY</b>	<b>PURCHASES</b>	<b>SALES</b>	<b>PORTFOLIO VALUE</b>
Barrow, Hanley, Mewhinney	\$5,905,000	\$3,546,493	\$163,130,975
Opus Capital	\$873,568	\$902,556	\$26,139,629
Russell 1000 Growth Index Fund	\$0	\$0	\$280,131,265
Russell 2000 Growth Index Fund	\$0	\$0	\$20,367,815
INTECH	\$10,720,083	\$10,744,505	\$73,731,171
T. Rowe Price	\$1,193,630	\$1,388,749	\$72,921,207
<b>Total Domestic Equity</b>	<b>\$18,692,281</b>	<b>\$16,582,303</b>	<b>\$636,422,062</b>
<b>INTERNATIONAL EQUITY</b>			
Franklin/Templeton	\$4,683,187	\$5,739,130	\$106,606,717
Fisher Investments	\$0	\$0	\$104,697,507
<b>Total International Equity</b>	<b>\$4,683,187</b>	<b>\$5,739,130</b>	<b>\$211,304,224</b>
<b>REAL ESTATE EQUITY</b>			
RREEF America II	\$300,141	\$0	\$22,714,404
Urdang	\$2,381,015	\$2,614,173	\$29,651,132
<b>Total Real Estate</b>	<b>\$2,681,156</b>	<b>\$2,614,173</b>	<b>\$52,365,536</b>
<b>TOTAL EQUITY</b>	<b>\$26,056,624</b>	<b>\$24,935,606</b>	<b>\$900,091,822</b>
<b>TOTAL ALL FUND MANAGERS</b>	<b>\$53,799,441</b>	<b>\$47,349,853</b>	<b>\$1,133,447,404</b>
<b>September 2013</b>			
<b>DOMESTIC EQUITY</b>	<b>PURCHASES</b>	<b>SALES</b>	<b>PORTFOLIO VALUE</b>
Barrow, Hanley, Mewhinney	\$876,564	\$536,949	\$167,256,711
Opus Capital	\$858,139	\$848,906	\$27,267,833
Russell 1000 Growth Index Fund	\$0	\$0	\$289,875,081
Russell 2000 Growth Index Fund	\$0	\$0	\$21,782,940
INTECH	\$8,719,176	\$8,620,235	\$77,211,466
T. Rowe Price	\$2,808,914	\$2,859,239	\$77,747,678
<b>Total Domestic Equity</b>	<b>\$13,262,793</b>	<b>\$12,865,329</b>	<b>\$661,141,709</b>
<b>INTERNATIONAL EQUITY</b>			
Franklin/Templeton	\$843,755	\$313,894	\$113,080,909
Fisher Investments	\$10,346,911	\$10,400,851	\$112,005,052
<b>Total International Equity</b>	<b>\$11,190,666</b>	<b>\$10,714,745</b>	<b>\$225,085,961</b>
<b>REAL ESTATE EQUITY</b>			
RREEF America II	\$0	\$0	\$22,714,404
Urdang	\$1,584,745	\$1,639,319	\$30,660,553
<b>Total Real Estate</b>	<b>\$1,584,745</b>	<b>\$1,639,319</b>	<b>\$53,374,957</b>
<b>TOTAL EQUITY</b>	<b>\$26,038,204</b>	<b>\$25,219,393</b>	<b>\$939,602,627</b>
<b>TOTAL ALL FUND MANAGERS</b>	<b>\$56,205,206</b>	<b>\$52,516,258</b>	<b>\$1,175,000,617</b>
Prepared By: 	Date: <b>November 19, 2013</b>		

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R.B. RESOLUTION NO. 6787

RATIFYING AND APPROVING INVESTMENT TRANSACTIONS BY THE COUNSELORS  
FOR MONTHS OF AUGUST, 2013 AND SEPTEMBER, 2013

Introduced by: ; Seconded by:

WHEREAS, Retirement Board Rule No. B-5 provides for investment transactions without prior specific approval by the Retirement Board; and

WHEREAS, investment transactions have been consummated during August, 2013 and September, 2013, in accordance with the provisions of said rule and in securities designated as acceptable by Retirement Board Resolution No. 4975, as amended;

NOW, THEREFORE, BE IT RESOLVED that the investment transactions appearing on the following exhibits are hereby ratified and approved.

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President

ATTEST:

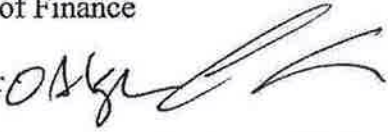
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Secretary

11/19/13

**EAST BAY MUNICIPAL UTILITY DISTRICT**

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**DATE:** September 27, 2013  
**MEMO TO:** Members of the Retirement Board  
**THROUGH:** Eric L. Sandler, Director of Finance  
**FROM:** D. Scott Klein, Controller   
**SUBJECT:** Short Term Investment Transactions for August 2013

The attached Short Term Investment Transactions Report for the month of August, 2013 is hereby submitted for Retirement Board approval.

ES/sk

**EBMUD EMPLOYEES' RETIREMENT SYSTEM  
SHORT TERM INVESTMENT TRANSACTIONS  
CONSUMMATED BY THE TREASURER  
MONTH OF AUGUST 2013**


<u>COST/ FACE VALUE</u>	<u>DESCRIPTION</u>	<u>DATE OF PURCHASE</u>	<u>DATE OF SALE/MAT</u>	<u>YIELD (%)</u>
2,900,000.00	Local Agency Investment Fund	2-Aug-13		0.271
2,900,000.00	Local Agency Investment Fund	16-Aug-13		0.271
(3,500,000.00)	Local Agency Investment Fund		28-Aug-13	0.271
<u>(300,000.00)</u>	Local Agency Investment Fund		29-Aug-13	0.271
<u>\$ 2,000,000.00</u>	Net Activity for Month			

SUBMITTED BY

  
D. Scott Klein  
Controller

DATE

9/27/13

  
S. Lindley, Acctg Sys Supvr


prepared by vwong


**EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: October 28, 2013

MEMO TO: Members of the Retirement Board

THROUGH: Eric L. Sandler, Director of Finance 

FROM: D. Scott Klein, Controller 

SUBJECT: Short Term Investment Transactions for September 2013

The attached Short Term Investment Transactions report for the month of September 2013 is hereby submitted for Retirement Board approval.

ES/sk

**EBMUD EMPLOYEES' RETIREMENT SYSTEM  
SHORT TERM INVESTMENT TRANSACTIONS  
CONSUMMATED BY THE TREASURER  
MONTH OF SEPTEMBER 2013**

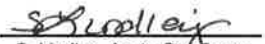
<u>COST/ FACE VALUE</u>	<u>DESCRIPTION</u>	<u>DATE OF PURCHASE</u>	<u>DATE OF SALE/MAT</u>	<u>YIELD (%)</u>
2,900,000.00	Local Agency Investment Fund	13-Sep-13		0.257
2,900,000.00	Local Agency Investment Fund	27-Sep-13		0.257
<u>(4,000,000.00)</u>	Local Agency Investment Fund		30-Sep-13	0.257
<b><u>\$ 1,800,000.00</u></b>	Net Activity for Month			

SUBMITTED BY

  
D. Scott Klein  
Controller

DATE

10/28/13

  
S. Lindley, Acctg Sys Supvr

prepared by vwong

R.B. RESOLUTION NO. 6788

RATIFYING AND APPROVING INVESTMENT TRANSACTIONS BY THE TREASURER  
FOR AUGUST, 2013 AND SEPTEMBER, 2013

Introduced by: ; Seconded by:

WHEREAS, Retirement Board Rule No. B-7 provides for the temporary investment of retirement system funds by the Treasurer or Assistant Treasurer in securities authorized by Sections 1350 through 1366 of the Financial Code or holding funds in inactive time deposits in accordance with Section 12364 of the Municipal Utility District Act; and

WHEREAS, investment transactions during August 2013, and September, 2013 have been made in accordance with the provisions of the said rule;

NOW, THEREFORE, BE IT RESOLVED that the investment transactions consummated by the Treasurer and included on the attached Exhibit A for August 2013, and September, 2013 are hereby ratified and approved.

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President

ATTEST:

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Secretary

11/19/13

## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

FROM: Eric Sandler, Director of Finance



SUBJECT: Adopt Amendment to ERS Investment Policy Statement to Reflect Retirement Board Changes to Strategic Asset Allocation

### RECOMMENDATION

Review and adopt amendments to Resolution 6713 (attached) to reflect the following changes to the long-term asset allocation goal of the Investment Policy:

- Adjust the percentage allocation of each asset class as shown in the table below
- Add the covered calls asset class as part of the long-term asset allocation goal, and
- Add the non-core fixed income asset class as part of the long-term asset allocation goal

	Prior Strategic Allocation Goal	Revised Strategic Allocation Goal
Core Fixed Income	25%	10%
Non-Core Fixed Income	0%	10%
Domestic Equity	50%	40%
Covered Calls	0%	20%
International Equity	20%	15%
Real Estate	5%	5%
Allocation to Cash	0%	0%
Total	100%	100%

### DISCUSSION

At the September 19, 2013 Retirement Board meeting, Pension Consulting Alliance (PCA) presented its findings and recommendations of the Asset-Liability Study (ALS) for review by the Retirement Board. In preparation, PCA presented an Asset Liability Primer to the Board at the July 18, 2013 Retirement Board meeting to review the status of the current portfolio and to prepare the Board to review the ALS.

The ALS attempts to create an optimal asset allocation to accurately reflect the nature of the Retirement System's liabilities and to establish its risk tolerance in selecting a long-term investment strategy and policy asset allocation. The overall goal of the ALS is to create an investment portfolio to provide assets that meet benefits agreed upon both now and in the



future. It was emphasized that strategic asset allocation determines 90% of the investment returns. Asset allocation also provides a long term strategic policy which serves to balance near term needs with long term goals.

As part of the ALS, PCA (along with CDI Advisors – the sub-consultant on the Study) recommended adding three new asset classes to the Plan's existing long-term asset allocation goals. These three new asset classes were: non-core fixed income, covered calls, and real return. PCA constructed five optimized model asset allocation portfolios using these three new asset classes for Board consideration. The ALS utilized non-mean variance return methodology to model the risk, return, and skewness of the asset classes in the System's Investment Policy asset allocation. Based on capital market assumptions and benefit and payroll streams provided by the Retirement System's actuary (Segal & Co.), the ALS made actuarial projections and Monte-Carlo simulations of the Plan's asset-liability performance under various asset allocation scenarios.

The five proposed portfolios, along with the Plan's existing asset allocation, were measured and compared based on the distribution of 10-year returns, year 10 contribution rates, year 10 contributions, PV of 20-year contributions, and year 10 funded ratios. In addition, the proposed portfolios were evaluated based on their returns (as measured by both the arithmetic and geometric returns), risk (Standard Deviation), and risk adjusted performance (Sharpe Ratio). All five of the proposed portfolios scored above the Plan's existing asset allocation, which indicated they would enhance expected returns and reduce risk.

At the September 19, 2013 meeting, PCA and CDI Advisors worked with the Board to model variations of their proposed portfolios. After deliberations, the Board ultimately decided on a revised long-term asset allocation. The revised long-term allocation will have a total of 6 asset classes, consisting of the existing four asset classes (core fixed income, domestic equity, international equity, and real estate) and two new asset classes—covered calls and non-core fixed income. Based on PCA and CDI Advisors Monte Carlo simulations, the revised asset allocation will have the potential to achieve both higher arithmetic and geometric returns with lower volatility (lower standard deviation of returns), resulting in a better Sharpe Ratio than a portfolio using the existing asset allocation. The Board decided not to include the real return asset class due to its over-reliance on fossil fuel related investments.

Attached are proposed revisions to Retirement Board Resolution 6713, incorporating changes in the strategic asset allocation. Staff has added the non-core fixed income and covered call asset classes and updated the percentage allocation goals of each asset class. The proposed revisions include performance indicators for both the non-core fixed income and covered call asset classes. Additionally, the covered call asset class includes a list of eligible securities and options risk control parameters. A similar list of the composition and security type allocation for the non-core fixed income asset class will be developed and added to the Investment Policy in conjunction with the non-core fixed income manager search that will be conducted in calendar year 2014.

In the course of documenting the Board's asset allocation changes, it became clear that the Investment Policy statement could benefit from a thorough review and update. Given the Board's activity with outstanding investment manager searches staff anticipates bringing any recommended enhancements to the Investment Policy statement to the Board for discussion and consideration in calendar year 2014.

Attachments

- Proposed revisions to Retirement Board Resolution 6713
- 2013 Asset Liability Study Recap Memo (PCA)

ES:PL

R.B. RESOLUTION NO. 6789\_\_\_\_\_

AMENDING RETIREMENT BOARD RESOLUTION NO. 6713 PROVIDING FOR  
BASIC INVESTMENT POLICIES AND OBJECTIVES OF THE EAST BAY  
MUNICIPAL UTILITY DISTRICT EMPLOYEES' RETIREMENT SYSTEM TO  
AMEND THE LONG-RANGE ASSET ALLOCATION GOALS

Introduced by:

; Seconded by:

WHEREAS, the voters of the State of California adopted Proposition 21, an amendment to the California Constitution, on June 5, 1984, to be effective January 1, 1985, and the amendment provides the prudent man rule as the investment standard for public agency retirement system programs; and

WHEREAS, Chapter 1738 of the Statutes of the 1984 amended Municipal Utility District Act, thereby bringing the District's Employees' Retirement System into conformity with the provisions of Proposition 21; and

WHEREAS, the Retirement Board has implemented an Investment Policy statement with the provisions of the Constitution and Statutes which accomplishes the following objectives:

1. Set forth investment policies and objectives which the Retirement Board judges to be appropriate and prudent, in consideration of the needs of the Employees' Retirement System;
2. Establish the criteria which the investment management organizations retained by the Retirement System are expected to meet and against which they are to be measured;
3. Communicate the investment policies and objectives and performance criteria to the investment managers; and
4. Serves as a review document to guide the Board's ongoing oversight of the investment of Retirement System's assets.

WHEREAS, it is the practice of the Retirement Board to change its policies and objectives in accordance with changing regulatory, economic, financial and administrative conditions as they change over time; and

WHEREAS, the Retirement Board last amended its Basic Investment Policies and Objectives by enacting Retirement Board Resolution No. 6713 on May 20, 2010; and

WHEREAS, at the September 19, 2013 meeting, the Retirement Board voted to adjust the Retirement Fund's existing asset allocation and add two new asset classes;

NOW, THEREFORE, BE IT RESOLVED, that the following investment policies and objectives of the Retirement System are revised and adopted as follows:

A. General Investment Objectives

The Retirement Fund shall be administered exclusively for the financial benefit of the members of the Retirement System. The long-term objective is to meet member benefit obligations and to minimize funding costs. Funding costs are measured by the ratio of member and District contributions to covered payroll. The following general objectives shall govern investments:

1. Minimize long-term funding costs by investment returns which exceed the actuarial interest rate assumption;
2. Achieve a real or inflation adjusted return of 4% or more above the nationwide Urban Consumers Price Index;
3. Recognize that the Retirement System is relatively risk averse and the System's capital should be preserved. Therefore, the goals of the Employees' Retirement System are to be achieved recognizing safety of principal, liquidity and yield in that order. Assets must be diversified by type and issuer;
4. Achieve the above objectives within a time horizon of three to five years or approximately a full market cycle;
5. Financial derivatives may be used within prudent limits to manage risk, lower transaction costs, or augment returns. Derivative securities should not be utilized by portfolio managers to materially increase a portfolio's risk or duration as characterized by its stated investment style. Portfolio managers are prohibited from taking leveraged positions. Managers that invest in derivatives are required to make quarterly reports on the specific risk exposure to the System; and
6. Remain fully vested. Available cash within the combined portfolio style should not exceed 5%. (Fixed income managers may exceed this 5% for strategic purposes only).

B. Asset Allocation

1. The Retirement Board shall designate multiple investment managers to manage the assets under their supervision subject to the laws of the State of California and the Investment Guidelines established by the Retirement Board. Allocation of assets to the investment managers shall be determined by the Retirement Board to accommodate changing conditions and laws.

2. The long-range asset allocation goal is as follows:

<u>Core</u> Fixed Income	<del>25%</del> <u>10%</u>
<u>Non-Core Fixed Income</u>	<u>10%</u>
Domestic Equity	<del>50%</del> <u>40%</u>
<u>Covered Calls</u>	<u>20%</u>
International Equity	<del>20%</del> <u>15%</u>
Real Estate	5%
Allocation to Cash	0%*

The composite asset allocation goal will be pursued by the Retirement System on a long-term basis and be revised if significant changes occur within the economic and/or capital market environment. Progress toward the goal will be reviewed at least annually.

The Director of Finance is authorized to transfer assets from any asset class which exceeds the long-term asset allocation goal by more than 3% at the end of two or more consecutive quarters allocating the excess assets to a manager or group of managers with the exception of real estate managers. The Director of Finance is further authorized to withdraw assets from assigned managers as necessary to efficiently meet operating needs.

The equity and fixed income asset allocations may range  $\pm$  5% from the long-range asset allocation goals.

The core fixed income target allocation (~~25~~10% of the total portfolio) will primarily consist of U.S. denominated fixed income securities. Individual managers may invest up to 20% of their assets in international fixed income securities.

**The non-core fixed income target allocation (10% of the total portfolio) will primarily consist of U.S. denominated fixed income securities. Individual managers may invest up to 35% of their assets in international fixed income securities. It is expected that this allocation may have a material allocation to below investment grade securities.**

The domestic equity target allocation (~~50%~~ 40% of the total portfolio) will consist of approximately ~~45~~37% in large cap strategies and ~~53% in small cap strategies. It is expected this allocation will allow for exposure to mid cap securities based on tactical decisions by the Retirement Fund's large cap and small cap domestic equity managers.~~

**The covered calls target allocation (20% of the total portfolio) may consist of a combination of the Chicago Board Options Exchange S&P 500 BuyWrite Index (the "BXM Index") replication strategy and/or active non-replication strategies and their underlying domestic equity portfolios.**

The international equity target allocation (~~20%~~ 15% of the total portfolio) will consist of approximately ~~12~~7% in international equities and 3% in emerging markets equities.

The real estate target allocation (5% of the total portfolio) will consist of either equity (ownership) and/or fixed income participation in commercial, industrial, or residential properties. Investments may include interests in mortgages pools secured by loans of underlying properties.

\* The allocation goal recognizes that at any time equity and fixed income managers may have transactional cash on hand and the District will maintain enough cash as working capital to effectively meet cash flow demands on the system. However, there is no specific allocation for cash as all investable cash is allocated to specific investment disciplines.

### C. Investment Category Objectives

#### 1. Core Fixed Income Investments

The objectives for investment of the fixed income portfolio are:

- a. Preserve capital and provide a ~~high~~ reasonable level of income on a consistent basis;
- b. Earn an average annual return from income and capital appreciation net of management fees which exceeds 50 basis points of the Barclay's US Universal-Aggregate Bond Index;
- c. Achieve performance results that will rank in the top third of fixed income results achieved by a peer group of investment managers and counselors;
- d. Achieve a minimum long-term rate of return which shall exceed the inflation rate as measured by the nationwide Urban Consumers Price Index by 3%; and
- e. Achieve the above objectives within a time horizon of a minimum of three to five years or approximately a full market cycle.

Holdings of securities issued by the United States Government or any of its agencies need not be diversified. Securities of any one issuer with maturities of more than one year, other than the United States Government or any of its agencies, shall not exceed 5% of the value of the total portfolio. Securities of any one issuer of foreign government issues shall not exceed 10% of the value of the total portfolio at the time of purchase. Fixed income managers have the authority to make international investments, not to exceed 20% of their total portfolio.

The use of futures and options in the fixed income accounts may be used as part of their portfolio management strategy and will be incidental to their securities trading activities. The resulting aggregate risk profile (volatility) of the portfolio will not be different from that permissible by using securities only.

Short (sold) options positions will generally be hedged, either with current portfolio security holdings, other options or futures options. Mortgage derivatives with significant short option characteristics will not exceed 5% of the portfolio, and will generally be a) offset by positions in other mortgage derivatives, or b) offset by other portfolio positions.

No derivatives will be executed which will increase the value at risk of the portfolio by more than 25 basis points of the portfolio's market value.

Structured notes with significant short options positions or increasing leverage will not be purchased, and in no case will structured notes exceed 5% of portfolio value. *Structured Notes issued by the U.S. Government (Treasuries & Agencies) will be considered allowable investments, and are restricted to 25%.*

Fixed income managers are authorized to use futures and options contracts to supplement their investment capabilities to provide flexibility in managing the fixed income portfolios and reduce the cost of implementing strategies to respond to changing market conditions without incurring the higher transaction costs associated with buying and selling specific securities. These transactions are authorized to enable the manager to reduce the exposure of the portfolio to interest rate changes by reducing or increasing the duration of the portfolio without selling any of the actual holdings.

No more than 5% of the portfolio will be invested in original futures margin and options premiums, exclusive of any in-the-money portion of the premiums.

## **2. Non-Core Fixed Income**

**The objectives for investment of the non-core fixed income portfolio are:**

- a. **Diversify the total portfolio, by reducing exposure to increasing interest rates, provide current income, and to earn, over time, an average annual total rate of return which is equal to or exceeds net of management fees T-Bills plus 4%.**
- b. **Provide a high level of income consistent with capital preservation;**
- c. **Minimize exposure to interest rate risk,**

- d. **Achieve the above objectives within a time horizon of a minimum of three to five years or approximately a full market cycle.**

### 3. Domestic Equity Investments

The objectives for investment of the blended equity portfolios are:

- a. Achieve a total return net of management fees which exceeds the Russell 3000 Index;
- b. Achieve a minimum long-term rate of return which shall exceed the inflation rate as measured by the nationwide Urban Consumers Price Index by 4%;
- c. Achieve performance results which will rank in the top third of investment managers which utilize a similar investment style; and
- d. The use of futures and options in the domestic equity accounts may be used for hedging purposes as part of their portfolio management strategy and will be incidental to their securities trading activities.

Each equity portfolio shall be diversified. When fully invested in equities or at its normal level of investment, a minimum of 20 securities should be held. At no time may a single equity investment exceed 5% of the value of the total retirement fund.

### 4. International Equity Investments

- a. Achieve a total return net of management fees which exceeds the Morgan Stanley Capital International (MSCI) ACWI x U.S. Index;
- b. Achieve a minimum long-term rate of return which shall exceed the inflation rate as measured by the nationwide Urban Consumers Index by 5%;
- c. Achieve performance results which will rank in the top third of a peer group of international investment managers; and
- d. Currency hedging will be permitted as part of a defensive strategy to protect an international equity portfolio.

Each international equity portfolio shall be diversified. When fully invested in international equities or at its normal level of investment, a minimum of 20



securities should be held. At no time may a single international equity investment exceed 5% of the value of the total retirement fund.

## **5. Covered Calls**

**The objectives for investment of the blended covered call portfolios are:**

- a. **For active managers, the performance objective is to outperform the benchmark, net of all fees, over 3-5 years.**
- b. **For replication managers, the performance objective is to match the benchmark, gross of fees, over 3-5 years.**
- c. **For replication managers, the volatility of their portfolio's incremental return compared to that of the benchmark should not exceed 2.0% annualized over 3-5 years.**
- d. **The Covered Calls class shall have a benchmark index of the Chicago Board Options Exchange S&P 500 BuyWrite Index (the "BXM Index").**
- e. **Derivatives used for risk control and income are permitted. However, the notional value of the options may not exceed the total value of the underlying equity portfolio.**
- f. **All holdings will be of sufficient size and held in issues that are traded actively enough to facilitate transactions at minimum cost and accurate market valuation.**

### **Eligible Securities for covered calls.**

**Portfolios should consist of three components: underlying equity, call options, and cash. The underlying equity should be designed to gain broad market exposure. This can be accomplished through individual stock ownership, or the utilization of ETFs to gain broad market exposure. No purchase should be made that causes an individual security to exceed 5% of the underlying equity portfolio, where those securities constitute less than 3% of the current market capitalization of the S&P 500 Index, unless an ETF is employed. Call options may be used to provide income and risk control. The notional value of the options may not exceed the total value of the underlying equity portfolio. Call options may only be written on domestic stock indices, broad market or sector ETFs, and individual domestic stocks that are held in the underlying portfolio. Managers may purchase back options in order to close out positions. Cash may exist as an intermediary component from additional funding or option premiums. The balance**

**should not normally exceed 5% of the manager's total portfolio. Leverage may not be used.**

D. Investment Performance Evaluation

1. There shall be a continual review of the investments under management. The Board or its designated Administrative and Investment Committee shall confer with the investment managers) at least annually to review Fund investments and the current market environment. Each investment manager shall report pertinent data relating to the account on at least a quarterly basis.
2. Retirement System assets shall be reported at fair market value. Records of amortized cost shall also be maintained. Rates of return shall include net income, realized gains and losses and unrealized appreciation and depreciation.
3. Performance results for the total Retirement Fund, and for each investment manager shall be calculated and evaluated quarterly. A special target index will be created and utilized to measure the performance results of the portfolio and will be included in evaluation reports. The special target index will consist of and be weighted as follows: 50% Russell 3000 Index; 20% MSCI ACWI Index; 25% Barclay's US Universal Bond Index; and 5% NCREIF. This target benchmark index reflects the asset allocation goal established by the Retirement Board.
4. Performance results shall be presented to show:
  - a. The degree to which portfolios and investment managers have achieved Retirement Board investment objectives;
  - b. That the investment managers' strategy has been consistent with their stated philosophies; and
  - c. How the total portfolio and the individual managers performed in comparison with other pension funds and peer managers.

E. Monitoring

The following procedures are intended to provide the Board with a decision-making framework to monitor its managers. The Board will continue to evaluate and to make decisions regarding its managers on a case-by-case basis.

## 1. Periodic Monitoring

The Board has decided to review several qualitative aspects of an investment manager's investment management practices. Key qualitative indicators of possible inconsistency include, but are not limited to:

- a. Changes in investment strategy and style,
- b. Instability of investment manager personnel and organization
- c. Unusual portfolio activity, trading volume, and execution costs,
- d. Risk and performance characteristics not logically explainable in terms of the published style or out-of-step with manager's style peer group, and
- e. Failure to comply with all investment guidelines.

None of these indicators may be taken as conclusive evidence of inconsistency. Such a finding would be based upon the facts and circumstances of each situation.

## 2. Ongoing Monitoring

The Board has decided to evaluate investment performance on an ongoing basis using investment performance criteria relative to fund-specific benchmarks over varying periods of time by asset class. Performance criteria are applicable based on the length of the Retirement System's performance history (see table on next page).

### Investment Performance Criteria by Asset Class

Asset Class	Short-term (rolling 12 month periods)	Medium-term (rolling 36 month periods)	Long-term (60+ months)
<b><u>Core</u></b> Fixed Income	Fd return < bench return- 1.5%	Fd annlzd return < bench annlzd return -1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months
Passive <b><u>Core</u></b> Fixed Income	Tracking Error > .25%	Tracking Error > .20% for 6 consecutive months	FD annlzd return < bench annulzd return -0.30% for 6 consecutive months
<b><u>Non-Core Fixed Income</u></b>	<b><u>Fd return &lt; bench return-4.5%</u></b>	<b><u>Fd annlzd return &lt; bench annlzd return -2.0% for 6 consecutive months</u></b>	<b><u>VRR &lt; 0.97 for 6 consecutive months</u></b>
Active Domestic Equity	Fd return < bench return - 3.5%	Fd annlzd return < bench annlzd return -1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive Domestic Equity	Tracking Error > 0.03%	Tracking Error > .25% for 6 consecutive months	FD annlzd return < bench annulzd return -0.40% for 6 consecutive months
<b><u>Active Covered Calls</u></b>	<b><u>Fd return &lt; bench return - 3.5%</u></b>	<b><u>Fd annlzd return &lt; bench annlzd return -1.75% for 6 consecutive months</u></b>	<b><u>VRR &lt; 0.97 for 6 consecutive months</u></b>
<b><u>Replication Covered Calls</u></b>	<b><u>Tracking Error &gt; .30%</u></b>	<b><u>Tracking Error &gt; .25% for 6 consecutive months</u></b>	<b><u>FD annlzd return &lt;=</u> <b><u>bench annulzd return -</u> <b><u>0.40% for 6 consecutive</u> <b><u>months</u></b></b></b></b>
<b><u>International Equity</u></b>	<b><u>Fd return &lt; bench return-4.5%</u></b>	<b><u>Fd annlzd return &lt; bench annlzd return -2.0% for 6 consecutive months</u></b>	<b><u>VRR &lt; 0.97 for 6 consecutive months</u></b>

### 3. Implementation of Monitoring Procedures

A manager having performance that fails to meet the above criteria may be subject to a heightened level of monitoring. During this heightened level of monitoring, the Retirement Board may: i) instruct the manager to present in writing and/or before the Board reasons for the underperformance, and/or ii) have the investment consultant provide the Board with documentation that discusses the factors contributing to the manager's underperformance. Once the Board has considered these factors, it may want to consider placing the manager on probation.

If a manager is placed on probation, three actions are then generally available to the Retirement Board: 1) to release a manager from probation, 2) to extend probation in order to determine whether any changes are improving performance, or 3) to terminate the manager if it has been unable to exhibit improvement in performance (generally within a time from of twelve to eighteen months, if not sooner). Any of these actions would be supported by additional documentation (produced by the investment consultant and/or Staff). This document would highlight the original reasons for placing the manager on probation and discuss

how these issues have or have not been addressed. Underperformance would be evaluated in light of the manager's stated style and discipline.

If the Retirement Board determines (with advice from the consultant) the manager is unlikely to meet the above performance criteria and/or one of the qualitative indicators of inconsistency is violated without signs of improvement (see Periodic Monitoring), the manager may be terminated.

F. Commission Recapture Program

The District has determined that investment managers should be encouraged to direct approximately 25% of their trades through brokers specified by the District. This may allow the Retirement System to recapture some of the commission costs. It should be understood that the trades should be executed on a competitive basis to ensure best execution and to limit commission costs.

Investment managers should also recognize that it is the intent of the District to encourage the growth and development of M/WBE firms when prudently possible. Investment managers are encouraged to execute trades through M/WBE firms. Such trades must be executed on a competitive basis to ensure best execution and to limit commission costs.

All investment managers are invited to participate in the development and review of evaluation criteria. The Retirement Board invites comments on any of its policies or practices and considers this a communication responsibility of the managers.

G. Placement Agents

1. Prior to contract execution, investment managers retained by the EBMUD Retirement Board and its investment advisors, must disclose the following in accordance with Sections 20098, 31528, 7508.57513.8 7513.85, 7513.9, and 7513.95 of the Government Code:
  - a. Retention of placement agents defined as any person or entity hired, employed, or engaged by or acting on behalf of an external manager as a finder, solicitor, marketer, consultant, broker or other intermediary to raise money or investments from or to obtain access to the EBMUD Retirement Board.
  - b. The fees or compensation paid to placement agents, or person or entities as described above and the services they performed.
  - c. The resume for each officer, partner, or principal of the placement agent detailing the person's education, professional designations, regulatory licenses, and investment and work experience.

- d. A statement as to whether the placement agent, or any of its affiliates, is registered with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or any similar regulatory agent in a country other than the United States, and the details of that registration, or an explanation as to why no registration is required.
  - e. A statement as to whether the placement agent, or any of its affiliates, is registered as a lobbyist with any state or national government.
  - f. All campaign contributions and/or gifts made by placement agents, or any of its affiliates to EBMUD Employees' Retirement System (EBMUDERS) Board Members during the prior 24-month period, and any subsequent campaign contributions to the Board or its Members during the time the placement agent is receiving compensation in connection with providing an investment to the EBMUDERS.
- 2. All investment managers must provide written confirmation that they are in compliance with this Policy and complete forms as required by the EBMUDERS.
  - 3. An external investment manager who violates this policy is prohibited from soliciting new investments from EBMUDERS for five years from the date of violation. However, the Retirement Board may reduce this prohibition, by majority vote, at a public session upon a showing of good cause that such action is consistent with the Board's fiduciary duties.
  - 4. Retirement Board Members, and employees of the Board including investment officers, retirement administrators, and legal counsel are prohibited from selling investment products to EBMUDERS or any other public retirement system while they are Members of the EBMUDERS Board or staff to the Board, and for two years after leaving the Board or employment with the Board.

BE IT FURTHER RESOLVED that Retirement Board Resolution No.6713 and any resolution or parts of resolutions in conflict herewith are rescinded.

ADOPTED this 19th day of November, 2013 by the Retirement Board.

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President

ATTEST:

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Secretary



## MEMORANDUM

To: East Bay Municipal Utility District (EBMUD)

Date: November 3, 2013

From: Pension Consulting Alliance, Inc. (PCA)

cc: Eric White, CFA – PCA  
Neil Rue, CFA – PCA

**RE: 2013 Asset Liability Study Recap Memo**

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**Summary**

At the September 19<sup>th</sup> EBMUD Employees' Retirement Board meeting, PCA conducted an asset liability study presentation in concert with specialty asset liability modeling firm, CDI Advisors. The asset liability study looked at the projections of the Plan's liabilities and funding status utilizing the Plan's current long-term asset allocation as well as alternative allocations developed by PCA and CDI. As part of the process the Board reviewed various investment strategy options and, subsequently, adopted a new long-term asset allocation goal. Previously, at the Board's meeting on July 18<sup>th</sup>, PCA had presented an asset liability primer highlighting the asset liability modeling process as well as strategic class assumptions. After discussing the assumptions, the Board gave PCA direction to utilize them in the strategic portfolio selection process.

The Board elected to make two material adjustments to the strategic investment allocations. The most significant change is the inclusion of a new Covered Calls class that will represent twenty percent of the strategic asset allocation policy. The new Covered Call allocation will be funded through the reduction of Domestic and International equities as well as Fixed Income. In addition to the new Covered Call allocation, the Board elected to allocate ten percent of the strategic asset allocation policy to "non-Core" (Opportunistic) Fixed Income. The new non-Core Fixed Income allocation will be funded through the reduction of Core Fixed Income assets. The following chart depicts the current long-term asset allocation goal prior to the September 19, 2013 Board meeting and the newly adopted long-term asset allocation goal.

<i>Asset Class</i>	<i>Prior</i>	<i>Adopted</i>
Core Fixed Income	25%	10%
Non-Core Fixed Income	0%	10%
Domestic Equity	50%	40%
Covered Calls	0%	20%
International Equity	20%	15%
Real Estate	5%	5%
Cash	0%	0%





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## Discussion

The September 19<sup>th</sup> asset allocation presentation included both a conceptual review and an analysis of various portfolio options, factoring in both forward-looking capital market assumptions as well as projections of the Retirement Plan's financial characteristics under a short list of potential policy portfolio options.

The study utilized capital market assumptions that allowed for the modeling of various strategic classes exhibiting non-mean-variance characteristics. In other words, where traditional procedures would have relied upon the assumption that asset returns behaved as if they exhibited a normal bell-shaped distribution, the procedures utilized in the study allowed asset returns to vary away from the standard normal distribution. For example, it is well known that equity investments exhibit “fat tails” (beyond what is expected under the normal distribution) particularly during market crises. PCA's approach allowed for the modeling of various fat tails and other distribution patterns across EBMUD's potential investment classes. Several strategic classes, such as public equity, public fixed income, real estate, and covered calls exhibit non-normal return behavior. Incorporating such non-normal return distributions into the modeling process provides a better assessment of overall plan risk, particularly from a downside risk standpoint.

The model also incorporated asset classes not currently utilized within the EBMUD Plan. The three asset classes modeled within the study were Covered Calls, Non-Core Fixed Income, and Real Return. The unique characteristics of each asset class are as follows:

**Covered Calls** – Covered Calls are a hybrid public equity class whose return pattern varies markedly from public equity during market extremes (either strong bull markets or strong bear markets). Under a bull market scenario, Covered Calls underperform public equity, but still tend to produce substantial upside returns. During a bear market scenario, Covered Calls are likely to decline in value, but only at about half the rate as public equity, saving investors substantial amounts of principal loss. As a result of these tendencies, Covered Calls tend to compound at a smoother rate than public equities, allowing for a high potential amount of wealth creation over a long-horizon holding period (say, 10+ years). Under all policy options reviewed, Covered Calls received a material allocation (at least 10%). This finding indicates that the non-normal return behavior feature of Covered Calls should provide some long-term benefit to EBMUD. The Board adopted a 20% strategic allocation to Covered Calls.

**Non-Core Fixed Income** – Non-Core Fixed Income is a broad categorization of Fixed Income assets that are generally not well represented within the BC Aggregate Index, the most common measure of Core Fixed Income assets. The BC Aggregate Index is comprised predominately of Government securities (42%), Agency MBS (28%), and Corporate securities (20%), with various other holdings comprising the remainder. The index has an average maturity of approximately 6.7 years resulting in an effective duration of approximately 5 years. The central rationale for allocating away from Core Fixed Income into non-Core Fixed Income is the presence of uncompensated risk within Core Fixed Income mandates due to their benchmarking to the BC Aggregate Index. The Federal Reserve's unprecedented monetary policy has created an exceedingly asymmetric risk-reward profile for Core Fixed Income. By moving to a non-Core Fixed Income mandate the Board is freeing the investment

managers to invest in areas that they view are well compensated for the risks involved while not forcing them to take uncompensated risk in order to stay close to their benchmark in terms of allocation and characteristics. The composition of a non-Core Fixed Income allocation could vary greatly depending on how the Board chooses to allocate within the Broad categorization. The Board adopted a 10% strategic allocation to Non-Core Fixed Income.

**Real Return** – Real Return is a broad categorization of assets that exhibit positive correlations to inflation. The goal of a Real Return class is to generate a modest absolute return in most market environments and perform exceptionally well in rising inflation environments. The Real Return asset class incorporates a number of sub-asset classes that greatly vary but all have similar positive correlation to inflation. Typical sub-asset classes utilized within Real Return are TIPS, Commodities, Infrastructure, Timber, Master Limited Partnerships (MLPs), and absolute return/real return Hedge Funds. The ultimate composition of a Real Return class is dependent on the preferences of the Board and can be geared towards certain market exposures. The Board elected not to allocate to Real Return given the Board's concern over exposure to fossil fuels.

Once the capital market and non-mean-variance characteristics assumptions were established by PCA, CDI advisors optimized these “asset-side” inputs along with the “liability-side” inputs provided by the Plan's actuary Segal & Co. CDI ran the model through ten thousand simulations arriving at four mean-variance optimized portfolios. The mean-variance portfolios had expected arithmetic returns between 7% and 7.75%. In addition, PCA requested one additional portfolio (policy option C) be included that was not mean-variance optimized but accounted for some plan specific aspects. A summary of the current portfolio as well as the mean-variance portfolios is provided below.

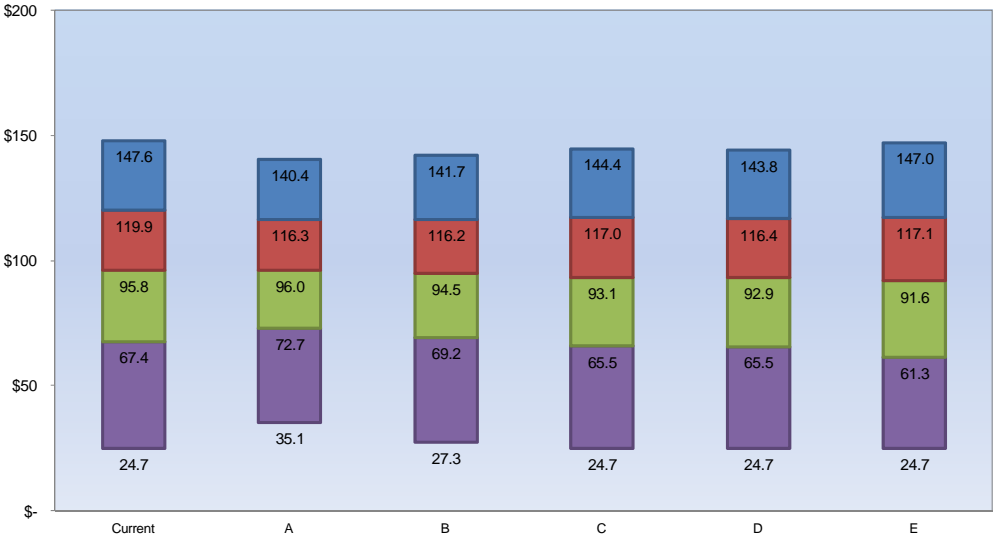
#### **Summary of Asset Allocation Options**

	<b><u>Current</u></b>	<b><u>A</u></b>	<b><u>B</u></b>	<b><u>C</u></b>	<b><u>D</u></b>	<b><u>E</u></b>
Cash	0%	1%	1%	1%	1%	1%
Core Fixed Income	25%	15%	11%	10%	10%	10%
Opportunistic Fixed Income	0%	0%	4%	5%	5%	5%
Real Estate	5%	10%	10%	10%	10%	5%
Real Return	0%	12%	8%	5%	3%	0%
Domestic Equity	50%	32%	36%	39%	41%	51%
Covered Calls	0%	15%	15%	10%	15%	13%
International Equity	20%	15%	15%	20%	15%	15%
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
Arithmetic Return	7.18%	7.00%	7.25%	7.49%	7.50%	7.75%
Standard Deviation	13.50%	11.37%	12.12%	13.18%	12.98%	14.14%
Sharpe Ratio	0.53	0.62	0.60	0.57	0.58	0.55
Geometric Return	6.31%	6.39%	6.55%	6.67%	6.70%	6.80%

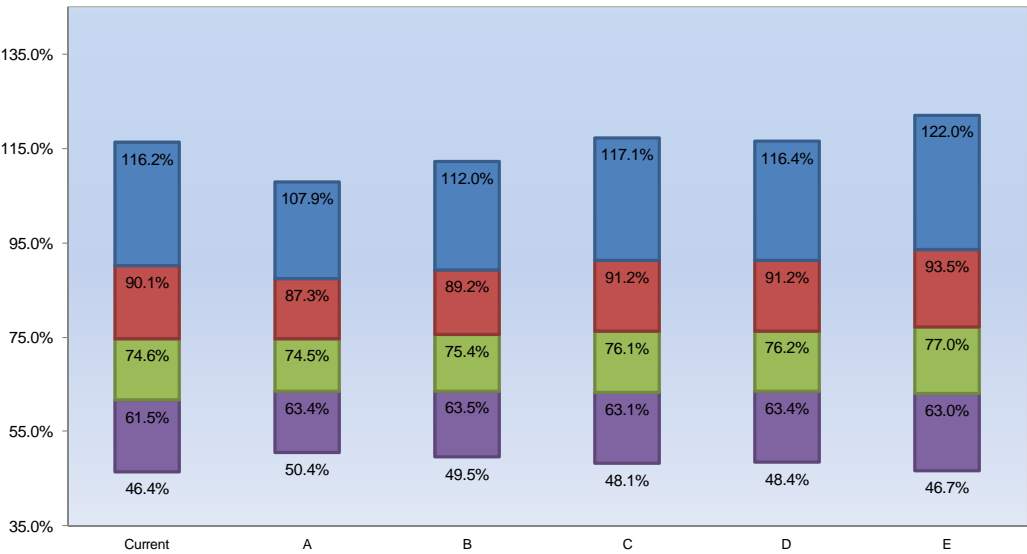



From the previous table we can see that policy portfolios B through E produce higher expected returns than the current policy portfolio. In addition, policy portfolios A through D produce significantly less risk than the current policy portfolio. As such, policy portfolios B, C, and D produce both higher expected returns while having lower expected risk than the current policy portfolio. Put differently, policy portfolios B, C, and D are more efficient portfolios than the current portfolio. This higher efficiency can be seen in the following charts. The first chart highlights the lower expected plan contributions for the more efficient portfolios while the second chart highlights the improvement in the Plan's funded status with the more efficient portfolios. Both charts highlight the potential gain that can be achieved by moving from the current policy portfolio to a more efficient portfolio.

**Contributions (\$mil) Year 10**



**Funded Ratio Year 10**





Considered together, the data highlights that each of these allocations offer a competitive alternative to the current allocation. Therefore, a key distinguishing feature among the allocation options is the strategic tools that the Board might have available, at the margin, to influence the overall portfolio's return pattern.

After discussing the various financial tradeoffs among the allocation options, including the current allocation, PCA and CDI suggested that the Board also look at adjusting the asset allocations within the different options through the use of CDI's dynamic model which allows for on-the-fly adjustments in the allocation. This kind of analysis is highly informative as it allows the Board to directly see how small changes in the asset allocation affect the long-term expected performance of the portfolio. This type of analysis also allows the Board to directly input their preferences and risk tolerances into the asset allocation. For example, given the Board's aversion to the Real Return class, due to its exposure to fossil fuels, the Board was able to model portfolios without allocating to the Real Return class. The Board went through numerous iterations of this process, examining the strengths and weaknesses of different alterations in the asset allocation. Ultimately, the Board elected, as the new long-term asset allocation goal, a portfolio that had expected returns and risk similar to that of the mean-variance optimized allocations PCA/CDI presented but accounted for the different preferences of the individual Board members (aversion to the Real Return class). A summary of the adopted long-term asset allocation goal compared to the current long-term asset allocation goal can be seen in the following chart

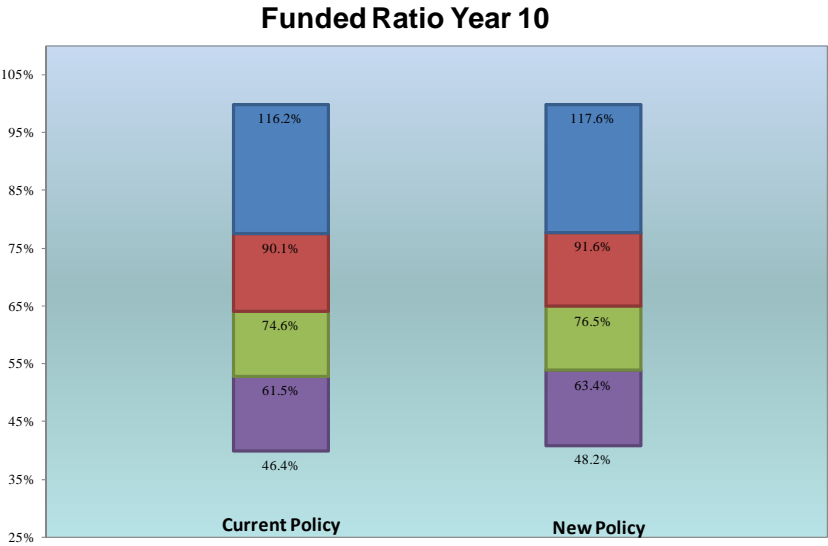
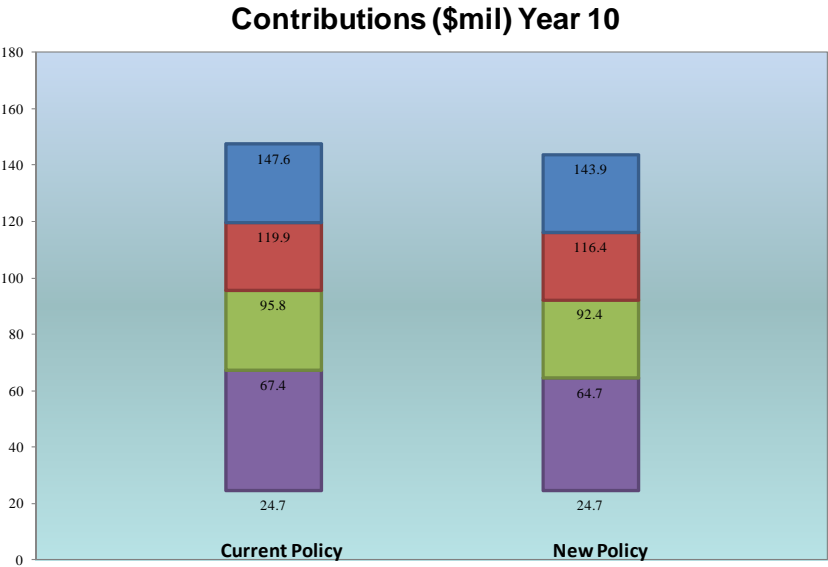
#### **Summary of Long-Term Asset Allocation Goals**

	<b><u>Prior</u></b>	<b><u>Adopted</u></b>
Core Fixed Income	25%	10%
Non-Core Fixed Income	0%	10%
Domestic Equity	50%	40%
Covered Calls	0%	20%
International Equity	20%	15%
Real Estate	5%	5%
Cash	0%	0%
<i>Total</i>	<i>100%</i>	<i>100%</i>
Arithmetic Return	7.18%	7.58%
Standard Deviation	13.50%	13.23%
Sharpe Ratio	0.53	0.57
Geometric Return	6.31%	6.75%

As can be seen in the previous chart the adopted long-term asset allocation goal has a significantly higher expected rate of return as well as a lower expected level of risk than the prior long-term asset allocation goal. This results in a significantly higher expected Sharpe Ratio (a measure of return for unit of risk) for the adopted allocation relative to the current allocation. This higher efficiency can be



seen in the following charts. The first chart highlights the lower expected plan contributions for the adopted allocation relative to the prior allocation. The second chart highlights the improvement in the Plan’s expected funded status with the adopted allocation relative to the prior allocation. Both charts highlight the potential gain expected to be achieved by moving to the new more efficient adopted allocation selected by the Board.





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## Considerations of the Adopted Long-term Asset Allocation Goal

The new adopted long-term asset allocation goal raises a number of issues that need to be addressed over the course of the implementation process. They are as follows:

- Update Investment Policy – Given the changes between the current long-term asset allocation goal and the adopted long-term asset allocation goal the Investment Policy will need to be updated to reflect the adopted allocation as well as the addition of new asset classes. Staff and PCA will work to make the appropriate edits to the Investment Policy before the funding of the Covered Call mandate.
- Covered Call Search – Since Covered Calls is a relatively liquid strategic class, funding of the class should be completed relatively quickly. PCA and Staff believe the Covered Calls class will be implemented before 1Q 2014.
- Introduction of non-Core Fixed Income. PCA will be providing further education regarding the alternative methods of implementing a non-Core Fixed Income mandate within the 1Q 2014 timeframe. A manager search will be conducted shortly thereafter.
- Transition manager – Given the size of the Covered Call allocation a material portion of the current allocation will be transferred to the new Covered Call manager(s). Because of the size of this reallocation, PCA recommends the use of a transition manager. A transition manager can efficiently transfer assets from one mandate to another ultimately decreasing the cost of the reallocation. The Plan's custodian, Northern Trust, can act as transition manager. In addition, it may be prudent to get competing bids from other transition management firms. Staff and PCA can work together to determine the appropriateness of utilizing a transition manager as well as collect bids for the service and make a recommendation on the provider.

## Conclusion

At the September 19<sup>th</sup> EBMUD Employees' Retirement Board meeting, the Board adopted a new long-term asset allocation goal. The adopted allocation is expected to produce superior returns to the current allocation while exhibiting less risk. The adopted allocation introduces two new asset classes, Covered Calls and non-Core Fixed Income.

## **EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

FROM: Eric Sandler, Director of Finance 

SUBJECT: Interview and Select Investment Managers for Covered Call Asset Allocation

### **RECOMMENDATION**

Consider potential covered call investment strategies. Interview a short list of four investment managers recommended by the Administrative and Investment Committee. Select a team of covered call investment managers.

### **BACKGROUND**

At its September 19, 2013 meeting, the Retirement Board adopted changes to its long-term asset allocation, adding two new asset classes—covered calls and non-core fixed income. In addition to directing staff to incorporate changes into the Investment Policy, the Board directed PCA to conduct an investment manager search for the covered call asset class. PCA issued an RFI for investment managers and presented the responses for consideration by the Administrative and Investment Committee. After discussion, the committee approved inviting a short list of four covered call managers to be interviewed by the Retirement Board at the November 19, 2013 meeting. The target allocation for the covered call portion of the Investment Policy is 20% of total investments, currently approximately \$220 million.

### **DISCUSSION**

The attached memo from PCA describes the due diligence and evaluation process utilized to identify, assess, and recommend the list of the covered call managers invited to make presentations to the Board. PCA issued RFI's to 12 investment management firms and received responses from the original 12 firms plus 3 additional firms not included in the original solicitation. These 15 firms submitted a total of 22 proposed strategies for consideration. The 22 proposals can be grouped into three distinct strategies:

- **BXM Index Replication Strategies**— which seek to replicate the BXM Index (also known as the Chicago Board Options Exchange CBOE S&P 500 BuyWrite Index), which is an industry standard Covered Call strategy that consists of buying the S&P 500 Index and selling at-the-money S&P 500 one-month call options;
- **Semi-Active/Modified BXM Replication Strategies** – which are similar to BXM Index Replication except that managers have discretion on the call options that are written; and

## Consideration and Selection of Covered Call Investment Managers

November 19, 2013

Page 2

- Fully Active Strategies - which are based on holding underlying equities not restricted to those in the S&P 500 Index and actively managing the options written on the underlying equities.

On November 6, 2013 the Administrative and Investment Committee met to discuss these strategies and to recommended the following list of managers to be invited to make presentations at the Retirement Board meeting on November 19, 2013:

- BXM Index Replication Strategies
  - Gateway Investment Advisers
  - Parametric Risk Advisors/Parametric Portfolio Associates
- Non-Replication Strategies
  - Gateway Investment Advisers (Semi-Active Strategy)
  - Glenmede Investment Management (Semi-Active Strategy)
  - Parametric Risk Advisors/Parametric Portfolio Associates (Semi-Active Strategy)
  - Van Hulzen Asset Management (Fully Active Strategy)

A representative from PCA will also be at the Retirement Board meeting on November 19, 2013 to discuss their recommended approach to implementing the covered call asset class, potential strategies, evaluation of managers as well as the hiring and transition process.

### Attachments

Minutes of November 6, 2013 Administrative Investment Committee Meeting  
Presentation from PCA on Covered Call Manager Search  
Presentations from Covered Call Manager Finalists

ES:PL





## MEMORANDUM

Date: November 7, 2013

To: East Bay Municipal Utility District (EBMUD)

From: Pension Consulting Alliance, Inc. (PCA) cc: Eric White, CFA – PCA  
Neil Rue, CFA – PCA

**RE: Covered Call Manager Search Candidates**

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This memo provides EBMUD with a summary of the Covered Call Manager Request-For-Information (RFI) process and provides a review of the finalist candidates.

**Recommendation**

PCA recommends that the Investment Committee select up to three managers of the following Covered Call managers to manage a total of approximately \$220 million. The candidates listed below were selected based on PCA's review of the manager responses to the EBMUD's Covered Calls RFI.

**Covered Call Candidates\***

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**Non-Replication Strategies**

- Gateway Investment Advisers (Gateway)
  - Semi-Active Strategy
- Glenmede Investment Management (Glenmede)
  - Semi-Active Strategy
- Parametric Risk Advisors / Parametric Portfolio Associates (Parametric)
  - Semi-Active Strategy
- Van Hulzen Asset Management (Van Hulzen)
  - Fully Active Strategy

**Replication Strategies**

- Gateway Investment Advisers (Gateway)
- Parametric Risk Advisors / Parametric Portfolio Associates (Parametric)

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\*Alphabetical



## **Summary**

The EBMUD Board recently adopted a new long-term strategic allocation policy as a result of the 2013 Asset-Liability Study, adding two new strategic classes: Covered Calls and Non-Core Fixed Income. The Covered Call asset class is an equity-based asset class that is designed to provide a reasonable level of downside protection during crises, while providing incremental income during flat-to-modestly rising markets.

In October 2013, PCA disseminated a Request-For-Information (RFI) to a short-list of Covered Call managers. The RFI was designed to give managers the opportunity to respond for either the replication or non-replication portion of the mandate – or both. A total of 15 firms responded to the RFI, including 3 additional firms who were not included on our initial short-list but requested the opportunity to respond. The 15 firms submitted 22 total strategies for our consideration (some firms responded with both a replication strategy as well as a non-replication strategy or multiple non-replication strategies). Of the 22 strategies submitted 5 are replication strategies while 17 are non-replication strategies.

At November 6, 2013 the EBMUD Investment Committee selected 4 candidates to be interviewed by the EBMUD Board at the November 19<sup>th</sup> Board meeting. The Investment Committee reviewed the difference between replication strategies and non-replication strategies, as well as thoroughly reviewed the RFI respondents. After careful review of the respondents, the Investment Committee elected to interview 4 candidates: Gateway, Glenmede, Parametric and Van Hulzen. Gateway and Parametric offer both replication and non-replication strategies, while Glenmede and Van Hulzen offer only non-replication strategies. PCA has confidence in all 4 firms selected and believe each one represents value within the space.

A key decision the Board will need to make is to determine whether to pursue a replication strategy or a non-replication strategy. The following descriptions define a replication strategy, and the two basic subsets of non-replication strategies:

### **Replication**

#### *BXM Replication:*

- A rules-based strategy that replicates the CBOE S&P 500 BuyWrite Index (BXM). This index is an industry-standard Covered Calls strategy that consists of buying the S&P 500 Index, and “writing” (or selling) the near-term S&P 500 Index covered call option, generally on the third Friday of each month. The covered call option is an obligation to sell if the index reaches the exercise price (or strike price). The option will have one-month expiration, with an exercise price just above the prevailing index level (“near-the-money”). The option is held until expiration, at which time a new one-month “near-the-money” call is “written” (or sold).



## Non-Replication

### *Semi-Active Strategies:*

- A strategy that is similar to the BXM Index, in which the underlying equity holding remains the same (S&P 500), but the rules for the exercise price, roll date, and option maturity are adjusted at the manager's discretion.

### *Fully Active Strategies:*

- An option-based strategy in which the underlying equity holding is not restricted to the S&P 500 Index, and may consist of a basket of stocks or a basket of ETFs. Additionally, the manager actively selects the options and their corresponding characteristics, including the possibility of pursuing option-based investment strategies other than "writing" (or selling) calls.

## **Manager Search Process**

In response to the RFI, PCA received responses from the 15 firms listed in Table 1 on the following page. Table 1 includes the firm names, as well as their proposed strategy types. PCA first examined the historical track records of the proposing managers in order to determine their experience in managing Covered Call mandates. The historical track records included those that represented the proposed strategies, as well as any equivalent Covered Call strategies managed by the proposing managers. Of the 22 strategies submitted, 6 strategies were disqualified from further consideration due to either insufficient track records or inappropriateness of the strategy. The remaining strategies were then analyzed on a quantitative and qualitative basis in order to determine a recommended list of finalists to be interviewed by EBMUD. Responses were evaluated on a wide variety of factors, which included, but were not limited to the following:

### **Areas of Due Diligence**

- Ownership and control structure of the organization, including its parent and affiliates. Focuses on the capacity of the firm to provide the required services. Also includes consideration of issues that may impact a firm's operational stability.
- Litigation and/or regulatory actions concerning all aspects of the organization whether an inquiry, subpoena for information, investigation, or settlement, and whether issues are pending or resolved.
- Experience (both quality and quantity) and qualifications of the investment management organization and its staff in providing institutional quality investment management services.
- An investment-style and decision-making process that results in the product having a close fit with the desired mandate.
- A more in-depth consideration of quantitative factors relating to investment performance and portfolio structuring. PCA reviews these factors over both discrete and trailing

periods based on market cycles and typical investment horizons. Differences are assessed between candidates, benchmarks (or indexes), and/or peer universes.

- Firm and product assets under management, as well as a representative client list reflective of the size and scale of EBMUD.
- The costs of implementing the mandate deserves separate consideration and can vary substantially across a subset of candidates.
- Any other considerations believed to be pertinent to EBMUD

**Table 1: RFI Respondents**

Firm	Replication	Non-Replication
Allianz		X
Analytic Investors		2X
FAMCO		X
Gargoyle	X	2X
<b>Gateway</b>	X	X
Geode		X
<b>Glenmede</b>		X
Guggenheim		X
HVA^	X	X
Main		X
MD SASS^		X
<b>Parametric/Eaton Vance</b>	X	X
Rampart	X	X
Russell^		X
<b>Van Hulzen</b>		X


**Bold** indicates recommended finalist

^Requested RFI

Table 2 shows the category and total ranks for each of the candidate managers

**Table 2: PCA Score Summary of Candidates**


Candidate	Category 1 Quantitative Analysis (15)	Category 2 Fees (7)	Category 3 Organization (20)	Category 4 Investment Strategy (38)	Category 5 Client Base and Services (20)	Total Score (100)	Rank
<b>Van Hulzen</b>	15	6	17	36	14	88	1
<b>Parametric</b>	14	5	17	35	16	87	2
<b>Gateway</b>	12	4	18.5	33.5	18	86	3
<b>Glenmede</b>	13	4	18	34	17	86	4



Based on PCA's evaluation of the above factors, four managers were identified as strong candidates: Gateway, Glenmede, Parametric and Van Hulzen. A summary of the investment process of each recommended interview finalist is provided below.

### *Finalist Candidates*

- **Gateway** (Replication and Semi-Active): Natixis Global Asset Management (France), one of the largest money management firms in the world, owns 100% of Gateway Investment Advisers. All of Gateway's assets, approximately \$11.8 billion, are in Covered Calls and equivalent strategies. The Gateway Equity Premium Income Strategy, the proposed Semi-Active strategy, primarily utilizes S&P 500 replication as the underlying equity portfolio with S&P 500 Index calls as the options overlay portion. The strategy may also invest 10-15% of the underlying equity in an S&P 500 ETF (SPY) in order to provide additional liquidity. The options are actively managed with a wide variety of maturities (generally 1-, 2-, or 3-months). Strike prices, on a weighted average basis, are roughly "at-the-money". By altering the strike price and maturity of the options relative to the BXM methodology, Gateway believes that they can achieve excess returns and avoid the performance drag that occurs in a rules-based BXM strategy. Additionally, Gateway believes that the options market for the S&P 500 Index has more "consistent richness" than the market for options on ETFs and individual stocks. Gateway also expressed their willingness to provide a straight BXM replication product in which they would strictly follow the methodology of the BXM Index and primarily utilize S&P 500 replication as the underlying equity, with S&P 500 Index calls as the options overlay portion. Similar to the modified BXM strategy, Gateway would also invest 10-15% of the underlying equity in an S&P 500 ETF (SPY) in order to provide additional liquidity. Gateway currently manages in excess of \$1 billion for two PCA clients in both replication and semi-active strategies.
- **Glenmede** (Semi-Active): Glenmede Investment Management is a privately owned company in which employees own 19% of the firm. The company has been building customized risk management strategies for high net worth clients since 2003. The firm manages approximately \$6.5 billion in assets of which \$400 million are in Covered Call strategies. Glenmede's strategy attempts to build a better S&P 500 buy-write strategy through option optimization without veering too far away from its BXM mandate. The Glenmede Secured Options Strategy only sells options on the S&P 500 and is a proprietary rules-based approach that attempts to outperform by optimizing the option selection process. There are three factors that drive the option selection process: strike price, expiration date and expected volatility. Options are sold on 100% of the underlying equity notional value at all times. Glenmede looks to add alpha by selecting a better option to sell using a variable strike/month approach. The strike price of the option sold is determined through analysis on the underlying market volatility. Glenmede prices the entire S&P 500 option matrix using proprietary models to find anomalies in the option market. Three main factors in option selection process: 1.) Volatility - future expectation vs. what is current implied by the market influences strike selection. 2.) Time - forward implied volatility curve influences which month. 3.) Skew – influences month and strike.

- 
- **Parametric** (Replication and Semi-Active): Parametric Portfolio Associates (PPA) is 93% held by Eaton Vance, and focuses 100% on option overlay strategies. The remainder is held by current and former employees. Parametric functions as an independent and autonomous business unit with distribution, operational and administrative support provided by Eaton Vance. Parametric Risk Advisors (PRA) is the options-based affiliate of PPA in which Parametric owns 70% (with employees owning the remainder). For the EBMUD mandate, PPA would manage the underlying equity portfolio, while PRA would implement the options overlay portion. As a firm, PPA/PRA manages approximately \$3.1 billion in call writing strategies. Parametric utilizes a semi-active strategy referred to as DeltaShift methodology, which uses a fixed “delta” selection methodology for options. The strategy i) effectively indexes strikes to volatility; ii) at times captures and realizes profits prior to written option maturity; and iii) aggressively closes out losing positions to mitigate potential outlier losses that are inherent to a “sell and hold” option programs (i.e. BXM replication). The underlying equity would be an S&P 500 replication portfolio. Parametric also expressed their willingness to provide a straight BXM replication product in which they would strictly follow the methodology of the BXM index, utilizing an S&P 500 replication portfolio as the underlying equity, with S&P 500 Index calls as the options overlay portion. Parametric currently manages over \$125 million for PCA clients in their semi-active strategy.
  - **Van Hulzen** (Fully Active): Van Hulzen Asset management is a private company, 67% employee owned. Van Hulzen specializes in Covered Call strategies for high net worth individuals and small institutions. The firm is still relatively small with only \$365 million under management of which \$105 million are in Covered Call strategies. That being said, the firm is growing its Covered Call assets at a healthy clip (approximately 40% per year) and has devoted internal resources to the strategy far in excess of its current AUM. The fully active strategy being proposed seeks to own high quality stocks and use call options as an exit strategy at their fundamental valuation targets. The underlying equities owned are highly correlated with the S&P 500 but often with significantly lower volatility than the index. Using both a lower volatility underlying portfolio as well as a call writing strategy greatly reduces the volatility of the portfolio (historical 80% of the BXM index). The portfolio management team’s fundamental process analyzes companies for their cash flow return on investment and the effectiveness of management’s allocation of capital, especially as it relates to shareholder yield. Van Hulzen pays special attention to a company’s reliability and predictability with emphasis on long term value creation and consistent cash flow returns. Van Hulzen utilizes an internally developed risk model that analyzes each holding. The process seeks to establish tolerable downside risk for each security, along with a fundamental upside target. Stocks are ranked based on their upside/downside score. Calls are written at fundamental total return targets based on a “warranted price” target which is re-created through options out-of-money upside and option premium.

**Table 3: Candidate Manager Performance**  
**As of 6/30/2013, gross of fees**

Manager	YTD	1 Yr	3 Yr	5 Yr	7 Yr	2007	2008	2009	2010	2011	2012
Van Hulzen	10.1	13.3	13.2	8.5	6.7	6.0	-24.6	24.5	17.1	4.6	8.3
Parametric	9.4	13.9	16.6	10.3	8.8	7.8	-21.6	31.9	10.0	8.9	12.6
Gateway	6.4	10.5	13.6	5.5	---	---	---	14.6	13.0	6.5	11.3
Glenmede	5.6	10.2	15.0	6.8	6.4	9.3	-29.2	25.5	14.8	8.6	10.4
BXM Index	4.9	5.3	10.8	3.3	3.6	6.6	-28.7	25.9	5.9	5.7	5.2
S&P 500 Index	13.8	20.6	18.5	7.0	5.7	5.5	-37.0	26.5	15.1	2.1	16.0

Source: Manager RFI's, MPI

**Table 4: 3-Year Candidate Manager Performance Statistics**  
**as of 6/30/2013, gross of fees**

	Excess Ann. Return, %	Ann. StdDev, %	Loss Frequency, %	Alpha, %	Sharpe Ratio	Batting Avg.	Down Mkt Capture Ratio, %	Up Mkt Capture Ratio, %	Info Ratio	Ann. Semi Stdev, %	Max Drawdown Return	Sortino Ratio
Van Hulzen	2.42	8.04	22.22	4.74	1.58	0.61	60.54	94.36	0.62	4.04	-9.08	12.96
Parametric	5.73	10.20	25.00	5.25	1.55	0.72	85.36	124.12	2.39	5.29	-11.66	12.18
Gateway	2.73	7.34	22.22	5.58	1.76	0.61	53.57	92.77	0.68	3.59	-8.46	18.63
Glenmede	4.13	9.68	22.22	4.50	1.48	0.69	77.17	111.42	1.40	5.60	-10.91	10.40
BXM Index	0.00	10.04	30.56	0.00	1.07	0.00	100.00	100.00	---	5.52	-12.72	4.50
S&P 500 Index	7.63	13.57	30.56	5.39	1.31	0.69	119.62	152.25	1.08	7.05	-16.26	7.57

Source: Manager RFI's, MPI

**Table 5: 5-Year Candidate Manager Performance Statistics**  
**as of 6/30/2013, gross of fees**

	Excess Ann. Return, %	Ann. StdDev, %	Loss Frequency, %	Alpha, %	Sharpe Ratio	Batting Avg.	Down Mkt Capture Ratio, %	Up Mkt Capture Ratio, %	Info Ratio	Ann. Semi Stdev, %	Max Drawdown Return	Sortino Ratio
Van Hulzen	5.12	10.63	25.00	5.71	0.79	0.62	57.69	86.33	0.77	7.45	-24.75	2.40
Parametric	6.93	14.07	31.67	6.71	0.75	0.70	85.12	121.87	1.78	9.65	-26.59	2.09
Gateway	2.18	12.37	30.00	2.55	0.48	0.58	77.26	89.47	0.50	9.52	-31.32	0.97
Glenmede	3.43	14.27	26.67	3.43	0.51	0.65	87.58	105.92	0.93	10.78	-34.34	1.07
BXM Index	0.00	14.46	35.00	0.00	0.28	0.00	100.00	100.00	---	10.89	-33.01	0.43
S&P 500 Index	3.67	18.42	35.00	3.51	0.45	0.60	119.78	141.00	0.46	13.08	-41.82	0.83

Source: Manager RFI's, MPI

**Table 6: 7-Year Candidate Manager Performance Statistics  
as of 6/30/2013, gross of fees**

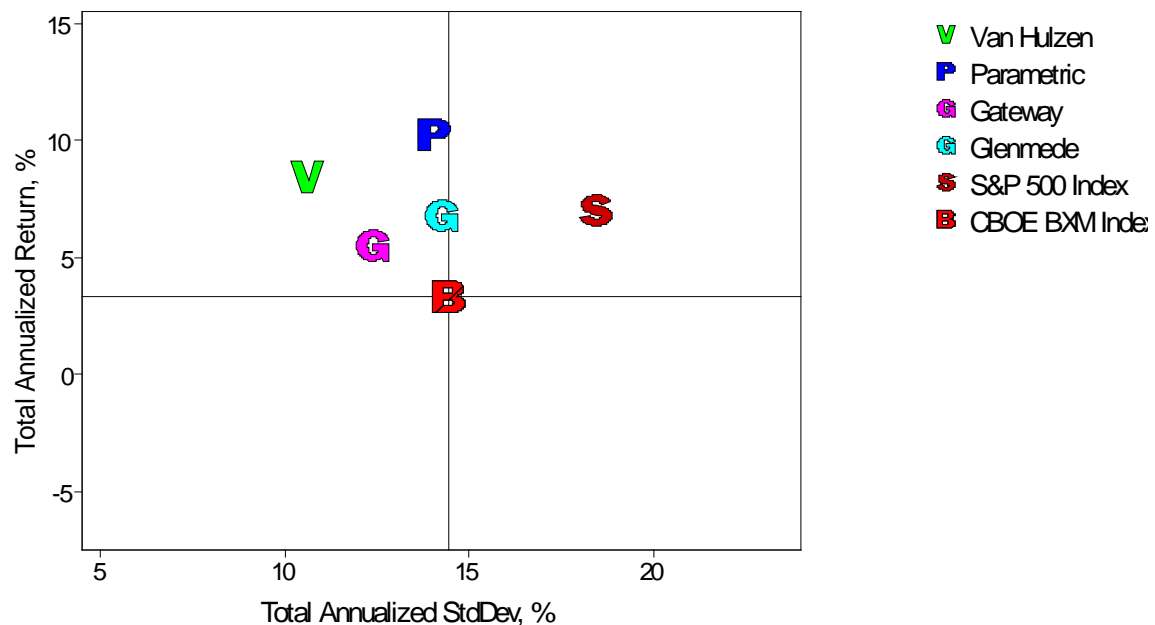
	Excess Ann. Return, %	Ann. StdDev, %	Loss Frequency, %	Alpha, %	Sharpe Ratio	Batting Avg.	Down Mkt Capture Ratio, %	Up Mkt Capture Ratio, %	Info Ratio	Ann. Semi Stdev, %	Max Drawdown Return	Sortino Ratio
Van Hulzen	3.15	10.36	27.38	3.54	0.79	0.58	69.56	90.40	0.51	7.42	-32.76	1.70
Parametric	5.27	12.64	29.76	5.13	0.75	0.67	86.08	117.66	1.35	8.77	-31.28	1.93
Gateway	---	---	---	---	---	---	---	---	---	---	---	---
Glenmede	2.84	12.78	26.19	2.82	0.51	0.64	88.83	106.14	0.84	9.67	-38.36	1.15
BXM Index	0.00	12.89	32.14	0.00	0.28	0.00	100.00	100.00	NA	9.81	-35.81	0.53
S&P 500 Index	2.10	16.71	35.71	2.09	0.45	0.57	124.12	136.52	0.28	11.99	-50.95	0.70

Source: Manager RFI's, MPI

**Table 7: Candidate Annual Management Fee Estimates  
Based on \$75 million mandate**

Non – Replication Strategies	Fee (bps)	Replication Strategies	Fee (bps)
Van Hulzen	25	Gateway	20
Parametric	30.6	Parametric	23.5
Gateway	40		
Glenmede	45		

**Table 8: 5-Year Risk Return**








## **Summary of Quantitative Review**

Statistical evaluation is an important component of analysis as it establishes a baseline of common characteristics by which to compare investment firm candidates. Differences are assessed between candidates, benchmarks (or indices), and/or peer universes. PCA views these quantitative factors over various periods based on market cycles and typical investment horizons, respectively. Evaluation is predicated on the nature of the mandate being considered. For example, risk control is considered to be of particular importance and is central to many of the factors listed below. Due to the presence of different investment approaches, as well as different lengths of track records, PCA implemented a small qualitative adjustment to the managers' quantitative scores, if applicable. These adjustments helped to better align the scores with the desired EBMUD mandate structure. The quantitative factors were analyzed over a 7-year period, a 5-year period, and a 3-year period. Particular attention was paid to returns during periods in which equities demonstrated significant negative returns (bear market). The selected time periods are representative of a full market cycle.

- **Alpha:** Measures the added value by a manager. A positive alpha indicates that a manager has performed better than its Beta would predict. In contrast, a negative alpha indicates the fund has underperformed, given the expectations set by Beta.
- **Batting Average:** Measures the percentage frequency with which the manager has beaten the benchmark over a given time frame. Also known as "the probability of success," it is the ratio between the number of periods where the manager outperforms a benchmark and the total number of periods.
- **Down Market Capture Ratio:** The portion of the market's performance that was captured by the manager using only periods where the market return is negative. A down market capture of less than 100% is considered desirable.
- **Excess Semi-Standard Deviation:** Represents the standard deviation of all negative excess returns, relative to the benchmark. This is usually expressed as a percentage which may be annualized over a number of years or represent a single period.
- **Information Ratio:** A measure of the manager's returns, above or below the benchmark, relative to the volatility of those excess returns (tracking error).
- **Loss Frequency:** Measure of absolute performance. Loss frequency is the percentage of time that a manager posts negative returns.
- **Max Drawdown Return:** Measures the worst period of "peak to valley" performance for the series regardless of whether or not the drawdown consisted of consecutive months of negative performance.
- **Return:** Is a measure of the appreciation or depreciation of the value of a portfolio over a given time period. This is usually expressed as a percentage which may be annualized over a number of years or represent a single period.

- 
- **Semi-Standard Deviation:** Is a measure of risk using only the variance of returns below a target rate, such as the benchmark.
  - **Sharpe Ratio:** A measure of the manager's excess return, above or below the risk-free rate, relative to the total variability of the manager's returns.
  - **Sortino Ratio:** Similar to the Sharpe Ratio - a measure of the manager's excess return, above or below the risk-free rate, relative to the total variability of the manager's *negative* returns.
  - **Up Market Capture Ratio:** The portion of the market's performance that was captured by the manager using only periods where the market return is positive. An up market capture of greater than 100% is considered desirable.

**MINUTES OF THE ADMINISTRATIVE / INVESTMENT COMMITTEE OF THE  
RETIREMENT BOARD  
November 6, 2013**

A regular meeting of the Administrative / Investment Committee of the Retirement Board convened on Wednesday, November 6, at 10:04 a.m. in the Board Annex. The meeting was called to order by President Doug Higashi.

**Roll Call** – The following Retirement Board Members were present: Doug Higashi, Eric Sandler, and Delores Turner

The following staff members were present: Lourdes Matthew, , Lisa Sorani and Elizabeth Grassetti.

Others present were Eric White from PCA, Alex Coate, Lloyd Sawchuk, Peter Law and Eric Fieberling.

**PUBLIC COMMENT**

There was no public comment.

**ACTION**

Covered Call Manager Search – Eric White from PCA began the meeting by reviewing covered calls. He explained that covered calls are generally equity like, but reduce downside risk because they narrow the return distribution of the portfolio. Covered call replication strategies copy the BXM index and provide returns due to pure volatility capture. Non-replication strategies don't just replicate the BXM index. Instead they adjust their rules for exercise price, roll date, and option maturity (Semi-Active Manager) or adjust their equity holdings as well (Fully Active Strategies). Non-replication strategies capitalize on inefficiencies in the market, provide for more diversification and have better downside potential.

Mr. White said that 15 firms responded to the RFI for covered call managers and submitted 22 strategies for consideration. PCA reviewed the responses and recommended the following firms be considered:

Gateway Investment Advisors – replication and non-replication strategies  
Glenmeade Investment Management – non-replication Strategy  
Parametric Risk Advisors – Replication and Non-replication strategies  
Van Hulzen Asset Management – Non-Replication Strategy

The Administrative / Investment Committee members discussed which strategy they should recommend, and which firms they should interview. Mr. White recommended that they consider a portfolio of 2-3 managers because of the potential for concentration risk if all the assets are moved to one manager. Committee members discussed recommending all non-replication

strategies, but they decided to take the decision to the full Retirement Board, because other members of the Board might not be comfortable with the complexities of the non-replication strategy. The Board decided to recommend all four finalist be interviewed, and that the two that do both replication and non-replication strategies should be asked to discuss the pros/cons of the two strategies. Each firm will get 45 minutes for the interview. Delores Turner moved the motion and Eric Sandler seconded the motion, and it passed unanimously.

### **ITEMS TO BE CALENDERED**

- Interviews of four covered call managers at the November 19<sup>th</sup> 2013 meeting.

**ADJOURNMENT** – Doug Higashi moved to adjourn the meeting at 12:12 p.m.; Delores Turner seconded the motion and the motion was unanimously approved.



***Presentation to the  
Board of the East Bay Municipal  
Utility District Employees'  
Retirement System***

**November 19, 2013**

Gateway Investment Advisers, LLC  
312 Walnut Street, 35<sup>th</sup> Floor  
Cincinnati, OH 45202-9834  
513.719.1100 Fax 513.719.1199

# About Gateway Investment Advisers, LLC

# Gateway's organizational structure

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## *Best of Both Worlds for Clients*

**The service and expertise of a focused boutique manager:**

**and**

**The structure and support of one of the largest investment management firms in the world:**



- A focused, niche investment adviser
- Focus on index covered call and equivalent strategies
- \$11.9 billion in assets under management as of 9/30/13



- A leading global diversified financial institution
- Among the 15 largest asset management companies worldwide <sup>1</sup>
- \$838.2 billion in assets under management as of 9/30/13 <sup>2</sup>
- Offices in Boston, MA and Oakland, CA

<sup>1</sup> Global Markets 2013 ranked Natixis Global Asset Management, S.A. as the 15th largest asset manager in the world based on assets under management as of December 31, 2012.

<sup>2</sup> Assets under management (AUM) may include assets for which non-regulatory AUM services are provided. Non-regulatory AUM includes assets which do not fall within the SEC's definition of 'regulatory AUM' in Form ADV, Part 1.

# Gateway: Over 35 years experience in options markets

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- Investment management firm with long history dedicated to index covered call and equivalent investment programs
- Founded in 1977
- Assets under management: \$11.9 billion as of 9/30/13
  - Largest account \$7.7 billion as of 9/30/13
- One of the larger S&P 500® Index option investors in the market
  - From January 1 through December 31, 2012, Gateway traded approximately 1.6 million S&P 500® Index option contracts with a notional value of approximately \$220 billion
- Long history of providing index covered call programs to public and private investors
- Excellent working relationship of over 10 years with East Bay Municipal Utility District Employees' Retirement System's custodian, Northern Trust

***Experience***

**Stability**

**Focus**

**Expertise**



## Gateway: Investment team

---

- 5 person investment management team
- 4 CFA charterholders
- 68 combined years of management team experience at Gateway
- 100% of the investment management team's time is focused on covered call and equivalent strategies
- Current investment management team in place since 1999

**Experience**

***Stability***

**Focus**

**Expertise**

# Gateway: Focused on covered call mandates

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- Gateway is a single-strategy investment management firm
- Index covered option investment programs are the sole focus of Gateway
- All \$11.9 billion in assets under management are invested in index covered call and equivalent investment management programs
- Worked with the Chicago Board Options Exchange (CBOE) in the development and construction of the BXM Index

**Experience**

**Stability**

***Focus***

**Expertise**

# Gateway ability: Potential to provide replication and more

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- Uniquely positioned to manage both BXM replication (passive) mandates **and** actively managed index covered call mandates
- Gateway manages index covered call options and equity portfolios **in concert** for maximum efficiency
  - Not an overlay manager (options only)
  - Not a consultant (recommending trades for others to implement)
- This combined portfolio approach allows Gateway to:
  - Reduce portfolio turnover and costs
  - Incorporate client specified stock restrictions (regulatory or client mandated)
    - Regulatory purposes
    - Client-mandated restrictions
- Extensive experience in managing index covered call programs for:
  - S&P 500® Index
  - Blended portfolios of indexes
  - Other U. S. indexes (e.g. NASDAQ-100, S&P 100® Index)
  - International indexes (e.g. Euro Stoxx 50)

**Experience**

**Stability**

**Focus**

***Expertise***

# Gateway's investment philosophy is embedded in its stated objective

---

- We believe that a hedged equity approach can capture the majority of long-term index returns over time, with less risk than a long-only index portfolio
  - Reduce uncertainty related to price fluctuations of a broad-based index using an index option writing program
  - Generate a consistent option premium cash flow
  - Take advantage of investment alpha in both risk and return
  - Achieve an attractive risk-reward profile for clients versus a long-only index portfolio

# CBOE S&P 500<sup>®</sup> BuyWrite Index (“BXM”) Replication

# Three keys to a successful BXM replication program

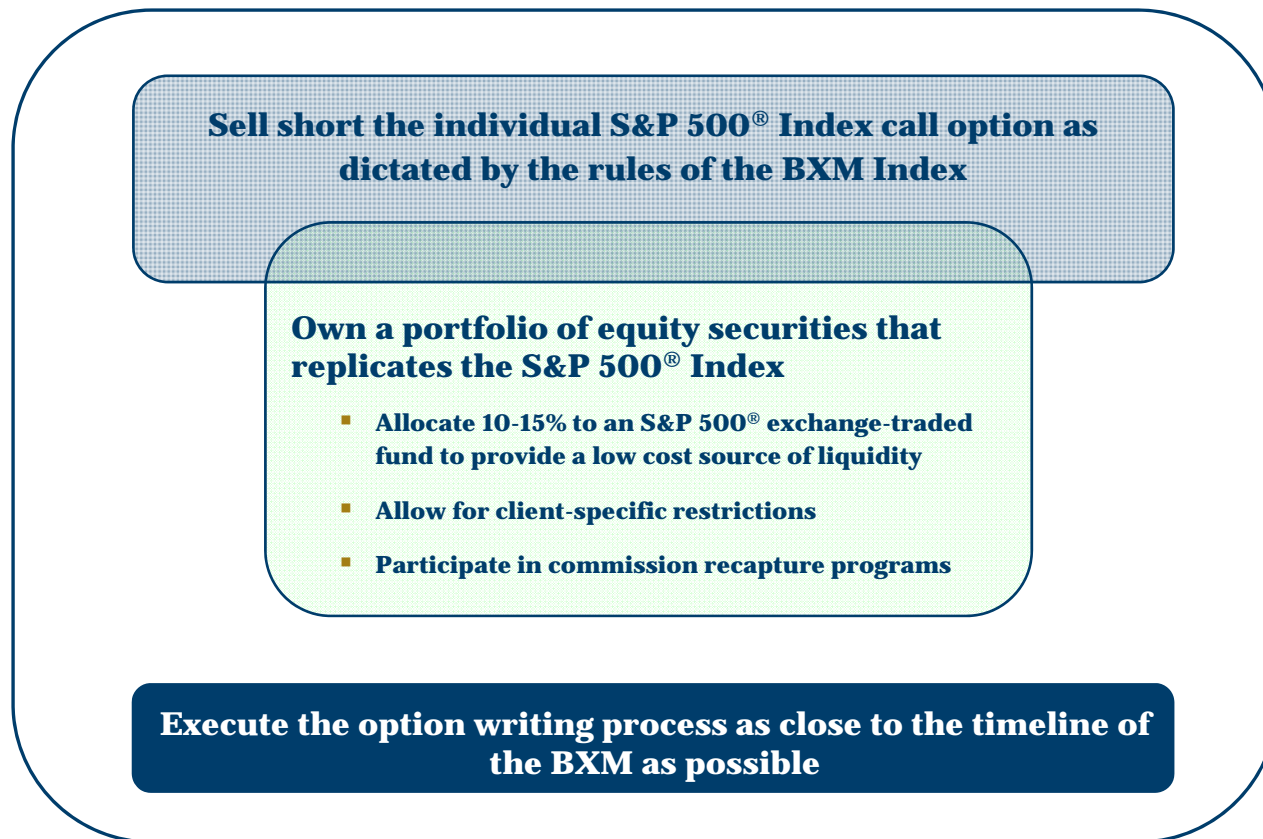
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- **Discipline** – BXM is a rules-based investment benchmark and a successful replication program must follow those rules as closely as possible
- **Efficiency** – To closely track the index, a BXM program must minimize frictional cost
  - Gateway's low commission rates and low portfolio turnover enhance efficiencies for institutional clients
  - Gateway is able to participate in commission recapture programs for institutional clients
- **Experience** – Understanding the structure, as well as trading nuances and intricacies, of the S&P 500<sup>®</sup> Index options market is essential to the successful execution of a BXM replication strategy

# Execution of a buy-write replication mandate

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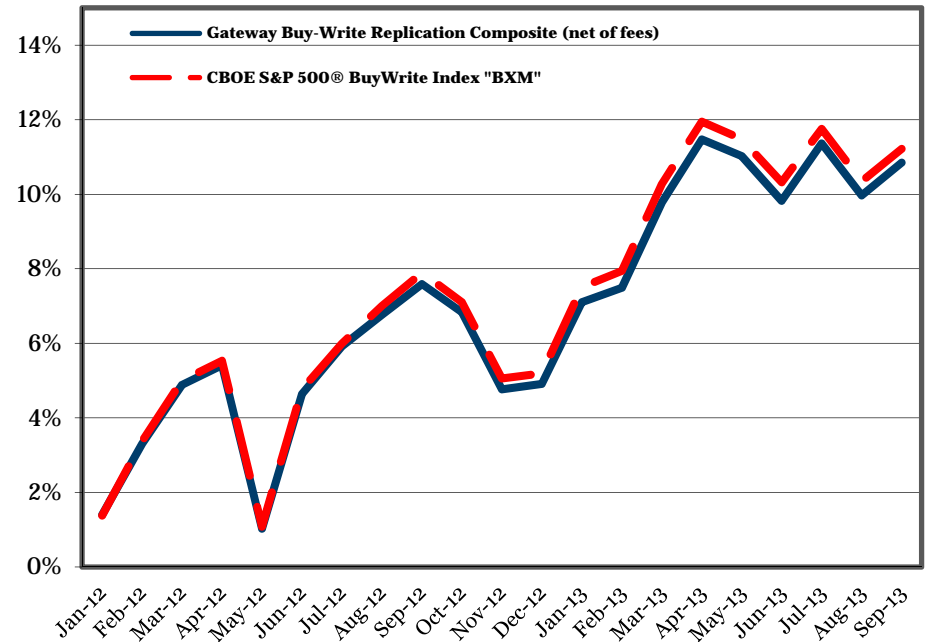
**Process: Maximize replication, minimize transaction costs**



# Gateway's experience with buy-write replication portfolios

From January 1, 2012 to September 30, 2013

	<b>Total Return</b>	<b>Average Annual Return</b>	<b>Annual Standard Deviation</b>
Gateway Buy-Write Replication Composite (net)	10.8%	6.1%	5.8%
CBOE BuyWrite Index ("BXM")	11.2%	6.3%	5.9%



Gateway Buy-Write Replication Composite AUM - \$869.6 M as of 9/30/13

Datasource: Gateway Investment Advisers, LLC and Bloomberg

See Disclosure on pages 26 and 28



## Active Management Mandate

# Rationale for actively managed index covered call mandate

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- A flexible, yet disciplined approach to index covered call investing may outperform the BXM Index over time and deliver additional risk management benefits to investors
  - Flexibility allows for rebalancing of the option portfolio as markets and volatility change
  - A diversified portfolio of call options rather than one single option contract helps to mitigate market and expiration risks
- **Combining a flexible index covered call mandate with a BXM replication mandate may provide additional growth and risk management over the long term**

Benchmark performance to the BXM Index

# Execution of an actively managed mandate

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## Process: A consistent investment approach

**Sell short a portfolio of listed S&P 500® Index call options to generate income and monetize market volatility**

- A diversified portfolio of one-, two- and three-month index call options
- Weighted average strike price at approximately the market level

**Own a portfolio of equity securities that replicates the S&P 500® Index**

- Allocate 10-15% to an S&P 500® exchange-traded fund to provide a low cost source of liquidity
- Allow for client-specific restrictions
- Participate in commission recapture programs

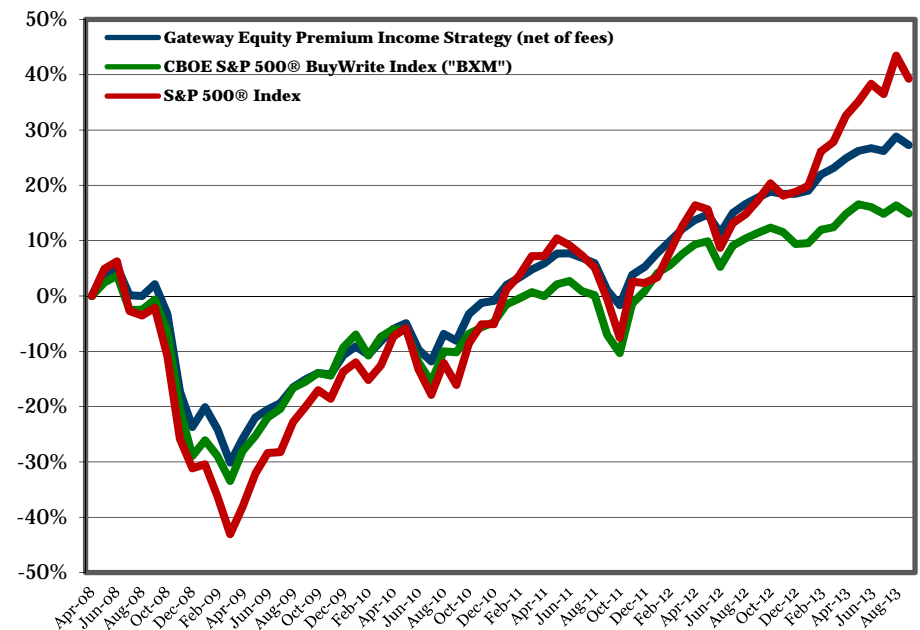
**Prudently rebalance as markets and volatility change**

# Gateway's experience with actively managed index covered call portfolios

From April 1, 2008 to September 30, 2013

	<b>Total Return</b>	<b>Average Annual Return</b>	<b>Annual Standard Deviation</b>
Gateway Equity Premium Income Composite (net)	29.6%	4.8%	12.2%
CBOE BuyWrite Index ("BXM")	15.8%	2.7%	14.1%
S&P 500® Index	43.6%	6.8%	18.2%

<b>Average Annual Total Returns As of September 30, 2013</b>		
	Gateway Equity Premium Income Composite (net of fees)	CBOE BuyWrite Index ("BXM")
YTD	8.90%	5.72%
One Year	9.03%	3.09%
Three Years	10.25%	7.52%



Gateway Equity Premium Income Composite AUM - \$965.9 M as of 9/30/13

Datasource: Gateway Investment Advisers, LLC and Bloomberg

See Disclosure on pages 26 and 27

# Combining passive and active option portfolio management – expertise across the spectrum

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## Key Features PASSIVE:

- Straightforward concept and execution
- Manager success factors limited to ability to mimic S&P 500® Index and execute BXM rules as effectively and efficiently as possible
- Major risks consist of operational risk and portfolio exposure during BXM reset and VWAP period

## Key Features ACTIVE:

- Provides potential for better risk control relative to BXM's reset risk and “uncovered period”
- Diversified approach to expirations and strike prices
- Flexibility to exploit market moves and changes in volatility – risk reduction and return enhancement potential
- Introduces higher degree of potential tracking error – active management risk

*Experience*

*Stability*

*Focus*

*Expertise*

# Appendix

# Biographies

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## **PAUL R. STEWART, CFA, Chief Executive Officer, President, Portfolio Manager**

Paul Stewart joined the firm in 1995 and is chief executive officer and president. He also serves as co-portfolio manager for several funds including the Gateway Fund.

Mr. Stewart has served Gateway in various roles, including portfolio manager, treasurer of the Gateway Trust, chief financial officer and, most recently, serving on Gateway's board and as the firm's chief investment officer. As chief investment officer, Paul has led the implementation of Gateway's strategy since 2008 and helped guide the firm through tremendous growth. Prior to joining Gateway, he was an audit manager at Price Waterhouse.

Mr. Stewart earned his B.B.A. from Ohio University and is a CFA charterholder.

## **MICHAEL T. BUCKIUS, CFA, Chief Investment Officer, Senior Vice President, Portfolio Manager**

Michael T. Buckius joined Gateway in 1999 and holds the positions of chief investment officer and senior vice president. He is co-portfolio manager for several mutual funds and several closed-end funds advised or sub-advised by Gateway Investment Advisers, LLC, including the Gateway Fund.

As Gateway's chief investment officer, he is responsible for overseeing the firm's investment management and trading functions, as well as product development and servicing individual client relationships.

Prior to joining Gateway, Mr. Buckius was an equity derivative sales professional at Bear Stearns & Co. and Bankers Trust Company in New York where he specialized in the design and implementation of hedging and monetization strategies for high-net-worth individuals and corporations. Prior to his employment in New York, Mr. Buckius held a number of option-related research and trading positions at Alex. Brown & Sons Inc. in Baltimore.

Mr. Buckius received his B.A. and M.B.A. in Finance from Loyola University Maryland and is a CFA charterholder.

## **KENNETH H. TOFT, CFA, Senior Vice President, Portfolio Manager**

Kenneth H. Toft joined Gateway in 1992 and is a senior vice president. He is co-portfolio manager for several mutual funds and several closed-end funds advised or sub-advised by Gateway Investment Advisers, LLC, including the Gateway Fund.

His responsibilities include managing portfolios using hedging strategies for growth-oriented, high-volatility indexes, trading and servicing individual client relationships. Prior to joining Gateway, he served as a registered representative for Fidelity Investments.

Mr. Toft earned his B.A. and M.B.A. from the University of Cincinnati and is a CFA charterholder.

# Biographies (continued)

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## **DANIEL M. ASHCRAFT, CFA, Portfolio Manager**

Dan Ashcraft joined Gateway in October 2009 and is currently a portfolio manager. He has led the way in implementing the international version of the equity multifactor model used by Gateway and is also heavily involved in trading and analysis. Prior to joining Gateway, Mr. Ashcraft conducted market research at Longbow Research in Cleveland, Ohio.

He received a B.S. from the Richard T. Farmer School of Business at Miami University in Ohio and is a CFA charterholder.

## **MICHAEL A. DIRR, Trader/Analyst**

Michael A. Dirr joined Gateway in 1999 and is a trader/analyst at the firm. Prior to joining Gateway, he was a trader at both Fund Evaluation Group and Star Bank in Cincinnati.

Mr. Dirr earned his B.B.A. from Thomas More College.

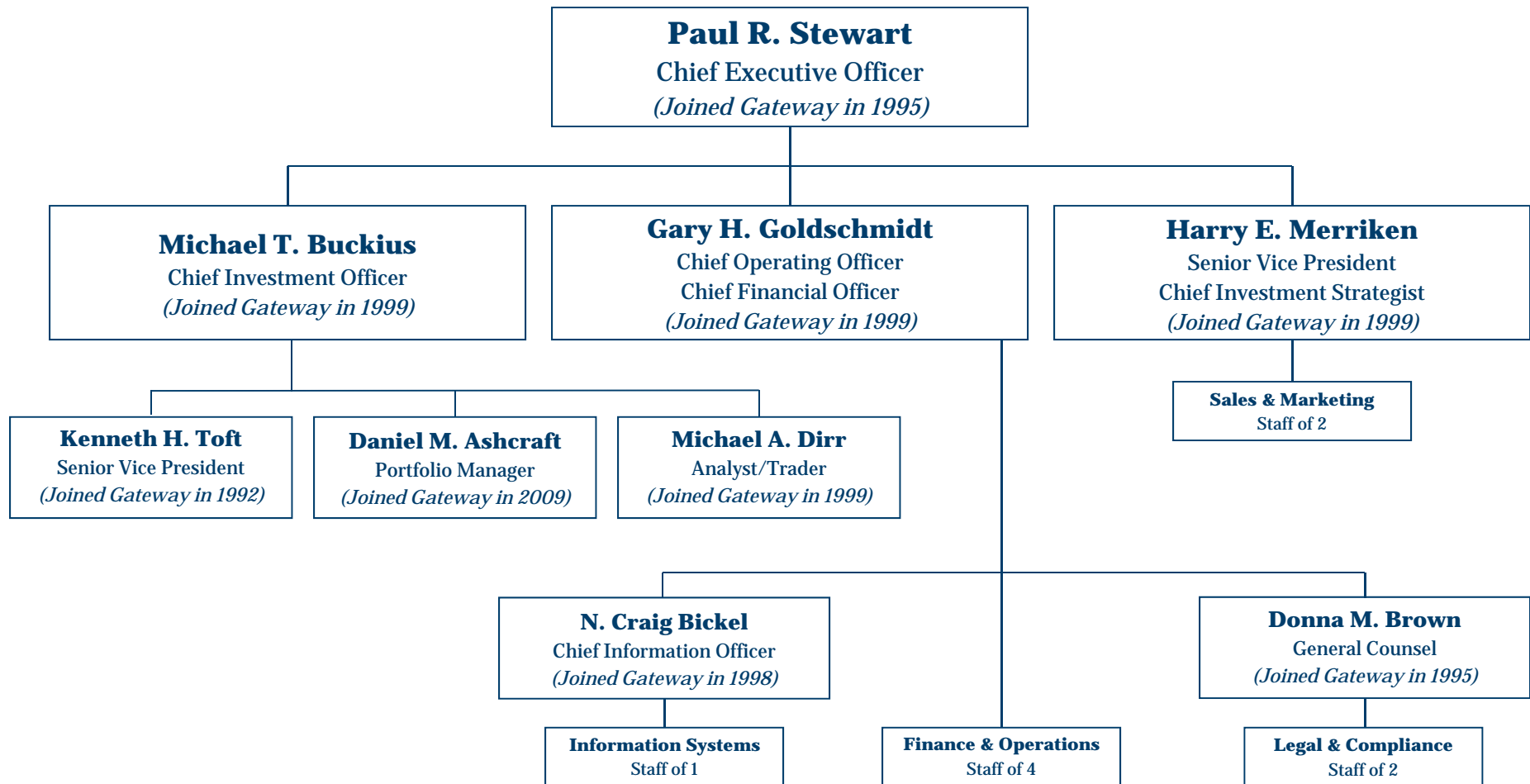
## **HARRY E. MERRIKEN, Ph.D., Senior Vice President and Chief Investment Strategist**

Harry Merriken joined Gateway in 1999 as a senior vice president and currently serves as the chief investment strategist. His primary area of responsibility is the design and implementation of strategic applications for Gateway's index hedging investment programs, including the index/ra (risk-adjusted) approach used in Gateway's client portfolios. Prior to joining Gateway, he was a principal at Alex. Brown Incorporated and worked in Private Client Investment Services.

Dr. Merriken holds a Ph.D. in Finance from the University of Maryland and received his M.B.A. and B.A. from Loyola University Maryland.



# Gateway's organizational chart



# Gateway Buy-Write Replication Composite returns

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## Gross of Fee Performance

	January	February	March	April	May	June	July	August	September	October	November	December
2012	1.41%	1.89%	1.54%	0.51%	-4.15%	3.59%	1.23%	0.81%	0.78%	-0.69%	-1.93%	0.15%
2013	2.10%	0.37%	2.14%	1.55%	-0.39%	-1.07%	1.41%	-1.24%	0.81%			

## Net of Fee Performance

	January	February	March	April	May	June	July	August	September	October	November	December
2012	1.40%	1.88%	1.53%	0.50%	-4.16%	3.58%	1.22%	0.80%	0.77%	-0.70%	-1.94%	0.14%
2013	2.09%	0.36%	2.13%	1.54%	-0.40%	-1.08%	1.40%	-1.25%	0.80%			

Datasource: Gateway Investment Advisers, LLC and Bloomberg

See Disclosure on pages 26 and 28

# Gateway Equity Premium Income Composite returns

## Gross of Fee Performance

	January	February	March	April	May	June	July	August	September	October	November	December
2008				3.90%	1.52%	-4.92%	-0.06%	2.21%	-5.19%	-14.46%	-7.70%	4.78%
2009	-4.96%	-7.87%	6.24%	5.19%	1.96%	1.51%	3.59%	1.80%	1.41%	-0.26%	4.09%	1.88%
2010	-1.62%	2.78%	2.55%	1.12%	-5.03%	-2.23%	5.70%	-1.27%	5.32%	2.15%	0.44%	2.95%
2011	1.35%	1.48%	1.11%	1.77%	0.14%	-0.71%	-0.83%	-4.53%	-2.62%	5.63%	1.49%	2.41%
2012	2.13%	2.04%	1.51%	0.94%	-2.86%	3.34%	1.45%	1.08%	0.97%	-0.32%	0.07%	0.55%
2013	2.51%	1.01%	1.52%	1.13%	0.44%	-0.37%	2.11%	-1.14%	1.91%			

## Net of Fee Performance

	January	February	March	April	May	June	July	August	September	October	November	December
2008				3.84%	1.46%	-4.98%	-0.12%	2.15%	-5.25%	-14.52%	-7.76%	4.72%
2009	-5.02%	-7.93%	6.18%	5.13%	1.90%	1.45%	3.53%	1.74%	1.35%	-0.32%	4.03%	1.82%
2010	-1.68%	2.72%	2.49%	1.06%	-5.09%	-2.29%	5.64%	-1.33%	5.26%	2.09%	0.38%	2.89%
2011	1.28%	1.41%	1.04%	1.70%	0.07%	-0.78%	-0.90%	-4.60%	-2.69%	5.56%	1.42%	2.34%
2012	2.06%	1.97%	1.44%	0.87%	-2.92%	3.28%	1.39%	1.02%	0.91%	-0.37%	0.01%	0.48%
2013	2.45%	0.95%	1.46%	1.07%	0.38%	-0.42%	2.06%	-1.19%	1.86%			

Datasource: Gateway Investment Advisers, LLC and Bloomberg

See Disclosure on pages 26 and 27

# Gateway's “philosophical constants”

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- Use U. S. listed equity index options only.
  - Deep, reliable liquidity; market prices; avoid counterparty risk
- Notional value of call portfolio always matches value of equity portfolio
  - Eliminates potentially significant tracking error due to making active equity market bets by over- or under-sizing notional value of call portfolio relative to equity portfolio

# When would the active mandate outperform the BXM?

---

In general, Gateway would expect the Active Mandate more often than not to outperform the BXM Index in **flat and declining markets**.

<i>For example:</i>	<b>Gateway Equity Premium Income Strategy (net)</b>	<b>CBOE BuyWrite (BXM) Index</b>	<b>S&amp;P 500® Index</b>
June 1-30, 2010 *	-2.3%	-4.2%	-5.2%
March 1-31, 2011 *	+1.0%	-0.7%	0.0%

\* Results can differ substantially when comparing the Gateway Equity Premium Income Strategy to the CBOE BuyWrite (BXM) Index and/or the S&P 500® Index at different time periods.

Datasource: Gateway Investment Advisers, LLC and Bloomberg  
See Disclosure on pages 26 and 28

## When would the BXM outperform the active replication mandate?

---

In general, Gateway would expect the BXM Index more often than not to outperform the Active Mandate in **significantly positive markets**.

<i>For example:</i>	<b>Gateway Equity Premium Income Strategy (net)</b>	<b>CBOE BuyWrite (BXM) Index</b>	<b>S&amp;P 500® Index</b>
March 1-31, 2009 *	+6.2%	+8.2%	+8.8%
December 1-31, 2010 *	+2.9%	+3.4%	+6.7%

\* Results can differ substantially when comparing the Gateway Equity Premium Income Strategy to the CBOE BuyWrite (BXM) Index and/or the S&P 500® Index at different time periods.

Datasource: Gateway Investment Advisers, LLC and Bloomberg  
See Disclosure on pages 26 and 28

# Disclosure

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The effectiveness of Gateway's strategies might be reduced if the portfolios don't correlate to the performance of the index underlying its option positions. Rebalancing of a portfolio may involve tax consequences.

Selling index call options can reduce the risk of owning stocks, but limits the opportunity to profit from an increase in the market value of stocks in exchange for up-front cash at the time of selling the call option. Unusual market conditions or the lack of a ready market for any particular option at a specific time may reduce the effectiveness of the Composites' option strategies, and for these and other reasons the Composites' option strategies may not reduce their volatility to the extent desired.

Gateway Investment Advisers, LLC ("Gateway") is an independent registered adviser and a successor in interest to Gateway Investment Advisers, L.P. as of February 15, 2008. Performance information for Gateway Equity Premium Income Composite and Gateway Buy-Write Replication Composite shown in this illustration are asset-weighted composites of discretionary accounts under Gateway's management which share the same investment objectives and hedging strategies.

The Gateway Equity Premium Income Composite was created on April 1, 2008 and the Gateway Buy-Write Replication Composite was created on January 1, 2012.

The Composites' net of fee performance results reflect the reinvestment of dividends and other earnings and reflect the deduction of investment advisory and other administrative fees.

Past performance is no guarantee of future results. A more detailed description of Gateway's standardized fees is included in Form ADV, Part 2.

The Annual Disclosure Presentations for the Gateway Equity Premium Income Composite and the Gateway Buy-Write Replication Composite are included with this document. Additional copies are available upon request by calling 513.719.1100 extension 443.

Data Source: Gateway Investment Advisers, LLC and Thomson Reuters

# Gateway Investment Advisers, LLC

## Gateway Equity Premium Income Composite

### Annual Disclosure Presentation

Year End	Annual Performance Results			Composite 3-Year Std. Dev.	S&P 500 3-Year Std. Dev.	Number of Composite Accounts	Composite Assets (millions)	Firm Assets (millions)
	Composite		S&P 500					
	Gross	Net						
9 months ended 12/31/08	-19.65%	-20.09%	-30.43%	N/A	N/A	1	\$ 492	\$ 7,071
2009	14.56	13.74	26.46	N/A	N/A	1	502	7,188
2010	13.03	12.22	15.07	N/A	N/A	1	516	7,699
2011	6.51	5.63	2.12	11.20%	18.97%	1	496	8,081
2012	11.32	10.48	15.98	8.51	15.30	4	717	10,517

**Gateway Equity Premium Income Composite** contains a fully discretionary hedged equity account that holds common stock and sells index call options on at least 95% of the underlying stock value. Account invests in a stock portfolio that seeks to track the performance of the S&P 500 Index. The call options sold are S&P 500 Index call options. This call activity reduces volatility and provides cash flow. The Gateway Equity Premium Income Composite was created April 1, 2008.

For comparison purposes the Composite is measured against the S&P 500 Index, a popular indicator of the performance of the large capitalization sector of the U. S. stock market.

Performance results are expressed in U. S. dollars. Returns are presented gross and net of actual management fees and other expenses incurred by the account, e.g., professional and other fees directly associated with the account, and includes the reinvestment of all income. Past performance is not indicative of future results.

The current investment management fee schedule is as follows: 0.85% on the first \$5 million; 0.65% on the next \$5 million; 0.50% on the next \$40 million; and 0.45% on assets in excess of \$50 million. Actual investment advisory fees incurred by accounts may vary.

Gateway Investment Advisers, LLC ("Gateway") is an independent registered investment adviser and a successor in interest to Gateway Investment Advisers, L.P. as of February 15, 2008. Gateway claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Gateway has been independently verified for the periods January 1, 1993 through December 31, 2012.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Gateway Equity Premium Income Composite has been examined for the periods April 1, 2008 through December 31, 2012. The verification and performance examination reports are available upon request.

Policies for valuing portfolios, calculating performance and preparing compliant presentations are available upon request. A list of composite descriptions is also available upon request.



# Gateway Investment Advisers, LLC

## Gateway Buy-Write Replication Composite

### Annual Disclosure Presentation

Year End	Annual Performance Results			Composite 3-Year Std. Dev.	CBOE S&P 500 BuyWrite Index 3-Year Std. Dev.	Number of Composite Accounts	Composite Assets (millions)	Firm Assets (millions)
	Composite		CBOE S&P 500 BuyWrite Index					
	Gross	Net						
2012	5.04%	4.91%	5.20%	N/A <sup>1</sup>	N/A <sup>1</sup>	3	\$ 815	\$ 10,517

<sup>1</sup> The three-year annualized standard deviation of the Composite and the CBOE S&P 500 BuyWrite Index is not presented because 36 monthly returns are not available.

**Gateway Buy-Write Replication Composite** contains fully discretionary hedged equity accounts designed to replicate the performance of the CBOE S&P 500 BuyWrite Index (the “BXM Index”) as closely as possible. Accounts invest in a stock portfolio that seeks to track the performance of the S&P 500 Index. Accounts also sell short, on at least 95% of the underlying stock value, the BXM Index-specified one-month S&P 500 Index call option until expiration at which point another one-month S&P 500 Index call option is sold as specified by the rules of the BXM Index. The Gateway Buy-Write Replication Composite was created January 1, 2012.

For comparison purposes the Composite is measured against the BXM Index, a passive total return index designed to track the performance of a hypothetical buy-write strategy on the S&P 500 Index.

Performance results are expressed in U. S. dollars. Returns are presented gross and net of actual management fees and other expenses incurred by the account, e.g., professional and other fees directly associated with the account, and includes the reinvestment of all income. Past performance is not indicative of future results.

Net of fee performance was calculated using actual management fees. The current investment management fee schedule is as follows: 0.85% on the first \$5 million; 0.65% on the next \$5 million; 0.50% on the next \$40 million; and 0.45% on assets in excess of \$50 million. Actual investment advisory fees for Composite assets are negotiated on a case-by-case basis and may be lower than the above fee schedule.

Gateway Investment Advisers, LLC (“Gateway”) is an independent registered investment adviser and a successor in interest to Gateway Investment Advisers, L.P. as of February 15, 2008. Gateway claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Gateway has been independently verified for the periods January 1, 1993 through December 31, 2012.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Gateway Buy-Write Replication Composite has been examined for the periods January 1, 2012 through December 31, 2012. The verification and performance examination reports are available upon request.

Policies for valuing portfolios, calculating performance and preparing compliant presentations are available upon request. A list of composite descriptions is also available upon request.

# Glenmede Secured Options



Q3 2013

Prepared For:

East Bay Municipal Utility District  
Employees' Retirement System



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Please see important information at the end of this presentation

# GLENMEDE

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# Contents

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- I. Our Story
- II. Overview of Secured Options Strategy
- III. Appendix: Biographies and Performance Disclosures

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## Firm Overview

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- Glenmede Investment Management, LP, an SEC registered investment advisor, is headquartered in Philadelphia, PA and wholly owned by The Glenmede Trust Company
- Founded in 1956, The Glenmede Trust Company is a privately owned and wealth manager and national trust company regulated by the office of the Comptroller of the Currency
  - It was established to manage the investments and charitable contributions of the Pew Family, founders of Sun Oil Company
- Glenmede Investment Management's staff of 32 includes 21 investment professionals managing over \$6.6 billion\* in assets
- Clients include corporations, foundations & endowments, Taft-Hartley public and other not for profit plans, as well as registered investment advisors

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\* includes overlay assets

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# Glenmede Investment Strategies

Glenmede Strategies		Assets
As of 09/30/13		
<b>Quantitatively Oriented</b>		<b>\$1,028.05</b>
Absolute Return	\$26.14	
Large Cap Growth	\$289.72	
Large Cap Equity	\$508.23	
Large Cap 130/30	\$126.10	
Total Market 130/30	\$41.53	
Emerging Growth	\$36.33	
<b>Small Cap Equity</b>		<b>\$1,099.43 *</b>
Small Cap Equity	\$1,089.11	
Small Cap Conc.	\$7.28	
Mid Cap Equity	\$2.25	
Sm/Mid Cap equity	\$0.79	
<b>Secured Options</b>		<b>\$498.90</b>
US Secured Options	\$399.62	
International Secured Options	\$99.28	
<b>Large Cap Core</b>		<b>\$950.86</b>
Strategic Equity	\$615.58	
Equity Income	\$335.28	
<b>Value</b>		<b>\$215.28</b>
Large Cap Value	\$215.28	
<b>Fixed Income</b>		<b>\$2,812.14</b>
Intermediate Fixed	\$381.83	
Investment Grade	\$3.93	
Core Fixed	\$465.93	
Money Funds	\$1,960.45	
<b>International</b>		<b>\$82.62</b>
<b>Total</b>		<b>\$6,687.28 *</b>

\* includes overlay assets

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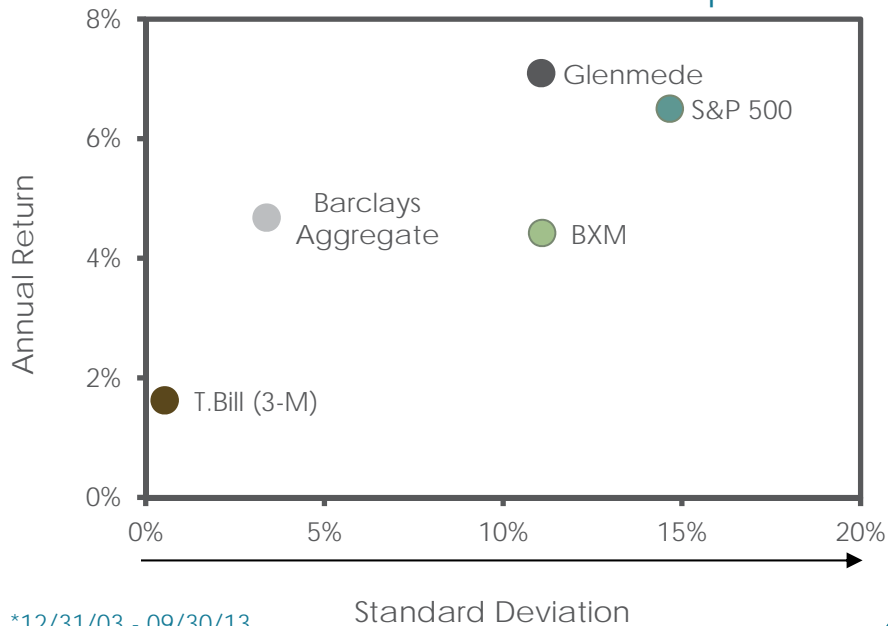


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# Benefits of a Covered Call Strategy

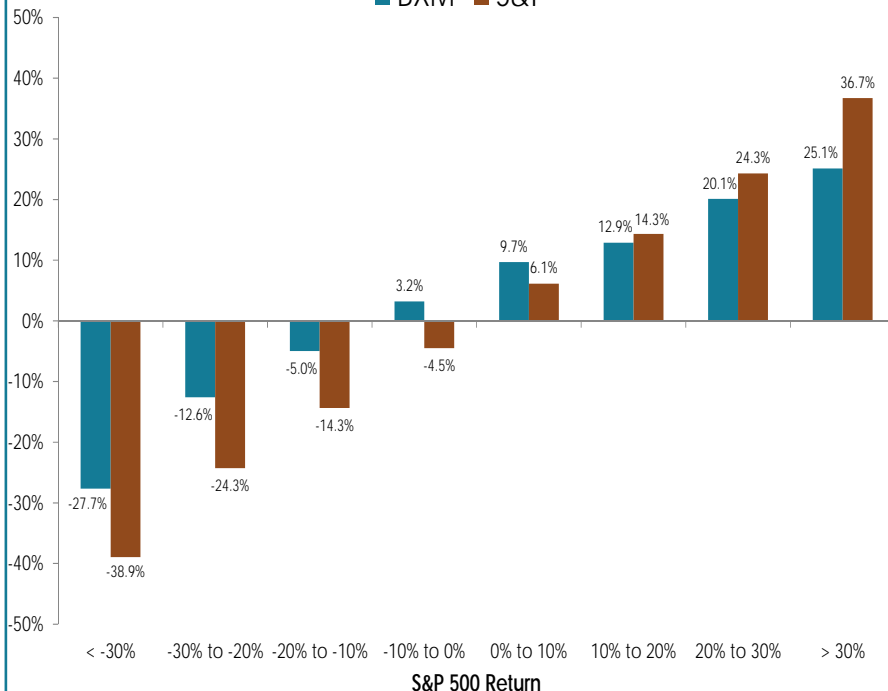
Glenmede Secured Options vs. Various Benchmarks Since Inception\*



## Allocation

- Enhance risk adjusted returns
- Shift up the efficient frontier
- Designed to balance upside participation with downside risk management

■ BXM ■ S&P



Data shown is average return of BXM and S&P 500 using all instances that fall within specified buckets. Sample: 273 rolling 12-month periods, 6/89-10/13. Source: Glenmede, FactSet

## Market Conditions

- Equity market returns, while positive, are likely to be modest
- Low fixed Income yields provide little total return potential
- Option Premiums are attractive
- Positive up/down capture in volatile market

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## Passive vs. Active

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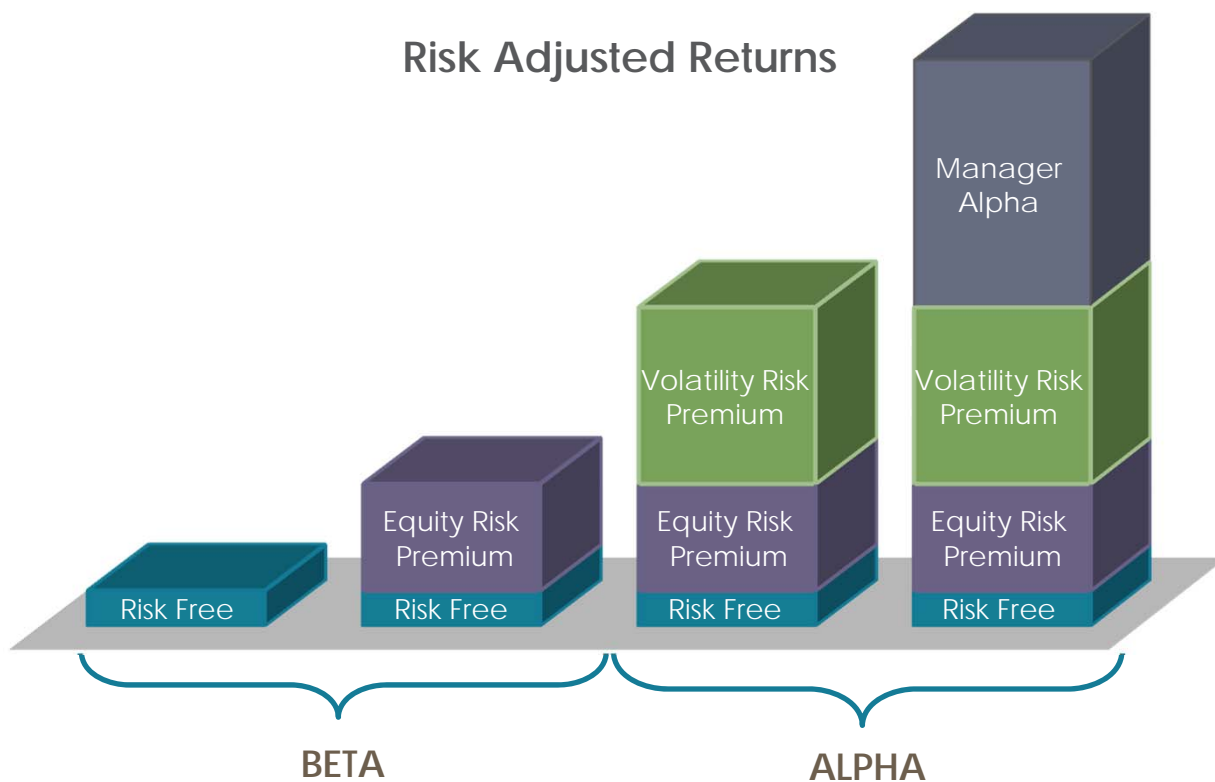
- Passive:
  - CBOE Buy-Write Index attribution demonstrates the benefits of adding a covered call manager to your asset allocation mix
- Active:
  - As option specialists, we believe additional benefits can be gained through an active option selection process
  - Writing index covered calls tends to outperform writing calls on every stock in the index
  - Some active strategies lose their advantage because net performance is very sensitive to transaction costs.

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# Overview of Glenmede's Secured Options Strategy

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- Seeks to outperform the broad stock market (as measured by the S&P 500) over a market cycle
- Utilizes covered calls to generate current income and capital appreciation to create an attractive risk/return profile



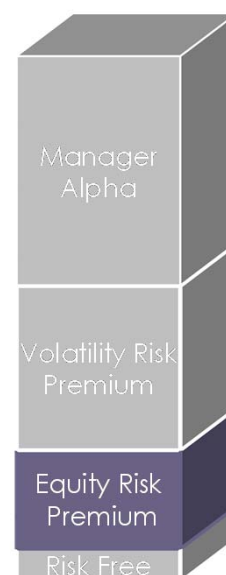
- S&P 500 – Broadly diversified exposure captures the equity risk premium
- Trading benefits of using S&P Index

- Volatility Risk Premium captures the spread between expected and realized volatility
- Manager attempt to further enhance the upside/downside capture ratios

# Equity Risk Premium

---

- Equity risk premium is the reward for owning stocks
- Equity exposure is the S&P 500
- Why the S&P 500?
  - S&P 500 is often used to hedge downside risk, increasing the price of these options.
  - Minimal Market Impact relative to smaller Indices/individual securities
  - Liquidity of this Index may reduce transaction costs
  - Broad market exposure



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# Volatility Risk Premium

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- Volatility risk premium is the reward for selling expensive optionality
- Exists because implied volatility tends to over estimate actual volatility
- S&P 500 options tend to be over priced because of all of the natural long stock hedgers

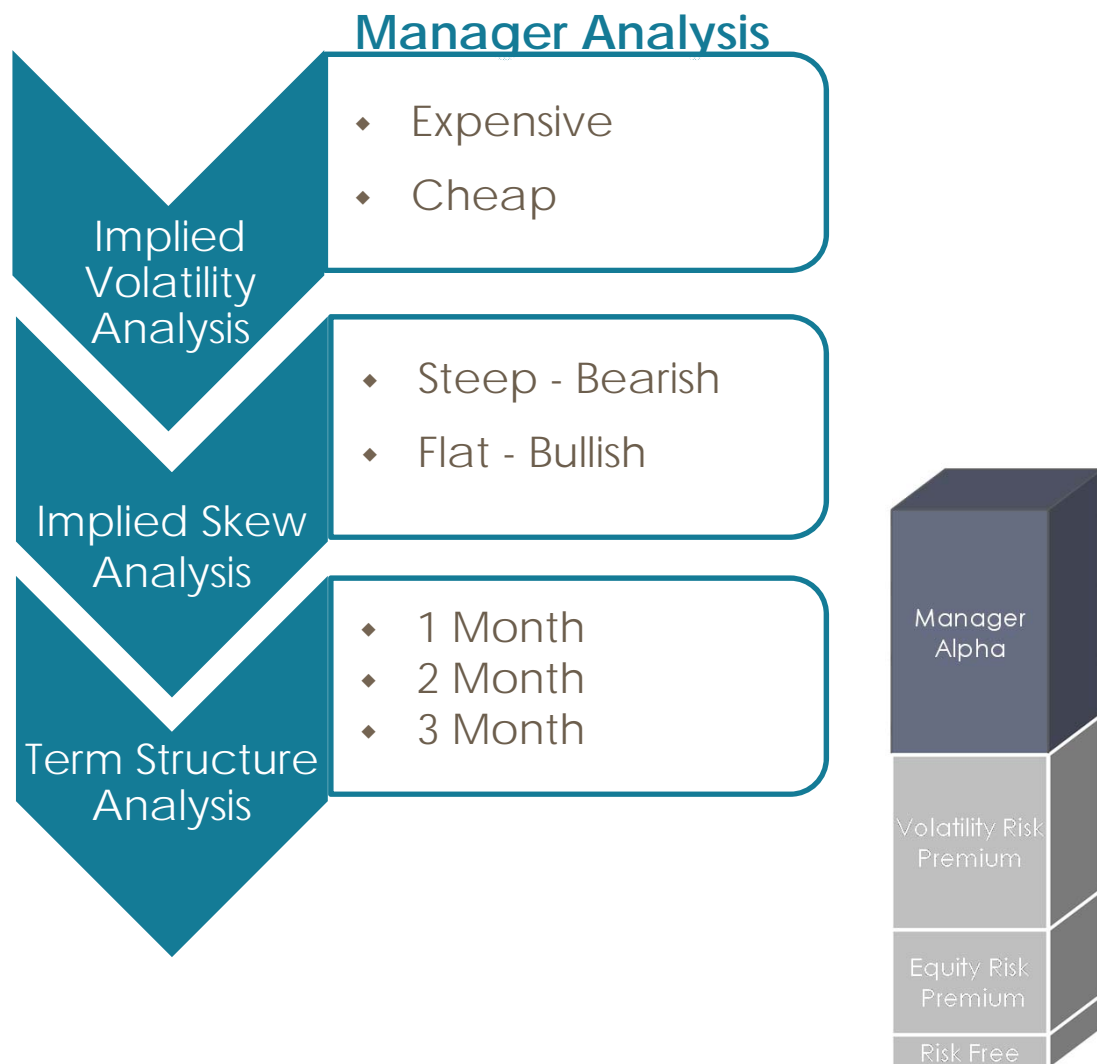


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## Our Process

- Seeks to add alpha by optimizing the option selection process



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## Our Process: Volatility Analysis

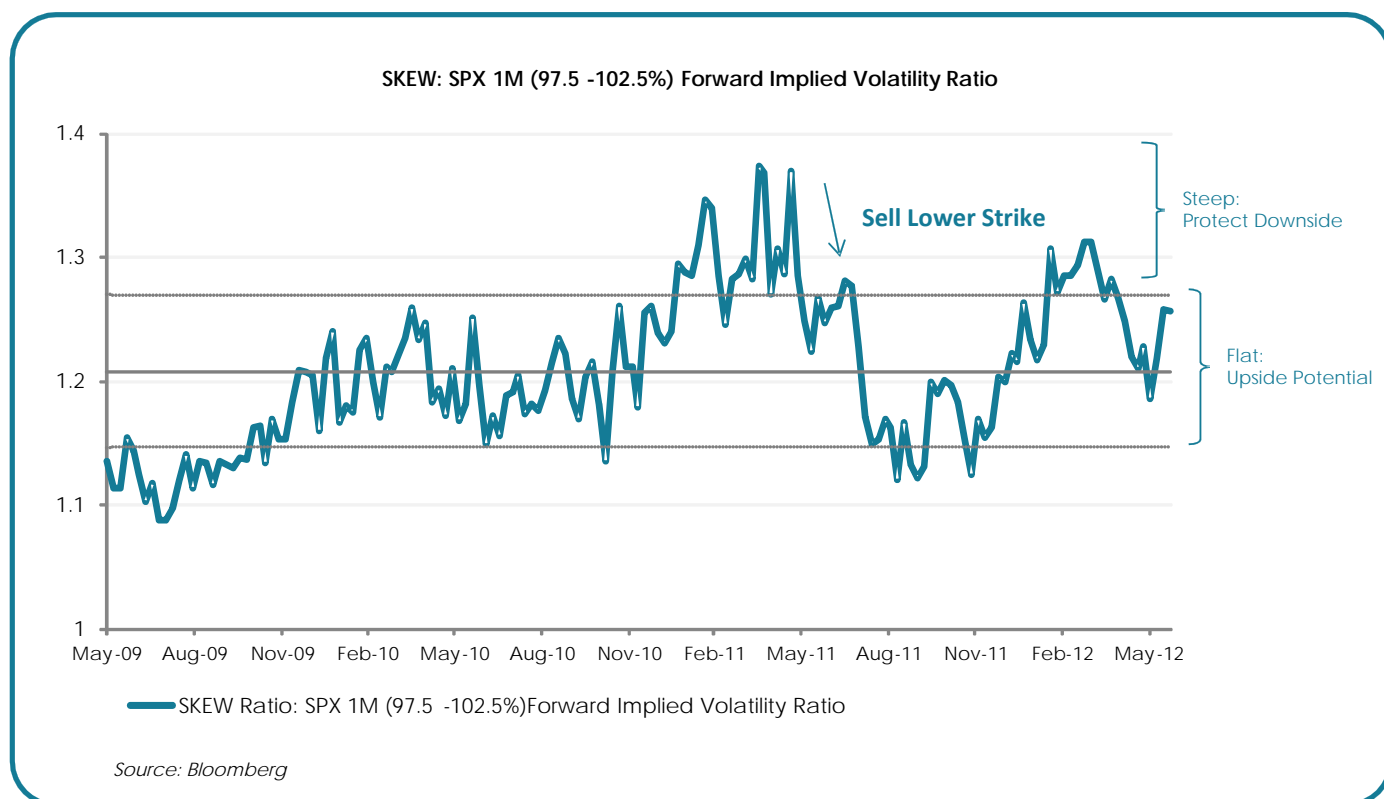
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- Model: Implied Volatility
  - Takes advantage of inefficient volatility pricing: Utilize manager expertise in determining expected volatility through analysis of market movement
  - There are six input variables to an option's price
  - 5 are known: stock price, strike price, time to expiration, interest rates, and dividends
  - The unknown variable is expected volatility

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## Our Process: Skew Analysis

- **Upside Potential vs. Downside Protection** : Measure upside potential vs. downside risk by comparing ITM (In-The-Money), ATM (At-The-Money), and OTM (Out-Of-The-Money) call options
  - If skew is steep: sell lower strikes which create larger cushion
  - If skew is flat: sell higher strikes which provides more upside potential

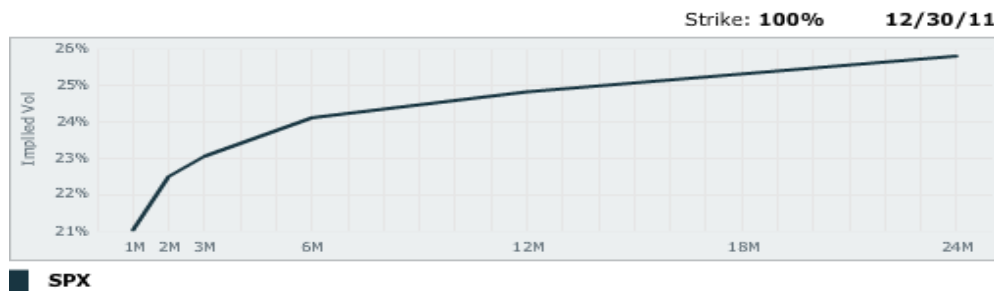


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# Our Process: Term Structure Analysis

- Term Structure: Time Spread
  - Create a forward implied volatility curve to compare front month to second month option
  - Compare time spreads: What is 1- month implied volatility? What is the expected 1-month implied volatility three months from today

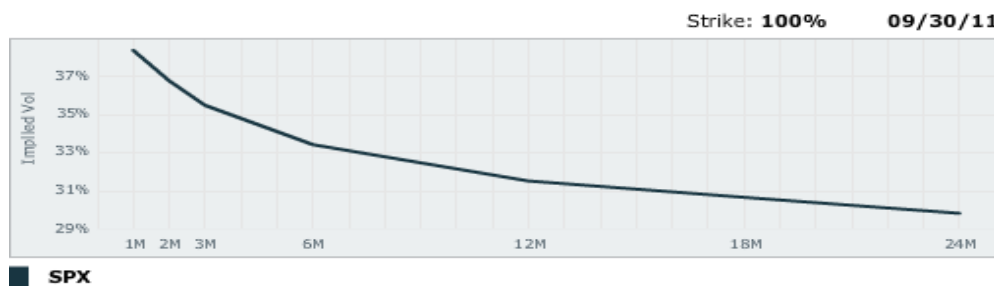
## Term Structure Takeaway



Source: VolCenter, Barclays Capital Live

Short-term volatility is lower than long-term volatility

## Term Structure Takeaway



Source: VolCenter, Barclays Capital Live

Short-term volatility is higher than long-term volatility

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# Pricing Model and Guidelines

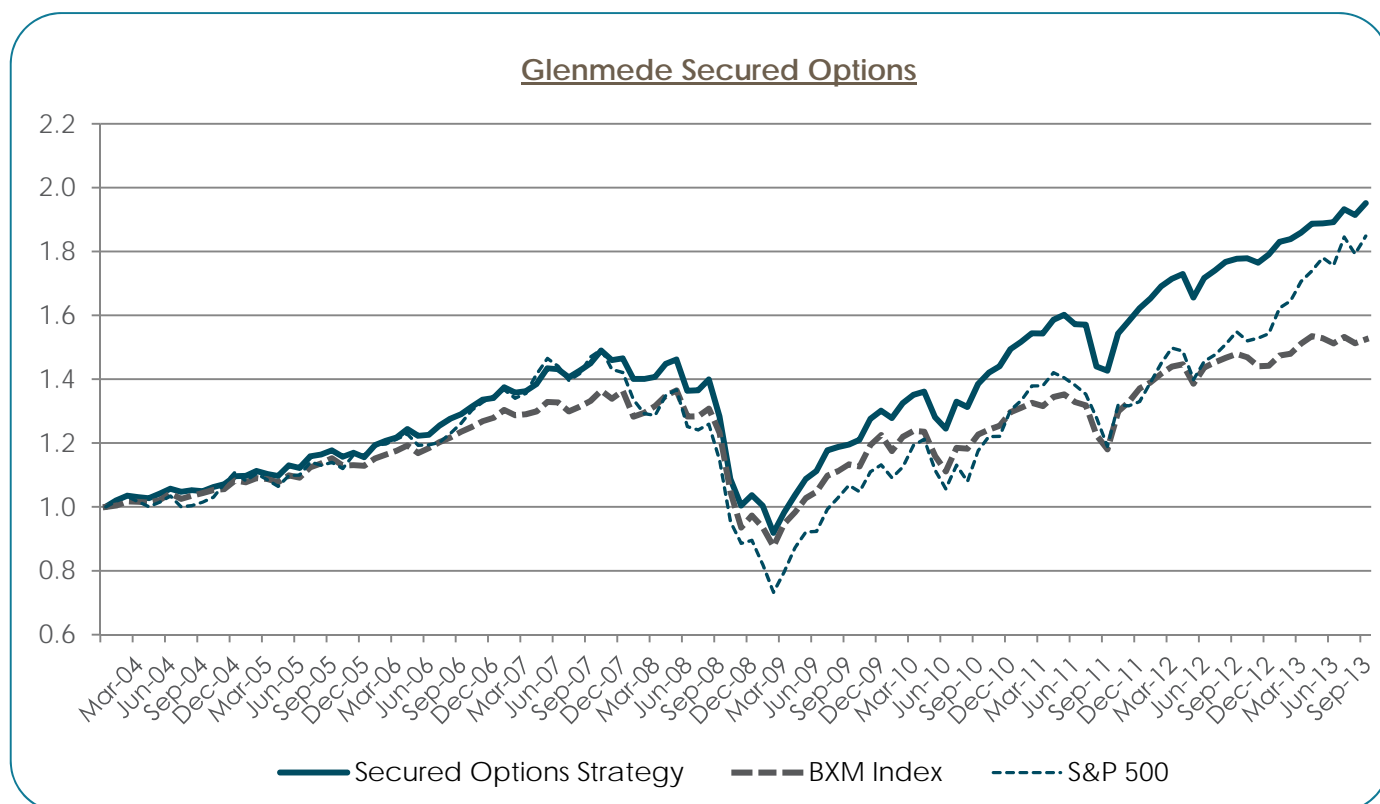
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- Pricing options
  - Input new variables from analysis into Bloomberg to re-create the pricing matrix
  - Monitor Roll

- Guidelines
  - Focus on compounded monthly returns
    - +/- 2% Index (soft)
    - +/- 5% Index (hard)
    - Focus on first month
    - Front 3 months (hard)
    - Annual tracking error approximately 2 - 4%

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# Secured Options Composite Performance As of 09/30/13



## Secured Options Strategy Composite (Annualized Performance & Standard Deviation)

- Since Inception
 

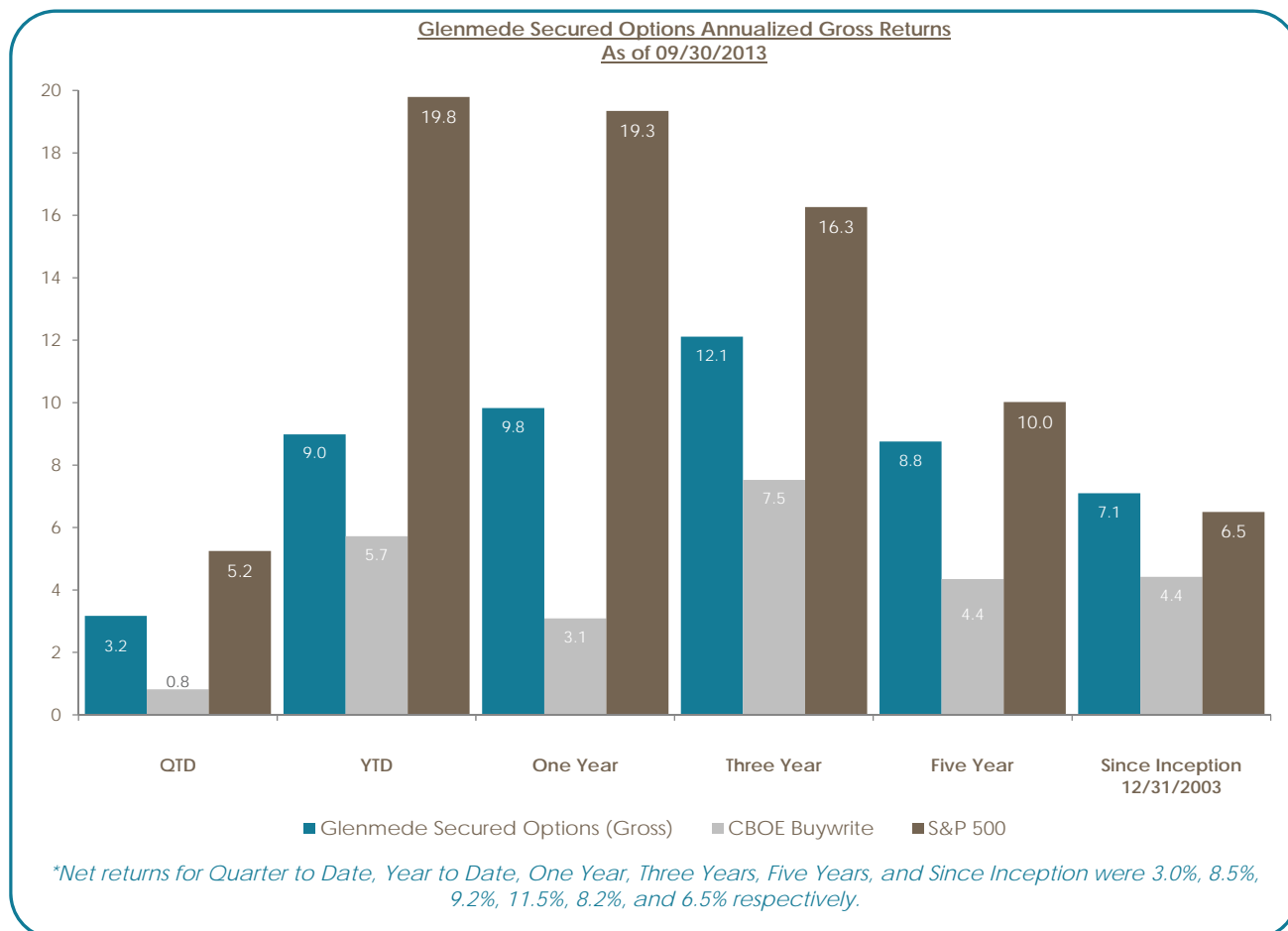
	<u>Performance</u>	<u>Standard Deviation</u>
➤ Glenmede	7.1%	11.1%
➤ CBOE S&P 500 Buy-Write	4.4%	11.1%
➤ S&P 500	6.5%	14.7%
  
- In a Bull Market 6/30/09 – 06/30/2010
 

➤ Glenmede	11.9%
➤ CBOE S&P 500 Buy-Write	6.1%
➤ S&P 500	14.4%
  
- In a Bear Market 6/30/08 – 06/30/2009
 

➤ Glenmede	-18.4%
➤ CBOE S&P 500 Buy-Write	-18.4%
➤ S&P 500	-26.6%

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# Secured Options Composite Performance As of 09/30/13



Calendar Year Returns				
Date	Glenmede (Gross)	Glenmede (Net)	CBOE S&P 500 BuyWrite	S&P 500
2004	9.6	9.0	8.3	9.0
2005	5.4	4.9	4.3	4.9
2006	16.0	15.4	13.3	15.8
2007	9.3	8.7	6.6	5.5
2008	-29.2	-29.6	-28.6	-37.0
2009	25.5	24.8	25.9	26.5
2010	14.8	14.2	5.9	15.1
2011	8.5	8.0	5.7	2.1
2012	10.4	9.8	5.2	16.0

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## Risk Analysis & MPT Statistics

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Glenmede Secured Options Composite vs. CBOE Buy-Write Index (BXM) Risk Analysis As of 09/30/2013				
	1 Year	3 Year	5 Year	Inception to Date
Alpha	7.6%	5.1%	4.5%	2.7%
Beta	0.68	0.89	0.94	0.96
Up Capture	129%	114%	107%	109%
Down Capture	25%	73%	83%	89%
Annualized Std. Dev. of Portfolio	3.6%	8.6%	13.6%	11.1%
Annualized Std. Dev. of BXM Index	4.5%	9.2%	14.1%	11.1%

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## Risk Analysis & MPT Statistics

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Glenmede Secured Options Composite vs. S&P 500 Risk Analysis As of 09/30/2013				
	1 Year	3 Year	5 Year	Inception to Date
Alpha	3.4%	2.7%	1.6%	1.9%
Beta	0.33	0.58	0.69	0.69
Up Capture	39%	58%	65%	69%
Down Capture	11%	41%	61%	58%
Annualized Std. Dev. of Portfolio	3.6%	8.6%	13.6%	11.1%
Annualized Std. Dev. of S&P 500 Index	8.7%	12.2%	17.9%	14.7%

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## Sean E. Heron, CFA

### Portfolio Manager

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Sean E. Heron, CFA, is a portfolio manager for Glenmede Investment Management LP. In addition to managing the Secured Options products, he leads a team responsible for providing clients with a full range of hedging and diversification strategies which incorporate the use of options, futures and other structured products.

Mr. Heron began his career as an Options Specialist with Goldman Sachs. In 2003, he left the firm to help former Goldman Sachs Managing Director Thomas McGowan launch McGowan Investors, LP.

Mr. Heron graduated from LaSalle University with a B.A. in Finance and an M.B.A in Accounting. He received his Chartered Financial Analysts designation in 2004.

Mr. Heron is a CFA Society Board Member and serves as an instructor for the CFA Exam and as an Adjunct Professor at Rutgers University.

## Gordon B. Fowler Jr.

President, Chief Executive Officer and Chief Investment Officer

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Gordon B. Fowler Jr., is President and Chief Executive Officer of Glenmede and a Director of The Glenmede Trust Company, N.A. With more than \$20 billion of assets under management, Glenmede remains independent and exclusively focused on the business of investment and wealth management.

Mr. Fowler also serves as Glenmede's Chief Investment Officer. In this role, he is responsible for investment strategy, fund management and research.

Mr. Fowler joined Glenmede in 2003 following a more than twenty-year career with J.P. Morgan where he served in several management positions, including as Global Head of Investment Management of the Private Bank and as Head of Quantitative Equity Management for Institutional Asset Management.

Over the course of his career, he has been responsible for the development of numerous equity and asset allocation strategies, and has authored and co-authored several pioneering articles on private client and institutional investing.

Mr. Fowler received a B.A. from Brown University in 1981 and a M.S. from New York University Graduate School of Business in 1985. He is a board member of Philadelphia Futures and the Curtis Institute of Music, and a member of the investment working group for the Church Pension Fund and the Investment Committee for the Princeton Theological Seminary.

# Jeffrey W. Coron, CIMA®

## Director of Institutional and Intermediary Distribution Glenmede Investment Management LP

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Jeffrey Coron is Director of Institutional and Intermediary Distribution of Glenmede Investment Management (GIM), a division of Glenmede. In this role, Mr. Coron's primary responsibility will be the placement of Glenmede strategies on intermediary platforms and the development and retention of institutional and consultant relationships.

Prior to joining Glenmede, Mr. Coron was a Senior Vice President with Advisors Asset Management, Inc., where he led both the Relationship Management and Business Development Groups. Previously, he was the Managing Director and Head of Private Wealth and Institutional Distribution at Natixis Asset Management in Boston, MA. Mr. Coron has more than 20 years of experience in asset management distribution.

Mr. Coron earned a Bachelor of Science degree in finance from Elizabethtown College. He obtained his Certified Investment Management Analyst (CIMA) designation through The Wharton School of the University of Pennsylvania. He is licensed in the NASD Series 7, 24, 26, 63 and 65.

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# Glenmede Investment Management, LP

## Composite Performance Presentation

### Secured Options Composite

December 31, 2003 through September 30, 2013

Period	Returns Gross of Fees (%)	Returns Net of Fees (%)	CBOE Buy/Write Index (%)	S&P 500 Index (%)	Number of Accounts	Composite Market Value (\$millions)	Total Firm Market Value (\$ millions)	Percentage of Firm Assets	Internal Std Deviation (%)
2013 YTD	8.98	8.54	5.72	19.79					0.19
Q3	3.16	3.02	0.82	6.35	8	400	6,386	6%	0.09
Q2	1.74	1.60	0.04	(2.75)	8	398	6,201	6%	0.15
Q1	3.83	3.69	4.82	10.61	8	376	6,089	6%	0.06
2012 Year	10.40	9.80	5.20	16.00					0.21
Q4	0.78	0.64	(2.49)	(0.38)	8	368	5,929	6%	0.19
Q3	3.49	3.35	2.98	6.35	9	381	5,722	7%	0.05
Q2	0.14	0.00	(0.20)	(2.75)	9	356	5,543	6%	0.03
Q1	5.70	5.56	4.99	12.59	9	335	5,450	6%	0.04
2011 Year	8.58	7.98	5.72	2.11					0.69
Q4	13.68	13.53	16.14	11.82	9	290	5,243	6%	0.34
Q3	(9.23)	(9.36)	(11.12)	(13.87)	9	242	4,835	5%	0.36
Q2	1.87	1.73	0.92	0.10	9	253	5,236	5%	0.19
Q1	3.29	3.15	1.48	5.92	9	218	5,139	4%	0.67
2010 Year	14.78	14.16	5.86	15.06					0.66
Q4	7.86	7.72	5.71	10.76	10	147	4,992	3%	0.59
Q3	11.20	11.05	10.39	11.29	12	103	4,640	2%	0.30
Q2	(7.80)	(7.93)	(10.26)	(11.43)	51	73	N/A	N/A	0.22
Q1	3.79	3.65	1.08	5.39	42	82	N/A	N/A	0.37
2009 Year	25.50	24.82	25.91	26.46	<5				N/A
Q4	8.89	8.75	8.07	6.04	31	71	N/A	N/A	0.46
Q3	7.42	7.28	8.18	15.61	24	48	N/A	N/A	0.58
Q2	13.20	13.05	10.57	15.93	5	14	N/A	N/A	0.13
Q1	(5.22)	(5.35)	(2.59)	(11.01)	<5	1	N/A	N/A	N/A
2008 Year	(29.22)	(29.62)	(28.65)	(37.00)					N/A
Q4	(19.16)	(19.28)	(21.06)	(21.94)	<5	1	N/A	N/A	N/A
Q3	(5.92)	(6.05)	(3.97)	(8.37)	<5	1	N/A	N/A	N/A
Q2	(3.11)	(3.25)	(2.52)	(2.73)	<5	1	N/A	N/A	N/A
Q1	(3.95)	(4.08)	(3.46)	(9.44)	<5	1	N/A	N/A	N/A
2007 Year	9.27	8.67	6.59	5.49					N/A
Q4	1.08	0.94	2.38	(3.33)	<5	1	N/A	N/A	N/A
Q3	1.26	1.12	0.34	2.03	<5	1	N/A	N/A	N/A
Q2	5.06	4.92	2.88	6.28	<5	1	N/A	N/A	N/A
Q1	1.61	1.47	0.86	0.64	<5	1	N/A	N/A	N/A
2006 Year	16.03	15.40	13.33	15.80	<5	1	N/A	N/A	N/A
2005 Year	5.43	4.86	4.25	4.91	<5	1	N/A	N/A	N/A
2004 Year	9.61	9.02	8.30	9.02	<5	1	N/A	N/A	N/A

Annualized Performance - Period Ending September 30, 2013				
Period	Return (%)	Return (%)	CBOE	S&P 500
	Gross of Fees	Net of Fees	Buy/Write (%)	Index (%)
1 Year	9.83	9.23	3.09	19.34
2 Year	16.95	16.32	13.65	24.65
3 Year	12.11	11.50	7.52	16.27
4 Year	13.04	12.43	7.69	14.71
5 Year	8.75	8.16	4.35	10.02
6 Year	5.08	4.51	2.28	3.89
7 Year	6.09	5.51	3.05	5.60
8 Year	6.52	5.94	3.56	3.56
Since Inception	7.09	6.51	4.42	6.50

3Yr Std Deviation	Composite	CBOE BXIM	S&P 500
as of 12/31/12	10.8%	11.4%	15.1%
as of 12/31/11	13.3%	13.5%	18.7%

Inception Date: 12/31/2003

Creation Date: 6/30/2009

Separate Account Fee Schedule (effective 3/11):

First \$10 million	0.75% on market value
Next \$40 million	0.55% on market value
Next \$50 million	0.45% on market value
Thereafter	0.40% on market value

#### Past performance is not indicative of future performance.

Glenmede Investment Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Glenmede Investment Management has been independently verified for the period of 1/1/1993 to 6/30/2012. The verification reports are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation. "Firm" assets are defined as all assets managed by the Glenmede Investment Management, LP. All returns are calculated in US Dollars. A complete list of firm composites and performance is available upon request.

Glenmede Investment Management, LP, a registered Investment Advisor, is a wholly owned subsidiary of the Glenmede Trust Company, NA (GTC). Effective January 1, 2007, the Investment Product Management Group of GTC became Glenmede Investment Management, LP. All performance prior to January 1, 2007, shown here as the performance of GIM, was previously reported as the performance of the Investment Product Management Group of the Glenmede Trust Company.

The investment decision makers and the investment process remains unchanged. As a result, the performance of the composite included herein, from July 1, 2009 to September 30, 2012, is that of Glenmede Trust Company and has been linked to the performance of Glenmede Investment Management.

Returns represent gross performance (annual rate of total return) of all the Glenmede Secured Option non-restricted, discretionary, actively managed accounts. This composite does not have a minimum asset level for inclusion. Accounts join the composite quarterly following their first full month under management. Accounts experiencing cash flows of 30% of beginning market value or greater are excluded from the composite starting with the affected time period. Gross return computations for separately managed accounts include transaction costs, but do not include management fees and assume the reinvestment of all dividends, interest, and capital gains. Net return computations shown are calculated by applying the maximum management fee to gross return calculations. Portfolio performance calculations are time-weighted to account for periodic contributions and withdrawals. Composite returns consist of asset-weighted portfolio returns using beginning of period values to weight portfolio returns. Additional information regarding the Company's policies for calculation, valuation and reporting returns is available upon request.

Internal Std Deviation is an asset-weighted, monthly calculation of accounts included for the entire period. The 3Yr Std Deviation is calculated using monthly, gross returns.

This composite was previously known as the Option Overwrite composite. Prior to 7/2010, this composite was part of the Glenmede Trust Company.

The CBOE Buy/Write Index is a benchmark index designed to track the performance of a hypothetical buy-write strategy on the Standard and Poor's 500 Index.

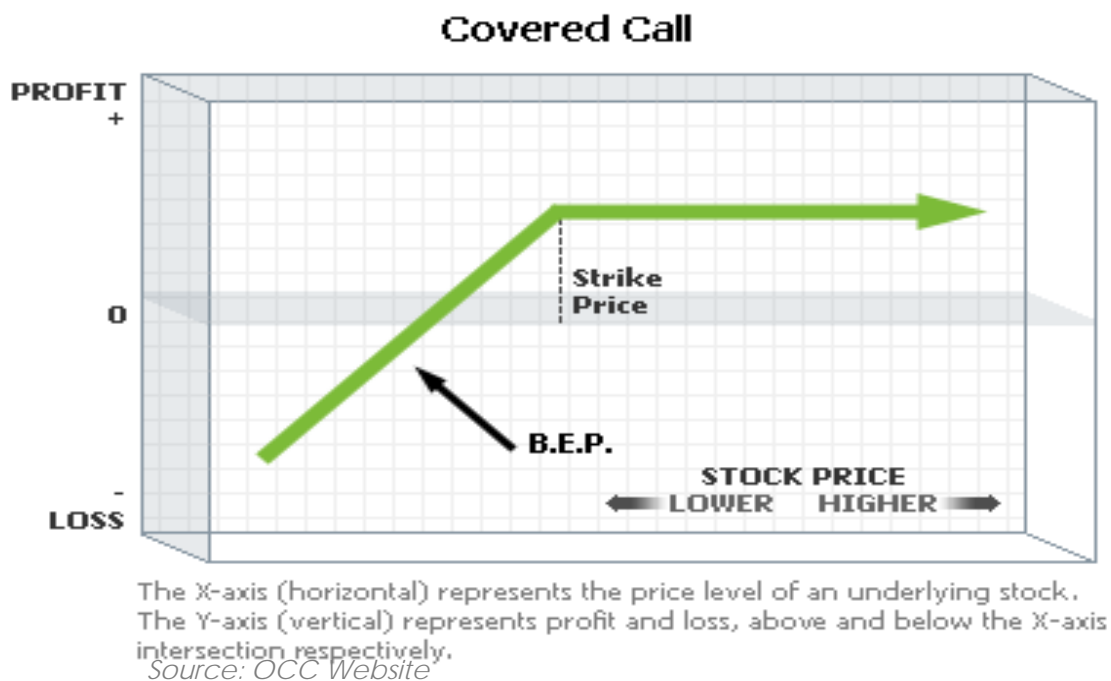
The S&P 500 Index consists of 500 widely held common stocks. The unmanaged index is a total return index with dividends reinvested. One cannot invest directly in an index.

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**GLENMEDE**

# What is a Covered Call?

- A covered call is:
  - a strategy where an investor buys a security and writes (sells) a call option on the same stock;
  - an obligation to sell the security at a predetermined price (strike price), if called (assigned);
  - cash flow positive because the call seller receives an upfront cash premium for agreeing to sell the stock; and
  - designed to capture some upside participation and help cushion the downside risk.



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# Why Covered Calls?

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- When to implement covered calls?
  - Investor is neutral to moderately bullish on equities.
  - Investor is willing to limit upside potential in exchange for downside protection.

- When **not** to implement covered calls?
  - Investor is extremely bearish or extremely bullish on equities.
  - Investor is **NOT** willing to limit upside potential.
  - Investor wants to be fully invested with a minimum beta of 1.0.

## Why covered calls?

---

- For Client specific reasons:
  - Reduce risk
  - Enhanced return and cash flow

- Market valuation reasons:
  - Volatility is at the high end of its historical range
  - Market seems overbought
  - Implied volatility is expected to exceed subsequent realized volatility



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# Covered Calls Program Presentation

East Bay Municipal Utility District Employees Retirement System

November 19, 2013

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# Table of Contents

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**Firm Overview**

**Parametric Proposal to EBMUD**

**DeltaShift<sup>SM</sup> and BXM Replication**

## **Appendix**

- BXM Case Study
- Biographies
- Important Additional Information & Disclosure

# Parametric Portfolio Associates LLC Profile

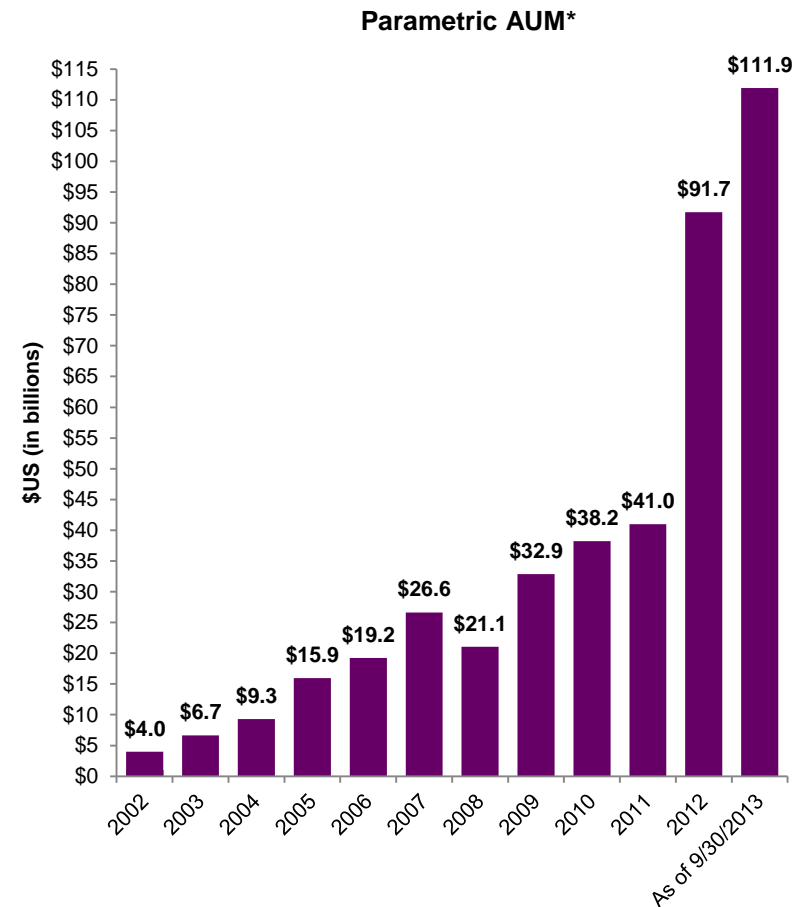
- Founded in 1987, became part of Eaton Vance in 2003
- Recognized leader in engineered portfolio solutions, with over 20 years of global equity management experience
- \$111.9 billion in client assets under management\*
- 74 investment professionals\*\*
- Investment offices in Seattle, Washington (global equities, commodities and currencies); Westport, Connecticut (Parametric Risk Advisors - managed options); and Minneapolis, Minnesota (futures)
- Self-managed, boutique investment culture with emphasis on innovation
- Demonstrable strengths in quantitative investment research, portfolio implementation and investment technology

\*As of September 30, 2013.

(Parametric's 2012 AUM figure includes \$34.8 billion from the acquisition of the Clifton Group completed December 31, 2012.)

Also includes \$14.0 billion in Eaton Vance Management portfolio assets that are sub-advised by Parametric and its subsidiary, Parametric Risk Advisors, a registered investment adviser. Parametric is a majority-owned subsidiary of Eaton Vance Corp

\*\*As of September 30, 2013. Includes the investment professionals of Parametric's subsidiary, Parametric Risk Advisors, LLC, a registered investment adviser.



# Investment Philosophy

## Investment Philosophy

## Innovation & Implementation

## Engineered Capabilities

## Leadership Team

### Investment Philosophy

Parametric's investment approaches are long-term and, at their roots, disciplined and rules-based. They evolve over time, as they don't require repeated tactical insights into valuations or market direction.

Each of the firm's strategies builds upon a well-researched, straight-forward and compelling investment thesis. Efficient implementation is central to their success.

Parametric's investment staff act as investment "engineers," researching and creating portfolios with explicit risk and potential return targets while continually measuring and managing the impact of relevant costs.

### Observations: Markets are hard to beat

As a result, successful long-term investing requires:

- Careful creation and balance of systematic/market (beta) and active (alpha) exposures
- Focus on risk management, investment costs and portfolio implementation

### Approach: Disciplined, rules-based investment practice

- Built upon quantitative, scientific research
- Capturing market exposures while seeking to improve risk and return
- Focus on volatility management and rebalancing
- Transforming investment exposures through options management

### Benefits

- Risk management
- Active tax management (where applicable)
- Eliminating the emotional component of investment decision making

# Innovation & Implementation

## Investment Philosophy

## Innovation & Implementation

## Engineered Capabilities

## Leadership Team

An engineered approach to investing seeks to provide an efficient solution to even the most complex asset classes.

For more than twenty years, Parametric has been implementing strategies to gain exposure to markets across the globe.

To take these strategies from concept to reality requires a wide range of resources from across the firm.

### Research

- Incubation of new strategies
- Current product enhancement and evolution

### Portfolio Management and Operational Excellence

- Specialists in the thoughtful application of disciplined rules-based strategies
- Dedicated team managing assets across institutional and individual clients
- Continuous and proactive communication with custodians





### Technology

- Proprietary tools to manage assets to exact specifications
- Support infrastructure to service ongoing business needs

### Trading

- In-depth knowledge of trading in more than 60 countries
- Average of 200,000+ trades executed per week across all product types
- FX trades executed via competitive third parties, when possible

# Engineered Capabilities

Investment Philosophy	Innovation & Implementation	Engineered Capabilities	Leadership Team
<b>U.S. / Global Equity</b> <ul style="list-style-type: none"> <li>– International</li> <li>– Global</li> <li>– U.S. Equity</li> <li>– U.S. Microcap</li> <li>– Global Small Cap</li> <li>– Global Small Cap ex-U.S.</li> </ul> 	<b>Emerging Markets Equity</b> <ul style="list-style-type: none"> <li>– Emerging Markets</li> <li>– Emerging Markets – Core</li> </ul> 	<b>Options*</b> <ul style="list-style-type: none"> <li>– Stock DeltaShift<sup>sm</sup></li> <li>– Portfolio DeltaShift<sup>sm</sup></li> <li>– ParaHedge<sup>TM</sup></li> <li>– Option Absolute Return Strategy</li> </ul> 	<b>Specialty / Alternative</b> <ul style="list-style-type: none"> <li>– Commodity</li> <li>– Currency</li> <li>– Absolute Return</li> </ul> 

\*Options capabilities are offered by Parametric's affiliate, Parametric Risk Advisors, LLC, an investment adviser registered with the SEC under the Investment Advisers Act of 1940.

# Leadership Team

Investment Philosophy		Innovation & Implementation		Engineered Capabilities		Leadership Team	
David Stein, PhD Chief Investment Officer			Brian Langstraat, CFA Chief Executive Officer				
Thomas Seto Managing Director - Portfolio Management	Paul Bouchey, CFA Managing Director - Research	Rob Ciro Managing Director - Product Management	James Barrett Managing Director - Institutional Sales & Service	Andrew Abramsky Chief Operating Officer	Aaron Singleton Chief Financial Officer		
Portfolio Management	Research	Product Development	Product Specialists Sales/Client Services Marketing Analytics/Support	Trading Operations Technology/ Infrastructure Technology/ Development	Administration Compliance Finance		

All members of the Leadership Team are employees of Parametric.



# Parametric Organizational Information

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- Founded in 1987 – headquartered in Seattle
  - 74 investment professionals\*
  - Investment offices in Seattle, Washington (global equities, commodities and currencies); Westport, Connecticut (Parametric Risk Advisors - managed options); and Minneapolis, Minnesota (futures)
  - Recognized leader in structured portfolio management, with nearly 25 years of portfolio management experience.
  - Self-managed, boutique investment culture with emphasis on innovation.
  - Demonstrable strengths in quantitative investment research, portfolio implementation and investment technology.
  - Majority owned affiliate of Eaton Vance Corp (since 2003).
- 
- Parametric's subsidiary Parametric Risk Advisors ("PRA") focuses on managing options overlay strategies.
  - As of 9/30/2013 PRA manages option strategies with underlying notional over \$4 billion.
  - In addition as of 9/30/2013, PRA's management team, as dual employees of Eaton Vance, oversees EV fund option strategies with aggregate value > \$9.5 billion.
  - PRA has 9 full-time investment professionals in Westport, CT and 2 full-time software developers in Seattle, WA
  - Back office/operations etc. performed by Parametric - Seattle office.

\*As of September 30, 2013. Includes the investment professionals of Parametric's subsidiary, Parametric Risk Advisors, LLC, a registered investment adviser.

This information is as of 9/30/2013 and is subject to change at anytime without notice.

Note: Parametric Portfolio Associates LLC owns a majority interest in Parametric Risk Advisors, LLC, ("PRA"). PRA is a registered investment adviser under the SEC Investment Advisers Act of 1940. Investment personnel total includes PRA.

# Parametric Covered Call Proposal to EBMUD

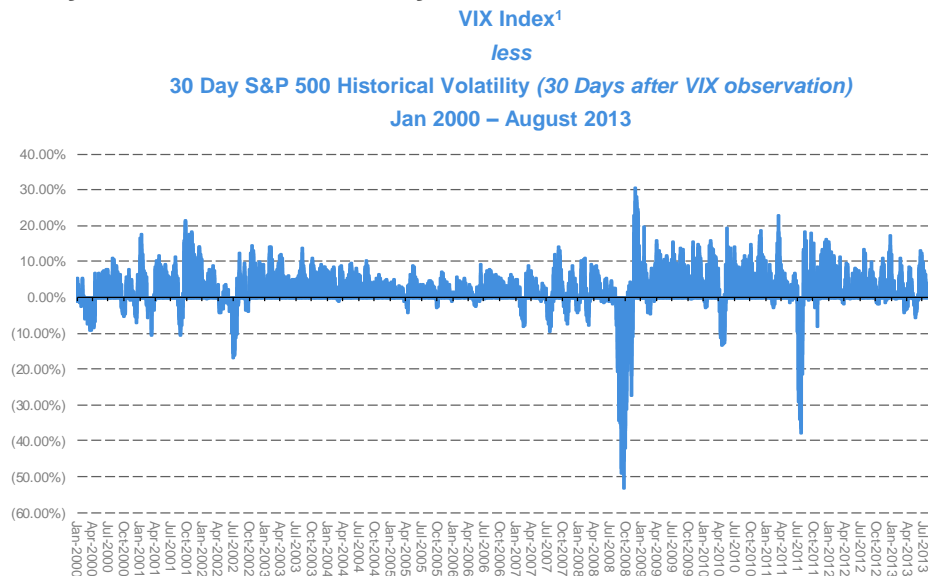


\*Includes \$14.0 billion in Eaton Vance Management portfolio assets that are sub-advised by Parametric and its affiliate, Parametric Risk Advisors, a registered investment adviser. Parametric is a majority-owned subsidiary of Eaton Vance Corp

# Philosophy – Portfolio Covered Calls

- Parametric observes that equity options are generally mis-priced in a manner that benefits option sellers.
- Long-term equity investors (like public pension plans), may benefit from systematically writing calls over diversified equity portfolios:
  - Lower volatility and potential increase compounding of asset growth
  - Seek to generate excess return by “mining” supply/demand imbalance for equity options
  - Seek to generate performance (direct cash flow), relative to long equity portfolio, during times of market stress
- Our experience shows that a well-executed, rules-based covered call strategy can, over time, outperform mechanical index approaches while minimizing risk.

## Example: Implied Volatility vs. Historical Volatility for the S&P 500\* Index



Source: Bloomberg (9/30/13) \*This data is for illustrative purposes only. Each stock/index will have a different historical volatility and observed, implied volatility set. Investment views and strategies described in this presentation may not be suitable for all investors. This is a hypothetical presentation and should not be considered to replicate an individual portfolio and is not investment advice for a particular security or strategy. The call writing strategy consists of an option overlay that can be implemented upon most existing portfolios of securities. The underlying portfolio of securities will materially impact each particular client's total return experience. Past performance is not indicative of future returns.

# DeltaShift<sup>SM</sup> Investment Profile

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## Portfolio Investments

- Underlying broadly diversified indexed equity portfolio.
- Index call options sold against a portion of, or all of, the equity portfolio
- A short-term cash reserve comprised of accrued option premium (held in an interest bearing account)

## Objectives

- Seek to outperform the S&P500 Index by 1.00% - 3.00% per year (after fees)
- Seek to reduce portfolio volatility by approximately 20%

\*There is no guarantee that the investment objectives can be achieved. Investment management techniques require market liquidity in the specific option. If a trading market does not exist, DeltaShift<sup>SM</sup> may not be able to achieve its goals as described above. This information is not a representation of any specific client portfolio or composite. Past performance is not indicative of future returns. Please refer to the disclosures for additional important information.

# DeltaShift<sup>SM</sup> Investment Process

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DeltaShift<sup>SM</sup> attempts to transform academic theory (BXM mechanical strategy) into a real world, client driven, repeatable, actively managed strategy.

Performance value, relative to the BXM Index, is sought through a combination of:

- Option Selection – target a probability of exercise while considering market factors
- Active Risk Management Techniques – e.g. profit capture / loss mitigation

\*There is no guarantee that the investment objectives can be achieved. Investment management techniques require market liquidity in the specific option. If a trading market does not exist, DeltaShift<sup>SM</sup> may not be able to achieve its goals as described above. This information is not a representation of any specific client portfolio or composite. Past performance is not indicative of future returns. Please refer to the disclosures for additional important information.

# DeltaShift<sup>SM</sup> Option Selection

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Delta is the measure of option price sensitivity relative to changes in the price of the underlying security or index. It is also a measure of *risk* of option exercise *versus* return of option premium.

**Parametric targets call options with an initial delta<sup>1</sup> between 20-30%. In addition, DeltaShift<sup>SM</sup> incorporates five additional market factors in the option selection process:**

- i. Liquidity - select options which attempt to minimize market impact and transactions costs
- ii. Volatility - select options which, in our opinion, exhibit attractive risk vs. reward opportunities
- iii. Maturity - select options which we believe will minimize event risk
- iv. Time Decay - select options which we believe will efficiently realize value for portfolio
- v. Diversity – have several different strikes and maturities

\*Investment views and strategies described in this presentation may not be suitable for all investors. The DeltaShift<sup>SM</sup> strategy consists of an option overlay that can be implemented upon most existing portfolios of securities. The underlying portfolio of securities will materially impact each particular client's total return experience. There is no assurance that this process will be profitable and the investment is subject to loss. Please refer to the Disclosure for further information.

# DeltaShift<sup>SM</sup> Option Selection

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## Exchange Traded Only

- Liquid, transparent, low cost

## Maturity

- 1 – 3 months, reduced “event risk”
- Higher volatility, better liquidity
- Usually smaller bid / offer spreads
- Optimize time decay

## Diversification

- Multiple strikes, multiple maturities
- Seek to reduce time / price specific risk

## Strike Selection

- Probability of exercise 20-30%

*(strike price generally 5.00% - 15.00% above the index level at the time the call is written)*

The above general target and allocation information is for illustrative and informational purposes only. Each investor's portfolio is individually managed and may differ from the information shown,

# DeltaShift<sup>SM</sup> Active Risk Management

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Although option selection is a key component in any option strategy, experience shows that on-going risk management is equally important.

- Parametric implements rules-based active risk management which seeks to:
  - Reduce option concentrations (date, time, notional specific) by increasing number and types of options – vs, BXM Index.
  - Avoid large losses, relative to long equity, that can de-rail a long-term compelling program.

There is no guarantee that the investment objectives can be achieved. Investment management techniques require market liquidity in the specific option. If a trading market does not exist, DeltaShift<sup>SM</sup> may not be able to achieve its goals as described above. This information is not a representation of any specific client portfolio or composite. Past performance is not indicative of future returns. Please refer to the disclosures for additional important information.

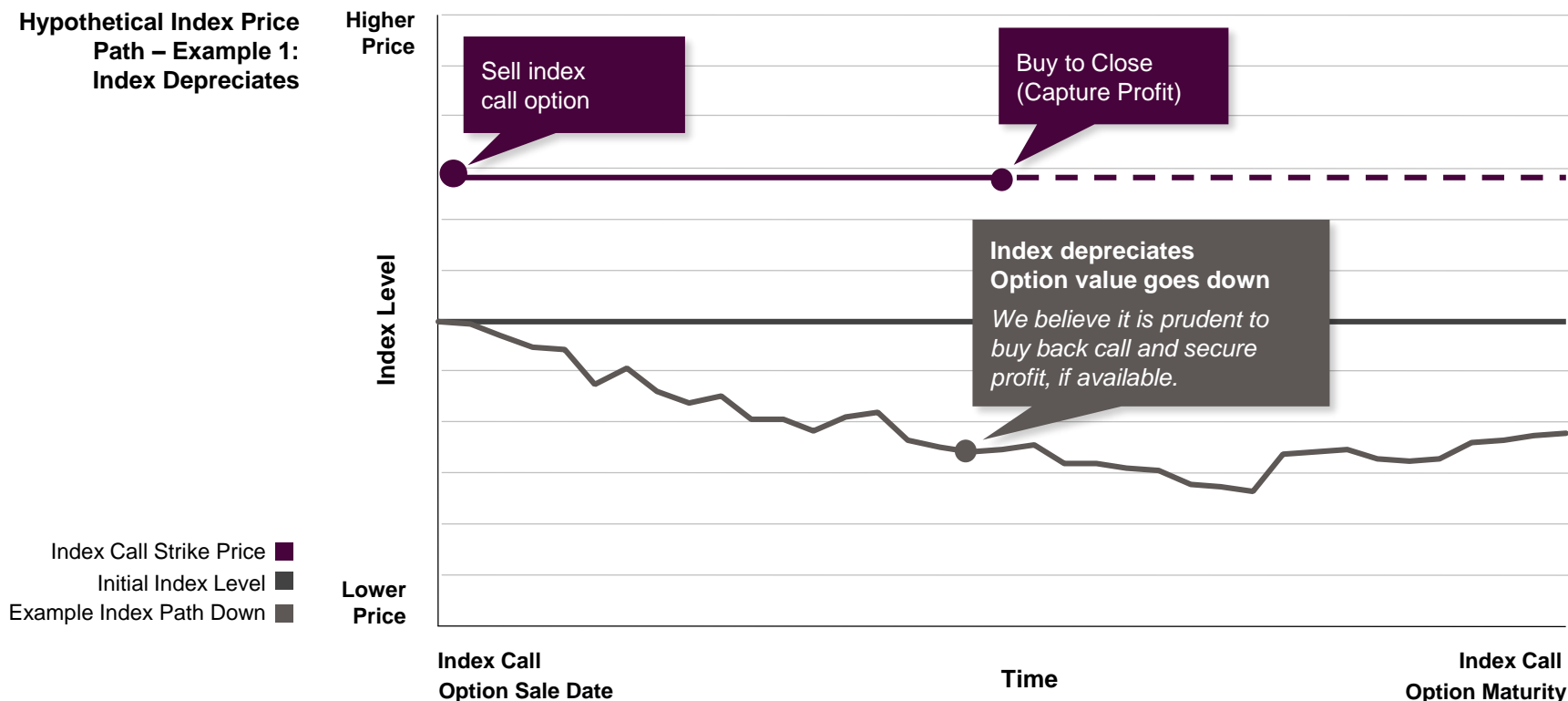


# Portfolio DeltaShift<sup>SM</sup> - Portfolio Management

## Example: Early Profit Capture

If the option loses a significant amount of value due to index movement, change in volatility or excessive time decay, we quickly seek to take advantage and attempt to repurchase previously sold call options at a fraction of the original sale price.

**Hypothetical Index Price  
Path – Example 1:  
Index Depreciates**



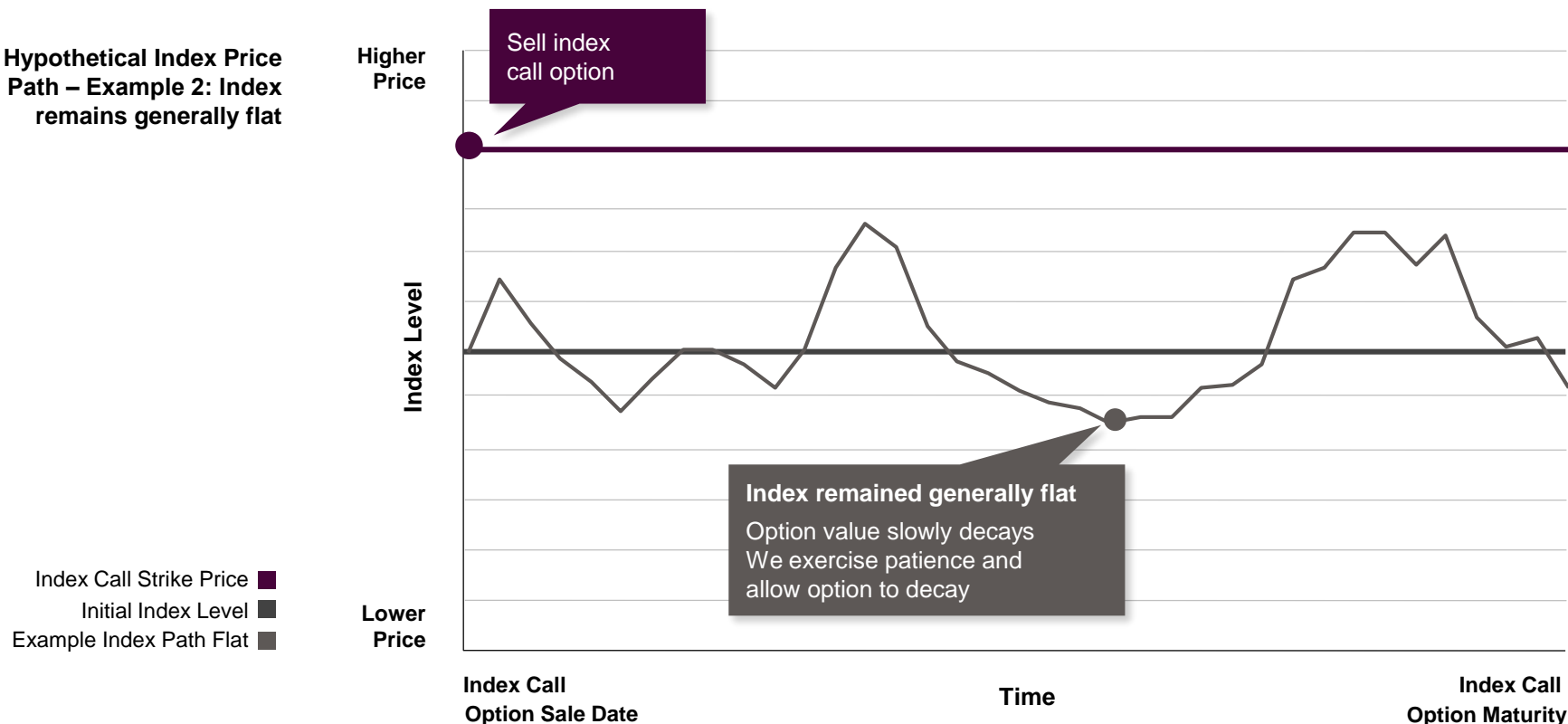
Source: Parametric Risk Advisors, LLC (PRA). The above hypothetical example is for informational and illustrative purposes only and may not be considered for investing purposes. It should not be considered investment advice or a recommendation to buy or sell any particular security or to adopt any investment strategy. The information presented is based, in part, on hypothetical assumptions and the experience of PRA. Actual performance results will differ, and may differ (negatively) substantially, from the hypothetical example presented above. A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived and well-executed options program may be adversely affected by market behavior or unexpected events. Successful options strategies may require the anticipation of future movements in securities prices, interest rates and other economic factors. No assurances can be given that the judgments of PRA in this respect will be correct or profitable. Please refer to the disclosures for additional important information.

# Portfolio DeltaShift<sup>SM</sup> - Portfolio Management

## Example: Time Decay

Underlying index stays within “expected” range; option’s value “decays” each day. If index remains below the call strike we will either let it expire worthless, or buy it back at a fraction of its original price.

**Hypothetical Index Price Path – Example 2: Index remains generally flat**

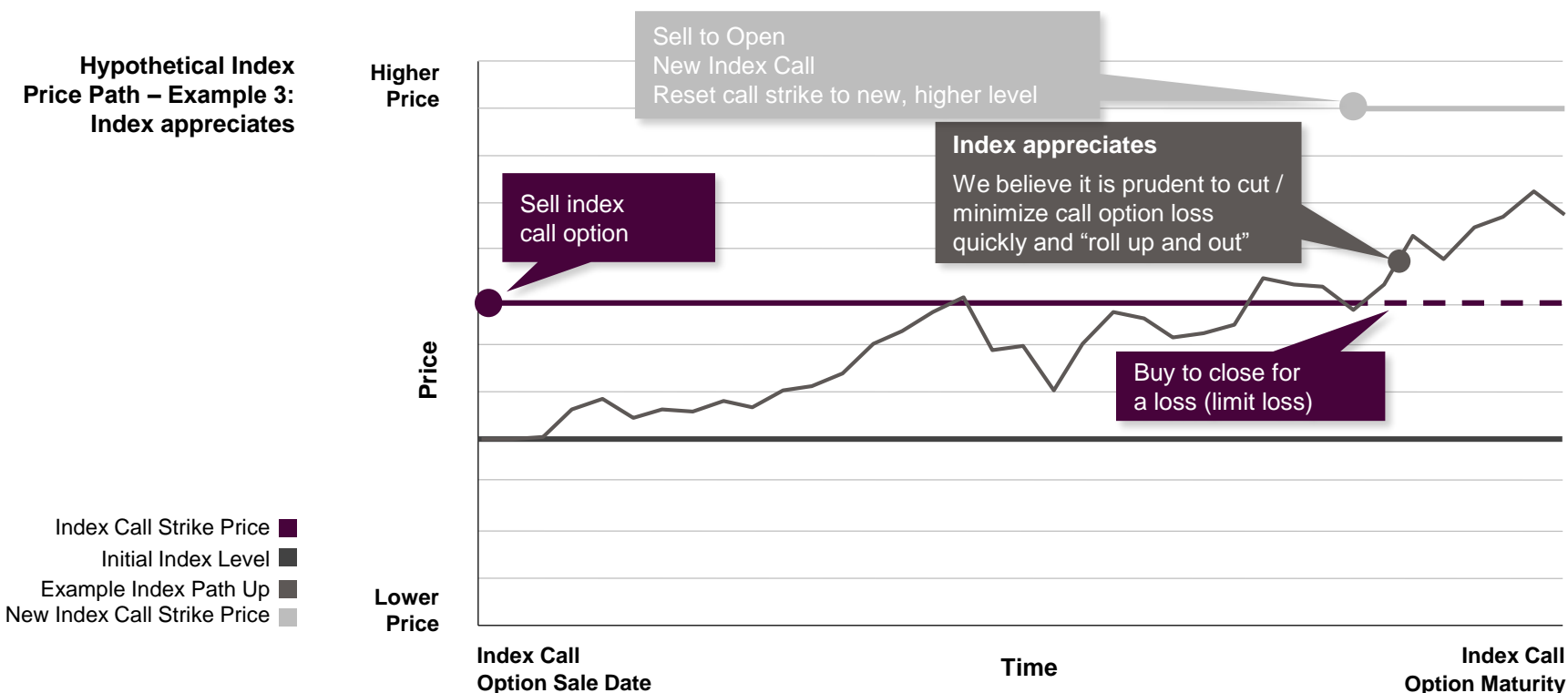


Source: Parametric Risk Advisors, LLC (PRA). The above hypothetical example is for informational and illustrative purposes only and may not be considered for investing purposes. It should not be considered investment advice or a recommendation to buy or sell any particular security or to adopt any investment strategy. The information presented is based, in part, on hypothetical assumptions and the experience of PRA. Actual performance results will differ, and may differ (negatively) substantially, from the hypothetical example presented above. A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived and well-executed options program may be adversely affected by market behavior or unexpected events. Successful options strategies may require the anticipation of future movements in securities prices, interest rates and other economic factors. No assurances can be given that the judgments of PRA in this respect will be correct or profitable. Please refer to the disclosures for additional important information.

# Portfolio DeltaShift<sup>SM</sup> - Portfolio Management

## Example: Risk Management / Loss Mitigation

If underlying index appreciates from the initial index level and we believe the risk vs. reward exposure becomes unfavorable, we seek to mitigate the risk by repurchasing the sold call option (generally for a loss) and sell a new, higher strike option by rolling option “up and out” (up to a higher strike price and out to a longer maturity).



Source: Parametric Risk Advisors, LLC (PRA). The above hypothetical example is for informational and illustrative purposes only and may not be considered for investing purposes. It should not be considered investment advice or a recommendation to buy or sell any particular security or to adopt any investment strategy. The information presented is based, in part, on hypothetical assumptions and the experience of PRA. Actual performance results will differ, and may differ (negatively) substantially, from the hypothetical example presented above. A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived and well-executed options program may be adversely affected by market behavior or unexpected events. Successful options strategies may require the anticipation of future movements in securities prices, interest rates and other economic factors. No assurances can be given that the judgments of PRA in this respect will be correct or profitable. Please refer to the disclosures for additional important information.

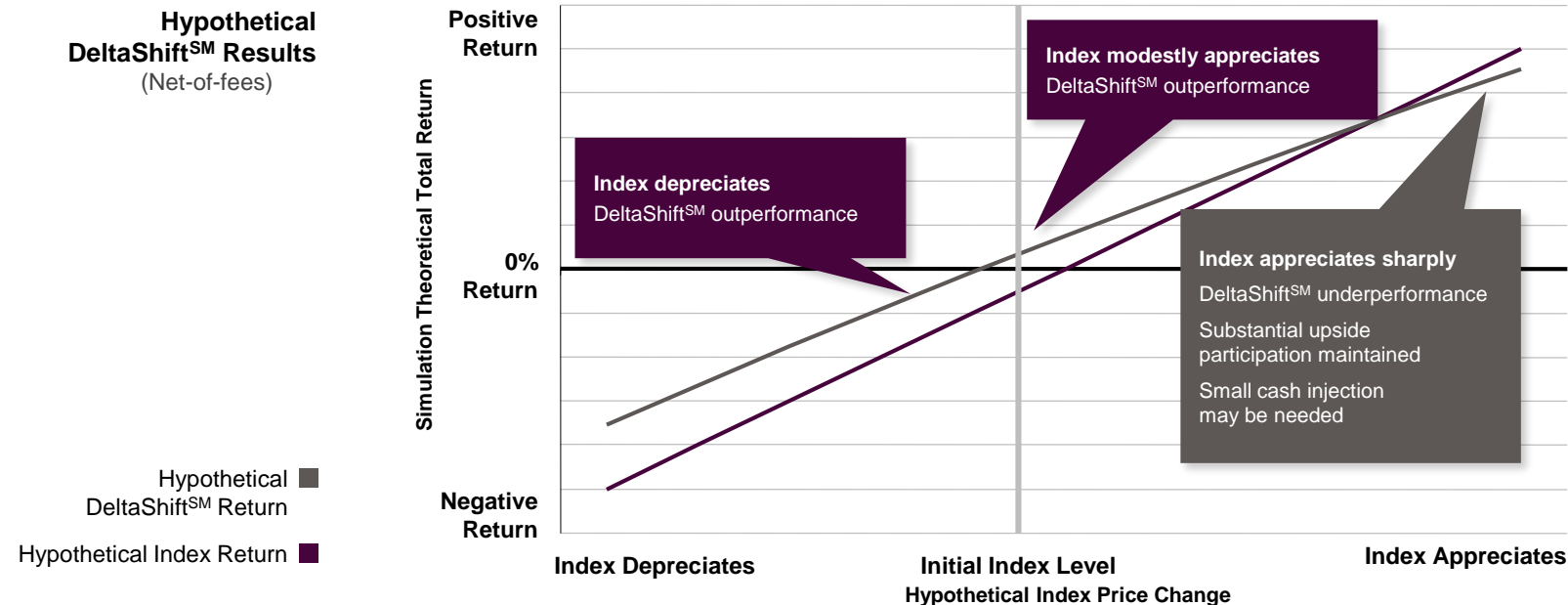
# Portfolio DeltaShift<sup>SM</sup> - Portfolio Management

## What happens when an index appreciates sharply?

- Traditional call writing is a trade-off between receiving an increased yield in exchange for giving away upside (being capped at a target level)
- Unlike traditional call writing, a key goal of DeltaShift<sup>SM</sup> is to maintain substantial (but not all) upside participation during times of sharp appreciation

## During these times we expect to see:

- The total value of the account continues to appreciate (not be capped), but may underperform the index itself



Source: Parametric Risk Advisors, LLC (PRA). The above hypothetical example is for informational and illustrative purposes only and may not be considered for investing purposes. It should not be considered investment advice or a recommendation to buy or sell any particular security or to adopt any investment strategy. The information presented is based, in part, on hypothetical assumptions and the experience of PRA. Actual performance results will differ, and may differ (negatively) substantially, from the hypothetical results presented above. A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived and well-executed options program may be adversely affected by market behavior or unexpected events. Successful options strategies may require the anticipation of future movements in securities prices, interest rates and other economic factors. No assurances can be given that the judgments of PRA in this respect will be correct or profitable. Please refer to the disclosures for additional important information.

# BXM Replication – Investment Considerations

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**In theory, BXM replication is straightforward with an explicit methodology to implement.**

- Given significant assets seeking to replicate BXM, there can be significant negative market impact in true “replication”
  - e.g. Two-hour monthly trading window creates market crowd
- Parametric’s replication investment process is built upon a strong foundation:
  - Intelligent trade timing seeks to avoid negative market impact
  - Predictable execution resulting from sizable AUM and brokerage relationships
  - Internal risk management and trading infrastructure and portfolio management technology

# Summary

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**The Parametric team is among the most experienced in our industry**

- Compelling combination of equity index and options management
- Institutional client experience – both investment and client service teams

**Parametric is equally comfortable with replicating and non-replicating (active) covered call strategies**

- Significant assets under management in both strategies

**Seattle-based investment and service team to support EBMUD**

- Full access to senior professionals in Westport

# Performance - Comparison

Below is a comparison of returns for a DeltaShift<sup>SM</sup> representative account since inception of the Parametric DeltaShift<sup>SM</sup> strategy:

Beginning	Ending	Years	S&P 500 Total Return Index ("SPTR")	Representative S&P 500 Total Return DeltaShift <sup>SM</sup> Account	CBOE S&P 500 Buy Write Index ("BXM")
9/28/2012	9/30/2013	1	19.34%	16.68%	3.09%
9/30/2011	9/30/2013	2	24.65%	23.14%	13.65%
9/30/2010	9/30/2013	3	16.27%	15.04%	7.52%
9/30/2009	9/30/2013	4	14.71%	14.49%	7.69%
9/30/2008	9/30/2013	5	10.02%	9.57%	4.32%
1/31/2008	9/30/2013	5.75	4.68%	4.28%	1.96%

S&P 500 Index returns are gross of fees and based upon historical price data provided by Bloomberg. See disclosures for additional information.

Source: PRA & Bloomberg as of 9/30/2013. The representative hypothetical returns described in this presentation are based upon actual returns in separately managed accounts of the Advisor and the Advisor believes these to be representative of fully discretionary accounts managed by the Advisor during the time periods observed.

The accounts were selected based upon being the longest running fully discretionary account in the mandate (S&P 500 Index Portfolio DeltaShift) during the observed monthly period. During periods when the selected account became non-discretionary, the next longest running fully discretionary account returns were used as representative returns. If and when the longest running account became fully discretionary once again, that longest running account was then again used for representative returns. Returns begin approximately 4 months after account opening. Account was funded on a weekly basis for the first 12 weeks beginning Nov 2007. March 2008 represents returns from the first fully funded, fully invested account.

For illustrative purposes, the daily options returns after commissions (divided by the daily NOTIONAL of the program) less annual fees of (0.286%) was overlaid to an equal program Notional amount of SPTR (the S&P 500 Total Return Index)

This information is for illustrative purposes only, is subject to change at any time and should not be considered investment advice or a recommendation to buy or sell any particular security or adopt any particular investment strategy. As indicated, the information for the DeltaShift<sup>SM</sup> Account is based upon the total assets of a single representative account managed since the inception of the Parametric DeltaShift<sup>SM</sup> strategy. This account was chosen because it is the longest running account managed by the adviser in this style. Actual returns will vary for each client account. Returns are calculated in U.S. dollars and include the reinvestment of distributions. It is not possible to directly invest in an index. Past performance does not predict future results.

# Supporting Data - BXM Case Study

Selling call options against an equity index may improve total return and reduce volatility in exchange for the potential limit of appreciation

	June 30, 1988 to September 30, 2013	
	Annualized Return	Volatility
<b>S&amp;P 500 (Total Return) SPTR Index</b>	9.96%	17.83%
<b>BXM Index</b>	9.31%	12.51%
<b>BXY Index</b>	10.63%	14.29%

S&P 500 Index returns are gross of fees and based upon historical price data provided by Bloomberg. See disclosures for additional information.

- The BXM Index consists of a long position in the S&P 500 Index combined with systematic selling of one-month call options with a near-the-money strike
- The BXY Index is similar to the BXM Index, but a 2% out-of-the-money call is sold
- See:
  - "Passive Options-based Investment Strategies: The Case of the CBOE S&P 500 BuyWrite Index" - Ibbotson Associates, July 2004
  - "An Historical Evaluation of the CBOE S&P 500 BuyWrite Index Strategy" – Callan Associates Inc., October 2006
  - "Expected Return and Risk of Covered Call Strategies" – The Journal of Portfolio Management, Summer 2008

Source: PRA, Bloomberg, 9/30/13

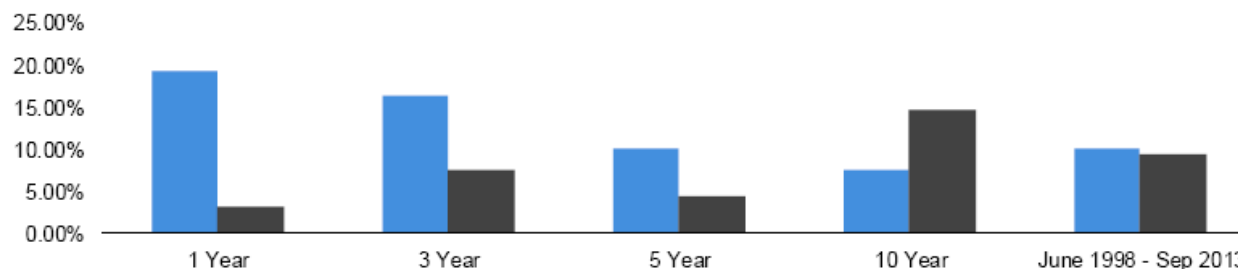
The CBOE S&P 500 BuyWrite Index (BXM) is a benchmark index designed to track the performance of a hypothetical buy-write strategy on the S&P 500 Index. The CBOE S&P 500 2% OTM BuyWrite Index (BXY) uses out-of-the-money S&P 500 Index (SPX) call options, rather than at-the-money SPX call options. The SPTR Index is the total return of the S&P 500 Index plus all dividends re-invested.

The Case Study presented is for informational and illustrative purposes only. This material does not constitute investment advice and should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any securities or to adopt any particular investment strategy. It does not represent the investment experience of any particular investor and it should not be assumed that any investor will have an investment experience similar to that shown. Index returns are gross of management fees. Past performance does not predict future results. It is not possible to directly invest in an index. Please refer to the Appendix for additional important information and disclosure.



# Supporting Data - BXM Case Study

## Annualized Returns Ending September 30, 2013



## Standard Deviation Ending September 30, 2013

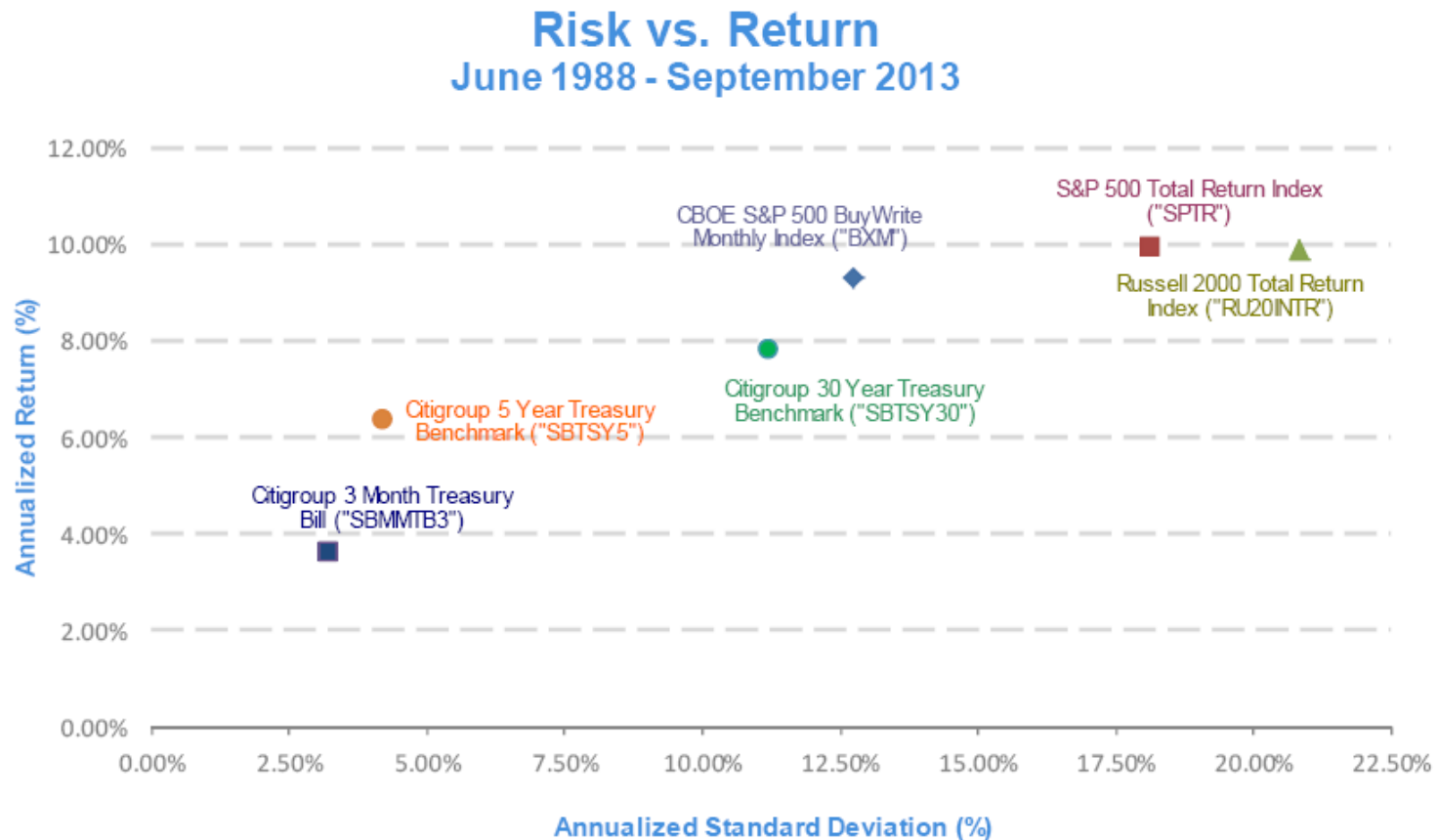
	1 year	3 years	5 years	10 years	June 1988 – September 2013
<b>S&amp;P 500 Total Return (SPTR Index)</b>	17.11%	17.60%	23.70%	20.58%	17.83%
<b>BXM INDEX</b>	12.15%	11.97%	17.23%	14.72%	12.51%

Source: PRA, Bloomberg, 9/30/13

The CBOE S&P 500 BuyWrite Index (BXM) is a benchmark index designed to track the performance of a hypothetical buy-write strategy on the S&P 500 Index.

The Case Study presented is for informational and illustrative purposes only. This material does not constitute investment advice and should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any securities or to adopt any particular investment strategy. It does not represent the investment experience of any particular investor and it should not be assumed that any investor will have an investment experience similar to that shown. There is always a chance of loss. Past performance does not predict future results. Index returns are gross of all fees. It is not possible to directly invest in an index. Please refer to the Appendix for additional important information and disclosure.

# Supporting Data - BXM Case Study



Source: PRA, Bloomberg, 9/30/13

The CBOE S&P 500 Buy/Write Index (BXM) is a benchmark index designed to track the performance of a hypothetical buy-write strategy on the S&P 500 Index. The Case Study is presented for informational and illustrative purposes only. This material does not constitute investment advice and should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any securities or to adopt any particular investment strategy. It does not represent the investment experience of any particular investor and it should not be assumed that any investor will have an investment experience similar to that shown. There is always a chance for loss. Past performance does not predict future results. All returns are presented gross of fees. It is not possible to directly invest in an index. Please refer to the Appendix for additional important information and disclosure.

# Presenters' Biographies

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## **Brad Berggren**

Founder, Managing Director

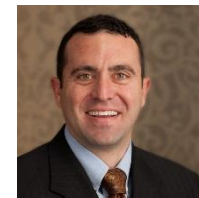
Brad founded Parametric Risk Advisors in 2003. Prior to Parametric, Brad was a Managing Director at K2 Advisors, a New York and Stamford based fund of funds. In 1998 Brad was a founding member of Bank of America's Equity Financial Products group and became Managing Director and Chief Operating Officer through 2002. Prior to Bank of America, Brad held positions in the equity derivative groups of Merrill Lynch, Credit Suisse and Bear Stearns. Brad graduated from the University of Vermont with a B.A. in Political Science and History.



## **Ben Lazarus**

Director, Institutional Relationships – Western North America

Benjamin Lazarus joined Parametric in 2004. He is responsible for developing, coordinating, and executing the business development and client services plan for Parametric's unique family of products with emphasis on the Western region of the United States and Canada. In addition, Ben works on developing new strategies for Parametric and has presented on the use of derivatives at different industry events. Prior to joining Parametric, he was the Director of Sales Strategy at Deluxe Corporation in St. Paul, Minnesota. Ben holds a B.A. in Psychology from the University of California, San Diego and an M.B.A. in Marketing and Strategic Management from the University of Minnesota. He is a CFA charterholder and a member of the CFA Society of Minnesota.



# Biographies – Parametric (Seattle)

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## **David Stein, Ph.D.**

### *Chief Investment Officer*

Mr. Stein leads Parametric's Investment, Research and Technology activities. David's experience in the investment industry dates back to 1987. Prior to joining Parametric in 1996, he held senior research, development and portfolio management positions at GTE Investment Management Corp., The Vanguard Group, and IBM Retirement Funds. He has additional experience as a Research Scientist with IBM Research Laboratories where he designed computer hardware and software systems. He has served on the After-Tax Subcommittee of the AIMR-PPS standards committee, and on the advisory board of the Journal of Wealth Management. David holds a number of patents and is published in multiple academic journals, including "Mathematics of Operations Research," "The Journal of Wealth Management" and the "Journal of Portfolio Management." He earned B.S. and M.S. degrees from the University of Witwatersrand, South Africa. He earned a Ph.D. in Applied Mathematics from Harvard University.

## **Thomas Seto, M.B.A.**

### *Managing Director - Portfolio Management*

Mr. Seto is responsible for all portfolio management at Parametric, including taxable, tax-exempt, quantitative-active and international strategies. Prior to joining Parametric in 1998, Thomas served as the Head of U.S. Equity Index Investments at Barclays Global Investors. He holds an M.B.A. in Finance from the University of Chicago, and a B.S. in Electrical Engineering from the University of Washington.

## **Andrew Abramsky**

### *Chief Operating Officer*

Andy leads management of Parametric's Operations – including investment, back office, technology and business administration. He joined Parametric in 1996 as the Director of Operations. In 2001, he was promoted to his current role. Prior to joining Parametric, Andy was a Manager of Investment Support with PIMCO. Previously, he was a Vice President at Trust Company of the West. He started his career at Drexel Burnham Lambert and has over 20 years of industry experience. Andy holds a B.S. in Finance from St. Johns University.

## **Brian Langstraat, CFA**

### *Chief Executive Officer*

Mr. Langstraat is responsible for Parametric's firm-wide strategy and organizational development. Since joining Parametric in 1990, Brian has held positions in portfolio management, product development, portfolio administration, marketing, and client service. He received a B.A. in Economics from the University of Washington.

# Biographies – Parametric (Westport)

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## **Brad Berggren**

*Founder, Managing Director*

Brad founded Parametric Risk Advisors in 2003. Prior to Parametric, Brad was a Managing Director at K2 Advisors, a New York and Stamford based fund of funds. In 1998 Brad was a founding member of Bank of America's Equity Financial Products group and became Managing Director and Chief Operating Officer through 2002. Prior to Bank of America, Brad held positions in the equity derivative groups of Merrill Lynch, Credit Suisse and Bear Stearns. Brad graduated from the University of Vermont with a B.A. in Political Science and History.

## **Ken Everding, Ph.D.**

*Managing Director, Chief Risk Officer*

Ken joined Parametric Risk Advisors in 2005. Prior to Parametric, Ken was a Managing Director at Zurich Capital Markets and BNP Paribas following Zurich's acquisition. At Zurich Ken's team was the pioneer in creating structured hedge fund products. Prior to Zurich, Ken was a founding member of Donaldson, Lufkin & Jenrette's credit derivative group and subsequently moved to London to form and run DLJ's European credit derivatives business and was responsible for its trading, structuring and marketing efforts. Ken earned a Ph.D. in Theoretical Particle Physics from Yale University. The title of his PhD thesis is "Aspects of Non-Perturbative Quantum Electrodynamics", excerpts of which have been published in leading academic journals. Ken also earned a B.S. with honors in physics from Iowa State University.

## **Jonathan Orseck**

*Managing Director, Chief Operating Officer*

Jon joined Parametric Risk Advisors in 2006. Prior to joining Parametric Jon was a Managing Director at Banc of America Securities where he founded and managed the Equity Linked Solutions Group. He was responsible for the development, structuring, marketing and sales of equity and commodity index linked structured investments. Prior to Bank of America, Jon was an Executive Director at Morgan Stanley responsible for structuring and marketing structured notes to institutional clients. He also managed their high net worth, over-the-counter equity derivative business for the eastern half of North America for hedging and investment purposes. From 1993 – 1996, Jon held similar roles at both Kidder, Peabody and Royal Bank of Canada. Jon graduated with a B.S. in computer science from the University of Pennsylvania and a Masters in Business Administration from New York University Stern School of Business.

## **Larry Berman**

*Managing Director, Head of Trading*

Larry joined Parametric Risk Advisors in 2006. Prior to joining Parametric Larry was a Principal at Wolverine Trading, one of the largest options market-makers in the world. At Wolverine Larry was the Head Trader in charge of all trading in the New York office on the American Stock Exchange and the COMEX and was responsible for over 90 equity/index options as well as market-making in ETFs and structured products. From 1994 to 1997, Larry was a derivatives trader in Frankfurt, London and New York for Credit Suisse First Boston. Larry graduated with a B.S. in business administration from Boston University in 1987.

Contact:

Brad Berggren

Parametric Risk Advisors 518 Riverside Avenue

Westport, CT 06880 (203) 227-1700

[Bberggren@paraort.com](mailto:Bberggren@paraort.com)

# Disclosures

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## Important Information

DeltaShift<sup>SM</sup> returns are net of Management Fees and commissions.

Representative S&P 500 DeltaShift<sup>SM</sup> Returns are based on actual option trades executed on our longest running S&P 500 DeltaShift<sup>SM</sup> Account. Returns begin approximately 4 months after account opening. March 2008 represents returns from the first fully funded, fully invested account that was funded on a weekly basis for the first 12 weeks beginning Nov 2007.

For illustrative purposes, the daily options returns after commissions (divided by the daily NOTIONAL of the program) less annual fees of (0.286%) was overlaid to an equal program Notional amount of SPTR (the S&P 500 Total Return Index)

S&P 500 Index returns are gross of fees and based on historical price data provided by Bloomberg.

Some performance is presented gross and is clearly indicated in the presentation. The deduction of all adviser fees will reduce a client's returns. Fees are typically billed quarterly which produce a compounding effect on the total rate of return net of management fees. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) \$1,000,000 investment, (b) portfolio return of 5% a year, and (c) 1.00% annual investment advisory fee would be \$10,268,81 in year one, cumulative effects of \$56,741.68 over five years and \$129,160.05 over ten years. Actual fees vary for clients. Actual fees charged vary by portfolio due to various conditions, including account size.

CBOE BXM Index returns are gross of fees and based on data provided by Bloomberg.

# Disclosures

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## Important Information

This material has been prepared by Parametric Risk Advisors, LLC ("PRA") and Parametric Portfolio Associates, LLC ("PPA") on the basis of publicly available information, internally developed data and other third party sources believed to be reliable. However, no assurances are provided regarding the reliability of such information and PRA and PPA have not sought to independently verify information taken from public and third party sources.

Parametric Risk Advisors, LLC is a majority-owned subsidiary of Parametric Portfolio Associates, LLC. Parametric Portfolio Associates is a majority-owned subsidiary of Eaton Vance Corp. and an affiliate of Eaton Vance Management.

The data and hypothetical information presented is for informational and illustrative purposes only. This material does not constitute investment advice and should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any securities or to adopt any particular investment strategy. Any investment views and market opinions/analyses expressed constitute judgments as of the date of this presentation and are subject to change at any time without notice. Any investment views and market opinions/analyses expressed may not reflect those of PRA or PPA as a whole, and different views may be expressed based on different investment styles, objectives, views or philosophies. Each investor's portfolio is individually managed and may differ (negatively) significantly from the information shown in terms of portfolio holdings, characteristics and performance. Readers should not assume that any investments in securities, companies, sectors or markets described were or will be profitable. Readers should not view this material as representative of any particular investor's experience or assume that any investor will have an investment experience similar to any returns shown or to any previous or existing investor. There are no guarantees concerning the achievement of investment objectives, target returns or measurements such as alpha, tracking error, stock weightings and information ratios. The use of investment tools cannot guarantee performance. There is always the risk of loss.

*Options Risks Generally.* The effectiveness of the option strategy is dependent upon a general imbalance of natural buyers over natural sellers of index options. This imbalance could decrease or be eliminated, which could have an adverse effect. A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived and well-executed options program may be adversely affected by market behavior or unexpected events. Successful options strategies may require the anticipation of future movements in securities prices, interest rates and other economic factors. No assurances can be given that the judgments of PRA in this respect will be correct.

*DeltaShift<sup>SM</sup> Program Risks Generally:*

Selling uncovered call options exposes the seller to unlimited loss should the index appreciate.

Participation in the program does not protect the portfolio from downside risk. The investor retains full downside exposure to the portfolio. The downside protection afforded by call writing is limited to the amount of the premium received less the costs incurred to settle index options. The strategy only provides a hedge to the extent of those net premiums received. The loss for the investor could be the current value of the portfolio less the net premium received from the call options.

Portfolio holdings may need to be sold to generate cash to settle call options. The sale of portfolio holding may produce tax consequences for U.S. taxpayers.

Prior to implementing the Parametric DeltaShift<sup>SM</sup> call writing program, you should discuss with your personal tax adviser how selling index call options and any potential sales of portfolio holdings will affect your tax situation. Neither Parametric Portfolio Associates nor Parametric Risk Advisors provide tax advice.

There is no assurance that the revenue received from the program will exceed the fees and expenses paid.

If a secondary market in options becomes unavailable and prevents a closing transaction, the options writer's obligation would remain until expiration or assignment.

Case studies, general strategy examples, and certain illustrations contained herein are hypothetical in nature and do not represent the experience or results that any particular investor actually attained. The information presented is based, in part, on hypothetical assumptions and the experience of PRA. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in achieving the returns have been stated or fully considered. No representation is made that any account will or is likely to profit similar to those shown in the examples. Actual performance results will differ, and may differ substantially, from the examples.

# Disclosures

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## Important Information

*(Continued from previous page)*

illustrated. Changes in assumptions may have a material impact on the hypothetical performance presented. The information may not reflect the impact that material economic and market factors might have had on PRA and PPA's decision-making if PRA and PPA were actually managing client assets.

Decisions and information were based on available research at the time and as data may contain hypothetical results, material economic and market factors may have changed and returns may not be realized and specific action or lack of action is not known for certainty. No securities, sectors, industries, or other information mentioned herein may be considered as an offer to purchase or sell a firm product or security. Any positive comments regarding specific data may no longer be applicable and should not be relied upon for investment purposes. Hypothetical returns do not represent active returns, may not be relied upon in the future and do not include timely economic or financial risk possibilities.

Specific periods of returns are for illustrative purposes and not meant to imply that the portfolio would have been profitable had the client only invested in the market for this time period. Returns for indexes are calculated gross of the management fee. Individuals may not invest directly in indexes. PRA returns may be presented gross or net of fees using the internal rate of return, reflect the reinvestment of dividends, interest, gains and other income, brokerage commissions, exclude other account and custodial services fees, and do not take individual investor tax categories into consideration. Clients should realize that net returns would be lower and must be considered when determining absolute returns. Clients should contact a PPA or PRA for further details.

Charts, graphs, and other visual presentations and text information were prepared for this specific presentation and derived from internal, proprietary, and/or service vendor technology sources and/or may have been extracted from other firm data bases. The currency used in these calculations is the USD. Currency exchange may negatively impact performance. "Standard & Poor's®", "S&P®", "S&P 500®", "Standard & Poor's 500," and "500" are registered trademarks of the McGraw-Hill Companies, Inc. The CBOE S&P 500 BuyWrite Index (BMX) is a benchmark designed to track performance of a hypothetical buy-write strategy on the S&P 500 Index. Broad-based indices, such as the S&P 500 Index, are unmanaged and are not subject to fees and expenses typically associated with institutional accounts as managed by PRA or PPA. It is not possible to directly invest in an index. Please refer to the specific service provider's web site for complete details on all indices. Furthermore, no other index owner makes any representation or endorsement concerning the accuracy or propriety of information presented. PPA and PRA make no representation regarding the accuracy or propriety of the information received from any other third party. Investments are subject to change without notice. Deviations from the benchmarks provided herein may include but are not limited to factors such as: the purchase of higher risk securities, over/under weighting specific sectors and countries, limitations in market capitalization, company revenue sources, and/or client restrictions. Global market investing, (including developed, emerging and frontier markets) also carries additional risks and/or costs including but not limited to: political, economic, financial market, currency exchange, liquidity, accounting, and trading capability risks. The use of derivatives such as swaps, futures, and options, increase portfolio exposure such as short selling, collateral, leverage, and counterparty risks. Future investments may be made under different economic conditions, in different securities and using different investment strategies. PPA's and PRA's proprietary investment process consider factors such as additional guidelines, restrictions, weightings, allocations, market conditions and other investment characteristics. Thus, returns may at times materially differ from the stated benchmark and/or other disciplines and funds provided for comparison. Investing entails risks and there can be no assurance that PPA and PRA (and its affiliates) will achieve profits or avoid incurring losses. Past performance does not predict future results. Information is believed to be correct but accuracy cannot be guaranteed. To receive a copy of the applicable fee schedules, please contact PPA or PRA for a copy of the Form ADV Part 2A. Parametric Portfolio Associates, LLC, 1918 8<sup>th</sup> Avenue, Seattle, WA 98101; 206.694.5573; Parametric Risk Advisors, LLC, 518 Riverside Avenue, Westport, CT 06880; 203.227.1700.

This material may be used only in one-on-one presentations.



**VAN HULZEN ASSET MANAGEMENT**



## **US Covered Call Strategy**

*A Low Volatility Approach to US Equities*

November 2013

For One-on-One Presentations only

**Introduction**

**Positioning**

**Process**

**Performance**

# Van Hulzen Covered Call Strategy

## Introduction to Our Firm

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### Firm Overview

- Van Hulzen Asset Management started in 1998
- SEC-registered investment advisor (RIA) based in El Dorado Hills, California
- Majority owned by employees
- 12 years of covered call experience, including managing through two bull markets and two bear markets. Team combines institutional, risk management and fundamental expertise
- Covered call management offered through Separate Accounts and mutual fund (Iron Horse Fund, IRHIX)
- 11+ year Covered Call track record
- 5 star Morningstar rating for the 5 and 10 year period ending 9/30/13

# Van Hulzen Covered Call Strategy

## Our Approach

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### Fundamentally Driven

- Bottom-up, fundamental process for security selection
- First priority is building a portfolio of high quality, consistent companies with sustainable business models and above average dividend profiles
- Focus on long term investing with an objective to consistent returns
- Using options to add incremental income and downside protection, not as a primary source of alpha (Target 6-8% option yield)

### This approach is quite different from most covered call strategies

- Most are designed to derive alpha from the implied volatility embedded in option prices
- They tend to be higher beta, higher turnover, trading strategies with average option durations of 1-3 months

**Covered calls should improve the risk-adjusted returns of US equity allocations. They should be an equity strategy, not an option trading strategy**

# Van Hulzen Covered Call Strategy

## Our Investment Team / Background

**Strong team approach with a balance between fundamental analysis, portfolio construction and risk management**

Fundamental  
Equity  
Analysis



### **John R. Pearce, Managing Director**

Mr. Pearce joined the Firm in February 2008. He co-manages the Firm's equity and covered call strategies and serves on the Board. Prior to joining Van Hulzen, Mr. Pearce was a Director in the Investment Banking division of Credit Suisse Securities. Prior to Credit Suisse, he was an equity analyst at HOLT.

John holds a B.A. in Economics from the University of Virginia and a M.S. in Accounting from the College of Charleston. He is also a CPA.

Fundamental  
Analysis /  
Construction



### **Stefan ten Brink, Managing Director**

Mr. ten Brink joined the Firm in January 2011 from Petercam Asset Management in Amsterdam. He has 17 years of investment advisory experience, having co-managed the Ahold Pension Fund prior to joining Petercam. He has 10+ years experience with the Credit Suisse HOLT framework.

Stefan holds a degree in Logistics & Economics from Arnhem Business School and an MBA from Nijmegen University. Stefan is a Certified European Financial Analyst (CEFA).

Options &  
Risk  
Management



### **Craig Van Hulzen, Founder & President**

Craig started the business in 1998. He serves on the Board and oversees the equity and covered call investment process. Craig is a former risk management consultant and expert witness for numerous state pensions plans.

Craig holds a B.A. in Business Finance from Point Loma Nazarene University, where he is a member of the Board of Trustees, serves on the finance committee and is the President of the University's Foundation Board.

**Introduction**

**Positioning**

**Process**

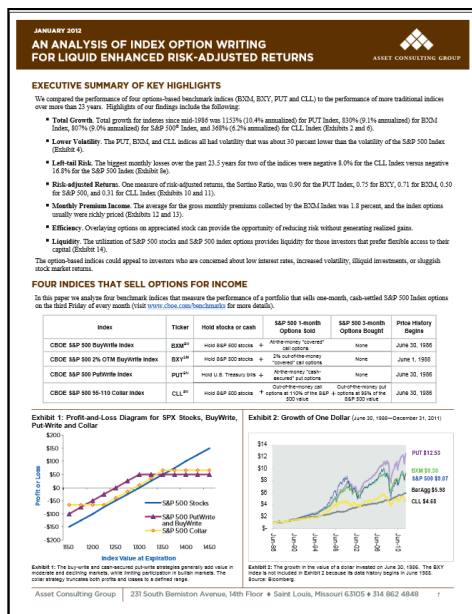
**Performance**

# Van Hulzen Covered Call Strategy

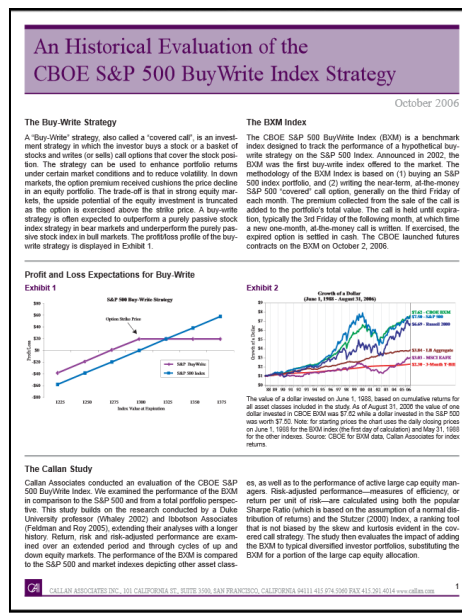
## The Case For Covered Calls

The CBOE website references three different studies that have been performed over the past 10 years on the risk-return dynamics of covered calls. All three firms concluded that a passive buy-write strategy has a superior risk-return profile than long-only equities.

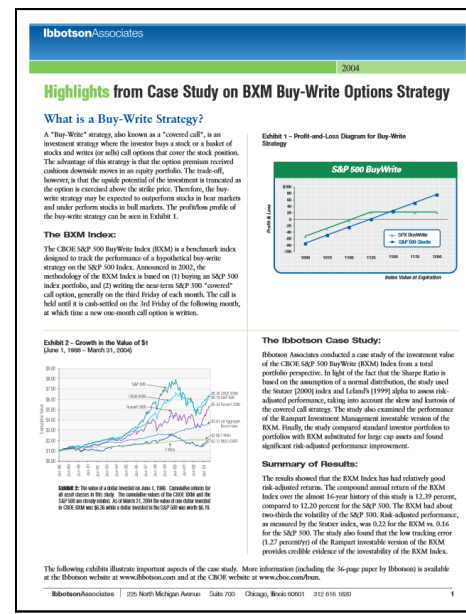
- Each study covers different periods of time, ranging from 16 to 26 years
- All three studies found that the covered call index (BXM) earned roughly the **same annualized return** as the S&P 500 over the long term, but at **significantly lower risk** (30-33% lower average standard deviation)
- Studies are available on the CBOE website ([www.cboe.com](http://www.cboe.com))



**Asset Consulting Group**  
Published January 2012



**Callan Associates**  
Published October 2006



**Ibbotson Associates**  
Published September 2004

# Van Hulzen Covered Call Strategy

## Our Benchmarks

### S&P 500

#### Description

- 500 stocks, market-value weighted
- Chosen for market size, liquidity, financial viability and industry group representation

#### Benchmark relevance

- The most widely used proxy for US large cap stocks

#### Criteria for addition to index

- US companies
- Market cap > \$4 billion
- Public float > 50%
- 4 consecutive quarters of positive earnings
- Adequate liquidity
- Sector representation

### BXM

#### Description

- Passive buy-write index
- Owns the S&P 500 index
- Sells near-term index options

#### Benchmark relevance

- More comparable risk, providing for a more apples-to-apples comparison

#### Specific criteria

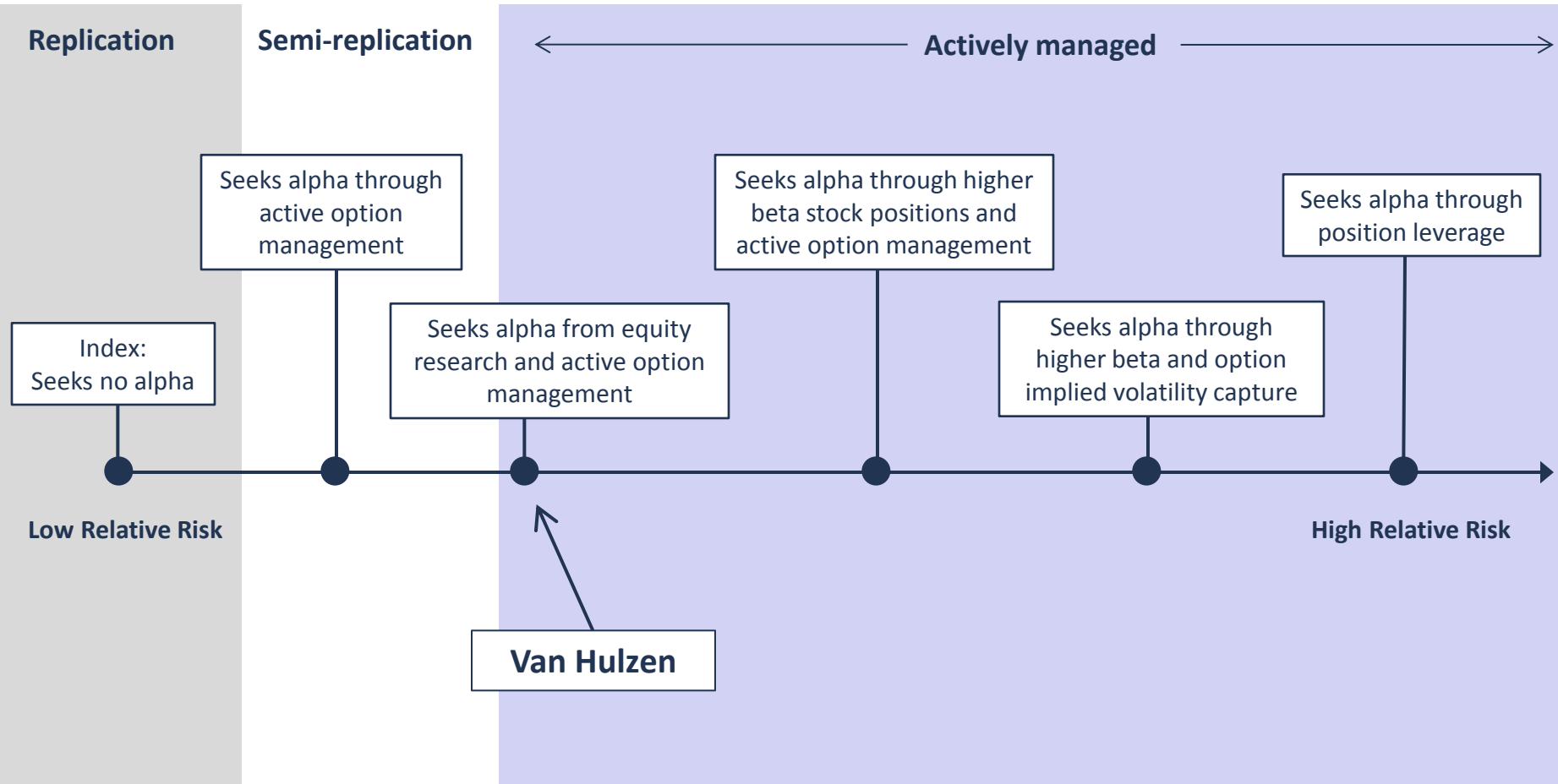
- Own S&P 500 stocks
- Options one month out
- Strike price slightly OTM
- Cash settlement at expiration
- Performance data back to 1986
- Does not incorporate trading costs

**We have a 11+ year track record of strong risk-adjusted returns: 3.5 % annual excess returns vs. S&P 500 at 33% less risk, and 4.4% annual excess returns vs. BXM at 13% less risk (gross of fees)**



# Van Hulzen Covered Call Strategy

## The Covered Call Spectrum



**Our strategy is conservative relative to many active covered call managers**

**Introduction**

**Positioning**

**Process**

**Performance**

# Van Hulzen Investment Process

## Security Selection

### Leveraging Intellectual Capital

The Van Hulzen process leverages two sources of intellectual capital:

#### ***Fundamental Analysis (HOLT™)***

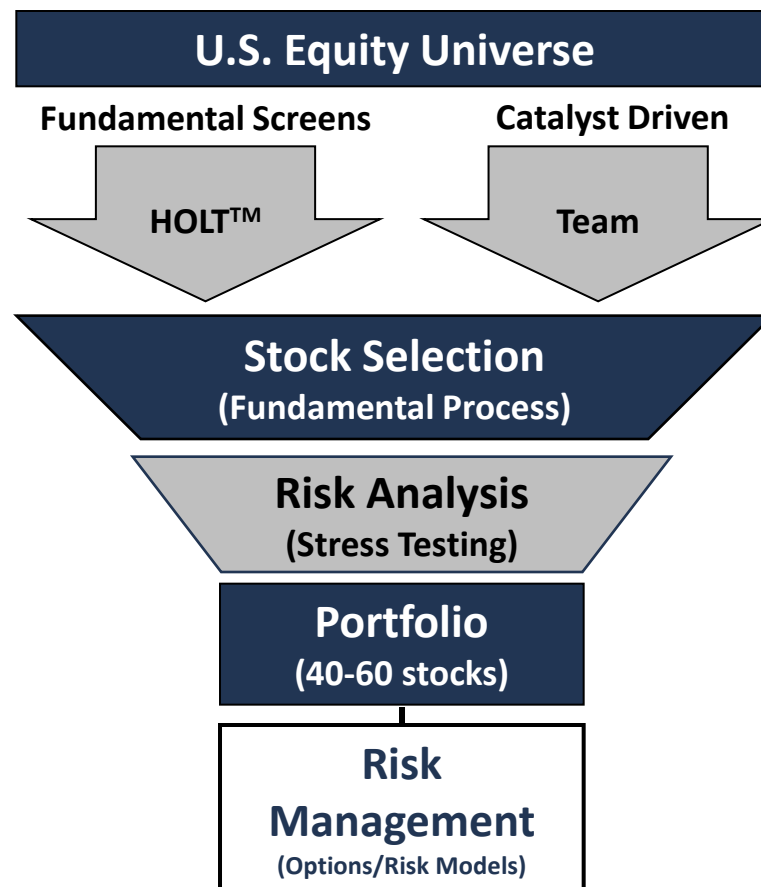
HOLT's objective, fundamental valuation framework attempts to distill away accounting distortions and identify companies that we believe will create wealth over time.

#### ***Risk Analysis (proprietary risk models)***

Our charting analysis seeks to identify characteristics of price trends (over distance and time) in order to establish key support levels and "stress test" our watch list.

***Our team is comprised of experienced users of both of these tools.***

HOLT is a trademark of Credit Suisse Securities



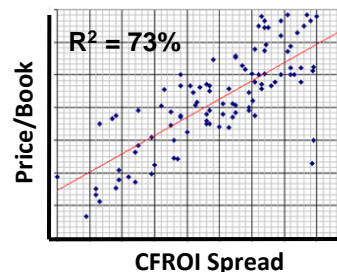
*Note: There is no assurance that the Strategy will achieve its investment objectives. The use of covered call strategies does not ensure profits or guarantee against losses.*

# Van Hulzen Investment Process

## Fundamental Framework – HOLT

### Superior Performance Metric (CFROI®):

Cash flow based metric with the highest empirical correlation with stock price multiples. The CFROI metric incorporates the balance sheet and eliminates accounting distortions. It is comparable over time & across borders.

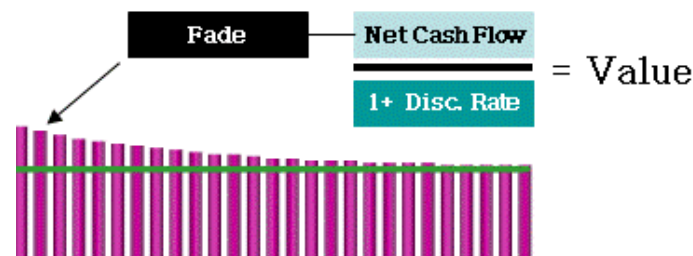


“We find that economic returns, not growth, have by far the greatest predictive power.”

- Anthony Ling  
*Goldman Sachs*

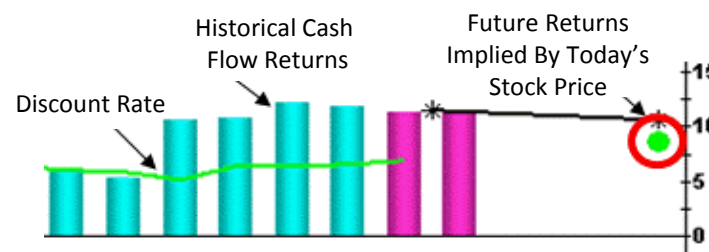
### Fade Replaces Terminal Value:

HOLT’s life-cycle framework is an economically sound basis for forecasting long-term CFROIs and reinvestment rates beyond the explicit forecast period. The HOLT model “fades” company CFROIs to the cost of capital over the long term.



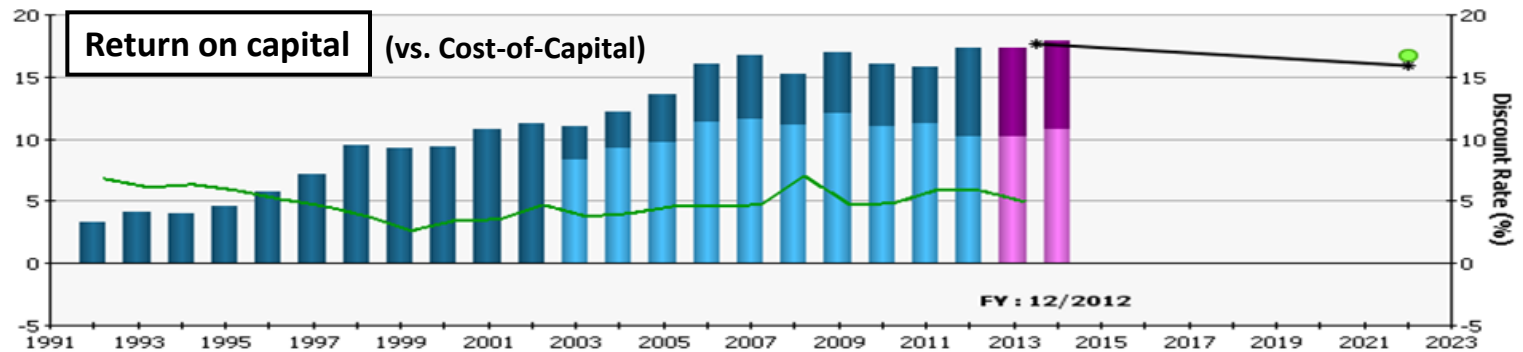
### Market Driven Valuation Methodology:

HOLT is a sophisticated discounted cash flow (DCF) model. Discount rates and terminal values are objective and empirical, allowing users to focus on fundamentals rather than valuation models. The HOLT model also allows users to quickly quantify the performance that is “priced in” for a stock.

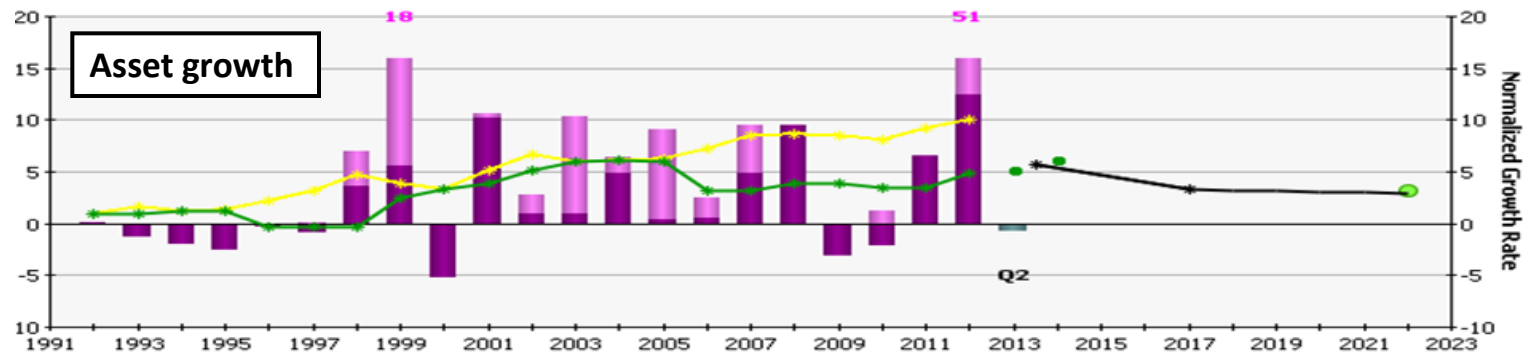


**We have two of HOLT’s most experienced users on our team**

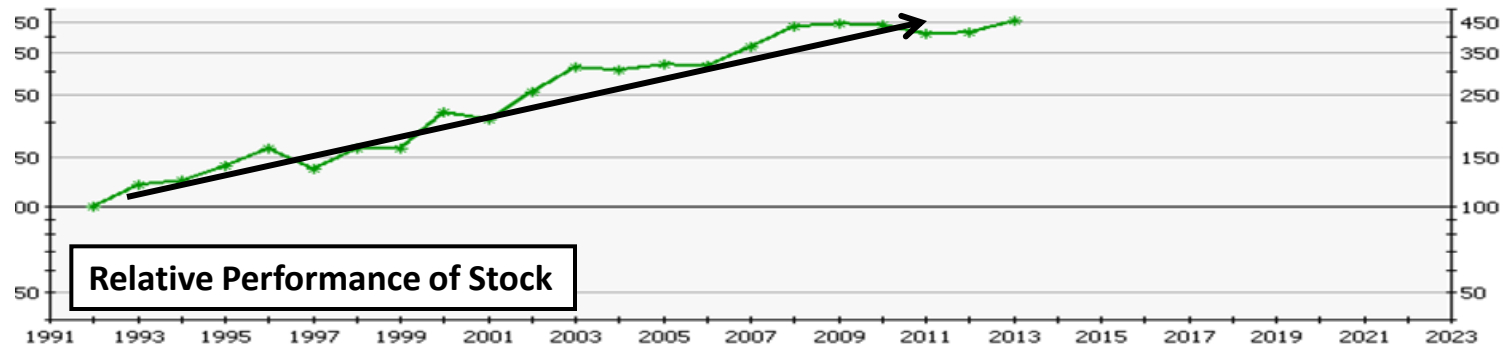
### Profitability



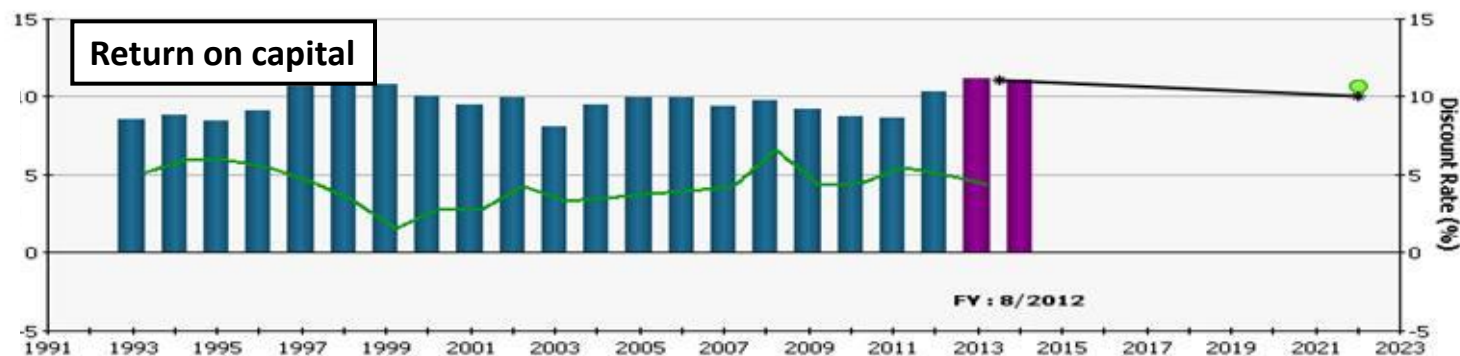
### Growth



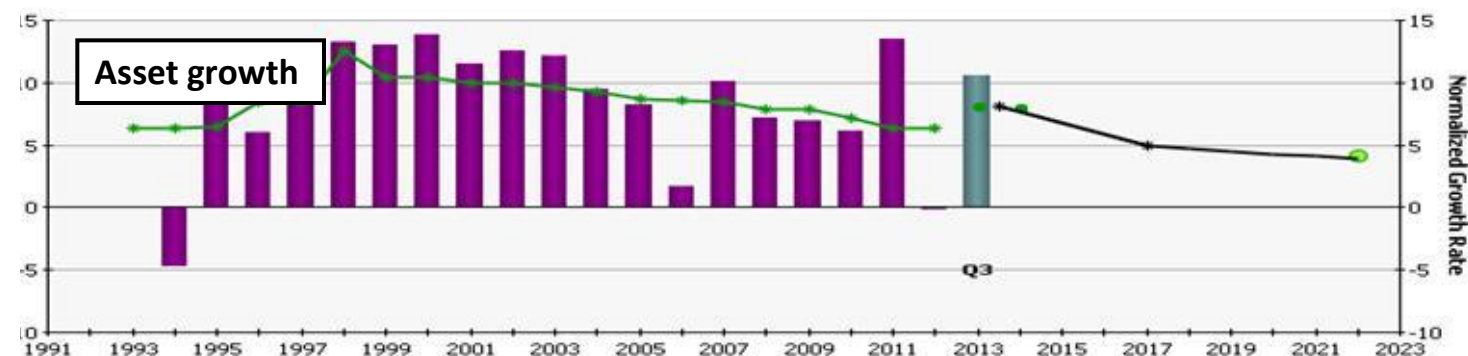
### Valuation



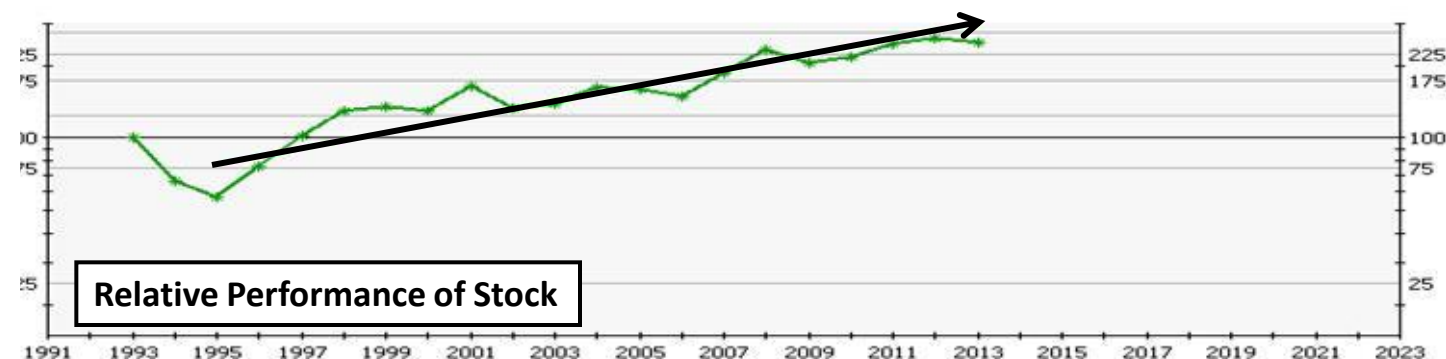
### Profitability



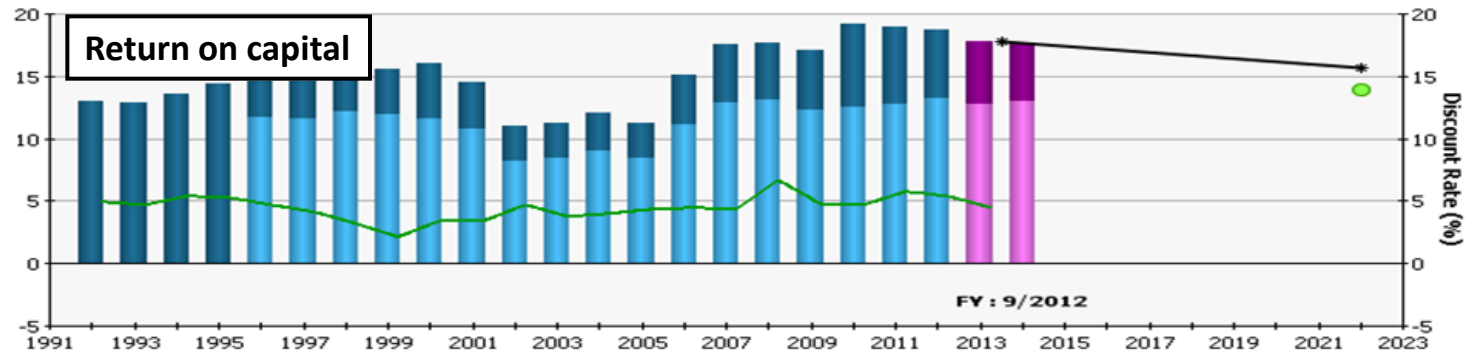
### Growth



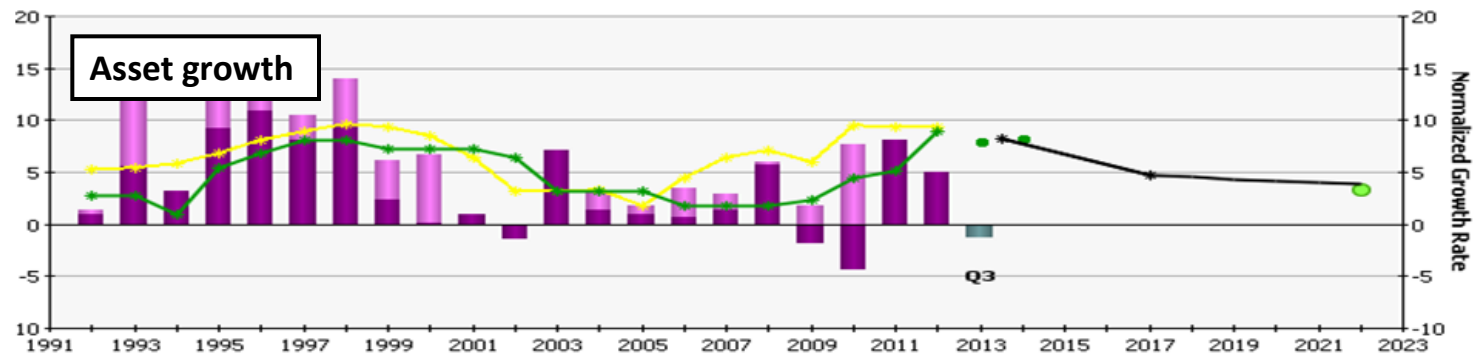
### Valuation



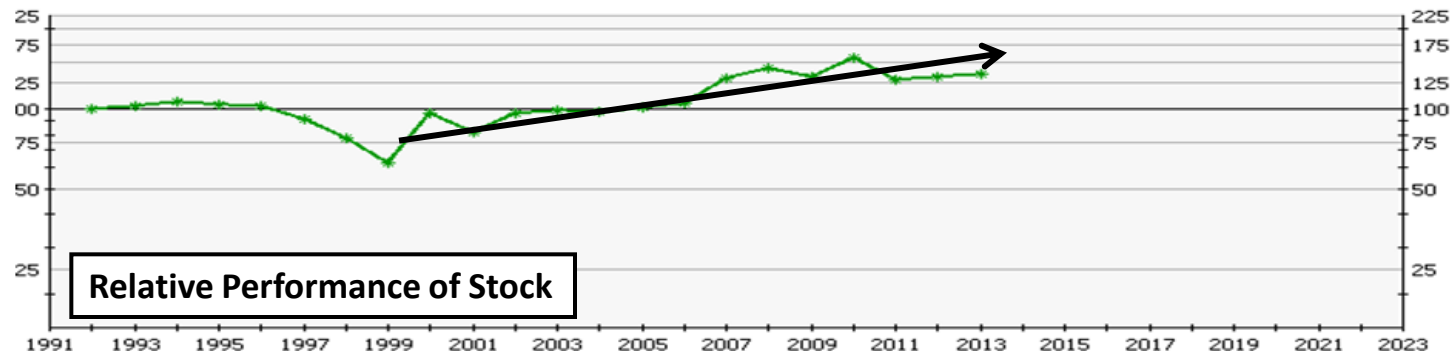
### Profitability



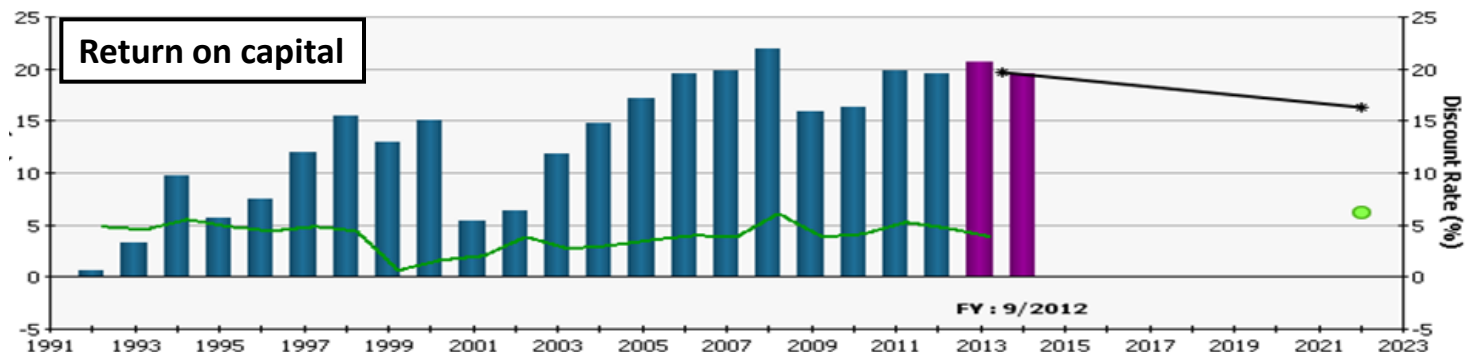
### Growth



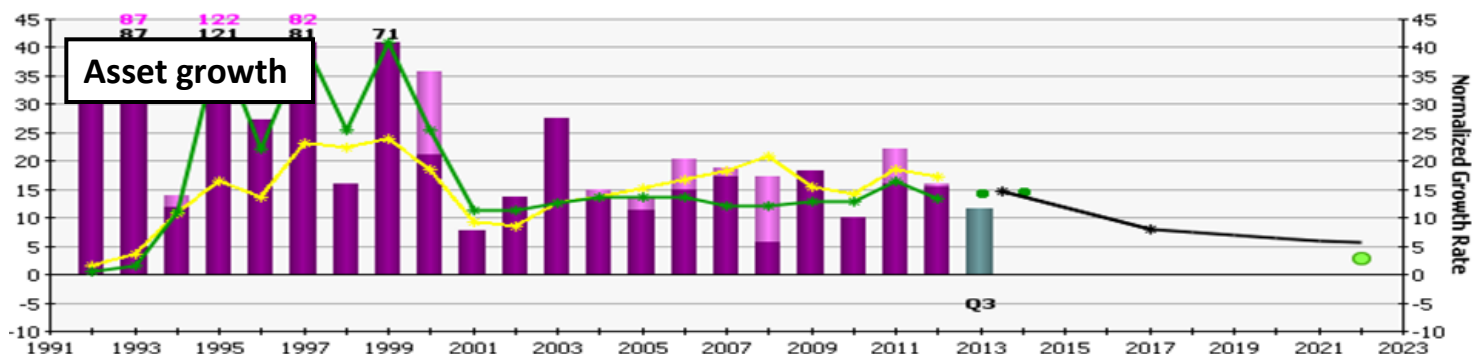
### Valuation



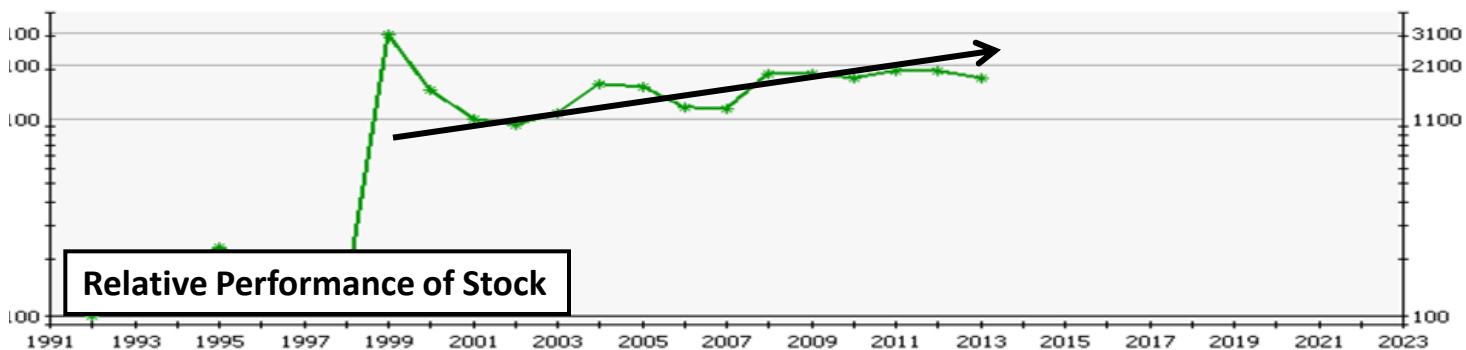
### Profitability



### Growth

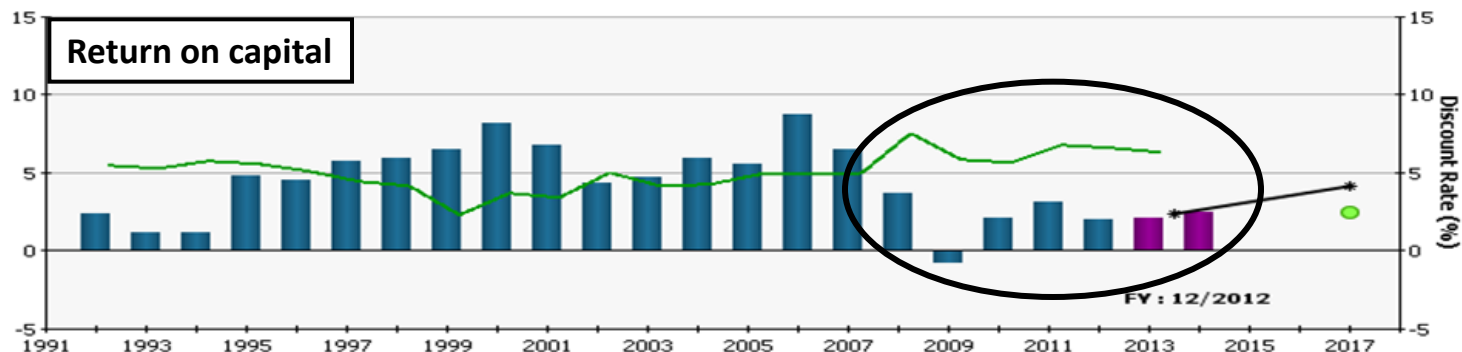


### Valuation

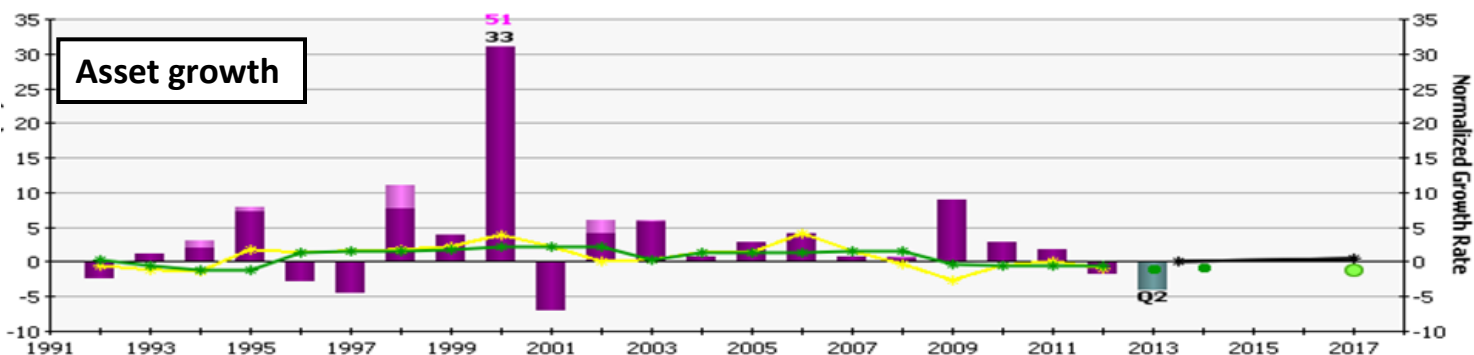




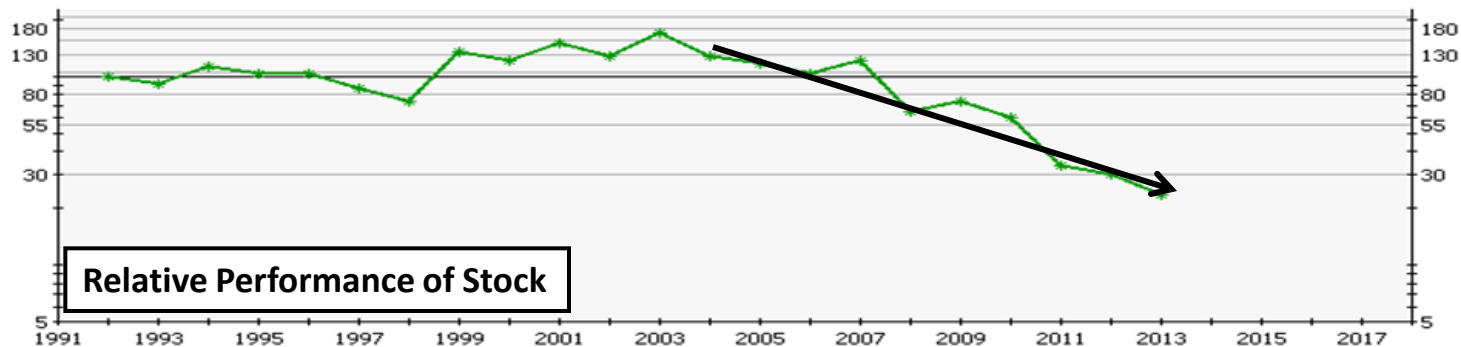
### Profitability



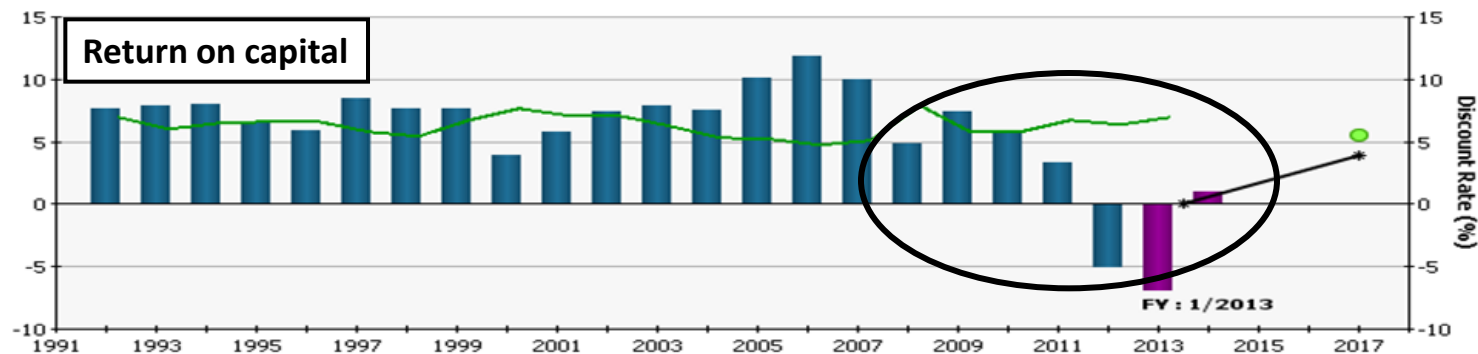
### Growth



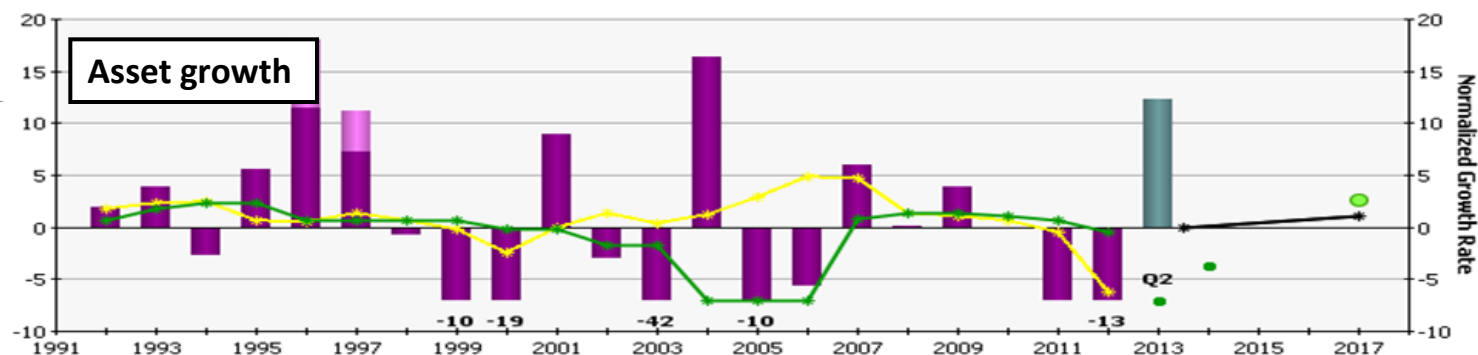
### Valuation



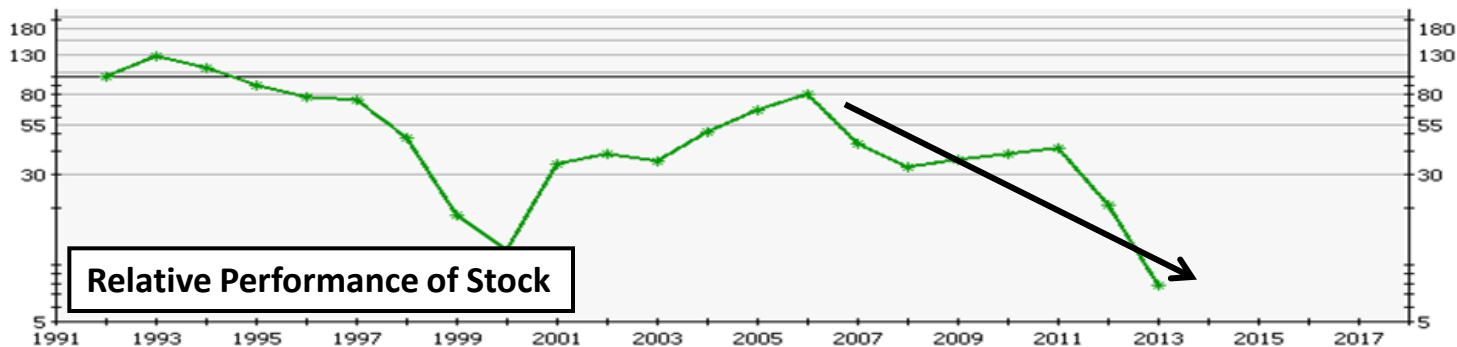
### Profitability



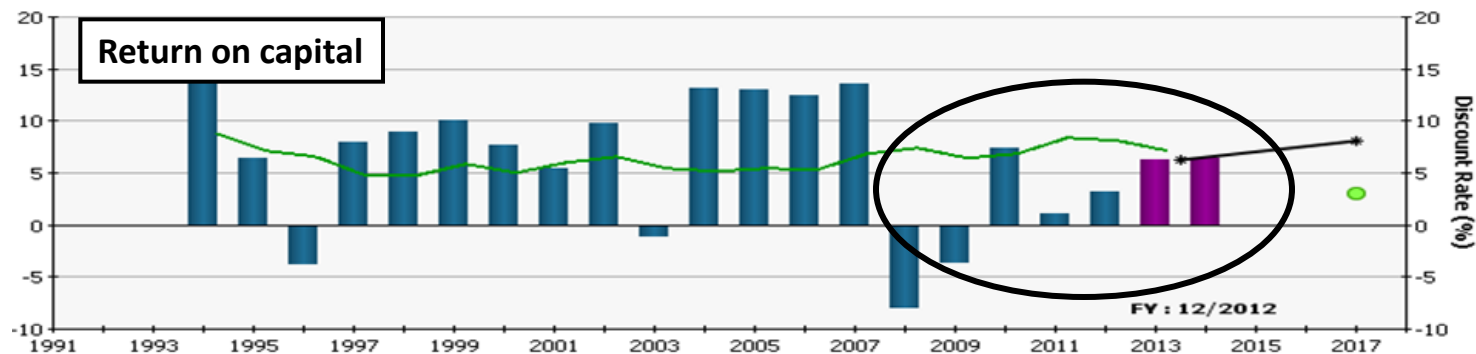
### Growth



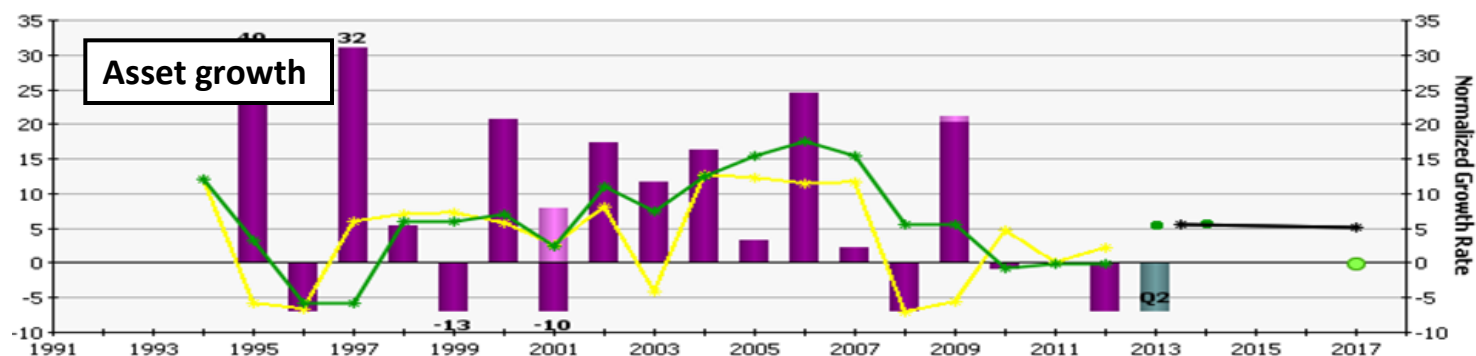
### Valuation



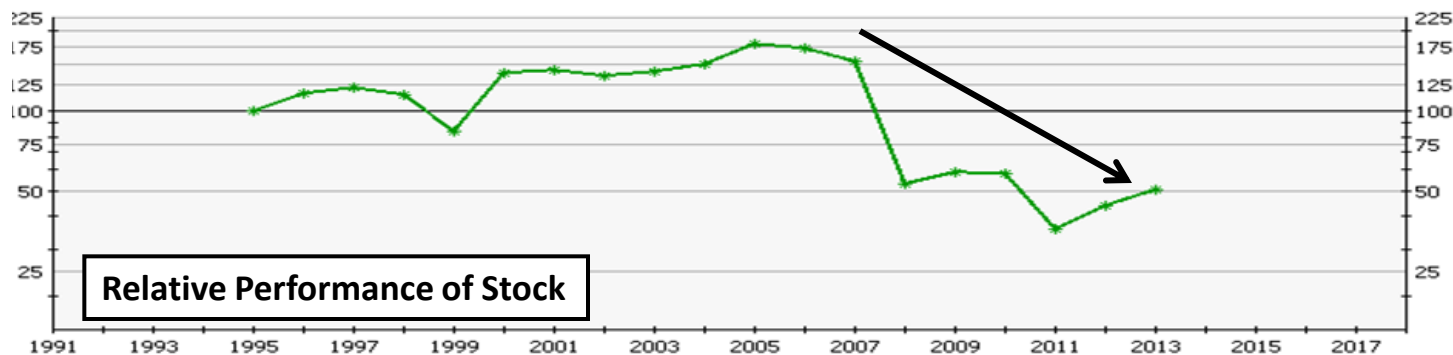
#### Profitability

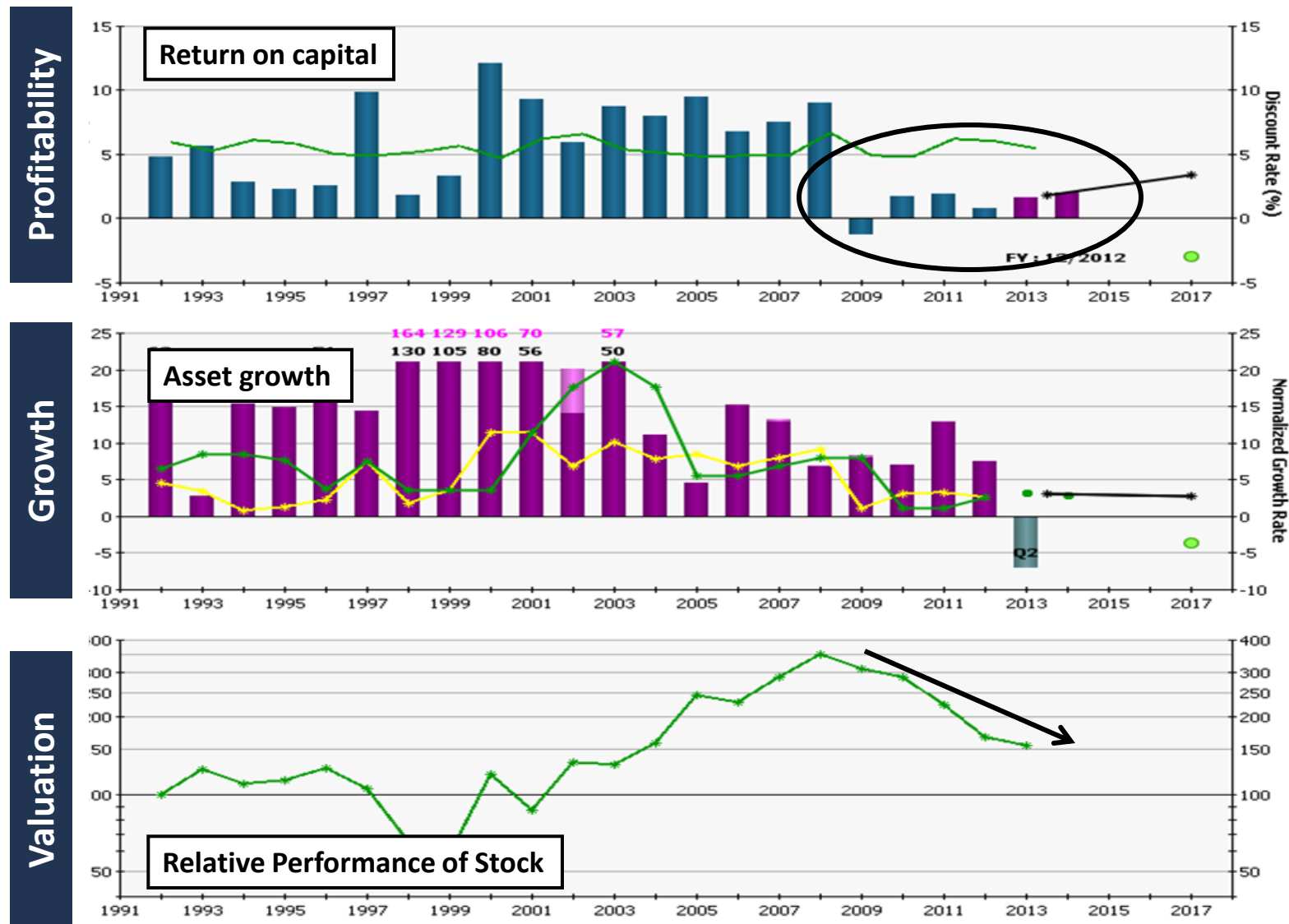


#### Growth



#### Valuation





# Van Hulzen Investment Process

## Focus on Shareholder Yield

We do not necessarily own the stocks with the highest dividend yields. We prefer stocks with strong dividend growth and low payout ratios (plenty of capacity for future growth)

Company Name	Symbol	Div Yield	Payout Ratio
Cisco Systems	CSCO	2.7%	18.7%
Aflac	AFL	2.8%	21.9%
Wells Fargo	WFC	3.2%	25.9%
Chevron	CVX	3.0%	26.1%
Conoco	COP	4.5%	44.3%
Pennsylvania Power & Light	PPL	4.9%	54.5%
Qualcomm	QCOM	2.3%	32.2%
Microsoft	MSFT	3.3%	39.6%
Wal-Mart Stores	WMT	2.6%	31.6%
Medtronic	MDT	2.3%	28.4%
3M	MMM	2.4%	36.8%
General Mills	GIS	3.3%	51.0%
Walgreen Company	WAG	2.5%	39.9%
United Technologies	UTX	2.3%	37.5%
<b>Average</b>		<b>3.0%</b>	<b>34.9%</b>

# Van Hulzen Investment Process

## Overall Portfolio Profile

- Our portfolio includes 40-60 high quality, high ROI companies with below average debt, above average dividends, and above average fundamental upside
- The Credit Suisse HOLT™ database allows us to efficiently screen for companies that fit these parameters
- We use our proprietary risk models to validate the upside & timeliness of each investment

### Portfolio Profile

### Our Portfolio

### S&P 500

Return on Investment (t+1 estimate)	12.1%	10.4%
Sales Growth (5yr average)	6.0%	5.2%
Fundamental Upside	14.0%	1.5%
Dividend Yield	2.5%	2.0%
Leverage (debt % of EV)	19.0%	24.9%

As of Q3 2013

**Risk Management is a key element of our strategy. Our portfolio construction process includes the following risk management procedures:**

### Position Size Limits

- Holdings are “equal weighted” based on downside risk...not investment dollars. The stronger the upside/downside ratio, the larger the holding.
- Individual positions cannot exceed 5% of the portfolio. The average holding is closer to 2.5-3.0%.
- Sector allocation within +/- 5% of S&P 500 sector weights.

### Sell Discipline

- **Upon entering a position, pre-determine price targets for trim/sell orders**
  - Target prices are established based on a combination of fundamental/technical investment process.
- **Apply strict stop-loss rules to all positions**
  - Using technical analytics to determine “break” points to sell positions that unexpectedly begin a meaningful downward trend.

### Tolerable Risk Models

- Using a proprietary system that monitors risk at the position and portfolio level.
- Establish a maximum tolerable loss limit for the portfolio and track portfolio volatility as a percentage of tolerable risk.
- Statistics are updated daily and reviewed by the investment committee on a weekly basis.

### Option Contracts

- Using option contracts to hedge our equity exposure.
- Provide an exit strategy.
- Fundamental valuation and implied volatility drive option strikes and option months.

# Van Hulzen Investment Process

## Adding The Options

### QUALCOMM

- Trades at \$65
- Dividend yield of 2.2%
- Price target: \$72

### Covered call scenarios:

#### 1) Sell January \$65 calls

- Collect 10.5% total income
- 12.5% total annualized yield

#### 2) Sell January \$70 calls

- Collect 6.8% income (dividend + option income)
- 8.1% total annualized yield, plus up to 7.7% more on price

Strike	Bid	Ask	Price	T Val	Simple	Annual
40.00	24.85	25.00	24.85	0.13	2.96%	3.52% *
45.00	20.10	20.25	20.10	0.38	3.2%	3.81% *
50.00	15.60	15.75	15.60	0.88	3.93%	4.67% *
52.50	13.55	13.65	13.55	1.33	4.65%	5.53% *
55.00	11.50	11.65	11.50	1.78	5.32%	6.32% *
57.50	9.70	9.80	9.70	2.48	6.42%	7.63% *
60.00	8.00	8.15	8.00	3.28	7.63%	9.08% *
62.50	6.55	6.65	6.55	4.33	9.25%	11% *
65.00	5.20	5.30	5.20	5.20	10.5%	12.48% *
67.50	4.10	4.20	4.10	4.10	8.5%	10.1%
70.00	3.15	3.25	3.15	3.15	6.82%	8.11% *
72.50	2.42	2.46	2.42	2.42	5.57%	6.62%
75.00	1.80	1.85	1.80	1.80	4.53%	5.39%

For illustrative purposes only and may not be representative of the strategies current or future investments. This is not a recommendation to buy or sell securities. Note: There is no assurance that the strategy will achieve its investment objectives. The use of covered call strategies does not ensure profits or guarantee against losses.



# Van Hulzen Investment Process

## Option Parameters & Guidelines

	Percent OTM	Option Income	Option Duration	Percent Covered
<b>Portfolio (normalized)</b>	8 - 10%	3 - 6%	6 - 9 mo	90 - 100%
<b>BXM</b>	0.5 - 1.5%	1 - 2%	1 - 2 mo	100%
<b>Stock market</b>				
- Rising	Declines	-	-	-
- Declining	Rises	-	-	-
<b>Volatility</b>				
- Rising	-	Rises	-	-
- Declining	-	Declines	-	-
<b>Passage of time</b>	-	-	Declines	-
<b>Volatility at entry point</b>				
- Low vol at entry	Lower	Lower	Longer	Less at extreme
- High vol at entry	Higher	Higher	Shorter	Max coverage

**Introduction**

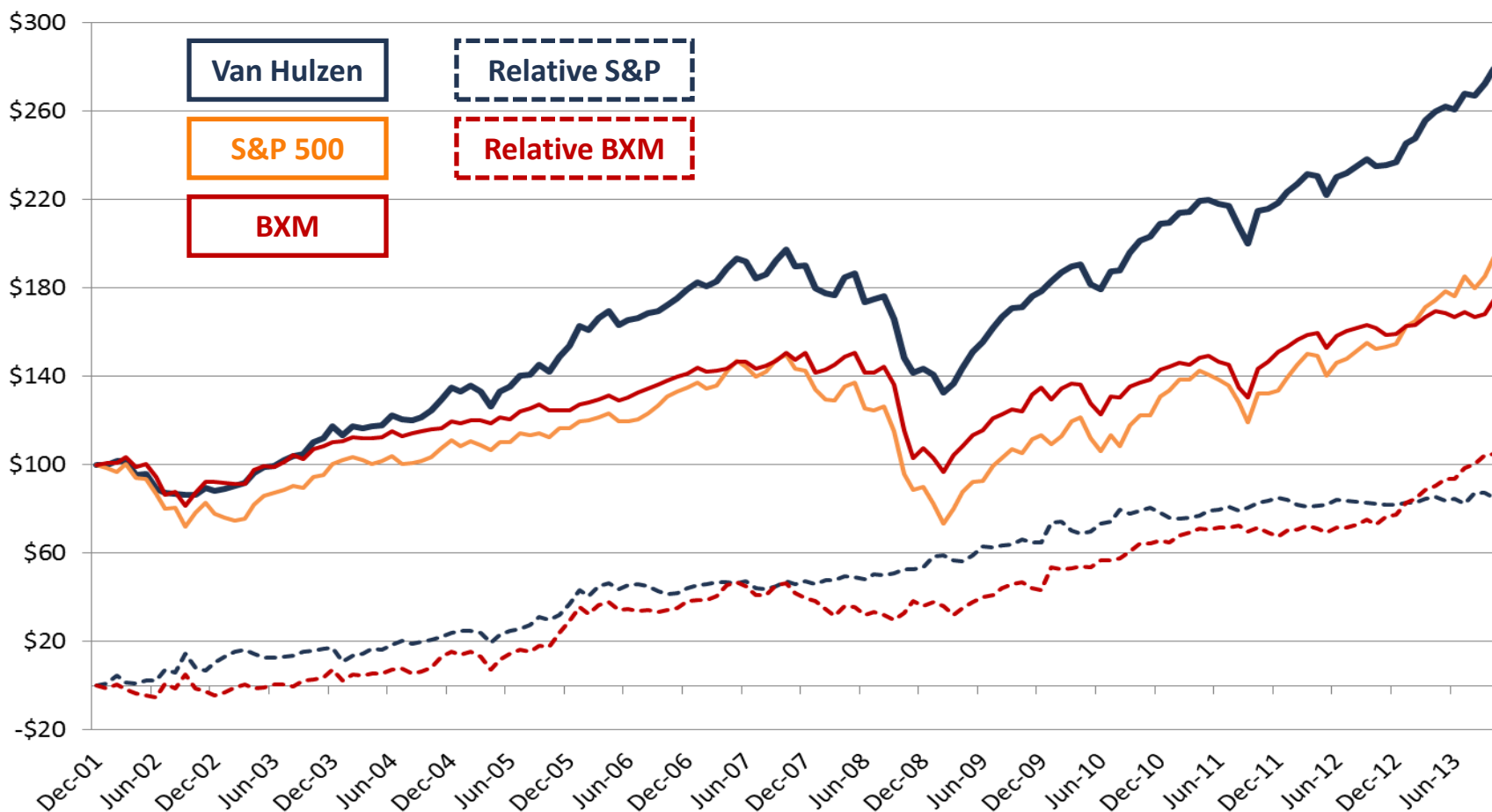
**Positioning**

**Process**

**Performance**

# Van Hulzen Relative Performance (10/31/2013)

Our Covered Call Strategy Has Outperformed At Significantly Lower Risk



We have a 11+ year track record of strong risk-adjusted returns: **3.5 % annual excess returns vs. S&P 500 at 33% less risk, and 4.4% annual excess returns vs. BXM at 13% less risk** (gross of fees)

# Van Hulzen Relative Performance (10/31/2013)

## Monthly Figures (gross of fees)

Returns	Oct 2013	3M	6M	YTD	1 Year	3 Years	5 Years	10 Years	Inception
Van Hulzen	2.4%	4.3%	7.4%	17.9%	18.8%	38.6%	88.3%	153.5%	179.0%
BXM	3.6%	3.1%	2.9%	9.5%	7.6%	27.2%	50.8%	62.6%	74.2%
Difference	-1.1%	1.2%	4.5%	8.4%	11.2%	11.4%	37.5%	90.9%	104.9%
S&P 500	4.6%	4.8%	11.1%	25.3%	27.2%	58.4%	102.6%	105.3%	93.8%
Difference	-2.2%	-0.5%	-3.7%	-7.4%	-8.4%	-19.8%	-14.3%	48.2%	85.2%

Monthly Returns	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	-0.2%	0.9%	-3.6%	-1.4%	5.9%	1.8%	-5.3%	-1.7%	2.6%	0.3%	2.2%	3.7%
February	1.7%	1.5%	3.6%	1.9%	-1.3%	-1.1%	-1.3%	-5.9%	2.3%	2.1%	1.7%	0.9%
March	0.3%	1.5%	-0.6%	-2.0%	3.5%	1.2%	-0.5%	3.1%	1.3%	0.2%	1.8%	3.2%
April	-6.2%	5.1%	0.5%	-5.0%	1.8%	3.4%	4.7%	5.2%	0.4%	2.3%	-0.3%	1.7%
May	0.4%	2.5%	0.7%	5.4%	-3.6%	2.3%	0.8%	5.2%	-4.7%	0.2%	-3.7%	0.9%
June	-6.9%	0.8%	3.8%	1.5%	1.3%	-0.8%	-6.8%	3.0%	-1.1%	-0.9%	3.6%	-0.6%
July	-2.0%	2.4%	-1.4%	3.8%	0.6%	-3.9%	0.7%	4.1%	4.5%	-0.5%	0.8%	2.7%
August	-0.8%	1.9%	-0.7%	0.4%	1.3%	1.0%	0.7%	3.0%	0.3%	-4.3%	1.3%	-0.2%
September	-0.5%	0.7%	1.4%	3.1%	0.5%	3.4%	-5.7%	2.4%	4.2%	-3.7%	1.4%	2.1%
October	0.2%	5.1%	2.3%	-2.1%	1.7%	2.4%	-10.7%	0.3%	2.8%	7.5%	-1.3%	2.4%
November	3.5%	1.7%	4.3%	4.5%	1.7%	-3.8%	-4.4%	2.8%	0.7%	0.3%	0.2%	
December	-1.5%	4.9%	4.1%	3.4%	2.3%	0.2%	1.1%	1.3%	2.9%	1.3%	0.6%	
VAM (Year)	-11.8%	33.2%	14.9%	13.9%	16.6%	6.0%	-24.6%	24.5%	17.1%	4.6%	8.3%	17.9%
BXM (Year)	-7.6%	19.4%	8.3%	4.2%	13.3%	6.6%	-28.7%	25.9%	5.9%	5.7%	5.2%	9.5%
S&P 500 (Year)	-22.1%	28.7%	10.9%	4.9%	15.8%	5.5%	-37.0%	26.5%	15.1%	2.1%	16.0%	25.3%

# Van Hulzen Covered Call Strategy

## Portfolio Characteristics

### Top 10 Holdings (09/30/2013)

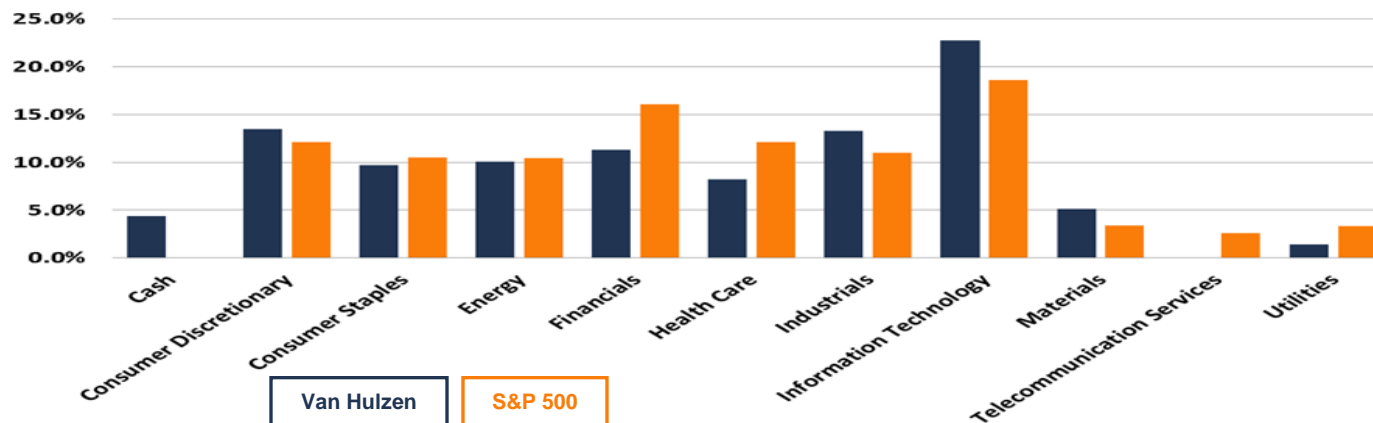
Name	%
AIG	3.6
QUALCOMM INC	3.5
INTEL CORP	3.5
MICROSOFT CORP	3.1
C.H. ROBINSON WORLDWIDE	3.1
APPLE INC	3.1
WAL-MART STORES INC	2.8
CISCO SYSTEMS INC	2.8
WELLS FARGO & CO	2.7
CHEVRON CORP	2.6

### Portfolio Characteristics (09/30/2013)

Number of Holdings	44
Median Market Cap	43bln
Dividend Yield	2.5%
Option premium (Annualized)	4.5%

### Risk Analysis Since Inception\*

	Van Hulzen	BXM	S&P 500
Annualized Return	8.9%	4.5%	5.4%
Standard Deviation (Annualized)	10.1%	11.6%	15.3%
Sharpe Ratio	0.86	0.37	0.71
Beta (Van Hulzen vs Benchmark)		0.69	0.56
Jensen Alpha (Van Hulzen vs Benchmark)		5.7%	5.8%
Tracking Error (Van Hulzen vs Benchmark)		7.2%	8.7%
Information Ratio (Van Hulzen vs Benchmark)		0.61	0.40
R-Squared (Van Hulzen vs Benchmark)		0.62	0.70



### Ratings and Risk (09/30/2013)

	Overall	3 Yr	5 Yr	10 Yr
Morningstar Rating™	★★★★	★★★	★★★★★	★★★★★
Number Rated	363	385	352	261
Morningstar Risk™	Low	Low	Low	Low
Morningstar Return™	High	Avg	High	High

Information as of 09/30/2013  
Inception date: December 31st, 2001

### Van Hulzen Asset Covered Call Strategy has:

- *“A low volatility approach to US equities”*
- *“A fundamental driven stock selection approach (a true covered call portfolio)”*
- *“87% of portfolio holdings in S&P 500”*
- *“An annualized outperformance over BXM: 440bp”*
- *“Strong risk management”*

### BOARD OF DIRECTORS

Eric Wedbush

Craig Van Hulzen

John Pearce

Jeremy Zhu

### PRESIDENT & CEO

Craig Van Hulzen

### ASSET MANAGEMENT

John Pearce

Stefan ten Brink

### WEALTH MANAGEMENT

Chris Schreur

Brad Nicholson

### CLIENT SERVICE & SUPPORT

Rhett Beal

Julie Bracken

Joyce Van Hulzen

Judy Elliott

Emmy Arcolino

### CUSTODY

Schwab  
TD Ameritrade

### COMPLIANCE

Financial Planners  
Assistance

### ACCOUNTING/AUDIT

David Fulton, CPA  
Schultz & Chez LLP

### LEGAL

Downey Brand LLP  
Jeffrey Kelvin

# Appendix

## Important Definitions

**Important Definitions:** **Call Option:** An agreement that gives an investor the right (but not the obligation) to buy a security at a specified price within a specific time period. **Covered Call:** An options strategy whereby an investor holds a long position in an asset and writes (sells) call options on that same asset in an attempt to generate increased income from the asset. **Return on Investment:** rate of return annualized over a given period, expressed on an annual basis or as a return per year. **Volatility:** A statistical measure of the dispersion of returns for a given security or market index. Volatility is often measured by using the standard deviation between a security's returns and a market index. Typically, the higher the volatility, the riskier the security. **Standard Deviation:** a measure of daily volatility of returns. Typically, the higher the volatility, the riskier the security. **Beta:** a measure of the volatility of a fund relative to the overall market. **Sharpe Ratio:** A risk-adjusted measure used to determine reward per unit of risk. **R-Squared:** The percentage of a fund's movement that can be explained by movements in its benchmark index. **Jensen Alpha:** A market risk balanced measure of performance, based on CAPM. It is calculated as the difference between security average return vs. risk free rate and beta times benchmark excess return. **Information Ratio:** The excess return (alpha) of an active manager over an appropriate benchmark, divided by the standard deviation of excess returns (tracking error). The equation is as follows:  $\text{Information Ratio} = \text{ERT} / \text{STDV}(\text{ERt})$  Where:  $\text{ERT} = (\text{RPt} - \text{RBt})$ , where -  $\text{RPt}$  = Return on a portfolio over time period t -  $\text{RBt}$  = Return on a benchmark over time period t  $\text{STDV}(\text{ERt})$  = Standard deviation of  $\text{ERt}$  over the same time period t. **Track error:** It quantifies how closely a manager's return pattern follows that of a benchmark index, and is defined as the standard deviation of the funds excess return over the benchmark index return. Since selection return is defined as the excess return over the benchmark index, tracking error can also be defined as the standard deviation of the selection return.

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



### IMPORTANT INFORMATION

*This presentation is prepared by Van Hulzen Asset Management, LLC (VAM), a SEC-registered investment adviser. The information contained herein and the opinions expressed are those of VAM as of the date of writing and have not been approved or verified by the United States Securities and Exchange Commission (the "SEC").*

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*The Strategy involves risk including the possible loss of principal. There is no assurance that the Strategy will achieve its investment objectives. The use of leverage embedded in written options will limit the Strategy's gains because the Strategy may lose more than the option premium received. Selling covered call options will limit the Strategy's gain, if any, on its underlying securities and the Strategy continues to bear the risk of a decline in the value of its underlying stocks. The S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value weighted index (stock price times number of shares outstanding), with each stock's weight in the Index proportionate to its market value. It is widely used as a benchmark of U.S. equity performance. It is not possible to invest directly in an index. Standard deviation is a statistical measurement of volatility risk based on historical returns. All proposed portfolio performance is presented "gross of fees". The returns presented do not reflect the impact of the fees and expenses associated with the investment(s), the deduction of which would decrease actual results. For example, an advisory fee of 1% compounded over a 10 year period would reduce a 10% return to an 8.9% annualized return. Such fees and expenses may include, without limitation, an advisory fee and transaction fees charged on brokerage transactions. The net effect of the deduction of fees and expenses on annualized performance will vary over time depending on client relationship, account size, time period and overall investment performance. You should discuss applicable fees with your advisor. The fees are disclosed in published fee schedules, which are available upon request. The performance results illustrated herein do not reflect the impact of taxes. **Review Code: FPAC-00004-13***

## **EAST BAY MUNICIPAL UTILITY DISTRICT**

---

DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

THROUGH: Lisa Sorani, HR Manager of Employee Services

FROM: Elizabeth Grassetti, Sr. Human Resources Analyst

SUBJECT: Crediting Interest Rate on Member Contributions

ACTION: Adopt Resolution No. 6790 to Correct Interest Rate in Resolution No. 6783 from July 18, 2013 Meeting

### **RECOMMENDATION**

Adopt Resolution No. 6790 to Correct Interest Rate in Resolution No. 6783 from July 18, 2013 Meeting.

### **BACKGROUND**

Retirement Ordinance, Section 4(d), directs the Retirement Board to semi-annually declare the rate of interest to be credited to accumulated Member contributions.

At the July 18, 2013 Retirement Board Meeting, Resolution No. 6783 was approved with an inadvertent error in the rate of interest to be credited. Resolution No. 6790 corrects this error. The interest rate credited to Members' accounts was correct.

In accordance with Retirement Board Rule B-9, the annual rate of interest credited to Member contributions will be the lesser of the actuarially assumed rate of interest or the five (5) year average rate of return on Retirement System investments for the period ending December 31, 2012. The actuarially assumed rate of interest is 7.75%, and the five-year average rate of return as of December 31, 2012 was 2.6%.

Therefore, Resolution No. 6790 declares that the interest credited to the balance of Member contributions effective June 30, 2013 will be at the annual rate of 2.6%. The rate credited to Members account will be prorated to a semi-annual rate of 1.3%.

R.B. RESOLUTION NO. 6790

DECLARING THE INTEREST RATE

Introduced by:

; Seconded by:

WHEREAS, section 4(d) of Ordinance, as amended, provides that the Retirement Board shall semi-annually declare the rate of interest for the preceding six (6) months to be credited on accumulated contributions of members, which rate shall be based upon criteria to be established by the Retirement Board; and

WHEREAS, the crediting rate be the lesser of the actuarial assumed rate of seven and three quarters percent (7.75%) or the actual five (5) year earnings rate of the fund, determined to be two and six-tenths and percent (2.6%) for the period ending December 31, 2012;

NOW THEREFORE, BE IT RESOLVED that the Retirement Board does hereby declare a two and sixth tenths percent (2.6 %) annual interest rate. The rate credited to members account will be one and three tenths percent (1.3%) for the six (6) month period ending June 30, 2013, in accordance with Rule B-9 of Retirement Board.

---

President

ATTEST:

---

Secretary

11/19/13



# **East Bay Municipal Utility District Retirement System (EBMUD) Investment Portfolio**

## **Quarterly Report Executive Summary**

This report is solely for the use of client personnel. No part of it may be circulated, quoted, or reproduced for distribution outside the client organization without prior written approval from Pension Consulting Alliance, Inc.

Nothing herein is intended to serve as investment advice, a recommendation of any particular investment or type of investment, a suggestion of the merits of purchasing or selling securities, or an invitation or inducement to engage in investment activity.

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## INTRODUCTION

The EBMUD Total Portfolio had an aggregate value of \$1.2 billion as of September 30, 2013. During the latest quarter, the Total Portfolio increased by \$68.4 million and over the latest year the Total Portfolio increased by \$157.7 million. After a mixed second quarter, the third quarter brought improved performance as all major equity and fixed income markets saw positive returns. European markets were the strongest performer during the quarter as improvement in many economic indicators signal that the ongoing economic recovery, although modest, is gaining steam. After the Fed decided to delay the tapering of its quantitative easing program, US equity markets hit all-time highs in mid-September. However, fears of a government shutdown dampened returns toward the end of the quarter. Asian markets followed the lead of Europe and the US as the Japanese economy recorded another quarter of strong growth, and China, despite worrying trends in property prices, saw its economy continue to grow at a healthy clip.

## Asset Allocation Trends

With respect to policy targets, the Total Portfolio ended the latest quarter **overweight Domestic Equity and Cash, underweight International Equity and Fixed Income, and relatively at target in Real Estate**. During the quarter, the actual weighting of Fixed Income decreased by (1.1%), while the actual weighting of International Equity increased by 0.7%. Allocations to the remaining asset classes were relatively unchanged (variance < 0.5%) from the previous quarter. The asset allocation targets (see table on page 22) reflect those as adopted by the Board in early 2006. The new target policy allocations elected by the Board in September 2013 will take effect upon the completion of the manager searches to fulfill the new Covered Calls and non-Core bonds allocations.

## Recent Investment Performance

The Total Portfolio outperformed the policy benchmark over the latest quarter and 1-year period by 0.5% and 1.9%, respectively. Security selection in public Equities and Fixed Income, as well as weighting decisions in Domestic Equity and Fixed Income primarily contributed to relative outperformance during the 1-year period. The Total Portfolio surpassed the policy benchmark by 80 and 90 basis points per annum over the 3- and 5-year periods, respectively, and performed in-line with the benchmark and the actuarial rate of 7.75% over the extended time periods measured.

The Total Portfolio exceeded the Median Public Fund return by 1.0% during the quarter as the Portfolio's larger allocation to Domestic Equity and lack of exposure to Alternative Investments benefited results. Over the 1-year period the Total Portfolio surpassed the Median Public Fund by 3.7% with weighting differences in Domestic Equity, Fixed Income, and Cash, as well as security selection in International Equity contributing to results. The Total Portfolio outperformed the Median Fund over the extended time period measured.

### Recent Investment Performance\*

	Quarter	1 Year	3 Year	5 Year	10 Year	20 Year
Total Portfolio	5.9	16.0	12.1	9.6	7.7	8.2
<i>Policy Benchmark<sup>1</sup></i>	<i>5.4</i>	<i>14.1</i>	<i>11.3</i>	<i>8.7</i>	<i>7.7</i>	<i>8.1</i>
<b>Excess Return</b>	<b>0.5</b>	<b>1.9</b>	<b>0.8</b>	<b>0.9</b>	<b>0.0</b>	<b>0.1</b>

\*Gross of Fees

	Quarter	1 Year	3 Year	5 Year	10 Year	20 Year
Total Portfolio	5.9	16.0	12.1	9.6	7.7	8.2
<i>Median Public Fund<sup>2</sup></i>	<i>4.9</i>	<i>12.3</i>	<i>10.3</i>	<i>8.2</i>	<i>7.3</i>	<i>7.9</i>
<b>Excess Return</b>	<b>1.0</b>	<b>3.7</b>	<b>1.8</b>	<b>1.4</b>	<b>0.4</b>	<b>0.3</b>

\*Gross of Fees

<sup>1</sup> Policy Benchmark consists of 50% Russell 3000 (blend), 20% MSCI ACWIxU.S. (blend), 25% Barclay's Capital Universal (blend), 2.5% NCREIF (lagged), and 2.5% FTSE NAREIT All Equity REITs index as of 11/1/11; 50% Russell 3000 (blend), 20% MSCI ACWI x U.S. (blend), 25% Barclay's Capital Universal (blend), and 5% NCREIF, previously.

<sup>2</sup> Mellon Total Fund Public Universe.

## Investment Market Risk Metrics

### Takeaways

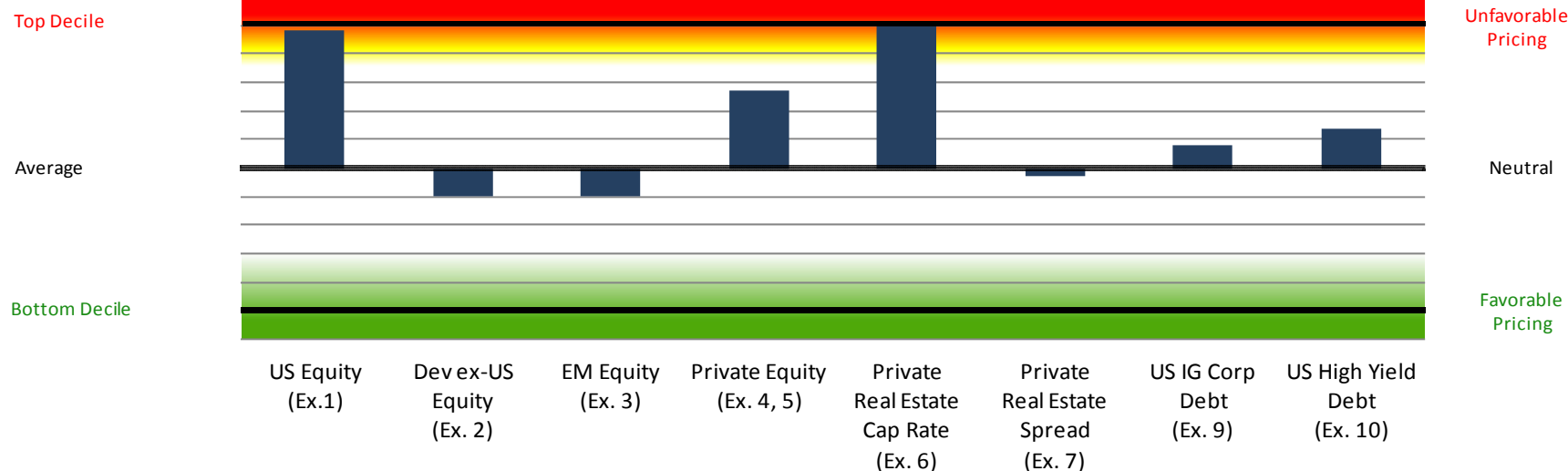
- Decisions regarding fiscal and monetary policy continue to impact global capital markets on a meaningful basis.
- The slope of the yield curve is extremely steep, indicating the recent rate rise may be overdone, if cash rates remain pinned at zero.
- Interest rate risk has fallen relative to the extremes of last year, but remains elevated.
- Equity volatility (VIX) remains below the long-term average level of 20.
- Equity valuations are elevated in the US, but not at extremes. Non-US equity valuations are below average.
- Credit spreads are at levels near long-term averages.
- Core real estate cap rates remain low (expensive) and the recent rise in interest rates has compressed the spread over the 10-year Treasury to the historical average, making core real estate pricing even less attractive.
- Inflation metrics point to inflation being under control.
- The PCA Market Sentiment Indicator “PMSI” continued to read **green** during the 3<sup>rd</sup> quarter.

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<sup>3</sup> See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

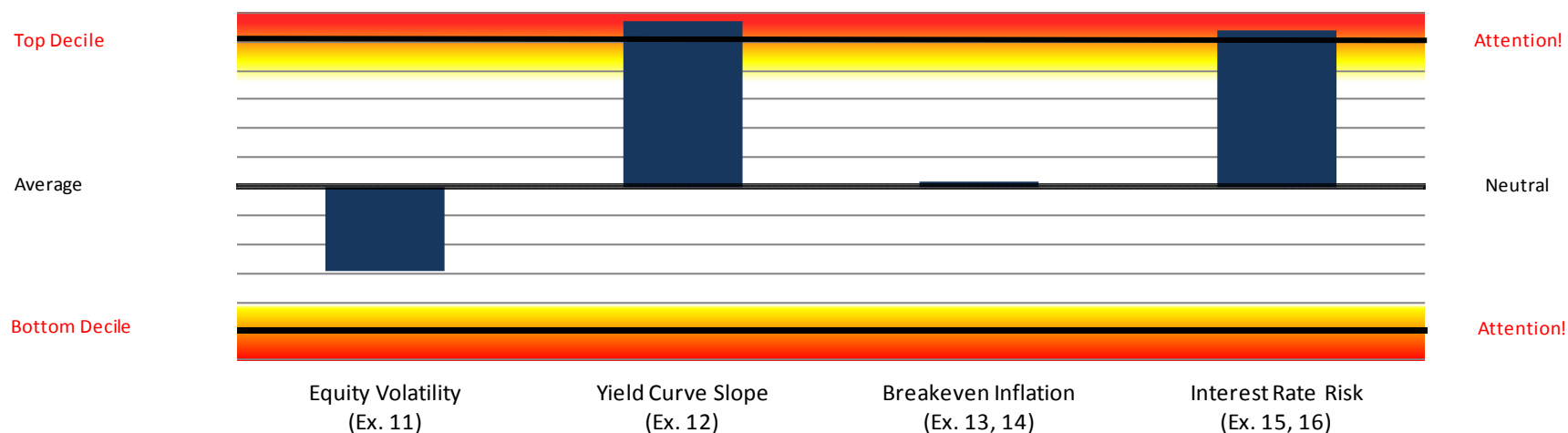
## Valuation Metrics versus Historical Range

### A Measure of Risk

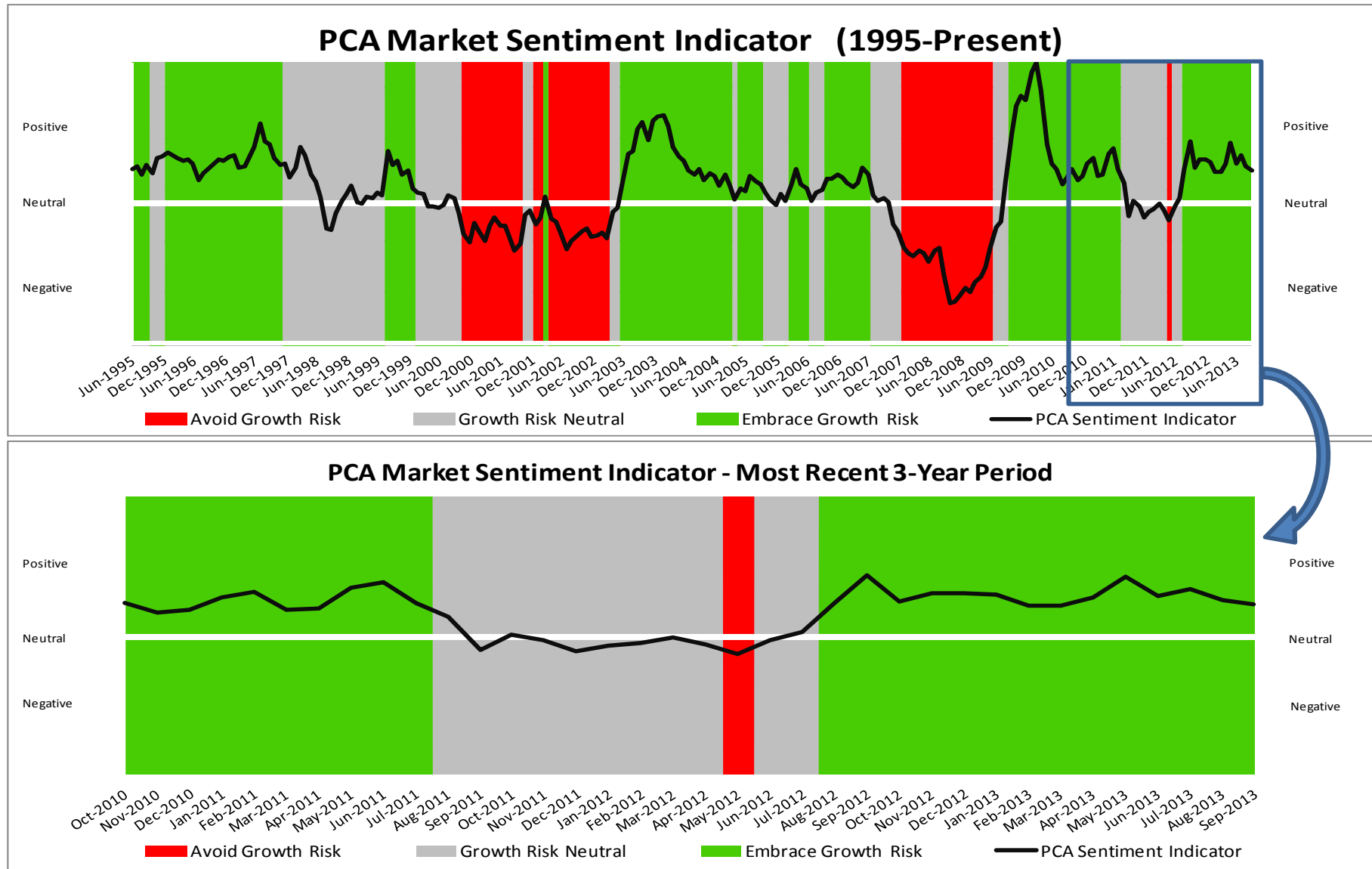


## Other Important Metrics within their Historical Ranges

### Pay Attention to Extreme Readings



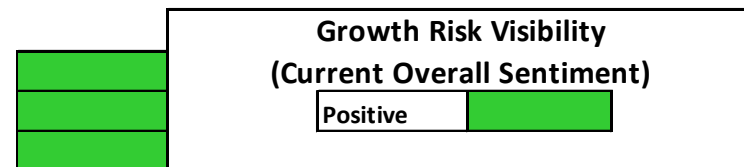




## Information Behind Current Sentiment Reading

Bond Spread Momentum Trailing-Twelve Months  
Equity Return Momentum Trailing-Twelve Months  
Agreement Between Bond and Equity Momentum Measures?

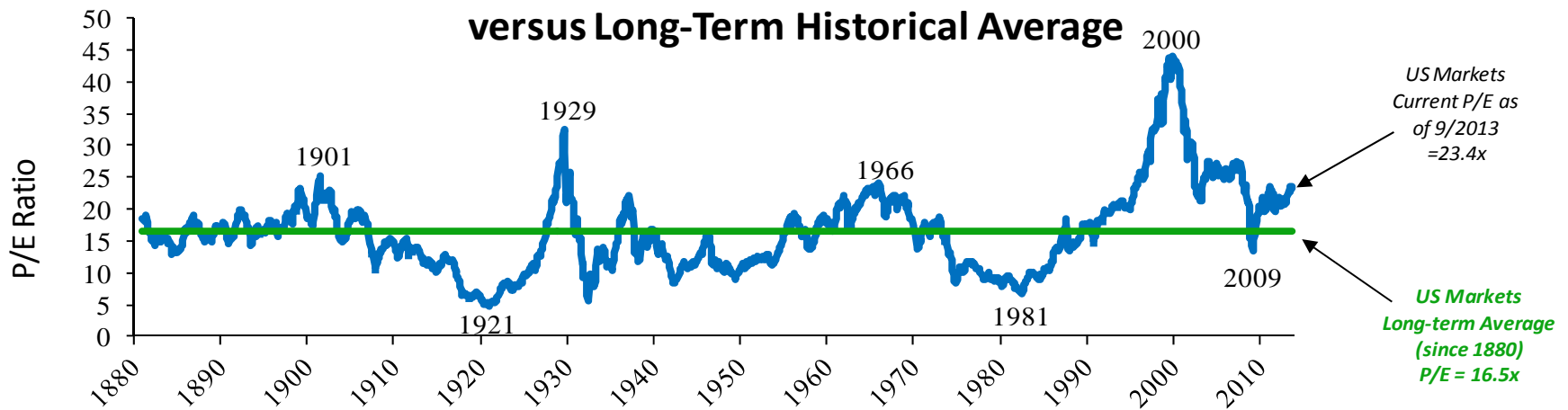
Positive  
Positive  
Agree



## Developed Public Equity Markets

Exhibit 1

### U.S. Equity Market P/E Ratio<sup>1</sup> versus Long-Term Historical Average

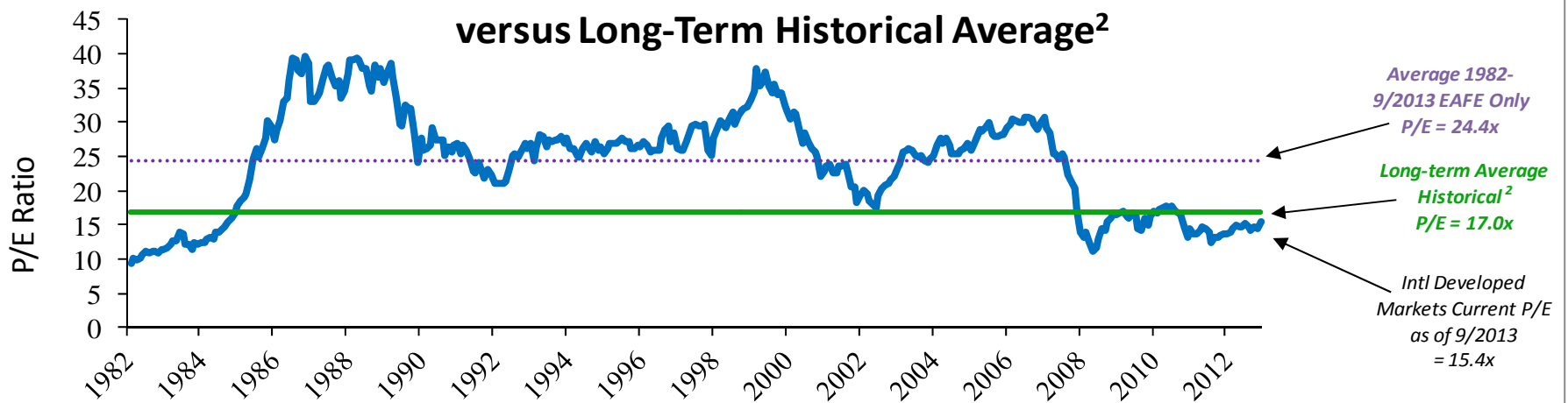


<sup>1</sup> P/E ratio is a Shiller P/E-10 based on 10 year real S&P 500 earnings over S&P 500 index level.

(Please note different time scales)

Exhibit 2

### Developed ex-U.S. Equity Market P/E Ratio<sup>1</sup> versus Long-Term Historical Average<sup>2</sup>



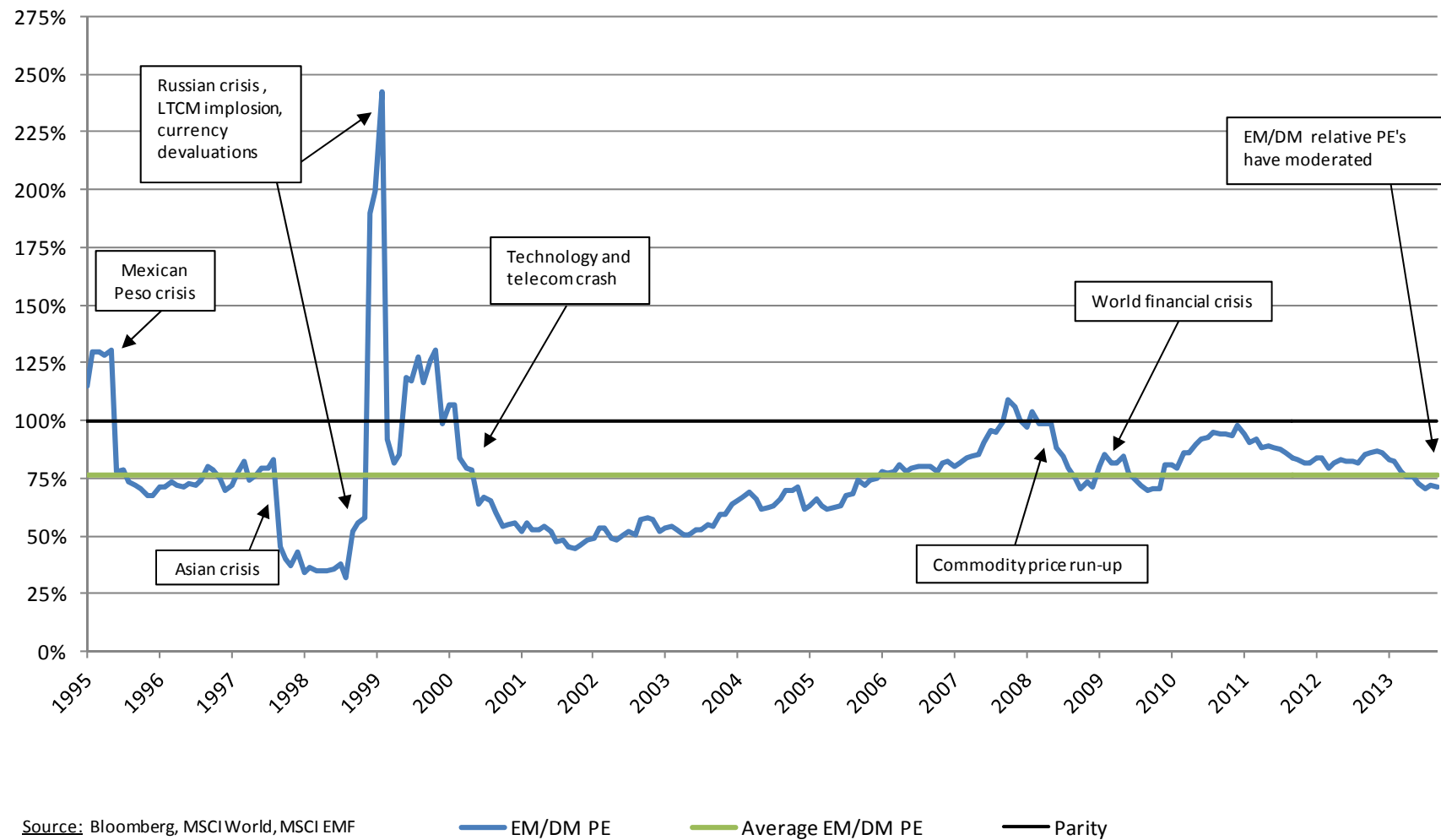
<sup>1</sup> P/E ratio is a Shiller P/E-10 based on 10 year real MSCI EAFE earnings over EAFE index level.

<sup>2</sup> To calculate the LT historical average, from 1881 to 1982 U.S. data is used as developed market proxy. From 1982 to present, actual developed ex-US market data (MSCI EAFE) is used.

## Emerging Markets Public Equity Markets

Exhibit 3

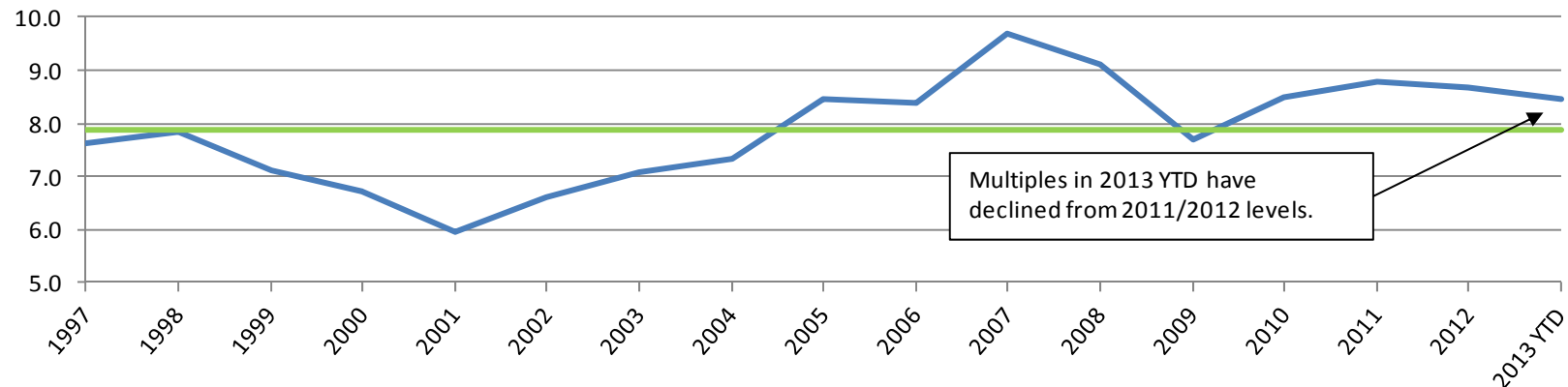
### Emerging Markets PE / Developed Markets PE (100% = Parity between PE Ratios)



## US Private Equity Markets

Exhibit 4

### Price to EBITDA Multiples Paid in LBOs

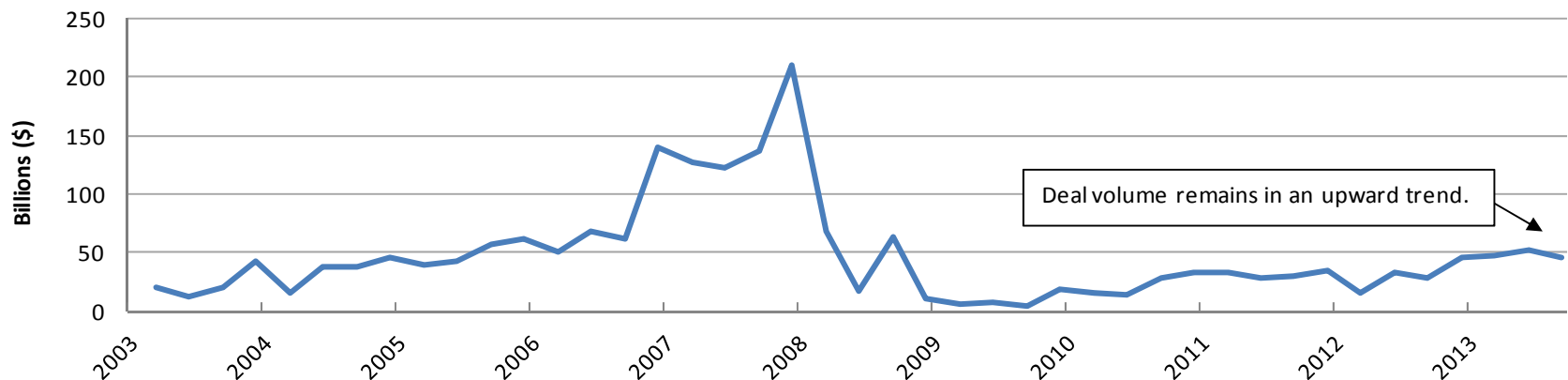


Source: S&P LCD study

(Please note different time scales)

Exhibit 5

### Disclosed U.S. Quarterly Deal Volume\*



Source: Thomson Reuters Buyouts

\* quarterly total deal size (both equity and debt)

## Private Real Estate Markets

Exhibit 6

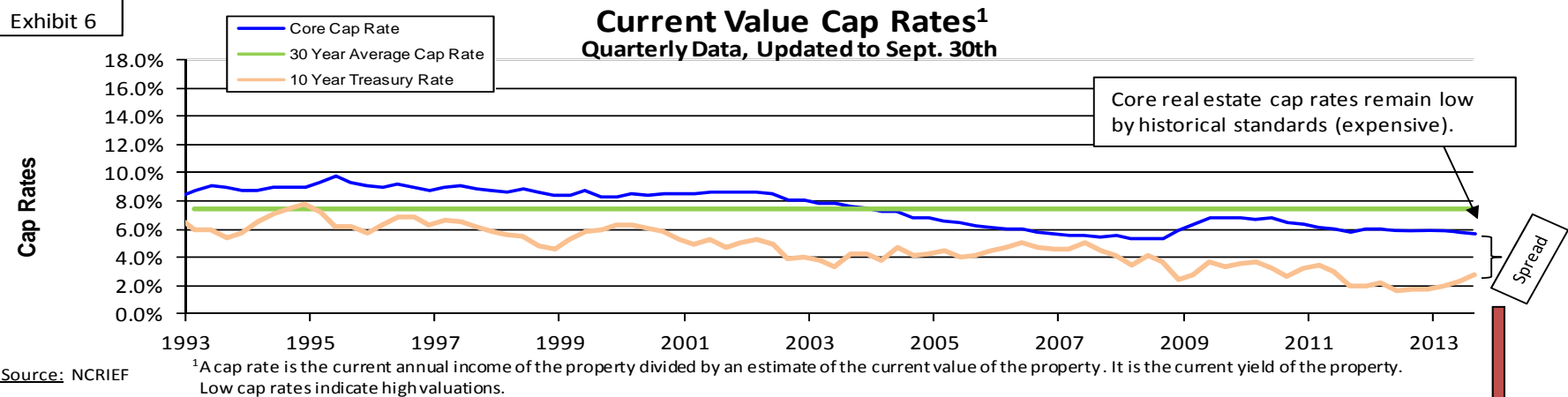


Exhibit 7

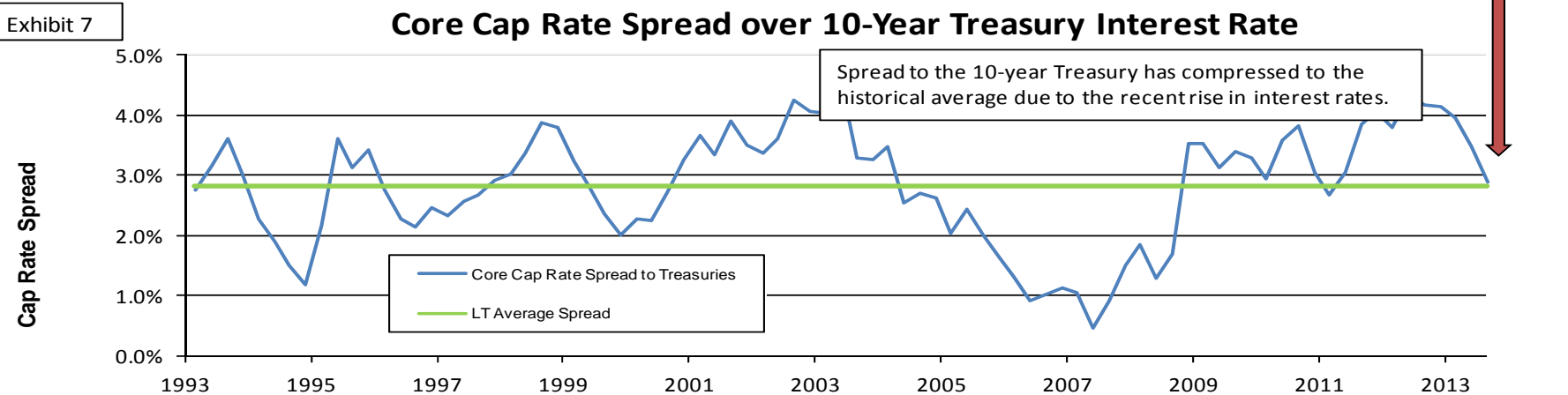
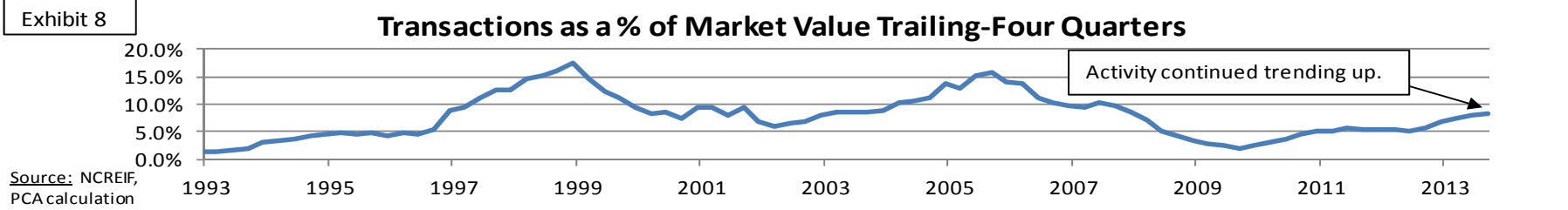


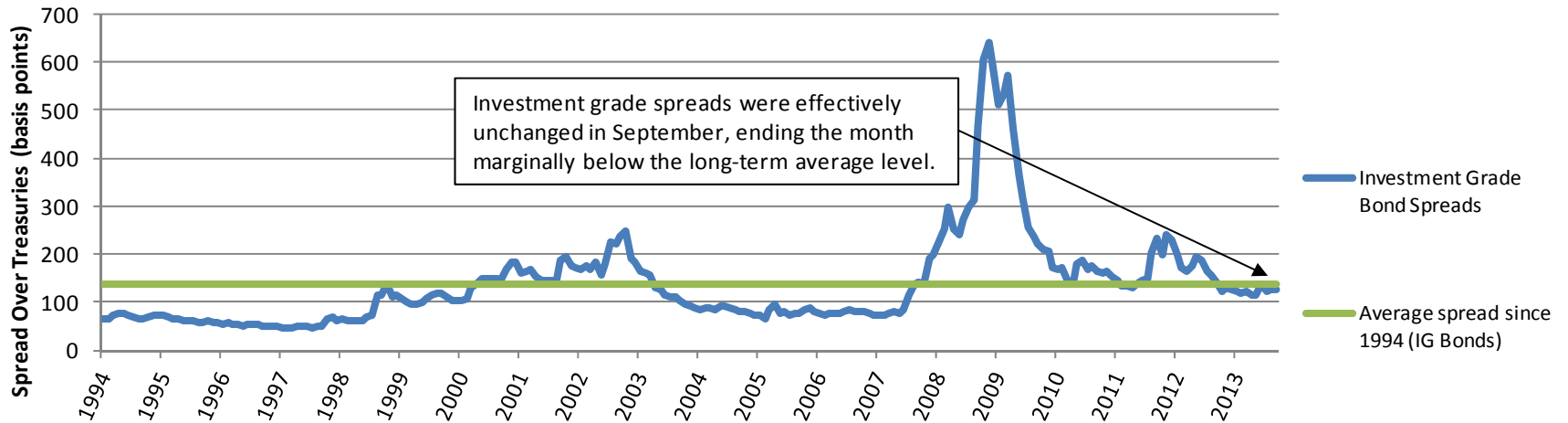
Exhibit 8



## Credit Markets US Fixed Income

Exhibit 9

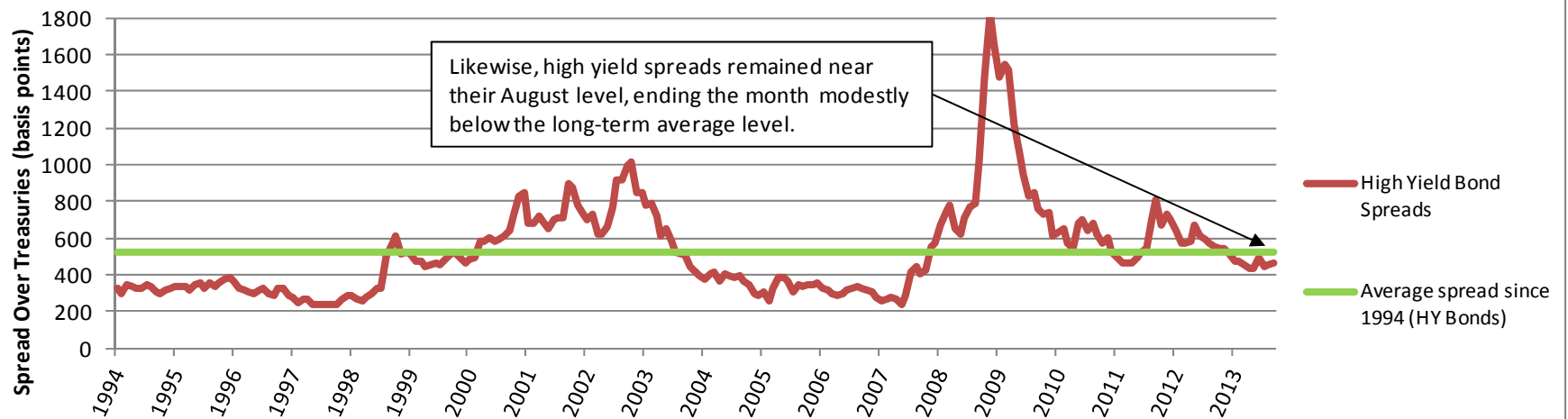
### Investment Grade Corporate Bond Spreads



Source: LehmanLive: Barclays Capital US Corporate Investment Grade Index Intermediate Component.

Exhibit 10

### High Yield Corporate Bond Spreads

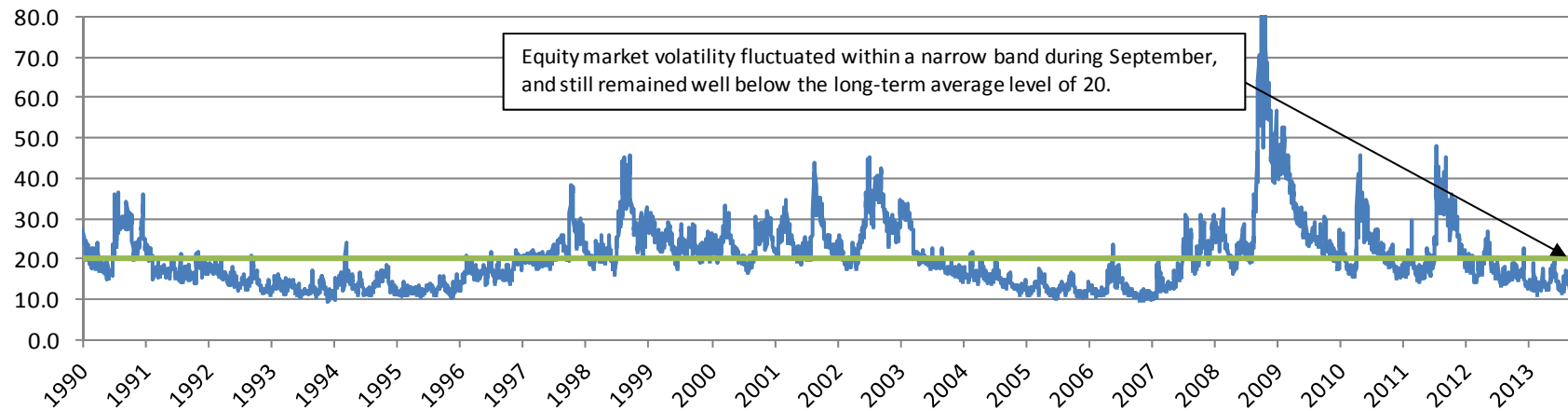


Source: LehmanLive: Barclays Capital U.S. Corporate High Yield Index.

## Other Market Metrics

Exhibit 11

### VIX - a measure of equity market fear / uncertainty

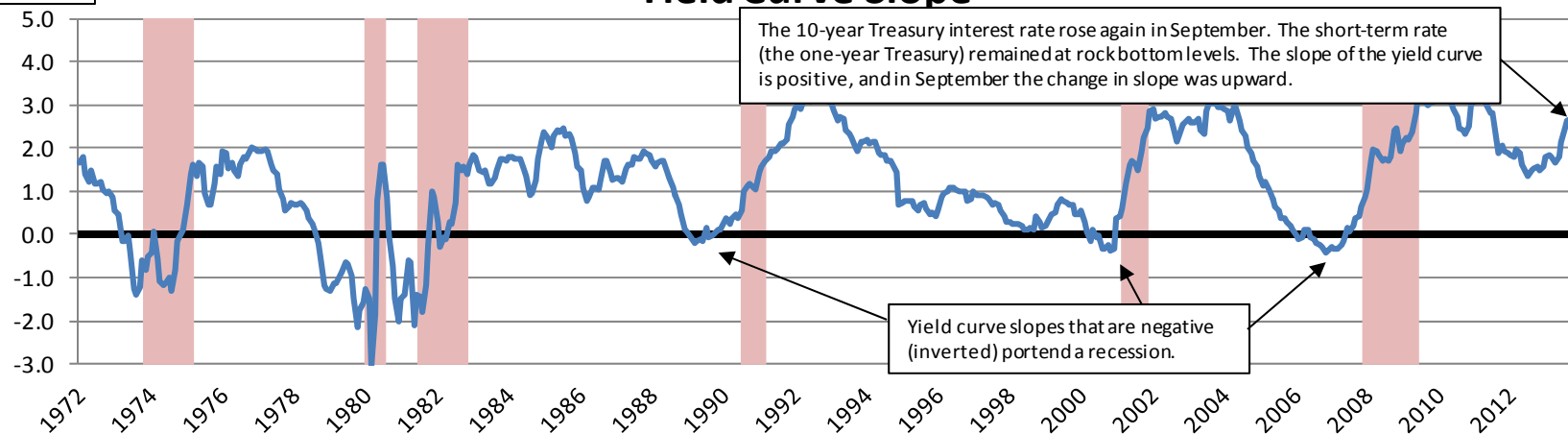


Source: <http://www.cboe.com/micro/vix/historical.aspx>

(Please note different time scales)

Exhibit 12

### Yield Curve Slope



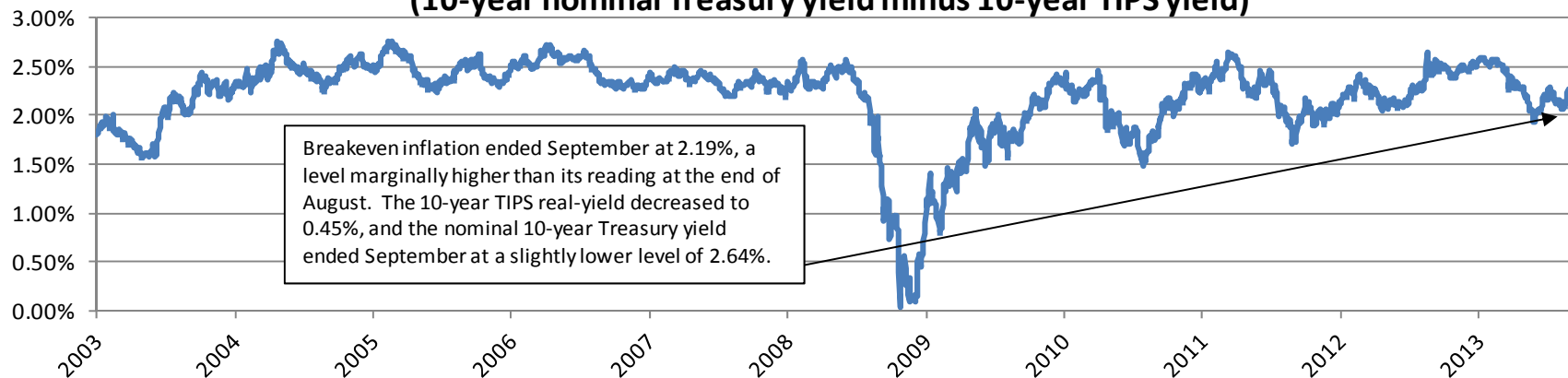
Source: [www.ustreas.gov](http://www.ustreas.gov) (10-year treasury yield minus 1-year treasury yield)

Recession Dating: NBER <http://www.nber.org/cycles.html>

## Measures of Inflation Expectations

Exhibit 13

### 10-Year Breakeven Inflation (10-year nominal Treasury yield minus 10-year TIPS yield)



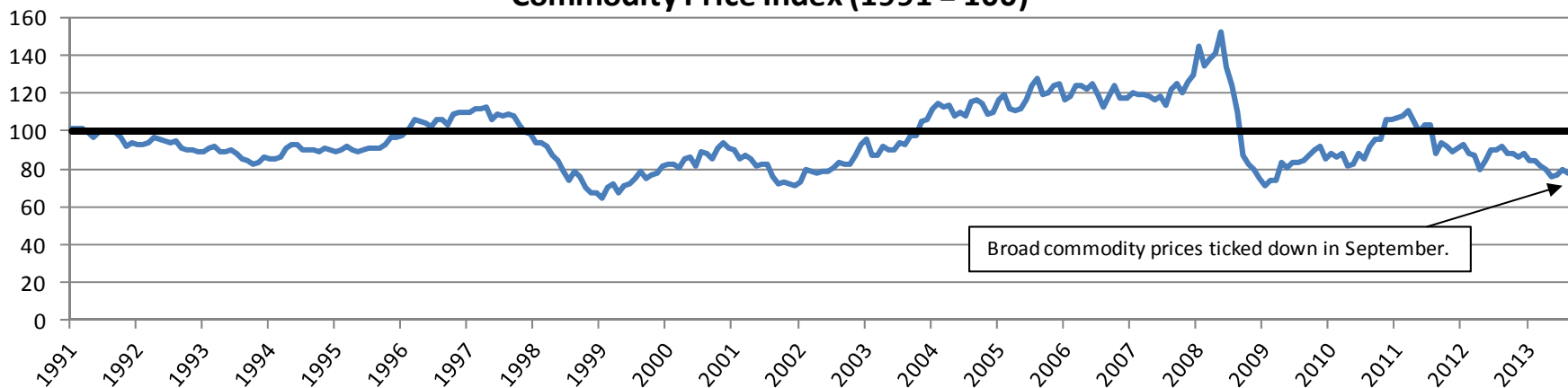
Source: [www.ustreas.gov](http://www.ustreas.gov)

Daily Yield Curve Rates (10-year nominal treasury yield minus 10-year TIPS yield)

(Please note different time scales)

Exhibit 14

### Inflation Adjusted Dow Jones UBS Commodity Price Index (1991 = 100)



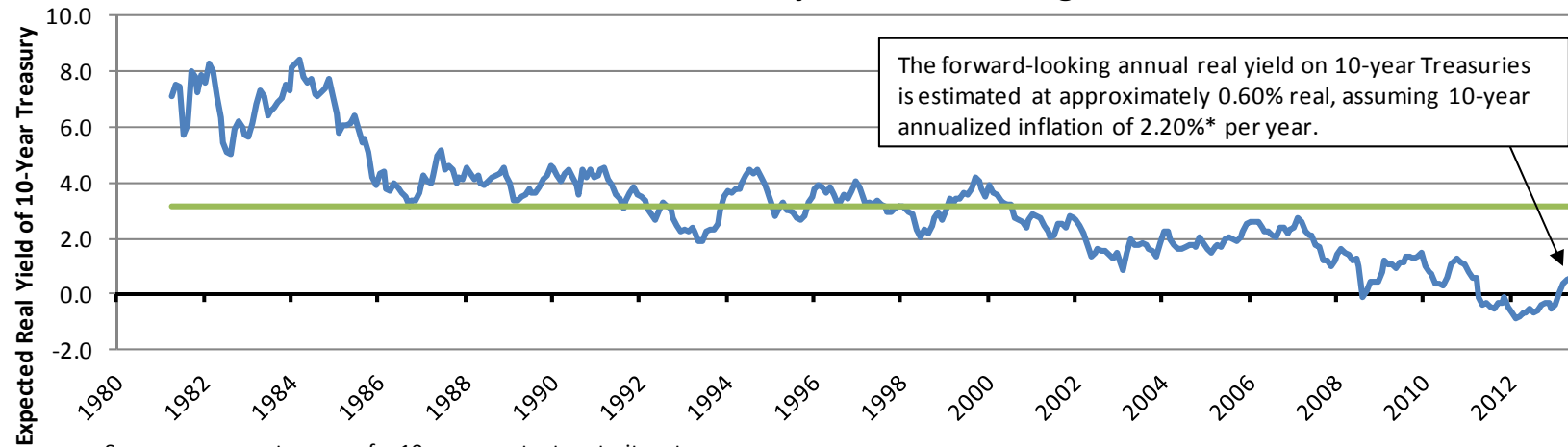
Source: Bloomberg DJUBS Index, St. Louis Fed for US CPI all urban consumers.



## Measures of U.S. Treasury Interest Rate Risk

Exhibit 15

### Estimate of 10-Year Treasury Forward-Looking Real Yield

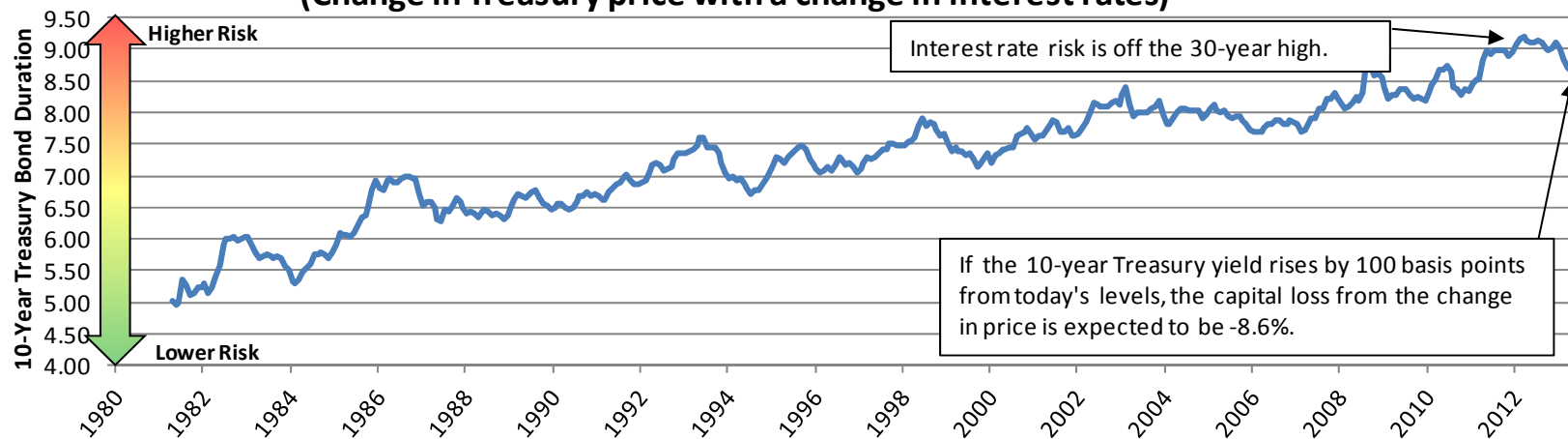


Sources: [www.ustreas.gov](http://www.ustreas.gov) for 10-year constant maturity rates

\*Federal Reserve Bank of Philadelphia survey of professional forecasts for inflation estimates

Exhibit 16

### 10-Year Treasury Duration (Change in Treasury price with a change in interest rates)



Source: [www.ustreas.gov](http://www.ustreas.gov) for 10-year constant maturity rates, calculation of duration

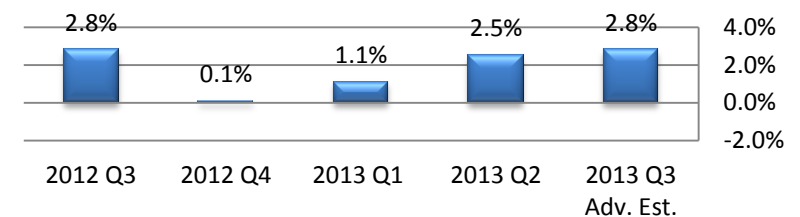
## ECONOMIC OVERVIEW

**Overview:** In September, U.S. Equity markets rose to new highs before pulling back as concerns anticipating the October government shutdown emerged. Real GDP increased at an annualized rate of 2.8 percent in the third quarter of 2013, rising from 2.5 percent in the second quarter of 2013. The Fed surprised investors by continuing its \$85 million level of monthly bond purchases, seeking more signs of economic growth before tapering begins. Unemployment continued its gradual decline, ending the quarter at 7.2%. The U.S. housing market maintained its upward march as home building activity reached its highest point since 2005. International markets also increased over the quarter as investor confidence continued to improve amid signs that the worst of the Eurozone crisis may be over. U.S. investors in international markets also received additional benefits from the depreciation of the U.S. dollar. Emerging Markets followed the trend posting positive returns for the quarter slightly trailing those in Developed Markets.

### Economic Growth

- Real GDP increased at an annualized rate of 2.8 percent in the third quarter of 2013, rising from 2.5 percent in the second quarter of 2013.
- Historical GDP numbers were revised during the second quarter, reflecting major changes in methods & concepts. This occurs approximately every five years.
- The increase in GDP was fueled mainly by an uptick in inventory investment acceleration in state and local government spending. Imports and exports decelerated during the quarter.

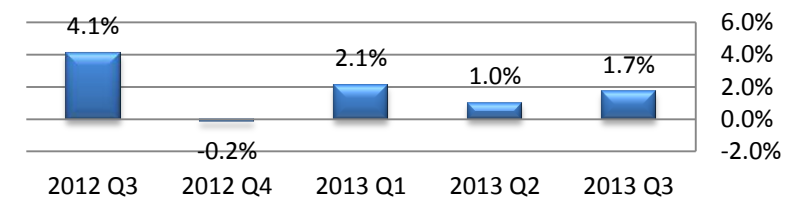
#### Annualized Quarterly GDP Growth



### Inflation

- The Consumer Price Index for All Urban Consumers (CPI-U) increased by 1.7 percent in the quarter on an annualized basis, after seasonal adjustment.
- Quarterly percent changes may be adjusted between data publications due to periodic updates in seasonal factors.
- Core CPI-U increased by 1.6 percent for the quarter on an annualized basis.
- Over the last 12 months, CPI-U increased 1.2 percent before seasonal adjustment.

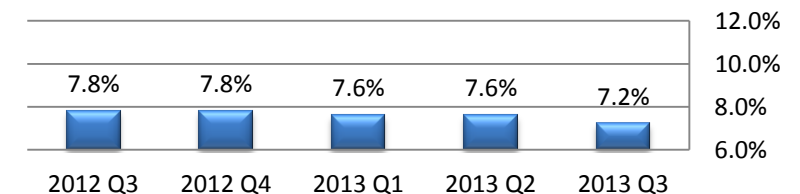
#### CPI-U After Seasonal Adjustment



### Unemployment

- The U.S. economy gained 479,000 jobs in the quarter.
- The official unemployment rate was improved to 7.2% at quarter end.
- The majority of jobs gained occurred in professional and business services, food services and drinking places, and retail trade.

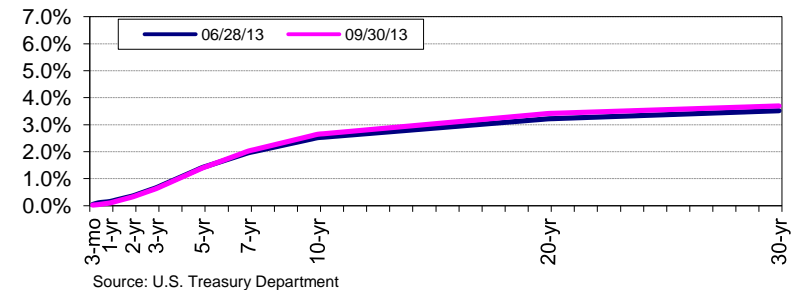
#### Unemployment Rate



## Interest Rates & U.S. Dollar

- U.S. Treasury yields increased over the quarter.
- The Federal Reserve has maintained the federal funds rate between 0.00% and 0.25% since December 2008.
- The U.S. dollar depreciated against the Yen, Euro, and Sterling by 4.0%, 0.9%, and 6.4%, respectively.
- Subsequent to quarter end, rates ticked up but remained near low historic levels.

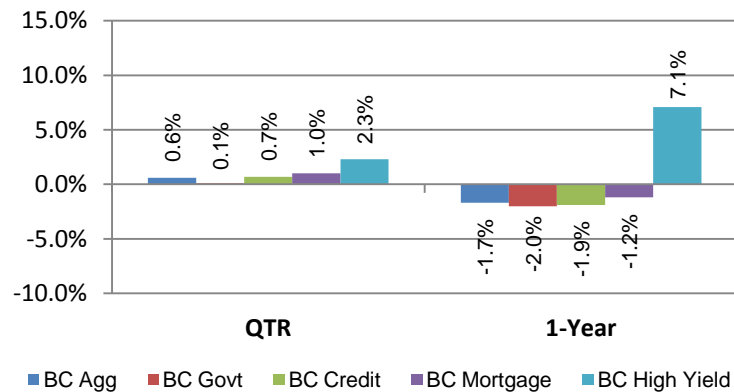
### Treasury Yield Curve Changes



## Fixed Income

- The bond markets provided slightly positive results across the board during the quarter. High Yield produced significant positive results over the 1-year period, while most other segments produced negative returns.
- During the trailing 1-year period Governments, Agencies, Investment Grade Credit, MBS, and ABS produced negative returns while only CMBS remained positive.

### Fixed Income Returns



### U.S. Fixed Income Sector Performance (BC Aggregate Index)

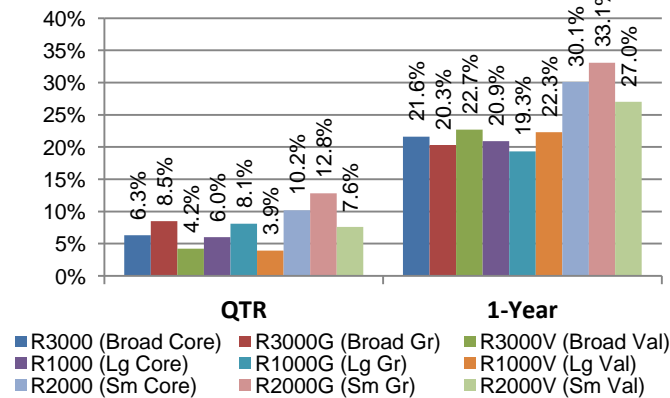
Sector	Weight	QTR	1 Year
Governments*	40.4%	0.1%	-2.0%
Agencies	6.1%	0.3%	-1.4%
Inv. Grade Credit	21.9%	0.7%	-1.9%
MBS	29.5%	1.0%	-1.2%
ABS	0.4%	0.2%	-0.4%
CMBS	1.7%	1.0%	0.9%

\*U.S. Treasuries and Government Related

## U.S. Equities

- Growth in U.S. equities regained momentum after a slow second quarter, producing positive results across the board.
- During the quarter, growth indices outperformed value throughout large & mid-cap stocks. Telecommunication Services was the only sector that produced a negative return during the quarter. All ten sectors produced positive results for the trailing one-year period.

U.S. Equity Returns



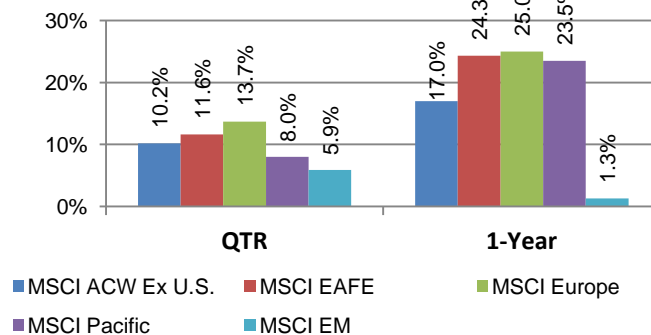
U.S. Equity Sector Performance (Russell 3000 Index)

Sector	Weight	QTR	1 Year
Materials	3.8%	9.9%	16.5%
Industrials	11.4%	9.6%	32.4%
Information Tech	17.9%	9.0%	11.2%
Consumer Disc	13.4%	8.6%	34.6%
Health Care	12.6%	8.0%	29.3%
Energy	9.5%	6.5%	13.7%
Financials	17.4%	2.9%	27.1%
Consumer Staples	8.7%	1.5%	15.8%
Utilities	3.2%	0.4%	8.8%
Telec. Serv.	2.2%	-2.9%	1.6%

## International Equities

- Developed International Equity markets rebounded from a slow second quarter, producing positive results across the board during the quarter and remained positive through the 1-year period. Emerging Markets trailed Developed Markets over the quarter and trailing one-year period.

International Equity Returns (in USD)



International Equity Region Performance (in USD) (MSCI ACW Index ex U.S.)

Sector	Weight	QTR	1 Year
Europe Ex. UK	31.3%	14.5%	29.3%
Emerging Markets	21.1%	5.9%	1.3%
United Kingdom	15.7%	12.1%	17.1%
Japan	15.6%	6.7%	31.7%
Pacific Ex. Japan	9.1%	10.4%	11.7%
Canada	7.2%	9.0%	3.0%

# Quarterly Report

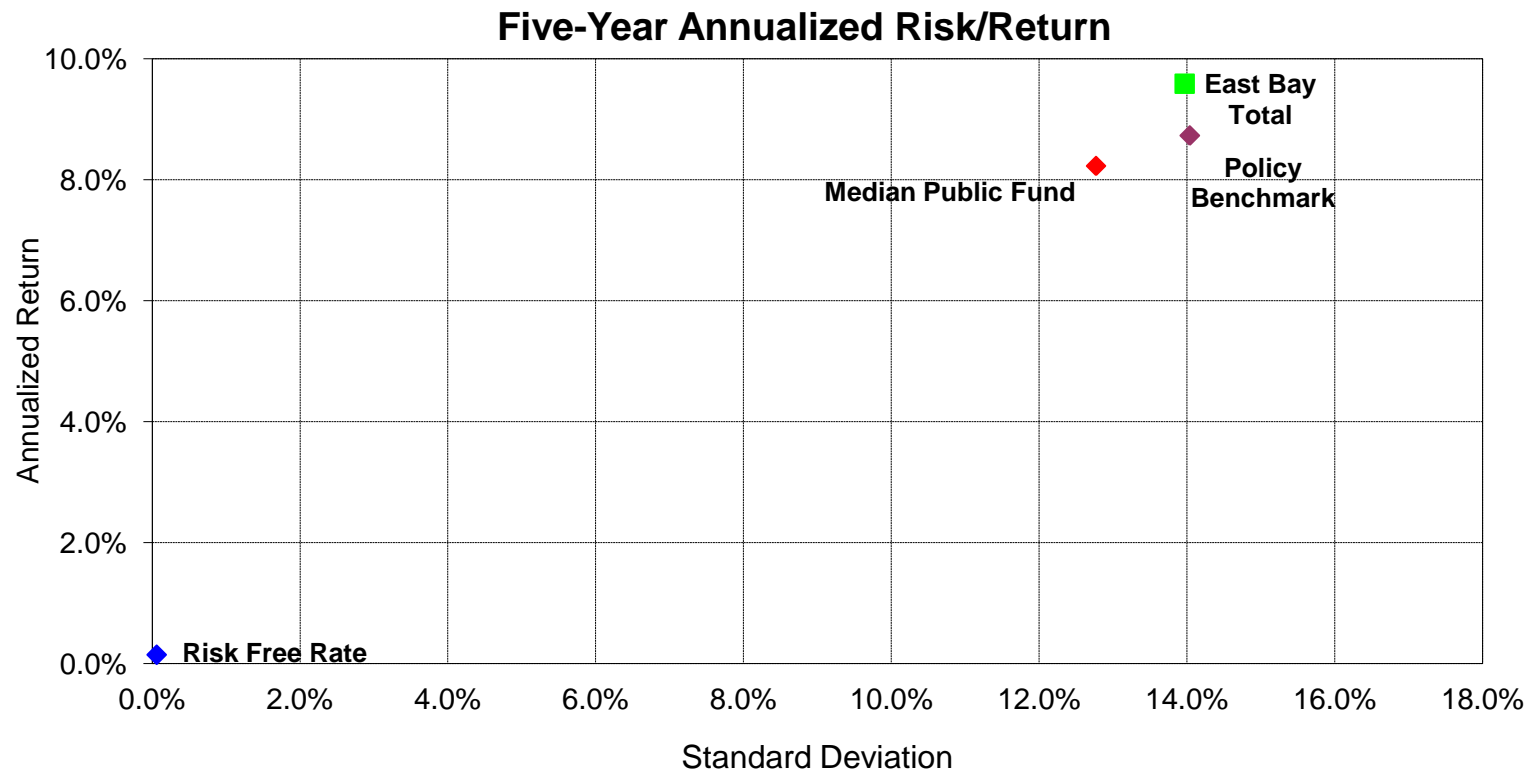
9/30/2013

## Market Summary – Long-term Performance\*

Indexes	1 Year	3 Year	5 Year	10 Year	20 Year
<b>Global Equity</b>					
MSCI All Country World	18.4%	10.8%	8.3%	8.4%	7.2%
<b>Domestic Equity</b>					
S&P 500	19.3%	16.3%	10.0%	7.6%	8.8%
Russell 3000	21.6%	16.8%	10.6%	8.1%	8.9%
Russell 3000 Growth	20.3%	17.2%	12.2%	8.0%	8.1%
Russell 3000 Value	22.7%	16.3%	8.9%	8.1%	9.2%
Russell 1000	20.9%	16.6%	10.5%	8.0%	8.9%
Russell 1000 Growth	19.3%	16.9%	12.1%	7.8%	8.2%
Russell 1000 Value	22.3%	16.2%	8.9%	8.0%	9.2%
Russell 2000	30.1%	18.3%	11.2%	9.6%	9.0%
Russell 2000 Growth	33.1%	20.0%	13.2%	9.9%	7.1%
Russell 2000 Value	27.0%	16.6%	9.1%	9.3%	10.3%
CBOE BXM	3.1%	7.5%	4.3%	5.1%	7.7%
<b>International Equity</b>					
MSCI All Country World ex US	17.0%	6.4%	6.7%	9.2%	6.3%
MSCI EAFE	24.3%	9.0%	6.9%	8.5%	5.8%
MSCI Pacific	23.5%	8.5%	7.5%	7.4%	2.3%
MSCI Europe	25.0%	9.4%	6.7%	9.1%	8.6%
MSCI EM (Emerging Markets)	1.3%	0.0%	7.6%	13.2%	7.1%
<b>Fixed Income</b>					
BC Universal Bond	-1.0%	3.4%	5.9%	4.9%	5.9%
BC Global Agg – Hedged	0.5%	3.0%	5.0%	4.4%	5.8%
BC Aggregate Bond	-1.7%	2.9%	5.4%	4.6%	5.8%
BC Government	-2.0%	2.1%	4.0%	4.2%	5.4%
BC Credit Bond	-1.9%	4.1%	8.5%	5.2%	6.3%
BC Mortgage Backed Securities	-1.2%	2.6%	4.7%	4.8%	5.8%
BC High Yield Corporate Bond	7.1%	9.2%	13.5%	8.9%	7.8%
BC WGILB - Hedged	-2.5%	3.7%	5.0%	5.1%	NA
BC Emerging Markets	-2.1%	5.7%	10.4%	9.0%	10.2%
<b>Real Estate</b>					
NCREIF (Private RE)	11.0%	12.7%	3.4%	8.7%	9.2%
NAREIT (Public RE)	5.1%	12.6%	6.5%	8.8%	9.5%
<b>Commodity Index</b>					
DJ-UBS Commodity	-14.3%	-3.2%	-5.3%	2.1%	4.9%

\* Performance is annualized for periods greater than one year.

## East Bay Risk/Return Analysis Period ending September 30, 2013



\*Median Fund is the Mellon Total Fund Public Universe.

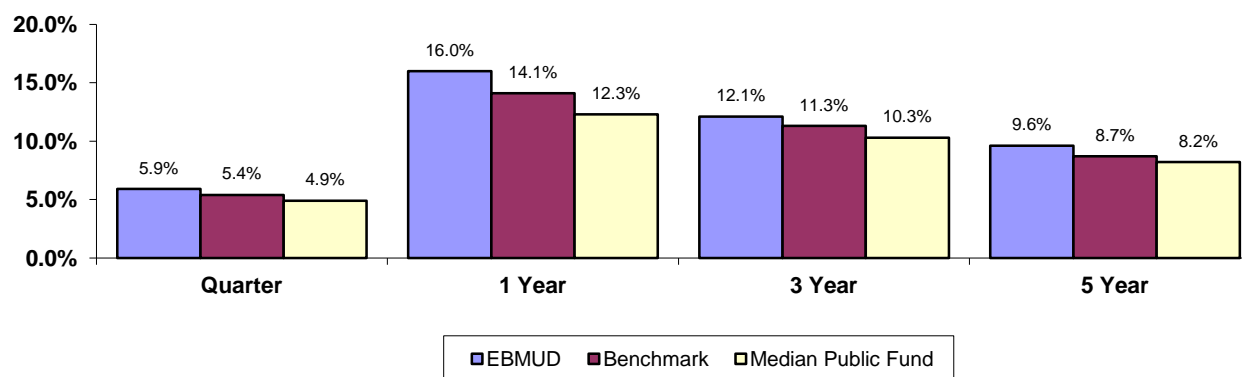
## EBMUD PORTFOLIO PERFORMANCE

This section includes an overview of the performance of the EBMUD investment portfolio and a detailed analysis of asset classes and specific mandates.

### Portfolio Performance Overview

For the period ending September 30, 2013, the EBMUD Total Portfolio outperformed the policy target benchmark<sup>4</sup> and the Median Public Fund<sup>5</sup> by 0.5% and 1.0%, respectively. Relative outperformance versus the Median Fund can be attributed to the Portfolio's larger allocation to Domestic Equity and lack of exposure to Alternative Investments. During the trailing 1-year period, the Total Portfolio exceeded the policy benchmark by 1.9% and the Median Public Fund by 3.7%. Security selection in public Equities and Fixed Income, as well as weighting decisions in Domestic Equity and Fixed Income added value versus the policy benchmark; weighting differences in Domestic Equity, Fixed Income, and Cash, as well as security selection in International Equity had a positive effect for performance versus the Median Fund. The EBMUD Total Portfolio outperformed the policy benchmark and Median Fund over the 3-year period by 0.8% and 1.8%, respectively, and over the 5-year period by 0.9% and 1.4%, respectively.

### Periods Ending September 30, 2013 (annualized)

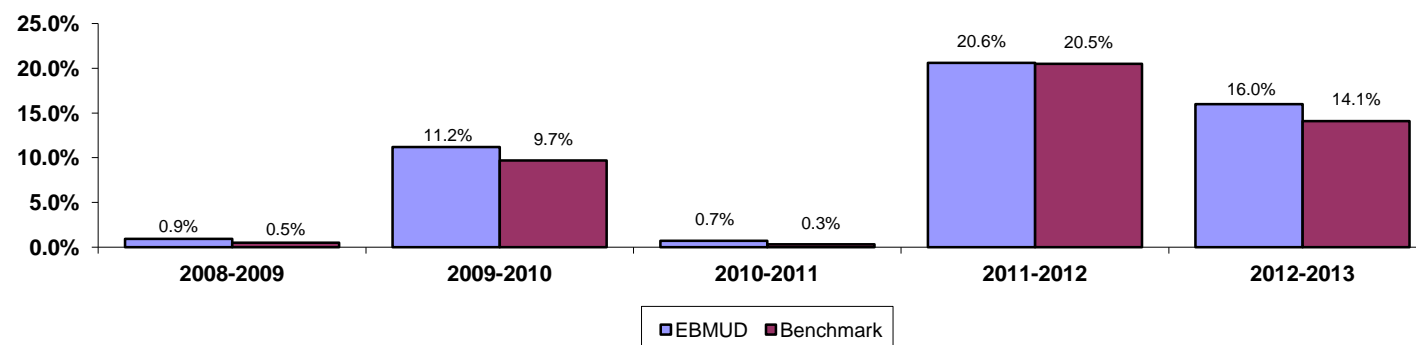


<sup>4</sup> Total Portfolio Benchmark consists of 50% Russell 3000 (blend), 20% MSCI ACWIxU.S. (blend), 25% Barclay's Capital Universal (blend), 2.5% NCREIF (lagged), and 2.5% FTSE NAREIT All Equity REITs index as of 11/1/11; 50% Russell 3000 (blend), 20% MSCI ACWI x U.S. (blend), 25% Barclay's Capital Universal (blend), and 5% NCREIF, previously.

<sup>5</sup> Mellon Total Fund Public Universe.

Trailing 12-month absolute and relative results have been positive over each of the last five discrete 12-month periods.

## 12-month Performance – Periods Ending September 30



## Portfolio Valuation

The EBMUD Total Portfolio had an aggregate value of \$1.2 billion as of September 30, 2013. During the latest quarter the Total Portfolio increased by \$68.4 million and over the latest year the Total Portfolio increased by \$157.7 million.

## Portfolio Valuation as of September 30, 2013

(in millions \$)

	Sept. 30, 2013	June 30, 2013	Quarterly Change	Percentage Change*	Sept. 30, 2012	Annual Change	Percentage Change*
EBMUD	\$1,187.9	\$1,119.5	\$68.4	6.1%	\$1,030.2	\$157.7	15.3%

\*Percentage change in value due to both investment results and cash flows.



## Actual vs. Target Allocations

With respect to policy targets, the Total Portfolio ended the latest quarter overweight Domestic Equity and Cash, underweight International Equity and Fixed Income, and relatively near target in Real Estate. Target allocations represent those as adopted by the Board in 2006. The new target policy allocations elected by the Board in September 2013 will take effect upon the completion of the manager searches to fulfill the new Covered Calls and non-Core bonds allocations.

## As of September 30, 2013

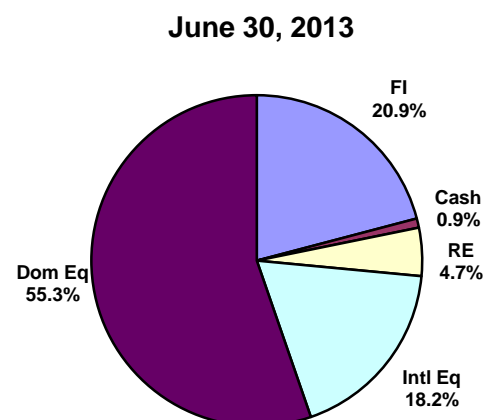
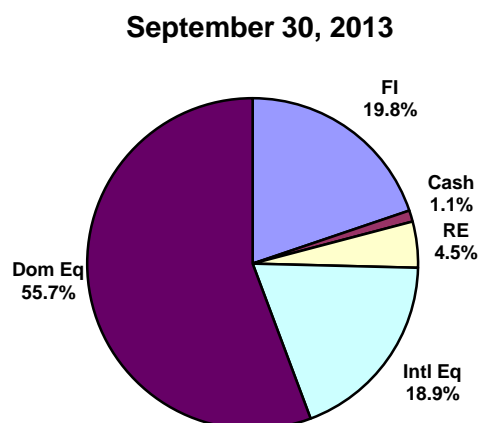
Segment	Actual \$(000)	Actual %	Target %*	Variance
Total Portfolio	1,187,927	100%	100%	---
Domestic Equity	661,142	55.7%	50.0%	5.7%
International Equity	225,072	18.9%	20.0%	-1.1%
Fixed Income	235,311	19.8%	25.0%	-5.2%
Real Estate**	53,075	4.5%	5.0%	-0.5%
Cash	13,327	1.1%	0.0%	1.1%

\*2006 asset allocation policy targets.

\*\*RREEF performance results and allocation are lagged one-quarter.

During the latest quarter, the actual weighting of Fixed Income decreased by (1.1%), while the actual weighting of International Equity increased by 0.7%. Allocations to the remaining asset classes were relatively unchanged (variance < 0.5%).

## Actual Asset Allocation Comparison



## Asset Class Performance (Gross of Fees)

The Domestic Equity asset class outperformed the Russell 3000 (blend) Index return over the quarter, 1-, 3-, and 5-year periods by 50, 30, 10, and 50 basis points, respectively. The portfolio trailed the benchmark over the longer time periods measured.

The International Equity portfolio outperformed its policy benchmark, the MSCI ACWI x U.S. (blend) Index, during the quarter by 70 basis points. Over the 1-, 3-, and 5-year periods the portfolio surpassed the benchmark by 5.0%, 2.4%, and 1.3%, respectively, as both of the Plan's reporting international equity managers outperformed the benchmark during these time periods. During the 10-year period the portfolio exceeded the benchmark by 90 basis points annually.

The Fixed Income asset class modestly outperformed the BC Universal (blend) Index over the quarter by 10 basis points. The portfolio exceeded the benchmark during the 1-, 3-, 5-, and 10-year periods by 0.8%, 1.1%, 1.7%, and 0.4%, respectively, with positive relative performance from both of EBMUD's reporting fixed income managers contributing to results.

## Periods ending September 30, 2013

Asset Class	Quarter	1 Year	3 Year	5 Year	10 Year	20 Year
Total Portfolio	5.9	16.0	12.1	9.6	7.7	8.2
<i>Policy Benchmark^</i>	<i>5.4</i>	<i>14.1</i>	<i>11.3</i>	<i>8.7</i>	<i>7.7</i>	<i>8.1</i>
Domestic Equity	6.8	21.9	16.9	11.1	7.9	8.6
<i>Russell 3000 (blend)*</i>	<i>6.3</i>	<i>21.6</i>	<i>16.8</i>	<i>10.6</i>	<i>8.3</i>	<i>9.4</i>
International Equity	10.9	22.0	8.8	8.0	9.6	---
<i>MSCI ACWI x U.S.(blend)**</i>	<i>10.2</i>	<i>17.0</i>	<i>6.4</i>	<i>6.7</i>	<i>8.7</i>	<i>---</i>
Fixed Income	0.8	-0.2	4.5	7.6	5.2	6.3
<i>BC Universal (blend)***</i>	<i>0.7</i>	<i>-1.0</i>	<i>3.4</i>	<i>5.9</i>	<i>4.8</i>	<i>5.8</i>
Real Estate	0.4	8.9	16.6	-0.6	---	---
<i>50/50 NCREIF/FTSE NAREIT All Equity****</i>	<i>0.3</i>	<i>8.1</i>	<i>13.6</i>	<i>3.0</i>	<i>---</i>	<i>---</i>
Cash	0.1	0.3	0.4	0.8	2.3	---
<i>Citigroup T-bills</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>1.6</i>	<i>---</i>

^Total Portfolio Benchmark consists of 50% Russell 3000 (blend), 20% MSCI ACWIxU.S. (blend), 25% Barclay's Capital Universal (blend), 2.5% NCREIF (lagged), and 2.5% FTSE NAREIT All Equity REITs index as of 11/1/11; 50% Russell 3000 (blend), 20% MSCI ACWI x U.S. (blend), 25% Barclay's Capital Universal (blend), and 5% NCREIF, previously

\*Russell 3000 (10/1/05-present). Prior: 30% S&P500, 10% S&P400, 10% Russell 2000 (4/1/05-9/30/05); 33% S&P500, 10% S&P400, 10% Russell 2000 (9/1/98-3/31/05); 30% S&P500, 15% Wilshire 5000 (4/1/96-8/31/98)

\*\*MSCI ACWIxU.S. as of 1/1/07; MSCI EAFE ND thru 12/31/06

\*\*\*BC Universal as of 1/1/08; BC Aggregate thru 12/31/07

\*\*\*\*50% NCREIF (lagged), 50% FTSE NAREIT All Equity REITs Index as of 11/1/11; NCREIF (lagged) thru 10/31/11

## Manager Performance

(Gross of Fees)

### Domestic Equity – Periods ending September 30, 2013

Manager	Mkt Value (\$000)	Asset Class	Management Style	Quarter	1 YR	3 YR	5 YR	Estimated Annual Fee (bps) <sup>6</sup>	Current Monitoring Status
Northern Trust Co.	289,875	Large Cap Core	Passive	6.0	21.0	16.7	10.7	3	---
<i>Russell 1000 Index</i>	---	---	---	6.0	20.9	16.6	10.5	---	---
Intech	77,211	Large Cap Growth	Active	8.2	18.7	17.6	12.0	5 bps + 12.5% on excess returns	---
T. Rowe Price	77,748	Large Cap Growth	Active	12.0	23.6	18.2	14.2	49	---
<i>Russell 1000 Growth Index</i>	---	---	---	8.1	19.3	16.9	12.1	---	---
Barrow Hanley	167,257	Large Cap Value	Active	4.3	22.3	16.2	10.1	31	Heightened
<i>Russell 1000 Value Index</i>	---	---	---	3.9	22.3	16.2	8.9	---	---
Northern Trust Co.	21,783	Small Cap Growth	Passive	12.8	33.4	20.3	---	5	---
<i>Russell 2000 Growth Index</i>	---	---	---	12.8	33.1	20.0	---	---	---
Opus	27,268	Small Cap Value	Active	7.6	26.4	15.4	10.9	67 <sup>7</sup>	Heightened
<i>Russell 2000 Value Index</i>	---	---	---	7.6	27.0	16.6	9.1	---	---

During the latest three-month period ending September 30, 2013, all six of EBMUD's Domestic Equity managers either matched or outperformed their respective benchmarks.

**Northern Trust**, EBMUD's passive large cap manager, tracked its Russell 1000 Index target over all time periods measured and was within tracking error expectations.

**Intech**, one of EBMUD's two large cap growth managers, outperformed the Russell 1000 Growth Index return by 10 basis points during the most recent quarter and 70 basis points per annum during the 3-year period. The portfolio underperformed the benchmark by (60) and (10) basis points during the 1- and 5-year periods, respectively.

**T. Rowe Price**, EBMUD's other large cap growth manager, exceeded the Russell 1000 Growth Index by 3.9% over the quarter as stock selection in Consumer Discretionary and Health Care drove relative outperformance. During the 1-, 3-, and 5-year periods the portfolio surpassed the benchmark by 4.3%, 1.3%, and 2.1%, respectively. An overweight in Consumer Discretionary and stock selection in Consumer Discretionary and Information Technology primarily contributed outperformance over these time periods.

<sup>6</sup> Reviewed annually. Last reviewed June 30, 2013.

<sup>7</sup> The Estimated Annual Fee reported for Opus is based on the new management fee schedule approved by the Board at the November 2012 Board meeting.

**Barrow Hanley**, EBMUD's large cap value manager, exceeded the Russell 1000 Value Index by 40 basis points during the quarter and matched the benchmark over the 1- and 3-year periods. Over the 5-year period the portfolio surpassed the benchmark by 1.2% with security selection in Financials, Industrials, and Health Care, and weighting decisions in Financials and Health Care benefitting relative performance. Barrow Hanley was placed on "heightened monitoring" status as of June 2013, as the portfolio's performance fell below EBMUD's performance thresholds.

**Northern Trust**, the portfolio's passive small cap growth manager, performed in-line with the Russell 2000 Growth Index over each time period measured, matching the Index during the quarter and outperforming by 30 basis points over the 1- and 3-year periods.

**Opus**, EBMUD's active small cap value manager, matched the Russell 2000 Value Index over the latest quarter posting a 7.6% return. The portfolio trailed the benchmark by (0.6%) and (1.2%) during the 1- and 3-year periods, respectively, as low quality characteristics (i.e. negative earnings, high leverage), which have been in favor since early 2009, has been a significant challenge to Opus' high quality portfolio. Additionally, from a sector perspective, security selection in Health Care also detracted from performance over the 3-year period. The portfolio exceeded the benchmark by 1.8% per annum during the 5-year period with security selection in Energy, Financial Services, and Producer Durables, as well as an underweight in Financial Services, contributing to results. Opus was placed on "heightened monitoring" status as of December 2012, as the portfolio's performance fell below EBMUD's performance thresholds.

## International Equity – Periods ending September 30, 2013

Manager	Mkt Value (\$000)	Asset Class	Management Style	Quarter	1 YR	3 YR	5 YR	Estimated Annual Fee (bps) <sup>8</sup>	Current Monitoring Status
Franklin Templeton <sup>9</sup>	113,067	ACWI x U.S.	Active	12.1	25.5	9.4	7.2	56	---
Fisher Investments	112,005	ACWI x U.S.	Active	9.7	18.7	8.2	8.6	65	---
MSCI ACWI x U.S. (blend)*	---	---	---	10.2	17.0	6.4	6.7	---	---

\*As of January 1, 2007, the benchmark changed from MSCI EAFE to MSCI ACWI x U.S.

During the latest three-month period ending September 30, 2013, one of EBMUD's two International Equity managers outperformed the MSCI ACWI x U.S. (blend) Index.

The **Franklin Templeton** account outperformed the MSCI ACWI x U.S. (blend) Index over the quarter, 1-, 3-, and 5-year periods by 1.9%, 8.5%, 3.0%, and 0.5%, respectively. Security selection in Europe and Industrials, as well as a significantly larger allocation to Europe helped performance over the quarter and 1-year period. Additionally, security selection in Utilities and an overweight to Telecommunication Services added value for the quarter; security selection in Materials, Health Care, and Energy, and weighting decisions in Materials and Health Care also contributed during the 1-year period.

**Fisher** trailed the MSCI ACWI x U.S. (blend) Index by (0.5%) during the quarter, but exceeded the benchmark by 1.7%, 1.8%, and 1.9% over the 1-, 3-, and 5-year periods, respectively. For the 1-year period, an overweight to and selection within Consumer Discretionary was the largest contributor to relative outperformance. During the 3- and 5-year periods, the portfolio's allocation to Materials, as well as security selection in Materials and Information Technology, boosted results.

<sup>8</sup> Reviewed annually. Last reviewed June 30, 2013.

<sup>9</sup> Franklin Templeton's historical returns are reported net of fees (inception – 6/30/2011). The Franklin Templeton institutional mutual fund account was liquidated in June 2011 and moved to a transition account which later funded the Franklin Templeton new separate account in the same month. The Q2-2011 return is an aggregate of the institutional mutual fund account, Franklin transition account, and new separate account.

## Fixed Income – Periods ending September 30, 2013

Manager	Mkt Value (\$000)	Asset Class	Management Style	Quarter	1 YR	3 YR	5 YR	Estimated Annual Fee (bps) <sup>10</sup>	Current Monitoring Status
Western Asset Management	81,137	Core Plus	Active	1.6	1.4	6.1	9.3	26	---
<i>BC Universal (blend)*</i>	---	---	---	<i>0.7</i>	<i>-1.0</i>	<i>3.4</i>	<i>5.9</i>	---	---
CS McKee	154,174	Core	Active	0.5	-1.1	3.6	---	20	---
<i>BC Aggregate</i>	---	---	---	<i>0.6</i>	<i>-1.7</i>	<i>2.9</i>	---	---	---

\*As of January 1, 2008, the benchmark changed from BC Aggregate to BC Universal.

Over the latest three-month period ending September 30, 2013, both of EBMUD's Fixed Income managers tracked or outperformed their respective benchmarks.

**WAMCO** exceeded the BC Universal (blend) Index over the latest quarter, 1-, 3-, and 5-year periods by 0.9%, 2.4%, 2.7%, and 3.4%, respectively. The high yield and non-agency sectors significantly led performance during the 1- and 3-year periods. In addition, the portfolio's tactical duration stance added to performance over the latest year, and investment grade credit helped over the 3-year period. Relative outperformance over the 5-year period was aided by the high yield and non-agency MBS sectors.

The **CS McKee** portfolio slightly underperformed the BC Aggregate Index by (10) basis points over the quarter, but outperformed over the 1- and 3-year periods by 60 and 70 basis points, respectively.

<sup>10</sup> Reviewed annually. Last reviewed June 30, 2013.

## Real Estate – Periods ending September 30, 2013

Manager	Mkt Value (\$000)	Asset Class	Quarter	1 YR	3 YR	5 YR	Estimated Annual Fee (bps) <sup>11</sup>	Current Monitoring Status
RREEF II*	22,414	Real Estate	4.3	13.4	17.3	-0.3	119	Heightened
NCREIF*	---	---	2.9	10.7	13.1	2.8	---	---
CenterSquare (formerly Urdang)	30,661	Real Estate	-2.0	6.3	---	---	27.5 bps + 15% on excess returns	---
FTSE NAREIT All Equity REITs	---	---	-2.4	5.1	---	---	---	---

\*Results are lagged one quarter.

East Bay's Real Estate manager, **RREEF II**, exceeded its benchmark, the NCREIF Property Index, over the latest quarter, 1-, and 3-year periods by 1.4%, 2.7%, and 4.2%, respectively, but trailed the benchmark by an annualized (3.1%) over the 5-year period. During the quarter, RREEF America REIT II operations generated an income return of 1.5% before fees, holding steady from the previous quarter. Same store net operating income for the 1-year period ending June 30, 2013, was up 2% from the prior year. Quarter-end gross real estate market value weighted occupancy increased to 92 percent (excluding the Fund's value-added assets).

**CenterSquare**, East Bay's REIT manager, outperformed the FTSE NAREIT All Equity REITs Index return over the quarter by 0.4% and 1-year period by 1.2%.

<sup>11</sup> Reviewed annually. Last reviewed June 30, 2013.

## Performance Monitoring

Portfolio	Violation Type (Window)*	Date of Initial Violation	Corrective Action(s)	Current Status			
				Current Status	Est. Beg. Date of Current Status	Months Since Est. Beg. Date	Performance Since Est. Beg. Date**
Barrow Hanley	Short-Term	03/31/2013	Placed on Heightened Monitoring (May-13)	Heightened Monitoring	06/01/2013	4	3.5
<i>Russell 1000 Value</i>				---			3.0
Opus	Short-Term	09/30/2012	Placed on Heightened Monitoring (Nov-12)	Heightened Monitoring	12/01/2012	10	26.1
<i>Russell 2000 Value</i>				---			28.3
RREEF	Short-Term	04/01/07	PCA review memos (Dec-07), (Jan-09), (Mar-09), (Sept-09), (Oct-09), (Dec-09)	Heightened monitoring	01/01/08	69	0.0
<i>NCREIF</i>				---			3.4

\* Defined as: Short-Term (12 months), Medium-Term (36 months), Long-Term (60 months)

\*\* Annualized for periods greater than 12 months

- The Board placed Barrow Hanley on Heightened Monitoring as of June 2013 due to performance concerns. Since its Heightened Monitoring period began, Barrow Hanley produced a 3.5% 4-month return, which is 50 basis points above its benchmark.
- The Board placed Opus on Heightened Monitoring as of December 2012 due to performance concerns. Since its Heightened Monitoring period began, Opus produced a 26.1% 10-month return, which is (2.2%) below its benchmark.
- The Board placed RREEF on Heightened Monitoring in January 2008 due to organizational issues. Since its Heightened Monitoring period began, RREEF produced a 0.0% 69-month return, which is (3.4%) below its benchmark.



## Investment Performance Criteria by Asset Class

Asset Class	Short-term (rolling 12-month periods)	Medium-term (rolling 36-month periods)	Long-term (60+ months)
Active Domestic Equity	Fd return < bench return - 3.5%	Fd annlzd return < bench annlzd return -1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive Domestic Equity	Tracking error > 0.30%	Tracking error > 0.25% for 6 consecutive months	Fd annlzd return < bench annlzd return -0.40% for 6 consecutive months
Active International Equity	Fd return < bench return - 4.5%	Fd annlzd return < bench annlzd return -2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Fixed Income	Fd return < bench return - 1.5%	Fd annlzd return < bench annlzd return -1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months
Passive Fixed Income	Tracking error > 0.25%	Tracking error > 0.20% for 6 consecutive months	Fd annlzd return < bench annlzd return -0.30% for 6 consecutive months

All criteria are on an annualized basis.

VRR – Value Relative Ratio – is calculated as: manager cumulative return / benchmark cumulative return.

## EBMUD Total Fund Universe Rankings as of September 30, 2013

### Mellon Total Funds – Public Universe

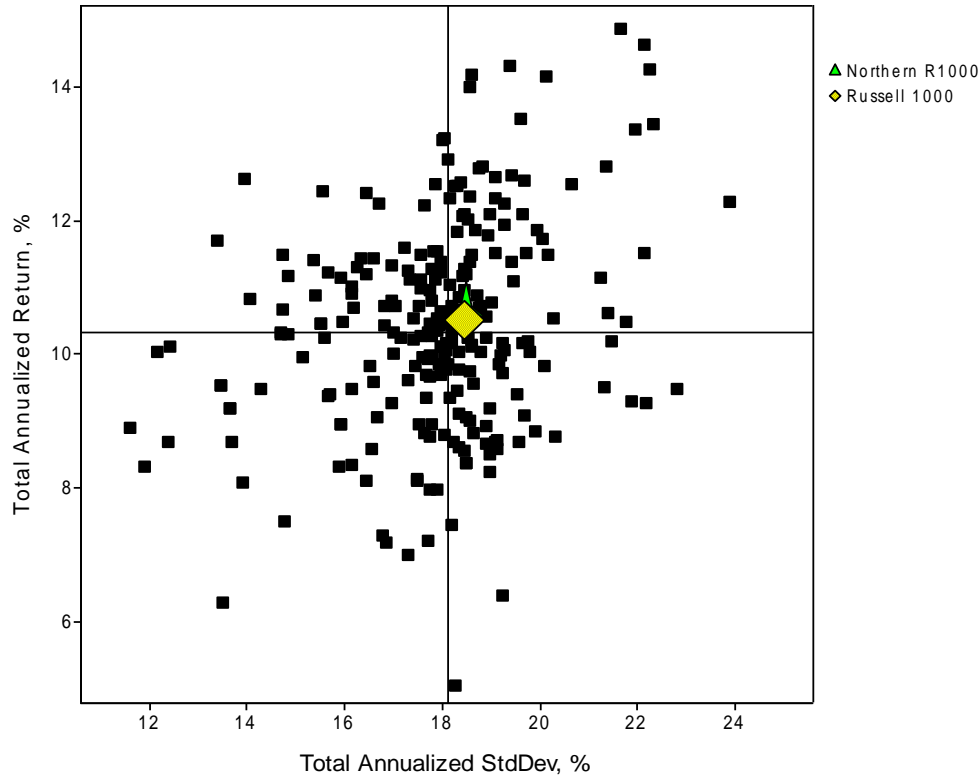
	Quarter	1-Year	3-Year	5-Year	10-Year
Maximum	8.7	25.2	13.1	10.8	9.8
Percentile 25	5.4	13.9	10.7	8.9	7.9
<b>Median</b>	<b>4.9</b>	<b>12.3</b>	<b>10.3</b>	<b>8.2</b>	<b>7.3</b>
Percentile 75	4.1	9.9	9.0	7.5	6.7
Minimum	0.0	-4.4	-0.2	0.0	2.8
# of Portfolios	97	95	90	87	76
<b>EBMUD Total</b>					
Return	5.9	16.0	12.1	9.6	7.7
Quartile Rank	1 <sup>st</sup>	1 <sup>st</sup>	1 <sup>st</sup>	1 <sup>st</sup>	2 <sup>nd</sup>

**Notes:**

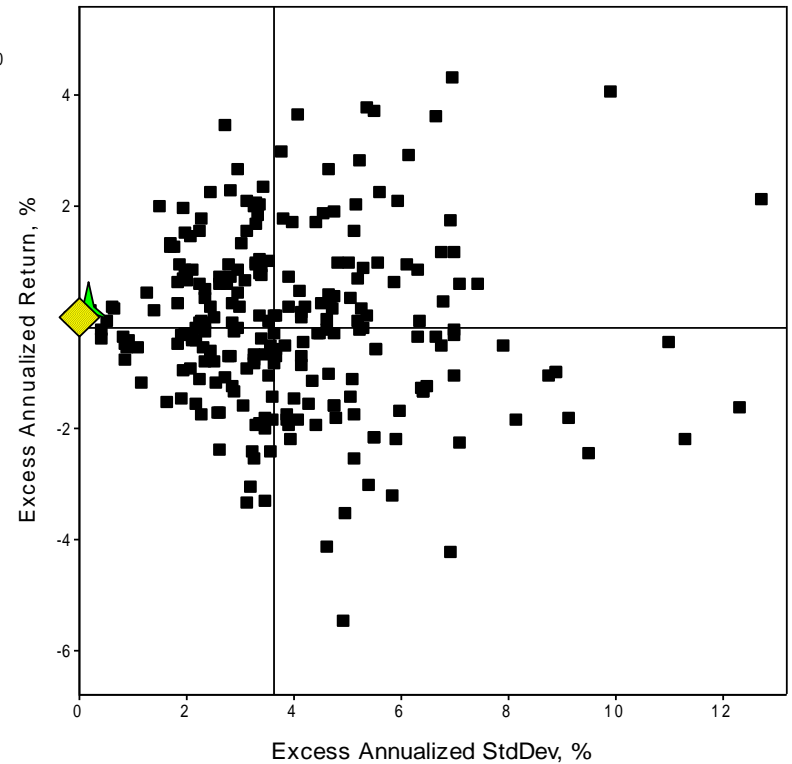
Sources: Universe Information; Mellon Total Public Funds  
All performance is shown **gross of fees**.

# EBMUD Large Cap Manager Comparisons as of September 30, 2013

5-Year Total Risk/Return



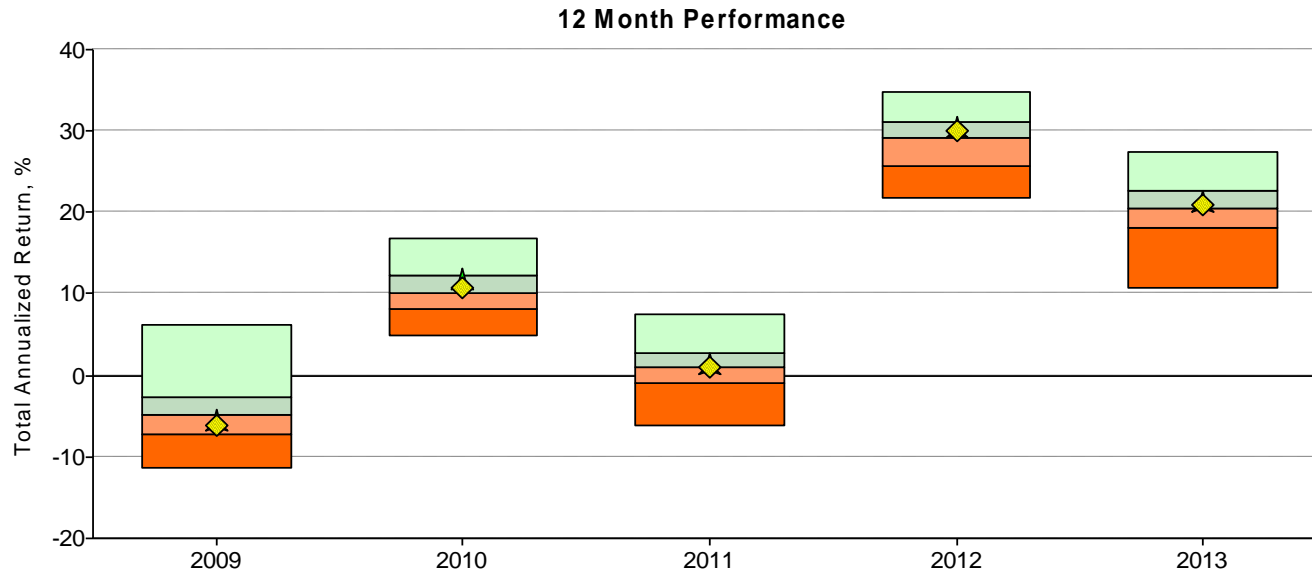
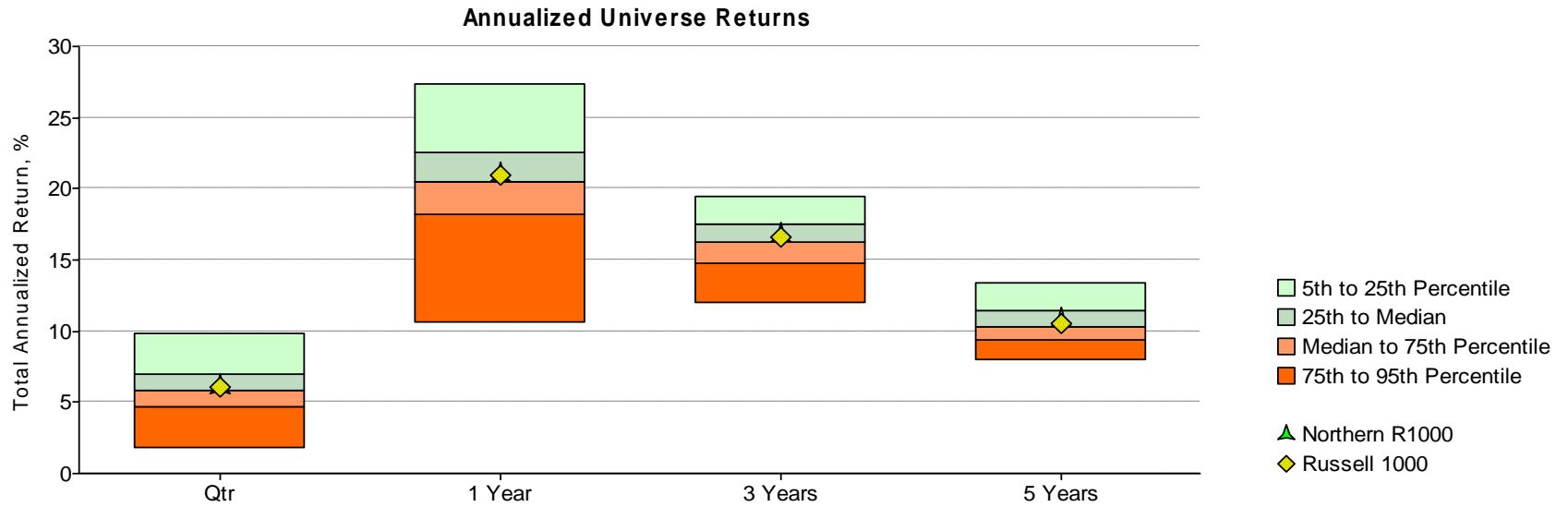
5-Year Excess Risk/Return



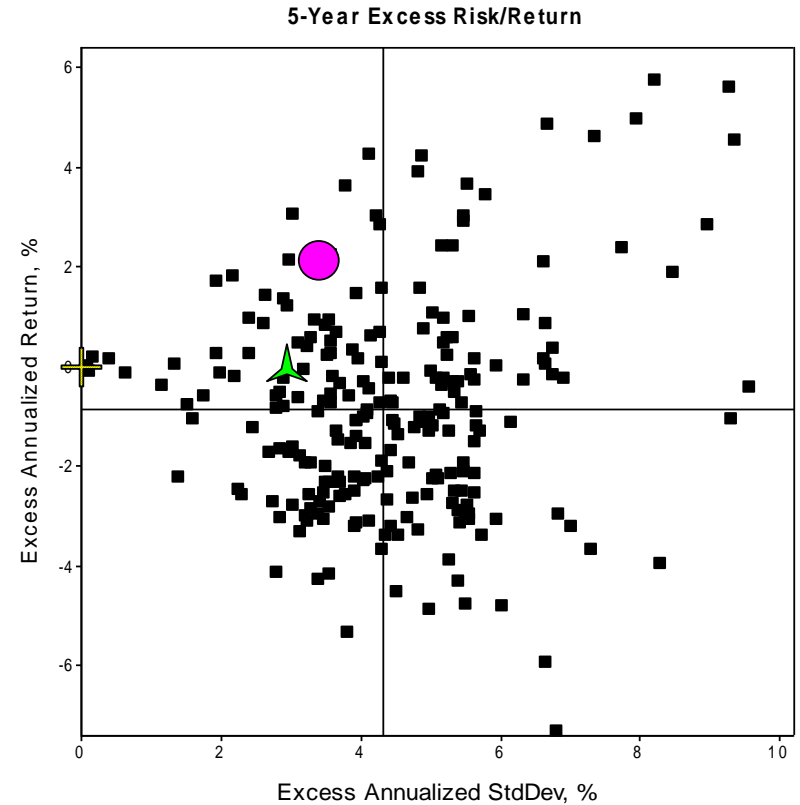
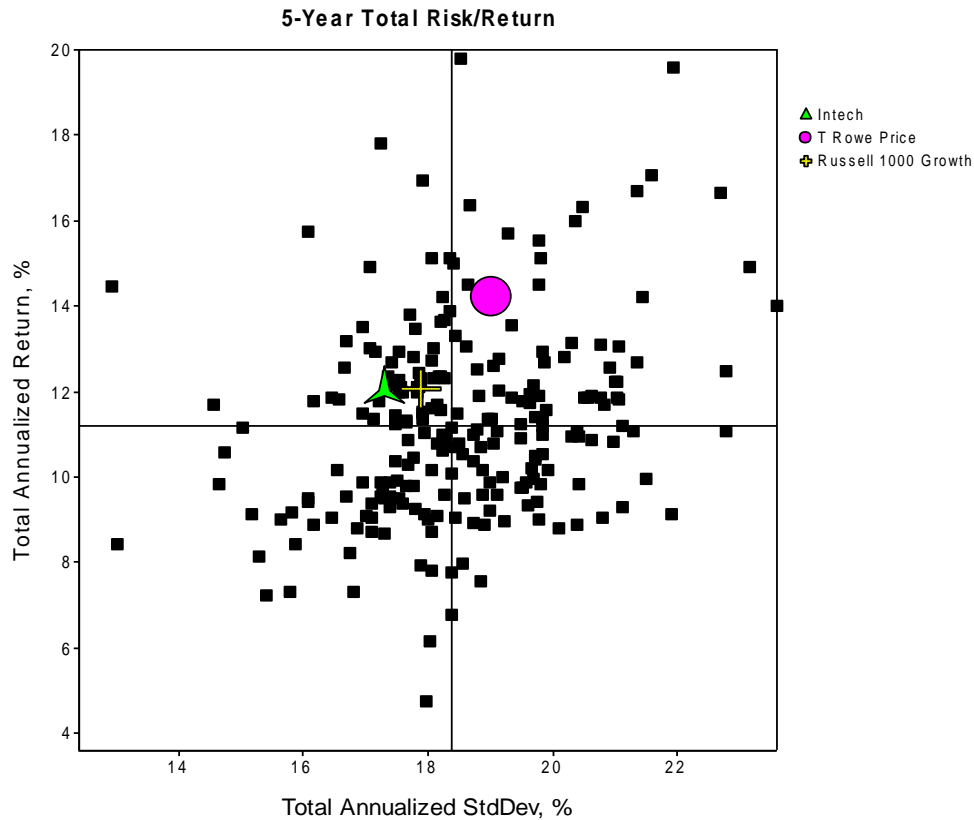
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Northern R1000	10.71	18.47	0.58
Russell 1000	10.53	18.46	0.57
Large Cap Universe Median	10.33	18.12	0.59

	Annualized Excess Return, %	Annualized Excess StdDev, %	Sharpe Ratio, Excess
Northern R1000	0.19	0.16	1.19
Russell 1000	0.00	0.00	NA
Large Cap Universe Median	-0.19	3.63	-0.04

# EBMUD Large Cap Manager Comparisons as of September 30, 2013



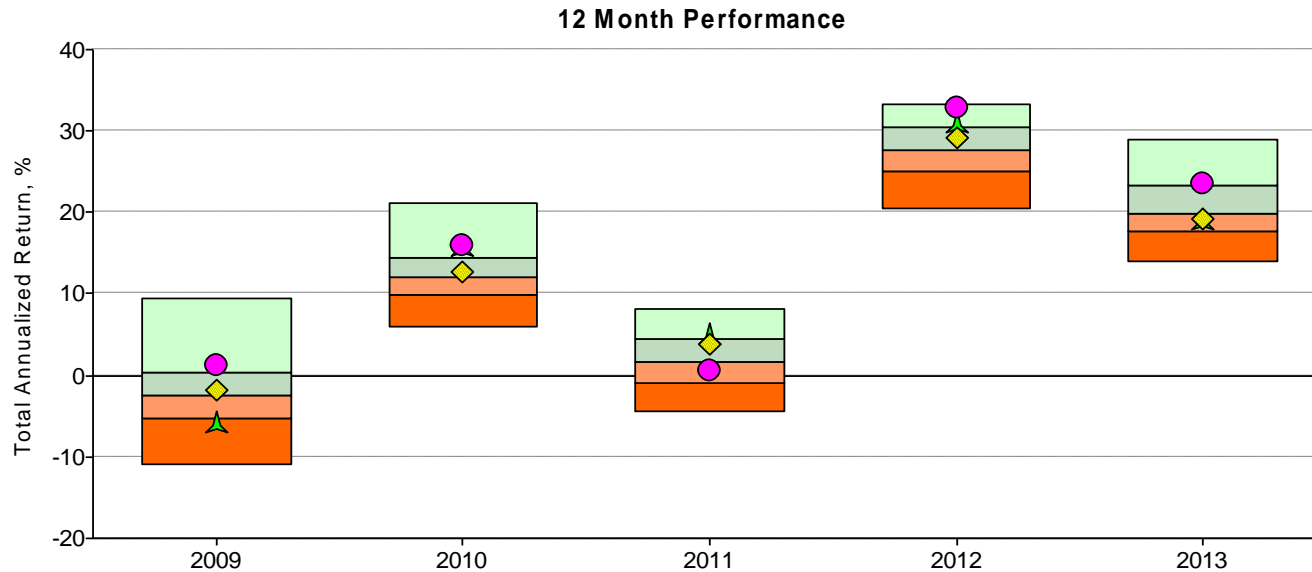
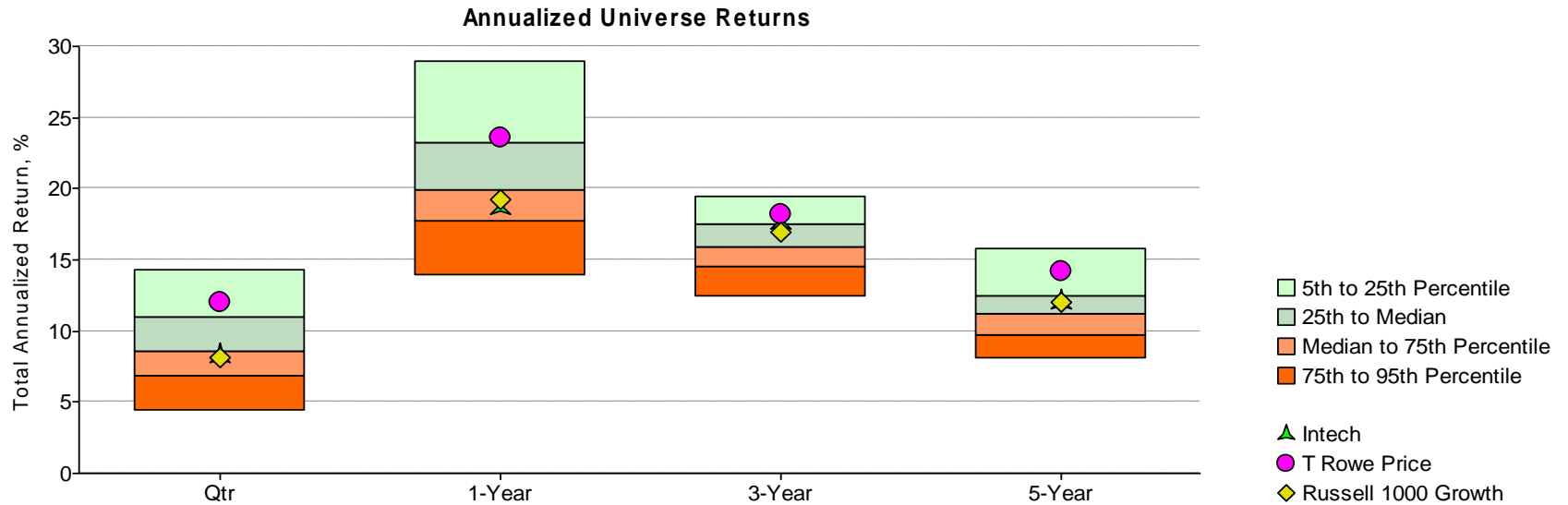
# EBMUD Large Cap Growth Manager Comparisons as of September 30, 2013



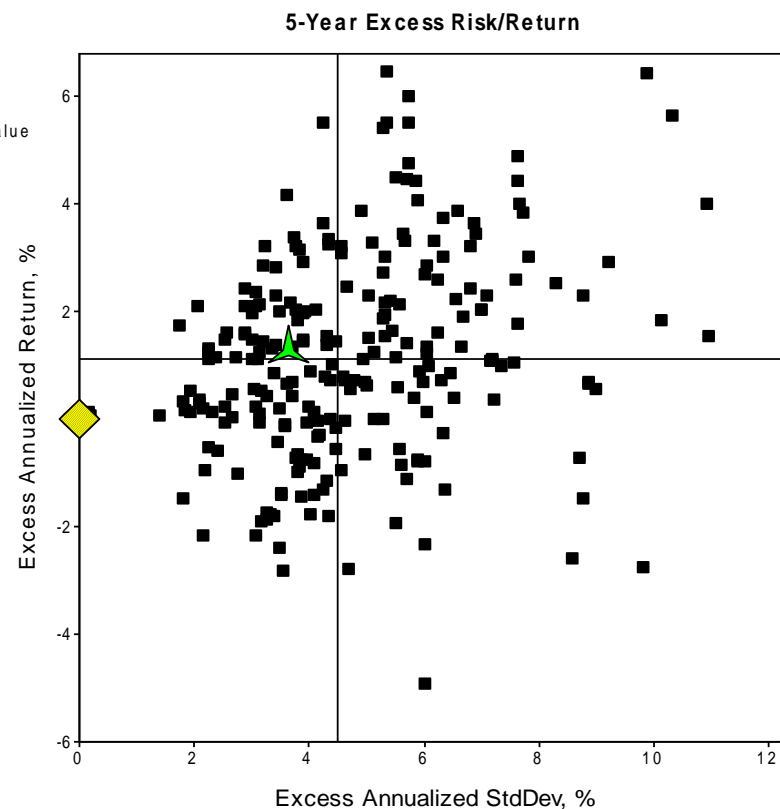
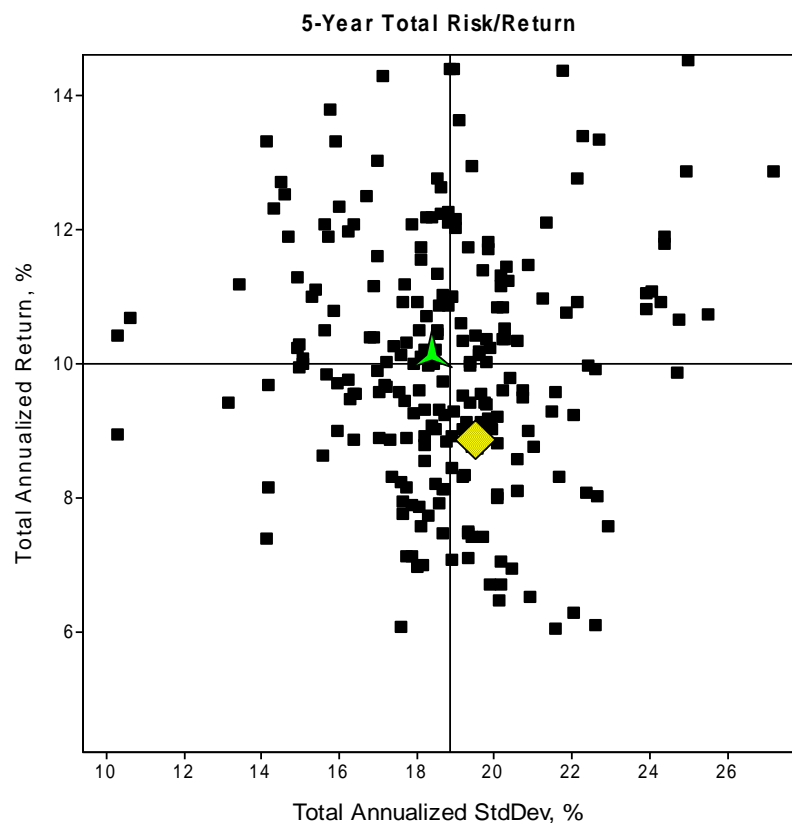
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Intech	12.02	17.31	0.69
T Rowe Price	14.21	19.03	0.75
Russell 1000 Growth	12.07	17.89	0.67
Large Growth Manager Universe Median	11.21	18.38	0.59

	Annualized Excess Return, %	Annualized Excess StdDev, %	Sharpe Ratio, Excess
Intech	-0.05	2.94	-0.02
T Rowe Price	2.13	3.40	0.63
Russell 1000 Growth	0.00	0.00	NA
Large Growth Manager Universe Median	-0.86	4.32	-0.20

# EBMUD Large Cap Growth Manager Comparisons as of September 30, 2013



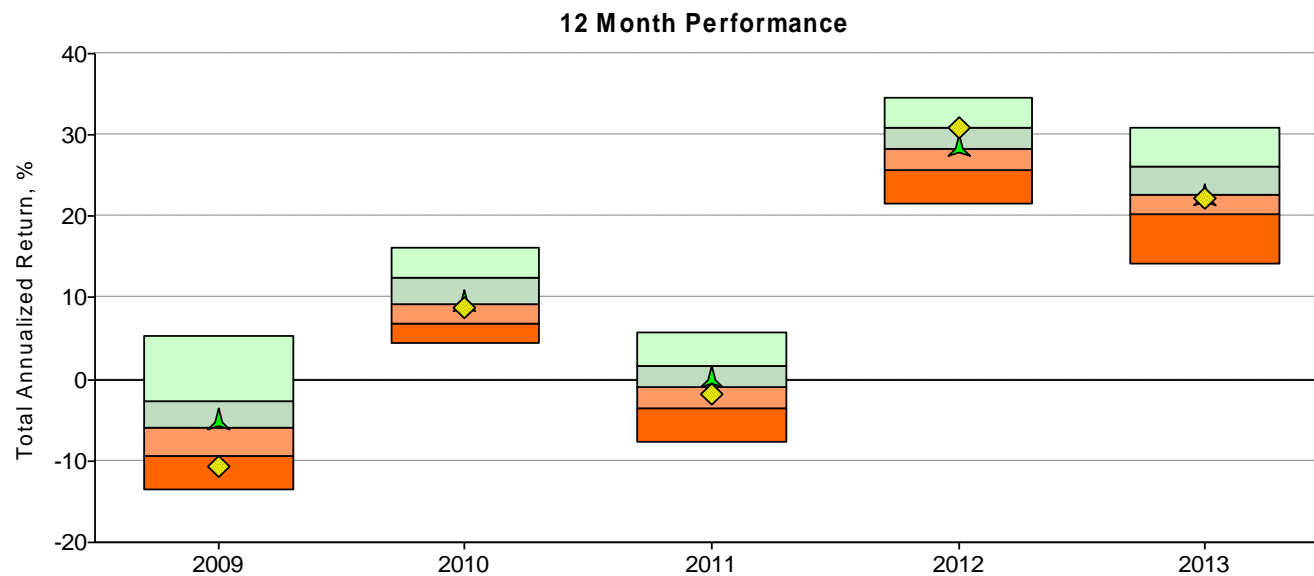
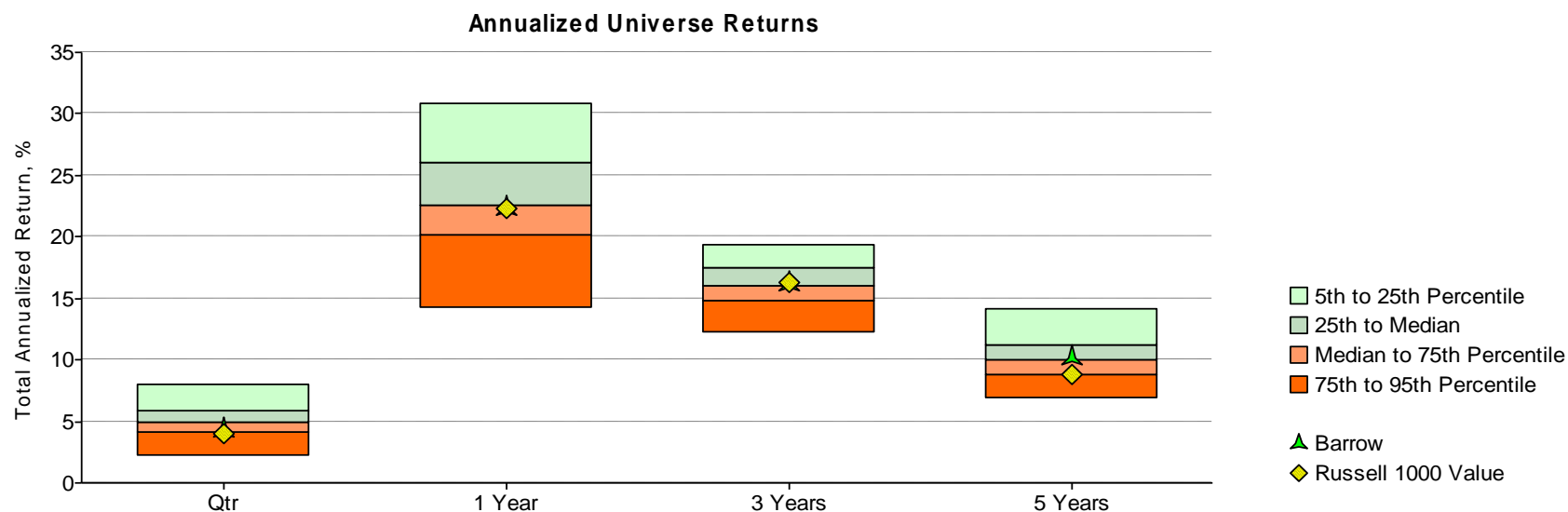
# EBMUD Large Cap Value Manager Comparisons as of September 30, 2013



	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Barrow	10.14	18.38	0.55
Russell 1000 Value	8.86	19.52	0.45
Large Cap Value Universe Median	9.98	18.84	0.53

	Annualized Excess Return, %	Annualized Excess StdDev, %	Sharpe Ratio, Excess
Barrow	1.27	3.64	0.35
Russell 1000 Value	0.00	0.00	NA
Large Cap Value Universe Median	1.12	4.50	0.23

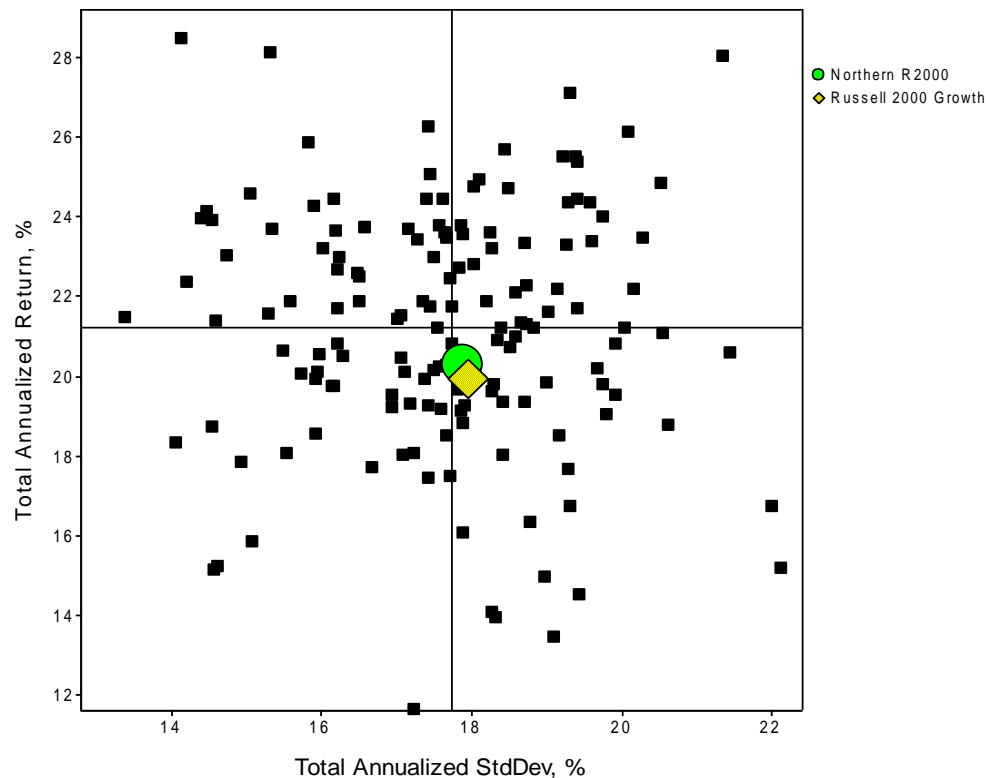
# EBMUD Large Cap Value Manager Comparisons as of September 30, 2013



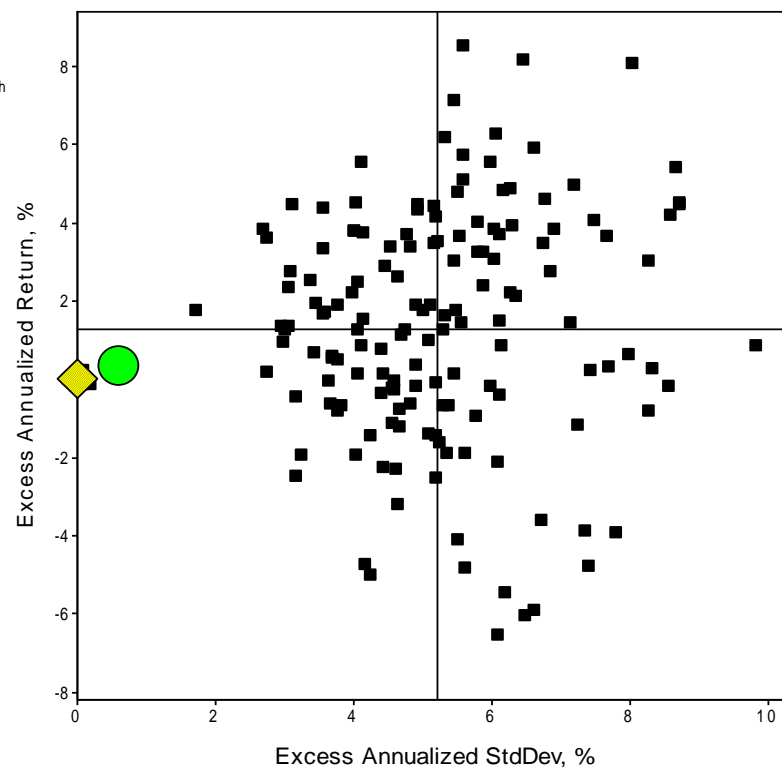


# EBMUD Small Cap Growth Manager Comparisons as of September 30, 2013

3-Year Total Risk/Return



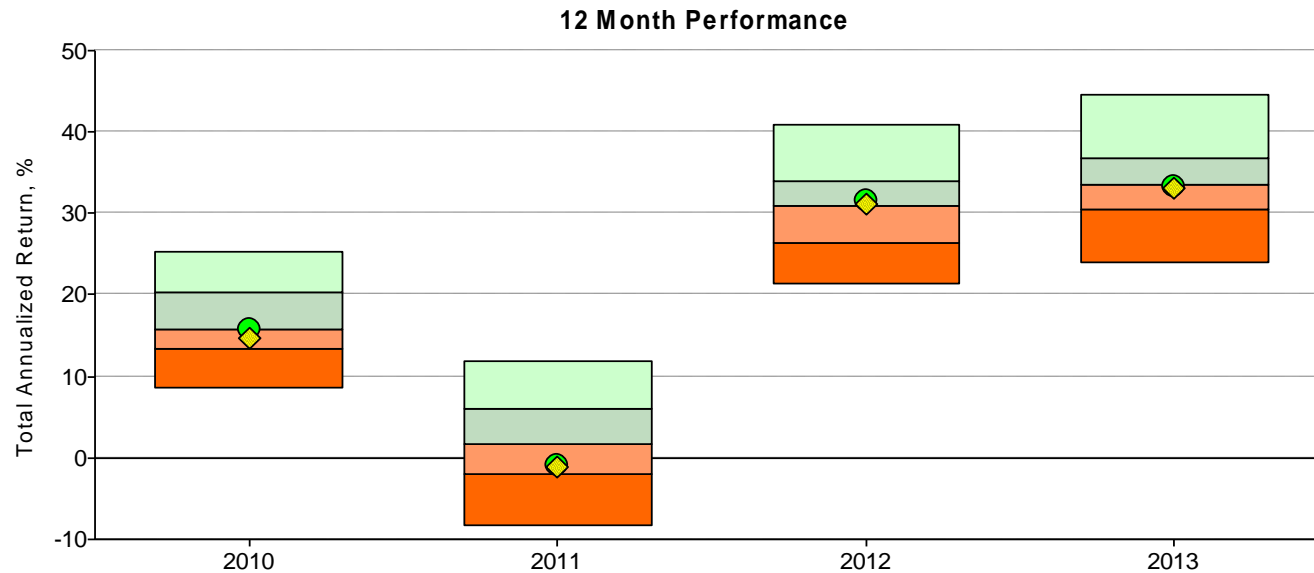
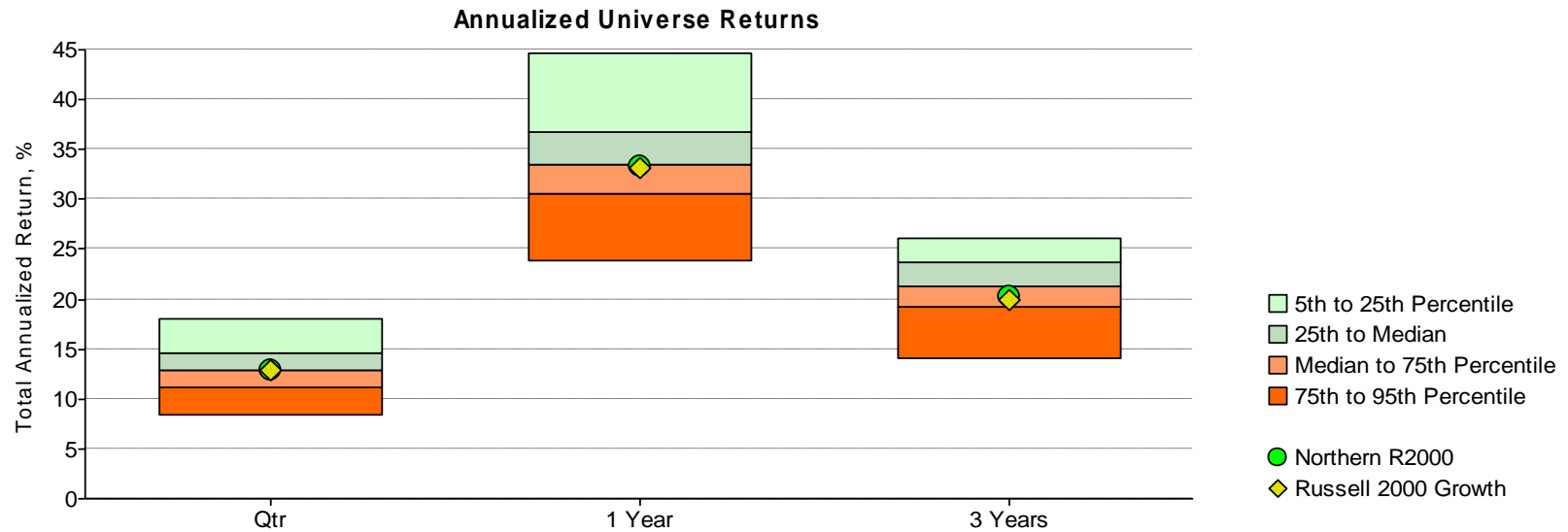
3-Year Excess Risk/Return



	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Northern R2000	20.27	17.87	1.13
Russell 2000 Growth	19.96	17.96	1.11
Small Cap Growth Manager Universe Median	21.24	17.72	1.21

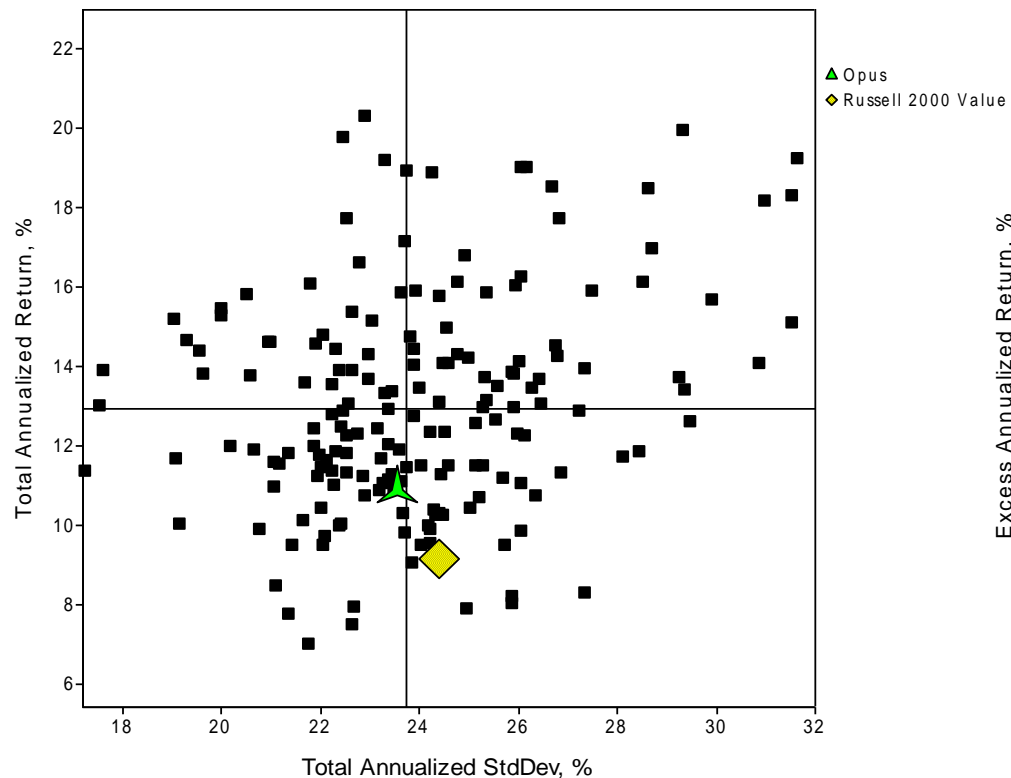
	Annualized Excess Return, %	Annualized Excess StdDev, %	Sharpe Ratio, Excess
Northern R2000	0.32	0.60	0.53
Russell 2000 Growth	0.00	0.00	NA
Small Cap Growth Manager Universe Median	1.29	5.21	0.31

# EBMUD Small Cap Growth Manager Comparisons as of September 30, 2013

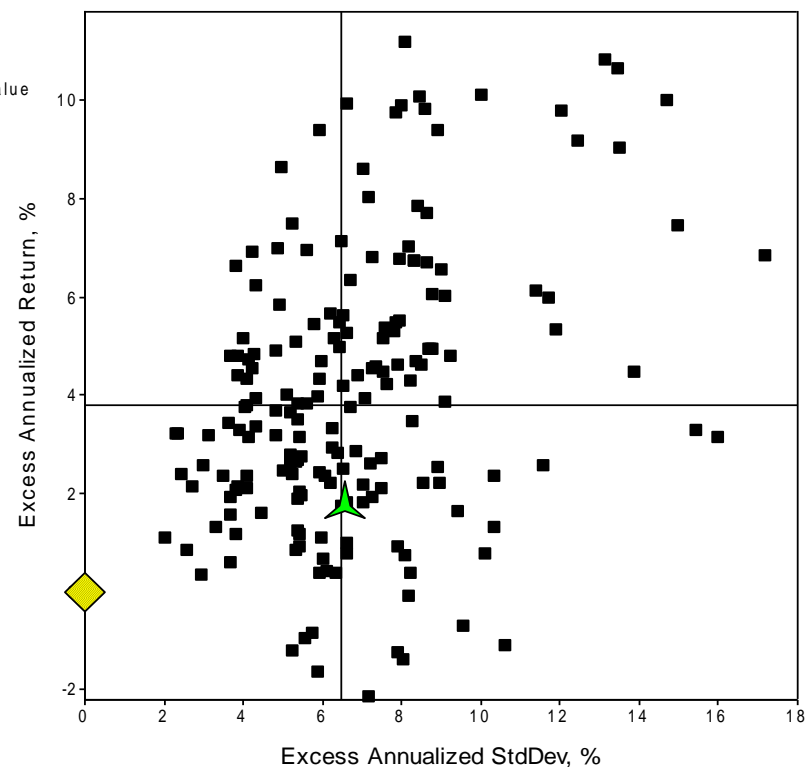


# EBMUD Small Cap Value Manager Comparisons as of September 30, 2013

5-Year Total Risk/Return



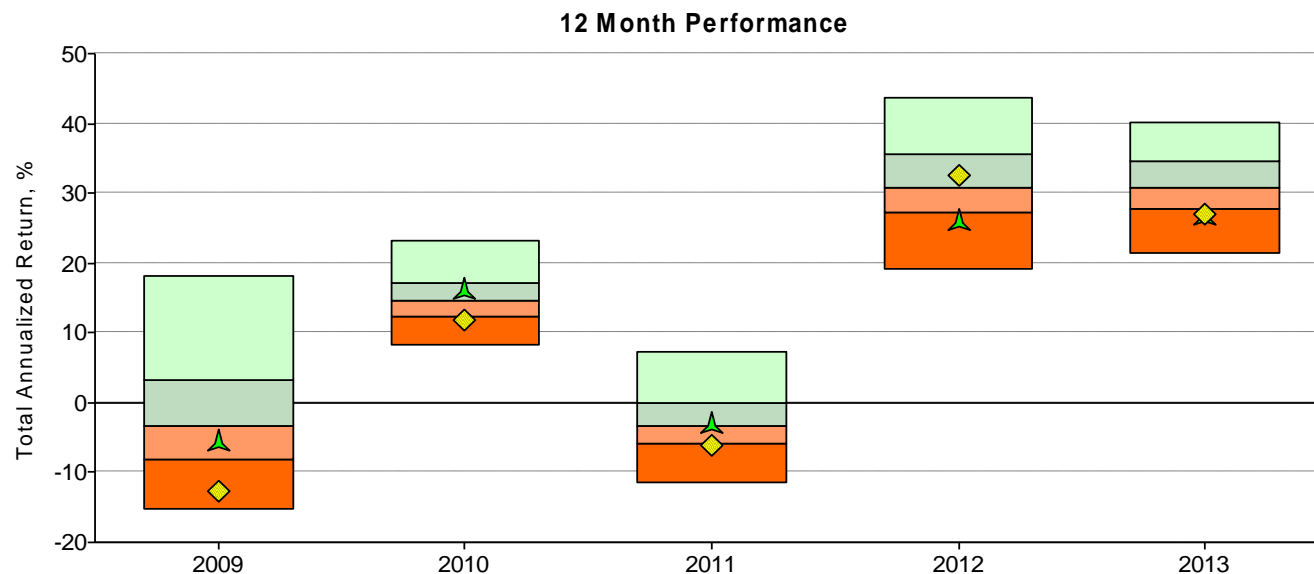
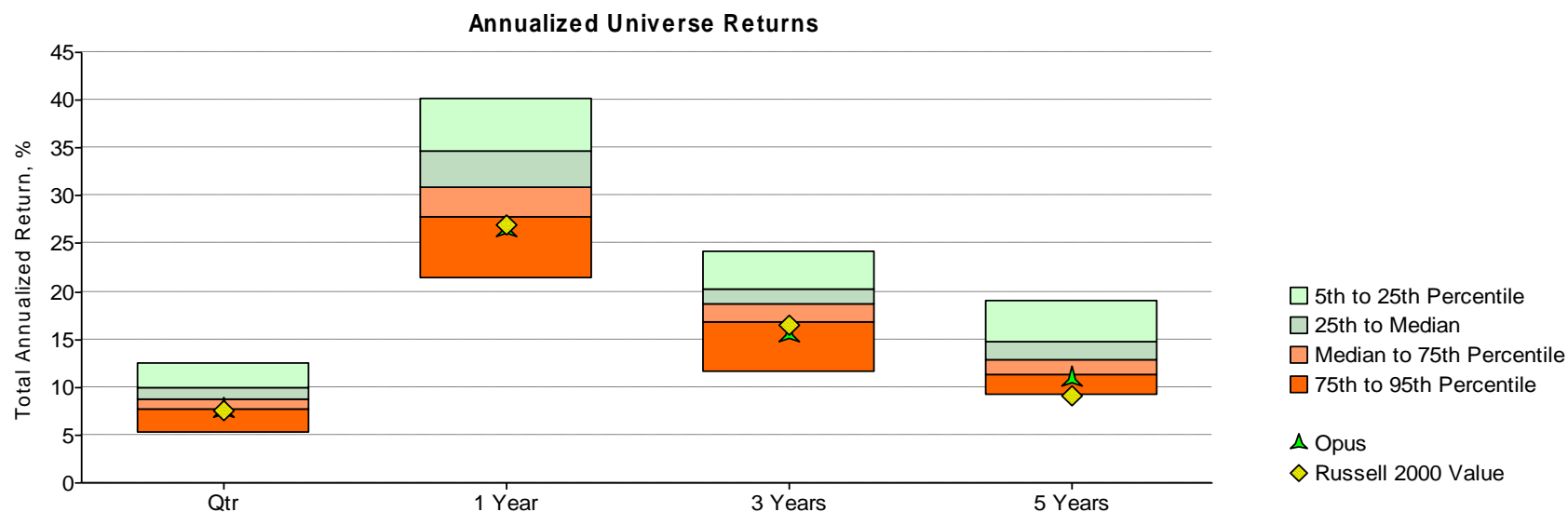
5-Year Excess Risk/Return



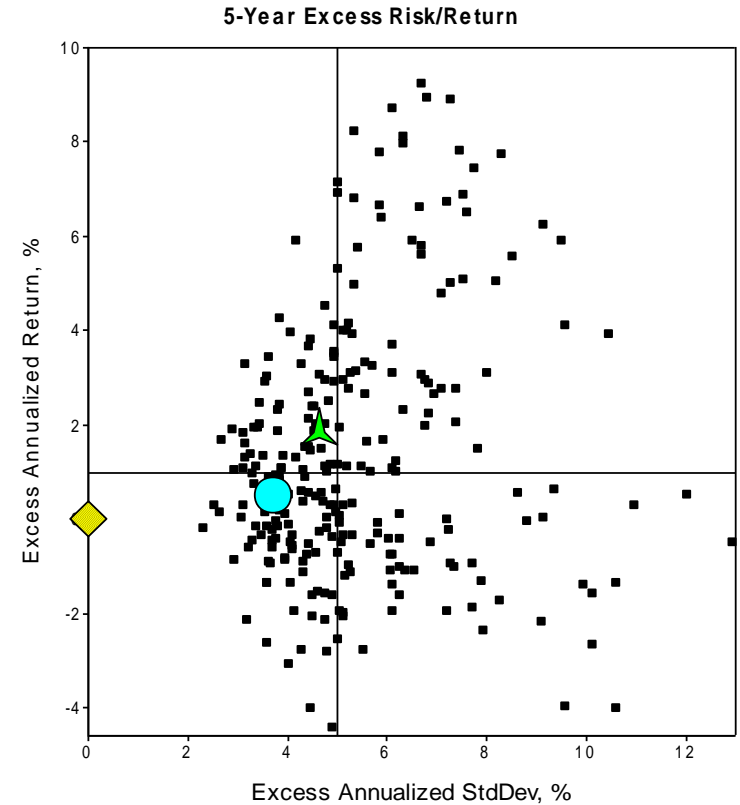
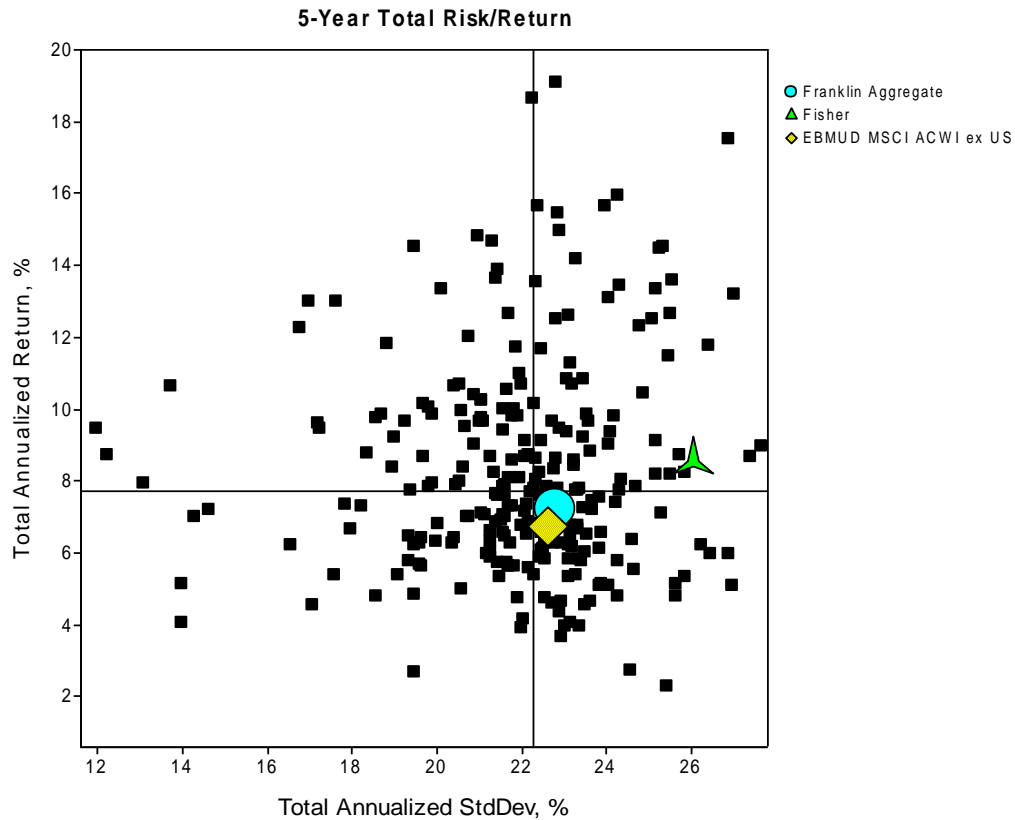
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Opus	10.90	23.57	0.46
Russell 2000 Value	9.13	24.39	0.37
Small Cap Value Universe Median	12.95	23.75	0.54

	Annualized Excess Return, %	Annualized Excess StdDev, %	Sharpe Ratio, Excess
Opus	1.76	6.58	0.27
Russell 2000 Value	0.00	0.00	NA
Small Cap Value Universe Median	3.81	6.49	0.59

# EBMUD Small Cap Value Manager Comparisons as of September 30, 2013



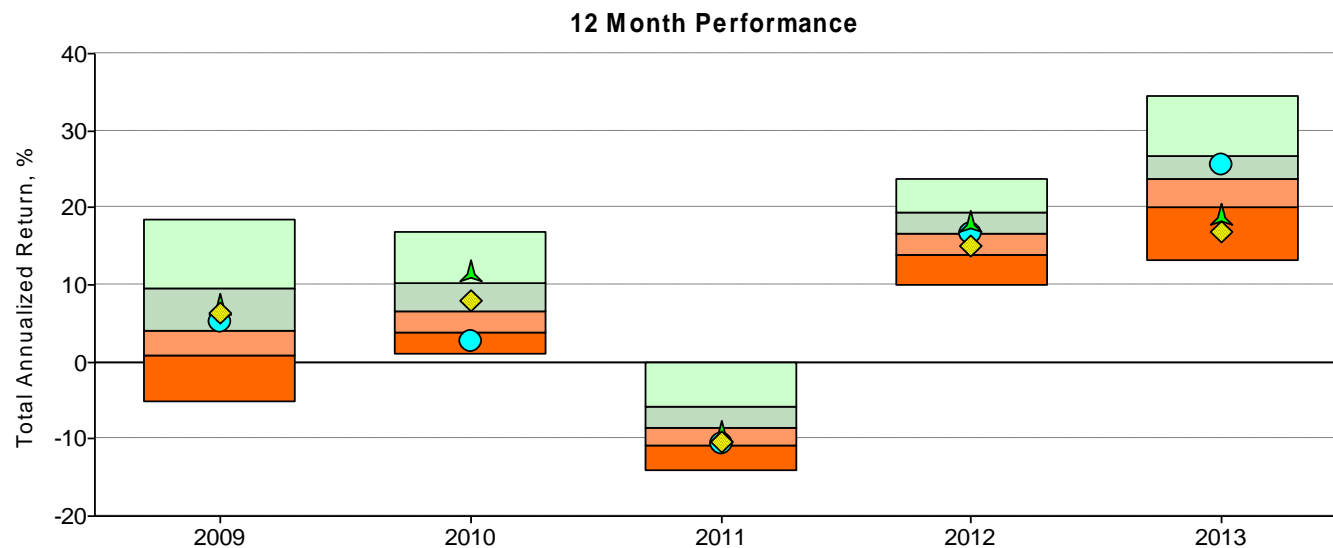
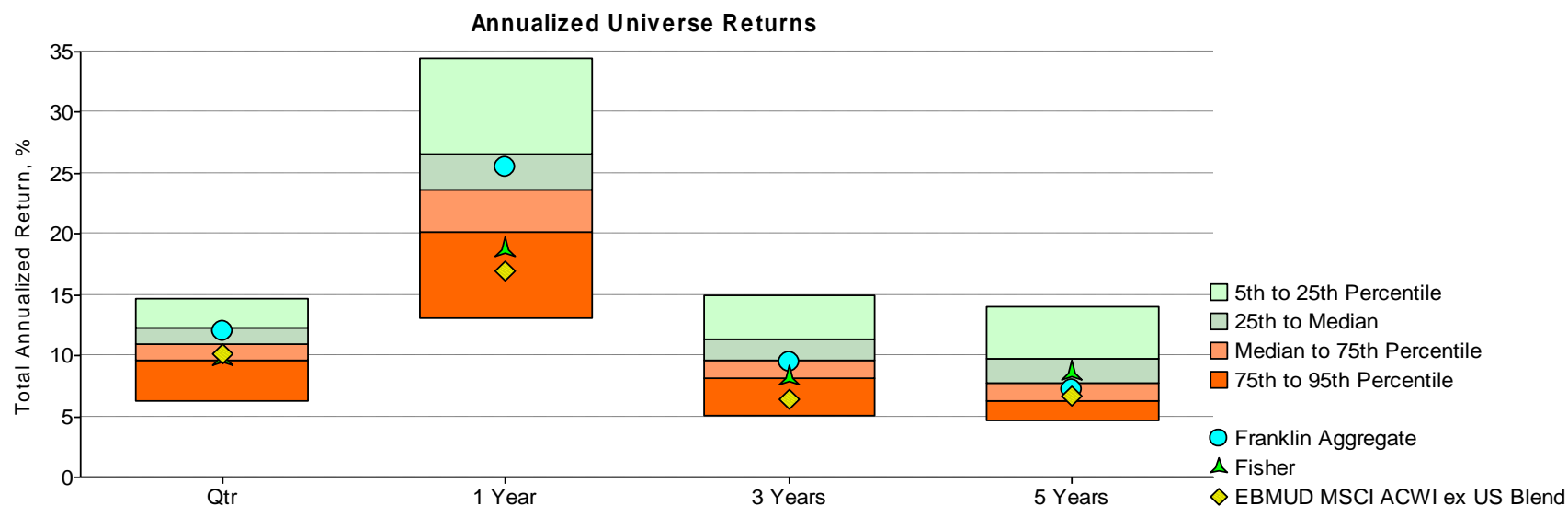
# EBMUD International Equity Manager Comparisons as of September 30, 2013



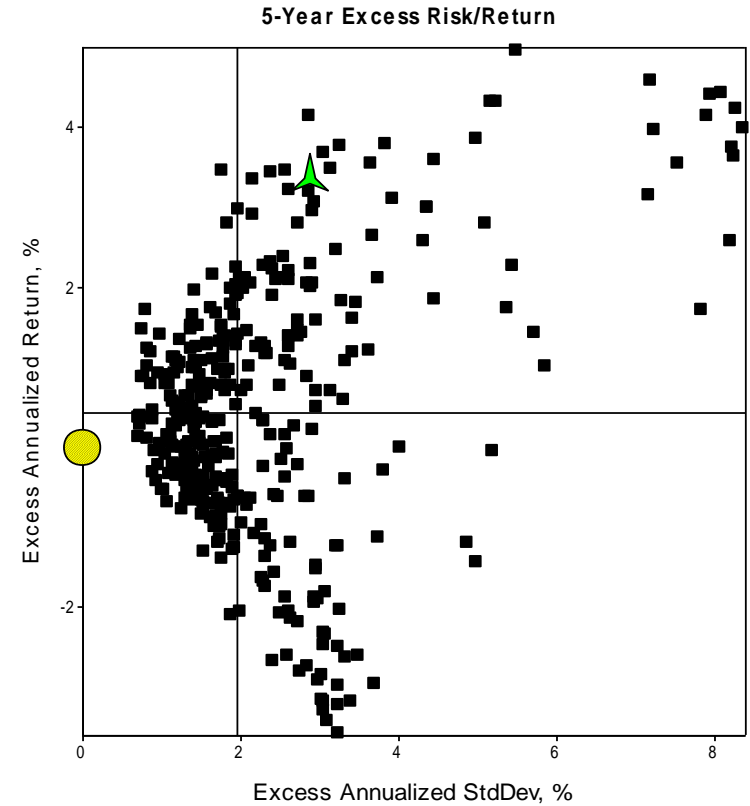
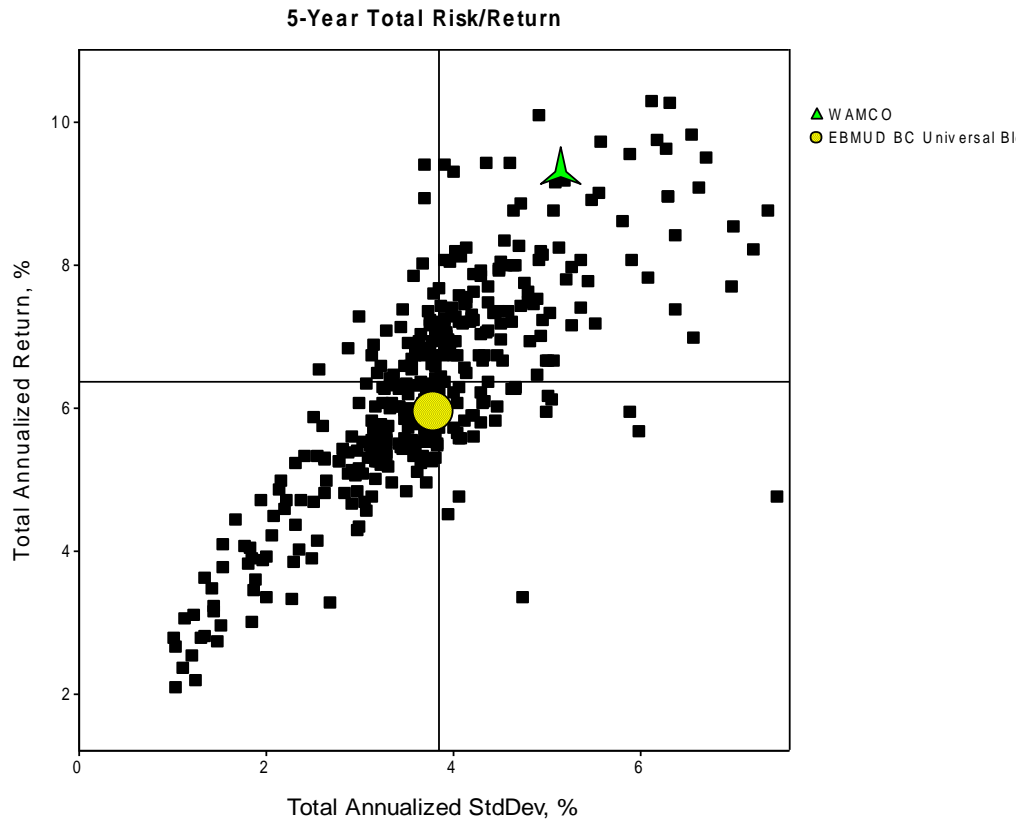
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Franklin Aggregate	7.21	22.77	0.32
Fisher	8.58	26.05	0.33
MSCI ACWI xUS Blend	6.74	22.62	0.30
International Equity Manager Universe Median	7.70	22.29	0.34

	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
Franklin Aggregate	0.47	3.72	0.13
Fisher	1.84	4.64	0.40
ACWI xUS Blend	0.00	0.00	NA
International Equity Manager Universe Median	0.96	5.00	0.20

# EBMUD International Equity Manager Comparisons as of September 30, 2013



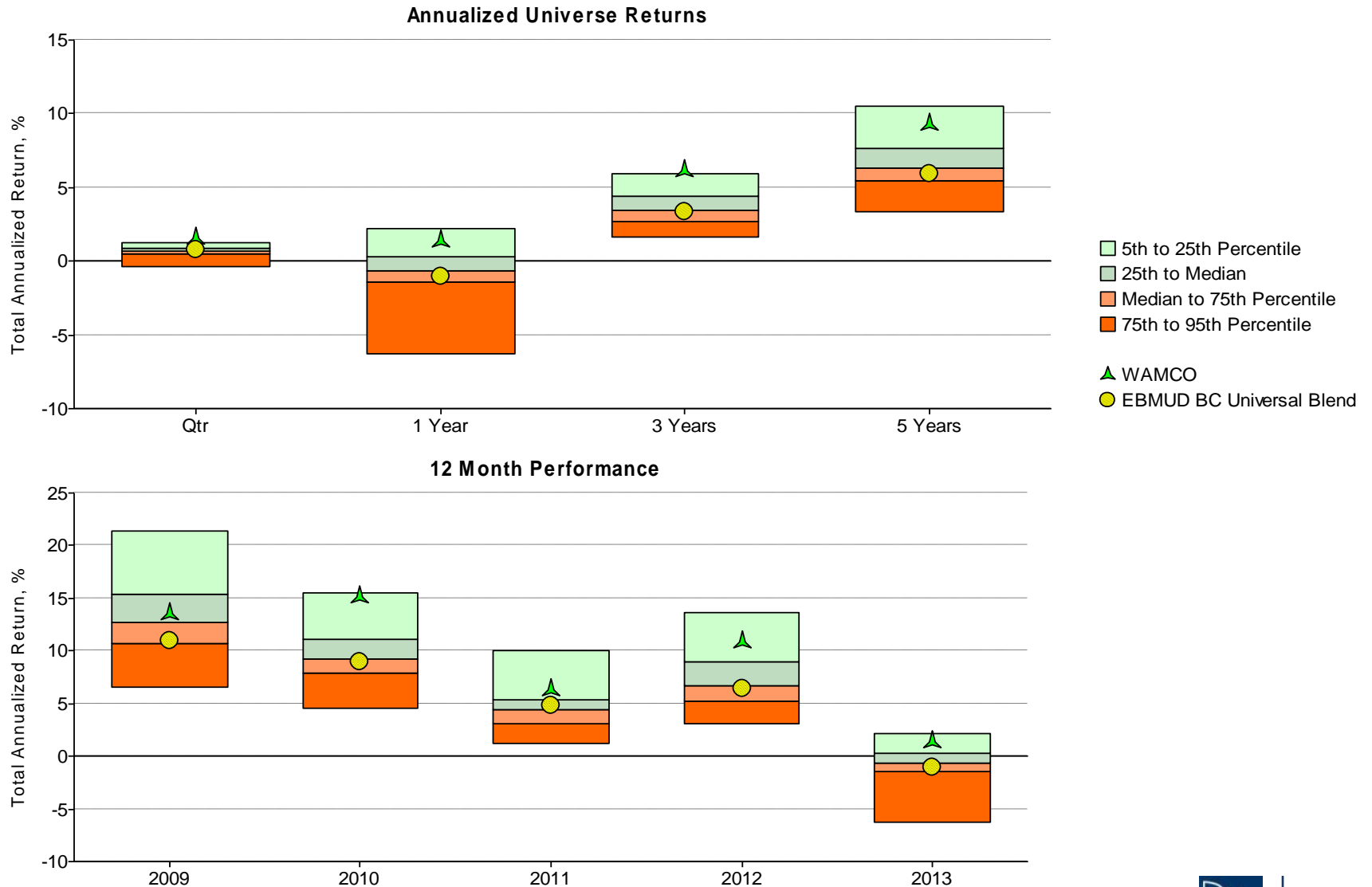
## EBMUD Fixed Income Manager Comparisons as of September 30, 2013



	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
WAMCO	9.30	5.15	1.80
EBMUD BC Universal Blend	5.93	3.80	1.56
US Fixed Income Univ Median	6.36	3.84	1.67

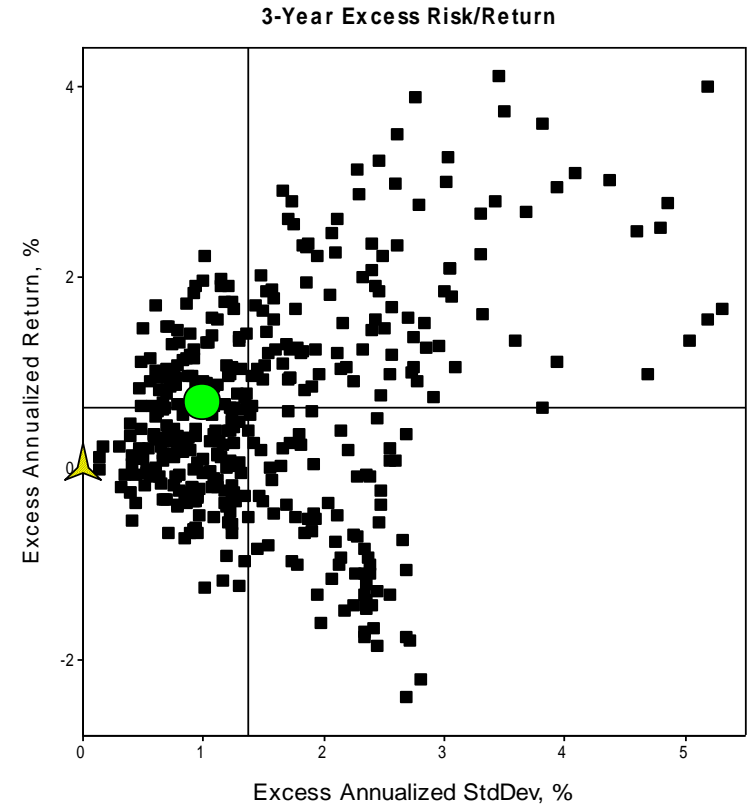
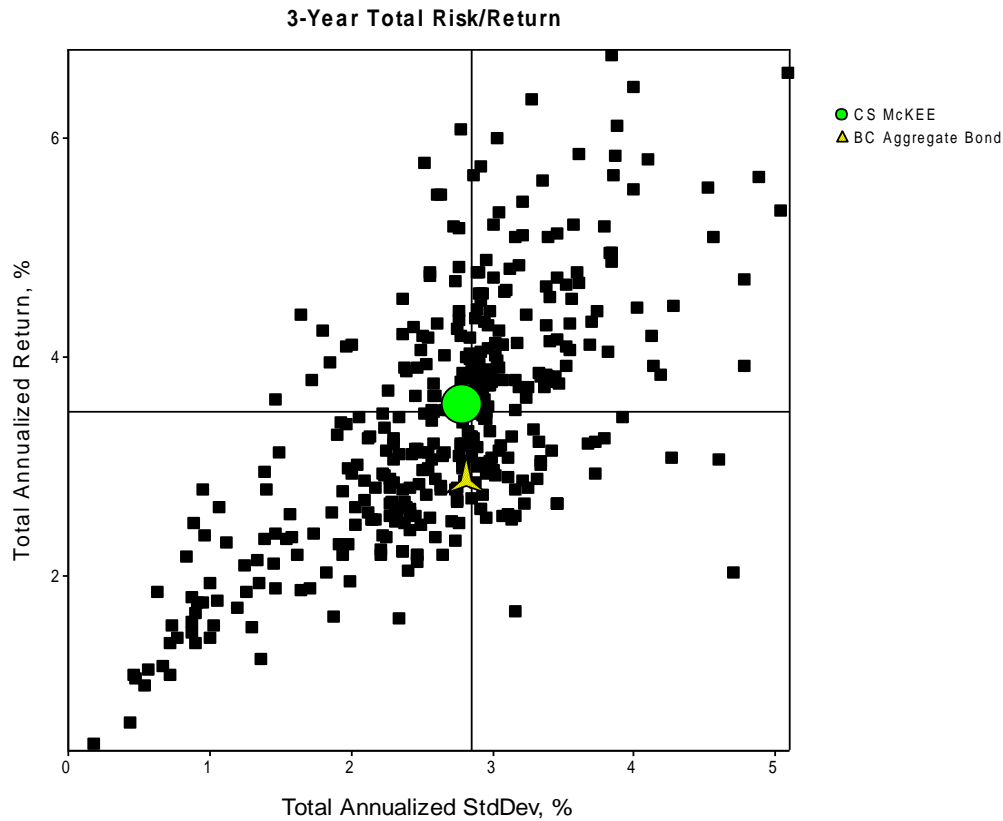
	Annualized Excess Return, %	Annualized Excess StdDev, %	Sharpe Ratio, Excess
WAMCO	3.37	2.88	1.17
EBMUD BC Universal Blend	0.00	0.00	NA
US Fixed Income Univ Median	0.43	1.95	0.26

# EBMUD Fixed Income Manager Comparisons as of September 30, 2013





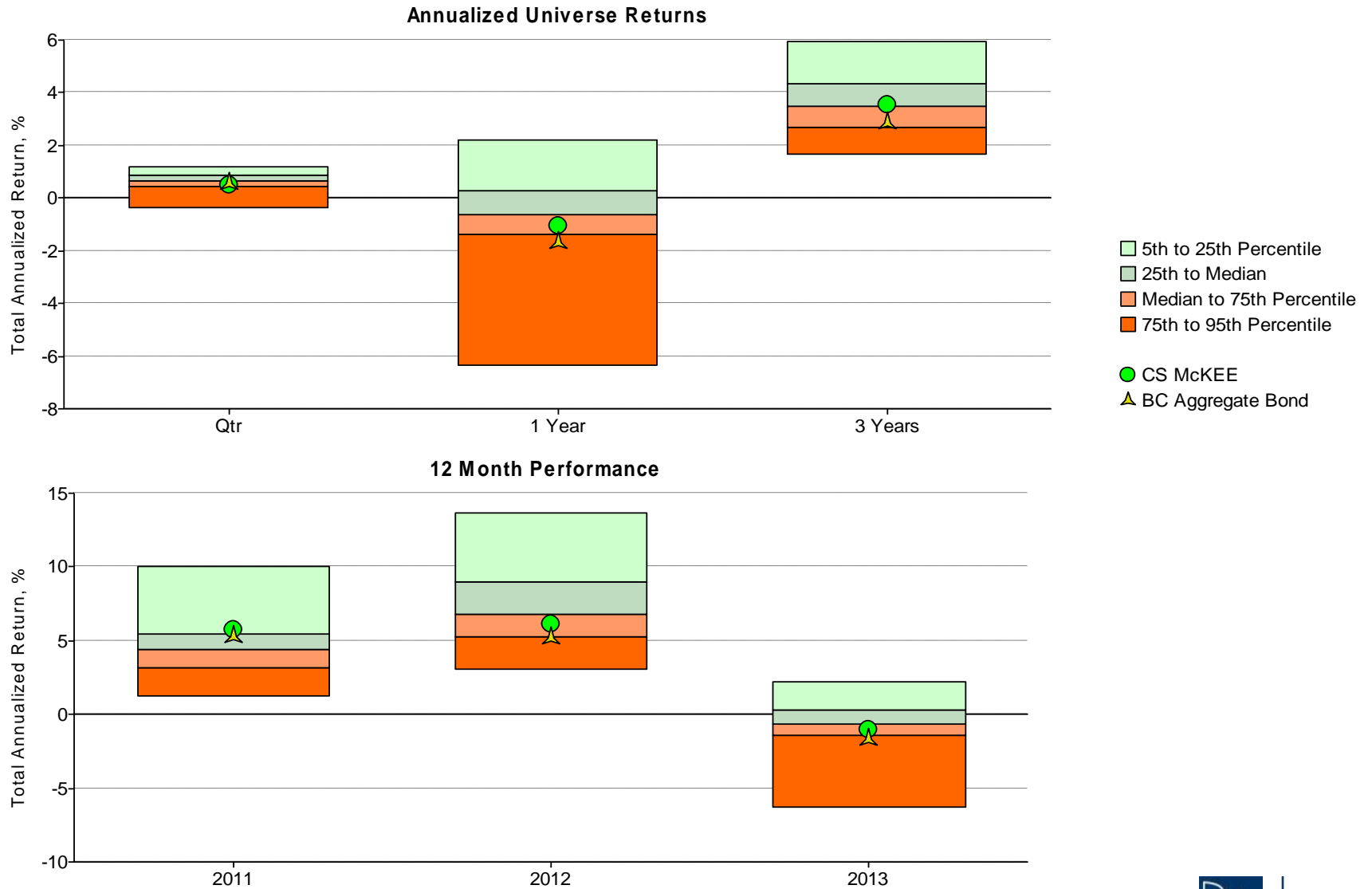
# EBMUD Fixed Income Manager Comparisons as of September 30, 2013



	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
CS McKEE	3.55	2.79	1.27
BC Aggregate Bond	2.86	2.81	1.02
US Fixed Income Univ Median	3.50	2.85	1.25

	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
CS McKEE	0.69	0.99	0.70
BC Aggregate Bond	0.00	0.00	NA
US Fixed Income Univ Median	0.64	1.38	0.41

# EBMUD Fixed Income Manager Comparisons as of September 30, 2013



## GLOSSARY OF TERMS

**Alpha:** The premium an investment earns above a set standard. This is usually measured in terms of a common index (i.e., how the stock performs independent of the market). An Alpha is usually generated by regressing a security's excess return on the S&P 500 excess return.

**Annualized Performance:** The annual rate of return that when compounded  $t$  times generates the same  $t$ -period holding return as actually occurred from period 1 to period  $t$ .

**Batting Average:** Percentage of periods a portfolio outperforms a given index.

**Beta:** The measure of an asset's risk in relation to the Market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a security with a Beta of 1.5 will have moved, on average, 1.5 times the market return.

**Bottom-up:** A management style that de-emphasizes the significance of economic and market cycles, focusing instead on the analysis of individual stocks.

**Dividend Discount Model:** A method to value the common stock of a company that is based on the present value of the expected future dividends.

**Growth Stocks:** Common stock of a company that has an opportunity to invest money and earn more than the opportunity cost of capital.

**Information Ratio:** The ratio of annualized expected residual return to residual risk. A central measurement for active management, value added is proportional to the square of the information ratio.

**R-Squared:** Square of the correlation coefficient. The proportion of the variability in one series that can be explained by the variability of one or more other series a regression model. A measure of the quality of fit. 100% R-square means perfect predictability.

**Standard Deviation:** The square root of the variance. A measure of dispersion of a set of data from its mean.

**Sharpe Ratio:** A measure of a portfolio's excess return relative to the total variability of the portfolio.

**Style Analysis:** A returns-based analysis using a multi-factor attribution model. The model calculates a product's average exposure to particular investment styles over time (i.e., the product's normal style benchmark).

**Top-down:** Investment style that begins with an assessment of the overall economic environment and makes a general asset allocation decision regarding various sectors of the financial markets and various industries.

**Tracking Error:** The standard deviation of the difference between the performance of a portfolio and an appropriate benchmark.

**Turnover:** For mutual funds, a measure of trading activity during the previous year, expressed as a percentage of the average total assets of the fund. A turnover rate of 25% means that the value of trades represented one-fourth of the assets of the fund.

**Value Stocks:** Stocks with low price/book ratios or price/earnings ratios. Historically, value stocks have enjoyed higher average returns than growth stocks (stocks with high price/book or P/E ratios) in a variety of countries.

## DEFINITION OF BENCHMARKS

**BC Aggregate:** an index comprised of approximately 6,000 publicly traded investment-grade bonds including U.S. Government, mortgage-backed, corporate, and yankee bonds with an approximate average maturity of 10 years.

**BC High Yield:** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are also included. Must be rated high-yield (Ba1/BB+ or lower) by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. All issues must have at least one year to final maturity regardless of call features and have at least \$150 million par amount outstanding.

**BC Multiverse Non-US Hedged:** provides a broad-based measure of the international fixed-income bond market. The index represents the union of the BC Global Aggregate Index and the BC Global High Yield Index. In this sense, the term "Multiverse" refers to the concept of multiple universes in a single macro index.

**BC US Credit:** includes publicly issued U.S. corporate and foreign debentures and secured notes that which are rated investment grade or higher by Moody's Investor Services, Standard and Poor's Corporation, or Fitch Investor's Service, with all issues having at least one year to maturity and an outstanding par value of at least \$250 million. Issues must be publicly issued, dollar-denominated and non-convertible.

**BC US Government:** 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).

**BC Universal:** includes market coverage by the Aggregate Bond Index fixed rate debt issues, which are rated investment grade or higher by Moody's Investor Services, Standard and Poor's Corporation, or Fitch Investor's Service, with all issues having at least one year to maturity and an outstanding par value of at least \$100 million) and includes exposures to high yield CMBS securities. All returns are market value weighted inclusive of accrued interest.

**Citigroup 3-Month Treasury Bills (T-bills):** tracks the performance of U.S. Treasury bills with 3-month maturity.

**MSCI ACWI x US ND:** comprises both developed and emerging markets less the United States. As of August 2008, the index consisted of 23 countries classified as developed markets and 25 classified as emerging markets. This series approximates the minimum possible dividend reinvestment. The dividend is reinvested after deduction of withholding tax, applying the rate to non-resident individuals who do not benefit from double taxation treaties. MSCI Barra uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates.

**MSCI EAFE Free (Europe, Australasia, Far East) ND:** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada. This series approximates the minimum possible dividend reinvestment. The dividend is reinvested after deduction of withholding tax, applying the rate to non-resident individuals who do not benefit from double taxation treaties. MSCI Barra uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates.

**MSCI EM (Emerging Markets) GD:** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. This series approximates the maximum possible dividend reinvestment. The amount reinvested is the entire dividend distributed to individuals resident in the country of the company, but does not include tax credits.

**MSCI Europe** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in Europe. As of June 2007, this index consisted of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**MSCI Pacific** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in the Pacific region. As of June 2007, this index consisted of the following 5 Developed Market countries: Australia, Hong Kong, Japan, New Zealand, and Singapore.

**NAREIT Index:** consists of all tax-qualified REITs listed on the New York Stock Exchange, American Stock Exchange, and the NASDAQ National Market System. The data is market weighted.

**NCREIF Property Index:** the NPI contains investment-grade, non-agricultural, income-producing properties which may be financed in excess of 5% gross market value; were acquired on behalf of tax exempt institutions; and are held in a fiduciary environment. Returns are gross of fees; including income, realized gains/losses, and appreciation/depreciation; and are market value weighted. Index is lagged one quarter.

**Russell 1000:** measures the performance of the 1,000 largest securities in the Russell 3000 Index. Russell 1000 is highly correlated with the S&P 500 Index and capitalization-weighted.

**Russell 1000 Growth:** measures the performance of those Russell 1000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

**Russell 1000 Value:** measures the performance of those Russell 1000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than the Growth universe.

**Russell 2000:** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

**Russell 2000 Growth:** measures the performance of those Russell 2000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-to-earnings ratios.

**Russell 2000 Value:** measures the performance of those Russell 2000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-to-earnings ratios.

**Russell 3000:** represents the largest 3,000 US companies based on total market capitalization, representing approximately 98% of the investable US equity market.

## RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

### US Equity Markets

Metric:  $P/E \text{ ratio} = \text{Price} / \text{"Normalized" earnings for the S\&P 500 Index}$

To represent the price of US equity markets, we have chosen the S&P 500 index. This index has the longest published history of price, is well known, and also has reliable, long-term, published quarterly earnings. The price= $P$  of the  $P/E$  ratio is the current price of the market index (the average daily price of the most recent full month for the S&P 500 index). Equity markets are very volatile. Prices fluctuate significantly during normal times and extremely during periods of market stress or euphoria. Therefore, developing a measure of earnings power ( $E$ ) which is stable is vitally important, if the measure is to provide insight. While equity prices can and do double, or get cut in half, real earnings power does not change nearly as much. Therefore, we have selected a well known measure of real, stable earnings power developed by Yale Professor Robert Shiller known as the Shiller E-10. The calculation of E-10 is simply the average real annual earnings over the past 10 years. Over 10 years, the earnings shenanigans and boom and bust levels of earnings tend to even out (and often times get restated). Therefore, this earnings statistic gives a reasonably stable, slow-to-change estimate of average real earnings power for the index. Professor Shiller's data and calculation of the E-10 are available on his website at <http://www.econ.yale.edu/~shiller/data.htm>. We have used his data as the base for our calculations. Details of the theoretical justification behind the measure can be found in his book *Irrational Exuberance* [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005].

### Developed Equity Markets Excluding the US

Metric:  $P/E \text{ ratio} = \text{Price} / \text{"Normalized" earnings for the MSCI EAFE Index}$

To represent the price of non-US developed equity markets, we have chosen the MSCI EAFE index. This index has the longest published history of price for non-US developed equities. The price= $P$  of the  $P/E$  ratio is the current price of the market index (the average daily price of the most recent full month for the MSCI EAFE index). The price level of this index is available starting in December 1969. Again, for the reasons described above, we elected to use the Shiller E-10 as our measure of earnings ( $E$ ). Since 12/1972, a monthly price earnings ratio is available from MSCI. Using this quoted ratio, we have backed out the implied trailing-twelve month earnings of the EAFE index for each month from 12/1972 to the present. These annualized earnings are then inflation adjusted using CPI-U to represent real earnings in US dollar terms for each time period. The Shiller E-10 for the EAFE index (10 year average real earnings) is calculated in the same manner as detailed above.

However, we do not believe that the pricing and earnings history of the EAFE markets are long enough to be a reliable representation of pricing history for developed market equities outside of the US. Therefore, in constructing the Long-Term Average Historical  $P/E$  for developed ex-US equities for comparison purposes, we have elected to use the US equity market as a developed market proxy, from 1881 to 1982. This lowers the Long-Term Average Historical  $P/E$  considerably. We believe this methodology provides a more realistic historical comparison for a market with a relatively short history.

### Emerging Market Equity Markets

Metric:  $\text{Ratio of Emerging Market } P/E \text{ Ratio to Developed Market } P/E \text{ Ratio}$

To represent the Emerging Markets  $P/E$  Ratio, we have chosen the MSCI Emerging Market Free Index, which has  $P/E$  data back to January 1995 on Bloomberg. To represent the Developed Markets  $PE$  Ratio, we have chosen the MSCI World Index, which also has data back to January 1995 on Bloomberg. Although there are issues with published, single time period  $P/E$  ratios, in which the denominator effect can cause large movements, we feel that the information contained in such movements will alert investors to market activity that they will want to interpret.

## US Private Equity Markets

Metrics: S&P LCD Average EBITDA Multiples Paid in LBOs and US Quarterly Deal Volume

The Average Purchase Price to EBITDA multiples paid in LBOs is published quarterly by S&P in their LCD study. This is the total price paid (both equity and debt) over the trailing-twelve month EBITDA (earnings before interest, taxes, depreciation and amortization) as calculated by S&P LCD. This is the relevant, high-level pricing metric that private equity managers use in assessing deals. Data is published monthly.

US quarterly deal volume for private equity is the total deal volume in \$ billions (both equity and debt) reported in the quarter by Thomson Reuters Buyouts. This metric gives a measure of the level of activity in the market. Data is published quarterly.

## US Private Real Estate Markets

Metrics: US Cap Rates, Cap Rate Spreads, and Transactions as a % of Market Value

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The data, published by NCREIF, describes completed and leased properties (core) on an unleveraged basis. We chose to use current value cap rates. These are capitalization rates from properties that were revalued during the quarter. This data relies on estimates of value and therefore tends to be lagging (estimated prices are slower to rise and slower to fall than transaction prices). The data is published quarterly.

Spreads between the cap rate (described above) and the 10-year nominal Treasury yield, indicate a measure of the cost of properties versus a current measure of the cost of financing.

Transactions as a % of Market Value Trailing-Four Quarters is a measure of property turnover activity in the NCREIF Universe. This quarterly metric is a measure of activity in the market.

## Credit Markets Fixed Income

Metric: Spreads

The absolute level of spreads over treasuries and spread trends (widening / narrowing) are good indicators of credit risk in the fixed income markets. Spreads incorporate estimates of future default, but can also be driven by technical dislocations in the fixed income markets. Abnormally narrow spreads (relative to historical levels) indicate higher levels of valuation risk, wide spreads indicate lower levels of valuation risk and / or elevated default fears. Investment grade bond spreads are represented by the Barclays Capital US Corporate Investment Grade Index Intermediate Component. The high yield corporate bond spreads are represented by the Barclays Capital US Corporate High Yield Index.

## Measure of Equity Market Fear / Uncertainty

Metric: VIX – Measure of implied option volatility for US equity markets

The VIX is a key measure of near-term volatility conveyed by implied volatility of S&P 500 index option prices. VIX increases with uncertainty and fear. Stocks and the VIX are negatively correlated. Volatility tends to spike when equity markets fall.

## Measure of Monetary Policy

Metric: Yield Curve Slope

We calculate the yield curve slope as the 10 year treasury yield minus the 1 year treasury yield. When the yield curve slope is zero or negative, this is a signal to pay attention. A negative yield curve slope signals lower rates in the future, caused by a contraction in economic activity. Recessions are typically preceded by an inverted (negatively sloped) yield curve. A very steep yield curve (2 or greater) indicates a large difference between shorter-term interest rates (the 1 year rate) and longer-term rates (the 10 year rate). This can signal expansion in economic activity in the future, or merely higher future interest rates.

## Measures of US Inflation Expectations

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

Inflation is a very important indicator impacting all assets and financial instruments. Breakeven inflation is calculated as the 10 year nominal treasury yield minus the 10 year real yield on US TIPS (treasury inflation protected securities). Abnormally low long-term inflation expectations are indicative of deflationary fears. A rapid rise in breakeven inflation indicates an acceleration in inflationary expectations as market participants sell nominal treasuries and buy TIPS. If breakeven inflation continues to rise quarter over quarter, this is a signal of inflationary worries rising, which may cause Fed action and / or dollar decline.

Commodity price movement (above the rate of inflation) is an indication of anticipated inflation caused by real global economic activity putting pressure on resource prices. We calculate this metric by adjusted in the Dow Jones UBS Commodity Index (formerly Dow Jones AIG Commodity Index) by US CPI-U. While rising commodity prices will not necessarily translate to higher US inflation, higher US inflation will likely show up in higher commodity prices, particularly if world economic activity is robust.

These two measures of anticipated inflation can, and often are, conflicting.

## Measures of US Treasury Bond Interest Rate Risk

Metrics: 10-Year Treasury Forward-Looking Real Yield and 10-Year Treasury Duration

The expected annualized real yield of the 10 year US Treasury Bond is a measure of valuation risk for US Treasuries. A low real yield means investors will accept a low rate of expected return for the certainty of receiving their nominal cash flows. PCA estimates the expected annualized real yield by subtracting an estimate of expected 10 year inflation (produced by the Survey of Professional Forecasters as collected by the Federal Reserve Bank of Philadelphia), from the 10 year Treasury constant maturity interest rate.

Duration for the 10-Year Treasury Bond is calculated based on the current yield and a price of 100. This is a measure of expected percentage movements in the price of the bond based on small movements in percentage yield. We make no attempt to account for convexity.

## Definition of “Extreme” Metric Readings

A metric reading is defined as “extreme” if the metric reading is in the top or bottom decile of its historical readings. These “extreme” reading should cause the reader to pay attention. These metrics have reverted toward their mean values in the past.



## RISK METRICS DESCRIPTION – PCA Market Sentiment Indicator

### What is the PCA Market Sentiment Indicator (PMSI)?

The PMSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The PMSI takes into account the momentum<sup>12</sup> (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

### How do I read the PCA Market Sentiment Indicator (PMSI) graph?

Simply put, the PMSI is a color coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the PMSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the PMSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.

### How is the PCA Market Sentiment Indicator (PMSI) Constructed?

The PMSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

1. Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
2. Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration U.S. Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight). The scale of this measure is adjusted to match that of the stock return momentum measure.

The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure. The color reading on the graph is determined as follows:

1. If both stock return momentum and bond spread momentum are positive = GREEN (positive)
2. If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
3. If both stock return momentum and bond spread momentum are negative = RED (negative)

### What does the PCA Market Sentiment Indicator (PMSI) mean? Why might it be useful?

There is strong evidence that time series momentum is significant and persistent.<sup>13</sup> In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12 month period. The PMSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

<sup>12</sup> Momentum is defined as the persistence of relative performance. There is a significant amount of academic evidence indicating that positive momentum (e.g., strong performing stocks over the recent past continue to post strong performance into the near future) exists over near-to-intermediate holding periods. See, for example, "Understanding Momentum," *Financial Analysts Journal*, Scowcroft, Sefton, March, 2005.

<sup>13</sup> "Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010 <http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

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November 19, 2013

The Retirement Board  
East Bay Municipal Utility District Employees' Retirement System  
375 Eleventh Street  
Oakland, CA 94607

**Letter of Transmittal: Financial Report of the East Bay Municipal Utility District Employees' Retirement System for the Year Ended June 30, 2013**

Dear Board Members:

The financial report of the Employees' Retirement System for the year ended June 30, 2013, is transmitted herewith as required by Section 4 of the Ordinance establishing the Retirement System. This report consists of the Basic Financial Statements and Supplementary Information for the year ended June 30, 2013, (With Independent Auditors' Report Thereon) as examined and accompanied by the opinion of Maze & Associates.

The fair market value of the Retirement System net assets at June 30, 2013, was \$1,124.33 million, an increase of \$137.36 million (13.92 percent) during the year. Investment returns for the year were 14.46 percent. Cumulative annualized investment returns for the five years ending June 30, 2013, were 6.10 percent or 1.65 percent below the current 7.75 percent actuarial assumed investment rate of return.

During the year, the Retirement Board approved a cost of living adjustment (COLA) benefit of 2.7 percent and up to an additional 0.3 percent accumulated COLA bank credit, effective July 1, 2013.

**Review of Schedule and Charts**

Membership Activity

The number of active and terminated vested employees participating in the retirement plan decreased by 36 to 1,889, while members retired and receiving benefits increased by 78 to 1,443 as of June 30, 2013.

Chart 1: Service and Disability Allowances, and Health Benefits Paid to Retired Members

During Fiscal year 2013, \$71.76 million was paid to retirees, an increase of 8.31 percent over Fiscal year 2012. Pension benefit payments increased by 8.70 percent while health insurance benefit payments increased 4.61 percent.

Chart 2: Contributions Received

During Fiscal year 2013, total District and member contributions, net of member withdrawals, were \$61.57 million and \$10.23 million, respectively for a total of \$71.80 million, an increase of 2.89 percent over Fiscal year 2012. The District's contributions increased by \$1.92 million due to an increase in the contribution rate, effective June 18, 2012, from 37.74 percent to 39.56 percent. The contribution rate for employees remained at 6.83 percent through the fiscal year. The District's \$61.57 million contribution was 85.75 percent of the total amount contributed to the Plan, net of member withdrawals.

Chart 3: Sources of Funds

The Retirement System is funded from three sources consisting of the District's contributions, members' net contributions, and gross investment income or loss. The District and member contributions increased in a fairly slow rate in the past two years due to the increasing District contribution rate offset by decreased total payroll amount because of the hiring freeze. Gross investment income or loss includes interest, dividends, earnings from real estate investments and net realized and unrealized gains or losses on investments, and tends to vary from year to year. To help maintain stable contribution rates for the District, only 20 percent of investment returns or losses for any given year are recognized in that year in the actuarial evaluation, with the balance spread equally over the succeeding four years. As new actuarial liabilities arise, the Unfunded Actuarial Accrued Liability (UAAL) is amortized over 30 years from the date each new liability is first recognized.

Chart 4: Unfunded Pension and Health Insurance Benefits Actuarial Accrued Liability (UAAL) and Funded Ratio

During the year ended June 30, 2012, (Fiscal year 2012 is the latest information available from the actuary at the time of the audit) the Pension Plan actuarial value of assets increased from \$954.72 million to \$1,021.55 million, while actuarial accrued liability increased from \$1,446.04 million to \$1,556.70 million. This generated a net increase of unfunded actuarial accrued liability (UAAL) of \$43.83 million. As the result, the Pension Plan's UAAL as of year-end is \$535.15 million and funded ratio is 65.60 percent.

During the year ended June 30, 2012, the Health Benefit Plan actuarial value of assets increased from \$12.05 million to \$14.24 million, while actuarial accrued liability increased from \$135.36 million to \$138.24 million. This generated a net increase of unfunded actuarial accrued liability (UAAL) of \$0.68 million. As the result, the Health Benefit Plan's UAAL as of year-end is \$124.00 million and funded ratio is 10.30 percent.

Chart 5: Membership Growth

The chart reflects a slowly declining active membership (including terminated vested employees) over the last 10 years, with a total of 1,889 at June 30, 2013. Meanwhile, the total number of persons receiving service or disability retirement benefits has slowly increased an average of 4.27 percent per year over the past decade for a total of 1,443 at June 30, 2013.

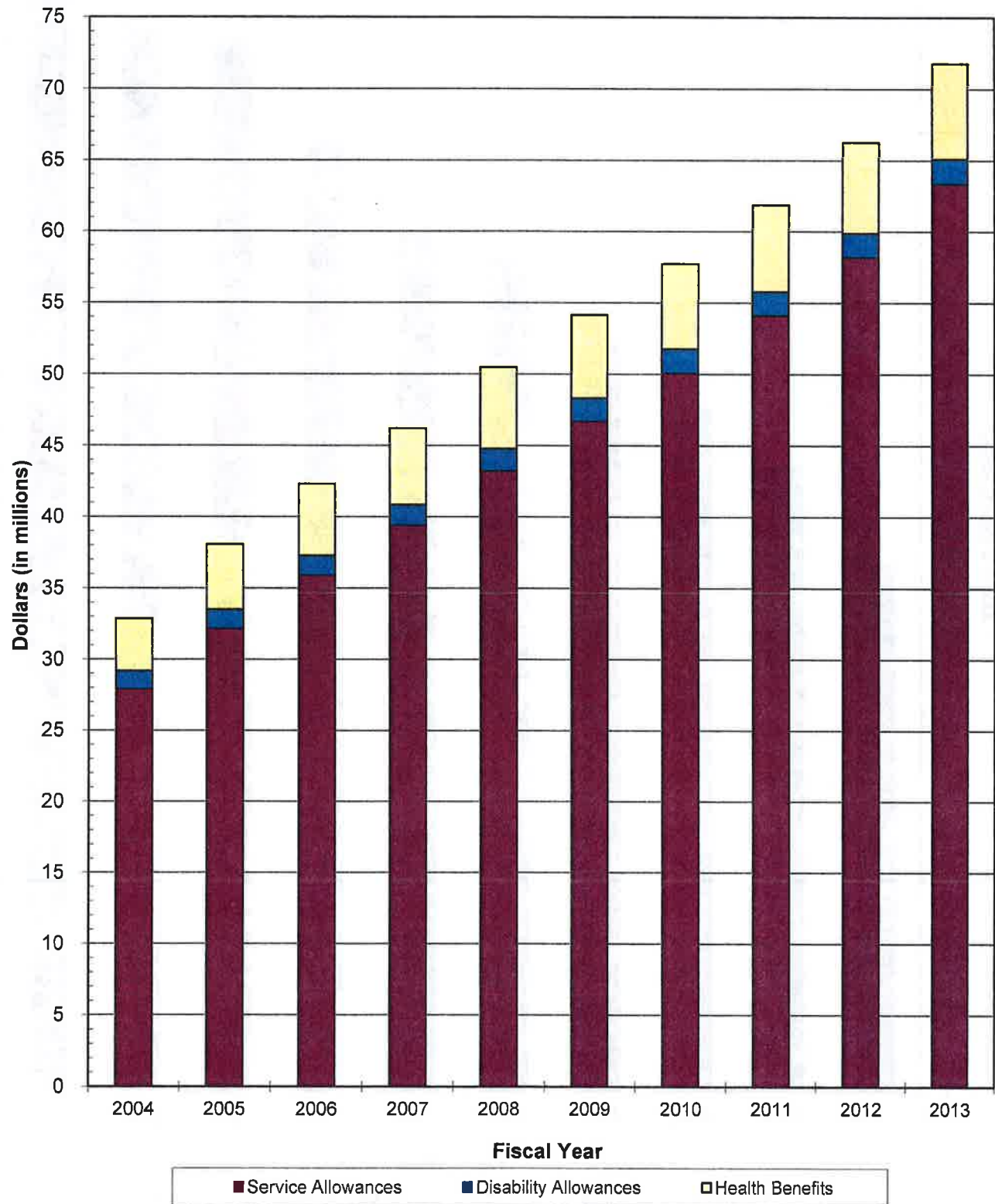
Respectfully submitted,



Eric L. Sandler  
Director of Finance – East Bay Municipal Utility District  
Treasurer – Employees' Retirement System

**Chart 1**

**Service & Disability Allowances, & Health Benefits  
Paid to Retired Members**





**Chart 2**

**Contributions Received**

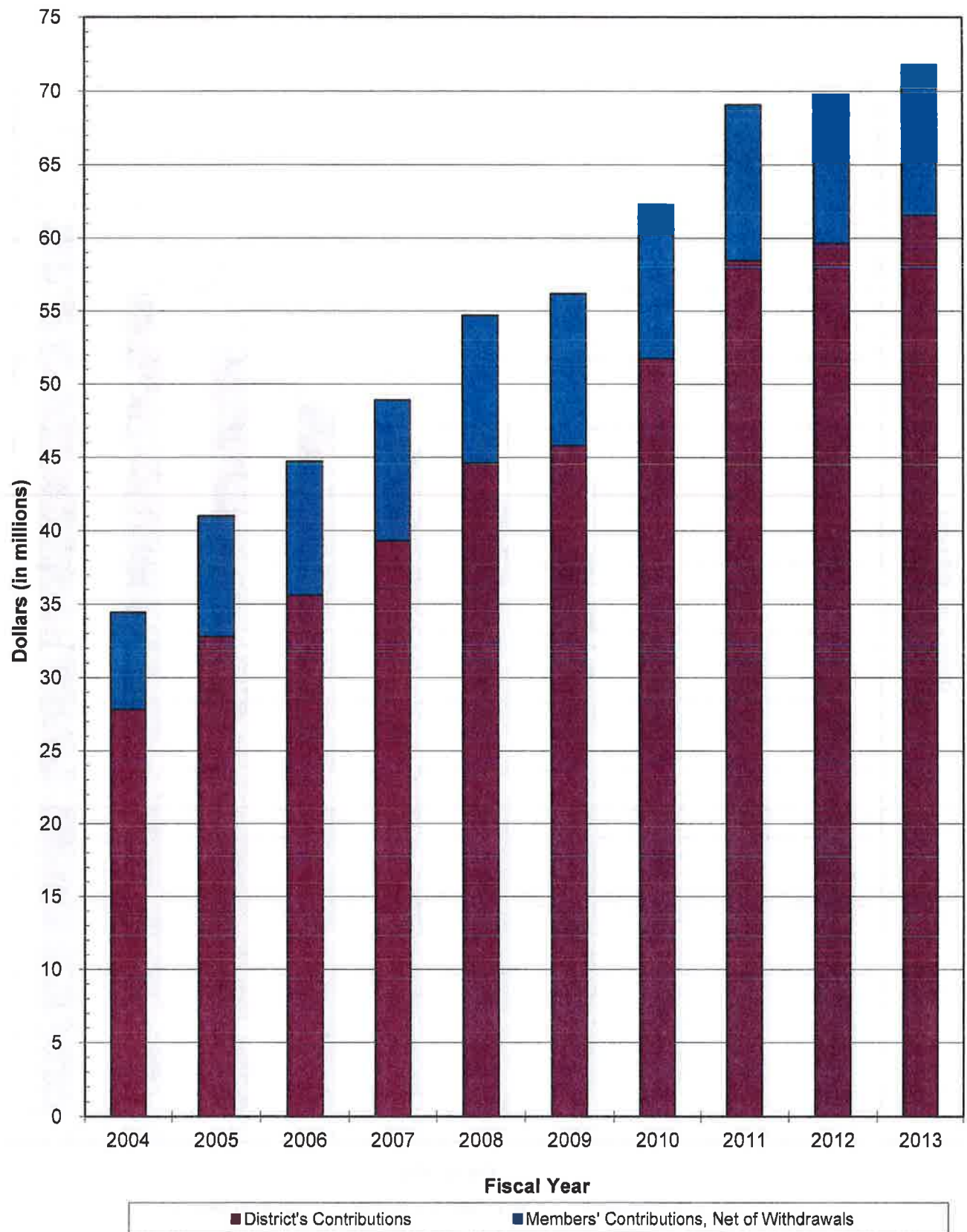
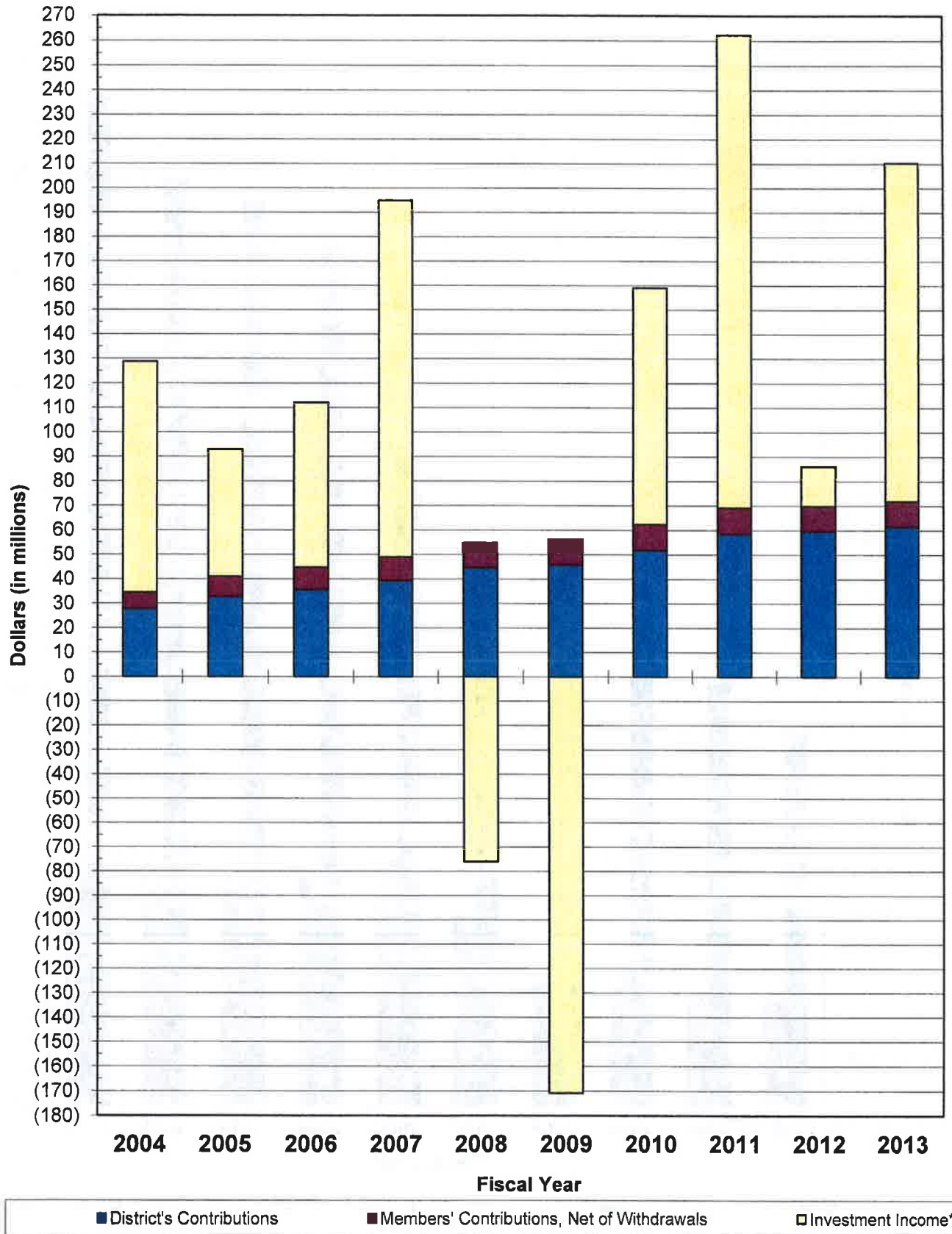


Chart 3

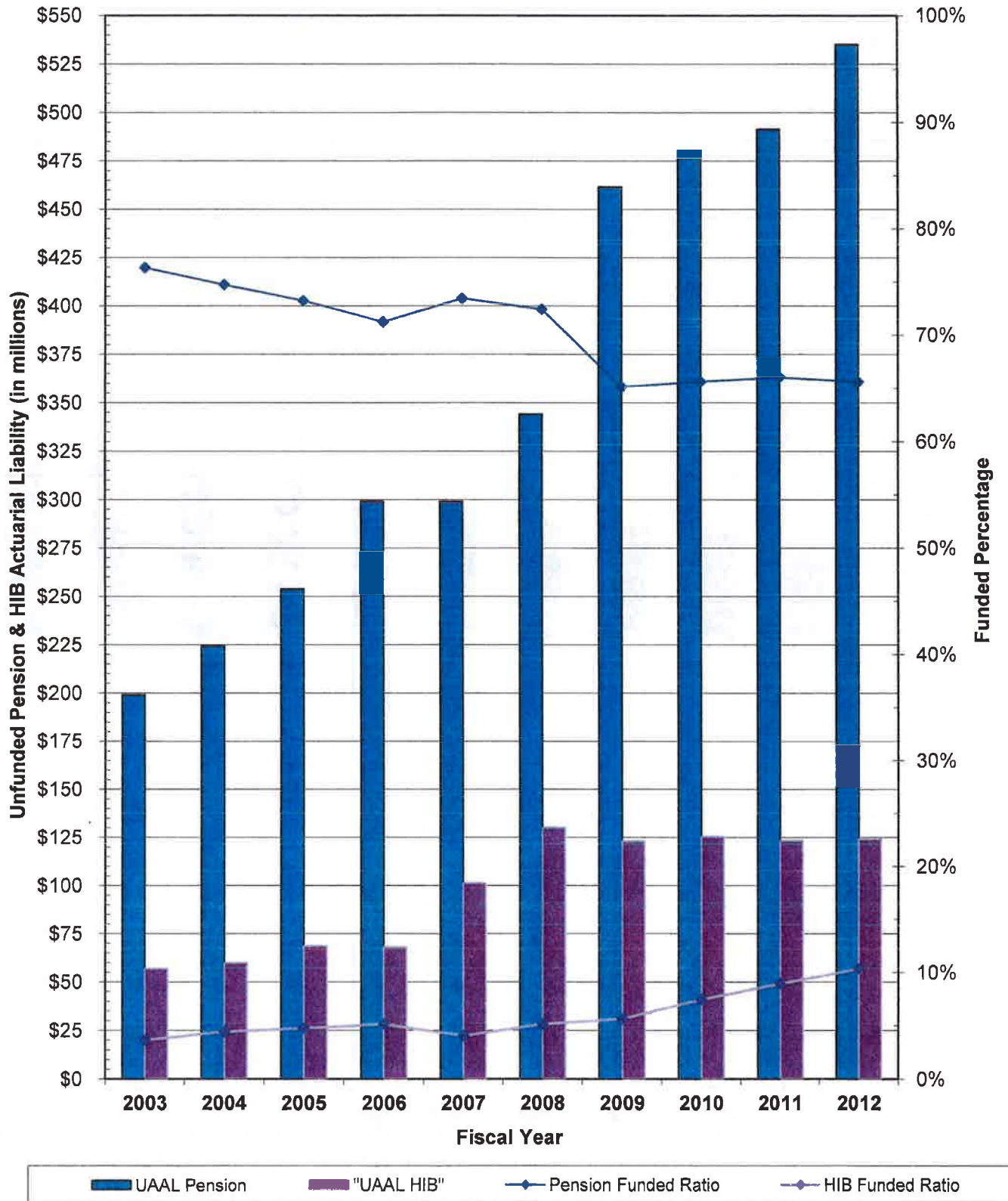
Sources of Funds



\* Investment Income includes interest, dividends, and net gains on securities and real estate.

# Chart 4

## Unfunded Pension & Health Insurance Actuarial Accrued Liability & Funded Ratio

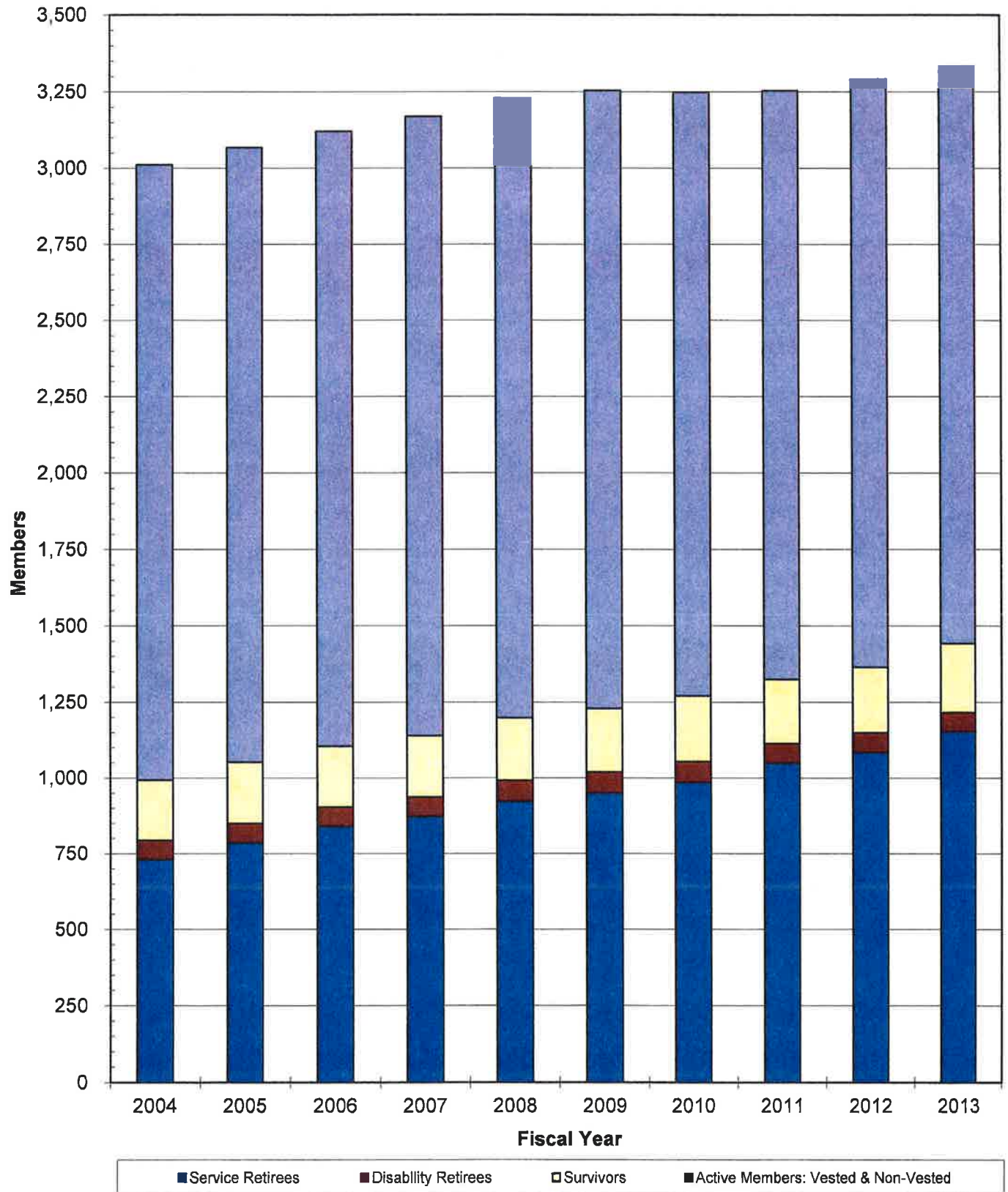


Note: Latest available actuarial data is for the FYE June 30, 2012.



**Chart 5**

**Membership Growth**



**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**

**(A Component Unit of the  
East Bay Municipal Utility District)**

**Financial Statements and Supplementary Information**

**For The Year Ended June 30, 2013**

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**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)  
For The Year Ended June 30, 2013

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## INDEPENDENT AUDITORS' REPORT

The Board of Directors  
East Bay Municipal Utility District  
Employees' Retirement System

### *Report on Financial Statements*

We have audited the accompanying financial statements of the East Bay Municipal Utility District Employees' Retirement System (the System), a component unit of the East Bay Municipal Utility District as of and for the year ended June 30, 2013, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the Table of Contents. The prior year summarized comparative information has been derived from the System's 2012 financial statements and, in our report dated August 16, 2013, we expressed an unqualified opinion on those financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

### ***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net position of the East Bay Municipal Utility District Employees' Retirement System as of June 30, 2013, and changes in plan net position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

### ***Emphasis of a Matter***

Management adopted the provisions of the following Governmental Accounting Standards Board Statement, which became effective during the year ended June 30, 2013 and had material effects on the financial statements:

Management adopted the provisions of Governmental Accounting Standards Board Statement No. 63-*Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, which became effective during the year ended June 30, 2013 and required certain title changes to the Statement of Net Position and Statement of Changes in Net Position.

The emphasis of this matter does not constitute a modification to our opinions.

### ***Other Matters***

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis and the schedules of employer contributions and funding progress be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with generally accepted auditing standards in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### ***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated August 16, 2013, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.



Pleasant Hill, California  
August 16, 2013

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2013

This section presents management's analysis of the East Bay Municipal Utility District Employees' Retirement System's (the System) financial condition and activities as of and for the year ended June 30, 2013. Management's Discussion and Analysis (MDA) is intended to serve as an introduction to the System's basic financial statements. The MDA represents management's examination and analysis of the System's financial condition and performance.

This information should be read in conjunction with the audited financial statements that follow this section. The information in the MDA is presented under the following headings:

- Organization and Business
- Overview of the Financial Statements
- Financial Analysis: *Financial Highlights*
- Financial Analysis: *Financial Condition*
- Factors Impacting Future Periods
- Request for Information

**Organization and Business**

The East Bay Municipal Utility District (the District) is the sponsoring agency of the System and provides for its funding. The System is accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and deferred outflow, all liabilities and deferred inflow associated with operations are included on the statement of plan net position, and revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

The System administers a single-employer, contributory, defined benefit pension plan (the Plan) which provides retirement, disability, survivorship, and postemployment healthcare benefits for eligible directors, officers, and employees of the District. The Plan is administered by a retirement board composed of three members appointed by the District's board of directors, two members elected by and from the active membership of the Plan, and a nonvoting member elected by the retirees of the Plan. Retirement Ordinance Number 40 assigns the authority to establish Plan benefit provisions to the District's board of directors.

All regular full-time employees of the District are members of the Plan. In accordance with the ordinance governing the Plan, eligible employees become members on the first day they are physically on the job. Plan defined benefits vest in part with members after completion of five years of continuous, full-time employment.

For additional information, please see the notes to the basic financial statements.

**Overview of the Financial Statements**

The basic financial statements include a *statement of plan net position*, a *statement of changes in plan net position*, and *notes to basic financial statements*. The report also contains other required supplementary information in addition to the financial statements.



**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2013

The system's financial statements include:

The *Statement of Plan Net Position and the Statement of Changes in Plan Net Position* report information to assist readers in determining whether the System's finances as a whole are better off or worse off as a result of the year's activities. These two statements report the net assets of the System and changes in them, respectively.

The *Statement of Plan Net Position* presents information on all assets and liabilities of the System, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the System is improving or deteriorating.

The *Statement of Changes in Plan Net Position* presents the results of the System's activities over the course of the fiscal year and information as to how the *net position* changed during the year. This statement measures the results of the System's investment performance as well as the System's income from contributions and expenses, including the payment of benefits, refunds of contributions, and administrative and investment expense. All changes in net position are reported during the period the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in future fiscal periods.

The *Notes to the Basic Financial Statements* provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to the basic financial statements can be found on pages 13 to 29 of this report.

*Other Information.* In addition to the financial statements and accompanying notes, this report also presents *certain required supplementary information* concerning the District's contributions and the System's progress in funding its obligation to provide pension and postemployment healthcare benefits to the employees of the District. Such required supplementary information can be found on pages 30 to 33 of this report.

**Financial Analysis: Financial Highlights**

- The total assets of the System exceeded the total liabilities by \$1,124,328 at June 30, 2013 (Table 1). All of the net position is available to meet the System's ongoing obligations to Plan participants and their beneficiaries.
- Net position increased by \$137,356 or 13.92% during the fiscal year ended June 30, 2013, primarily due to net investment gain of \$138,535. Contributions from the District of \$61,567 and employee contributions of \$10,566 were offset in part by the cost of pension, health insurance benefits, refunds of contributions, and administrative expenses of \$73,312.
- As of June 30, 2013, 20.90% of the System's investments were in fixed income securities, 55.30% were in domestic equities, 18.20% were in international equities, 4.70% was in Real Estate, and 0.90% were in cash and cash equivalents. As of June 30, 2012, 23.60% of the System's investments were in fixed income securities, 52.30% were in domestic equities, 17.60% were in international equities, 5.00% was in Real Estate, and 1.50% were in cash and cash equivalents.
- The Plan's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2012, the date of the last actuarial valuation, the Pension Plan's funded ratio was 65.60% and the Post-employment Health Care plan funded ratio was 10.30%.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2013

- During the fiscal year ended June 30, 2013, combined District and employee contributions increased by \$1,759 or 2.50% to \$72,133 (Table 2). The District's average contribution rate increased by 1.82% to 39.56% and the employees' contribution rate remained at 6.83% for FY 2013. For new employee hired after January 1, 2013, the District and employee's contribution rate were 27.59% and 7.75% respectively.
- Retirement, Disability, and Survivor Benefit payments increased by \$5,212 or 8.70% to \$65,092 (Table 3). Along with the 0.20%-3.00% cost-of-living increase in July 2012, there was an additional 5.40% increase from June 30, 2012 to June 30, 2013, in monthly payroll due to net increases in the number of retirees and beneficiaries.
- Health Insurance Benefits increased by \$294, or 4.61%, to \$6,668 (Table 3), primarily due to the increase in the number of retirees receiving health benefits.
- Refunds of Contributions to terminated or deceased employees decreased by \$254, or 43.12%, to \$335 from the prior year.
- Administrative expenses (not including Investment Advisors' Fees or Custodial Asset Management Fees) increased by \$132, or 12.17%, to \$1,217, primarily due to increased staff time work on daily and special tasks for increased retirees.
- Investment Advisors' Fees increased by \$349, or 10.33%, to \$3,729 principally due to increased average investment fund balances, as compared to the previous fiscal year.

**Financial Analysis: Financial Condition**

The System's financial condition reflects an increase of \$108,094 in the Projected Benefit Obligation (PBO) as of the June 30, 2012, versus the previous actuarial report of June 30, 2011. Because of the increased contributions and market performance, the market value of assets at June 30, 2012, increased \$18,733 during the same period based on the actuarial reports. The PBO funded percentage at the end of the previous fiscal year is used to determine the cost-of-living adjustment (COLA) at the end of the current fiscal period. The Funded PBO percentage was 61.40% as of June 30, 2012, versus 64.60% as of June 30, 2011. Whenever the PBO funded percentage is less than 85.00%, the COLA for pension beneficiaries is limited to 3.00%.

The overall Actuarial Accrued Liability funding ratio for the System decreased from 62.60% to 62.40% as of the June 30, 2012 actuarial report versus the previous actuarial report of June 30, 2011. The component Plans of Pension and Health Insurance Benefit changed from 66.00% to 65.60% and 12.20% to 13.80% funded, respectively.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2013

During the year ended June 30, 2013, the System assets increased \$137,356 versus a \$18,733 increase in 2012.

**(Table 1)**  
**Net Position**  
Years ended June 30, 2013 and 2012

	<b>2013</b>	<b>2012</b>	<b>Variance</b>	<b>%</b>
Other assets	\$153,757	\$146,993	\$6,764	4.60%
Investments at fair value	1,096,091	958,205	137,886	14.39%
Total assets	1,249,848	1,105,198	144,650	13.09%
Total liabilities	125,520	118,226	7,294	6.17%
Net position	<u>\$1,124,328</u>	<u>\$986,972</u>	<u>\$137,356</u>	<u>13.92%</u>

**(Table 1)**  
**Net Position**  
Years ended June 30, 2012 and 2011

	<b>2012</b>	<b>2011</b>	<b>Variance</b>	<b>%</b>
Other assets	\$146,993	\$205,989	(58,996)	-28.64%
Investments at fair value	958,205	930,928	27,277	2.93%
Total assets	1,105,198	1,136,917	(31,719)	-2.79%
Total liabilities	118,226	168,678	(50,452)	-29.91%
Net position	<u>\$986,972</u>	<u>\$968,239</u>	<u>18,733</u>	<u>1.93%</u>

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2013

The financial reserves needed to fund retirement and health benefits are accumulated through the collection of employer and employee contributions and through earnings on investment income. As Table 2 shows, the System experienced net investment gain for 2013.

**(Table 2)**  
**Additions to Net Position**  
Years ended June 30, 2013 and 2012

	<u>2013</u>	<u>2012</u>	<u>Variance</u>	<u>%</u>
Employer contributions	\$61,567	\$59,651	\$1,916	3.21%
Members' contributions	10,566	10,723	(157)	-1.46%
Total contributions	<u>\$72,133</u>	<u>\$70,374</u>	<u>\$1,759</u>	<u>2.50%</u>
Net investment gain/(loss)*	<u>\$138,535</u>	<u>\$16,287</u>	<u>\$122,248</u>	<u>750.59%</u>
Total additions, net	<u>\$210,668</u>	<u>\$86,661</u>	<u>\$124,007</u>	<u>143.09%</u>

\* Net of investment expenses and borrower's rebates and other agent fees on securities lending transactions of \$3,851 for June 30, 2013, and \$3,443 for June 30, 2012.

**(Table 2)**  
**Additions to Net Position**  
Years ended June 30, 2012 and 2011

	<u>2012</u>	<u>2011</u>	<u>Variance</u>	<u>%</u>
Employer contributions	\$59,651	\$58,481	\$1,170	2.00%
Members' contributions	10,723	10,850	(127)	-1.17%
Total contributions	<u>\$70,374</u>	<u>\$69,331</u>	<u>\$1,043</u>	<u>1.50%</u>
Net investment gain/(loss)*	<u>\$16,287</u>	<u>\$193,107</u>	<u>(\$176,820)</u>	<u>-91.57%</u>
Total additions, net	<u>\$86,661</u>	<u>\$262,438</u>	<u>(\$175,777)</u>	<u>-66.98%</u>

\* Net of investment expenses and borrower's rebates and other agent fees on securities lending transactions of \$3,443 for June 30, 2012, and \$2,913 for June 30, 2011.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2013

As summarized in Table 3, the Plan provides retirement, disability, survivor, and health insurance benefits to qualified members and their beneficiaries. The Plan must also provide refunds of employee contributions with interest to terminated employees who do not choose or are not qualified to vest.

**(Table 3)**  
**Deductions in Net Position**  
Years ended June 30, 2013 and 2012

	<u>2013</u>	<u>2012</u>	<u>Variance</u>	<u>%</u>
Pension benefits paid	\$65,092	\$59,880	\$5,212	8.70%
Health insurance				
benefits paid	6,668	6,374	294	4.61%
Refunds of contributions	335	589	(254)	-43.12%
Administrative expenses	1,217	1,085	132	12.17%
Total deductions	<u>\$73,312</u>	<u>\$67,928</u>	<u>\$5,384</u>	<u>7.93%</u>

**(Table 3)**  
**Deductions in Net Position**  
Years ended June 30, 2011 and 2010

	<u>2012</u>	<u>2011</u>	<u>Variance</u>	<u>%</u>
Pension benefits paid	\$59,880	\$55,792	\$4,088	7.33%
Health insurance				
benefits paid	6,374	6,070	304	5.01%
Refunds of contributions	589	252	337	133.73%
Administrative expenses	1,085	1,137	(52)	-4.57%
Total deductions	<u>\$67,928</u>	<u>\$63,251</u>	<u>\$4,677</u>	<u>7.39%</u>

**Factors Impacting Future Periods**

To comply with State of California Assembly Bill 340 (AB340), the District created a new tier, 2013 Plan, for all employees hired after January 1, 2013.

The District's contribution rate for tier 1985 Plan increased from 39.56% in FY2012 to 43.70% effective June 17, 2013. The employee contribution rate remains unchanged at 6.83%, for a total combined contribution rate of 50.53%.

The District contribution rate for 2013 Plan reduced from 28.51% to 27.59% effective June 17, 2013. The employee contribution rate increased from 7.75% to 8.75%, for a total combined contribution rate of 36.34%.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2013

**Request for Information**

This financial report is designed to provide viewers with a general overview of the East Bay Municipal Utility District Employees' Retirement System's finances and demonstrate the District's accountability for the monies it manages. If you have any questions about this report or need additional information, please contact: the Controller, Accounting Division MS #402, P.O. Box 24055, Oakland, CA 94623-1055.

EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM  
(A Component Unit of the East Bay Municipal Utility District)  
STATEMENTS OF PLAN NET POSITION

June 30, 2013

(With summarized comparative financial information as of June 30, 2012)

(DOLLARS IN THOUSANDS)

	2013			2012
	Pension plan	Post-employment healthcare	Total	Total
	benefits	benefits		
Assets:				
Cash and cash equivalents, at fair value (Note 5)	\$33,908	\$489	\$34,397	\$33,068
Invested securities lending collateral (Notes 5 and 2B)	100,080	1,443	101,523	100,577
Prepaid expenses		459	459	434
Receivables:				
Brokers, securities sold	11,955	172	12,127	8,036
Employer	2,260	312	2,572	2,220
Plan members	401		401	382
Interest and dividends	2,246	32	2,278	2,276
Total receivables	16,862	516	17,378	12,914
Investments, at fair value (Note 5):				
U.S. government obligations	85,270	1,213	86,483	121,790
Municipal bonds	5,676	98	5,774	2,840
Domestic corporate bonds	122,168	1,761	123,929	84,499
International bonds	13,680	197	13,877	7,077
Domestic stocks	596,083	8,593	604,676	515,957
International stocks	205,172	2,958	208,130	177,166
Real estate	52,465	757	53,222	48,876
Total investments	1,080,514	15,577	1,096,091	958,205
Total assets	1,231,364	18,484	1,249,848	1,105,198
Liabilities:				
Accounts payable and accrued expenses	1,451	21	1,472	1,365
Payables to brokers, securities purchased	22,205	320	22,525	16,284
Securities lending collateral (Note 2B)	100,080	1,443	101,523	100,577
Total liabilities	123,736	1,784	125,520	118,226
Net position held in trust for pension benefits and post-employment healthcare benefits	\$1,107,628	\$16,700	\$1,124,328	\$986,972

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM  
(A Component Unit of the East Bay Municipal Utility District)  
STATEMENTS OF CHANGES IN PLAN NET POSITION

For the Year Ended June 30, 2013

(With summarized comparative financial information for the year ended June 30, 2012)

(DOLLARS IN THOUSANDS)

	2013			2012
	Pension plan benefits	Post-employment healthcare benefits	Total	Total
Additions:				
Contributions (Note 3):				
Employer	\$53,795	\$7,772	\$61,567	\$59,651
Plan members	10,427	139	10,566	10,723
Total contributions	64,222	7,911	72,133	70,374
Investment income:				
Net appreciation (depreciation) in fair value of investments:				
Traded securities	118,570	1,653	120,223	(1,387)
Real estate	865	12	877	1,160
Interest	7,687	107	7,794	8,278
Dividends	12,178	170	12,348	10,698
Real estate operating income, net	1,128	16	1,144	981
Total investment income	140,428	1,958	142,386	19,730
Less:				
Investment expense	(3,677)	(52)	(3,729)	(3,380)
Borrowers' rebates and other agent fees on securities lending transactions	(121)	(1)	(122)	(63)
Net investment income	136,630	1,905	138,535	16,287
Total additions, net	200,852	9,816	210,668	86,661
Deductions:				
Benefits paid (Notes 1C & 1E)	65,092	6,668	71,760	66,254
Refund of contributions (Note 4)	335		335	589
Administrative expenses	1,200	17	1,217	1,085
Total deductions	66,627	6,685	73,312	67,928
Change in net position	134,225	3,131	137,356	18,733
Net position:				
Beginning of year	973,403	13,569	986,972	968,239
End of year	\$1,107,628	\$16,700	\$1,124,328	\$986,972

See accompanying notes to financial statements



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**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Basic Financial Statements  
(Dollars in Thousands)  
For the Year Ended June 30, 2013

<b>NOTE 1 – PLAN DESCRIPTION</b>
----------------------------------

**A. General**

The East Bay Municipal Utility District (the District) Employees' Retirement System (the System) was established in 1937 to administer a single-employer, contributory, defined benefit pension plan (the Plan). The System provides retirement, disability, survivorship, and post-employment health insurance benefits for eligible directors, officers, and employees of the District. The System is administered by a Retirement Board composed of three members appointed by the board of directors of the District, two members elected by and from the active membership, and one (nonvoting) member elected by and from the retired membership of the System. Retirement Ordinance No. 40 (Ordinance) assigns the authority to establish Plan benefit provisions to the District's board of directors.

The System is exempt from the regulations of the Employee Retirement Income Security Act of 1974. The System is also exempt from federal income taxes and California franchise taxes.

The System is an integral part of the District and the District appoints the majority of the retirement board of the System and provides for its funding. Accordingly, the System's operations have been reported as a Pension and Other Employee Benefit Trust Fund in the District's basic financial statements.

**B. Membership**

All regular full-time employees of the District are members of the Plan in addition to certain job share and intermittent employees. In accordance with the ordinance governing the System, eligible employees become members on the first day they are physically on the job. Members become vested in the Plan after five years of continuous full-time employment. Vested members who terminate employment may elect a refund of their contributions or leave them in the Plan until eligible to receive benefits.

Investment income is credited semiannually to the accounts of the members using a rate of interest approved by the Retirement Board and determined as the lower of the latest five year average of the plan or the actuarial assumed earnings rate of the plan (7.75%). Interest was credited at an annual rate 0.7% for the six months ended December 31, 2012 and 1.3% for the six months ended June 30, 2013.

Membership in the Plan consisted of the following as of June 30, 2012, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	1,361
Terminated plan members entitled to but not yet receiving benefits	224
Active plan members	<u>1,703</u>
Total	<u><u>3,288</u></u>

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Basic Financial Statements  
(Dollars in Thousands)  
For the Year Ended June 30, 2013

<b>NOTE 1 – PLAN DESCRIPTION (Continued)</b>
--

**C.     *Retirement Benefits and Allowances***

There are two tiers in effect currently, the 1980 Plan and the 2013 Plan. Employees who became Members of the retirement system prior to January 1, 2013, or who have reciprocal Membership are in the 1980 Plan, Employees who became Members on or after January 1, 2013 are in the 2013 Plan.

1980 Plan Members may elect voluntary reduced service retirement upon attaining the age of 54 and completing 5 years of continuous full-time employment. Members may elect voluntary unreduced service retirement upon attaining the age of 62 and completing 5 years of continuous full-time employment or age 65 without restriction. Members who continue to work upon attaining the normal retirement age of 65 continue to contribute to the Plan, and at the time they retire, computation of their retirement allowance is based upon their compensation and length of service as of the date of retirement. Service retirement allowances are computed by formulas specified in the Ordinance and are based on date of employment, length of employment, age at date of retirement, and compensation earned during employment.

2013 Plan Members may elect voluntary reduced service upon attaining the age of 52 and completing 5 years of continuous full-time employment. Members may elect voluntary unreduced service retirement upon attaining the age of 67, and completing 5 years of continuous full-time employment. Members who continue to work upon attaining the normal retirement age of 67 continue to contribute to the Plan, and at the time they retire, computation of their allowance is based upon their compensation and length of service as of the date of retirement. Service retirement allowances are computed by formulas specified in the Ordinance and are based on length of service, age at retirement, and compensation earned during employment.

**D.     *Disability and Death Benefits and Allowances***

Members may receive disability retirement benefits prior to age 65 if the member is determined to be physically or mentally incapacitated, provided the member has 8 or more years of continuous full-time employment. The allowance for disability retirement is computed by a formula specified in the Ordinance and is based upon compensation earnable during employment, years of continuous service, and date upon which the retiring individual became a member. There is a guaranteed minimum disability benefit equal to the greater of one-third of terminal compensation (final average salary) or the retirement allowance, based on the disability formula.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Basic Financial Statements  
(Dollars in Thousands)  
For the Year Ended June 30, 2013

<b>NOTE 1 – PLAN DESCRIPTION (Continued)</b>
--

Death benefits are payable to the estate or beneficiary of a member who dies before retirement. Survivorship benefits are payable to the spouse of a member who dies after retirement, or who was eligible but had not retired from service, provided the spouse was married to the member at the date of retirement and for at least one year prior to the member's death.

**E. *Post-Employment Healthcare Benefits***

Post-employment healthcare and similar benefit allowances are provided to eligible employees who retire from the District or to their surviving spouses. Effective July 1, 1996, a 20-year vesting schedule for full benefits was implemented for all new participants. Eligible participants are reimbursed up to \$450 per month for service members and up to \$550 for members with a spouse or registered domestic partner for any combined health, dental, or long-term care insurance premiums paid by the participant or his/her surviving spouse. Effective July 1, 1999, retirees may be reimbursed up to the designated maximum for the combined health insurance premiums for themselves, their current spouses, or registered domestic partners. The benefits were funded entirely by the District on an actuarial basis up until June 17, 2002. Effective June 18, 2002, a portion of the post-employment healthcare benefit costs is recovered through employee contributions. The actual benefits paid in cash to retirees were \$6,668 and \$6,374 and for the years ended June 30, 2013 and 2012, respectively.

<b>NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</b>
--

**A. *Basis of Accounting and Presentation***

The System's activities are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to the Plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits, refunds, and other liabilities are recognized when due and payable in accordance with the terms of the Plan.

The basic financial statements include partial prior year comparative information. A complete presentation of the prior year information can be found in the System's financial statements for the year ended June 30, 2012.

**B. *Investments***

Investments are reported at fair value. Securities and bonds traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that have no quoted market price are reported at estimated fair value, which is determined based on yields equivalent for such securities or for securities of comparable maturity, quality, and type as obtained from market makers. Measurement of the fair value of real estate investments is estimated by the investment managers and reflects both internal and independent appraisals of real estate properties.

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<b>NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
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The System presents in the Statements of Changes in Plan Net Position the net change in the fair value of its investments, which consists of the realized gains or losses and the unrealized appreciation (depreciation) on those investments. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Each of the financial instruments invested in by the System represents a potential concentration of credit risk. However, as the portfolio and the components of the various instruments are diversified and issuers of securities are dispersed throughout many industries and geographical locations, the concentrations of credit risk are limited.

The System invests in a combination of stocks, bonds, fixed income securities, real estate, and other investment securities. These investments are exposed to various risks, such as interest rate and market risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and those such changes could materially affect the amounts reported in the Statement of Plan Net Position.

Retirement Board policies permit the System to use investments of the Plan to enter into securities lending transactions, which are loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return collateral for the same securities in the future. The System's securities custodian is an agent in lending the Plan's securities for cash collateral, U.S. government securities, and irrevocable letters of credit of 102% for domestic securities and 105% for international securities lent.

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<b>NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
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As of June 30, 2013, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. Contracts with the lending agent require them to indemnify the System under certain circumstances if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the System for income distributions by the securities issuers while the securities are on loan. The risk of any loss of collateral or investment of cash collateral (including a loss of income or principal, or loss of market value thereon) lies with the System, except for losses resulting from negligence or intentional misconduct of the agent in performing the duties allocated under the securities lending agreement with respect to collateral. During the year ended June 30, 2013, there were no violations of legal or contractual provisions, and no borrower or lending agent default losses known to the securities lending agent.

In lending securities, cash collateral is invested in the lending agent's short-term investment pool, which as of June 30, 2013, had a weighted average maturity of 43 days. The relationship between the maturities of the investment pool and the System's loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the System cannot determine. Cash collateral may also be invested separately in term loans, in which case the maturity of the collateral investment generally matches the term of the loan. Noncash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of overall loans for the System was approximately 67 days. There are no dividends or coupon payments owing on the securities lent. Cash received as collateral on securities lending transactions is reported as an asset of the System with a corresponding liability.

As of June 30, 2013, the fair value of securities on loan was \$101,523. The total cash and noncash collateral held by the System's custodian to secure these securities on loan was valued at \$98,870 (all cash collateral).

**C. *Allocation of Income and Expenses***

Contributions and benefit expenses are booked against the separate trusts as incurred. The recognition of investment income/loss is based on a pro rata share of total income/loss allocated quarterly on the basis of net position held in trust for pension benefits and post-employment healthcare benefits of the previous quarter. General expenses of the trust are allocated consistent with investment income/loss based on asset balances of the previous quarter.

**D. *Use of Estimates***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

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**NOTE 3 – CONTRIBUTION INFORMATION**

The System is funded by contributions from its members and from the District. District contribution percentages are recommended by the Retirement Board, and employee contribution rates are established by the Board of Directors pursuant to the Retirement Ordinance, giving consideration to actuarial recommendations and prospective changes in factors which affect funding. Each member contributes to the Plan based upon a percentage of his or her covered compensation, which was 6.83% effective April 17, 2006. The District's contribution is based upon the aggregate amount of members' covered compensation, at an actuarially determined rate.

The individual entry age normal method is used to determine the normal cost, and the unfunded actuarial accrued liability (past service liability) is amortized as a level percentage of future payroll over 30 years open period. District contributions for the year ended June 30, 2013, to cover normal cost and to amortize the unfunded actuarial accrued liability approximated 15.61% and 23.95%, respectively; of covered payroll, inclusive of post-employment healthcare benefits. Effective June 30, 2013, District contributions to cover normal cost and to amortize the unfunded actuarial accrued liability will increase to 17.23% and 26.47%, respectively.

Significant assumptions used to compute contribution requirements are disclosed in the notes to the supplementary information.

Contributions for the years ended June 30, 2013 and June 30, 2012, based on the June 30, 2012, actuarial valuation (latest available and includes amounts for post-employment healthcare benefits), were as follows:

	2013	2012
Regular contributions:		
District contributions	\$61,567	\$59,651
Member contributions	10,530	10,700
Subtotal	<u>72,097</u>	<u>70,351</u>
Other contributions:		
Member buybacks	36	23
Subtotal	<u>36</u>	<u>23</u>
Total contributions	<u><u>\$72,133</u></u>	<u><u>\$70,374</u></u>

Regular District and member contributions in fiscal 2013 represent an aggregate of 39.94% and 6.85% of covered payroll, respectively. The District's contributions include amounts for post-employment healthcare benefits at a rate of 5.10% of covered payroll, determined by the actuarial dated June 30, 2012. The actual payroll for the District employees covered by the Plan for the year ended June 30, 2013, was \$154,136 which was 90.49% of the total District payroll of \$170,336.

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**NOTE 3 – CONTRIBUTION INFORMATION (Continued)**

The total District contribution of \$61,849 as of June 30, 2013, consisted of \$61,567 regular contribution (\$24,294 for normal cost and \$37,273 for amortization of the unfunded actuarial accrued liability) and \$282 interest on contribution.

Regular District and member contributions in fiscal 2012 represent an aggregate of 38.07% and 6.84% of covered payroll, respectively. The District's contributions include amounts for post-employment healthcare benefits at a rate of 5.10% of covered payroll, determined by the actuarial dated June 30, 2011. The actual payroll for the District employees covered by the Plan for the year ended June 30, 2012, was \$156,668 which was 90.95% of the total District payroll of \$172,259.

The total District contribution of \$59,989 as of June 30, 2012, consisted of \$59,651 regular contribution (\$24,499 for normal cost and \$35,152 for amortization of the unfunded actuarial accrued liability) and \$338 interest on contributions.

Member buyback contributions relate to prior years' service credits for Plan participants. The Plan was amended in 1998 for limited temporary construction workers and in 2003 for intermittent employees to allow current members, who previously worked for the District in a status which did not qualify for membership in the System, to establish retirement service credit for prior service with payments over a period of two to eight years.

The District's annual pension and OPEB costs and schedules of contributions for the past three years are as follows:

*Retirement Plan:*

	<u>Actual Contribution</u>	<u>Annual Pension Cost</u>	<u>Percentage Contributed</u>	<u>Net Pension Obligation</u>
Fiscal year ended June 30:				
2011	\$50,987	\$50,987	100%	\$0
2012	52,156	52,156	100%	0
2013	53,795	53,795	100%	0

*Health Insurance Benefit Plan:*

	<u>Actual Contribution</u>	<u>Annual OPEB Cost</u>	<u>Percentage Contributed</u>	<u>Net OPEB Obligation</u>
Fiscal year ended June 30:				
2011	\$7,802	\$11,037	71%	\$12,259
2012	7,833	11,517	68%	15,943
2013	8,054	11,443	70%	19,332



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**NOTE 3 – CONTRIBUTION INFORMATION (Continued)**

The annual pension funding status for the past three years are as follows:

Actuarial valuation date	Actuarial value of assets (a)	Actuarial liability (AAL) – entry age (b)	Unfunded AAL (UAAL) (b-a)	Funded ratio (a/b)	Covered payroll (c)	UAAL as a Percentage of covered payroll ((b-a)/c)
06/30/10	\$915,845	\$1,396,003	\$480,158	65.6%	\$164,085	292.6%
06/30/11	954,719	1,446,039	491,320	66.0%	159,505	308.0%
06/30/12	1,021,546	1,556,696	535,150	65.6%	158,847	336.9%

During the fiscal year ended June 30, 2013, the District made contributions to the Health Insurance Benefit Plan toward the Annual Required Contribution (ARC) amounting to \$7,772 which represented 4.56% of the \$170,336 total District payroll. During the fiscal year ended June 30, 2012, the District made contributions toward the ARC amounting to \$7,495 to the plan which represented 4.35% of the \$172,259 total District payroll. As a result, the District has recorded the Net OPEB Obligation (NOO), representing the difference between the ARC and actual contributions, as presented below:

Net OPEB obligation at June 30, 2011	\$12,259
Annual required contribution (ARC)	\$11,289
Interest on net OPEB obligation	892
Adjustments to the ARC	(664)
Annual OPEB cost - fiscal 2011/2012	11,517
Less contributions made during fiscal year:	
Contributions to Northern Trust	(7,495)
Interest on Contributions to Northern Trust	(338)
Contributions less than ARC	3,684
Net OPEB obligation at June 30, 2012	15,943
Annual required contribution (ARC)	11,145
Interest on net OPEB obligation	1,164
Adjustments to the ARC	(866)
Annual OPEB cost - fiscal 2012/2013	11,443
Less contributions made during fiscal year:	
Contributions to Northern Trust	(7,772)
Interest on Contributions to Northern Trust	(282)
Increase in net OPEB obligations	3,389
<b>Net OPEB obligation at June 30, 2013</b>	<b>\$19,332</b>

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**NOTE 3 – CONTRIBUTION INFORMATION (Continued)**

A schedule of funding progress for the pension and post-employment healthcare plans presenting multiple-year trend information as to whether the actuarial value of plan assets is increasing or decreasing relative to the actuarial accrued liability for benefits over time is presented immediately following the notes to basic financial statements in the Required Supplementary Information Section.

***E. Public Employees' Pension Reform Act (PEPRA)***

Assembly Bill 340 (AB 340) created the Public Employees' Pension Reform Act (PEPRA) that implemented new benefit formulas and final compensation periods, as well as new contribution requirements for new employees hired on or after January 1, 2013, who meet the definition of new member under PEPRA.

The table below provides the details of the new provisions.

Benefit Formula	2.5% at Age 67
Final Compensation Period	Average of last 3 years
Employer Contribution Rate as a percentage payroll	7.55% of Reportable Compensation
Member Contribution Rate as a percentage of payroll	7.75% of Reportable Compensation

The employer contribution rate listed above is in effect until June 30, 2013. In accordance with the provisions of AB 340, the member contribution rate shown above was set at 50 percent of the expected total normal cost rate for the benefits that will apply to new members on January 1, 2013. The total normal cost rate used for this calculation is 15.30 percent of payroll for new members.

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<b>NOTE 4 – CONTRIBUTION REFUNDS</b>
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When a member's District service is terminated, except by death or retirement, and prior to five years of continuous full-time employment, the amount of that member's accumulated contributions, plus interest, is refunded and membership is terminated. After a member has completed five years of continuous full-time employment, upon termination, except death or retirement, the member has the option of (a) ceasing to be a member and receiving the amount of his accumulated contributions, plus interest, or (b) remaining as a member and leaving his accumulated contributions, plus interest, in the Plan. After termination, a member cannot make additional contributions to the Plan.

If a member with fewer than five years of employment terminates employment and within six months becomes a member of the Public Employees' Retirement System or another reciprocal system, the individual may elect to remain a member, leaving his accumulated contributions, plus interest, in the Plan.

<b>NOTE 5 – CASH AND INVESTMENTS</b>
--------------------------------------

**A.     *Authorized Investment Strategy***

The System's investment policies authorize the System to invest in financial instruments in three broad investment categories: equity, fixed income, and real estate. These financial instruments can include, but are not limited to, corporate bonds, commercial paper, U.S. government securities, common and preferred stock, real estate investment trusts, and mutual funds. Fixed income investments may include futures and options contracts in order to provide added flexibility in managing the fixed income portfolio. The following is a summary of the System investment policy adopted by the System with Resolution No. 6713.

The Retirement Board is authorized to designate multiple investment managers to manage the assets under their supervision subject to the laws of the State of California and the Investment Guidelines established by the Retirement Board. Allocation of assets to the investment managers are determined by the Retirement Board to accommodate changing conditions and laws. The long-range asset allocation goal is as follows:

Fixed Income	25%
Domestic Equity	50%
International Equity	20%
Real Estate	5%
Allocation to Cash	0%

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<b>NOTE 5 - CASH AND INVESTMENTS (Continued)</b>
--

The composite asset allocation goal is pursued by the System on a long-term basis and revised if significant changes occur within the economic and/or capital market environment. Progress toward the goal is reviewed at least annually.

The Director of Finance is authorized to transfer assets from any asset class which varies the long-term asset allocation goal by more than 3% at the end of two or more consecutive quarters, allocating the excess assets to a manager or group of managers with the exception of real estate managers. The Director of Finance is further authorized to withdraw assets from assigned managers as necessary to efficiently meet operating needs.

The domestic equity allocation target (50% of the total portfolio) will consist of approximately 45% in large cap market related growth and value (average risk) securities, 5% in small capitalized securities, and 20% in international securities. The international equity allocation target will consist of approximately 17% international equities and 3% emerging markets. It is expected this allocation will allow for exposure to mid cap securities based on tactical decisions by the Retirement Fund's large cap and small cap domestic equity managers.

The equity and fixed income asset allocations may vary by up to  $\pm 5\%$  from the long-range asset allocation goals.

The fixed income target allocation (25% of the total portfolio) will primarily consist of U.S. denominated fixed income securities. Individual managers may invest up to 20% of their assets in international fixed income securities.

The international equity target allocation (20% of the total portfolio) will consist of approximately 17% in international equities and 3% in emerging markets equities.

The real estate target allocation (5% of the total portfolio) will consist of either equity (ownership) and/or fixed income participation in commercial, industrial, or residential properties. Investments may include interests in mortgages pools secured by loans of underlying properties.

The allocation goal recognizes that at any time equity and fixed income managers may have transactional cash on hand and the District will maintain enough cash as working capital to effectively meet cash flow demands on the system. However, there is no specific allocation for cash as all investable cash is allocated to specific investment disciplines.

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<b>NOTE 5 - CASH AND INVESTMENTS (Continued)</b>
--

Holding of securities issued by the United States Government or any of its agencies need not be diversified. Securities of any one issuer with maturities of more than one year, other than the United States Government or any of its agencies, shall not exceed 5% of the value of the total portfolio. Securities of any one issuer of foreign government issues shall not exceed 10% of the value of the total portfolio at the time of purchase. Fixed income managers have the authority to make international investments, not to exceed 20% of their total portfolio.

The use of futures and options in the fixed income accounts may be used as part of their portfolio management strategy and will be incidental to their securities trading activities. The resulting aggregate risk profile (volatility) of the portfolio will not be different from that permissible by using securities only.

Short (sold) options positions will generally be hedged, either with current portfolio security holding, other options or futures options. Mortgage derivatives with significant short option characteristics will not exceed 5% of the portfolio, and will generally be a) offset by position in other mortgage derivatives, or b) offset by other portfolio positions.

No derivatives will be executed which will increase the value at risk of the portfolio by more than 25 basis points of the portfolio's market value.

Structured notes with significant short options positions or increasing leverage will not be purchased, and in no case will structured notes exceed 5% of portfolio value. Structured notes issued by the U.S. Government (treasuries and agencies) will be considered allowable investments, and are exempt from the 5% restriction.

Fixed income managers are authorized to use futures and options contracts to supplement their investment capabilities to provide flexibility in managing the fixed income portfolios and reduce the cost of implementing strategies to respond to changing market conditions without incurring the higher transaction costs associated with buying and selling specific securities. These transactions are authorized to enable the manager to reduce the exposure of the portfolio to interest rate changes by reducing or increasing the duration of the portfolio without selling any of the actual holding.

No more than 5% of the portfolio will be invested in original futures margin and options premiums, exclusive of any in-the-money portion of the premiums.

Each equity portfolio shall be diversified. When fully invested in equities or at its normal level of investment, a minimum of 20 securities should be held. At no time may a single equity investment exceed 5% of the value of the total retirement fund.

Each international equity portfolio shall be diversified. When fully invested in international equities or at its normal level of investment, a minimum of 20 securities should be held. At no time may a single international equity investment exceed 5% of the value of the total retirement fund.

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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

**B. Financial Statement Presentation**

Total cash and investments at fair value as of June 30, consisted of the following:

	2013			
	Pension plan	Post-employment healthcare	Total	2012
	benefits	benefits		
Cash and cash equivalents	\$33,908	\$489	\$34,397	\$33,068
Invested securities lending collateral	100,080	1,443	101,523	100,577
Investments	1,080,514	15,577	1,096,091	958,205
Total cash and investments	<u>\$1,214,502</u>	<u>\$17,509</u>	<u>\$1,232,011</u>	<u>\$1,091,850</u>

**C. Interest Rate Risk**

Interest rate risk is the risk that changes in market rates will adversely affect the fair value of an investment. Normally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The system generally manages its interest rate risk by holding investments to maturity.

Information about the sensitivity of the fair values of the System's investments (including investments held by bond trustees) to market interest rate fluctuations is provided by the following table that shows the distribution of the System's investments by maturity or earliest call date:

Investment Type	Less than 12 Months	12 to 72 Months	72 to 120 Months	More than 120 Months	Maturity not Determined	Total
Asset Backed Securities		\$773	\$164	\$2,548		\$3,485
Equity Securities	\$795,944					795,944
Commercial Mortgage - Backed Securities				10,704		10,704
Corporate Bonds	1,180	30,902	28,881	11,699	\$6,360	79,022
Government Agencies	519	5,315	9,324	12,967		28,125
Government Bonds		1,284	8,797	2,528		12,609
Government Mortgage - Backed Securities	3	92	255	26,551	9,740	36,641
Government Issued Commercial Mortgage - Backed Securities		115	270			385
Index Linked Government Bonds	1,362	4,347	959	3,465		10,133
Short Term Investment Funds	570				16,859	17,429
Municipal Bonds		1,926	1,862	1,986		5,774
Mutual Funds				4,639		4,639
Real Estate					53,221	53,221
Other Fixed Income		26,298	4,350		7,332	37,980
Total System Investments	<u>\$799,578</u>	<u>\$71,052</u>	<u>\$54,862</u>	<u>\$77,087</u>	<u>\$93,512</u>	<u>\$1,096,091</u>

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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

The System's investments include the following investments that are highly sensitive to interest rate fluctuations to a greater degree than already indicated above:

Highly Sensitive Investments	Fair Value at Year End
Commercial Mortgage - Backed Securities	\$10,704
Government Mortgage - Backed Securities	36,641
Government Issued Commercial Mortgage - Backed Securities	385

**D. Foreign Currency Risk**

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair values of an investment or deposit. Presented below in US dollars is the fair market value of the System's foreign investments at June 30, 2013:

Foreign Currency	Equity Securities Investment Type
Euro	\$63,107
British Pound Sterling	36,732
Japanese Yen	18,303
Swiss Franc	16,057
Hong Kong Dollar	14,760
South Korean Won	7,501
Australian Dollar	3,800
Canadian Dollar	3,715
Norwegian Krone	3,616
Danish Krone	3,492
Swedish Krona	3,409
Mexican Peso	2,763
Singapore Dollar	2,426
Brazilian Real	1,927
Indonesian Rupiah	1,435
Turkish Lira	1,184
Thai Baht	970
Malaysia Ringgit	432
Total	<u>\$185,629</u>

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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

The Fund's investment policy permits it to invest 20% of total investment on foreign currency-denominated investments. The Fund's current position is 17%.

**E. Credit Risk**

Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the actual rating as of June 30, 2013, for each investment type as provided by Moody's or Standard and Poor's.

Investment Type	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	C	U.S. Government Guaranteed	Not Rated	Total
Asset Backed Securities	\$1,267	\$142	\$22	\$262		\$324	\$359	\$1,095			\$14	\$3,485
Equity Securities											795,944	795,944
Commercial Mortgage - Backed Securities	6,447	811	220	32							3,194	10,704
Corporate Bonds	726	15,495	36,665	15,707	\$1,000	10					9,419	79,022
Government Agencies	26,628	519		91						\$887		28,125
Government Bonds	11,241			1,368								12,609
Government Mortgage - Backed Securities										36,297	344	36,641
Government Issued												
Commercial Mortgage - Backed Securities	10									375		385
Index Linked Government Bonds	10,133											10,133
Short Term Investment Funds										570	16,859	17,429
Municipal Bonds		5,194	580									5,774
Mutual Funds	6		141	644	556	258	1,332	55	\$65		1,582	4,639
Real Estate											53,221	53,221
Other Fixed Income											37,980	37,980
Total System Investments	<u>\$56,458</u>	<u>\$22,161</u>	<u>\$37,628</u>	<u>\$18,104</u>	<u>\$1,556</u>	<u>\$592</u>	<u>\$1,691</u>	<u>\$1,150</u>	<u>\$65</u>	<u>\$38,129</u>	<u>\$918,557</u>	<u>\$1,096,091</u>



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<b>NOTE 5 - CASH AND INVESTMENTS (Continued)</b>
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**F. Concentration Risk**

The market value of investments in any one organization exceeding 5% of the System's investments as of June 30, 2013 are as follows:

Nature of investment	Fair Value at Year End
Northern Trust Collective Daily Russell 1000 Equity Index Fund	\$273,451

The District held demand deposits amounting to \$1,780 and \$(416) on behalf of the System as of June 30, 2013 and 2012, respectively. The financial institution which holds these deposits is required by state law to maintain collateral pools against all public deposits they hold.

**G. Custodial Credit Risk**

Custodial credit risk for cash on deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g. broker-dealer) to a transaction, the System will not be able to recover the value of its investment or collateral securities that are in the possession of another party.

California Law requires banks and savings and loan institutions to pledge government securities with a market value of 110% of the System's cash on deposit, or first trust deed mortgage notes with a market value of 150% of the deposit, as collateral for these deposits. Under California Law this collateral is held in a separate investment pool by another institution in the System's name and places the System ahead of general creditors of the institution.

The System invests in individual investments and in investment pools. Individual investments are evidenced by specific identifiable securities instruments, or by an electronic entry registering the owner in the records of the institution issuing the security, called the book entry system. In order to increase security, the System employs the Trust Department of a bank or trustee as the custodian of certain System investments, regardless of their form.

As of June 30, 2013 and 2012, the System's brokers/dealers held \$117 and \$89, respectively, in cash exposed to custodial credit risk.

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<b>NOTE 6 – BENEFIT GUARANTY</b>
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**A.     *Pension Plan***

The District may, at any time, change or repeal the ordinance governing the Plan. The District's obligations to those members receiving or eligible for a retirement allowance prior to such change or repeal shall continue in full force. The District is obligated to those members neither receiving nor eligible for a retirement allowance at the time of such change or repeal. This allowance will be a retirement allowance at retirement age equal to the actuarial equivalent of the accumulated value of the member's contributions standing to the member's credit at the date of retirement and the accumulated value of the District's contribution for current service to the date of such change or repeal, increased by the accumulation of interest to date of retirement.

**B.     *Post-Employment Healthcare Benefits***

In addition to retirement benefits, the District provides post-employment health benefits assistance (administered by the Employees' Retirement System) for employees who retire from the District or their surviving spouses. As of June 30, 2013, there were 1,318 participants receiving these health care benefits.

Effective July 1, 1996, a 20-year vesting schedule for full benefits was implemented for all new participants. Effective January 1, 1999, retired members who had separated from the District prior to their retirement who has at least 10 years of service also became eligible for the post-employment health benefits based on the same sliding scale. The scale provides for 25% of healthcare benefits for service from 5 through 10 years, 50% of healthcare benefits for service from 10 through 15 years, 75% of healthcare benefits for service from 15 through 20 years, and 100% of healthcare benefits for service of 20 years or more. Effective July 1, 2003, the District reimbursed up to \$450 per month (\$550 per month effective July 1, 2004, for membership of a spouse or registered domestic partner) for any health, dental, or long-term care insurance premiums paid by the retiree for themselves, current spouse, or domestic partner, or any health, dental, or long-term care insurance premiums paid by the eligible surviving spouse of a retiree. These benefits are paid from a separate post-employment healthcare benefits fund which up until June 17, 2002, was advance funded entirely by the District on an actuarially determined basis. Cash reimbursement of these benefits totaled \$6,668,088 in the year ended June 30, 2013. Effective June 18, 2002, a portion of the post-employment healthcare benefits costs is recovered through employee contributions.

Through June 30, 1999, the medical premium subsidy was not a vested benefit and the District reserved the right to modify or terminate the benefit at any time. If the medical subsidy were terminated, assets accumulated from contributions made for the subsidy would be used to provide other pension benefits. Effective July 1, 1999, the medical premium subsidy became a vested benefit to a maximum of \$200 per month, was changed effective October 1, 2000, to a maximum of \$250 per month, and was changed effective July 1, 2002, to a maximum of \$400 per month per month, and was changed effective July 1, 2003, to a maximum of \$450 per month, and was changed again effective July 1, 2004, to a maximum of \$450 per month and \$550 per month for membership of a spouse or registered domestic partner.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Basic Financial Statements  
(Dollars in Thousands)  
For the Year Ended June 30, 2013

**NOTE 7 – RELATED PARTY TRANSACTIONS**

The District provides the System with accounting, treasury, and other administrative services, which are reimbursed by the System on a monthly basis. Total reimbursements in 2013 and 2012 were \$771 and \$892, respectively.

**REQUIRED SUPPLEMENTARY INFORMATION**

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)  
Required Supplementary Information – Scheduled Funding Programs

(Dollars in Thousands)

For the Year Ended June 30, 2013

**(1) Pension Plan**

Schedule of funding progress for the pension plan (in thousands):

Actuarial valuation date	Actuarial value of assets (a)	Actuarial Accrued liability (AAL) – entry age (b)	Unfunded AAL (UAAL) (b-a)	Funded ratio (a/b)	Covered payroll (c)	UAAL as a Percentage of covered payroll ((b-a)/c)
06/30/01	\$606,896	\$663,763	\$56,867	91.4%	\$125,313	45.4%
06/30/02	631,700	719,660	87,960	87.8%	129,791	67.8%
06/30/03	639,382	838,385	199,003	76.3%	133,678	148.9%
06/30/04	662,387	886,663	224,276	74.7%	137,138	163.5%
06/30/05	692,945	946,616	253,671	73.2%	139,514	181.8%
06/30/06	740,622	1,039,750	299,128	71.2%	142,373	210.1%
06/30/07	827,098	1,126,106	299,008	73.4%	153,394	194.9%
06/30/08	900,917	1,244,993	344,076	72.4%	158,499	217.1%
06/30/09	862,021	1,323,555	461,534	65.1%	161,893	285.1%
06/30/10	915,845	1,396,003	480,158	65.6%	164,085	292.6%
06/30/11	954,719	1,446,039	491,320	66.0%	159,505	308.0%
06/30/12	1,021,546	1,556,696	535,150	65.6%	158,847	336.9%

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Required Supplementary Information – Scheduled Funding Programs

(Dollars in Thousands)

For the Year Ended June 30, 2013

**(2) Post-Employment Healthcare Plan**

Schedule of funding progress for the post-employment healthcare plan (in thousands):

Actuarial valuation date	Actuarial value of assets (a)	Actuarial liability accrued (AAL) – entry age (b)	Unfunded AAL (UAAL) (b-a)	Funded ratio (a/b)	Covered payroll (c)	UAAL as a percentage of covered payroll ((b-a)/c)
6/30/2001	\$841	\$30,971	\$30,130	2.7%	\$125,313	24.0%
6/30/2002	1,265	50,358	49,093	2.5%	129,791	37.8%
6/30/2003	2,113	58,752	56,639	3.6%	133,678	42.4%
6/30/2004	2,715	62,357	59,642	4.4%	137,138	43.5%
6/30/2005	3,409	71,892	68,483	4.7%	139,514	49.1%
6/30/2006	3,608	71,409	67,801	5.1%	142,373	47.6%
6/30/2007	4,208	105,409	101,201	4.0%	153,394	66.0%
6/30/2008	7,010	137,055	130,045	5.1%	158,499	82.0%
6/30/2009	7,354	130,245	122,891	5.6%	161,893	75.9%
6/30/2010	10,061	135,379	125,318	7.4%	164,085	76.4%
6/30/2011	12,048	135,360	123,312	8.9%	159,505	77.3%
6/30/2012	14,240	138,240	123,999	10.3%	158,847	78.1%

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2013

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2012
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll
Remaining amortization period	Plan changes are amortized over separate decreasing 15-year periods; assumptions changes are amortized over separate decreasing 25-year periods; and experience gains/losses are amortized over separate decreasing 20-year periods.
Assets valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five year period, further adjusted, if necessary, to be within 30% of the market value.
Actuarial assumptions:	
Investment rate of return	7.75%
Average projected salary increases	0.50%
Inflation rate	3.25%
Cost-of-living adjustments	3.15%
Annual healthcare costs trend rates	8.25% reduced by increments to a rate of 5.00% after 10 years

All assumptions are the same for the post-employment health care benefits except for the discount rate, assumed at a rate of 7.00%, for the funded and unfunded portions.

Unaudited.

**INDEPENDENT AUDITOR'S REPORT ON  
INTERNAL CONTROL OVER FINANCIAL REPORTING  
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN  
AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE  
WITH GOVERNMENT AUDITING STANDARDS**

Board of Directors  
East Bay Municipal Utility District  
Employees' Retirement System

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of the East Bay Municipal Utility District Employees' Retirement System (the System), as of and for the year ended June 30, 2013 and the related notes to the financial statements, and have issued our report thereon dated August 16, 2013. Our report included an emphasis of a matter paragraph disclosing the implementation of new accounting principles.

***Internal Control Over Financial Reporting***

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the System's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



### ***Compliance and Other Matters***

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We have also issued a separate Memorandum on Internal Control dated August 16, 2013 which is an integral part of our audit and should be read in conjunction with this report.

### ***Purpose of this Report***

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in cursive script that reads "Maze & Associate".

Pleasant Hill, California  
August 16, 2013

## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

FROM: Eric L. Sandler, Director of Finance

SUBJECT: Moody's Pension Adjustment



In July 2012 Moody's Investors Service issued a request for comments on its plan to implement several adjustments to pension liability, asset, and cost information reported by US state and local governments and their pension plans. The Retirement Board, in consultation with our actuary, submitted comments in September 2012. In April 2013 Moody's published its Rating Methodology: Adjustments to US State and Local Government Reported Pension Data. The methodology, attached to this memo as Exhibit A, is substantially unchanged from Moody's July 2012 proposal.

Moody's intention in making the adjustments is to bring greater transparency and consistency to incorporation of pension liabilities as a component of the rating analysis. In Moody's proposed methodology for US local government General Obligation bonds, the weight assigned to debt and pensions combined is proposed to rise from 10% to 20%. To date the adjusted pension data has not been formally incorporated into special district revenue bond ratings. Moody's has focused on including this data in the analysis of State and local governments' ratings.

ES:DB

## Exhibit A

### Appendix A - Using Moody's pension adjustments to derive Moody's adjusted net pension liability

This Appendix A is an integral part of the methodologies for rating the general obligation bonds of US state governments ("US States Rating Methodology") and local governments ("General Obligation Bonds Issued by US Local Governments").

The steps we take to adjust reported pension liabilities are:

- » **Allocating cost-sharing plan liabilities.** We will allocate to state and rated local governments their proportionate shares of CSP liabilities based on the share of total plan contributions represented by each participating government's reported contribution. In cases where there is a known actuarially required contribution (ARC) that is greater than the actual contribution, the entity's proportional share will be calculated using the employer ARC relative to the plan ARC.
- » **Discounting accrued liabilities using a market discount rate.** We will use Citibank's Pension Liability Index ("Index") and a common duration of 13 years to adjust each plan's reported actuarial accrued liabilities (AAL). The Index is composed of high credit quality (Aa rated or higher) taxable bonds and is duration-weighted by Citibank for purposes of creating a discount rate for a typical pension plan in the private sector. The reported AAL is projected forward for 13 years at the plan's reported discount rate and then discounted to the present using the Index's value as of the valuation date. This calculation results in an increase in AAL of between 13% and 14% for each one percentage point difference between the Index and the plan's reported discount rate.
- » **Determining the value of plan assets.** We will value plan assets at the reported market or fair value as of the valuation date.<sup>3</sup>
- » **Calculating adjusted net pension liability.** The difference between the adjusted liabilities and the market or fair value of assets is the adjusted net pension liability. This is the number that Moody's will use to calculate the pension liability ratio incorporated in the state GO scorecard, as per our rating methodology. It is also a key number for Moody's pension analysis under our local government rating methodology.
- » **Amortizing adjusted net pension liability.** The adjusted net pension liability will be amortized over a 20-year period on a level dollar basis, using the interest rate provided by the Index. This measure will be considered by rating committees along with other supplementary information about a government's pension obligations.

<sup>3</sup> Market asset values are not commonly disclosed for many local government pension systems, but should become available when the new GASB reporting standards are implemented. Until this data is consistently available, we will compare local government adjusted net pension liabilities using reported actuarial value of assets.

**EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: November 19, 2013

MEMO TO: Members of the Retirement Board

FROM: Eric Sandler, Director of Finance



SUBJECT: Employee's Retirement System Net Cash Funds Flow

At the Board meeting on September 19, 2013, the Board expressed interest in understanding the approximate timeframe of when the System's cash outflow to cover retiree pensions and administrative costs will exceed contributions from the District and District employees. Staff has contacted the ERS's actuary, Segal & Co., and they informed us that this topic will be included as part of the discussion of the actuarial study that will be presented to the Board in January 2014.

ES:PL

**EAST BAY MUNICIPAL UTILITY DISTRICT**

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DATE: November 19, 2013  
TO: Members of the Retirement Board  
FROM: Elizabeth Grasseti, Senior Human Resource Analyst   
SUBJECT: Schedule of Retirement Board Meetings for Calendar Year 2014

**Schedule of Retirement Board Meetings 2014**

- Thursday, **January 16, 2014**, at 8:30 a.m.
- Thursday, **March 20, 2014**, at 8:30 a.m.
- Thursday, **May 15, 2014**, at 8:30 a.m.
- Thursday, **July 17, 2014**, at 8:30 a.m.
- Thursday, **September 18, 2014**, at 8:30 a.m.
- Thursday, **November 20, 2014**, at 8:30 a.m.

All Retirement Board meetings will be held in the Administration Building Large Training Room.