

# AGENDA



**Date:** March 4, 2016

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at **8:30 a.m. on Thursday, March 10, 2016, in the Second Floor Board Room at 4100 Harry Hines Boulevard, Dallas, Texas.** Items of the following agenda will be presented to the Board:

## **A. MOMENT OF SILENCE**

## **B. CONSENT AGENDA**

### **1. Approval of Minutes**

- a. Actuarial Funding Committee meeting of February 19, 2015
- b. Administrative and Audit Advisory Committee meeting of September 24, 2015
- c. Investment Advisory Committee meeting of September 24, 2015
- d. Regular meeting of February 11, 2016
- e. Special meeting of February 22, 2016

- 2. Approval of Refunds of Contributions for the Month of February 2016**
- 3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for March 2016**
- 4. Approval of Estate Settlements**
- 5. Approval of Survivor Benefits**
- 6. Approval of Service Retirements**
- 7. Spouse Wed After Retirement (SWAR)**

**C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION**

**1. Clarion Partners**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

- a. Change of ownership**
- b. Strategic review**

## **2. Hearthstone: Dry Creek update**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

## **3. Legal issues**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.

- a.** Police Officer and Firefighter pay lawsuits
- b.** Potential claims involving fiduciaries and advisors

## **4. Asset allocation**

## **5. Investments governance**

- a.** Investment Advisory Committee
- b.** Roles and responsibilities of Board, staff, and consultants
- c.** Policy review process

## **6. Private Asset pacing**

## **7. Riverstone Credit Partners, LP**

- 8. NEPC: Fourth Quarter 2015 Investment Performance Analysis and Third Quarter 2015 Private Markets Review**
- 9. Investment reports**
- 10. Member health insurance**
- 11. Continuing Education and Investment Research Expense Policy and Procedure**
- 12. Ad hoc committee reports**

**D. BRIEFING ITEMS**

- 1. Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System**

## **2. Executive Director's report**

### **a. Associations' newsletters**

- NCPERS Monitor (February 2016)
- NCPERS PERSist (Winter 2016)
- TEXPERS Outlook (March 2016)
- TEXPERS Pension Observer (Winter 2016)

### **b. Future continuing education and investment research programs and conferences**

The term "possible action" in the wording of any Agenda item contained herein serves as notice that the Board may, as permitted by the Texas Government Code, Section 551, in its discretion, dispose of any item by any action in the following non-exclusive list: approval, disapproval, deferral, table, take no action, and receive and file. At the discretion of the Board, items on this agenda may be considered at times other than in the order indicated in this agenda.

At any point during the consideration of the above items, the Board may go into Closed Executive Session as per Texas Government Code, Section 551.071 for consultation with attorneys, Section 551.072 for real estate matters, Section 551.074 for personnel matters, and Section 551.078 for review of medical records.



## ITEM #A

### MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

(February 5, 2016 – March 1, 2016)

FIRE	ACTIVE/ RETIRED	DATE OF DEATH	POLICE	ACTIVE/ RETIRED	DATE OF DEATH
William T. Babb	Retired	Feb. 27, 2016	Virgil F. Kulwicki	Retired	Feb. 15, 2016
John W. Bass	Retired	Feb. 9, 2016	Darryl W. Smyers	Retired	Feb. 8, 2016
			Dan G. Whittington	Retired	Feb. 6, 2016

*Regular Board Meeting – Thursday, March 10, 2016*

**Dallas Police and Fire Pension System**  
**Thursday, February 19, 2015**  
**8:30 a.m.**  
**Second Floor Board Room**  
**4100 Harry Hines Blvd., Suite 100**  
**Dallas, TX**

Actuarial Funding Committee meeting, Richard A. Salinas, Chairman, presiding:

**ROLL CALL**

**Board Members**

Present: George J. Tomasovic, Daniel W. Wojcik, Richard A. Salinas, Samuel L. Friar, Kenneth S. Haben, Tennell Atkins, Gerald D. Brown, Joseph P. Schutz, John M. Mays

**Staff**

Don Rohan, Brian Blake, Summer Loveland, Joshua Mond, John Holt, Corina Terrazas, Carlos Ortiz, Ryan Wagner, Milissa Schmidt, Christina Wu, Greg Irlbeck, Linda Rickley

**Others**

David Kent, Janie Shaw, Steve Umlor, Michael Flusche, Bill Hornick, Tristan Hallman

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The meeting was called to order at 8:30 a.m.

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**A. CONSENT AGENDA**

**Approval of Minutes**

Meeting of May 20, 2014

After discussion, Mr. Haben made a motion to approve the minutes of May 20, 2014, subject to the final approval of the Administrator. Mr. Friar seconded the motion, which was unanimously approved by the Committee.

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**Actuarial Funding Committee Meeting  
Thursday, February 19, 2015**

**B. DISCUSSION AND POSSIBLE ACTION REGARDING ITEM FOR  
INDIVIDUAL CONSIDERATION**

**Reports and recommendations of Buck Consultants, Inc. including, but not limited to:**

- a. Estimated actuarial funding results
- b. IRS Code Section 415(b) benefit limitations

David Kent and Janie Shaw of Buck Consultants, Inc., were present to discuss estimated funding results for DFPF as of January 1, 2015, based on preliminary investment return, contribution and benefit payment information. Mr. Kent and Ms. Shaw also reviewed new procedures for determining compliance with Internal Revenue Code Section 415(b) benefit limitations.

After discussion, Mr. Brown made a motion to receive and file the Buck presentation. Mr. Haben seconded the motion, which was unanimously approved by the Committee.

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The Interim Administrator stated that there was no further business to come before the Board. On a motion by Mr. Tomasovic and a second by Mr. Wojcik, the meeting was adjourned at 9:36 a.m.

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Richard A. Salinas  
Chairman

**ATTEST:**

\_\_\_\_\_  
Donald C. Rohan  
Secretary



**Dallas Police and Fire Pension System  
Thursday, September 24, 2015  
8:30 a.m.  
4100 Harry Hines Blvd., Suite 100  
Second Floor Board Room  
Dallas, TX**

Administrative and Audit Advisory Committee meeting, Kenneth S. Haben, Chairman, presiding:

**ROLL CALL**

**Committee Members**

Present: Kenneth S. Haben, Gerald D. Brown, Brian Hass, Tho T. Ho, Lee Kleinman

Absent: Erik Wilson

**Other Board Members Present**

Clint Conway, Samuel L. Friar, Joseph P. Schutz

**Staff**

Kelly Gottschalk, Joshua Mond, James Perry, Summer Loveland, John Holt, Pat McGennis, Ryan Wagner, Milissa Schmidt, Christina Wu, Greg Irlbeck, Linda Rickley

**Others**

Ken Sprecher

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The meeting was called to order at 8:30 a.m.

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**A. CONSENT AGENDA**

**Approval of Minutes**

Meeting of March 19, 2015

Mr. Brown made a motion to approve the minutes of the meeting of March 19, 2015, subject to the final approval of the Executive Director. Mr. Kleinman seconded the motion, which was unanimously approved by the Committee.

**Administrative and Audit Advisory Committee**  
**Thursday, September 24, 2015**

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**B. DISCUSSION OF ITEMS FOR INDIVIDUAL CONSIDERATION**

**1. Presentation and discussion of the 2016 Budget**

Ms. Loveland presented the proposed Budget for the Calendar Year 2016.

After discussion, Mr. Kleinman made a motion to direct staff to address any proposed amendments and present the proposed 2016 Budget to the Board at the October 8, 2015 Board meeting. Mr. Brown seconded the motion, which was unanimously approved by the Committee.

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**2. Presentation and discussion of the 2016 Supplemental Budget**

Ms. Loveland presented and discussed the initial proposal of the Calendar Year 2016 Supplemental Budget.

After discussion, Mr. Kleinman made a motion to direct staff to address any proposed amendments and present the proposed 2016 Supplement Budget to the Board at the October 8, 2015 Board meeting. Mr. Brown seconded the motion, which was unanimously approved by the Committee.

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**C. BRIEFING ITEMS**

**Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System**

A Member expressed comments to the Committee.

Mr. Brown made a motion to receive and file the member comments. Mr. Hass seconded the motion, which was unanimously approved by the Committee.

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**Administrative and Audit Advisory Committee**  
**Thursday, September 24, 2015**

Ms. Gottschalk stated that there was no further business to come before the Committee. On a motion made by Mr. Brown and a second by Mr. Kleinman, the meeting was adjourned at 9:42 a.m.

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Kenneth S. Haben  
Chairman

**ATTEST:**

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Kelly Gottschalk  
Secretary

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**Dallas Police and Fire Pension System**  
**Thursday, September 24, 2015**  
**8:30 a.m.**  
**4100 Harry Hines Blvd., Suite 100**  
**Second Floor Board Room**  
**Dallas, TX**

Investment Advisory Committee, Joseph P. Schutz, Chairman, presiding:

**ROLL CALL**

**Committee Members**

Present: Joseph P. Schutz, Samuel L. Friar, Scott Griggs, Brian Hass

Absent: Philip Kingston, John Mays

**Other Board Members Present**

Lee Kleinman, Tho T. Ho, Clint Conway

**Staff**

Kelly Gottschalk, Joshua Mond, James Perry, Summer Loveland,  
John Holt, Pat McGennis, Ryan Wagner, Milissa Schmidt, Christina  
Wu, Greg Irlbeck, Linda Rickley

**Others**

Mark Weir, Keith Stronkowsky, Ken Sprecher

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The meeting was called to order at 10:16 a.m.

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**A. CONSENT AGENDA**

**Approval of Minutes**

Meeting of March 19, 2015

Mr. Friar made a motion to approve the minutes of March 19, 2015, subject to the final approval of the Executive Director. Mr. Haben seconded the motion, which was unanimously approved by the Committee.

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**Investment Advisory Committee  
Thursday, September 24, 2015**

**B. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION**

**1. Investment Reporting – Maples Fund Services**

Mr. Weir, Senior Vice President, Maples Fund Services, presented the investment oversight capabilities of his company.

After discussion, Mr. Griggs made a motion to recommend to the Board to engage Maples Fund Services for reporting purposes, and authorize the Executive Director to execute documentation, perform all necessary acts, and exercise all appropriate discretion to facilitate this service. Mr. Friar seconded the motion, which was unanimously approved by the Committee.

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**2. Allianz Global EcoTrends and Energy Opportunities Capital Management**

James Perry, Chief Investment Officer, DFP, discussed the staff recommendation to terminate Allianz Global EcoTrends and Energy Opportunities Capital Management from the Global Equity portfolio. Mr. Stronkowsky, Senior Consultant, NEPC, DFP's general consultant, was also present for the discussion. NEPC concurs with the staff recommendation.

After discussion, Mr. Friar made a motion to recommend to the Board to approve and authorize the Executive Director to execute documentation and perform all necessary acts to liquidate the investments with Allianz Global EcoTrends and Energy Opportunities Capital Management. Mr. Hass seconded the motion, which was unanimously approved by the Committee.

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**C. BRIEFING ITEMS**

**Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System**

No active members or pensioners expressed concerns to the Committee.

No motion was made.

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**Investment Advisory Committee**  
**Thursday, September 24, 2015**

Ms. Gottschalk stated that there was no further business to come before the Committee. On a motion by Mr. Griggs and a second by Mr. Friar, the meeting was adjourned at 11:31 a.m.

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Joseph P. Schutz  
Chairman

**ATTEST:**

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Kelly Gottschalk  
Secretary

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**Police and Fire Pension System**  
**Thursday, February 11, 2016**  
**8:30 a.m.**  
**4100 Harry Hines Blvd., Suite 100**  
**Second Floor Board Room**  
**Dallas, TX**

Regular meeting, Samuel L. Friar, Chairman, presiding:

**ROLL CALL**

**Board Members**

Present at 8:30 Samuel L. Friar, Joseph P. Schutz, Brian Hass, Kenneth S. Haben, Erik Wilson, Tho T. Ho, Gerald D. Brown, Clint Conway, John M. Mays  
Present at 8:50 Lee M. Kleinman  
Present at 9:02 Philip T. Kingston  
Present at 9:27 Scott Griggs

Absent: None

**Staff**

Kelly Gottschalk, Joshua Mond, James Perry, Summer Loveland, John Holt, Corina Terrazas, Carlos Ortiz, Damion Hervey, Pat McGennis, Ryan Wagner, Milissa Romero, Christina Wu, Greg Irlbeck, Linda Rickley, Kevin Killingsworth

**Others**

G. Andrews Smith, Christine M. Mullis, David Castillejos, Richard Brown (by telephone), Martin Rosenberg (by telephone), Patrik Schowitz, Michael Smith, Michael Edwards, Andrea Kim, Greg Taylor, David W. Franklin, Ron Weimer, A. D. Donald, N. S. Kirkpatrick, L. A. Lewis, Lloyd D. Brown, Rick Salinas, Gary S. Beck, William C. Robison, Delridge Williams, Jerry M. Rhodes, Bill Ingram, Diana S. Salinas, Esteban A. Maldonado, Kalon Cohen, Jerry Stanley, Ken Sprecher, Danny Lawson, Dennis S. McDermott, Cheryl Hunt, William Hunt, William Robison, Philip Braun, Jim Aulbaugh, Keith Allen, John T. Williams, Linda L. Williams, William Skinner, Lori Brown, Bob Hawman, David Goins, Nefty Gonzalez

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The meeting was called to order at 8:30 a.m.

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**A. MOMENT OF SILENCE**

The Board observed a moment of silence in memory of retired police officers Dick K. Erwin, William A. Smith, and retired firefighter L. C. Rinderknecht.

**Regular Board Meeting  
Thursday, February 11, 2016**

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**B. CONSENT AGENDA**

**1. Approval of Minutes**

Regular meeting of January 14, 2016

- 2. Approval of Refunds of Contributions for the Month of January 2016**
- 3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for February 2016**
- 4. Approval of Estate Settlements**
- 5. Approval of Survivor Benefits**
- 6. Approval of Service Retirements**
- 7. Approval of Alternate Payee Benefits**
- 8. Approval of Five – Year Certificates for the Fourth Quarter 2015**
- 9. Approval of Payment of Military Leave Contributions**

After discussion, Mr. Brown made a motion to approve the items on the Consent Agenda, subject to the final review of the staff. Mr. Conway seconded the motion, which was unanimously approved by the Board.

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**C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION**

**1. Closed Session - Board serving as Medical Committee**

Disability application

The Board went into a closed executive session – medical at 8:33 a.m.

The meeting was reopened at 8:51 a.m.

**Regular Board Meeting  
Thursday, February 11, 2016**

**1. Closed Session - Board serving as Medical Committee (continued)**

Disability application

After discussion, Mr. Ho made a motion to approve the on-duty disability, subject to clarification from MMro that the Member is not able to perform any duty in the department. Member is also subject to the System's right under the Board-approved disability procedure to require Police Officer 2016-01 to undergo future medical examination(s) every two years until reaching the age of 50, to determine if the disability still exists or if recovery has been made to the point that the Officer is able to return to duty. Officer 2016-01 is subject to the Annual Earnings Test Review as he was hired and suffered a disability after May 1, 1990. Mr. Brown seconded the motion, which was unanimously approved by the Board. Messrs. Griggs and Kingston were absent when the vote was taken.

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**2. L & B Realty Advisors, LLP portfolio review**

G. Andrews Smith, Chief Executive Officer, Christine M. Mullis, Executive Vice President - Portfolio Management, and David Castillejos, Associate Director - Portfolio Management, of L&B Realty Advisors, were present and provided an organizational update to the Board and reviewed the current DPFP portfolio.

The Board went into a closed executive session – real estate at 9:04 a.m.

The meeting was reopened at 9:43 a.m.

After discussion, Mr. Kingston made a motion to receive and file the L & B presentation. Mr. Griggs seconded the motion, which was unanimously approved by the Board.

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The meeting was recessed at 9:43 a.m.

The meeting was reconvened at 9:53 a.m.

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**Regular Board Meeting  
Thursday, February 11, 2016**

**3. Open-ended Real Estate Funds queues**

The Board discussed the revocable commitments of \$50 million each to JP Morgan Strategic Property Fund (SPF) and Prudential PRISA funds, which are open-ended core real estate funds that were approved by the Board at the June 18, 2015 meeting. Richard Brown, Principal, and Martin Rosenberg, Principal, of The Townsend Group, DFPF's real asset consultant, participated by telephone.

Given that the current allocation to real estate is 23% versus a target allocation of 15%, which may be reduced further based on the upcoming asset allocation recommendation, Staff recommended that DFPF rescind the commitments to both funds, with the option to sell the PRISA commitment. The Townsend Group concurred with the staff recommendation.

After discussion, Mr. Mays made a motion to authorize the Executive Director to revoke or sell commitments to the JPM SPF and PRISA open-ended real estate funds. Mr. Kingston seconded the motion, which was unanimously approved by the Board.

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**4. JPMorgan Long Term Capital Markets educational presentation**

Patrik Schowitz, Global Strategist, Multi-Asset Solutions, Michael Smith, Client Advisor, and Michael Edwards, Relationship Manager, of JPMorgan, were present and provided an educational session reviewing JPMorgan's Long Term Capital Market Return Assumptions for 2016. They provided an overview of the return assumptions for various asset classes and explained how they are derived.

Messrs. Griggs and Kingston left the meeting at 10:45 a.m. and returned at 11:06 a.m.

No motion was made.

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**5. Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting**

DFPF's comprehensive annual financial report for the year ended December 31, 2014 was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. In order to be

**Regular Board Meeting  
Thursday, February 11, 2016**

**5. Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting (continued)**

awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

This is the first year that DFPF has participated in the CAFR Program and it is one of only 14 public pension plans in the state of Texas to receive the certificate for 2014.

No motion was made.

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**6. Investment and financial reports**

Mr. Perry reviewed the preliminary investment performance and rebalancing reports for the period ending January 31, 2016 with the Board.

After discussion, Mr. Brown made a motion to receive and file the January 31, 2016 Dallas Police & Fire Pension System Investment Oversight Report as prepared by Maples Fund Services. Mr. Mays seconded the motion, which was unanimously approved by the Board. Messrs. Griggs and Kingston were absent when the vote was taken.

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The meeting was recessed at 3:02 p.m.

The meeting was reconvened at 3:10 p.m.

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**7. Business Continuity Review**

Mr. Holt, IT Manager, reviewed DFPF's Business Continuity Plan. The review highlighted major features of the plan.

The Board directed staff to make arrangements for a new hot site to be used in the event of a business disruption that would render the DFPF office building inaccessible.

**Regular Board Meeting  
Thursday, February 11, 2016**

**7. Business Continuity Review (continued)**

After discussion, Mr. Brown made a motion to receive and file the Business Continuity Plan review. Mr. Mays seconded the motion, which was unanimously approved by the Board.

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**8. Internal Controls**

Ms. Loveland, Chief Financial Officer, presented an overview of internal controls in place at DFPF and answered questions from the Board.

After discussion, Mr. Brown made a motion to receive and file the overview of DFPF internal controls. Mr. Mays seconded the motion, which was unanimously approved by the Board.

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**9. Employee recognition – Fourth Quarter 2015**

- a. Employee of the Quarter Award
- b. The William G. Baldree Employee of the Year Award

Mr. Friar and Ms. Gottschalk presented the performance award for Employee of the Quarter, Fourth Quarter 2015, to Sondra Hailey, Administrative Clerk, and the William G. Baldree Employee of the Year Award for 2015 to Patricia Wiley, Retirement Counselor. The Employee of the Year is chosen from among the four Employee of the Quarter Award recipients for the year.

No motion was made.

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Mr. Wilson left the meeting at 2:50 p.m.

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**Regular Board Meeting  
Thursday, February 11, 2016**

**9. Employee recognition – Fourth Quarter 2015 (continued)**



**Regular Board Meeting  
Thursday, February 11, 2016**

**9. Employee recognition – Fourth Quarter 2015 (continued)**



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**Regular Board Meeting  
Thursday, February 11, 2016**

**10. Ad hoc committee reports**

Mr. Hass, Chair of the Long-Term Financial Stability Sub-committee, and Mr. Schutz, Chair of the Governance Committee, gave updates on the ad hoc committees.

After discussion, Mr. Kleinman made a motion to receive and file the updates on the ad hoc committees. Mr. Brown seconded the motion, which was unanimously approved by the Board. Messrs. Griggs, Kingston, and Wilson were absent when the vote was taken.

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**11. Service Provider Review**

- a. Legislative consultants
- b. The Townsend Group
- c. Segal Consulting

Ms. Gottschalk briefed the Board on the legislative, real asset investment consultant, and actuarial service providers.

Mr. Kingston made a motion to terminate the contract with The Townsend Group for real asset investment consultant services. Mr. Griggs seconded the motion, which was unanimously approved by the Board.

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Mr. Griggs left the meeting at 2:06 p.m.

Mr. Kingston left the meeting at 2:10 p.m.

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**12. Qualified Domestic Relations Order policy**

Staff provided an amended Qualified Domestic Relations Order Policy which reflected the requirement that an alternate payee who receives a portion of a member's DROP account is required to take a distribution of the account in full within six months of the date the DROP funds are transferred from the member's account to the alternate payee's account.

**Regular Board Meeting  
Thursday, February 11, 2016**

**12. Qualified Domestic Relations Order policy (continued)**

After discussion, Mr. Brown made a motion to approve the Qualified Domestic Relations Order Policy as amended. Mr. Mays seconded the motion, which was unanimously approved by the Board. Messrs. Griggs, Kingston, and Wilson were absent when the vote was taken.

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**13. Board Members' reports on meetings, seminars and/or conferences attended**

Reports were given on the following meetings. Those who attended are listed.

**a. Society of Pension Professionals**

Messrs. Brown, Schutz, Ms. Wu

**b. NEPC Public Funds Workshop**

Messrs. Friar, Schutz, Perry, Ms. Gottschalk

**c. Opal: Public Funds Summit**

Mr. Haben

**d. Invesco Global Market Outlook**

Mr. Schutz

**e. Society of Pension Professionals**

Messrs. Schutz, Brown, Ms. Wu

**f. NAPO Pension & Benefits Seminar**

Mr. Haben

**g. NSIIP: The State of the U.S. Economy and the 2016 Outlook**

Messrs. Brown, Schutz, Ms. Wu

After discussion, Mr. Haben made a motion to receive and file the reports. Mr. Mays seconded the motion, which was unanimously approved by the Board.

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**Regular Board Meeting  
Thursday, February 11, 2016**

**14. Legal issues**

- a. Potential claims involving fiduciaries and advisors
- b. 2014 Plan amendment election and litigation
- c. Southern Cross personnel
- d. Open records litigation

The Board went into a closed executive session – legal at 11:37 a.m.

The meeting was reopened at 2:02 p.m.

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The meeting was recessed at 4:16 p.m.

The meeting was reconvened at 4:17 p.m.

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**14. Legal issues (continued)**

- e. Police Officer and Firefighter pay lawsuits

The Board went into a closed executive session – legal at 4:17 p.m.

The meeting was reopened at 4:53 p.m.

No motion was made.

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**15. Process of the Executive Director Performance Evaluation**

Mr. Friar discussed the process the Board will use on an annual basis to evaluate the performance of the Executive Director.

No motion was made.

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**Regular Board Meeting  
Thursday, February 11, 2016**

**D. BRIEFING ITEMS**

**1. Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System**

The Board received comments during the open forum.

No motion was made.

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**2. Executive Director's report**

**a. Associations' newsletters**

- NCPERS Monitor (December 2015)
- NCPERS Monitor (January 2016)
- TEXPERS Outlook (January 2016)
- TEXPERS Outlook (February 2016)

**b. Future continuing education and investment research programs and conferences**

Mr. Brown made a motion to receive and file the Executive Director's report. Mr. Mays seconded the motion, which was unanimously approved by the Board.

Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Mays and a second by Mr. Ho, the meeting was adjourned at 4:54 p.m.

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Samuel L. Friar  
Chairman

**ATTEST:**

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Kelly Gottschalk  
Secretary

**Dallas Police and Fire Pension System**  
**Monday, February 22, 2016**  
**8:30 a.m.**  
**4100 Harry Hines Blvd., Suite 100**  
**Second Floor Board Room**  
**Dallas, TX**

Special meeting, Samuel L. Friar, Chairman, presiding:

**ROLL CALL**

**Board Members**

Present at 8:30: Samuel L. Friar, Lee M. Kleinman, Joseph P. Schutz, Brian Hass,  
Kenneth S. Haben, Tho T. Ho, Gerald D. Brown, Clint Conway

Present at 8:40: Erik Wilson, Philip T. Kingston

Present at 9:08: Scott Griggs

Absent: John M. Mays

**Staff**

Kelly Gottschalk, Joshua Mond, Summer Loveland, John Holt

**Others**

Eric Calhoun, Joe "Bob" Betzel, Mark Stovall, David Pinales, Steve  
Thompson

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The meeting was called to order at 8:30 a.m.

**A. DISCUSSION AND POSSIBLE ACTION REGARDING ITEM FOR  
INDIVIDUAL CONSIDERATION**

**Legal issues**

Police Officer and Firefighter pay lawsuits

The Board went into a closed executive session – legal at 8:49 a.m.

The meeting was reopened at 10:47 a.m.

Mr. Kleinman left the meeting at 9:25 a.m. and returned at 10:47 a.m.

**Special Meeting  
Monday, February 22, 2016**

**Legal issues (continued)**

After discussion, Mr. Brown made a motion to authorize the Executive Director and General Counsel to hire a lawyer to give further legal advice on the pay lawsuits. Mr. Haben seconded the motion, which passed by the following vote:

For: Brown, Haben, Friar, Schutz, Griggs, Hass, Wilson, Ho, Conway, Kingston  
Against: None  
Abstain: Kleinman

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Haben and a second by Mr. Brown, the meeting was adjourned at 10:50 a.m.

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Samuel L. Friar  
Chairman

**ATTEST:**

\_\_\_\_\_  
Kelly Gottschalk  
Secretary



# DISCUSSION SHEET

## ITEM #C1

**Topic:** Clarion Partners

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

**Attendees:** Bohdy Hedgcock, Senior Vice President  
Doug Bowen, Managing Director

**Discussion:**

- a. **Change of ownership**  
On January 22, 2016, it was announced that Legg Mason agreed to acquire a majority financial position in Clarion Partners, one of DPFP's real estate investment managers. The transaction is expected to close in the second quarter of 2016. Per the Investment Management Agreement between DPFP and Clarion Partners, DPFP is required to consent to the ownership change.
- b. **Strategic review**  
At the September 10, 2015 Board meeting, the Board approved engaging Clarion to takeover investment management of several Dallas area assets, including CCH Lamar (and related bridge loan), The Tribute, The Beat condominiums, 3030 Bryan Street condominiums and 4100 Harry Hines back land, as of October 1, 2015. These investments were previously managed by CDK Realty Advisors. Clarion will discuss their review of the investments to date and provide strategic recommendations on each asset.

**Staff**

**Recommendation:**

- a. **Consent** to the ownership change.
- b. **Authorize** Clarion to engage a sales broker to market the 4100 Harry Hines land parcel.

FOR IMMEDIATE RELEASE

22 January 2016

### CLARION PARTNERS ANNOUNCES LEGG MASON AS ITS NEW FINANCIAL PARTNER

**NEW YORK** – Clarion Partners, a leading real estate investment manager, is pleased to announce Legg Mason as its new majority financial partner. Legg Mason, formed in 1899, is a publicly held global asset management company, offering an array of specialized investment solutions to its clients.

Clarion Partners invests exclusively in real estate strategies across the Americas. Founded in 1982 and based in New York, the company has broad market reach in the Americas, with more than 280 employees in major markets throughout the U.S. and a presence in Brazil. With assets approximating \$40 billion, Clarion manages private equity real estate across a wide range of products and strategies for institutional and individual investors.

Clarion will join Legg Mason as one of its independent investment management affiliates. Clarion management will retain an ownership stake in the business between 15% and 20%. Legg Mason will purchase all of Lightyear Capital's interest in the Clarion business. Lightyear had invested through one of its private equity funds in 2011.

Steve Furnary, Chairman and CEO of Clarion Partners, will continue in his current role and serve on the Board of Directors of the firm.

“Legg Mason is an ideal partner for Clarion Partners,” said Mr. Furnary. “Legg Mason values partnership within and across its independent multi-manager platform. They understand and relate well to our strong fiduciary culture and the importance of maintaining an autonomous Clarion partnership brand. Legg Mason partners with firms that share its commitment to integrity, excellence in client service, and focus on delivering superior investment performance for their investors. Most importantly, we remain investors in our business, and the partnership gives us investing and operating autonomy so that we can continue to serve our clients in the same way we always have. We are pleased to be a part of such an outstanding organization.”

“Clarion, with a focus on strong performance through market cycles, a positive growth profile and differentiated product offerings, brings an important alternative asset class to our portfolio of investment managers, said Joe Sullivan, Chairman and CEO of Legg Mason. Whether they seek growth, capital preservation or income, we are further able to offer our clients investments with attractive solutions. Most importantly, the experienced management team at Clarion shares our passion for innovation, the creation of exceptional value through responsible investing principles and focus on excellence for clients. We welcome them to Legg Mason.”

Clarion Partners was advised by Morgan Stanley & Co. LLC, King & Spalding and Davis Polk & Wardwell LLP. In addition, Grail Partners advised the senior management team of Clarion Partners.

#### **About Clarion Partners, LLC**

Clarion Partners, an SEC registered investment adviser and FINRA member firm, has been a leading U.S. real estate investment manager for 33 years. Headquartered in New York, the firm has offices in Atlanta, Boston, Dallas, London, Los Angeles, São Paulo, Seattle and Washington, DC. With approximately \$40 billion in total assets under management, Clarion Partners offers a broad range of real estate strategies across the risk/return spectrum to its more than 200 domestic and international institutional investors. More information about the firm is available at [www.clarionpartners.com](http://www.clarionpartners.com).

#### **About Legg Mason**

Legg Mason is a global asset management firm with \$671.5 billion in assets under management as of December 31, 2015. The Company provides active asset management in many major investment centers



throughout the world. Legg Mason is headquartered in Baltimore, Maryland, and its common stock is listed on the New York Stock Exchange (symbol: LM).

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**Disclaimer**

*Some information contained herein is derived from selected third party sources believed by Clarion Partners to be reliable, but no representation or warranty is made regarding its accuracy or completeness. Opinions and forecasts expressed reflect the current judgment of Clarion Partners' Investment Research Group and may change without notice. Nothing herein constitutes an offer or solicitation of any product or service to any person or in any jurisdiction where such offer or solicitation is not authorized or is prohibited by law. Past performance is not necessarily indicative of future results.*

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# BOARD PRESENTATION TO DALLAS POLICE AND FIRE PENSION SYSTEM



CLARION PARTNERS

REAL ESTATE INVESTMENT MANAGEMENT

Board Materials

| 10 March 2015

# Dallas Portfolio Update

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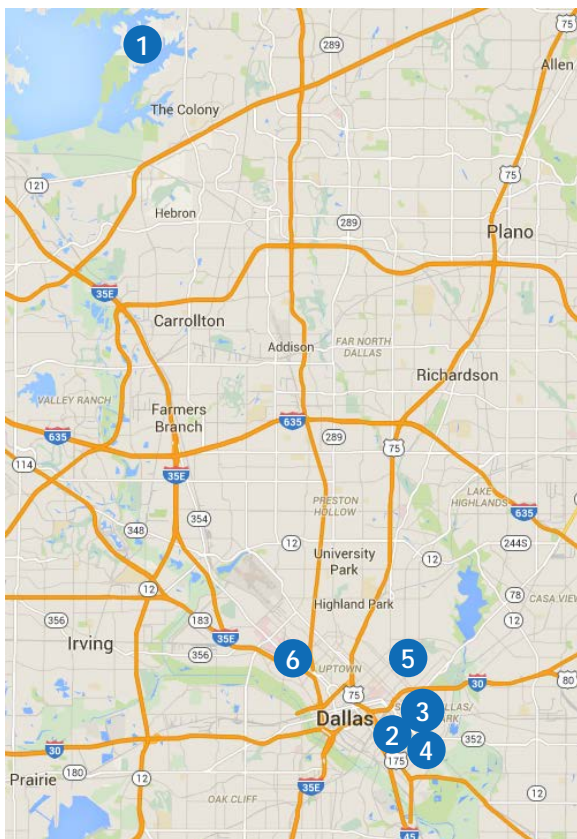
- Overview of activities since being awarded the assignment in October 2015
- Transition to Closed Session
  - Valuation summary and changes (preliminary numbers subject to final year-end reporting)
  - Property-level analysis and recommendations

# Post-Engagement Investment Management Process

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- Completed detailed asset-level due diligence
    - Interviewed representatives of ownership, partners, consultants, brokers, etc. regarding the current status of the investments
    - Analyzed market (submarket and larger competitive market), including comparable projects
    - Analyzed operating budgets
    - Reviewed joint venture agreements and fee structures to ensure consistency with executed agreements and best practices, control over major decisions and exit options; recommended some changes
  - Developed scenario analyses and projected returns; made recommendations for strategic changes when appropriate
  - Established procedures for regular monthly/quarterly reporting with JV partners
  - Reviewed monthly/quarterly property-level reporting from JV partners; Clarion providing portfolio-level quarterly and annual reporting to DPFPS
  - Worked with JV partner and third-party appraiser to support annual valuation process
  - Prepared annual business plans
-

# Portfolio Overview



Property	Property Type	Strategy	Location	Partner
1 The Tribute	Residential Lots	Development	The Colony	MSW
2 CCH Lamar	Mixed Use	Redevelopment	Cedars	MSW
3 The Beat	Condominium	Development	Cedars	MSW
4 1210 S. Lamar	Multifamily	Mezzanine Loan	Cedars	JPI / MSW
5 3030 Bryan	Condominium	Development	East Dallas	Reeder / Smith
6 4100 Harry Hines Land	Vacant Land	Land Sale	Uptown	None



## DISCUSSION SHEET

### ITEM #C2

**Topic:** **Hearthstone: Dry Creek update**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

**Attendees:** Dennis Bush, Vice President – Investment Management

**Discussion:** At the January 8, 2015 meeting, the Board approved engaging Hearthstone to takeover investment management of DPFP's investment in the Spring Valley, Sandstone, Nampa and Dry Creek properties. At the August 27, 2015 meeting, the Board approved several recommendations from Hearthstone, which included listing the Dry Creek property for sale. Hearthstone will discuss the marketing process to date and provide a recommended course of action.

**Staff**

**Recommendation:** **Authorize** Hearthstone to consummate the sale of the Dry Creek property, subject to the final approval of terms by the Executive Director.

# DRY CREEK RANCH PLANNED COMMUNITY

EXCLUSIVE LISTING | ±1,415 ACRES WITH 3,500 RESIDENTIAL UNITS & 650,000 SF OF COMMERCIAL/MIXED USE | ADA COUNTY, IDAHO

**LOCATION** North Ada County on the east side of Highway 55 and west of the award winning Hidden Springs Planned Community. Property is Approximately 12 miles north-northwest of Downtown Boise and approximately 5.5 miles northeast of Downtown Eagle.

**SIZE** ±1,414.67 Acres

**PRICE** \$16,000,000 (approx \$11,310 per acre)

**ZONING** Planned Community (PC)

**ENTITLEMENTS** Development Agreement with approved preliminary plat with Ada County. Preliminary Plat is approved until February 10, 2017.

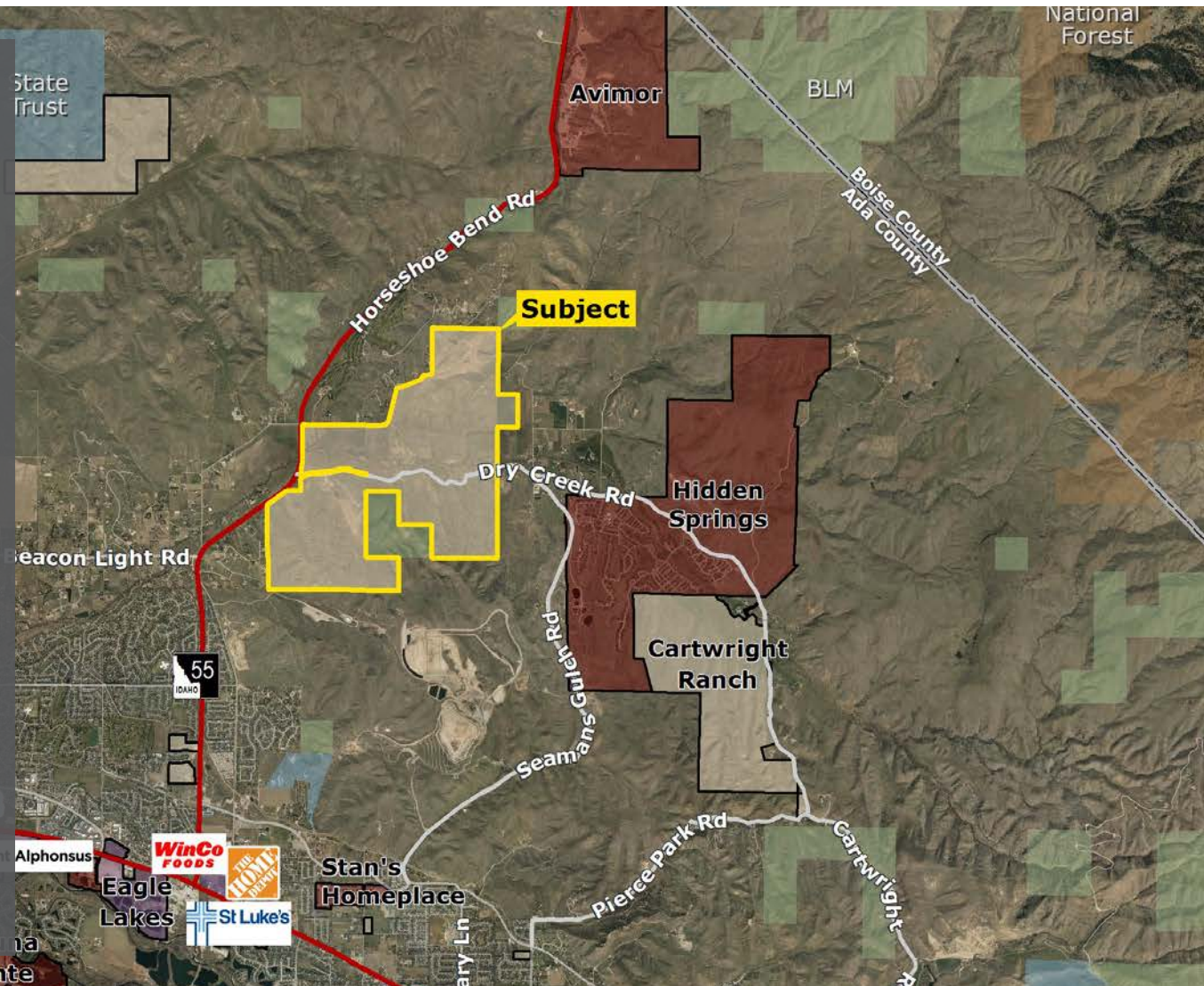
**CURRENT USES** Approximately 400 acres are irrigated farmland and the balance of the property is grazing land.

**WATER RIGHTS** 5 cfs. Municipal Water Permit and a 2.84 cfs. irrigation water right. Total volume permitted is 1,764 acre feet/year. The 5 cfs. permit was recently extended for 10 years until March 1, 2025.

**TAXES** \$5,467.55 (Estimate)

## COMMENTS

- One of the largest developable properties in the region... and it is already approved.
- Spectacular views in all directions.
- Surrounding foothills provide hiking, biking, and other outdoor activities.
- Property is adjacent to Shadow Valley Golf Course.
- Only 8 minutes to Eagle and retail services, 25 minutes to downtown Boise, and 33 minutes to the Boise Airport.

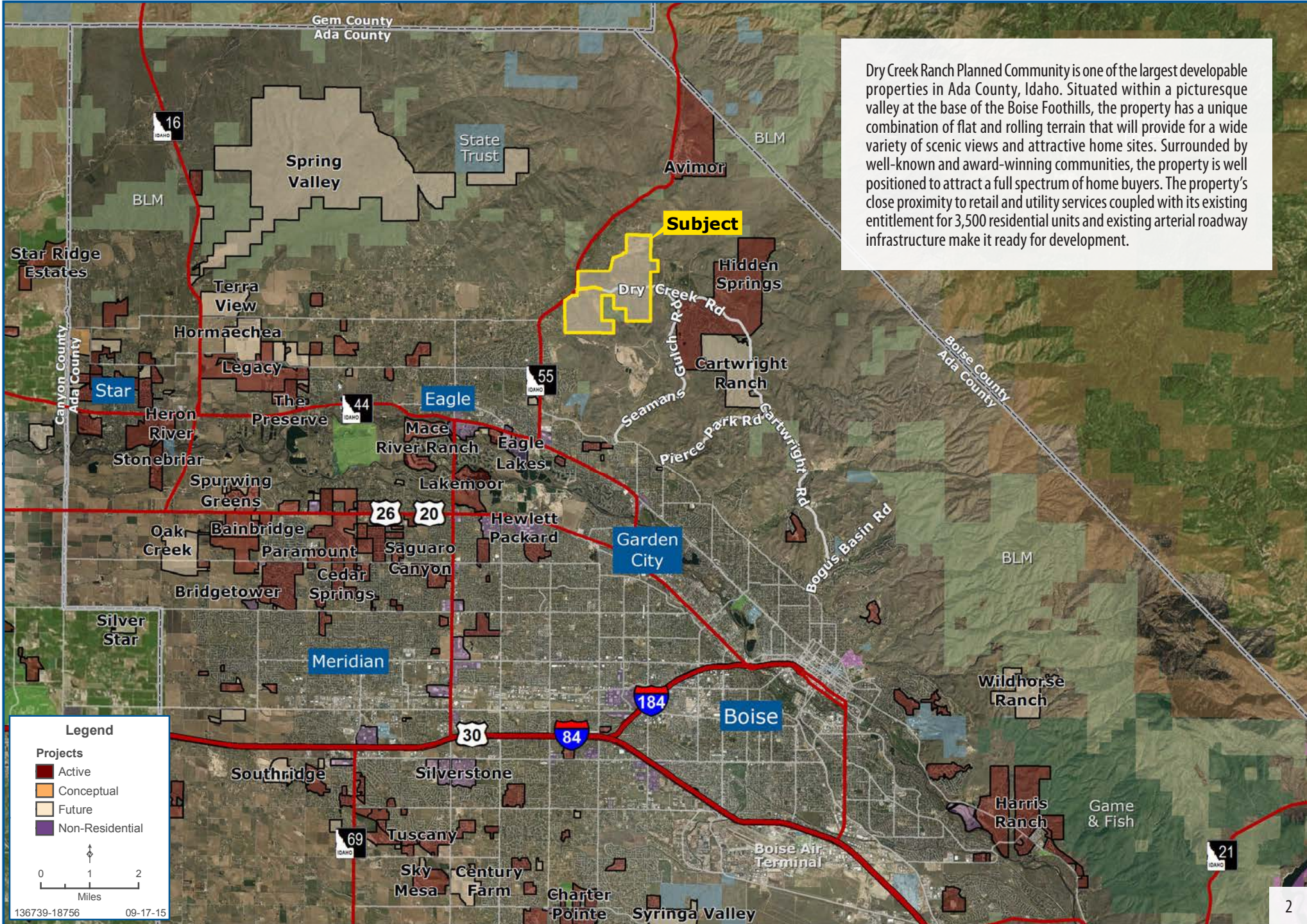


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The information contained herein is from sources deemed reliable. We have no reason to doubt its accuracy but do not guarantee it. It is the responsibility of the person reviewing this information to independently verify it. This package is subject to change, prior sale or complete withdrawal. IDAda136739-10.12.15





Dry Creek Ranch Planned Community is one of the largest developable properties in Ada County, Idaho. Situated within a picturesque valley at the base of the Boise Foothills, the property has a unique combination of flat and rolling terrain that will provide for a wide variety of scenic views and attractive home sites. Surrounded by well-known and award-winning communities, the property is well positioned to attract a full spectrum of home buyers. The property's close proximity to retail and utility services coupled with its existing entitlement for 3,500 residential units and existing arterial roadway infrastructure make it ready for development.

**Legend**

**Projects**

- Active
- Conceptual
- Future
- Non-Residential

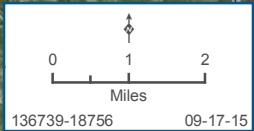
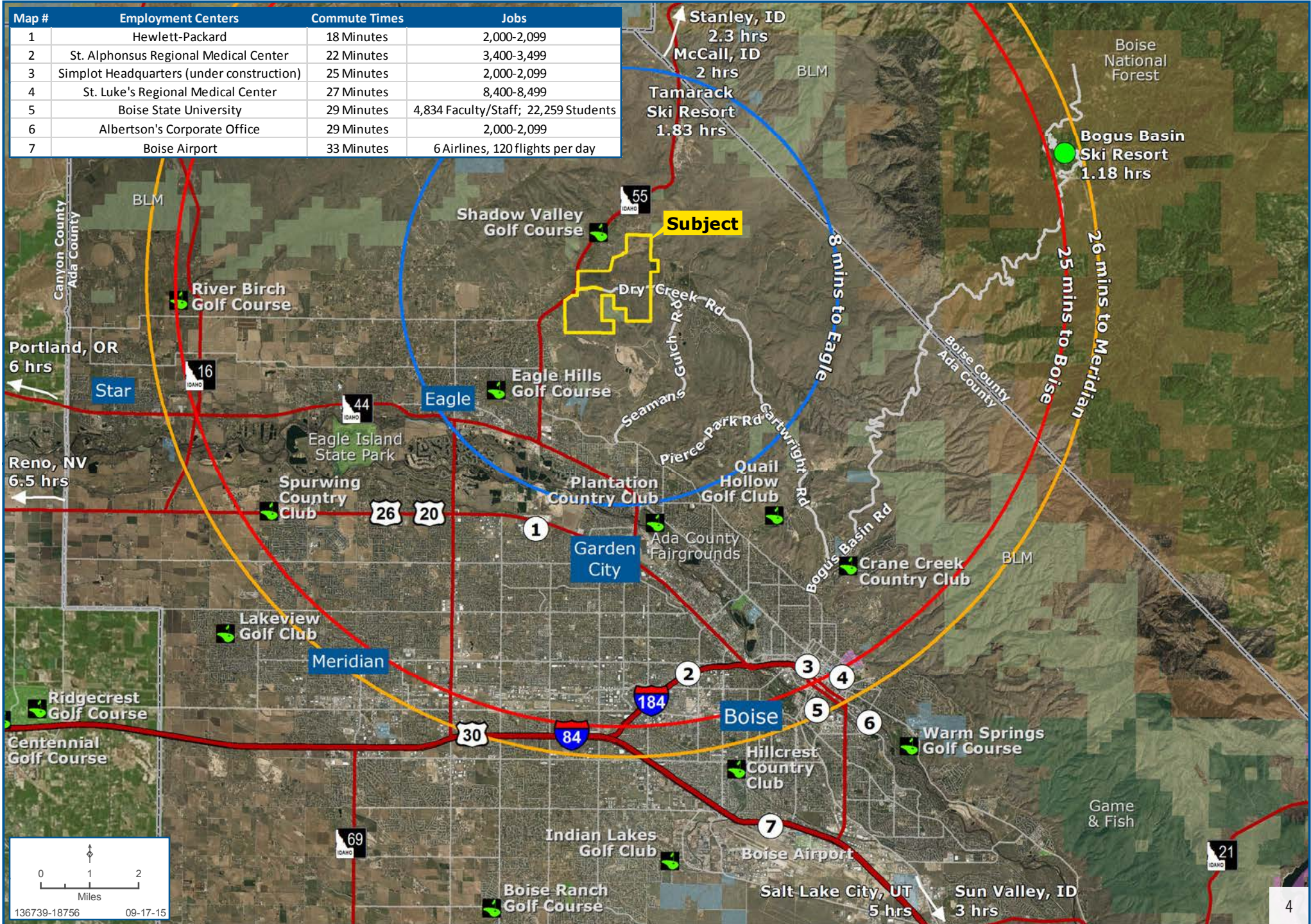
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Miles

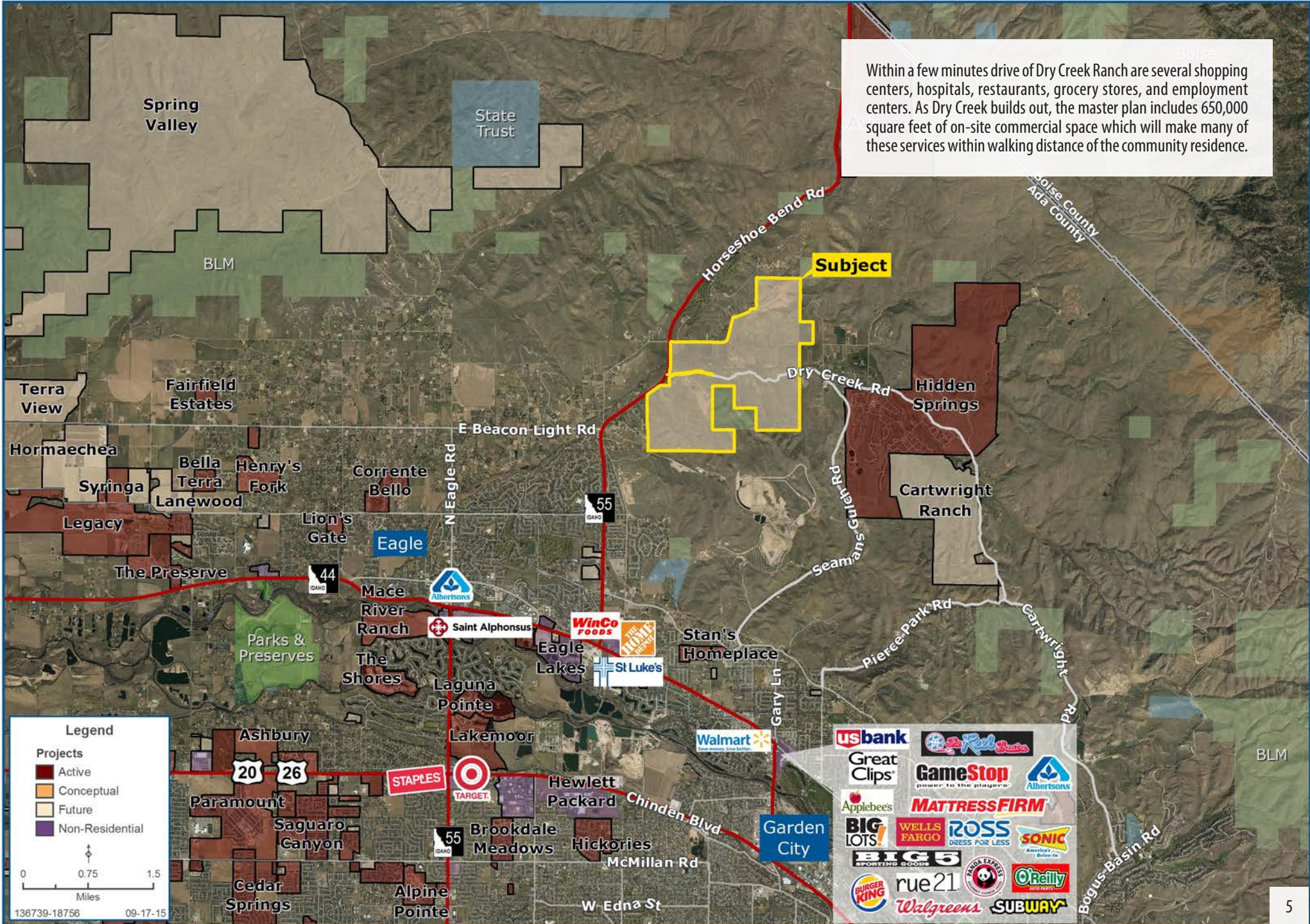
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Map #	Employment Centers	Commute Times	Jobs
1	Hewlett-Packard	18 Minutes	2,000-2,099
2	St. Alphonsus Regional Medical Center	22 Minutes	3,400-3,499
3	Simplot Headquarters (under construction)	25 Minutes	2,000-2,099
4	St. Luke's Regional Medical Center	27 Minutes	8,400-8,499
5	Boise State University	29 Minutes	4,834 Faculty/Staff; 22,259 Students
6	Albertson's Corporate Office	29 Minutes	2,000-2,099
7	Boise Airport	33 Minutes	6 Airlines, 120 flights per day





Boise

Within a few minutes drive of Dry Creek Ranch are several shopping centers, hospitals, restaurants, grocery stores, and employment centers. As Dry Creek builds out, the master plan includes 650,000 square feet of on-site commercial space which will make many of these services within walking distance of the community residence.

**Legend**

**Projects**

- Active
- Conceptual
- Future
- Non-Residential

0 0.75 1.5  
Miles

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usbank

Great Clips

GameStop

Albertsons

Applebee's

MATTRESS FIRM

BIG LOTS

WELLS FARGO

ROSS DRESS FOR LESS

SONIC

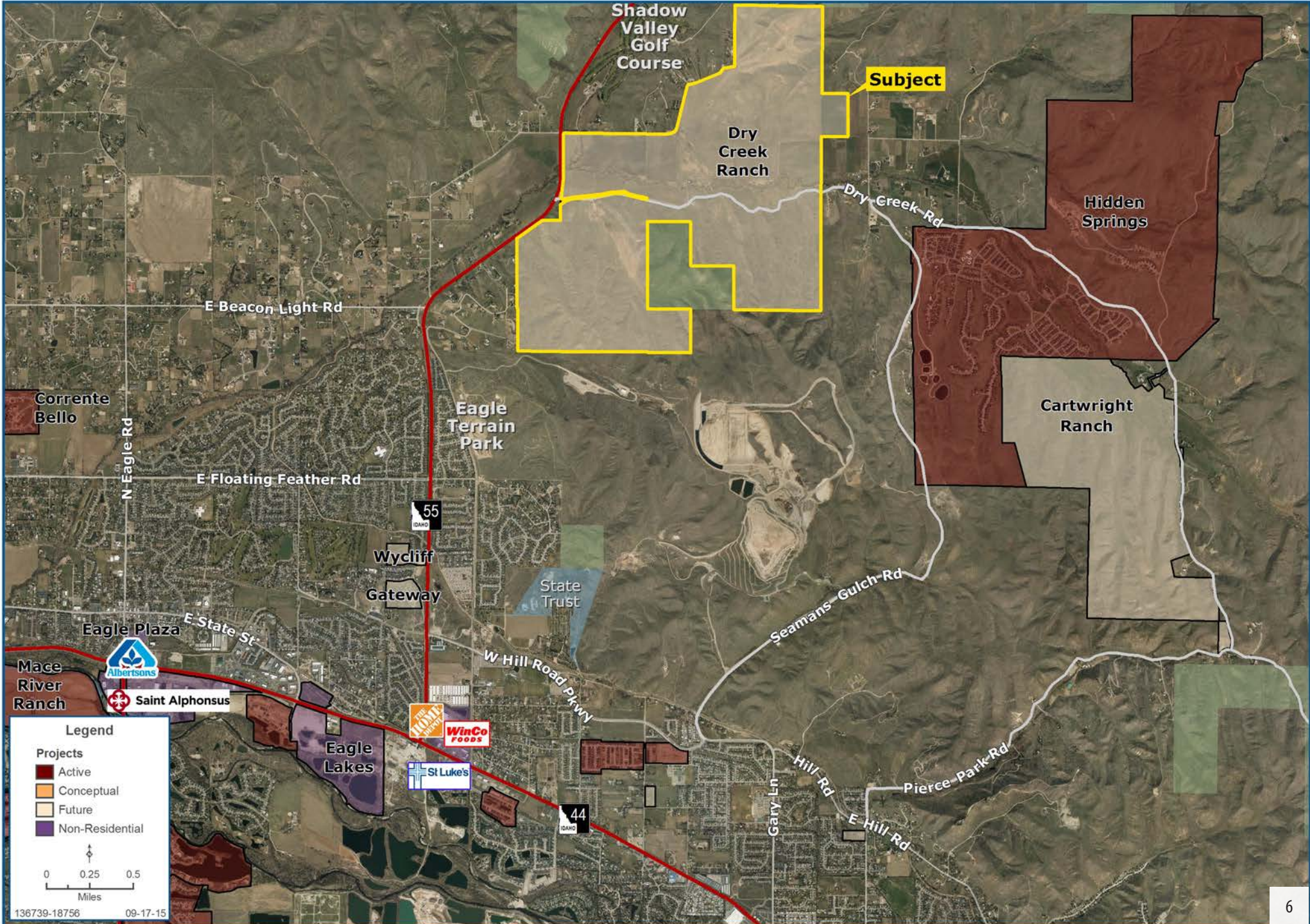
BIG 5 SPORTING GOODS

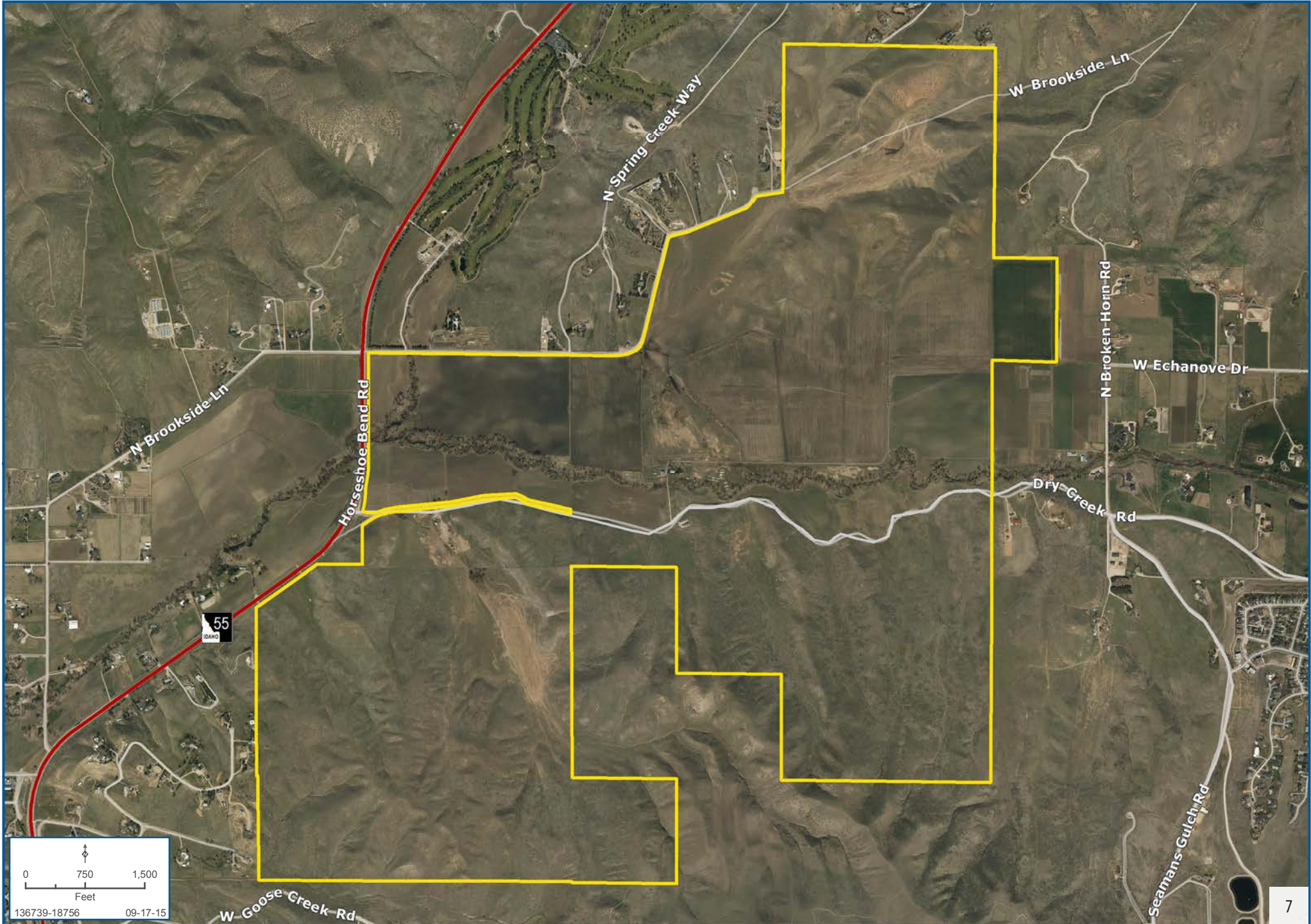
BURGER KING

rue21

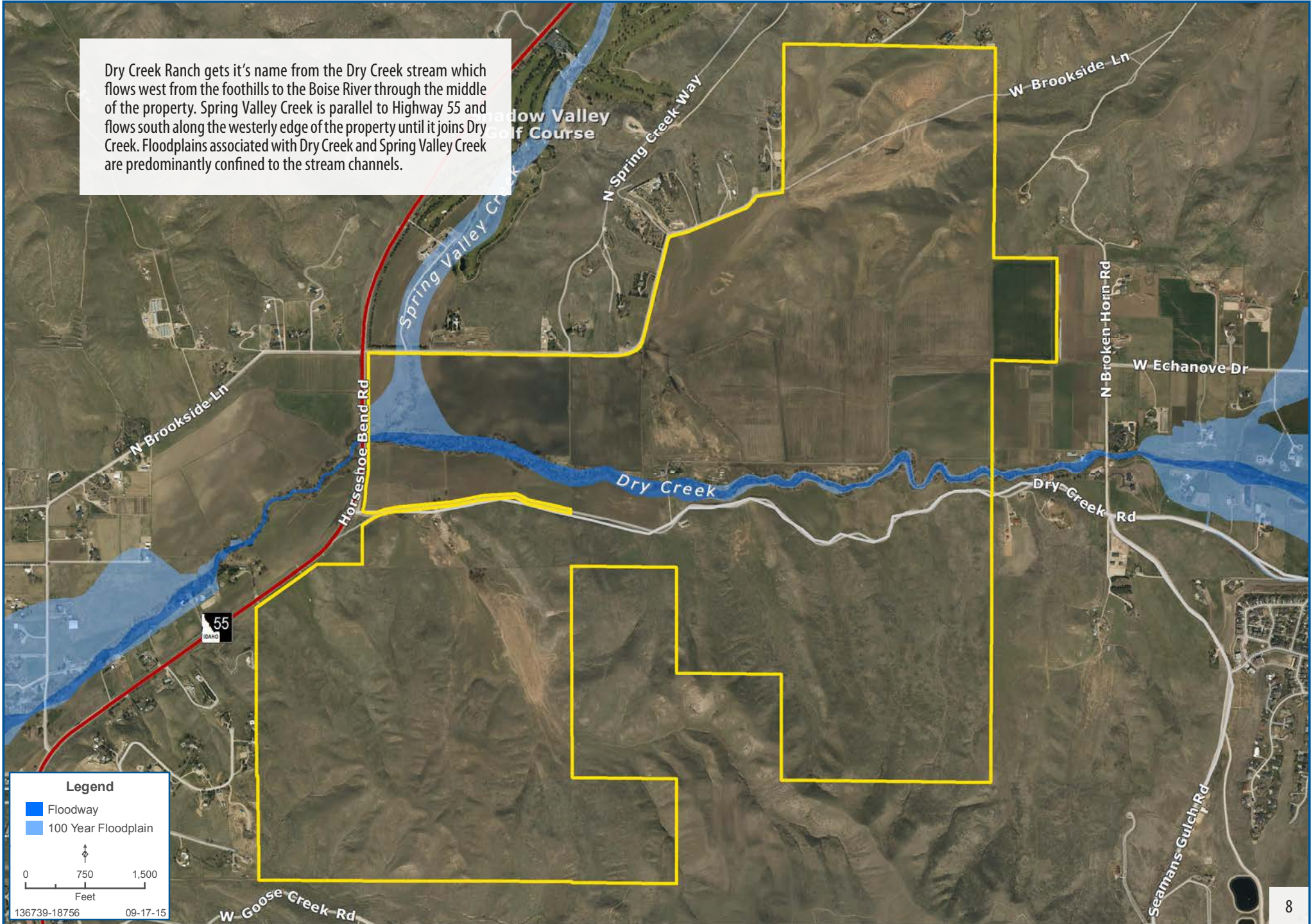
Walgreens

Subway





Dry Creek Ranch gets its name from the Dry Creek stream which flows west from the foothills to the Boise River through the middle of the property. Spring Valley Creek is parallel to Highway 55 and flows south along the westerly edge of the property until it joins Dry Creek. Floodplains associated with Dry Creek and Spring Valley Creek are predominantly confined to the stream channels.



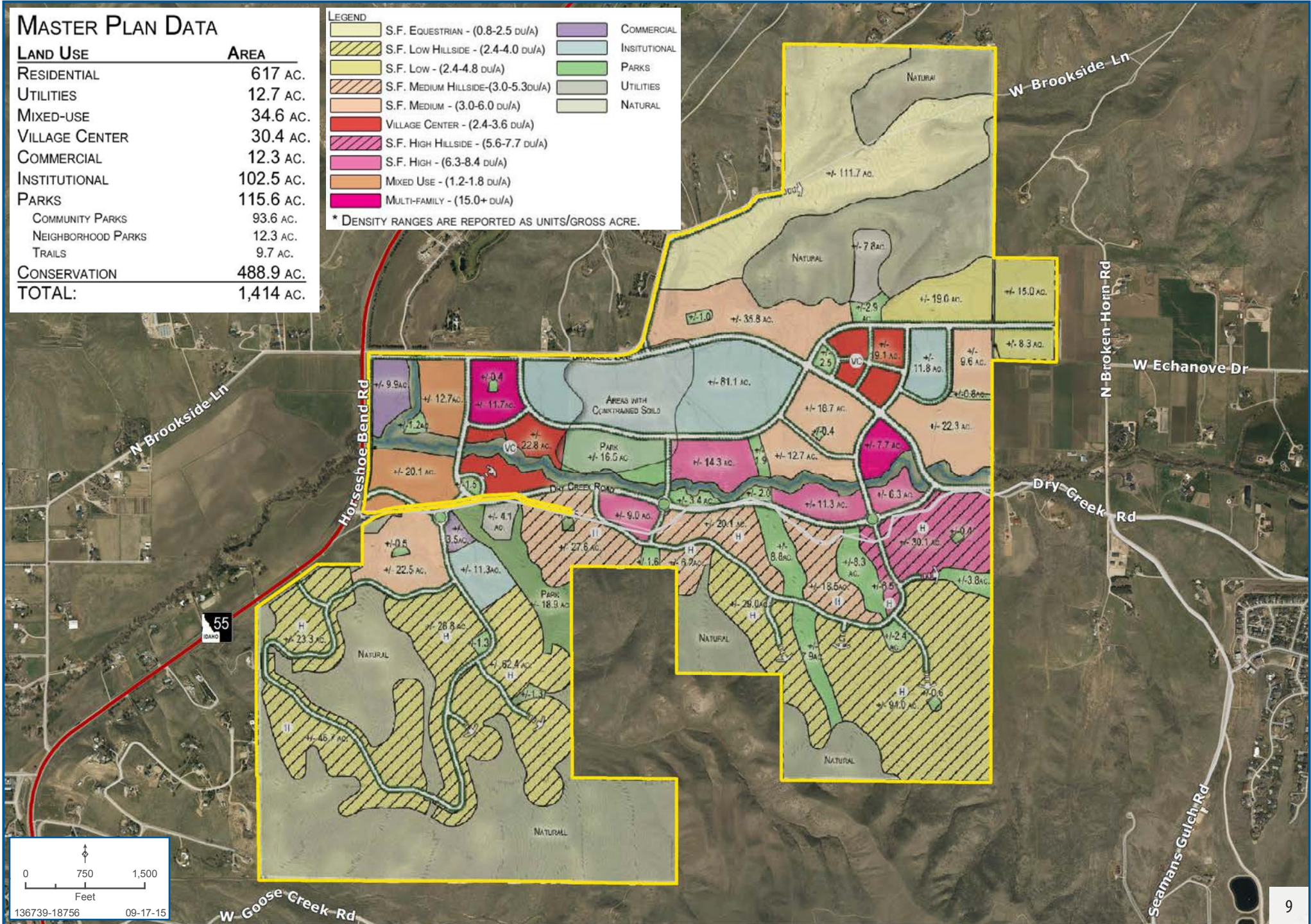
## MASTER PLAN DATA

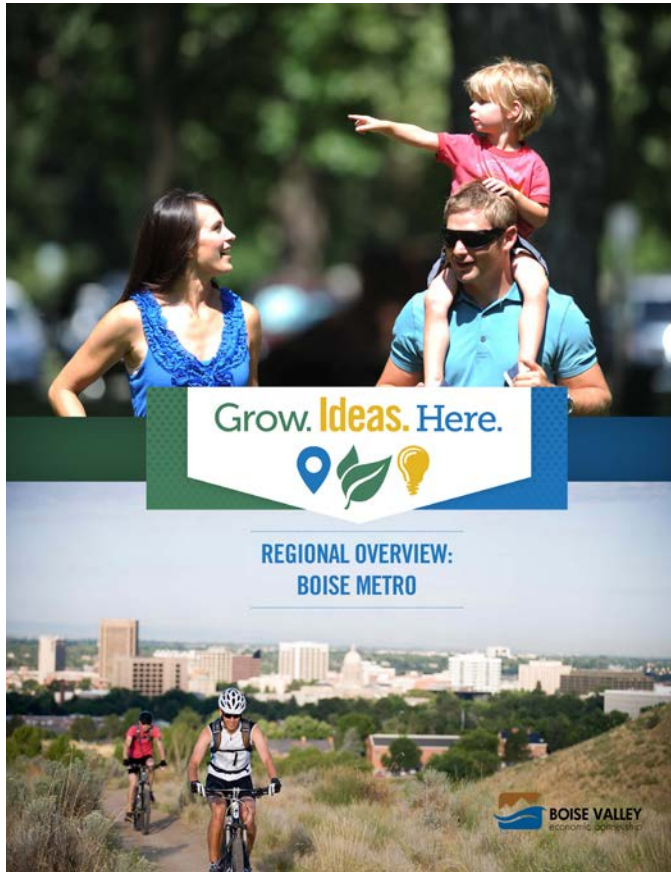
LAND USE	AREA
RESIDENTIAL	617 AC.
UTILITIES	12.7 AC.
MIXED-USE	34.6 AC.
VILLAGE CENTER	30.4 AC.
COMMERCIAL	12.3 AC.
INSTITUTIONAL	102.5 AC.
PARKS	115.6 AC.
COMMUNITY PARKS	93.6 AC.
NEIGHBORHOOD PARKS	12.3 AC.
TRAILS	9.7 AC.
CONSERVATION	488.9 AC.
<b>TOTAL:</b>	<b>1,414 AC.</b>

**LEGEND**

	S.F. EQUESTRIAN - (0.8-2.5 du/a)		COMMERCIAL
	S.F. LOW HILLSIDE - (2.4-4.0 du/a)		INSTITUTIONAL
	S.F. LOW - (2.4-4.8 du/a)		PARKS
	S.F. MEDIUM HILLSIDE - (3.0-5.3 du/a)		UTILITIES
	S.F. MEDIUM - (3.0-6.0 du/a)		NATURAL
	VILLAGE CENTER - (2.4-3.6 du/a)		
	S.F. HIGH HILLSIDE - (5.6-7.7 du/a)		
	S.F. HIGH - (6.3-8.4 du/a)		
	MIXED USE - (1.2-1.8 du/a)		
	MULTI-FAMILY - (15.0+ du/a)		

\* DENSITY RANGES ARE REPORTED AS UNITS/GROSS ACRE.





For a regional overview of the Boise Metro, please [click here](#).



## MARKET CONDITIONS

- Job Growth in Boise MSA has made full recovery and has exceeded the 2007 peak by 5.5%.
- Anticipated to have steady annual job growth of about 3%.
- Annual demand for new homes is estimated to stabilize at 4,620 SF Units. Currently the market is around 3,100 SF units.
- 10th highest state for inbound migration.

## EMPLOYMENT/HOUSING ACCOLADES

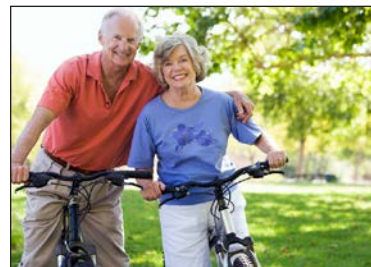
- #1 Where the jobs will be this Spring (Forbes, March 2015)
- #1 Lowest Cost of Doing Business in the Pacific U.S. (KPMG's Competitive Alternatives, 2014)
- #1 Job Growth (Governing.com, May 2015)
- #2 Best City to Move to in 2015 (SML, March 2015)
- #3 State with Fastest Job Growth (Kiplinger, July 2015)
- #7 Top 10 Cities for Tech Jobs (Fast Company, July 2015)
- #10 Best Place to Invest in Housing (Forbes, 2014)

## ACTIVE ADULT MARKET

- Idaho, and specifically Boise, has been noted on several "top retirement destination" lists over the past few years.
- While the climate is cooler and has more snowfall than other retirement destinations, Boise has low annual rainfall, a majority of the days are full of sunshine, it has a low cost of living, sense of family/community, ample outdoor recreation, and retiree friendly taxation.
- In the US, household growth among head of households age 55-75 is expected to increase by 75% from 2015 to 2020. Head of household age 75+ is expected to increase by 20% from 2015 to 2020.
- New home demand in the Boise market is deepest in the age 55+ segment. It accounts for 32% of the demand for new homes.

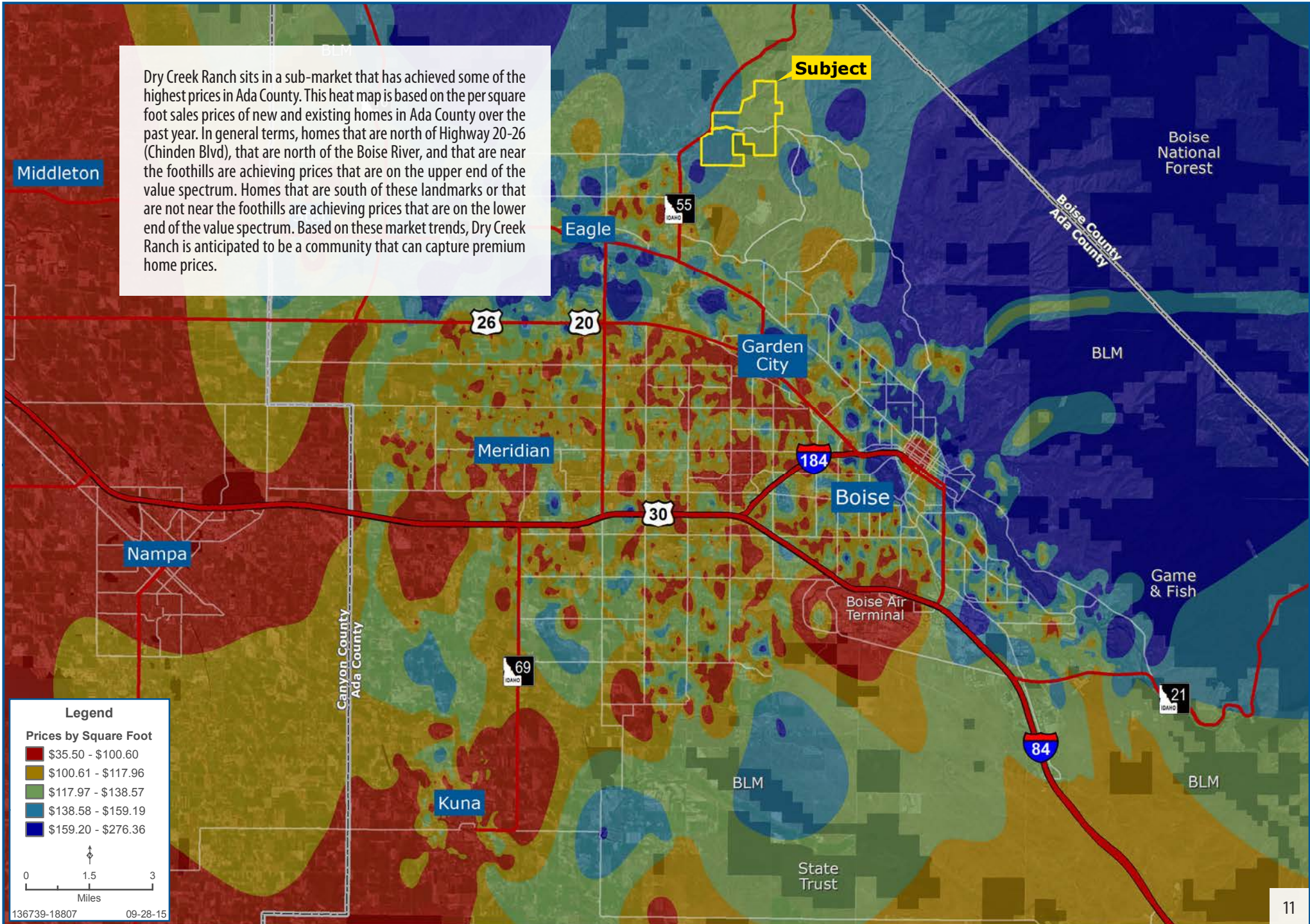
## ACTIVE ADULT ACCOLADES

- #3 Best States to Retire (MoneyRates, October 2014)
- #3 Best Places to Retire (CNNMoney, September 2011)
- #4 Best State for Retirement (ThinkAdvisor, Marcy 2015)
- #4 Fast-Growing Retirement Spots (U.S. News & World Report)





Dry Creek Ranch sits in a sub-market that has achieved some of the highest prices in Ada County. This heat map is based on the per square foot sales prices of new and existing homes in Ada County over the past year. In general terms, homes that are north of Highway 20-26 (Chinden Blvd), that are north of the Boise River, and that are near the foothills are achieving prices that are on the upper end of the value spectrum. Homes that are south of these landmarks or that are not near the foothills are achieving prices that are on the lower end of the value spectrum. Based on these market trends, Dry Creek Ranch is anticipated to be a community that can capture premium home prices.















# DRY CREEK RANCH PLANNED COMMUNITY INFORMATION



For additional information and to gain access to the online due diligence website, please contact:

**Tyler Johnson**  
Land Advisors Organization - Idaho

3597 E Monarch Sky Ln, Suite F-240 Meridian, ID 83646  
tjohnson@landadvisors.com | ph. 208.866.3579 | www.landadvisors.com







# DISCUSSION SHEET

## ITEM #C3

**Topic:** Legal issues

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code:

- a. Police Officer and Firefighter pay lawsuits
- b. Potential claims involving fiduciaries and advisors

**Discussion:** Counsel will brief the Board on these issues.



## DISCUSSION SHEET

### ITEM #C4

**Topic:** Asset allocation

**Attendees:** Phil Nelson, Director of Asset Allocation, NEPC  
Rhett Humphreys, Partner, NEPC

**Discussion:** Staff and NEPC will present their recommended asset allocation to the Board. The proposed asset allocation is recommended to the Board to assist DPF in pursuing its goal of ensuring funds are available to meet current and future obligations of DPF when due, with the objective of earning a long-term investment return greater than the actuarial return assumptions.

Staff and NEPC introduced the foundation for this asset allocation to the Board in November of 2015. In January of this year, senior investment staff and the Executive Director conducted a full day review and examination of the proposed asset allocation with NEPC's Director of Asset Allocation as well as with NEPC research professionals in each of the asset classes included in the recommendation. Outside experts from GMO and JPMorgan were also consulted with regard to their analyses of expectations for future market returns for various asset classes. Their respective analyses were presented to the Board in educational sessions during the January and February Board meetings this year.



## DISCUSSION SHEET

### ITEM #C4

(continued)

The presentation will review return assumptions and volatility expectations for the proposed asset allocation. This recommendation precedes the recommendation for changes to the Investment Policy to enable Staff to progress with due diligence in the near term and propose needed asset allocation adjustments while the Investment Policy is under review.

#### **Staff**

#### **Recommendation:**

**Approve** the new asset allocation and ranges to be included in the forthcoming investment policy as recommended by Staff and the consultant.



# DISCUSSION SHEET

## ITEM #C5

**Topic:**

**Investments governance**

- a. Investment Advisory Committee
- b. Roles and responsibilities of Board, staff, and consultants
- c. Policy review process

**Discussion:**

- a. Staff is seeking direction from the Board related to the function, authority, and make-up of the Investment Advisory Committee (IAC). Based upon feedback at prior Board and Governance Committee meetings, as well as recommendations from Cortex Applied Research, staff is suggesting the formation of an independent IAC consisting solely of external investment professionals. If such a change were made to the make-up of the IAC, it would be addressed in the new investment policy
- b. Currently, the Board, staff and consultants are jointly involved in all aspects of the investment process, including manager selection and due diligence. Staff is seeking direction from the Board on its desire to alter the involvement of the Board in these functions, through the use of the suggested IAC made up of external investment professionals. In order to complete the drafting of a new investment policy, staff needs direction from the Board on the roles it desires these parties to have.
- c. Staff will brief the Board on the status of drafting the new investment policy. Based on feedback received from the Governance Committee, Mary Kathryn Campion, President of Champion Capital Research, has been engaged to assist in the review of the proposed policy draft. NEPC has provided feedback and will remain involved as we address comments



## **DISCUSSION SHEET**

### **ITEM #C5** (continued)

received from Champion Capital Research. Staff plans to present the proposed policy at the April 14, 2016 Board meeting.



## DISCUSSION SHEET

### ITEM #C6

**Topic:** Private Asset pacing

**Attendees:** Jeff Roberts, Sr. Research Consultant – Private Markets, NEPC

**Discussion:** Jeff Roberts will review the current investment programs in both Private Equity and Private Credit while providing recommendations to assist DPFPP in achieving its investment goal of reaching recommended target allocations in these asset classes. The review and recommendations will address allocation, projected cash flows, and commitment pacing. NEPC is mindful of DPFPP's liquidity needs and current over-allocation to private assets, but recommends DPFPP remain an active investor in the asset classes, maintain an active commitment pace to achieve vintage year diversification, and the pacing plan anticipates that distributions from prior investments will outweigh new commitment contributions.

**Staff**

**Recommendation:** Approve the Private Equity and Private Credit pacing plans as recommended by NEPC.



NEPC, LLC

YOU DEMAND MORE. *So do we.*<sup>SM</sup>



## **Dallas P&F Pension System** **Private Markets Program Review & 2016 Strategic Investment Plan**

March 10, 2016

Rhett Humphreys, CFA, Partner  
Keith Stronkowsky, CFA, Sr. Consultant  
Jeff Roberts, Sr. Research Consultant – Private Markets

255 State Street, Boston, MA 02109 | TEL: 617.374.1300 | FAX: 617.374.1313 | [www.nepc.com](http://www.nepc.com)

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# Private Equity Update



## General Market Thoughts

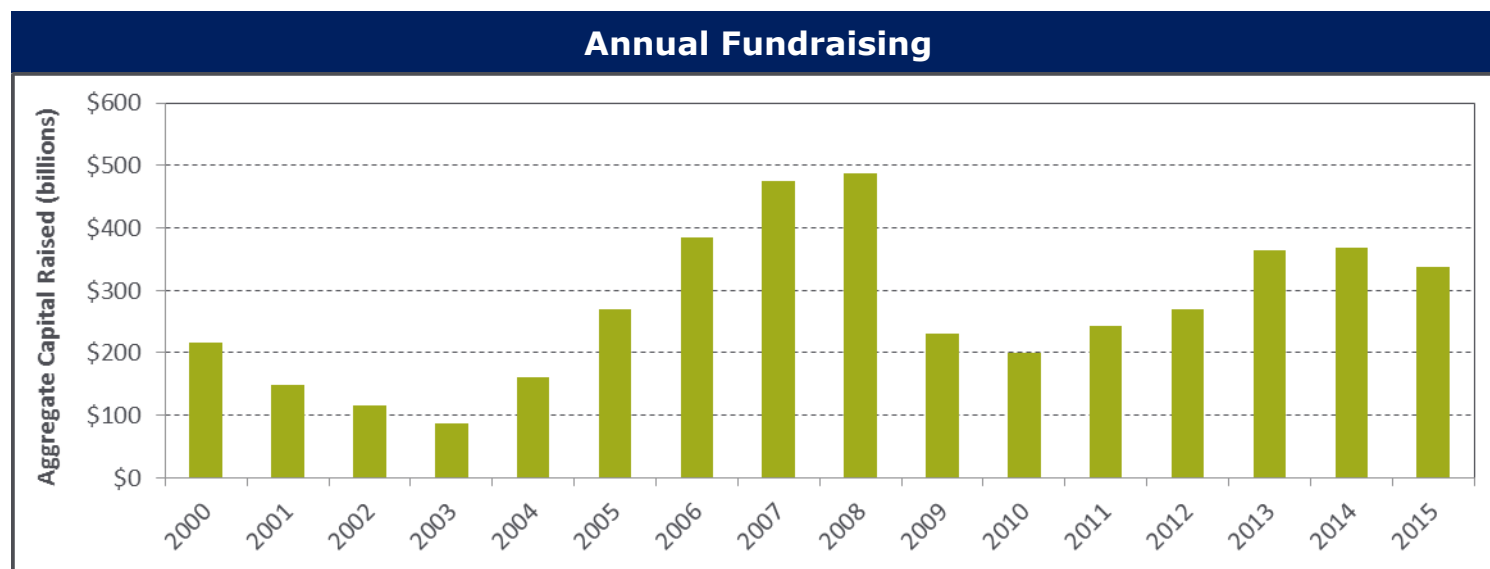
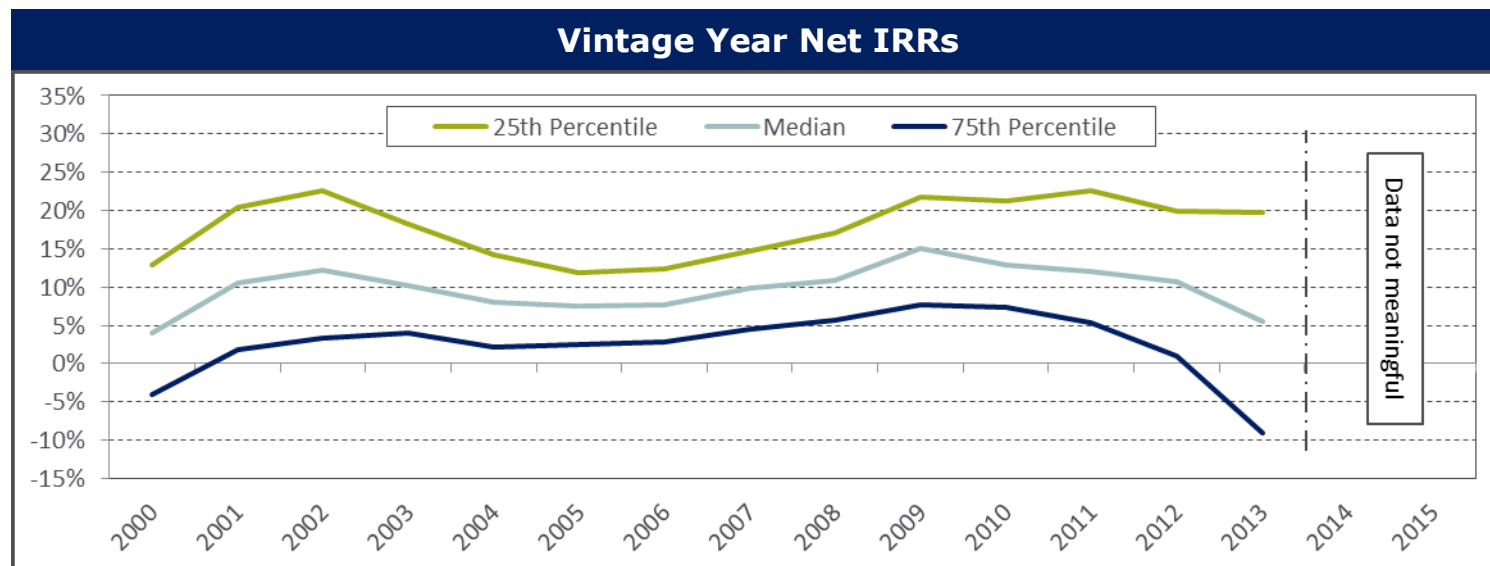
- **Venture and Growth Equity: Unicorns or pack mules with pointy party hats?**
  - Top quartile returns have been attractive, but access to brand names is still difficult; risk/return tradeoff of ventures outside of the top quartile is questionable
  - Fundraising has remained steady and doesn't appear to be out of line, but valuations, investment volume and average deal sizes have significantly increased over the past two years
- **Buyouts & Special Situations: Historically a Steady Eddie through market cycles**
  - Purchase prices remain near all time highs in developed geographies; however while prices are elevated, the amount of equity in transactions has also risen, a departure from the last buyout "boom"
  - Despite heady times, sponsors have proven their ability to preserve capital, with median investment multiples from the last buyout boom rebounding to 1.5x-1.6x with continued upside potential
  - Greater industry specialization and operational capabilities from firms seeking to outperform peers
- **Distressed Debt & Opportunistic Credit: Wait until you see the whites of their eyes!**
  - Low default environment with ample available capital continues to create challenging environment for distressed opportunities (excluding the energy sector where distress is flowing)
  - In Europe, over \$1 trillion of NPLs still exist on the balance sheets of banks and Basel III continues to lead banks to sell these assets
- **Mezzanine and Direct Lending: Lower returns and changing fund/fee structures**
  - For mezzanine, debt multiples are back to 2007 levels, while dry powder is at an all time high and mezzanine has become a much smaller portion of the capital structure
  - Direct lending continues to offer attractive income relative to liquid markets, however, recent pullbacks in the public credit markets have narrowed the gap
- **Secondaries, Fund of Funds and Co-Investment Funds: Creativity and alpha!**
  - Competition for "plain vanilla" secondary transactions is high; be complex, small or specialized
  - FOFs provide investors with beta PE exposure, albeit with the cost of an additional layer of fees; Co-investment funds provide good diversification at fee structures that are less than most direct funds

Implementation Views			
Strategy		Outlook	Commentary
Venture Capital & Growth Equity	Early Stage	0	<ul style="list-style-type: none"> <li>Managers with deep networks and technical or operational expertise can increase the size of the pie for the entrepreneur; Robust or differentiated sourcing is key</li> </ul>
	Mid & Late Stage	-	<ul style="list-style-type: none"> <li>Mid and late stage investors' upside may get squeezed by later round investors' liquidation preferences</li> </ul>
	Growth Equity	0	<ul style="list-style-type: none"> <li>Look for managers that can help build the organization; deep networks are important for strategic partnerships/ M&amp;A support; given current valuations, find managers that have historically protected down side</li> </ul>
Buyouts & Special Situations	US Mega & Large	0	<ul style="list-style-type: none"> <li>Seek value-oriented managers or those with industry or operational focus</li> <li>Evaluate special situations managers able to capitalize on prolonged uncertain recovery</li> </ul>
	US Mid & Small	+	
	Special Sits & Turnarounds	+	
	European	0	<ul style="list-style-type: none"> <li>Seek regional or pan-European managers targeting companies that do not rely on the EU as their primary end market</li> </ul>
	Asian	+	<ul style="list-style-type: none"> <li>Seek managers with strong local networks and those with industry or operational focus to drive growth &amp; profitability</li> <li>Consider specialized FOFs as option to balance diversification with access to country specific firms, small funds &amp; co-investments</li> </ul>

# General Private Equity and Private Credit: Implementation Views (Cont.)

Implementation Views			
Strategy		Outlook	Commentary
Distressed Debt & Opp. Credit.	Distressed Debt	0	<ul style="list-style-type: none"> <li>Conserve capital and invest when signs of a distress cycle appear</li> </ul>
	Opportunistic Credit	+	<ul style="list-style-type: none"> <li>Target flexible, multifaceted managers</li> </ul>
Mezzanine & Direct Lending	Mezzanine	-	<ul style="list-style-type: none"> <li>Few strong performers in the asset class</li> <li>Identify outliers with attractive fee structures</li> </ul>
	US Direct Lending	0	<ul style="list-style-type: none"> <li>Pursue lower-middle and middle market lenders vs large cap managers in US</li> </ul>
	Europe & Asia Direct Lending	+	<ul style="list-style-type: none"> <li>For larger structural imbalances pursue lending opportunities in Europe and Asia</li> </ul>
Secondaries		0	<ul style="list-style-type: none"> <li>In current environment, the best opportunities are with those firms who can minimize competition through sourcing strategies, deal complexity, investment focus or single interest transactions</li> <li>Secondary commitments can serve as a hedge to primary fund commitments and reduce overall PE portfolio volatility</li> </ul>
Fund of Funds & Co-Investment Funds	Specialized FOFs	0	<ul style="list-style-type: none"> <li>Diversified fund of funds are best used to easily capture private equity beta while minimizing its administrative duties</li> </ul>
	Global/Multi-Strategy FOFs	-	<ul style="list-style-type: none"> <li>Specialized fund of funds can be an effective way for investors to access sectors of private equity where direct investing is more difficult, time consuming or access constrained</li> </ul>
	Co-Investment Funds	0	<ul style="list-style-type: none"> <li>Seek firms with strong GP relationships and wide sourcing networks; both should enable co-investment fund managers to see a wide range of good investment opportunities</li> <li>Co-investment fund managers need to have a combination of direct deal and fund evaluation skills</li> </ul>

# General Private Equity and Private Credit: Returns and Fundraising



Source: Thomson Reuters/Cambridge Associates, Preqin



# Dallas Police and Fire

- **Dallas P&F Pension System (“DPF”) should consider a \$50 million allocation for vintage year 2016 funds:**
  - \$10 million to venture/secondaries
    - Opportunity to take advantage of what appears to be a resetting of valuations within venture capital
    - NEPC has identified a leading manager that is currently raising both a secondary and fund of funds vehicle targeting venture capital interests
  - \$10 million to buyout/special situations
    - Add a high quality manager to anchor the private equity program
  - \$30 million to private credit strategies
    - Add additional managers to take advantage of recent turmoil in the energy market, sluggish global growth, and volatile markets which may portend to a distress cycle taking shape
      - DPF should consider making a \$10 million commitment to **Riverstone Credit Partners**
      - NEPC has identified this as a manager who is well positioned to take advantage of the dislocation in the energy market and lack of available capital to energy producers
      - The final close of the Fund is scheduled to occur on April 13, 2016
- **Although DPF is expected to be over-allocated to private markets over the next few years (currently ~15%), a baseline commitment to private markets will allow DPF to remain an active investor in the asset class while distributions from earlier commitments will outweigh new contributions, gradually bringing the Plan back into balance**
- **DPF should maintain an active commitment pace in each vintage year going forward, being mindful of the Plan’s liquidity needs**
  - Annual commitments need to be assessed carefully so as to not over-allocate to illiquid investments
  - Strategies that provide a combination of capital appreciation as well as near-term income or distributions can provide a balanced approach for maintaining private markets exposure while also providing some liquidity

# Current Investment Program & Allocation – Private Equity

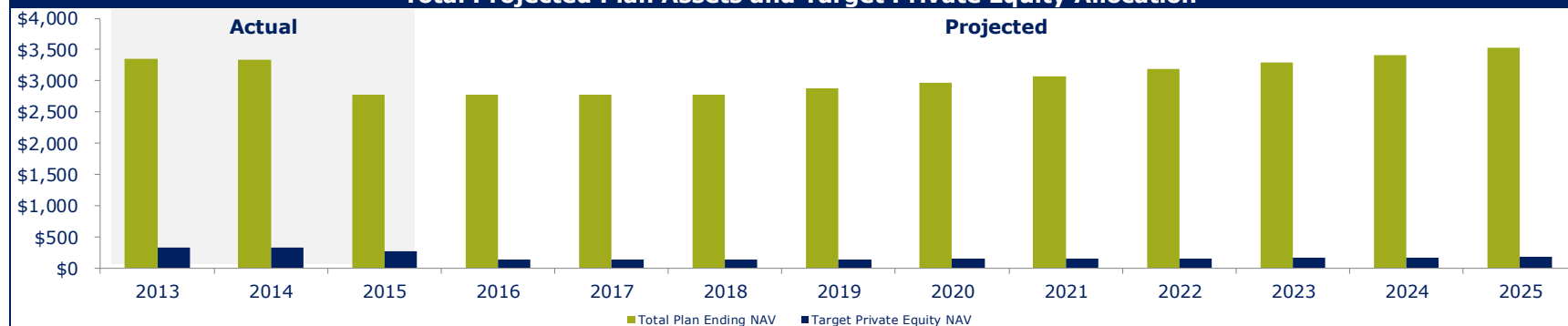
## General Plan Assumptions

Total Plan Assets	\$2,776	Plan Return Assumptions	2016	2017	2018
		Net Growth Rate %	0.00%	0.00%	0.00%
Total Private Equity Assets	\$393				
Private Equity Capital to be Funded	\$246				
Total Private Equity Exposure	\$639				
Total Private Equity Assets / Total Plan Assets	14.2%				
Total Private Equity Exposure / Total Plan Assets	23.0%				
Target Private Equity Allocation % (Current Target)	5.0%	Plan Data as of:	12/31/2015		
		Private Equity Data as of:	9/30/2015		

## Total Projected Plan Assets

	Actual			Projected									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Total Plan Net Growth Rate	4.6%	(0.2%)	(17.0%)	0.0%	0.0%	0.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Total Plan Beginning NAV	\$3,204	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412
Yearly Net Growth	\$147	(\$6)	(\$568)	\$0	\$0	\$0	\$97	\$101	\$104	\$108	\$111	\$115	\$119
Total Plan Ending NAV	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412	\$3,532
Target Private Equity Allocation	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Target Private Equity NAV	\$335	\$334	\$278	\$139	\$139	\$139	\$144	\$149	\$154	\$159	\$165	\$171	\$177

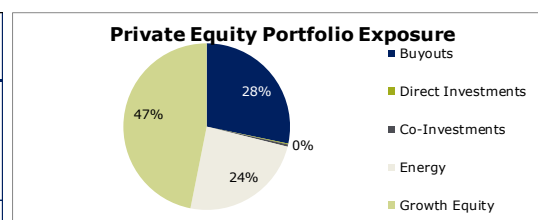
## Total Projected Plan Assets and Target Private Equity Allocation



# Plan Overview and Assumptions – Private Equity

## Private Equity NAVs and Exposures

Investment Strategy	Current Valuation (NAV)	Capital to be Funded	Total Current Exposure	% of Total Exposure
Buyouts	\$116.9	\$63.8	\$180.7	28%
Direct Investments	\$1.1	\$0.0	\$1.1	0%
Co-Investments	\$2.9	\$0.0	\$2.9	0%
Energy	\$152.9	\$2.2	\$155.0	24%
Growth Equity	\$119.3	\$180.4	\$299.6	47%
Total / Wtd. Avg.	\$392.9	\$246.4	\$639.3	100%



## Private Equity Investments by Vintage Year

Vintage Year	Commitment	Paid In Capital	Capital to be Funded	Cumulative Distributed	Current Valuation (NAV)	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio
1997	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
1998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
1999	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2000	\$77	\$77	\$0	\$62	\$35	\$97	\$8	100%	0.80x	1.27x
2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2004	\$7	\$7	\$0	\$13	\$3	\$16	\$9	100%	1.80x	2.26x
2005	\$29	\$29	\$0	\$15	\$17	\$31	\$3	99%	0.51x	1.09x
2006	\$116	\$113	\$16	\$17	\$123	\$140	\$28	97%	0.15x	1.24x
2007	\$58	\$52	\$0	\$13	\$17	\$29	(\$24)	90%	0.24x	0.56x
2008	\$242	\$176	\$73	\$173	\$79	\$252	\$74	73%	0.98x	1.43x
2009	\$25	\$25	\$0	\$4	\$18	\$22	(\$3)	99%	0.15x	0.87x
2010	\$10	\$8	\$0	\$1	\$7	\$7	(\$1)	82%	0.09x	0.89x
2011	\$30	\$18	\$12	\$10	\$13	\$23	\$5	61%	0.55x	1.27x
2012	\$125	\$21	\$104	\$1	\$27	\$27	\$6	17%	0.04x	1.29x
2013	\$80	\$54	\$41	\$3	\$55	\$59	\$5	68%	0.06x	1.08x
2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
<b>Total Private Equity</b>	<b>\$798</b>	<b>\$580</b>	<b>\$246</b>	<b>\$311</b>	<b>\$393</b>	<b>\$704</b>	<b>\$110</b>	<b>73%</b>	<b>0.54x</b>	<b>1.21x</b>



# Commitment Pace Going Forward – Private Equity

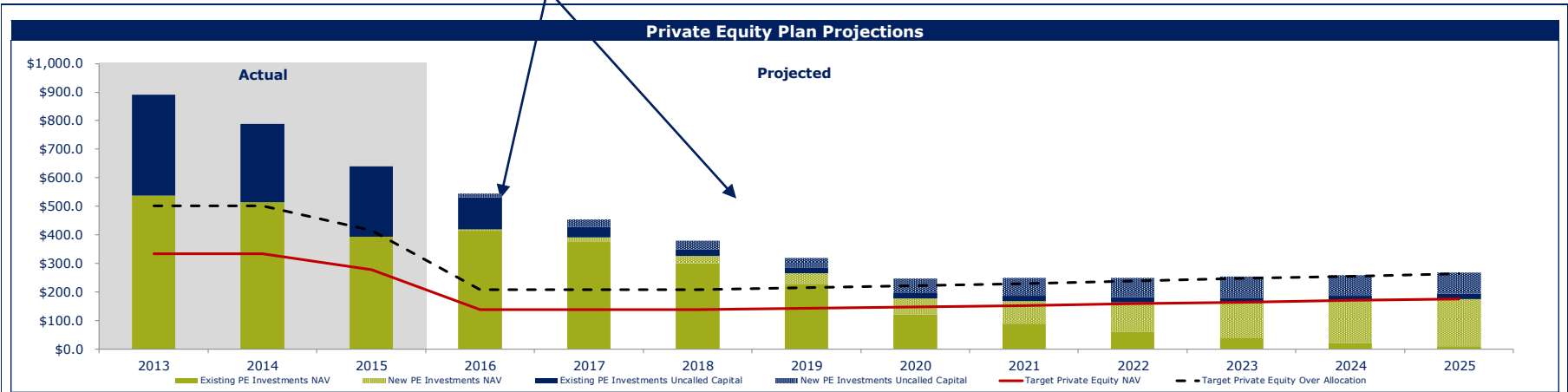


## Private Equity Commitments by Vintage Year

Year	Actual			More Certain			Less Certain						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Total Commitments</b>	\$80	\$0	\$0	\$20	\$20	\$20	\$20	\$40	\$40	\$40	\$40	\$40	\$40

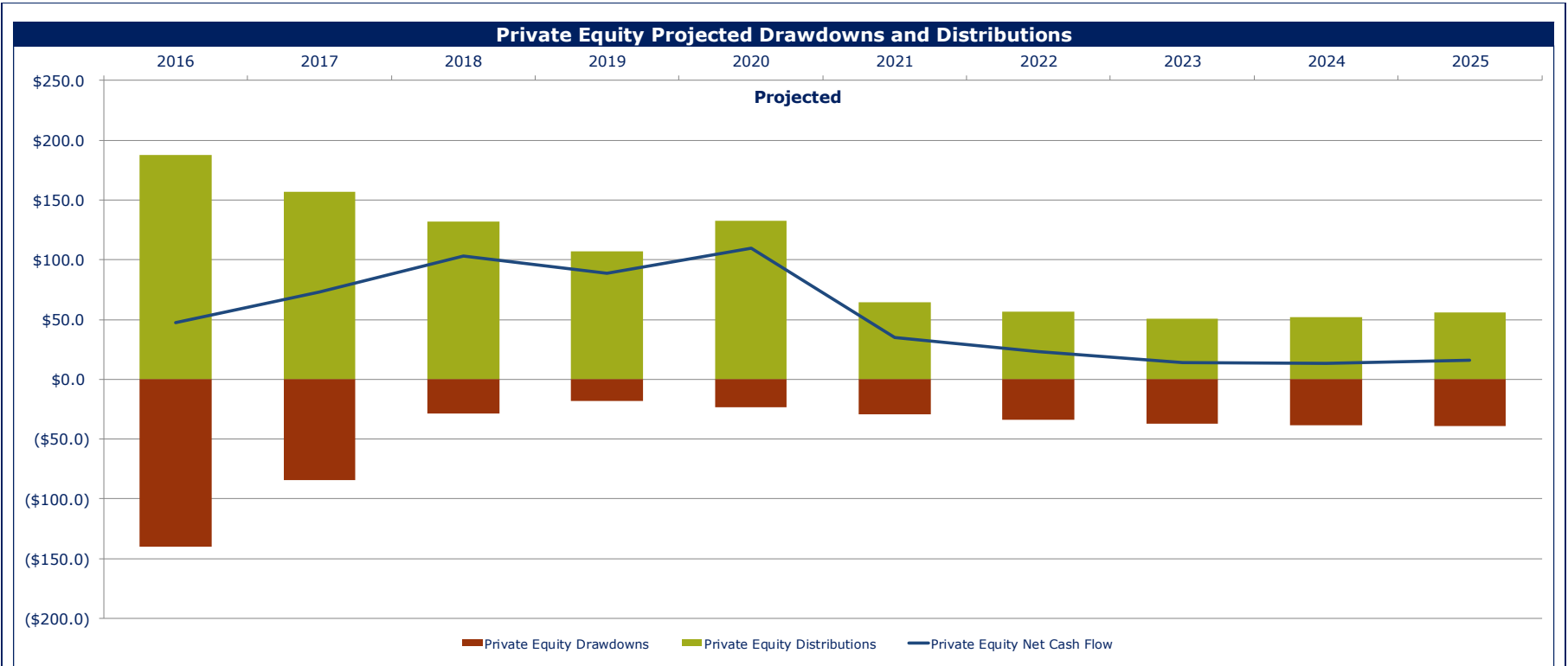
# Fund Projections

- **Red line** is the [5%] target private equity allocation based on projected plan total NAV; **Black dashed line** is the 1.5x over-commitment.
- Goal is to keep private equity NAV (**green bar**) plus uncalled capital commitments (**blue bar**), between red line and black dashed line.



Year	Actual			Projected									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Private Equity NAV	\$537	\$513	\$393	\$419	\$391	\$326	\$265	\$176	\$166	\$161	\$160	\$166	\$173
Uncalled Capital Commitments	\$354	\$276	\$246	\$126	\$62	\$53	\$54	\$71	\$82	\$88	\$91	\$93	\$93
Private Equity NAV + Uncalled Capital Commitments	\$891	\$789	\$639	\$545	\$453	\$379	\$319	\$247	\$247	\$249	\$252	\$258	\$266
Target Private Equity NAV	\$335	\$334	\$278	\$139	\$139	\$139	\$144	\$149	\$154	\$159	\$165	\$171	\$177
Over-Commitment Pace	1.5x	1.5x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x
Target Private Equity Over Allocation	\$503	\$502	\$416	\$208	\$208	\$208	\$215	\$223	\$231	\$239	\$247	\$256	\$265
Beginning Plan NAV	\$3,204	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412
Yearly Return	\$147	(\$6)	(\$568)	\$0	\$0	\$0	\$97	\$101	\$104	\$108	\$111	\$115	\$119
Ending Plan NAV	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412	\$3,532
Private Equity Percent of Total Plan Assets													
Private Equity NAV	16.0%	15.3%	14.2%	15.1%	14.1%	11.7%	9.2%	5.9%	5.4%	5.1%	4.9%	4.9%	4.9%
Private Equity Uncalled Capital Commitments	10.6%	8.2%	8.9%	4.5%	2.2%	1.9%	1.9%	2.4%	2.7%	2.8%	2.8%	2.7%	2.6%
NAV + Uncalled Capital Commitments	26.6%	23.6%	23.0%	19.6%	16.3%	13.6%	11.1%	8.3%	8.0%	7.8%	7.6%	7.6%	7.5%
Target Private Equity Allocation	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

# Private Equity Cash Flows



Year	Projected									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Private Equity Drawdowns	(\$140)	(\$85)	(\$29)	(\$18)	(\$23)	(\$29)	(\$34)	(\$37)	(\$39)	(\$39)
Private Equity Distributions	\$187	\$157	\$132	\$107	\$133	\$64	\$57	\$51	\$52	\$56
Private Equity Net Cash Flow	\$47	\$73	\$103	\$89	\$109	\$35	\$23	\$14	\$13	\$16

# Current Investment Program & Allocation – Private Credit

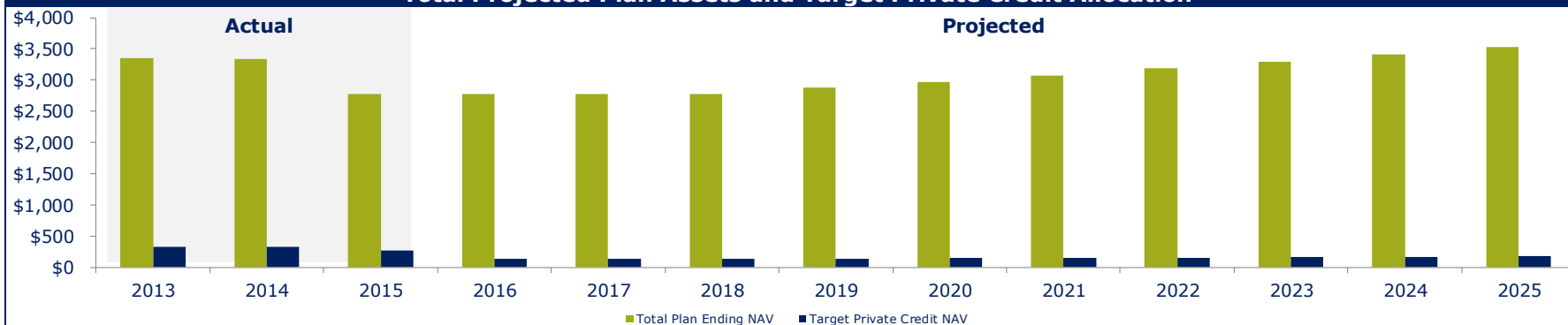
## General Plan Assumptions

Total Plan Assets	\$2,776	Plan Return Assumptions	2016	2017	2018
		Net Growth Rate %	0.00%	0.00%	0.00%
Total Private Credit Assets	\$72				
Private Credit Capital to be Funded	\$41				
Total Private Equity Exposure	\$113				
Total Private Credit Assets / Total Plan Assets	2.6%				
Total Private Credit Exposure / Total Plan Assets	4.1%				
Target Private Credit Allocation % (Current Target)	5.0%	Plan Data as of:	12/31/2015		
		Private Credit Data as of:	9/30/2015		

## Total Projected Plan Assets

	Actual			Projected									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Total Plan Net Growth Rate	4.6%	(0.2%)	(17.0%)	0.0%	0.0%	0.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Total Plan Beginning NAV	\$3,204	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412
Yearly Net Growth	\$147	(\$6)	(\$568)	\$0	\$0	\$0	\$97	\$101	\$104	\$108	\$111	\$115	\$119
Total Plan Ending NAV	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412	\$3,532
Target Private Credit Allocation	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Target Private Credit NAV	\$335	\$334	\$278	\$139	\$139	\$139	\$144	\$149	\$154	\$159	\$165	\$171	\$177

## Total Projected Plan Assets and Target Private Credit Allocation



## Private Credit NAVs and Exposures

Investment Strategy	Current Valuation (NAV)	Capital to be Funded	Total Current Exposure	% of Total Exposure
Distressed	\$71.8	\$41.1	\$112.9	100%
Total / Wtd. Avg.	\$71.8	\$41.1	\$112.9	100%

## Private Credit Portfolio Exposure

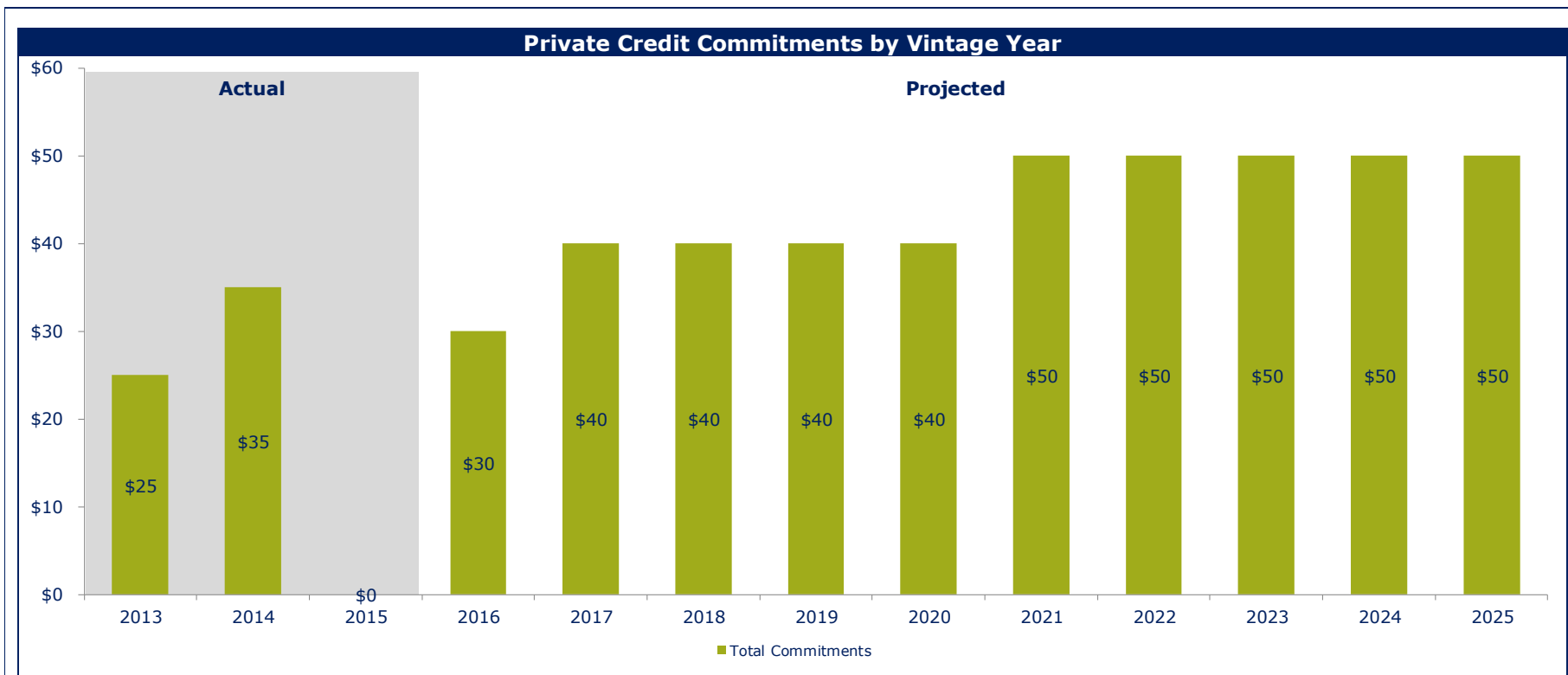


■ Distressed

## Private Credit Investments by Vintage Year

Vintage Year	Commitment	Paid In Capital	Capital to be Funded	Cumulative Distributed	Current Valuation (NAV)	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio
1997	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
1998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
1999	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2001	\$50	\$50	\$0	\$82	\$0	\$83	\$33	100%	1.65x	1.65x
2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2005	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2006	\$75	\$75	\$0	\$73	\$18	\$91	\$5	100%	0.98x	1.21x
2007	\$130	\$130	\$0	\$101	\$8	\$108	(\$22)	100%	0.77x	0.83x
2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
2011	\$25	\$23	\$2	\$38	\$5	\$43	\$19	94%	1.61x	1.83x
2012	\$25	\$20	\$5	\$0	\$20	\$20	(\$0)	79%	0.00x	0.99x
2013	\$25	\$20	\$5	\$12	\$15	\$28	\$8	78%	0.64x	1.43x
2014	\$35	\$6	\$29	\$0	\$6	\$6	\$0	18%	0.01x	1.02x
2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA
<b>Total Private Credit</b>	<b>\$365</b>	<b>\$324</b>	<b>\$41</b>	<b>\$306</b>	<b>\$72</b>	<b>\$378</b>	<b>\$43</b>	<b>89%</b>	<b>0.95x</b>	<b>1.17x</b>

# Commitment Pace Going Forward – Private Credit

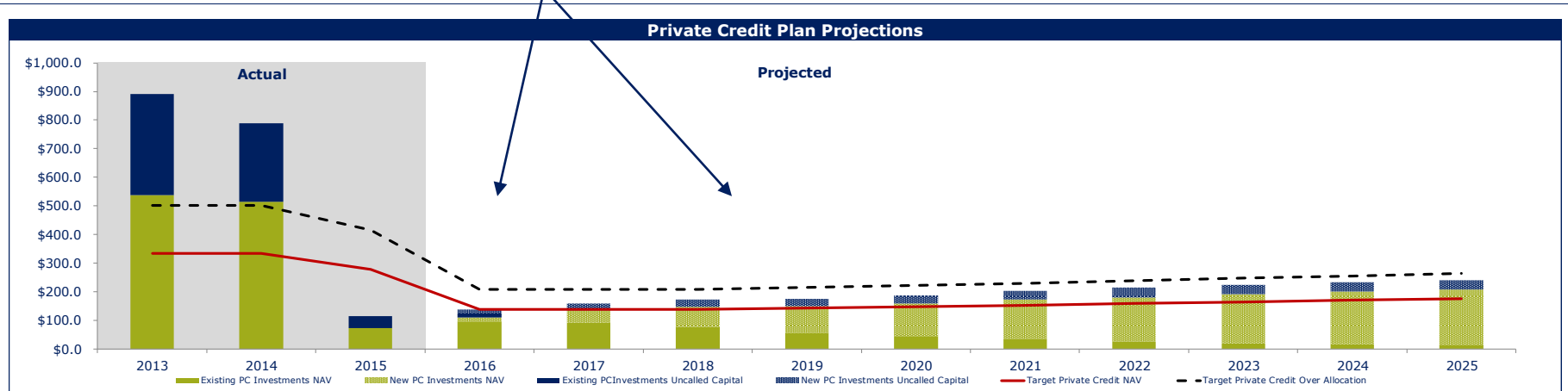


**Private Credit Commitments by Vintage Year**

Year	Actual			More Certain			Less Certain						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Total Commitments</b>	\$25	\$35	\$0	\$30	\$40	\$40	\$40	\$40	\$50	\$50	\$50	\$50	\$50

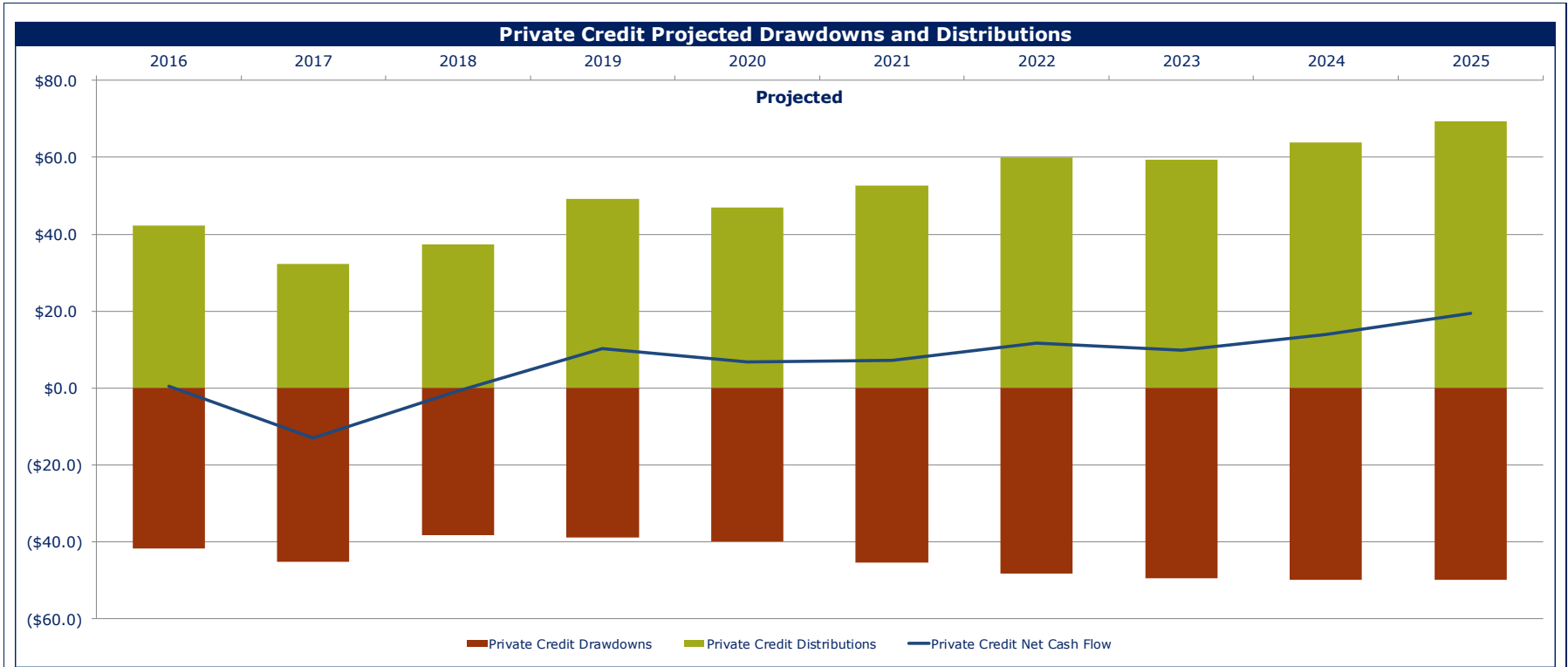
# Fund Projections

- **Red line** is the [5%] target private credit allocation based on projected plan total NAV; **Black dashed line** is the 1.5x over-commitment.
- Goal is to keep private credit NAV (**green bar**) plus uncalled capital commitments (**blue bar**), between red line and black dashed line.



Year	Actual			Projected									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Private Credit NAV	\$537	\$513	\$72	\$108	\$133	\$145	\$148	\$158	\$170	\$179	\$189	\$198	\$205
Uncalled Capital Commitments	\$354	\$276	\$41	\$29	\$24	\$26	\$27	\$27	\$31	\$33	\$34	\$34	\$34
Private Credit NAV + Uncalled Capital Commitments	\$891	\$789	\$113	\$137	\$157	\$171	\$175	\$185	\$202	\$212	\$223	\$232	\$239
Target Private Credit NAV	\$335	\$334	\$278	\$139	\$139	\$139	\$144	\$149	\$154	\$159	\$165	\$171	\$177
Over-Commitment Pace	1.5x	1.5x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x	1.50x
Target Private Credit Over Allocation	\$503	\$502	\$416	\$208	\$208	\$208	\$215	\$223	\$231	\$239	\$247	\$256	\$265
Beginning Plan NAV	\$3,204	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412
Yearly Return	\$147	(\$6)	(\$568)	\$0	\$0	\$0	\$97	\$101	\$104	\$108	\$111	\$115	\$119
Ending Plan NAV	\$3,350	\$3,344	\$2,776	\$2,776	\$2,776	\$2,776	\$2,873	\$2,974	\$3,078	\$3,186	\$3,297	\$3,412	\$3,532
Private Credit Percent of Total Plan Assets													
Private Credit NAV	16.0%	15.3%	2.6%	3.9%	4.8%	5.2%	5.1%	5.3%	5.5%	5.6%	5.7%	5.8%	5.8%
Private Credit Uncalled Capital Commitments	10.6%	8.2%	1.5%	1.1%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%
NAV + Uncalled Capital Commitments	26.6%	23.6%	4.1%	4.9%	5.7%	6.2%	6.1%	6.2%	6.6%	6.7%	6.8%	6.8%	6.8%
Target Private Credit Allocation	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

# Private Credit Cash Flows



	Projected									
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Private Credit Drawdowns	(\$42)	(\$45)	(\$38)	(\$39)	(\$40)	(\$45)	(\$48)	(\$49)	(\$50)	(\$50)
Private Credit Distributions	\$42	\$32	\$37	\$49	\$47	\$53	\$60	\$59	\$64	\$69
Private Credit Net Cash Flow	\$1	(\$13)	(\$1)	\$10	\$7	\$7	\$12	\$10	\$14	\$19



# Private Equity Market Information

# Venture Capital & Growth Equity

## General Market Thoughts

- **Venture outlook is uncertain**
  - Secular shifts in mobile and cloud computing have been huge; disruption is real and everywhere
  - Top quartile returns have been attractive, but access to brand names is still difficult; risk/return tradeoff of ventures outside of the top quartile is questionable
  - Fundraising has remained steady and doesn't appear to be out of line, but valuations, investment volume and average deal sizes have significantly increased over the past two years
- **Early stage investors and growth equity “downside protectors” can be attractive**
  - Early stage investments bring optionality into a portfolio but come with higher risk
  - Growth equity investors are now capturing value once captured by public markets investors, but valuations are high

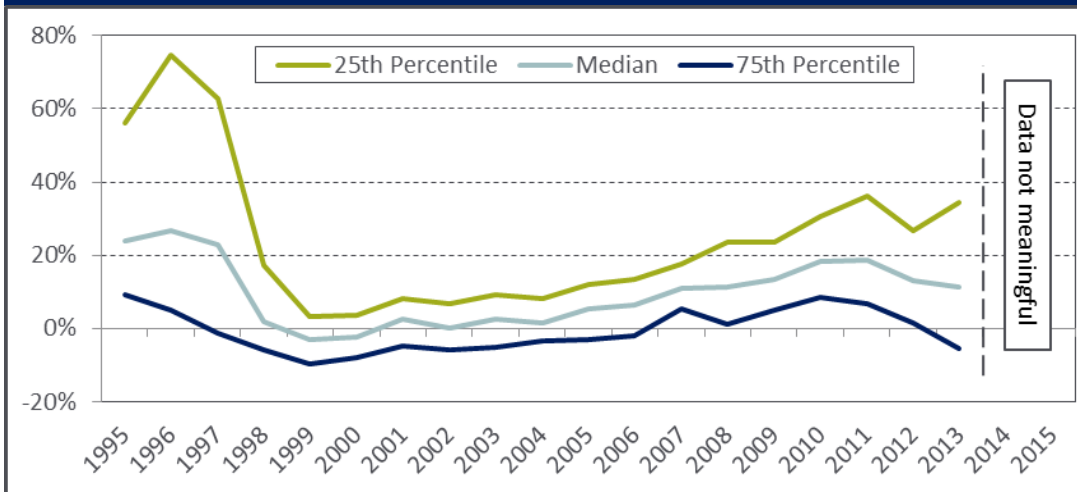
## Implementation Views

Strategy	Outlook	Commentary
Early Stage Venture Capital	0	<ul style="list-style-type: none"> <li>• Managers with deep networks and technical or operational expertise can increase the size of the pie for the entrepreneur</li> <li>• Robust or differentiated sourcing is key</li> </ul>
Mid & Late Stage Venture Capital	-	<ul style="list-style-type: none"> <li>• Mid and late stage investors' upside may get squeezed by later round investors' liquidation preferences</li> </ul>
Growth Equity	0	<ul style="list-style-type: none"> <li>• Look for managers with a differentiated sourcing engine that can help build the organization (executives, directors) and the strategy</li> <li>• Deep networks are still important for strategic partnerships or M&amp;A support</li> <li>• Given current valuations, find managers that have historically protected on the down side</li> </ul>

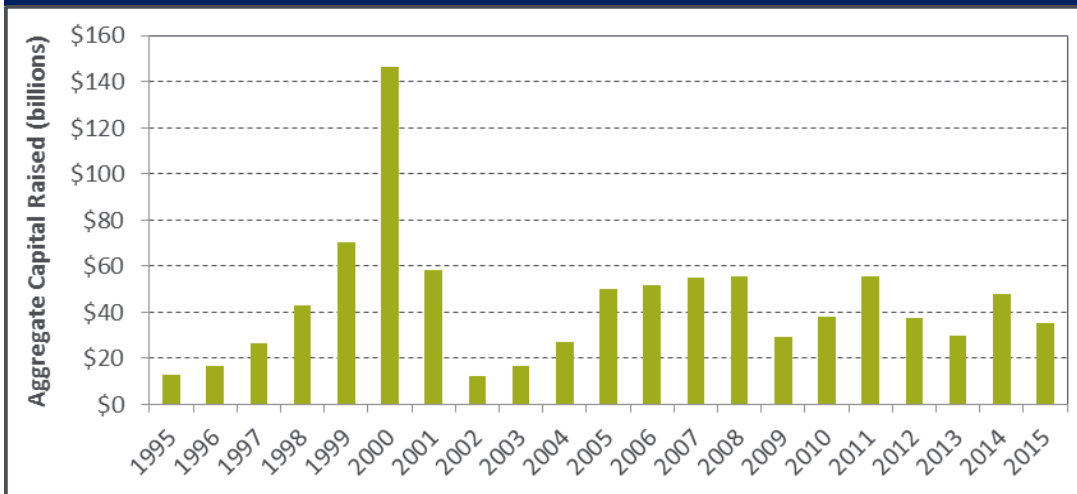
## Commentary

- **Top quartile returns are attractive**
  - Access to the brand names is still difficult
  - The risk/return trade-off of the asset class becomes more of a question outside of the top quartile
  
- **Fundraising is steady**
  - Easy to see the bubble; today's fundraising numbers don't suggest one

## Vintage Year Net IRRs

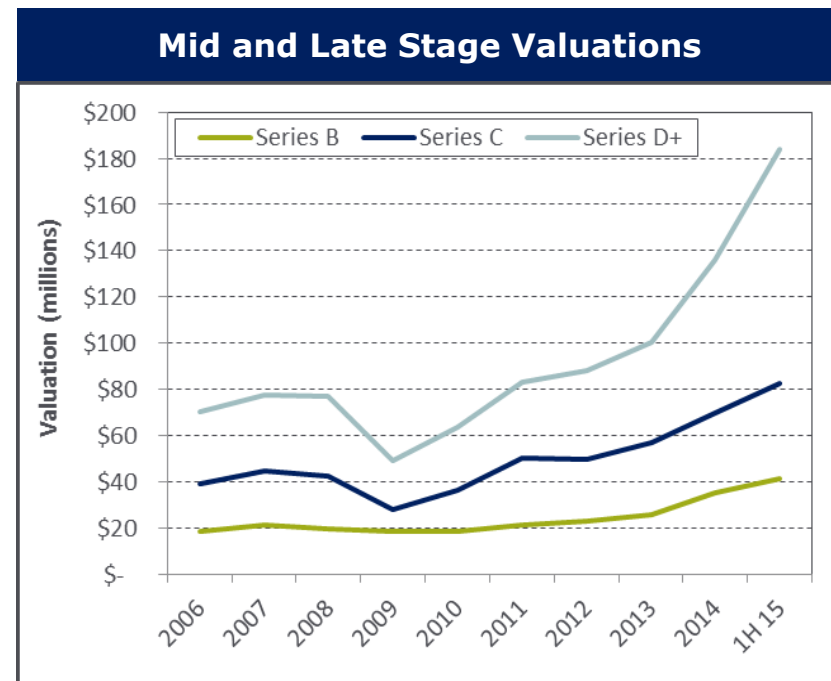
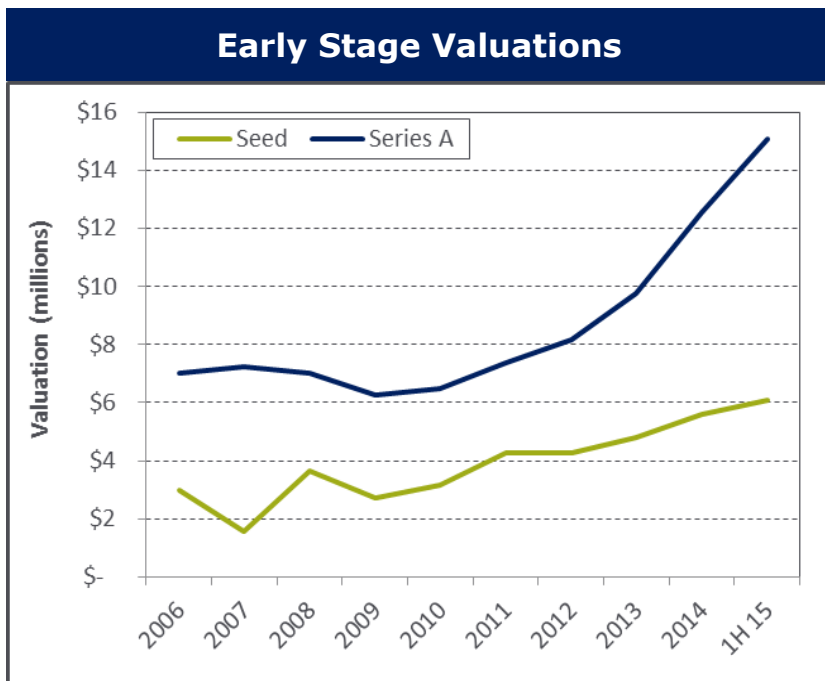


## Annual Fundraising



Source: Thomson Reuters/Cambridge Associates, Preqin

- **Valuations are elevated across the venture landscape**
  - Late stage valuations have ballooned since 2011 with the growth in Unicorns
  - Later stage value is being captured by private investors now vs. historical value capture at and after IPO
- **Early stage seems relatively more attractive on a valuation basis**
  - Early stage valuations still reasonable, but higher investing risk
  - Look for late stage/growth equity investors that do more than ride the momentum wave



Source: Pitchbook

# Buyouts & Special Situations

## General Market Thoughts

- **Purchase prices remain near all time highs in developed geographies**
  - Private equity “overhang” of un-invested capital is at all time high, driven by strong fundraising and muted deal activity
  - While purchase prices are elevated, the amount of equity in transactions has also risen, a departure from the last buyout “boom”
- **Coming off of two strong years of buyout exits, exit activity has slowed as the global recovery outlook has become less certain**
- **Despite heady times, sponsors have proven their ability to preserve capital, with median investment multiples from the last buyout boom rebounding to 1.5x-1.6x with continued upside potential**
  - Greater industry specialization & operational capabilities from firms seeking to outperform peers

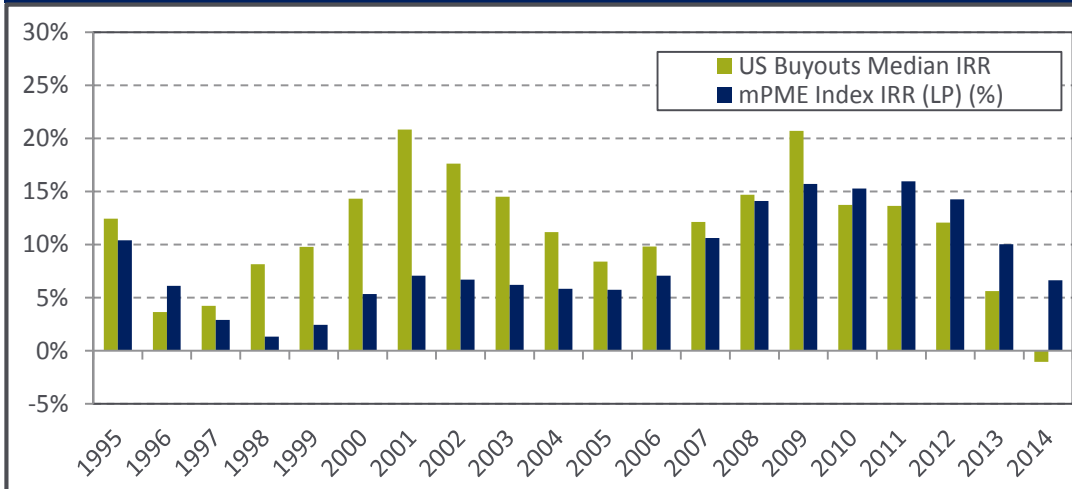
## Implementation Views

Strategy		Outlook	Commentary
US Buyout	Mega & Large	0	<ul style="list-style-type: none"> <li>• Seek value-oriented managers or those with industry or operational focus</li> <li>• Evaluate special situations managers able to capitalize on prolonged uncertain recovery</li> </ul>
	Mid & Small	+	
	Special Sits & Turnarounds	+	
European Buyout		0	<ul style="list-style-type: none"> <li>• Seek regional or pan-European managers targeting companies that do not rely on the EU as their primary end market</li> </ul>
Asian Buyout		+	<ul style="list-style-type: none"> <li>• Seek managers with strong local networks and those with industry or operational focus to drive growth &amp; profitability</li> <li>• Consider specialized FOFs as option to balance diversification with access country specific firms, small funds &amp; co-investments</li> </ul>

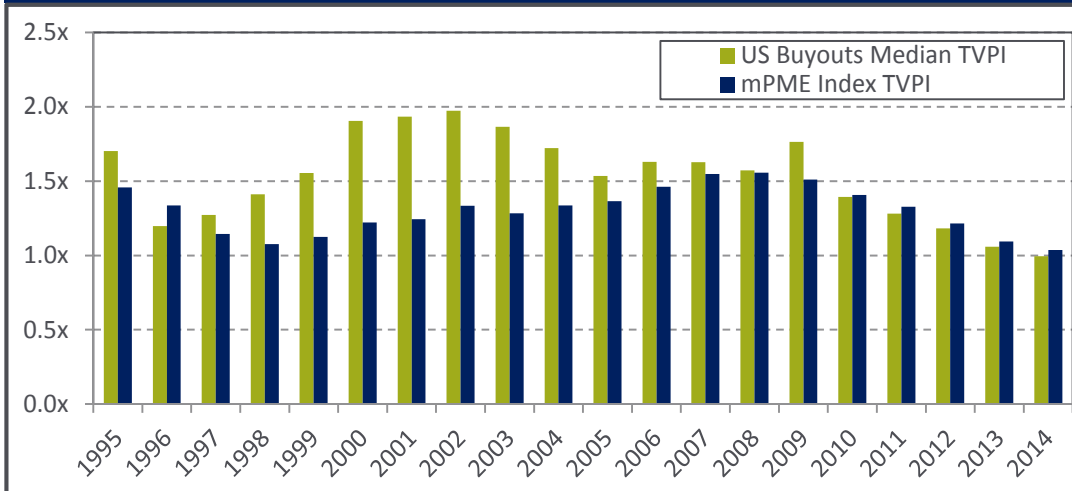
## Commentary

- US buyouts have proven their ability to generate illiquidity premiums as funds mature**
  - Recent public market performance has made comparisons difficult, but we would expect the historical relationship to persist over the long term
  - PME is generally not relevant during the first five years of a PE fund
- Median mature funds have delivered investment multiples of nearly 2x**
  - As the industry has matured and become more efficient, we expect median returns to compress going forward

## Vintage Year IRR Return Comparison



## Vintage Year TVPI Multiple Comparison



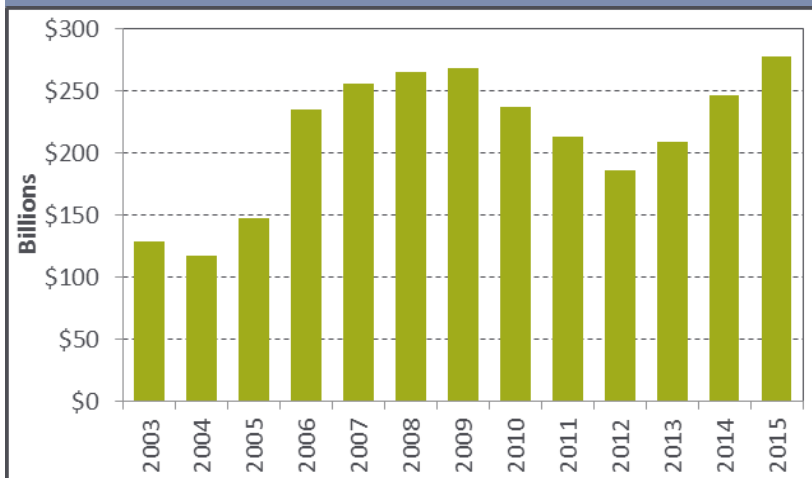
Source: Thomson Reuters/Cambridge Associates



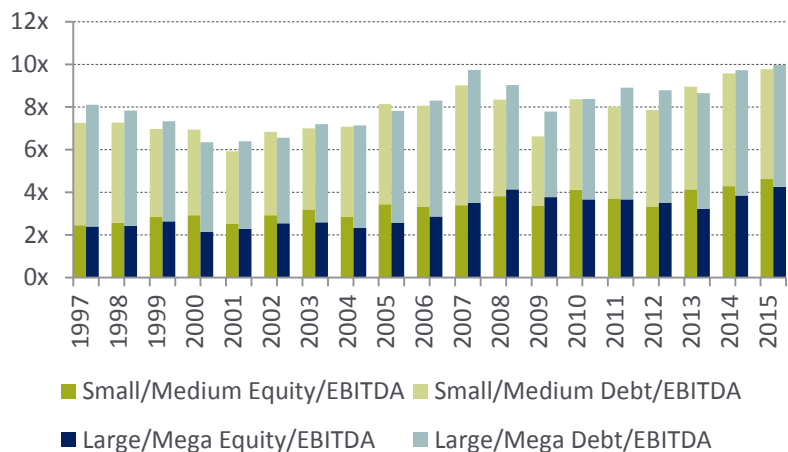
## Commentary

- **Un-invested buyout capital is at an all time high, which has contributed to near-double digit EBITDA valuations**
- **The amount of equity in transactions has also risen, a departure from the last buyout "boom"; while debt multiples are high, interest coverage ratios are at or near their historic peak**
- **Sponsors have proven their ability to preserve capital even in frothy deal making environments**

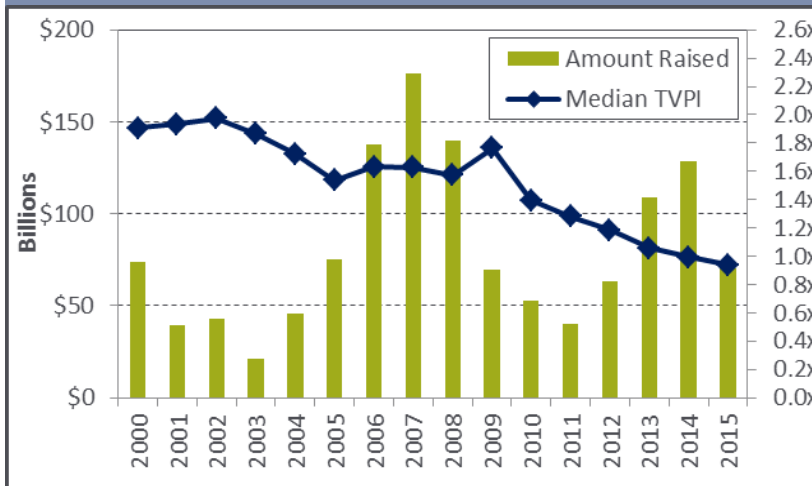
## US Buyout Dry Powder



## Small/Middle vs. Large/Mega Purchase Price Multiples



## Vintage Year Inv. Multiples vs. Fundraising

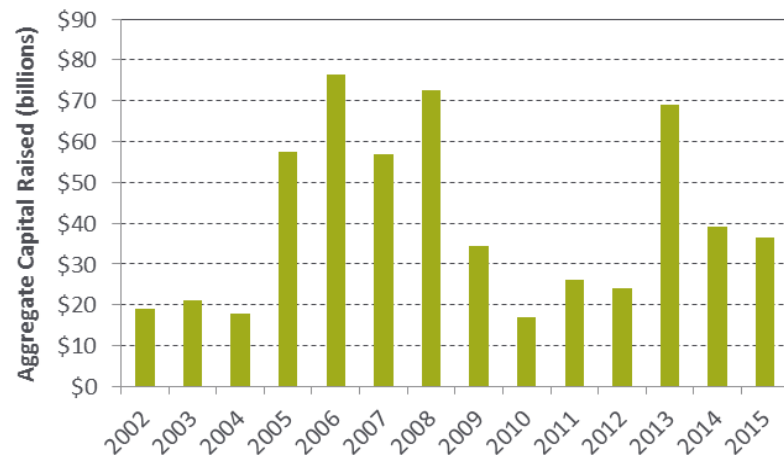


Source: Thomson Reuters/Cambridge Associates, Preqin, S&P Capital IQ

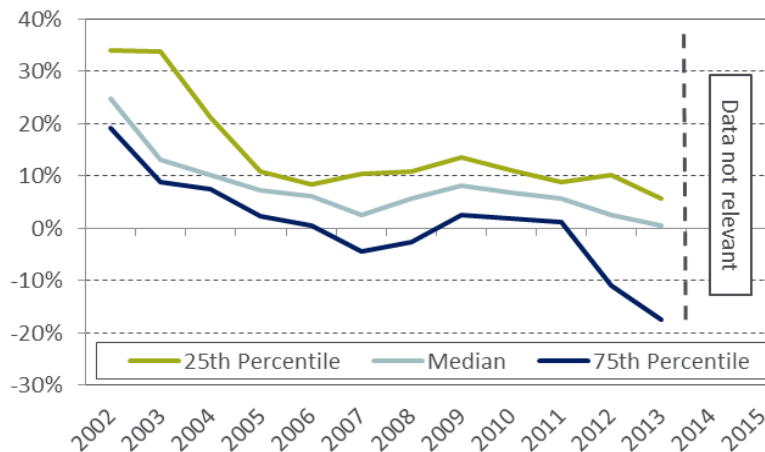
## Commentary

- **Fundraising volume has not reached pre-crisis levels**
  - European fundraising has lagged US markets
- **European buyout market performance has been underwhelming in USD since the early 2000s**
  - Top quartile funds look less attractive than median US buyout returns
  - FX changes and public market performance have been contributing factors

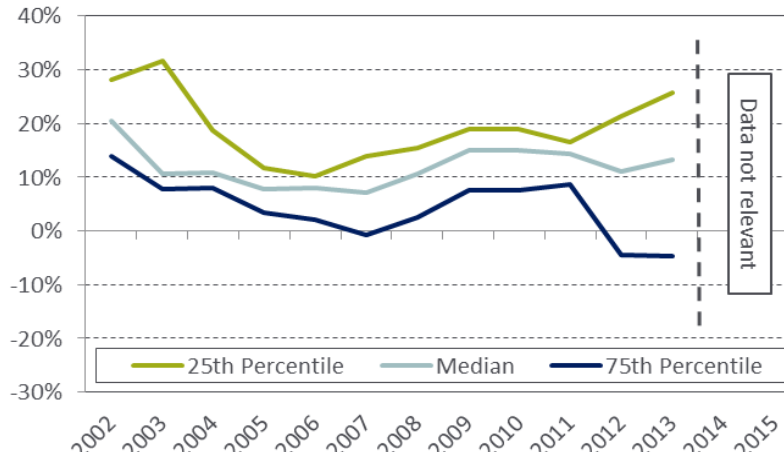
## Annual Fundraising



## Vintage Year Net IRR (USD)



## Vintage Year Net IRR (EUR)

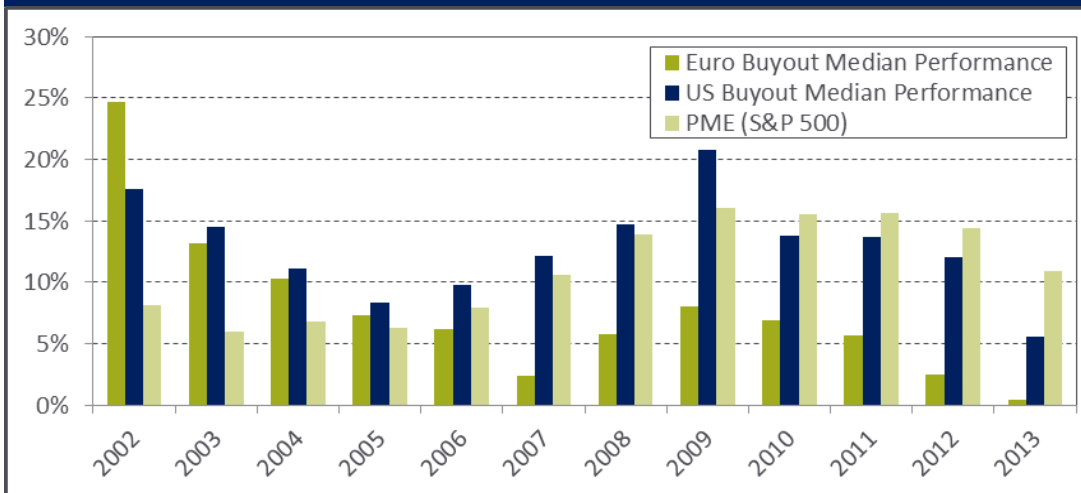


Source: Thomson Reuters/Cambridge Associates

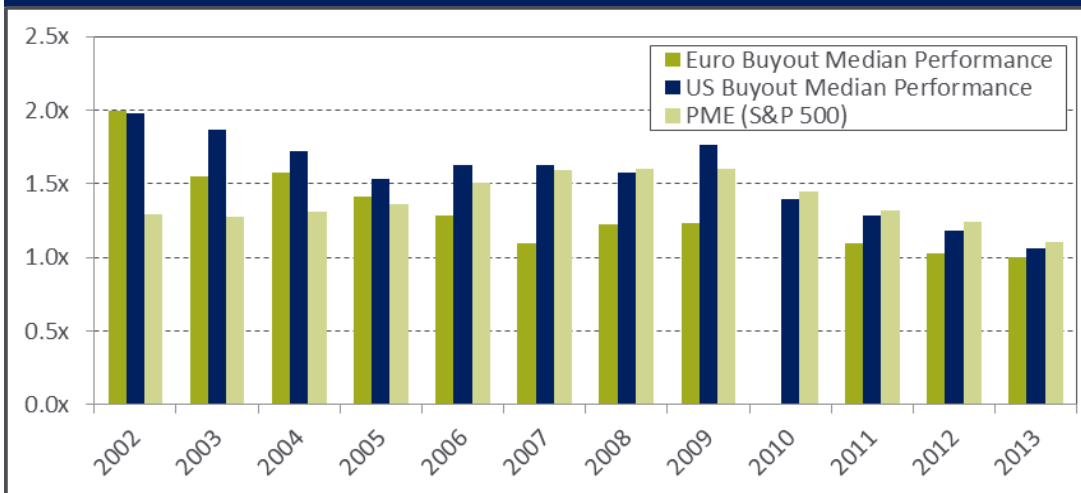
## Commentary

- **Median European buyout IRRs have substantially underperformed US counterparts**
  - FX rates have favored the USD
  - Public market indices have lagged US
  - Economic growth has lagged US
- **Multiples on invested capital have lagged for similar reasons**
- **Given the additional risks of investing in Europe, the bar is high for selecting European strategies**

## Vintage Year IRR Return Comparison



## Vintage Year TVPI Multiple Comparison

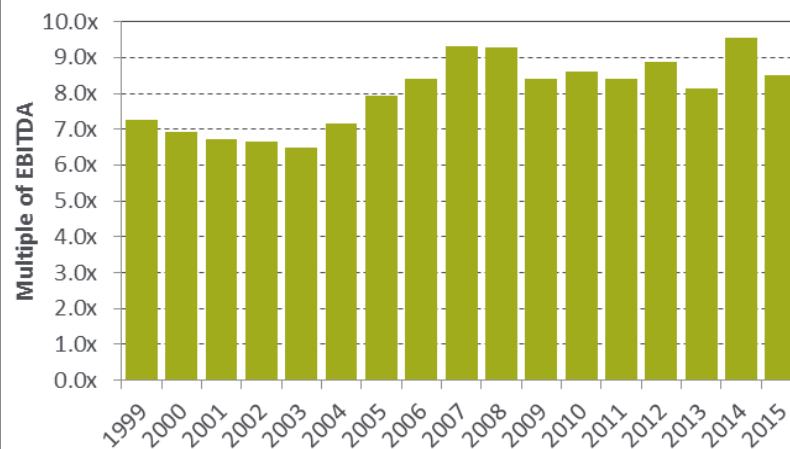


Source: Thomson Reuters/Cambridge Associates

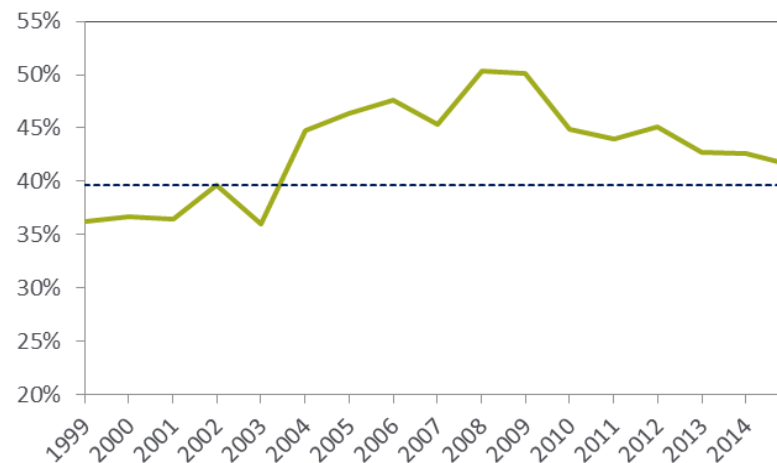
## Commentary

- **European pricing multiples have not experienced as much expansion as in the US buyout market**
- **Equity contributions continue to fall towards the average level**
- **Dry powder has not returned to peak levels**

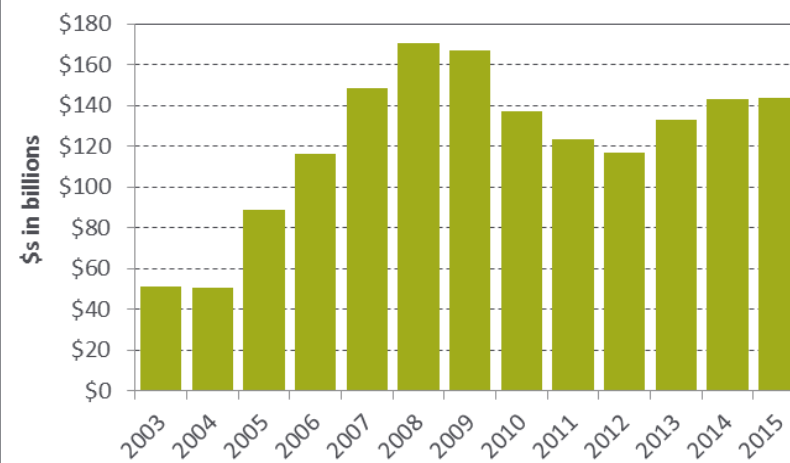
## Avg. Buyout Purchase Price as Multiple of Pro Forma Trailing EBITDA



## European Buyout Equity Contribution



## Dry Powder for European Buyout Funds

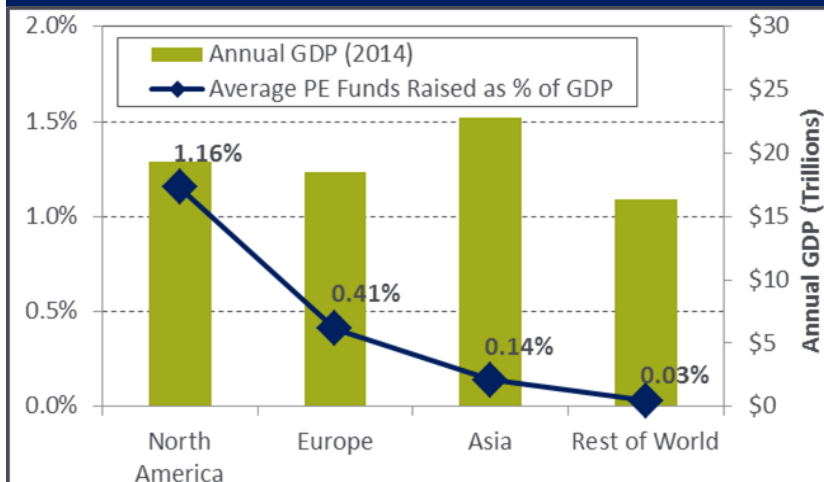


Source: S&P Capital IQ

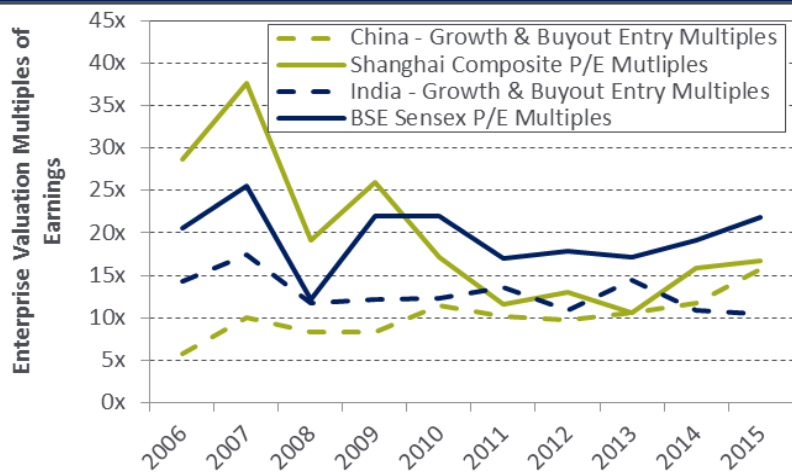
## Commentary

- **Private equity is much smaller in Asia/EM relative to the developed world**
- **Public equities trade at a premium to private equity entry valuations, providing an investment arbitrage opportunity**
- **Asia/EM funds have exhibited a wide range of returns; manager selection is critical**
- **Asia funds have generally outperformed EM**

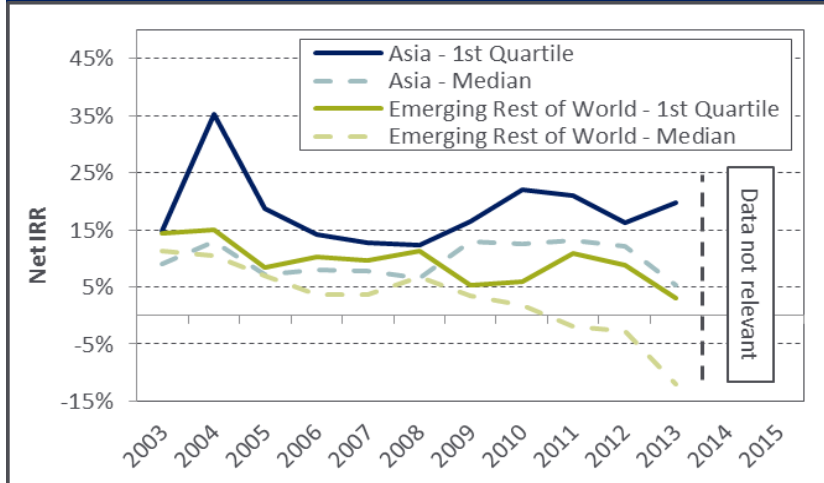
## PE Fundraising as a % of GDP



## Private vs. Public EV Multiples



## PE Fund Returns by Vintage Year



Source: S&P Capital IQ

# Distressed Debt & Opportunistic Credit

## General Market Thoughts

- **Distressed Debt**

- Low default environment with ample available capital continues to create challenging environment for distressed opportunities (though this dynamic could change quickly if liquid credit market continue to sell off)
- The energy sector (oil and gas, coal) accounts for more than a third of high-yield bonds that are trading at distressed levels
  - Distressed ratio for energy high yield bonds and metals / mining is 50% and 39%, respectively
  - Managers expect energy distress to increase in 2016
- Over \$1 trillion of NPLs still exist on the balance sheets of banks in Europe
  - Basel III continues to lead banks to sell these assets
  - We don't expect outsized returns but do see a large opportunity set mainly in Italy, Spain, UK and Greece

- **Opportunistic Credit**

- Emphasize managers with flexible and opportunistic strategies allowing for investments in an assortment of securities, assets, and situations, and allowing them to dynamically react to changing market conditions

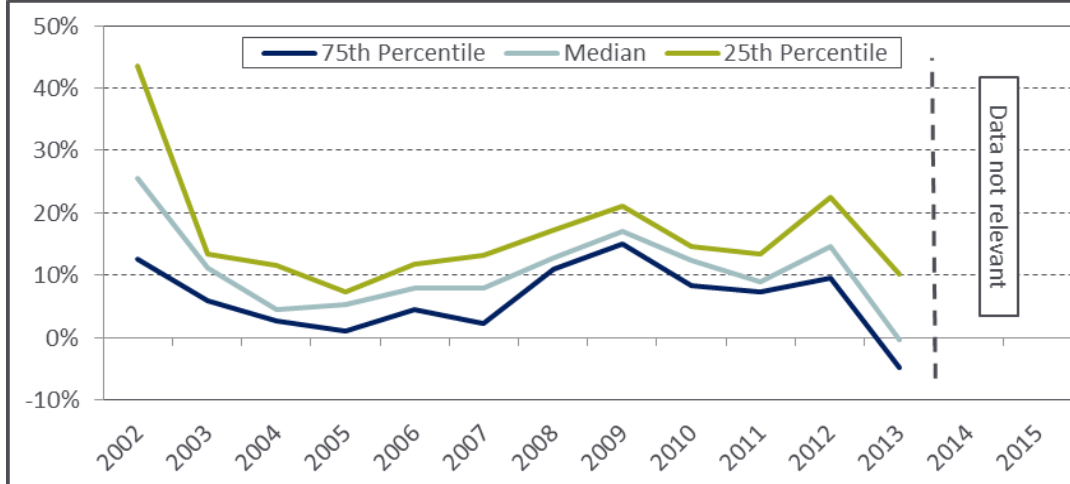
## Implementation Views

Strategy	Outlook	Commentary
Distressed Debt	0	<ul style="list-style-type: none"> <li>• Unless manager is an alpha generator, conserve capital and invest when signs of a distress cycle appear</li> <li>• Target managers that base fees on invested capital</li> </ul>
Opportunistic Credit	+	<ul style="list-style-type: none"> <li>• Invest now with flexible managers who can invest across the spectrum based on market conditions</li> </ul>

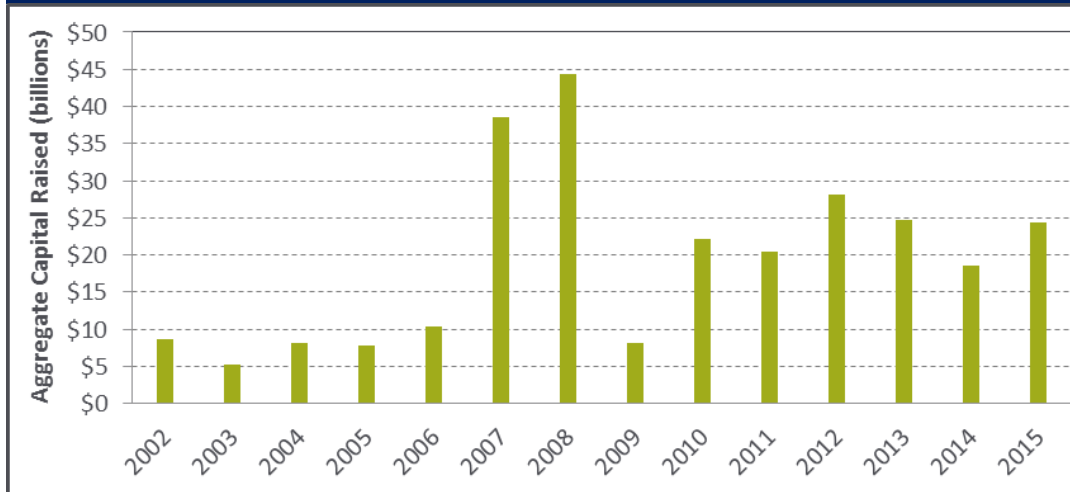
## Commentary

- **Distressed median returns have historically generated low-double digit returns**
  - Dispersion between quartiles is reasonably narrow
  - Distressed credit performed well during the 2001-2003 and 2008-2009 recent cycles
  
- **Fundraising has increased since 2009 but still lags 2008 levels**

## Vintage Year Net IRRs



## Annual Fundraising



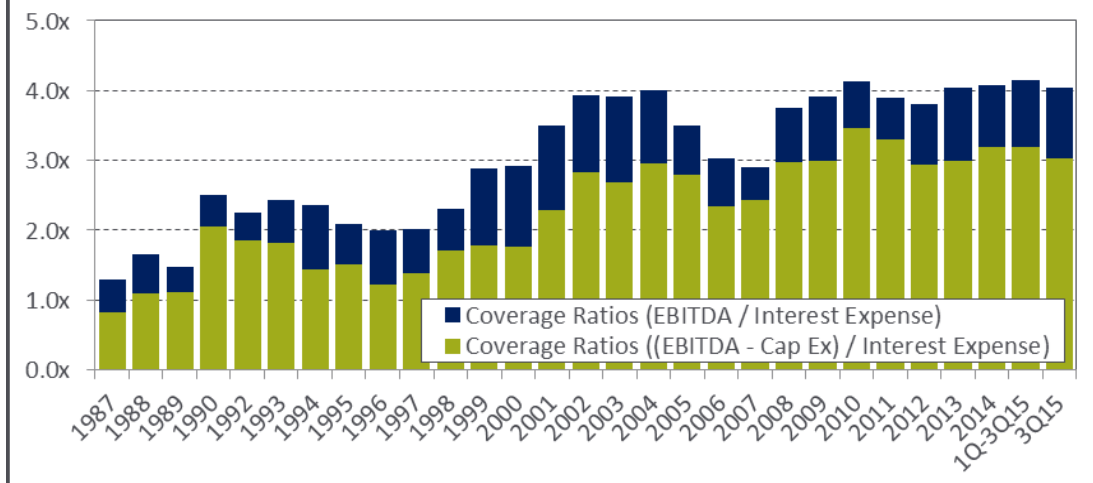
Source: Thomson Reuters/Cambridge Associates, Preqin



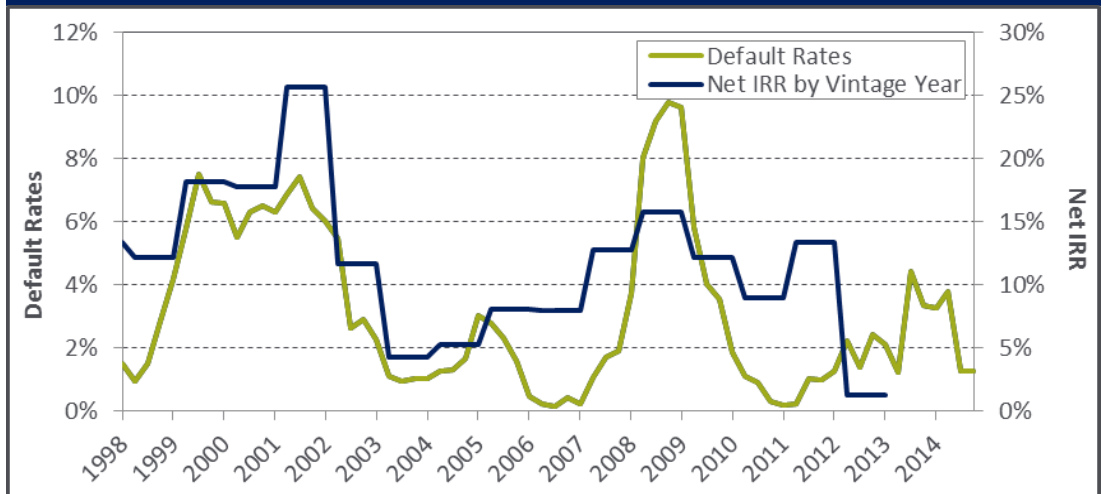
## Commentary

- **Currently, we think there is still runway before the ideal time to invest in distressed debt**
- **Coverage ratios are currently strong, given the extended low interest rate environment**
- **Default rates are a reasonably good indicator of distressed returns by vintage year**
  - More recent performance is less meaningful

## Coverage Ratios



## Default Rates and Vintage Year Returns



Source: Thomson Reuters/Cambridge Associates

# Mezzanine & Direct Lending

## General Market Thoughts

- **Mezzanine**
  - Debt multiples are back to 2007 levels, while dry powder is at an all time high and mezzanine has become a much smaller portion of the capital structure
  - Pricing has declined
  - Coverage ratios and equity cushions remain high
- **Direct Lending**
  - Direct lending continues to offer attractive income relative to liquid markets, however, recent pullbacks in the public credit markets have narrowed the gap
  - BDCs trading below book value could create opportunity for well capitalized lenders
  - European and Asian lending markets have a greater structural imbalance than the US
- **Private lending strategies continue to benefit from changing fee structures**

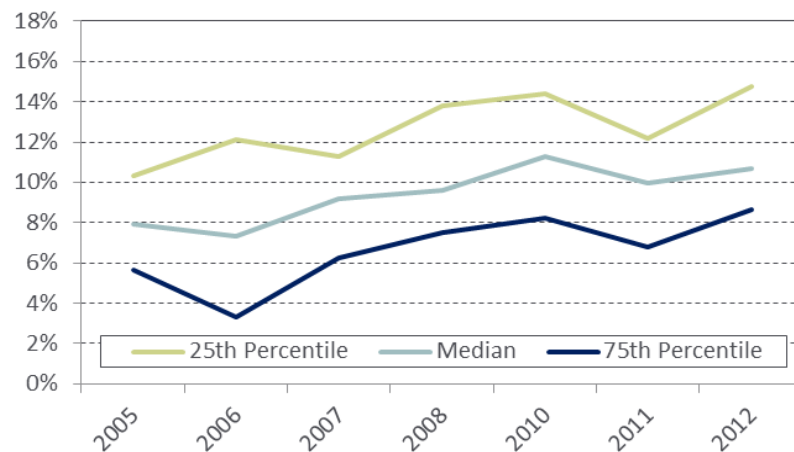
## Implementation Views

Strategy		Outlook	Commentary
Mezzanine		-	<ul style="list-style-type: none"> <li>• Few strong performers in the asset class</li> <li>• Identify outliers with attractive fee structures</li> </ul>
Direct Lending	US	0	<ul style="list-style-type: none"> <li>• Pursue lower-middle and middle market lenders vs large cap managers in US</li> </ul>
	Europe & Asia	+	<ul style="list-style-type: none"> <li>• For larger structural imbalances pursue lending opportunities in Europe and Asia (+)</li> </ul>

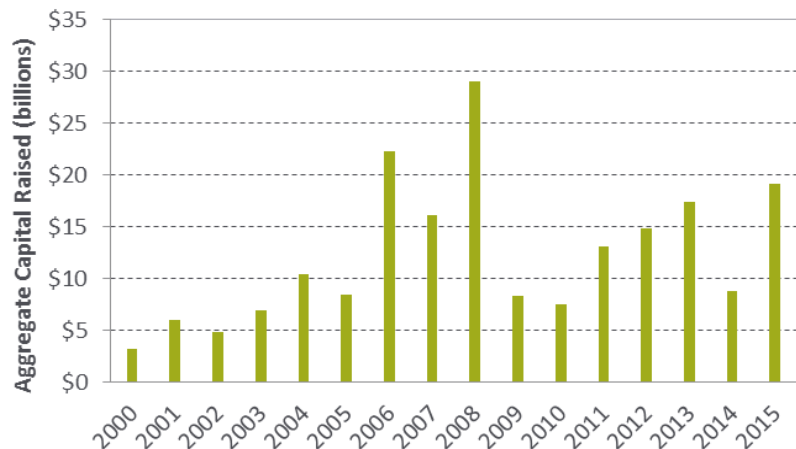
## Commentary

- **Median mezzanine fund performance has hovered around 10% post crisis**
  - Mezzanine has consistently underperformed US buyouts
- **US mezzanine fundraising has reaccelerated and dry powder has hit all time highs**

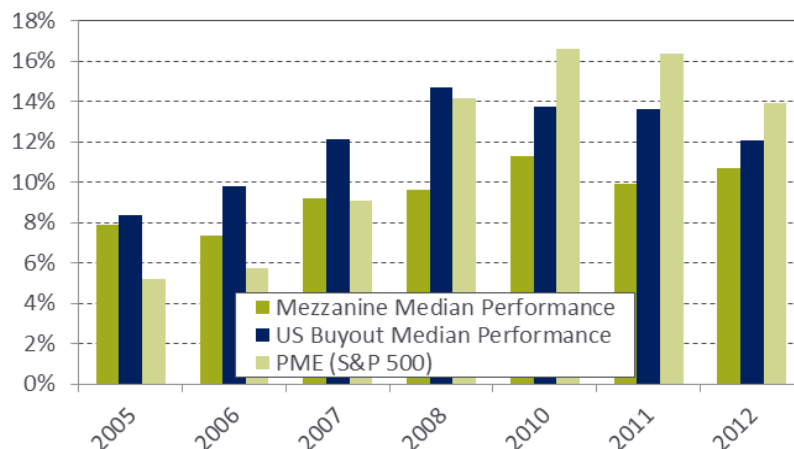
## Vintage Year Net IRRs (Mezzanine)



## Annual Fundraising (Mezzanine)

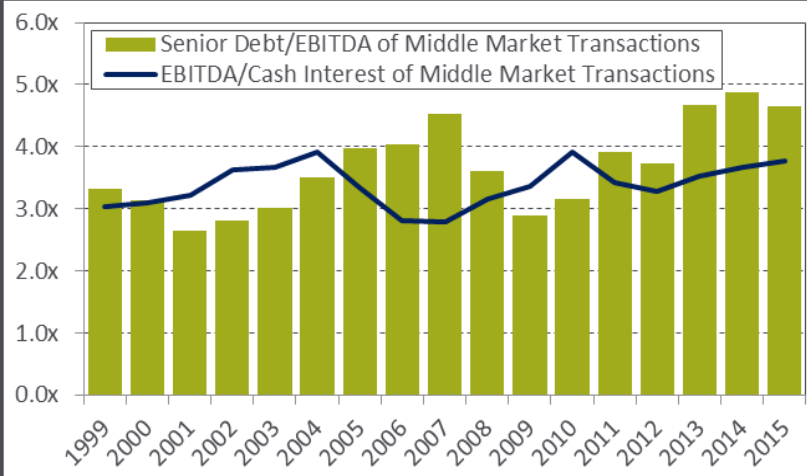


## Vintage Year IRR Return Comparison (Mezzanine)

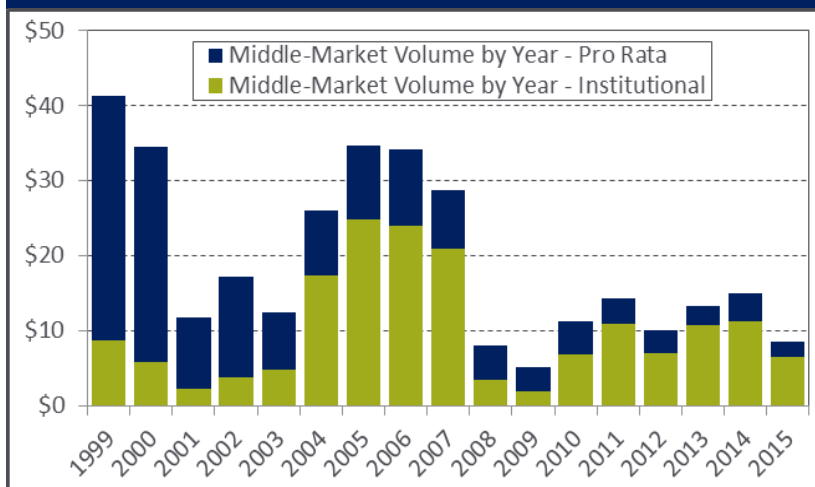


Source: Thomson Reuters/Cambridge Associates, Preqin

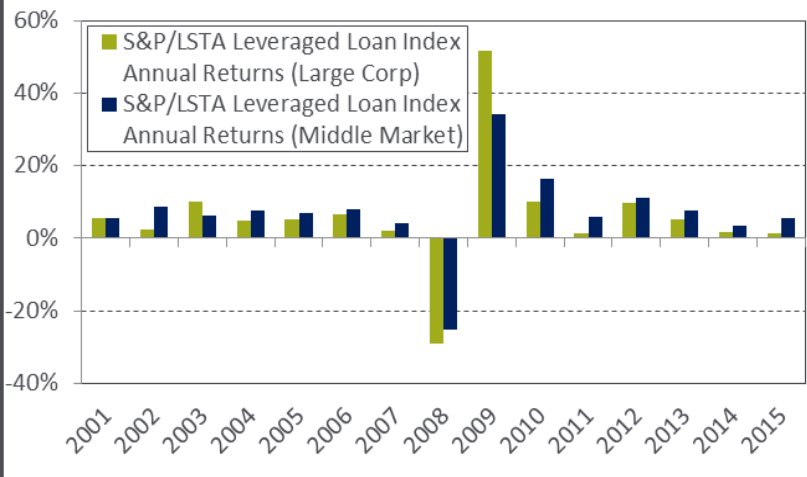
## Credit Statistics of Middle Market Transactions



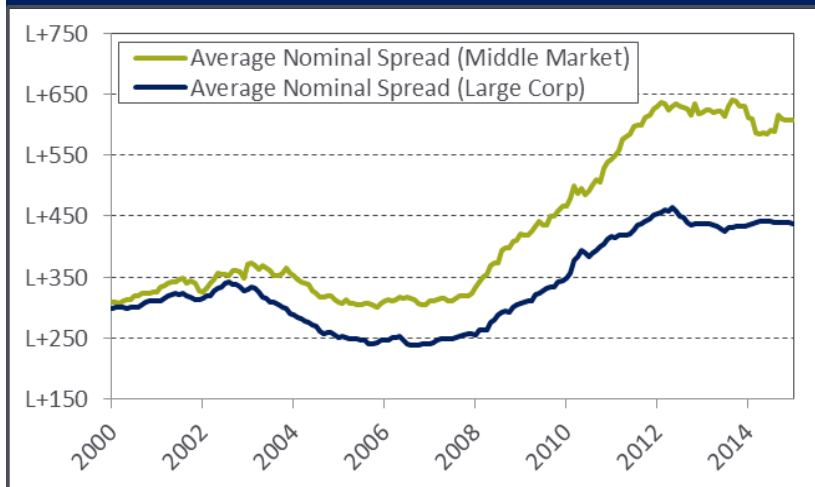
## US Middle Market Leveraged Loan Issuance



## Annual Returns of the S&P/LSTA Leveraged Loan Index



## Avg. Nominal Spread of Leveraged Loans



Note: 2015 data as of Q3 2015 YTD

Source: S&P Capital IQ

# Secondaries

## General Market Thoughts

- **Secondary deal volume is expected to exceed \$25 billion for 2015 when final amounts are tallied**
  - Opportunism, not distress, has been driving most seller motivations
  - Deal volume slowed in second half of 2015 as market volatility and global economic uncertainties increased; 2015 will end up below 2014's record volume of \$37+ billion of secondary deals
- **Competition for "plain vanilla" LP interest portfolios has been high; with funds using leverage and deferred payments to support higher bids**
  - Secondary capital overhang at a reasonable level, but could rise if transaction slowdown continues into 2016
  - During years of economic expansion, the spread between long-term secondary and primary fund returns tends to widen
  - A near-term global recession would improve the investment outlook for 2016 vintage secondaries

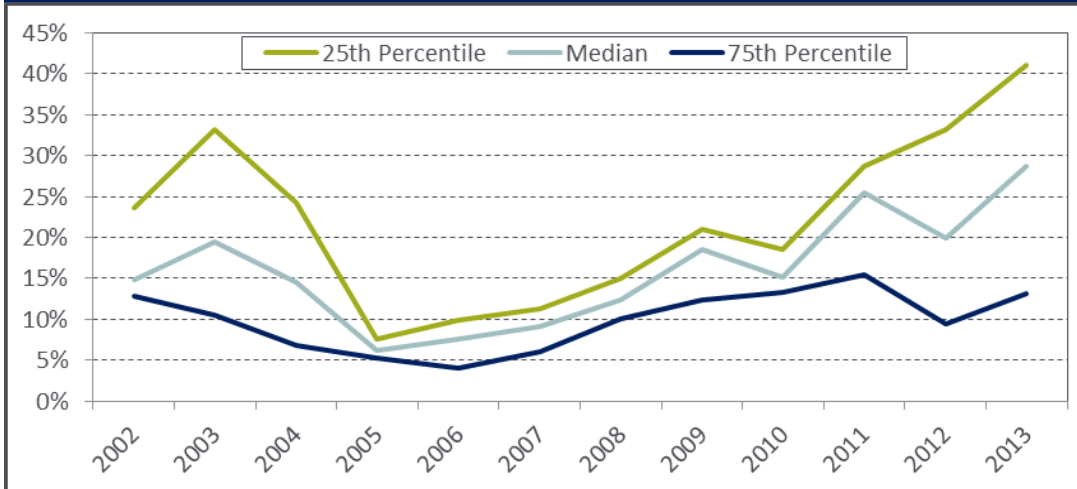
## Implementation Views

Strategy	Outlook	Commentary
Secondaries	0	<ul style="list-style-type: none"><li>• In current environment, the best opportunities are with those firms who can minimize competition through sourcing strategies, deal complexity, investment focus or single interest transactions</li><li>• Secondary commitments can serve as a hedge to primary fund commitments and reduce overall PE portfolio volatility</li></ul>

## Commentary

- **Secondaries have consistently generated positive returns**
  - Median returns generally in the 10%-15% range
  - The 2<sup>nd</sup> quartile spread has narrowed to an average of 250bps
  - IRRs on more recent vintage years are expected to compress over time
  
- **Nearly \$100 billion of secondary funds have been raised over the past 4 years**
  - Fundraising declined in 2015, but still elevated
  - Deal environment has also been active over the past four years, but slowed in the second half of 2015

## Vintage Year Net IRRs



## Annual Fundraising



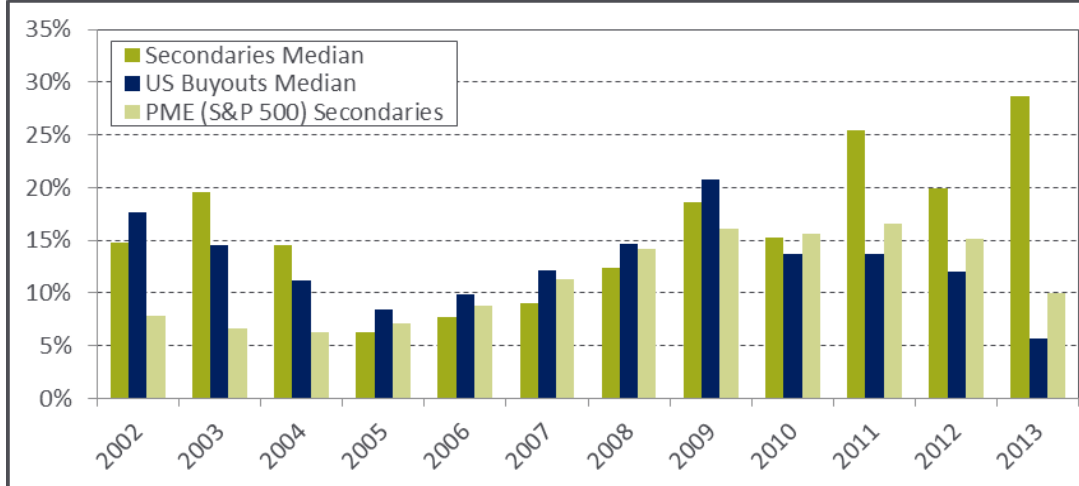
Source: Thomson Reuters/Cambridge Associates, Preqin



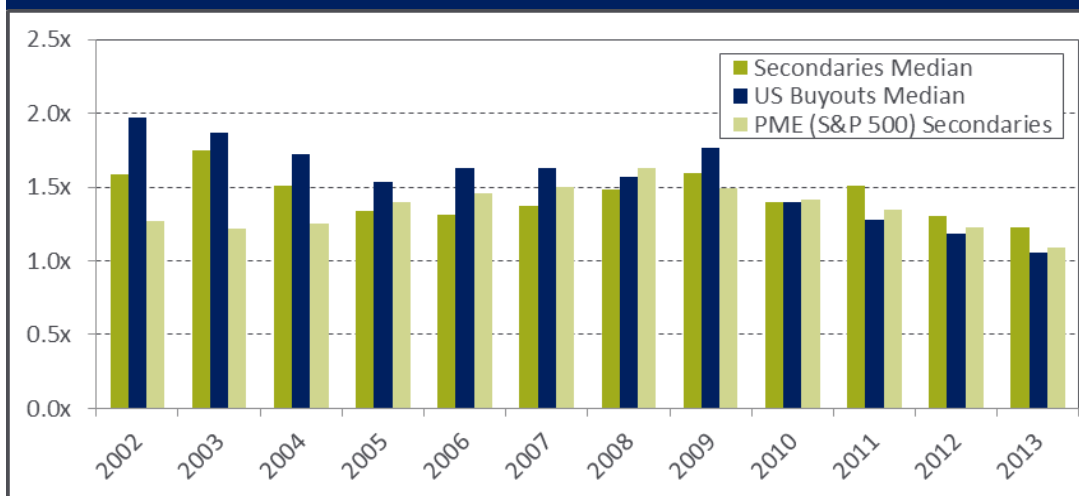
## Commentary

- **Secondary fund returns follow an inverted J-curve from primary fund returns**
  - Early returns are high as deal discounts are reflected as unrealized gains
  - Over time, as these discounts are spread across the holding period, the returns tend to decline
- **Median secondary fund returns have generally been in the 8%-18% range for IRRs and 1.3x-1.5x**
  - Returns have been strongest when investing out of a recession and weakest when investing into one
  - Secondaries outperform buyouts early on, but tend to lag over the long-term
  - Secondary returns are higher than PMEs in the early years; ultimate relative outcome depends on economic cycle timing

## Vintage Year IRR Return Comparison



## Vintage Year TVPI Multiple Comparison



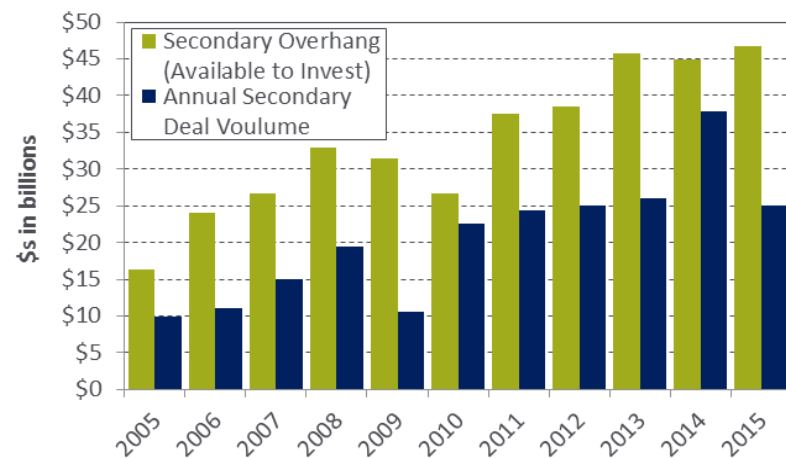
Source: Thomson Reuters/Cambridge Associates

# Secondaries: Opportunistic Selling that Slowed when Market Volatility Increased

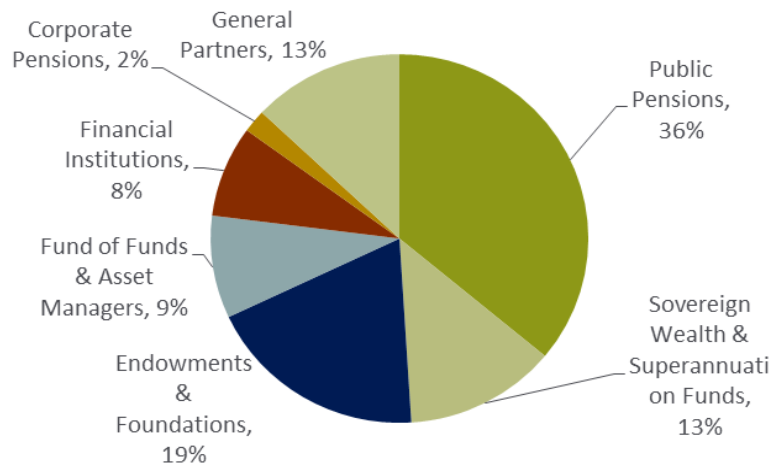
## Commentary

- **High deal level activity has kept secondary overhang at reasonable levels**
  - Deal activity slowed in the second half of 2015 as market volatility and global economic outlook uncertainty increased
  - Opportunistic selling dominated 2015 rather than organizations selling out of liquidity distress
  - Purchase prices relative to GP NAV increased, but are expected to come down given recent public market volatility

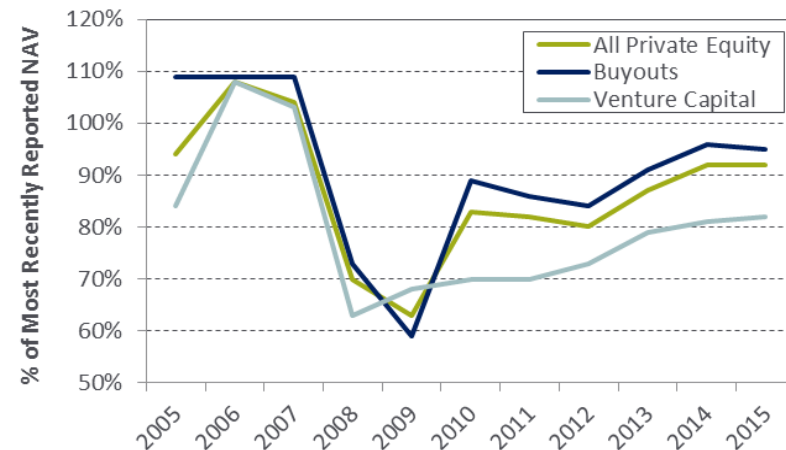
## Secondary Overhang & Deal Volume



## Types of LPs Selling in 2015



## Average Secondary Purchase Prices



Source: NEPC Analysis, Thomson Reuters/Cambridge Associates, Greenhill Cogent

# Fund of Funds & Co-Investment Funds

## General Market Thoughts

- **Fund of funds can provide investors with exposure to private equity beta, albeit with the cost of an additional layer of fees, long fund terms, and potentially over-diversified portfolios**
  - Median FOF returns generally lag the median US buyout fund returns, but can outperform US public equities over the long-term
- **Commitments to FOFs have been declining, causing many FOF managers to look to co-investment, secondaries and separate accounts to maintain assets and enhance investment returns**
  - FOFs have been reducing fees in attempt to stem decline in commitments by LPs
- **Co-Investment funds provide investors with direct company exposure in a portfolio whose assets are managed by several fund managers at fee structures that are less than most direct funds**
  - Most co-investment funds are heavily weighted toward buyouts
  - Co-investment funds provide for an effective diversification tool and FOF alternative
  - Management fee and carried interest rates are generally about half of those charged by direct funds

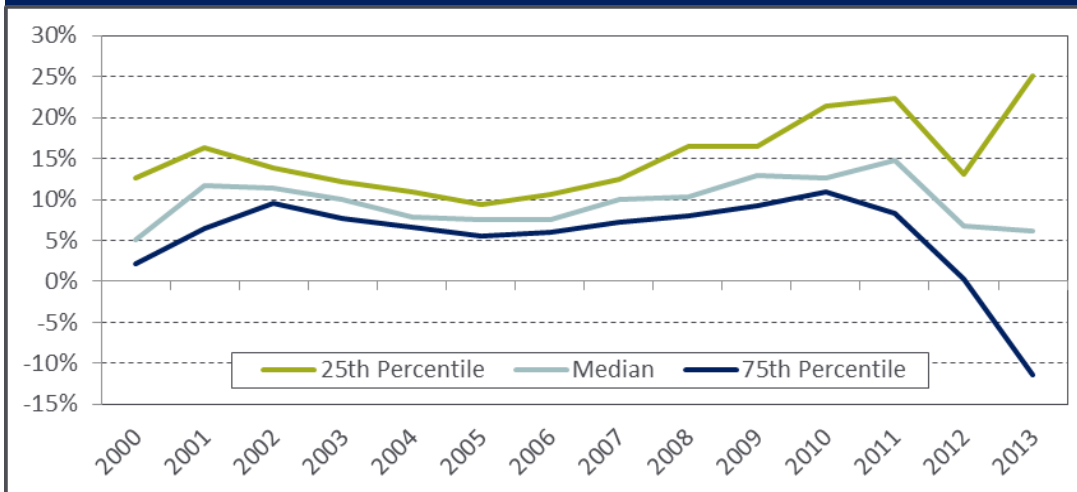
## Implementation Views

Strategy		Outlook	Commentary
Fund of Funds	Specialized	0	<ul style="list-style-type: none"> <li>• Diversified fund of funds are best used to easily capture private equity beta while minimizing its administrative duties.</li> </ul>
	Global/Multi-Strategy	-	<ul style="list-style-type: none"> <li>• Specialized fund of funds can be an effective way for investors to access sectors of private equity where direct investing is more difficult, time consuming or access constrained</li> </ul>
Co-Investment Funds		0	<ul style="list-style-type: none"> <li>• Seek firm's with strong GP relationships and wide sourcing networks; both should enable co-investment fund managers to see a wide range of good investment opportunities</li> <li>• Co-investment fund managers need to have a combination of direct deal and fund evaluation skills</li> </ul>

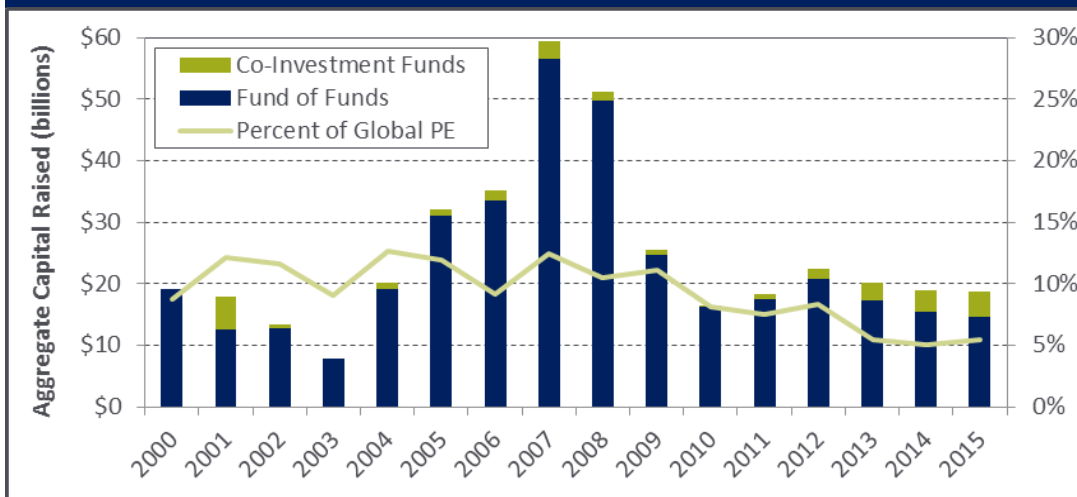
## Commentary

- **Fund of Funds can provide diversified private equity exposure while generating relatively stable long-term returns**
  - Median returns generally in the 8%-12% range
  - Consistent spread of approximately 400bps for 1<sup>st</sup> quartile FOFs over median FOFs
  
- **Fund of fund fundraising has been declining over the past decade**
  - Fund of fund managers have been raising comingled co-investment funds to partially offset AUM declines
  - However, FOFs & Co-investment funds comprise only 5% of all private equity funds; down from 10% ten years ago

## Vintage Year Net IRRs



## Annual Fundraising



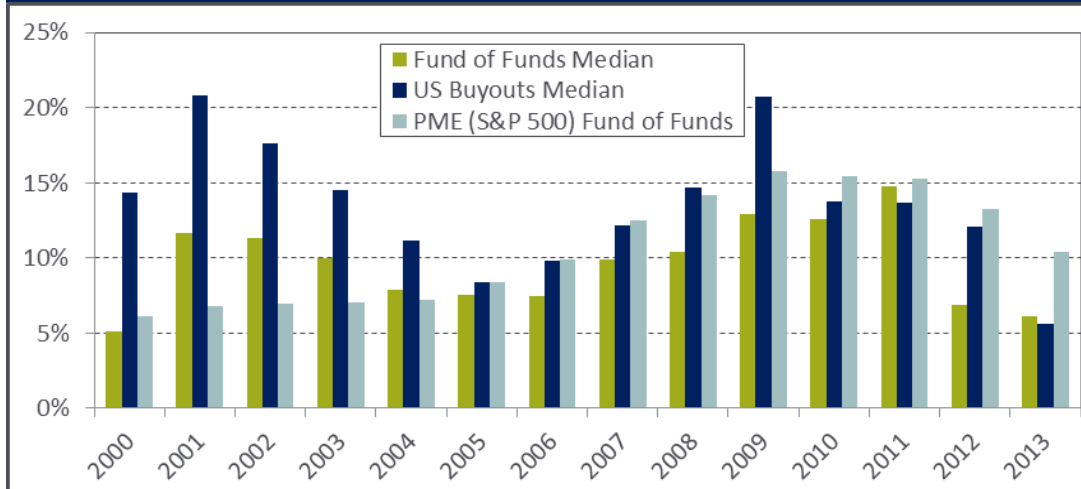
Notes: Major PE data providers are not yet providing co-investment fund returns

Source: Thomson Reuters/Cambridge Associates, Preqin

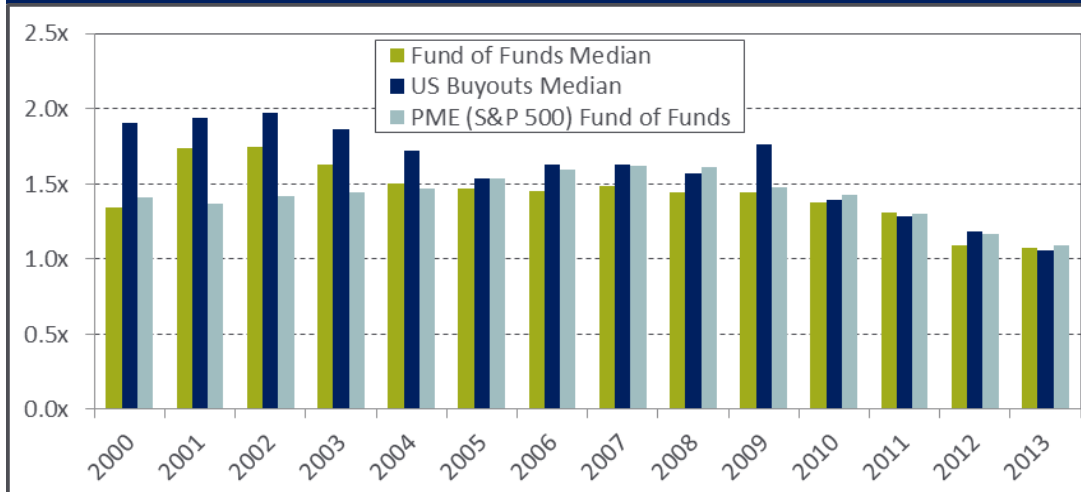
## Commentary

- **Strategy and diversification benefits of fund of funds come at a cost**
  - Median FOF returns have generally trailed median US buyout returns
  - Despite lagging US buyouts, returns have been positive across vintages
  - FOF returns can outperform US public market returns using a public market equivalent
  - With many FOFs having four year commitment periods, it can take 7-10 years for a FOF to generate meaningful returns
  - Over the past 10 years, FOFs have been increasingly using secondary and co-investments within their FOFs to mitigate J-curve and enhance capital appreciation potential

## Vintage Year IRR Return Comparison



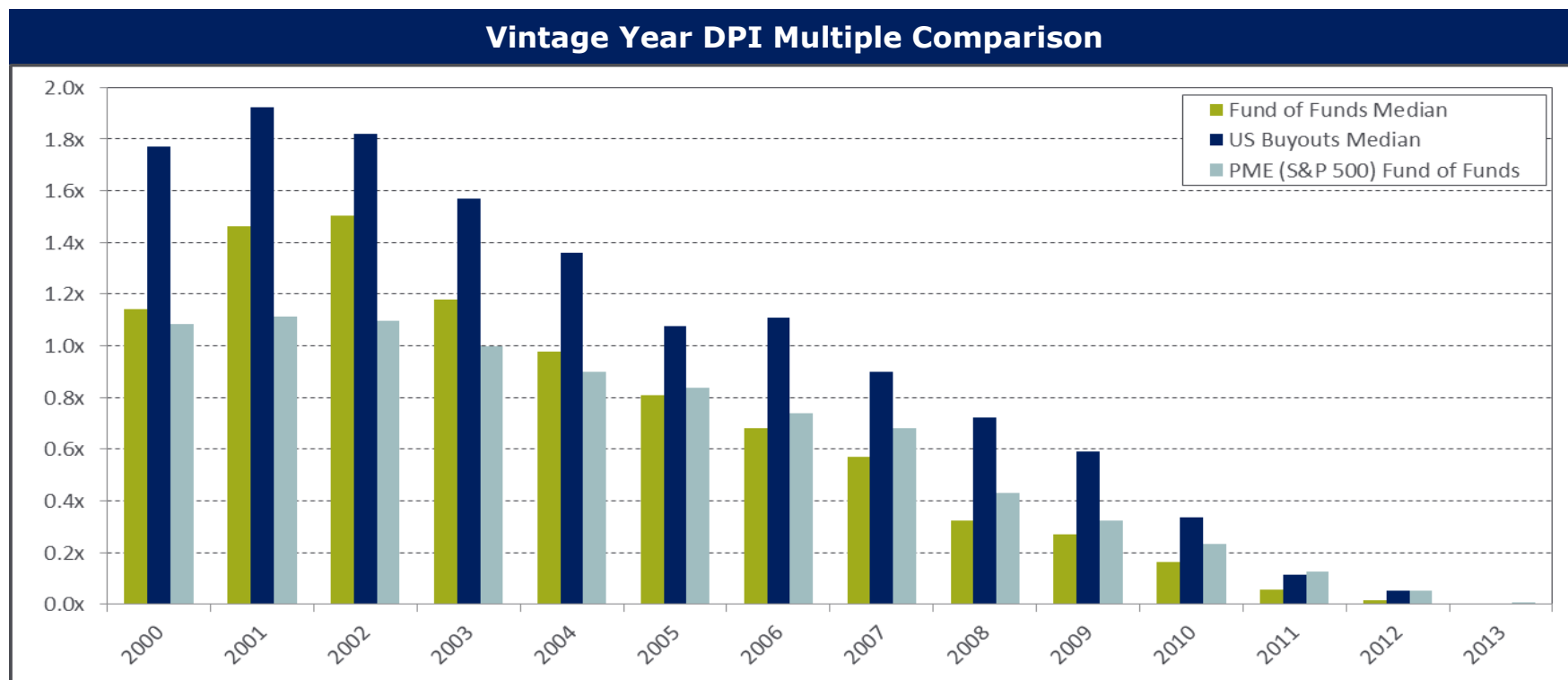
## Vintage Year TVPI Multiple Comparison



Source: Thomson Reuters/Cambridge Associates

# Fund of Funds & Co-Investment Funds: Relative Return Comparison

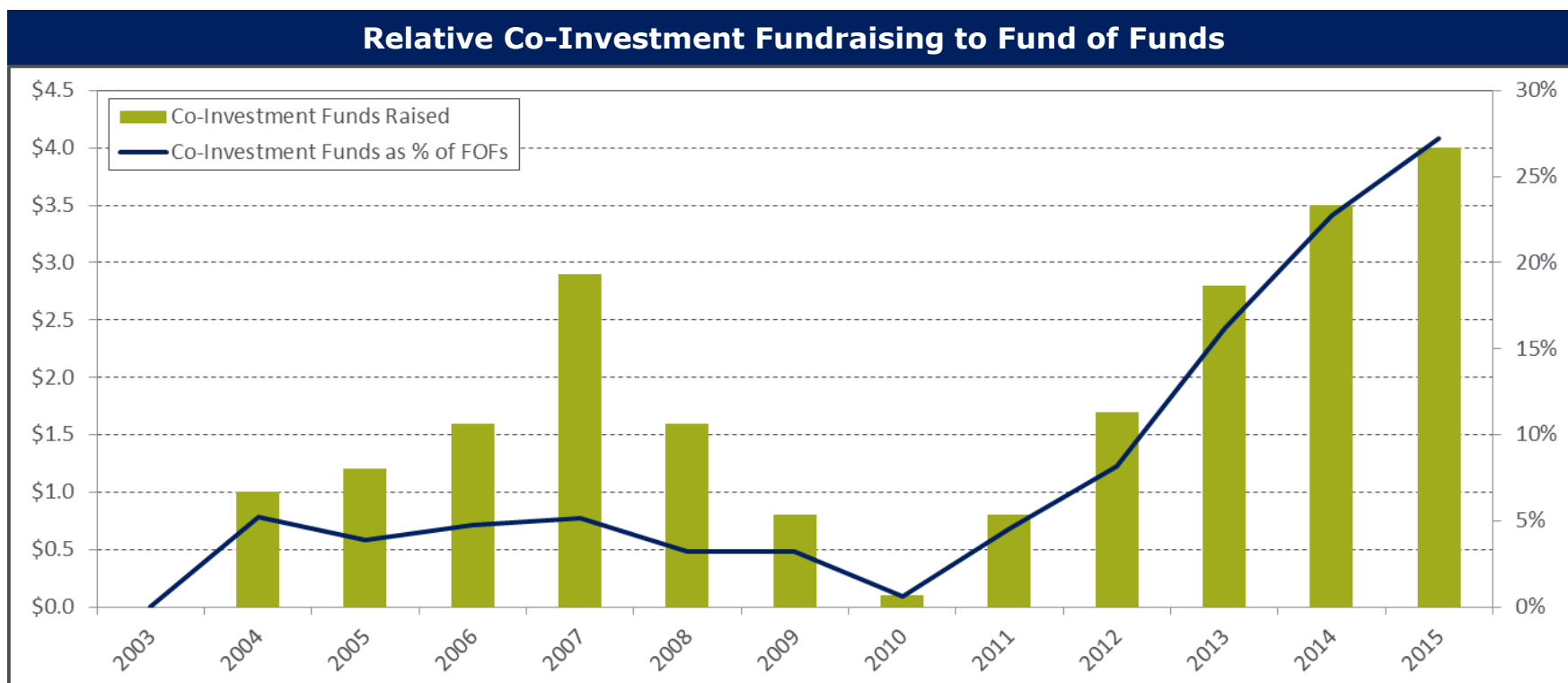
- **Due to their extended commitment periods and extra layer of fees, fund of funds distributions are slower to develop than commitments to primary funds**
  - The median US buyout fund takes approximately 8-9 years to fully return 100% of invested capital to Limited Partners
  - Fund of funds generally take 11-12 years to fully return 100% of invested capital



Source: Thomson Reuters/Cambridge Associates



- **Both the supply & demand for co-investment funds has increased in the past few years**
  - Capital raises by multi-manager co-investment funds have been steadily increasing since 2010
    - As new FOF commitments have been on the decline, co-investment funds comprise a significant portion of new commitments managed by FOF firms
  - Increased interest can be attributed to LPs looking for lower fee investment alternatives, shorter-duration multi-manager exposure and greater diversification to counterbalance other sector-focused commitments
  - The universe for dedicated co-investment fund managers is small, however, there are managers that have managed to differentiate themselves



Source: Thomson Reuters/Cambridge Associates



- This report contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, policies or portfolio management and research that supports these approaches.
- Past performance is no guarantee of future results.
- The information in this report has been obtained from sources NEPC believes to be reliable. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

**In addition, it is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds, real estate and private equity:**

1. Performance can be volatile and investors could lose all or a substantial portion of their investment.
2. Leverage and other speculative practices may increase the risk of loss.
3. Past performance may be revised due to the revaluation of investments.
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms.
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value.
6. These funds are not subject to the same regulatory requirements as registered investment vehicles.
7. Managers may not be required to provide periodic pricing or valuation information to investors.
8. These funds may have complex tax structures and delays in distributing important tax information.
9. These funds often charge high fees.
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy.



## DISCUSSION SHEET

### ITEM #C7

- Topic:** Riverstone Credit Partners, LP
- Attendees:** Christopher Abbate, Managing Director, Co-Head of Riverstone Credit  
Jamie Brodsky, Managing Director, Co-Head of Riverstone Credit  
Patrick Connell, Principal, Limited Partner Relations Team
- Discussion:** Riverstone Credit Partners, LP. (the “Fund”) is a closed end, energy focused private credit strategy with a target gross return of 15% to investors. Riverstone Holdings (“Riverstone”), the sponsor of the Fund, is a private equity firm specializing in the energy and power industry that was founded in 2000. Since inception, Riverstone has raised \$33 billion of capital across 9 private funds and 2 listed vehicles. The Fund will seek to take advantage of the current dislocation in the energy credit markets to make primary and secondary investments in debt securities of non-investment grade, small to mid-sized energy companies in North America, focusing on the four conventional energy sectors including exploration and production, midstream, energy services, and power & coal. The Fund will have secured approximately \$600 million of commitments from institutional investors upon its final close in April 2016.
- Staff sourced this investment with the assistance of NEPC. In sourcing private credit strategies that might be a fit for the DFPF portfolio, staff and NEPC conducted a detailed review of a number of investment opportunities and determined this Fund was the best fit. A staff memo and a NEPC memo outlining the merits of this investment are provided. Staff and NEPC recommend approving an allocation of \$10 million to the Riverstone Credit Partner L.P. fund within DFPF’s private credit allocation.



## DISCUSSION SHEET

### ITEM #C7

(continued)

#### Staff

#### Recommendation:

**Approve** a \$10 million commitment to the Riverstone Credit Partners, LP. and authorize the Executive Director to perform due diligence, execute documentation, and perform all necessary acts and exercise all appropriate discretion to facilitate this investment.



NEPC, LLC

YOU DEMAND MORE. So do we.<sup>SM</sup>

## **NEPC Private Markets Investment Due Diligence Research Report**

**Riverstone Holdings, LLC**  
*Riverstone Credit Partners, L.P.*

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Report written by NEPC Research as of February 2016

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# Riverstone Credit Partners, L.P.

## Energy-Focused Credit Strategy

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**Energy-Focused Credit Strategy**

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# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

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### **Executive Summary**

Riverstone Holdings ("Riverstone," the "Firm," the "General Partner," "GP," or the "Manager") is targeting \$1.0 billion in investor commitments for its first institutional energy-focused credit closed-end fund, Riverstone Credit Partners, L.P. (the "Fund" or "RCP"). The Fund will invest in directly originated senior-secured financings, capital relief opportunities and selective market-traded debt trading at stressed/distressed levels due to the recent energy market dislocation. RCP will make 20 to 40 investments with a target investment range of \$15 million to \$75 million. The Fund has a target return of 12% net to LPs.

Riverstone has been investing in the energy sector as a Firm since 2000 and is currently raising its sixth institutional energy private equity fund in addition to RCP. The RCP team joined the Firm in 2014 to set up a credit fund with an emphasis on direct lending opportunities in the energy sector but the Firm has accelerated the timeline to take advantage of the dislocation in the energy credit markets. The Manager currently manages approximately \$30.0 billion of capital commitments (including co-investments), with investments in North America, Latin America, Europe, Asia and Africa.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Positives**

- **Flexible strategy:** The Fund has a broad mandate to invest in a number of different debt strategies; however, investors in the Fund will have near-term exposure to potentially attractive high yield opportunities by investing in existing, mispriced secondary debt positions. The mandate allows for the Fund to pivot into more directly sourced deals as the opportunity set evolves and the Firm believes the team is uniquely positioned to execute on directly sourced deals should energy market conditions stabilize during the investment period.
- **Firm:** The broader Riverstone platform offers a significant amount of basin-level expertise necessary to fundamentally evaluate asset values, which NEPC believes is a key skill to have to prevent capital losses in this strategy should oil prices remain subdued for longer than expected.
- **Experience:** The RCP team has extensive underwriting and advising experience with deep relationships within the industry. These relationships and familiarity with company management teams and asset bases provides the team with unique insights should fast-developing opportunities need to be acted upon in short order.

### **Negatives**

- **First-time fund:** While the team is currently deploying capital in a special purpose vehicle (SPV) as a portfolio company within Riverstone Global Energy & Power Fund V ("Fund V," the Firm's most recent flagship vehicle), the team members lack prior experience constructing and managing a portfolio.
- **Small team dedicated to strategy:** The RCP team has only four dedicated professionals, although the Firm has indicated that several professionals will be added as more assets are raised for the Fund. The access to the broader platform somewhat mitigates this risk but the number of dedicated professionals at this time remains low.



## **Riverstone Credit Partners, L.P.** **Energy-Focused Credit Strategy**

### **Fund Characteristics**

<b>Investment Vehicle</b>	Riverstone Credit Partners, L.P.
<b>Investment Manager</b>	Riverstone Holdings LLC
<b>Target Size/Max Size</b>	\$1.0 billion/None stated
<b>Amount Raised</b>	\$339 million as of 12/31/2015
<b>Minimum Investment Size</b>	\$10 million (less at the discretion of the Manager)
<b>Target Final Close Date</b>	April 13, 2016
<b>Investment Period</b>	Two years from final closing, subject to a one-year extension at the GP's sole discretion and 3 potential additional one-year periods with the approval of the LPAC
<b>Fund Term</b>	Four years from the end of the investment period; subject to a one-year extension by the GP and thereafter with the consent of the LPAC or a majority in interest of the LPs
<b>Sponsor's Investment</b>	At least the lessor of \$20 million or 2% of commitments
<b>Assets Under Management</b>	\$30.0 billion
<b>Investment Focus</b>	Energy-related credit
<b>Geographic Focus</b>	North America
<b>Projected Number of Investments</b>	20 to 40 investments
<b>Deal Size</b>	\$15 million to \$75 million
<b>Target Fund Return</b>	12% net IRR and 1.5x net TVPI multiple
<b>Leverage</b>	The Fund may employ leverage in an amount up to 1.0x the total amount invested in the Fund
<b>Annual Management Fee</b>	During the investment period, the management fee will be 1.5% on invested capital, reduced to 1.0% on net invested capital following the investment period. See the <i>Fund Economics</i> section of this memo for more detail.
<b>Other Fees</b>	100% credited against the management fee
<b>Organizational Costs</b>	The Fund will be responsible for its organizational costs up to a maximum of \$2.0 million
<b>Carried Interest</b>	15%
<b>Preferred Return</b>	6% compounded annually
<b>Distribution Waterfall</b>	The fee is calculated on a modified deal-by-deal basis, as follows (see the <i>Fund Economics - Distribution Waterfall</i> section of this memo for additional information): <ul style="list-style-type: none"> <li>• 100%/0% LP/GP split until capital is returned plus an 6% LP preferred return on realized investments and related costs</li> <li>• 100% to the GP until the Manager has received 15% of all proceeds</li> <li>• 85%/15% LP/GP split thereafter</li> </ul>
<b>ERISA Fiduciary</b>	Not currently an ERISA fiduciary; the Manager may limit ERISA interests below 25%
<b>Fund Auditor</b>	Ernst & Young LLP
<b>Fund Legal Counsel</b>	Simpson Thacher & Bartless LLP
<b>Placement Agents</b>	None
<b>Website</b>	<a href="http://www.riverstonellc.com">www.riverstonellc.com</a>

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Firm Description**

#### **Firm Overview**

Riverstone Holdings was formed in 2000 by Pierre F. Lapeyre, Jr. and David M. Leuschen, the founders, as a joint venture with TC Group L.L.C., or The Carlyle Group ("Carlyle"). The joint venture raised four energy-related private equity funds before the joint venture ended in 2010. Riverstone raised its first standalone fund, Riverstone Global Energy and Power Fund V ("Fund V"), in 2011 and is current in the market with Riverstone Global Energy and Power Fund VI ("Fund VI").

Riverstone also manages Riverstone Energy Limited ("REL"), an energy investment vehicle listed on the London Stock Exchange. REL raised \$1.2 billion in an IPO in October 2013 and serves as a pool of permanent capital for the Firm. REL has invested alongside Fund V in E&P and midstream investments and is expected to invest alongside Fund VI, provided there is available capital. Investments are to be structured such that REL contributes one-third of the capital, with the Fund contributing the remaining two-thirds. RCP is the Firm's first dedicated energy credit strategy.

Firm operations are controlled by a Management Committee comprising four members, including the founders, N. John Lancaster, Jr. and Andrew Ward. The Manager has invested or committed \$30.0 billion to 94 distinct transactions since inception. The Firm has offices in Houston, London and Mexico City and is headquartered in New York.

#### **Team Overview**

Riverstone has 113 employees, including 46 dedicated investment professionals. This also includes 24 partners and managing directors with an average experience of 21 years in the energy and power sectors. Approximately 20% of the Firm's investment professionals have operating backgrounds, which is especially helpful when considering the execution risk inherent in the energy sector as it relates to credit quality evaluation when considering a debt investment. The Firm also has an 11-person Advisory Board that consists of industry veterans who have extensive relationships and insight into the target sectors.

The RCP team has five total investment professionals and is led by Christopher Abbate and Jamie Brodsky and the other team members are Daniel Flannery (Vice President) and Meghan Pasricha (Associate). RCP intends to hire a senior investment team member in a portfolio risk management role (offer has been extended and professional expected to accept and begin shortly). The Firm will likely add two more mid-level professionals over the course of the next few quarters. Mr. Abbate and Mr. Brodsky both sit on the Investment Committee ("IC") for RCP. The Investment Committee also includes three non-RCP team members, the Founders and Ken Ryan, a Managing Director responsible for corporate development based in the Firm's New York office.

#### **Recent Turnover/ Key Departures**

Two managing directors have left Riverstone over the past five years. Riverstone has had generally low turnover at the senior levels and encourages junior level employees to attend business school so there is routine turnover at the analyst/ associate level. The RCP team was recently formed in 2014 and has not had any departures.

Lord John Browne of Madingley is scheduled to leave the Firm at the end of the second quarter of 2015. Lord Browne is the former CEO of British Petroleum ("BP") and joined Riverstone in 2007 as a Managing Director working in the Firm's London office. Lord Browne has decided to leave the Firm to become the Executive Chairman of L1 Energy and will remain on Riverstone's Advisory Board following his departure. The Firm will replace his role on the Investment Committee with Mark Papa, who was hired earlier in 2015. Mr. Papa is the former Chairman and CEO of EOG Resources.

#### **Succession Planning**

The founders, Pierre F. Lapeyre, Jr., 51, and David M. Leuschen, 63, have no intention of reducing their commitment to Riverstone. They expect to play an active role in the ongoing investment activities and day-to-day management of the Firm, including strategic decision-making during the course of Fund VI.

## ***Riverstone Credit Partners, L.P.*** ***Energy-Focused Credit Strategy***

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The Firm is controlled by a Management Committee, which includes the founders as well as N. John Lancaster, Jr. and Andrew Ward. None of the four individuals on the Management Committee have plans to retire or otherwise leave the Firm. Further, Riverstone feels no immediate pressure to address succession planning issues due to the level of senior professionals currently working at the Firm. Additionally, the three newest partners in the Firm have been appointed to the Firm's Investment Committee in positions which will rotate on a quarterly basis. The intent of this program is to integrate these partners into the established Firm processes.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Fund Investment Strategy**

#### **Investment Strategy**

RCP intends to build a diversified portfolio of debt investments intended to generate attractive risk-adjusted returns through upfront fees, current income, and long-term capital appreciation. The Fund will opportunistically source new investments through three distinct channels:

- 1) Market-based opportunities: near-term focus on dislocated debt securities trading at stressed/distressed levels in companies that the investment team believes to be high quality
- 2) Directly originated opportunities: direct senior secured-financing to issuers shut out of the market in the mid-to-long-term
- 3) Capital relief: opportunistic acquisitions of existing loans from banks motivated to sell for regulatory or internal capital charge-related reasons

The Fund's allocation to each of these strategies will depend on market conditions as the opportunity set evolves. The Fund will invest in the four main areas of focus for Riverstone: upstream E&P, midstream, energy services and power & coal. RCP will have a primary focus on North American energy companies. The structures of Fund investments may include reserve-based lending, first lien term loans, second lien term loans, senior unsecured and senior subordinated notes, capital leases, senior unsecured and subordinated notes, bridge loans, hybrid capital solutions, distressed credit debt, and/or first lien revolving credit facilities. The Manager believes that most directly originated opportunities will be to provide growth capital, event-driven financing for acquisitions, or additional liquidity to fund day-to-day operations. The Fund may have a small number of directly originated deals used as a refinancing for the borrower but this is not a focus for the Manager. The exact portfolio composition has not been determined due to the fluidness of the market opportunity.

RCP is expected to make 20 to 40 investments, which are expected to range from \$15 million to \$75 million. The Firm believes that this will allow the Fund to target lower mid-market and mid-market deals which should provide more attractive deal flow given the team's past experience. The holding period for each investment will vary and the Firm intends to opportunistically take advantage of the secondary market when it believes it provides an attractive exit environment but may hold securities until maturity or they are refinanced by the issuer. The Fund will use leverage up to a 1:1 (debt-to-equity) ratio in order to generate a gross levered investment-level IRR of at least 15%. The Fund may make distributions of current income on a quarterly basis.

#### **Example of a Prior Investment**

The RCP team received a call in October 2015 for a privately-owned, sponsor backed downstream company. The sponsor was seeking \$50 million for a liquidity solution. RCP was the only lender contacted. The company is a producer and processor of Crude C4 hydrocarbons and value-added derivatives with a high quality asset portfolio located in the US Gulf Coast. The company maintains 3 manufacturing facilities, 249 miles of pipeline, 5 docks and various other storage and logistic assets. In addition, the company is number one in market share for its processing capabilities.

RCP structured, priced and provided a \$50 million borrowing base term loan (\$25 million drawn at close) to provide capital for working capital and general corporate purposes. The sponsor has invested approximately \$460 million in equity as well as issued \$650 million in bonds to date. The transaction consisted of a first lien borrowing base term loan structured with an upfront fee of 4% on the full commitment, and is expected to earn LIBOR+1,225 basis points and a 1.00% LIBOR floor for the first quarter, which steps down to a running spread of 8.75% if the plant runs greater than or equal to a quarterly utilization of 66.67% (plant must be running and delivering MTBE at volumes specified in the contract). The term loan is structured with a delayed draw period of one year and matures in three years, with 2.00% duration fees paid annually. The team negotiated other stipulations including mandatory pre-payment penalties if the borrowing base debt/EBITDA were not met every six months. The loan is secured by first priority liens on the company's assets including its isobutene dehydrogenation unit as well as other security interests. A third party reported gave a replacement cost appraisal of \$2.8 billion, implying a 2.9x consolidated asset coverage ratio through all pro forma debt claims.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Target Fund Return**

The Manager targets a net IRR of 12% and net multiple of a 1.5x on invested capital for the Fund. The Fund is expected to generate returns through a combination of current income and long-term capital appreciation. The Manager anticipates distributing current income on a quarterly basis, to the extent that is possible. No distributions will be made more frequently than annually unless the aggregate amount of distributions exceeds \$1.5 million.

### **Target Fund Size**

The Fund has a target size of \$1.0 billion with no stated hard cap however the Fund is not expected to significantly exceed the \$1.0 billion target size. The Fund has secured \$165 million in capital commitment following a first close in April 2015. The Firm anticipates holding rolling closes and the next formal close is expected to be held in June. The final close will likely be held during the third quarter of 2015 however the Manager may close the Fund should the June close be larger than expected.

### **Target Investment Types**

The Fund will make investments in companies operating across the energy value chain. The Fund may invest in a number of security structures, including: reserve-based lending, first lien term loans, second lien term loans, senior unsecured and senior subordinated notes, capital leases, senior unsecured and subordinated notes, bridge loans, hybrid capital solutions, distressed credit debt, first lien revolving credit facilities, and/or any combination thereof. The Fund's investments are expected to be allocated as follows:

<b>Opportunity Type</b>	<b>Strategy Description</b>	<b>Portfolio Allocation</b>	<b>Unlevered Target Returns (Gross)</b>
Market Based Opportunity	Non-originated primary and secondary investment opportunities in public and private companies with a focus on fundamentally healthy companies with strong asset coverage and liquidity	40-60%	15%+
Directly Originated Opportunities	Primary loans originated for public and private companies that are existing issuers in the market across the energy value chain; can lend to smaller or unrated companies with limited debt capacity or access to institutional capital markets; these investments would be made with a goal of providing liquidity to co-exist with existing debt in the capital structure or as a backstop for event-driven capital needs	40-60%	10-15%
"Capital Relief" Opportunities	Trades for bank debt in positions they can no longer accommodate due to regulatory pressures based on capital reserves which drives banks to have fewer assets on the balance sheets; or, underwritten deals that do not have a bid or is facing market resistance	0-20%	10-12%

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Target Geographic Focus**

The Fund is expected to primarily invest in companies in North America where the team has an extensive presence.

### **Target Deal Size**

RCP is expected to make 20 to 40 investments during the investment period and has the ability to recycle capital from the principal of realized deals during the investment period. The investment size range for the Fund is expected to be \$15 million to \$75 million.

### **Use of Leverage**

The Manager will utilize leverage at the asset and/or Fund-level to optimize the return profile for the portfolio. The Fund has the ability to incur portfolio-wide leverage of up to 1:1, although leverage on individual investments may be greater. The Firm expects that the actual portfolio-wide leverage on Fund investments to be lower with an expected range of 30% - 40%. The Fund may also utilize a revolving credit facility with the intent to bridge capital calls.

The Fund may structure a leverage facility using a special purpose vehicle in which lenders hold the senior secured notes and the Fund is a subordinated note holder or it may be structured through a total return swap or other derivative instrument. The GP may request to borrow in excess of the portfolio leverage limit with the consent of the LPAC or a majority in interest of the Limited Partners, however, the GP does not intend to utilize excess leverage to generate returns.

### **Recycling of Capital**

The GP may recycle capital returned to the Fund during the investment period. The GP may also recall distributions of management fees, Fund expenses or organization expenses that are returned to LPs during the investment period.

### **Manager's View of Current Market Conditions**

The Manager believes that the current market opportunity has shifted since last year. In 2015, the Firm felt that the most attractive place to invest was in market-based and capital relief opportunities. Market-based opportunities included non-originated primary and secondary investments in both private and public companies. Capital relief opportunities consisted of investments in positions that banks could no longer hold due to tighter regulations around required capital reserves and the number of assets allowed on their balance sheets. In the current market environment, RCP is weary of existing capital structures and reluctant to invest alongside other lenders in many of the public and private companies, feeling there is a significant lack of liquidity in the secondary markets. The strategy has pivoted to focus on directly originated opportunities where the Manager can "reset" an existing capital structure and effectuate change and reorganization as the only debt provider. By being the only debt provider the Manager can exercise full control without worrying about getting layered by another lender. RCP will look to provide a full, one-stop solution in providing a catalyst for a capital structure change. Target opportunities will be in smaller, unrated companies with limited debt capacity and unable to access the capital markets.

The strategy's ability to invest across the debt capital structure and across the value chain within industries has allowed RCP to build a diversified portfolio as the market environment evolves. The Firm has seen a handful of distressed-oriented private equity companies facing distressed situations themselves. These firms invested too early in the cycle (April/May 2015) and got hurt when oil dipped back down in the second half of the year. With upstream companies struggling due to subdued oil prices, the Firm has found downstream companies that continue to perform well. The Firm believes investing in upstream-oriented companies does not make sense until oil reaches approximately \$40/barrel. In the midstream space, the Firm is placing an emphasis on contract structuring. There have been issues with some firms who seemingly entered weak, above market contracts that were structured between related parties. These midstream companies could face some serious headwinds if courts step in and decide that these contracts dictate fraudulent conveyance.

## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

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#### **Expected Fund Investor Base**

The Fund is expected to have a diversified LP base. The first close was held in April 2015 and included a public pension, sovereign wealth fund, endowments and foundations and family offices. For reference, the Firm received commitments for Fund V from family offices/ high-net worth investors (30% by commitments), sovereign wealth funds (24%), public plans (22%), corporate plans (7%), endowments (5%), fund of funds (4%), financial institutions (4%) and foundations (4%).

#### **Current Fund Investments**

As of 12/31/15, the Manager has made five investments totaling \$184 million. Of the total amount invested, \$146 million has been invested in directly originated deals and \$39 million in market-based opportunities. The directly originated transactions are 100% floating rate and secured and the weighted average cash coupon is 10.5%. The market-based opportunities consist of 57% floating rate and 72% secured loans. The weighted average cash coupon for those transactions is 6.6%. The Fund's entire portfolio has a weighted average coupon of 9.6% and has commodity exposure to liquids (37%), gas (49%), coal (11%) and non E&P companies (3%).

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Fund Investment Process**

#### **Deal Sourcing**

For investments in existing market-based securities, the Manager employs an active screening process of existing debt securities. The “first pass” of this screen filters securities by their price and the implied yield-to-18 months and yield-to-maturity. In general, the Manager does not look any further at securities priced near their par value or priced at severe discounts to par (as this implies a higher degree of risk). Beyond the price, the Manager’s focus is on whether they expect the company to survive a potential long downturn in oil prices. As a proxy for the firm’s value in a potential acquisition, the team assumes a value of \$10 per barrel of proved reserves and evaluates this against the firm’s enterprise value. The team will also evaluate liquidity metrics (to determine a firm’s ability to fund continued production), remaining reserve life, among others. Following this initial screen, the team will perform a more in-depth analysis of potential target companies, including an evaluation of the quality and location of assets, potential value of proved undeveloped reserves, etc.

For deals that the Firm originates directly, the team intends to use a “three way” origination channel to source investments:

1. Relationship with issuers: The team will use its 46 years of combined experience originating, structuring, underwriting and syndicating energy high yield bonds and leveraged loans to draw upon the relationships built during this experience.
2. Riverstone platform: RCP investment professionals intend to leverage the broader Riverstone platform and reputation as a high quality capital provider, which has already generated inbound deal-flow. The team will also hold regular calls with senior private equity investment professionals in a compliance-controlled environment focused solely on deal origination.
3. Transactional relationships with key advisors: The team has extensive experience working with commercial bankers and broker-dealers who the Firm anticipates will seek to downsize the size of their energy loan portfolio. RCP will both seek to buy these loans directly from those institutions and also serve as a source of other capital that might not be available through other platforms.

### **Investment Process**

#### **Initial Review**

The RCP team will hold weekly screening meetings to consider all three types of opportunities. Areas that will be reviewed in an initial screen include management team quality, competitive position and strategy, asset quality and diversification, financial statements and off-balance sheet and contingent liabilities, amongst others.

#### **Full Due Diligence and Deal Structuring**

Should an opportunity merit further diligence, the team will provide the Investment Committee with a “heads-up memo” which allows the IC to approve further diligence or decide against pursuing the opportunity. The Firm has established a conflicts and confidentiality policy to minimize potential conflicts with the Firm’s flagship funds.

The five stages of the team’s diligence and structuring process include 1) establishing a view of asset coverage through assessing the company’s fair market value; 2) evaluating a company’s liquidity; 3) structuring a deal to provide optimal protection; 4) due diligence review of legal, tax and environmental issues; and 5) establishing a thesis for exit scenarios. The Fund will use leverage up to a 1:1 (debt-to-equity) ratio in order to generate a gross, pre-tax, levered investment-level IRR of at least 15%.



## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

#### **Investment Committee Approval**

Mr. Abbate and Mr. Brodsky both sit on the Investment Committee ("IC") for RCP. The Investment Committee also includes three non-RCP team members, the Founders and Ken Ryan, a Managing Director responsible for corporate development based in the Firm's New York office. The IC must reach a consensus once diligence has been completed and a structure has been proposed. Three outcomes could arise from an IC review:

1. The IC can approve the opportunity, subject to certain structure conditions,
2. The IC can request that further diligence be conducted on certain issues, or
3. The IC can decline to approve an investment opportunity.

The team will also be required to seek IC approval if they decide to divest from a particular credit in the Fund.

#### **Exit**

The holding period for each investment will vary and the Firm intends to opportunistically take advantage of the secondary market when it believes it provides an attractive exit environment but may hold securities until maturity or they are refinanced by the issuer. The Fund may make distributions of current income on a quarterly basis.

#### **Value Creation**

A large amount of the team's value-add is during the sourcing and structuring of the investments in the portfolio. The ability to properly price and evaluate the underlying asset value is designed to provide strong returns with secured debt investment characteristics. The team is actively monitor the portfolio to evaluate any changes that may occur to a company's operational or financial performance as well as any impact a change in commodity prices may have on the performance of Fund investments. The team will be in active contact with individual management teams for direct or illiquid investments and actively update models to reflect current credit conditions. For more actively traded, liquid, investments, the team will continuously monitor the performance of the investment relative to public peer comps with a sale target price in mind. The team will review the entire portfolio on a quarterly basis and update exit plans for each investment with an eye towards maintaining the highest quality portfolio with appropriate diversification characteristics on an ongoing basis.

## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

#### **Risk Mitigation**

The team focuses on three elements to manage portfolio risk: i) asset coverage and liquidity at the time of entry (and monitoring these characteristics on an ongoing basis which includes a bi-annual formal re-evaluation for directly originated loans and capital relief transactions); ii) diversification within the portfolio (across basins, energy sub-sectors, commodities, interest rate exposure and company size); and iii) proactive monitoring and asset divestment as required. RCP expects that certain debt securities will generate current income which is expected to de-risk the portfolio over time.

Generally, the Firm believes that energy assets are more compelling to lend against due to the ability to divest during periods of stress/distress, the discipline required within the E&P space to preserve capital with the ability to defer capital investment during periods of financial distress, and the active use of hedging which increases cash flow visibility and stabilizes debt service outlooks. The team will also include specific protections through covenant packages when originating new debt packages for its counterparties.

The Firm believes that the target investment size and number of investments in the portfolio provide the Fund with the appropriate diversification to avoid concentration issues while allowing the flexibility for the team to generate incremental fees for underwriting large parts of tranches when directly lending to energy companies. The investment team intends to draw upon the broader Riverstone team which has a realized loss ratio of 5% across all previous equity investments and is solely focused on the energy sector with experience across all basins in North America. The investment team intends to follow the Firm's approach towards investing at prudent prices and taking a proactive approach towards portfolio management which is informed by the Firm's activities across the energy value chain.

There are controls around the Fund's ability to invest in the debt of a Riverstone-sponsored buyout. The Fund may not invest in such a deal without LPAC or majority in invest of the Limited Partners, unless (i) a person that is not an affiliate of Riverstone takes at least 20% of the aggregate amount of each class of securities; or (ii) one or more unaffiliated parties underwrites the tranche of securities in which the Fund invests. These provisions do not apply to secondary transactions but ultimately the Fund is in no way being formed to help support the Firm's buyout activities. The Fund also has the ability to make larger investments with the intent to syndicate a deal once a transaction has closed.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Fund Economics**

#### **Sponsor's Investment**

The Manager will be making a commitment of at least the lesser of \$20 million or 2% of total capital commitments. The GP commitment will be funded in cash.

#### **Management Fee**

The management fee will equal 1.5% per year of capital under management during the investment period and reduced to 1.0% per year of capital under management after the expiration or termination of the investment period. Capital under management means the aggregate amount invested by the Fund in unrealized investments to the extent then held by the Fund at any management fee determination date less aggregate net losses from write-downs as of such date.

Management fees are included in LP capital commitments.

#### **Distribution Waterfall**

The carried interest for RCP will be calculated on a modified deal-by-deal basis; the distribution waterfall is as follows:

1. 100% return of capital and costs to each Limited Partner until such Limited Partner has received distributions from all investments that have been disposed of ("*Realized Investments*") equal to:
  - a. Such Limited Partner's capital contributions for all the realized investments and such Limited Partner's pro rata share of any net unrealized losses due to permanent write-downs on the Fund's portfolio of other Investments (together referred to as "*Realized Capital*"), and
  - b. Such Limited Partner's direct payments or capital contributions for management fees, organizational expenses, and other Fund expenses, in each case allocable to the Realized Investments (together "*Realized Capital and Costs*");
2. 100% to each Limited Partner, until the cumulative distributions to each Limited Partner from Realized Investments provides an 6% preferred return, compounded annually, on the applicable capital contributions of the Limited Partner to the Fund;
3. Catch-up: 100% to the General Partner until the GP has received 15% of the excess of (a) the total amounts distributed to such Limited Partner with respect to Realized Investments plus the carried interest in respect of such Limited Partner, over (b) amounts that represent a return of such Limited Partner's Realized Capital; and
4. 85/15 split to the LPs/GPs thereafter.

## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

#### **Allocation of Carried Interest**

All investment professionals are salaried and have discretionary bonuses that range from 0% to 300% of base compensation which is tied to individual and Fund performance. Fund carried interest will be mostly concentrated amongst Partners and Managing Directors with allocations also available to other professionals associated with the activities of the Fund. Carried interest allocations are subject to a vesting schedule with annual vesting of 20% over three years with the remaining amounts vested over the earlier of 10 years or the liquidation of an investment. The Firm will allocate 30% of the carried interest to be distributed across the RCP team.

#### **Other Fees and Expenses**

The Fund will be responsible for all organizational costs up to \$2.0 million. The Fund will be responsible for broken deal expenses, costs and expenses directly related to the purchase, holding, underwriting, syndication and sale of investments; interest, arrangement, set-up, placement and other similar fees, costs and other related expenses incurred in respect of borrowings, including the Leverage Facility; expenses of any administrators, consultants, depositaries, brokers, agents, valuation experts, data providers, custodians, counsel, accountants, and other advisors and professionals; tax compliance, tax consulting, and tax structuring costs; fees, costs and expenses incurred in connection with the Fund's legal and regulatory compliance with US federal, state, local, non-US or other law and regulation, in each case related to the Fund and its activities and any taxes fees or other governmental charges; the fees and expenses of Cortland Capital Markets Services LLC or other providers of fully outsourced middle and back office functions; any insurance, indemnity or litigation expense; the out-of-pocket expenses of the LPAC; interest on any borrowing or other indebtedness and the fees, costs and expenses of any lenders, investment banks and other financing sources; certain taxes; and any fees or other governmental charges levied against the Fund.

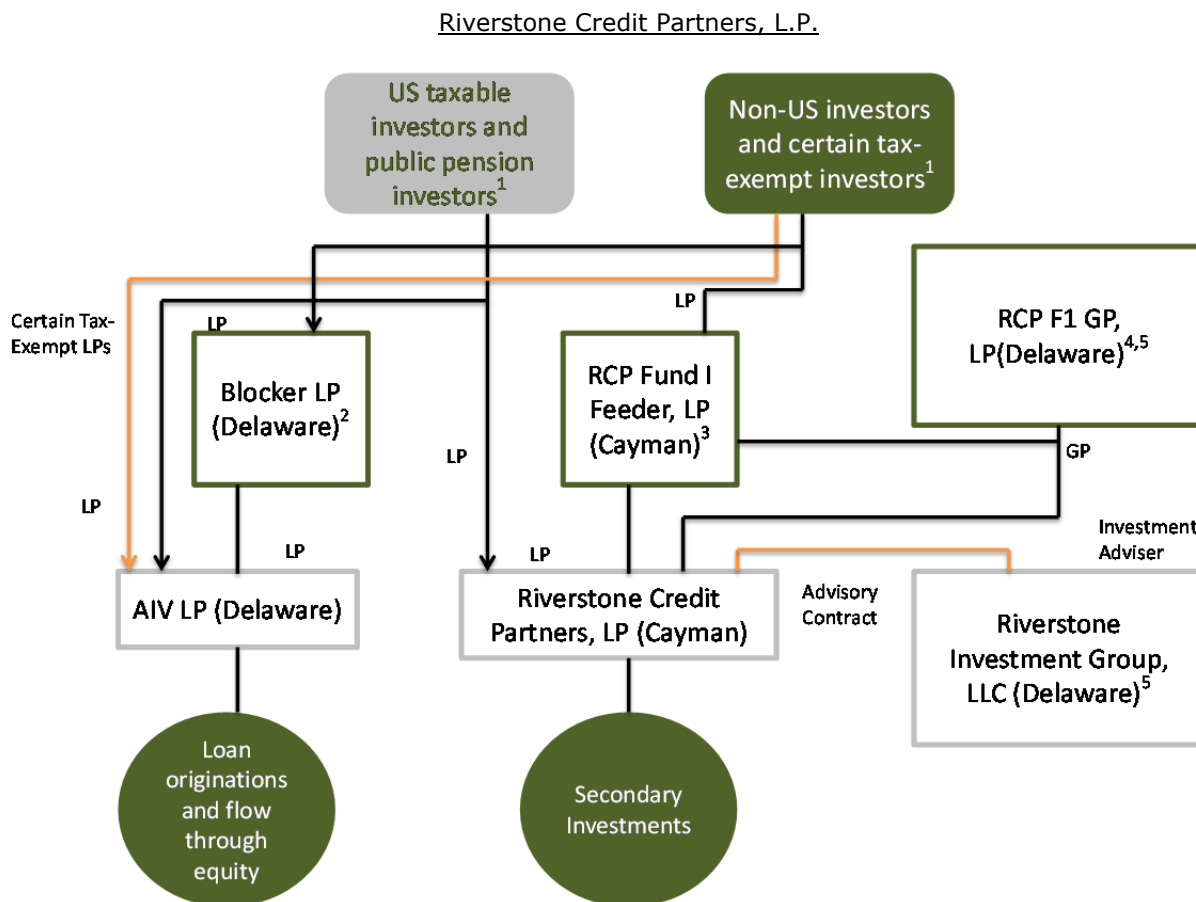
Management fees for any fiscal year will be reduced by an amount equal to the sum of (i) 100% of any excess organizational expenses, (ii) 100% of any other fees net of any unrecovered broken deal expenses and Fund expenses that the GP has elected to pay. Other fees include commitment, topping, break-up, termination, monitoring, directors', organizational, set-up, advisory or investment banking fees in connection with the purchase, monitoring or disposition of Investments by the Fund or from its unconsummated transactions, including warrants, options, derivatives and other rights in respect of securities owned by the Fund. Syndication fees and other similar fees shall not be considered other fees and the GP has the discretion to allocate any such fees to other syndication participants and transaction parties in order to successfully consummate a syndication.

# Riverstone Credit Partners, L.P. Energy-Focused Credit Strategy

## Fund Administration, Structure and Policies

### Fund Structure

The Fund will be structured as a Delaware Limited Partnership. The Fund will offer a blocker vehicle for non-US investors and certain tax-exempt investors. The blocker will be structured as a Delaware Limited Partnership for loan originations and flow through equity investments and all secondary investments will be made through a Cayman Islands Limited Partnership to block any UBTI or ECI generated from debt-financing related to these investments. The diagram below was provided by Riverstone illustrates the structure of the Fund and its various feeders.



**Notes:**

1. Tax-exempt and non-US investors may elect at time of subscription to either: (i) to invest through the feeder for secondary investments and through the blocker(s) for origination investments; or (ii) to invest through the feeder for secondary investments and to invest directly in the AIV for origination investments. Other categories of investments will be addressed on a deal-by-deal basis.
2. Treated as a corporation for US tax. May form separate blocker per investment that is dissolved upon disposition of such investment. Blocker(s) may be capitalized with both debt and equity.
3. Treated as a corporation for US tax.
4. The General Partner will also be the general partner of each depicted Blocker and AIV. The General Partner will be registered in the Cayman Islands as a foreign company.
5. Allocations of carry income will flow up to the General Partner and management fees will be paid to the investment advisors.

Riverstone has indicated that the fee drag related to investing in the Blocker LP (Delaware) is dependent on the amount of capital deployed into directly originated deals. These are the deals that will generate UBTI for tax-exempt investors and the election to invest through the blocker would therefore mitigate any UBTI incurred by these investments. The tax drag for the blocker will be equal to 35% of the gains. For example, if the Fund invests 50% of total capital into directly originated loans

## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

and generates a 15% pre-tax return, the post-tax return for investors electing to invest in this structure would equal 12.375%. This assumes capital-weighted contributions to overall return ( $15\% \times 50\% = 7.5\%$ ,  $65\% \times 7.5\% = 4.875\%$ ,  $4.875\% + 7.5\% = 12.375\%$ ). If only 25% of the portfolio were invested in directly originated deals, than the drag would be lessened and the theoretical post-tax return in that example would equal  $\sim 13.7\%$ .

#### **ERISA Provisions**

The Fund is open to investors that are subject to the Employee Retirement Income Securities Act of 1974 ("ERISA") or the Internal Revenue Code of 1986. Manager does not intend to limit investments in the Fund by "benefit plan investors" (as defined by ERISA) to less than 25%, however, the GP may structure each feeder fund as an intermediate entity for the purposes of an investment in the Fund and to limit any discretion with respect to the management and disposition of assets of each such Feeder Fund.

#### **UBTI Considerations**

The Fund is expected to borrow for long-term investment leverage and short-term financing and is expected to generate UBTI through directly originated investments. For secondary investments, the Fund will invest using a Cayman Islands Limited Partnership to block UBTI or ECI generated by any debt financings of these investments. The Manager is offering a blocker vehicle using a Delaware Limited Partnership primarily for the benefit of non-US investors and certain US tax-exempt investors that are highly sensitive to incurring UBTI; however, most tax-exempt investors typically invest in the direct vehicle in past Riverstone funds.

#### **Labor Policy**

The Fund does not have a labor policy.

#### **Key Person Provision**

Christopher Abbate and Jamie Brodsky have each been named a "Key Person" as it relates to a Key Person Event. The Key Person Provision states that if either Key Person is no longer actively involved in the management of the Fund prior to the termination of the investment period, the GP will (a) notify and convene the LPAC to discuss potential replacements and (b) use commercially reasonable efforts to identify and appoint a replacement Key Person. If the Key Person Event occurs with respect to both individuals named, and the GP has not appointed a suitable replacement for at least one of the Key Persons within 90 days after notice is given of the Key Person Event, then until such time as the GP has appointed a replacement (x) the obligation of all LPs to make capital contributions for new investments shall be immediately suspended and (y) the GP shall promptly notify the LPs of that fact: provided that if at least one replacement Key Person has been appointed by the GP, the obligation of all LPs to make capital contributions for new investments pursuant to the Fund Partnership Agreement shall be automatically restated.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **GP Removal Provisions**

The Fund's Limited Partnership Agreement (LPA) states the following:

If (a) the General Partner materially breaches its obligation to make capital contributions and to bear the General Partner expenses in accordance with the Partnership Agreement or (b) there is a finding by any court or governmental body of competent jurisdiction in a final non-appealable judgment or an admission by the General Partner in a settlement of any lawsuit (x) bad faith or willful misconduct by the General Partner or the Investment Advisor in connection with the performance of its duties under the terms of the Partnership Agreement, (y) that the General Partner or the Investment Advisor (with respect to its activities relating to the Fund) has otherwise committed a knowing and material breach of its duties under the Partnership Agreement, or a knowing and material violation of applicable U.S. federal securities laws, or (z) that the General Partner or the Investment Advisor has otherwise committed fraud or willful misconduct in connection with the performance of its duties under the terms of the Partnership Agreement, in each case that has a material adverse effect on the business of the Fund (the events described in clauses (a) and (b) above being referred to as "Cause"), then a majority in interest of the Limited Partners may remove the General Partner (provided that the General Partner has not cured such event of Cause as provided in the Partnership Agreement) and substitute another person as general partner of the Fund (which successor general partner must be approved by a majority in interest of the Limited Partners and which removal will be effected in accordance with the procedures set forth in the Partnership Agreement). The General Partner will have the right to assign, pledge or otherwise transfer its interest as the general partner of the Fund without the consent of the Limited Partners to any affiliate of the General Partner or to a lender in connection with securing financing for the Fund or its affiliates.

### **LP Advisory Committee**

The GP will appoint a number of non-affiliated LP representatives to the LP Advisory Committee. The LPAC will meet annually at a minimum and on an ad hoc basis as needed to consult with the GP on potential conflicts of interest and other matters presented to it by the GP or as specified in the Partnership Agreement. The LPAC will be chaired by the GP although the GP will not be entitled to a vote on any matters discussed at the meetings. The LPAC will act by a majority of its members based on the procedures set forth in the Partnership Agreement.

### **Reporting**

The Firm provides audited annual reports to Limited Partners within approximately 120 days of fiscal year end or as soon as practicable thereafter. These reports include:

1. Audited financial statements prepared in accordance with US GAAP standards
2. Capital account balances for each LP as of fiscal year end
3. Quarterly fund summaries and portfolio company updates
4. US tax information if applicable

The Firm also provides quarterly reports approximately 60 days following each quarter end which include unaudited financial statements. Fair market value is adjusted each quarter according to principals set out in the Partnership agreement as determined by the GP.

## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

#### **Valuation Policy**

Riverstone values assets in the Fund at fair value in accordance with ASC 820. The fair market value will be made in accordance with the Riverstone Valuation Policy and will be determined as outlined in the Amended and Restated Limited Partner Agreement (dated April 8, 2015) as follows:

The Fair Market Value of securities which are Marketable Securities equals (A) in the case of securities which are primarily traded on a securities exchange, the average of their last sale prices on such securities exchange on each trading day during the ten trading-day period immediately prior to the date of determination, or if no sales occurred on any such day, the mean between the closing "bid" and "asked" prices on such day, and (B) if the principal market for such securities is, or is deemed to be, in the over-the-counter market, the average of the closing sale prices on each trading day during the ten trading day-period immediately prior to the date of the determination, as published by the National Association of Securities Dealers Automated Quotation System or similar organization, or if such price is not so published on any such day, the mean between the closing "bid" and "asked" prices, if available, on such day, which prices may be obtained from any reputable pricing service, broker or dealer. Notwithstanding the foregoing, in the event of the distribution in kind of any Marketable Securities, the Fair Market Value of such Marketable Securities for purposes of calculating subsequent distributions will be deemed to equal the average of the prices determined as provided in this Section 4.7(b) for the ten trading-day period ending immediately prior to the date of distribution and the ten trading-day period ending immediately after the date of distribution.

The Fair Market Value of any Investments, or property received (c) in exchange for any Investments which are not Marketable Securities, will be calculated not less than annually and will initially be determined by the General Partner, which will promptly supply the LPAC with such valuations and the General Partner's basis therefor. If the LPAC objects in writing (which objection must be provided to the General Partner within 30 calendar days of the notice of such valuation), and the General Partner and the LPAC are unable to agree upon a mutually acceptable valuation within 30 calendar days after such objection is made, the General Partner will (at the Partnership's expense) cause an independent appraiser or other valuation expert mutually acceptable to the General Partner and the LPAC to make a valuation, and such appraiser's or expert's determination of such valuation will be binding on all parties; provided that, notwithstanding the foregoing, if a third-party has performed a valuation of the securities, instruments or other interests (or underlying portfolio company) comprising an Investment with respect to an Other Riverstone Product holding similar securities, instruments or interests issued by the underlying Portfolio Company, then such valuation shall be conclusively presumed to be the Fair Market Value for all purposes hereof.



# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Litigation, Regulation and Compliance**

#### **Current Litigation**

Riverstone Funds and employees have been named as parties to two active cases of litigation, neither of which is expected to have a material impact on Fund operations. The Firm has been named a party in a number of past litigations, notably in the inquiry into the use of placement agents in connection with investments placed by New York Common Retirement Fund ("NYCRF") by the Office of the Attorney General of the State of New York (the "Attorney General"). Riverstone voluntarily cooperated with the Attorney General's inquiry and reached a resolution with the Attorney General in 2009 following Carlyle's agreement the previous month. Carlyle agreed to pay \$20 million to New York State to resolve the matter, Riverstone agreed to pay \$30 million, and David Leuschen reached a resolution to pay \$20 million as well. The Securities and Exchange Commission (SEC) has informed both Carlyle and Riverstone that no action would be taken with respect to the investigation by the SEC.

#### **Compliance Staff and Philosophy**

Dianna Aprile serves as Chief Compliance Officer (CCO) of Riverstone and her responsibilities include overseeing Riverstone's compliance program and assisting the General Counsel in risk management for the Firm. Riverstone's General Counsel, Stephen Coats, and Assistant General Counsels, Robert Gray and Charles Chipcase, assist Ms. Aprile with compliance and the Firm's General Counsel and CFO, Thomas Walker, works with these professionals to ensure that the Fund is in compliance with the Partnership Agreement.

#### **SEC Oversight**

Riverstone is a registered adviser with the SEC. The Firm's last routine SEC examination was completed in March 2014 and the Manager received a routine comment letter from the SEC staff citing various non-material items which have since been addressed by Riverstone.

#### **Subject to Other Regulators**

The Firm is also registered as an adviser and arranger with the UK's Financial Conduct Authority, or FCA.

#### **Personal Trading Restrictions**

Employees are generally unable to invest in energy- and power-related equity or debt securities through any personal account with the exception of energy exchange-traded funds (ETFs), commodity interests, and royalty trusts, which have to be pre-cleared by the Chief Compliance Officer. All personal securities trades require pre-clearance and the Firm maintains an online portal which allows for real-time monitoring of employee investment accounts.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

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### **Firm Infrastructure**

#### **Office Locations**

The Firm is headquartered in New York with additional offices in Houston, London and Mexico City.

#### **Technology Resources and Systems**

Riverstone uses S7 Technology Group as an outsourced IT provider. All systems are backed up on an hourly basis at offsite facilities in Houston and the UK. The investment team uses multiple investment-related services such as Bloomberg, S&P Capital IQ, and other industry-specific services. The Firm uses Investran by Sungard as a partnership accounting general ledger system. Cash activity is monitored on a daily basis via a general ledger and bank website. The Fund's waterfall is calculated using Microsoft Excel and is reviewed at multiple levels and signed off on by the CFO prior to distributions.

#### **Business Continuity Planning**

Riverstone backs up all data on a daily basis; copies of all backups are replicated immediately to two additional storage sites in different physical locations throughout the US through offsite cloud-based services. The Firm also has a Disaster Recovery/ Business Continuity Plan in place in the event of a significant business disruption.

#### **Fund Administration/ Back-Office Resources**

The Firm has 35 non-investment professionals and 24 executive assistants. Peter Haskopoulos is a Principal at the Firm and serves as Director of Fund Accounting where he manages the accounting, reporting and audits for the Fund and co-investments.

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Firm Track Record**

### **Past Fund Track Record**

RCP is a first time fund, and as such, the team does not have a track record to reflect in this section. As outlined in the “Example of a Prior Investment Section”, the team has been investing in public market opportunities through RCO as a portfolio company in Riverstone Global Energy and Power Fund V. The team has received approvals for 15 investments since forming the vehicle in January 2015 and have made investments in seven companies, including four secondary transactions and three primary transactions. The total amount of invested capital in these deals (as of April 17, 2015) was \$126 million with \$140 million of notional exposure. The investments have been made in floating rate loans which account for 65% of the portfolio and fixed rate bonds which account for 35% of the portfolio. Three of the investments have been partially realized, with proceeds of \$28 million and a net gain of \$2.0 million through the partial exits. The investments were realized at a gain of 6.2% for a ~118% blended gross unlevered IRR and a gross multiple of a 1.1x<sup>1</sup>.

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<sup>1</sup> Note: figures are provided by the Manager and unverified due to the intra-quarter nature of the reporting. The detailed performance is highlighted here to provide additional detail regarding the team’s investment activities as part of the Riverstone organization.

**Riverstone Credit Partners, L.P.**  
**Energy-Focused Credit Strategy**

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**Track Record Benchmarking**

N/A

**Deal-Level Attribution Analysis**

N/A

## **Riverstone Credit Partners, L.P.** **Energy-Focused Credit Strategy**

### **Key Fund Professionals**

#### **Summary of Key Fund Professionals**

<b>Summary of Key Fund Professionals</b>				
<b>Name</b>	<b>Title</b>	<b>Function</b>	<b>Years at Firm / in Industry</b>	<b>Investment Committee Member</b>
Pierre F. Lapeyre, Jr.	Founder and Senior Managing Director	Firm and Investment Management	16/30	Yes
David M. Leuschen	Founder and Senior Managing Director	Firm and Investment Management	16/35	Yes
Kenneth Ryan	Partner	Corporate Development	5/20	Yes
Christopher Abbate	Managing Director	Acquisitions and Asset Management	2/22	Yes
Jamie Brodsky	Managing Director	Acquisitions and Asset Management	2/15	Yes
Stuart Miller	Managing Director	Acquisitions and Asset Management	1/35	No
Daniel Flannery	Principal	Acquisitions and Asset Management	2/9	No
Meghan Pasricha	Vice President	Acquisitions and Asset Management	2/7	No
Steven Lowenthal	Associate	Acquisitions and Asset Management	1/4	No

# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Detailed Biographies**

#### **Pierre F. Lapeyre, Jr., Founder and Senior Managing Director**

Prior to founding Riverstone, Mr. Lapeyre was a Managing Director of Goldman Sachs in its Global Energy and Power Group. He joined Goldman Sachs in 1986 and spent his 14-year investment-banking career focused on energy and power, particularly the midstream, upstream and energy services sectors. Mr. Lapeyre's responsibilities included client coverage and leading the execution of a wide variety of mergers and acquisitions, IPOs, strategic advisory and capital markets financings for clients across all sectors of the industry.

At Goldman Sachs, Mr. Lapeyre was responsible for relationships and deal execution for a broad range of energy clients. He serves on the Boards of Directors of Dynamic Industries, Enduro, Enduro II, Fieldwood, Legend, Meritage II, Quorum, Sage Midstream, Three Rivers II, Venado and REL. Mr. Lapeyre received his B.S. in finance/ economics from the University of Kentucky and his M.B.A. from the University of North Carolina at Chapel Hill.

#### **David M. Leuschen, Founder and Senior Managing Director**

Prior to founding Riverstone, Mr. Leuschen was a Partner and Managing Director at Goldman Sachs, and founder and head of the Goldman Sachs Global Energy and Power Group. Mr. Leuschen joined Goldman Sachs in 1977, became head of the Global Energy and Power Group in 1985, became a Partner of the firm in 1986 and remained with the firm until leaving to found Riverstone. Mr. Leuschen has extensive experience in M&A, financing and investing in the energy and power industry. Mr. Leuschen was responsible for building the Goldman Sachs energy and power investment-banking practice. Mr. Leuschen additionally served as Chairman of the Goldman Sachs Energy Investment Committee, where he was responsible for screening potential capital commitments by Goldman Sachs in the energy and power industry. Mr. Leuschen has served as a Director of Cambridge Energy Research Associates, Cross Timbers Oil Company (predecessor of XTO Energy), J. Aron Resources, Mega Energy, Inc. and Natural Meats Montana. He currently serves on the Boards of Directors of Dynamic Industries, Enduro, Enduro II, Fieldwood, Legend, Venado, and REL. Mr. Leuschen received his A.B. from Dartmouth and his M.B.A. from Dartmouth's Amos Tuck School of Business.

#### **Kenneth Ryan, Partner**

Mr. Ryan joined Riverstone in 2011 and is responsible for corporate development. In addition, Mr. Ryan has primary responsibility for Riverstone Energy Limited, an affiliated publicly traded energy investment company that is listed on the London Stock Exchange. Prior to joining Riverstone, he worked for Gleacher & Company / Gleacher Partners in both London and New York, most recently as Managing Director and co-head of Investment Banking. Prior to Gleacher, between 1994 and 2000, Mr. Ryan worked in the investment banking division of Goldman Sachs in London and New York. Mr. Ryan received graduated from University of Dublin, Trinity College with a degree in law.

#### **Christopher Abbate, Managing Director**

Mr. Abbate joined Riverstone in June 2014 and is responsible for sourcing and managing energy investments with a focus on credit and debt capital markets. Prior to joining Riverstone, Mr. Abbate was a managing director at Citi in the Leveraged Finance Group. Prior to joining Citi in 2011, Mr. Abbate was a Managing Director at UBS Investment Bank, where he was Head of US Leveraged Origination. Mr. Abbate joined UBS in 2000 as an Associate Director in the Energy Group where he worked covering upstream and midstream oil and gas companies. In 2004, he became a founding member of the Leveraged Finance Group, dedicated to covering the natural resource sector. Throughout his tenure on Wall Street, Mr. Abbate worked on over 250 book-run financings raising over \$250 billion in proceeds for both investment grade and non-investment grade issues, including several marquee Riverstone portfolio transactions. He started his investment banking career in 1997 at PaineWebber as an associated in the Energy Group. Before starting his career on Wall Street, Mr. Abbate served as an Intelligence Applications Officer in the U.S. Air Force. Mr. Abbate received his B.A. in

## **Riverstone Credit Partners, L.P.**

### **Energy-Focused Credit Strategy**

Mathematics and Political Science from Duke University and his M.B.A. from the Robert H. Smith School of Business at the University of Maryland.

#### **Jamie Brodsky, Managing Director**

Mr. Brodsky joined Riverstone in June 2014 and is responsible for sourcing and managing energy investments with a focus on credit and debt capital markets. Prior to joining Riverstone in 2014, Mr. Brodsky was a Managing Director responsible for the energy leveraged finance business at Nomura Securities International, which he joined in 2011. Prior to Nomura, Mr. Brodsky was an Executive Director at UBS Investment Bank in Leveraged Finance Origination, a group in which he was a founding member. Mr. Brodsky began his career as an investment banking analyst at UBS in 2000 working between New York and London and has primarily served as a natural resource-focused leveraged finance professional throughout. Mr. Brodsky received his B.A. from Duke University in History and Political Science and his M.B.A. from Columbia and London Business Schools through the EMBA Global Program.

#### **Stuart Miller, Managing Director**

Mr. Miller joined Riverstone in 2015 and is responsible for sourcing and managing energy investments with a focus on credit and debt capital markets. Prior to joining Riverstone in 2015, Mr. Miller was a Vice President and Senior Credit Officer at Moody's Investors Service responsible for the ratings of a portfolio of upstream, midstream, and oilfield service companies. While at Moody's, Mr. Miller was the author of the oilfield services industry rating methodology and coordinator of the exploration and production industry outlook. Prior to joining Moody's in 2010, Mr. Miller was an Executive Director and portfolio manager at UBS investment bank. Prior to UBS, Mr. Miller was the Managing Director and Head of Loan Syndication for North and South America for ING US Capital. Mr. Miller joined ING after working in the Structured Finance Group at GE Capital as a Vice President on its energy investment team. Mr. Miller started his finance career at predecessor companies of JP Morgan. Out of college, Mr. Miller worked at Texaco Inc. as a field production engineer overseeing oilfields in the bayous of South Louisiana. Mr. Miller graduated with a BS in Mechanical Engineering from Syracuse University and has an MBA from the Columbia Business School.

#### **Daniel Flannery, Principal**

Mr. Flannery is a Principal of Riverstone, focused on the Firm's credit and capital markets activities. He is based in New York. Prior to joining Riverstone in 2014, Mr. Flannery worked at Nomura as a Vice President in the Leveraged Finance Group, and prior to that as an Associate at First Reserve from 2009 to 2011 and UBS from 2007 to 2009. Over his career, Mr. Flannery has worked on a variety of energy-focused leveraged finance and principal investing transactions. Mr. Flannery graduated with a B.A. from Duke University.

#### **Meghan Parischa, Vice President**

Ms. Pasricha is Vice President of Riverstone, focused on the Firm's credit and capital markets activities. She is based in New York. Prior to joining Riverstone in 2014, Ms. Pasricha worked at The Carlyle Group as an Associate focused on buyout opportunities in the Global Financial Services Group. Ms. Pasricha was selected as Carlyle's 2012 Toigo Private Equity M.B.A. Fellow where she completed a year-long rotation through the Financial Services Group, a portfolio company, and a limited partner. Prior to Carlyle, Ms. Pasricha worked as an Analyst at UBS Investment Bank in the Leveraged Finance Origination group from 2008 to 2010 where she focused on sectors including energy and other natural resources. Ms. Pasricha graduated magna cum laude with a B.S. from Harvard College and earned her M.B.A. from Harvard Business School.

#### **Steven Lowenthal, Associate**

Mr. Lowenthal is an Associate of Riverstone focused on the Firm's credit and capital markets activities. Prior to joining Riverstone in 2014, Mr. Lowenthal worked at PennantPark Investment Advisers as an investment professional focused on credit opportunities in the energy and gaming sectors. Prior to PennantPark, Mr. Lowenthal worked

***Riverstone Credit Partners, L.P.***  
***Energy-Focused Credit Strategy***

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as an analyst at Nomura in the Leveraged Finance Group where he focused on sectors including energy and other natural resources.



# **Riverstone Credit Partners, L.P.**

## **Energy-Focused Credit Strategy**

### **Appendix**

#### **Disclaimers and Disclosures**

- Past performance is no guarantee of future results.
- The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.
- Information on market indices was provided by sources external to NEPC, and other data used to prepare this report was obtained directly from the investment manager(s). While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

In addition, it is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds, real estate and private equity:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy

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## MEMO

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Date: March 10, 2016

To: DFPF Board

From: Investment Staff

Subject: Riverstone Credit Partners, L.P.

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### **Recommendation**

The investment staff recommends approving an allocation of \$10 million to the Riverstone Credit Partner L.P. fund within DFPF's private credit allocation.

### **Background**

Riverstone Credit Partners, LP. (the "Fund") is a closed end, energy focused credit strategy with a target gross return of 15% to investors. Riverstone Holdings ("Riverstone"), the sponsor of the Fund, is a private equity firm specialized in the energy and power industry. Founded in 2000, Riverstone has invested or committed approximately \$20 billion to 94 transactions exclusively in the energy and power industry on a global basis. The Fund will seek to take advantage of the current dislocation in the energy credit markets to make primary and secondary investments in debt securities of non-investment grade, small to mid-sized energy companies in North America, focusing on the four conventional energy sectors in which Riverstone has substantial experience : exploration and production, midstream, energy services, and power and coal. The Fund will have secured approximately \$600 million commitments from institutional investors upon its final close in April 2016.

The investment staff recommends an allocation to the Fund based on the following considerations:

- ***The Opportunity***

The energy industry is a capital intensive industry. While historically the industry's capital needs have been largely met by commercial banks and the capital markets (i.e. the high yield market and the leveraged loan market) in terms of debt, following the financial crisis financial regulations such as the Volcker Rule, Basel III, and OCC leverage lending guidelines have reduced the amount of capital commercial lenders are allowed or willing to provide to small and mid-sized energy companies. The capital markets on the other hand have shown preference for larger deal sizes and less support for smaller deals due to liquidity concerns caused by the Volcker rule post crisis, which limits the ability of banks to hold investments on their balance sheets. As a result small and mid-sized companies' access to the capital markets is limited. This has been exacerbated by the fall of commodity prices started in the fall of 2014. Brent crude oil price went from over \$100 per barrel in 2014 to touching below \$30 per barrel in the middle of January 2016. While falling commodities prices are causing financial and operational stress for many energy companies, the secondary market is currently trading at a stressed or depressed level and the primary market is essentially shut to any new



issuance of debt. Given the regulatory constraints posed on commercial lenders and the dislocation in the energy capital markets, staff believes there are currently compelling opportunities for an experienced manager, who is not subject to these regulatory constraints, to take advantage of the market conditions to generate appropriate risk adjusted returns by making investments in the energy credit space.

- ***The Firm***

Riverstone is one of the largest private equity firms focused on the energy sector. With approximately \$30 billion under management spanning across North America and other global regions, the Firm has extensive sector knowledge and basin experience in North America, where the Fund intends to make investments. The firm's platform is comprised of 45 investment professionals including some very seasoned energy investors and 67 support staff. Of note is that approximately 20% of the equity investment team has an operating background within the energy sector versus a financial background including ex-CEOs of major energy companies. The Firm's knowledge base in the operating aspects of the energy business enables Riverstone to have a greater understanding of operations and operators in the sector and the risks involved. It is expected that the Fund will benefit from the broader Riverstone platform in terms of deal sourcing, valuation, due diligence, as well as monitoring.

- ***The Team***

The 6-member credit team is led by two principals, Christopher Abbate and Jamie Brodsky, who joined Riverstone in July 2014. While their tenure at Cornerstone is relatively short and this is their first fund to manage third party pooled funds, both principals have extensive experience originating, structuring, underwriting and syndicating loans and bonds in the energy industry at other firms prior to joining Riverstone, having led energy leveraged finance efforts at Citi, Nomura, and UBS. Riverstone states that the period from January 2012 until July 2014, members of the credit team managed or participated in over \$80 billion transactions representing over 35% of the deal flow in energy credit during that period of time. In addition to their experience and relationships in the broader energy credit market, the credit team has had a strong relationship with the Riverstone platform: members of the credit team have acted as capital markets advisors to Riverstone for more than 10 years on over \$20 billion transactions. The team is also supported by an Investment Committee that includes the two founders and a senior partner of the Firm.

- ***Investment Strategy and Process***

Given the long term regulatory and liquidity driven trends as well as weakness in the energy capital markets caused by falling commodity prices, the Fund intends to deploy capital opportunistically and seek to build a portfolio of debt investments through a combination of the following strategies:

1. Market-based opportunities: acquiring energy bonds and loans trading at stressed or depressed levels in companies the team believes to be of high quality and strong liquidity to withstand medium-term commodity price pressure.
2. Directly originated opportunities: direct senior secured lending to non-investment grade issuers which have been shut out of the market.



3. Capital relief opportunities: acquiring existing loans from banks forced to sell for regulatory or internal capital charge related reasons.

While there is a strong supply of attractive investment opportunities in the market, the manager is mindful of downside protection and risk mitigation. The Fund employs a five-stage diligence and underwriting process that focuses on asset coverage, liquidity, structuring, legal, tax and environmental due diligence, as well as having a clear view on when to exit an investment. With respect to asset coverage the manager will establish a conservative view on the value of the issuer's underlying assets, including stress testing under various commodity price scenarios and the loan to assets ratio generally is not to exceed 60% to provide ample asset coverage for the investment. The Fund will also focus on companies that have sufficient liquidity to service their debt in the current commodity environment and structure the investment to ensure that the desired asset coverage is maintained and adequate liquidity is preserved.

With respect to portfolio monitoring and review, the team will actively monitor its portfolio on a real-time basis, drawing upon the team's expertise in the energy credit space, as well as the sector, basin and operating knowledge of the broader Riverstone platform.

- ***Terms and Conditions of the Fund***

This Fund is organized as a closed end vehicle. Capital will be drawn down over a two year investment period (with possible extensions). The Fund intends to make quarterly distributions (currently in the 8-10% range) although it is only required to make annual distributions. Life of the fund is six years with possible extensions. The management fee will equal 1.5% per year of capital under management during the investment period and reduced to 1% per year of capital under management after the expiration of the investment period. The Fund has a hurdle rate of 6% and a modified deal by deal by deal waterfall where investors of the Fund receive all capital back and an annualized rate of return of 6% for all the realized investments and the pro rata share of any net unrealized losses due to permanent write downs on the Fund's other investments before the manager can participate in profits. The manager's carried interest is 15%. Upon liquidation of the Fund if the investors have not received a rate of return equal to or greater than 6% on the investment there are clawback provisions where the general partner is to return a portion or all of the carried interest to investors. Riverstone, as the sponsor of the Fund will be making a capital commitment to the Fund along with investors of at least the lessor of \$20 million or 2% of total capital commitments.

After reviewing the main terms and conditions of the Fund staff is of the opinion that the terms are market, subject to further review and negotiation by staff and legal counsel.

- ***Fit for DFPF Portfolio***

At the March 10, 2016 Board meeting, the Board will consider an asset allocation recommendation by NEPC and staff. A 5% allocation for private credit is included as part of the overall asset allocation recommendation. Currently there are private markets investments of approximately \$90 million (approximately 3% of the total portfolio) which would be categorized as private credit investments under the proposed asset allocation. More than half of these investments are near the end of their lives and are in the harvesting/liquidation phase. If approved the Fund will be placed into the private



credit allocation providing vintage year diversification, quarterly income distributions, as well as returns through capital appreciation to DPFP.

Staff sourced this investment with the assistance of NEPC. Staff and NEPC screened and conducted a detailed review of a number of investment strategies, managers and funds, taking into account the current credit cycle and market opportunities. The Fund stands out as an energy credit and senior secured direct lending strategy that's managed by an experienced manager who can take advantage of the current market conditions to generate appropriate risk adjusted returns to DPFP.

Based on aforementioned considerations it is staff's recommendation that the Board approve a \$10 million commitment to the Riverstone Credit Partners, LP Fund.

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Presentation to the Dallas Police & Fire Pension System

*Riverstone Credit Partners, L.P.*

March 10, 2016

# Important Information and Methodologies

## *General*

This presentation does not constitute an offer to sell or a solicitation of an offer to purchase interests in the Fund or any other product. Any such offer or solicitation shall only be made pursuant to a confidential private placement memorandum for the Fund (the "Memorandum"), which qualifies in its entirety the information set forth herein and which should be read carefully prior to investment for a description of the merits and risks of investment. An investment in the Fund is speculative and entails a high degree of risk and no assurance can be given that the Fund's investment objective will be achieved or that investors will receive a return of their capital.

This document and the information contained herein are confidential and for the use solely of the person to whom this document is addressed. The document is an outline of matters for discussion only, and no representations or warranties are given or implied. Except as expressly permitted in writing by Riverstone, the presentation must not be photocopied or reproduced in any other electronic or physical form and must not be communicated, disclosed or distributed to any other person in whole or in part. By accepting the presentation, the recipient agrees that it will, and will cause its representatives and advisors to, use the information contained herein only to evaluate a potential interest in the Fund and for no other purpose.

Unless otherwise noted, information in this presentation is presented as of its date and does not reflect any facts, events or circumstances that may have arisen after that date, is subject to discussion, completion and amendment and does not contain all information necessary to fully evaluate any transaction or investment. Riverstone has no obligation to update this document (including forward-looking statements herein) or correct inaccuracies or omissions in it.

This presentation contains statements of opinion and belief. All views expressed and all statements relating to expectations regarding future events or the possible future performance of the Fund or investments represent Riverstone's own assessment and interpretation of information available to it as at the date of this presentation. Such statements involve known and unknown risks, uncertainties and other factors, and undue reliance should not be placed thereon. Such statements represent solely the opinion or belief of Riverstone and are not expressed herein as the opinion or belief of any other entity or of members of the Riverstone team in their individual capacity. No representation is made or assurance given that such statements or views are correct. Opinions expressed and other information or statements herein are subject to change without notice. Any discussion of general market activity, industry or sector trends, or other broad-based economic, market, political or regulatory conditions should not be construed as research or investment advice.

## *Prior Performance Information*

**In considering the past performance and other financial information contained herein, recipients of this presentation should bear in mind that past performance is not a guarantee, projection or prediction and is not necessarily indicative of future results. There can be no assurance that the Fund will achieve comparable results, that the Fund will be able to implement its investment strategy or achieve its investment objectives or that the returns generated by the Fund will equal or exceed those of other Riverstone funds, which pursue significantly different strategies and involve different investment professionals from those of the Fund.** This is the first credit fund being raised by Riverstone. Riverstone will be the sole sponsor and manager of the Fund and Riverstone Investment Group LLC ("RIG") or its affiliate will be the sole investment advisor to the Fund. As an investor in debt instruments, the Fund does not expect to have the same rights or be in the same position as Riverstone's private equity funds to influence the operations of portfolio companies and therefore its ability to act to preserve invested capital will be more limited. Recipients are invited to contact Riverstone for further information on the methodologies used in creating this presentation.

Unless otherwise indicated, "gross IRR," "gross MOIC," "net IRR" and "net MOIC" shall mean an aggregate, annual, compound, pre-tax, gross or net, as applicable, internal rate of return or multiple of invested capital in respect of direct investors in the Fund. Returns are not presented herein for investors in RCP Fund I Feeder, L.P., the feeder fund formed to address the tax, regulatory or other similar issues applicable to specific types of investors and which itself is a limited partner of the Fund. Gross IRRs and gross MOIC do not reflect management fees, "carried interest," taxes, cost of borrowing, transaction costs, organizational expenses and other expenses borne by investors (or by vehicles through which they participate in investments, including, for example, the Fund's alternative investment vehicles and corporations), which will reduce returns and, in the aggregate, are expected to be substantial. Net IRRs and net MOIC are after all management fees, "carried interest," cost of borrowing, transaction costs, organizational expenses and other expenses (other than taxes borne or to be borne by investors or vehicles through which they participate in investments, including, for example, the Fund's alternative investment vehicles and corporations). Composite IRRs are calculated using internal Riverstone valuations and on the basis of the actual timing of portfolio company inflows and outflows through the valuation date, aggregated daily, and the return is annualized. While Riverstone valuations of unrealized investments are based on assumptions that Riverstone believes are reasonable under the circumstances, the actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs, performance by the borrower of its obligations under its loan agreements with RCP and the timing and manner of exit, all of which may differ from the assumptions used herein. Accordingly, actual realized returns on unrealized investments may differ materially from the returns indicated herein. Performance as of December 31, 2015 used throughout this presentation are unaudited and may be subject to change.

The valuation of the realized portion of investments is based upon cash proceeds received, and to the degree applicable, the value of in-kind distributions as of the distribution date. Generally, the Team values investments at their market price if market quotations are readily available, with a discount in the case of restricted securities. In the absence of observable market prices, the Team values the investments using valuation methodologies applied on a consistent basis. For most investments, no or limited market activity exists. Therefore, the Team's determination of fair value is based on the best information available in the circumstances and may incorporate the Team's own assumptions and involves a significant degree of judgment, taking into consideration a combination of internal and external factors, including the appropriate risk adjustments for nonperformance and liquidity risks.

# Important Information and Methodologies

## *Prior Performance Information (cont'd)*

Any performance information that specifically indicates it is “net” (e.g., net IRR and net MOIC) does not represent the net performance of any particular investor. Unless otherwise indicated, net performance included herein is a composite and is calculated on an aggregate basis after taking into account all management fees, carried interest, cost of borrowing, transaction costs, organizational expenses and other expenses actually borne by investors in the Fund as a group based on the terms of the Fund, but does not take into account, and therefore is not net of, any taxes borne or deemed to be borne by investors (such as, for example, taxes resulting from the investors’ domicile or taxes paid or payable by vehicles designed to address certain investors’ tax, regulatory or other similar issues, including, for example, alternative investment vehicles formed pursuant to the terms of the Fund to invest in certain types of investments).

Differences in timing of an investor’s contributions to the Fund, the economic and other terms applicable to certain investors therein or their decision to participate in co-investments may increase or decrease the net returns realized by such investors and, accordingly, the actual net performance of a particular investor may differ from the net performance information indicated herein. Composite net returns are calculated using the aggregate actual fees paid on a blended basis by all limited partners of the Fund, including \$26.4 million of capital commitments by Riverstone and its affiliates that do not bear a management fee or carried interest and other investors who are charged a discounted management fee. As a result, the actual net returns to third-party investors are lower than those indicated. Net returns calculated assuming the application of different levels of fees and expenses, including the highest management fees charged in the Fund are available upon request. IRRs do not take into account the timing effect of utilizing the Fund’s subscription credit facility, although the interest expense of such facility borne by the Fund is included in net cashflows.

## *Other*

Certain market, regulatory and other information contained in this presentation has been obtained from published and non-published sources prepared by other parties, which in certain cases have not been updated through the date hereof. In addition, certain information contained herein has been obtained from companies in which investments have been made by funds and entities affiliated with Riverstone. While such information is believed to be reliable for the purpose used in this presentation, none of Riverstone, the Fund, the General Partner or any of their respective directors, officers, employees, advisors, members, partners, shareholders or affiliates assumes any responsibility for the accuracy or completeness of such information and such information has not been independently verified by Riverstone, the Fund, the General Partner or any of their respective directors, officers, employees, advisors, members, partners, shareholders or affiliates.

None of the individual investment professionals or any employees, officers or directors of Riverstone referred to herein hold themselves out to any person for any purpose as a general partner. Statements contained herein that are attributable to Riverstone or its investment professionals are not made in any person’s individual capacity, but rather on behalf of the General Partner, which manages and implements the investment program of the Fund. Team members’ experience referred to herein occurred in the members’ capacities as employees of other institutions, and references herein to the “Team” refer to the aggregation of such prior individual experiences, and not of such individuals working together as a group. Team members have different levels of experience and seniority and were not previously involved in principal investing or fund management. Recipients of this presentation may obtain individual team member bios upon request, including prior experience advising Riverstone.

Recipients of this presentation should inform themselves as to the legal requirements and tax consequences within the countries of their citizenship, residence, domicile and place of business with respect to the acquisition, holding or disposal of interests, and any foreign exchange restrictions that may be relevant thereto.

Certain information contained herein constitutes “forward-looking statements,” which can be identified by the use of terms such as “may”, “will”, “should”, “expect”, “anticipate”, “project”, “estimate”, “intend”, “see”, “continue,” or “believe” (or the negatives thereof) or other variations thereon or comparable terminology. Due to various risks and uncertainties, actual events or results or actual performance of investments may differ materially from those reflected or contemplated in such forward-looking statements. As a result, recipients of this presentation should not rely on such forward-looking statements, and no representation or warranty is made as to future events or results or such forward-looking statements. None of the information contained herein has been filed with the U.S. Securities and Exchange Commission, any securities administrator under any securities laws of any U.S. or non-U.S. jurisdiction or any other U.S. or non-U.S. governmental or self-regulatory authority. No such governmental or self-regulatory authority will pass on the merits of the offering of the Fund or the adequacy of the information contained herein. Any representation to the contrary is unlawful.

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*For the purposes of Swiss regulatory requirements (Article 120 paragraph 4 of the Swiss Collective Investment Scheme Act (CISA)), the following Swiss representative and Swiss paying agent has been appointed by Riverstone Europe LLP:*

*SOCIETE GENERALE, PARIS, ZURICH BRANCH, a corporation with limited liability under the laws of France with its registered office in Paris and having a branch office at Talacker 50, Postfach 1928, 8021, Zurich, Switzerland.*



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## Overview



# Riverstone Platform: Firm Overview

Leading global energy-focused private equity firm

## ■ 2000: Founded by David Leuschen and Pierre Lapeyre

- Established to partner with energy industry management teams to invest in a dynamic and growing investment opportunity set and generate attractive absolute and relative investment returns for LPs

## ■ Today: One of the leading private equity firms dedicated solely to the energy industry<sup>1</sup>

## ■ A traditional private partnership with more than 100 professionals, including 43 investment professionals, operating from offices in New York, Houston, London and Mexico City

- \$33 billion raised since inception across 9 private funds and two listed vehicles through December 2015
  - Global Energy and Power (six private equity funds and two listed vehicles)
  - Renewable and Alternative Energy (two private equity funds)
  - Energy Credit (currently raising Riverstone Credit Partners, L.P.)
- In February, Riverstone successfully launched a new investment vehicle, Silver Run Acquisition Corp (SRAQU.O), resulting in the largest U.S. IPO so far this year
- Committed over \$30 billion to >120 transactions across 10 countries including over \$9 billion outside the U.S.<sup>3</sup>

## ■ Committed to enhancing our leading market position through continued attractive investment performance in alignment with investors

- Including Fund VI and Riverstone Credit Partners, Riverstone has committed over \$1 billion to its investment vehicles alongside investors
- Continued investment in the resources needed to address a growing opportunity set

Notes: As of December 31, 2015 unless otherwise indicated. Past performance is not indicative of future results. See "Important information" slide.

1. Energy focused private equity fund data from Preqin as of June 2015.

2. Includes \$23.2 billion in commitments to Global Energy and Power Funds I, II, III, IV, V, VI (the "Global Energy and Power Funds"), \$1.2 billion in commitments to REL, \$4.5 billion in commitments to Renewable Energy Funds I & II, \$0.2 billion to Riverstone Credit Partners and \$3.1 billion in commitments to co-investments.

3. Includes Global Energy & Power Funds, Renewable Energy Funds I & II, co-investments and REL.

# Significant Platform Experience Across Energy Value Chain

The RCP team will draw on Riverstone's significant scale and experience within the energy sector

## Sector<sup>1</sup>

## Investments<sup>2</sup>

## North America Basin Experience

Exploration & Production

55 Investments

Midstream

21 Investments

Energy Services

20 Investments

Power & Coal

6 Investments



Notes: As of December 31, 2015. Includes the Global Energy and Power Funds, REL and co-investments sponsored by Riverstone. Does not include performance information for the Renewable and Alternative Energy Funds. Past performance is not necessarily indicative of future results. These equity investments and the Riverstone funds that made them had significantly different investment strategies and objectives than the Fund, which will make debt investments, and such investments were sourced, executed and managed by different investment professionals than those that will be involved with the Fund. Such prior performance information is presented for background informational purposes only regarding Riverstone's experience generally in evaluating and making investments in energy and power companies and related assets, and is not indicative of the returns that should be expected for the Fund. Recipients should not consider this information as a track record of the Team or Riverstone with respect to the strategy to be pursued by the Fund and should appropriately discount the relevance of the prior performance information presented. See "Important Information and Methodologies" beginning on page 2 under the heading "Prior Performance Information and Target Returns" for further important information.

1. The selected investments presented above are intended to illustrate the general experience of Riverstone investing in the four sectors defined by Riverstone above. Investments were made under prior market conditions, which may not be replicated. The Fund may have very different sector diversification.

2. Indicates number of investments. Excludes 20 renewable investments.

# Organization

Deep bench of senior deal professionals and dedicated functional support

Founders & Partners					
		<b>Pierre Lapeyre*</b> Founder New York	<b>David Leuschen*</b> Founder New York		
<b>Ralph Alexander</b> Partner Houston	<b>Stephen Coats<sup>1</sup></b> Partner New York	<b>James Hackett</b> Partner Houston	<b>Michael Hoffman</b> Partner New York	<b>Bartow Jones</b> Partner New York	<b>John Lancaster*</b> Partner New York
<b>Mark Papa</b> Partner Houston	<b>Ken Ryan</b> Partner New York	<b>Baran Tekkora</b> Partner New York	<b>Robert Tichio</b> Partner New York	<b>Andrew Ward*</b> Partner New York	<b>Elizabeth Weymouth<sup>2</sup></b> Partner New York

Investment Professionals				
<b>Christopher Abbate</b> Managing Director New York	<b>Jamie Brodsky</b> Managing Director New York	<b>Peter Coneway</b> Managing Director Houston	<b>German Cueva</b> Managing Director Mexico City	
<b>Robin Duggan</b> Managing Director London	<b>Christopher Hunt</b> Managing Director London	<b>Alfredo Marti</b> Managing Director London	<b>Stuart Miller</b> Managing Director New York	
<b>Brett Staffieri</b> Managing Director New York	<b>Olivia Wassenaar</b> Managing Director New York	<b>Carl Williams</b> Managing Director Houston	<b>Daniel Yergin<sup>1</sup></b> Senior Advisor	
<b>Daniel Flannery</b> Principal New York	<b>Andrew Karian</b> Principal Houston	<b>Cliff Ryan</b> Principal New York	<b>Ernst Sack</b> Principal London	
<b>Jose Salcedo</b> Principal Mexico City	<b>John Staudinger</b> Principal New York	<b>Natasha Fowlie</b> Vice President London	<b>John Jessup</b> Vice President New York	
<b>German Losada</b> Vice President London	<b>Meghan Pasricha</b> Vice President New York	<b>Jesal Shah</b> Vice President New York	<b>Fauzul Lakhani</b> Associate Houston	
<b>Steven Lowenthal</b> Associate New York	<b>Richard Maass</b> Associate New York	<b>Rajen Mahagaokar</b> Associate Houston	<b>Ian Manchel</b> Associate London	
<b>Drew Nicholas</b> Associate New York	<b>Yakov Tsveig</b> Associate New York	<b>Matt Veazey</b> Associate Houston	<b>Austin Winger</b> Associate New York	<b>Jeff Wu</b> Associate New York

Limited Partner Relations			
<b>Bob Brown</b> Managing Director London	<b>Andy Lund</b> Managing Director London	<b>Jim McGee</b> Managing Director New York	
<b>Patrick Connell</b> Principal New York	<b>Cristina Forcina</b> Principal London	<b>John Cosgrove</b> Vice President New York	<b>Viet Nguyen</b> Vice President New York
<b>Greg Pupo</b> Vice President New York	<b>John Manning</b> Associate New York	<b>Brian Potkowski<sup>3</sup></b> Associate London	<b>Ed Stubbings</b> Associate London

Legal		
<b>Dianna Aprile</b> Chief Compliance Officer New York	<b>Charles Chipchase</b> Assistant General Counsel London	<b>Rob Gray</b> Assistant General Counsel Houston

Finance & Fund Administration		
<b>Tom Walker</b> Chief Financial Officer New York	<b>Peter Haskopoulos</b> CFO of Fund Accounting New York	<b>Paul Cabral</b> Controller New York
Accounting and Support Professionals		Executive Assistants

Note: As of December 31, 2015.

\*Denotes Member of the Management Committee.

1. General Counsel of the Firm.

2. Head of Limited Partner Relations.

3. Focused on investor relations for REL as well as strategy and policy.



# Riverstone Credit Partners Team

One of the most experienced energy capital markets teams in the current market

## RCP Investment Team<sup>1</sup>

<b>Christopher Abbate*</b> Managing Director New York	<b>Jamie Brodsky*</b> Managing Director New York	<b>Stuart Miller</b> Managing Director New York
<b>Daniel Flannery</b> Principal New York	<b>Meghan Pasricha</b> Vice President New York	
<b>Steven Lowenthal</b> Associate New York	<b>TBC</b> Associate New York	

## Investment Committee Members (Non-Investment Team)

<b>Pierre Lapeyre*</b> Riverstone Founder New York	<b>David Leuschen*</b> Riverstone Founder New York	<b>Ken Ryan*</b> Partner New York
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\* RCP Investment Committee member. Pierre Lapeyre and David Leuschen also serve on the investment committees for Riverstone's private equity funds



- **Team members participated as a bookrunner on over \$80 billion in transactions in the 2.5 years ended July 31, 2014, representing over 35% of the market during that time period<sup>2</sup>**
  - Acted as the lead originator and structuring agent on more transactions than any other team during that time period (53 deals representing \$27.5 billion in proceeds)<sup>3</sup>
- **Long history with RSH:** Over the past 10 years, the Team participated in over \$20 billion of transactions as bookrunner for Riverstone<sup>4</sup>

Notes:  
 1. \* Denotes investment committee member.  
 2. Team members joined Riverstone in July 2014.  
 3. Citi data, corresponding to Citi league table positions during the period Mr. Abbate worked at Citi. There is overlap in some cases with deals worked on by Mr. Brodsky and Mr. Flannery, where they also worked on the same transactions as Mr. Abbate, albeit in their capacities as employees of different financial institutions and not all together as a team. The methodologies and criteria used for this data are not known to Riverstone. There can be no assurance that such data is complete, and other market data or league tables prepared by other parties may show different rankings. This data is solely for informational purposes and should not be construed, or relied upon, as any indication of the past or future performance of the Team or the Fund. Recipients should appropriately discount the relevance of this information and conduct their own diligence into the matters presented.  
 4. All team members are based in New York.

# RCP Represents a Unique Opportunity

Well positioned to take advantage of the energy credit opportunity set

## One of the Most Experienced Energy-Focused Private Equity Firms

- Over the last 10 years, Riverstone believes it has raised more capital than any other global energy focused private equity firm<sup>1</sup>

## Proven & Successful Energy Investment Track Record

- Proven and successful aggregate record in private equity, investing across the energy spectrum, globally
- Committed over \$30 billion to more than 120 private equity transactions<sup>2</sup>

## Experienced and Dedicated Credit Expertise

- History of certain senior team members working together as both a team and Riverstone advisors

## Access to Scale & Expertise of Riverstone Platform

- Riverstone believes it has a unique “3-way” origination channel stems from Riverstone platform and network
  - Active calling program by the credit team
  - Platform generated deal flow requiring a credit solution
  - Proprietary deal flow expected from advisors as a result of strong institutional relationships
- Supported by multi-sector, multi-basin operationally-oriented expertise – more informed due diligence, valuation and underwriting seeks to maximize risk-adjusted returns

Notes: Past performance is not indicative of future results.

1. See Note 1 on page 5 for additional information.

2. Includes Global Energy and Power Funds I, II, III, IV, V, REL, Renewable Energy Funds I & II, and co-investments sponsored by Riverstone.

# Dynamic Portfolio Construction

## Illustrative diversified portfolio

- Portfolio expected to consist of loans and bonds both directly originated and purchased in the secondary market
- Flexible investment mandate provides ability to opportunistically and tactically deploy capital across commodity and credit market cycles

Opportunity Type: Allocation Today	Opportunity Type: Original Allocation	Strategy Description
<p><b>Directly Originated Opportunities</b> (60 - 80% Allocation)</p>	<p><b>Directly Originated Opportunities</b> (40 - 60% Allocation)</p>	<ul style="list-style-type: none"> <li>▪ Primary loans originated for both private and public companies (spanning upstream, midstream and select downstream and oilfield services)</li> <li>▪ Willingness to focus on “non-conforming” borrowers (i.e. small, unrated companies) with limited debt capacity or unable to access institutional capital markets               <ul style="list-style-type: none"> <li>• Provide liquidity</li> <li>• Backstop event-driven capital needs</li> </ul> </li> </ul>
<p><b>Market-based Opportunities</b> (0 - 20% Allocation)</p>	<p><b>Market-based Opportunities</b> (40 - 60% Allocation)</p>	<ul style="list-style-type: none"> <li>▪ Attractively priced, non-originated primary and secondary investment opportunities in both private and public companies</li> <li>▪ Focus on fundamentally healthy companies with strong asset coverage and strong liquidity</li> </ul>
<p><b>“Capital Relief” Opportunities</b> (0 - 15% Allocation)</p>	<p><b>“Capital Relief” Opportunities</b> (0 - 20% Allocation)</p>	<ul style="list-style-type: none"> <li>▪ Trades for banks that have positions they can no longer hold               <ul style="list-style-type: none"> <li>• An evolving and more stringent regulatory regime is forcing banks to reserve more capital and hold fewer assets on balance sheet</li> </ul> </li> <li>▪ Underwritten deals that have no current bid or are meeting tremendous market resistance</li> </ul>

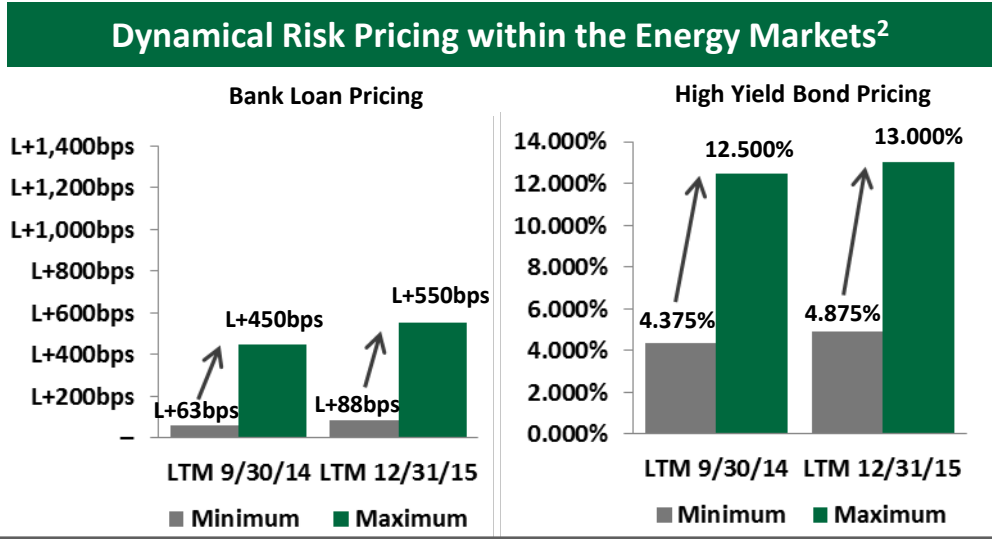
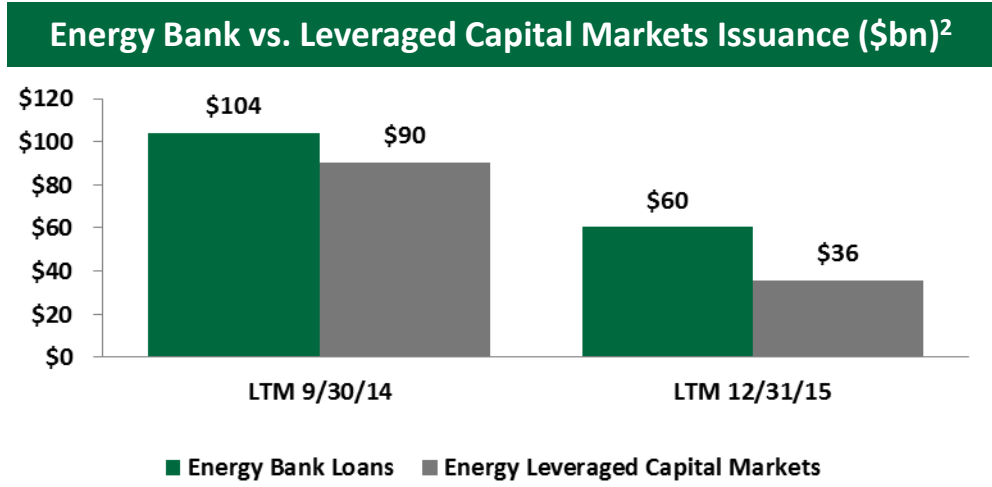
Note: Nothing in this Presentation is a guarantee or projection of future performance of the Fund or its investments.

# Significant Opportunity for Directly Originated Opportunities<sup>1</sup>

Despite drastically reduced capital spending in the industry, RCP believes the “underserved” market in energy credit is as big as it has ever been

- **Prior to the fall of 2014, debt capital for the energy industry was extremely plentiful, on very favorable terms and conditions from two “traditional” sources – banks and the leveraged capital markets**
  - Estimated bank lending of \$104 billion in twelve months ended Sept 30, 2014
  - Total leveraged capital markets issuance of \$90 billion in twelve months ended Sept 30, 2014
- **Despite the plentiful supply of flexible capital from the traditional sources, these pockets had significant limitations on what they could finance**
  - Post financial crisis, banks have become increasingly more regulated and unwilling or unable to “dynamically price” risk – “a loan is either conforming, or it is not”
  - Capital markets participants willing to dynamically price risk – but could not price illiquidity – minimum deal size was >\$300mm
- **We believe the market in between traditional bank lenders and the capital markets (i.e. the “Wedge”) was large and largely underserved, with the only solutions having an equity or equity-like cost of capital**
- **Since the fall of 2014, the Wedge has only gotten bigger**
  - Banks have retreated even further, burdened by stepped-up regulatory pressure and deteriorating credit fundamentals
  - The capital markets have largely shut down

*We Believe the Current Opportunity Set is Bigger and Higher Quality than Anticipated*



Sources: Tudor, Pickering, Holt & Co. Securities, Inc., Bloomberg, LCD News and Citi Issuance Data.

1. Trends do not necessarily guarantee, project, imply or predict future results or events and may not continue.

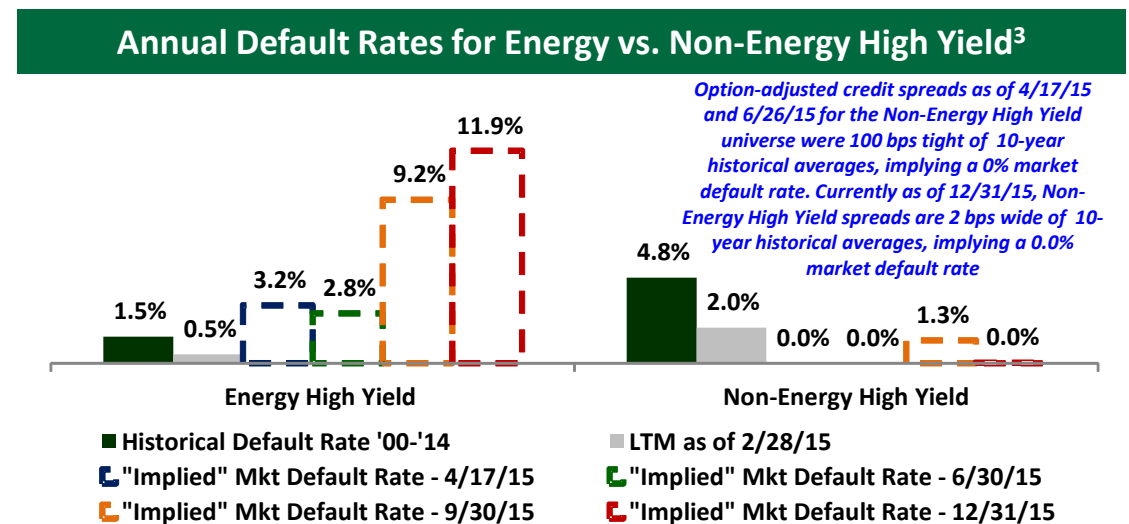
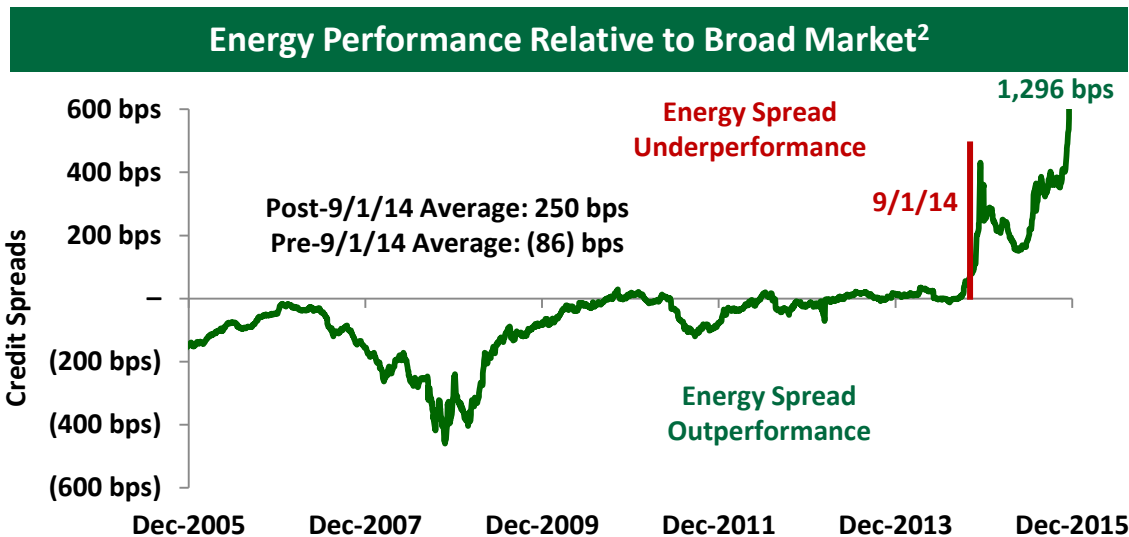
2. Energy bank loans include pro-rata deals from LCD News, inclusive of revolvers and term loans and excludes DIP financings, 2<sup>nd</sup> lien facilities and bridge loans. Leveraged capital markets include TLB and high yield issuances. Sources include LCD News and Citi issuance data.



# Market-Based Opportunities

Existing energy bond and leveraged loan trading levels imply a level of distress never witnessed in the sector

- **Levels for existing securities driven to historically wide levels<sup>1</sup> through a confluence of fundamental and technical factors**
  - Fundamentals deteriorated with crude and natural gas prices near decade-long lows and we believe poor performance and fear of rising rates has led to persistent outflows from institutional accounts
  - “Fallen-angel” credits have put additional pressure on already burgeoning energy holdings
- **We believe there is opportunity to purchase high quality credits at deeply discounted prices, and conversely highly attractive yields - but we are proceeding with caution**
- **In our experience, ripple effects of current market conditions have improved the opportunity for direct lending and capital relief**
  - In past cycles, as borrowing bases came down, banks “stretched,” but also encouraged asset sales and capital markets deals to repay senior debt - today those markets are largely shut
  - As “stretching” starts to exceed comfortable levels, and regulatory pressure steps up, banks have expressed more willingness than ever to shed risk and redeploy capital elsewhere



Notes: Data through December 31, 2015.

1. Riverstone analysis based on Citi data.

2. Riverstone analysis based on Barclays Indices.

3. High yield default rates include non-investment grade, U.S. dollar-denominated, nonconvertible bonds. Implied market default rates calculated per Goldman Sachs Credit Strategy Research. Source: “Fitch U.S. High Yield Default Insight,” (2015) Fitch Ratings. Industry default rates observed from 2000-Dec 2015. Historical default rates per Fitch Credit Market Research, Goldman Sachs Credit Strategy Research Methodology and Barclays Indices. Recipients should note that considering the Fund’s investment objectives and strategies, the specific types of debt instruments and issuers in which Riverstone expects the Fund to invest may have materially different default rates, either higher or lower, than those described herein. There can be no assurance that default rates or other performance measures of debt securities and instruments in the energy markets will continue to compare favorably versus the broader markets. Also, the criteria used by Riverstone to determine whether and to what extent a default has occurred with respect to the Fund’s investments may vary from those used by the third-parties in creating the statistics presented. In considering historical default rates presented, recipients should bear in mind that such past performance is not necessarily indicative of future results and there can be no assurance that the Fund will achieve comparable results. These rates and correlations may not apply to other types of investments that the Fund will make.

# “Capital Relief” Opportunities

Regulatory initiatives have resulted in a significantly reduced supply of traditional bank financing

- **In the wake of the financial crisis, newly implemented reforms and regulations continue to change the traditional lending landscape**
  - Banks are primarily focused on large corporate borrowers deemed to be more strategic (i.e. bigger, more diverse fee streams)
  - Appetite to hold assets (specifically small and unrated loans) has greatly diminished
  - Middle market investor universe has consolidated into a niche group of investors focused on direct lending
- **Evolving bank regulations have created a systemic market disruption, limiting general bank appetite to arrange, underwrite, and distribute leveraged loans<sup>1</sup>**
- **Riverstone believes there is a large opportunity for non-bank capital providers to fill growing void**

## Capital Relief Commentary in the Media

**“Any pressure from regulators will only amplify the cuts to borrowing already affecting the small- and medium-size energy companies. They are the producers that have helped sharply boost U.S. oil output in recent years, helping create the supply glut that is now weighing on prices.” – WSJ<sup>2</sup>**

**“In a June report on lending risks, it said OCC examiners would be focused on “banks’ actions to assess, monitor, and manage both direct and indirect exposures to the oil and gas sector, given the recent decline in oil prices and the potential for a protracted period of low or volatile prices.” – WSJ<sup>2</sup>**

**“The Shared National Credit (SNC) review of bank loan underwriting standards is stepping up to twice a year in 2016 from the usual annual exam as regulators crack down on lending practices that could pose systemic risk, including loans extended to troubled oil and gas companies.” –Reuters<sup>3</sup>**

**BNP Paribas is reining back lending to the US energy sector, potentially tightening a squeeze for cash-strapped producers struggling with the collapse in oil prices.” –FT<sup>4</sup>**

**“Some of the biggest banks in the sector have signaled that they are preparing to cut RBL facilities across the board as they enter the next round of semi-annual reviews in the spring.” –FT<sup>4</sup>**

Notes: Trends do not necessarily imply or predict future results or events and may not continue. The foregoing is based on RCP’s current opinion and belief regarding the current regulatory environment and its effect on bank conduct and resulting opportunities.

1. There can be no assurance that any current regulations will continue or that expected regulations will come into effect as anticipated or create anticipated outcomes in the market. Moreover, the interpretation, application and enforcement of existing or future laws and regulations are uncertain and may become unfavorable for the Fund or its investments.

2. Wall Street Journal article by Emily Glazer, “Energy Lending Caught in a Squeeze: Banks run up against regulatory review of loans to oil and gas firms” (September 25, 2015).

3. Reuters article by Lynn Adler, “U.S. regulators expected to classify more energy loans as high risk” (February 3, 2016).

4. Financial Times article by Gregory Meyer and Ben McLannahan, “BNP Paribas to curb lending to US energy sector” (February 11, 2016).

# Current Portfolio Construction & Drivers of Portfolio Yield<sup>1</sup>

RCP seeks to take a balanced approach towards portfolio composition and constantly evaluates investments for attractive risk-adjusted returns across our strategies

- As of 12/31/15, approximately 46% of total capital was invested with 35% and 11% in direct deals and secondary transactions, respectively
- An investment in then-current RCP portfolio would have had an annual gross cash yield of 10.3% and an expected gross all-in yield of 14.6%, excluding any exit premiums

	Directly Originated Opportunities	Market-Based Opportunities	Consolidated Portfolio
Coupon Type <sup>2</sup>	100% Floating Rate	57% Floating Rate	90% Floating Rate
Security	100% Secured	72% Secured	94% Secured
Commodity Exposure	Liquids: 29% Gas: 57% Coal: 14% Non-E&P: 0%	Liquids: 63% Gas: 24% Coal: 0% Non-E&P: 13%	Liquids: 37% Gas: 49% Coal: 11% Non-E&P: 3%
Weighted Avg. Basis <sup>3</sup>	94.8	82.5	91.5
Weighted Avg. Cash Coupon	10.5%	6.4%	9.4%
Weighted Average Gross Cash Yield	11.1%	7.8%	10.3%
Weighted Avg. Tenor	4.1 years	5.1 years	4.4 years
Gross All-in Yield to 2-Year Expected Life <sup>3,4</sup>	13.7%	16.5%	14.6%
Gross All-in Yield to Maturity <sup>3,5</sup>	12.4%	11.2%	12.2%
Total Dollars Invested <sup>6</sup>	\$145.8mm	\$38.6mm	\$184.4mm
Total Dollars Currently Invested <sup>6</sup>	\$117.6mm	\$35.7mm	\$153.2mm
% of Total Currently Invested Capital	77%	23%	100%
% of Current Fund Size <sup>7</sup>	35%	11%	46%
Total Committed <sup>6</sup>	\$160.0mm	\$38.6mm	\$198.2mm
% of Current Fund Size <sup>7</sup>	47%	11%	58%
Total Realized <sup>8</sup>	\$41.0mm	\$2.4mm	\$43.5mm

Notes: Preliminary, unaudited results. Past performance is not necessarily indicative of future results. Nothing in this presentation is a guarantee or projection of future performance of the Fund or its investments, and the Fund may experience significantly lower returns with respect to any of its currently held investments. Additional investments made by the Fund in directly originated opportunities and market-based opportunities may have materially different returns than as described herein.

1. This is a description of the portfolio construction of the Fund as of 12/31/15. There can be no assurance that the Fund will be able to implement its investment strategy, achieve or realize its investment objective, rationale or thesis with respect to its investments or allocate its capital among directly originated, market-based and "capital relief" opportunities to create a diversified portfolio. Future diversification by the Fund may be significantly different than the current portfolio construction.

2. Blended averages based on current capital invested post co-investment. Includes investments that have yet to settle.

3. Assumes upfront fees on direct lending investments reduces basis.

4. Assumes par less weighted average basis over 2.0 years. Does not include exit premiums or other fees.

5. Assumes par less weighted average basis over years to maturity. Does not include exit premiums.

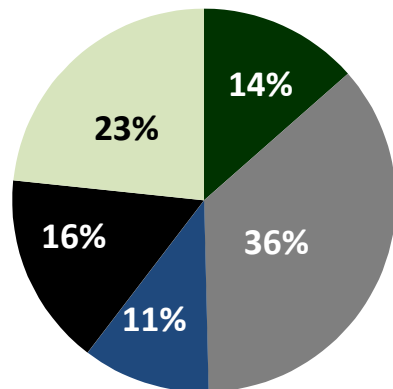
6. As of 12/31/15 and excludes Project Octane, which closed in January 2016. Post co-investment and includes investments that have yet to settle.

7. Based on fund size as of 12/31/15 of \$339 million.

8. Realized proceeds include any principal, upfront/origination fees, exit premiums, duration / extension fees, gains on sale and interest income received.

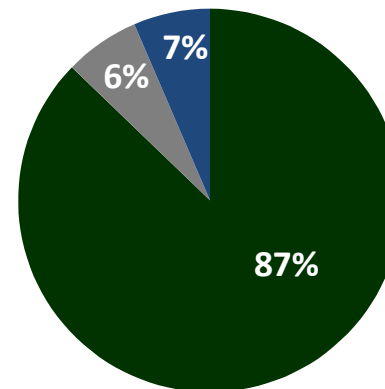
# Portfolio Construction

Transaction



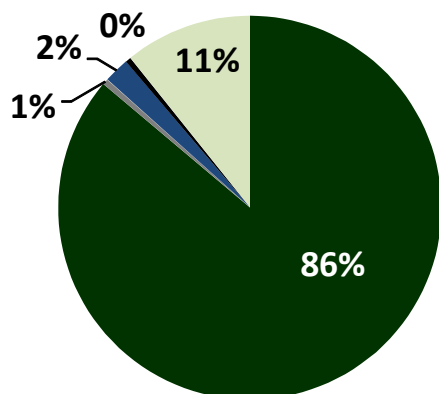
■ Pinnacle ■ Titan II ■ Chopper II ■ Columbus ■ Secondary

Collateral Package



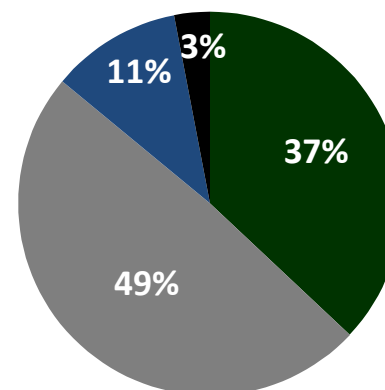
■ First Lien ■ Second Lien ■ Unsecured

Sector



■ E&P ■ Midstream ■ Downstream ■ Services ■ Coal

Commodity Exposure<sup>1</sup>



■ Liquids ■ Gas ■ Coal ■ Non-E&P

Notes: As of 12/31/15, preliminary, unaudited results. Nothing in this presentation is a guarantee or projection of future performance of the Fund or its investments. The Fund may pursue and consummate different types of investments than those represented herein. There can be no assurance that the Fund will be able to implement its investment strategy, achieve or realize its investment objective, rationale or thesis with respect to its investments or allocate its capital among directly originated, market-based and "capital relief" opportunities to create a diversified portfolio. Future diversification by the Fund may be significantly different than the current portfolio construction.

1. Non-E&P of 3% includes midstream, downstream and services.

# RCP Direct Lending Investment Activity Updates<sup>1</sup>

Since April 2015, the Fund has made ~\$160 million of new direct lending commitments<sup>2</sup>

## Investment Activity Updates

### Project Pinnacle

- RCP committed \$50 million in June 2015 (\$34.5 million post-coinvestment)
- Sector: E&P
- **Company has drawn 60%, or \$30 million, of its first lien facility to date**

### Project Chopper II

- RCP committed \$16.5 million in June 2015
- Sector: Power & Coal
- **Chopper II repaid \$15 million notional investment in Chopper I, made in June 2015 and refinanced less than 4 months later**
- **Use of proceeds for Chopper II was to purchase 6 largely met coal mining complexes**
- **The deal serves to further diversify Chopper's mining complexes, provide a more diversified product portfolio and strengthen the overall operations and customer reach of the Company**

### Project Titan II

- RCP committed \$63 million to an \$82.7 million term loan in August 2015 (pre co-investment)
- Sector: E&P and Midstream
- **Titan II repaid \$10 million of the term loan on December 21, 2015 and RCP received its pro rata portion of \$7.6 million**

### Project Columbus

- RCP committed \$25 million to a \$300 million term loan in December 2015
- Sector: E&P
- **RCP executed a \$75 million add-on term loan to an existing \$225 million first lien term loan to fund development capital for a sponsor-backed deep-water exploration & production company**

### Project Octane

- RCP committed \$50 million in January 2016, with \$25 million drawn at close (pre co-investment)
- Sector: Downstream
- **RCP structured, priced, and executed a \$50 million borrowing base term loan (\$25 million drawn at close) to provide additional liquidity to a privately-owned, sponsor-backed downstream company. The Company serves as a leading processor of Crude C4 hydrocarbons and value-added derivatives**

#### Notes:

1. Above is a description of certain investments made by the Fund to date. The Fund may pursue and consummate different types of investments, in different geographies and concentrations, than those represented herein. There can be no assurance that the Fund will be able to implement its investment strategy, achieve its investment objective with respect to these investments or allocate its capital among directly originated, market-based and "capital relief" opportunities to create a diversified portfolio, or that the business plans for these companies will be achieved.

2. Post co-investment. The Team expects RCP committed capital to decrease following syndication. Includes Titan I investment, which was realized in August 2015.

# Conclusion

Same vision and discipline, a strong platform, and a compelling business opportunity

**Riverstone Credit Partners seeks to generate compelling risk-adjusted returns with the ability to create additional upside through leverage and opportunistic multi-strategy investments**

- **Riverstone believes the energy sector is currently the largest consumer of capital in the marketplace**
- **Fallout from the financial crisis has made it much harder for segments of the energy industry to obtain debt capital**
- **Despite the fact that energy bonds and loans have outperformed the broader market in terms of default, recoveries and returns, there is a growing gap between what the traditional bank market can finance and what the institutional capital markets will support<sup>1,2</sup>**
- **Riverstone believes the investment opportunity will only get bigger and better for non-bank capital providers as credit conditions deteriorate, market liquidity dries up, interest rates rise, and regulatory scrutiny increases**
- **The investment team has significant expertise in underwriting and distributing energy leveraged finance loans and high yield bonds**
- **Riverstone believes its platform is highly qualified to take advantage of this investment opportunity**

Notes:

1. Default rate and recovery rates per Fitch. Source: "Fitch U.S. High Yield Default Insight", (2014) Fitch Ratings. Industry default rates observed from 2000-2013. Source: "Fitch U.S. High Yield Default Insight," (2014) Fitch Ratings. Industry default rates observed from 2000-2013. This comparison is provided for general market background information. Trends or past events or results do not necessarily guarantee, project, imply or predict future results or events and may not continue. The Fund expects to invest in a broader range of securities and instruments than those included in these data. The investments reflected in these data were not selected or managed as part of a portfolio of investments for a private fund. Moreover, the percentages presented above are affected by the relative volume of debt securities underwritten by the various investment banks and financial institutions included in the data, and may therefore not necessarily be indicative of the overall market or the experience that the Fund will have in the market. Recipients should note that considering the Fund's investment objectives and strategies, the specific types of debt instruments and issuers in which Riverstone expects the Fund to invest may have materially different default and recovery rates, either higher or lower, than those described herein. There can be no assurance that default and recovery rates or other performance measures of debt securities and instruments in the energy markets will continue to compare favorably versus the broader markets. Also, the criteria used by Riverstone to determine whether and to what extent a default or recovery has occurred with respect to the Fund's investments may vary from those used by the third-parties in creating the statistics presented. In considering historical default and recovery rates presented, recipients should bear in mind that such past performance is not necessarily indicative of future results and there can be no assurance that the Fund will achieve comparable results. These rates and correlations may not apply to other types of investments that the Fund will make. The data presented in this presentation includes data with respect to companies that may be of a larger or smaller size than those in which the Fund expects primarily to invest.

2. Barclays U.S. High Yield Index; 2015 Outlook (January 2015); High Yield Energy Index Less Corporate Index Spreads is measured in OAS (bps). Current as of January 21, 2015.

# Certain Summary Risk Factors

The Fund is speculative and involves a high degree of risk. There can be no assurance that the Fund's investment objective will be achieved, that the Fund will otherwise be able to carry out its investment program successfully, or that a limited partner of the Fund (each a "Limited Partner") will receive a return of its capital. In addition, there will be occasions when Riverstone and its affiliates may encounter potential conflicts of interest in connection with the Fund. The following discussion enumerates certain (but not all) risk factors and potential conflicts of interest that recipients of this presentation may find material. Please see Section VII of the Memorandum — "Certain Risk Factors and Potential Conflicts of Interest" for additional important information.

**Performance of the Fund and No Operating History.** The Fund and its general partner will be newly-formed entities with no operating history for recipients to evaluate. Moreover, the size and type of investments to be made by the Fund will differ from prior Riverstone equity investments or funds. Although certain investment professionals who will participate in providing investment advice to the Fund have previously worked together, they have not previously worked together at Riverstone or elsewhere as a group in the context of managing a debt investment fund. The success of the Fund will be dependent, in whole or in part, on the ability of the Fund's personnel, who are new to Riverstone to be successfully integrated into the Riverstone organization. The prior transactional advisory experience of the Fund's professionals is not fully relevant to the principal transactions they will pursue for the Fund. Riverstone has not previously sponsored or managed a private equity fund pursuing the same investment objective and strategy as the Fund. Accordingly, investors should draw no conclusions from the prior experience of the investment professionals or the performance of any other Riverstone investments or fund and should not expect to achieve similar returns.

**No Assurance of Investment Return:** There can be no assurance that the Fund's objectives will be achieved, that the past results presented herein will be achieved or that an investor will receive any return on its investment in the Fund. An investment should only be considered by persons who can afford a loss of their entire investment. Past activities of investment entities sponsored by Riverstone provide no assurance of future results. Riverstone provides no assurances or guarantee that any targeted or estimated returns or objectives will be achieved. Estimates and assumptions described herein that Riverstone believes are appropriate, may prove incorrect. **Past or targeted performance is not a guarantee, projection or prediction and is not necessarily indicative of future results.**

**Nature of Investment in Loans.** The assets of the portfolio will likely include first lien senior secured debt, but may also include selected second-lien senior secured debt, which involves a higher degree of risk of a loss of capital. The factors affecting an issuer's first and second lien leveraged loans, and its overall capital structure, are complex. Some first lien loans may not necessarily have priority over all other unsecured debt of an issuer. For example, some first lien loans may permit other secured obligations (such as overdrafts, swaps or other derivatives made available by members of the syndicate to the company), or involve first liens only on specified assets of an issuer (e.g., excluding real estate). Issuers of first lien loans may have two tranches of first lien debt outstanding each with first liens on separate collateral. In the event of chapter 11 filing by an issuer, the U.S. Bankruptcy Code authorizes the issuer to use a creditor's collateral and to obtain additional credit by grant of a prior lien on its property, senior even to liens that were first in priority prior to the filing, as long as the issuer provides what the presiding bankruptcy judge considers to be "adequate protection" which may but need not always consist of the grant of replacement or additional liens or the making of cash payments to the affected secured creditor. The imposition of prior liens on the Fund's collateral would adversely affect the priority of the liens and claims held by the Fund and could adversely affect the Fund's recovery on its investments.

Any secured debt is secured only to the extent of its lien and only to the extent of underlying assets or incremental proceeds on already secured assets. Moreover, underlying assets are subject to credit, liquidity, and interest rate risk. Although the amount and characteristics of the underlying assets selected as collateral may allow the Fund to withstand certain assumed deficiencies in payments occasioned by the borrower's default, if any deficiencies exceed such assumed levels or if underlying assets are sold it is possible that the proceeds of such sale or disposition will not be equal to the amount of principal and interest owing to the Fund in respect to its investment.

Further, loans may become non-performing for a variety of reasons. Upon a bankruptcy filing by an issuer of debt, the U.S. Bankruptcy Code imposes an automatic stay on payments of its pre-petition debt. Non-performing debt obligations may require substantial workout negotiations, restructuring or bankruptcy filings that may entail a substantial reduction in the interest rate, deferral of payments and/or a substantial write-down of the principal of a loan or conversion of some or all of the debt to equity. If an issuer were to file for chapter 11 reorganization, the U.S. Bankruptcy Code authorizes the issuer to restructure the terms of repayment of a class of debt even if the class fails to accept the restructuring as long as the restructured terms are "fair and equitable" to the class and certain other conditions are met.

Senior secured loans are also subject to other risks, including (i) the possible invalidation of a debt or lien as a "fraudulent conveyance", (ii) the recovery as a "preference" of liens perfected or payments made on account of a debt in the 90 days before a bankruptcy filing, (iii) equitable subordination claims by other creditors, (iv) so-called "lender liability" claims by the issuer of the obligations and (v) environmental liabilities that may arise with respect to collateral securing the obligations. The Fund's investments may be subject to early redemption features, refinancing options, pre-payment options or similar provisions which, in each case, could result in the issuer repaying the principal on an obligation held by the Fund earlier than expected.

To the extent the Fund holds subordinated debt securities, such debt may be unsecured and structurally or contractually subordinated to substantial amounts of senior indebtedness, all or a significant portion of which may be secured. Such debt investments may not be protected by financial covenants or limitations upon additional indebtedness.

**No Assurance of Syndication.** No assurance can be given that the Fund will be able to syndicate its investments at the time of acquisition. Failure to syndicate may mean more exposure to particular investments and less diversification.

## Certain Summary Risk Factors (cont'd)

**General Economic and Financial Markets Conditions.** General economic conditions affect the Fund's activities and the performance of the Fund's investments and borrowers. Interest rates, general levels of economic activity, fluctuations in the market prices of securities and participation by other investors in the financial markets will affect the value of investments made by the Fund. Instability in various markets may increase the risks inherent in the Fund and its investments and borrowers.

No assurance can be given that current or anticipated market conditions, trends or opportunities will arise or continue, as applicable, or that the "Wedge" described herein will remain stable or grow during the life of the Fund, since this will depend upon events and factors outside Riverstone's control. There can be no assurance that default and recovery rates experience by companies in the energy sector relative to companies outside the energy sector will continue to compare favorably. Trends and historical events do not imply, forecast or predict future events and, in any event, past performance is not necessarily indicative of future results. There can be no assurance that the assumptions made or the beliefs and expectations currently held by Riverstone will prove correct and actual events and circumstances may vary significantly.

**Market Dislocation.** Recent events in the market have caused significant dislocations and illiquidity in the credit market for energy companies. To the extent that such events are not temporary and continue (or even worsen), this may have an adverse impact on the availability of credit to businesses generally and could lead to an overall weakening of the U.S. and global economies. Any resulting economic downturn could adversely affect the financial resources of borrowers in which the Fund has invested and result in the inability of such borrowers to make principal and interest payments on, or refinance, outstanding debt when due. In the event of such defaults, the Fund may suffer a partial or total loss of capital invested in such companies, which would, in turn, have an adverse effect on the Fund's returns. Such marketplace events also may restrict the ability of the Fund to sell or liquidate investments at favorable times or for favorable prices (although such marketplace events may not foreclose the Fund's ability to hold such investments until maturity). There can be no assurance as to the duration of any perceived current market dislocation.

**Covenant-Lite Loans.** Although Riverstone generally expects the loan documentation of most of the Fund's investments to include both incurrence and maintenance-based covenants, there may be instances, such as those investments purchased by the Fund on the secondary market, in which the Fund invests in covenant-lite loans. An investment by the Fund in a covenant-lite loan may potentially hinder the ability to reprice credit risk associated with the portfolio company and reduce the ability to restructure a problematic loan and mitigate potential loss. As a result, the Fund's exposure to losses may be increased, which could result in an adverse impact on the Fund's return to its investors.

**Non-Payment of Principal and Interest; Adequacy of Collateral.** The Fund's investments are subject to the risk of non-payment of scheduled interest or principal by the borrowers with respect to such investments. Such non-payment would likely result in a reduction of income to the Fund and a reduction in the value of the loans experiencing non-payment. There can be no assurance that the liquidation of any collateral securing a portfolio investment would satisfy the borrower's obligation in the event of non-payment of scheduled interest or principal payments with respect to such portfolio investment, or that such collateral could be readily liquidated. Moreover, the Fund's first and second lien loans may be unperfected for a variety of reasons, including the failure to make required filings by lenders and, as a result, the Fund may not have priority over other creditors as anticipated.

**Highly Competitive Market for Investment Opportunities.** The activity of identifying, completing, and realizing on attractive investments is highly competitive and involves a significant degree of uncertainty. The Fund will be competing for investments with other groups, including an increasing number of other debt funds, hedge funds and private equity funds (including other funds with substantially similar investment objectives to the Fund), direct investment firms and insurance companies, and Riverstone may be unable to identify a sufficient number of attractive investment opportunities for the Fund to meet its investment objectives. Hedge funds and other participants have also become much more active in the credit market. Such competition may adversely affect the terms upon which investments can be made.

**Reliance on Key Management Personnel.** The success of the Fund will depend, in large part, upon the skill and expertise of certain Riverstone professionals. In the event of the death, disability or departure of any key Riverstone professionals, the business and the performance of the Fund may be adversely affected. Due to information barrier or other policies which may be in place at Riverstone, the Team's ability to access other professionals and resources within Riverstone for the benefit of the Fund may be limited.

**Legal, Tax and Regulatory Risks.** Legal, tax and regulatory changes (including changing enforcement priorities, changing interpretations of legal and regulatory precedents or varying applications of laws and regulations to particular facts and circumstances) could occur during the term of the Fund that may adversely affect the Fund and its partners.

**Default or Excuse.** If a Limited Partner defaults on or is excused from its obligation to contribute capital to the Fund, other Limited Partners thereof may be required to make additional contributions to such Fund to replace such shortfall. In addition, an investor in the Fund may experience significant economic consequences should it fail to make required capital contributions.

**Indemnification.** Under certain circumstances, the Fund is responsible for indemnifying its general partner and its affiliates for losses or damages.

**Investments in Highly Leveraged Companies; Risk of Default.** Riverstone expects to utilize leverage in connection with the Fund's investments (and may incur portfolio-wide leverage up to a 1:1 basis). Underlying issuers of the Fund's investments will also have leveraged capital structures. Such leverage will increase the exposure of an investment to adverse economic factors such as rising interest rates, downturns in the economy or deteriorations in the condition of the investment. Borrowings by the Fund have the potential to enhance the Fund's returns, however, they will further diminish returns (or increase losses on capital) to the extent overall returns are less than the Fund's cost of funds. As a general matter, the presence of leverage can accelerate losses. The cost and availability of leverage is highly dependent on the state of the broader credit markets, which state is difficult to accurately forecast.



## Certain Summary Risk Factors (cont'd)

**Lack of Liquidity; Illiquid Market for Investments.** Interests in the Fund will not be registered under the U.S. Securities Act of 1933, as amended, the securities laws of any U.S. state, or the securities laws of any other jurisdiction, nor is such registration contemplated. There is no public market for the interests of the Fund and one is not expected to develop. Investors may not be able to liquidate their investments prior to the end of the Fund's term and, therefore, must be prepared to bear the risks of owning an interest in the Fund for an extended period of time.

The market for loans in which the Fund will invest is relatively illiquid and volatile. If the Fund were forced to dispose of an illiquid investment at an inopportune time, it might be forced to sell at a substantial discount to market value, resulting in a loss to the Fund.

**Potential Conflicts of Interests.** There are occasions when the Fund's general partner and its affiliates will encounter potential conflicts of interest in connection with the Fund's activities including, without limitation, the diverse interests of the Fund's investor group, the activities of Riverstone and key fund personnel and the allocation of investment opportunities and conflicting fiduciary duties. There may be restructuring and/or disposition opportunities that the Fund cannot take advantage of because of such conflicts.

**Energy Industry Risks.** Companies and other issuers or securities and other instruments in which the Fund expects to invest operate in the energy industry, and as such are subject to certain special risks, including the following:

**Volatility of Commodity Prices.** The performance of such companies and other issuers will be substantially dependent upon prevailing prices of electricity, oil, natural gas, natural gas liquids, coal and other commodities (such as metals). Volatile oil, natural gas and natural gas liquids prices make it difficult to estimate the value of developed properties that are the subject of financing and often cause disruption in the market for oil, natural gas and natural gas liquids developed properties, as buyers and sellers have difficulty agreeing on such value. Price volatility also makes it difficult to budget for and project the return on acquisition and development and exploitation project financings.

**Regulatory Risk.** The energy industry is subject to comprehensive United States and non-U.S. federal, state and local laws and regulations. Present, as well as future, statutes and regulations could cause additional expenditures, restrictions and delays that could materially and adversely affect the portfolio companies and the prospects of the Fund.

**Regulation of Greenhouse Gases.** There is a growing consensus in the United States and globally that emissions of greenhouse gases ("GHGs"), are linked to global climate change and this consensus may lead to more stringent regulation of GHGs in the future. Increased public concern and mounting political pressure may result in more international, United States federal or United States regional requirements to reduce or mitigate the effects of GHGs.

**Renewable Energy Policy Risk.** Investments in renewable energy and related businesses and/or assets currently enjoy wide support from national, state and local governments and regulatory agencies designed to finance development thereof. There can be no assurance that government support for renewable energy will continue, that favorable legislation will pass, or that the electricity produced by the renewable energy portfolio companies will continue to qualify for government support. To the extent any federal, state or local tax credits, other favorable tax treatment or other forms of support for renewable energy are changed, the Fund's renewable energy portfolio companies may be negatively impacted.

**Drilling, Exploration, Development and Mining Risks.** The Fund may invest in companies or projects that engage in oil and gas exploration and development, a speculative business involving a high degree of risk. Oil and gas drilling may involve unprofitable efforts, not only from dry holes, but from wells that are productive but do not produce sufficient net revenues to return a profit after drilling, operating and other costs. Acquiring, developing and exploring for oil and natural gas involves many risks, including due to unexpected geological formations or changes, malfunctioning equipment, adverse weather conditions and other events and risks outside of the General Partner's control. Accordingly, there can be no assurance that the Fund's rate of return objectives will be realized.

**Environmental Matters.** Environmental laws, regulations and regulatory initiatives play a significant role in the electric power industry and can have a substantial impact on investments in this industry. Any noncompliance with these laws and regulations could subject the Fund and its properties to material administrative, civil or criminal penalties or other liabilities.

**Operational and Catastrophe Risks.** The operations of energy companies are subject to many hazards and force majeure events inherent in the production and delivery of electricity, exploration and operation of gas and oil fields, transportation of energy products and other related activities including: damage to production, generation facilities, pipelines, storage tanks or related equipment and surrounding properties caused by hurricanes, tornadoes, floods, earthquakes, blowouts, cratering, uncontrollable flows of oil, natural gas or well fluids, fires and other natural disasters or by acts of terrorism; inadvertent damage from construction and farm equipment; leaks of natural gas, natural gas liquids, crude oil, refined petroleum products or other hydrocarbons; and fires and explosions. There can be no assurance that all portfolio companies will be fully insured against all risks inherent to their businesses.

**THE FOREGOING DOES NOT PURPORT TO BE A COMPLETE EXPLANATION OF THE RISKS AND CONFLICTS INVOLVED IN THIS OFFERING OR AN INVESTMENT IN THE FUND. POTENTIAL INVESTORS SHOULD READ THIS PRESENTATION, THE PRIVATE PLACEMENT MEMORANDUM, THE SUBSCRIPTION AGREEMENT AND THE FUND AGREEMENT IN THEIR ENTIRETY BEFORE DECIDING WHETHER TO INVEST IN THE FUND AND SHOULD CONDUCT THEIR OWN DILIGENCE OF THE OPPORTUNITY AND IDENTIFY AND MAKE THEIR OWN ASSESSMENT OF THE RISKS INVOLVED.**



## **DISCUSSION SHEET**

### **ITEM #C8**

- Topic:** NEPC: Fourth Quarter 2015 Investment Performance Analysis and Third Quarter 2015 Private Markets Review
- Attendees:** Rhett Humphreys, Partner  
Jeff Roberts, Sr. Research Consultant – Private Markets
- Discussion:** NEPC, DPFP's general investment consultant, will present the above reports.



NEPC, LLC

YOU DEMAND MORE. *So do we.*<sup>SM</sup>



## **Dallas Police & Fire Pension System**

### **Investment Summary**

**Quarter Ending December 31, 2015**

March 10, 2016

Rhett Humphreys, CFA  
Partner

Keith Stronkowsky, CFA  
Senior Consultant

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# NEPC Updates

## Highlights of Fourth Quarter Happenings at NEPC

### After 30 Years NEPC's Founder has Transitioned to Chairman Emeritus

- NEPC's founder and chairman Richard "Dick" Charlton retired on January 1, 2016 after overseeing a decade-long succession process that involved a change in corporate structure and a planned approach to distributing his ownership shares. Dick had the foresight to begin distributing equity to partners 25 years ago and the formal succession process began in late 2007. Dick's vision for a client-focused organization continues to be the hallmark of NEPC and this deep-rooted culture will live on for generations to come. Mike Manning continues in his leadership role as Managing Partner with the guidance of our Partnership; a Partnership recognized throughout the industry for its depth, talent and culture. We are well positioned to lead in this increasingly competitive marketplace. NEPC has never been stronger.



### Professional Staff Updates

- **New Principals:** Lenia Ascenso, Principal and Director of Discretionary Operations; Devan Dewey, Principal and Chief Technology Officer; and Matt Lombardi, Principal and Chief Financial Officer
- We are also pleased to announce that Wyatt Crumpler joined NEPC in November as a Principal and Senior Consultant from American Beacon Advisors, Inc., and Sam Pollack joined NEPC as a Senior Consultant from DiMeo Schneider and Associates. Wyatt is a member of NEPC's Corporate consulting group and Sam is a member of NEPC's Endowment & Foundation consulting group.

### Upcoming/Recent Events

- 2016 Market Outlook Webinar: January 26, 2016 at 2:00 PM EST.
- NEPC's 21st Annual Client Conference: May 10-11, 2016 in Boston at the Hynes Convention Center.
  - This year we will be offering an optional pre-conference workshop on Monday, May 9th at NEPC's Boston office.
- NEPC hosted a Manager Diversity Program event at our Boston office on October 12, 2015 in an effort to continue and enhance our firm's efforts in this area. The purpose of the gathering was to provide an opportunity for diverse managers to meet NEPC and have an open discussion about our research efforts in the arena of minority- and female-owned firms.

# NEPC Updates

December 31, 2015

## Highlights of Fourth Quarter Happenings at NEPC - continued

### NEPC Research

#### Recent White Papers

- *2015 Fourth Quarter Market Thoughts*
- *Governance: The Cornerstone of Successful Investment Programs* (January 2016) – Endowment & Foundation Practice Team
- *Green Bonds: An Overview* (December 2015) – NEPC Impact Investing Committee
- *Completing the Analysis: ESG Integration* (November 2015) – NEPC Impact Investing Committee
- *NEPC's Survey on Hedge Fund Operations* (November 2015) – Hedge Fund Operational Due Diligence team
- *Market Chatter: The Rise and Fall (and Rise?) of Oil Prices* (October 2015 )



### NEPC Recognitions

- NEPC, LLC was awarded "Best Full-Service Investment Consulting Firm - USA" by Acquisition International for the 2016 Hedge Fund Awards <sup>1</sup>

### NEPC Client Recognitions

- Congratulations to the following NEPC clients for their nominations as Asset Owner Finalists for the 2015 CIO Industry Innovation Awards. Five NEPC clients who won awards in their categories are also highlighted below.
  - **Foundation:** Wisconsin Alumni Research Foundation (Carrie Thome) - Category Winner; Northwest Area Foundation (Amy Jensen)
  - **Endowment:** Fordham University (Eric Wood); Texas Tech University System (Tim Barrett)
  - **Public Defined Benefit Plan Below \$15B:** Orange County Employees Retirement System (Girard Miller) - Category Winner; MoDOT and Patrol Employees' Retirement System (Larry Krummen)
  - **Public Defined Benefit Plan Between \$15B and \$100B:** Massachusetts PRIM (Michael Trotsky) - Category Winner
  - **Public Defined Benefit Plan Above \$100B:** New York City Retirement System (Scott Evans); State of Wisconsin Investment Board (David Villa)
  - **Health Care Organization:** Baylor Scott and White Health (Mark Amiri) - Category Winner; Trinity Health (Dina Richards)
  - **Next Generation:** Massachusetts PRIM (Sarah Samuels) - Category Winner

# Executive Summary



- **US economic expansion continues as Federal Reserve begins policy shift**
  - Economic conditions and health of US consumers remain supportive for growth
  - Profit margin declines and strong dollar are a challenge to corporate profitability
- **Central Banks continue to dictate the global investment outlook**
  - Path of Fed policy over next two years matters more than timing of the next Fed action
  - ECB and BoJ likely to maintain and extend accommodative policies
  - Easing in China is broadly stimulative but currency policy is unpredictable
- **Persistent strength of US dollar reveals global market weakness**
  - World economy has experienced a “dollar recession” as global output slows
  - Dollar strength tightens global monetary conditions and strains global growth
- **Weak growth should not lead to a financial crisis in emerging markets**
  - Negative asset returns reflect adjustments necessary for future economic success
  - Further political and market reforms are necessary for improved economic conditions
- **Stressed credit liquidity magnifies the scale of price movements**
  - Central bank easing and positive investor sentiment have masked deterioration in liquidity
  - Credit markets ability to absorb an exodus from crowded positions could be challenged

- **Maintain exposure to US risk assets in a low return environment**
  - Lower returns expected but risk premia can still be harvested as cycle extends
  - Economic cycle is in the advanced stages but macro policy remains supportive
  - Low core bond returns warrant a more positive tilt to equity, especially after sell-offs
- **Overweight non-US developed market equities**
  - Central bank support and dollar strength provide a positive economic backdrop
  - Corporate earnings remain well below 2007 levels despite recent earnings recovery
  - EAFE equity markets offer the potential for outsized returns relative to US equities
- **Reaffirm commitment to emerging market equities**
  - Valuations and long-term fundamentals suggest an overweight
  - China uncertainty, dollar pressure and idiosyncratic country risks temper excitement
  - Overweight small-cap and consumer focused strategies relative to broad mandates
- **Seek tactical fixed income strategies but preserve duration exposure**
  - Spreads have widened but credit selection is critical as credit cycle matures
  - US duration continues to have a role in a diversified and risk-aware portfolio
  - TIPS offer an attractive duration profile with inflation expectations at secular lows
- **Explore positive yielding assets revealed from energy market distress**
  - Private strategy returns are compelling but suggest patience
  - Focus on segments of the public markets that offer a yield

- **Return Assumption: Continue to evaluate long-term feasibility of actuarial rate of return assumption**
  - Longer-term yields and risk premiums remain muted compared to historical (30-year) return expectations for most asset classes
- **Equities vs. Bonds: U.S. equities still appear attractive relative to core bonds**
  - Look for opportunities to rebalance during periods of increasing volatility
- **Non-US Equity: Within the overall equity portfolio, continue to consider an overweight target allocation to developed non-U.S. equity**
  - Continued stimulative monetary policy in Europe and Japan should support an improved economic environment and offers potential for upside surprises
- **Emerging Markets: Revisit total emerging exposure (equity and debt) for your plan**
  - Determine total emerging markets exposure on a “look through” basis (including underlying EM exposure of GAA, Global Equity, Absolute Return Fixed Income, etc.)
  - Reaffirm comfort with amount of direct and indirect exposure
- **Core Fixed Income: Enhance, don’t abandon, core fixed income**
  - Treasury bond and TIPS exposure in traditional core portfolios provides important downside protection in volatile “risk-off” environments
  - Use of multi-sector/unconstrained fixed income can provide a good compliment to core, but should not be viewed as a stand-alone replacement
- **Commodities: Evaluate total exposure in the portfolio to commodity price volatility**
  - Real assets (public and private), Risk Parity, GAA, and emerging markets allocations have varying degrees of commodity exposure
  - Return expectations for direct commodity exposure have continued to decline

## Index Performance Summary as of 12/31/2015

	2008	2009	2010	2011	2012	2013	2014	Q1	Q2	Q3	OCT	NOV	DEC	Q4	1 YR
Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	1.0%	-0.9%	1.7%	0.4%	0.4%	0.7%	1.5%	3.3%
FTSE NAREIT Eqty REITs	-37.7%	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	4.8%	-10.0%	2.0%	5.9%	-0.5%	1.8%	7.3%	3.2%
S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.0%	0.3%	-6.4%	8.4%	0.3%	-1.6%	7.0%	1.4%
Barclays US Agg Interm	4.9%	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.3%	-0.7%	1.1%	0.0%	-0.2%	-0.2%	-0.5%	1.2%
JPM EMBI Global Div	-12.0%	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	2.0%	-0.3%	-1.7%	2.7%	-0.1%	-1.4%	1.3%	1.2%
Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	1.6%	0.1%	-6.8%	8.1%	0.3%	-1.8%	6.5%	0.9%
Barc US Gov/Cred 1-3 Y	5.0%	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.6%	0.1%	0.3%	0.0%	-0.2%	-0.1%	-0.4%	0.7%
Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	1.6%	-1.7%	1.2%	0.0%	-0.3%	-0.3%	-0.6%	0.5%
Credit Suisse Hedge Fnd	-19.1%	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	2.5%	-0.5%	-2.5%	0.5%	0.2%	N/A	-2.5%	0.1%
Credit Suisse Lev Loan	-28.8%	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	2.1%	0.8%	-1.2%	-0.1%	-0.9%	-0.9%	-2.0%	-0.4%
MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	4.9%	0.6%	-10.2%	7.8%	-1.6%	-1.3%	4.7%	-0.8%
MSCI ACWI	-42.2%	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	2.3%	0.3%	-9.4%	7.8%	-0.8%	-1.8%	5.0%	-2.4%
Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	5.2%	-0.3%	-10.3%	5.6%	2.0%	-4.1%	3.3%	-2.9%
Barc US Gov/Cred Long	8.4%	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	3.4%	-7.6%	2.2%	0.4%	-0.6%	-0.8%	-0.9%	-3.3%
Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-2.5%	-1.5%	1.7%	0.0%	-2.1%	0.9%	-1.2%	-3.6%
Barc US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	5.5%	-14.3%	7.6%	-0.3%	-1.1%	0.4%	-1.1%	-3.7%
Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	4.3%	0.4%	-11.9%	5.6%	3.3%	-5.0%	3.6%	-4.4%
Barclays US Corp HY	-26.2%	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	2.5%	0.0%	-4.9%	2.7%	-2.2%	-2.5%	-2.1%	-4.5%
Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	3.1%	-7.3%	0.5%	1.0%	-0.4%	-1.2%	-0.7%	-4.6%
MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	2.2%	0.7%	-17.9%	7.1%	-3.9%	-2.2%	0.7%	-14.9%
JPM GBI-EM Global Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-4.0%	-1.0%	-10.5%	4.5%	-2.2%	-2.2%	0.0%	-14.9%
Bloomberg Commodity	-35.6%	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-5.9%	4.7%	-14.5%	-0.4%	-7.3%	-3.1%	-10.5%	-24.7%
Alerian MLP	-36.9%	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-5.2%	-6.1%	-22.1%	9.7%	-8.1%	-3.6%	-2.8%	-32.6%

Source: Morningstar Direct

# Returns for Key Indices Ranked in Order of Performance

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
MSCI EMERGING MARKETS 34.54	MSCI EMERGING MARKETS 32.17	MSCI EMERGING MARKETS 39.39	BC AGGREGATE 5.24	MSCI EMERGING MARKETS 78.51	RUSSELL 2000 GROWTH 29.09	BC AGGREGATE 7.84	MSCI EMERGING MARKETS 18.22	RUSSELL 2000 GROWTH 43.30	S&P 500 13.69	RUSSELL 1000 GROWTH 5.67
MSCI EAFE 13.54	MSCI EAFE 26.34	RUSSELL 1000 GROWTH 11.81	RUSSELL 2000 VALUE -28.92	RUSSELL 1000 GROWTH 37.21	RUSSELL 2000 26.85	RUSSELL 1000 GROWTH 2.64	RUSSELL 2000 VALUE 18.05	RUSSELL 2000 38.82	RUSSELL 1000 VALUE 13.45	S&P 500 1.38
RUSSELL 1000 VALUE 7.05	RUSSELL 1000 VALUE 22.25	MSCI EAFE 11.17	RUSSELL 2000 -33.79	RUSSELL 2000 GROWTH 34.47	RUSSELL 2000 VALUE 24.5	S&P 500 2.11	RUSSELL 1000 VALUE 17.51	RUSSELL 2000 VALUE 34.52	RUSSELL 1000 13.24	RUSSELL 1000 0.92
RUSSELL 1000 6.27	RUSSELL 2000 VALUE 23.48	RUSSELL 2000 GROWTH 7.06	RUSSELL 1000 VALUE -36.85	MSCI EAFE 31.78	MSCI EMERGING MARKETS 18.88	RUSSELL 1000 1.50	MSCI EAFE 17.32	RUSSELL 1000 GROWTH 33.48	RUSSELL 1000 GROWTH 13.05	BC AGGREGATE 0.55
RUSSELL 1000 GROWTH 5.26	RUSSELL 2000 18.37	BC AGGREGATE 6.97	S&P 500 -37.0	RUSSELL 1000 28.43	RUSSELL 1000 GROWTH 16.71	RUSSELL 1000 VALUE 0.39	RUSSELL 1000 16.42	RUSSELL 1000 33.11	BC AGGREGATE 5.97	MSCI EAFE -0.81
S&P 500 4.91	S&P 500 15.8	RUSSELL 1000 5.77	RUSSELL 1000 -37.6	RUSSELL 2000 27.16	RUSSELL 1000 16.10	RUSSELL 2000 GROWTH -2.91	RUSSELL 2000 16.35	RUSSELL 1000 VALUE 32.53	RUSSELL 2000 GROWTH 5.60	RUSSELL 2000 GROWTH -1.38
RUSSELL 2000 VALUE 4.71	RUSSELL 1000 15.46	S&P 500 5.49	RUSSELL 1000 GROWTH -38.44	S&P 500 26.46	RUSSELL 1000 VALUE 15.51	RUSSELL 2000 -4.18	S&P 500 16.00	S&P 500 32.39	RUSSELL 2000 4.89	RUSSELL 1000 VALUE -3.83
RUSSELL 2000 4.55	RUSSELL 2000 GROWTH 13.35	RUSSELL 1000 VALUE -0.17	RUSSELL 2000 GROWTH -38.54	RUSSELL 2000 VALUE 20.58	S&P 500 15.06	RUSSELL 2000 VALUE -5.50	RUSSELL 1000 GROWTH 15.26	MSCI EAFE 22.78	RUSSELL 2000 VALUE 4.22	RUSSELL 2000 -4.41
RUSSELL 2000 GROWTH 4.15	RUSSELL 1000 GROWTH 9.07	RUSSELL 2000 -1.56	MSCI EAFE -43.38	RUSSELL 1000 VALUE 19.69	MSCI EAFE 7.75	MSCI EAFE -12.14	RUSSELL 2000 GROWTH 14.59	BC AGGREGATE -2.02	MSCI EMERGING MARKETS -2.19	RUSSELL 2000 VALUE -7.46
BC AGGREGATE 2.43	BC AGGREGATE 4.33	RUSSELL 2000 VALUE -9.78	MSCI EMERGING MARKETS -53.33	BC AGGREGATE 5.93	BC AGGREGATE 6.54	MSCI EMERGING MARKETS -18.42	BC AGGREGATE 4.21	MSCI EMERGING MARKETS -2.60	MSCI EAFE -4.90	MSCI EMERGING MARKETS -14.93

QTD	1 Year	3 year	5 Year	10 Year
RUSSELL 1000 GROWTH 7.32	RUSSELL 1000 GROWTH 5.67	RUSSELL 1000 GROWTH 16.83	RUSSELL 1000 GROWTH 13.53	RUSSELL 1000 GROWTH 8.53
S&P 500 7.04	S&P 500 1.38	RUSSELL 2000 GROWTH 14.27	RUSSELL 1000 GROWTH 12.44	RUSSELL 2000 GROWTH 7.95
RUSSELL 1000 6.50	RUSSELL 1000 0.92	S&P 500 15.13	S&P 500 12.57	RUSSELL 1000 7.40
RUSSELL 1000 VALUE 5.63	BC AGGREGATE 0.55	RUSSELL 1000 15.01	RUSSELL 2000 GROWTH 10.67	S&P 500 7.31
MSCI EAFE 4.71	MSCI EAFE -0.81	RUSSELL 1000 VALUE 13.08	RUSSELL 1000 VALUE 11.27	RUSSELL 2000 6.80
RUSSELL 2000 GROWTH 4.31	RUSSELL 2000 GROWTH -1.38	RUSSELL 2000 11.65	RUSSELL 2000 9.19	RUSSELL 1000 VALUE 6.16
RUSSELL 2000 3.59	RUSSELL 1000 VALUE -3.83	RUSSELL 2000 VALUE 9.06	RUSSELL 2000 VALUE 7.67	RUSSELL 2000 VALUE 5.57
RUSSELL 2000 VALUE 2.87	RUSSELL 2000 -4.41	MSCI EAFE 5.01	MSCI EAFE 3.60	BC AGGREGATE 4.51
MSCI EMERGING MARKETS 0.66	RUSSELL 2000 VALUE -7.46	BC AGGREGATE 1.44	BC AGGREGATE 3.25	MSCI EMERGING MARKETS 3.61
BC AGGREGATE -0.57	MSCI EMERGING MARKETS -14.93	MSCI EMERGING MARKETS -6.77	MSCI EMERGING MARKETS -4.81	MSCI EAFE 3.03

- **Plan Assets and Allocation**

- As of December 31, 2015, DPFP's assets totaled \$2.78 billion, a decrease of approximately \$177 million during the quarter.
  - Net cash outflows of \$49.8 million during the quarter
  - Net investment losses of \$127.1 million during the quarter

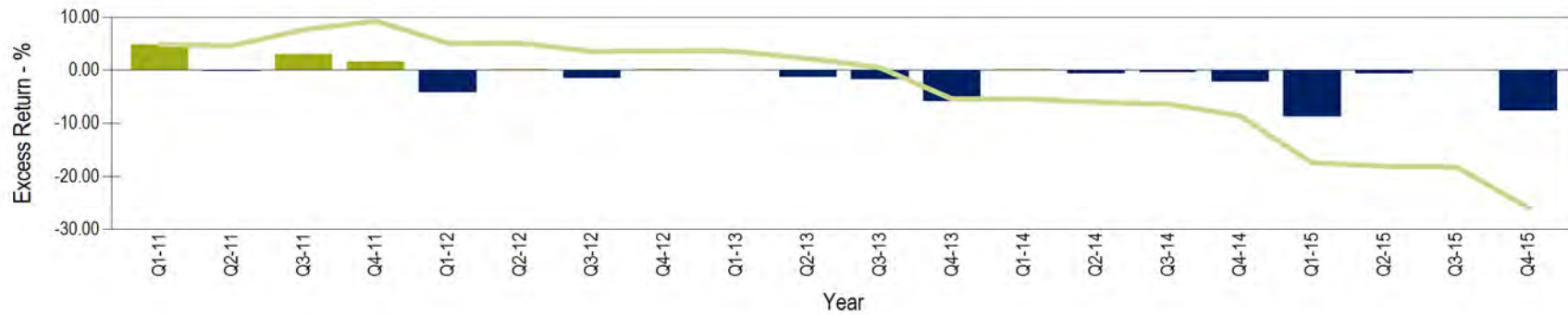
- **Performance**

- DPFP posted a -4.3% return during the quarter, ranking in the 99<sup>th</sup> percentile of public funds.
  - 1-year annualized returns through December 31, 2015, were -12.6%, ranking in the 99<sup>th</sup> percentile.
  - 3-year annualized returns through December 31, 2015, were -0.7%, ranking in the 99<sup>th</sup> percentile.
  - 5-year annualized returns through December 31, 2015, were 1.0%, ranking in the 99<sup>th</sup> percentile.
  - 10-year annualized returns through December 31, 2015, were 2.7%, ranking in the 99<sup>th</sup> percentile.

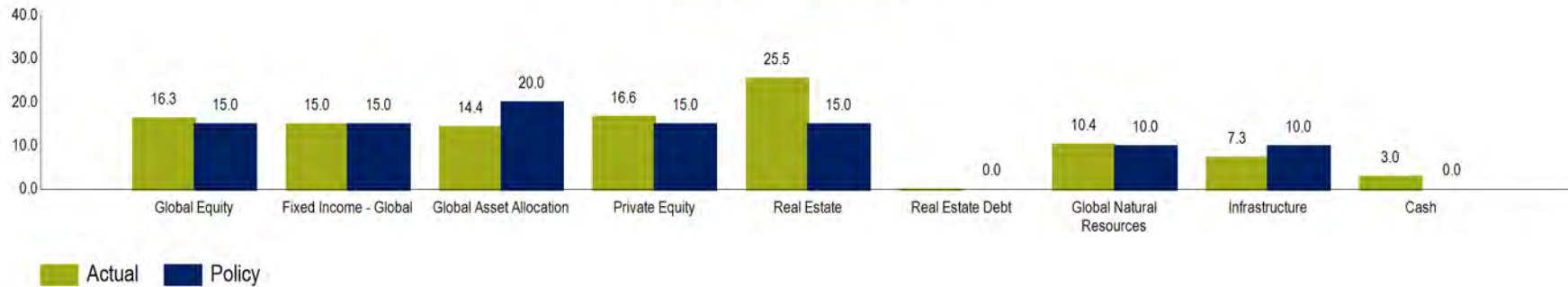
# Total Fund Performance Summary

	Market Value	3 Mo	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank
<b>DPFP</b>	<b>\$2,775,717,660</b>	<b>-4.4%</b>	<b>99</b>	<b>-12.6%</b>	<b>99</b>	<b>-0.7%</b>	<b>99</b>	<b>1.0%</b>	<b>99</b>	<b>3.9%</b>	<b>99</b>	<b>2.7%</b>	<b>99</b>
<i>Allocation Index</i>		3.3%	11	4.1%	1	9.6%	1	6.3%	53	8.4%	63	5.5%	39
<i>Policy Index</i>		2.8%	37	4.8%	1	8.4%	12	7.7%	11	9.8%	24	6.3%	7
<i>InvestorForce Public DB Net Median</i>		2.6%		-0.4%		6.8%		6.4%		8.9%		5.4%	

Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



Returns are net of fees

# Dallas Police & Fire Pension

## Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>DPFP</b>	<b>2,775,717,660</b>	<b>100.0</b>	<b>-4.4</b>	<b>99</b>	<b>-12.6</b>	<b>99</b>	<b>-0.7</b>	<b>99</b>	<b>1.0</b>	<b>99</b>	<b>3.9</b>	<b>99</b>	<b>2.7</b>	<b>99</b>	<b>6.2</b>	<b>Jun-96</b>
Allocation Index			3.3	11	4.1	1	9.6	1	6.3	53	8.4	63	5.5	39	7.1	Jun-96
Policy Index			2.8	37	4.8	1	8.4	12	7.7	11	9.8	24	6.3	7	--	Jun-96
InvestorForce Public DB Net Median			2.6		-0.4		6.8		6.4		8.9		5.4		6.6	Jun-96
<b>DPFP Debt</b>	<b>-235,228,383</b>	<b>-8.5</b>	<b>0.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.4</b>	<b>Oct-15</b>
<b>DPFP Ex Debt</b>	<b>3,010,946,043</b>	<b>108.5</b>	<b>-4.1</b>	<b>99</b>	<b>-12.4</b>	<b>99</b>	<b>-0.6</b>	<b>99</b>	<b>1.1</b>	<b>99</b>	<b>3.9</b>	<b>99</b>	<b>2.7</b>	<b>99</b>	<b>6.3</b>	<b>Jun-96</b>
Allocation Index Ex Debt			3.4	9	4.1	1	9.6	1	6.3	53	8.4	63	5.5	39	7.1	Jun-96
<b>DPFP Financial Composite</b>	<b>1,268,804,632</b>	<b>45.7</b>	<b>1.2</b>	<b>95</b>	<b>-4.1</b>	<b>98</b>	<b>3.6</b>	<b>94</b>	<b>4.7</b>	<b>92</b>	<b>10.1</b>	<b>18</b>	<b>4.9</b>	<b>71</b>	<b>5.0</b>	<b>Oct-05</b>
InvestorForce Public DB Net Median			2.6		-0.4		6.8		6.4		8.9		5.4		5.4	Oct-05
<b>Global Equity</b>	<b>452,931,487</b>	<b>16.3</b>	<b>4.7</b>	<b>50</b>	<b>-0.7</b>	<b>52</b>	<b>8.9</b>	<b>53</b>	<b>6.9</b>	<b>61</b>	<b>11.4</b>	<b>55</b>	<b>5.1</b>	<b>66</b>	<b>4.7</b>	<b>Jul-06</b>
MSCI ACWI			5.0	43	-2.4	69	7.7	69	6.1	74	10.7	64	4.8	71	4.4	Jul-06
eA All Global Equity Net Median			4.7		-0.6		9.1		7.5		11.7		5.7		5.0	Jul-06
<b>Global Fixed Composite</b>	<b>417,365,544</b>	<b>15.0</b>	<b>-3.0</b>	<b>95</b>	<b>-6.8</b>	<b>90</b>	<b>0.1</b>	<b>50</b>	<b>4.5</b>	<b>21</b>	<b>10.1</b>	<b>16</b>	<b>5.5</b>	<b>29</b>	<b>5.3</b>	<b>Jul-06</b>
Global Fixed Income Allocation Index			-0.4	44	-2.6	48	1.5	32	4.5	21	8.9	21	--	--	6.1	Jul-06
eA All Global Fixed Inc Net Median			-0.6		-2.9		0.1		2.8		5.7		4.5		4.6	Jul-06
<b>Global Asset Allocation Composite</b>	<b>398,507,602</b>	<b>14.4</b>	<b>0.2</b>	<b>99</b>	<b>-4.7</b>	<b>97</b>	<b>1.1</b>	<b>95</b>	<b>3.7</b>	<b>81</b>	<b>6.5</b>	<b>92</b>	<b>--</b>	<b>--</b>	<b>2.7</b>	<b>Jul-07</b>
CPI + 5% (Seasonally Adjusted)			1.3	88	5.7	1	6.0	20	6.6	30	6.8	91	6.9	1	6.7	Jul-07
eA Global Balanced Net Median			3.4		-2.0		5.4		5.6		8.6		5.2		3.8	Jul-07
<b>Global Infrastructure Composite</b>	<b>203,027,928</b>	<b>7.3</b>	<b>-1.3</b>	<b>--</b>	<b>-4.7</b>	<b>--</b>	<b>1.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>2.2</b>	<b>Jul-12</b>
CPI + 5% (Seasonally Adjusted)			1.3	--	5.7	--	6.0	--	6.6	--	6.8	--	6.9	--	6.2	Jul-12
<b>Private Markets</b>	<b>461,964,044</b>	<b>16.6</b>	<b>-0.5</b>	<b>--</b>	<b>-20.2</b>	<b>--</b>	<b>-3.8</b>	<b>--</b>	<b>-1.2</b>	<b>--</b>	<b>-0.8</b>	<b>--</b>	<b>0.9</b>	<b>--</b>	<b>2.4</b>	<b>Oct-05</b>
S&P 500 + 2%			7.6	--	3.4	--	17.4	--	14.8	--	17.1	--	9.4	--	9.5	Oct-05
<b>Real Estate Composite</b>	<b>706,930,030</b>	<b>25.5</b>	<b>-17.3</b>	<b>--</b>	<b>-31.7</b>	<b>--</b>	<b>-11.5</b>	<b>--</b>	<b>-8.1</b>	<b>--</b>	<b>-7.2</b>	<b>--</b>	<b>-2.7</b>	<b>--</b>	<b>3.9</b>	<b>Mar-85</b>
NCREIF Property Index			2.9	--	13.3	--	12.0	--	12.2	--	7.6	--	7.8	--	8.1	Mar-85
<b>Global Natural Resources</b>	<b>288,096,675</b>	<b>10.4</b>	<b>0.5</b>	<b>--</b>	<b>11.0</b>	<b>--</b>	<b>9.1</b>	<b>--</b>	<b>7.9</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.2</b>	<b>Apr-15</b>
Total Global Natural Resources Custom Benchmark			2.1	--	13.4	--	14.0	--	9.5	--	--	--	--	--	6.0	Apr-15
<b>Cash Equivalents</b>	<b>82,122,733</b>	<b>3.0</b>	<b>0.2</b>	<b>--</b>	<b>1.3</b>	<b>--</b>	<b>2.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.8</b>	<b>Apr-15</b>
91 Day T-Bills			0.0	--	0.0	--	0.0	--	0.0	--	0.1	--	1.1	--	0.0	Apr-15

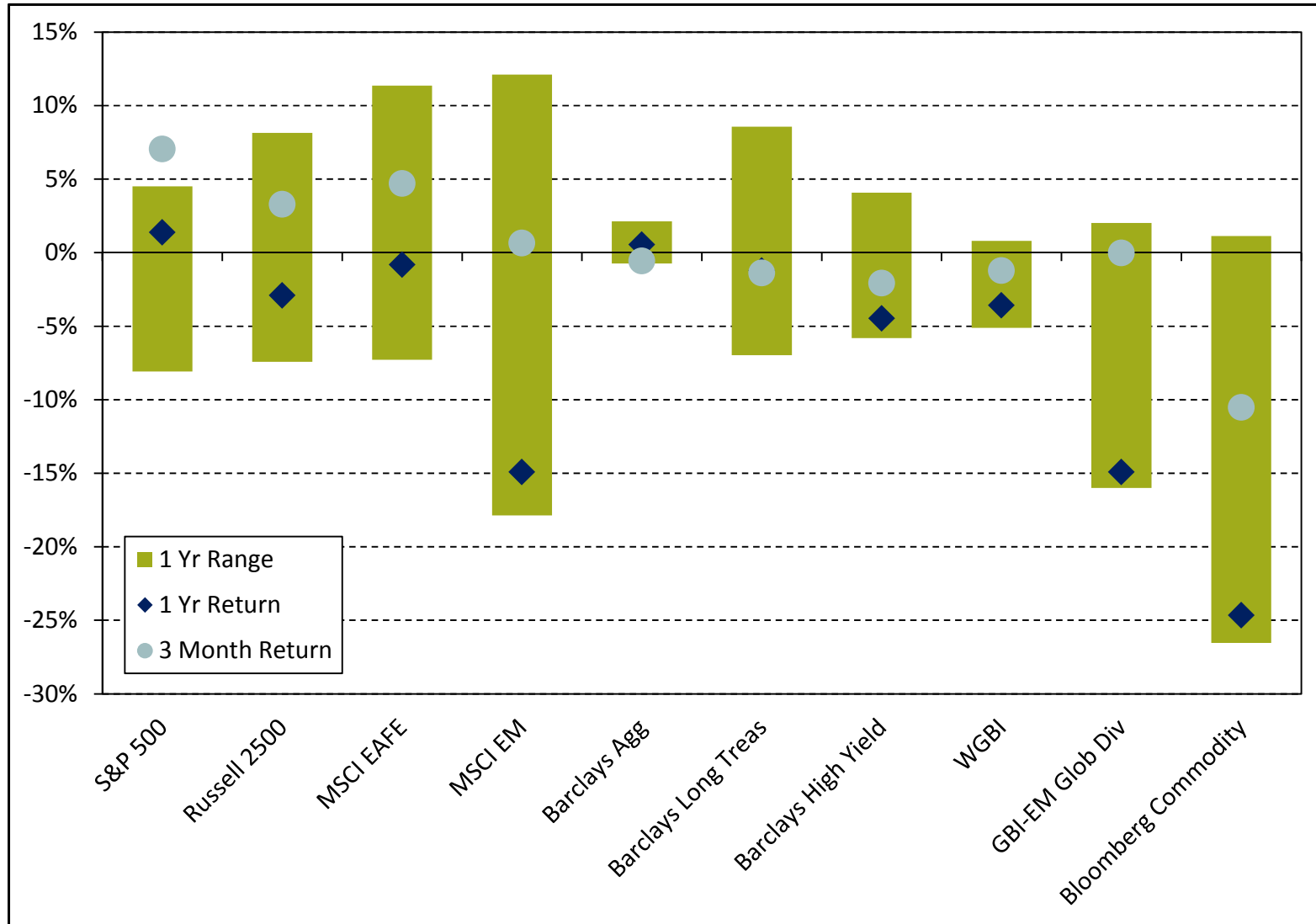
Returns shown on report are time weighted.

Financial Composite date is 10/1/2005 and excludes all funds that are lagged.



# Q4 2015 Market Update

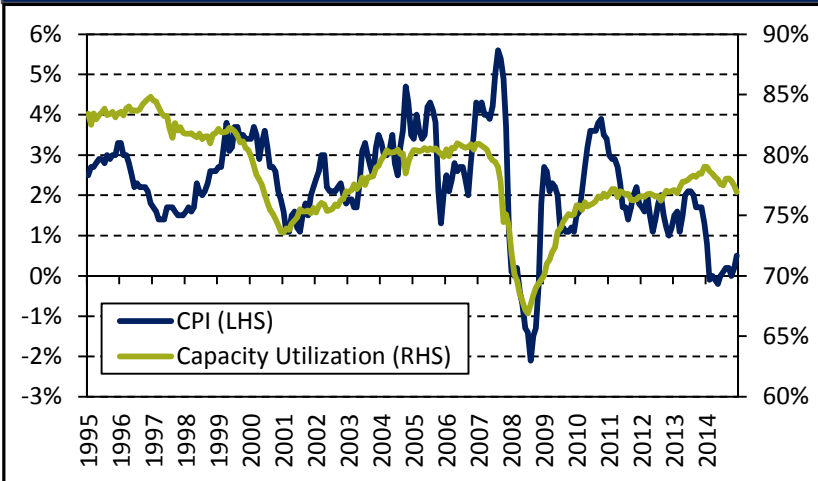
# Broad Market Performance Summary as of 12/31/2015



Source: Bloomberg, Standard and Poors, Russell, MSCI, Barclays, Citigroup, JP Morgan  
 \*1 Yr Range: Represents range of cumulative high/low daily index returns for an investment made one year ago

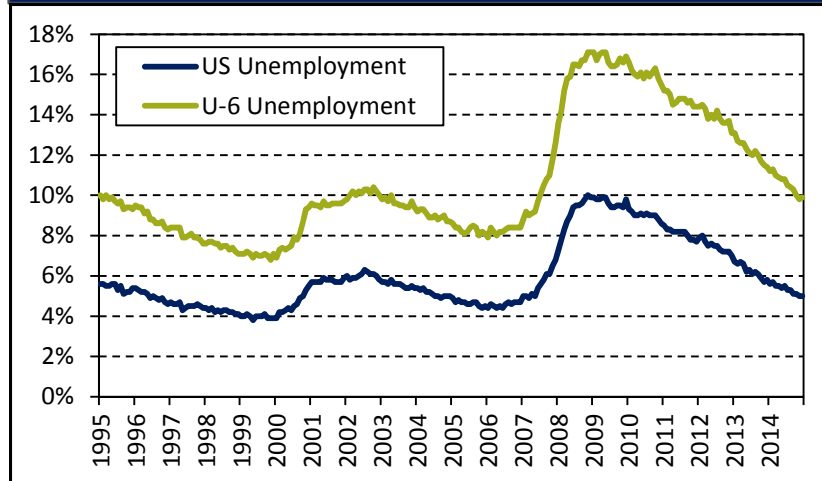
# US Economic Indicators

## Inflation has stayed low



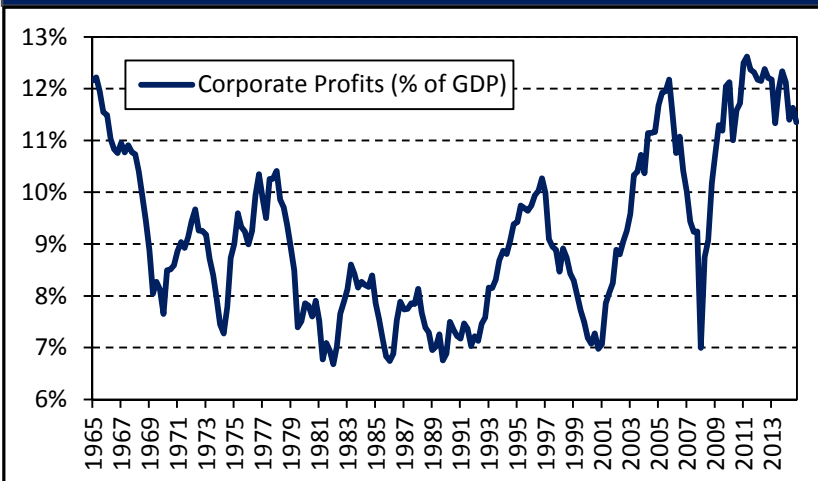
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

## Unemployment steadily improving



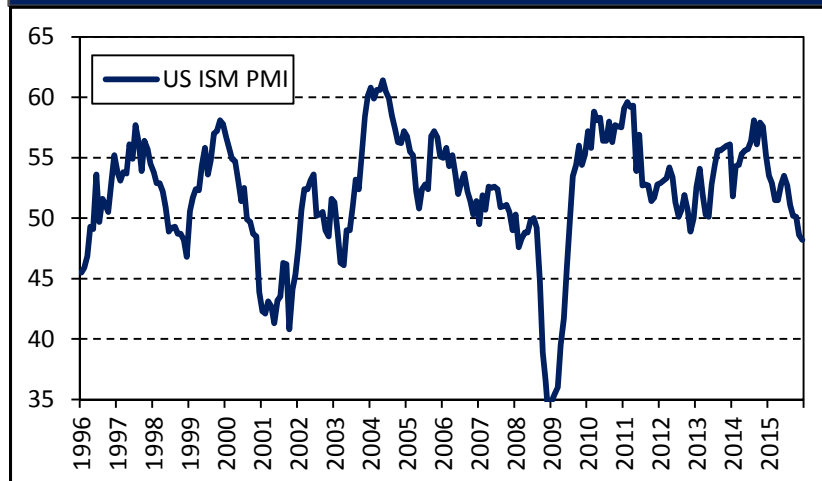
Source: Bloomberg, Bureau of Labor Statistics

## Corporate profits slightly off secular highs



Source: Bloomberg, Bureau of Economic Analysis

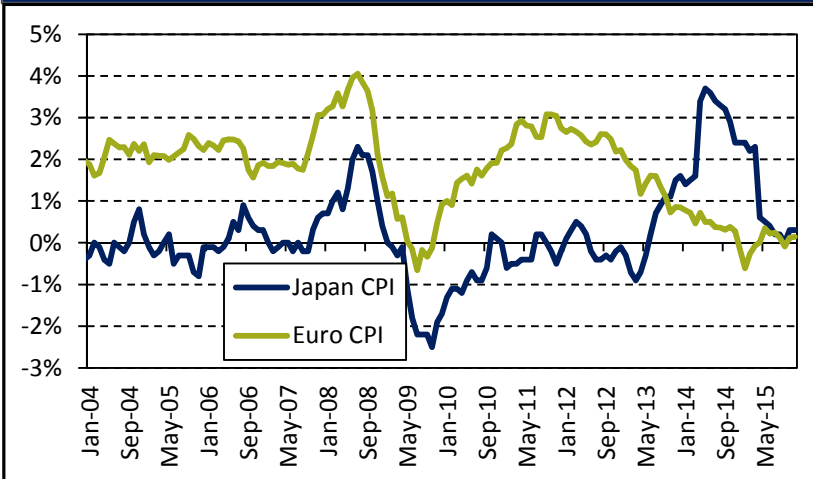
## Manufacturing trending lower



Source: Bloomberg, Institute for Supply Management

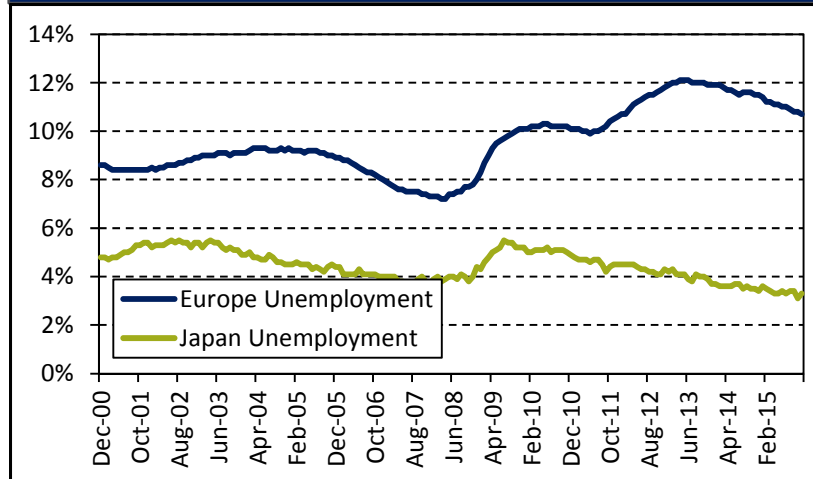
# International Economic Indicators

## Inflation remains muted



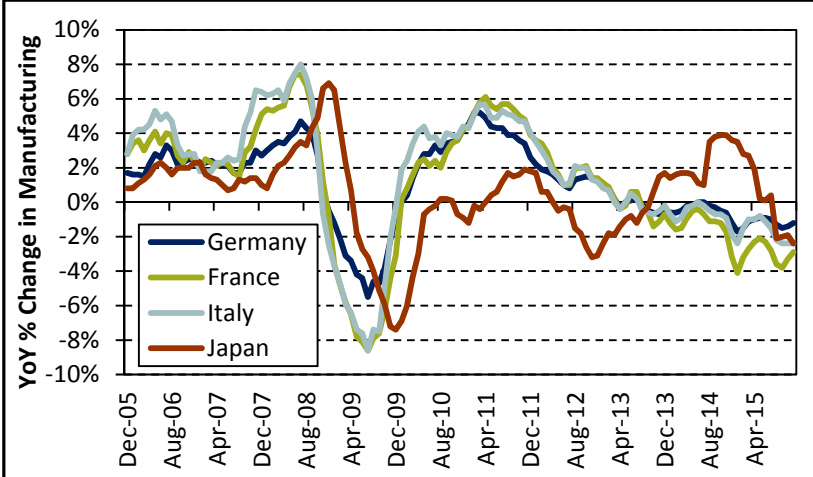
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

## Europe employment recovery lagging



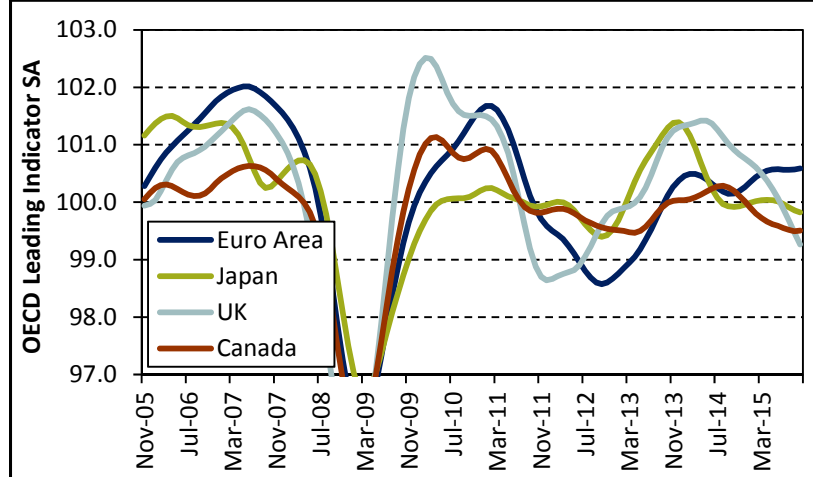
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

## Manufacturing in developed economies has lagged



Source: Bloomberg, OECD, Eurostat

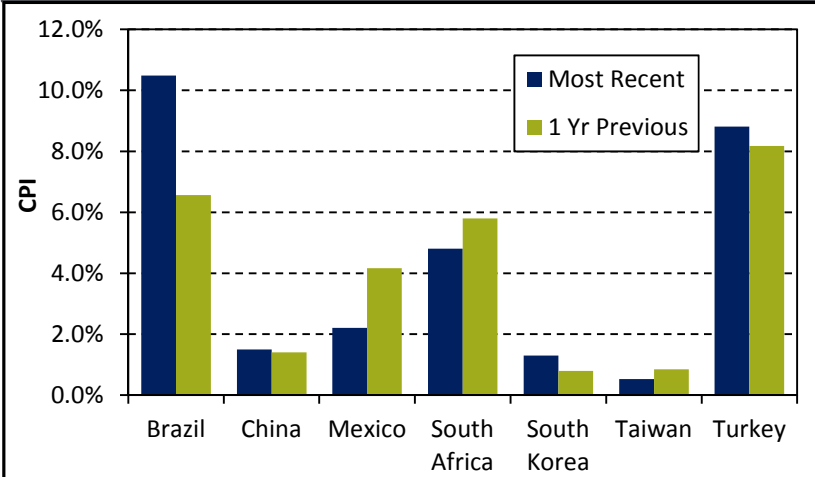
## Leading indicators mostly neutral



Source: Bloomberg, OECD

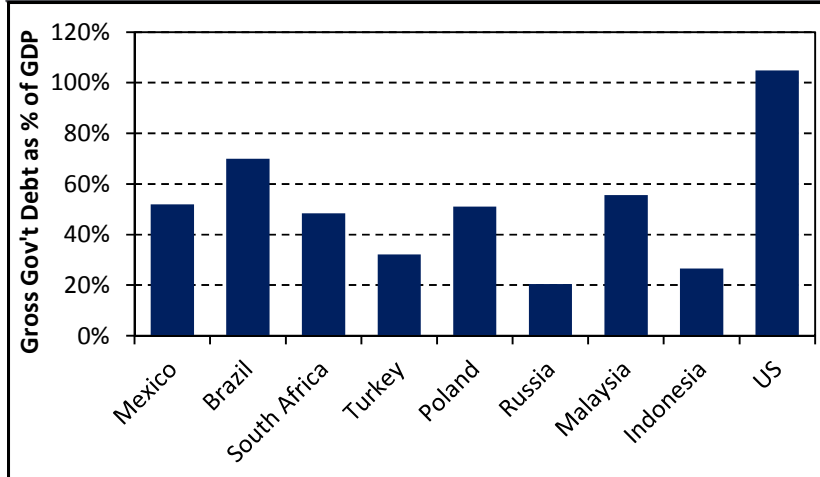
# Emerging Market Economic Indicators

## EM inflation is varied by country



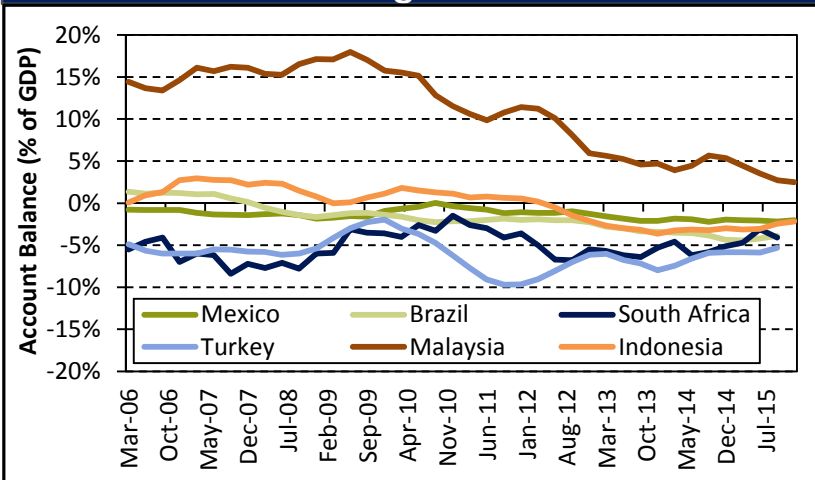
Source: Bloomberg

## Relatively healthy Debt/GDP ratios



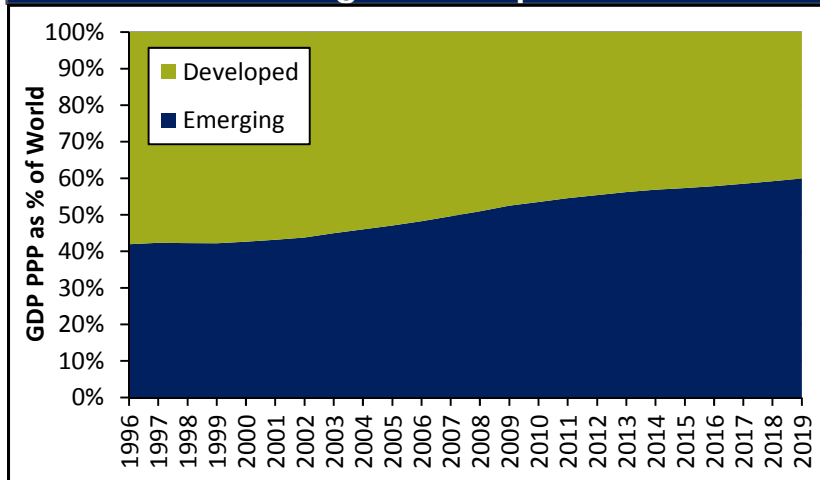
Source: Bloomberg, IMF

## Little improvement in account balance challenged countries



Source: Bloomberg

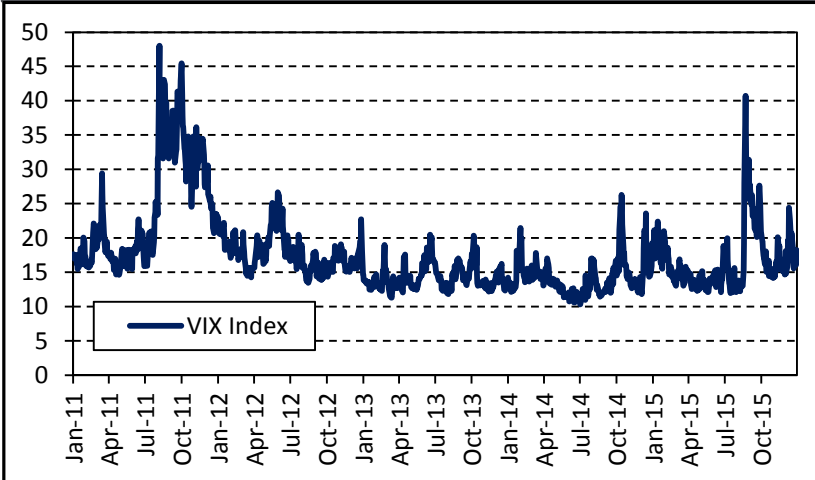
## Emerging economies make up >50% of global output



Source: Bloomberg, IMF

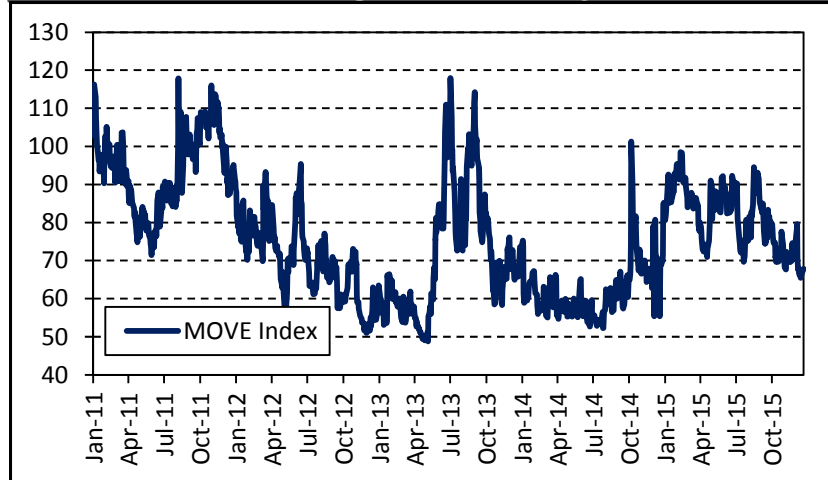
# Volatility

## Equity volatility has seen recent spike and decline



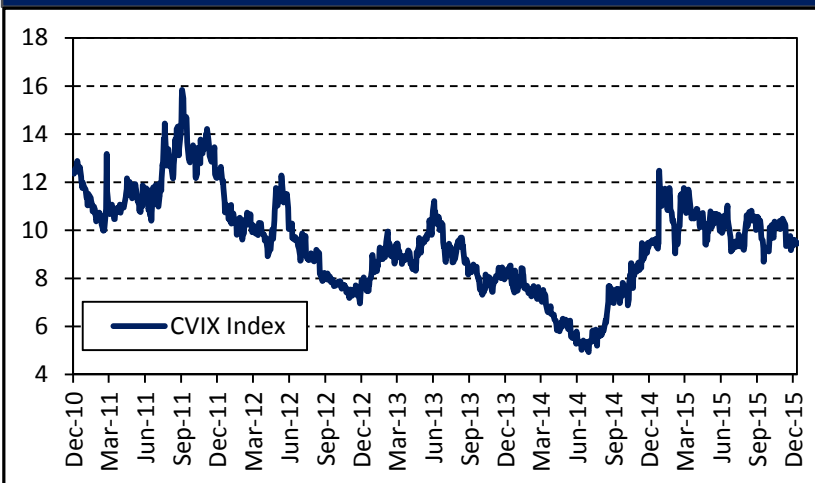
Source: Bloomberg, CBOE

## Treasury rates experiencing periods of higher volatility



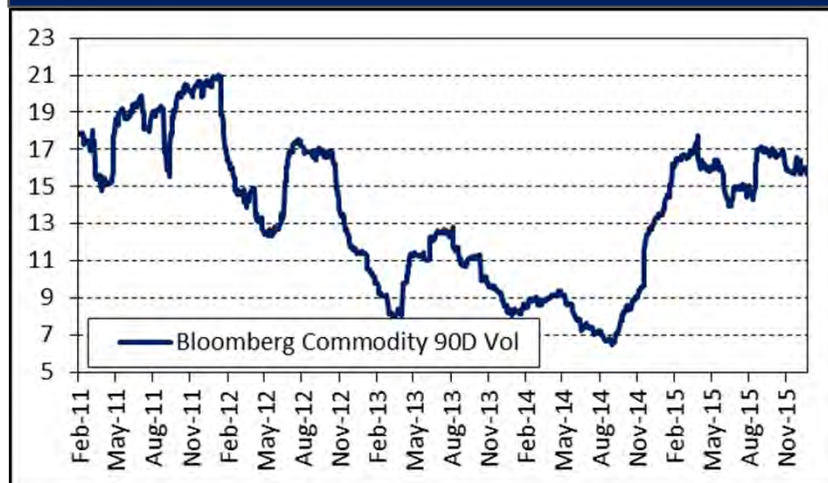
Source: Bloomberg, Merrill Lynch

## Sustained uptick in currency volatilities



Source: Bloomberg, Deutsche Bank

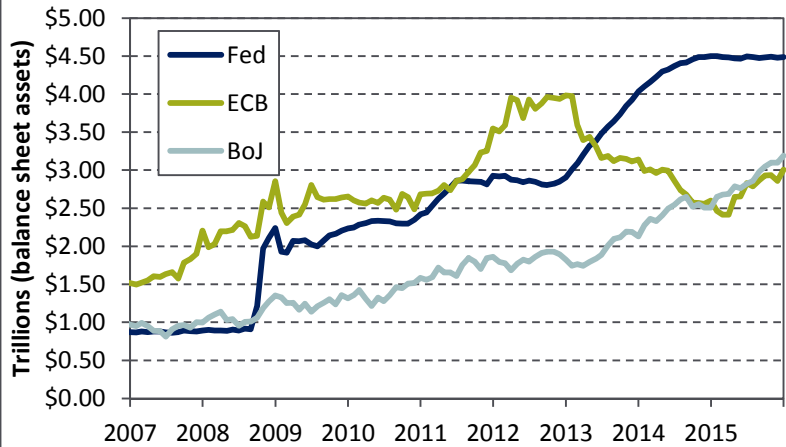
## Commodity pricing volatility remains elevated



Source: Bloomberg, Merrill Lynch

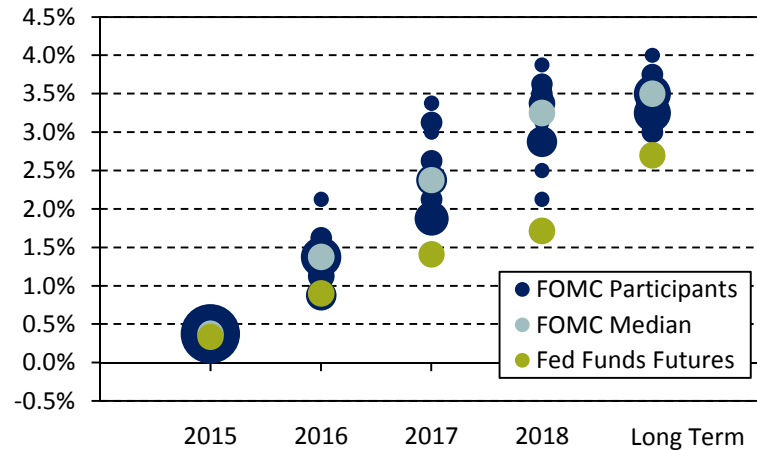
# Central Banks

## Major central bank policy divergence



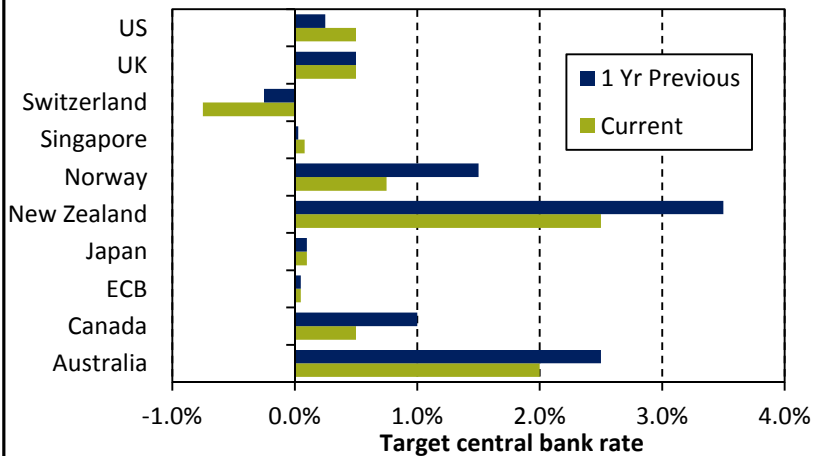
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

## Fed's ideal rate of policy firming above market expectations



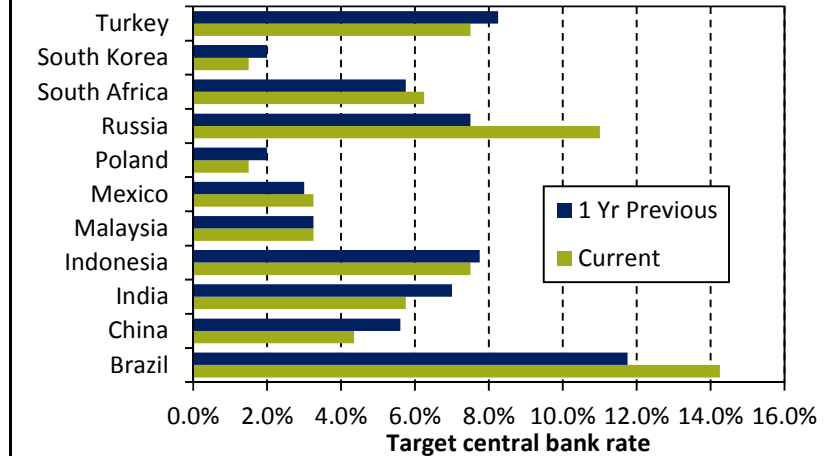
Source: Bloomberg, Federal Reserve, NEPC

## Many developed central banks have maintained low interest rates



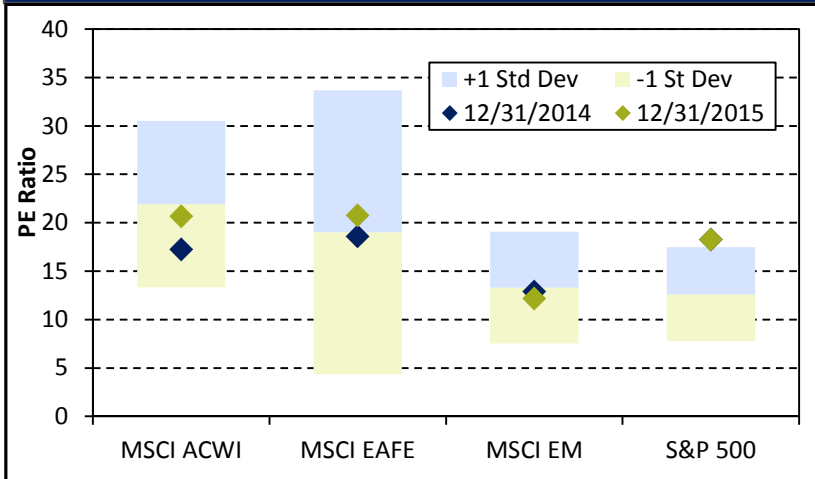
Source: Bloomberg

## EM central bank policies have varied by circumstance



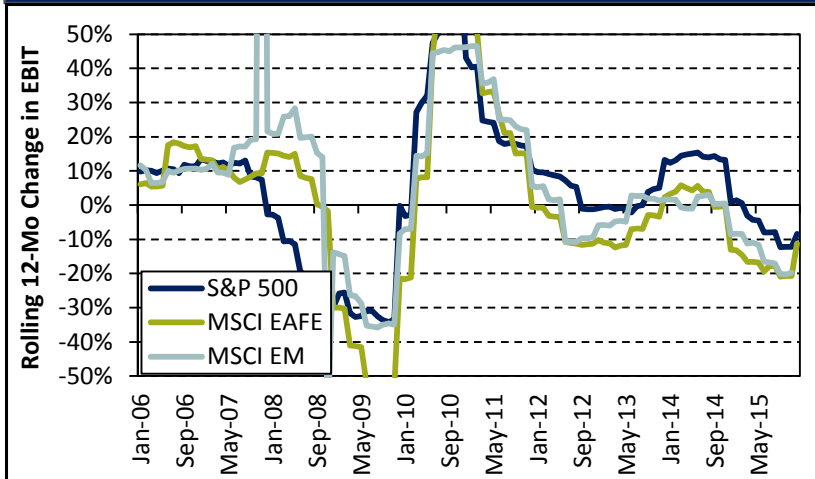
Source: Bloomberg

## Global valuations are mixed



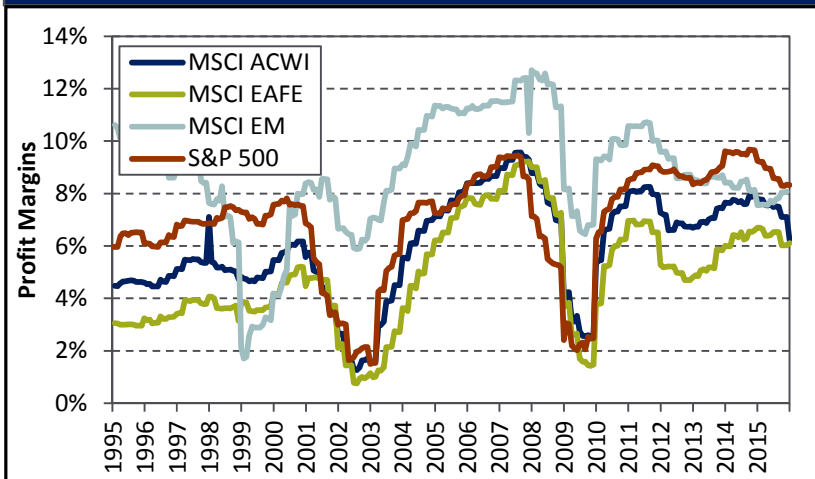
Source: Bloomberg, Standard and Poors, MSCI \*MSCI EAFE is ex UK Telecom

## Earnings growth trending lower



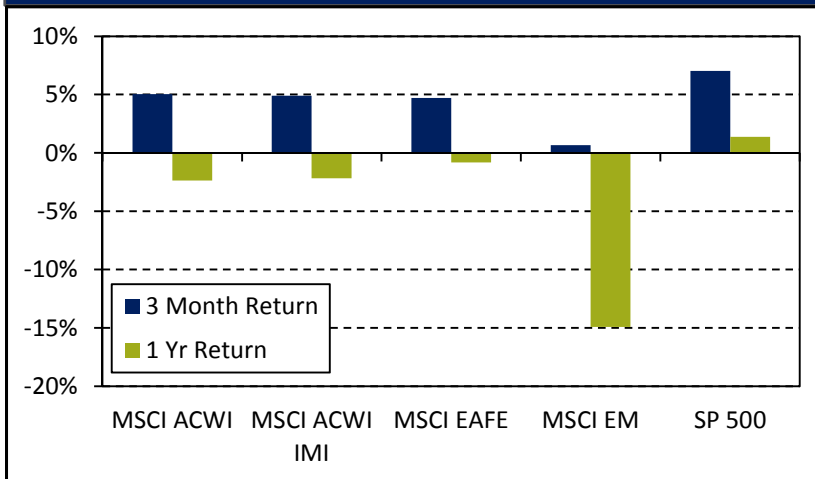
Source: Bloomberg, Standard and Poors, MSCI

## Margins elevated, but largely a US story



Source: Bloomberg, MSCI

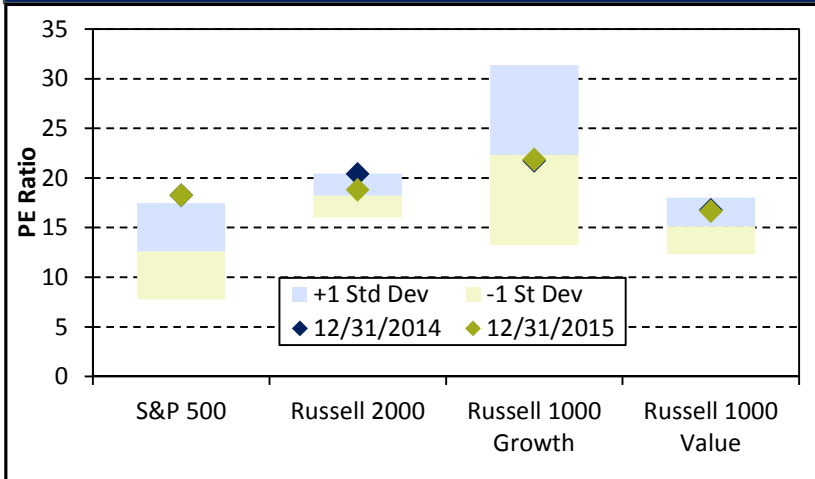
## Global equity returns have been mixed



Source: Bloomberg, MSCI

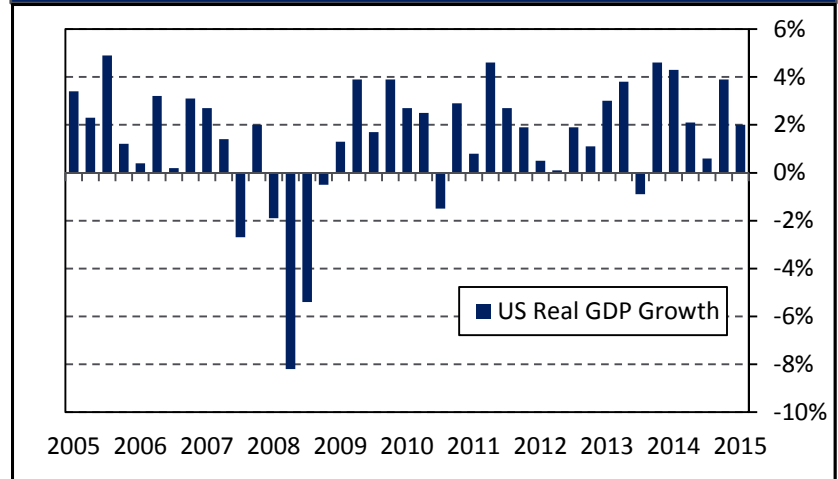


## Valuations near or above historical norms



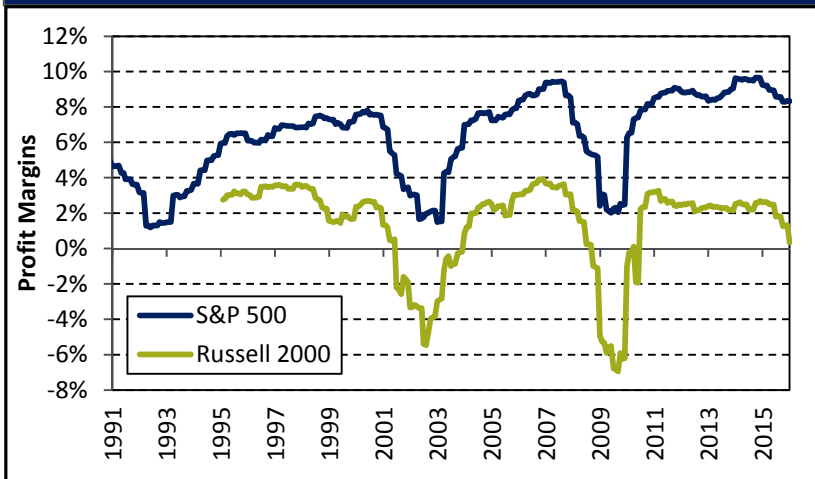
Source: Bloomberg, Standard and Poors, Russell \*Russell 2000 PE is index adjusted positive

## Growth recovery marked by inconsistency



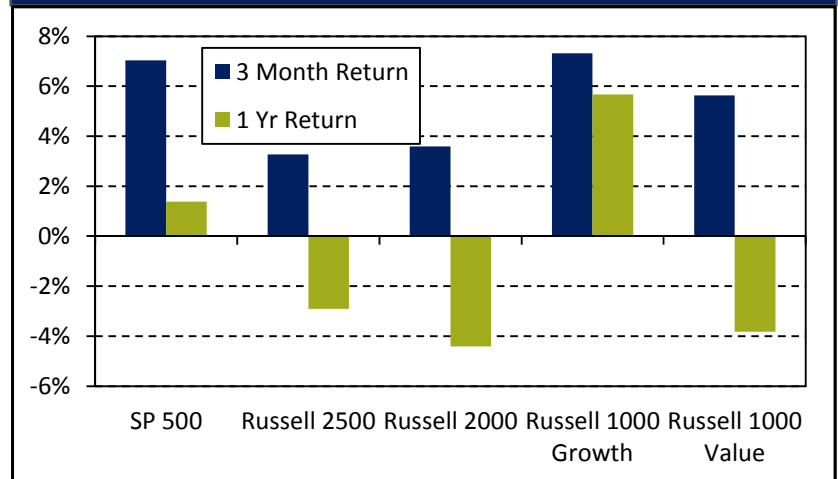
Source: Bloomberg, Bureau of Economic Analysis

## Profit margins remain elevated



Source: Bloomberg, Standard and Poors, Russell

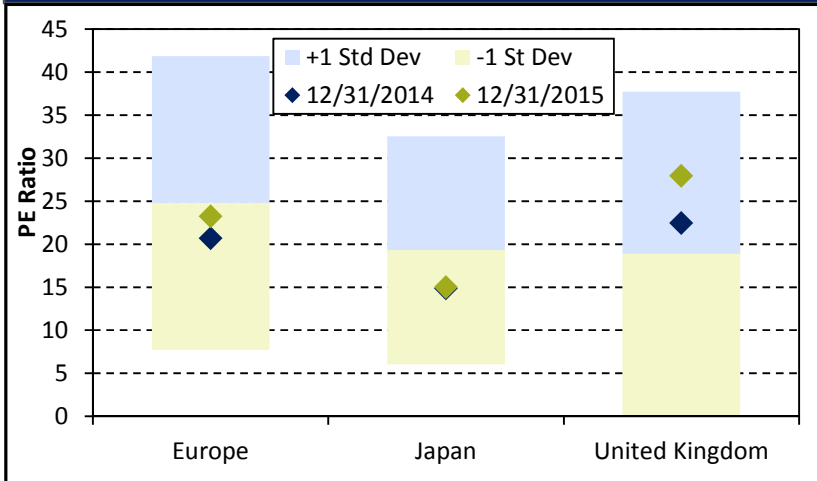
## Trailing performance is positive in near term



Source: Bloomberg, Standard and Poors, Russell

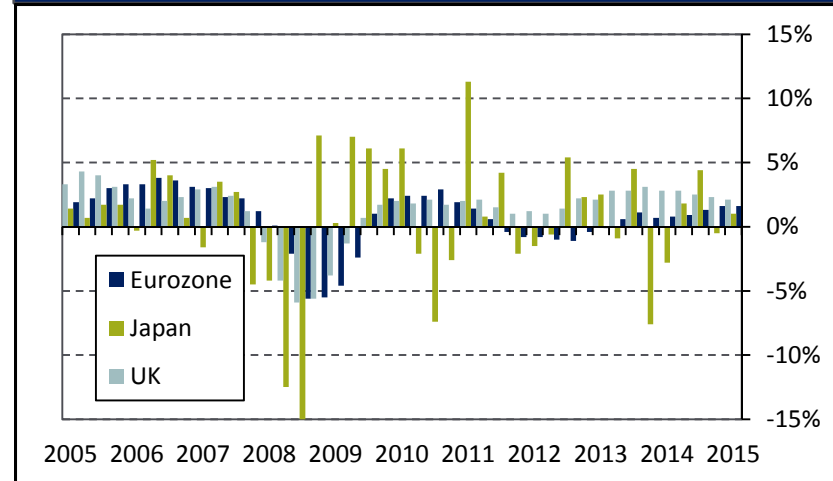
# International Equity

## PEs near historical medians



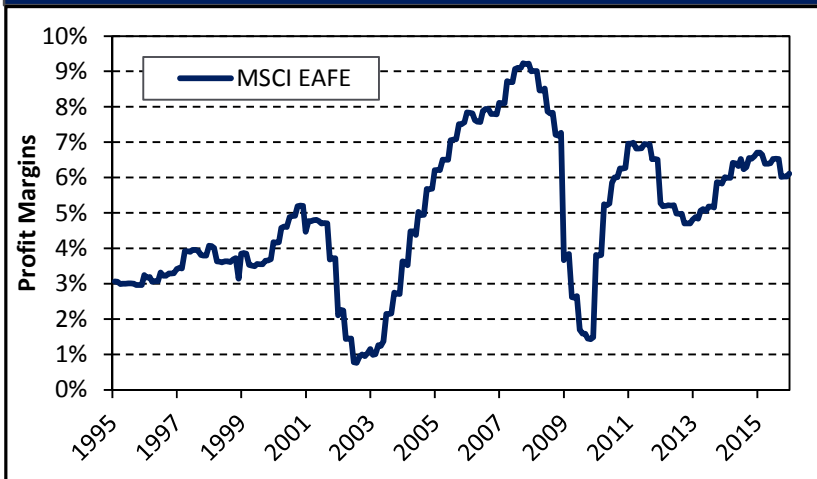
Source: Bloomberg, MSCI, FTSE \*UK represented by FTSE 100 Index

## Slow Global Growth



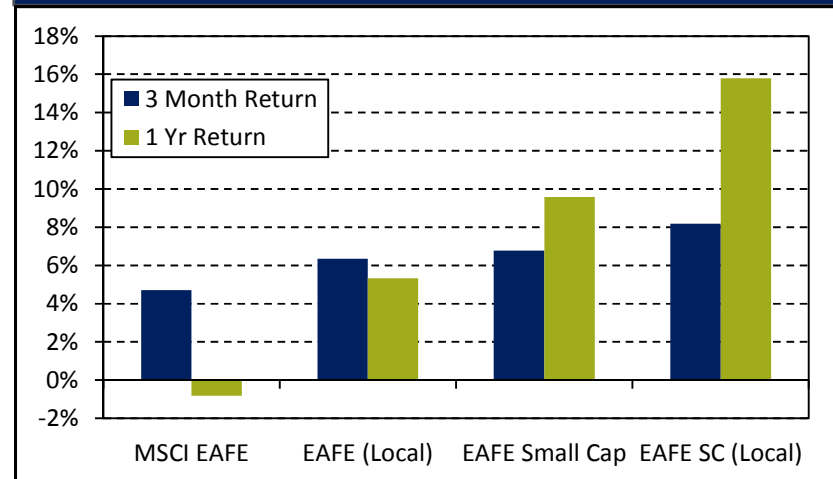
Source: Bloomberg

## Margins elevated but not at extremes



Source: Bloomberg, MSCI

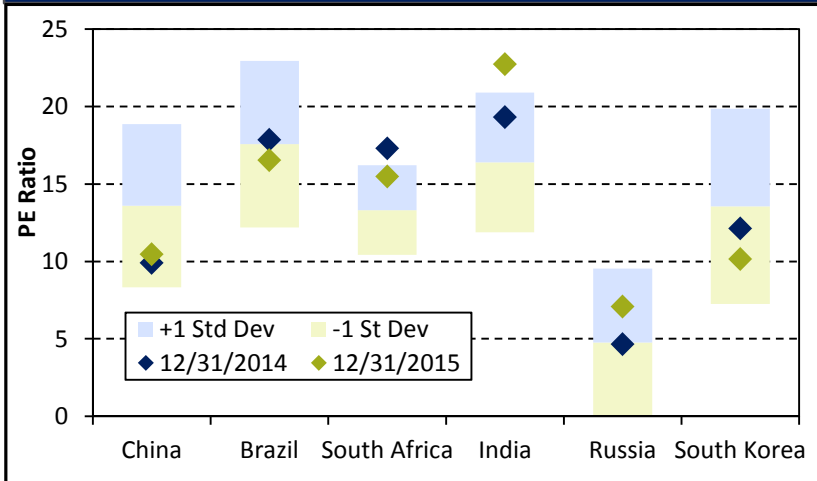
## Returns pulled lower by dollar strength



Source: Bloomberg, MSCI

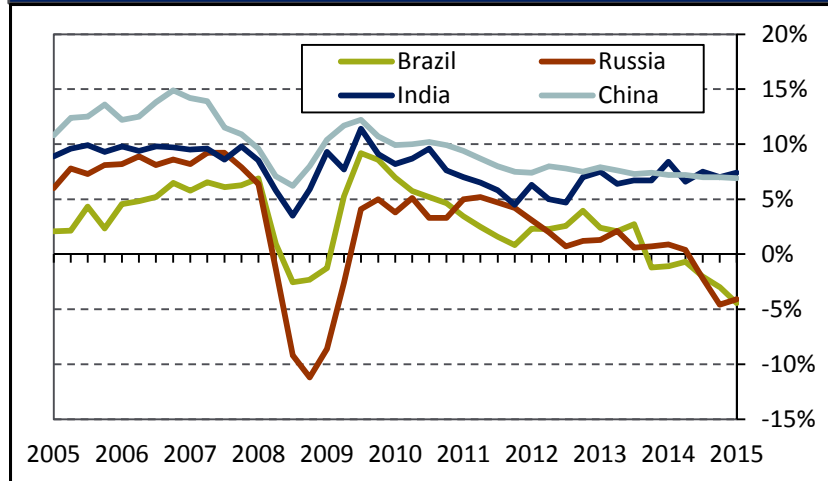
# Emerging Markets Equity

## Regional valuations show divergence



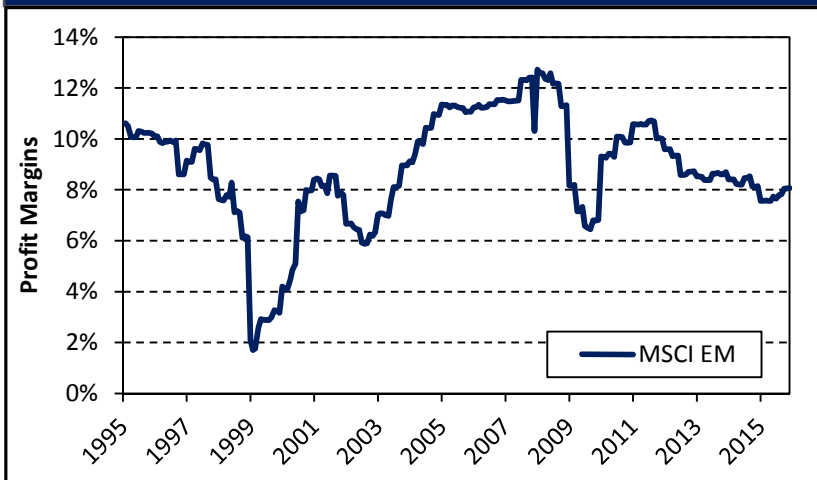
Source: Bloomberg, MSCI

## Slowing growth in major economies



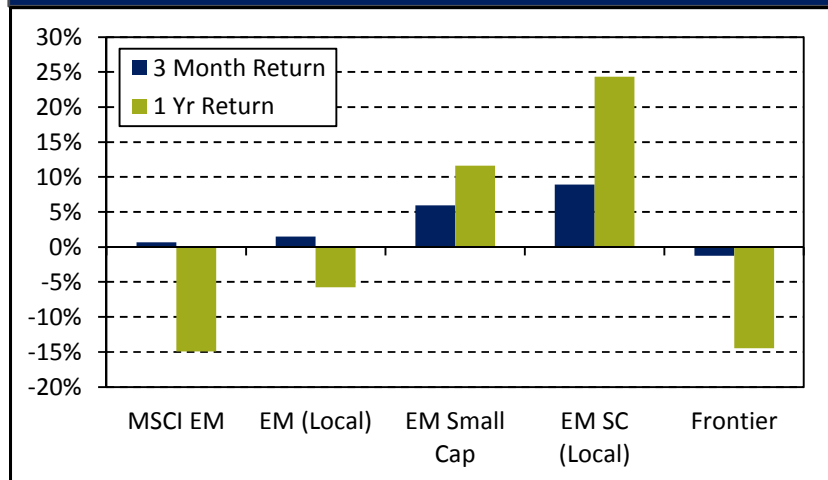
Source: Bloomberg

## Profit margins in line with history



Source: Bloomberg, MSCI

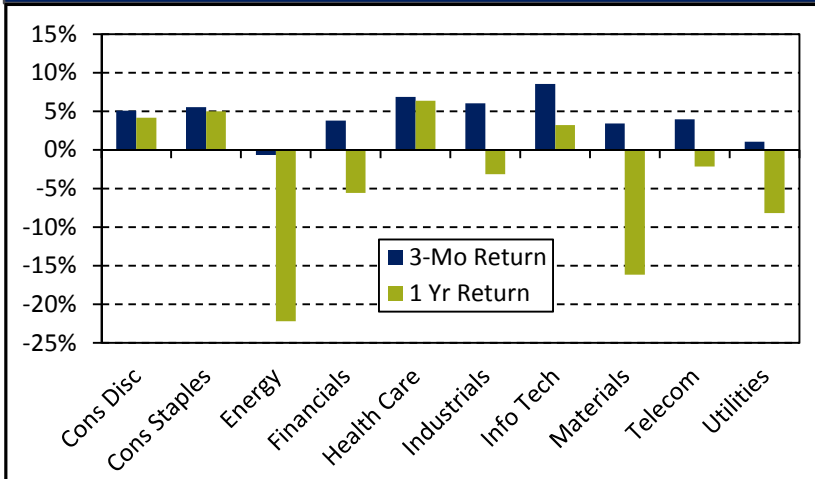
## Small cap EM issues have outperformed



Source: Bloomberg, MSCI

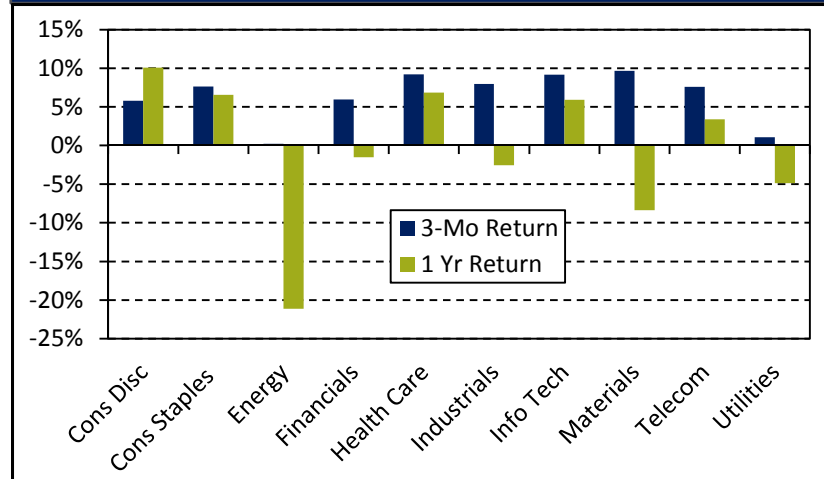
# Global Equity by Sector

## Energy returns sharply negative



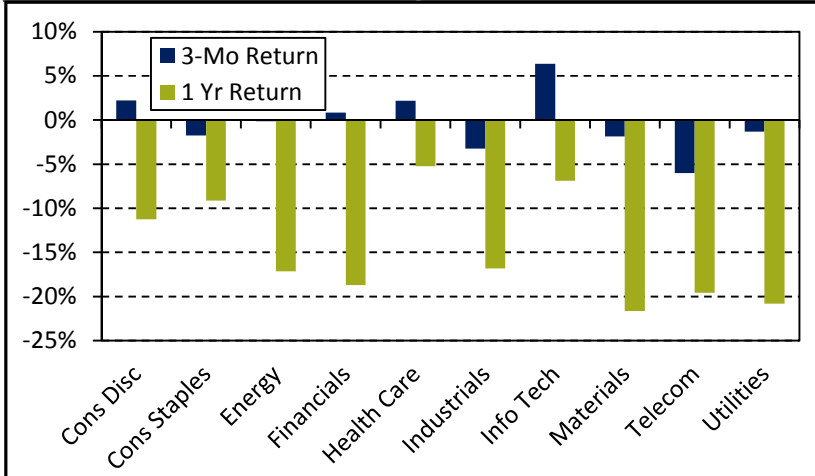
Source: Bloomberg, MSCI

## S&P 500 sectors mostly positive in near term



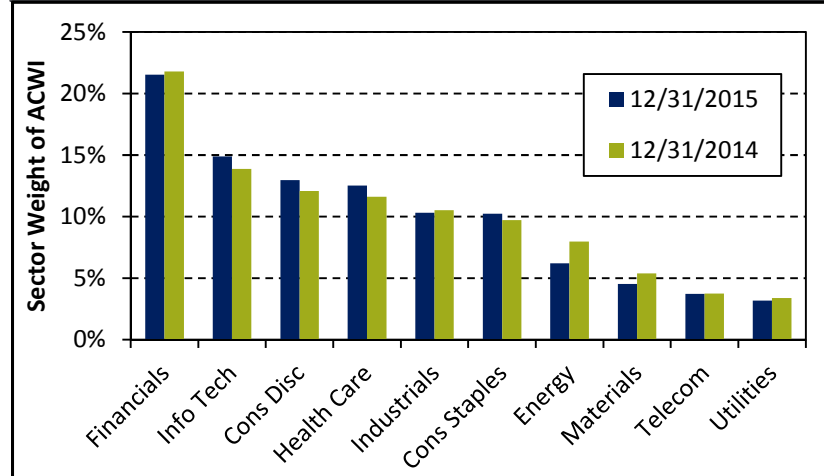
Source: Bloomberg, Standard and Poors

## Returns negative across sectors over one year



Source: Bloomberg, MSCI

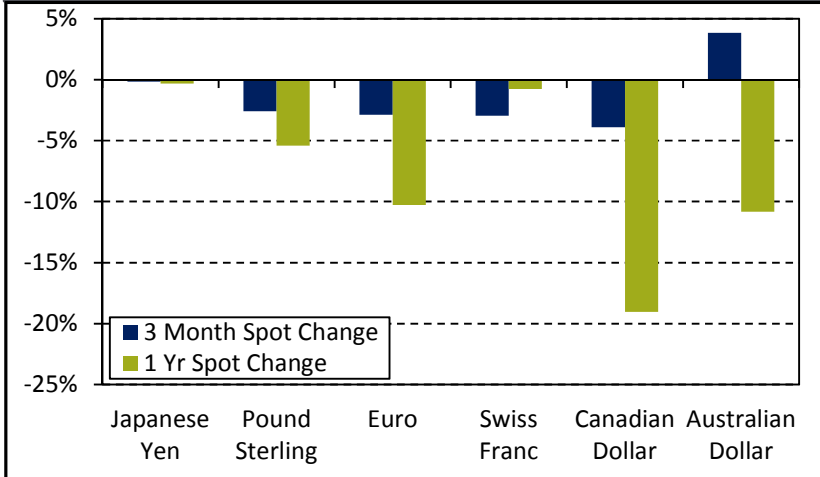
## Global energy sector weight has fallen



Source: Bloomberg, MSCI

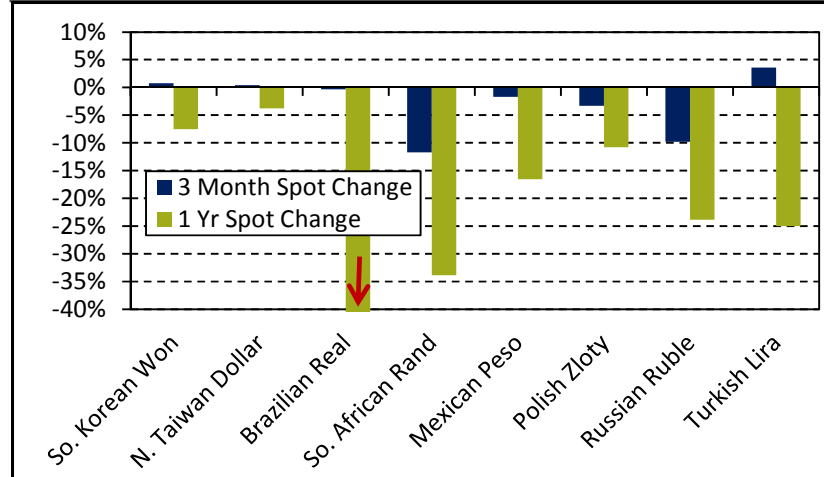
# Currencies

## Developed currencies mostly negative versus the dollar



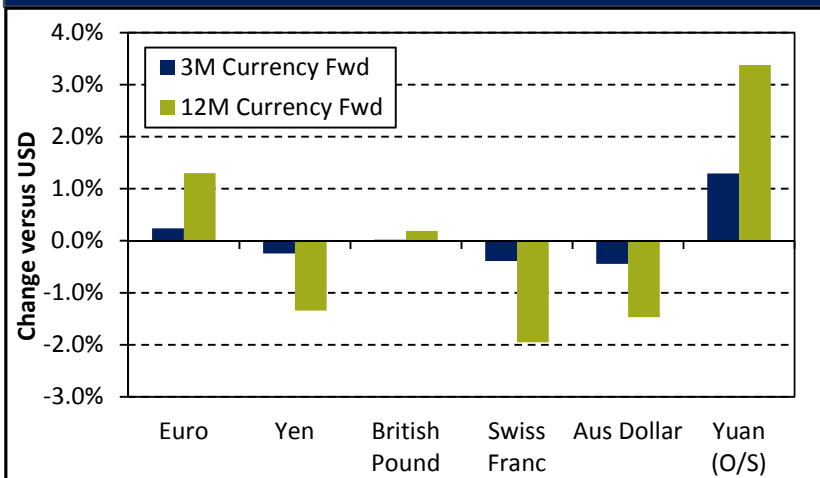
Source: Bloomberg

## EM currencies have suffered in unique fashions



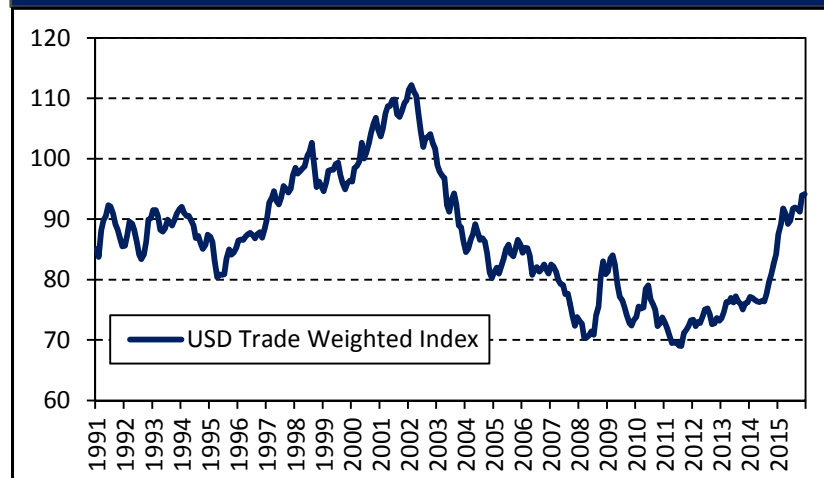
Source: Bloomberg

## Yen expected to decline versus USD



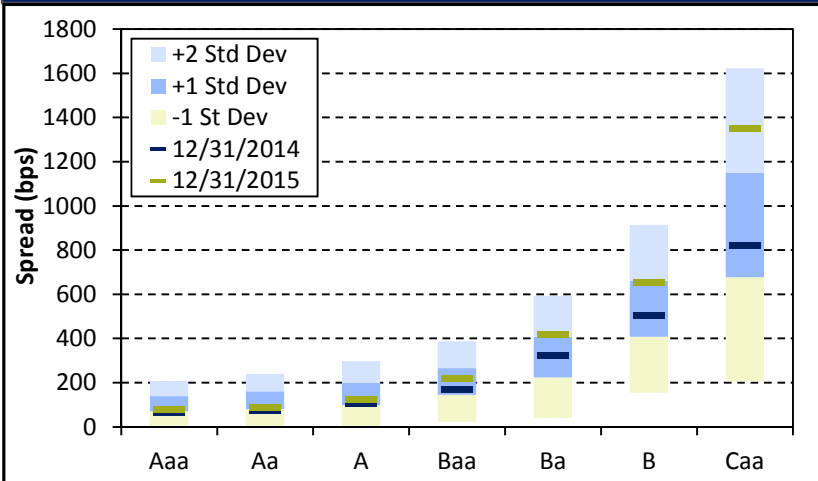
Source: Bloomberg

## Recent dollar strength pronounced



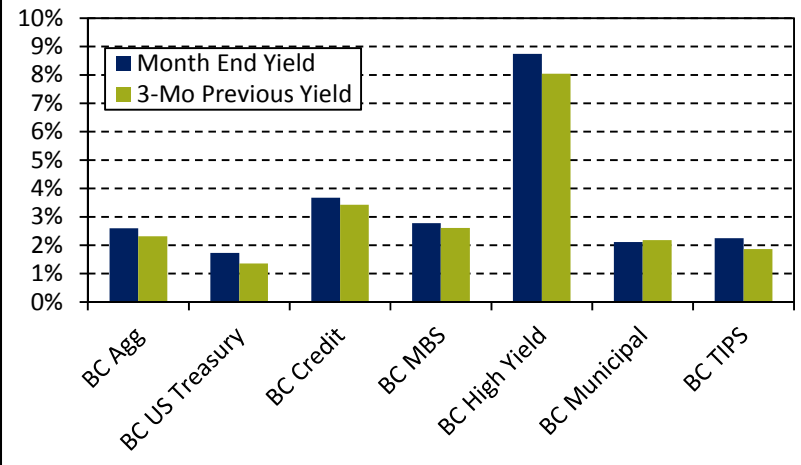
Source: Bloomberg, Federal Reserve

Spread levels above historical medians



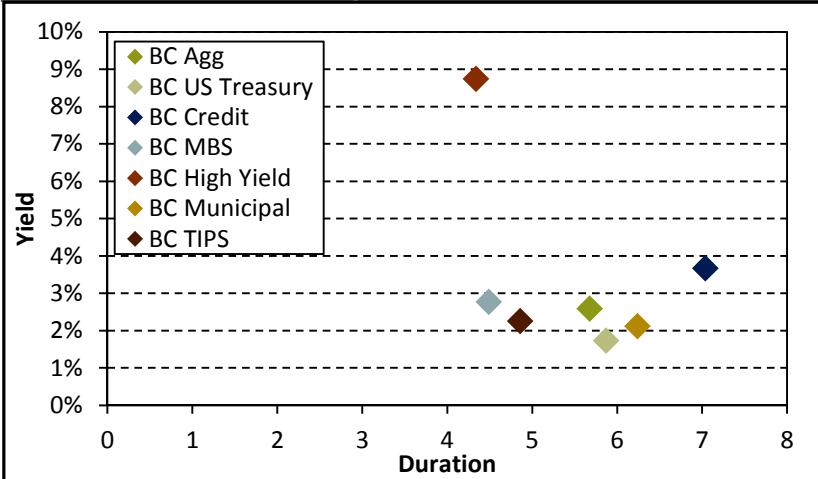
Source: Bloomberg, Barclays

Most yields have increased



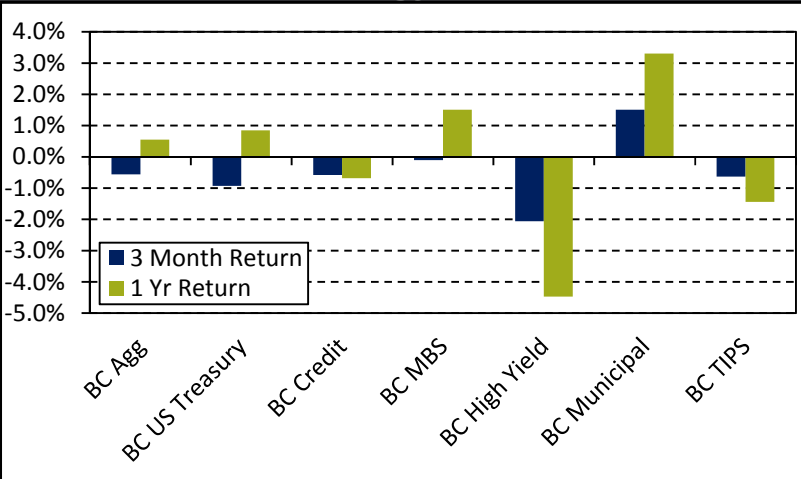
Source: Bloomberg, Barclays

Similar yield/duration tradeoff among major US indices



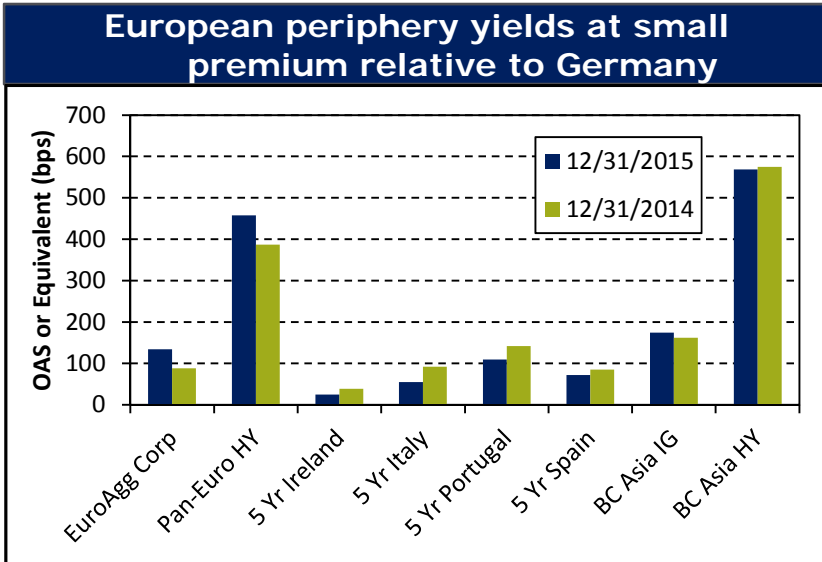
Source: Bloomberg, Barclays

Negative high yield returns driven by energy distress

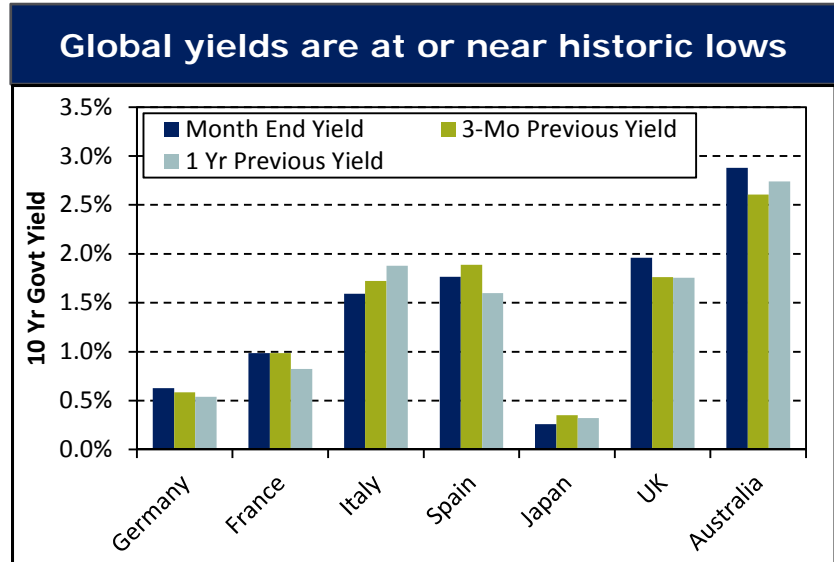


Source: Bloomberg, Barclays

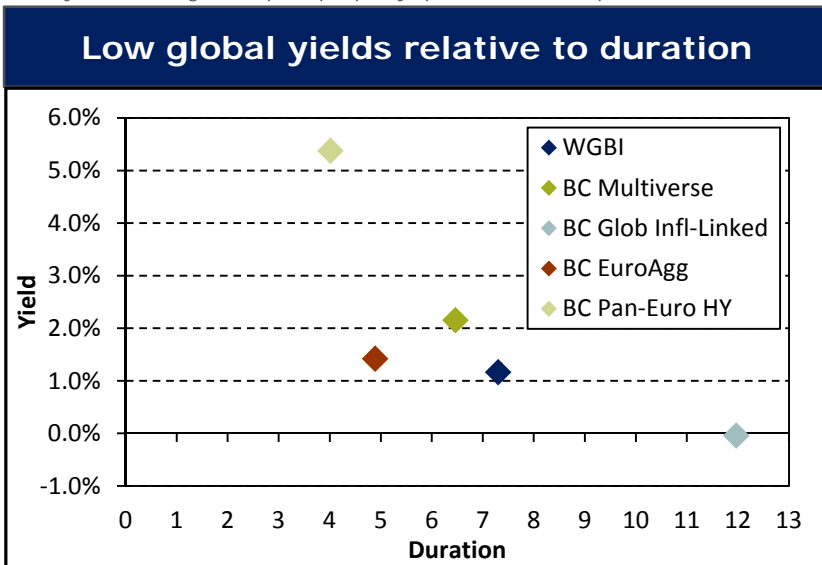
# International Developed Fixed Income



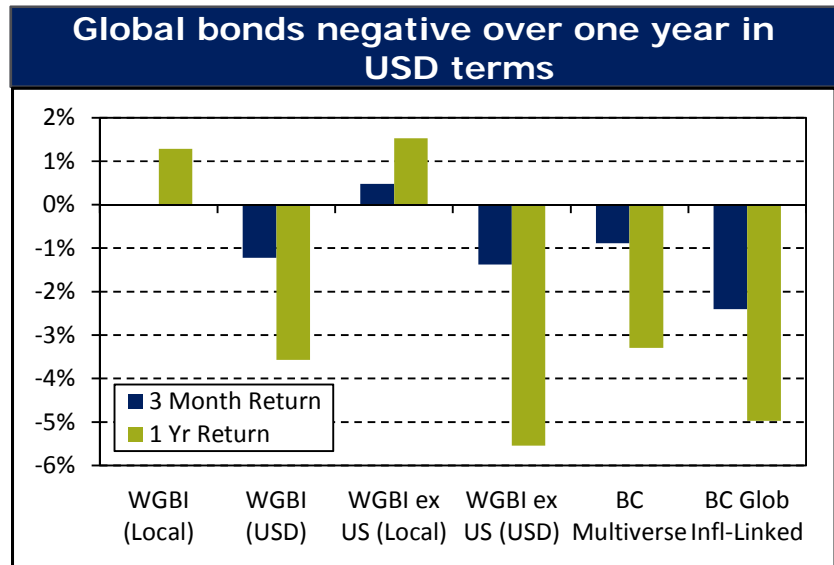
Source: Barclays, Bloomberg, \*European periphery spreads are over equivalent German Bund



Source: Bloomberg



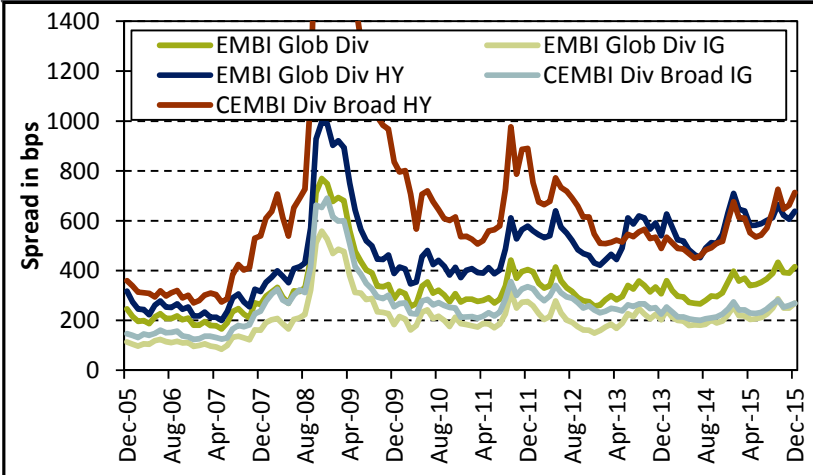
Source: Bloomberg, Citigroup, Barclays



Source: Bloomberg, Citigroup, Barclays

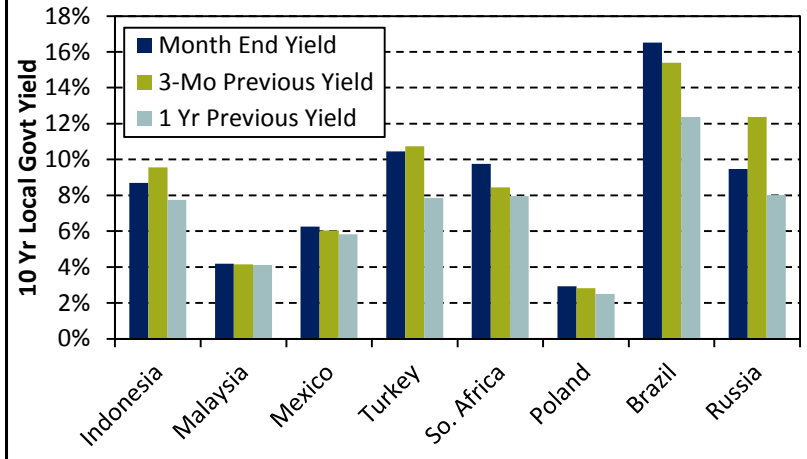
# Emerging Markets Fixed Income

## Spreads have widened recently



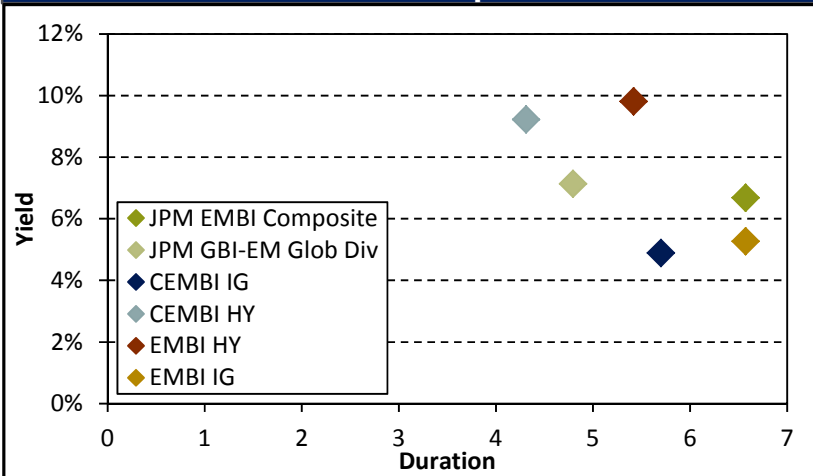
Source: Bloomberg, JP Morgan

## Emerging market bond yield changes have varied directionally



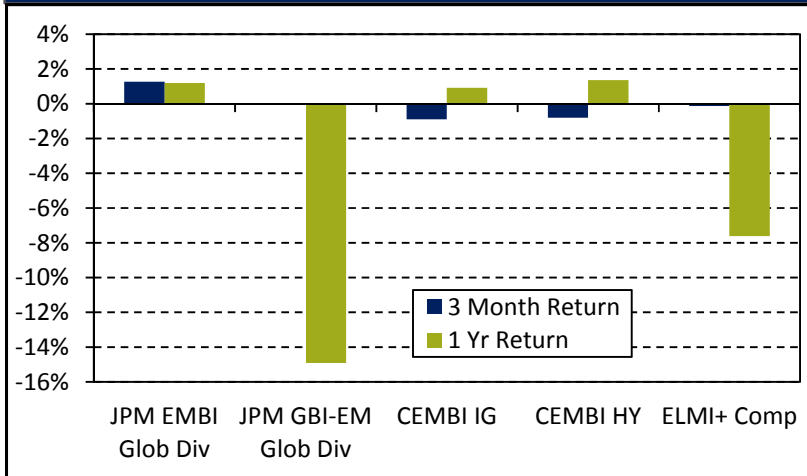
Source: Bloomberg

## EM yields higher versus global counterparts



Source: Bloomberg, JP Morgan

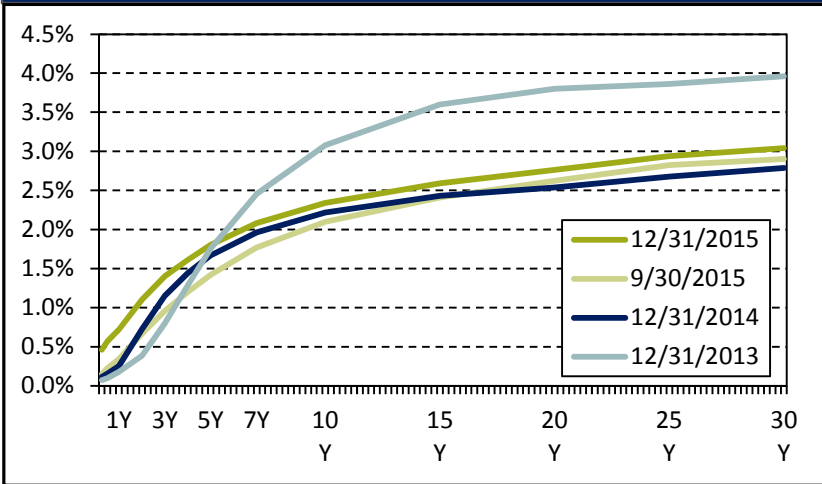
## Currency effect pronounced in EMD returns



Source: Bloomberg, JP Morgan

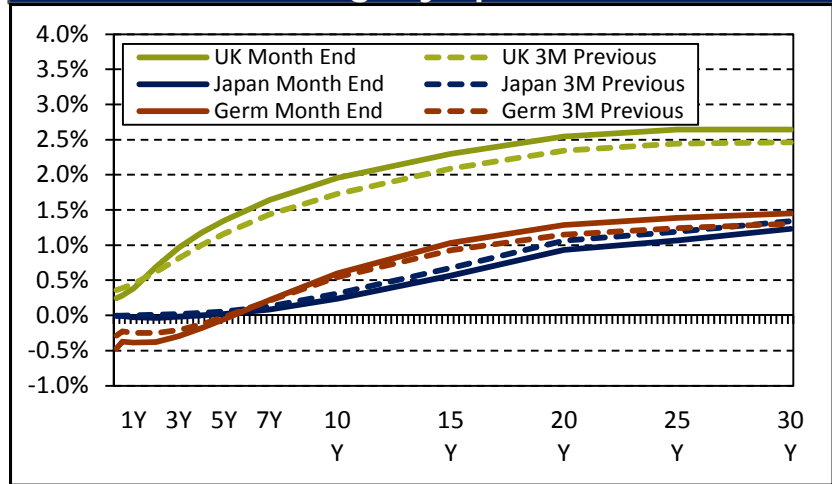


Treasury yield curve moderately rising



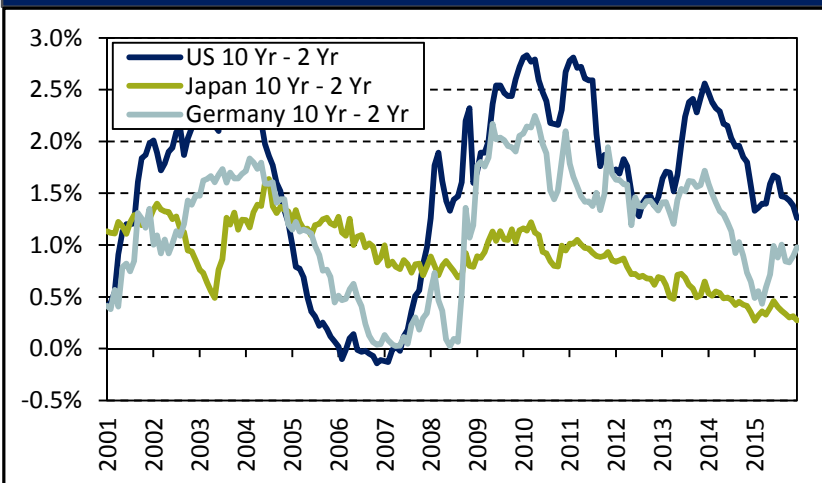
Source: Bloomberg

UK and German yield curves have shifted slightly upwards



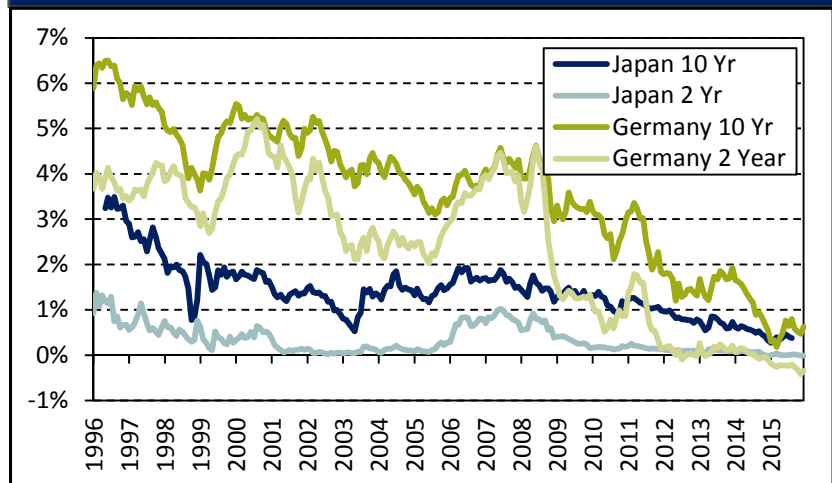
Source: Bloomberg

Global yield curves have mostly flattened



Source: Bloomberg

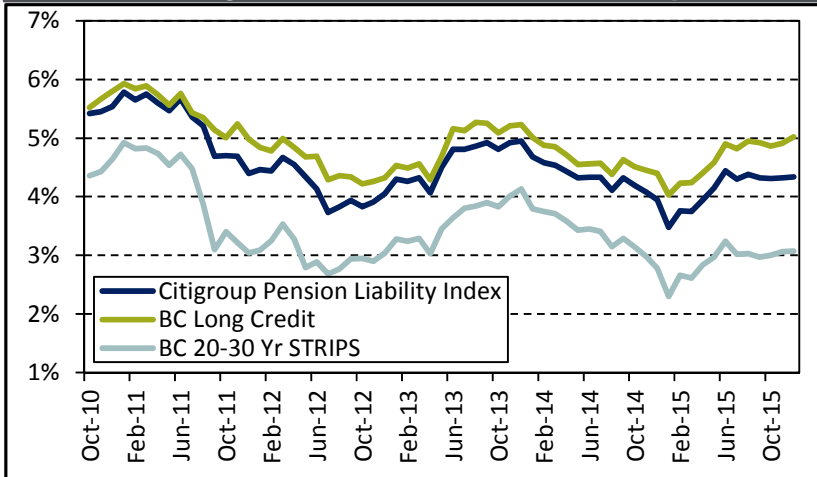
Global yields have trended lower over long term



Source: Bloomberg

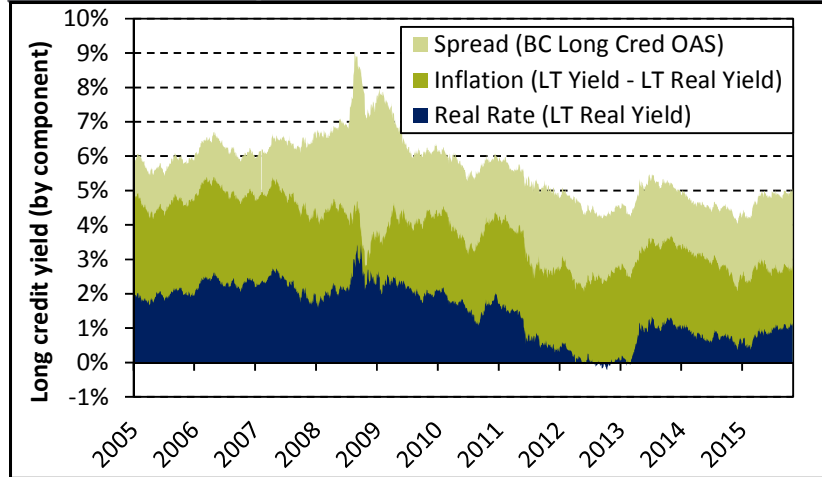
# Long Rates and Liability

## Long duration yields have fallen over last few years even with recent uptick



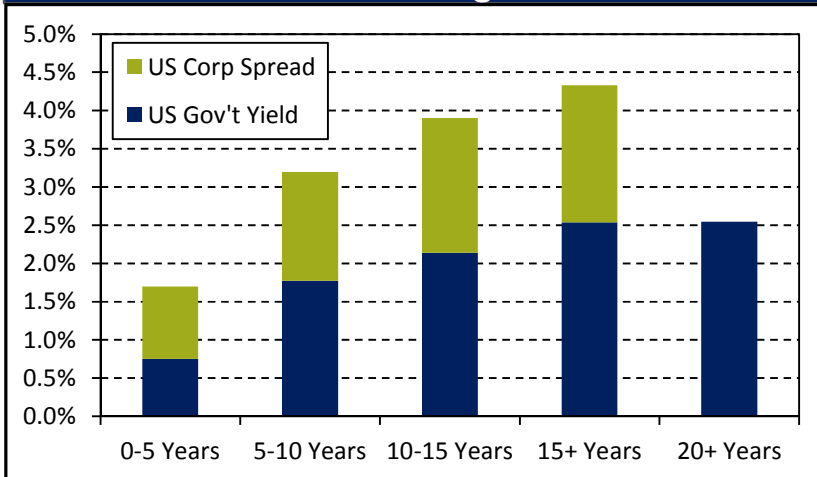
Source: Bloomberg, Citigroup, Barclays

## Lower yields driven by low inflation expectations and real rates



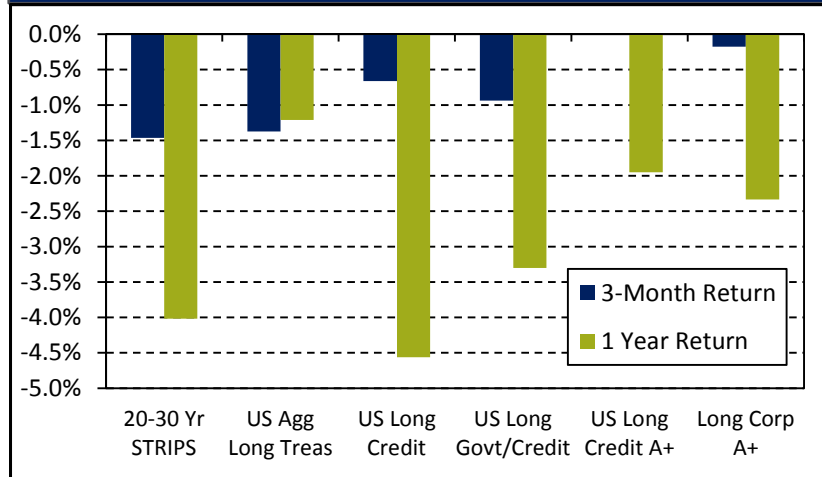
Source: Bloomberg, US Treasury, Barclays, NEPC

## Yields are low but spreads above historic averages



Source: Bloomberg, BofA Merrill Lynch, Barclays \*No index for 20+ year corporate

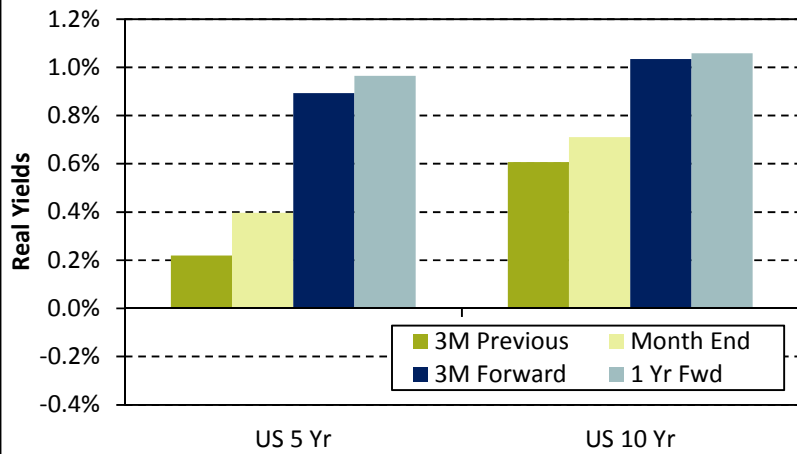
## Returns recently negative



Source: Bloomberg, Barclays

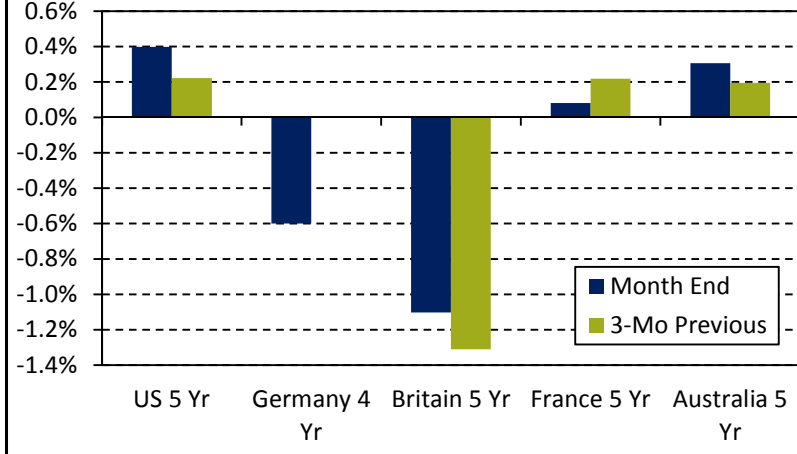
# Inflation and Real Rates

## US real yields have risen slightly



Source: Bloomberg

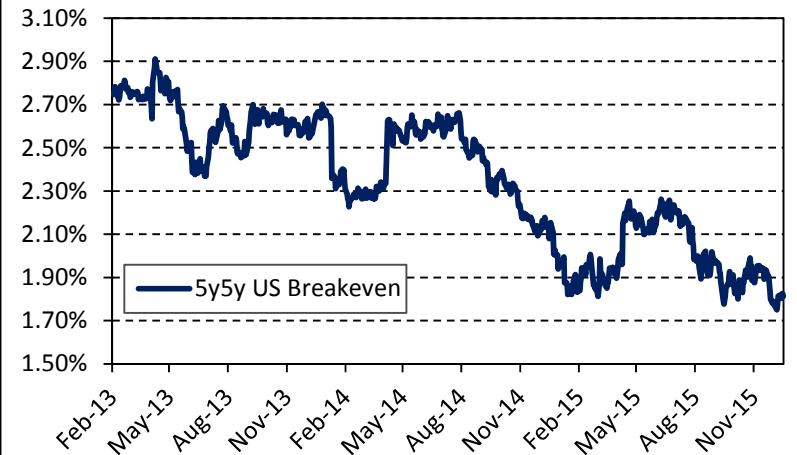
## Global real yields are flat to negative



\*3-Mo data not available for Germany 4 year rate

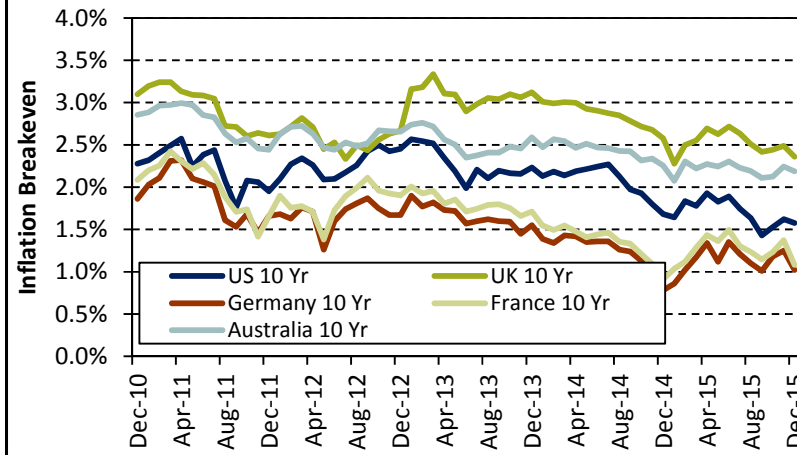
Source: Bloomberg

## US inflation expectations very low



Source: Bloomberg

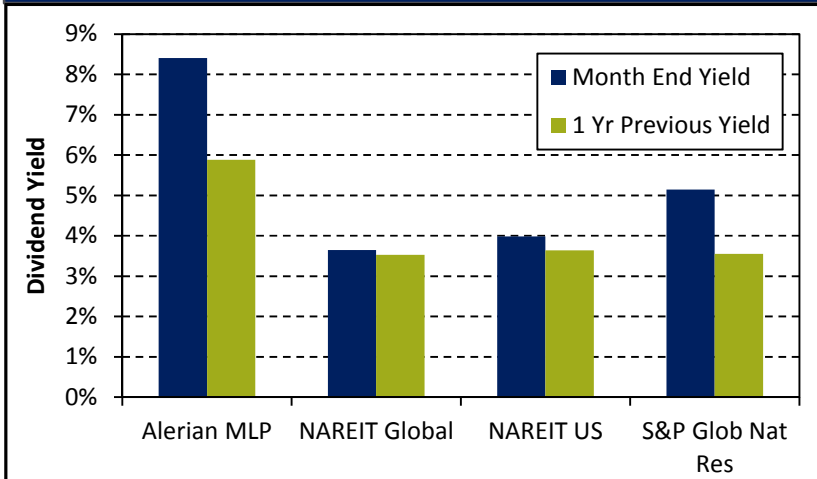
## Global inflation expectations remain subdued



Source: Bloomberg

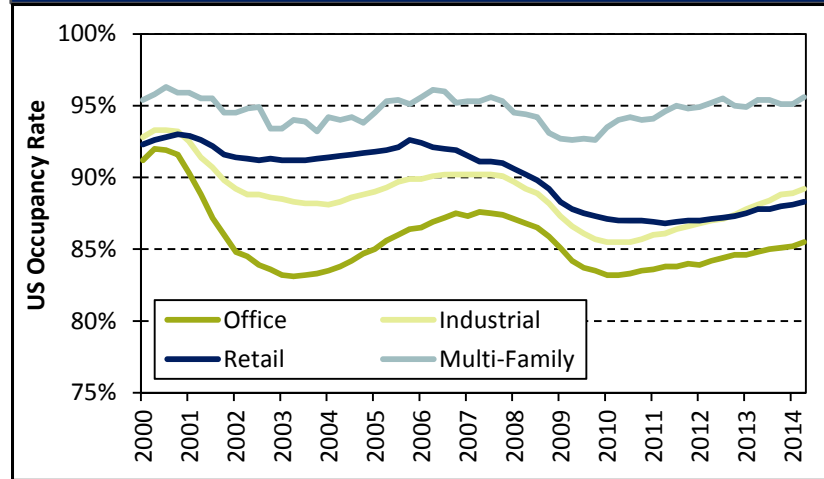
# Inflation Sensitive Growth Assets

## Yields higher relative to last year



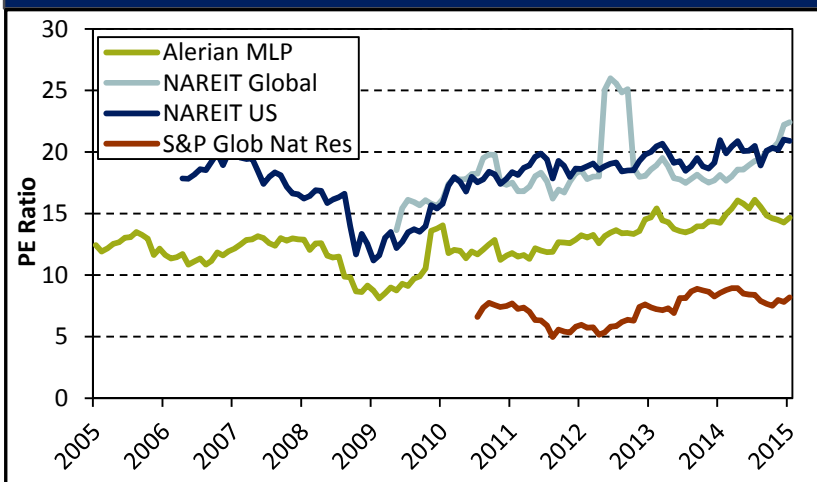
Source: Bloomberg, Alerian, Nareit, Standard and Poors

## Gradual recovery in occupancy rates



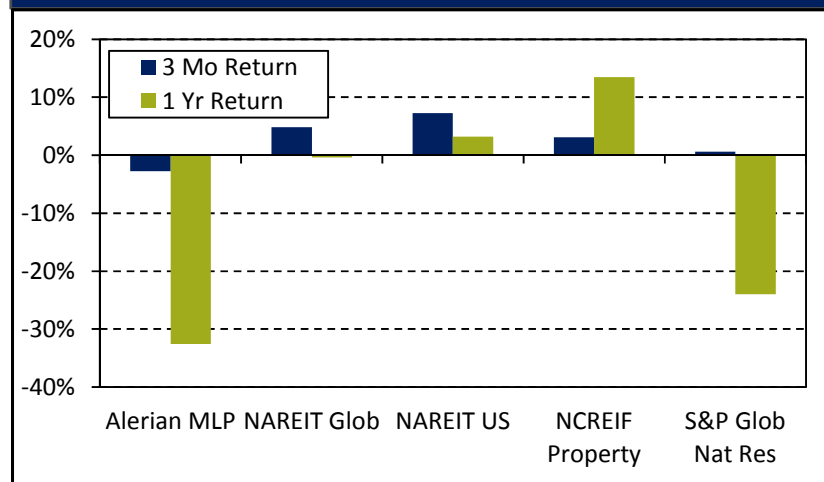
Source: Bloomberg, CB Richard Ellis

## PE Ratios near or above averages



Source: Bloomberg, US Census Bureau

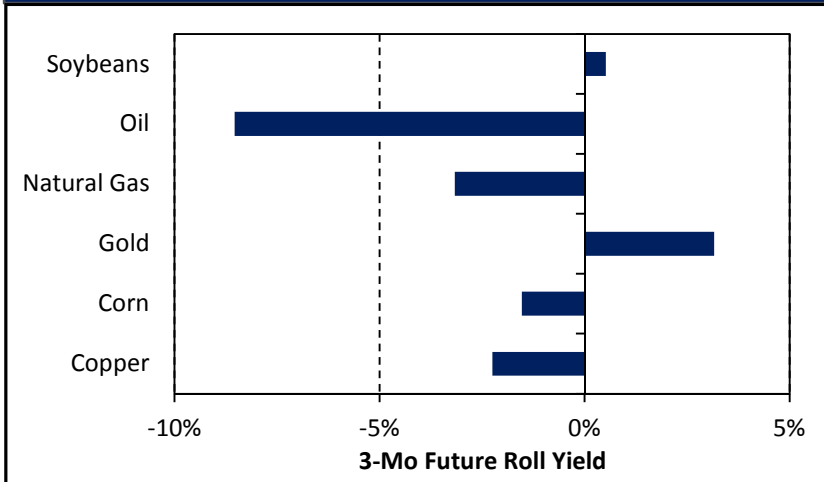
## Recent MLP selloff and energy pressure



Source: Bloomberg, Alerian, Nareit, Standard and Poors

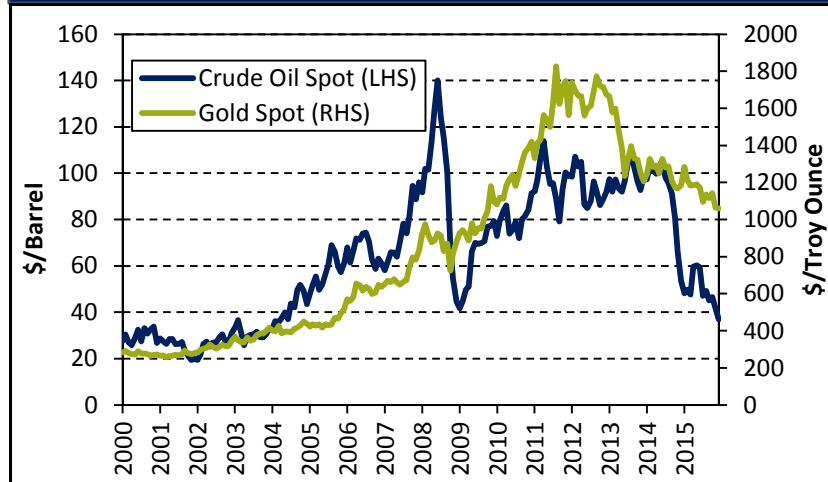
# Commodities

## Contango in major commodity futures



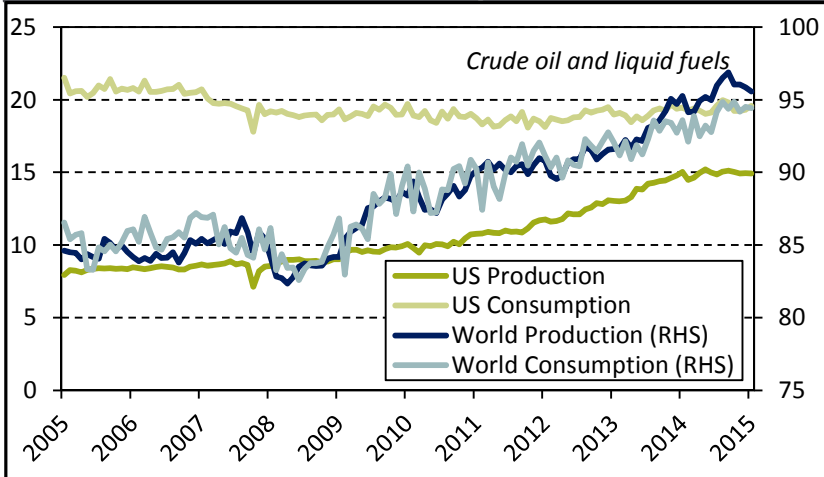
Source: Bloomberg

## Precipitous fall in oil prices



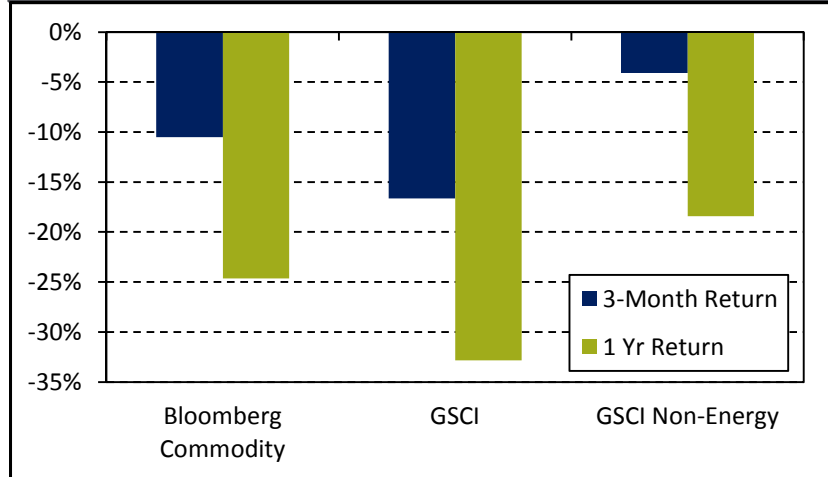
Source: Bloomberg

## US fuel production closing gap with consumption



Source: Bloomberg, US Department of Energy \*Crude oil and liquid fuels

## Commodity indices negative after oil-induced decline



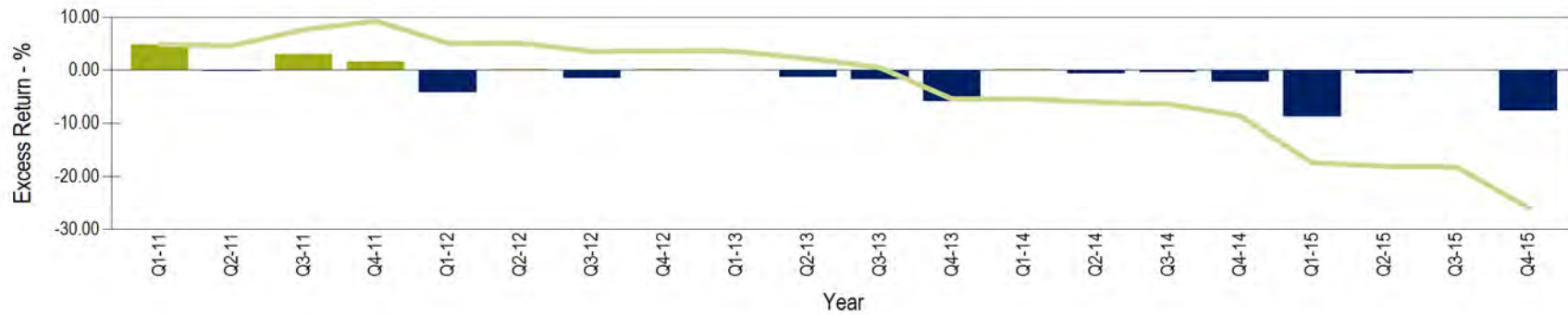
Source: Bloomberg, Standard and Poors

# 4Q 2015 Performance & Asset Allocation

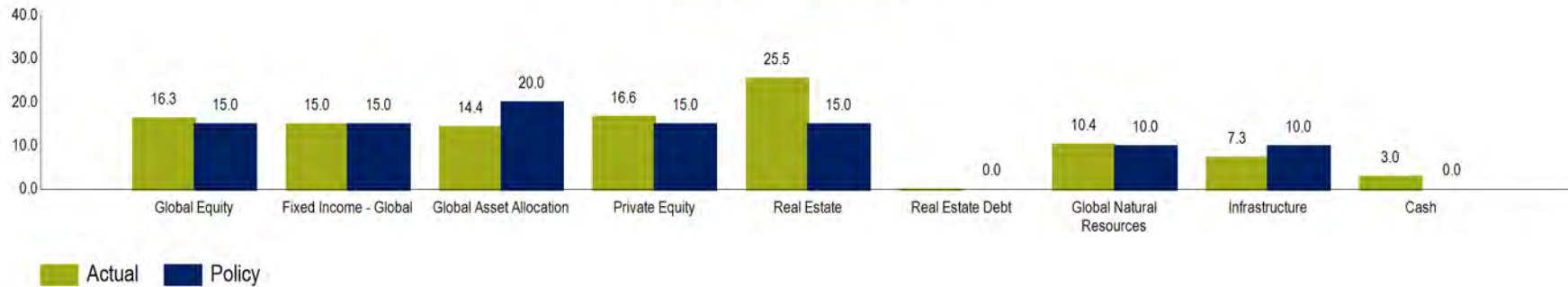
# Total Fund Performance Summary

	Market Value	3 Mo	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank
<b>DPFP</b>	<b>\$2,775,717,660</b>	<b>-4.4%</b>	<b>99</b>	<b>-12.6%</b>	<b>99</b>	<b>-0.7%</b>	<b>99</b>	<b>1.0%</b>	<b>99</b>	<b>3.9%</b>	<b>99</b>	<b>2.7%</b>	<b>99</b>
<i>Allocation Index</i>		3.3%	11	4.1%	1	9.6%	1	6.3%	53	8.4%	63	5.5%	39
<i>Policy Index</i>		2.8%	37	4.8%	1	8.4%	12	7.7%	11	9.8%	24	6.3%	7
<i>InvestorForce Public DB Net Median</i>		2.6%		-0.4%		6.8%		6.4%		8.9%		5.4%	

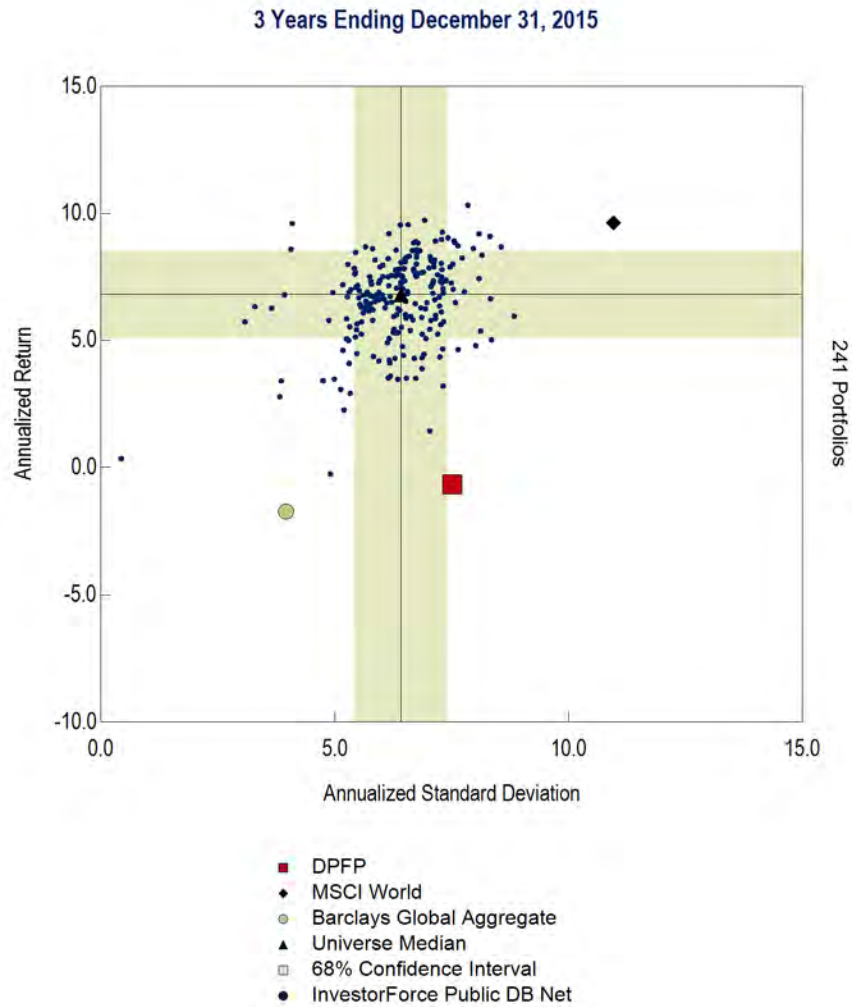
Quarterly and Cumulative Excess Performance



Actual vs Target Allocation (%)



Returns are net of fees



3 Years Ending December 31, 2015

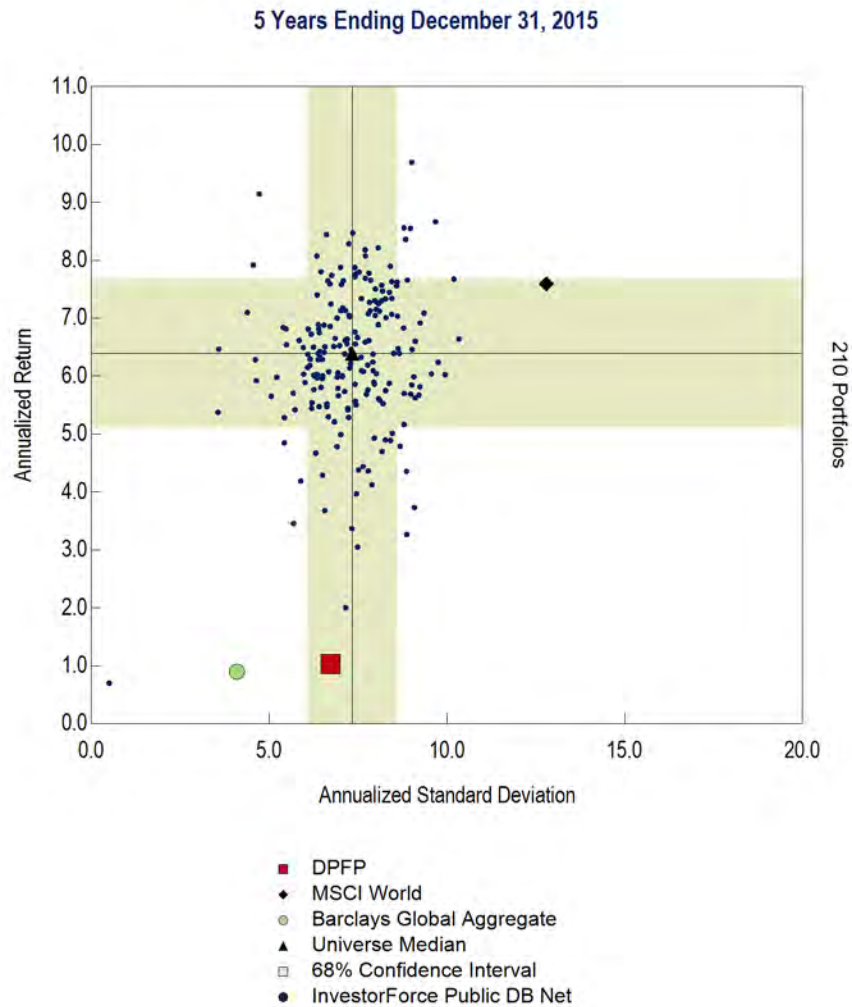
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
DPFP	-0.66%	99	7.51%	92
Allocation Index	9.62%	1	4.79%	4
Policy Index	8.40%	12	3.55%	2
MSCI World	9.63%	1	10.96%	99
Barclays Global Aggregate	-1.74%	99	3.95%	3
InvestorForce Public DB Net Median	6.80%	--	6.42%	--

3 Years Ending December 31, 2015

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
DPFP	-0.09	99	-0.09	99
Allocation Index	2.00	1	4.04	1
Policy Index	2.35	1	4.67	1
MSCI World	0.88	75	1.83	62
Barclays Global Aggregate	-0.45	99	-0.64	99
InvestorForce Public DB Net Median	1.08	--	2.03	--

Returns are net of fees





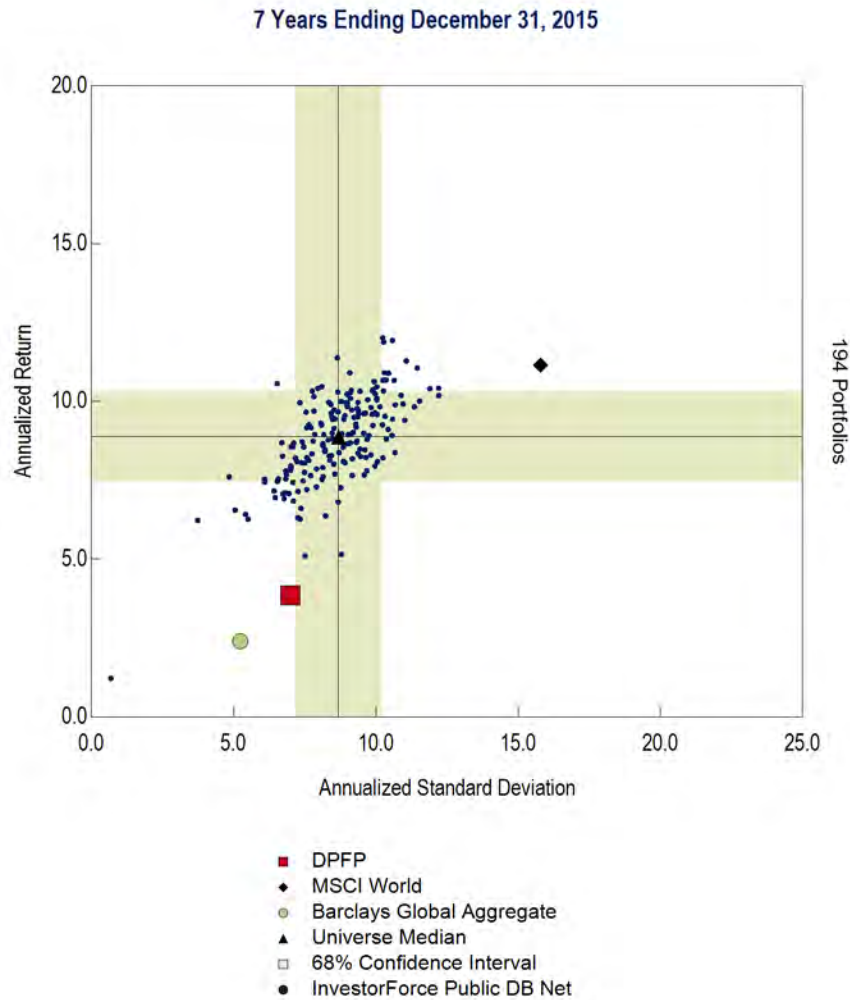
5 Years Ending December 31, 2015

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
DFPF	1.03%	99	6.74%	33
Allocation Index	6.31%	53	6.95%	38
Policy Index	7.74%	11	5.97%	10
MSCI World	7.59%	15	12.79%	99
Barclays Global Aggregate	0.90%	99	4.09%	2
InvestorForce Public DB Net Median	6.39%	--	7.34%	--

5 Years Ending December 31, 2015

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
DFPF	0.15	99	0.15	99
Allocation Index	0.90	47	1.03	80
Policy Index	1.29	4	1.54	24
MSCI World	0.59	92	0.90	88
Barclays Global Aggregate	0.21	99	0.30	99
InvestorForce Public DB Net Median	0.89	--	1.31	--

Returns are net of fees



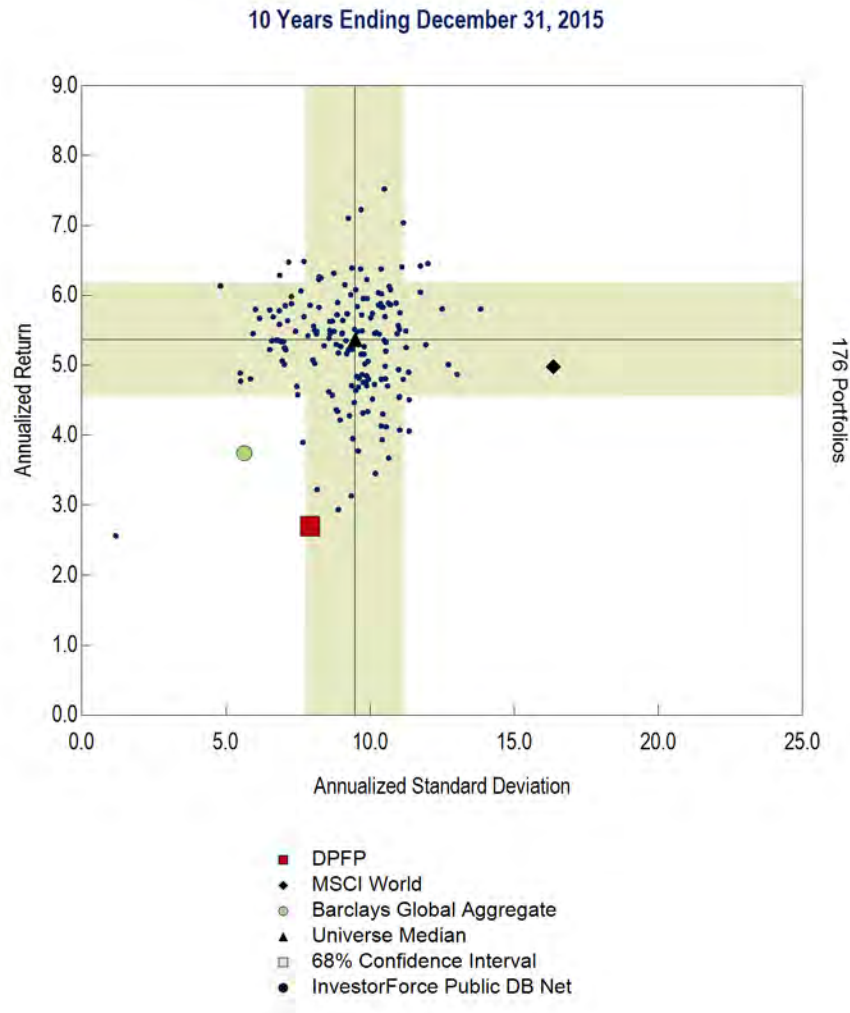
7 Years Ending December 31, 2015

	Anlzd Ret	Rank	Anlzd Std Dev	Rank
DFPF	3.85%	99	6.99%	12
Allocation Index	8.44%	63	7.94%	32
Policy Index	9.83%	24	8.22%	39
MSCI World	11.14%	3	15.79%	99
Barclays Global Aggregate	2.39%	99	5.23%	2
InvestorForce Public DB Net Median	8.88%	--	8.69%	--

7 Years Ending December 31, 2015

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
DFPF	0.54	99	0.66	99
Allocation Index	1.05	42	1.45	77
Policy Index	1.19	12	1.65	45
MSCI World	0.70	99	1.10	99
Barclays Global Aggregate	0.44	99	0.62	99
InvestorForce Public DB Net Median	1.02	--	1.61	--

Returns are net of fees



10 Years Ending December 31, 2015

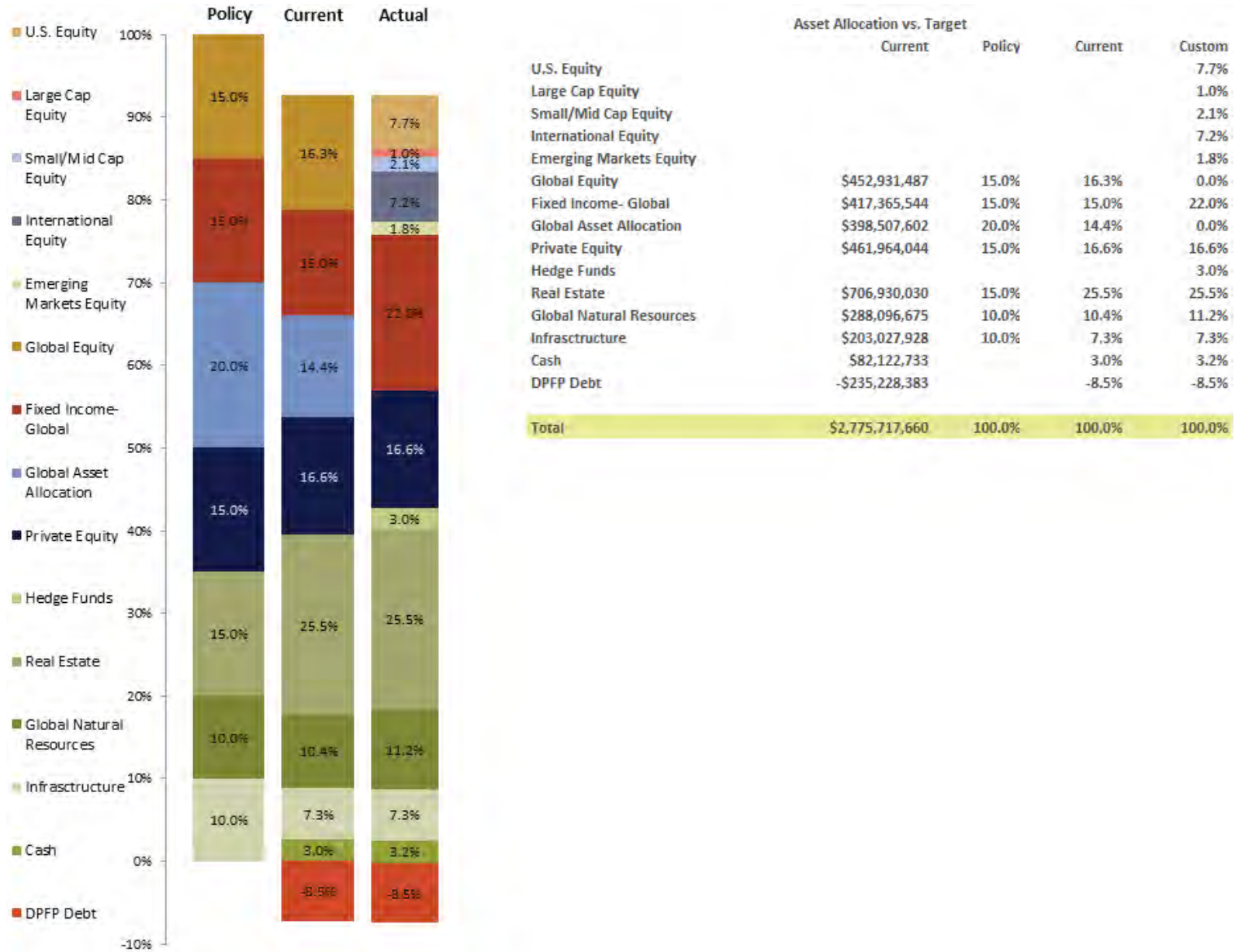
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
DPFP	2.70%	99	7.93%	22
Allocation Index	5.53%	39	8.62%	31
Policy Index	6.31%	7	9.05%	40
MSCI World	4.98%	70	16.36%	99
Barclays Aggregate	4.51%	87	3.22%	1
InvestorForce Public DB Net Median	5.37%	--	9.48%	--

10 Years Ending December 31, 2015

	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
DPFP	0.20	99	0.23	99
Allocation Index	0.51	33	0.59	43
Policy Index	0.57	22	0.63	31
MSCI World	0.24	98	0.30	97
Barclays Aggregate	1.06	1	1.85	1
InvestorForce Public DB Net Median	0.46	--	0.56	--

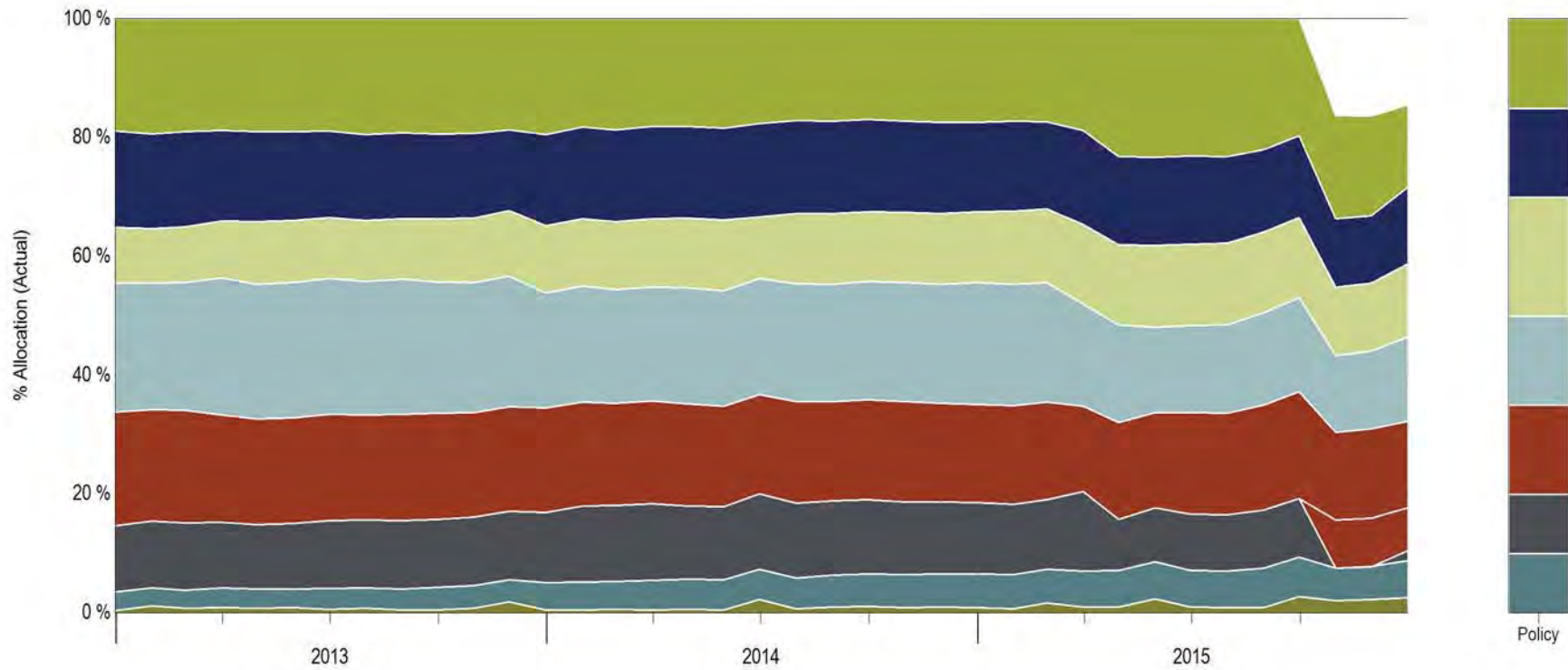
Returns are net of fees

# Total Fund Asset Allocation vs. Policy Targets



# Total Fund Asset Allocation History

Asset Allocation History



- Global Equity
- Global Asset Allocation
- Real Estate
- Global Natural Resources
- Cash
- Fixed Income - Global
- Private Equity
- Real Estate Debt
- Infrastructure

**Cash Flows**  
**3 Months Ending December 31, 2015**

Month Ending	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Oct-15	\$2,952,642,255.74	-\$76,072,011.63	\$62,419,508.23	-\$13,652,503.40	\$66,039,315.89	\$3,005,029,068.23
Nov-15	\$3,005,029,068.23	-\$75,115,815.01	\$58,985,643.01	-\$16,130,172.00	-\$9,063,806.19	\$2,979,835,090.04
Dec-15	\$2,979,835,090.04	-\$322,964,175.47	\$302,961,664.37	-\$20,002,511.10	-\$184,114,919.03	\$2,775,717,659.91

# Dallas Police & Fire Pension

## Dallas Police & Fire Pension

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>DPFP</b>	<b>2,775,717,660</b>	<b>100.0</b>	<b>-4.4</b>	<b>99</b>	<b>-12.6</b>	<b>99</b>	<b>-0.7</b>	<b>99</b>	<b>1.0</b>	<b>99</b>	<b>3.9</b>	<b>99</b>	<b>2.7</b>	<b>99</b>	<b>6.2</b>	<b>Jun-96</b>
Allocation Index			3.3	11	4.1	1	9.6	1	6.3	53	8.4	63	5.5	39	7.1	Jun-96
Policy Index			2.8	37	4.8	1	8.4	12	7.7	11	9.8	24	6.3	7	--	Jun-96
InvestorForce Public DB Net Median			2.6		-0.4		6.8		6.4		8.9		5.4		6.6	Jun-96
DPFP Debt	-235,228,383	-8.5	0.4	--	--	--	--	--	--	--	--	--	--	--	0.4	Oct-15
<b>DPFP Ex Debt</b>	<b>3,010,946,043</b>	<b>108.5</b>	<b>-4.1</b>	<b>99</b>	<b>-12.4</b>	<b>99</b>	<b>-0.6</b>	<b>99</b>	<b>1.1</b>	<b>99</b>	<b>3.9</b>	<b>99</b>	<b>2.7</b>	<b>99</b>	<b>6.3</b>	<b>Jun-96</b>
Allocation Index Ex Debt			3.4	9	4.1	1	9.6	1	6.3	53	8.4	63	5.5	39	7.1	Jun-96
<b>DPFP Financial Composite</b>	<b>1,268,804,632</b>	<b>45.7</b>	<b>1.2</b>	<b>95</b>	<b>-4.1</b>	<b>98</b>	<b>3.6</b>	<b>94</b>	<b>4.7</b>	<b>92</b>	<b>10.1</b>	<b>18</b>	<b>4.9</b>	<b>71</b>	<b>5.0</b>	<b>Oct-05</b>
InvestorForce Public DB Net Median			2.6		-0.4		6.8		6.4		8.9		5.4		5.4	Oct-05
<b>Global Equity</b>	<b>452,931,487</b>	<b>16.3</b>	<b>4.7</b>	<b>50</b>	<b>-0.7</b>	<b>52</b>	<b>8.9</b>	<b>53</b>	<b>6.9</b>	<b>61</b>	<b>11.4</b>	<b>55</b>	<b>5.1</b>	<b>66</b>	<b>4.7</b>	<b>Jul-06</b>
MSCI ACWI			5.0	43	-2.4	69	7.7	69	6.1	74	10.7	64	4.8	71	4.4	Jul-06
eA All Global Equity Net Median			4.7		-0.6		9.1		7.5		11.7		5.7		5.0	Jul-06
Eagle Asset	51,647,989	1.9	3.9	31	0.3	22	13.0	42	9.9	51	14.0	72	8.5	19	8.8	Feb-05
Russell 2000			3.6	37	-4.4	62	11.7	58	9.2	61	14.0	71	6.8	62	7.1	Feb-05
eA US Small Cap Equity Net Median			2.8		-3.2		12.1		9.9		15.3		7.2		7.6	Feb-05
Pyramis	120,877,035	4.4	5.1	43	-0.5	49	9.1	50	6.9	61	10.6	65	5.5	55	8.0	Mar-02
MSCI ACWI			5.0	43	-2.4	69	7.7	69	6.1	74	10.7	64	4.8	71	6.1	Mar-02
eA All Global Equity Net Median			4.7		-0.6		9.1		7.5		11.7		5.7		7.7	Mar-02
Walter Scott	82,982,234	3.0	5.4	36	1.1	36	7.7	69	7.6	50	--	--	--	--	8.0	Dec-09
MSCI ACWI			5.0	43	-2.4	69	7.7	69	6.1	74	10.7	64	4.8	71	7.4	Dec-09
eA All Global Equity Net Median			4.7		-0.6		9.1		7.5		11.7		5.7		9.0	Dec-09
OFI	125,671,582	4.5	6.0	22	4.1	14	10.8	31	8.7	32	13.7	27	--	--	4.2	Oct-07
MSCI World			5.5	34	-0.9	54	9.6	44	7.6	50	11.1	59	5.0	68	2.4	Oct-07
eA All Global Equity Net Median			4.7		-0.6		9.1		7.5		11.7		5.7		3.0	Oct-07
RREEF Global REIT	21,578,267	0.8	5.1	15	0.8	42	6.8	71	9.5	23	7.4	99	4.6	99	12.7	Feb-99
FTSE EPRA/NAREIT Global			4.2	46	-0.8	71	6.1	91	7.6	80	13.4	89	5.2	82	9.6	Feb-99
eA Global REIT Net Median			4.2		0.5		7.6		9.0		14.7		5.6		10.5	Feb-99
Mitchell Group	23,977,625	0.9	-4.9	99	-24.0	99	-7.3	97	-4.7	98	4.7	97	3.9	83	8.7	Oct-01
Dow Jones Equal Wtd. Oil & Gas			-6.4	99	-33.3	99	-12.3	99	-8.9	99	-1.1	99	-5.2	99	3.3	Oct-01
eA All Global Equity Net Median			4.7		-0.6		9.1		7.5		11.7		5.7		8.1	Oct-01

Returns shown on reports are time weighted.

Financial Composite inception date is 10/1/2005 and excludes all funds that are lagged.

RREEF included in Real Estate history until 12/31/2009.

Energy Opp, Mitchell Group, Allianz Global & Sustainable Asset Mgmt included in the Global Natural Resources Composite until 3/31/2015

# Dallas Police & Fire Pension

## DPFP

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
Allianz Global	618,168	0.0	4.8	50	-5.0	82	5.9	82	2.0	92	4.4	97	--	--	3.4	Nov-08
<i>FTSE ET50</i>			5.1	42	-1.5	62	12.1	14	1.4	93	4.0	97	3.5	87	4.2	Nov-08
<i>eA All Global Equity Net Median</i>			4.7		-0.6		9.1		7.5		11.7		5.7		10.9	Nov-08
Sustainable Asset Management	25,578,562	0.9	6.4	17	0.7	39	10.6	33	6.7	65	11.3	58	--	--	10.6	Nov-08
<i>MSCI World</i>			5.5	34	-0.9	54	9.6	44	7.6	50	11.1	59	5.0	68	10.3	Nov-08
<i>eA All Global Equity Net Median</i>			4.7		-0.6		9.1		7.5		11.7		5.7		10.9	Nov-08
<b>Global Fixed Composite</b>	<b>417,365,544</b>	<b>15.0</b>	<b>-3.0</b>	<b>95</b>	<b>-6.8</b>	<b>90</b>	<b>0.1</b>	<b>50</b>	<b>4.5</b>	<b>21</b>	<b>10.1</b>	<b>16</b>	<b>5.5</b>	<b>29</b>	<b>5.3</b>	<b>Jul-06</b>
<i>Global Fixed Income Allocation Index</i>			-0.4	44	-2.6	48	1.5	32	4.5	21	8.9	21	--	--	6.1	Jul-06
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		4.6	Jul-06
Ashmore AEMDF	39,547,301	1.4	0.5	58	-0.2	14	-2.7	54	2.7	48	8.2	55	6.6	39	7.6	Feb-05
<i>JP Morgan EMBI Global TR</i>			1.5	19	1.2	4	-0.1	17	5.1	7	9.1	48	6.7	31	7.1	Feb-05
<i>eA All Emg Mkts Fixed Inc Net Median</i>			0.7		-3.8		-2.5		2.5		8.8		6.1		7.0	Feb-05
Ashmore AEMLCB	15,997,026	0.6	-0.7	95	-16.2	93	-11.3	93	--	--	--	--	--	--	-4.4	Mar-11
<i>JP Morgan GBI EM Global Diversified TR USD</i>			0.0	73	-14.9	78	-10.0	81	-3.5	80	2.4	95	4.3	94	-3.6	Mar-11
<i>eA All Emg Mkts Fixed Inc Net Median</i>			0.7		-3.8		-2.5		2.5		8.8		6.1		2.6	Mar-11
Brandywine	84,943,600	3.1	-0.3	36	-7.5	92	-2.1	80	2.8	51	6.5	46	5.5	31	4.6	Oct-04
<i>Barclays Global Aggregate</i>			-0.9	63	-3.2	54	-1.7	74	0.9	79	2.4	87	3.7	80	3.5	Oct-04
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		4.7	Oct-04
Mondrian	40,182,282	1.4	-1.3	77	-2.5	45	-1.9	77	0.6	84	3.3	76	4.0	67	3.3	Oct-03
<i>Barclays Global Aggregate</i>			-0.9	63	-3.2	54	-1.7	74	0.9	79	2.4	87	3.7	80	3.7	Oct-03
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		5.1	Oct-03
Loomis Sayles	110,363,266	4.0	-6.3	99	-11.2	97	0.6	41	4.3	25	13.9	2	7.2	2	9.2	Oct-98
<i>70% ML HIGH YIELD / 30% JPM EMBI PLUS</i>			-1.0	67	-2.7	49	1.1	38	4.9	15	11.4	7	6.8	2	7.7	Oct-98
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		5.2	Oct-98
Loomis Sayles Senior Rate and Fixed Income	50,231,064	1.8	-3.4	97	-2.1	42	--	--	--	--	--	--	--	--	0.1	Jan-14
<i>S&amp;P/LSTA Leveraged Loan Index</i>			-2.1	87	-0.7	27	2.0	26	3.4	42	10.2	15	4.3	59	0.4	Jan-14
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		-0.6	Jan-14



# Dallas Police & Fire Pension

## DPFP

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
<b>W.R. Huff - Total Account</b>	<b>55,921,216</b>	<b>2.0</b>	<b>-5.0</b>	<b>99</b>	<b>-11.4</b>	<b>98</b>	<b>-3.3</b>	<b>90</b>	<b>3.2</b>	<b>45</b>	<b>11.9</b>	<b>6</b>	<b>5.4</b>	<b>32</b>	<b>6.6</b>	<b>Aug-03</b>
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		5.1	Aug-03
W.R. Huff High Yield	42,258,029	1.5	-5.3	99	-12.3	99	-4.0	99	3.5	89	10.7	65	5.3	93	6.1	Jun-96
<i>Citi High Yield Market Index</i>			-2.5	76	-5.6	82	1.0	78	4.6	58	12.1	20	6.5	46	6.7	Jun-96
<i>eA US High Yield Fixed Inc Net Median</i>			-1.6		-3.3		2.0		4.9		11.3		6.3		6.7	Jun-96
W.R. Huff Global	13,663,186	0.5	-4.3	98	-8.0	92	-0.2	55	0.9	79	19.7	1	6.4	7	13.5	Oct-02
<i>Barclays Global High Yield</i>			-0.9	62	-2.7	49	1.5	33	5.2	10	13.0	2	7.3	2	9.8	Oct-02
<i>eA All Global Fixed Inc Net Median</i>			-0.6		-2.9		0.1		2.8		5.7		4.5		5.5	Oct-02
Highland Capital Management, LP	12,431,892	0.4	3.1	--	3.1	--	11.5	--	11.1	--	-1.9	--	--	--	-43.0	Jan-07
Highland Crusader Fund	7,747,897	0.3	-3.0	--	-15.7	--	-2.6	--	11.9	--	8.3	--	-4.4	--	3.0	Jul-03
<b>Global Asset Allocation Composite</b>	<b>398,507,602</b>	<b>14.4</b>	<b>0.2</b>	<b>99</b>	<b>-4.7</b>	<b>97</b>	<b>1.1</b>	<b>95</b>	<b>3.7</b>	<b>81</b>	<b>6.5</b>	<b>92</b>	<b>--</b>	<b>--</b>	<b>2.7</b>	<b>Jul-07</b>
<i>CPI + 5% (Seasonally Adjusted)</i>			1.3	88	5.7	1	6.0	20	6.6	30	6.8	91	6.9	1	6.7	Jul-07
<i>eA Global Balanced Net Median</i>			3.4		-2.0		5.4		5.6		8.6		5.2		3.8	Jul-07
<b>Bridgewater Composite</b>	<b>127,517,621</b>	<b>4.6</b>	<b>0.3</b>	<b>99</b>	<b>-3.9</b>	<b>79</b>	<b>0.5</b>	<b>96</b>	<b>6.6</b>	<b>31</b>	<b>9.2</b>	<b>32</b>	<b>--</b>	<b>--</b>	<b>5.2</b>	<b>Sep-07</b>
<i>91 Day T-Bill + 6%</i>			1.5	85	6.0	1	6.0	18	6.0	43	6.1	92	7.2	1	6.4	Sep-07
<i>eA Global Balanced Net Median</i>			3.4		-2.0		5.4		5.6		8.6		5.2		4.0	Sep-07
Putnam	59,334,459	2.1	-1.1	99	-5.0	99	0.5	97	3.4	84	--	--	--	--	5.0	Dec-09
<i>CPI + 5% (Seasonally Adjusted)</i>			1.3	88	5.7	1	6.0	20	6.6	30	6.8	91	6.9	1	6.6	Dec-09
<i>eA Global Balanced Net Median</i>			3.4		-2.0		5.4		5.6		8.6		5.2		6.6	Dec-09
AQR	41,563,668	1.5	-3.3	99	-9.4	99	--	--	--	--	--	--	--	--	-1.4	Oct-13
<i>CPI + 5% (Seasonally Adjusted)</i>			1.3	88	5.7	1	6.0	20	6.6	30	6.8	91	6.9	1	5.8	Oct-13
<i>eA Global Balanced Net Median</i>			3.4		-2.0		5.4		5.6		8.6		5.2		3.6	Oct-13
Panagora Risk Parity	45,176,436	1.6	-0.5	99	-7.0	99	--	--	--	--	--	--	--	--	2.9	Nov-13
<i>CPI + 5% (Seasonally Adjusted)</i>			1.3	88	5.7	1	6.0	20	6.6	30	6.8	91	6.9	1	5.8	Nov-13
<i>eA Global Balanced Net Median</i>			3.4		-2.0		5.4		5.6		8.6		5.2		2.6	Nov-13
GMO	124,915,417	4.5	2.3	49	-3.0	50	3.2	56	4.8	20	6.0	81	--	--	4.0	Sep-07
<i>CPI + 5% (Seasonally Adjusted)</i>			1.3	63	5.7	1	6.0	7	6.6	3	6.8	69	6.9	1	6.7	Sep-07
<i>eA Global TAA Net Median</i>			2.3		-3.0		3.4		3.9		8.0		5.0		3.4	Sep-07

Bridgewater Composite consists of Bridgewater All Weather, \$95.9 million & Bridgewater Pure Alpha, \$31.7 million

# Dallas Police & Fire Pension

## DPFP

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
Global Infrastructure Composite	203,027,928	7.3	-1.3	--	-4.7	--	1.4	--	--	--	--	--	--	--	2.2	Jul-12
Private Markets	461,964,044	16.6	-0.5	--	-20.2	--	-3.8	--	-1.2	--	-0.8	--	0.9	--	2.4	Oct-05
Real Estate Composite	706,930,030	25.5	-17.3	--	-31.7	--	-11.5	--	-8.1	--	-7.2	--	-2.7	--	3.9	Mar-85
Global Natural Resources	288,096,675	10.4	0.5	--	11.0	--	9.1	--	7.9	--	--	--	--	--	4.2	Apr-15
Cash Equivalents	82,122,733	3.0	0.2	--	1.3	--	2.4	--	--	--	--	--	--	--	0.8	Apr-15

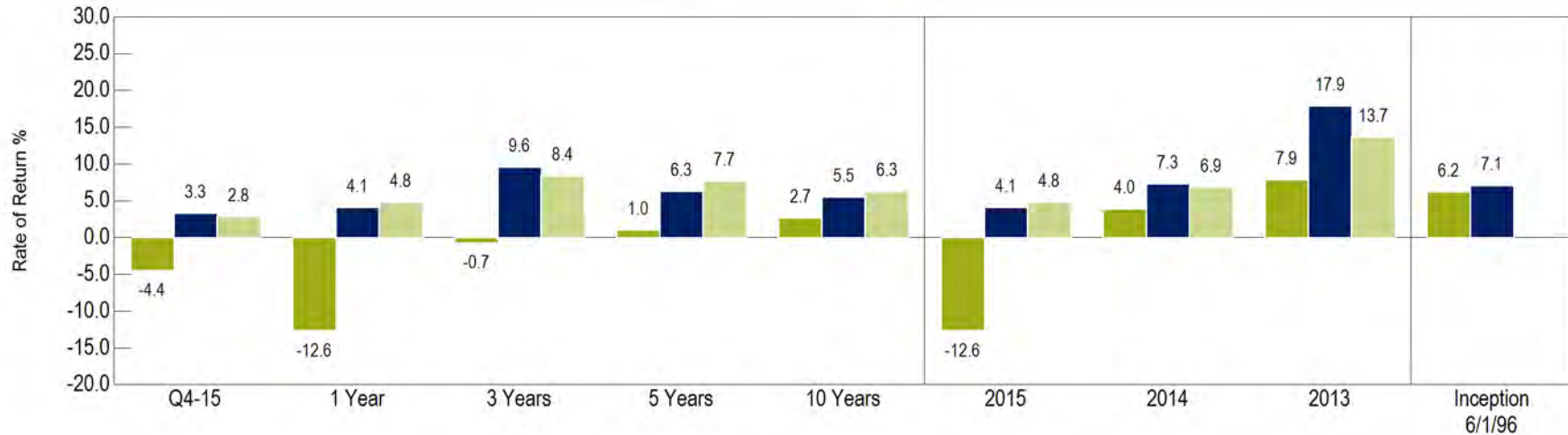
Global Infrastructure included in Private Equity history until 6/30/2012.

Private Equity, Global Infrastructure, and Real Estate Composites are reported on a quarterly lag.

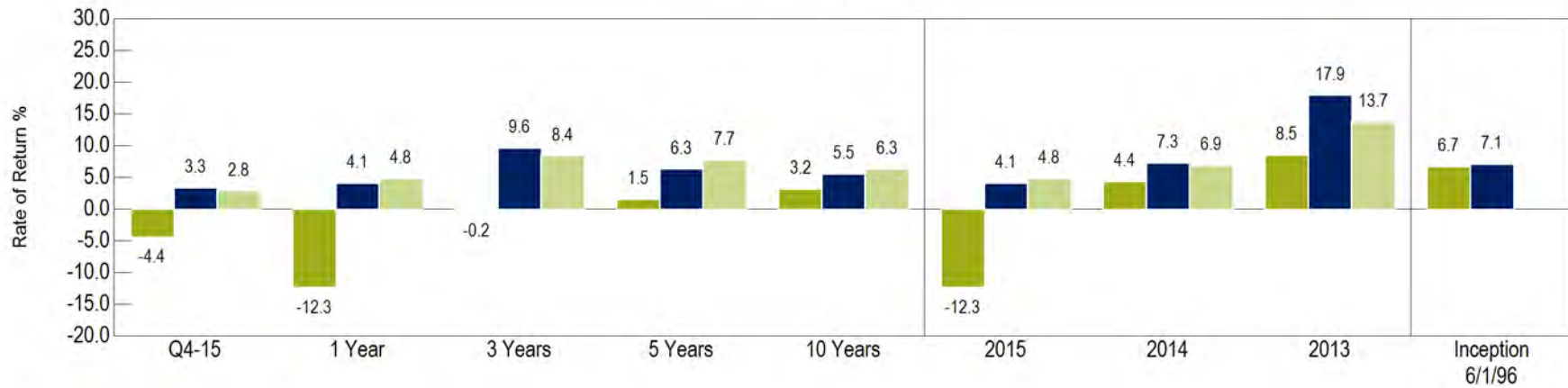
Real Estate data provided by real estate consultant & Staff.

# Total Fund Return Summary

Return Summary Net

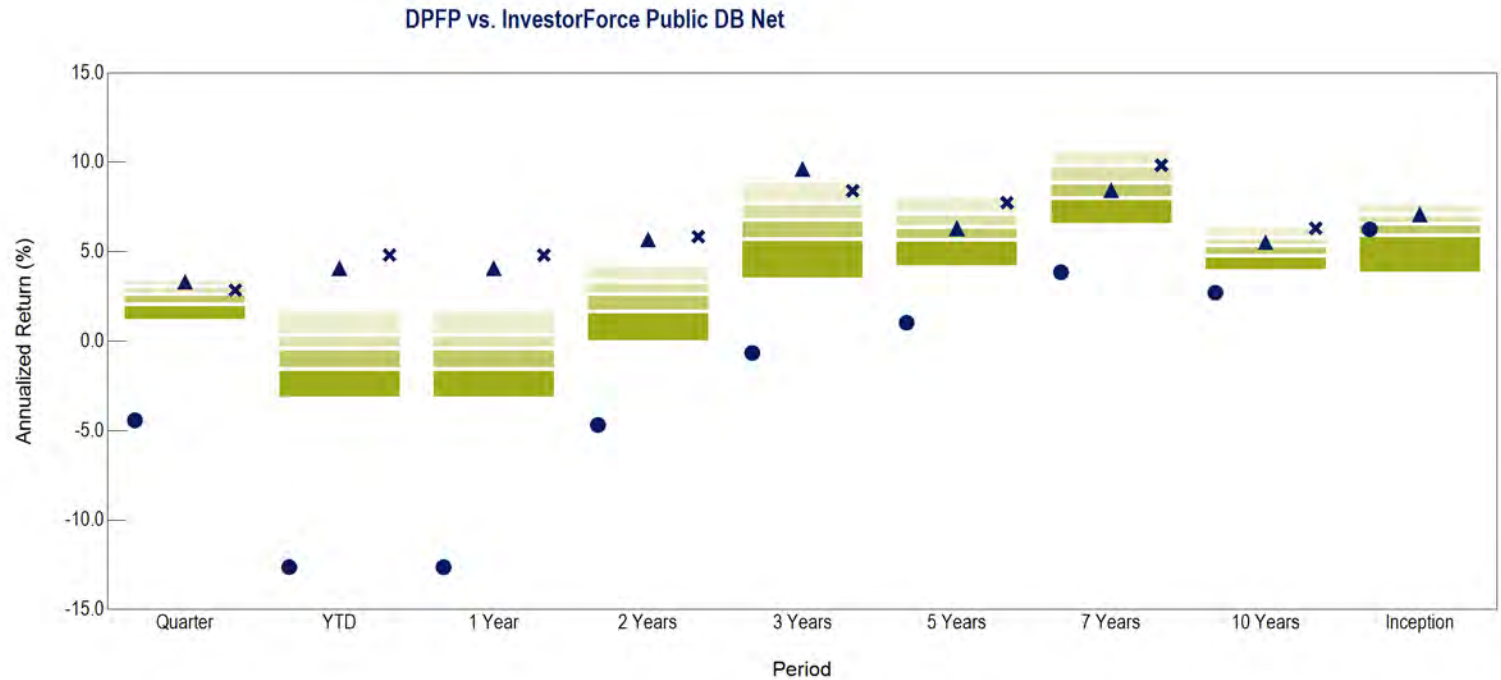


Return Summary Gross



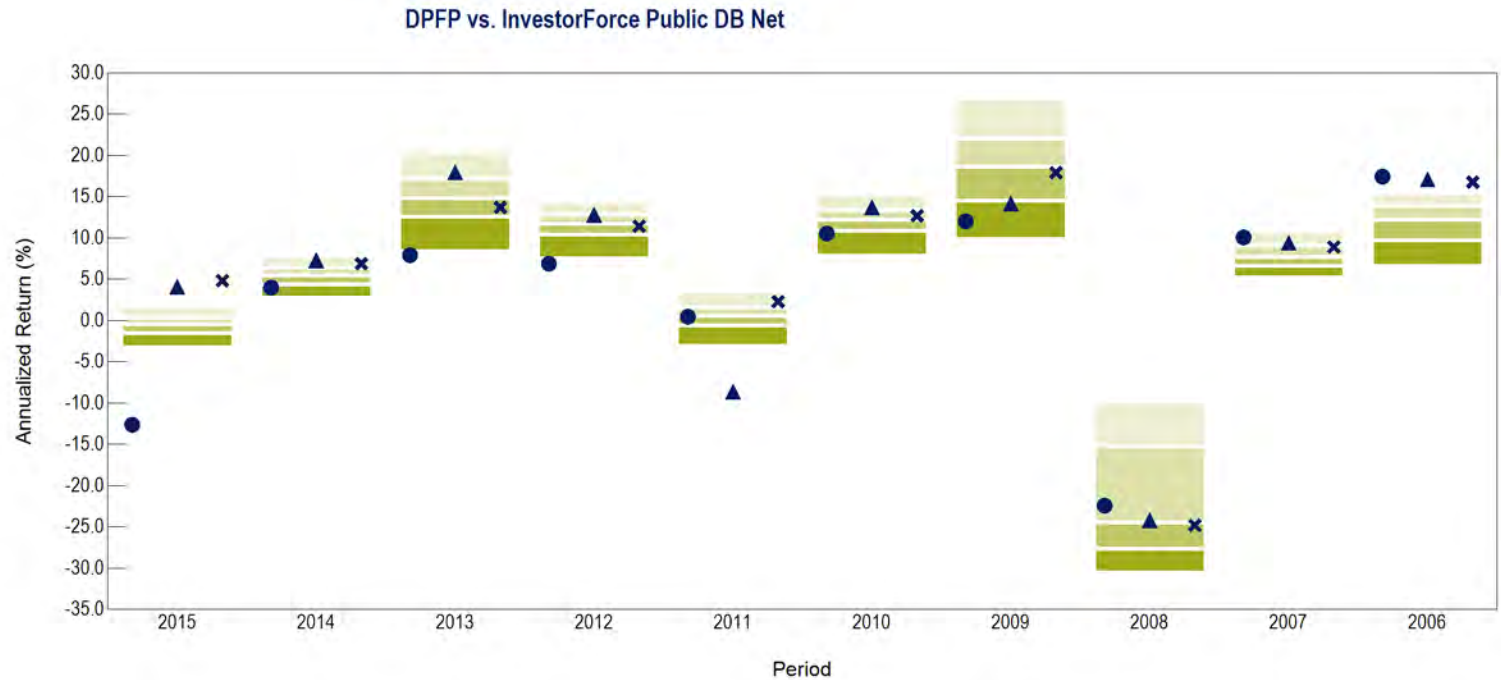
DFPF Allocation Index Policy Index

Total Fund Return Summary vs. Peer Universe



	Return (Rank)									
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years	Inception	
5th Percentile	3.5	1.7	1.7	4.3	8.9	8.1	10.7	6.4	7.7	
25th Percentile	3.1	0.4	0.4	3.3	7.7	7.1	9.8	5.8	7.1	
Median	2.6	-0.4	-0.4	2.7	6.8	6.4	8.9	5.4	6.6	
75th Percentile	2.1	-1.5	-1.5	1.7	5.7	5.7	8.0	4.8	6.0	
95th Percentile	1.2	-3.2	-3.2	0.0	3.5	4.2	6.5	3.9	3.8	
# of Portfolios	265	262	262	251	241	210	194	176	83	
● DPFP	-4.4 (99)	-12.6 (99)	-12.6 (99)	-4.7 (99)	-0.7 (99)	1.0 (99)	3.9 (99)	2.7 (99)	6.2 (66)	
▲ Allocation Index	3.3 (11)	4.1 (1)	4.1 (1)	5.7 (1)	9.6 (1)	6.3 (53)	8.4 (63)	5.5 (39)	7.1 (25)	
× Policy Index	2.8 (37)	4.8 (1)	4.8 (1)	5.8 (1)	8.4 (12)	7.7 (11)	9.8 (24)	6.3 (7)	-- (--)	

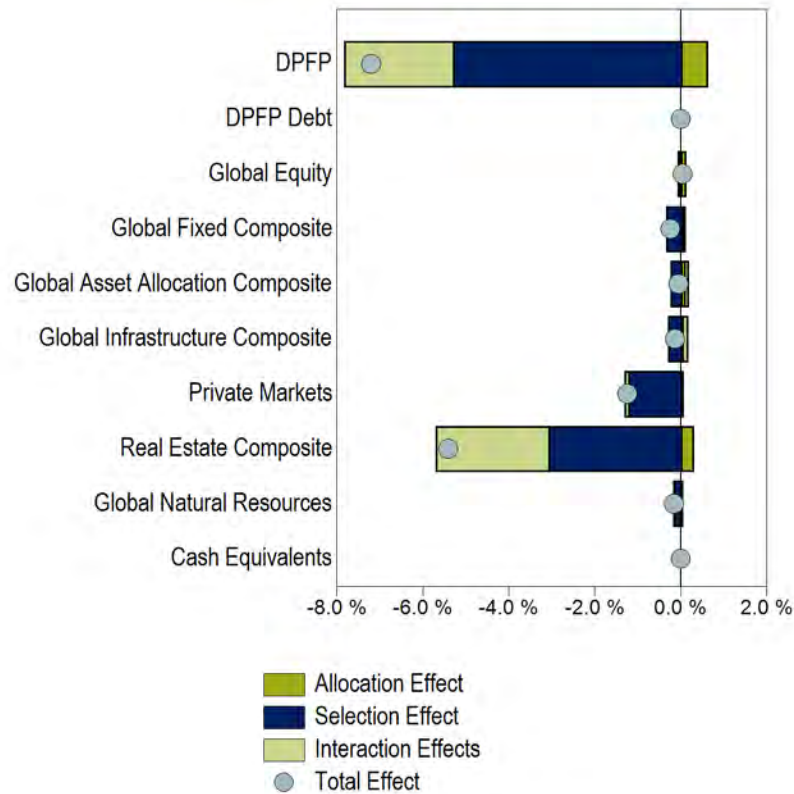
# Total Fund Return Summary vs. Peer Universe



	Return (Rank)										
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	
5th Percentile	1.7	7.7	20.4	14.3	3.6	15.3	26.8	-9.8	10.7	15.4	
25th Percentile	0.4	6.4	17.2	12.9	1.6	13.4	22.0	-15.2	9.1	14.0	
Median	-0.4	5.5	14.9	11.8	0.6	12.2	18.6	-24.4	7.8	12.3	
75th Percentile	-1.5	4.4	12.7	10.4	-0.5	10.9	14.5	-27.6	6.7	9.8	
95th Percentile	-3.2	2.7	8.4	7.6	-3.1	7.9	9.9	-30.5	5.2	6.6	
# of Portfolios	262	210	191	159	137	131	128	125	122	115	
● DPFP	-12.6 (99)	4.0 (82)	7.9 (97)	6.9 (97)	0.5 (57)	10.5 (78)	12.0 (88)	-22.4 (41)	10.1 (12)	17.4 (1)	
▲ Allocation Index	4.1 (1)	7.3 (9)	17.9 (19)	12.8 (29)	-8.6 (99)	13.7 (21)	14.2 (78)	-24.2 (49)	9.4 (20)	17.1 (1)	
× Policy Index	4.8 (1)	6.9 (18)	13.7 (66)	11.4 (58)	2.3 (13)	12.7 (39)	17.9 (58)	-24.8 (51)	8.9 (30)	16.8 (1)	

Total Fund Attribution Analysis

Attribution Effects Relative to Allocation Index  
3 Months Ending December 31, 2015



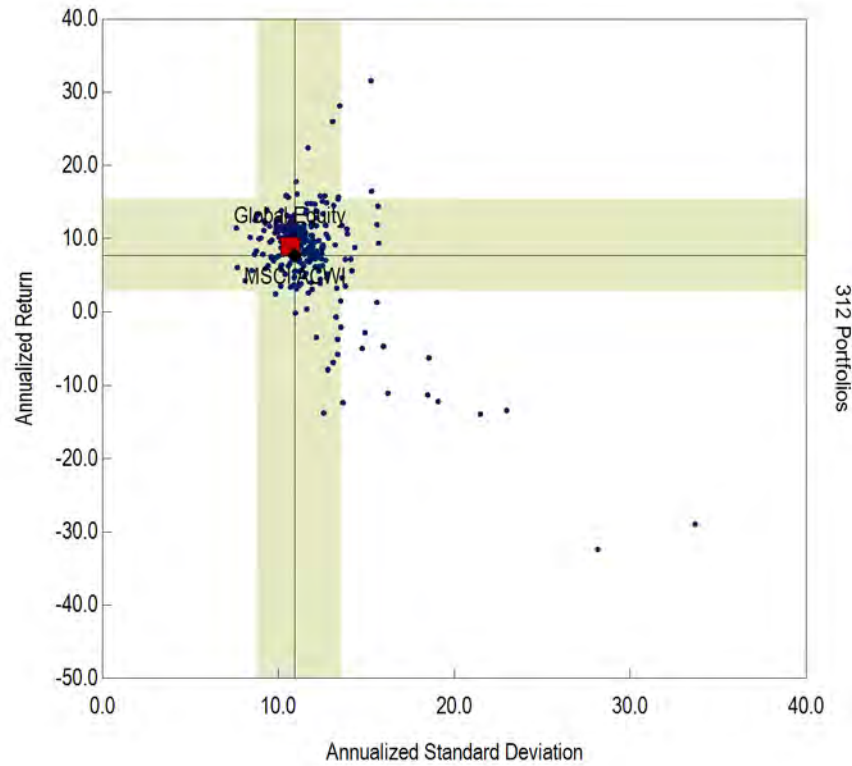
Attribution Summary  
3 Months Ending December 31, 2015

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
DPFP Debt	0.4%	0.4%	0.0%	--	--	--	--
Global Equity	4.7%	5.0%	-0.3%	0.0%	0.1%	0.0%	0.1%
Global Fixed Composite	-3.0%	-0.9%	-2.1%	-0.3%	0.0%	0.0%	-0.3%
Global Asset Allocation Composite	0.2%	1.3%	-1.1%	-0.2%	0.1%	0.1%	-0.1%
Global Infrastructure Composite	-1.3%	1.3%	-2.7%	-0.3%	0.0%	0.1%	-0.1%
Private Markets	-0.5%	7.6%	-8.1%	-1.2%	0.0%	-0.1%	-1.2%
Real Estate Composite	-17.3%	2.9%	-20.2%	-3.1%	0.0%	-2.7%	-5.8%
Global Natural Resources	0.5%	2.1%	-1.6%	-0.2%	0.0%	0.0%	-0.2%
Cash Equivalents	0.2%	0.0%	0.1%	--	--	--	--
<b>Total</b>	<b>-4.5%</b>	<b>2.8%</b>	<b>-7.3%</b>	<b>-5.3%</b>	<b>0.4%</b>	<b>-2.6%</b>	<b>-7.5%</b>

Returns are net of fees

# Portfolio Review

3 Year Risk Return



3 Year Style Analysis



Returns are net of fees



Global Equity

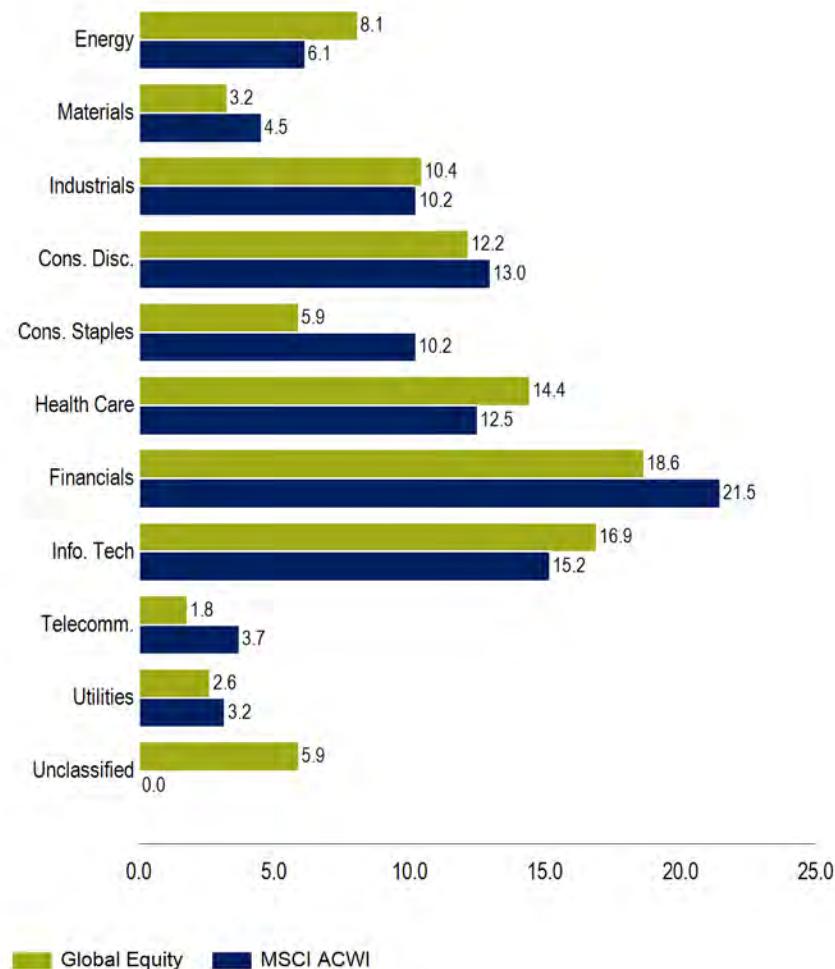
Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	853	2,491
Weighted Avg. Market Cap. (\$B)	61.4	88.1
Median Market Cap. (\$B)	10.0	8.0
Price To Earnings	23.6	20.9
Price To Book	4.5	3.3
Price To Sales	3.7	2.7
Return on Equity (%)	16.9	16.3
Yield (%)	2.0	2.5
Beta	1.0	1.0
R-Squared	1.0	1.0

Regional Allocation

	MSCI ACWI
Region Weighting	
North America ex U.S.	2.76
United States	53.15
Europe Ex U.K.	15.72
United Kingdom	6.50
Pacific Basin Ex Japan	4.97
Japan	7.99
Emerging Markets	8.53
Other	0.38

Equity Sector Allocation



Returns are net of fees

Global Equity

Top Ten Holdings

CASH - USD	3.5%
JP MORGAN PRIME MMF AGENCY SHARES - MONTHLY VARIABLE 12312049	2.2%
ALPHABET 'C'	1.2%
ADOBE SYSTEMS	1.2%
INDITEX	1.0%
COLGATE-PALM.	1.0%
ALPHABET 'A'	0.9%
KEYENCE	0.9%
LVMH	0.9%
GILEAD SCIENCES	0.8%

Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.4%	-0.2%	-0.1%	0.0%	-2.8%	-0.5%	9.4%	6.7%			
Materials	0.1%	0.1%	0.0%	0.0%	5.9%	3.5%	3.4%	4.7%			
Industrials	-0.1%	-0.1%	0.0%	0.0%	5.1%	6.2%	11.5%	10.4%			
Cons. Disc.	-0.2%	-0.2%	0.0%	0.0%	3.5%	5.2%	12.2%	12.9%			
Cons. Staples	-0.1%	-0.1%	0.0%	0.0%	4.8%	5.7%	6.5%	10.4%			
Health Care	0.0%	-0.1%	0.0%	0.0%	6.8%	7.0%	13.5%	12.4%			
Financials	0.0%	-0.1%	0.0%	0.0%	3.8%	3.9%	19.6%	21.8%			
Info. Tech	0.1%	0.1%	0.0%	0.0%	8.5%	8.2%	14.2%	13.7%			
Telecomm.	0.1%	0.1%	0.0%	0.0%	6.0%	4.1%	1.8%	3.8%			
Utilities	0.1%	0.0%	0.0%	0.0%	2.1%	1.3%	2.7%	3.3%			
Cash	-0.3%	0.0%	-0.3%	0.0%	0.0%	--	5.3%	0.0%			
<b>Portfolio</b>	<b>-0.8%</b>	<b>=</b>	<b>-0.4%</b>	<b>+</b>	<b>-0.4%</b>	<b>+</b>	<b>0.0%</b>	<b>4.3%</b>	<b>5.1%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
KEYENCE	0.2%	25.5%
ADOBE SYSTEMS	0.1%	14.3%
SAP	0.1%	24.3%
BMW PREF.	0.1%	22.2%
MCGRAW HILL FINANCIAL	0.1%	14.4%
SYNGENTA	0.1%	22.7%
EMERGENT BIOSOLUTIONS	0.1%	40.4%
CSL	0.1%	22.3%
FANUC	0.1%	14.6%
APPLE	0.1%	-4.2%

**Top Negative Contributors**

	Relative Contribution %	Return %
MICROSOFT	-0.2%	26.2%
AMAZON.COM	-0.1%	32.0%
GENERAL ELECTRIC	-0.1%	24.4%
CLOVIS ONCOLOGY	-0.1%	-61.9%
HOME DEPOT	-0.1%	15.0%
COMMONWEALTH BK.OF AUS.	-0.1%	21.9%
INTEL	0.0%	15.1%
LVMH	0.0%	-6.6%
PROCTER & GAMBLE	0.0%	11.4%
PEBBLEBROOK HOTEL TRUST	0.0%	-20.1%

Global Equity

Country Allocation

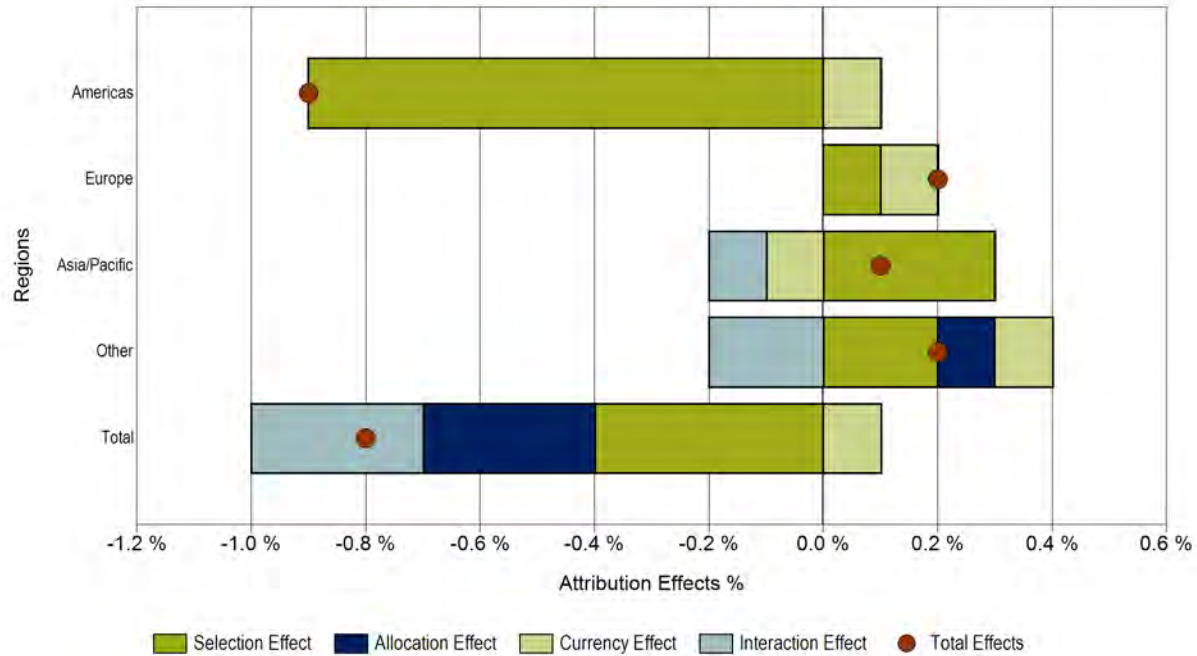
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Argentina**	0.0%	0.0%	--	--
Brazil*	0.2%	0.6%	12.6%	-3.1%
Canada	1.4%	3.0%	-4.0%	-4.8%
Chile*	0.0%	0.1%	--	-0.9%
Colombia*	0.0%	0.1%	--	-7.2%
Mexico*	0.1%	0.5%	4.1%	-1.1%
Peru*	0.0%	0.0%	--	-8.1%
United States	57.6%	52.5%	4.5%	6.7%
<b>Total-Americas</b>	<b>59.4%</b>	<b>56.8%</b>	<b>4.3%</b>	<b>5.9%</b>
<b>Europe</b>				
Austria	0.1%	0.1%	9.0%	6.9%
Belgium	0.2%	0.5%	13.1%	13.6%
Czech Republic*	0.0%	0.0%	--	-11.2%
Denmark	0.7%	0.6%	7.7%	6.7%
Finland	0.1%	0.3%	4.0%	9.7%
France	4.5%	3.5%	1.8%	1.8%
Germany	3.2%	3.1%	5.8%	7.6%
Greece*	0.0%	0.0%	--	-12.8%
Hungary*	0.0%	0.0%	--	11.4%
Ireland	0.1%	0.1%	2.7%	7.3%
Italy	0.7%	0.9%	-4.2%	-2.2%
Luxembourg	0.0%	0.0%	-0.1%	5.1%
Netherlands	0.7%	1.0%	-1.5%	3.6%
Norway	0.1%	0.2%	3.3%	-1.5%
Poland*	0.0%	0.2%	--	-12.9%
Portugal	0.0%	0.1%	-1.2%	4.5%
Russia*	0.0%	0.4%	--	-4.4%
Spain	1.5%	1.2%	1.6%	-2.6%
Sweden	1.6%	1.0%	5.1%	2.5%
Switzerland	3.4%	3.4%	4.5%	2.0%
United Kingdom	5.3%	7.0%	0.9%	0.7%
<b>Total-Europe</b>	<b>22.2%</b>	<b>23.5%</b>	<b>2.8%</b>	<b>2.3%</b>

Country Allocation

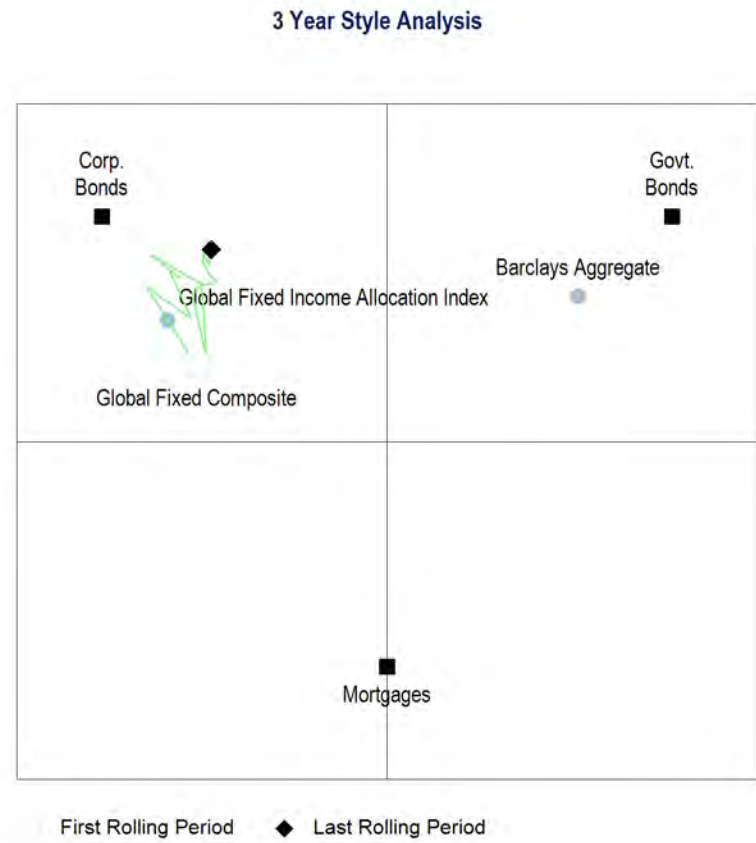
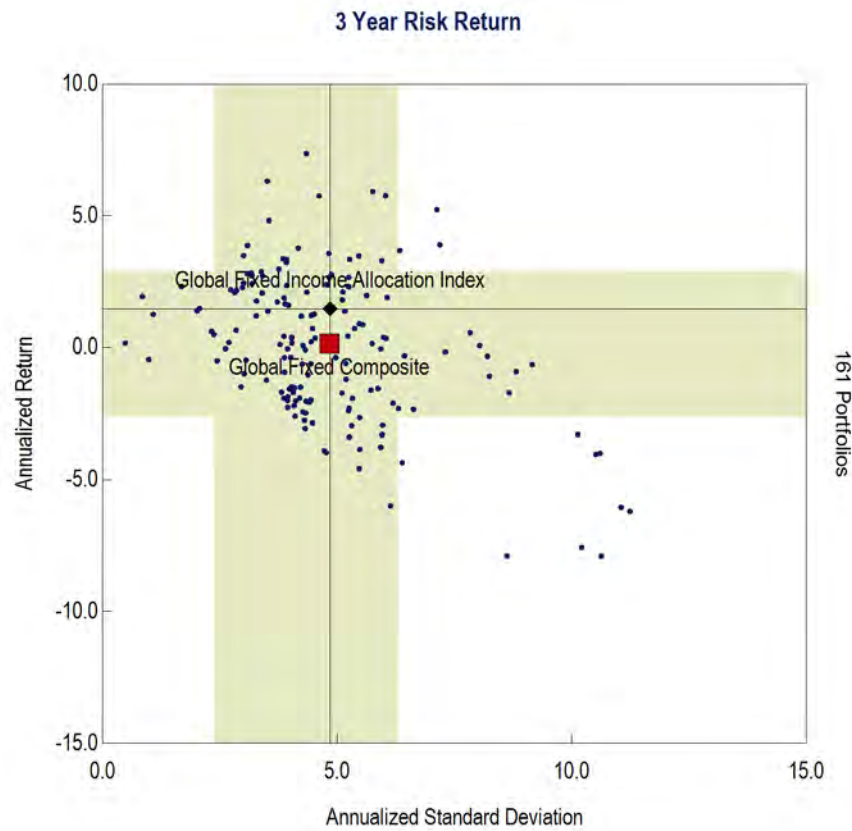
Versus MSCI ACWI - Quarter Ending December 31, 2015

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	1.3%	2.2%	13.0%	10.3%
China*	0.4%	2.2%	15.4%	4.7%
Hong Kong	2.3%	1.1%	0.8%	5.8%
India*	0.3%	0.9%	-6.6%	-0.7%
Japan	7.8%	7.7%	10.5%	9.4%
Korea*	0.1%	1.5%	1.6%	4.2%
Philippines*	0.1%	0.1%	7.8%	-0.2%
Singapore	0.7%	0.4%	2.6%	4.3%
Taiwan*	0.0%	1.2%	-8.0%	1.4%
Thailand*	0.0%	0.2%	0.9%	-6.2%
<b>Total-AsiaPacific</b>	<b>13.0%</b>	<b>18.3%</b>	<b>8.2%</b>	<b>7.0%</b>
<b>Other</b>				
Israel	0.2%	0.2%	14.8%	9.9%
<b>Total-Other</b>	<b>0.2%</b>	<b>1.3%</b>	<b>14.8%</b>	<b>-6.0%</b>
<b>Totals</b>				
Developed	93.5%	90.3%	4.5%	5.6%
Emerging*	1.2%	9.7%	6.8%	0.6%
Cash	5.3%		0.0%	

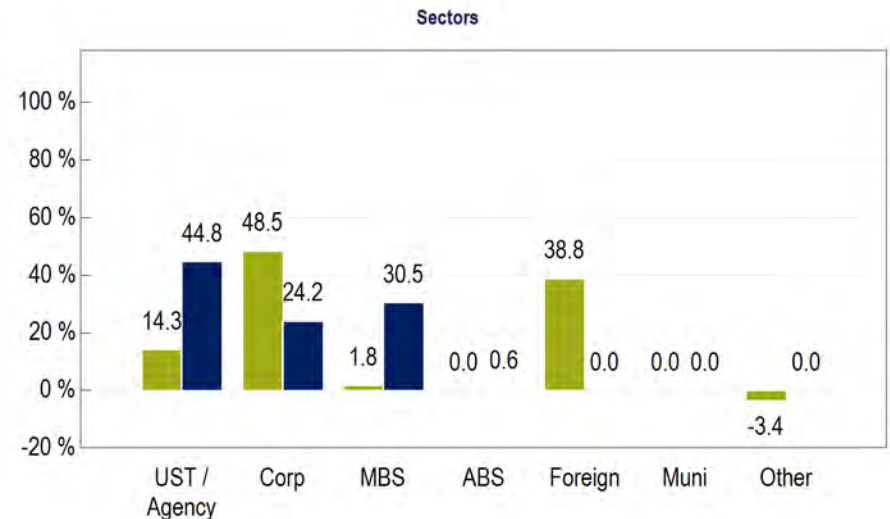
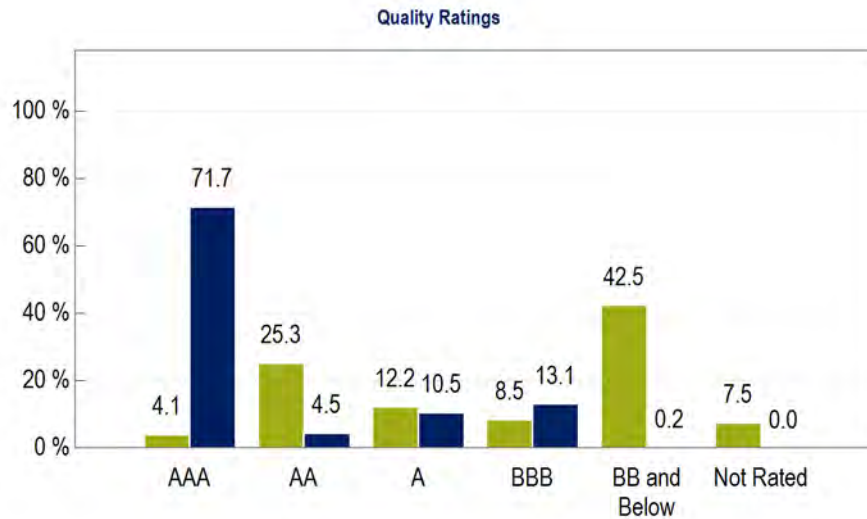
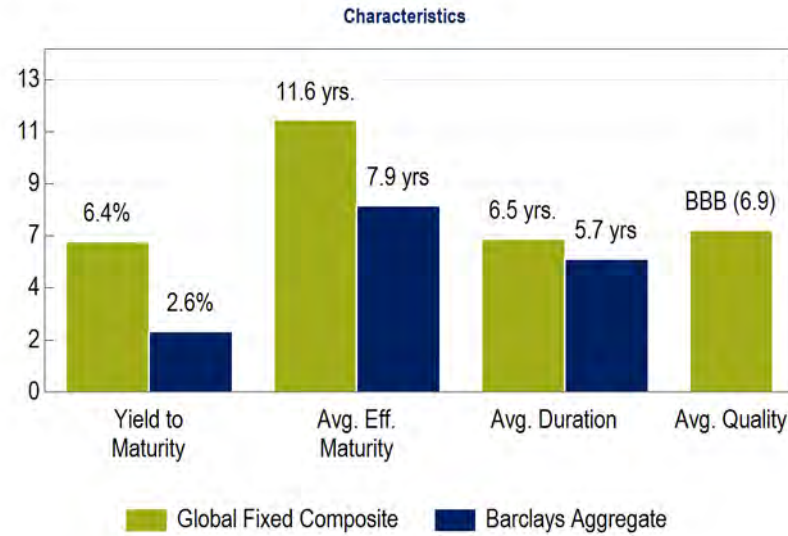
Global Equity Performance Attribution vs. MSCI ACWI



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	4.3%	5.9%	59.4%	56.8%	-0.9%	0.0%	0.1%	0.0%	-0.9%
Europe	2.8%	2.3%	22.2%	23.5%	0.1%	0.0%	0.1%	0.0%	0.2%
Asia/Pacific	8.2%	7.0%	13.0%	18.3%	0.3%	0.0%	-0.1%	-0.1%	0.1%
Other	14.8%	-6.0%	0.2%	1.3%	0.2%	0.1%	0.1%	-0.2%	0.2%
Cash	0.0%	--	5.3%	0.0%	0.0%	-0.3%	0.0%	0.0%	-0.3%
<b>Total</b>	<b>4.3%</b>	<b>5.1%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-0.4%</b>	<b>-0.3%</b>	<b>0.1%</b>	<b>-0.3%</b>	<b>-0.8%</b>
<b>Totals</b>									
Developed	4.5%	5.6%	93.5%	90.3%	-1.0%	0.0%	0.1%	0.0%	-1.0%
Emerging*	6.8%	0.6%	1.2%	9.7%	0.5%	0.4%	0.1%	-0.4%	0.5%
Cash	0.0%	--	5.3%	0.0%	0.0%	-0.3%	0.0%	0.0%	-0.3%



Returns are net of fees



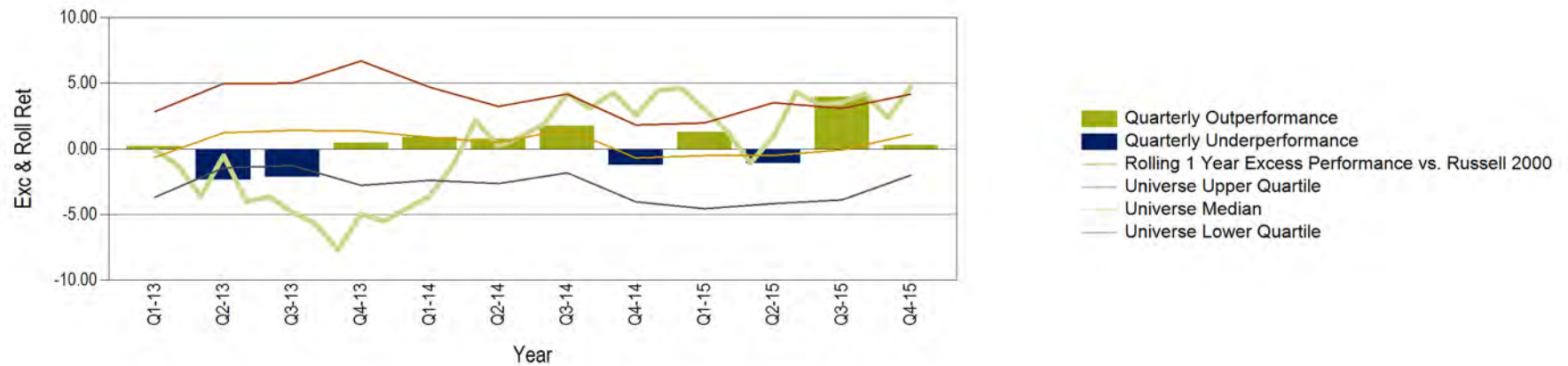
- **Manager Role in Portfolio**
  - Eagle manages the domestic small cap portfolio
  
- **Organizational Profile**
  - Eagle Asset Management was founded in 1976 and is a wholly owned subsidiary of Raymond James Financial, Inc. Eagle became a Registered Investment Advisor in 1984.
  - Retail products form the core of their business
  
- **Investment Strategy Commentary**
  - Fundamental, bottom-up approach
  - Seeks companies with sustainable competitive advantages
  - Favors companies that have strong management, conservative accounting, low-cost relative production costs, and high barriers to entry
  
- **Due Diligence Notes**
  - Stacey Pittman, Assistant Portfolio Manager on the Small Cap Core Institutional product, has left the firm due to a reduction in workforce on the team.



eA US Small Cap Equity Net Accounts

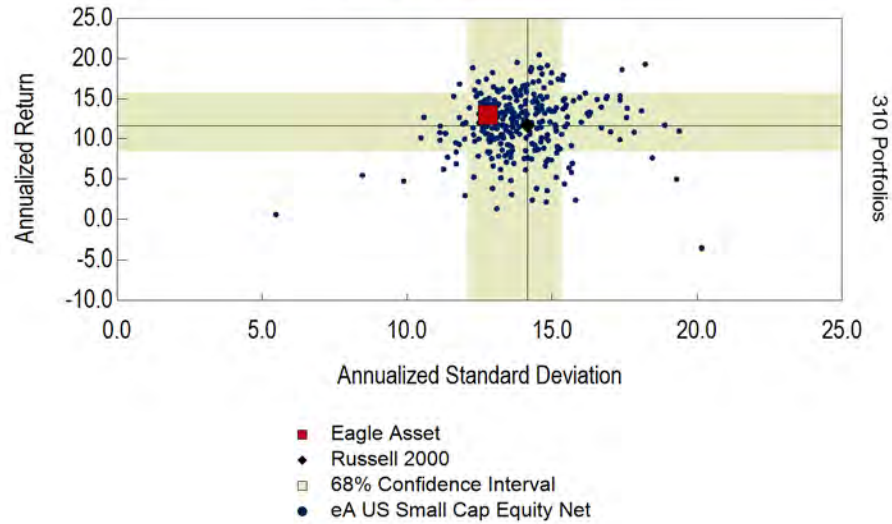


Annualized Excess Performance

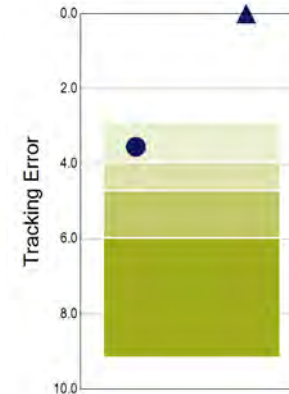
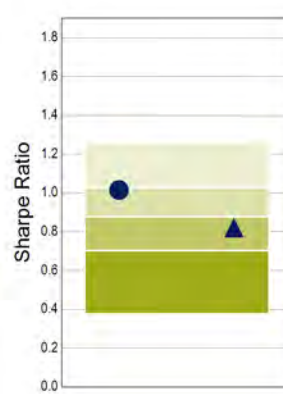
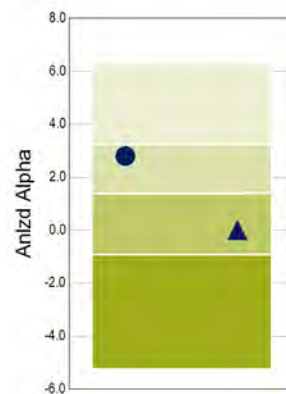
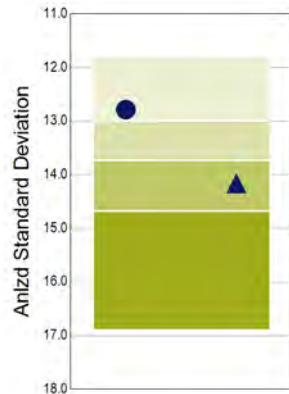
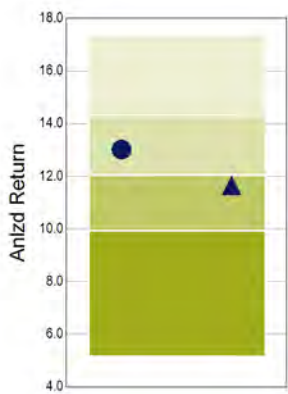
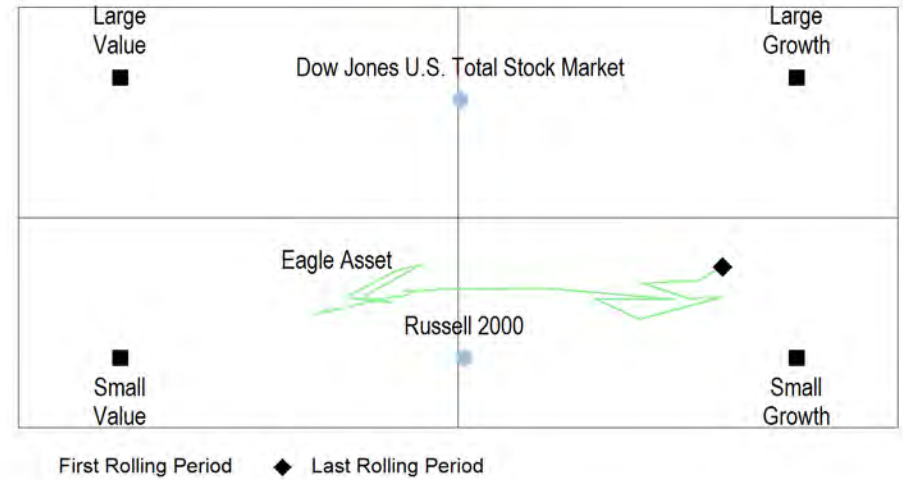


Returns are net of fees

3 Year Risk Return



3 Year Style Map



- Eagle Asset
- ▲ Russell 2000
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Returns are net of fees

## Characteristics

	Portfolio	Russell 2000
Number of Holdings	115	1,988
Weighted Avg. Market Cap. (\$B)	2.7	1.9
Median Market Cap. (\$B)	1.9	0.7
Price To Earnings	24.4	23.1
Price To Book	3.7	2.9
Price To Sales	2.7	3.0
Return on Equity (%)	14.2	10.8
Yield (%)	1.6	1.3
Beta		1.0
R-Squared		1.0

## Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.5%	0.5%	0.1%	-0.1%	9.5%	-8.1%	2.3%	3.0%			
Materials	-0.1%	-0.1%	0.0%	0.0%	1.2%	3.4%	4.2%	3.5%			
Industrials	-1.2%	-1.0%	0.0%	-0.2%	-5.2%	2.9%	14.2%	12.3%			
Cons. Disc.	0.5%	0.5%	0.0%	0.0%	0.0%	-3.4%	14.1%	14.5%			
Cons. Staples	0.1%	0.1%	0.0%	0.0%	7.2%	3.4%	3.5%	3.4%			
Health Care	0.5%	0.5%	0.0%	0.0%	13.0%	9.5%	14.6%	15.4%			
Financials	-0.2%	-0.3%	0.0%	0.0%	2.0%	3.1%	23.0%	26.1%			
Info. Tech	-0.3%	-0.3%	0.1%	0.0%	5.1%	7.0%	19.8%	17.4%			
Telecomm.	0.0%	--	0.0%	--	--	6.6%	0.0%	0.8%			
Utilities	-0.1%	-0.2%	-0.1%	0.1%	1.7%	6.0%	1.0%	3.6%			
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%	--	3.3%	0.0%			
<b>Portfolio</b>	<b>-0.4%</b>	<b>=</b>	<b>-0.1%</b>	<b>+</b>	<b>-0.1%</b>	<b>+</b>	<b>-0.3%</b>	<b>3.2%</b>	<b>3.6%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

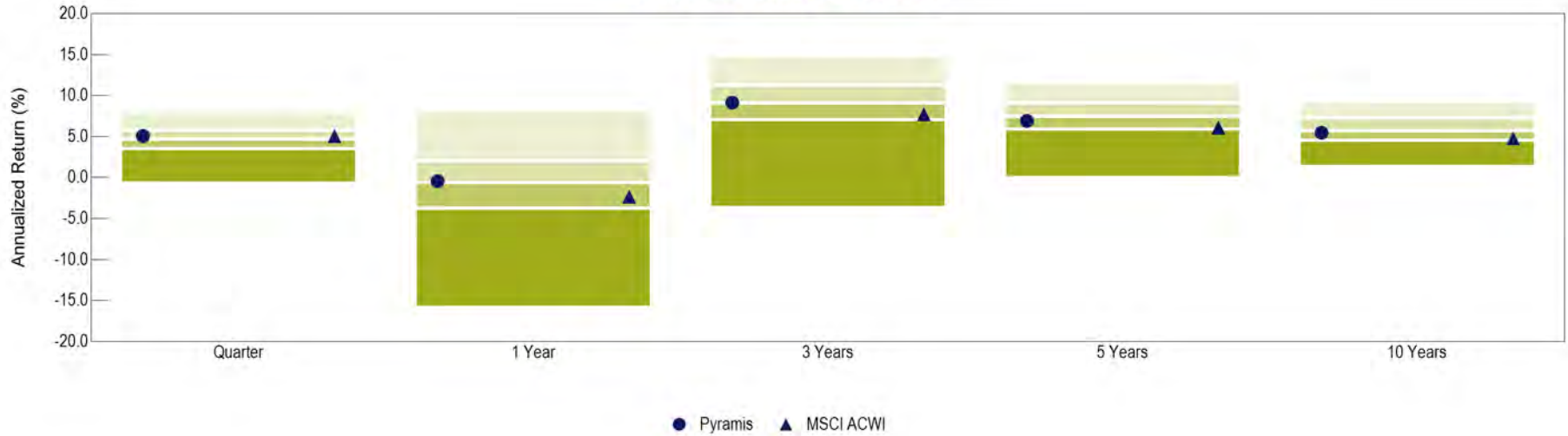
	Relative Contribution %	Return %
EMERGENT BIOSOLUTIONS	0.5%	40.4%
INC RESEARCH HOLDINGS CL.A	0.2%	21.3%
SURGICAL CARE AFFILIATES	0.2%	21.8%
VAIL RESORTS	0.2%	23.6%
CACI INTERNATIONAL 'A'	0.2%	25.4%
STAMPS.COM	0.2%	48.1%
BOOZ ALLEN HAMILTN.HLDG.	0.2%	18.2%
SERVICEMASTER GLB.HDG.	0.2%	17.0%
LIGAND PHARMS.'B'	0.2%	26.6%
HRG GROUP	0.2%	15.6%

**Top Negative Contributors**

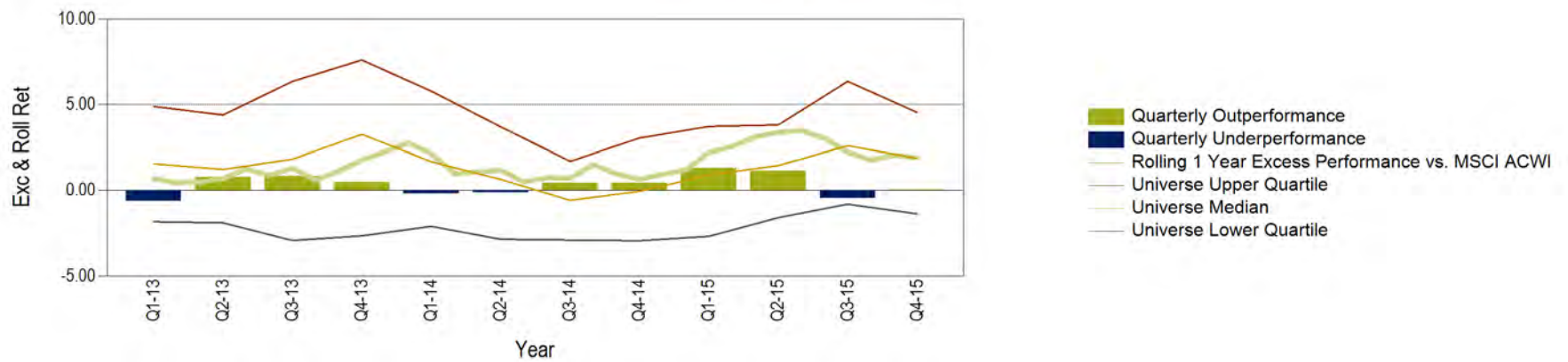
	Relative Contribution %	Return %
CHICO'S FAS	-0.3%	-31.7%
ADVANCED DRAINAGE SYS.	-0.2%	-16.8%
PEBBLEBROOK HOTEL TRUST	-0.2%	-20.1%
FORTINET	-0.2%	-26.6%
MULTI-COLOR	-0.2%	-21.7%
BURLINGTON STORES	-0.2%	-15.9%
US ECOLOGY	-0.1%	-16.2%
RADIAN GP.	-0.1%	-15.8%
COMMSCOPE HOLDING CO.	-0.1%	-13.8%
MADISON SQ.GARDEN (FRA) CL.A	-0.1%	-11.4%

- **Manager Role in Portfolio**
  - Represents the core international equity holding (Select Int'l Fund until 12/31/2009). Effective January 1, 2010, transitioned to a global core equity mandate (Select Global Fund).
- **Organizational Profile**
  - Fidelity Management Trust Company (and now Pyramis) was established by Fidelity Investments (FMR Corp) in 1981 as a wholly-owned subsidiary to provide investment management services for institutional clients. Pyramis' organizational structure is closely linked with Fidelity Management & Research Company (FMRCo), the mutual fund division of Fidelity responsible for retail and institutional investment management. FMTC and FMRCo work side-by-side as one investment organization. Fidelity Investments is 100% employee-owned.
  - It should be noted that there were a lot of senior management changes in late 2005, however, nothing that directly impacts this strategy.
  - In May 2010, Fidelity announced that Ronald O'Hanley, former President & CEO of BNY Mellon Asset Management, would be joining the firm as President of its new Asset Management and Corporate Services division.
  - In June 2011, Pyramis announced that Ravi Mantha, PM for the Select Emerging Markets portfolio since 2008, was leaving. John Chow, who currently manages US equities, will be joining the Select team.
- **Investment Strategy Commentary**
  - Select International Fund (until 12/31/2009)
    - Core, bottom-up security selection combined with a quantitative, index-like country allocation strategy
    - Objective of the product is to add value through security selection, while closely matching the country allocation of the MSCI EAFE Index
  - Select Global Fund as of January 1, 2010
    - Global core, active, fundamental bottom-up security selection, with quantitative risk controls. Portfolio is constructed in a modular fashion, combining seven regional sub-portfolios (US, Canada, Japan, UK, Europe ex-UK, Japan Pacific ex-Japan, and emerging markets).
    - The benchmark also changed to the MSCI ACWI from the MSCI EAFE as of Jan. 1, 2010.
- **Due Diligence Notes**
  - On January 7, 2013, Pyramis announced that Pam R. Holding would be joining to take on the new role of Head of Portfolio Management. She will be leading the U.S., Global/International, and Alternatives equity portfolio management teams and responsible for strategy and process, risk oversight and execution of client investments at the portfolio level and will report to Chief Investment Officer, Young Chin.

eA All Global Equity Net Accounts

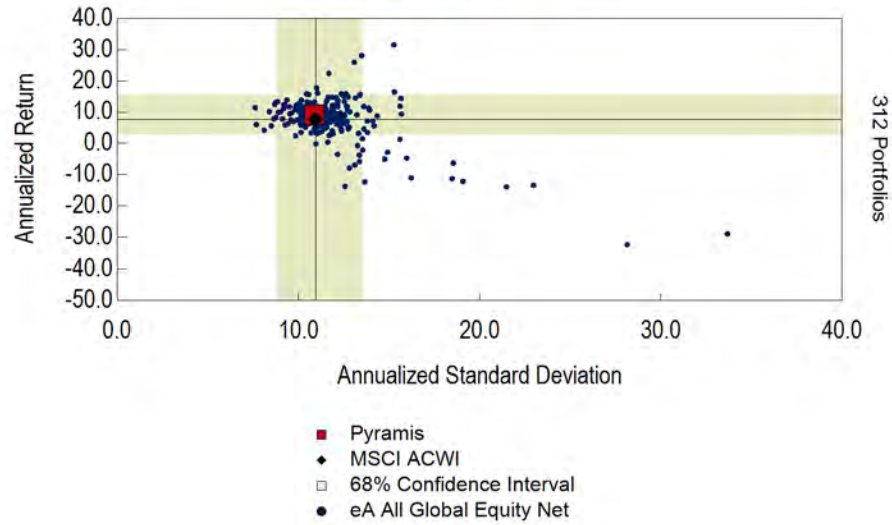


Annualized Excess Performance

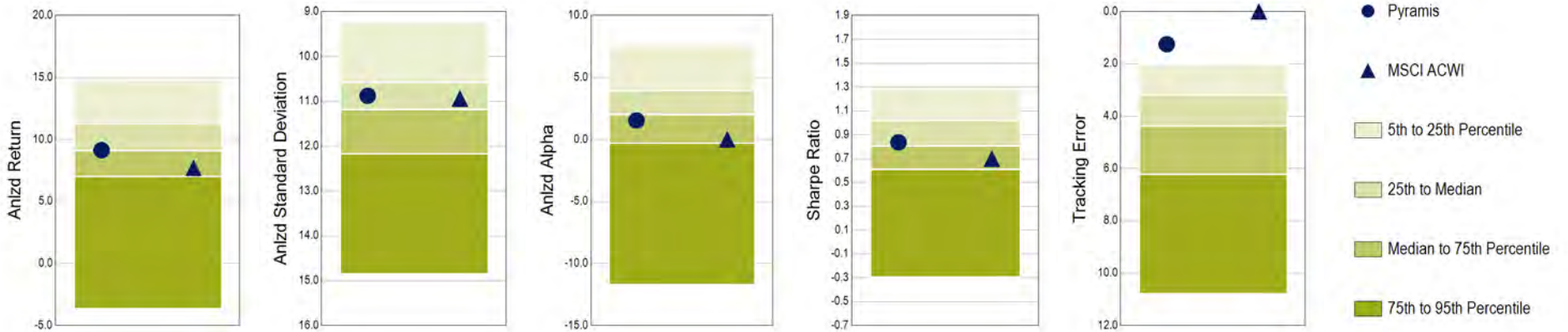
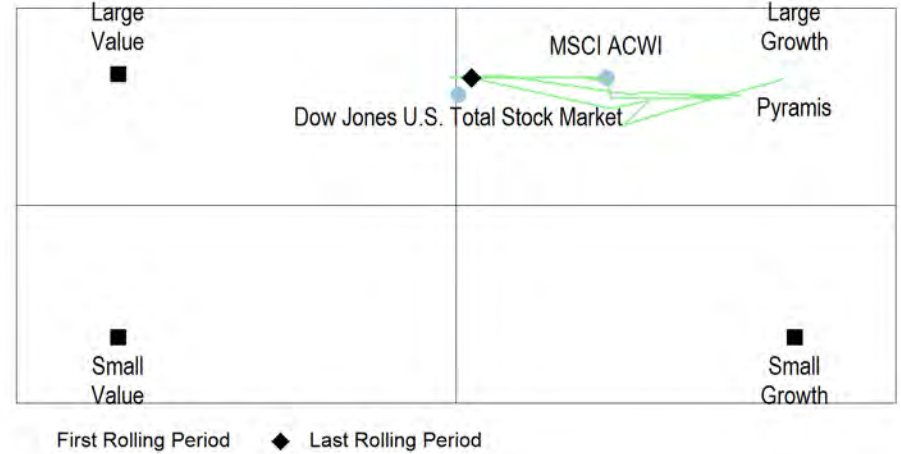


Returns are net of fees

3 Year Risk Return



3 Year Style Map



Returns are net of fees

## Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	410	2,491
Weighted Avg. Market Cap. (\$B)	86.8	88.1
Median Market Cap. (\$B)	18.9	8.0
Price To Earnings	22.8	20.9
Price To Book	4.3	3.3
Price To Sales	3.2	2.7
Return on Equity (%)	17.1	16.3
Yield (%)	2.2	2.5
Beta		1.0
R-Squared		1.0

## Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	-0.1%	0.1%	0.0%	-1.8%	-0.5%	5.3%	6.7%			
Materials	0.2%	0.2%	0.0%	0.0%	7.1%	3.5%	4.4%	4.7%			
Industrials	0.2%	0.2%	0.0%	0.0%	8.6%	6.2%	8.8%	10.4%			
Cons. Disc.	-0.2%	-0.2%	0.0%	0.0%	3.7%	5.2%	11.9%	12.9%			
Cons. Staples	0.2%	0.2%	0.0%	0.0%	7.8%	5.7%	9.7%	10.4%			
Health Care	-0.2%	-0.2%	0.0%	0.0%	5.6%	7.0%	13.0%	12.4%			
Financials	0.3%	0.3%	0.0%	0.0%	5.1%	3.9%	18.9%	21.8%			
Info. Tech	-0.4%	-0.5%	-0.1%	0.1%	4.8%	8.2%	11.4%	13.7%			
Telecomm.	0.1%	0.1%	0.0%	0.0%	6.7%	4.1%	3.9%	3.8%			
Utilities	0.1%	0.0%	0.1%	0.0%	0.7%	1.3%	1.7%	3.3%			
Cash	-0.6%	0.0%	-0.6%	0.0%	0.0%	--	10.9%	0.0%			
<b>Portfolio</b>	<b>-0.4%</b>	<b>=</b>	<b>0.1%</b>	<b>+</b>	<b>-0.5%</b>	<b>+</b>	<b>0.1%</b>	<b>4.7%</b>	<b>5.1%</b>	<b>100.0%</b>	<b>100.0%</b>



**Top Positive Contributors**

	Relative Contribution %	Return %
ACTIVISION BLIZZARD	0.1%	25.3%
E I DU PONT DE NEMOURS	0.1%	39.0%
GENERAL ELECTRIC	0.1%	24.4%
COGENT COMMS.HOLDINGS	0.1%	29.1%
MEDTRONIC	0.1%	15.5%
BWX TECHNOLOGIES	0.1%	20.8%
ACUITY BRANDS	0.1%	33.2%
KEURIG GREEN MOUNTAIN	0.1%	72.6%
ADOBE SYSTEMS	0.1%	14.3%
CONSTELLATION BRANDS 'A'	0.1%	14.0%

**Top Negative Contributors**

	Relative Contribution %	Return %
SEAGATE TECH.	-0.1%	-16.8%
K + S	-0.1%	-28.9%
DILLARDS 'A'	-0.1%	-24.7%
PVH	-0.1%	-27.7%
MACY'S	-0.1%	-31.2%
COMMONWEALTH BK.OF AUS.	-0.1%	21.9%
WHITING PETROLEUM	0.0%	-38.2%
FIDELITY NAT.INFO.SVS.	0.0%	-9.3%
HOME DEPOT	0.0%	15.0%
VALEANT PHARMS.INTL.	0.0%	-43.0%

## Pyramis

## Regional Attribution

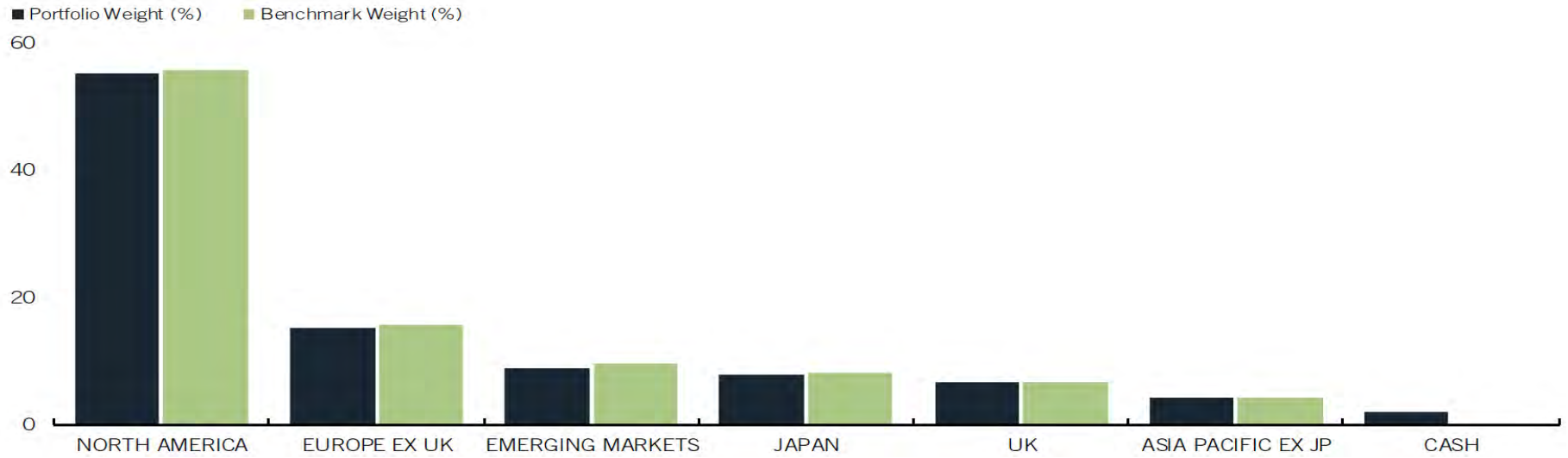
	Total Portfolio (%)	Asia Pacific Ex Jp (%)	Emerging Markets (%)	Europe ex UK (%)	Japan (%)	North America (%)	UK (%)
Portfolio Return	5.1	9.8	4.1	1.7	9.7	6.1	(0.1)
Benchmark Return	5.0	8.3	0.7	3.2	9.3	6.0	0.7
<b>Active Return</b>	<b>0.1</b>	<b>1.5</b>	<b>3.5</b>	<b>(1.5)</b>	<b>0.4</b>	<b>0.2</b>	<b>(0.9)</b>
<b>Value Added from Regional Allocation</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>(0.0)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Value Added from Stock Selection</b>	<b>0.2</b>	<b>1.5</b>	<b>3.5</b>	<b>(1.5)</b>	<b>0.4</b>	<b>0.2</b>	<b>(0.9)</b>
Residual Country Allocation	(0.0)	0.1	0.0	(0.2)	0.0	0.0	0.0
Residual Sector Allocation	0.1	0.6	0.2	(0.3)	0.3	0.2	(0.6)
Residual Stock Specific	0.1	0.8	3.2	(1.0)	0.0	(0.0)	(0.3)
Cash and Other Assets	(0.0)						
Portfolio Turnover	NA						

## Contribution to Relative Return by Sector &amp; Region

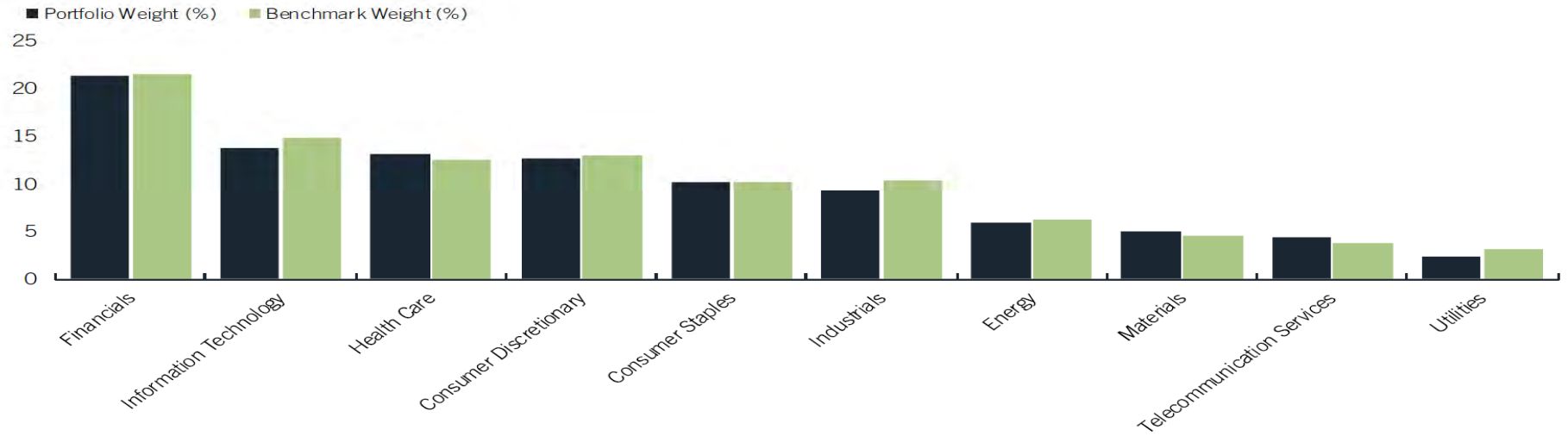
	Total Portfolio (%)	Asia Pacific Ex Jp (%)	Emerging Markets (%)	Europe ex UK (%)	Japan (%)	North America (%)	UK (%)
CONSUMER DISCRETIONARY	(0.2)	0.0	(0.0)	(0.1)	(0.0)	(0.2)	0.0
CONSUMER STAPLES	0.2	(0.0)	0.0	0.0	(0.0)	0.2	(0.0)
ENERGY	(0.0)	(0.0)	0.0	(0.0)	(0.0)	0.0	(0.0)
FINANCIALS	0.3	(0.0)	0.1	0.0	0.0	0.2	0.0
HEALTH CARE	(0.2)	0.0	0.0	(0.1)	0.0	(0.1)	(0.0)
INDUSTRIALS	0.1	0.0	0.0	(0.1)	(0.0)	0.2	(0.1)
INFORMATION TECHNOLOGY	(0.2)	(0.0)	0.1	(0.1)	(0.0)	(0.2)	(0.0)
MATERIALS	0.2	0.1	0.0	0.0	0.0	0.0	0.0
TELECOMMUNICATION SERVICES	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)
UTILITIES	0.0	(0.0)	0.0	(0.0)	0.0	0.0	0.0
<b>All Sectors</b>	<b>0.2</b>	<b>0.1</b>	<b>0.3</b>	<b>(0.2)</b>	<b>0.0</b>	<b>0.1</b>	<b>(0.1)</b>
Cash and Other Assets	(0.0)						
<b>Active Return</b>	<b>0.1</b>						

Source: Pyramis

**Regional Weights**



**Sector Weights**



Source: Pyramis

- **Manager Role in Portfolio**

- Global Equity All Cap Growth (added in Q4 2009)

- **Organizational Profile**

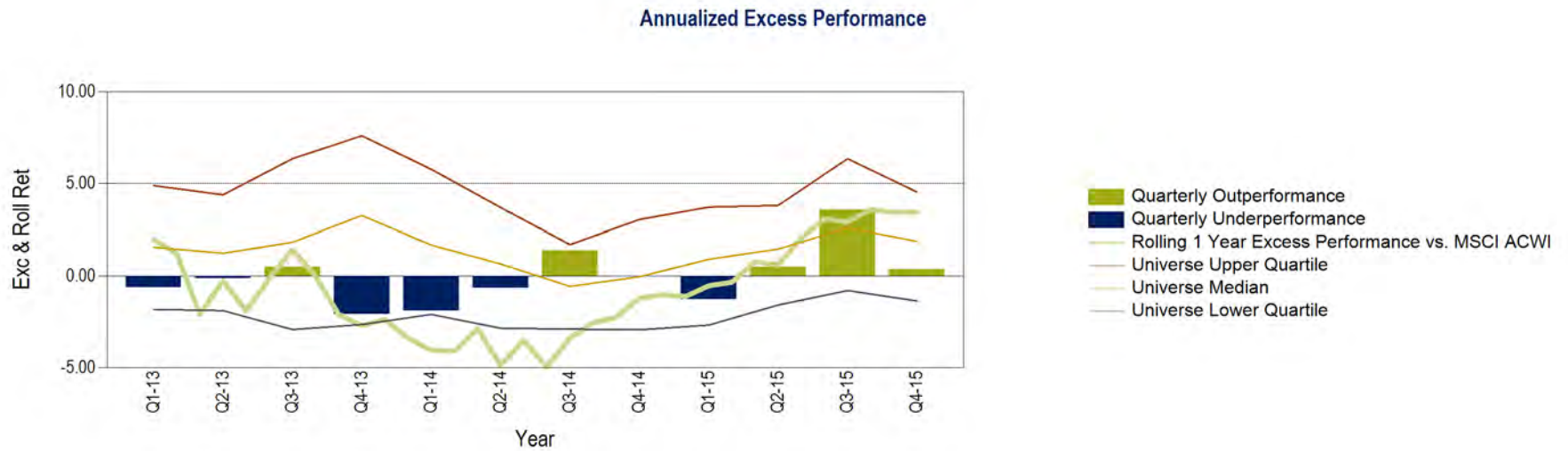
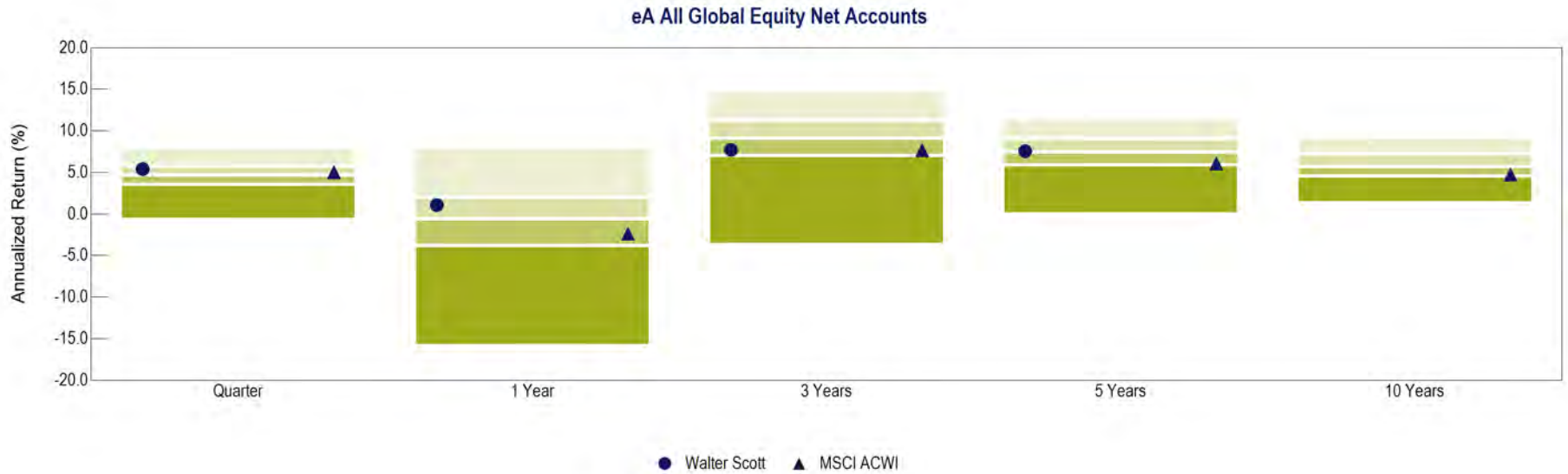
- Walter Scott was established in 1983 as an investment management firm specializing in equity investment across global mandates. In October, 2006, Walter Scott became a wholly owned subsidiary within The Mellon Financial Corporation (Mellon). Similar to Mellon's other investment management subsidiaries, Walter Scott operates autonomously in terms of business activities, investment research, portfolio management and investment administration. The investment decisions reflected within WS client portfolios reflect its independent investment research.
- In July of 2007, The Bank of New York Company, Inc. and Mellon Financial Corporation completed their merger with senior managers from both organizations heading business and support functions.

- **Investment Strategy Commentary**

- Walter Scott's fundamental, bottoms-up approach combines detailed financial research with business and industry analysis. The primary focus is upon stock selection, finding companies capable of generating wealth internally at 20% per annum, and compounding at this rate into the future.
- Walter Scott will not own more than 5% of a company's market capitalization, although it may hold a greater proportion of its free float, subject to their confidence level in the business' prospects. The final portfolio will be a low turnover growth portfolio that is concentrated in 40-60 names.

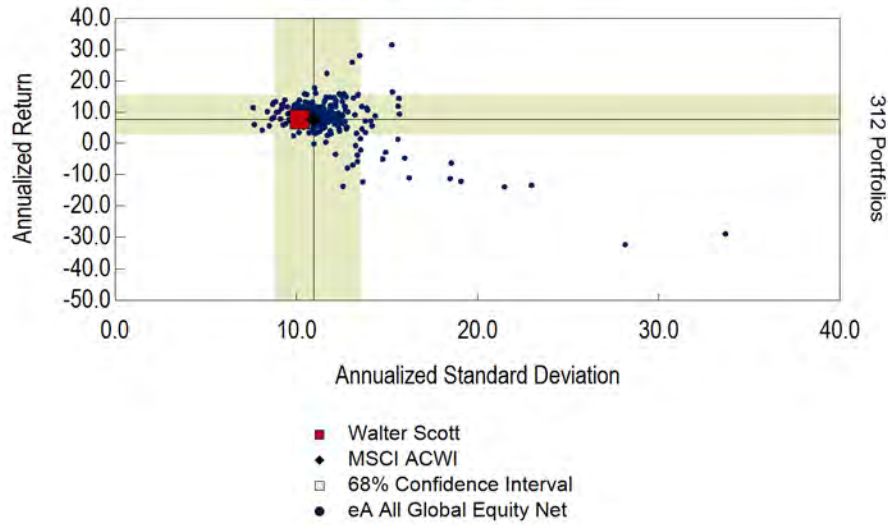
- **Due Diligence Notes**

- On February 8, 2013, Walter Scott announced that Ian Clark stepped down as main board Executive Director. Mr. Clark still maintained his title of Founder and remained involved with the firm, although not in an active investment role. With Mr. Clark stepping down, the total board size moved from 11 to 10 individuals. There were no plans to replace him on the board, but thoughts were that they would do so over the next 12-18 months.
- Effective December 31, 2013, Mr. Clark formally ended his employment.
- Walter Scott has been planning for succession and the founders relinquished stock coverage and management of the research process a long time ago.
- On June 13, 2013, Dr. Kenneth Lyall passed away. Dr. Lyall held various roles throughout the development of Walter Scott & Partners Limited and more recently as our Chairman. Dr. Lyall joined the firm in its first year in 1983 and played a major role in the firm's growth from those early years. In an investment career with Walter Scott & Partners Limited spanning 30 years, Ken contributed heavily to its development and investment success.

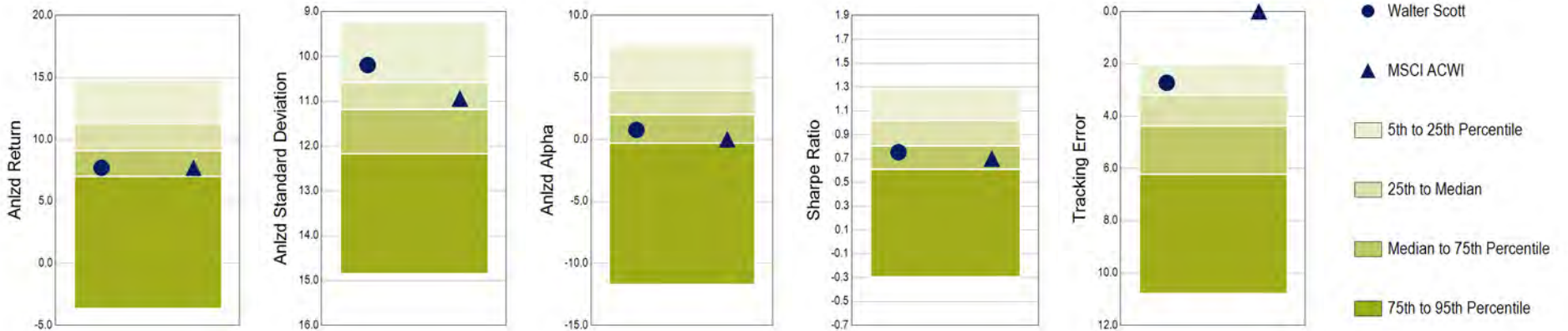


Returns are net of fees

3 Year Risk Return



3 Year Style Map



Returns are net of fees

**Characteristics**

	Portfolio	MSCI ACWI
Number of Holdings	54	2,491
Weighted Avg. Market Cap. (\$B)	90.5	88.1
Median Market Cap. (\$B)	46.7	8.0
Price To Earnings	24.7	20.9
Price To Book	5.8	3.3
Price To Sales	4.0	2.7
Return on Equity (%)	24.6	16.3
Yield (%)	2.0	2.5
Beta		1.0
R-Squared		1.0

**Equity Sector Attribution**

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	-0.4%	-0.5%	6.6%	6.7%			
Materials	0.4%	0.3%	0.0%	0.1%	10.2%	3.5%	5.8%	4.7%			
Industrials	0.2%	0.4%	0.0%	-0.1%	9.3%	6.2%	6.3%	10.4%			
Cons. Disc.	-0.4%	-0.2%	0.0%	-0.2%	3.2%	5.2%	20.2%	12.9%			
Cons. Staples	-0.6%	-0.5%	0.0%	-0.1%	0.1%	5.7%	10.2%	10.4%			
Health Care	0.2%	0.0%	0.1%	0.0%	7.6%	7.0%	18.8%	12.4%			
Financials	0.1%	-1.6%	0.2%	1.5%	-3.7%	3.9%	3.2%	21.8%			
Info. Tech	0.4%	0.2%	0.1%	0.1%	9.5%	8.2%	19.4%	13.7%			
Telecomm.	-0.2%	-0.4%	0.0%	0.2%	-4.7%	4.1%	2.1%	3.8%			
Utilities	0.1%	0.0%	0.0%	0.0%	3.0%	1.3%	3.4%	3.3%			
Cash	-0.2%	0.0%	-0.2%	0.0%	0.0%	--	4.0%	0.0%			
<b>Portfolio</b>	<b>-0.1%</b>	<b>=</b>	<b>-1.9%</b>	<b>+</b>	<b>0.2%</b>	<b>+</b>	<b>1.5%</b>	<b>5.0%</b>	<b>5.1%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
KEYENCE	0.5%	25.5%
CSL	0.4%	22.3%
SYNGENTA	0.4%	22.7%
ADOBE SYSTEMS	0.3%	14.3%
MICROSOFT	0.3%	26.2%
DENSO	0.3%	15.0%
INTUITIVE SURGICAL	0.3%	18.8%
FANUC	0.3%	14.6%
KOMATSU	0.2%	13.2%
MASTERCARD	0.2%	8.2%

**Top Negative Contributors**

	Relative Contribution %	Return %
LVMH	-0.1%	-6.6%
STANDARD CHARTERED	-0.1%	-10.1%
CHINA MOBILE	-0.1%	-4.7%
COGNIZANT TECH.SLTN.'A'	-0.1%	-4.1%
WAL MART STORES	-0.1%	-4.7%
WW GRAINGER	-0.1%	-5.3%
L'OREAL	0.0%	-2.5%
EOG RES.	0.0%	-2.6%
THE SWATCH GROUP 'B'	0.0%	-5.3%
HENNES & MAURITZ 'B'	0.0%	-1.7%



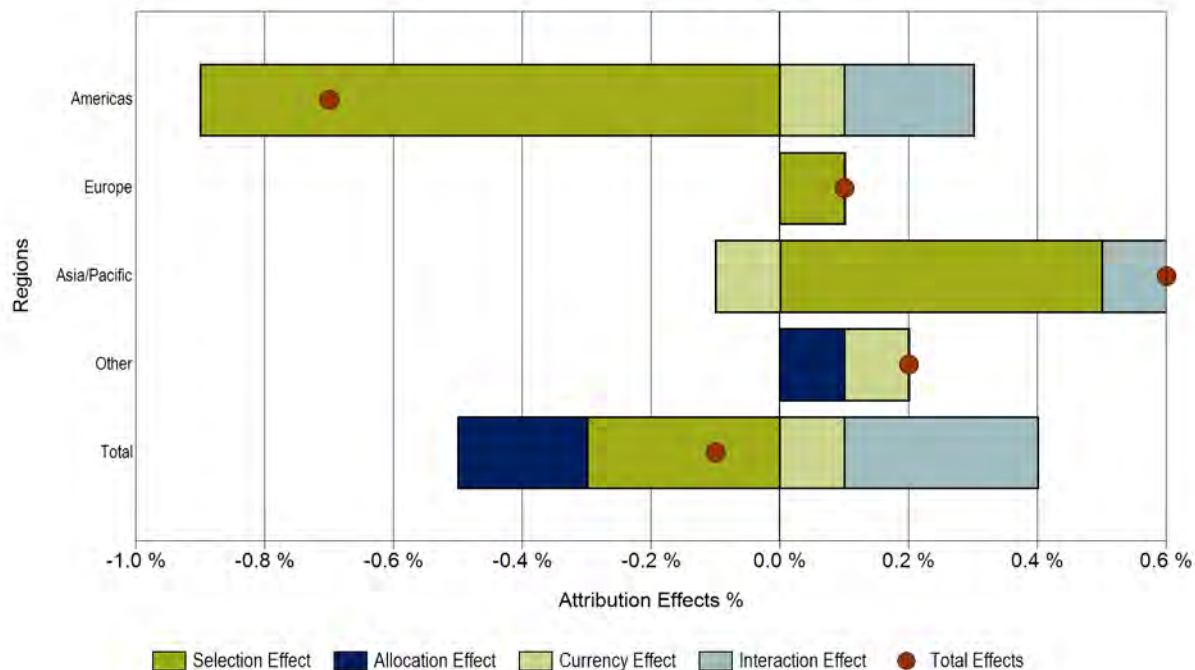
**Country Allocation**

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Argentina**	0.0%	0.0%	--	--
Brazil*	0.0%	0.6%	--	-3.1%
Canada	1.4%	3.0%	-2.6%	-4.8%
Chile*	0.0%	0.1%	--	-0.9%
Colombia*	0.0%	0.1%	--	-7.2%
Mexico*	0.0%	0.5%	--	-1.1%
Peru*	0.0%	0.0%	--	-8.1%
United States	45.9%	52.5%	4.6%	6.7%
<b>Total-Americas</b>	<b>47.3%</b>	<b>56.8%</b>	<b>4.4%</b>	<b>5.9%</b>
<b>Europe</b>				
Austria	0.0%	0.1%	--	6.9%
Belgium	0.0%	0.5%	--	13.6%
Czech Republic*	0.0%	0.0%	--	-11.2%
Denmark	2.1%	0.6%	8.6%	6.7%
Finland	0.0%	0.3%	--	9.7%
France	6.3%	3.5%	-2.1%	1.8%
Germany	0.0%	3.1%	--	7.6%
Greece*	0.0%	0.0%	--	-12.8%
Hungary*	0.0%	0.0%	--	11.4%
Ireland	0.0%	0.1%	--	7.3%
Italy	0.0%	0.9%	--	-2.2%
Luxembourg	0.0%	0.0%	--	--
Netherlands	0.0%	1.0%	--	3.6%
Norway	0.0%	0.2%	--	-1.5%
Poland*	0.0%	0.2%	--	-12.9%
Portugal	0.0%	0.1%	--	4.5%
Russia*	0.0%	0.4%	--	-4.4%
Spain	2.4%	1.2%	3.7%	-2.6%
Sweden	2.1%	1.0%	-1.7%	2.5%
Switzerland	8.7%	3.4%	7.1%	2.0%
United Kingdom	4.6%	7.0%	0.6%	0.7%
<b>Total-Europe</b>	<b>26.3%</b>	<b>23.5%</b>	<b>2.9%</b>	<b>2.3%</b>

**Country Allocation**

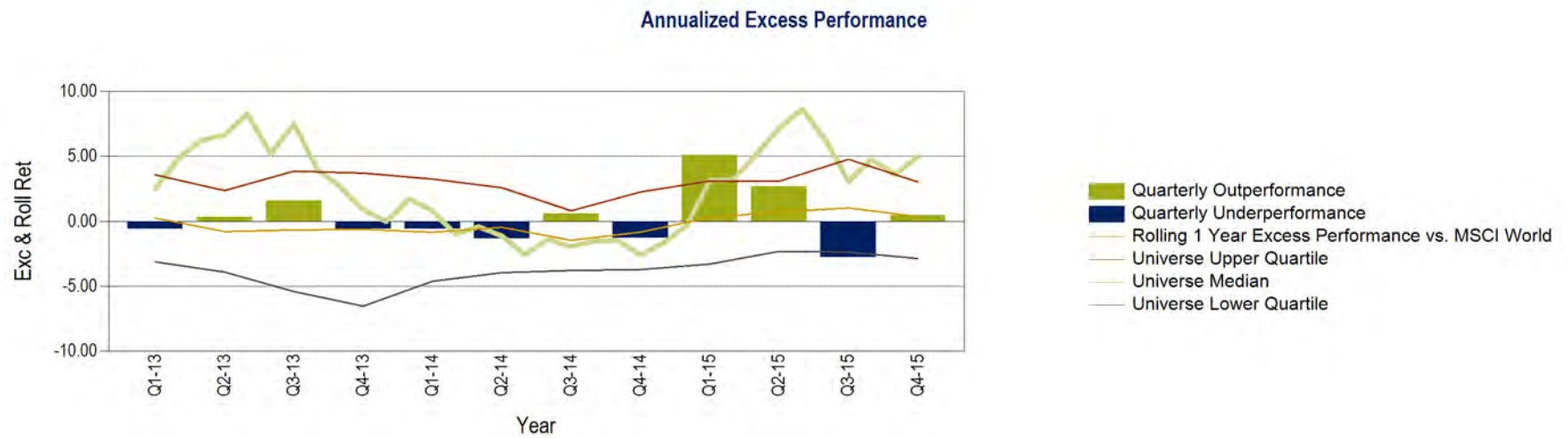
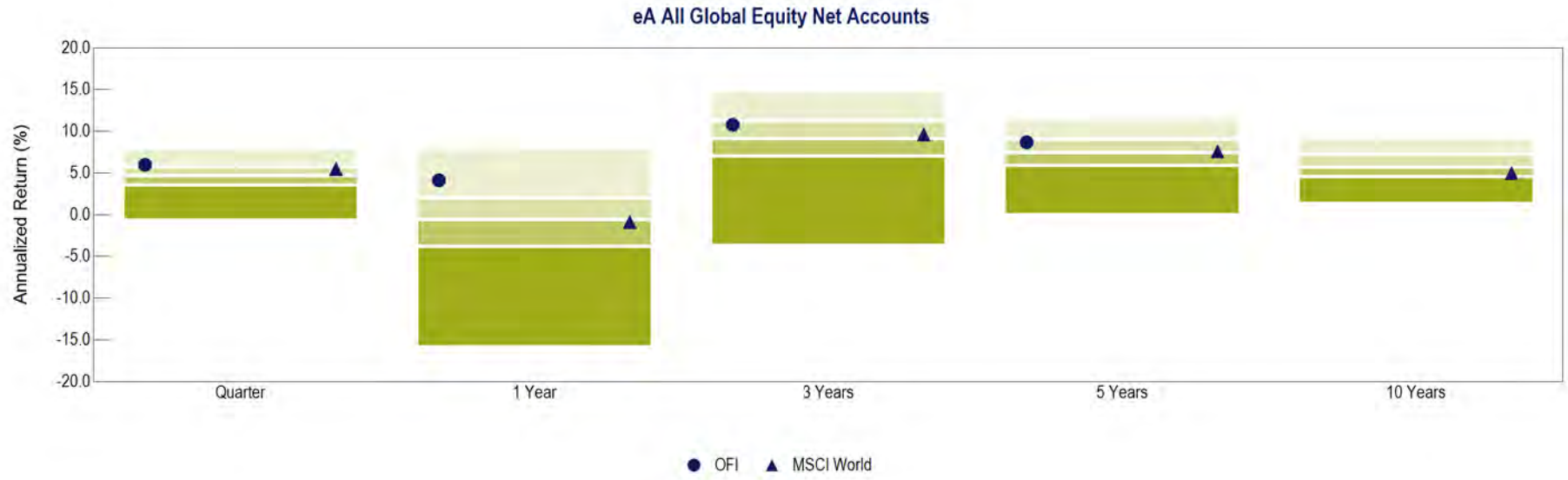
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	2.1%	2.2%	22.3%	10.3%
Hong Kong	7.0%	1.1%	0.4%	5.8%
Japan	11.3%	7.7%	14.6%	9.4%
Singapore	2.0%	0.4%	0.3%	4.3%
<b>Total-AsiaPacific</b>	<b>22.4%</b>	<b>18.3%</b>	<b>9.6%</b>	<b>7.0%</b>
<b>Totals</b>				
Developed	96.0%	90.3%	5.2%	5.6%
Cash	4.0%		0.0%	

Walter Scott Performance Attribution vs. MSCI ACWI



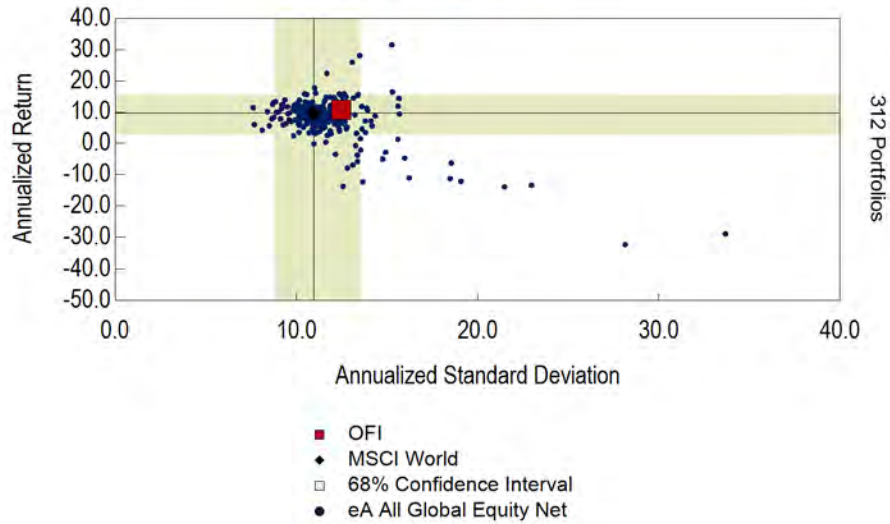
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
<b>Totals</b>									
Americas	4.4%	5.9%	47.3%	56.8%	-0.9%	0.0%	0.1%	0.2%	-0.7%
Europe	2.9%	2.3%	26.3%	23.5%	0.1%	0.0%	0.0%	0.0%	0.1%
Asia/Pacific	9.6%	7.0%	22.4%	18.3%	0.5%	0.0%	-0.1%	0.1%	0.6%
Other	--	-6.0%	0.0%	1.3%	--	0.1%	0.1%	--	0.2%
Cash	0.0%	--	4.0%	0.0%	0.0%	-0.2%	0.0%	0.0%	-0.2%
<b>Total</b>	<b>5.0%</b>	<b>5.1%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-0.3%</b>	<b>-0.2%</b>	<b>0.1%</b>	<b>0.3%</b>	<b>-0.1%</b>
<b>Totals</b>									
Developed	5.2%	5.6%	96.0%	90.3%	-0.4%	0.0%	0.0%	0.0%	-0.4%
Emerging*	--	0.6%	0.0%	9.7%	--	0.4%	0.1%	--	0.5%
Cash	0.0%	--	4.0%	0.0%	0.0%	-0.2%	0.0%	0.0%	-0.2%

- **Manager Role in Portfolio**
  - Represents global equity allocation
- **Organizational Profile**
  - OFI is a wholly owned subsidiary of Oppenheimer Funds, Inc. with primary office locations in Boston, New York, Denver, and Bellefonte, PA.
- **Investment Strategy Commentary**
  - Fundamental bottom-up stock picking, contrarian, and theme oriented (MANTRA) with a long term view of growth
  - Themes are structural (i.e. new technologies, aging population, etc.) and of long-duration. Sub-themes and industries are constantly evolving.
  - Position size based on level of conviction and performance potential, and the existing country and sector exposures.
  - Largest positions reflect best ideas, and not index weight.

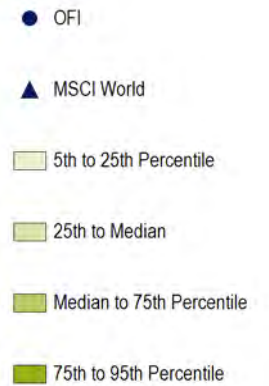
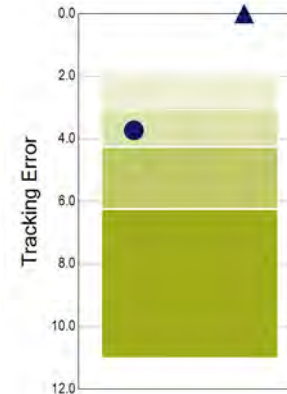
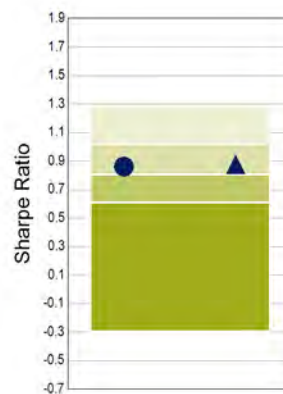
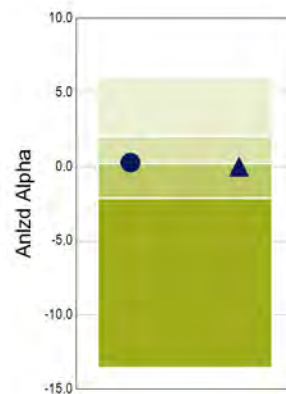
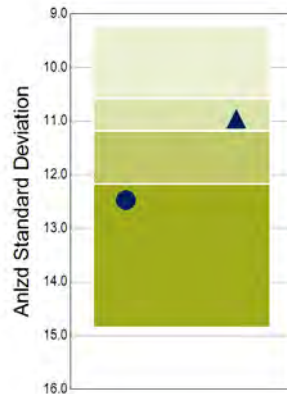
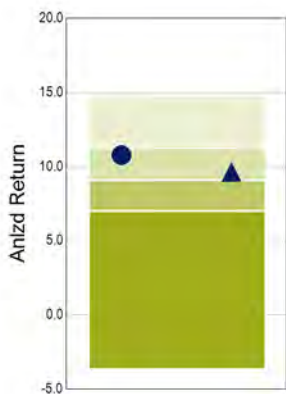


Returns are net of fees

3 Year Risk Return



3 Year Style Map



Returns are net of fees

## Characteristics

	Portfolio	MSCI World
Number of Holdings	93	1,653
Weighted Avg. Market Cap. (\$B)	64.5	93.3
Median Market Cap. (\$B)	26.9	10.3
Price To Earnings	22.4	21.2
Price To Book	4.8	3.4
Price To Sales	3.7	2.7
Return on Equity (%)	15.7	15.9
Yield (%)	1.7	2.5
Beta		1.0
R-Squared		1.0

## Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.4%	0.3%	0.3%	-0.2%	2.8%	-0.5%	1.4%	6.6%			
Materials	-0.1%	-0.6%	0.0%	0.5%	-9.8%	4.4%	1.1%	4.4%			
Industrials	0.4%	0.4%	0.0%	0.0%	10.1%	6.9%	12.3%	10.7%			
Cons. Disc.	0.0%	0.2%	0.0%	-0.1%	5.6%	5.4%	14.3%	13.3%			
Cons. Staples	-0.1%	-0.2%	0.0%	0.1%	4.2%	6.4%	6.4%	10.5%			
Health Care	-0.8%	-0.6%	0.1%	-0.3%	2.4%	7.1%	18.9%	13.4%			
Financials	-0.4%	-0.3%	0.0%	-0.1%	2.6%	4.3%	21.6%	21.1%			
Info. Tech	1.0%	0.5%	0.2%	0.2%	12.2%	8.4%	21.2%	13.2%			
Telecomm.	0.2%	0.4%	0.0%	-0.2%	17.7%	6.5%	1.5%	3.4%			
Utilities	0.2%	0.1%	0.1%	-0.1%	2.4%	1.6%	0.0%	3.3%			
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%	--	1.3%	0.0%			
<b>Portfolio</b>	<b>0.6%</b>	<b>=</b>	<b>0.2%</b>	<b>+</b>	<b>0.6%</b>	<b>+</b>	<b>-0.2%</b>	<b>6.1%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
SAP	0.4%	24.3%
BMW PREF.	0.4%	22.2%
MCGRAW HILL FINANCIAL	0.3%	14.4%
KEYENCE	0.3%	25.5%
AIRBUS GROUP	0.3%	14.0%
MURATA MANUFACTURING	0.3%	13.8%
ADOBE SYSTEMS	0.3%	14.3%
MAXIM INTEGRATED PRDS.	0.3%	14.7%
CELLDEX THERAPEUTICS	0.3%	48.8%
ALLIANZ	0.2%	14.0%

**Top Negative Contributors**

	Relative Contribution %	Return %
CLOVIS ONCOLOGY	-0.4%	-61.9%
SUNEDISON	-0.2%	-29.1%
BLUEBIRD BIO	-0.1%	-24.9%
LVMH	-0.1%	-6.6%
BANCA MONTE DEI PASCHI	-0.1%	-24.7%
BBV.ARGENTARIA	-0.1%	-12.5%
LINDE	-0.1%	-9.8%
ICICI BK.ADR 1:2	-0.1%	-6.6%
DEUTSCHE BANK	-0.1%	-8.5%
CREDIT SUISSE GROUP N	-0.1%	-7.0%

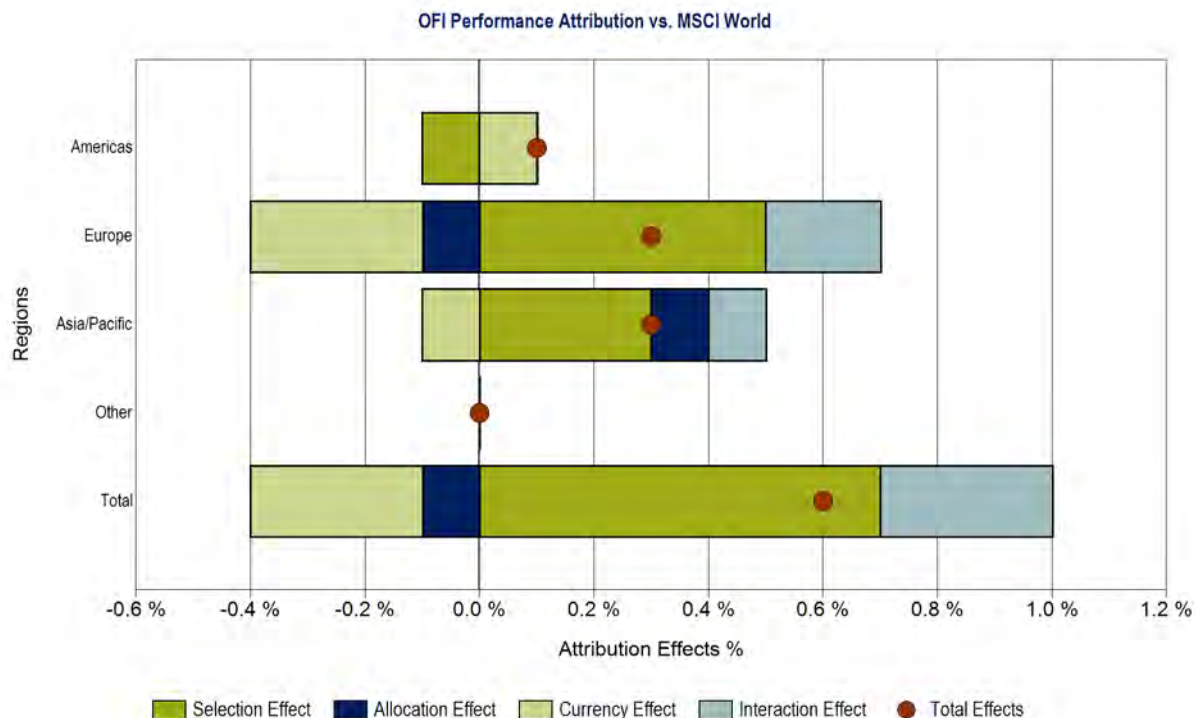
**Country Allocation**

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Argentina**	0.0%	0.0%	--	--
Brazil*	1.0%	0.0%	10.8%	-3.3%
Canada	0.0%	3.4%	--	-4.8%
Chile*	0.0%	0.0%	--	--
Colombia*	0.0%	0.0%	--	--
Mexico*	0.6%	0.0%	4.2%	-1.2%
Peru*	0.0%	0.0%	--	--
United States	43.9%	58.2%	6.1%	6.7%
<b>Total-Americas</b>	<b>45.5%</b>	<b>61.6%</b>	<b>6.1%</b>	<b>6.1%</b>
<b>Europe</b>				
Austria	0.0%	0.1%	--	6.9%
Belgium	0.0%	0.5%	--	13.6%
Czech Republic*	0.0%	0.0%	--	--
Denmark	0.2%	0.7%	5.4%	6.7%
Finland	0.0%	0.3%	2.4%	9.7%
France	7.7%	3.9%	4.5%	1.8%
Germany	10.1%	3.4%	9.6%	7.6%
Greece*	0.0%	0.0%	--	--
Hungary*	0.0%	0.0%	--	--
Ireland	0.0%	0.2%	--	7.3%
Italy	2.0%	1.0%	-8.4%	-2.2%
Luxembourg	0.0%	0.0%	--	--
Netherlands	0.0%	1.1%	--	3.6%
Norway	0.0%	0.2%	--	-1.5%
Poland*	0.0%	0.0%	--	--
Portugal	0.0%	0.1%	--	4.5%
Russia*	0.0%	0.0%	--	--
Spain	3.8%	1.3%	-1.5%	-2.6%
Sweden	3.5%	1.1%	8.8%	2.5%
Switzerland	3.7%	3.7%	-1.3%	2.0%
United Kingdom	5.7%	7.8%	4.6%	0.7%
<b>Total-Europe</b>	<b>36.8%</b>	<b>25.4%</b>	<b>4.4%</b>	<b>2.5%</b>

**Country Allocation**

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
China*	1.5%	0.0%	31.7%	4.0%
India*	1.5%	0.0%	-6.6%	-0.9%
Japan	13.3%	8.6%	10.0%	9.4%
<b>Total-AsiaPacific</b>	<b>16.4%</b>	<b>12.8%</b>	<b>10.4%</b>	<b>9.1%</b>
<b>Totals</b>				
Developed	94.0%	100.0%	6.0%	5.6%
Emerging*	4.7%	0.0%	11.1%	--
Cash	1.3%		0.0%	





	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	6.1%	6.1%	45.5%	61.6%	-0.1%	0.0%	0.1%	0.0%	0.1%
Europe	4.4%	2.5%	36.8%	25.4%	0.5%	-0.1%	-0.3%	0.2%	0.3%
Asia/Pacific	10.4%	9.1%	16.4%	12.8%	0.3%	0.1%	-0.1%	0.1%	0.3%
Other	--	9.9%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Cash	0.0%	--	1.3%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%
<b>Total</b>	<b>6.1%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.7%</b>	<b>-0.1%</b>	<b>-0.3%</b>	<b>0.3%</b>	<b>0.6%</b>
<b>Totals</b>									
Developed	6.0%	5.6%	94.0%	100.0%	0.8%	0.0%	-0.3%	0.0%	0.4%
Emerging*	11.1%	--	4.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
Cash	0.0%	--	1.3%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%

- **Manager Role in Portfolio**

- Global Natural Resources Manager

- **Organizational Profile**

- The firm was founded in 1991 and is headquartered in New Orleans, Louisiana.
- Until 2008, Orleans Capital maintained a Research and Subadvisory Agreement with Simmons & Company International, pursuant to which Simmons provided research and related services to Orleans Capital.
- In May of 2008, Orleans Capital Management and Simmons & Company International formed Energy Opportunities Capital Management, LLC (EOCM) as a separate entity to manage the Energy Opportunities Fund and related Alternative Energy strategies.

- **Investment Strategy Commentary**

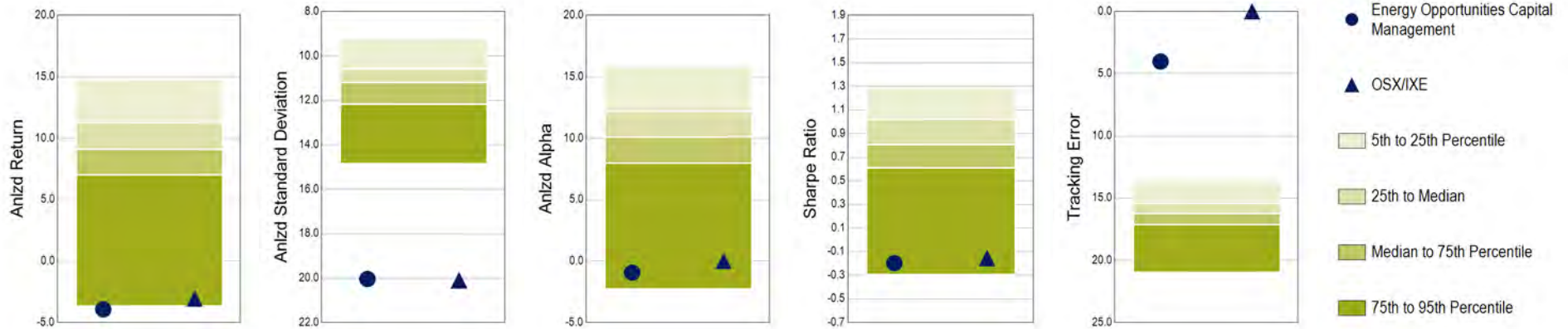
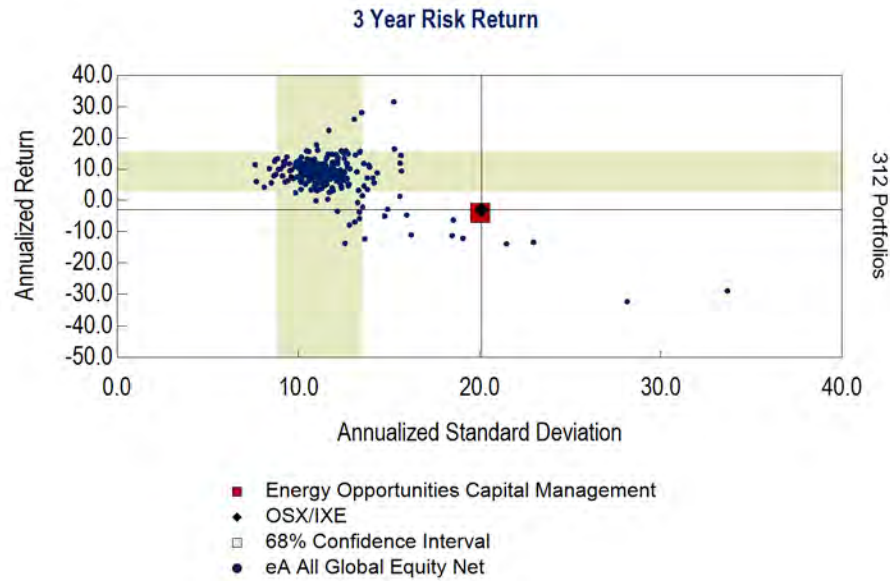
- EOCM is a long-only energy focused equity fund based on fundamental research and analysis.

Energy Opportunities Capital Management



Returns are net of fees

# Energy Opportunities Capital Management



Returns are net of fees

Energy Opportunities Capital Management

Characteristics

	Portfolio	S&P 500 Energy
Number of Holdings	1	40
Weighted Avg. Market Cap. (\$B)		136.1
Median Market Cap. (\$B)		13.2
Price To Earnings		17.0
Price To Book		1.7
Price To Sales		1.7
Return on Equity (%)		9.6
Yield (%)		3.8
Beta		1.0
R-Squared		1.0

Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-2.2%	-2.3%	0.0%	0.1%	-2.1%	0.2%	95.0%	100.0%			
Materials	0.0%	--	--	--	--	--	0.0%	0.0%			
Industrials	0.0%	--	--	--	--	--	0.0%	0.0%			
Cons. Disc.	0.0%	--	--	--	--	--	0.0%	0.0%			
Cons. Staples	0.0%	--	--	--	--	--	0.0%	0.0%			
Health Care	0.0%	--	--	--	--	--	0.0%	0.0%			
Financials	0.0%	--	--	--	--	--	0.0%	0.0%			
Info. Tech	0.0%	--	--	--	52.1%	--	2.8%	0.0%			
Telecomm.	0.0%	--	--	--	--	--	0.0%	0.0%			
Utilities	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	--	2.2%	0.0%			
<b>Portfolio</b>	<b>-2.2%</b>	<b>=</b>	<b>-2.3%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.1%</b>	<b>-0.6%</b>	<b>0.2%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
FIRST SOLAR	0.8%	54.4%
SUNPOWER	0.7%	49.8%
PATTERSON UTI ENERGY	0.6%	15.6%
HELMERICH & PAYNE	0.4%	14.6%
CORE LABORATORIES	0.2%	9.5%
TESORO	0.2%	8.8%
CAMERON INTERNATIONAL	0.2%	3.1%
SUPERIOR ENERGY SVS.	0.1%	7.2%
C&J ENERGY SERVICES	0.1%	35.2%
DIAMONDBACK ENERGY	0.1%	3.6%

**Top Negative Contributors**

	Relative Contribution %	Return %
BAKER HUGHES	-0.6%	-11.0%
HOLLYFRONTIER	-0.4%	-17.8%
RANGE RES.	-0.3%	-23.2%
NATIONAL OILWELL VARCO	-0.2%	-9.9%
WHITING PETROLEUM	-0.2%	-38.2%
SOUTHWESTERN ENERGY	-0.2%	-44.0%
CONTINENTAL RESOURCES	-0.2%	-20.7%
PHILLIPS 66	-0.2%	7.1%
CONCHO RESOURCES	-0.2%	-5.5%
HALLIBURTON	-0.2%	-3.3%

- **Manager Role in Portfolio**

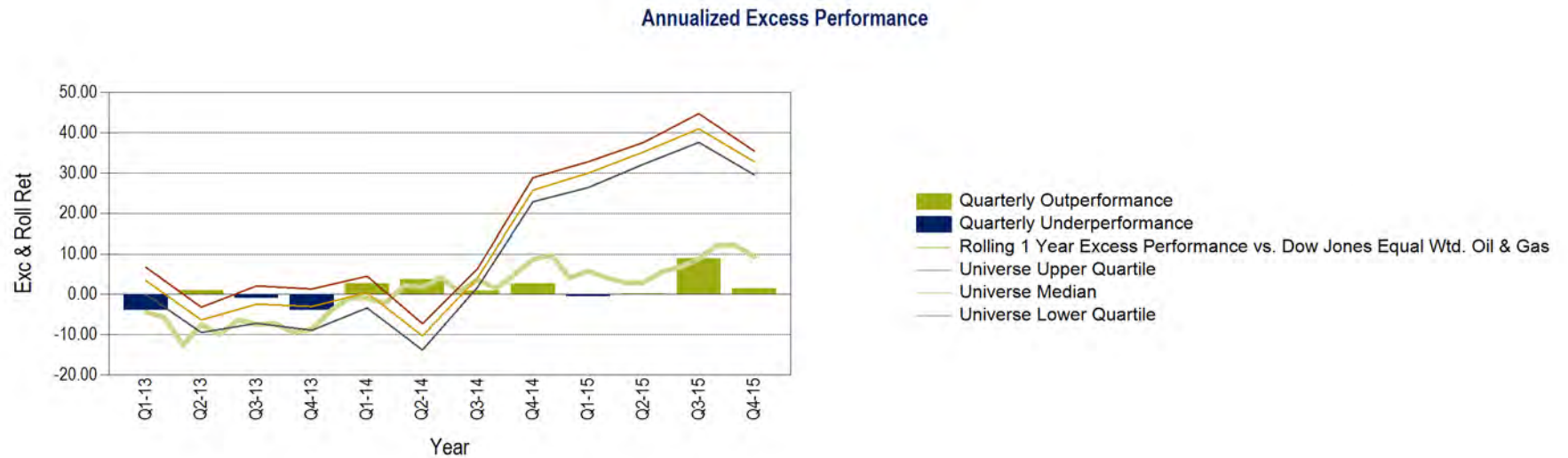
- Global Natural Resources Manager
- Modest portfolio sector play in public energy stocks
- Potential bear market and inflation hedge within the equity portfolio

- **Organizational Profile**

- Founded in 1989 and wholly-owned by its employees, this boutique investment firm is solely focused on publicly traded energy stocks

- **Investment Strategy Commentary**

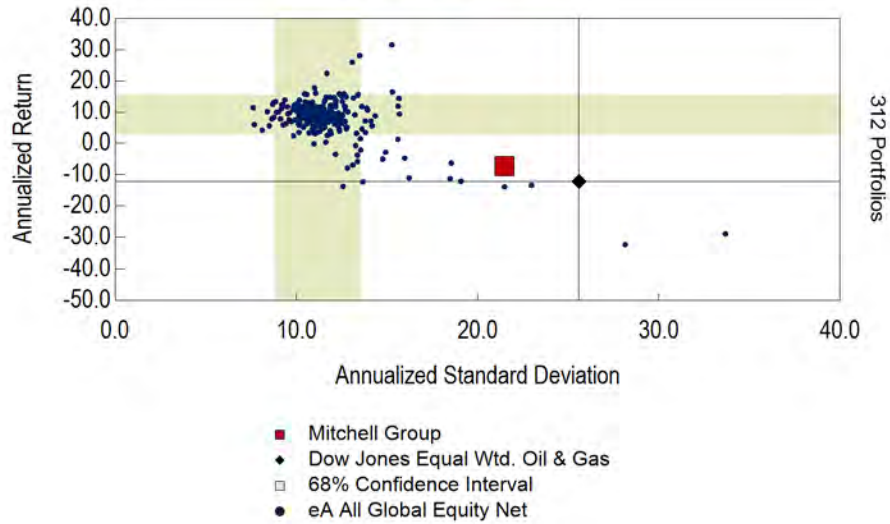
- Combination top-down, bottom-up investment approach
  - Top down focus: supply/demand forecasting, evaluate and anticipate political developments both domestically and overseas
  - Bottom-up focus: detailed analysis of assets, cash flow, and financial strength



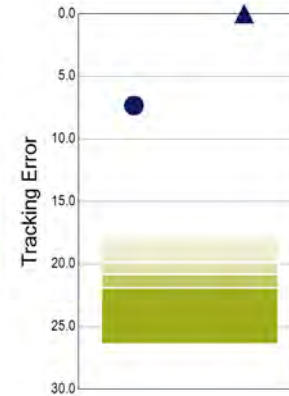
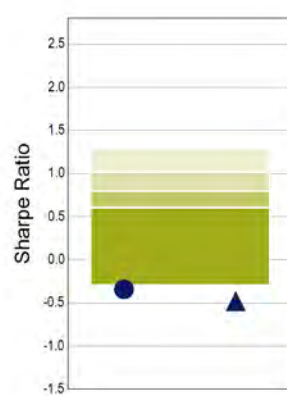
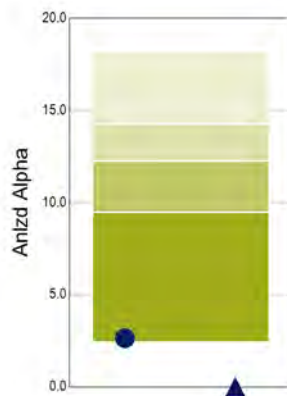
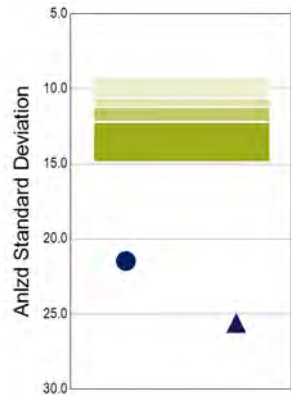
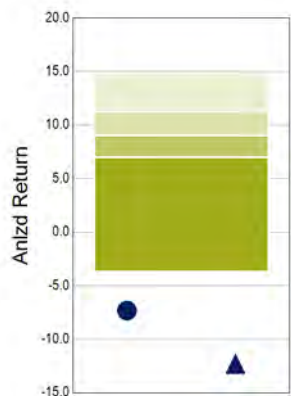
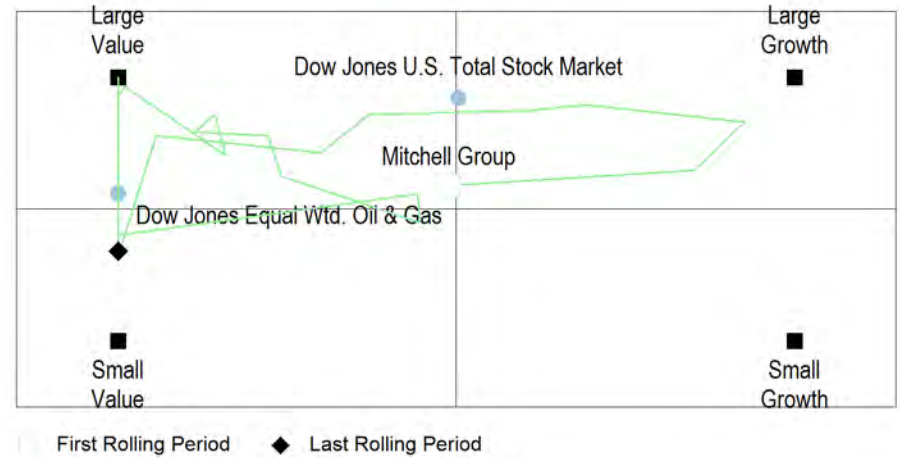
Returns are net of fees



3 Year Risk Return



3 Year Style Map



- Mitchell Group
- ▲ Dow Jones Equal Wtd. Oil & Gas
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Returns are net of fees

**Characteristics**

	Portfolio	S&P 500 Energy
Number of Holdings	26	40
Weighted Avg. Market Cap. (\$B)	46.4	136.1
Median Market Cap. (\$B)	13.5	13.2
Price To Earnings	19.9	17.0
Price To Book	1.3	1.7
Price To Sales	2.4	1.7
Return on Equity (%)	2.5	9.6
Yield (%)	2.3	3.8
Beta		1.0
R-Squared		1.0

**Equity Sector Attribution**

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-5.0%	-5.3%	0.0%	0.3%	-5.1%	0.2%	95.1%	100.0%			
Materials	0.0%	--	--	--	--	--	0.0%	0.0%			
Industrials	0.0%	--	--	--	--	--	0.0%	0.0%			
Cons. Disc.	0.0%	--	--	--	--	--	0.0%	0.0%			
Cons. Staples	0.0%	--	--	--	--	--	0.0%	0.0%			
Health Care	0.0%	--	--	--	--	--	0.0%	0.0%			
Financials	0.0%	--	--	--	--	--	0.0%	0.0%			
Info. Tech	0.0%	--	--	--	--	--	0.0%	0.0%			
Telecomm.	0.0%	--	--	--	--	--	0.0%	0.0%			
Utilities	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	--	4.9%	0.0%			
<b>Portfolio</b>	<b>-5.0%</b>	<b>=</b>	<b>-5.3%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.3%</b>	<b>-4.8%</b>	<b>0.2%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
CANADIAN NTRL.RES. (NYS)	0.3%	13.1%
NOBLE ENERGY	0.3%	9.7%
APACHE	0.3%	14.2%
PIONEER NTRL.RES.	0.1%	3.1%
PDC ENERGY	0.0%	0.7%
ENDEAVOUR INTL.	0.0%	0.0%
STONE ENERGY	0.0%	-13.5%
OCCIDENTAL PTL.	0.0%	3.3%
WEATHERFORD INTL.	0.0%	-1.1%
EOG RES.	0.0%	-2.6%

**Top Negative Contributors**

	Relative Contribution %	Return %
CHEVRON	-1.3%	15.4%
EXXON MOBIL	-1.3%	5.8%
SOUTHWESTERN ENERGY	-0.7%	-44.0%
RANGE RES.	-0.7%	-23.2%
EQT	-0.7%	-19.5%
ENERGEN	-0.7%	-17.8%
MARATHON OIL	-0.6%	-18.0%
CIMAREX EN.	-0.6%	-12.7%
DEVON ENERGY	-0.4%	-13.1%
ANADARKO PETROLEUM	-0.4%	-19.2%

- **Manager Role in Portfolio**

- Global Natural Resources manager

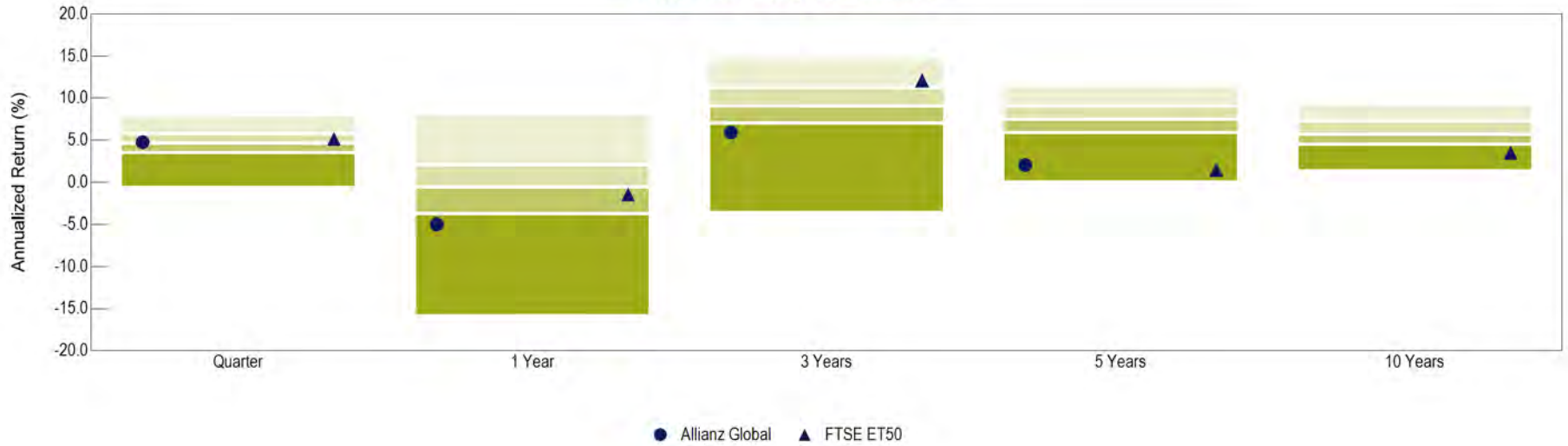
- **Organizational Profile**

- RCM's global platform was founded in 1997 upon the formation of Dresdner RCM Global Investors.
- In 2001, Dresdner Bank AG and Allianz AG joined to create Allianz Global Investors RCM fits into the structure as one of the specialist, active equity platforms, organized on a global basis within AllianzGI.
- In 2004 Dresdner RCM Global Investors was re-branded back to RCM, recognizing the roots of the company's sector based investment philosophy.
- In June 2010, Bozena Jankowska was appointed Global Head of Sustainability research. Bozena will continue to head the current London based team and be responsible for building out the research efforts in Asia and the U.S. With this new transition, the day to day management of the Ecotrends funds will move to Vipin Ahuja.

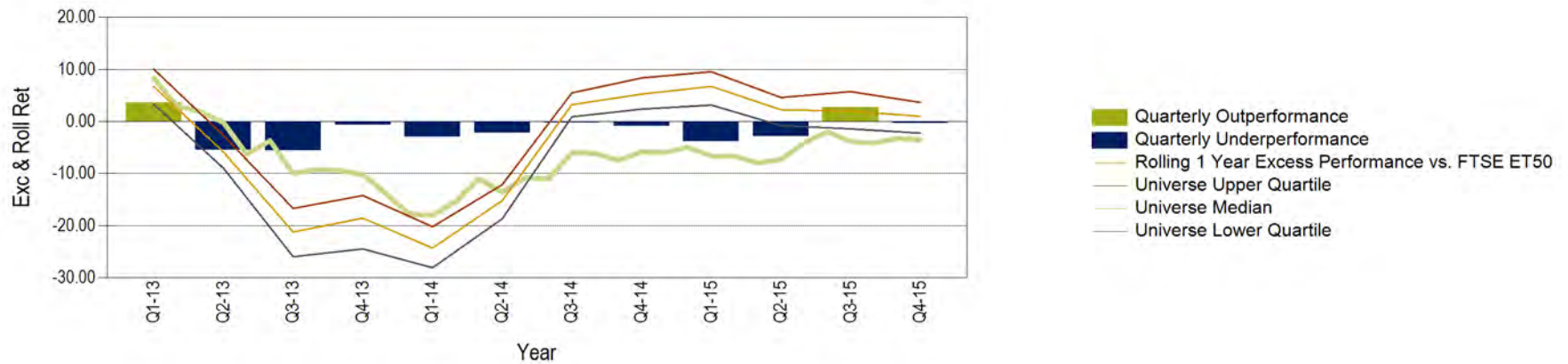
- **Investment Strategy Commentary**

- The Global EcoTrends strategy seeks to invest in companies falling within the following three eco-sectors which are broadly defined and are seen to be growing rapidly: EcoEnergy, Pollution Control, and Clean Water.
- The investment team constructs a portfolio that is largely comprised of small, start-up companies, many of which are included in the ET50 Index.
- The resulting portfolio is allocated in 70% alternative/efficient energy solutions, 15% pollution control endeavors, and 15% water supply and treatment infrastructure.
- At least 75% of assets will be invested in the shares of international companies that directly or indirectly have exposure to, or otherwise derive benefits from the three eco-sectors. Up to 50% of fund assets can be invested in companies in the emerging markets.
- The investment team utilizes a bottom-up process starting with a universe of 10,000 stocks. Fundamental analysis narrows this universe to 400 stocks. The EcoTrends team then evaluates growth potential and quality, and the portfolio management team narrows this down to 50-70 stocks in the portfolio.

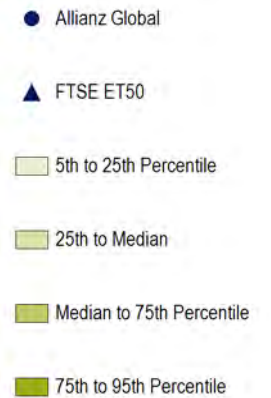
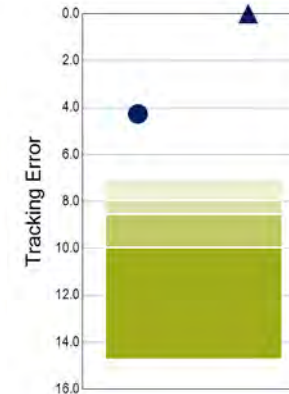
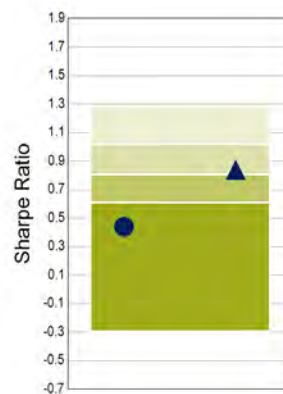
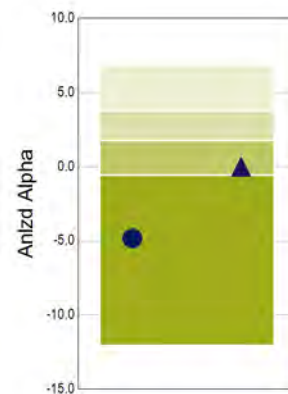
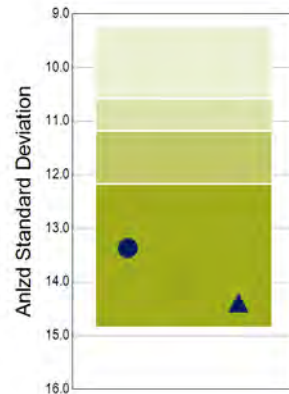
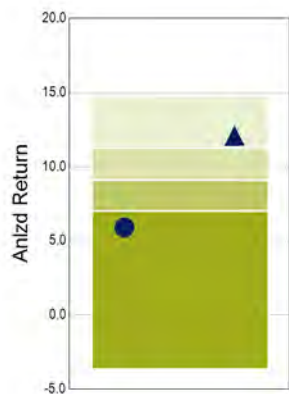
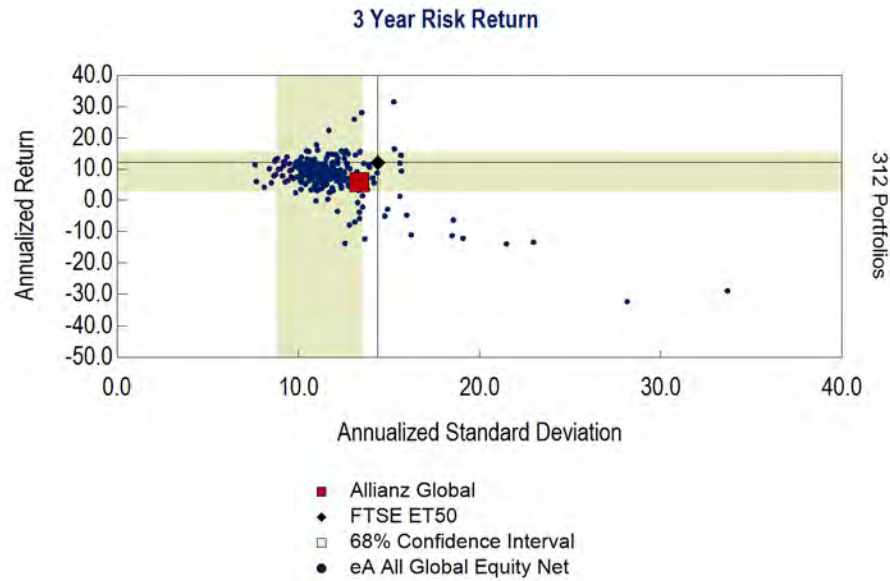
eA All Global Equity Net Accounts



Annualized Excess Performance



Returns are net of fees



Returns are net of fees

## Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	17	926
Weighted Avg. Market Cap. (\$B)	4.6	53.9
Median Market Cap. (\$B)	4.4	8.7
Price To Earnings	20.6	19.7
Price To Book	1.9	2.5
Price To Sales	1.0	2.2
Return on Equity (%)	6.5	13.9
Yield (%)	3.0	3.1
Beta		1.0
R-Squared		1.0

## Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.3%	--	0.2%	--	--	0.8%	0.0%	4.8%			
Materials	0.4%	0.5%	0.1%	-0.2%	6.6%	1.1%	3.3%	6.6%			
Industrials	-2.9%	-0.6%	0.8%	-3.1%	1.8%	6.5%	64.3%	12.5%			
Cons. Disc.	0.0%	-0.5%	-0.1%	0.6%	3.5%	5.7%	4.4%	13.0%			
Cons. Staples	0.1%	--	-0.1%	--	--	5.3%	0.0%	11.9%			
Health Care	0.1%	--	-0.1%	--	--	5.4%	0.0%	11.9%			
Financials	0.7%	--	0.5%	--	--	3.5%	0.0%	25.8%			
Info. Tech	-0.1%	-0.1%	0.2%	-0.1%	8.1%	10.5%	7.5%	4.8%			
Telecomm.	0.0%	--	-0.1%	--	--	6.5%	0.0%	4.9%			
Utilities	-1.1%	-0.3%	-0.2%	-0.6%	-4.8%	2.4%	11.4%	3.8%			
Cash	-0.6%	0.0%	-0.6%	0.0%	0.0%	--	9.1%	0.0%			
<b>Portfolio</b>	<b>-3.1%</b>	<b>=</b>	<b>-1.2%</b>	<b>+</b>	<b>0.6%</b>	<b>+</b>	<b>-2.5%</b>	<b>1.6%</b>	<b>4.7%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
ACUITY BRANDS	1.0%	33.2%
SPIRAX-SARCO ENGR.	0.4%	14.9%
XYLEM	0.4%	11.5%
EDP RENOVAVEIS	0.4%	20.3%
TRIMBLE NAVIGATION	0.4%	30.6%
SUNPOWER	0.4%	49.8%
SOLARCITY	0.3%	19.5%
WOODWARD	0.3%	22.3%
INTERTEK GROUP	0.3%	11.9%
DANAHER	0.2%	9.2%

**Top Negative Contributors**

	Relative Contribution %	Return %
CHIN.LONGYUAN PWR.GP.'H'	-0.9%	-29.7%
STERICYCLE	-0.9%	-13.4%
BRAMMER	-0.6%	-30.6%
OSRAM LICHT	-0.5%	-17.8%
HUANENG RENEWS. 'H'	-0.3%	-18.9%
SUNEDISON	-0.2%	-29.1%
SENIOR	-0.2%	-10.3%
BUREAU VERITAS INTL.	-0.2%	-5.0%
ARCADIS	-0.2%	-14.0%
CHINA EVERBRIGHT INTL.	-0.1%	-7.9%



- **Manager Role in Portfolio**

- Global Natural Resources manager

- **Organizational Profile**

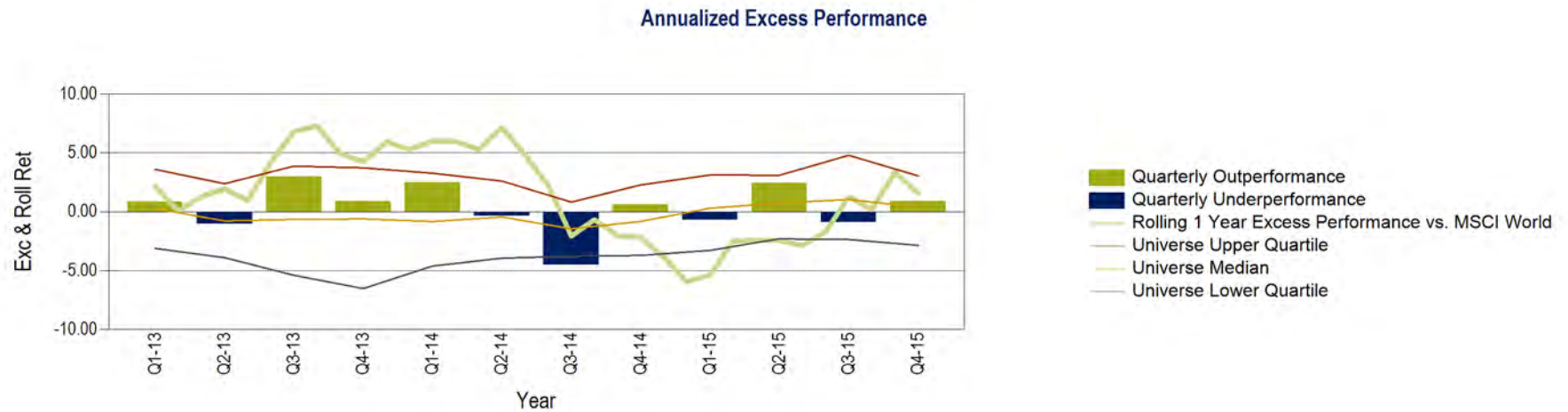
- SAM USA is an SEC registered Investment Adviser fully dedicated to global, regional and thematic sustainable investing.
- SAM USA's parent company, SAM was founded in 1995 as an independent asset management company specializing in sustainability investments.
- In February 2007, Robeco Group acquired a 64% stake in SAM, with the remaining 36% held by SAM's management and employees. Since the alliance with Robeco, an employment participation plan has been created, leading to a 38% ownership of SAM by employees and management.
- On January 1, 2011, Michael Baldinger, former head of Global Clients & Marketing, replaced Sander Van Eijken as CEO, who stepped down in February of 2010. Neil Johnson was named the new head of Global Clients & Marketing.
- SAM is headquartered in New York, NY and has offices in Zurich, Switzerland, Sonoma, CA, and Boston, MA.

- **Investment Strategy Commentary**

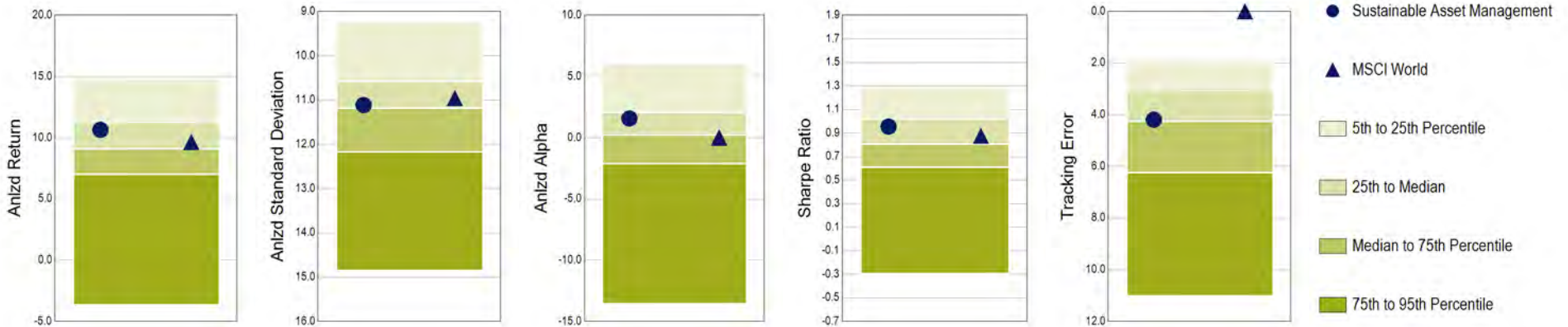
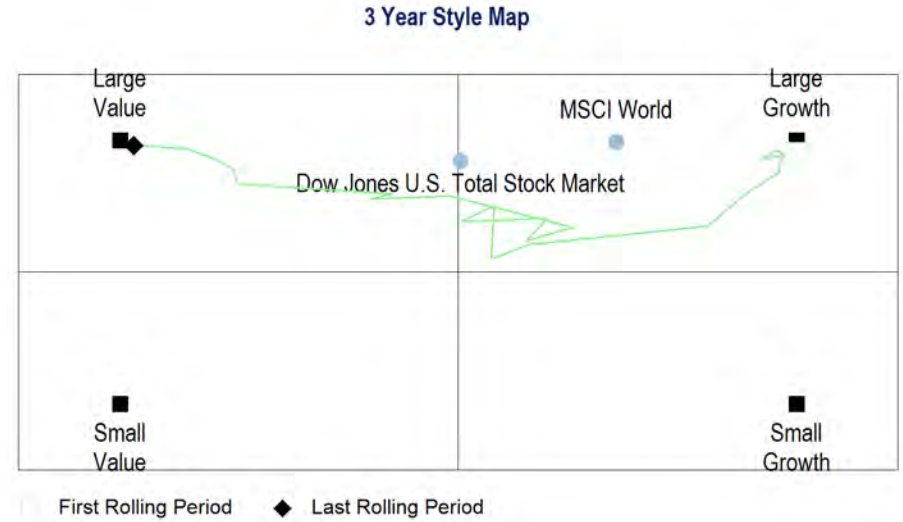
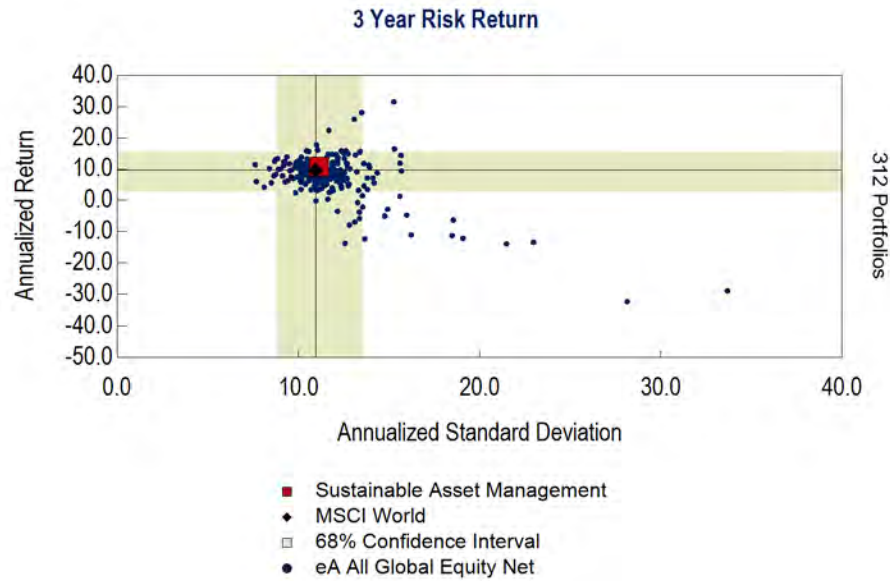
- A disciplined, well-structured process that strives for an optimal risk/return profile, highlighting stock selection as the predominant return source.
- The portfolio construction is bottom-up driven. Stocks are weighted within the portfolio according to the results of the DCF valuation and their expected upside potential.
- Portfolios are monitored and rebalanced on a continuous basis.
- Even theme portfolios have strong biases in terms of sectors or risk factors (small caps), so asset selection remains an important risk and performance source.
- Risk management is executed with quantitative risk models on a monthly basis.

- **Due Diligence Notes**

- On February 19, 2013, it was announced that ORIX Corporation, a publicly-traded, Tokyo-based diversified financial services company, would be acquiring approximately 90.01% of Robeco from Rabobank. In this agreement, Rabobank will retain 9.99% of Robeco and will continue to maintain and expand Robeco's business platform.



Returns are net of fees



Returns are net of fees

## Characteristics

	Portfolio	MSCI World
Number of Holdings	89	1,653
Weighted Avg. Market Cap. (\$B)	13.4	93.3
Median Market Cap. (\$B)	3.4	10.3
Price To Earnings	25.6	21.2
Price To Book	3.4	3.4
Price To Sales	2.6	2.7
Return on Equity (%)	13.5	15.9
Yield (%)	2.0	2.5
Beta		1.0
R-Squared		1.0

## Equity Sector Attribution

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.2%	-4.1%	0.4%	3.9%	-62.7%	-0.5%	0.4%	6.6%			
Materials	0.0%	0.0%	0.0%	0.0%	4.6%	4.4%	4.7%	4.4%			
Industrials	-0.8%	-0.2%	0.5%	-1.0%	4.7%	6.9%	45.3%	10.7%			
Cons. Disc.	0.3%	0.7%	0.0%	-0.5%	11.8%	5.4%	2.6%	13.3%			
Cons. Staples	0.0%	0.6%	-0.1%	-0.4%	9.8%	6.4%	1.1%	10.5%			
Health Care	1.0%	1.2%	0.0%	-0.1%	16.5%	7.1%	11.2%	13.4%			
Financials	0.4%	-0.1%	0.2%	0.3%	3.7%	4.3%	0.8%	21.1%			
Info. Tech	0.1%	1.0%	-0.2%	-0.7%	15.4%	8.4%	4.1%	13.2%			
Telecomm.	0.0%	--	0.0%	--	--	6.5%	0.0%	3.4%			
Utilities	-0.5%	0.1%	-1.0%	0.4%	3.9%	1.6%	27.7%	3.3%			
Cash	-0.1%	0.0%	-0.1%	0.0%	0.0%	--	2.1%	0.0%			
<b>Portfolio</b>	<b>0.6%</b>	<b>=</b>	<b>-0.8%</b>	<b>+</b>	<b>-0.4%</b>	<b>+</b>	<b>1.8%</b>	<b>6.1%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>

**Top Positive Contributors**

	Relative Contribution %	Return %
THERMO FISHER SCIENTIFIC	0.7%	16.1%
XYLEM	0.5%	11.5%
DANAHER	0.4%	9.2%
SMITH (AO)	0.4%	17.8%
WATERS	0.4%	13.8%
AGILENT TECHS.	0.3%	22.1%
PERKINELMER	0.3%	16.7%
TRIMBLE NAVIGATION	0.3%	30.6%
AQUA AMERICA	0.3%	13.3%
EBARA	0.2%	31.0%

**Top Negative Contributors**

	Relative Contribution %	Return %
CARDNO	-0.3%	-46.9%
WEIR GROUP	-0.3%	-15.9%
NEWALTA	-0.2%	-62.7%
IMI	-0.2%	-11.6%
SPX FLOW	-0.1%	-18.9%
EXOVA GROUP	-0.1%	-21.2%
CHINA EVERBRIGHT INTL.	-0.1%	-7.9%
SIIC ENVIRONMENT HDG.	-0.1%	-8.7%
GUANGDONG INVESTMENT	-0.1%	-4.7%
ARCADIS	-0.1%	-14.0%

## Sustainable Asset Management

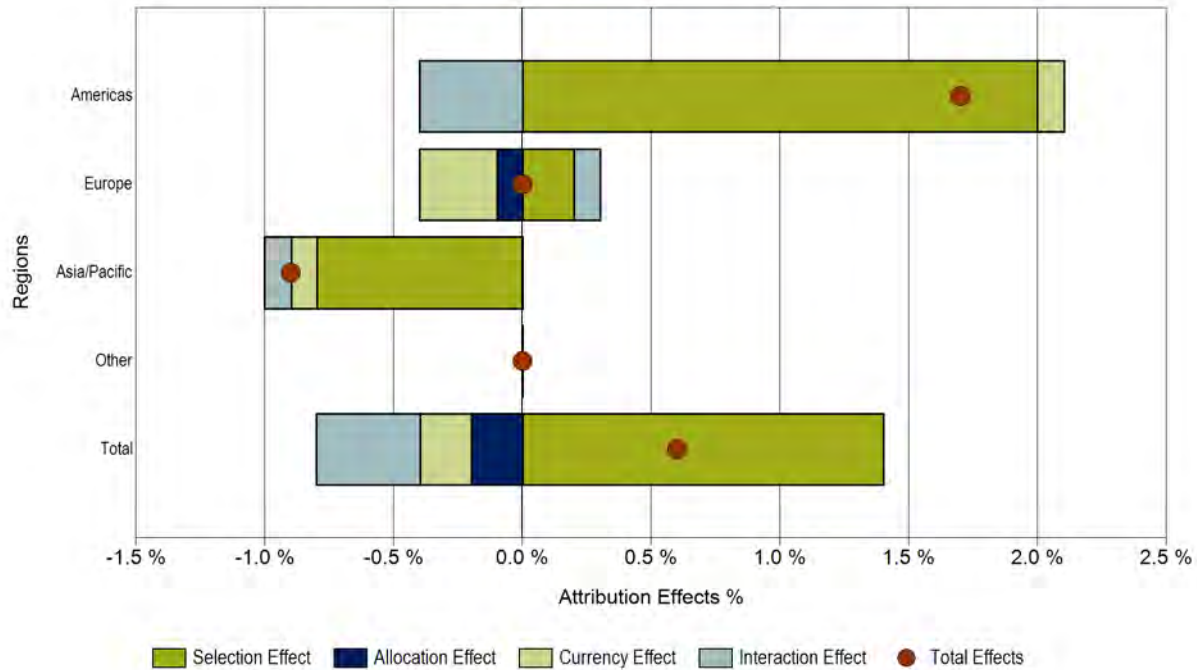
## Country Allocation

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Argentina**	0.0%	0.0%	--	--
Brazil*	0.7%	0.0%	25.5%	-3.3%
Canada	0.9%	3.4%	-21.4%	-4.8%
Chile*	0.0%	0.0%	--	--
Colombia*	0.0%	0.0%	--	--
Mexico*	0.5%	0.0%	3.8%	-1.2%
Peru*	0.0%	0.0%	--	--
United States	47.0%	58.2%	9.8%	6.7%
<b>Total-Americas</b>	<b>49.1%</b>	<b>61.6%</b>	<b>9.4%</b>	<b>6.1%</b>
<b>Europe</b>				
Austria	0.9%	0.1%	8.9%	6.9%
Belgium	0.0%	0.5%	--	13.6%
Czech Republic*	0.0%	0.0%	--	--
Denmark	1.2%	0.7%	10.6%	6.7%
Finland	0.8%	0.3%	0.1%	9.7%
France	9.1%	3.9%	4.7%	1.8%
Germany	1.1%	3.4%	9.7%	7.6%
Greece*	0.0%	0.0%	--	--
Hungary*	0.0%	0.0%	--	--
Ireland	0.0%	0.2%	--	7.3%
Italy	0.0%	1.0%	--	-2.2%
Luxembourg	0.0%	0.0%	--	--
Netherlands	0.6%	1.1%	-13.9%	3.6%
Norway	0.0%	0.2%	--	-1.5%
Poland*	0.0%	0.0%	--	--
Portugal	0.0%	0.1%	--	4.5%
Russia*	0.0%	0.0%	--	--
Spain	0.0%	1.3%	--	-2.6%
Sweden	0.9%	1.1%	12.6%	2.5%
Switzerland	4.8%	3.7%	10.1%	2.0%
United Kingdom	14.7%	7.8%	-0.6%	0.7%
<b>Total-Europe</b>	<b>34.0%</b>	<b>25.4%</b>	<b>3.4%</b>	<b>2.5%</b>

## Country Allocation

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	0.6%	2.5%	-46.8%	10.3%
China*	0.1%	0.0%	24.1%	4.0%
Hong Kong	4.4%	1.2%	-4.5%	6.0%
Japan	4.9%	8.6%	15.5%	9.4%
Korea*	1.3%	0.0%	1.6%	5.4%
Philippines*	1.5%	0.0%	7.8%	-0.5%
Singapore	1.7%	0.5%	-5.3%	4.3%
Thailand*	0.2%	0.0%	0.9%	-6.2%
<b>Total-AsiaPacific</b>	<b>14.8%</b>	<b>12.8%</b>	<b>2.3%</b>	<b>9.1%</b>
<b>Totals</b>				
Developed	93.6%	100.0%	6.2%	5.6%
Emerging*	4.3%	0.0%	8.0%	--
Cash	2.1%		0.0%	

Sustainable Asset Management Performance Attribution vs. MSCI World



	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
<b>Totals</b>									
Americas	9.4%	6.1%	49.1%	61.6%	2.0%	0.0%	0.1%	-0.4%	1.7%
Europe	3.4%	2.5%	34.0%	25.4%	0.2%	-0.1%	-0.3%	0.1%	0.0%
Asia/Pacific	2.3%	9.1%	14.8%	12.8%	-0.8%	0.0%	-0.1%	-0.1%	-0.9%
Other	--	9.9%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Cash	0.0%	--	2.1%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%
<b>Total</b>	<b>6.1%</b>	<b>5.6%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>1.4%</b>	<b>-0.2%</b>	<b>-0.2%</b>	<b>-0.4%</b>	<b>0.6%</b>
<b>Totals</b>									
Developed	6.2%	5.6%	93.6%	100.0%	0.9%	0.0%	-0.2%	-0.1%	0.6%
Emerging*	8.0%	--	4.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Cash	0.0%	--	2.1%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%

- **Manager Role in Portfolio**

- Represents the external emerging market debt portion of the global fixed income allocation

- **Organizational Profile**

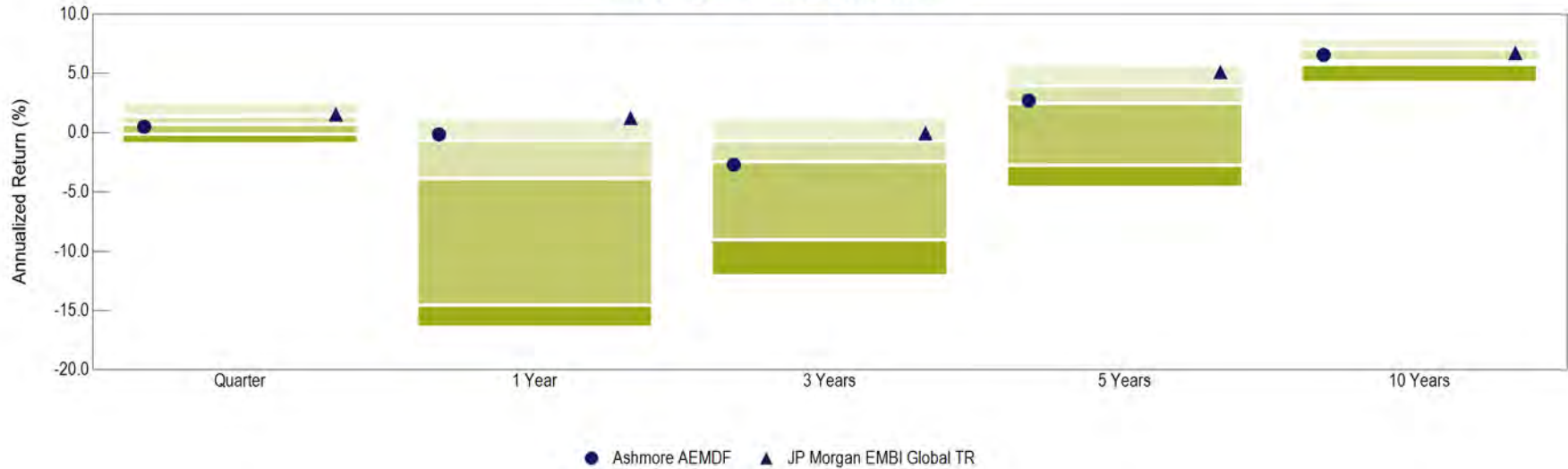
- Established in 1992 with a management buyout in 1998/1999
- Ashmore Group plc, the parent company of Ashmore Investment Management Limited ("AIML" or "Ashmore"), was listed on the London Stock Exchange in October 2006.
- Specialist in emerging market investing

- **Investment Strategy Commentary**

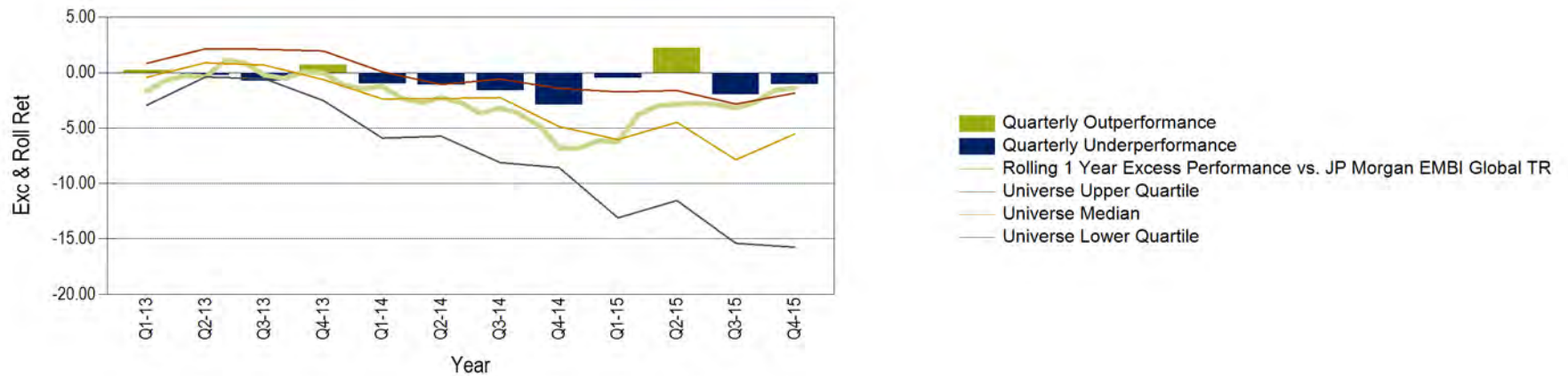
- Ashmore combines top down thematic approaches with issue-by-issue security selection.
- Process is overseen by an investment committee which meets weekly to approve all strategies and transactions.
- Strong emphasis on risk management in portfolio construction and ongoing monitoring.



eA All Emg Mkts Fixed Inc Net Accounts

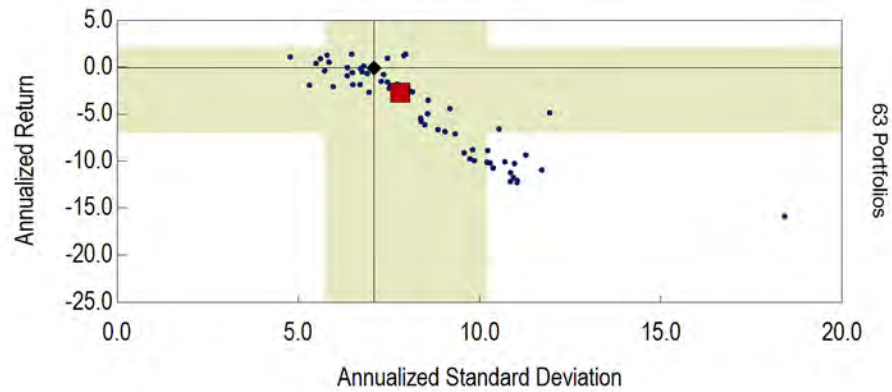


Annualized Excess Performance



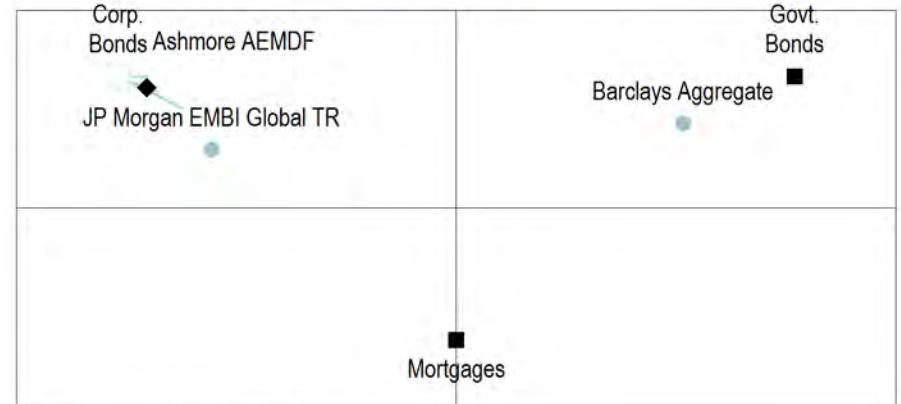
Returns are net of fees

3 Year Risk Return

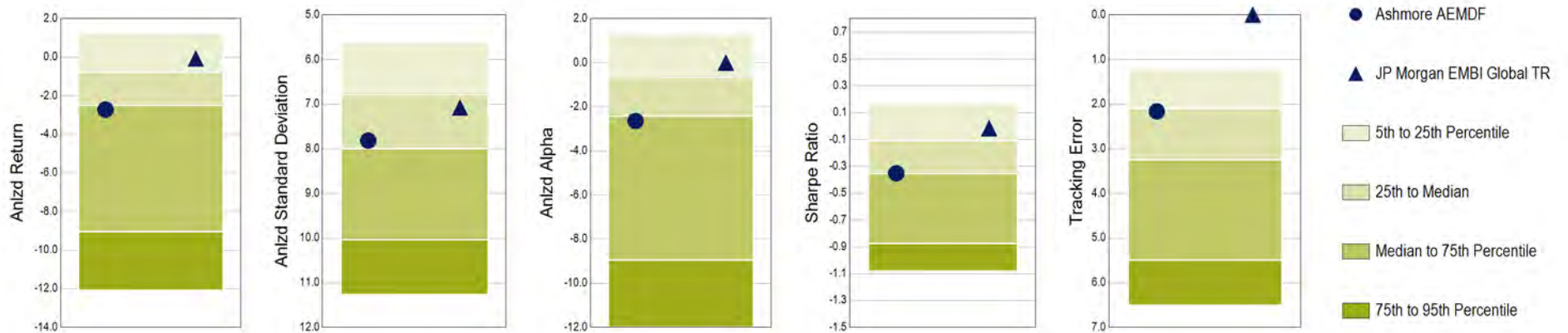


- Ashmore AEMDF
- ◆ JP Morgan EMBI Global TR
- 68% Confidence Interval
- eA All Emg Mkts Fixed Inc Net

3 Year Style Map



- First Rolling Period
- ◆ Last Rolling Period

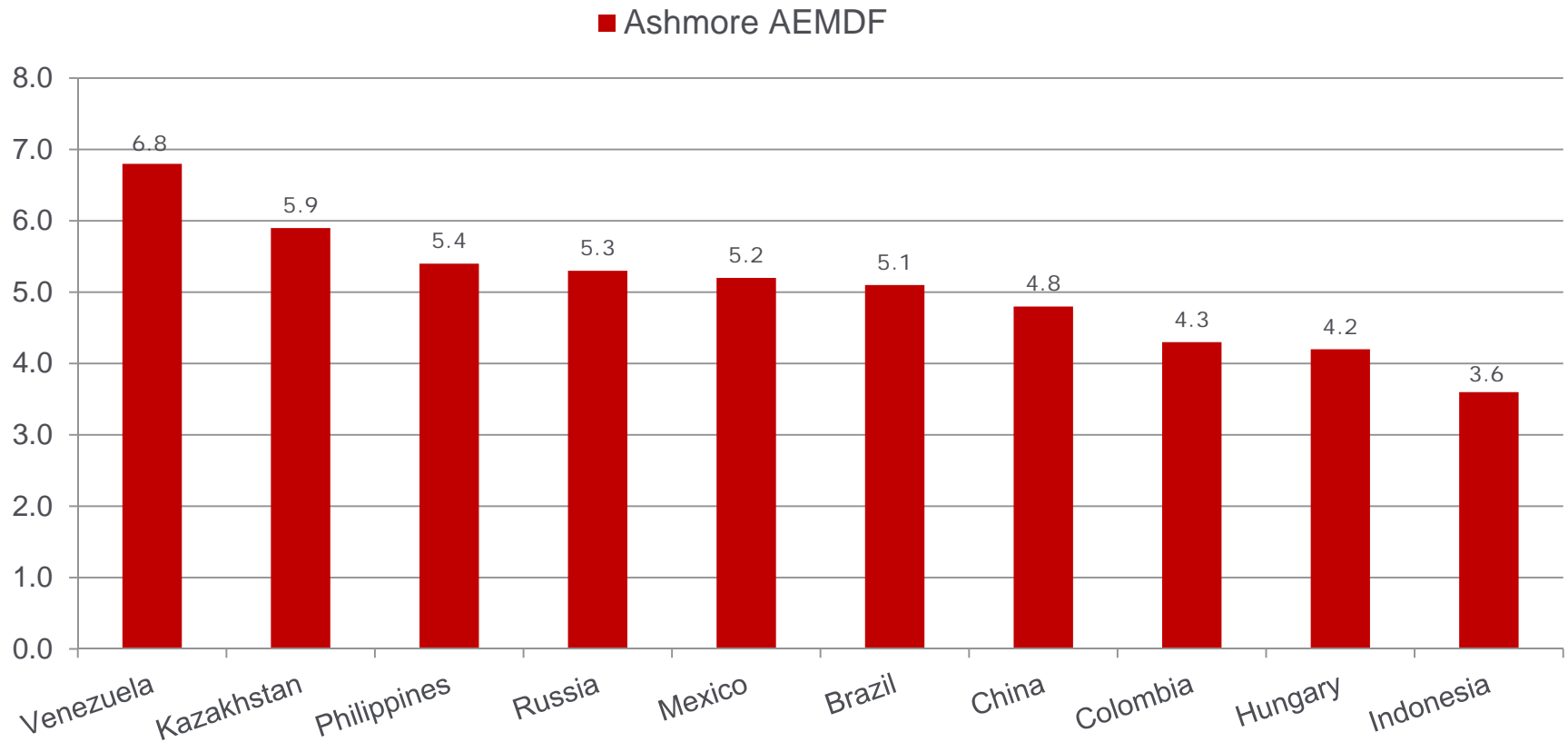


Returns are net of fees

<b>Characteristics</b>	<b>Ashmore AEMDF</b>
Average Modified Duration	6.3
Average Life (years)	11.4
Yield	7.9
Sharpe Ratio	-0.5
Information Ratio	-0.7
Beta	1.2

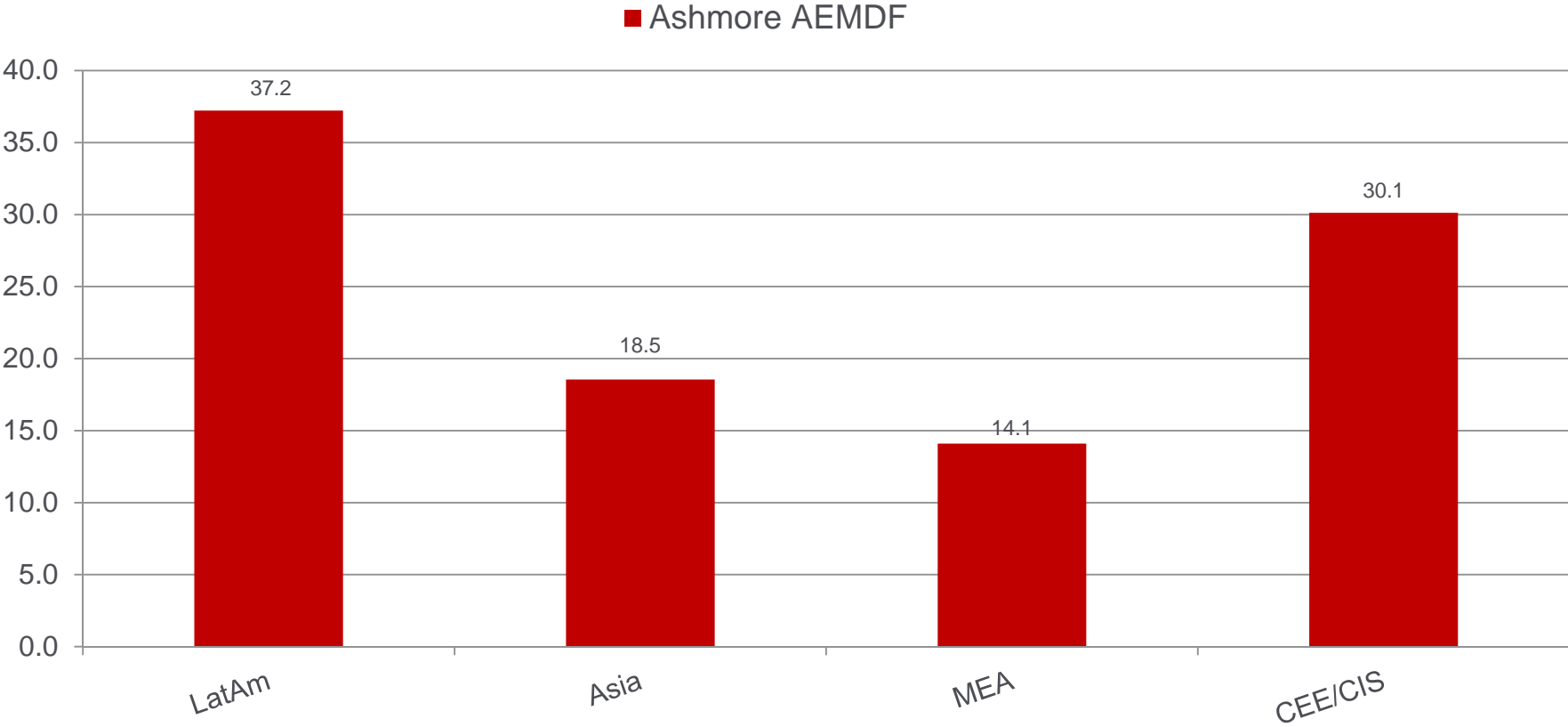
Source: Ashmore, December 2015

## Largest Country Positions



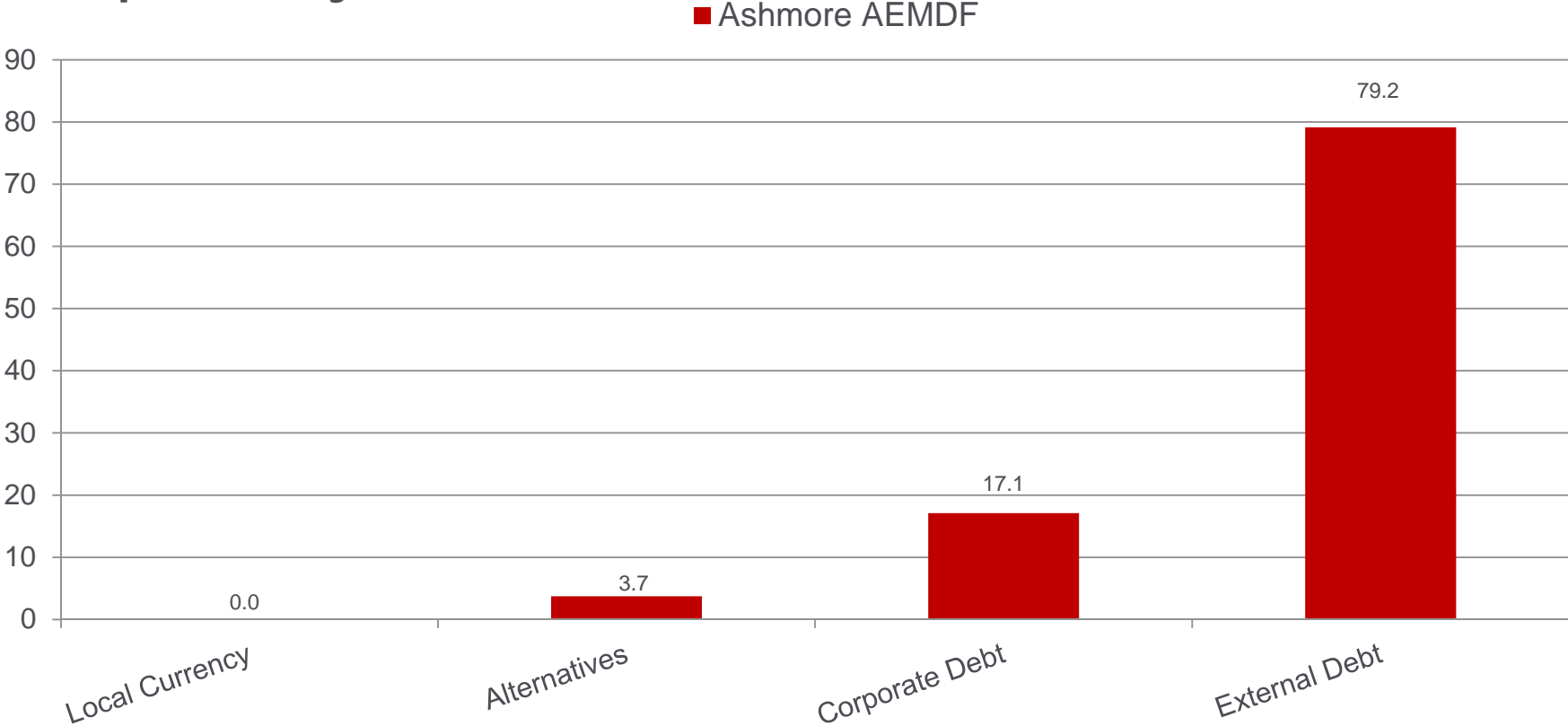
Source: Ashmore, December 2015

### Exposure by Region



Source: Ashmore, December 2015

### Exposure by Theme



Source: Ashmore, December 2015

- **Manager Role in Portfolio**

- Represents the local emerging market debt portion of the global fixed income allocation

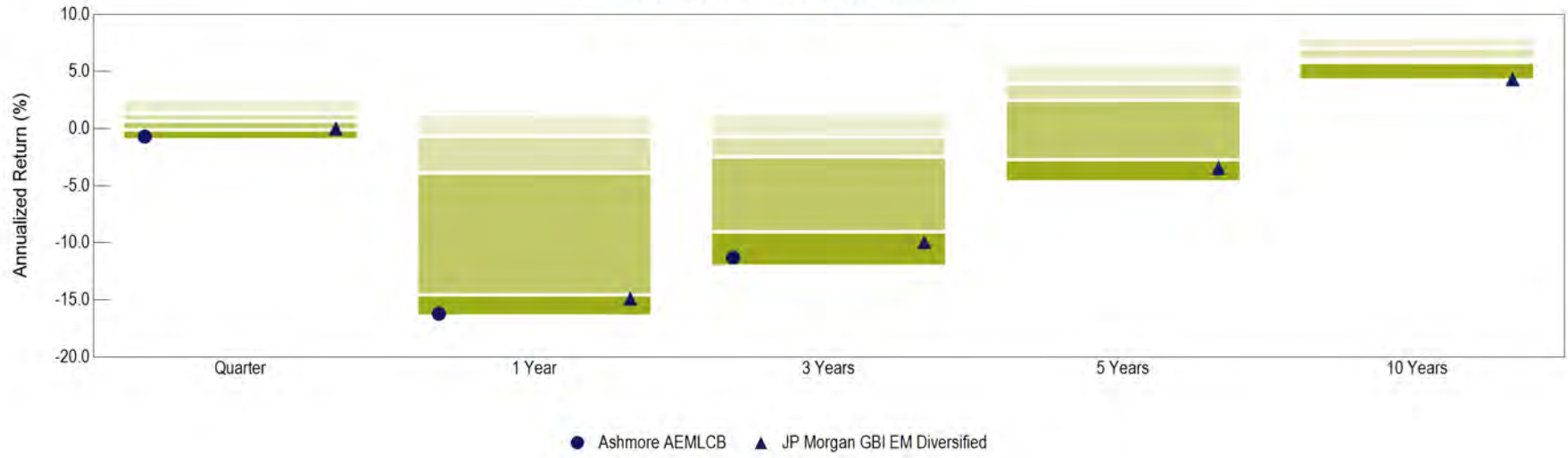
- **Organizational Profile**

- Established in 1992 with a management buyout in 1998/1999
- Ashmore Group plc, the parent company of Ashmore Investment Management Limited ("AIML" or "Ashmore"), was listed on the London Stock Exchange in October 2006.
- Specialist in emerging market investing

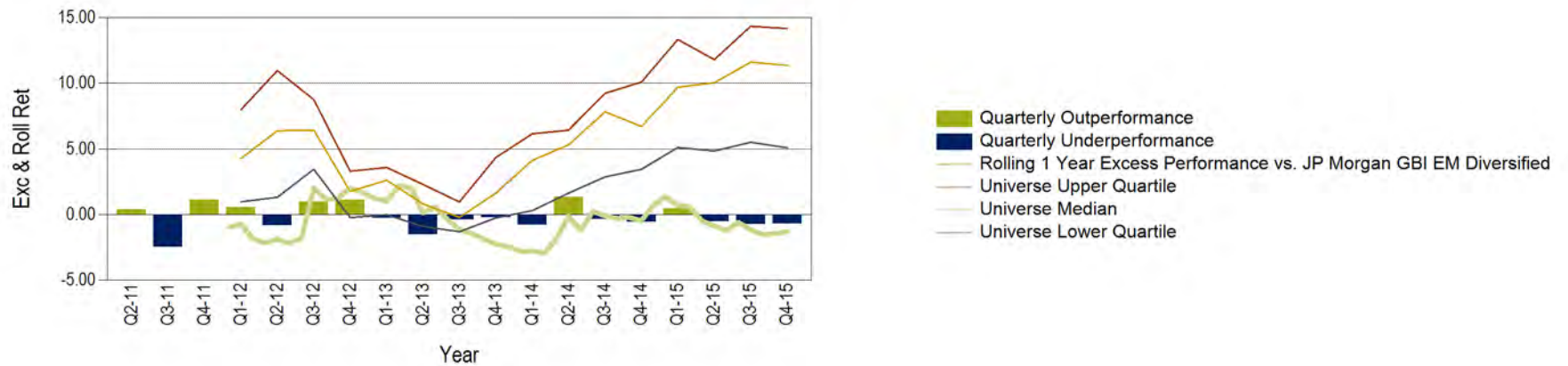
- **Investment Strategy Commentary**

- Ashmore combines top down thematic approaches with issue-by-issue security selection.
- Process is overseen by an investment committee which meets weekly to approve all strategies and transactions.
- Strong emphasis on risk management in portfolio construction and ongoing monitoring.

eA All Emg Mkts Fixed Inc Net Accounts



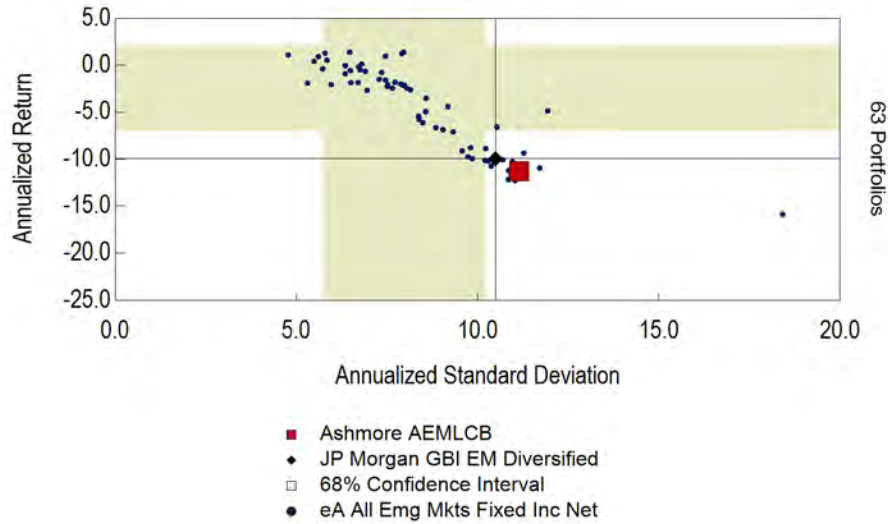
Annualized Excess Performance



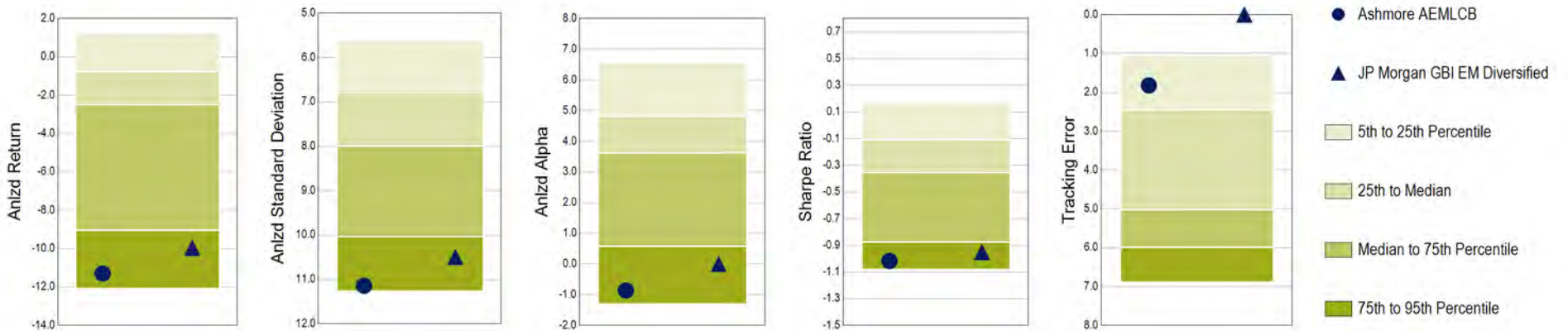
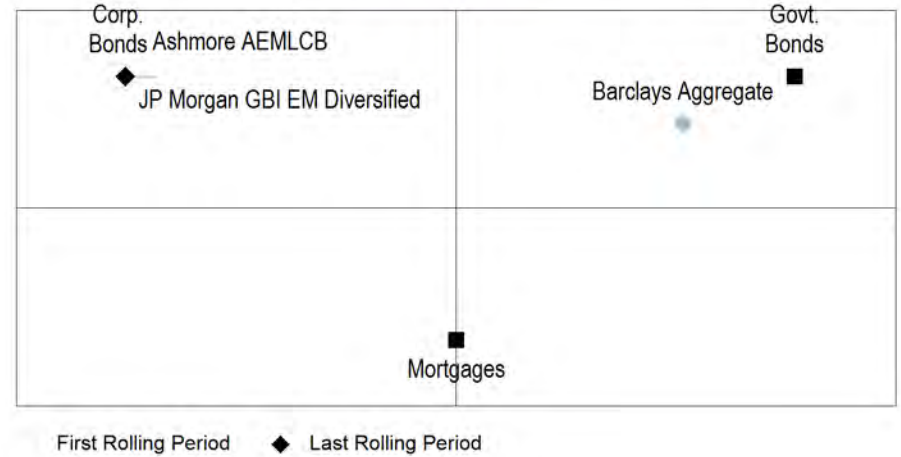
Returns are net of fees



3 Year Risk Return

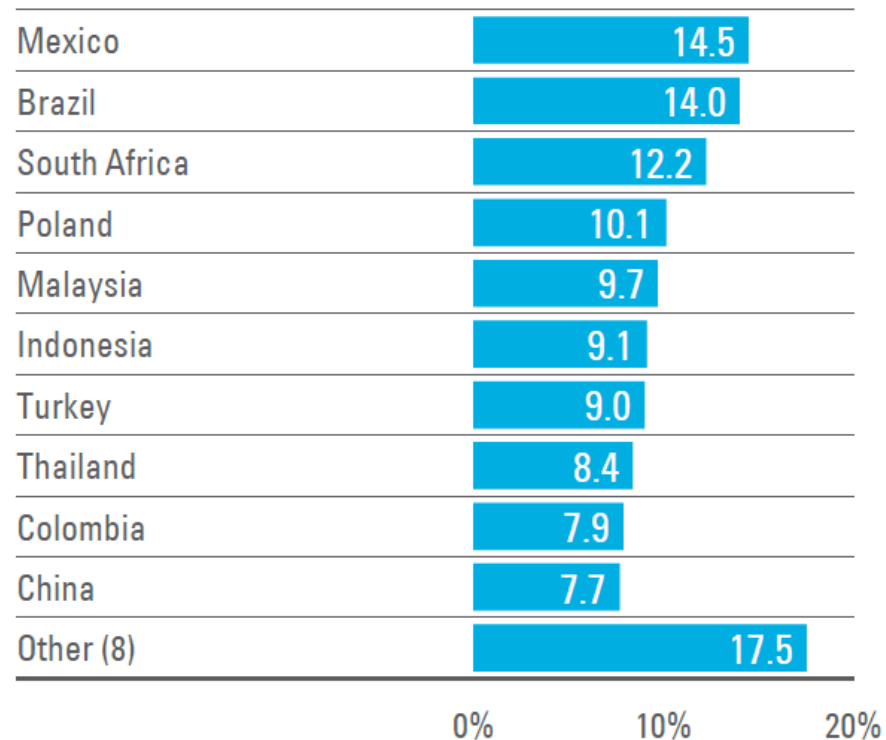


3 Year Style Map

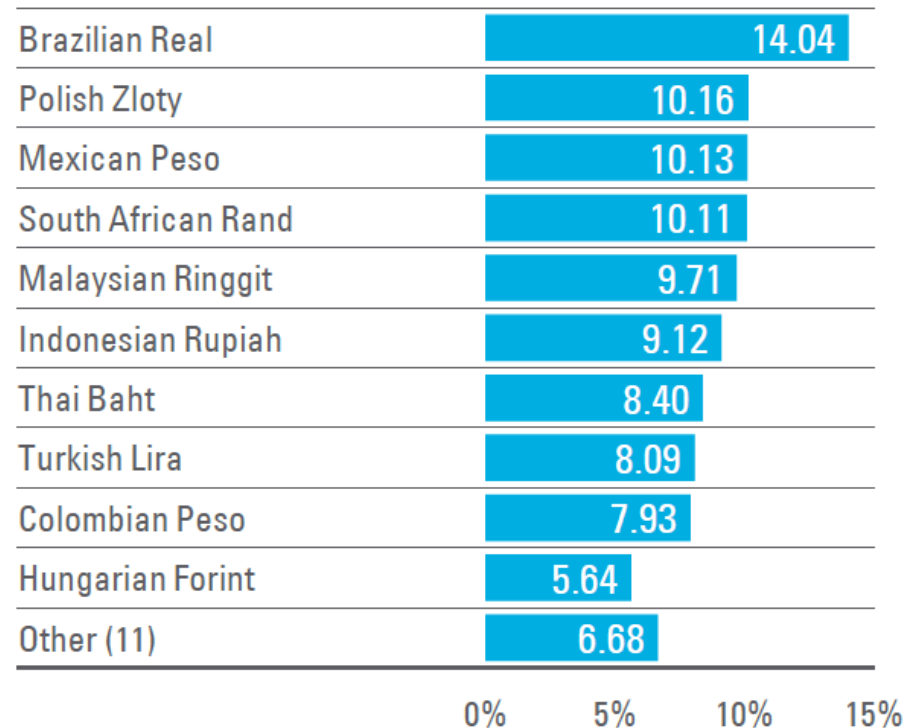


Returns are net of fees

**Top 10 exposures by country**



**Top 10 exposures by currency**



Source: Ashmore, December 2015

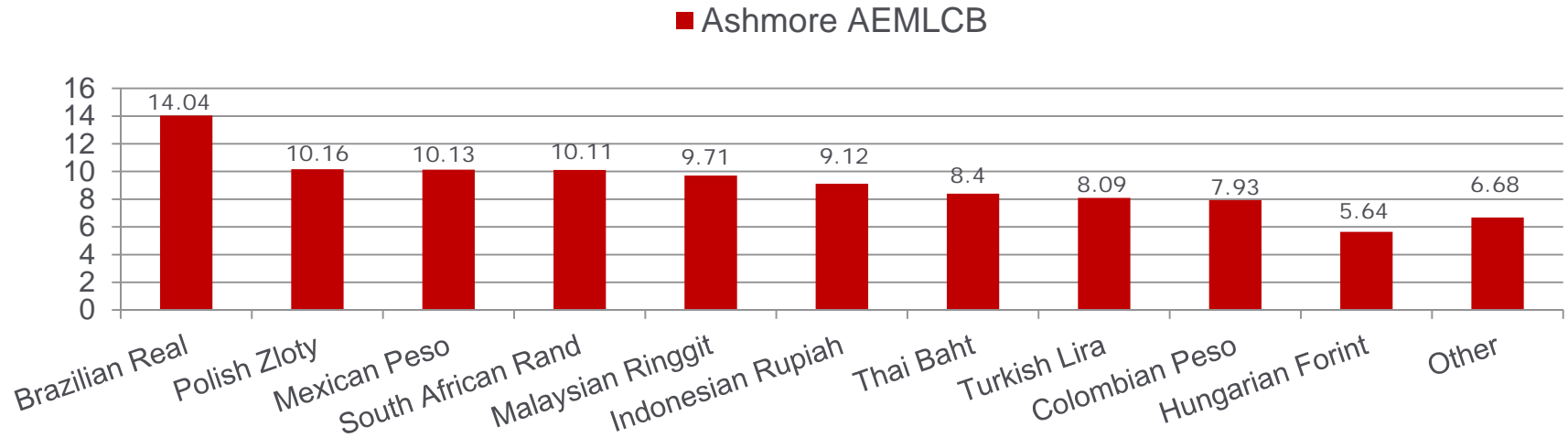
Credit rating of debt instruments	Fund	Top 10 holdings	Fund
AAA	0.0%	Colombia Tes 10% 24/07/2024	2.8%
AA	0.2%	Rep Of South Africa 10.5% 21/12/2026 R186	2.5%
A	37.6%	Brazil Bltn 0% 0% 01/01/2018	2.3%
BBB	62.0%	Mexico Bonos 8% 07/12/2023 (M20)	2.3%
BB	0.1%	Mexico Bonos 8% 11/06/2020	2.2%
B	0.0%	Rep Of South Africa 7% 28/02/2031 R213	2.0%
<B	0.0%	Mexican Bonos 6.5% 10/06/2021	1.8%
Not rated	0.0%	Mexico Bonos 8.5% 13/12/2018	1.8%
		Rep Of South Africa 7.75% 28/02/2023	1.8%
		Colombia Tes 6% 28/04/28	1.8%
		Total	21.2%
		Total number of holdings	126

Source: Ashmore, December 2015

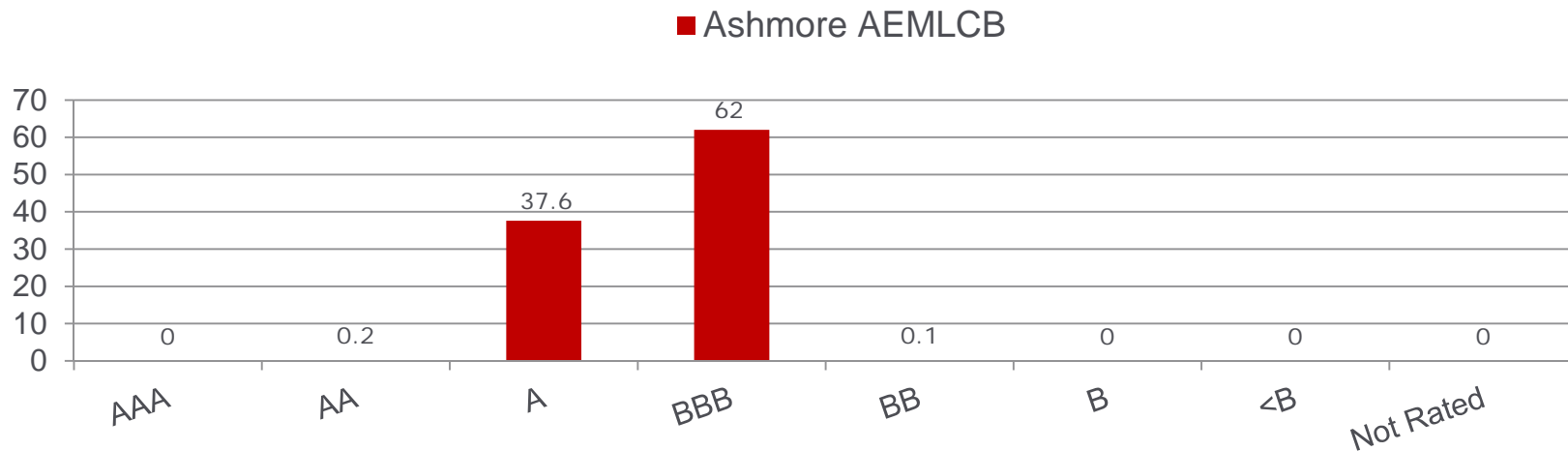
<b>Characteristics</b>	<b>Ashmore AEMLCB</b>
Average Modified Duration	5.6
Average Life (years)	7.6
Yield to Maturity	7.1

Source: Ashmore, December 2015

### Top 10 Currency Exposures (% of NAV)

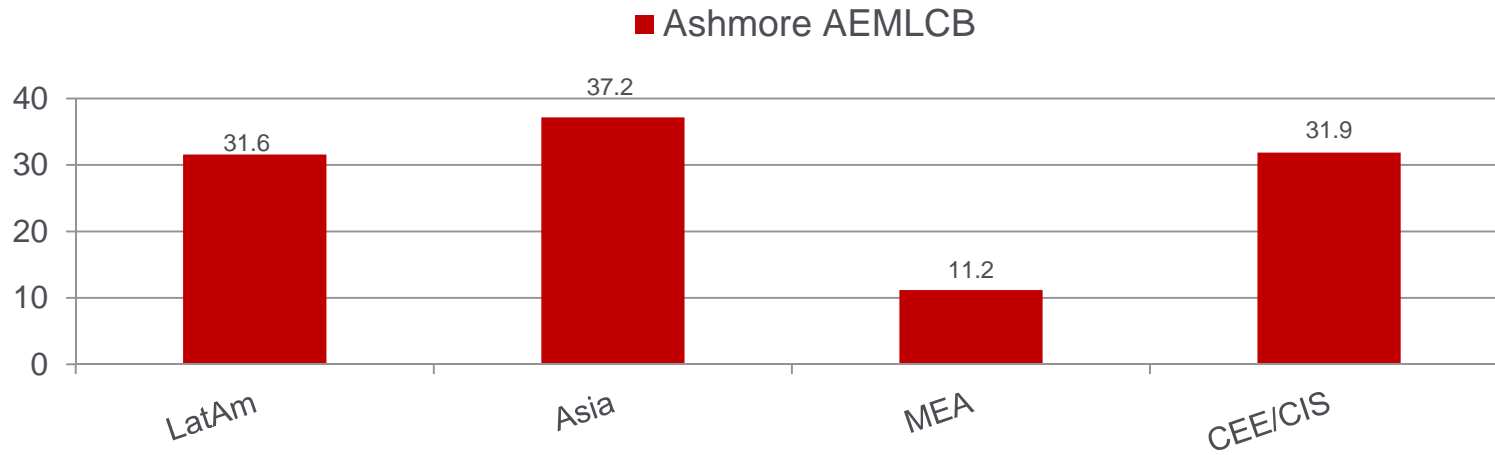


### Credit Rating of Debt Instruments (% of NAV)

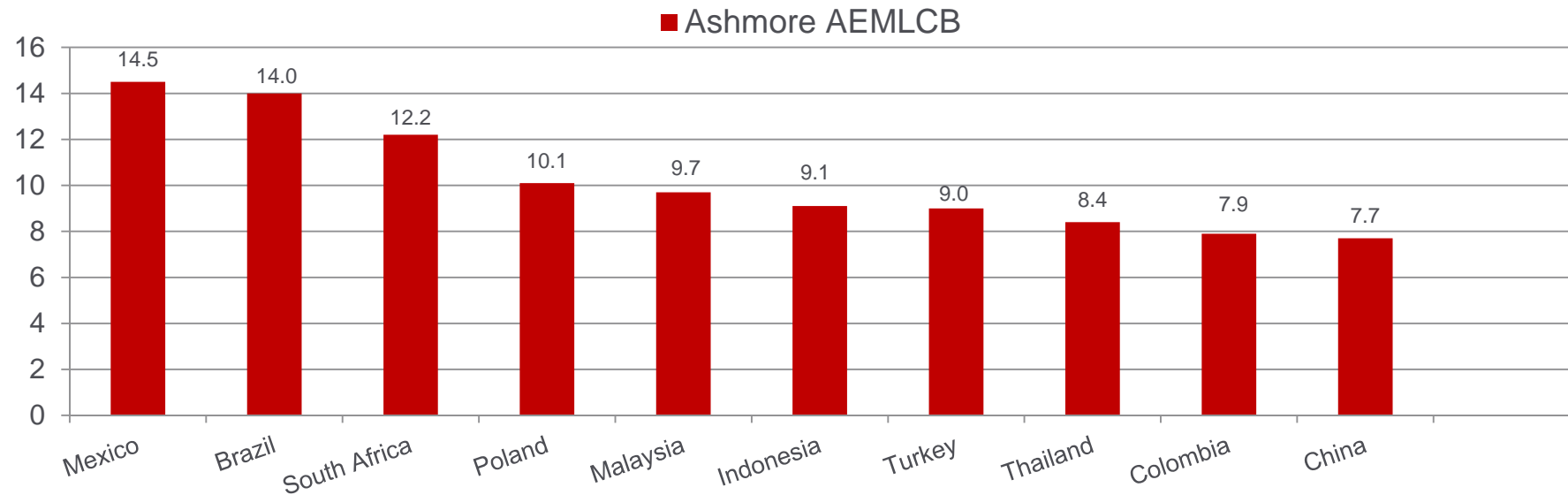


Source: Ashmore, December 2015

### Exposure by Region



### Top 10 Country Exposures (% of NAV)



Source: Ashmore, December 2015

- **Manager Role in Portfolio**

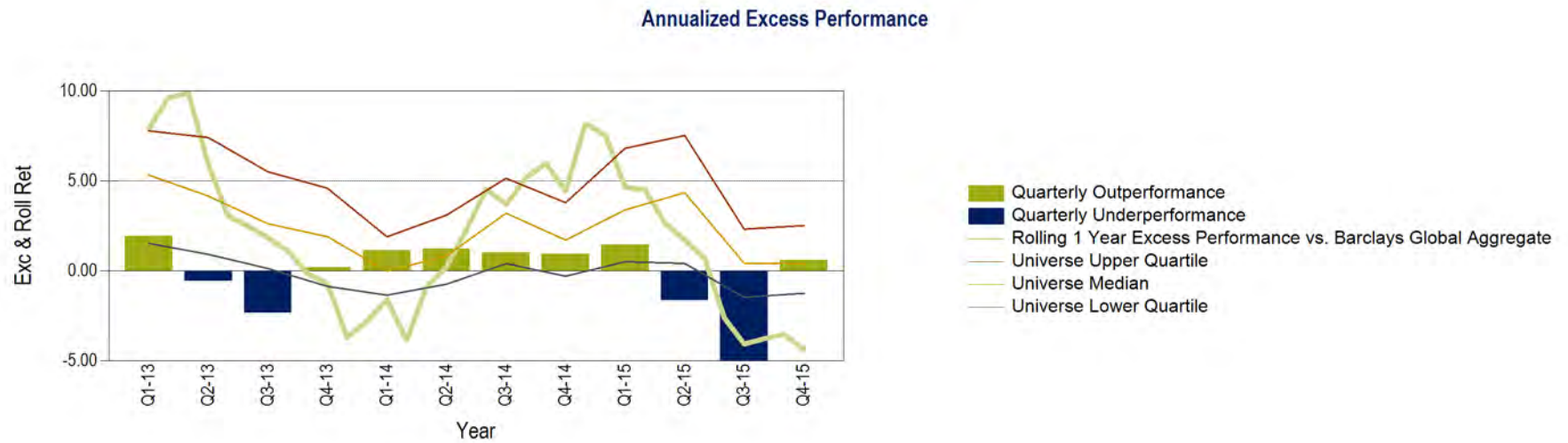
- One of two global fixed income managers

- **Organizational Profile**

- Brandywine Asset Management, LLC is a wholly-owned, independent subsidiary of Legg Mason, Inc. Prior to October 2001, they were Brandywine Asset Management, Inc. Of note, their senior investment professionals have non-competes with Legg Mason, Inc. for up to 6 years.

- **Investment Strategy Commentary**

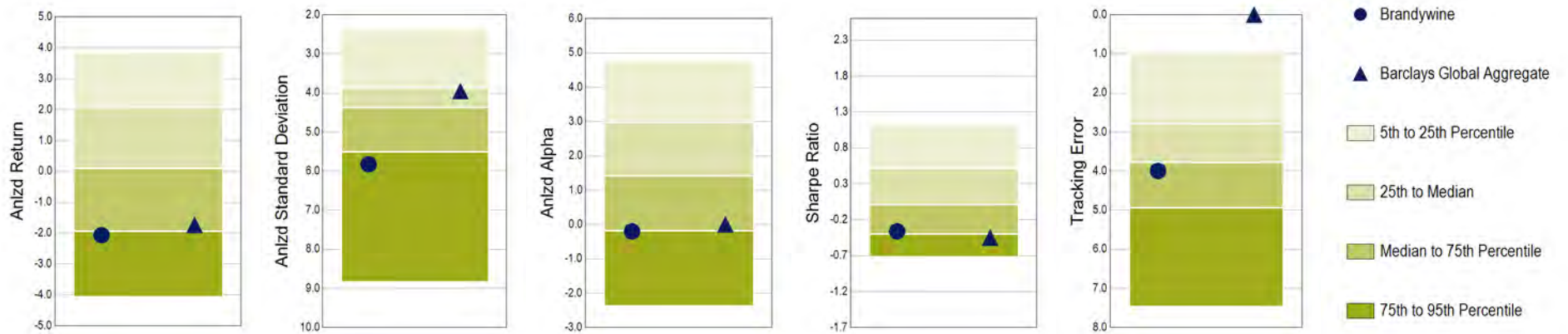
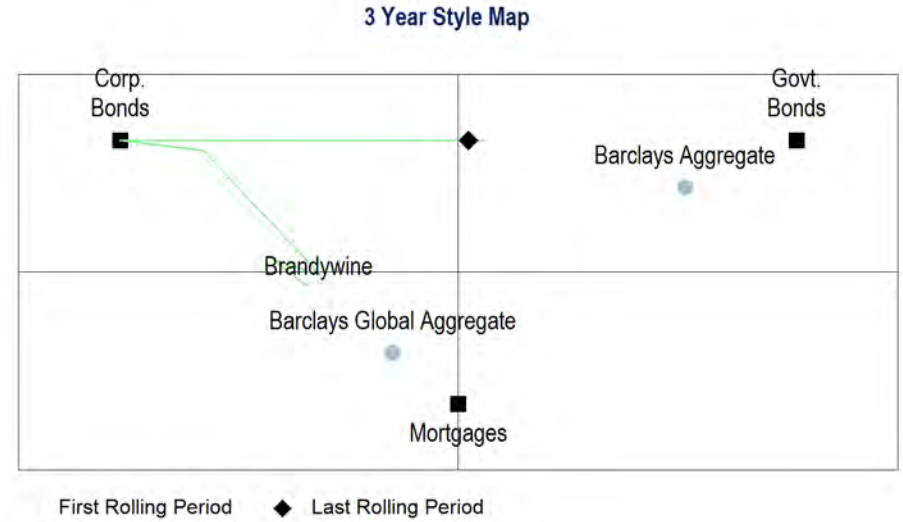
- Brandywine attempts to invest in bonds with the highest real yield, manage currencies to protect principle and increase returns, avoid index-like weights, limit risk and patiently rotate countries
- Secular trends drive bond markets and opportunities exist to add value by identifying trends which capitalize on the dynamics of liquidity cycles and business cycles in each country
- Currency valuations that Brandywine considers extreme are hedged



Returns are net of fees



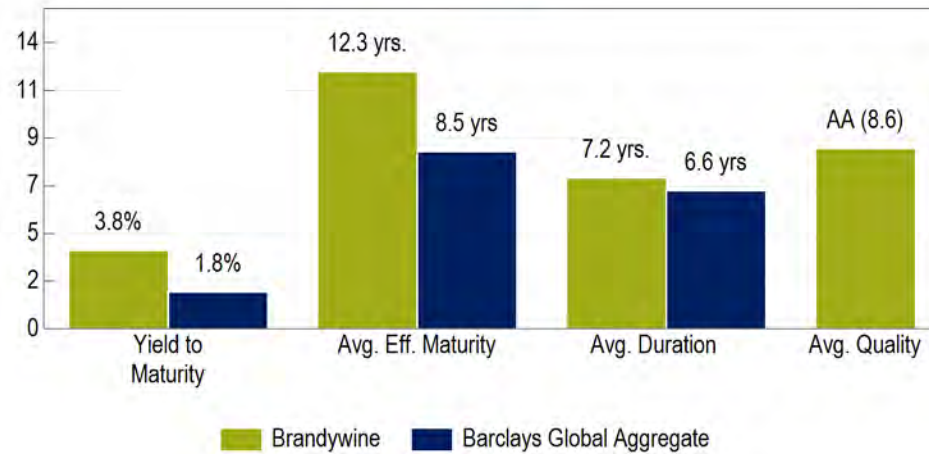
Brandywine



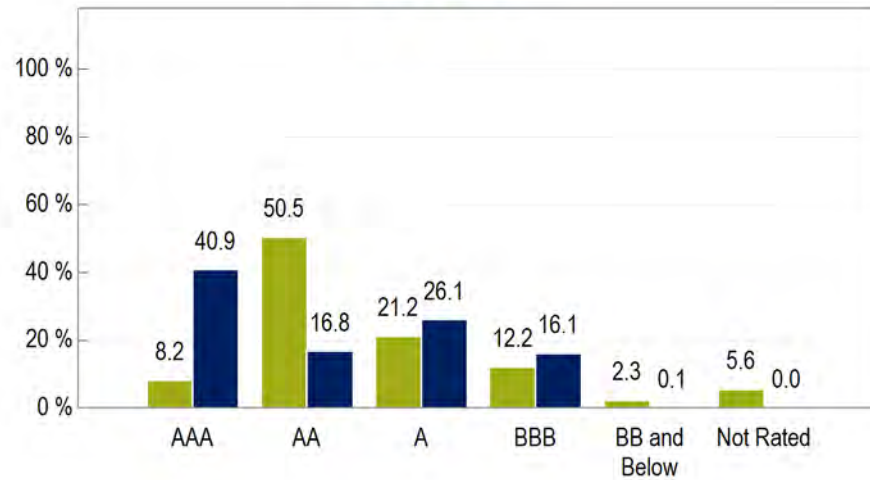
Returns are net of fees

Brandywine

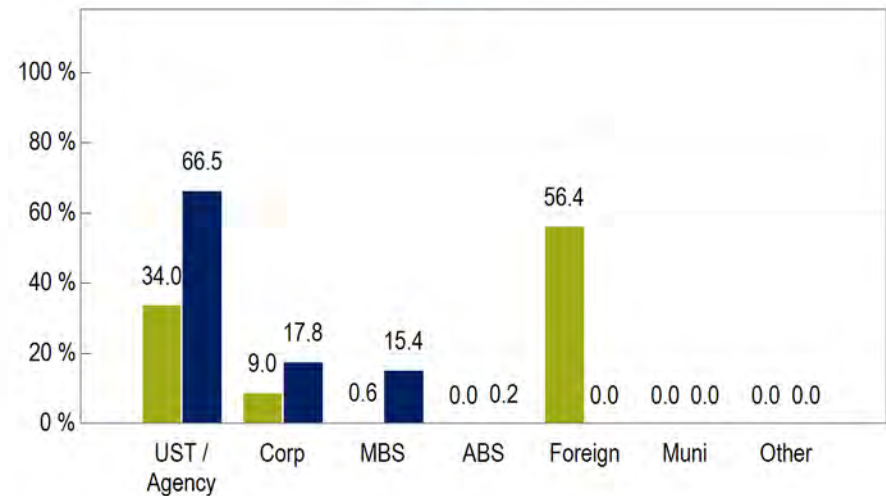
Characteristics



Quality Ratings



Sectors



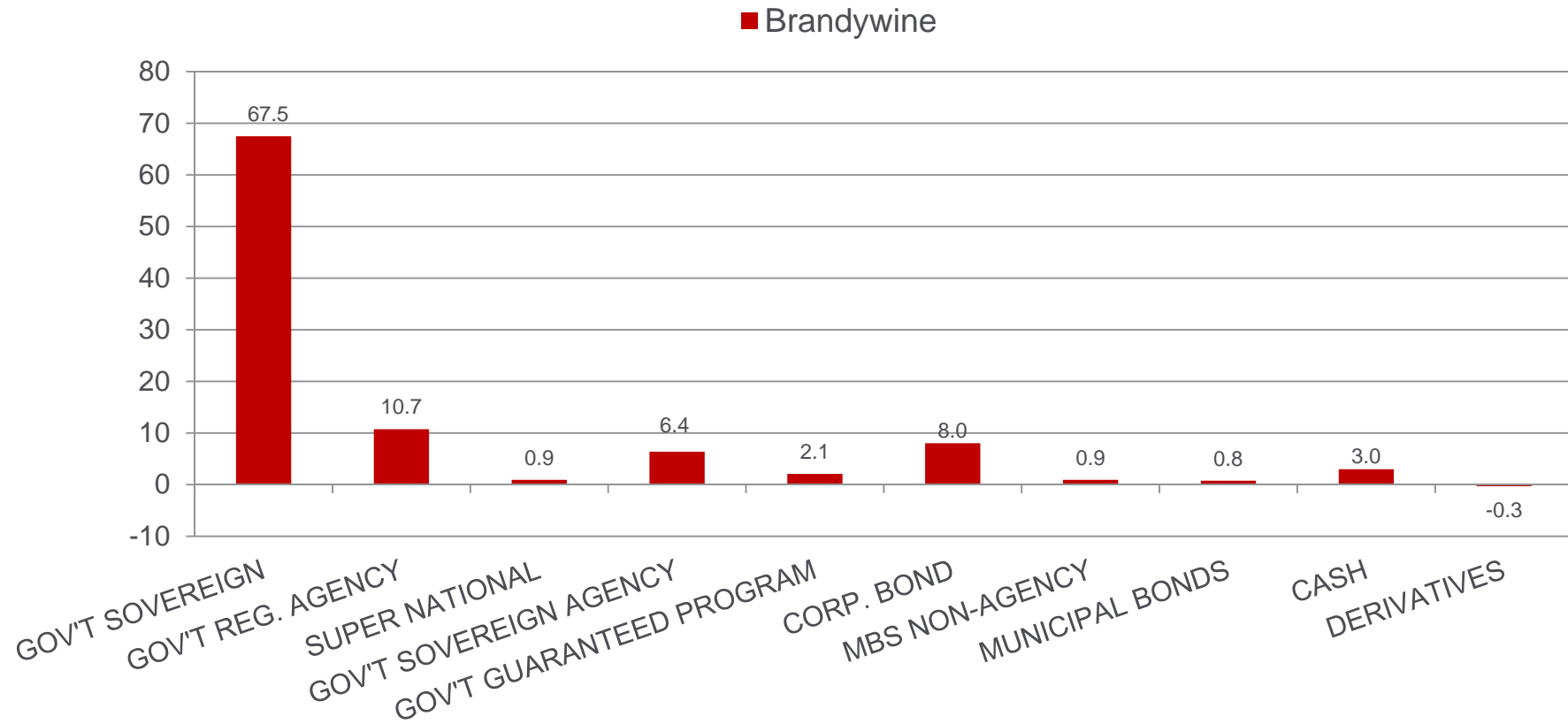
**Characteristics**

**Brandywine**

Average Coupon	3.9
Average Maturity	12.5
Duration	7.0
Number of Issues	46
Yield to Maturity	3.7

Source: Brandywine, December 2015

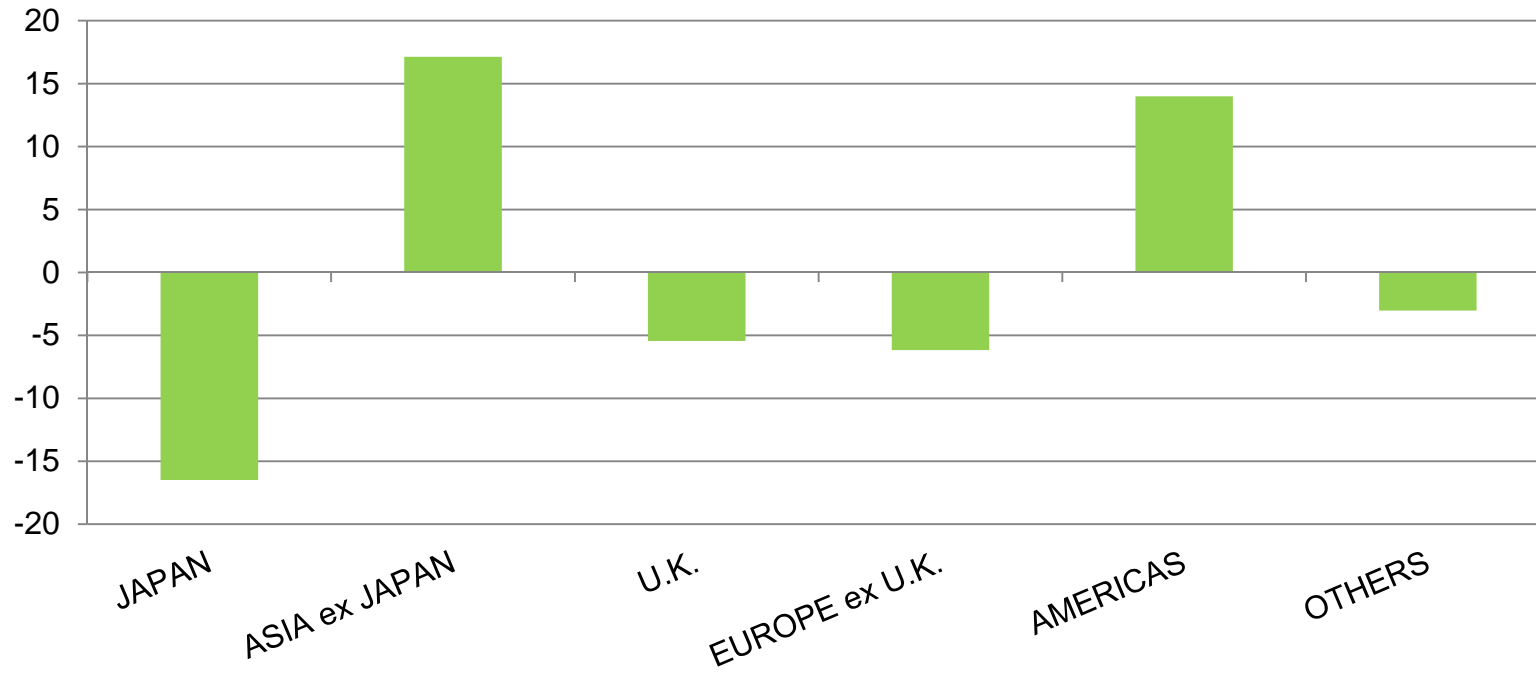
## Sector Allocation



Source: Brandywine, December 2015

### Country Allocation

■ OVER / UNDER



Source: Brandywine, December 2015

- **Manager Role in Portfolio**

- Along with Brandywine, represents the global fixed income portion of the portfolio
- 20% is managed as a U.S. only piece by Delaware

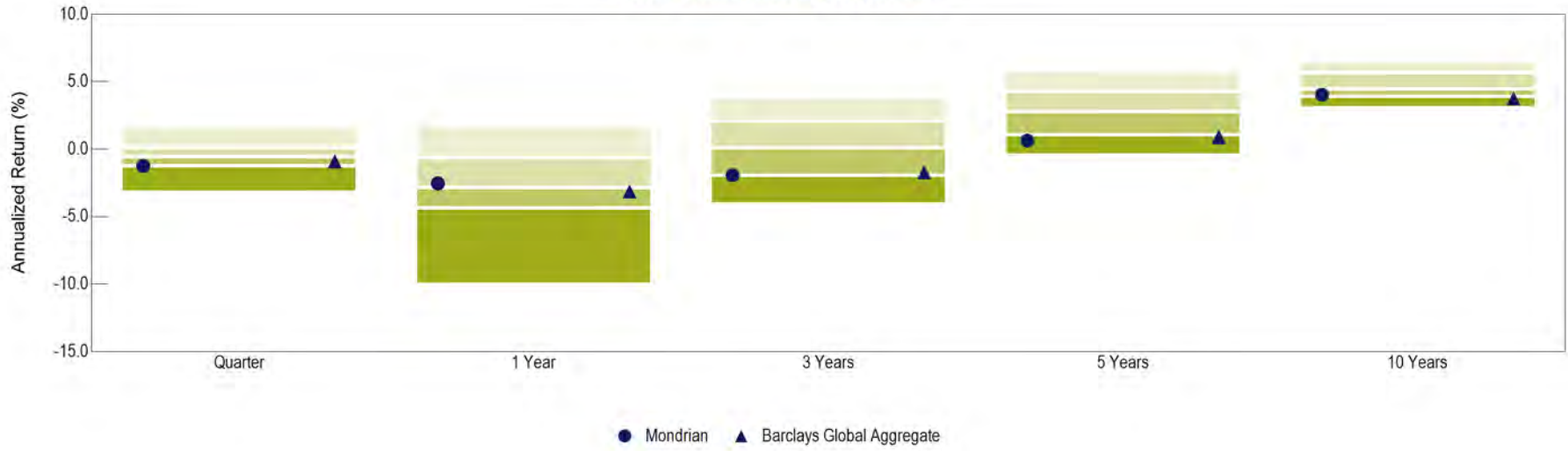
- **Organizational Profile**

- Mondrian Investment Partners Limited is controlled by members of Mondrian's management. Formerly known as Delaware International Advisors Ltd., Mondrian was purchased from Lincoln Financial Group in September 2004 by senior members of its management, together with private equity funds affiliated with Hellman and Friedman LLC. Mondrian is 57% owned by its senior employees.

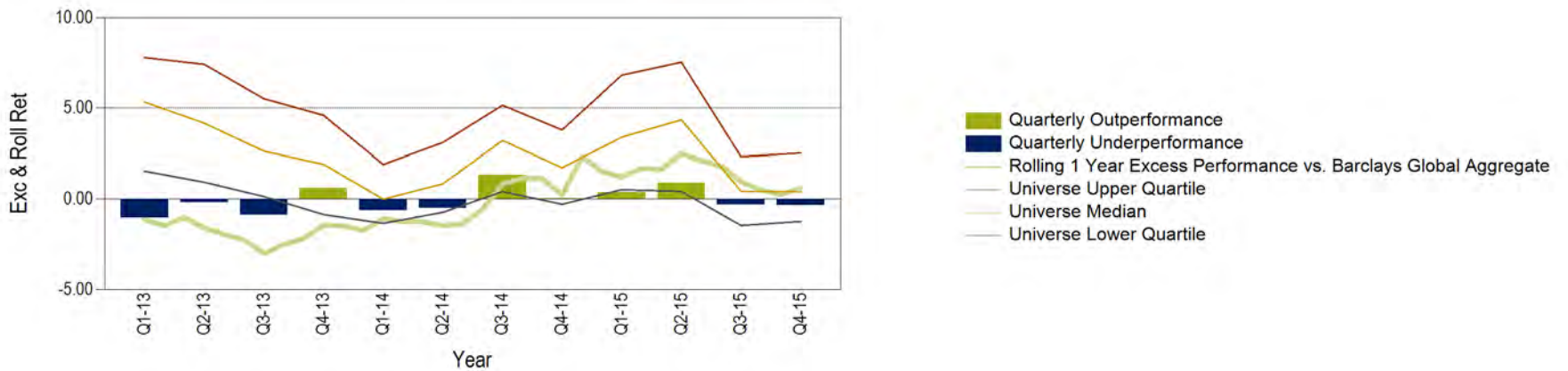
- **Investment Strategy Commentary**

- Allocations to global bond markets are made on the basis of their real return potential in U.S. dollars
- Mondrian uses medium-to-long term global inflation analysis to determine expected real returns
- Currency management in global fixed income is seen as an integral part of a portfolio's total return. Mondrian believes that the best long term measure of a currency's value is provided by purchasing power parity.

eA All Global Fixed Inc Net Accounts

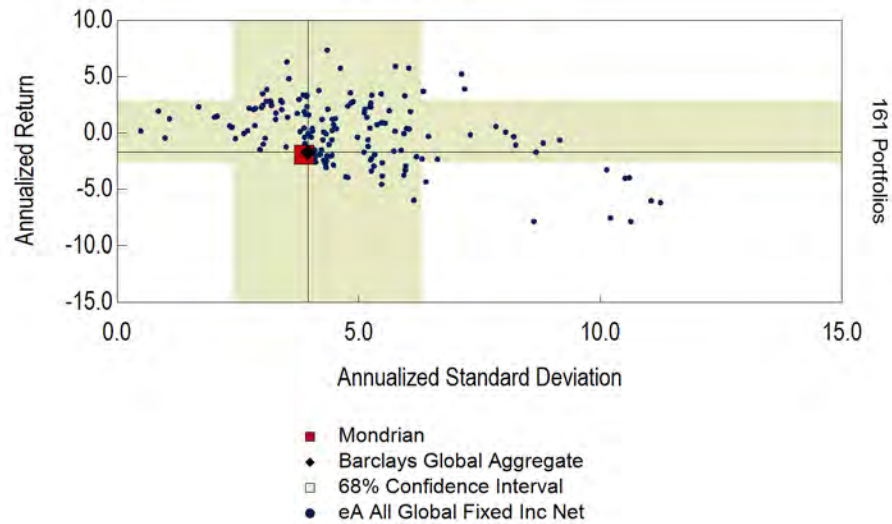


Annualized Excess Performance

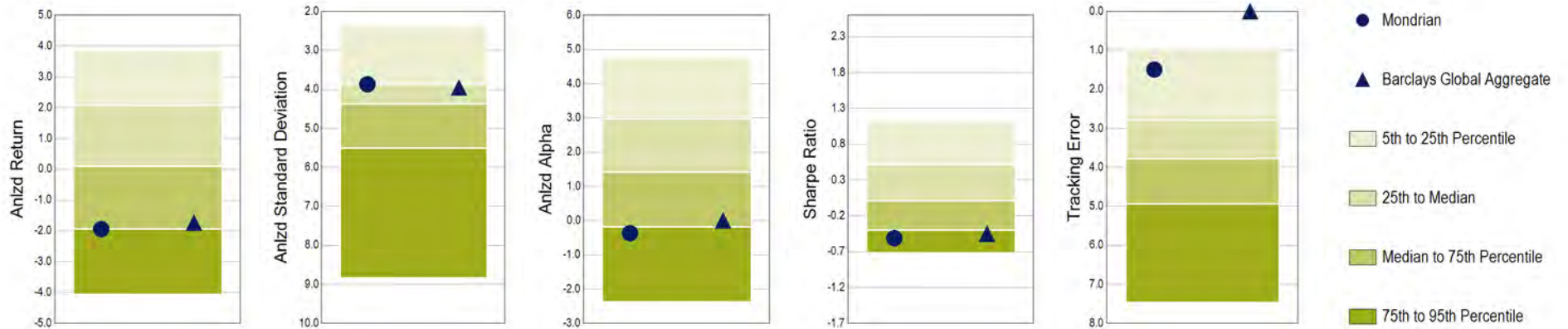
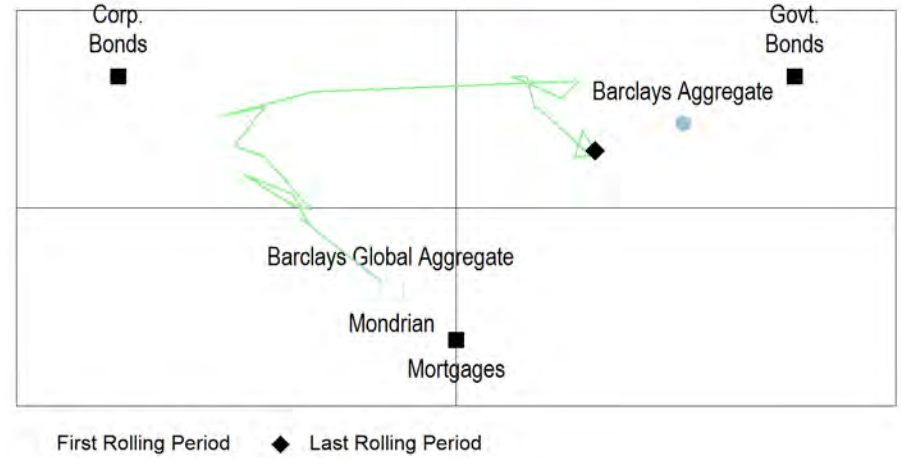


Returns are net of fees

3 Year Risk Return



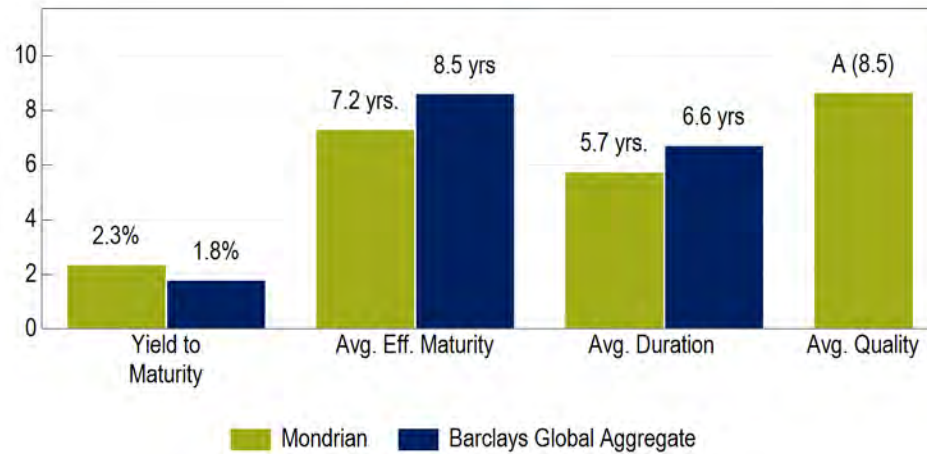
3 Year Style Map



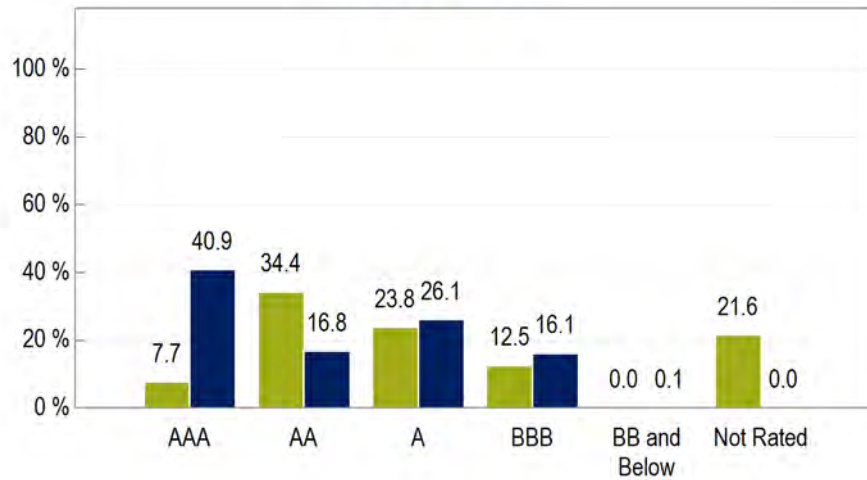
Returns are net of fees



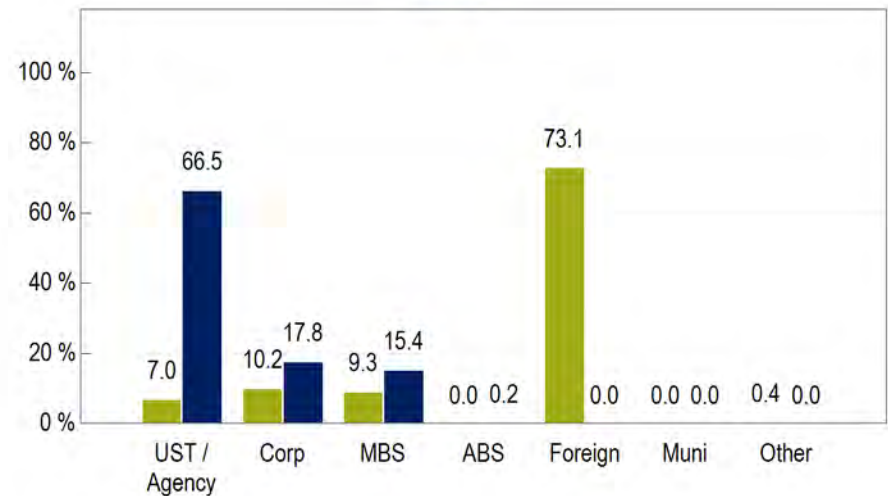
Characteristics



Quality Ratings



Sectors

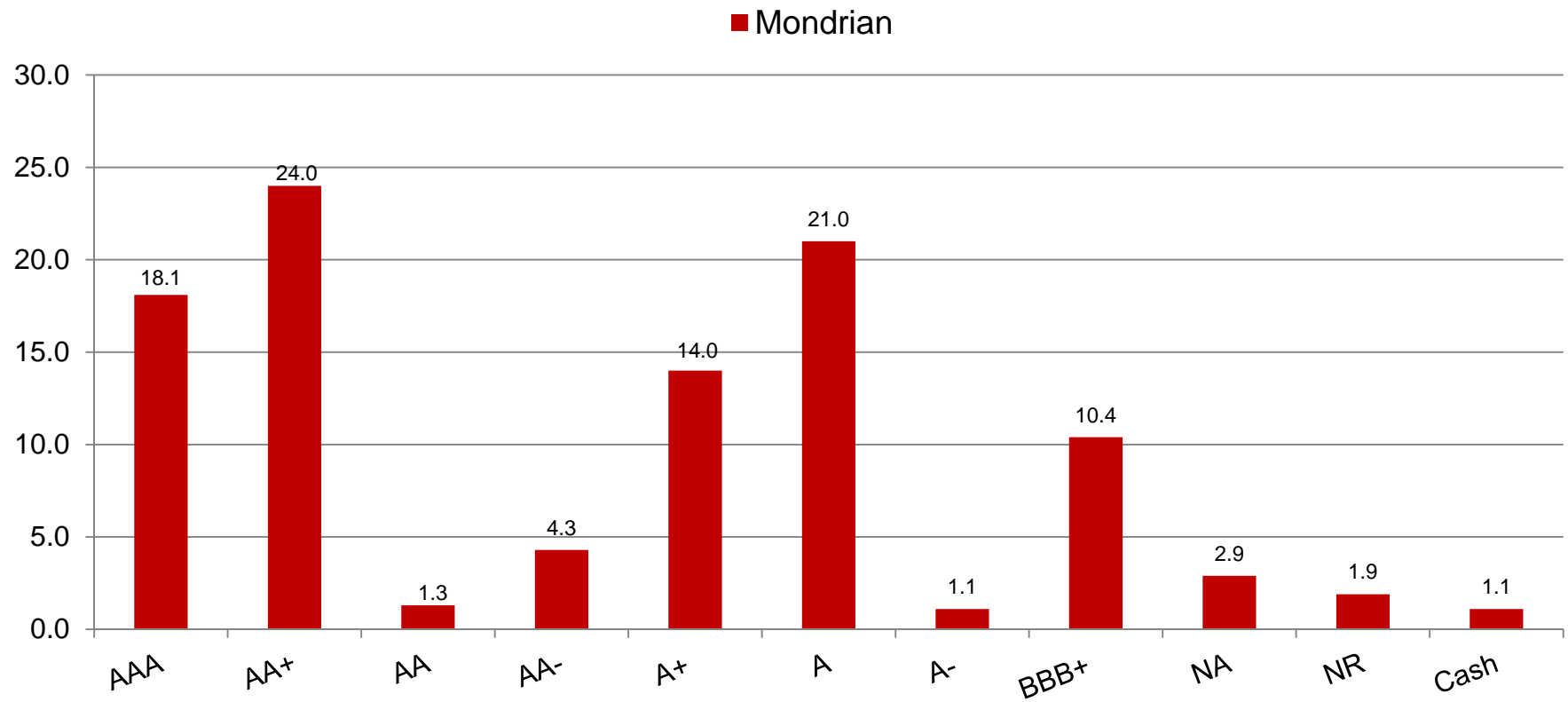


**Characteristics****Mondrian**

Average Yield	2.3
Average Maturity	6.9
Duration	5.6
Number of Issues	69
Average Quality	AA-

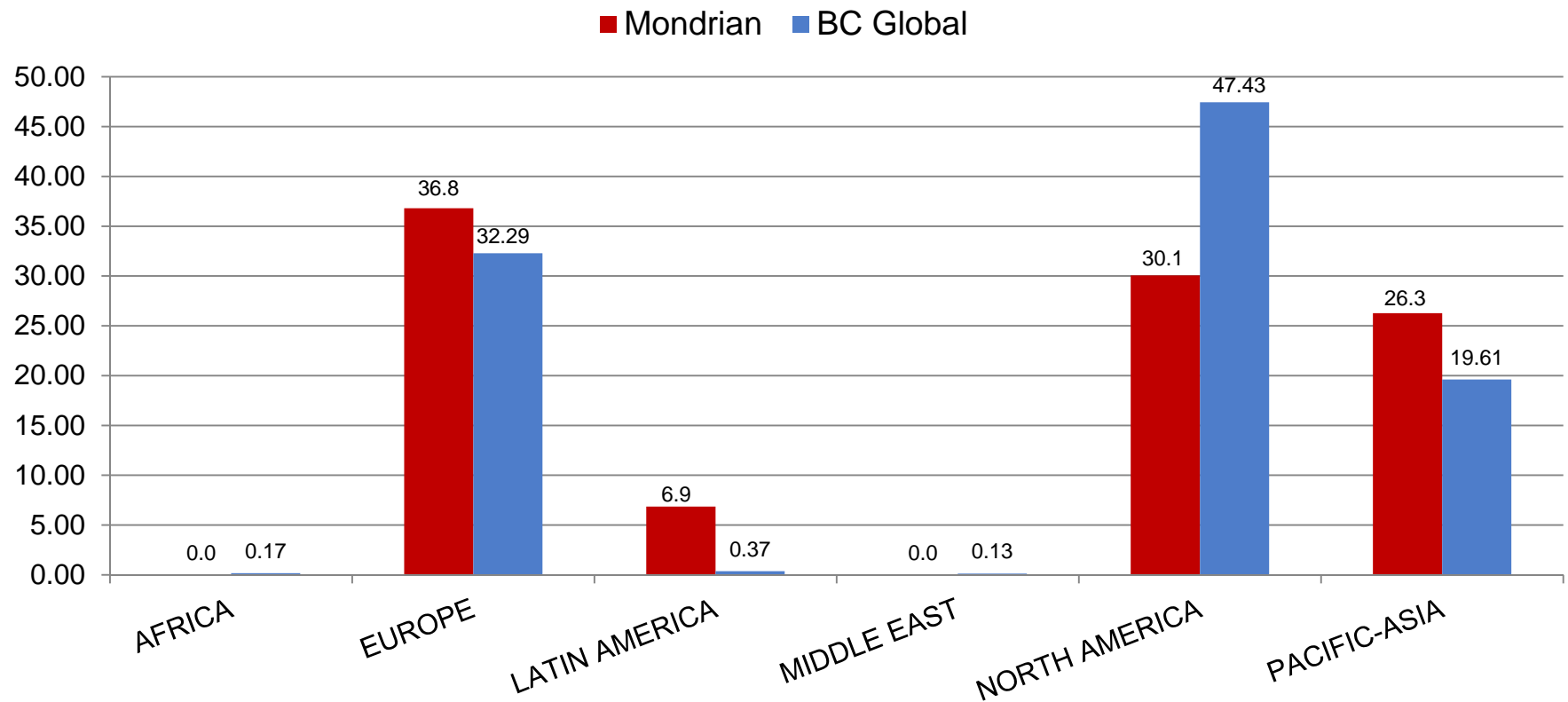
Source: Mondrian, December 2015

### Credit Distribution



Source: Mondrian, December 2015

## Country Allocation



Source: Mondrian, December 2015

- **Manager Role in Portfolio**

- Global opportunistic fixed income manager operating in public securities markets

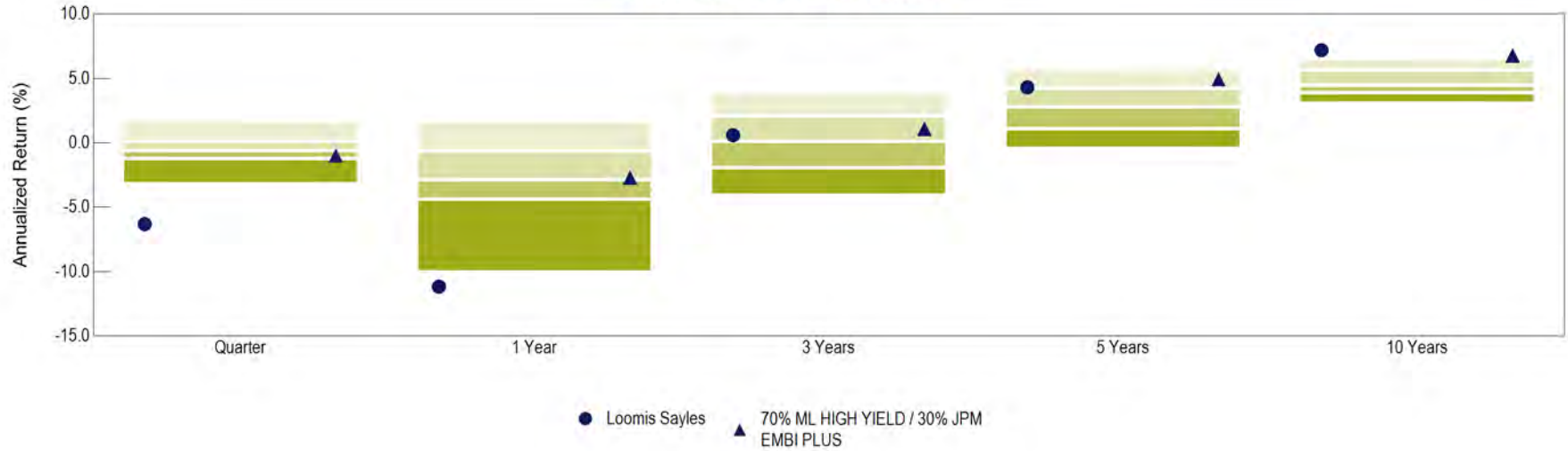
- **Organizational Profile**

- Originally founded in 1926, Loomis Sayles is now a wholly-owned subsidiary of CDC IXIS Asset Management
- Loomis is highly regarded for its credit research skills

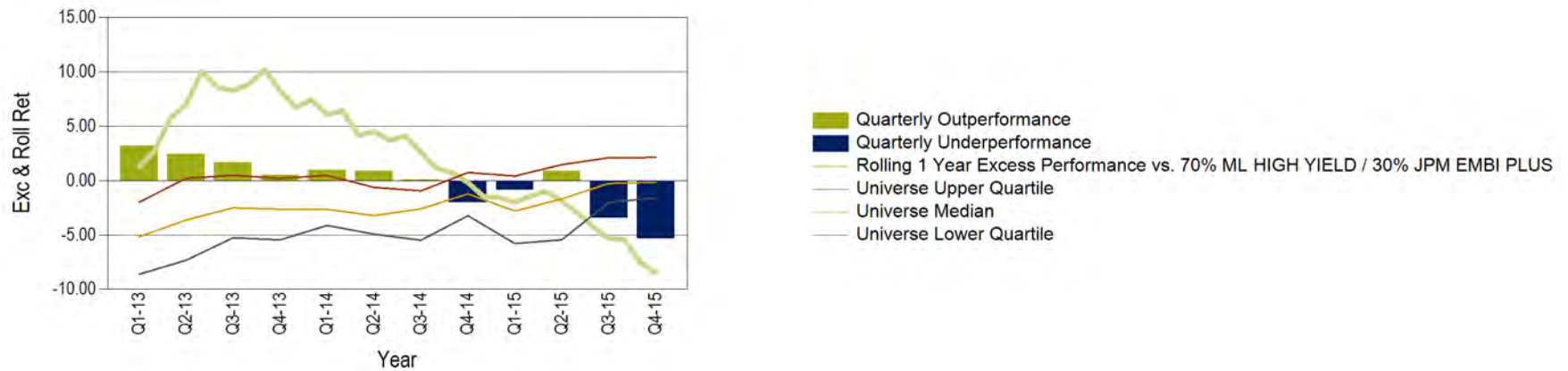
- **Investment Strategy Commentary**

- Bottom-up selection with top-down “awareness”
- Bond Policy Committee provides top-down, macro view of market conditions
- Investment professionals from research, portfolio management and trading collaborate for bottom-up selection in eleven specific sectors

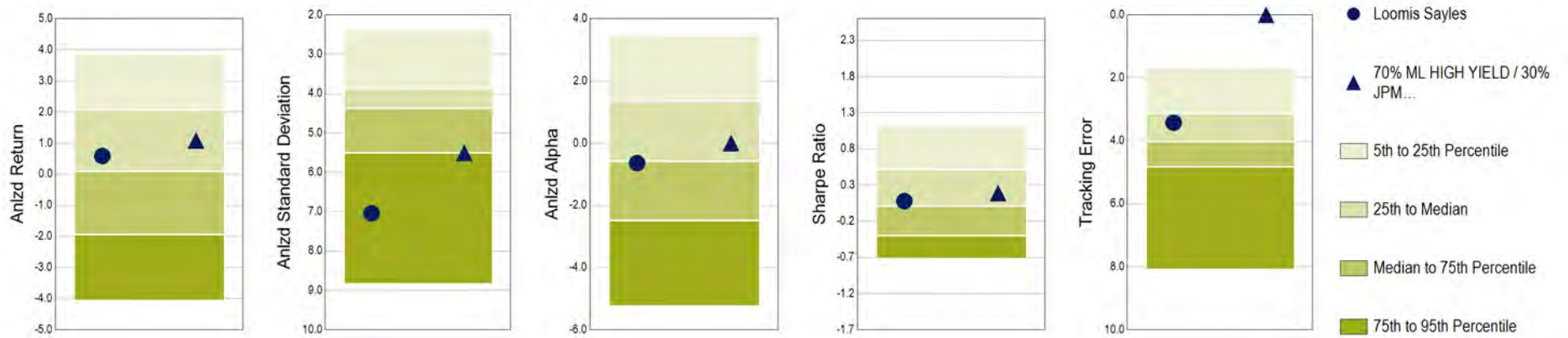
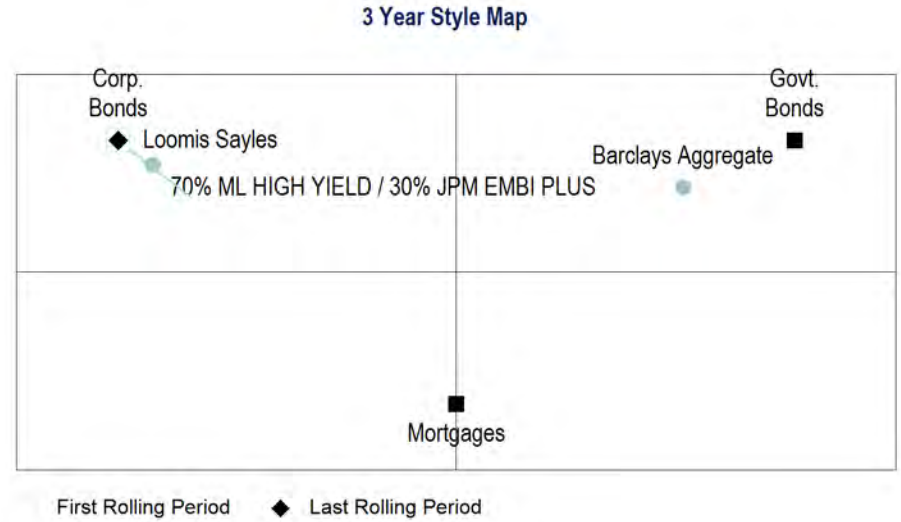
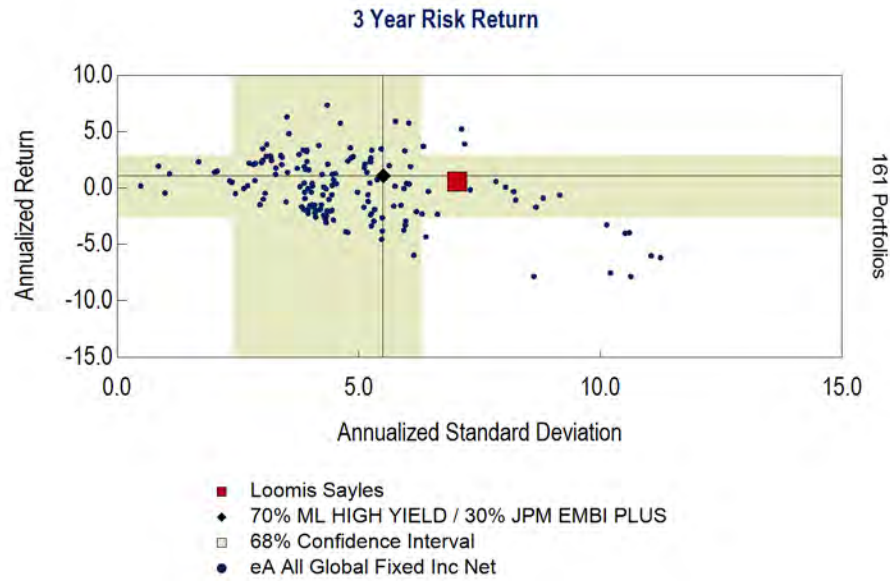
eA All Global Fixed Inc Net Accounts



Annualized Excess Performance



Returns are net of fees



Returns are net of fees

**Characteristics**

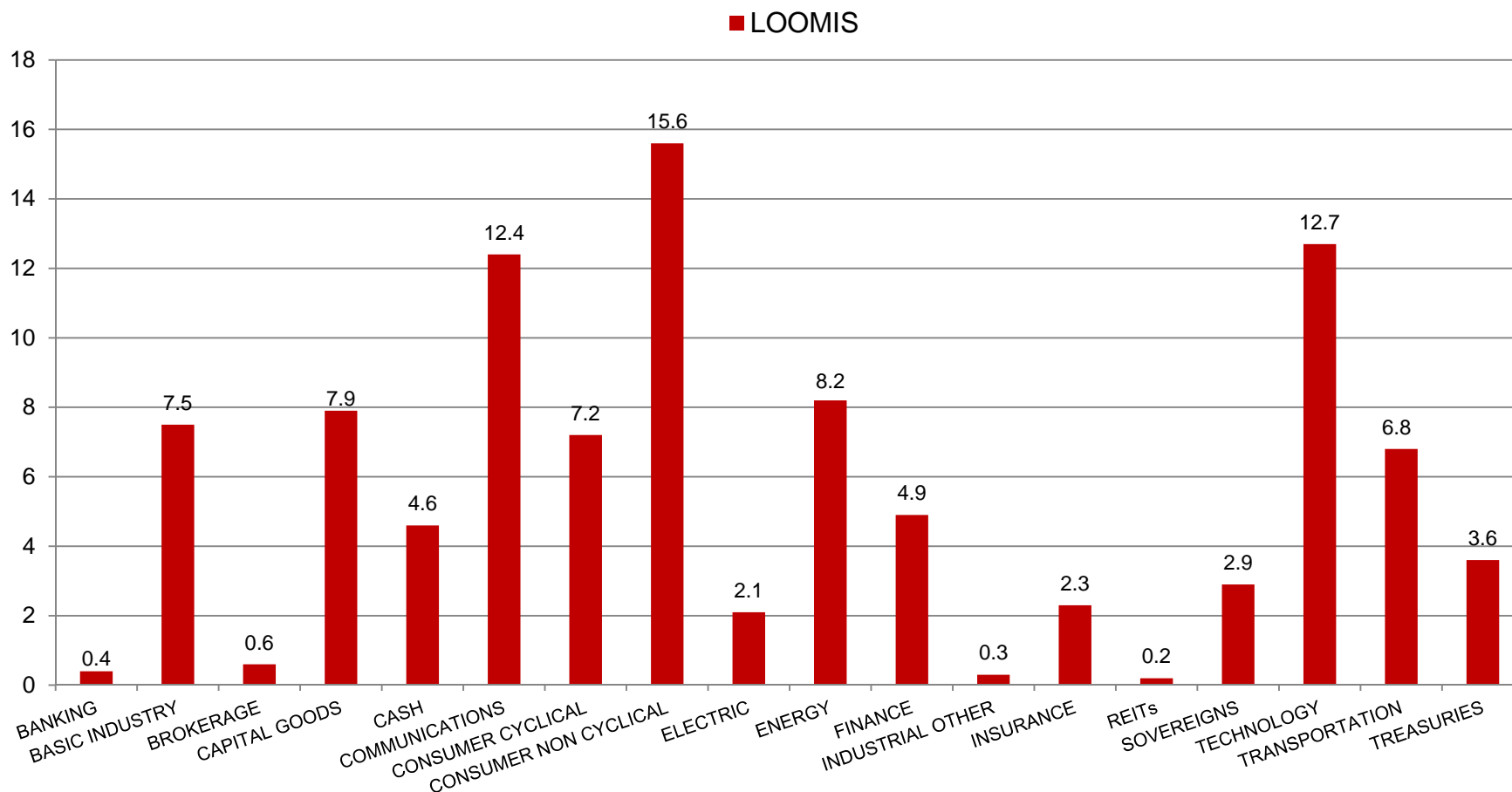
**Loomis**

Average Maturity (Yrs)	8.2
Duration(Yrs)	5.3
Average Quality	B2
Yield to Maturity(%)	9.0

Source: Loomis December 2015

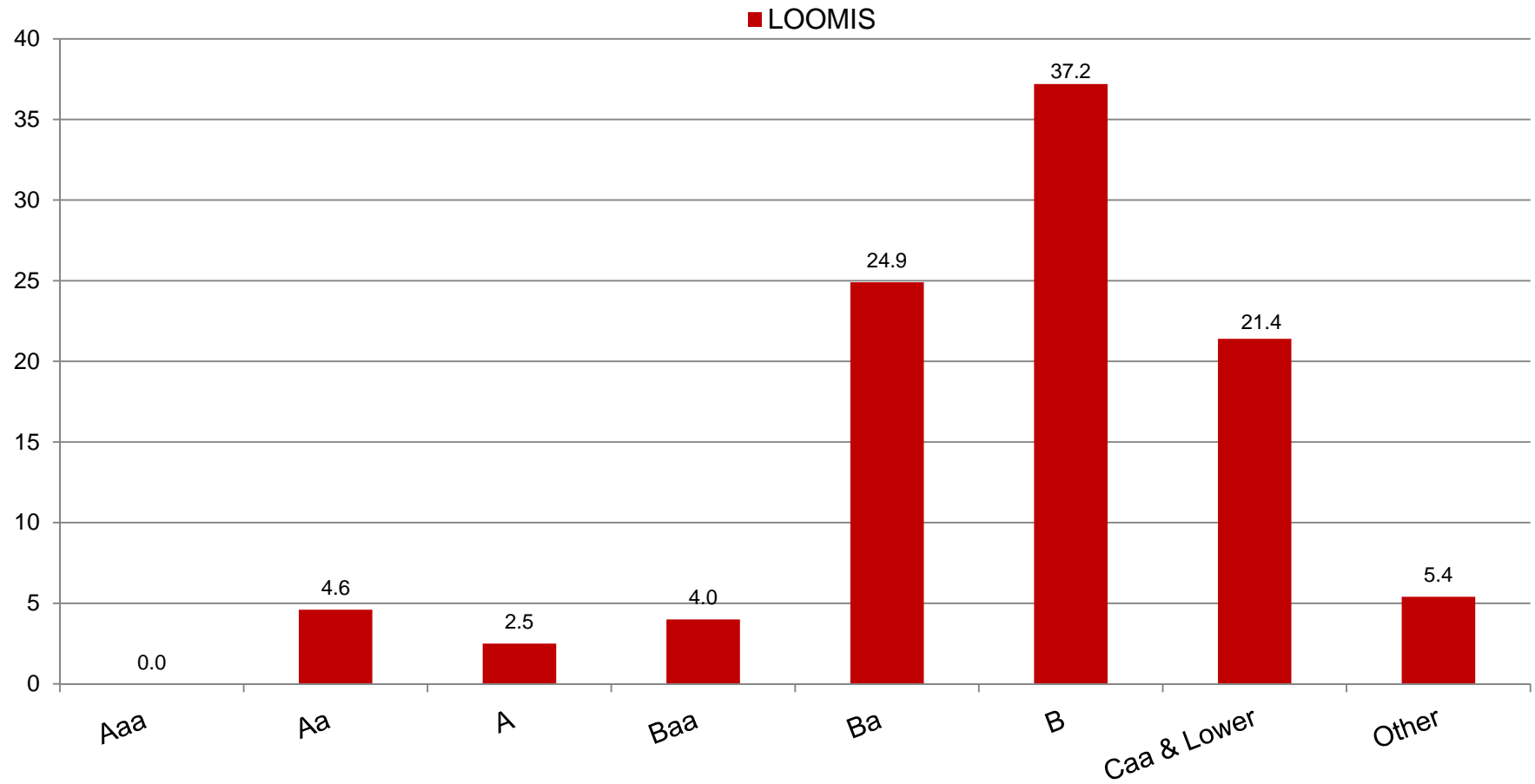


## Sector Allocation



Source: Loomis, December 2015

## Quality Allocation



Source: Loomis, December 2015

## Loomis Sayles Senior Floating Rate and Fixed Income

- **Manager Role in Portfolio**
  - Seeks to provide a high level of current income by using a value driven, opportunistic approach and macro-guided portfolio construction
  - Provides some protection in a rising rate environment
- **Organizational Profile**
  - Originally founded in 1926, Loomis Sayles is now a wholly-owned subsidiary of Natixis Global Asset Management.
  - Loomis is highly regarded for its credit research skills
- **Investment Strategy Commentary**
  - Allocations to out of benchmark securities for offensive and defensive purposes
  - Must invest at least 65% in floating rate loans
  - May invest up to 35% of assets in other fixed income securities
  - May invest up to 20% of assets in non-US issuers, including 10% in emerging market debt securities
  - May use leverage through borrowing up to 33.33% of the Fund's total assets after such borrowing

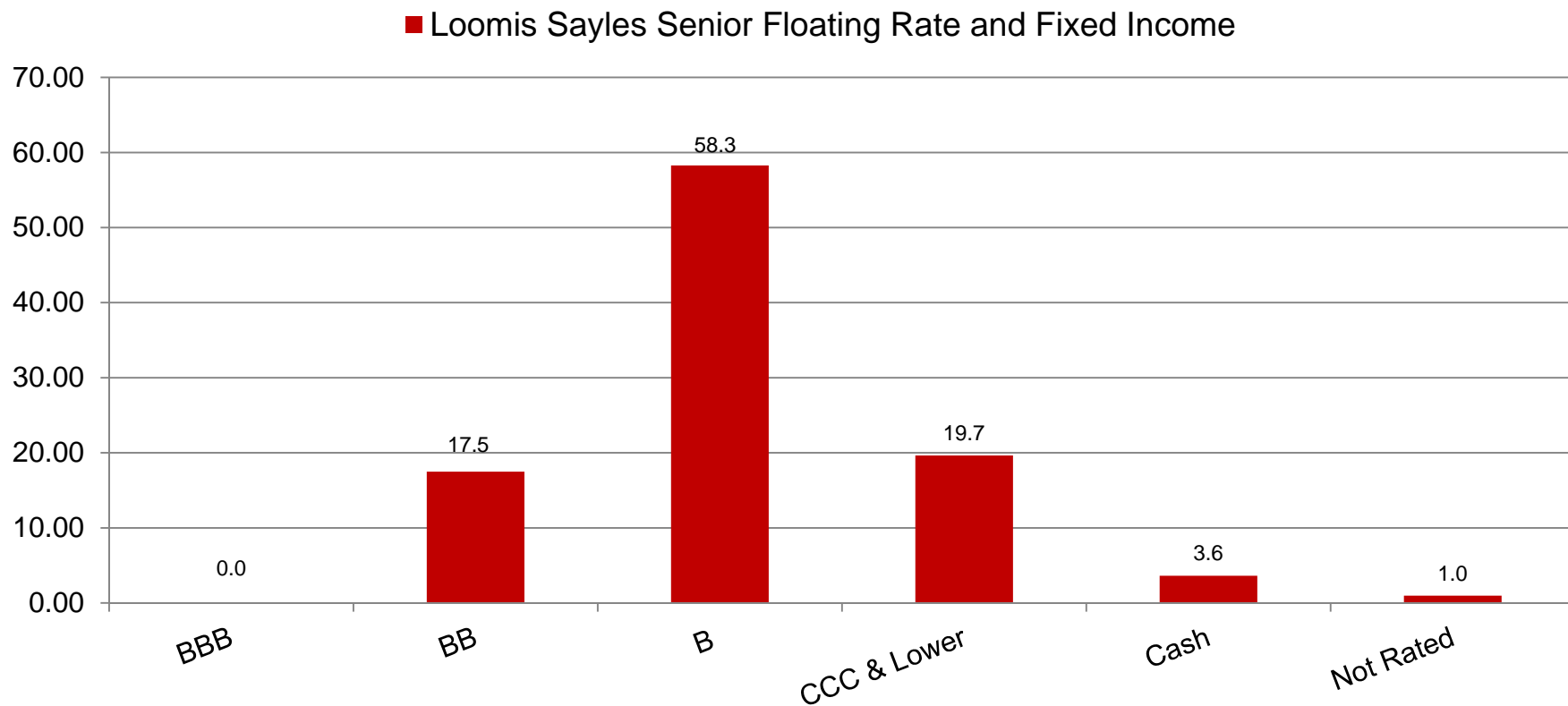
**Characteristics**

**Loomis Sayles**

Current Yield	6.9
Stated Maturity	4.9
Duration	0.4
Number of Issues	221
Average Quality	B

Source: Loomis Sayles, December 2015

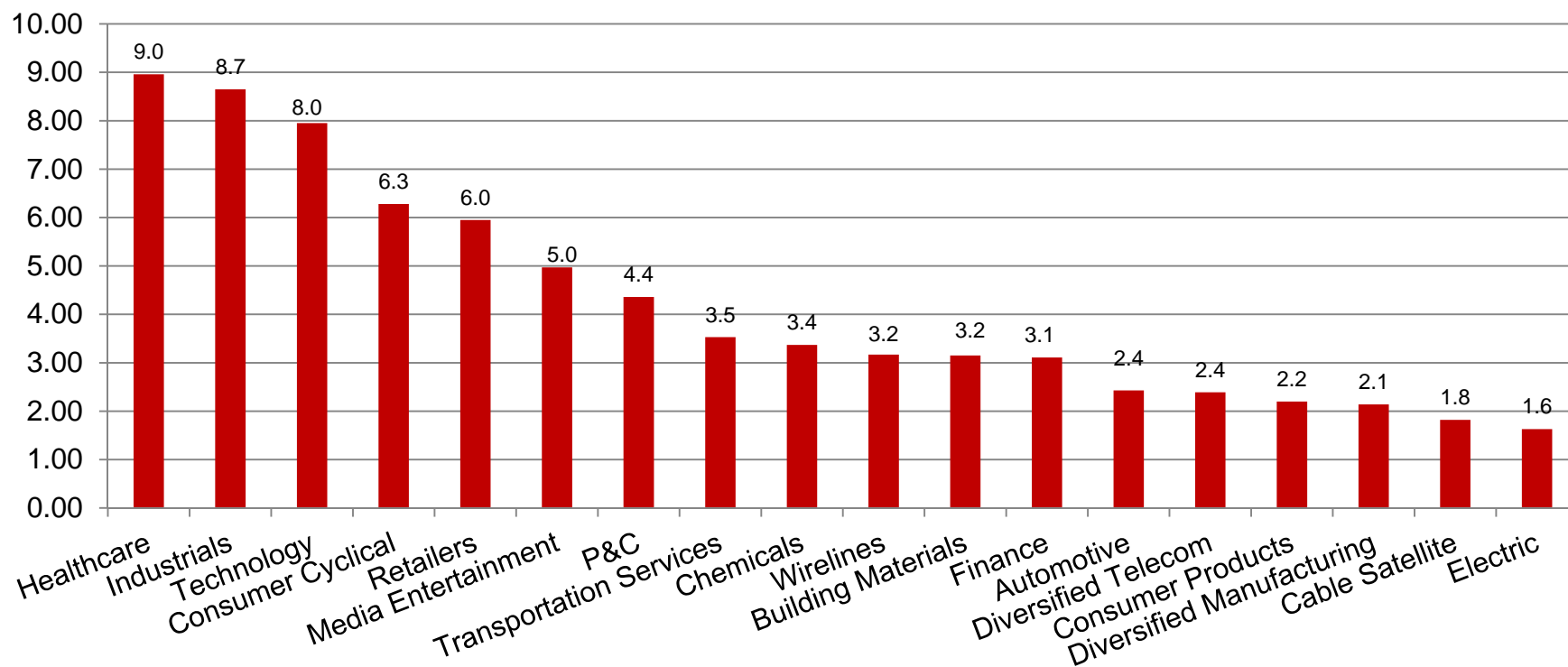
### Credit Distribution



Source: Loomis Sayles, December 2015

## Sector Distribution

■ Loomis Sayles Senior Floating Rate and Fixed Income



Source: Loomis Sayles, December 2015

- **Manager Role in Portfolio**
  - Bank loan strategy within the private global opportunistic fixed income allocation
  
- **Organizational Profile**
  - Established in 1990 as a standalone investment division of Protective Life Insurance Company. In 1997, the founders purchased Protective's interest.
  - Specialists in leveraged loans and high yield
  
- **Investment Strategy Commentary**
  - Top-down/bottom up investment approach
    - Management develops macro and sector views and seeks to implement the views on an individual investment basis
  
- **Funded investment in the Highland Credit Strategy during Q4 2006**
  
- **Notable Occurrences**
  - In 4Q 2008, the Dallas Police and Fire Pension System provided Highland Credit Opportunities CDO Fund, L.P. with a cash infusion through purchase of senior secured notes

- **Manager Role in Portfolio**

- Invests in financially stressed and distressed companies. Part of the Private Debt strategy.

- **Organizational Profile**

- Established in 1990 as a standalone investment division of Protective Life Insurance Company. In 1997, the founders purchased Protective's interest.
- Specialists in leveraged loans and high yield

- **Investment Strategy Commentary**

- Seeks to maximize value through influence or control of the corporate workout and restructuring process.
- Investment positions are generally monetized within 12 to 24 months of initial investment.

- **Notable Occurrences**

- The fund unwound on November 15, 2008
- A working group has been formulated and will work with a mediator to come to a final conclusion.



- **Manager Role in Portfolio**

- Represents the U.S. only high yield fixed income allocation; however, 10% of the allocation is invested in Huff's global fund.

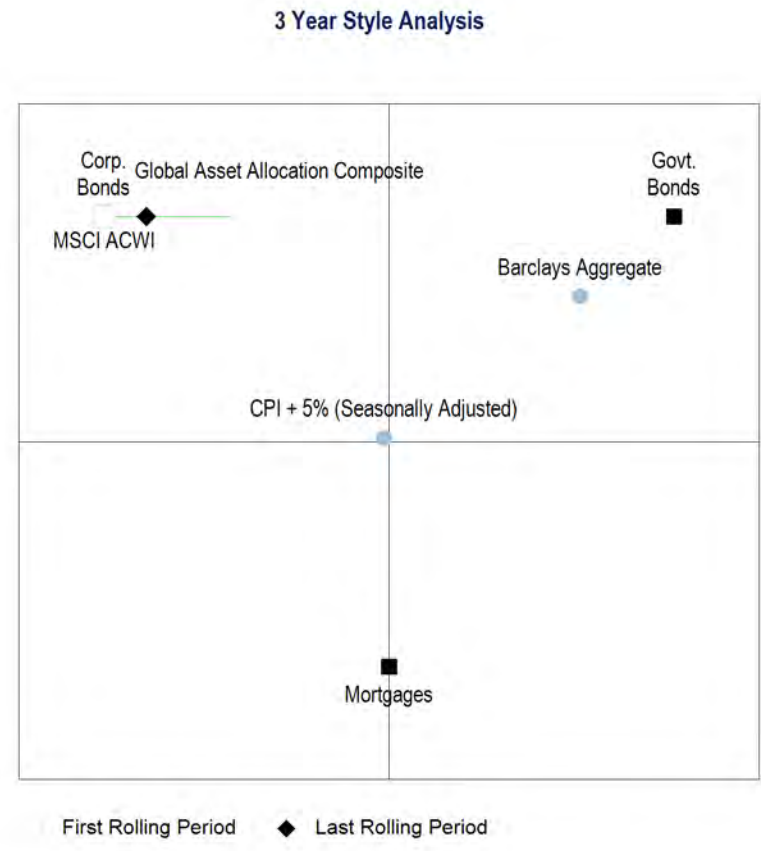
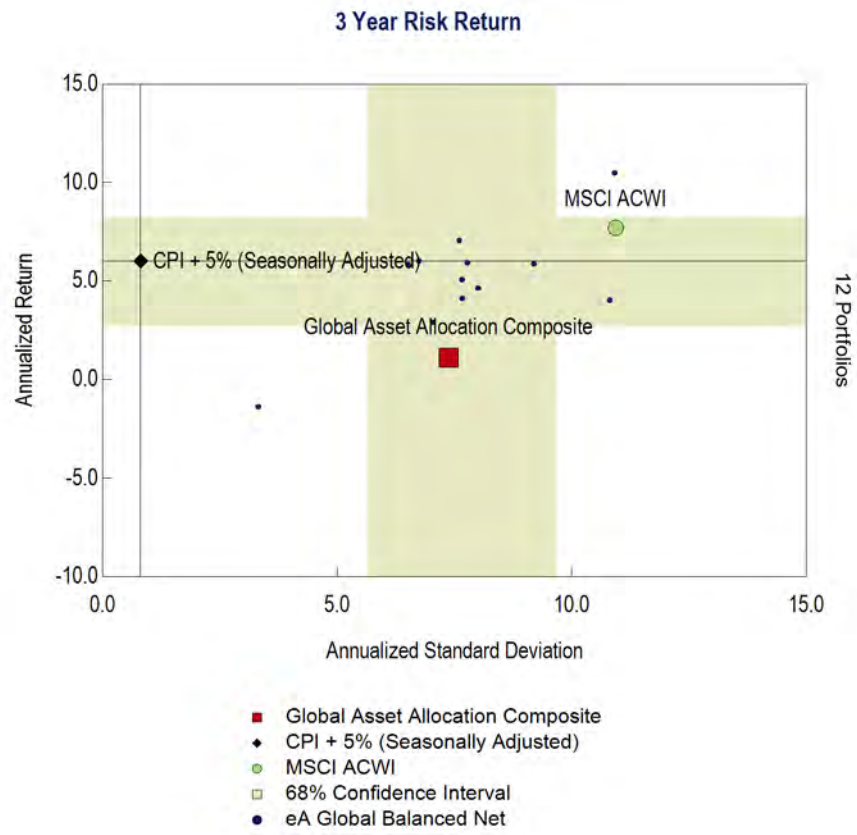
- **Organizational Profile**

- W.R. Huff Asset Management Co. was founded in 1984 and is a Delaware limited partnership. The two general partners are William R. Huff and Donna B. Charlton. There are no other affiliates of the partnership.

- **Investment Strategy Commentary**

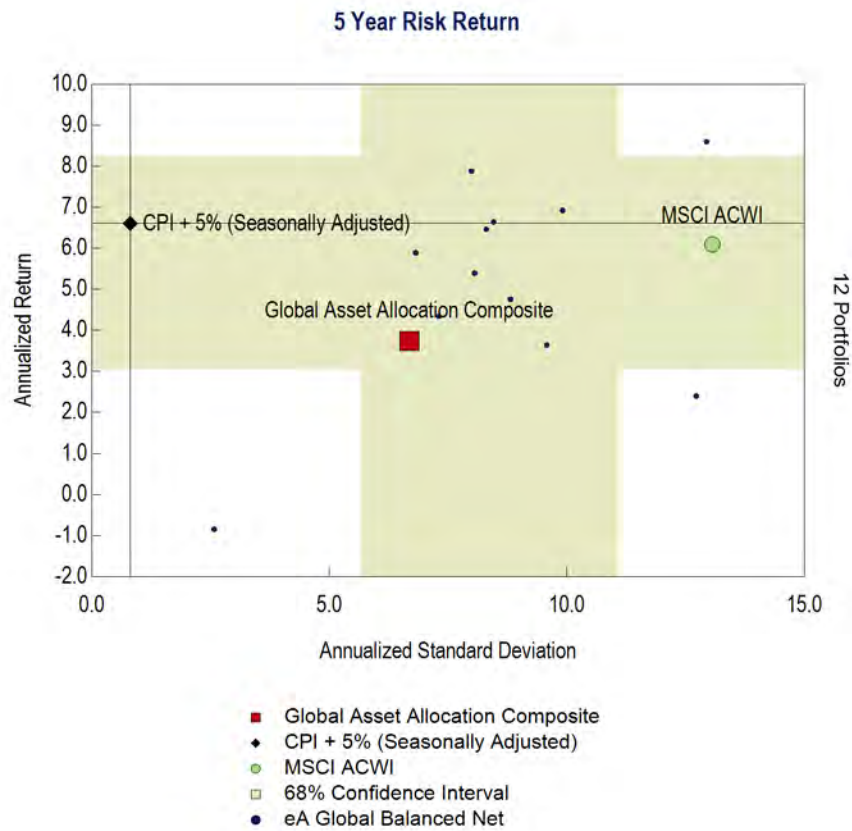
- Huff employs a concentrated, bottom-up process
- Relies on in-depth fundamental credit research (analysts are not allowed to see sell side research)
- The Portfolio Managers are responsible for the relative value and pricing decisions
- Concentrate on eight industries, which together comprise about 45% of the high yield market

Global Asset Allocation Composite



Returns are net of fees

Global Asset Allocation Composite



Returns are net of fees

- **Organizational Profile**

- Bridgewater Associates began offering investment services in 1975, initially providing money management and consulting services in the global credit and currency markets to corporations in the management of income statement and balance sheet exposures. Bridgewater registered with the SEC as an investment advisor in 1990 and has been managing assets for institutional investors ever since.
- Bridgewater is headquartered in Westport, Connecticut and has approximately \$72 billion in assets under management. Bridgewater is and has always been 100% employee (current and former) owned.

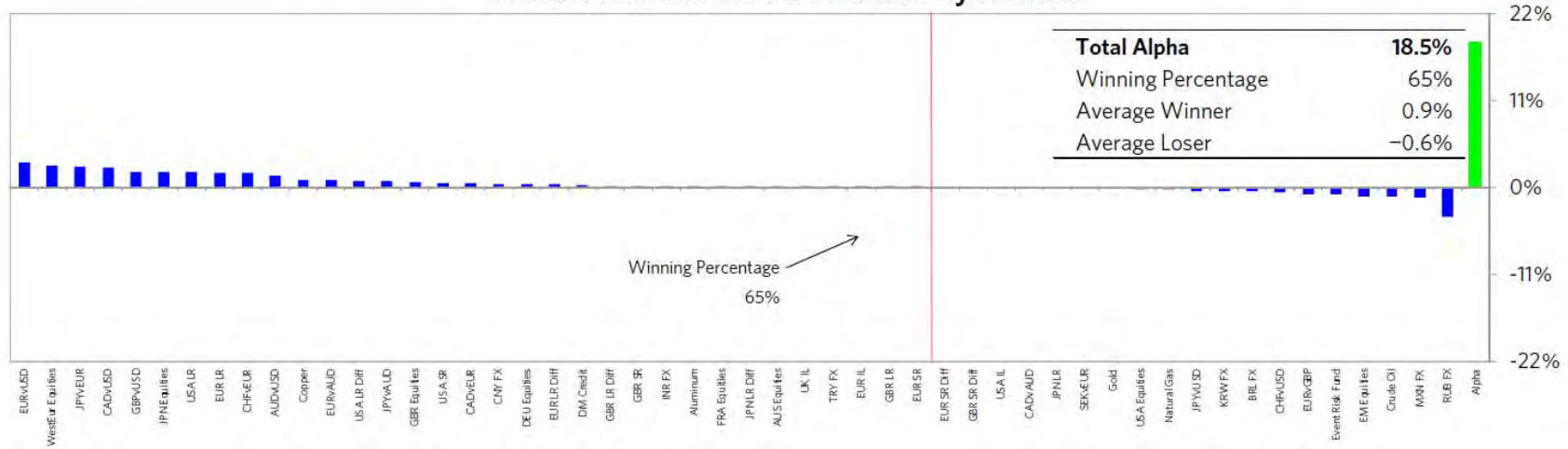
- **Investment Strategy Commentary**

- The framework for constructing the All Weather Strategy is to diversify based on exposure to expectations of inflation and growth and to allocate risk (not capital) equally across these four economic environments (high and low growth, high and low inflation.)
- Allocations are based on Bridgewater's understanding of the relationship between asset classes and economic environments. This is quite different from traditional portfolio construction which utilizes mean-variance optimization.
- The strategy invests in a diversified set of asset classes with the objective of balancing risk equally across the possibility of rising or falling economic growth as well as rising or falling inflation. Asset classes in the All Weather strategy include equities, credit spreads, commodities, nominal and inflation-linked bonds, and emerging market debt spreads.
- Asset class exposures are continually adjusted to optimize performance (leverage and de-leveraging asset classes).
- Forecasted to have similar returns to a split 60% equity and 40% fixed income portfolio.

- **Portfolio Positioning**

- Overlay allocation to Pure Alpha started in third quarter of 2011.

### Bridgewater Pure Alpha Major Markets Strategy 21% Volatility: 2015 Gross Value Added Attribution by Market



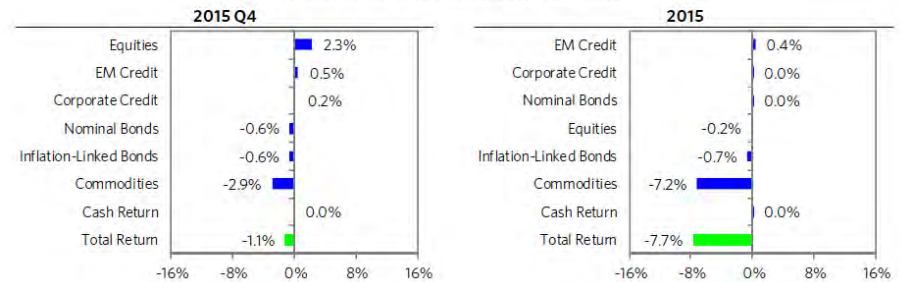
#### Bridgewater All Weather 12% Strategy

Gross Excess Return Attribution by Economic Environment

2015 Q4		2015	
	Growth	Inflation	
<b>Rising</b>	Return 1.5%	Return -2.1%	Return -5.8%
<b>Falling</b>	Return -0.9%	Return 0.5%	Return 0.3%
= Risk Premiums & Discount Rates		= Risk Premiums & Discount Rates	
-1.1% Excess Return Over Cash		-7.7% Excess Return Over Cash	
Plus Cash Return = 0.0%		Plus Cash Return = 0.0%	
Total All Weather Return = -1.1%		Total All Weather Return = -7.7%	

#### Bridgewater All Weather 12% Strategy

Gross Excess Return Attribution by Asset Class



Source: Bridgewater

**All Weather Fund LLC****Exposure Report****December 31, 2015**

	Exposure as a % of Portfolio Value
<b>Nominal Bonds</b>	
Australia	6.9%
Canada	0.0%
Euroland	0.0%
United Kingdom	4.9%
United States	26.4%
Western Europe ex Euroland	0.2%
<b>Total Nominal Bonds</b>	<b>38.4%</b>
<b>Corporate Credit</b>	<b>10.1%</b>
<b>Inflation-Indexed Bonds</b>	
Australia	1.6%
Canada	2.3%
Euroland	9.8%
Sweden	1.0%
United Kingdom	6.6%
United States	19.1%
<b>Total Inflation-Indexed Bonds</b>	<b>40.4%</b>
<b>Emerging Market Credit</b>	
Argentina	0.5%
Brazil	0.9%
Indonesia	1.3%
Mexico	1.0%
Peru	0.7%
Philippines	0.6%
Russia	1.4%
South Africa	0.5%
Turkey	1.4%
Venezuela	0.5%
<b>Total Emerging Market Credit</b>	<b>8.8%</b>

**Equities**

Australia	2.8%
Canada	1.7%
Emerging Markets	4.5%
France	1.3%
Germany	3.2%
Hong Kong	0.9%
Japan	2.6%
United Kingdom	2.9%
United States	9.9%
Western Europe	2.0%
<b>Total Equities</b>	<b>31.7%</b>

**Commodities**

Aluminum	1.7%
Coffee	0.3%
Copper	1.7%
Corn	0.4%
Cotton	0.2%
Gold	6.4%
Lean Hogs	0.3%
Live Cattle	0.5%
Natural Gas	1.1%
Nickel	0.6%
Oil and Petroleum Products	3.8%
Silver	0.1%
Soybean Meal	0.2%
Soybean Oil	0.2%
Soybeans	0.4%
Sugar	0.6%
Wheat	0.3%
Zinc	0.7%
<b>Total Commodities</b>	<b>19.4%</b>

Source: Bridgewater



NEPC, LLC

December 31, 2015

- **Manager Role in Portfolio**

- GMO manages a portion of the Global Asset Allocation mandate

- **Organizational Profile**

- GMO was founded in 1977 as a private investment firm to serve institutional clients
- Initial products were designed around the firm's value-oriented discipline until GMO's quantitative division was launched in 1982, providing a way to augment existing strategies and disciplines.
- GMO has a wide range of products across global asset classes, and are known for their contrarian, often bearish view of the marketplace.

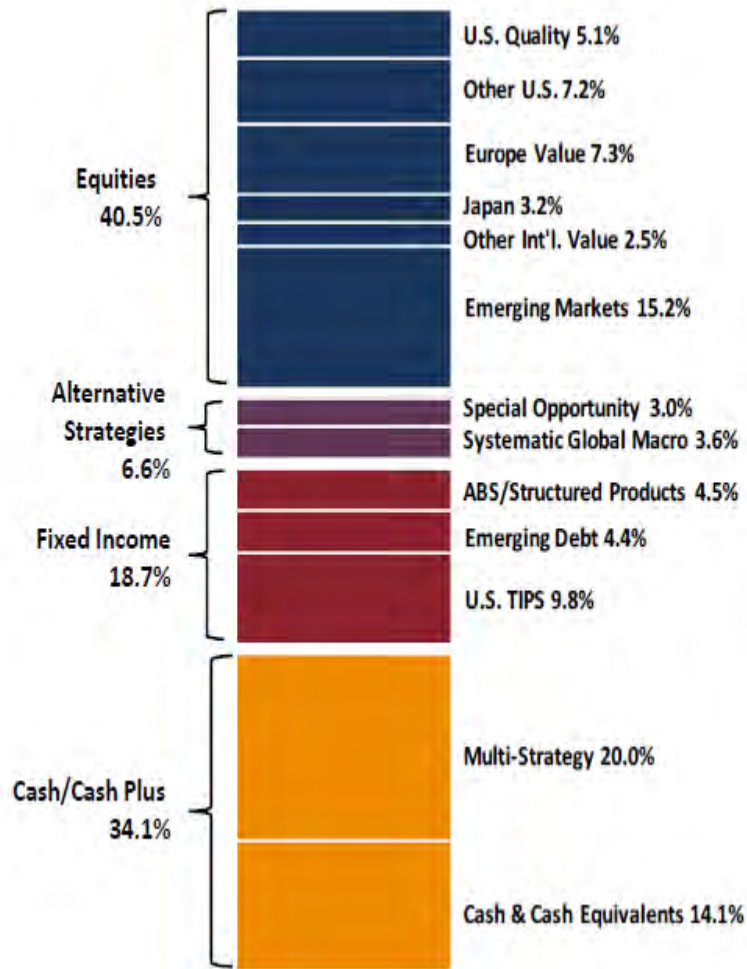
- **Investment Strategy Commentary**

- Real return Global Balanced Asset Allocation (until 11/30/2010)
  - Portfolio construction based on seven year asset class forecasts developed by GMO quantitative team led by Jeremy Grantham and Ben Inker
  - Product seeks to add 2-3% above customized blended benchmark (60% MSCI World, 20% BC Aggregate, 20% Cash)
  - In addition to asset classes such as global multi-cap equities, global bonds, emerging markets equities and debt, a GMO fund of GMO hedge funds is used for additional diversification and risk control.
- Global Allocation Absolute Return (GAAR – as of 12/2010)
  - Generate relatively strong real returns over a market cycle, by allocating to a potentially wide range of asset classes (including but not limited to Int'l Small Cap, Emerging Market equities, REITs, TIPS, GMO funds, etc.) with regard to a traditional benchmark.
  - Absolute volatility should be in the same general range as traditional balanced portfolios, although the pattern of returns may be quite different.

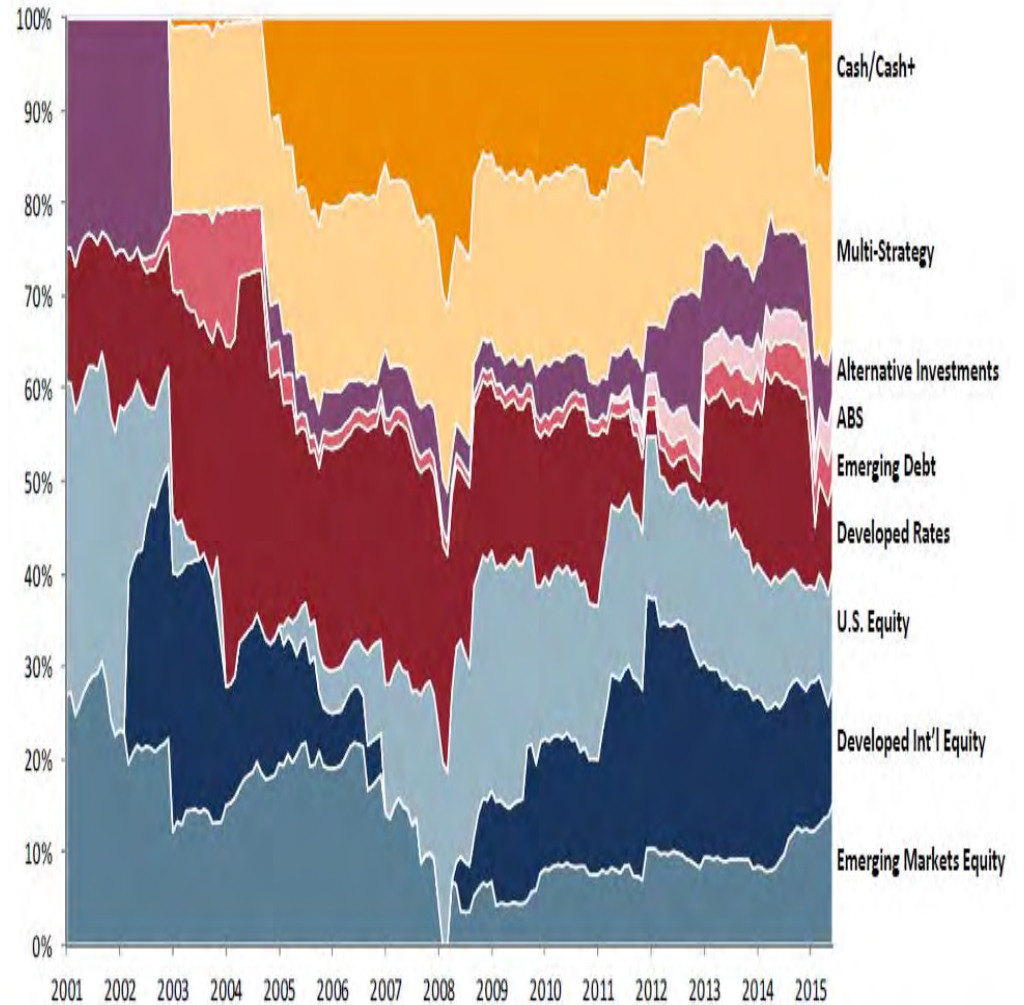
- **Due Diligence Notes**

- GMO has historically offered equity strategies through both its Global Equity and Asset Allocation teams. These two groups will be combining their individual product offerings into a single set of unified strategies. The unified strategies will be managed with the objective of generating high total returns by investing in equities, and focusing less on managing risk relative to a benchmark. The Global Equity Team will continue with day-to-day portfolio management and the Asset Allocation Team will be responsible for the asset class forecasts and high-level investment oversight.
- Effective immediately on January 30, 2013, Marc Seidner left the firm PIMCO and will be joining GMO in March to head their Fixed Income team. Mr. Seidner joined PIMCO in 2009 from Harvard and is a well-respected investor. PIMCO expressed that this was a difficult loss for them.

Asset Allocation



Historical Allocation



Source: GMO



- **Manager Role in Portfolio**

- Provides investment solutions using sophisticated quantitative techniques that incorporate fundamental insights and vast amounts of market information. Applies risk balance across and within asset classes.
- The Risk Parity Multi-Asset Plus Fund seeks generally to deliver absolute return with a target 8% absolute volatility.

- **Organizational Profile**

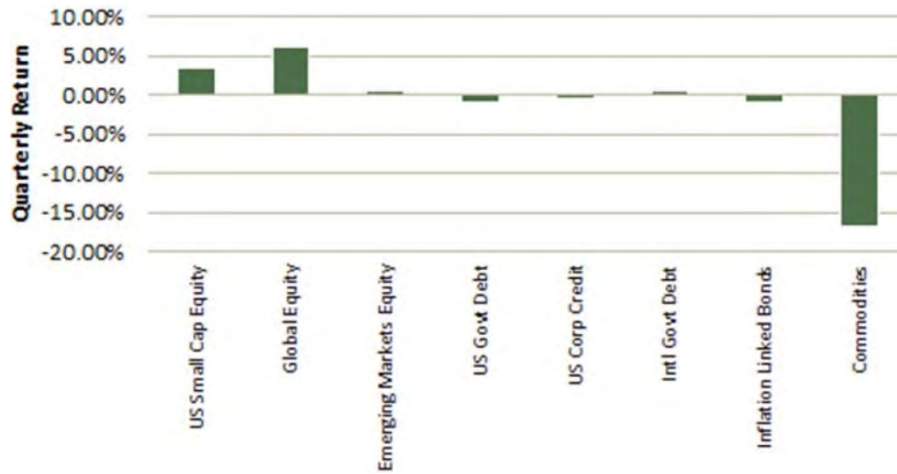
- Founded in 1989, PanAgora (Greek for *across marketplace*) Asset Management is a provider of investment solutions spanning most major asset classes and risk ranges.
- PanAgora's investment strategies are highly systematic in nature. Most investment team members are engaged in original research using fundamental intuition, market intelligence, modern finance and scientific methods.

- **Investment Strategy Commentary**

- Diversified Risk approach may be applied in a multi-asset class portfolio that has exposure to equities, bonds, commodities and other inflation-hedging instruments, as well as within certain stand-alone asset classes. By applying risk balance across and within asset classes, and by using proprietary techniques like Dynamic Risk Allocation, PanAgora's Diversified Risk products seek to achieve higher risk-adjusted returns, with lower volatility and draw-downs than more traditional approaches.

PanAgora Risk Parity Multi-Asset Plus

Benchmark performance, three months ending December 31, 2015



Risk Allocation vs. Strategic Target as of October 1, 2015



Risk Allocation vs. Strategic Target as of October 1, 2015



Source: PanAgora, December 2015

## AQR Global Risk Premium Enhanced Liquidity

- **Manager Role in Portfolio**

- The AQR Global Risk Premium Enhanced Liquidity Fund (GRP EL) uses a risk budgeting approach, commonly termed "risk parity", to combine a large number of liquid, global risk premia into a well-diversified portfolio, which provides higher risk-adjusted expected returns than traditional beta exposures.
- GRP EL is structured to be better diversified than a traditional portfolio and expectations are to outperform traditional portfolios in the long-term.

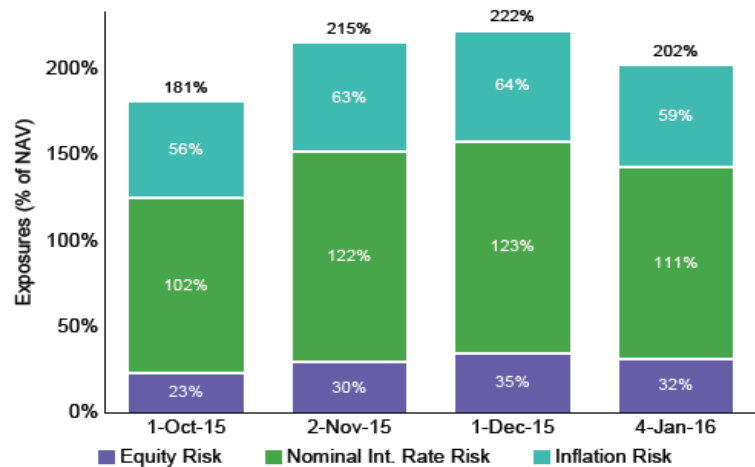
- **Organizational Profile**

- Founded in 1988, AQR is a global provider of investment management services, including alternative investments and broad spectrum of long-only funds
- Investment philosophy and approach grounded in empirical finance research

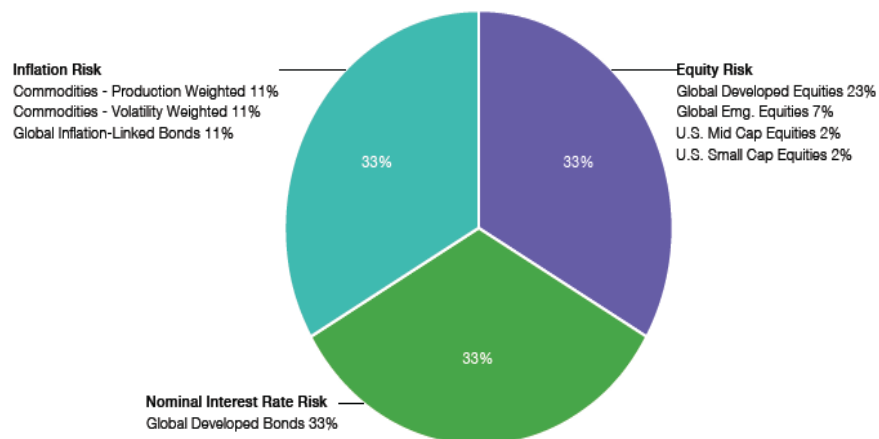
- **Investment Strategy Commentary**

- The GRP EL seeks to achieve an attractive risk-adjusted return by constructing a highly diversified portfolio with equal risk contributions from three main risk groups: equity risk, nominal interest rate risk and inflation risk. Underlying these 3 groups are 7 different asset class exposures.
- The exposures in the portfolio can be sized to target a particular volatility level, using leverage. At 10% volatility, the portfolio's long-term target is comparable to the historical volatility of a traditional 60/40 stock/bond portfolio.

### Estimated Exposure Over Time



### Risk Allocation



### Estimated Exposure Breakdown

Long Exposure (% of NAV)	
<b>Equity Risk</b>	
Global Developed Equities	23%
Global Emerging Equities	6%
U.S. Mid Cap Equities	2%
U.S. Small Cap Equities	1%
<b>Total Equity Risk</b>	<b>32%</b>
<b>Nominal Interest Rate Risk</b>	
Global Developed Bonds	111%
<b>Total Nominal Interest Rate Risk</b>	<b>111%</b>
<b>Inflation Risk</b>	
Commodities - Production Weighted	9%
Commodities - Volatility Weighted	16%
Global Inflation-Linked Bonds	35%
<b>Total Inflation Risk</b>	<b>59%</b>
<b>Total Fund Exposures</b>	<b>202%</b>

### Returns Analysis

	Month-to-Date Return (Dec 01 - Dec 31, 2015)	Quarter-to-Date Return (Oct 01 - Dec 31, 2015)	Year-to-Date Return (Jan 01 - Dec 31, 2015)
<b>Equity Risk</b>			
Global Developed Equities	-0.5%	1.1%	-0.5%
Global Emerging Equities	-0.1%	0.0%	-0.8%
U.S. Mid Cap Equities	-0.1%	0.0%	-0.1%
U.S. Small Cap Equities	-0.1%	0.0%	-0.1%
<b>Total Equity Risk</b>	<b>-0.8%</b>	<b>1.1%</b>	<b>-1.5%</b>
<b>Nominal Interest Rate Risk</b>			
Global Developed Bonds	-0.6%	-1.2%	1.1%
<b>Total Nominal Interest Rate Risk</b>	<b>-0.6%</b>	<b>-1.2%</b>	<b>1.1%</b>
<b>Inflation Risk</b>			
Commodities - Production Weighted	-0.8%	-1.7%	-4.1%
Commodities - Volatility Weighted	-0.3%	-1.2%	-4.2%
Global Inflation-Linked Bonds	-0.6%	-0.3%	-0.3%
<b>Total Inflation Risk</b>	<b>-1.7%</b>	<b>-3.2%</b>	<b>-8.6%</b>
<b>Total Fund</b>	<b>-3.1%</b>	<b>-3.2%</b>	<b>-9.0%</b>

Source: AQR, December 2015

- **Manager Role in Portfolio**
  - Global Asset Allocation Mandate (added in Q4 2009)
  
- **Organizational Profile**
  - Putnam was founded in 1937 with the creation of one of the first balanced mutual funds, consisting of both stocks and bonds. This fund exists to this day and remains one of the most popular offerings in their product lineup.
  - In 1970, the firm was acquired by Marsh & McLennan Companies, Inc., a diversified firm offering insurance and reinsurance broking, consulting, and investment management services.
  - On August 3, 2007, the sale of Putnam Investments by Marsh and McLennan Companies (MMC) to Great-West Lifeco Inc., a subsidiary of Power Financial Corporation, was completed. Great-West Lifeco Inc. is a financial services holding company with interests in the life insurance, health insurance, retirement savings, investment management and reinsurance businesses.
  
- **Investment Strategy Commentary**
  - Putnam Total Return's objective is to meet investors' needs for absolute return in different economic environments, including those in which stocks and bonds struggle.
  - Seeks to achieve positive absolute return through the combination of a strategic beta portfolio and diversified alpha portfolio.
  - The beta portfolio has been designed to provide high current yield, protect against inflation, limit downside risk and to balance the risk contribution from asset classes.
  - The alpha portfolio seeks to add 100-250 basis points of excess return, with volatility of approximately 200 basis points, at the fund level by individual teams.
  
- **Due Diligence Notes**
  - Jeff Knight, Head of Asset Allocation and the lead Portfolio Manager for Putnam's Total Return strategy, tendered his resignation on January 29th. Jeff's resignation was unexpected and is a significant loss for Putnam. As Head of Asset Allocation, Jeff oversaw approximately \$10 billion in multi-asset mandates including risk parity, asset allocation strategies and balanced funds. The reason for Jeff's departure is unclear. The 4 senior portfolio managers of the Total Return Fund will remain at Putnam and have been promoted to co-heads of the Asset Allocation Group. The four senior PMs are Robert Kea, James Fetch, Robert Schoen, and Jason Vaillancourt. As part of their retention, 4 PMs have been given increases in compensation, bonuses, and equity stakes. After this announcement NEPC put Putnam's Total Return strategy on Client Review.

*Risk weight summary as of December 31 2015*

	Risk factor weight (%)
Common factor risk	
Equity	54.85
Rates	3.63
Credit	22.29
Inflation	19.23

Source: Putnam, December 2015

*Portfolio weight summary*

31 December 2015

Asset Class	Physical Weight	Derivative Exposure	Total Current Weight	Index Proxy
U.S. Equity	18.97%	-1.77%	17.20%	Russell 3000 Index
Non-U.S. Equity	10.76%	2.34%	13.10%	MSCI EAFE Index
Emerging-Market Equity	0.00%	4.75%	4.75%	MSCI Emerging Markets Index
U.S. High-Yield Bond	11.59%	2.17%	13.76%	JP Morgan High Yield Developed Index
Emerging-Market Bond	0.00%	5.19%	5.19%	JPM EM Global Bond Index
U.S. Investment-Grade Bond	11.81%	8.96%	20.77%	Barclays Aggregate Bond Index
Non-U.S. Government Bond	0.00%	26.30%	26.30%	Citi WGBI ex US Index
U.S. TIPS	0.00%	31.35%	31.35%	Barclays TIPS Index
Commodities	0.00%	10.77%	10.77%	GSCI Index
REITs	3.27%	0.00%	3.27%	MSCI REIT Index
Cash	43.61%	-90.07%	-46.46%	3 month U.S. Treasury Bill

data as of 12/31/2015

Source: Putnam, December 2015



NEPC, LLC

December 31, 2015

# Manager Due Diligence Updates

Investment Options	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
<b>Fidelity Institutional Asset Management (FIAM)</b> <i>Select Global Plus</i>	Other: Fidelity/Pyramis Organizational Change 10/2015	No Action
<b>Highland Capital Management, L.P.</b> <i>Highland Crusader Fund, L.P.</i>	Other: No response to ODD Survey - exclude from searches 12/2015	On Hold
<b>Putnam Investments</b> <i>Putnam Total Return</i>	Other: Fee Reduction 01/2016	No Action

NEPC Due Diligence Status Key	
<b>No Action</b>	Informational items have surfaced; no action is recommended.
<b>Watch</b>	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
<b>Hold</b>	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
<b>Client Review</b>	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
<b>Terminate</b>	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.



## Manager Due Diligence Updates

Investment Option	Commentary	NEPC Rating
<b>Fidelity Institutional Asset Management (FIAM)</b> <i>Select Global Plus</i>	In October, Fidelity announced that a new distribution and client service organization called Fidelity Institutional Asset Management will be created. It will be a combination of Pyramis Global Advisors and Fidelity Financial Advisor Solutions. The new entity will not impact Pyramis's investment teams or processes. However, Pyramis's reporting structure has changed slightly. NEPC recommends No Action.	<b>Neutral</b>
<b>Highland Capital Management, L.P.</b> <i>Highland Crusader Fund, L.P.</i>	Annually NEPC conducts an annual Operational Due Diligence survey. Due to Highland Capital Management, L.P. lack of a response, NEPC will exclude the manager from all searches going forward and they have been placed on Hold. NEPC will continue to reach out to the manager to complete the survey.	<b>Not Recommended</b>
<b>Putnam Investments</b> <i>Putnam Total Return</i>	Putnam has announced it is lowering fees for its Total Return product. The updated 'standard' management fee schedule for Putnam Total Return are as follows:  0.75% management fee on the first \$50 million 0.70% management fee on the next \$50 million 0.60% management fee on the next \$150 million 0.50% management fee on the next \$250 million 0.25% management fee on account assets above \$500 million	<b>Preferred</b>

NEPC Due Diligence Rating Key	
<b>Preferred</b>	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
<b>Preferred Conditional</b>	A strategy that meets the definition of Preferred as described above, but may only be suitable for certain clients due to unique characteristics of the strategy, e.g. higher risk attributes such as concentration, transparency, etc.
<b>Neutral</b>	A satisfactory investment product. No major flaws, but may be lacking a compelling investment thesis, or NEPC's conviction regarding the investment team's ability to execute on the thesis may be less than that of Preferred products.
<b>Not Recommended</b>	Serious issues have been identified with an investment manager or product. This rating is similar to the Client Review or Terminate rating for client-owned products.
<b>Not Rated</b>	Due diligence has not been completed on the product or manager.

# Appendix

## Glossary of Investment Terminology – Risk Statistics

**Alpha** - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

**Alpha Jensen** - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

**Annualized Excess Return over Benchmark** - Annualized fund return minus the annualized benchmark return for the calculated return.

**Annualized Return** - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

**Beta** - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

**Information Ratio** - A measure of the risk adjusted return of a financial security, asset, or portfolio.

*Formula:*  
 $(\text{Annualized Return of Portfolio} - \text{Annualized Return of Benchmark}) / \text{Annualized Standard Deviation}(\text{Period Portfolio Return} - \text{Period Benchmark Return})$ . To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

**R-Squared** - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

**Sharpe Ratio** - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

**Sortino Ratio** - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

*Formula:*  
 $\text{Calculation Average } (X-Y) / \text{Downside Deviation } (X-Y) * 2$   
Where X = Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)

**Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

*Formula:*  
 $(\text{Annualized Return of Portfolio} - \text{Annualized Return of Risk Free}) / \text{Annualized Standard Deviation (Portfolio Returns)}$

**Tracking Error** - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

*Formula:*  
 $\text{Tracking Error} = \text{Standard Deviation } (X-Y) * \sqrt{(\# \text{ of periods per year})}$   
Where X = periods portfolio return and Y = the period's benchmark return  
For monthly returns, the periods per year = 12  
For quarterly returns, the periods per year = 4

**Treynor Ratio** - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

*Formula:*  
 $(\text{Portfolio Average Return} - \text{Average Return of Risk-Free Rate}) / \text{Portfolio Beta}$

**Up/Down Capture Ratio** - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

$\text{Upside Capture} = \text{Total Return}(\text{Fund Returns}) / \text{Total Returns}(\text{BM Return}) \text{ when Period Benchmark Return is } > = 0$

$\text{Downside Capture} = \text{Total Return}(\text{Fund Returns}) / \text{Total Returns}(\text{BM Return}) \text{ when Benchmark } < 0$

Source: Investor Force

## Glossary of Investment Terminology

**# Of Portfolios/Observations<sup>1</sup>** – The total number of data points that make up a specified universe

**Allocation Index<sup>3</sup>** - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

**Asset Allocation Effect<sup>2</sup>** - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

**Agency Bonds (Agencies)<sup>3</sup>** - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

**Asset Backed Securities (ABS)<sup>3</sup>** - Bonds which are similar to mortgage-backed securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

**Attribution<sup>3</sup>** - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions.

**Average Effective Maturity<sup>4</sup>** - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

**Batting Average<sup>1</sup>** - A measurement representing an investment manager's ability to meet or beat an index.

*Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.*

**Brinson Fachler (BF) Attribution<sup>1</sup>** - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

**Brinson Hood Beebower (BHB) Attribution<sup>1</sup>** - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

**Corporate Bond (Corp)<sup>4</sup>** - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

**Correlation<sup>1</sup>** - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net

## Glossary of Investment Terminology

**Coupon<sup>4</sup>** – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate."

**Currency Effect<sup>1</sup>** - Is the effect that changes in currency exchange rates over time affect excess performance.

**Derivative Instrument<sup>3</sup>** - A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

**Downside Deviation<sup>1</sup>** - Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

*Formula:*

*Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.*

**Duration<sup>3</sup>** - Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond's duration is inversely related to interest rates and directly related to time to maturity.

**Equity/Debt/Cash Ratio<sup>1</sup>** – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

**Foreign Bond<sup>3</sup>** - A bond that is issued in a domestic market by a foreign entity, in the domestic market's currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm's debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

**Hard Hurdle<sup>5</sup>** – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

**High-Water Mark<sup>4</sup>** - The highest peak in value that an investment fund/account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

**Hurdle Rate<sup>4</sup>** - The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

**Interaction Effects<sup>2</sup>** - The interaction effect measures the combined impact of an investment manager's selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

**Median<sup>3</sup>** - The value (rate of return, market sensitivity, etc.) that exceeds one-half of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

**Modified Duration<sup>3</sup>** - The percentage change in the price of a fixed income security that results from a change in yield.

**Mortgage Backed Securities (MBS)<sup>3</sup>** - Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

**Municipal Bond (Muni)<sup>4</sup>** - A debt security issued by a state, municipality or county to finance its capital expenditures.

**Net Investment Change<sup>1</sup>** – Is the change in an investment after accounting for all Net Cash Flows.

**Performance Fee<sup>4</sup>** - A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

*Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net*

## Glossary of Investment Terminology

**Policy Index<sup>3</sup>** - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

**Price to Book (P/B)<sup>4</sup>** - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

**Price to Earnings (P/E)<sup>3</sup>** - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

**Price to Sales (P/S)<sup>4</sup>** - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

**Return on Equity (ROE)<sup>4</sup>** - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

**Selection (or Manager) Effect<sup>2</sup>** - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

**Soft Hurdle rate<sup>5</sup>** - is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

**Tiered Fee<sup>1</sup>** - A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

**Total Effects<sup>2</sup>** - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.

**Total Return<sup>1</sup>** - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

**Universe<sup>3</sup>** - The list of all assets eligible for inclusion in a portfolio.

**Upside Deviation<sup>1</sup>** - Standard Deviation of Positive Returns

**Weighted Avg. Market Cap.<sup>4</sup>** - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

**Yield (%)<sup>3</sup>** - The current yield of a security is the current indicated annual dividend rate divided by current price.

**Yield to Maturity<sup>3</sup>** - The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net

- **Past performance is no guarantee of future results.**
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NEPC, LLC

YOU DEMAND MORE. So do we.<sup>SM</sup>



## Dallas Police & Fire Pension System

### Third Quarter 2015 Private Markets Performance Review *~Infrastructure~*

January, 2016

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### **Information Disclosure**

- NEPC, LLC uses, as its data source, the plan's fund manager and custodian bank or fund service company, and NEPC, LLC relies on those sources for all transactions, including capital calls, distributions, income/expense and reported values. While NEPC, LLC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
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January, 2016

Trustees  
 The Dallas Police & Fire Pension System  
 4100 Harry Hines Blvd – Suite 100  
 Dallas, TX 75219

**RE:** Infrastructure Strategy – 3<sup>rd</sup> Quarter 2015

Dear Trustees:

We are pleased to present the September 30, 2015 Private Markets Report for the Infrastructure portion of the Dallas Police & Fire Pension System, (“DPFPS”). The report provides a variety of performance analysis for the infrastructure sector of the portfolio. The reports include trailing performance, performance by investment stage and vintage year performance.

The DPFPS infrastructure portfolio experienced a negative quarter with a nominal IRR of (1.84%). The annualized IRR of the infrastructure portfolio since inception was 1.19% at quarter end. Since inception, the Total Value to Paid In multiple (current valuation plus cumulative distributions, divided by total capital calls) was 1.03.

The following table presents the status of the DPFPS infrastructure portfolio as of September 30, 2015:

Since Inception Commitments	Terminated Commitments	Amount Funded	Amount Distributed	Reported Value	Call Ratio	Distribution Ratio
\$364,000,000	\$0	\$263,840,295	\$74,999,330	\$197,434,674	72.48%	28.43%

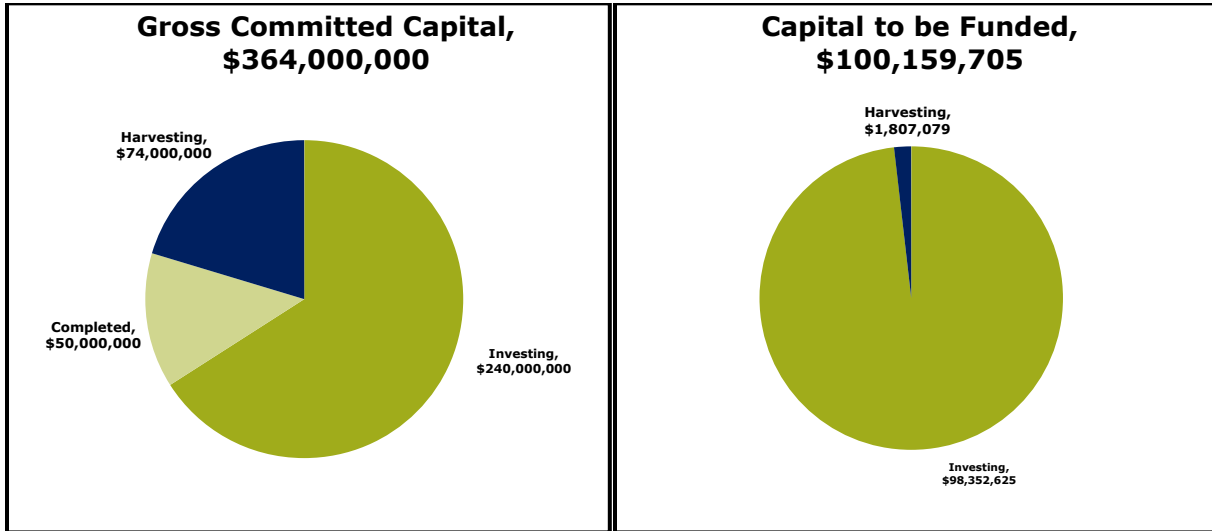
Unfunded Commitment	Market Exposure (Reported Value + Unfunded Commitment)	Total Fund Composite as of 9/30/2015	Infrastructure Target	Reported Value of Total Fund	Market Exposure as a % Total Fund
\$100,159,705	\$297,594,379	\$2,952,788,131	10%	6.69%	10.08%

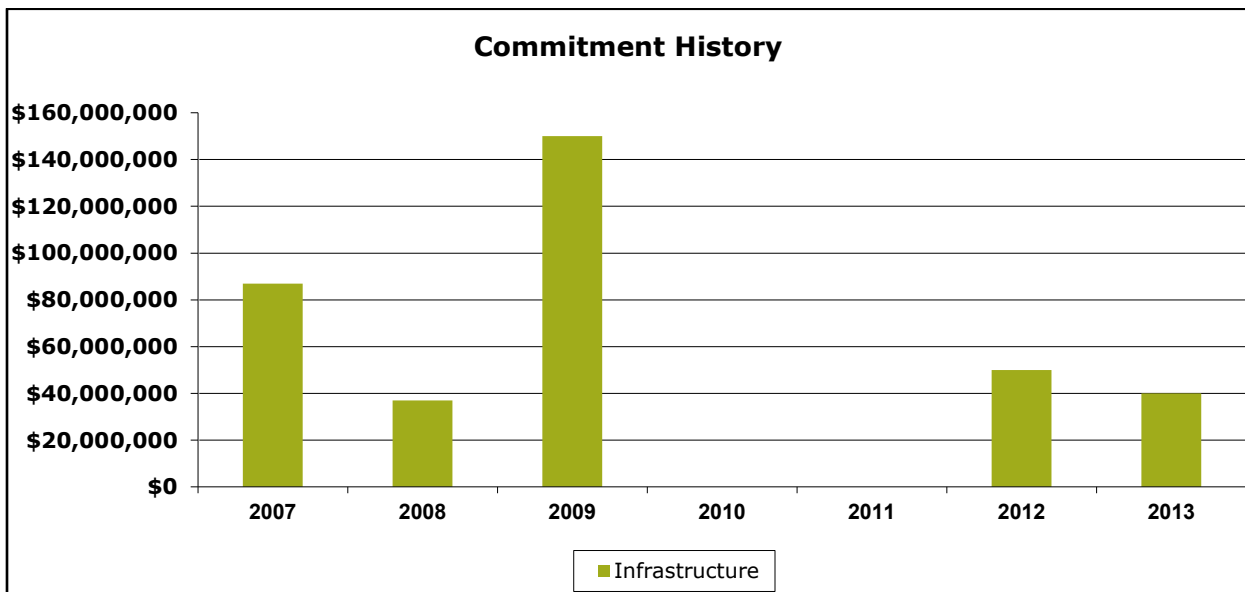
Total Value (Reported Value + Distributions)	Total Value To Capital Call Ratio	Internal Rate of Return IRR, Since Inception (October 9, 2007)
\$272,434,004	1.03	1.19%



As of September 30, 2015, the DPFPS has made commitments totaling \$364.0 million to 8 infrastructure funds. Of the 8 funds in the DPFPS infrastructure portfolio, 5 funds are in the investing stage, 2 funds are in the harvesting stage, and 1 fund has been completed. The following charts illustrate the program's current life cycle:

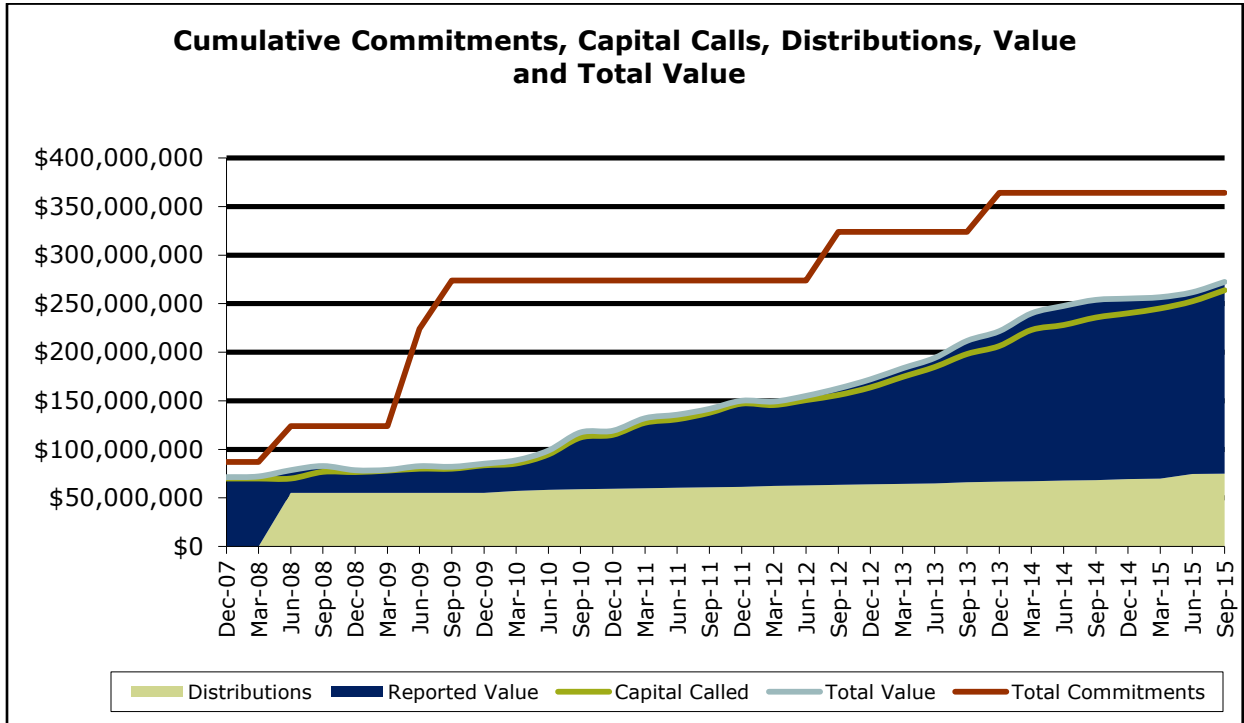


The following chart illustrates the commitment history of the DPFPS infrastructure program through the quarter end:

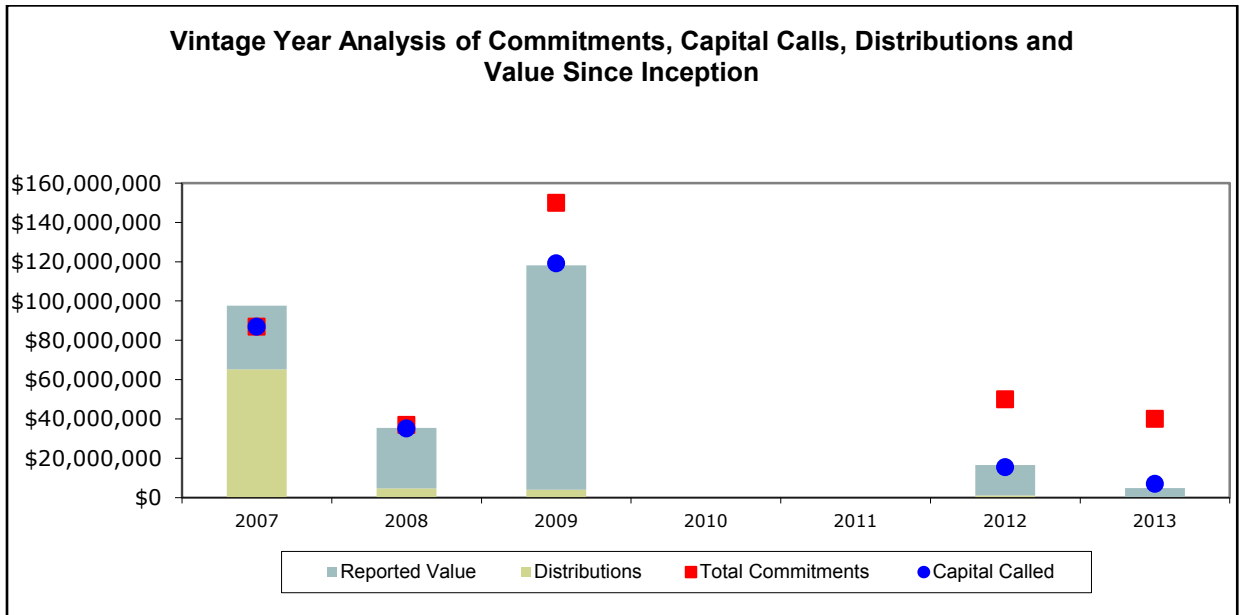




The following chart illustrates the cumulative commitment history, cumulative capital calls, cumulative distributions and reported value for the infrastructure program:



The following chart provides an analysis of the vintage year performance comparing the capital calls to the distributions and reported value for the infrastructure program:





During the quarter-ended September 30, 2015, the DPFPS infrastructure portfolio funded 6 investments and received 1 distribution. The summary of the cash flows follows:

<b>Amount Funded for the Quarter</b>	<b>Number of Funds Calling Capital</b>	<b>Distributions for the Quarter</b>	<b>Number of Funds Making Distributions</b>	<b>Net Cash/Stock Flows for the Quarter</b>
\$11,342,482	6	\$312,441	1	(\$11,030,041)

Since inception, the DPFPS portfolio contributed \$8.51 million in value to the DPFPS.





We thank you for the opportunity to work with the DPFPS and look forward to continued success in the future.

Best regards,

Rhett Humphreys, CFA  
Partner

Keith Stronkowsky, CFA  
Senior Consultant

**Dallas Police & Fire Infrastructure****Executive IRR Summary**

9/30/2015

<b>Investment Name</b>	<b>Vintage Year</b>	<b>Commitment Amount</b>	<b>QTD</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>Inception</b>
AIRRO	2008	37,000,000	-3.82	-6.36	-7.54	-1.16	1.24	0.36
AIRRO II	2013	40,000,000	-7.14	-9.02	4.98			-13.66
J.P. Morgan Maritime Fund, L.P.	2009	50,000,000	-6.22	-15.52	-24.46	0.33	-8.56	-9.22
JP Morgan Infrastructure Investments Fund	2007	37,000,000	-0.85	1.62	0.20	3.64	4.57	2.23
LBJ Infrastructure Group Holding, LLC (LBJ)	2009	50,000,000	0.00	0.00	0.00	0.00	1.53	1.52
NTE 3a-3b	2012	50,000,000	0.00	0.00	3.67			7.96
NTE Mobility Partners Holding, LLC (NTE)	2009	50,000,000	0.00	0.00	0.00	0.00	-0.22	1.56
RREEF North American Infrastructure Fund	2007	50,000,000						12.59
<b>Dallas Police &amp; Fire Infrastructure</b>		<b>364,000,000</b>	<b>-1.84</b>	<b>-3.37</b>	<b>-4.78</b>	<b>0.43</b>	<b>0.91</b>	<b>1.19</b>

**Dallas Police & Fire Infrastructure  
Performance Analysis**

9/30/2015

Partnership Name	Vintage Year	Commitment	Paid In Capital	Capital To Be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
1 AIRRO	2008	37,000,000	35,192,921	1,807,079	-361,150	4,652,575	30,713,795	35,366,370	534,600	95 %	0.13	1.02	0.36 %
2 AIRRO II	2013	40,000,000	6,983,946	33,016,054	-401,391	24,675	4,858,294	4,882,969	-1,699,587	17 %	0.00	0.74	-13.66 %
3 J.P. Morgan Maritime Fund, L.P.	2009	50,000,000	32,227,496	17,772,504	-404	242,877	27,138,282	27,381,159	-4,845,933	64 %	0.01	0.85	-9.22 %
4 JP Morgan Infrastructure Investment:	2007	37,000,000	37,000,000	0	0	10,058,448	32,288,371	42,346,819	5,346,819	100 %	0.27	1.14	2.23 %
5 LBJ Infrastructure Group Holding, LL	2009	50,000,000	44,346,229	5,653,771	0	1,782,000	44,346,229	46,128,229	1,782,000	89 %	0.04	1.04	1.52 %
6 NTE 3a-3b	2012	50,000,000	15,464,111	34,535,889	0	1,000,000	15,464,111	16,464,111	1,000,000	31 %	0.06	1.06	7.96 %
7 NTE Mobility Partners Holding, LLC (	2009	50,000,000	42,625,592	7,374,408	0	2,000,000	42,625,592	44,625,592	2,000,000	85 %	0.05	1.05	1.56 %
8 RREEF North American Infrastructur	2007	50,000,000	50,000,000	0	846,289	55,238,755	0	55,238,755	4,392,466	100 %	1.09	1.09	12.59 %
8 Total Partnerships		<b>364,000,000</b>	<b>263,840,295</b>	<b>100,159,705</b>	<b>83,344</b>	<b>74,999,330</b>	<b>197,434,674</b>	<b>272,434,004</b>	<b>8,510,365</b>	<b>72 %</b>	<b>0.28</b>	<b>1.03</b>	<b>1.19 %</b>

\*\*\* Indicates Estimated Valuation for the fund



**Dallas Police & Fire Infrastructure  
Lifecycle Performance Analysis**

9/30/2015

Partnership Name	Vintage Year	Commitment	Paid In Capital	Capital To Be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
<b>2 Investing</b>													
1 AIRRO II	2013	40,000,000	6,983,946	33,016,054	-401,391	24,675	4,858,294	4,882,969	-1,699,587	17 %	0.00	0.74	-13.66 %
2 J.P. Morgan Maritime Fund, L.P.	2009	50,000,000	32,227,496	17,772,504	-404	242,877	27,138,282	27,381,159	-4,845,933	64 %	0.01	0.85	-9.22 %
3 LBJ Infrastructure Group Holding, LLC	2009	50,000,000	44,346,229	5,653,771	0	1,782,000	44,346,229	46,128,229	1,782,000	89 %	0.04	1.04	1.52 %
4 NTE 3a-3b	2012	50,000,000	15,464,111	34,535,889	0	1,000,000	15,464,111	16,464,111	1,000,000	31 %	0.06	1.06	7.96 %
5 NTE Mobility Partners Holding, LLC (NTE)	2009	50,000,000	42,625,592	7,374,408	0	2,000,000	42,625,592	44,625,592	2,000,000	85 %	0.05	1.05	1.56 %
<b>2 Investing Subtotal</b>		<b>240,000,000</b>	<b>141,647,375</b>	<b>98,352,625</b>	<b>-401,795</b>	<b>5,049,552</b>	<b>134,432,508</b>	<b>139,482,060</b>	<b>-1,763,520</b>	<b>59 %</b>	<b>0.04</b>	<b>0.99</b>	<b>-0.55 %</b>
<b>3 Harvesting</b>													
6 AIRRO	2008	37,000,000	35,192,921	1,807,079	-361,150	4,652,575	30,713,795	35,366,370	534,600	95 %	0.13	1.02	0.36 %
7 JP Morgan Infrastructure Investments F	2007	37,000,000	37,000,000	0	0	10,058,448	32,288,371	42,346,819	5,346,819	100 %	0.27	1.14	2.23 %
<b>3 Harvesting Subtotal</b>		<b>74,000,000</b>	<b>72,192,921</b>	<b>1,807,079</b>	<b>-361,150</b>	<b>14,711,023</b>	<b>63,002,166</b>	<b>77,713,189</b>	<b>5,881,418</b>	<b>98 %</b>	<b>0.20</b>	<b>1.08</b>	<b>1.53 %</b>
<b>5 Completed</b>													
8 RREEF North American Infrastructure F	2007	50,000,000	50,000,000	0	846,289	55,238,755	0	55,238,755	4,392,466	100 %	1.09	1.09	12.59 %
<b>5 Completed Subtotal</b>		<b>50,000,000</b>	<b>50,000,000</b>	<b>0</b>	<b>846,289</b>	<b>55,238,755</b>	<b>0</b>	<b>55,238,755</b>	<b>4,392,466</b>	<b>100 %</b>	<b>1.09</b>	<b>1.09</b>	<b>12.59 %</b>
<b>8 Total Partnerships</b>		<b>364,000,000</b>	<b>263,840,295</b>	<b>100,159,705</b>	<b>83,344</b>	<b>74,999,330</b>	<b>197,434,674</b>	<b>272,434,004</b>	<b>8,510,365</b>	<b>72 %</b>	<b>0.28</b>	<b>1.03</b>	<b>1.19 %</b>

**Dallas Police & Fire Infrastructure**  
**Vintage Year Performance Analysis**

9/30/2015

Partnership Name	Vintage Year	Commitment	Paid In Capital	Capital To Be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
<b>2007</b>													
1 JP Morgan Infrastructure Investments F	2007	37,000,000	37,000,000	0	0	10,058,448	32,288,371	42,346,819	5,346,819	100 %	0.27	1.14	2.23 %
2 RREEF North American Infrastructure F	2007	50,000,000	50,000,000	0	846,289	55,238,755	0	55,238,755	4,392,466	100 %	1.09	1.09	12.59 %
<b>2007 Subtotal</b>		<b>87,000,000</b>	<b>87,000,000</b>	<b>0</b>	<b>846,289</b>	<b>65,297,203</b>	<b>32,288,371</b>	<b>97,585,574</b>	<b>9,739,285</b>	<b>100 %</b>	<b>0.74</b>	<b>1.11</b>	<b>3.72 %</b>
<b>2008</b>													
3 AIRRO	2008	37,000,000	35,192,921	1,807,079	-361,150	4,652,575	30,713,795	35,366,370	534,600	95 %	0.13	1.02	0.36 %
<b>2008 Subtotal</b>		<b>37,000,000</b>	<b>35,192,921</b>	<b>1,807,079</b>	<b>-361,150</b>	<b>4,652,575</b>	<b>30,713,795</b>	<b>35,366,370</b>	<b>534,600</b>	<b>95 %</b>	<b>0.13</b>	<b>1.02</b>	<b>0.36 %</b>
<b>2009</b>													
4 J.P. Morgan Maritime Fund, L.P.	2009	50,000,000	32,227,496	17,772,504	-404	242,877	27,138,282	27,381,159	-4,845,933	64 %	0.01	0.85	-9.22 %
5 LBJ Infrastructure Group Holding, LLC	2009	50,000,000	44,346,229	5,653,771	0	1,782,000	44,346,229	46,128,229	1,782,000	89 %	0.04	1.04	1.52 %
6 NTE Mobility Partners Holding, LLC (NTE)	2009	50,000,000	42,625,592	7,374,408	0	2,000,000	42,625,592	44,625,592	2,000,000	85 %	0.05	1.05	1.56 %
<b>2009 Subtotal</b>		<b>150,000,000</b>	<b>119,199,317</b>	<b>30,800,683</b>	<b>-404</b>	<b>4,024,877</b>	<b>114,110,103</b>	<b>118,134,980</b>	<b>-1,063,933</b>	<b>79 %</b>	<b>0.03</b>	<b>0.99</b>	<b>-0.36 %</b>
<b>2012</b>													
7 NTE 3a-3b	2012	50,000,000	15,464,111	34,535,889	0	1,000,000	15,464,111	16,464,111	1,000,000	31 %	0.06	1.06	7.96 %
<b>2012 Subtotal</b>		<b>50,000,000</b>	<b>15,464,111</b>	<b>34,535,889</b>	<b>0</b>	<b>1,000,000</b>	<b>15,464,111</b>	<b>16,464,111</b>	<b>1,000,000</b>	<b>31 %</b>	<b>0.06</b>	<b>1.06</b>	<b>7.96 %</b>
<b>2013</b>													
8 AIRRO II	2013	40,000,000	6,983,946	33,016,054	-401,391	24,675	4,858,294	4,882,969	-1,699,587	17 %	0.00	0.74	-13.66 %
<b>2013 Subtotal</b>		<b>40,000,000</b>	<b>6,983,946</b>	<b>33,016,054</b>	<b>-401,391</b>	<b>24,675</b>	<b>4,858,294</b>	<b>4,882,969</b>	<b>-1,699,587</b>	<b>17 %</b>	<b>0.00</b>	<b>0.74</b>	<b>-13.66 %</b>
<b>8 Total Partnerships</b>		<b>364,000,000</b>	<b>263,840,295</b>	<b>100,159,705</b>	<b>83,344</b>	<b>74,999,330</b>	<b>197,434,674</b>	<b>272,434,004</b>	<b>8,510,365</b>	<b>72 %</b>	<b>0.28</b>	<b>1.03</b>	<b>1.19 %</b>

**Dallas Police & Fire Infrastructure**  
**Investment Strategy Performance Analysis**

9/30/2015

Partnership Name	Vintage Year	Commitment	Paid In Capital	Capital To Be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
<b>410 Infrastructure</b>													
1 AIRRO	2008	37,000,000	35,192,921	1,807,079	-361,150	4,652,575	30,713,795	35,366,370	534,600	95 %	0.13	1.02	0.36 %
2 AIRRO II	2013	40,000,000	6,983,946	33,016,054	-401,391	24,675	4,858,294	4,882,969	-1,699,587	17 %	0.00	0.74	-13.66 %
3 J.P. Morgan Maritime Fund, L.P.	2009	50,000,000	32,227,496	17,772,504	-404	242,877	27,138,282	27,381,159	-4,845,933	64 %	0.01	0.85	-9.22 %
4 JP Morgan Infrastructure Investments F	2007	37,000,000	37,000,000	0	0	10,058,448	32,288,371	42,346,819	5,346,819	100 %	0.27	1.14	2.23 %
5 LBJ Infrastructure Group Holding, LLC	2009	50,000,000	44,346,229	5,653,771	0	1,782,000	44,346,229	46,128,229	1,782,000	89 %	0.04	1.04	1.52 %
6 NTE 3a-3b	2012	50,000,000	15,464,111	34,535,889	0	1,000,000	15,464,111	16,464,111	1,000,000	31 %	0.06	1.06	7.96 %
7 NTE Mobility Partners Holding, LLC (NTE)	2009	50,000,000	42,625,592	7,374,408	0	2,000,000	42,625,592	44,625,592	2,000,000	85 %	0.05	1.05	1.56 %
8 RREEF North American Infrastructure F	2007	50,000,000	50,000,000	0	846,289	55,238,755	0	55,238,755	4,392,466	100 %	1.09	1.09	12.59 %
<b>410 Infrastructure Subtotal</b>		<b>364,000,000</b>	<b>263,840,295</b>	<b>100,159,705</b>	<b>83,344</b>	<b>74,999,330</b>	<b>197,434,674</b>	<b>272,434,004</b>	<b>8,510,365</b>	<b>72 %</b>	<b>0.28</b>	<b>1.03</b>	<b>1.19 %</b>
8 Total Partnerships		<b>364,000,000</b>	<b>263,840,295</b>	<b>100,159,705</b>	<b>83,344</b>	<b>74,999,330</b>	<b>197,434,674</b>	<b>272,434,004</b>	<b>8,510,365</b>	<b>72 %</b>	<b>0.28</b>	<b>1.03</b>	<b>1.19 %</b>

**Dallas Police & Fire Infrastructure  
Transaction Summary**

7/1/2015 - 9/30/2015

	Date	Funding	Additional Fees	Cash	Stock	Net Cash Flow
<b>AIRRO</b>						
	8/11/2015	235,538.74				235,538.74
<b>Total: AIRRO</b>		<b>235,538.74</b>				<b>235,538.74</b>
<b>AIRRO II</b>						
	9/16/2015	149,589.04				149,589.04
<b>Total: AIRRO II</b>		<b>149,589.04</b>				<b>149,589.04</b>
<b>J.P. Morgan Maritime Fund, L.P.</b>						
	9/17/2015	1,601,890.49				1,601,890.49
<b>Total: J.P. Morgan Maritime Fund, L.P.</b>		<b>1,601,890.49</b>				<b>1,601,890.49</b>
<b>JP Morgan Infrastructure Investments Fund</b>						
	9/29/2015			312,441.28		-312,441.28
<b>Total: JP Morgan Infrastructure Investments Fund</b>				<b>312,441.28</b>		<b>-312,441.28</b>
<b>LBJ Infrastructure Group Holding, LLC (LBJ)</b>						
	8/24/2015	211,469.20				211,469.20
	8/26/2015	5,379,000.00				5,590,469.20
<b>Total: LBJ Infrastructure Group Holding, LLC (LBJ)</b>		<b>5,590,469.20</b>				<b>5,590,469.20</b>
<b>NTE 3a-3b</b>						
	7/29/2015	1,111,455.26				1,111,455.26
	8/24/2015	1,024,984.47				2,136,439.73
	9/29/2015	981,010.64				3,117,450.37
<b>Total: NTE 3a-3b</b>		<b>3,117,450.37</b>				<b>3,117,450.37</b>
<b>NTE Mobility Partners Holding, LLC (NTE)</b>						
	8/24/2015	647,544.57				647,544.57

Activity is cumulative for the period

**Dallas Police & Fire Infrastructure  
Transaction Summary**

7/1/2015 - 9/30/2015

Date	Funding	Additional Fees	Cash	Stock	Net Cash Flow
<b>NTE Mobility Partners Holding, LLC (NTE)</b>					
<hr/>					
<b>Total: NTE Mobility Partners Holding, LLC (NTE)</b>					
	<b>647,544.57</b>				<b>647,544.57</b>
<hr/>					
<b>Total: Dallas Police &amp; Fire Pension System</b>					
	<b>11,342,482.41</b>		<b>312,441.28</b>		<b>11,030,041.13</b>
<hr/>					
<b>Total:</b>	<b>11,342,482.41</b>		<b>312,441.28</b>		<b>11,030,041.13</b>
<hr/>					



# DISCUSSION SHEET

## ITEM #C9

**Topic:** Investment reports

**Discussion:** Review of investment reports.



# DISCUSSION SHEET

## ITEM #C10

**Topic:** Member health insurance

**Discussion:** Staff will update the Board regarding efforts to reduce the amount of time staff spends dealing with issues involving Members' health insurance.



# DISCUSSION SHEET

## ITEM #C11

**Topic:** Continuing Education and Investment Research Expense Policy and Procedure

**Discussion:** Staff is proposing several changes to the policy and procedures covering education and travel related expenses, one of which is the repositioning of policies and procedures related to investment research expenses to the Investment Policy. In addition, to encompass all travel related expenses including those related to non-education related pension business, Staff is proposing a change to the title of the policy to Education and Travel Policy and Procedure.

As the policy as amended removes procedures related to investment due diligence travel and the revised Investment Policy will not be presented to the Board until later in 2016, in the interim period, Staff proposes a requirement for all Trustee due diligence related travel to be pre-approved by the Board.

In conjunction with the proposed changes to the Education and Travel Policy and Procedure, Staff is proposing a reduction to the 2016 budget as follows, for a total reduction of \$59.32K:

	<u>Current</u>	<u>Proposed</u>
Travel-Board	\$233.4K	\$208.4K
Conference registration-Board	\$46.12K	\$21.6K
Travel-Staff	\$139.7K	\$131.7K
Conference registration-Staff	\$54.12K	\$52.32K





## DISCUSSION SHEET

### ITEM #C11

(continued)

#### Staff

#### Recommendation:

**Approve** the Education and Travel Policy and Procedure as amended.

**Approve** proposed reductions in the travel and conference registration budget line items for Board and Staff for 2016.



D A L L A S  
**POLICE & FIRE**  
PENSION SYSTEM



**EDUCATION AND TRAVEL  
POLICY AND PROCEDURE**

DRAFT

As Amended Through March 10, 2016

# DALLAS POLICE AND FIRE PENSION SYSTEM

## EDUCATION AND TRAVEL POLICY AND PROCEDURE

Adopted March 9, 1989

As amended through March 10, 2016

### A. POLICY

The policy of the Dallas Police and Fire Pension System (DPFP) is to:

1. Provide for a Board Education Plan which outlines the Board's educational goals and addresses compliance with the Texas Pension Review Board's (PRB) Minimum Educational Training (MET) Program for trustees and system administrators of Texas defined benefit public retirement systems.
2. Reimburse Board Trustees and staff members, as approved by the Board, for the cost of meals, accommodations, transportation and other expenses associated with travel activities relating to the operation of DPFP. Costs incurred by Trustees in the conduct of City of Dallas business unrelated to pension business, as opposed to expenses reimbursable under this policy, will be reimbursed in accordance with the appropriate City of Dallas policy and are not to be reimbursed by DPFP.
3. Arrange travel using the most economical means reasonably available.
4. Monitor travel expenses to adhere to budgeted amounts as approved by the Board.

### B. PURPOSE

The purpose of this policy is to:

1. Outline a Board Education Plan that addresses the Board's educational goals, identifies topics that Trustees and staff should be educated on, and provides for compliance with the requirements of the PRB's MET Program.
2. Define the procedure for travel and conference/training registration approvals, arrangements, documentation, and reimbursement.
3. Establish general policies and guidelines for determining allowable expenses and processing travel expenses.

This policy does not address due diligence travel related to DPFP's investment portfolio. Such policies are addressed in the Investment Policy.



**C. BOARD EDUCATION PLAN**

1. At minimum, Trustees and the Executive Director are to comply with the training requirements of the PRB's MET Program. The objective of such training is to cover the fundamental competencies necessary for the Trustees and Executive Director to successfully discharge their duties, as well as allow them to gain expertise in additional areas related to their duties. The number of hours and frequency of training should follow the requirements as set forth by the PRB and the content should be aligned with the required content areas of the PRB, including but not limited to the following: fiduciary matters, governance, ethics, investments, actuarial matters, benefits administration, risk management, compliance, legal and regulatory matters, pension accounting, custodial issues, plan administration, Texas Open Meetings Act, and the Texas Public Information Act.
2. A designated staff member shall maintain records of attendance for educational activities for each Trustee and the Executive Director, notating which activities qualify as a PRB approved source for the MET Program. These records are to be utilized to meet the compliance reporting requirements of the MET Program.
3. Trustee and staff attendance of educational activities beyond those sponsored by PRB approved sources should be related to core topics which support the role of a public fund trustee and/or staff person, as applicable (e.g. finance, defined benefit plans, legislative issues, retirement counseling, financial reporting, or any of the areas noted in paragraph C.1. above).

**D. PROCEDURE**

1. Travel arrangements shall be made by a designated staff member, upon the request of the individual Trustee or staff member attending a conference, training, or meeting. The designated staff member will assist with all necessary arrangements, including registration, airline reservations, car rental, hotel and any other arrangements requiring reservation. In order for staff to assist with such arrangements, a Travel Profile form should be completed by any individual requesting travel reservations.

**D. PROCEDURE (continued)**

2. A Trustee or staff member may request the method of transportation that best meets his/her needs and the requirements of the education or business purpose, however the request will be subject to consideration of economic feasibility based on all available options. The staff member designated to assist in arranging travel shall perform a search of all reasonably available options for transportation and lodging prior to booking in order to best manage expenditures.
3. Charges for registration and travel reserved in advance of the travel date shall be made by a designated staff person using the DFPF credit card unless otherwise pre-approved by the Executive Director.
4. All expenses associated with any travel shall be documented on the Expense Report form (see Appendix A).

An explanation of the form is as follows:

**a. Dates**

A separate column on the Expense Report is to be utilized for each day of the expense period.

**b. Registration Fees**

- (1) DFPF will reimburse actual expenses incurred in registering for a conference/training or meeting. If the attendee pays the registration fee, an original or electronic (email) receipt must be furnished for reimbursement purposes.
- (2) Registration costs are authorized only to the extent necessary for the purpose of the conference/training or meeting; expenses for golf tournaments or other extracurricular activities offered in connection with a conference/training or meeting are the responsibility of the individual.

**D. PROCEDURE (continued)**

**c. Airfare**

- (1) If a reduced airfare may be obtained by traveling a day earlier or later than required for event attendance (i.e. staying an additional night), *and* the cost of all additional travel expenses (hotel, meals, rental car, local transportation, etc) is offset by the savings in airfare, DPFPP will reimburse additional lodging, local transportation, rental car, and meal expenses incurred. The reimbursement for travel expense for the additional day will be limited to the savings in airfare (i.e. the difference between 1) the airfare that would have been incurred based on travel dates required for event attendance and 2) the actual rate paid for the airfare). Support for the amount of cost differential shall be obtained by the staff person assisting with booking travel and shall be included with the Expense Report for record keeping purposes.
- (2) For all flights, DPFPP will reimburse a coach or economy class airfare. First-class or business-class seats may be allowed only if coach seats are not available and no other flight can be substituted.
- (3) Expenses incurred to change or cancel a flight will be reimbursed by DPFPP.
- (4) Upon completion of air travel, a copy of the boarding pass and/or itinerary must be submitted with the Expense Report.

**d. Mileage**

- (1) Expenses relating to the use of personal vehicles for business travel shall be reimbursed at the current standard mileage rate as released by the Internal Revenue Service for use in computing the deductible costs of operating an automobile for business purposes.
- (2) If multiple individuals are traveling together by car, DPFPP will reimburse mileage to the person who owns the vehicle.
- (3) Mapquest.com, Map.com, or some equivalent online map service should be used to calculate mileage for reimbursement purposes.

**D. PROCEDURE (continued)**

**d. Mileage (continued)**

- (4) Mileage to and from DPFP's office will not be reimbursed for days when Trustees are compensated by the City. If a Trustee is not compensated by the City in the form of pay or time on the day of commuting to or from the DPFP office for a meeting, such mileage may be submitted for reimbursement.
- (5) The total reimbursement for vehicular transportation shall in no case exceed the amount that would be incurred using air transportation. Documentation of airfare used for cost comparison shall be attached to the Education/Travel Request Form.

**e. Local transportation**

Actual expenses incurred for taxis or other local transportation service will be reimbursed. The original or electronic (email) receipt must be provided for reimbursement.

**f. Car Rental**

DPFP will reimburse for rental cars under the following guidelines:

- (1) Whenever possible, the least expensive mode of transportation to and from the airport will be used, including shuttles, taxis, or other forms of local transportation.
- (2) Rental car expenses will not be reimbursed if an individual opts to rent a car rather than use less expensive, reasonably available modes of transportation to and from the airport. Reimbursement of the amount that would have been expended on a shuttle or taxi will be made with documentation of established rates.
- (3) Fuel and mileage costs incurred shall be reimbursed. An original or electronic (email) receipt must be provided for reimbursement. Whenever possible, the individual will return the rental car with a full tank of gas to avoid paying inflated prices for fill-up by the rental agency.

**D. PROCEDURE (continued)**

**f. Car Rental (continued)**

- (4) DPFP will not reimburse for the cost of any collision waiver or liability policy purchased in conjunction with the rental of a car. DPFP is self-insured and additional insurance is unnecessary.
- (5) If a car is rented for personal use beyond the required period for business usage, reimbursement will be made on a pro-rata basis for the period required to attend the conference/training or meeting.

**g. Lodging**

- (1) Reimbursement shall be made for actual expenses incurred for the period required to attend the conference/training or meeting, to include any additional lodging in accordance with paragraph C.4.c.(1).
- (2) Original hotel receipts must be furnished for reimbursement.
- (3) If one or more other persons accompany the individual and the hotel rate is higher than that charged for single occupancy, the lodging receipt shall indicate both the amount charged and the single occupancy rate. The person authorized to incur expenses shall pay the difference.
- (4) Any personal expenses, such as in-room movies, fitness room access, dry cleaning, etc. are the responsibility of the individual.

**h. Business Services**

- (1) All actual internet access expenses pursuant to DPFP business will be reimbursed. The Trustee or staff member incurring the expense shall annotate any receipts listing such expenses to indicate which expenses were incurred related to DPFP business.
- (2) Miscellaneous business expenses such as facsimile transmissions, courier service and overnight delivery service will be reimbursed. Original or electronic (email) receipts will be required for reimbursement.



**D. PROCEDURE (continued)**

**i. Tips**

All tips must be itemized daily.

**j. Meals**

- (1) DPFPP shall reimburse for meals based on actual expenses supported by receipts.
- (2) If receipts are not available from the provider, but the individual confirms the cost, DPFPP will reimburse actual costs not to exceed \$25 for a meal.
- (3) DPFPP will not reimburse expenses for alcoholic beverages.
- (4) DPFPP will not reimburse expenses for meals purchased in lieu of meals provided by a conference sponsor.
- (5) A meal purchased for a non-DPFPP Trustee or staff person with the express purpose of conducting business may be reimbursed.
- (6) Notation of all attendees of meals is required to be made on the receipt provided. If an attendee is a non-DPFPP Trustee or staff, their business relationship to DPFPP must be noted.
- (7) Itemized, original or electronic (email) receipts will be required for reimbursement.

**k. Baggage Fees**

Fees charged to check baggage on flights will be reimbursed

**l. Parking**

Parking expenses are eligible for reimbursement. Original or electronic (email) receipts are to be furnished, if available. Terminal (short-term) parking at Dallas Fort Worth International Airport will not be reimbursed for a period exceeding two nights. Long-term parking is to be used in instances of travel exceeding a two-night stay.

**D. PROCEDURE (continued)**

**m. Tolls**

Fees charged for tolls will be reimbursed. Original or electronic (email) receipts are to be furnished, if available.

**n. Other Expenses**

**(1) Taxes**

Sales and other taxes paid are reimbursable.

**(2) Insurance**

Flight insurance and fees for traveler's checks will not be reimbursed.

**(3) Educational Materials**

Expenditures for books or other materials required to be purchased for an educational course will be reimbursed. Original or electronic (email) receipt is required for reimbursement.

**(4) Incidentals**

Items other than those mentioned above will not be reimbursed.

**5. Insurance Coverage**

- a.** While a Trustee or staff member is driving their privately owned vehicle on DPFPP business, their auto insurance is primary. Any DPFPP insurance will be secondary and will come into use only after the primary policy has paid out to its limits.
- b.** DPFPP will provide legal defense and pay all settlements or judgments of claims or suits arising from an accident involving the use of a privately owned vehicle while conducting DPFPP business, subject to the following conditions:

**D. PROCEDURE (continued)**

**5. Insurance Coverage (continued)**

- (1) DPFP coverage will be in excess of any other automobile liability insurance that provides coverage for a staff's or Trustee's vehicle while being used to conduct DPFP business.
- (2) The staff must be in the scope of DPFP employment at the time of the accident, or the Board member must be a current Trustee at the time of the accident.
- (3) The individual must notify their supervisor or the Executive Director, as applicable, of any automobile accident while conducting DPFP business as soon as possible.
- (4) The individual must notify his/her insurance carrier of the accident as soon as possible.
- (5) The individual must cooperate in the DPFP investigation and defense of any claim or suit related to their accident.
- (6) DPFP will reimburse the staff or Trustee for the physical damage deductible under comprehensive and collision coverage due to damage to a staff person's or Trustee's vehicle arising out of the use of the vehicle while in the scope of DPFP business. The maximum reimbursement will be \$1,000 whether or not the individual has physical damage insurance coverage on the vehicle. All claims for the reimbursement of the deductible must include supporting documentation.

**6. Filing for Reimbursements**

- a. An Expense Report, along with applicable receipts, shall be submitted to the staff person designated to assist with travel, preferably within ten working days, but in no case later than sixty days after completion of a trip.
- b. Only original or electronic (email) receipts shall be submitted. Copies are not acceptable. Receipts should be legible and reflect the reimbursement dollar amount.

**D. PROCEDURE (continued)**

- c.** All Expense Reports will be reviewed and approved by the Executive Director and Chief Financial Officer, or their designee.
  - d.** DPFPP staff will maintain all records and reports pursuant to this policy.
  - e.** Reimbursement checks will typically be issued within 10 business days of receipt of a completed Expense Report and all supporting documentation, but never prior to completion of review and approval by executive staff.
- 7. Approval of Travel and Reimbursements**
- a.** Travel will only be approved if the purpose of the trip is to transact official DPFPP business or attend educational conferences or training sessions necessary to promote the efficient conduct of DPFPP's business.
  - b.** For any Trustee travel, including day-trip travel (i.e. travel outside of Dallas County which allows an individual to depart and return on the same day), Chairperson and Executive Director approval is required to be obtained prior to travel. Planned travel must be reported on an Education/Travel Request form and provided to the staff person designated to maintain travel/education records. Trustees on unapproved travel may not be covered by DPFPP's liability insurance.
  - c.** A listing of all upcoming Trustee education shall be included as a component of the Executive Director's Report in the Board meeting agenda, noting planned attendance of individual Trustees. The inclusion of this report in Board meeting materials evidences the Chairperson and Executive Director's approval of such travel. In order for a training or conference to be placed on the list, it must be approved by the Chairperson and Executive Director. A Trustee may request pre-approval from the Chairperson and Executive Director to attend a training or conference which is not on the approved list. Any such request must be supported by a program or other evidence of the opening and closing dates, times, location and general content. Written approval of the Chairperson and Executive Director is to be maintained with the Education/Travel Request form if such travel is requested and the date of the travel occurs prior to the next Board meeting.

**D. PROCEDURE (continued)**

- d. Staff members must schedule authorized travel and conference/training registration with the staff person designated to assist with travel coordination.
- e. A staff member's supervisor shall approve, in writing, the travel, including day-trip travel, in advance of any registration or travel being booked. Such request must be supported by a program or other evidence of the opening and closing dates, times, location and general content. Supervisor approval is subject to available funds in accordance with the annual budget as approved by the Board. Any costs which exceed the annual budget for staff travel and education must be approved by the Executive Director before expenses are incurred. Such approval is subject to available funds based on upon the overall operating budget as approved by the Board. Staff on unapproved travel may not be covered by DPFP's liability insurance.
- f. As a component of the annual budget, an allocation shall be made to each individual Trustee for education related travel and conference/event registration/materials. Expenditures will be monitored for each Trustee's budget throughout the year, with available balances provided to the Trustees quarterly, at minimum.
- g. Staff shall allocate a separate travel and registration amount in the budget for expenditures in connection with specified professional education programs approved by the Board (i.e. Wharton and Harvard investments related workshops or similar, approved courses). Each Trustee and the Executive Director may attend one such program in any two year period to the extent that budgeted amounts are available. A Trustee may attend additional programs to the extent budgeted amounts are available, with written pre-approval from the Chairperson and Executive Director. If more than six Trustees request to attend such a program in any one year, attendance will be approved according to order of request, with preference given to 1) Trustees who have not yet attended the initial "basic" course, and 2) Trustees who did not attend such a program the prior year.

APPROVED on March 10, 2016 the Board of Trustees of the Dallas Police and Fire Pension System.

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Samuel L. Friar  
Chairman

Attested:

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Kelly Gottschalk  
Secretary



D A L L A S  
**POLICE & FIRE**  
PENSION SYSTEM



~~CONTINUING~~ EDUCATION AND  
~~INVESTMENT RESEARCH EXPENSE~~  
TRAVEL  
POLICY AND PROCEDURE

As Amended Through ~~November 14, 2013~~ March 10, 2016

# DALLAS POLICE AND FIRE PENSION SYSTEM

## ~~CONTINUING EDUCATION AND INVESTMENT RESEARCH~~ ~~EXPENSE TRAVEL~~ POLICY AND PROCEDURE

Adopted March 9, 1989

As amended through ~~November 14, 2013~~ March 10, 2016

### A. POLICY

The policy of the Dallas Police and Fire Pension System (DPFP) is to:

1. Provide for a Board Education Plan which outlines the Board's educational goals and addresses compliance with the Texas Pension Review Board's (PRB) Minimum Educational Training (MET) Program for trustees and system administrators of Texas defined benefit public retirement systems.

~~2.~~ Reimburse Board Trustees, ~~Administrative and~~ staff members, ~~and others~~ as approved by the Board, for the cost of meals, accommodations, transportation and other expenses ~~incurred with or during continuing education, investment research and other legislative related and business associated with travel~~ activities relating to the operation of ~~the System~~ DPFP. Costs incurred by Trustees in the conduct of City of Dallas business unrelated to pension business, as opposed to expenses reimbursable under this policy, will be reimbursed in accordance with the appropriate City of Dallas policy and are not to be reimbursed by DPFP.

~~2.~~

3. Arrange ~~continuing education and investment research~~ travel using the most economical means reasonably available.

~~4.~~

~~3.~~ Monitor ~~continuing education and investment research~~ travel expenses to adhere to budgeted amounts as approved by the Board.

### B. PURPOSE

The purpose of this policy is to:

~~1.~~ 1. Outline a Board Education Plan that addresses the Board's educational goals, identifies topics that Trustees and staff should be educated on, and provides for compliance with the requirements of the PRB's MET Program.

2. Define the procedure for travel and conference/training registration approvals, arrangements, documentation, and reimbursement.





3. Establish general policies and guidelines for ~~processing continuing education and investment research expenses and~~ determining allowable expenses; and processing travel expenses.

This policy does not address due diligence travel related to DFPF's investment portfolio. Such policies are addressed in the Investment Policy.

- ~~2. Define the procedure for continuing education and investment research approvals, arrangements, documentation, and reimbursement.~~

**C. BOARD EDUCATION PLAN**

1. At minimum, Trustees and the Executive Director are to comply with the training requirements of the PRB's MET Program. The objective of such training is to cover the fundamental competencies necessary for the Trustees and Executive Director to successfully discharge their duties, as well as allow them to gain expertise in additional areas related to their duties. The number of hours and frequency of training should follow the requirements as set forth by the PRB and the content should be aligned with the required content areas of the PRB, including but not limited to the following: fiduciary matters, governance, ethics, investments, actuarial matters, benefits administration, risk management, compliance, legal and regulatory matters, pension accounting, custodial issues, plan administration, Texas Open Meetings Act, and the Texas Public Information Act.
2. A designated staff member shall maintain records of attendance for educational activities for each Trustee and the Executive Director, notating which activities qualify as a PRB approved source for the MET Program. These records are to be utilized to meet the compliance reporting requirements of the MET Program.
3. Trustee and staff attendance of educational activities beyond those sponsored by PRB approved sources should be related to core topics which support the role of a public fund trustee and/or staff person, as applicable (e.g. finance, defined benefit plans, legislative issues, retirement counseling, financial reporting, or any of the areas noted in paragraph C.1. above).

**D. PROCEDURE**

1. Continuing education and investment research~~Travel~~ arrangements shall normally be made directly by the person incurring the expense. Upon by a designated staff member, upon the request, the Staff Continuing Education and Investment Research Coordinator of the individual Trustee or staff member attending a conference, training, or meeting. The designated staff member will assist with all necessary arrangements, including ~~conference~~ registration, airline reservations, car rental, hotel, etc. and any other arrangements requiring reservation. In order for staff to assist with such arrangements, a Travel Profile form should be completed by any individual requesting travel reservations.

## 2. Continuing

Education and ~~Investment Research Expense~~ Travel Policy and Procedure  
As amended through ~~November 14, 2013~~ March 10, 2016  
Page ~~23~~ of ~~912~~

### ~~C.~~ PROCEDURE D. PROCEDURE (continued)

2. A Trustee or staff member may ~~choose~~ request the method of transportation that best meets his/her needs and the requirements of the ~~continuing education and investment research~~ education or business purpose, however the request will be subject to consideration of economic feasibility based on all available options. The staff member designated to assist in arranging travel shall perform a search of all reasonably available options for transportation and lodging prior to booking in order to best manage expenditures.
- ~~3. An advance on continuing education and investment research expenses shall be made only to the person who is authorized to incur the expense. An expense advance will not be released more than seven (7) business days prior to the date the continuing education and investment research is to be performed.~~
3. Charges for registration and travel reserved in advance of the travel date shall be made by a designated staff person using the DFPF credit card unless otherwise pre-approved by the Executive Director.

### All

- ~~4.~~ 4. ~~The full~~ expenses associated with any ~~continuing education and investment research~~ travel shall be documented on the ~~Continuing Education and Investment Research~~ Expense Report ~~Form (See form (see~~ Appendix A).

An explanation of the form is as follows:

#### a. Dates

A separate column on the Expense Report is to be utilized for each day of the expense period.

#### b. Conference Registration Fees

(1) \_\_\_\_\_ The System DFPF will reimburse actual expenses incurred in registering for a conference/training or meeting. If the attendee pays the ~~conference~~ registration fee, an original or electronic (email) receipt must be furnished for reimbursement purposes.

(2) Registration costs are authorized only to the extent necessary for the purpose of the conference/training or meeting; expenses for golf tournaments or other extracurricular activities offered in connection with a conference/training or meeting are the responsibility of the individual.

**D. PROCEDURE (continued)**

~~b. Dates~~

~~A separate column on the Continuing Education and Investment Research Expense Report is to be utilized for each day of the expense period.~~

c. Airfare

~~(1) If any person conducting continuing education and investment research is able to obtain a reduced airfare may be obtained by traveling a day earlier or later than required for event attendance (i.e. staying over on a Saturday) below an additional night), and the normal each cost of all additional travel expenses (hotel, meals, rental car, local transportation, etc) is offset by the savings in airfare, the SystemDPFP will reimburse additional lodging, local transportation, rental carscar, and meal expenses up to incurred. The reimbursement for travel expense for the additional day will be limited to the savings in airfare (i.e. the difference between 1) the airfare that would have been incurred if there had been no reduced airfare based on travel dates required for event attendance and 2) the actual rate paid for the airfare.~~

- (1) Continuing Education). Support for the amount of cost differential shall be obtained by the staff person assisting with booking travel and Investment Research shall be included with the Expense Policy and Procedure Report for record keeping purposes.

As amended through November 14, 2013

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~~C. PROCEDURE (continued)~~

- ~~(2)~~ For any international all flights, other than those to a North American destination, the System DPFPP will reimburse for a business coach or economy class airfare.
- ~~(3)~~ In consideration of business continuity issues, when flying to the same destination, the Administrator and Assistant Administrators should use different flights whenever practical. The System acknowledges that this practice may result in an increase in reimbursable expenses.
- ~~(4)(2)~~ Similarly, if more than one Trustee is flying to the same destination, whenever practical, the Trustees should be split between flights so that a quorum of the Board or a group of Trustees important to a decision are not on the same First-class or business-class seats may be allowed only if coach seats are not available and no other flight can be substituted.
- ~~(5)(3)~~ Expenses incurred to change or cancel a flight will be reimbursed by the System DPFPP.
- ~~(4)~~ Upon completion of air travel, a copy of the boarding pass and/or itinerary must be submitted with the Expense Report.

d. Mileage

Expenses relating to the use of personal vehicles for business travel shall be reimbursed at the lesser of

- ~~(1) (1)~~ the current standard mileage rate as released by the internal Internal Revenue Service for use in computing the deductible costs of operating an automobile for business purposes, or,
- ~~(2) (2)~~ the mileage rate set by the Board from time to time. If several persons multiple individuals are traveling together by car, then the System DPFPP will reimburse mileage to the person who owns the vehicle.



(3) Mapquest.com, Map.com, or pays some equivalent online map service should be used to calculate mileage for the rental reimbursement purposes.

~~e. Taxi cabs~~

~~Actual expenses incurred for taxis will be reimbursed. The original receipt must be provided if the amount exceeds twenty five dollars (\$25.00).~~

**ED. PROCEDURE ~~(continued)~~**

**d. Mileage (continued)**

- (4) Mileage to and from DPFP's office will not be reimbursed for days when Trustees are compensated by the City. If a Trustee is not compensated by the City in the form of pay or time on the day of commuting to or from the DPFP office for a meeting, such mileage may be submitted for reimbursement.
- (5) The total reimbursement for vehicular transportation shall in no case exceed the amount that would be incurred using air transportation. Documentation of airfare used for cost comparison shall be attached to the Education/Travel Request Form.

**e. Local transportation**

Actual expenses incurred for taxis or other local transportation service will be reimbursed. The original or electronic (email) receipt must be provided for reimbursement.

**f. Car Rental**

~~The System~~ DPFP will reimburse for rental cars under the following guidelines:

- ~~(1) Cars rented for personal use beyond the business usage will be reimbursed on a pro-rata basis for the period required to conduct the business, to include any additional days in accordance with paragraph e of this subsection, (i.e. cars rented for five (5) days during a three (3) day conference will only be reimbursed for three (3) days rental), with the exception of a/any additional nights to save the System money on the total of airfare and hotel charges.~~
- (2) (1) Whenever possible, the least expensive mode of transportation to and from the airport will be used, including shuttles, taxis, or other forms of local transportation.
- (2) Rental car expenses will not be reimbursed if an individual opts to rent a car rather than use less expensive, reasonably available modes of transportation to and from the airport. Reimbursement of the amount

that would have been expended on a shuttle or taxi will be made with documentation of established rates.

(3) Fuel and mileage costs incurred shall be reimbursed on. An original or electronic (email) receipt must be provided for reimbursement. Whenever possible, the individual will return the rental car with a full tank of gas to avoid paying inflated prices for fill-up by the same pro-rata basis as the actual base rental costs agency.

(3) The System



**D. PROCEDURE (continued)**

**f. Car Rental (continued)**

- (4) DFPF will not reimburse for the cost of any collision waiver or liability policy purchased in conjunction with the rental of a car. DFPF is self-insured and additional insurance is unnecessary.

~~**g. Other Transportation**~~

~~Miscellaneous transportation expenses for other than taxicabs or car rental should be listed here.~~

- ~~(5) If a car is rented for personal use beyond the required period for business usage, reimbursement will be made on a pro-rata basis for the period required to attend the conference/training or meeting.~~

~~**g**~~

**h. Lodging**

- (1) Reimbursement shall be made for actual expenses incurred for the period required to ~~conduct~~attend the ~~business~~conference/training or meeting, to include any additional ~~days~~lodging in accordance with ~~Section~~paragraph C.4.c.(1).
- (2) Original hotel receipts must be furnished for reimbursement.
- ~~(3)~~ (3) If one or more other persons accompany the individual, and the hotel rate is higher than that charged for single occupancy, the lodging receipt shall indicate both the amount charged and the single occupancy rate. The person authorized to incur expenses shall pay the difference.
- (4) Any personal expenses, such as in-room movies, fitness room access, dry cleaning, etc. are the responsibility of the individual.

~~**h**~~

~~C. PROCEDURE (continued)~~

~~i. Telephone, Internet and E-mail~~

~~. Business Services~~

~~(1) All actual telephone, Internet and e-mail internet access expenses pursuant to System DPFP business will be reimbursed. The authorized Trustee or staff member will incurring the expense shall annotate any lodging receipts listing such expenses to indicate which expenses were incurred on System related to DPFP business. Personal phone calls (not to exceed a total of fifteen minutes) per day will be reimbursed.~~

~~j. Business Services~~

~~(2) Miscellaneous business expenses such as facsimile transmissions, courier service and overnight delivery service will be reimbursed. Receipts Original or electronic (email) receipts will be required for individual expenses exceeding \$25.00 reimbursement.~~

**D. PROCEDURE (continued)**

~~\_\_\_\_\_~~ **i**  
~~\_\_\_\_\_~~ **k. Tips**

All tips must be itemized daily.

**lj. Meals**

- (1) ~~The SystemDPFP~~ shall reimburse for meals based on actual expenses supported by receipts.
- (2) If receipts are not available from the provider, but the individual confirms the cost, ~~the SystemDPFP~~ will reimburse actual costs not to exceed \$25 for a meal.
- ~~(3) \_\_\_\_\_ (3) The SystemDPFP~~ will not reimburse expenses for alcoholic beverages.
- ~~(4) \_\_\_\_\_ m. DPFP~~ will not reimburse expenses for meals purchased in lieu of meals provided by a conference sponsor.
- ~~(5) A meal purchased for a non-DPFP Trustee or staff person with the express purpose of conducting business may be reimbursed.~~
- ~~(6) Notation of all attendees of meals is required to be made on the receipt provided. If an attendee is a non-DPFP Trustee or staff, their business relationship to DPFP must be noted.~~
- ~~(7) Itemized, original or electronic (email) receipts will be required for reimbursement.~~

~~\_\_\_\_\_~~ **k—Other Miscellaneous Expenses**

~~\_\_\_\_\_~~ **(1). Baggage Fees**

~~\_\_\_\_\_~~ Fees charged to check baggage on flights will be reimbursed

~~\_\_\_\_\_~~ **l. Parking**

Parking expenses are eligible for reimbursement. Original or electronic (email) receipts should are to be furnished, if available.

Terminal (short-term) parking at Dallas Fort Worth International Airport will not be reimbursed for a period exceeding two nights. Long-term parking is to be used in instances of travel exceeding a two-night stay.



**D. PROCEDURE (continued)**

m.

(2) Tolls

Fees charged for tolls will be reimbursed. Original or electronic (email) receipts are to be furnished, if available.

n. Other Expenses

(1) Taxes

Sales and other taxes paid are reimbursable.

**C. PROCEDURE (continued)**

(3)  
(2) Insurance

Flight insurance and fees for traveler's checks will not be reimbursed.

(3) Educational Materials

Expenditures for books or other materials required to be purchased for an educational course will be reimbursed. Original or electronic (email) receipt is required for reimbursement.

(4) Incidentals

Items other than those mentioned above will not be reimbursed.

**5. Insurance Coverage**

- a.** While a Trustee or staff member is driving their privately owned vehicle on DFPF business, their auto insurance is primary. Any DFPF insurance will be secondary and will come into use only after the primary policy has paid out to its limits.
- b.** DFPF will provide legal defense and pay all settlements or judgments of claims or suits arising from an accident involving the use of a privately owned vehicle while conducting DFPF business, subject to the following conditions:

~~D. FILING OF REPORTS FOR REIMBURSEMENTS OR REPAYMENTS~~

~~1. A Continuing Education and Travel Policy and Procedure~~

~~As amended through March 10, 2016~~

~~Page 9 of 12~~

D. PROCEDURE (continued)

5. Insurance Coverage (continued)

- (1) DPF~~P~~ coverage will be in excess of any other automobile liability insurance that provides coverage for a staff's or Trustee's vehicle while being used to conduct DPF~~P~~ business.
- (2) The staff must be in the scope of DPF~~P~~ employment at the time of the accident, or the Board member must be a current Trustee at the time of the accident.
- (3) The individual must notify their supervisor or the Executive Director, as applicable, of any automobile accident while conducting DPF~~P~~ business as soon as possible.
- ~~(4) The individual must notify his/her insurance carrier of the accident as soon as possible.~~
- (5) ~~The Investment Research~~ individual must cooperate in the DPF~~P~~ investigation and defense of any claim or suit related to their accident.
- (6) DPF~~P~~ will reimburse the staff or Trustee for the physical damage deductible under comprehensive and collision coverage due to damage to a staff person's or Trustee's vehicle arising out of the use of the vehicle while in the scope of DPF~~P~~ business. The maximum reimbursement will be \$1,000 whether or not the individual has physical damage insurance coverage on the vehicle. All claims for the reimbursement of the deductible must include supporting documentation.

6. Filing for Reimbursements

- a. An Expense Report, ~~(Appendix A)~~ along with applicable receipts, shall be submitted to the ~~Continuing Education and Investment Research Coordinator~~ staff person designated to assist with travel, preferably within ten ~~(10)~~ working days, but in no case later than sixty ~~(60)~~ days after completion of ~~the~~ trip.

**2b.** Only original or electronic (email) receipts shall be submitted. Copies are not acceptable. Receipts should be legible and reflect the reimbursement dollar amount.

~~**3.** The Pension Office's Internal Auditor will review all Continuing~~



D. Investment Research **PROCEDURE (continued)**

~~c. All Expense Reports will be reviewed and approved by the Executive Director and Chief Financial Officer, or their designee.~~

~~4. The Pension Office~~ d. DFPF staff will maintain all records and reports pursuant to this policy.

~~5. e. Normally, reimbursement~~ Reimbursement checks will typically be issued within 10 business days of receipt of a completed ~~expense voucher~~ Expense Report and all supporting documentation, but never prior to completion of ~~the audit~~ review and approval by executive staff.

~~6. Continuing Education and Investment Research Expense Advances~~

~~In general, the System discourages the issuance of advance payment for expenses. An advance will be issued when necessary and appropriate only with the approval of the Administrator.~~

7. Approval of Travel and Reimbursements

a. Travel will only be approved if the purpose of the trip is to transact official DFPF business or attend educational conferences or training sessions necessary to promote the efficient conduct of DFPF's business.

~~a.~~ For any Trustee travel, including day-trip travel (i.e. travel outside of Dallas County which allows an individual to depart and return on the same day), Chairperson and Executive Director approval is required to be obtained prior to travel. Planned travel must be reported on an Education/Travel Request form and provided to the staff person designated to maintain travel/

~~b. A check or money order, payable to the Dallas Police & Fire Pension System, shall be remitted for the balance of any unused expense advance, preferably with the Continuing Education and Investment Research Expense Report, but in no case later than thirty (30) days after completion of the trip. For security purposes the System office does not accept cash.~~

~~b. D.~~ education records. Trustees on unapproved travel may not be covered by DFPF's liability insurance.

~~A FILING OF REPORTS FOR REIMBURSEMENTS OR REPAYMENTS  
(continued)~~

~~e.~~ If the purpose for the continuing education and investment research is canceled, the advance must be returned immediately upon knowledge of cancellation; it cannot be utilized for subsequent expenses.

~~d.~~ In accordance with Federal law, if any of the following occurs, the total amount of monies given as an expense advance will be reported as taxable income of the recipient to the IRS:

~~(i)~~ an expense advance is received more than fifteen (15) days prior to occurrence of the continuing education and investment research, or

~~(ii)~~ an expense report is not turned in to the Pension office within sixty (60) days after the expenses are incurred,

~~(iii)~~ any unused expense advance is not remitted to the System within 120 days after the expenses are incurred.

c. listing of all upcoming Trustee education shall be included as a component of the Executive Director's Report in the Board meeting agenda, noting planned attendance of individual Trustees. The inclusion of this report in Board meeting materials evidences the Chairperson and Executive Director's approval of such travel. In order for a training or conference to be placed on the list, it must be approved by the Chairperson and Executive Director. A Trustee may request pre-approval from the Chairperson and Executive Director to attend a training or conference which is not on the approved list. Any such request must be supported by a program or other evidence of the opening and closing dates, times, location and general content. Written approval of the Chairperson and Executive Director is to be maintained with the Education/Travel Request form if such travel is requested and the date of the travel occurs prior to the next Board meeting.

**D. PROCEDURE (continued)**

- ~~1.~~ ~~c.~~ ~~Even though income has been reported to the IRS, any unused portion of an expense advance must be repaid to the System.~~

**E. APPROVAL**

- ~~1.~~ ~~All Trustee continuing education and investment research shall be included on the Continuing Education and Investment Research Report presented in the Administrator's Report in the Board meeting agenda.~~
  
- ~~2.~~ ~~d.~~ ~~To the extent possible, staff continuing education and investment research will be scheduled in advance and included in the annual administrative budget. Staff members must schedule authorized continuing education and investment research travel and conference/training registration with the Continuing Education and Investment Research Coordinator. staff person designated to assist with travel coordination.~~
  
- ~~3.~~ ~~A staff member's supervisor shall authorize budgeted continuing education and investment research and the Administrator shall approve staff continuing education and investment research not included in the budget before expenses are incurred.~~

**E. APPROVAL (continued)**

- e.** ~~As part of the budget process, the Board~~ A staff member's supervisor shall approve, in writing, the travel, including day-trip travel, in advance of any registration or travel being booked. Such request must be supported by a program or other evidence of the opening and closing dates, times, location and general content. Supervisor approval is subject to available funds in accordance with the annual budget as approved by the Board. Any costs which exceed the annual budget for staff travel and education must be approved by the Executive Director before expenses are incurred. Such approval is subject to available funds based on upon the overall operating budget as approved by the Board. Staff on unapproved travel may not be covered by DFPF's liability insurance.
- f.** As a component of the annual budget, an allocation shall be made to each individual Trustee for education related travel and conference/event registration/materials. Expenditures will be monitored for each Trustee's budget throughout the year, with available balances provided to the Trustees quarterly, at minimum.
- ~~4.~~ Staff shall allocate to Trustees a portion of the System's Continuing Education and Investment Research budget line item. 98% of the amount so allocated, less amounts allocated according to Section E.6 and E.7 below, shall be divided by twelve and the resulting one twelfth shall be the maximum expenditure for that year for each Trustee for Continuing Education and Investment Research, except for the Chairman of the Board whose maximum expenditure shall be increased by the remaining 2% after the allocation of the 98% amount to all Trustees.
- ~~5.~~ For international investment due diligence, the Chairman of the Board shall select two Trustees, on a rotating basis to the extent practicable, to conduct such diligence on behalf of the Board. a
- ~~6.~~ The Board shall allocate separate continuing education amount travel and registration amount in the budget for Trustee expenditures in connection with (i) educational conferences sponsored by the Texas Association of Public Employee Retirement Systems and (ii) educational conferences sponsored by the National Conference on Public Employee Retirement Systems.
- ~~7.~~ g. The Board shall allocate a separate continuing education amount in the budget for Trustee expenditures in connection with specified professional trustee education programs approved by the Board and included in the

~~Continuing Education and Investment Research calendar for this purpose (i.e. Wharton and Harvard investments related workshops or similar, approved courses). Each Trustee and the Executive Director may attend one such program paid out of this separate continuing education amount in any two year period to the extent that budgeted amounts are available. A Trustee may attend additional professional trustee education programs to the extent budgeted amounts are available in this continuing education amount after other Trustees desiring to attend such programs have had, with written pre-approval from the opportunity to do so Chairperson and Executive Director. If more than six Trustees request to attend a professional trustee education such a program in any one year, attendance will be allocated approved according to order of request, with preference given to 1) Trustees who had have not yet attended a professional trustee education the initial "basic" course, and 2) Trustees who did not attend such a program the prior year. If amounts in the separate continuing education amount are not available, a Trustee may attend a professional trustee education program with expenditures incurred applied against the Trustee's own allocation provided in Section E.4.~~

Continuing

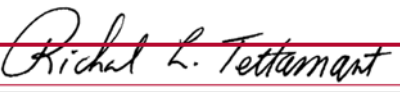
APPROVED on ~~November 14, 2013~~ March 10, 2016 the Board of Trustees of the Dallas Police and Fire Pension System.



George Tomasovic

Samuel L. Friar  
Chairman

Attested:



Richard L. Tettamant

Kelly Gottschalk  
Secretary

**Appendix A**

\_\_\_\_\_ Cont E.    \_\_\_\_\_ Invest Research    \_\_\_\_\_ Other    \_\_\_\_\_ Leg

**DALLAS POLICE & FIRE PENSION SYSTEM  
EXPENSE REPORT**

**Name:** \_\_\_\_\_  
**Destination/ Purpose:** \_\_\_\_\_  
**Dates/Location:** \_\_\_\_\_

<b>Dates ---&gt;</b>								
Airfare:								\$ -
Mileage:								\$ -
Taxicabs:								\$ -
Car Rental:								\$ -
Tolls:								\$ -
Lodging:								\$ -
Telephone:								\$ -
Bus. Services:								\$ -
Tips:								\$ -
Meals:								\$ -
Other:								\$ -
Registration:								\$ -
Parking								\$ -
								\$ -
<b>TOTAL-----&gt;</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

	\$ Amount	Check Num.
Travel Advance AMT:		
Room Deposit AMT:		
Registration Fee:		
Airfare Prepaid:		
Flight change fee		

Total Prepaid/Advances:	\$ -
Amount Due Fund:	\$ -
<b>Amount Due Attendee:</b>	<b>\$ -</b>

Attendee's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**No payment issued until approved by 2 others.**

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_





# DISCUSSION SHEET

## ITEM #C12

**Topic:** Ad hoc committee reports

**Discussion:** A brief update on the ad hoc committees will be provided.



# DISCUSSION SHEET

## ITEM #D1

**Topic:** Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System

**Discussion:** This is a Board-approved open forum for active members and pensioners to address their concerns to the Board and staff.



# DISCUSSION SHEET

## ITEM #D2

**Topic:**

**Executive Director's report**

- a. Associations' newsletters
  - NCPERS Monitor (February 2016)
  - NCPERS PERSist (Winter 2016)
  - TEXPERS Outlook (March 2016)
  - TEXPERS Pension Observer (Winter 2016)
- b. Future continuing education and investment research programs and conferences

**Discussion:**

The Executive Director will brief the Board regarding the attached information.



## NCPERS Proffers Ways to Fine-Tune DOL Proposal for Private-Worker Plans

**N**CPERS has suggested simplifications and clarifications that would strengthen the US Department of Labor's proposed regulation to foster state-initiated payroll deduction retirement savings programs for private-sector workers.

In a January 19 comment letter, NCPERS voiced strong support for the department's proposed regulation, which proposes new rules for state-based auto IRA plans and an accompanying Interpretive Bulletin that clarifies states authority to sponsor and administer multiple employer plans for private-sector employees—the concept behind NCPERS' Secure Choice Pension (SCP) proposal.

As previously reported, the proposed regulation would establish a safe harbor under the Employee Retirement Income Security Act (ERISA) for states that require employers without retirement savings plans to automatically enroll their employees in individual retirement accounts funded by payroll deductions. The proposal clarifies that such "auto-IRAs" are not employee pension benefit plans for the purposes of ERISA.

"While not as effective as defined-benefit plans, these workplace savings

programs with auto-enrollment are an important step towards retirement security," said the letter, signed by NCPERS Executive Director and Counsel Hank H. Kim.

NCPERS said the Labor Department could improve the regulation by giving each state "the flexibility to design a payroll deduction program most suited to its own workforce."

"NCPERS strongly believes that a state program with an employer mandate also should be able to accept nonmandated employers and that their workers should be covered by the full panoply of program features, including auto enrollment and escalation. Crucially, employees will not be exposed to greater risk from employer activities if these employers voluntarily decide to join a state program with automatic saving, since the employee notice, recordkeeping, investment, distribution, and other rules and safeguards will be identical between mandate and nonmandate workers," Kim wrote.

NCPERS also recommended that the Department of Labor should revise the proposal to:

- Clarify that state legislatures may delegate the authority to determine programs to a state-

appointed board or similar body without running afoul of the safe harbor provision. Such programs should be considered to have been established "pursuant to state law" in accordance with ERISA requirements.

- Clarify that states have the authority to delegate various duties to money managers, record keepers, and other third parties.
- Eliminate confusing and redundant language to clarify that (1) employers and payroll vendors, not the states, are responsible for withholding and delivering funds, and that (2) states may rely on existing laws and regulations to enforce employee rights rather than create new enforcement mechanisms.
- Lift a requirement that would prevent states from implementing hardship withdrawal restrictions, or modify it to clarify that programs may impose investment-related restrictions, costs, or penalties.

DOL has received nearly 70 comments. It is anticipated that the Department will review these comments over the coming months and issue a final rule before the end of the Obama Administration. As

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DOL continued from page 1

always, stay tuned with NCPERS to get the latest development on this and other issues important to the public pension community.

## Proposed Regulations on Normal Retirement Age

On January 26, in the wake of a historic blizzard in Washington, D.C., the US Department of the Treasury and the Internal Revenue Service (IRS) released proposed regulations on the applicability of the normal retirement age (NRA) rules to governmental pension plans. At first glance, and after some initial conversations within the public pension plan community, it appears that the proposed regulations take into consideration many of the comments and issues we have raised over the years. Please bear in mind, however, that compliance with the final version of these regulations will be a requirement for plan qualification under the Internal Revenue Code (IRC), so it is critical that plan administrators take the proposed rules seriously and review them in light of their own plan's unique structure. Public comments are due on April 26.

### Background

The existing NRA regulations were released in 2007<sup>1</sup>, but the applicability of those regulations to governmental plans has been delayed by a series of Treasury-IRS

guidance. The most recent, Treasury-IRS Notice 2012-29, also discussed the intention of Treasury-IRS to make two significant changes to the ways in which the regulations would apply to governmental plans. First, the Notice stated that a plan that does not provide for the payment of in-service distributions before age 62 would not fail to satisfy the regulation merely because the plan has an NRA that is earlier than otherwise permitted under the regulations. Second, the May 2007 regulations provided for certain safe harbors, including one for public safety plans that have an NRA of 50. Notice 2012-29 made clear that it would be the intention of Treasury-IRS in the proposed regulation to clarify that this safe harbor would apply to public safety employees<sup>2</sup> even if they were a subset of a larger pool of public employees covered by a plan.

### Proposed Regulations

The just-released proposed regulations include both of these important changes and go further by providing additional safe harbors. The proposed regulations begin by stating that the threshold issue for applicability of the 2007 regulations to government plans is whether a plan provides for payment of in-service distributions prior to age 62. If your plan does not provide for such distributions, then the plan's normal retirement age is not required to comply with the general rules of the 2007 regulations. In

such cases, there is no need to engage in analysis of whether your plan fits into one of the safe harbors.

This threshold issue, of course, begs the question of what is an in-service distribution or, conversely, what constitutes a "separation of service." These terms are not defined by statute or regulation and must be interpreted by review of revenue rulings, Tax Court decisions, and other IRS guidance. It is an important topic but too lengthy a subject to cover in this article.

Because of the questions surrounding the definition of "in-service," a plan could choose to flip the analysis. Taking this approach, the initial analysis would be of the safe harbors and the terms of the plan. If one of the safe harbors is met, then the review could stop there; the analysis of whether in-service distributions are provided prior to age 62 would be moot.

Returning to the topic of safe harbors for public safety employees, the proposed regulations include the change noted in Notice 2012-29 and add two additional safe harbors: (1) rule of 70, whereby the sum of the participant's age and years of credited service are added together; and (2) attainment of 20 years of credited service. Of note to the public safety community, the proposed regulations state: "The Department of the Treasury and the IRS agree with the

continued on page 3

Regulations continued from page 2

comments . . . that a safe harbor based solely on a period of service would be appropriate for qualified public safety employees because these employees typically have career spans that commence at a young age and continue over a limited period of years.”

Now let’s look at the safe harbors that would apply to all other governmental plans. First, there is a general safe harbor that is satisfied if the plan has an NRA of 62 or if the NRA is the later of 62 or another specified date, such as the fifth anniversary of plan participation.

Additional safe harbors are as follows: the later of age 60 or the

age at which the participant has at least five years of credited service; the later of age 55 or the age at which the participant has at least 10 years of credited service; the rule of 80; and the earlier of the age at which the participant has reached 25 years of credited service or the NRA under another safe harbor.

### Effective Date

The proposed regulations state that they will become effective for employees hired during plan years beginning on or after the later of (1) January 1, 2017, or (2) the close of the first regular legislative session of the legislative body with the authority to amend the plan that begins on or after the date that is

three months after the final regulations are published in the Federal Register.

Please take the next few weeks to pore over the proposed regulations and decide whether further clarification in any area is necessary. We look forward to your feedback. ■

<sup>1</sup> 72 Federal Register 28604, May 22, 2007

<sup>2</sup> Public safety employees are defined by reference to IRC section 72(t)(10)(B), which was recently amended by Congress to include federal public safety employees and certain other high-risk professions.

*Tony Roda is a partner at the Washington, D.C., law and lobbying firm Williams & Jensen, where he specializes in legislative and regulatory issues affecting state and local pension plans. He represents NCPERS and individual pension plans in California, Ohio, Tennessee, and Texas.*

# DON'T DELAY!

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The Voice for Public Pensions

## Hatch Bill, State Developments Dominated NCPERS Legislative Outlook Webcast

Twice a year, it's my pleasure and privilege to preside over an important webcast that helps us all to take stock of our progress on the state and federal legislative front. On January 12, I was joined by two great friends of NCPERS – Anthony J. Roda of Williams & Jensen and Bailey Childers of the National Public Pension Coalition. We were also joined for the first time by a new friend, Angela Antonelli of the Georgetown University Center for Retirement Initiatives. Many NCPERS members were in the audience, ready with smart questions and observations.

It's a rare year that isn't a mixture of ups and downs, and 2015 was no exception. As Tony Roda recounted, the year went out with a bang with the introduction of the Puerto Rico Assistance Act (S. 2381), which is shaping up to be one of the most important pieces of legislation for us to watch in 2016. Introduced in December by Senate Finance Committee chairman Orrin Hatch, it contained a couple of stealth provisions that are of great concern to all of us at NCPERS. They are the Secure Annuities for Employees (SAFE) Retirement Act and the Public Employee Pension Transparency Act (PEPTA).

The SAFE Retirement Act, which would essentially transform public pensions into annuities and turn them over to private insurance companies, is riddled with problems. "It's being positioned as a benefit to defined-benefit plans," Roda told the webcast audience. "While annuities are not anathema, we have concerns about them as a consistent funding stream." And, he added, for the public safety sector, annuities are missing a significant feature: there are no survivor benefits.

I would only add that, as we have said in the past, public pension plans are already in the business of providing their retirees with the annuities Chairman Hatch advocates. We self-annuitize at a cost of 60 basis points, certainly a lower cost than a for-profit insurance company could offer.

The PEPTA, meanwhile, would require state and local government pension systems to report their funding status to the US Department of the Treasury for review. It would also require recalculations of public pension plans' funded status using formulas that would make even well-funded plans look shaky.

As Tony warned, the Puerto Rico Assistance Act "is on a really fast

track for 2016." As this bill progresses, we will be watching closely and engaging constantly with Chairman Hatch, his staff, and others on the Senate Finance Committee.

Bailey Childers, meanwhile, brought us the perspective from the states, noting that, overall, it was a good year for public pensions, one in which most states wrapped up pension work without making detrimental changes. "We are out of the financial crisis, and states are realizing that 401(k)s are not a great vehicle for providing retirement security," she said. Pennsylvania remains an outlier, as it continues to operate without a budget. A compromise was struck in early December to create a "side by side" hybrid pension plan, retaining the defined-benefit plan but adding defined-contribution elements. Nevertheless, progress, if any is occurring, has been shrouded in mystery, and we are going to have to wait for clearer signals.

In Michigan, Childers noted, a plan to shift public school pensions to a 401(k) model stalled, but it could still happen. Wisconsin, too, has unfinished business, as do New Jersey and Illinois. "We didn't see

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any big moves away from defined-benefit pensions in 2015, so that's encouraging," Childers said.

Angela Antonelli offered the perspective of a trusted public policy research center that provides states with objective information on pension benefits. She noted that the Gallup polling organization has identified retirement security as one of Americans' top concerns. "People fear outliving their retirement

savings more than they fear death," she added.

Antonelli said she was encouraged that last year, five states created new retirement income security programs for private-sector workers, adding, "that's an amazing amount of progress in a short period of time." She predicted that the ERISA rule, once finalized, would further this process.

Turning to the outlook, panel members identified the 2016 elections and a

pending Supreme Court case (*Friedrichs v. California Teachers Union et al.*) as two of the big unknowns. So far, panelists noted, retirement security has barely registered in the presidential primary debates, although more discussion could emerge during the general election. "I am optimistic that we will see something more robust than just talking about Social Security from the candidates," Antonelli said. "It's a matter of time. When they deal with party platforms, I think we will see more." ■

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## MESSAGE FROM *the President*



*Mel Aaronson*

Mel Aaronson  
NCPERS President

## NCPERS Accredited Fiduciary (NAF) Program

As one of the most respected providers of education and training to public pension professionals, NCPERS is happy to announce the launch of the NCPERS Accredited Fiduciary (NAF) Program. The NAF Program is an accredited program specifically tailored for public pension trustees. An accreditation program is necessary because investments, the legal and regulatory environment, and administration of public pensions have become more complex, and we must ensure that our trustees and staff are well educated. A national accreditation program will provide policymakers, the media, and the public with the assurance that the

NAF designation carries the credibility and backing of the largest and oldest trade association for public pensions.

Offered two modules at a time, the NAF Program will provide material from leading experts, dynamic classroom participation opportunities, and interactive simulations. To receive this newly designated NAF certification, participants will need to complete a total of four modules and successfully pass an online examination.

- Module 1 – Governance and the Board’s Role
- Module 2 – Investment, Finance, and Accounting

- Module 3 – Legal, Risk Management, and Communication
- Module 4 – Human Capital

The NAF Program will kick off with modules 1 and 2 on May 14–15 at the [2016 Annual Conference & Exhibition \(ACE\)](#), in San Diego, California. Elected or appointed public pension trustees interested in the next level of professional development should visit [www.ncpers.org/NAF](http://www.ncpers.org/NAF) for more information on registering.

As always, we welcome your comments and suggestions. I look forward to seeing you all at the 2016 Annual Conference & Exhibition in May! ♦

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# Investing in Real Estate Smartly

By Ralph Block

**W**hat's the best way to invest in commercial real estate – real estate investment trusts (REITs) or directly?

For the majority of individual investors, the correct answer is clear: REITs. But the debate continues among institutional investors. According to a Cohen & Steers study, US corporate and public pension funds have allocated only about 5 percent of their real estate allocations to listed REITs. Based on REITs' performance over the years relative to diversified core real estate funds, that is shockingly small.

A June 2014 study by CEM Benchmarking, Inc., and sponsored by the National Association of Real Estate Investment Trusts (NAREIT), concluded that “listed Equity REITs outperformed other alternative assets with 11.3 percent annualized net total returns” for the 14-year period covered by the research. These alternatives included private real estate. Furthermore, CEM's study determined that increasing the allocation to listed equity REITs would have had “the largest positive impact on plan performance.”

Those fund advisers who counsel direct investing have made numerous supporting arguments, though those arguments have become increasingly less persuasive. Here are a few:

*REIT stock performance isn't highly correlated with real estate properties, and the stocks are much more volatile than commercial real estate prices.*

Correlation changes with the measurement period. REIT stocks are subject to stock market forces over the short term. However, Green Street Advisors has shown that in the longer term, REIT stocks, on average, are valued with little premium or discount to their net asset values. Also, even though pension funds don't adjust their real estate values daily, that doesn't mean that underlying values aren't moving.

*Owning properties directly allows institutional funds to select specific properties, property types, and geographical locations.*

Almost any property type can be owned with REIT stocks. Furthermore, REITs' outperformance has shown that the ability to pick properties in specific markets hasn't been an advantage.

*REIT stocks aren't liquid enough to enable a large institutional investor to build a meaningful position.*

That was probably true many years ago. Today, however, REIT stocks, which have an aggregate equity market cap of nearly \$1 trillion and an average trading volume of close to \$7 billion per day (per NAREIT data), can accommodate all but truly gigantic investors.

*REITs bear substantial public company general and administrative costs.*

Due to REITs' increasing size, G&E

costs are becoming much less as a percentage of assets. Furthermore, pension funds also pay substantial fees. The CEM study showed that fees, measured by investment costs, amounted to only 51 basis points for REITs versus 113 basis points for private real estate.

But the bottom line, of course, is performance. The Cohen & Steers study and the CEM report noted earlier both show that REITs have clearly outperformed core private real estate funds over many decades and cycles. ♦

*Ralph L. Block, JD, has been a leading authority on REIT investment for four decades, as an investment adviser, professional money manager, consultant, author, and publisher. Mr. Block is currently the owner of Essential REIT Publishing Co. He is the author of what is regarded as the cornerstone book on REIT investment, Investing in REITs: Real Estate Investment Trusts, now in its fourth edition. He also is the author of The Essential REIT and of The Essential REIT Blog.*



Photo Illustration ©2016 Depositphoto.com

# Not Created Equal

## *Big differences among four types of non-investment-grade corporate debt*

By Kenneth J. Kencel

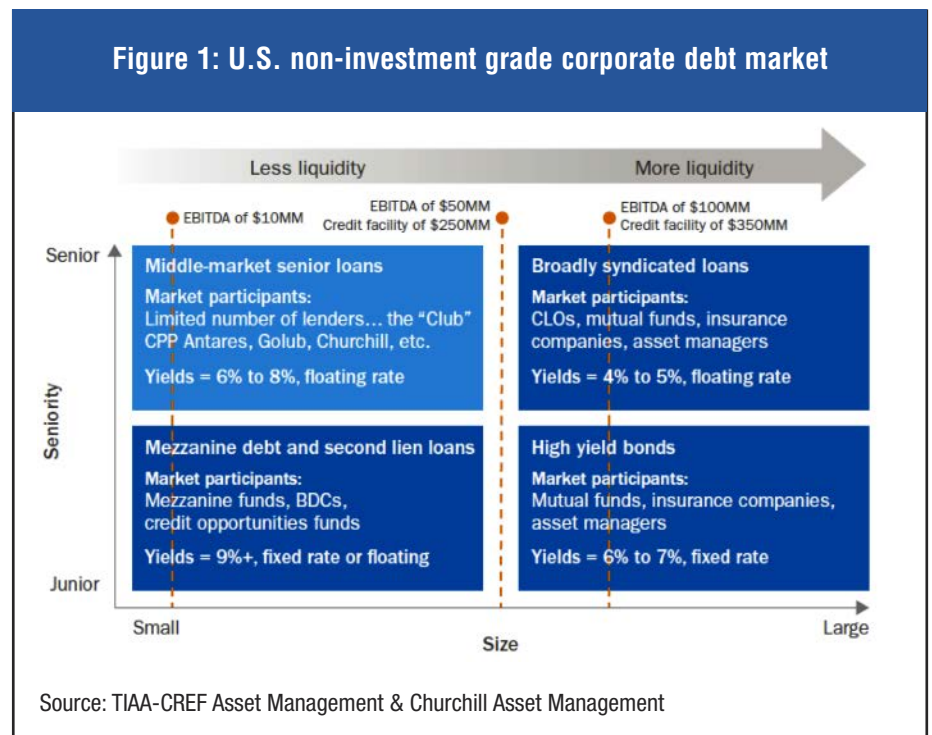
Over the past several years, institutional investors seeking yield and current income opportunities have increased their allocations to non-investment-grade corporate bonds and loans. That's not surprising when you consider that the 10-year Treasury is hovering around 2 percent, and below-investment-grade corporate debt has produced yields in the 6–10 percent range.

US non-investment-grade corporate debt is not monolithic, however, and there are major differences among the asset classes in the category. Generally speaking, investors can choose from four categories, which can be segmented by company size and debt position in a company's capital structure. (See Figure 1.)

As the credit cycle has shifted into a period of higher volatility, rising defaults, and potentially rising rates, now is a good time to consider these differences and determine which strategies best match long-term objectives.

### BROADLY SYNDICATED LOANS

Broadly syndicated loans are floating-rate loans that are senior in the capital structure and have a first claim on the borrower's assets. In recent years, substantial capital has flowed into the market, significantly driving down pricing. Current all-in yields are approximately 4–5 percent, compared to 6–7 percent for



middle-market senior loans. In addition, “covenant lite” loans (in which transactions contain no financial covenants) have become the norm, removing an important early warning system for lenders.

### HIGH-YIELD BONDS

The high-yield bond market is large, representing approximately 15 percent of the \$8 trillion public US corporate debt market.<sup>1</sup> High-yield bonds are more liquid than broadly syndicated loans but are more junior in the capital structure. They are typically fixed rate, which exposes them to principal declines when interest rates rise. Investors have also poured capital into this

market, compressing yields to 6–7 percent today.

### MIDDLE-MARKET JUNIOR LOANS

Junior capital investments are principally mezzanine debt and second-lien loans. These loans feature higher interest rates than middle-market, senior secured loans, but they are riskier because they sit below the first-lien debt in a borrower's capital structure. Historically, this asset class was dominated by private mezzanine debt carrying coupons between 12 and 14 percent. Today, mezzanine debt has been replaced by second-lien loans, with rates as low as 9 percent for very similar risk.

*continued on page 10*

# Understanding the Impact of Negative Cash Flow on a Public Pension Plan

By Lance Weiss

Public-sector pension plans are designed to provide public employees with a pension upon their retirement. But where does the money come from to make the pension payments? Very simply stated, the goal is for employees and their employers to make periodic contributions to a pension fund, which, together with investment returns on the invested contributions, will be sufficient to pay all promised benefits upon the members' retirement. This concept is illustrated by the following basic public pension plan financing equation:

$$B + E = I + C$$

where:

B = Benefits Paid

E = Administrative Expenses

I = Investment Return on Plan Assets

C = Contributions

In this equation, the benefits paid are determined by negotiated or legislated plan provisions. Administrative expenses are generally determined by system policies. Investment return is determined by investment policies (including liquidity issues). Contributions are generally shared by employees and their employer, with the amount of employee and employer contributions generally set by statute, plan document, or other contract.

Using the same basic public pension plan financing equation, net (noninvestment) cash flow is determined by

the following equation:

$$\text{Net Cash Flow} = C - B - E$$

where:

C = Contributions

B = Benefits Paid

E = Administrative Expenses

Consequently, if  $C - B - E$  is negative, the plan has a negative cash flow, and if  $C - B - E$  is positive, the plan has a positive cash flow. Younger plans tend to have positive cash flows, whereas more mature plans may have negative cash flows.

Although a plan has negative cash flow, it does not necessarily imply it is in trouble. In fact, some would say that the primary purpose of prefunding is so the investment return can pay a significant portion of the benefit payments.

For example, a mature plan with a one-to-one ratio of actives to retirees that is well funded may have negative cash flow but be actuarially sound. On the other hand, a poorly funded plan that has negative cash flow may be indicative of a plan that is in need of significant (and potentially unaffordable) increases in annual employer contributions.

One potential warning sign for mature plans is if the amount of negative cash flow as a percentage of the plan assets starts to get excessive. For example, if the funded ratio of a plan is significantly below 100 percent, then negative cash flows now repre-

sent a much larger percentage of the assets. This can be an indicator that the plan may need to have a more aggressive funding policy.

In summary, negative (noninvestment) cash flow is not, by itself, an indication of financial or actuarial distress for a public pension plan.

However, a larger (i.e., more negative) cash flow may require the system's assets to be managed more conservatively, with a larger allocation to more liquid assets to meet current benefit payroll requirements. This is likely to result in the plan's actuary recommending a reduction in the investment return assumption and a significant increase in the annual contribution requirement of the plan. ♦

*Lance Weiss, EA, FCA, MAAA, is a senior consultant for Gabriel, Roeder, Smith & Company. He has more than 30 years of actuarial and retirement consulting experience. During his career, Mr. Weiss has worked with large public-sector entities and private corporations, coordinating retirement benefits with other elements of total compensation programs. He serves as a lead consultant to clients in Illinois, Maryland, and West Virginia. His expertise covers the design, funding, accounting, administration, and communication of defined benefit pension plans, postretirement medical benefits, and §529 prepaid tuition programs.*



# What Are the Rules? – It Depends on Where You Live

By Robert D. Klausner, NCPERS General Counsel

## RECOUP OR NOT TO RECOUP?

Generally, when a fiduciary realizes an overpayment has been made there is a duty to correct the amount of the payment, and to recoup the overpayment. Self-help however, is rarely an option. Most plans have claims of creditor protections which would, absent a specific statutory exception, apply to the retirement plan itself. Under the general law of trust, a board has discretion to forego recouping overpayments if there is no likelihood of recovery or if the amount is small enough that cost of recovery is greater than the amount to be recovered. Courts have given recovery of overpayment widely varying decisions. In recent weeks, the California Public Employees Retirement System (CalPERS) made headlines by ordering repayment of more than \$3.4 million dollars from a local government official. That case will likely continue in the courts for some time. In a trio of recent cases, courts in Louisiana, New Jersey, and Kentucky reached widely differing conclusions:

### LOUISIANA SUPREME COURT PERMITS CORRECTION OF ERRORS

In 2009, the president of Southern University retired after 35 years of service at a pension of \$300,000 per year. That same year the president filed suit against the university for past due wages. Following a trial, the court found the president had manipulated his salary calculation and should only have retired based on a

salary of \$220,000. After that decision, the state retirement system (LASERS) informed the president that his pension had been miscalculated and he should be receiving a lower pension. LASERS advised that the benefit would be adjusted retroactive to the date of retirement. The president filed suit claiming this violated his statutory and constitutional rights despite a statute mandating correction of improper pension payments. Following an unsuccessful result in the trial and middle level appellate courts, the state Supreme Court sided with the retirement system and upheld the recovery process.

**Slaughter v. LASERS, \_\_\_So.3d\_\_\_, 2015 WL 59772526 (La. 10/14/2015).**

### RECOVERY OF OVERPAYMENT MUST BE SUBJECT TO EQUITABLE CONSIDERATION

A 75 year old former college employee was reenrolled post-retirement in a PERS eligible position. As a result, he was overpaid by nearly \$90,000. PERS moved to recoup the overpayments. An administrative law judge found that the retiree had not acted with malice and had no reasonable basis to know that he was in a position that was not statutorily authorized. On review, the appeals court found that even though the retiree was out of compliance with the



statute, equitable considerations required an interpretation that balanced the needs of the System with those of the employee. As a result, the case was returned to PERS to reconsider the reimbursement and to fashion “an equitable remedy.”

**Zagorski v. PERS, \_\_\_A.3d\_\_\_, 2015 WL 6113238 (N.J. Super. 10/19/2015).**

### KENTUCKY RETIREMENT SYSTEMS PROHIBITED FROM RECOUPMENT ON EQUITABLE GROUNDS

A retired employee of the state cabinet began working for a state contract agency that was retirement eligible. A year later, the retiree was informed that her employment violated the state retirement law and that she must repay all retirement benefits received, as well as health insurance premiums. A state hearing officer rejected her claims but a state trial court reversed finding that the state was equitably prevented from recovering the money. On review, a state appeals court affirmed, finding a failure on the part of both the retirement system and the employer to properly advise the employee of the consequences of her re-employment. Therefore, equitable principles prohibited the ability of the system to recoup any of the prior payments.

*continued on page 12*

# The “Pay to Play” Saga Continues: Update on Two Important Decisions Issued Regarding SEC Rule

By Suzanne M. Dugan

Public employee retirement systems should be aware of two recent decisions regarding SEC Rule 206(4)-5, widely known as the “pay to play” rule.<sup>1</sup> The rule prohibits an investment adviser from receiving compensation for advisory services to a government entity for two years after the adviser or its covered associates makes a political contribution to a public official or candidate who is or would be in a position to influence the award of advisory business.

## DISMISSAL OF LAWSUIT CHALLENGING SEC RULE AFFIRMED ON APPEAL

In the first instance, the U.S. Court of Appeals for the D.C. Circuit dismissed the petition of the New York Republican State Committee and the Tennessee Republican Party seeking to invalidate the SEC rule.<sup>2</sup> Plaintiffs brought suit in the district court, which dismissed the suit for lack of subject matter jurisdiction, concluding that courts of appeals have exclusive jurisdiction to hear challenges to rules promulgated under the Investment Advisers Act of 1940. The Court of Appeals affirmed the District Court’s decision, and also held that such challenges must be brought within sixty days of promulgation of the rule. The petition was then dismissed as time-barred. This decision is likely a lethal blow for constitutional challenges to Rule 206(4)-5, the SEC’s powerful tool that is designed to “protect public pension plans and other government investors from the consequences of pay to play practices by deterring advisers’ partic-

ipation in such practices.”<sup>3</sup>

## SEC GRANTS FIRST EVER WAIVER TO THE PAY TO PLAY BAN

Following on the heels of the D.C. Circuit decision, the SEC issued an order in September 2015 granting an exemption from Rule 206(4)-5 to Starwood Capital Group Management, LLC.<sup>4</sup> This action represents the first exemption given by the SEC to an investment adviser permitting receipt of compensation from a government entity client for investment advisory services provided to the government entity within the two-year period following a contribution by a covered associate to an official of the government entity.

The SEC action ends an effort by Starwood Capital that took more than 18 months and 5 applications to the SEC. According to Starwood, their chief operating officer inadvertently tripped the wire when he made a “spontaneous” \$1,000 contribution to an exploratory committee for an Illinois gubernatorial candidate. The donation was clawed back 9 days later, but automatically disqualified Starwood from receiving compensation from the State Retirement Systems of Illinois for investments in Starwood funds. Starwood stated that the ban would deprive it of about \$4 million in compensation, or 4,000 times the amount of the contribution.<sup>5</sup>

In contrast to the SEC’s approach in the Starwood matter, in an earlier action in June 2014 the SEC settled its first enforcement action under the

rule, with a private equity firm, TL Ventures, paying nearly \$300,000 in disgorgement and fines.<sup>6</sup> TL Ventures obtained investments from the Pennsylvania State Employees’ Retirement System in two of its private equity funds in 1999 and 2000. TL Ventures also obtained a \$10 million investment from the City of Philadelphia Board of Pensions and Retirement in 2000. These private equity funds had lives of ten years with the possibility of extensions of up to two additional years, and the limited partners of these funds were generally restricted from withdrawing their capital during the lives of these funds. The political contributions that triggered the rule were made in 2011 by an associate of TL Ventures, in the amount of \$2,500 to a candidate for Mayor of Philadelphia and \$2,000 to the Governor of Pennsylvania.

## CONCLUSION

The D.C. Circuit case will likely put to rest any remaining challenges to the SEC’s pay to play rule. Public employee retirement systems need to be familiar with the SEC rule and should consider developing and implementing written policies designed to confirm compliance with the rule and avoid situations in which an investment adviser is prohibited from receiving compensation for advisory services for two years after the advisor or its covered associate makes a political contribution. Note that the rule specifically contemplates the pro-

*continued on page 12*



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# Fiduciary Responsibility: Integrating Environmental, Social and Governance Issues

As interest in the integration of environmental, social and governance (ESG) factors into investment processes has grown, fiduciaries have been caught between competing viewpoints. One side posits that, strictly defined, fiduciary duty entails “a legal duty to act solely in another party's interests,”<sup>7</sup> which has traditionally meant a sole focus on maximizing financial returns for that party. Hence, a focus on any factors besides the bottom line—such as ESG—could be seen as a violation of that responsibility unless that focus was deemed to potentially increase returns. Advocates of ESG-based investing make precisely that point—ESG risk factors could potentially be material to the bottom line, and positive ESG scores may contribute to long-term sustainable value. Accordingly, ESG risk factors could be considered an appropriate input by a prudent plan fiduciary.

In a recent development, the US Labor Department issued guidance on October 22, 2015 for retirement plans covered by the Employee Retirement Income Security Act of 1974 (ERISA). The guidance states that, although collateral goals of ESG investing may be considered only as “tie-breakers,” when choosing between otherwise equal investment alternatives, “environmental, social, and governance issues may have a direct relationship to the economic value of the plan's investment. In these instances, such issues are not merely collateral considerations or tie-breakers, but rather are proper components of the fiduciary's primary analysis of the economic merits

of competing investment choices,” thus providing fiduciaries with comfort in incorporating ESG considerations in their investment decisions.<sup>8</sup>

## ESG INTEGRATION AS PART OF A GOOD INVESTMENT PROCESS

We believe a central concern that impedes action around ESG is a focus solely on it as an outcome, rather than as part of a good investment process.

As the United Nations noted in a recent study of fiduciary duty, “when evaluating whether or not an institution has delivered on its fiduciary duties, courts will distinguish between the decision-making process and the resulting decision.”<sup>9</sup> In other words, the most important fiduciary element to consider is the investment process, not the outcome. For fiduciaries to meet their obligations, it is essential that the consideration of ESG does not diminish the rigor applied under “traditional” investment diligence, but instead supplements it. To that end, when integrating ESG into the investment process, fiduciaries must measure and manage for risks that are introduced to the portfolio to ensure that ESG is accretive or, at the very least, costless. To be sure, some investment strategies that focus on ESG factors will not pass this stringent muster, but others could.

While some investors may be skeptical that ESG factors will not detract from performance, many people would agree that neglecting to address certain aspects of ESG could introduce substantial investment

risks. Events like oil spills, water contamination and improper waste disposal, which can be mitigated through environmental controls, not only carry substantial headline risk, but also can be a major detriment to the bottom-line.

In this light, it may not be most productive to ask whether all ESG criteria lead to outperformance, but rather to focus on what ESG factors in the hands of specific investment managers have the potential to have a material positive impact on investment returns.

As with most aspects of investing, these situations do not lend themselves to all-or-nothing answers. ♦

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An investment's ESG policy or invest-

*continued on page 12*

# Bipartisan Budget Act of 2015 passed, impacting “File and Suspend” Social Security strategies\*

**D**uring the 2015 NCPERS Public Safety Employees Pension and Benefits Conference in Rancho Mirage, CA, Troy Simmons of Nationwide’s Retirement Institute presented a session entitled Social Security - The Choice of a Lifetime. Days later, On November 2, 2015, the Bipartisan Budget Act of 2015 was passed into law. Within the Budget Act were rule changes that impacted specific filing strategies for claiming Social Security. As a result, Nationwide’s Retirement Institute has provided a breakdown of what is changing, how the rule change will be implemented and who is impacted.

How the rules are changing:

- **Restricted Application:** Section 831(a) of the new law phases out restricted applications. Previously, an individual eligible for a spousal benefit could elect to receive that benefit while allowing his or her own retirement benefit to grow, then switching to that retirement benefit once it is maximized. As the

law is phased in, restricted applications will no longer be available. Whenever an individual files, they are claiming all benefits he or she is eligible for, with no opportunity for delayed retirement credits post-filing. This is termed deemed filing.

- **Voluntary Suspension:** Prior to Section 831(b) of the new law, an individual could file for benefits, then suspend receipt of benefits, allowing their benefit to grow while a spouse could claim benefits based on his or her work record. The new law causes a voluntary suspension to stop all benefits payable under the earnings record of the person whose benefit was suspended. In other words, the spouse will no longer be able to collect a spousal benefit during the time in which the wage earner’s benefit is suspended.
- **Filing strategy impact:** As the new law is phased in, “File and Suspend” claiming strategies, which combine restricted applica-

tion and voluntary suspension, will have limited availability to some individuals, and no availability to others, which is detailed on the next page. These strategies created opportunities for retirees to maximize the value of their own retirement benefits, while generating Social Security cash flow earlier on in retirement. The specific timing for the changes is included in the table on the next page.

\* Analysis of Bipartisan Budget Act of 2015 provided by Social Security Timing®.

How the rule change will be implemented, and who will be impacted:

- **Married:** The impact on planning for couples is nuanced. With the rules being phased in, there are now three sets of individuals who will be impacted differently, depending upon their birth dates. In addition, with a married couple, each spouse could fall under a dif- [continued on page 13](#)

Legislative changes by date of birth				
Individual DOB	Grandfathered	May 1, 1950, or earlier	On or before January 1, 1954	January 2, 1954, or after
Strategies available	Anybody who has already executed a restricted application or voluntary suspension will not be impacted by legislative changes	“File and Suspend” available as long as voluntary suspension occurs by April 30, 2016	Restricted application available after individual reaches full retirement age	“File and Suspend” and Restricted Application strategies no longer available
Strategies available		Couples in this situation have a short window of opportunity to take advantage of “File and Suspend” and should consider planning accordingly prior to the April 30, 2016 deadline	Restricted applications create opportunity for one member of a couple to claim a spousal benefit and grow his own benefit; couples should consider planning to capture these benefits	Social Security continues to be a significant component of retirement income, and the need to carefully consider how and when to file for Social Security is as important as ever

*Not Created Equal continued from page 3*  
**MIDDLE-MARKET SENIOR LOANS – THE SWEET SPOT**

Middle-market senior secured loans are the one segment of the US non-investment-grade credit market in which supply and demand are relatively balanced, resulting in better terms for lenders. Middle-market loans hold first-lien secured status in a company’s capital structure and are backed by a range of corporate assets.

These loans still include financial covenants, and leverage multiples are lower than broadly syndicated loans. Finally, these loans typically feature floating interest rates, providing a significant benefit in rising rate environments. Spreads of 400–600 basis points over LIBOR have led to favorable yields for middle-market loans, compared to both broadly syndicated loans and high-yield bonds, as shown in Figures 2 and 3.

Investing in private middle-market loans offers institutional investors compelling yield opportunities, while at the same time helping them to avoid or minimize some of the risks inherent in other non-investment-grade debt. TIAA-CRaEF and Churchill Asset Management believe that an experienced investment team, using modest leverage through a well-structured senior credit facility, could generate a 10–12 percent net yield, with all senior secured underlying assets. ❖

**Figure 2**

	Historical average 3Q2010-2Q2015	Current market conditions****
<b>Investment/Index</b>	<b>Yield*</b>	<b>Yield</b>
Middle market loans**	6.95%	6.29%
Broadly syndicated loans***	5.81%	4.98%
<b>Yield premium</b>	<b>1.13%</b>	<b>(1.31%)</b>

Source: S&P Capital IQ LCD  
 \*3 month average new-issue yield from 7/1/10 through 6/30/15. Source: S&P Capital IQ LCD  
 \*\* EBITDA of \$50 mm or less  
 \*\*\*Large corporate loans (EBITDA of more than \$50 mm)  
 \*\*\*\*Current new-issue yield as of 6/30/15. Source: S&P Capital IQ LCD

**Figure 3**

	Historical average 3Q2010-2Q2015	Current market conditions****
<b>Investment/Index</b>	<b>Yield*</b>	<b>Yield</b>
Middle market loans**	6.95%	6.29%
High yield bonds***	6.77%	6.73%
<b>Yield premium</b>	<b>0.18%</b>	<b>(0.44%)</b>

Source: S&P Capital IQ LCD, Bank of America/Merrill Lynch Global High-Yield Strategy.  
 \*Middle market loan yield is 3 month average new-issue yield from 7/1/10 through 6/30/15. High yield bond yield is month-end average yield to maturity. Source: S&P Capital IQ LCD, Bank of America/Merrill Lynch Global High-Yield Strategy.  
 \*\* EBITDA of \$50 mm or less  
 \*\*\*Bank of America/Merrill Lynch Global High-Yield Strategy  
 \*\*\*\*Current middle market loan new-issue yield as of 6/30/15 and 6/30/15 average high yield bond yield to maturity. Source: S&P Capital IQ LCD, Bank of America/Merrill Lynch Global High-Yield Strategy.

*Kenneth Kencel serves as president and chief executive officer of Churchill Asset Management. Throughout his 30-plus-year career, Mr. Kencel has accrued a broad range of experience in leading middle-market financing businesses. Previously, he was a director and president of Carlyle GMS Finance; founded and was president and CEO of Churchill Financial; and served as head of Leveraged Finance for Royal Bank of Canada, as well as head of Indosuez Capital – a leading middle-market merchant banking and asset management business. Mr. Kencel helped to found high-yield finance businesses at both Chase Securities (now JP Morgan) and SBC Warburg (now UBS). He serves on the board of advisers and is an adjunct professor at the McDonough School of Business at Georgetown University. He earned his Bachelor of Science in business administration, magna cum laude, from Georgetown University and his JD from Northwestern University School of Law.*



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## **NCPERS Group Voluntary Term Life Insurance Plan**

- Established in 1969
- Insured by The Prudential Life Insurance Company
- Currently covers over 125,000 active and retired governmental employees and their dependents
- Designed as a pension supplement benefit exclusively for NCPERS members
- Decreasing term life insurance with benefits of up to \$325,000
- Includes spouse and dependent child benefits
- Guaranteed issue (no medical underwriting)
- No minimum number to participate
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- No employer/retirement plan contributions required
- Minimal employer/retirement system involvement to implement and maintain
- Implementation allowance available to offset any indirect costs
- Simple online enrollment available.
- Allows retirement systems to offer valuable added benefit for actives and retirees at no direct cost.

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Fiduciary Liability Insurance protects the personal assets of trustees. The NCPERS program is specifically designed with the public employers and pension funds in mind. On average the program has been offering 20% savings. All levels of funding are considered.

### **Key Policy Highlights**

- Broad definition of "Insured"
- Broad definition of "Wrongful Act"
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- Breach of responsibilities, obligations or duties imposed upon fiduciaries of a plan coverage
- Coverage for Conflict of interest with regard to investments
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- Voluntary compliance program
- HIPAA and PPACA penalty coverage

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- Duty to defend with choice of counsel
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*Legal Report continued from page 5*

**Kentucky Retirement Systems v. Stephens**, \_\_\_S.W.3d\_\_\_, 2015 WL 5895314 (Ky. App. 10/9/2015).

#### CAN REINSTATEMENT AFTER RECOVERY FROM DISABILITY BE CONDITIONED ON NON-PENSION MATTERS?

Generally, when a disabled worker has medically recovered from a disability, the employer is obligated to reinstate the employee. But, in the case of security sensitive positions, can the employer require additional conditions beyond medical clearance to return to work. In a recent landmark California case, the answer is no.

A special agent with the California Department of Justice was disabled due to several on-the-job injuries. In 2009, she applied for reinstatement on the basis of recovery. A medical

review by the retirement system in 2010 found she had recovered. The agency agreed to reinstate the retiree provided she underwent medical and psychological evaluations and a background investigation. The retiree refused. The agency appealed CalPERS' order of reinstatement and the state personnel board found the agency had constructively discharged the employee. On review, a state appeals court sided with the employee and CalPERS. The court found that the pension system's interpretation of the law was entitled to deference and even if it was not, the retirement law should be liberally construed in favor of the participant. The state law unambiguously mandated reinstatement for a disabled peace officer who was deemed recovered from the disabling injury. The agency's attempt to impose additional conditions was beyond its authority and constituted a rewriting of the law. As a result, the court ordered the employee reinstated with back pay. Once back on the pay-

roll, however, the appeal court held that the agency was free to review the officer's fitness for duty on the same basis and under the same conditions as it could any other employee.

**California Dept. of Justice v. Board of Administration**, \_\_\_Cal. App. 3d\_\_\_, 2015 WL 5937021 (Cal. App. 10/13/2015) ❖

*This article is a regular feature of PERSIST. Robert D. Klausner, a well-known lawyer specializing in public pension law throughout the United States, is General Counsel of NCPERS as well as a lecturer and law professor. While all efforts have been made to insure the accuracy of this section, the materials presented here are for the education of NCPERS members and are not intended as specific legal advice. For more information go to [www.robertdklausner.com](http://www.robertdklausner.com).*

*Pay to Play continued from page 6*

vision of uncompensated services to give the government entity sufficient time to redeem or transfer its assets.

Moreover, the exemption from rule 206(4)-5 granted to Starwood by the SEC should give comfort to those who were concerned, after the TL Ventures case, that draconian consequences could result from the SEC's enforcement. The Starwood case appears to reflect a measured and

thoughtful approach by the SEC, and should calm fears that minor, inadvertent violations will have severe repercussions. ❖

<sup>1</sup>17 C.F.R. § 275.206(4)-5

<sup>2</sup>New York Republican State Comm. v. S.E.C., --F.3d --, D.C. Cir., August 25, 2015 (2015 WL 5010051)

<sup>3</sup>SEC Release No. IA-3043, at 25

<sup>4</sup><https://www.sec.gov/rules/ia/2015/ia-4203.pdf>

<sup>5</sup>Ed Beeson, "Starwood Capital Gets Final OK For SEC Pay-To-Play Waiver", Law

360, September 23, 2015

<sup>6</sup><https://www.sec.gov/litigation/admin/2014/ia-3859.pdf>

*Suzanne M. Dugan is head of the Ethics and Fiduciary Counseling practice at Cohen Milstein Sellers & Toll PLLC and formerly served as Special Counsel for Ethics to the New York State Comptroller.*

*Fiduciary continued from page 8*

ment approach may cause it to take risks or eliminate exposures found in other strategies or broad market benchmarks that may cause performance to diverge from the performance

of other investments or market benchmarks.

© 2015 Goldman Sachs. All rights reserved. December 1, 2015 26827-OTU-141903.

<sup>7</sup>"Fiduciary Duty," Cornell University Law School Legal Information Institute

<sup>8</sup>"Interpretive Bulletin Relating to the Fiduciary Standard under ERISA in Considering Economically Targeted Investments," Federal Register, October 22, 2015.

<sup>9</sup>Fiduciary Duty in the 21st Century, United Nations Global Compact. 2015.

*Bipartisan continued from page 9*

ferent set of rules, depending upon birth date.

- **Widow:** Notably all of these changes concern the interaction between retirement and spousal benefits, and do not include widow benefits. So, widows will continue to have the opportunity to restrict an application to only widow or only retirement benefits and later switch to the other benefit.
- **Divorced:** The impact on divorced cases is very similar to married. The important client situations to consider are for those born on or before January 1, 1954, who still have access to the restricted application, and related spousal benefits, and those born after, who do not.

- **Single:** There generally is no impact on Social Security filing for individuals, with one notable exception. Individuals born on or before May 1, 1950, who are planning on delaying filing past Full Retirement Age, should file and suspend as soon as eligible. The suspension must be received on or before April 30, 2016 in order to fall under the old rules. Suspending benefits under the old rules should preserve the option to request a retroactive lump-sum payment should the individual's circumstances change while benefits are suspended.

How you should address these changes:

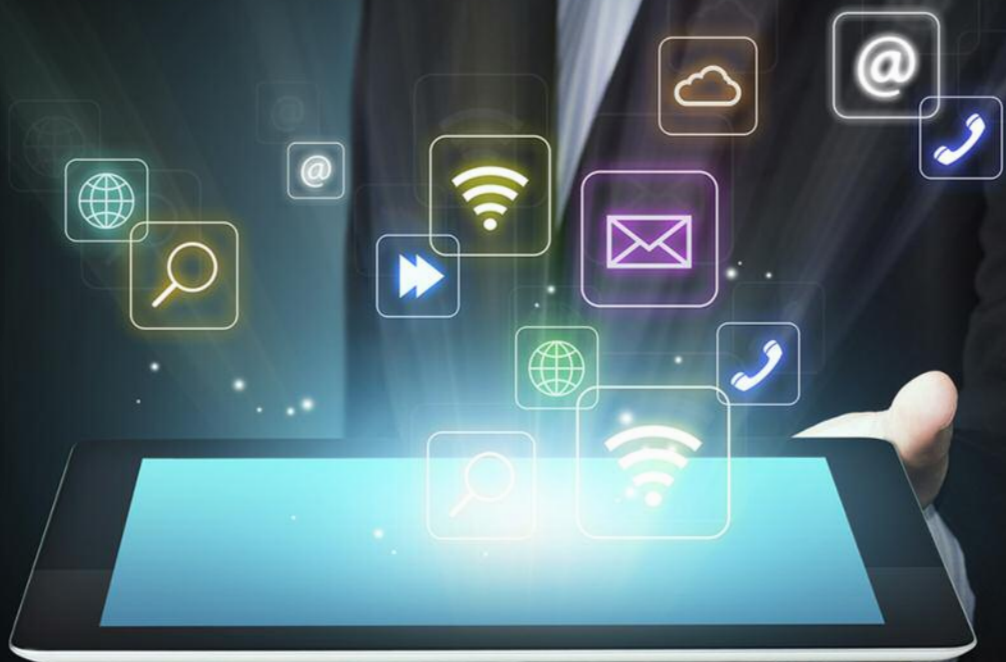
- Nationwide Retirement Institute expects the Social Security filing strategy conversation to become even more important than before,

with different rules impacting people of different ages.

- Given the potential impacts to retirement plans from these changes, there is an opportunity for you to review the plan you put in place and revise accordingly.
- Our team is committed to helping you break down and simplify this complex retirement challenge. The Social Security 360 Analyzer tool enables us to provide you with an analysis of your options that will help you determine the best option for filing for your specific situation based on the most current Social Security rules.

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## Erroneous CBO Data on Social Security Replacement Rates Drives Misinformation about Program's Health

The Congressional Budget Office (CBO) is owning up to a serious error it published in December with regard to Social Security "replacement rates," or the ratio of Social Security recipients' benefits to their past, pre-retirement earnings.

Its report, "CBO's 2015 Long-Term Projections for Social Security: Additional Information," released on Dec. 16, 2015, contained errors that made it appear that Social Security was getting more generous by the day, which could set the stage for cuts in the program.

It was the only error in the report, and while CBO said it has corrected the mistakes and published a new version of the document on its website – with corrections to Exhibits 10 and 12 – some people are suggesting a political motive for the mistake. After all, it took CBO – which is supposed to provide nonpartisan analyses for the U.S. Congress and not get involved in politics – two months to correct the basic error.

One year ago, in February 2015, Republicans named Keith Hall head of the CBO, installing a conservative Bush administration economist atop an agency charged with determining, among other things, how much lawmakers' proposed legislation would cost. Hall, who served on George W. Bush's Council of Economic Advisers, is a critic of the Affordable Care Act who shares Republican skepticism of government spending and regulation. He has criticized proposals to raise the minimum wage, expand regulation and boost anti-poverty programs.

The uncorrected report from December revealed not only a huge increase in the 75-year deficit, but also an enormous increase in the generosity of Social Security as measured by replacement rates. None of the changes that increase the deficit – lower interest rates, higher incidence of disability, longer life expectancy and a lower share of taxable earnings – should have any major effect on replacement rates. CBO has simply been revising its methodology each year in ways that produce higher numbers.

*Continued on p. 2*

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*Social Security continued from p. 1*

“Suddenly, the CBO is telling a very different story than SSA [the Social Security Administration] and a very different story than its own numbers in the past,” said Alicia H. Munnell, a professor at Boston College’s Carroll School of Management and the director of the Center for Retirement Research at Boston College, in an article that appeared in Morningstar on Feb. 10. “Putting out such a high number without any effort to reconcile it with the historical data is irresponsible. And those waiting for an opportunity to show that Social Security is excessively generous have pounced on the new CBO replacement rate number and publicized it in op-eds from coast-to-coast.”

Many of those who “pounced” on the erroneous CBO data are conservative commentators such as Andrew Biggs, a resident scholar with the American Enterprise Institute (AEI), who made the CBO’s original calculations a linchpin of his campaign against expanding Social Security.

Biggs, who has for years been insisting that there is no problem with the nation’s preparedness for retirement, used the erroneous CBO figures to write three articles since mid-December – in Forbes, The Washington Post and The Wall Street Journal, asserting that the retirement crisis is overblown.

Biggs has now retracted the Forbes piece and has sent a retraction to The Wall Street Journal, but he did not retract his Washington Post piece because he said he didn’t cite the original CBO figures directly, according to Leigh Snell, the Federal Relations Director for the National Council on Teacher Retirement (NCTR).

Either way, Biggs is not backing down from his point of view, saying the CBO’s recalculation does not “radically alter the way I view the adequacy of Social Security benefits.” He vowed to continue pushing for a different formula that would show replacement rates closer to the now-discredited CBO figures from December, Snell wrote.

The Center for Economic and Policy Research (CEPR) also smelled something fishy in the CBO data. “Someone at CBO should have caught these numbers before they went out the door,” the CEPR said on its website. “They weren’t off by just a little bit, they were absurd. But somehow a number of economists and budget experts at CBO looked at these numbers and said they looked fine. The fact that both errors were in a direction that would tend to support cuts to Social Security is especially troubling. Would a major error in the opposite direction also escape detection?”

Snell quoted Meredith Williams, NCTR’s executive director, as saying: “Public pensions are not the problem that policymakers need to worry

about, but as long as Andrew Biggs and others of his ilk can distract them with misinformation about the real national crisis in retirement security, NCTR members will continue to be a primary target of criticism.”

In the CBO report, replacement rates were defined to be initial benefits, as a percentage of average late career earnings. For those calculations, earnings consisted of the last five years of earnings that were at least half of a worker’s average indexed earnings, adjusted for growth in prices.

The erroneous estimates CBO reported in December included years with earnings below those intended amounts. The corrected version now shows substantially lower mean initial replacement rates for retired and disabled workers. For example, the corrected rate for retired workers born in the 1940s is 43%, compared to the value of 60% that the CBO reported in December.

On the Web at: <https://www.cbo.gov/publication/51232>, <https://www.cbo.gov/publication/51047>, <http://www.politico.com/story/2015/02/keith-hall-congressional-budget-office-115584>, [https://www.morningstar.com/news/market-watch/TDJNMW\\_2016021054/update-social-security-in-the-crosshairs-replacement-rates-again.html](https://www.morningstar.com/news/market-watch/TDJNMW_2016021054/update-social-security-in-the-crosshairs-replacement-rates-again.html), <http://web.nctr.org/federal-government-relations/federal-blog/>, <http://cepr.net/blogs/beat-the-press/strike-three-for-the-congressional-budget-office-social-security-retirement-income-projections> and <https://www.facebook.com/MontanaTeachersRetirementSystem/posts/771790516258127>.

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## Seven Steps to Help Plan Sponsors Manage Their DB Pension Plans

An article in Employee Benefit Adviser by Mike Clark outlines seven practices defined benefit (DB) plan sponsors should employ to raise their level of education and be more successful.

1. Understand the impact of interest rates on your plan's liabilities – The liabilities of a typical DB plan move inversely by 10% to 15% for each 1% change in the interest rate used to discount future benefit payments. Understanding these relationships can help plan sponsors hedge their plan's risk and guide their investing decisions.
2. Factor the plan's funding ratio into asset allocation decisions – The lower the market value funding ratio, the more logical it is to take additional risk to generate returns.
3. Consider a lump sum window – Offering a temporary lump sum "window" to terminated vested employees (no longer employed but not yet receiving a pension) has been gaining popularity. This approach offers a way to transfer risk directly to individuals without adding an expensive, permanent feature to the plan.
4. Ponder mortality – It is important for plan sponsors to understand the impact that mortality has on their plans. Longer lives generally mean more benefit payments and higher liabilities, although the precise impact of these changes varies greatly based on the demographic composition of the plans.
5. Reduce PBGC premiums – Not as much of a concern to governmental plans, but in general, premiums paid to the PBGC have no benefit to a DB plan – unless it is going to declare bankruptcy. So plan sponsors should do everything in their power to minimize their assessment.
6. Set a funding policy – Plan sponsors should consider the long-term objectives of their plan. Market value (or termination) liabilities are significantly higher than the liability used in the minimum funding calculation, so minimum funding may not get the plans where they want to go.
7. Search for administrative efficiencies – A significant number of DB plans still utilize "in-house" staff to provide many plan services, absorbing large chunks of valuable human resources time and exposing plan sponsors to the risk of miscalculation and non-compliance. Plan sponsors should consider the benefits of outsourcing their DB plan administration.

On the Web at: <http://www.employeebenefitadviser.com/opinion/how-to-help-a-defined-benefit-plan-sponsors-be-more-successful>

## DC Plans See Contribution Rates Decline as Auto Enrollment Boosts More Participation

Average contribution rates by participants to defined contribution (DC) plans have slipped over time even as more participants contribute, according to a new research report by J.P. Morgan Asset



Management.

The study, "Ready! Fire! Aim? 2015," focuses on target date funds, by far the most popular qualified default investment

alternative (QDIA) for DC plans.

When J.P. Morgan looked at four reporting periods, it found the average annual contribution rate was 7.2% for the 2012-2014 period; 7.4% for 2009-2011; 8% for 2007-2008; and 7.9% for 2001-2006. The reason for the decline was most likely because of auto-enrollment levels. For example, plan participants might have been put into lower initial contribution rates through auto enrollment than they might have contributed on their own.

During each of these four survey periods, J.P. Morgan found more participants increased contribution rates than those who cut them. For example, during the 2012-2014 period, 16.4% of participants increased their contributions, while 4.1% reduced their rates.

Even during 2007-2008, which encompassed much of the economic crisis, 9.9% of participants increased their contribution rates while 9.8% reduced their rates. For the 2009-2011 period, which includes the end of the crisis, 18.4% increased contributions while 13.6% trimmed their contributions.

The report recommended getting more participants to invest earlier and at higher levels by automatically enrolling all employees not participating in the plan annually on an opt-out basis – not just new hires.

The report recommended an initial auto-enrollment rate of 6% of salary rather than the typical 3%, complemented by an annual auto escalation of 2 percentage points rather than the more traditional 1 percentage point.

On the Web at: <https://am.jpmorgan.com/gi/getdoc/1383289019452>

## **Guidance Published on IRS's Proposed Regulations on Normal Retirement Age for Governmental Pension Plans**

The Internal Revenue Service (IRS) and a host of law firms and consultants have published guidance on the agency's proposed regulations on the applicability of normal retirement age regulations to governmental pension plans.

The proposed regulations revise the definition of normal retirement age (NRA) – when a participant can retire and start receiving full benefits without the employer's consent – for qualified governmental retirement plans.

The regulations in large part would adopt many of the approaches that commenters for the public plan community have called for, most notably allowing the NRA to be based on years of service at any age. As a result, the regulations seem likely to be looked on favorably by many public plans.

Normal retirement age is a concept that, for public plans, is important for a number of purposes, including that in-service distributions are not permitted before normal retirement age, that vesting (under the pre-ERISA vesting rules that apply to public plans) is required on normal retirement age, and for the exclusion of health insurance premiums for eligible public safety officers of up to \$3,000 a year under Section 402(l) that applies only after disability or normal retirement age.

The IRS issued proposed regulations in 2007 addressing normal retirement age in public plans, but these were delayed under various guidance, most recently Notice 2012-29, while comments were requested and the area studied.

*Continued on p. 6*

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## Global Retirement Assets Remain Relatively Flat in 2015

Retirement assets in 19 major global pension markets totaled \$35.438 trillion as of Dec. 31, 2015, a 0.5% drop from the previous year, according to Willis Towers Watson's annual Global Pension Assets Study.

U.S. assets made up 61.5% of total global assets, while the U.K. and Japan came next at 9% and 7.7%, respectively.

Retirement plan assets as a ratio to global GDP totaled 80.3% at the end of 2015, a decrease of 3.9 percentage points from the previous year's ratio of 84.2%. The ratio at the end of 2013 was 83%.

Of the 19 countries profiled, the Netherlands had the greatest ratio of assets to GDP at 183.6%, followed by the U.S. at 121.2%, Australia at 119.6%, Switzerland at 118.7% and the U.K. at 111.9%. Countries with the lowest ratios were Spain at 3.3%, India at 4.2% and France at 6.2%.

For the seven largest markets, defined contribution (DC) plan assets accounted for 48.4% of the \$32.922 trillion of assets in 2015, up from 46.7% in 2014. The seven largest were the U.S., U.K., Australia, Netherlands, Switzerland, Canada and Japan, which make up 92.9% of the 19 major global pension markets.

Australia had the highest proportion of DC to defined benefit (DB) assets, at 87% and 13%, respectively, up from 85% and 15% the year before. The DC/DB proportion in the U.S. was 60% and 40%, up from 58% and 42% the year before. They are the only two countries of the 19 examined with a larger proportion of DC assets than DB. The U.S. DC numbers include individual retirement accounts.

During the last 10 years among the seven largest markets, DC plan assets have increased an annualized 7.1%, while DB plan assets have grown only 3.4% annually. The average global asset allocation of the seven largest markets is 44% equities, 29% fixed income, 24% other assets (including real estate and other alternatives) and 3% cash.

The previous year's average allocation was 42.3% equities, 30.6% fixed income, 24.8% other assets (including real estate and other alternatives) and 2.3% cash.

On the Web at: <https://www.willistowerswatson.com/en-US/insights/2016/02/global-pensions-asset-study-2016>. 

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## Fourteen More Muni Underwriters Charged with Material Misstatements and Omissions

The Securities and Exchange Commission (SEC) has taken enforcement actions against 14 municipal underwriting firms for violations in municipal bond offerings, bringing the total to 72 underwriters that have been charged under a voluntary self-reporting program targeting material misstatements and omissions in municipal bond offering documents.

The charges against the underwriters fall under the Municipalities Continuing Disclosure Cooperation (MCDC) Initiative. The MCDC Initiative, announced in March 2014, offered favorable settlement terms to municipal bond underwriters and issuers that self-reported violations.

The first enforcement actions against underwriters under the initiative were brought in June 2015 against 36 municipal underwriting firms. An additional 22 underwriting firms were charged in September 2015. All of the firms settled the actions and paid civil penalties up to a maximum of \$500,000.

The 72 underwriting firms charged to date comprise roughly 96% of the market share for municipal underwritings. Under the settlements, they have agreed to improve their due diligence procedures, which ultimately should benefit investors.

The initiative is continuing with respect to issuers who may have provided investors with inaccurate information about their compliance with continuing disclosure obligations. The SEC's 2012 Municipal Market Report identified issuers' failure to comply with their continuing disclosure obligations as a major challenge for investors seeking important information about their municipal bond holdings.

The SEC found that between 2011 and 2014, the 14 underwriting firms, which did not admit or deny the charges, sold municipal bonds using offering documents that contained materially false statements or omissions about the bond issuers' compliance with continuing disclosure obligations.

For a list of firms and more details - On the Web at: <https://www.sec.gov/divisions/enforce/municipalities-continuing-disclosure-cooperation-initiative.shtml>, <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370541090828> and <https://www.sec.gov/news/studies/2012/munireport073112.pdf>. 

## DOL Uncovers Improprieties among the Trustees of the Machinists' National Pension Fund

When will pension fund trustees learn? A group of current and former trustees to the \$11 billion International Association of Machinists (IAM) National Pension Fund – a Taft-Hartley plan for the aerospace industry – breached their fiduciary duty to the plan, according to a lawsuit filed by the Department of Labor (DOL).

The DOL alleged that the trustees used fund assets on “unnecessary, lavish parties and dinners for [the] trustees and service providers as well as trips for board meetings.” The investigation uncovered a single bottle of wine priced as high as \$1,185, more than \$90,000 for two holiday parties in 2009 and 2010, and quarterly meetings at expensive hotels and resorts in Hawaii, Beverly Hills and Martha’s Vineyard.

The DOL also alleged that the trustees neglected established standards of contracting out new business, in particular, the procurement process that led to the fund hiring Morgan Stanley’s Graystone Consulting as its investment consultant.

The DOL is seeking a court order requiring the defendants to restore any losses the fund suffered due to the alleged violations and requiring the fund to implement reforms to prevent future violations.

The DOL suit came after an investigation in which the DOL’s Employee Benefit Security Administration (EBSA) found that the IAM fund trustees breached their fiduciary duties by:

- Failing to prudently select fund service providers, including consultants and fund investment managers;
- Regularly ignoring required procedures included in the fund’s governing plan documents;
- Creating conflicts of interest for the fund;
- Unlawfully soliciting and accepting gratuities from plan service providers; and
- Spending, and permitting others to spend, fund assets lavishly on unnecessary trips, parties and extravagant food, wine and accommodations.

The DOL also criticized the trustees’ process for selecting service providers, namely consultants. In a number of cases, the department said the trustees didn’t follow the established process for selecting investment consultants while showing curious preference for Graystone Consulting. The DOL alleged the trustees repeatedly found ways to keep Graystone in the bidding process even as the pension’s investment staff and an independent advisor cautioned against the firm’s hire.

While the lawsuit does not allege any quid pro quo, it does draw attention to a “personal relationship” between the father of the winning Graystone consultant, J. Weldon Granger, and the IAM Union president, R. Thomas Buffenbarger.

The past and present trustees of the fund who were named as defendants are: Robert L. Roach, Jr.; Warren L. Mart; Burton C. Trebour; Alfred C. Nelson; Lynn D. Tucker, Jr.; Philip J. Gruber; Gary R. Allen; Robert G. Martinez, Jr.; Thomas W. Connery.

On the Web at: <https://www.asppa.org/News/Article/ArticleID/5842>, <http://www.dol.gov/newsroom/releases/20160201-1> and <http://www.dol.gov/ebsa/pdf/1-16-cv-00120.pdf>.

*Retirement Age Continued from p. 4*

The proposed regulations, when finalized, would provide guidance relating to the determination of whether the normal retirement age under a governmental plan satisfies the requirements of section 401(a) by amending the 2007 NRA regulations to provide additional rules for governmental plans.

In addition, these proposed regulations would also include a minor change to the 2007 NRA regulations to reflect the addition of section 411(f), which provides a special rule for determining a permissible normal retirement age that applies only to certain defined benefit plans that are not governmental plans.

The proposed rules also set forth safe harbors on normal retirement age that are available only to governmental plans. These provisions address many of the concerns governmental plan sponsors expressed in response to the 2007 NRA regulations.

While all governmental plans should review their terms in light of the proposal, it is expected that most would be able to keep their current NRA definitions intact under these rules, according to the guidance.

On the Web at: <https://www.federalregister.gov/articles/2016/01/27/2016-01639/applicability-of-normal-retirement-age-regulations-to-governmental-pension-plans>, <http://benefitsattorney.com/proposed-regulations-normal-retirement-age-for-governmental-plans/>, <https://www.cheiron.us/cheironHome/viewArtAction.do?artID=160>, <http://www.icemiller.com/ice-on-fire-insights/publications/developments-on-normal-retirement-age-regulations/>, [http://www.groom.com/media/publication/1664\\_IRS\\_Issues\\_Proposed\\_Regulations\\_on\\_Permissible\\_Normal\\_Retirement\\_Ages\\_for\\_Governmental\\_Plans.pdf](http://www.groom.com/media/publication/1664_IRS_Issues_Proposed_Regulations_on_Permissible_Normal_Retirement_Ages_for_Governmental_Plans.pdf), <http://us.practicallaw.com/w-001-3892> and [https://hrlaws.services.xerox.com/wp-content/uploads/sites/2/2016/02/hrc\\_fyi\\_2016-02-16.pdf](https://hrlaws.services.xerox.com/wp-content/uploads/sites/2/2016/02/hrc_fyi_2016-02-16.pdf).

## Facing Exodus of Police and Firefighters, Florida Town Reconsiders Its Pension Plan Cuts

After a tide of departures in its police and fire-rescue departments, the Town Council of Palm Beach, Fla., is considering reversing the cuts to pension benefits it approved nearly four years ago.

In 2012, the council severely cut the multiplier used to determine pension payments and also required police and firefighters to wait until age 65 instead of age 55 to collect pensions. It was part of a broad package of pension “reforms” the town said was necessary to avoid a string of budget deficits and put the pension plan on a sound financial footing.

In the last four years, however, 40 police officers have left the department, and seven more were looking for jobs in other police departments at press time. In the fire-rescue department, 56 firefighter-paramedics have left since 2012.

Today, more than 60% of the employees in the police and fire departments have less than three years’ experience.

But before they make any changes to police and firefighters’ retirement benefits, Town Council members will be able to see how other municipalities compensate their public safety workers.

That’s because two nonprofit civic groups, the Palm Beach Civic Association and the Palm Beach Police Foundation, have offered to jointly pay for a study that will examine the total compensation packages – including pay, vacation and retirement benefits – that 22 other regional municipalities provide to their police and firefighters. The 22 municipalities were identified by Palm Beach’s departing employees in exit interviews with the town.

The Town Council’s Finance and Taxation Committee has recommended that the council accept the civic groups’ offer to pay for the study, estimated to be worth \$60,000 to \$65,000.

The committee is looking for ways to boost pension benefits to improve employee retention in the police and fire departments. It hopes to focus on the council’s now-questionable decisions to raise the retirement age to 65 and to cut the multiplier used to help determine pension payments. These provisions have proven to be especially unpopular among the municipal workers.

The civic association and police foundation said they plan to hire Mercer to conduct the study because of its expertise with pension benefits and

compensation and for its ability to provide an independent review.

They will ask Mercer to deliver its report by March 3, so its recommendations can be considered by the committee before the council begins its annual budget review in April.

On the Web at: <http://www.palmbeachdailynews.com/news/news/local-govt-politics/civic-groups-offer-to-pay-for-pension-study/nqL2t/> and <http://www.palmbeachdailynews.com/news/news/opinion/overdue/nqPpF>.

## DB Pension Plans Best for California Teachers and Taxpayers, Study Finds

Switching California’s teachers from traditional defined benefit (DB) pensions plans to 401(k)s or other types of defined contribution (DC) pensions would lower employee retention and raise taxpayer public-assistance costs, a new study found.

For six out of seven California teachers, the DB pension provided by the California State Teachers’ Retirement System (CalSTRS) provides greater, more secure retirement income compared to a 401(k)-style plan, according to the study conducted by the University of California-Berkeley.

Some recent studies have questioned the adequacy and fairness of DB pensions, including the pension provided by CalSTRS, based on the fact that a large percentage of new-hire teachers drop out early and therefore do not stay on long enough to collect full pension benefits.

These studies conclude that an account-based system would be fairer, whether that be a DC plan such as a 401(k) or a cash balance plan.

However, while early career turnover is a serious concern with respect to lost investment in training, studies based primarily on new-hire attrition rates ignore the fact that most classroom teaching positions are not occupied by those who leave after a few years, but by those who stay long term, according to the study’s authors, Nari Rhee, manager of the Retirement Security Program at UC Berkeley’s Center for Labor Research and Education, and William Forna of Pension Trustee Advisors.

The study, “Are California Teachers Better off with a Pension or a 401(k)?” released on Feb. 4, 2016, found that these so-called “early leavers” account for just 6% of teaching positions. As the report’s authors explain, although early career turnover is high, “most of the teachers that a student will have during their K–12 education journey in California will have served 20 to 30 years or more before they leave public education in the state.”

*Continued on page 8*

## Connecticut Policymakers Consider 'Lockbox' to Prevent Pilfering of State Pensions

Some policymakers in Connecticut are considering establishing a constitutional "lockbox" to prevent future legislatures from pilfering pension funds to pay for other budgetary items. A similar lockbox exists for transportation funds. The proposal may make it onto the voting ballot as early as November, the Hartford Business Journal reports.

State Comptroller Kevin Lembo told the Business Journal he wouldn't necessarily support a constitutional amendment, but said he would not be opposed to other tactics that could force legislators to maintain the annual required contributions (ARC) to the state pension fund, including borrowing money in the form of a pension-obligation bond (POB) with restrictive bond covenants.

The state employees' retirement system, known as SERS, is currently underfunded by \$14.9 billion, due in part to past legislatures foregoing the ARC in lean budget years.

The state teachers' pension system used a similar strategy in 2008, issuing a \$2 billion POB with covenants that require the state to pay its full ARC each year, which it has done. For the SERS, the level of borrowing would likely be in the range of several hundred million dollars, Lembo said, according to the Business Journal.

The effect of the move would be to prevent lawmakers from forgoing the annual pension contribution in order to create budget savings, effectively "locking in good behavior," Lembo said.

While past legislatures failed to save enough to meet rising pension costs, the administration of Gov. Dannel P. Malloy has been making the required ARC payments, which are calculated by actuaries. The annual cost has been \$1.5 billion, but it is rising due to overly optimistic assumptions about stock market returns, lower-than-required contributions and early retirement incentives provided in past years, as well as a back-loaded payoff structure.

Malloy has proposed changes to pension funding that would smooth annual payments but lengthen the payoff schedule, the Business Journal reported. Lembo and State Treasurer Denise Nappier have also released new funding strategies, and they plan to meet with the governor to reach consensus on a path forward.

Lengthening the payoff schedule would mean higher near-term costs, but a POB could help the state get over that hump, Lembo told the Journal.

On the web at: <http://www.hartfordbusiness.com/article/20160215/PRINTEDITION/302119909/1043>.

*California Teachers continued from p. 7*

"This study rebuts the myth put forward in several studies that seek to show that teachers will not benefit, or even vest, in a defined benefit retirement plan," CalSTRS chief executive officer Jack Ehnes said in a statement. "Since California educators do not receive Social Security benefits for their CalSTRS-covered employment, a modest but secure retirement income is essential for their future well-being."

The study predicted that if the switch to a DC pension were made, the costs of public assistance programs in the state would increase because teachers would receive less from their retirement accounts.

Proponents of changing the teacher retirement system in California contend younger teachers are subsidizing the benefits of older teachers.

But the study rebuts those concerns with other key findings: Three-quarters of classroom teaching in California is done by long-term teachers, and 75% of active educators will have worked at least 20 years. The average age at retirement is 61, with approximately 29 years of service. Nearly half of educators (49%) will retire with 30 or more years of service. About one-quarter (26%) will have been covered by CalSTRS for 20 to 29 years.

"Most classroom teaching in California is performed by long-career teachers who are well-positioned to benefit from a traditional pension," the authors wrote.

In addition, 401(k) and cash balance plans generate their own risks and inequalities in retirement income, decreasing the incentive for early and mid-career teachers to stay and making it harder for older teachers to retire, the study found.

Account-based retirement plans reward those who leave early with proportionally greater retirement benefit than those who stay. For instance, contributions for a 25-year-old yields lifetime retirement income worth more than 3% of that year's pay in inflation-adjusted terms, compared to less than 1% for someone on the cusp of retirement, the study found.

401(k) plans also create arbitrary inequalities because retirement income varies wildly with financial market conditions, according to the study.

On the Web at: <http://laborcenter.berkeley.edu/are-california-teachers-better-off-with-a-pension-or-a-401k/> and <http://news.berkeley.edu/2016/02/04/defined-benefit-pensions-best-for-california-teachers-study-shows/>





# PENSION OBSERVER

THE OFFICIAL PUBLICATION OF THE TEXAS ASSOCIATION OF PUBLIC EMPLOYEE RETIREMENT SYSTEMS

## Deciphering the Fed's Move

By Mary Katherine Campion, Ph.D., CFA, AIFA

For nearly a decade, the Federal Reserve has conducted a near zero interest rate monetary policy. Why



change it now? Some speculate the Fed would have had egg on its face if they did nothing; others suggest it is "time" for more normal monetary policy.

For years financial economists have been anticipating (incorrectly) this change. The Federal Open Market Committee (FOMC) was unanimous in its decision to change the target rate. It is doubtful "egg on face" was the reason.

Monetary economists believe that the price of money must be related to the rate of economic growth and inflation. With year over year economic growth of 2.2% and inflation .5%, and now a .5% upper band on the target federal funds rate, real short term interest rates are still effectively zero. Thus, the policy change is likely to result in no real economic change, besides giving the Fed and the economy some reprieve from the "liquidity trap" zero fed funds created.

Real-side economists are generally satisfied with increases in real personal income, personal spending, hours worked and unemployment. Unemployment rates fell in more than half of the U.S. states in November.

(Continued on page 8)

## Achieving Your Target Return

By Frank E. Benham, CFA, CAIA

Many institutional investors have target annual returns in the range of 7% to 8%. Achieving this, however, may be particularly daunting over the next decade due to the current macroeconomic environment and capital market fundamentals, namely, record-low bond yields and a precarious economic recovery within a larger global deleveraging.

Here are some ways that investors can take to increase the likelihood of achieving their objectives despite the challenges ahead.

### Invest in Private Markets

Finance theory suggests that investors can increase investment returns by "selling" unneeded liquidity to capital-needy businesses. As a result, investors usually have higher return expectations for private market assets than for their public market equivalents, and historical data supports this thesis.

In addition, the difference in return between top and bottom quartile managers is widest

in private markets; hence, the reward for picking superior managers is far greater in illiquid assets. This argues for focusing one's manager selection resources on active management in private markets.

*...by carefully combining multiple concentrated managers, an investor can attain the exposure and diversification required, while also eliminating the need to pay active managers to provide diversification.*

### Improve likelihood of Success With Active Management

There are several enhancements that can



be made to the typical model of using investment managers. First, by carefully combining multiple concentrated managers, an investor can attain the exposure and diversification required, while also

eliminating the need to pay active managers to provide diversification.

(Continued on page 15)

## MARK YOUR CALENDAR

### TEXPERS 27th Annual Conference

**April 3 - 6, 2016**

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Dallas, TX

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## WASHINGTON OUTLOOK

By Matthew Aukofer

### 'Secure Choice' State-Sponsored Retirement Plans for Private Workers Get a Significant Boost

**R**oughly four months after President Obama directed the U.S. Department of Labor (DOL) to propose changes to the Employee Retirement Security Act of 1974 (ERISA) to make it easier for state-sponsored retirement plans to assimilate private-sector workers, the agency has come through with a proposal that will please most public sector pension plans.

On Nov. 16, DOL announced both a notice of proposed rulemaking and an interpretative bulletin that, if adopted, would boost programs such as Secure Choice Pensions, which are designed to allow private-sector employees to participate in state-run public pension plans.

Secure Choice, the brainchild of the National Conference on Public Employee Retirement Systems (NCPERS), as well as similar plans, have the potential to improve the retirement security of 68 million U.S. private-sector workers who lack access to a retirement savings plan at work.

The DOL's efforts are aimed at providing more clarity to states that are attempting to solve the retirement crisis for private-sector workers. The crisis, as spelled out in a Government Accountability Office (GAO) report from September, is that about half of private-sector workers in the United States don't have access to a retirement plan at work.

The proposed rule would establish a safe harbor exemption from ERISA coverage for states that require employers without retirement savings plans to automatically enroll their employees in individual retirement accounts (IRA) funded by payroll deduction. The proposal clarifies that such "auto-IRAs" are not employee pension benefit plans for the purposes of ERISA.

The interpretive bulletin provides

important guidance to states that are taking steps to facilitate ERISA-covered plans for their employees. In a crucial interpretation, the bulletin clarifies that states may sponsor and administer multiple employer plans for private-sector employees – the concept behind programs like Secure Choice.

The proposed safe harbor exemption and interpretive bulletin together give states a

*Secure Choice, the brainchild of the National Conference on Public Employee Retirement Systems, as well as similar plans, have the potential to improve the retirement security of 68 million U.S. private-sector workers who lack access to a retirement savings plan at work.*

roadmap for structuring a number of different types of initiatives to increase private-sector employees' access to workplace retirement programs, all while allowing small employers to either avoid the direct application of ERISA or reduce the level of responsibility they have under ERISA. The guidance also gives states that already have taken action in this area a significant boost.

Several years ago, states began to recognize and respond to the private-sector retirement crisis by considering — and in some cases implementing — proposals for state-sponsored retirement plans

like Secure Choice. Oregon, Washington, Illinois, Massachusetts and California have already implemented their own distinct programs to provide private-sector workers with public options for retirement savings.

Other states, such as Utah, Virginia and Connecticut, have passed laws requiring state officials to study similar plan design options. Since 2012, more than 25 states have considered proposals to study or establish state-sponsored plans for private workers. Texas is not among them, however.

*(Continued on page 12)*

## PRESIDENT'S CORNER

By Paul R. Brown

**O**ver the last 20 years, political campaigns have undergone significant changes. The evolution of technology and voter targeting has transformed how campaigns are conducted and determines whether elections are won or lost.

Data analytics, internet, social media, 24 hour news, smart phones and money from online fundraising are a few things that have changed political campaigns.

In 2014, candidates and their campaigns began blogging and using voter files to determine which voters should receive direct mail pieces. Today, the 2016 election cycle campaigns will spend millions of dollars to out maneuver each other. Technological and tactical leaps made at the national level will spread across the country and be used down the ballot for candidates at every

level and on every issue.

However, no matter how much money is raised or what new technology is used in a campaign, there is no replacing real people on the street. Real people knocking on doors, getting out the vote and doing the daily work campaigns still need. Our members have the ability to talk about the issues in a way that can win attention and inspire action.

All campaigns have one irrevocable trait in common... they end on election day. Your opportunity to

*All campaigns have one irrevocable trait in common...they end on election day. Your opportunity to achieve a win for your pension-supporting candidates ends on that date. Game over. It will be too late then to go back to campaign a little harder, so get started now.*

achieve a win for your pension-supporting candidates ends on that date. Game over. It will be too late then to go back to campaign a little harder, so get started now. At the local level, all of our affiliates large and small can be tremendously effective and must be aggressively

(Continued on page 7)

## EXECUTIVE DIRECTOR'S COLUMN

By Max L. Patterson

**T**he minimum hours required by statute for trustees sitting on pension boards is really only a bare minimum. Consider the yearly training hours required of us to excel at the duties that many of us tackle every day at work. Then consider the responsibilities you took on when you repeated the oath as a trustee and how much there is to learn about performing this critical duty. Yes, there's still much ground to cover.

The state's requirement is seven hours in seven different subject areas. That alone tells you it has to be the basics. It's also enough to tell you how much you really need to learn and in what areas. One should not make the mistake of thinking that having completed the requirements, you know it all and are now capable of making all the right decisions. To the contrary, if one is really smart, the training may suggest that this job as trustee is far more involved than I thought it was and may be beyond my abilities. Maybe I need to step down and let someone else move into this position. *Neither response is accurate.*

Smart firefighters know that we can't put out every fire and smart police officers know we can't just go running into every building just because someone inside is yelling for help. We have to assess the situation accurately... know when to call for assistance.

Remember that word "fiduciary." You are responsible for your actions — for your decisions or indecision. What's important to understand is that after completing the requirements, it is expected that you will continue pursuing training from various resources in all areas.

Visiting with your investment managers in a one-on-one setting is a great way to analyze investments. Spending an hour or two with your actuary is a good way to better understand what precisely is in that actuary's report. One on one is a great learning environment; you present your own questions, whether basic or highly complex, and move along at your own pace.

The one thing you cannot do is defer to other trustees at the table. Just because they have been there longer than you does not mean they are smarter than you or that they "know it all." You are your plan's fiduciary and it's your responsibility to learn to excel and get it right. You must carve out time to acquire the necessary financial expertise enabling you to make intelligent, informed financial decisions for your plan. You aren't alone; you have excellent support and training opportunities. Your consultants are there to assist and to clarify issues but ultimately

you must make the final decision. Even your 'pay' profession requires ongoing advanced and specialized training and teamwork... year in and year out. The training never stops; you never know it all. It's the same within the world of investments that keeps evolving and requires that you stay abreast of trends and legalities or you may fall into new traps. Don't assume that just because your plan is small that you needn't

*The one thing you cannot do is defer to other trustees at the table. Just because they have been there longer than you does not mean they are smarter than you or that they "know it all." You are your plan's fiduciary and it's your responsibility to learn to excel and get it right.*

be concerned with complicated investment vehicles; *not quite true.* Just keeping the conversation to stocks and bonds can be demanding and the terminology can get turned around if you're not up to speed with your training.

Once you complete the Basic Trustee Training (or other training to meet the requirements), look for advanced programs in topics affecting your system. This can be an online or in-person course. Don't confuse a pension conference with fiduciary training; they are very different. Both involve learning but training typically is taught in a structured classroom-type setting with instructors.

Grow your expertise. *You'll never acquire too much knowledge, but doing nothing is not acceptable.*

# From Liability to Volatility Driven Investing

By Neil Olympio, CFA, FIA, CMT

**M**any pension plans have implemented asset glide paths (AGPs) to help close the gap on funded status. Our research suggests that AGPs can evolve further to target funding ratio volatility as well. Rather than letting a pension plan's asset allocation decisions drive its funding ratio volatility, our risk paradigm flips that equation around using a common futures overlay. To evaluate these different approaches to managing funded status, we examined how four strategies compared on a risk and return basis.

## Asset Glide Path model compared to the traditional 60/40 allocation

The comparison begins with a pair of hypothetical pension plans. Both start with a 70% funding ratio. One is invested in a static 60/40 allocation of stocks (S&P 500 Index) and bonds (Barclays US Long Duration Credit A+ Index) that rebalances if the allocation drifts outside a tolerance band. The other uses an AGP strategy that systematically shifts assets into bonds (de-risking) or



into stocks (re-risking) according to predetermined funding ratio trigger points. We assume that both pension plans' liabilities behave in line with our fixed income index. The analysis begins June

2001 (based on data availability) and ends September 2015.

The AGP model achieved a 74% funding ratio at the end of September 2015, compared to 64% for the static 60/40 portfolio, but the ride was anything but smooth. The AGP plan increased the equity allocation in 2008, increasing volatility, for a maximum drawdown of -28.3%, and a funding ratio volatility hurtling toward 40% in 2008. Most pension plans would prefer a better risk/return outcome. **A target volatility overlay makes an impact** Next, we tested the idea of maintaining a specific volatility target through the use of a simple futures overlay comprised of S&P

500 equity futures and US Treasury futures. We began with the 60/40 portfolio and applied a static target funding ratio volatility (TFRV) overlay with a 13.5% funding ratio volatility target, chosen because it is the average funding ratio volatility corresponding to the 60/40 portfolio over the test period. If the funding ratio volatility increased above the tolerance band of our 13.5% target, then the overlay increased exposure to the less volatile asset, and vice-versa. Generally, these instruments are highly liquid and inexpensive to trade. The tolerance band reduces transaction costs. This static TFRV model improved return outcome,

(Continued on page 5)

### 1. Asset Glide Path

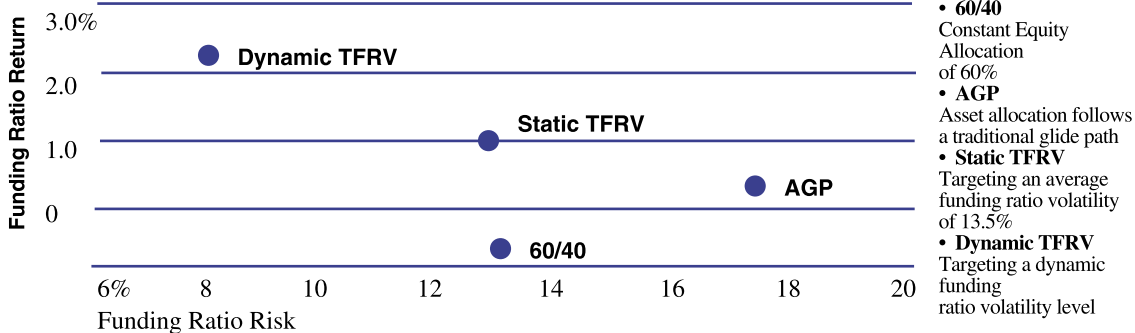
Funding ratio	Equity allocation %	Credit allocation %	Funding ratio % Target volatility (for Dynamic TFRV)
Less than 50%	85	15	12
50%–60%	80	20	11
60%–70%	70	30	10
70%–80%	60	40	8
80%–90%	35	65	5
90%–105%	15	85	2
Greater than 105%	0	100	0

### 2. Summary of Results

(Key Funding Ratio Results 6/2001 - 9/2015)

	Asset allocation driven		Volatility-driven	
	60/40	AGP	Static TFRV	Dynamic TFRV
Funding ratio at 9-30-2015 %	63.9	73.7	81.2	98.3
Simulated Rtn % (annualized) <sup>1</sup>	-0.6	0.3	1.0	2.3
Max Drawdown %	-25.7	-28.3	-21.0	-17.9
Average Volatility %	13.5	17.5	13.5	8.0
Min Volatility %	6.2	7.6	9.8	2.0
Max Volatility %	30.3	41.0	16.3	14.6
Transaction costs (p.a.) %	—	—	0.8	0.9
Information Ratio <sup>2</sup>	-0.05	0.02	0.07	0.29

#### Funding ratio risk/return profile Based on simulated results



1. Returns are net of transaction costs.

2. Information ratio is defined as the annualized funding ratio return divided by the average annualized volatility. Volatility measures are annualized calculations, using 252 day window. The overall equity exposure was constrained so as not to exceed 100% or fall below 0% for this case study. Please see disclosures for important additional information. Source: UBS Asset Management.

# From Liability to Volatility Driven Investing

By Neil Olympio, CFA, FIA, CMT

achieving an 81% funding ratio in September 2015 and achieved superior volatility outcomes (drawdown and volatility range) compared with both the static 60/40 portfolio, and the AGP model portfolio.

Next, we took the AGP model portfolio (rather than the 60/40 portfolio) and combined it with our volatility overlay. But instead of a static 13.5% volatility target, we create a dynamic volatility glide path where the targeted volatility systematically decreases as the funding ratio improves (dynamic TFRV). For example, if the pension plan reaches a funding ratio between 80% and 90%, then shift the equity allocation to 35%, and our futures overlay

targets a funding ratio volatility of 5%. The dynamic TFRV model improved outcomes across two dimensions. First, the average funding ratio volatility across the over 14-year period dropped from 17.5% to 8.0%, with the maximum drawdown improving from -28.3% to -17.9%. Second, annualized funding ratio return increased from 0.3% to 2.3%, leaving the dynamic TFRV model with a funding ratio of 98% in September 2015. By decreasing risks and increasing returns, the investment strategy's information ratio increases from 0.02 to 0.29 (in funding ratio space).

*The (Asset Glide Path) AGP model achieved a 74% funding ratio at the end of September 2015, compared to 64% for the static 60/40 portfolio, but the ride was anything but smooth.*

## Volatility overlays effective across scenarios

This article examines how an overlay based on

realized volatility can improve funding ratio outcomes. We only used two asset classes to keep the research very direct and simple. In additional research, we varied the time periods examined by looking at two-year intervals throughout the 2001-2015 test period with similar results across all intervals. We also looked at results using a one-way glide path in which physical allocation to equities can only be reduced, never increased (no re-risking). Our summary results indicate that re-risking produced better results over the tested period. We believe the improved information ratios of our TFRV overlays strengthens an already strong case for a risk approach that focuses on controlling volatility.

Neil Olympio, CFA, FIA, CMT, is Senior Analyst and Director at UBS Asset Management (Americas), in Chicago, IL.



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# Equity REITs, Interest Rates and the Community Property Cycle

By Jim Clayton, Ph.D.

**R**eal estate is a relatively unique asset class owing to the existence of “dual” or parallel asset markets. Property is held and traded directly in a private marketing setting, and also indirectly through shares in publicly traded real estate investment trusts (REITs) that own property assets. While over the long-term the performance of public and private real estate tends to be similar, the two markets can at times disagree about the pricing of the underlying real estate assets. Today is one of those times.

After benefitting from a prolonged period of historically low interest rates, REIT pricing was negatively impacted during the period leading up to the Federal Reserve beginning to “normalize”



monetary policy, while private property has maintained its strong performance.

Recent performance of U.S. REITs partly reflects broader macroeconomic considerations (China

transition, global growth challenges) and financial market forces (timing and path of Fed tightening) that have contributed to heightened volatility across most liquid asset classes. However, major turning points in public market indices often lead their private market counterparts, hence the decline in REIT prices relative to underlying property values, coupled with the rise in Baa corporate bond yields (Figure 1), has some investors questioning whether the private property cycle is coming to end as the Fed begins to tighten, with this feeding back into REIT prices. Which market is right? Have public market investors overreacted to the impact of rising interest rates on real estate and REIT share values? Or does the downturn in REIT pricing portend to a coming downturn in commercial property values.

REIT share price “corrections” and Baa yield moves are noisy or imperfect indicators (See Figure 1) of future property price changes that tend to be accurate only when the Fed is tightening (now happening) and this tightening is designed to slow an overheated economy. We are in a very different situation today with a low

probability of recession and prospects for sustained economic growth over the next few years; the Fed “lift off” is a sign of confidence in the economy and not a putting on the brakes. We do believe that recent REIT and corporate bond yield dynamics are consistent with some slowing in the rate of property price appreciation going forward but that public market investors have gone too far in signaling this, overreacting to the common perception that rising short-term interest rates are a negative for REITs.

What should we expect for REIT prices in a rising environment? To answer this, Figure 2 compares annual total FTSE/NAREIT Equity REIT Index returns with the annual

change in two year Treasury Yields, using monthly data, over the 1993:1 to 2015:11 time period. The scatterplot reveals that over this historical period, the large majority of 12 month periods in which Treasury yields rose also saw REIT returns increase; most of the observations to the right of the vertical axis are in the top right quadrant.

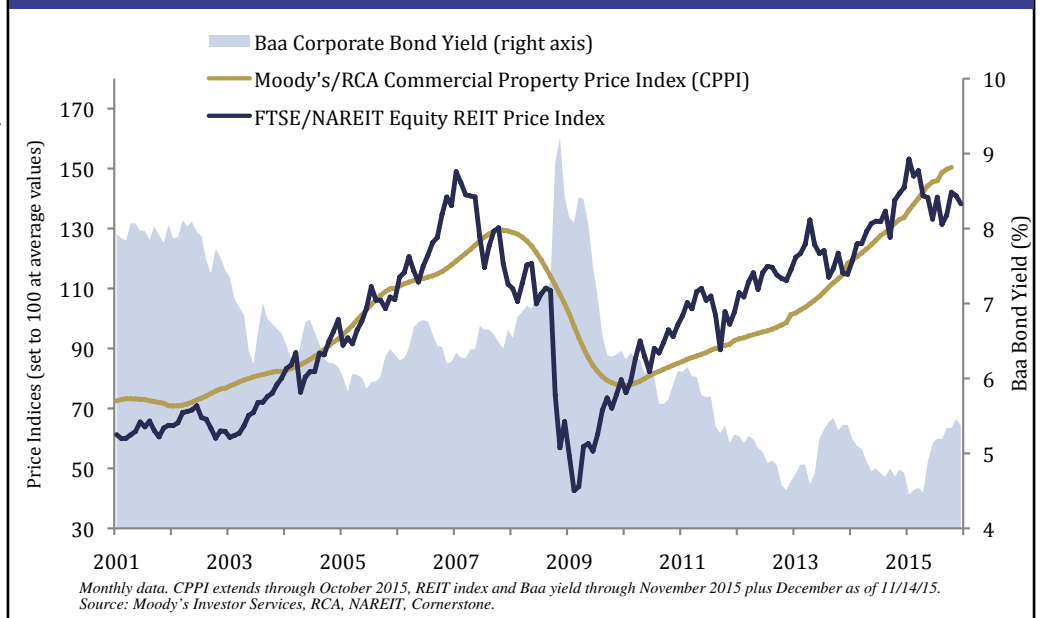
Although interest rates certainly affect real estate values and, therefore, the performance of REITs, rising interest rates do not necessarily lead to poor returns.<sup>1</sup> The empirical evidence indicates that the common assertion that REITs are hurt by rising interest rates rise is generally wrong. (See Figure 2)

While rising interest rates by themselves are a negative for property and REIT pricing, rates do not rise in isolation; “all else is not equal.” Interest rates tend to move with the rate of economic growth and also inflation expectations. Economic growth stimulates demand for real estate space, resulting in higher occupancy

(Continued on page 7)

*We are in a very different situation today with a low probability of recession and prospects for sustained economic growth over the next few years; the Fed “lift off” is a sign of confidence in the economy and not a putting on the brakes.*

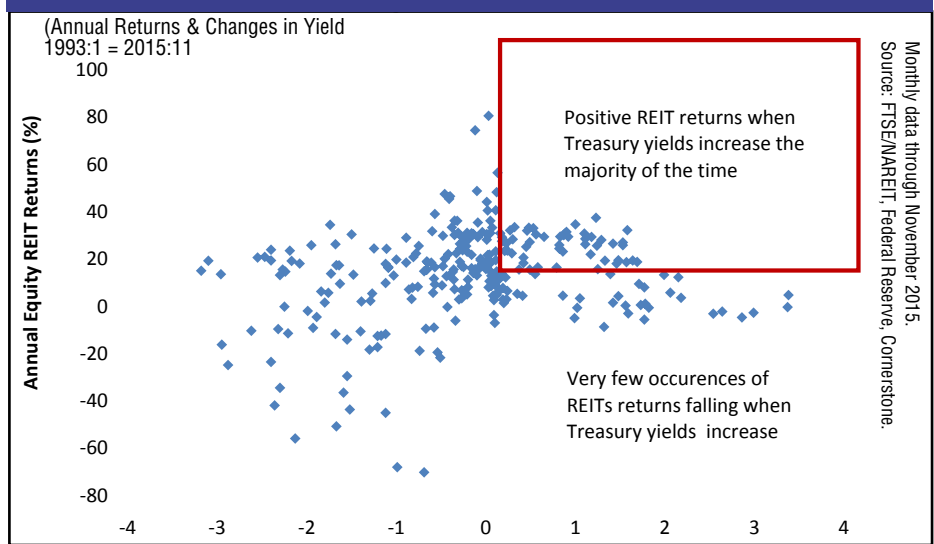
## 1. Equity REIT Prices, Property Prices and Corporate Bond Yields



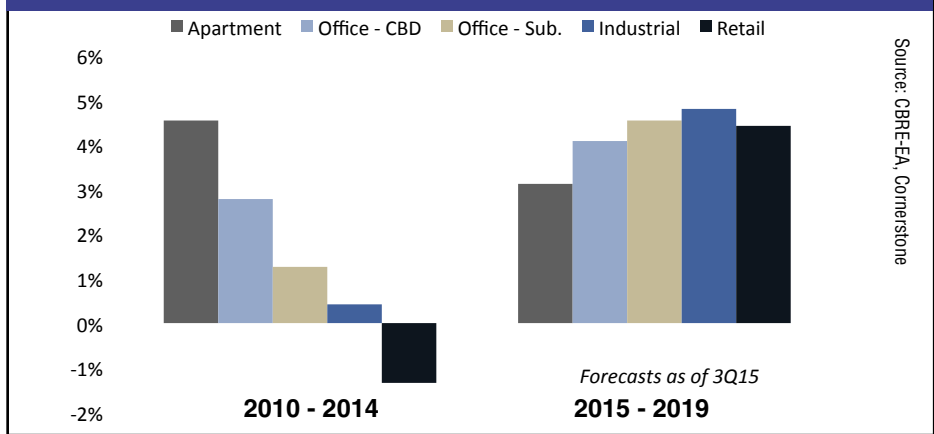
# Equity REITs, Interest Rates and the Community Property Cycle

By Jim Clayton, Ph.D.  
(Continued from page 6)

## 2. Equity REIT Returns vs. Change in 2-Yr Treasury Yield



## 3. Average Annual Rent Growth (%) by Property Sector



rates and rents that support growth in REIT earnings, cash flow and dividends. As Figure 3 indicates, we expect strong rent-growth across all major property sectors over the next five years, hence we expect property and equity REITs to continue to benefit from the expansion of the U.S. economy. Rising rates will definitely pressure property valuations and while we do expect property returns to moderate from the double digit levels of the past 5 years, we expect real estate to continue to deliver solid returns. The combined impact of “lower for longer” long-term government bond yields globally on capital flows along with solid and improving leasing fundamentals should continue to support valuations. 🇺🇸

Jim Clayton, Ph.D., is Head of Investment Strategy & Analytics at Cornerstone Real Estate Advisers in Hartford, CT.

1 See also “The Impact of Rising Interest Rates on REITs,” by Michael Orzano, Dow Jones S&P Indices Research, October 2014, and “Misconceptions About REITs and Interest Rates,” by Allen Kenny, REIT Magazine, May/June 2015 for additional historical analysis of the performance of REITs as interest rates rise.

## PRESIDENT’S CORNER

By Paul R. Brown  
(Continued from page 3)

proactive in political action campaigns for our candidates to win.

The first step in this support process is researching the records of candidates to determine who supports retirement security and other issues important to our pension system members. You alone have the right and obligation to vote for the person you believe deserves your support.

Knowing how to wage effective politics is key to the success and protection of our public pension plans. We must be politically active because the decisions of those candidates we are electing can have a dramatic impact on our lives for better or worse. To ignore political action is to imperil our pensions and our future.

TEXPERS will be weighing in heavily with information surrounding the issues that affect us most. Much of what we do is about building relationships and identifying and addressing common concerns. The success of our political action will always be from the bottom-up, engaging individual members to ensure that our voices are heard.

Only by standing strong together can we be successful. Every member of every TEXPERS affiliate needs to be unified, active, outspoken and working to get out the vote! You as an individual can and will have an impact on how successfully our common goals for secure pensions are achieved for all of our members. 🇺🇸



*We must be politically active because the decisions of those candidates we are electing can have a dramatic impact on our lives for better or worse. To ignore political action is to imperil our pensions and our future.*

## Deciphering the FED's Move

By Mary Katherine Campion, Ph.D., CFA, AIFA

(Continued from page 1)


New Mexico has the highest unemployment rate at 6.8% and North Dakota the lowest at 2.7%. Despite the national labor market's morphism post the great recession, it appears that productive labor is back. Dr. Yellen is satisfied that employers are more confident to hire. Take note however, that while more people are working, the relatively meager increases in real spending and income will affect workers credit card expenses, mortgage home loans, and future pension benefit liabilities, and thus spending and confidence.

Still, neither monetary nor real economics suggest that the FOMC had to act now. There may be some argument to make regarding the Fed acting at a psychologically global level. As Europe

attempts to correct its structural imbalances — some stemming from the single currency — by easing money quantitatively as the U.S. did after the great recession, the Fed has signaled a divergence from the European Monetary Union (EMU). The global implications of the Fed's move are such that Europe and Japan will be forced to reevaluate their own fiscal and monetary policies in an effort to support corporate comparative advantages as well as economic growth. The impact on global stock and bond markets together with increased domestic borrowing costs is one of the most important issues for 2016 and thereafter. Not only because of the rate change but because

the monetary experiment that has persisted for nearly ten years has now ended.

While the FOMC's move may have appeased those "egg on face" critics, this signal can be sure to cause more uncertainty in 2016 than there was in 2015. For those responsible for investment decisions in a more uncertain environment... hedge your bets. While real interest rates are relatively unchanged, policy makers have signaled an end to the liquidity trap we have been in with its zero-target federal funds rate. The implications of global monetary policy divergence and less global liquidity will be felt in the form of more volatility. While the Fed's move has been billed as a return to more normal policy, there is nothing normal about the message sent by Dr. Yellen.

*Hang on to your hats!* 

Mary Katherine Campion, Ph.D., CFA, AIFA  
is President of Champion Capital Research, in Houston, TX.

*Take note however, that while more people are working, the relatively meager increases in real spending and income will affect workers credit card expenses, mortgage home loans, and future pension benefit liabilities, and thus spending and confidence.*

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# Securities Litigation Deters Peers from Similar Misconduct

By Nicole Lavallee

The Supreme Court of the United States has recognized that “private securities-fraud litigation furthers important public-policy interests, prime among them, deterring wrongdoing and providing restitution to defrauded investors.”<sup>1</sup> Now, a recent study has empirically confirmed that private securities class-actions, “can deter companies from engaging in additional financial manipulation.”<sup>2</sup> The study also concluded that, by highlighting and punishing the bad behavior, private securities lawsuits can also dissuade corporate peers from committing similar transgressions.

Recently released in The Accounting Review’s November 2015 issue, this study was conducted by academics at Rutgers University Business School, Nanyang Business School in Singapore and Columbia University Business School. It examined accounting restatements of 2,249 companies between the years of 1997 and 2008. The study was designed to investigate the effect that regulatory action, private securities class action and negative media reports have on future misconduct. After the expensive review, the study uncovered a follower effect among corporate America’s financial wrongdoers.

Specifically, the study found a strong correlation between the original earnings manipulation and peer companies announcing accounting restatements for similar misconduct within twelve months of the original manipulation. That is, when one corporation materially misstates its finances and is not effectively held accountable, corporate peers are more likely to emulate the bad behavior by fudging their own numbers in a similar manner and, ultimately,

issuing their own restatements. Notably, the study also demonstrates that the inverse is true. Companies are less likely to mimic accounting misconduct when a competitor faces shareholder litigation, regulatory action or a high-profile news report that exposes such misconduct.

Data from the study reveals that copy-cat companies often emulate the original wrongdoer’s misconduct to a remarkable degree. When categorizing the original restatement by type of misconduct, researchers determined that the follow-on peers’ restatements often revealed similar transgressions.

Corporate peers also pay attention to the original perpetrator’s identity and the severity of their misconduct. The study shows that companies are more likely to copy high

profile offenders than smaller or less visible ones. On the other hand, a company is less likely to mimic misconduct when the perpetrator’s restatement is extreme and reveals substantial violations. Class action

*...when one corporation materially misstates its finances and is not effectively held accountable, corporate peers are more likely to emulate the bad behavior by fudging their own numbers in a similar manner and, ultimately, issuing their own restatements.*



lawsuits, news reports and government regulation are mechanisms that highlight the

severity of misconduct. By alerting would-be corporate copy cats that the misconduct may be too risky to emulate, lawsuits, news reports and regulation effectively deter future violations.

As Gretchen Morgenson of *The New York Times* concluded, “what this study hammers home is this: Accountability counts. Whether it comes from a regulator, a shareholder lawsuit or a journalistic enterprise, our capital markets and our investors need more of it, not less.”<sup>3</sup>

Nicole Lavallee is a Managing Partner at Berman DeValerio in San Francisco, CA.

1 *Amgen Inc. v. Connecticut Ret. Plans & Trust Funds*, 133 S. Ct. 1184, 1200 (2013).

2 Simi Kedia, Kevin Koh and Shivaram Rajgopal, *Evidence on Contagion in Earnings Management*, *The Accounting Review* (November 2015) Vol. 90, No. 6, available at <http://ssrn.com/abstract=2562751>.

3 Gretchen Morgenson, *Earnings Misstatements come in Bunches, Study Says*, *The New York Times* (Oct. 23 2015), available at <http://www.nytimes.com/2015/10/25/business/earnings-misstatements-come-in-bunches-study-says.html?smprod=nytcore-iphone&smid=nytcore-iphone-share>.

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# When to Terminate Your Consultant

By Will Harrell

The relationship between a consultant and a pension fund, endowment, or foundation is based on total trust and a fair trade — the fees paid to a consultant must be clearly justified by the information and advice the pension receives in return. Clear information and straightforward advice are the cornerstones of this relationship; knowing your consultant has the pensioners' best interest in mind is a high priority for trustees.

In many cases these relationships last for years if not decades, making it difficult to know when to think seriously about issuing an RFP and making change. Here are 13 red flags you should be aware of that may indicate that it is time for a change:

1. When promises and/or questions made at the meeting are not followed up on:

There are many issues to cover in a quarterly meeting and invariably a question comes up that a consultant is not immediately prepared to answer. All questions/concerns should be fully discussed at or before the next meeting.

2. When your consultant talks more about the broad economy than they do your portfolio: The broad economy matters to some extent, but your consultant is hired to be an expert on your portfolio first. Most of what is discussed should pertain directly to your portfolio.

3. When your consultant is adding alternatives and can't explain exactly why: Have they changed the way they are compensated? Is this a good idea for the plan or a good idea for the consultant? Are they just following the herd?

4. When your consultant can't explain exactly why they are making a recommendation or what exactly you are invested in: Your consultant should have original thoughts and be intimately involved with manager selection and termination; not receive an approved or

disapprove list from out-of-state.

5. When you get the feeling you are being told what you want to hear: From time to time there should be thorny discussions if all

issues are being dealt with regularly.

6. When total portfolio rebalancing is infrequent, or based on vague ranges, allowing for some degree of discretion and thus timing and emotional risk on the part of the consultant: Each investment manager/mutual fund should have an exact target allocation weight that is rebalanced on a regular basis.

7. When your consultant is reluctant to make portfolio changes or perform searches: When changes are needed they should be made ASAP regardless of the work required. Consultants should be eager to make improvements.

8. When your consultant's

investment manager termination criteria seem to change quarter to quarter: These criteria should rarely change and be easily explained by the consultant when they do.

9. When your consultant shows you a lot of material produced by the investment managers: Great consultants are energetic, creative, and like to produce and share their own research with their clients, not avoid detailed discussions.

10. When you suspect any conflicts of interest of any sort — new vendor is personal friend, super-low fees, forced selling of products, etc: As a fiduciary-level adviser, a consultant should always put the plan and

*When your plan has generally poor performance without explanation: Does your consultant give a full and satisfactory explanation of why performance is poor, or does he/she change the benchmark or peer group when performance is lagging?*



the plan and the pensioners first. Golf outings and dinners do not make a great consultant.

11. When you experience regular consultant personnel turnover: It is difficult if not impossible to build

a trusting relationship with people who are constantly leaving the firm for other/better opportunities.

12. When your consultant's business continuation plan is to sell the practice: Your public plan will still be here... will the consultant? How will the new larger firm's investment philosophy differ from your current consultant?

13. When your plan has generally poor performance without explanation: Does your consultant give a full and satisfactory explanation of why performance is poor, or does he/she change the benchmark or peer group when performance is lagging?

Is your consultant demonstrating any of these characteristics? If so a serious discussion among the trustees is in order.

Everyone understands that making changes to a major vendor, such as a consultant, is a big job that takes a lot of time and energy. Making a change always begs the questions: Why didn't you make the changes sooner? How long has this been a problem? These are questions that trustees are going to have to be prepared for when change is made.

This list doesn't cover the entire spectrum of reasons why a plan may look to make a consultant change, but it does provide a good list of the common sense clues that you're no longer getting your money's worth. Making change when necessary is why you were elected. Don't be afraid to ask tough questions and act when they are not being answered. ➔

Will Harrell is Senior Vice President at Robert Harrell Incorporated, in Austin TX.

# WASHINGTON OUTLOOK

By Matthew Aukofer  
(Continued from page 2)

Until DOL issued its rulemaking, states that were trying to leverage their public pensions to include private workers ran into complications related to ERISA, which governs private plans. ERISA contains broad preemption provisions that have been a roadblock to the creation of multiple-employer plans in the states, and states have been concerned about a lack of clarity regarding this federal law. These were among the issues that the DOL's proposed rule and interpretive bulletin attempted to address.

DOL's proposal, while aiming to expand access to workplace retirement plans, recognizes that Congress is unlikely to issue its own legislation in this area anytime soon. The rule would exclude state based auto-enrollment retirement plans from ERISA coverage, provided that these programs meet certain requirements, including limiting the employers' involvement to:

- Collecting employee payroll deductions and remitting them to the state program;
- Publicizing the program to employees; and
- Communicating with the state to assist in program implementation.

The safe harbor provision explains that to avoid ERISA, employers covered by the program may not match or otherwise make employer contributions to employee accounts. The safe harbor also requires that the state retain all discretionary and operational responsibility for the program. In other words, the state or an appropriately appointed governing body — rather than the employers — is required to select investment providers, secure employee contributions and notify participants of their rights under the program.

By permitting workplace access and automatic enrollment in state-sponsored IRAs, the safe harbor exemption would overcome

what the GAO suggested were two major obstacles to getting workers to start saving for retirement. The GAO's September report stated that combining automatic enrollment features with financial incentives has helped to increase worker participation in other countries and automatic enrollment is a fundamental component of several state initiatives. The U.S. Treasury and the DOL have supported automatic enrollment for ERISA plans in the private sector for at least a decade, and it has become popular wisdom in the retirement plan

community that inertia will keep automatically enrolled employees saving and promote policy goals to close the retirement savings gap.

At the same time, participation in the program is voluntary. To explain the intent of its current rulemaking, the DOL studied a 1975 regulation on a similar subject. The 1975 regulation provides that ERISA does not cover a payroll-deduction IRA arrangement so long as four conditions are met: the employer makes no contributions; employee participation is completely voluntary; the employer does not endorse the program and acts as a mere facilitator of a relationship between the IRA vendor and employees; and the employer receives no consideration except for its own expenses.

Of particular importance in the current climate is the "completely voluntary" component of the 1975 approach, DOL explained. "The Department intended this term to

mean considerably more than that employees are free to opt out of participation in the program," the proposed rule states. "Instead, the employee's enrollment must be self-initiated. In various contexts, courts have held that opt-out arrangements are not consistent with a requirement for a 'completely voluntary' arrangement."

In order for the state-sponsored retirement plans to receive the safe harbor benefits of the proposed rules, they cannot allow for employer-matching or profit-sharing contributions, and employer participation in general is strictly limited. The proposal would add other requirements and conditions well, including that a state must ensure the "security"

of its state-sponsored program, which has raised questions from state programs and providers seeking clarifications or revisions. Questions such as these likely will give rise to public comments, which the agency currently is actively seeking.

The DOL's interpretive bulletin, which became effective as of Nov. 18, offers guidelines for other state retirement program initiatives that are subject to ERISA. The guidance describes three possible structures of state-based retirement programs for private-sector and non-profit employers that would be subject to ERISA:

- State-sponsored multiple employer plan – Under this type of program, a state would sponsor a single multiple-employer defined contribution or defined benefit arrangement that employers could participate in. The state would be the primary fiduciary for ERISA purposes, and participating employers would have limited fiduciary responsibility for the remittance of contributions toward the plan.
- State-sponsored prototype plan – Under this type of arrangement, a state would develop a prototype plan that employers could adopt. The employers would be subject to ERISA if they adopted the state's prototype plan, but the state and associated providers would retain certain fiduciary functions.
- State-established savings/retirement plan marketplace – Under this approach, a state would establish a marketplace designed to connect employers with state-selected savings/retirement plan providers. Employers sponsoring plans selected from the marketplace would be subject to ERISA, depending on the type of savings arrangement, but those employers would benefit from the state's selection of suitable low-cost providers.

The proposed rule makes it clear that the DOL is taking a supportive posture of these state-sponsored retirement initiatives. At the same time, the guidance does not guarantee that federal courts will support the DOL's view that these programs are exempt from ERISA. The proposed rule is expected to be finalized at some point in 2016.

While state-sponsored retirement initiatives ultimately would help millions of private-sector workers, they also would help boost the assets of state pension funds. These assets are an important source of investment capital. State pension funds and similar defined benefit pension plans with longer investment time-

*While state-sponsored retirement initiatives ultimately would help millions of private-sector workers, they also would help boost the assets of state pension funds. These assets are an important source of investment capital. State pension funds and similar defined benefit pension plans with longer investment time-horizons are particularly important sources of capital because they infuse patient, long-term investments into businesses and the financial markets.*

(Continued on page 13)

# WASHINGTON OUTLOOK

By Matthew Aukofer  
(Continued from page 12)

horizons are particularly important sources of capital because they infuse patient, long-term investments into businesses and the financial markets.

In addition, because public pension plan assets are pooled and managed by professionals, these systems can achieve higher returns at a lower cost than the typical defined contribution plan. Public pension plans also pool mortality and other risks, allowing these plans to provide benefits at lower costs for participants and plan sponsors.

Even though these state-sponsored retirement initiatives for private workers sound like a win-win, they do have their detractors.

For example, the Securities Industry and Financial Markets Association (SIFMA), believes that other approaches would be more effective than asking resource-strapped state governments to step in when employers are not willing to host their own plans.

SIFMA also argues state-run retirement plans would create conflicts between federal laws governing retirement plans and laws

enacted by individual states. Different states would likely have different rules governing operation, accumulation and distributions, which SIFMA believes could result in confusion among employers and employees.

Meanwhile, the Investment Company Institute (ICI) opposes the idea because it could result in a confusing patchwork of state programs. Such programs should be provided through national legislation, the ICI says.


The American Retirement Association expressed reservations that the DOL's proposed rule and guidance would give a competitive advantage to state retirement plan vehicles, with no apparent policy justification to suggest that states are better at providing these types of retirement plan products.

All of these viewpoints and more will be shared with the DOL as it works its way through the rulemaking process. The deadline for public comments on the proposed rule was Jan. 19, 2016.

The DOL's proposed rule is available at: <http://webapps.dol.gov/FederalRegister/PdfDisplay.aspx?DocId=28542> and its

interpretive bulletin is at: <http://webapps.dol.gov/FederalRegister/PdfDisplay.aspx?DocId=28540>.

The GAO report is available at: <http://www.gao.gov/assets/680/672419.pdf> and the list of states that have created or proposed such programs is available at: <http://www.pensionrights.org/issues/legislation/state-based-retirement-plans-private-sector> and at <http://cri.georgetown.edu/states/>.

More details are available on the Web at: <https://blog.dol.gov/2015/07/13/clearing-a-path-for-state-based-retirement-plans/>, <http://www.plansponsor.com/DOL-Proposes-Guidance-on-State-Run-Plans-for-Private-Sector/>, [http://www.ncpers.org/files/PR%20111615%20DOL\\_v1%282%29.pdf](http://www.ncpers.org/files/PR%20111615%20DOL_v1%282%29.pdf), <http://www.sifma.org/issues/savings-and-retirement/state-run-retirement-plan-proposals/overview/>, [https://www.ici.org/pressroom/news/15\\_news\\_state\\_retirement\\_hazard](https://www.ici.org/pressroom/news/15_news_state_retirement_hazard) and <http://usaretirement.org/2015/11/16/dol-proposal-creates-uneven-playing-field/>. 



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### 30th Annual Conference

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April 7 - April 10, 2019



## Achieving Your Target Return

By Frank E. Benham, CFA, CAIA  
(Continued from page 1)

Also, some managers may be better able to take advantage of inefficiencies with broader portfolio mandates. In some cases, the best course of action may be to allow the manager to invest in a broader opportunity set (e.g., global equities) and with a more diverse “toolkit” (e.g., allowing short selling). When combined with focused holdings, this results in a true “best ideas” portfolio.

### Benefit From the Relative Growth and Increasing Stability of Emerging Markets

For many, the rationale behind investing in emerging markets is simple: growth. First, most emerging economies are starting from lower base income levels and, therefore, even modest improvements result in large percentage increases. Second, the developed world appears willing to supply much capital to developing markets. Third, the average emerging economy carries a lower public debt burden than the average developed economy. Finally, demographics favor emerging economies, as greater proportions of their populations will be of working age over the next twenty years.

Higher economic growth in emerging markets should lead to higher long-term equity market returns. Moreover,

as of this writing, valuations for emerging market equities were relatively low compared to those for U.S. equities, further supporting the case for emerging market investing.

In addition, emerging market debt offers higher yields than are available from most developed market issuers. This is true despite the aforementioned lower debt burden and

favorable growth characteristics of most emerging market nations.

### Be Opportunistic


A tactical asset allocation approach is intended to take advantage of opportunities when markets appear mispriced. Often the investor seeks to buy assets when they are relatively cheap and sell them when they are relatively expensive. However, successfully implementing a tactical approach has proven to be more easily said than done.

Most investors are probably best served by a systematic approach that relies predominantly on strategic asset allocation, but allows for opportunistic movements

when valuations are at extreme levels. This requires anchoring asset allocations to long-term strategic targets, while remaining flexible enough to modify allocations within approved policy ranges.

Because this article provides only a brief overview of each option, investors should thoroughly research each approach before making the decision to adopt it. Despite the challenges that investors may face in the current climate, a properly implemented combination of these approaches can help

*Most investors are probably best served by a systematic approach that relies predominantly on strategic asset allocation, but allows for opportunistic movements when valuations are at extreme levels. This requires anchoring asset allocations to long-term strategic targets, while remaining flexible enough to modify allocations within approved policy ranges.*

investors meet their objectives and achieve target returns. 

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**Topic: 2016 Continuing Education and Investment Research  
Regular Board Meeting – March 10, 2016**

- 1. Conference: IFEBP: Investments Institute**  
**Dates:** March 14-16, 2016  
**Location:** Las Vegas, NV  
**Est. Cost:** \$2,660
  
- 2. Conference: Society of Pension Professionals**  
**Dates:** March 15, 2016  
**Location:** Dallas, TX  
**Est. Cost:** \$250.00 Per Person Annually

**Special Board Meeting March 24, 2016**

- 3. Conference: TEXPERS Basic Trustee Training Course**  
**Dates:** April 2, 2016  
**Location:** Dallas, TX  
**Est. Cost:** TBD
  
- 4. Conference: TEXPERS Annual Conference**  
**Dates:** April 3-6, 2016  
**Location:** Dallas, TX  
**Est. Cost:** TBD

- 5. Conference: Merit Energy Annual Meeting**  
**Dates:** April 12-13, 2016  
**Location:** Dallas, TX  
**Est. Cost:** TBD

**Regular Board Meeting April 14, 2016**

- 6. Conference: Society of Pension Professionals**  
**Dates:** April 19, 2016  
**Location:** Dallas, TX  
**Est. Cost:** \$250.00 Per Person Annually

- 7. Conference: TEXPERS Secure Retirement for All**  
**Dates:** April 21-22, 2016  
**Location:** Washington, DC  
**Est. Cost:** \$1,000

**Special Board Meeting April 28, 2016**

- 8. Conference: Commerce Street Capital: Bank Conference**  
**Dates:** April 28, 2016  
**Location:** Irving, TX  
**Est. Cost:** \$275

- 9. Conference: Wharton: Portfolio, Concepts, and Management**  
**Dates:** May 2-5, 2016  
**Location:** Pennsylvania, PA  
**Est. Cost:** \$5,000

**Regular Board Meeting May 12, 2016**

- 10. Conference: NCPERS Trustee Educational Seminar (TEDS)**  
**Dates:** May 14-15, 2016  
**Location:** San Diego, CA  
**Est. Cost:** \$750
  
- 11. Conference: NCPERS Accredited Fiduciary (NAF) Program**  
**Dates:** May 14-15, 2016  
**Location:** San Diego, CA  
**Est. Cost:** \$900
  
- 12. Conference: NCPERS Annual Conference**  
**Dates:** May 15-19, 2016  
**Location:** San Diego, CA  
**Est. Cost:** \$1,100
  
- 13. Conference: Pharos Annual Investor Conference**  
**Dates:** June 7-8, 2016  
**Location:** Irving, TX  
**Est. Cost:** None

**Regular Board Meeting June 9, 2016**

- 14. Conference: Society of Pension Professionals**  
**Dates:** June 21, 2016  
**Location:** Dallas, TX  
**Est. Cost:** \$250.00 Per Person Annually

**Regular Board Meeting July 14, 2016**

- 15. Conference: Society of Pension Professionals**  
**Dates:** July 19, 2016  
**Location:** Dallas, TX  
**Est. Cost:** \$250.00 Per Person Annually

- 16. Conference: Wharton: International and Emerging Market Investing**  
**Dates:** July 25-27, 2016  
**Location:** San Francisco, CA  
**Est. Cost:** \$6,000

**Regular Board Meeting August 11, 2016**

- 17. Conference: TEXPERS Summer Educational Forum**  
**Dates:** August 14-16, 2016  
**Location:** San Antonio, TX  
**Est. Cost:** TBD

- 18. Conference: NCPERS Public Pensions Funding Forum**  
**Dates:** August 21-23, 2016  
**Location:** New Haven, CT  
**Est. Cost:** TBD

**Regular Board Meeting September 8, 2016**

**19. Conference: Society of Pension Professionals**

**Dates:** September 20, 2016

**Location:** Dallas, TX

**Est. Cost:** \$250.00 Per Person Annually

**20. Conference: TLFFRA Pension Conference**

**Dates:** October 2-4, 2016

**Location:** McAllen, TX

**Est. Cost:** TBD

**Regular Board Meeting October 13, 2016**

**Board and Staff Workshop October 17-19, 2016**

**21. Conference: NCPERS Public Safety Conference**

**Dates:** October 23-26, 2016

**Location:** Las Vegas, NV

**Est. Cost:** TBD

**Regular Board Meeting November 10, 2016**

**Regular Board Meeting December 8, 2016**

**22. Conference: Society of Pension Professionals**

**Dates:** December 20, 2016

**Location:** Dallas, TX

**Est. Cost:** \$250.00 Per Person Annually

**23. Conference: PRB: MET Online Course: Benefits Administration**

**Dates:** Anytime on line

**Location:** PRB.org